

# REGISTRATION DOCUMENT 2017

—  
including the annual financial report  
and the corporate social responsibility report



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# 2017 REGISTRATION DOCUMENT

including the annual financial report  
and the corporate social responsibility report

SAINT-GOBAIN DESIGNS, MANUFACTURES  
AND DISTRIBUTES MATERIALS  
AND SOLUTIONS WHICH ARE KEY  
INGREDIENTS IN THE WELLBEING  
OF EACH OF US AND  
THE FUTURE OF ALL



The French version of this Registration Document was filed with the French Financial Markets Authority (*Autorité des marchés financiers*, AMF) on March 19, 2018, pursuant to Article 212-13 of its General Regulations. It may be used in support of a financial operation if accompanied by a prospectus duly approved by the AMF.

This French document was drawn up by the issuer, and is binding on its signatories.

This report has been prepared in accordance with the GRI Standards: Core option.

*This English-language version of the Registration document is a free translation of the original French text. It is not a binding document. In the event of a conflict of interpretation, reference should be made to the French version which is the authentic text. The auditors' report applies to the French version of the Management Report and the financial statements.*

# A Message from Pierre-André de Chalendar

Chairman and Chief Executive Officer of Saint-Gobain



Design, produce and distribute materials that help creating great living places and improving daily life: that is Saint-Gobain's strategic ambition. The living places that we contribute to creating have a positive impact on their occupants' wellbeing and quality of life. Because they are designed sustainably and reduce energy consumption and greenhouse gas emissions, they help build the future of us all. On our industrial markets, we aim to provide increasingly reliable and efficient solutions, in the forefront of technology, by working hand-in-hand with our customers through co-developments and partnerships.

In 2017, the global economy continued its recovery. Our markets are being underpinned by positive growth in Europe and the United States, China and emerging countries. Worldwide, driven by the passion for materials and their expertise, both for industry and distribution, our teams are committed to creating the solutions for tomorrow in order to remain one step ahead. Innovation in products, processes and services is crucial. Digital technology is enabling us to evolve with our customers and our environment. Our businesses are rolling out "Industry 4.0" programs. And given the changing distribution models, Saint-Gobain is ideally placed to deliver value to its customers at each step of the way.

*“We see our Group’s growth within the context of strong and acknowledged responsibility.”*

The boundary between professionals and consumers is tending to fade, and the end-user has become a specifier of our solutions, and at times even the decision maker. In 2017, we have gone even further in developing close relationships with these end-users by reinforcing our brand image and speaking with a louder voice. For example, in France, we launched an advertising campaign emphasizing “materials that power life.” Comfort, performance and durability: these are the promises made to our customers.

Our positioning is unique. In the building and construction industry – in the front line where climate change, demographic growth and urbanization issues are concerned – Saint-Gobain is recognized as leading the way. Energy efficiency, zero carbon buildings, circular economy, etc.: this industry partially holds the answer to solving the major challenges facing us today. And we want to convince each of our stakeholders. For this reason, we see our Group’s growth within the context of strong and acknowledged responsibility. As a stakeholder, Saint-Gobain is involved in its environment and concerned about reinforcing its positive contribution. We are committed to limiting the impact of our activities, we create local value, and we apply the most stringent compliance standards and responsible business practices.

More than just a company, Saint-Gobain sees itself as an employer guaranteeing the commitments it makes to its employees – in particular regarding health and safety – and providing a professional environment that develops skills and an entrepreneurial spirit. This model is what boosts the attractiveness of our Group for talented individuals today and in the future. We are proud to rank amongst the 13 organizations worldwide awarded the Top Employer Global label.

For Saint-Gobain, 2017 was an excellent year. Growth was strong in all regions and even improved as the year progressed. Our excellent results reflect the effectiveness of our strategy. In 2018, we will be focusing on sustainable growth. We will continue to implement our policy of acquisitions to expand our business portfolio, solidify our current positions, and gain a foothold in new countries. We will continue to invest in our production sites, to develop our services, and to optimize our logistics. Our clear, strategic roadmap, the unfailing commitment of our teams, our ongoing digital transformation, as well as a positive economic climate are boosting our confidence in the future.





# Saint-Gobain today

1

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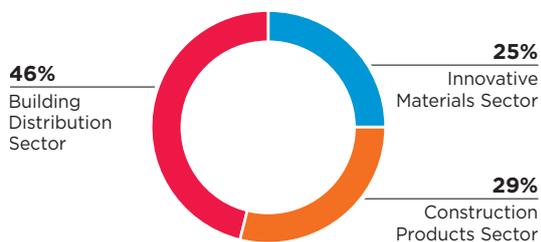
# 1. GROUP PROFILE

## 1.1 A Global Group

2017 net sales

€40,810M

NET SALES BY SECTOR



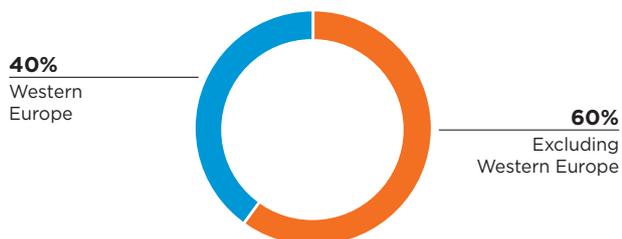
Operating income

€3,028M

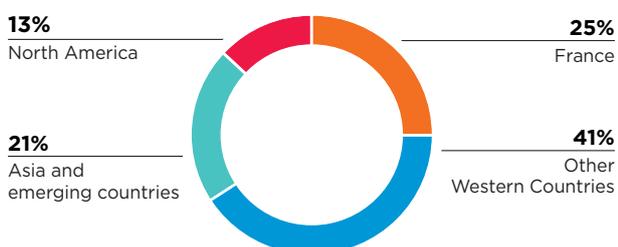
Recurring net income

€1,631M

INDUSTRIAL ASSETS OF THE INNOVATIVE MATERIALS AND CONSTRUCTION PRODUCTS SECTORS



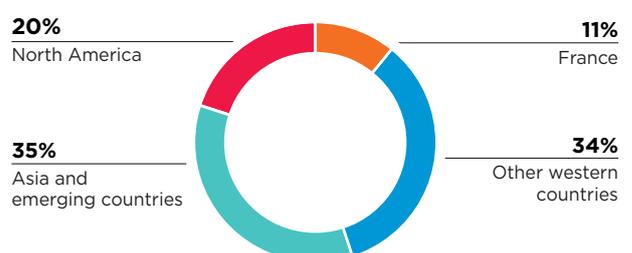
BREAKDOWN OF NET SALES BY GEOGRAPHIC REGION



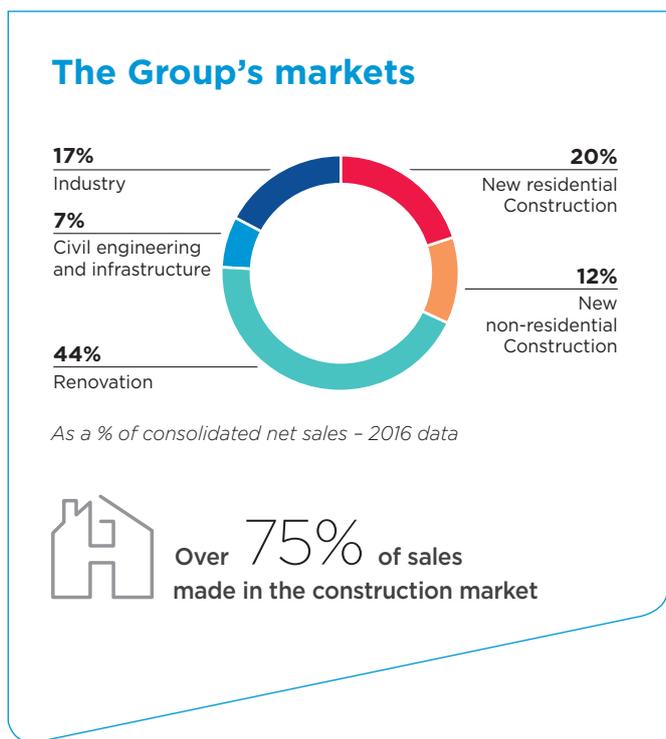
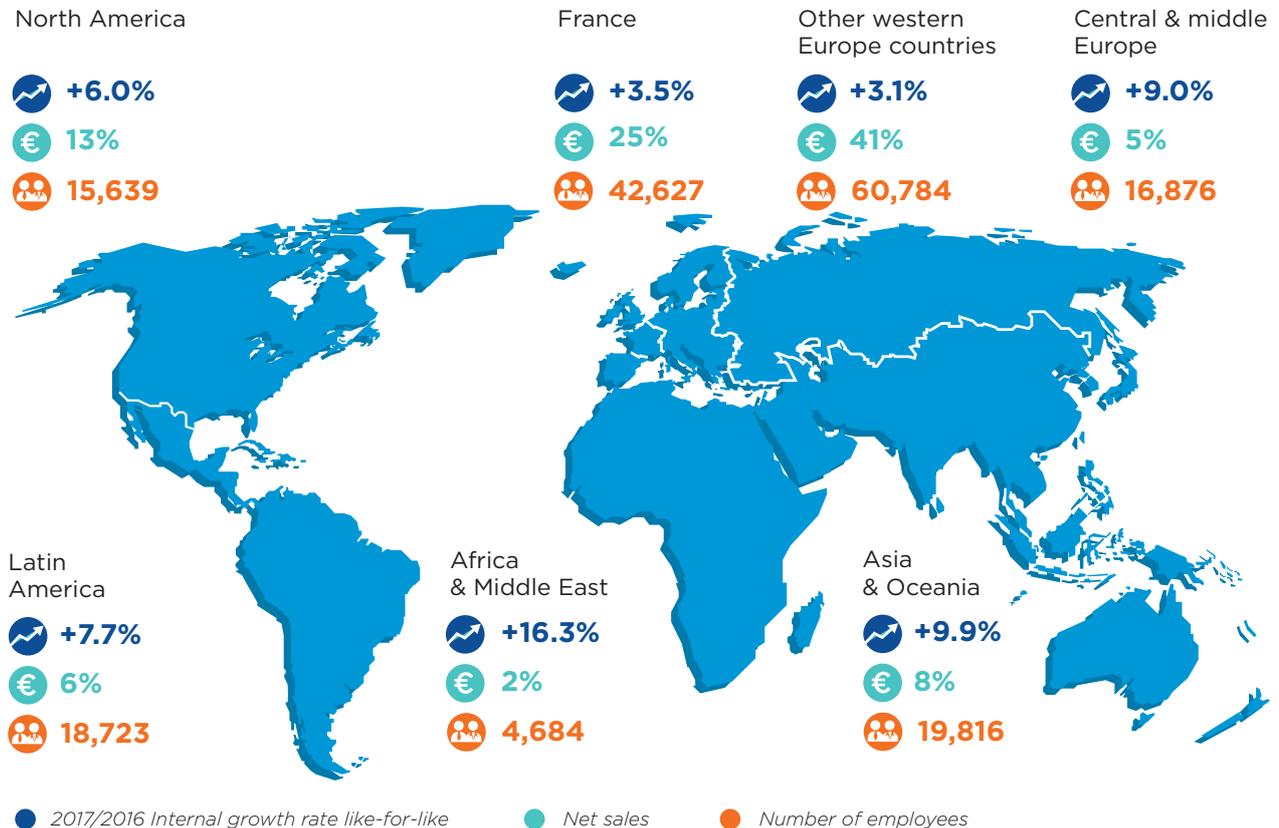
Industrial presence in **67** countries

Albania	Morocco
Algeria	Mexico
Argentina	Norway
Australia	New Zealand
Austria	Netherlands
Belgium	Oman
Bhutan	Peru
Botswana	Poland
Brazil	Portugal
Bulgaria	Qatar
Canada	Republic Of Ireland
Chile	Romania
China	Russia
Colombia	Saudi Arabia
Czech Republic	Serbia
Denmark	Singapore
Egypt	Slovakia
Estonia	Slovenia
Finland	South Africa
France	South Korea
Germany	Spain
Ghana	Sweden
Greece	Switzerland
Hungary	Tanzania
India	Thailand
Indonesia	Turkey
Italy	United Arab Emirates
Japan	United Kingdom
Jordania	United States
Kuwait	Venezuela
Latvia	Vietnam
Lebanon	Zimbabwe
Lithuania	
Luxembourg	
Malaysia	

BREAKDOWN OF OPERATING INCOME BY GEOGRAPHIC REGION

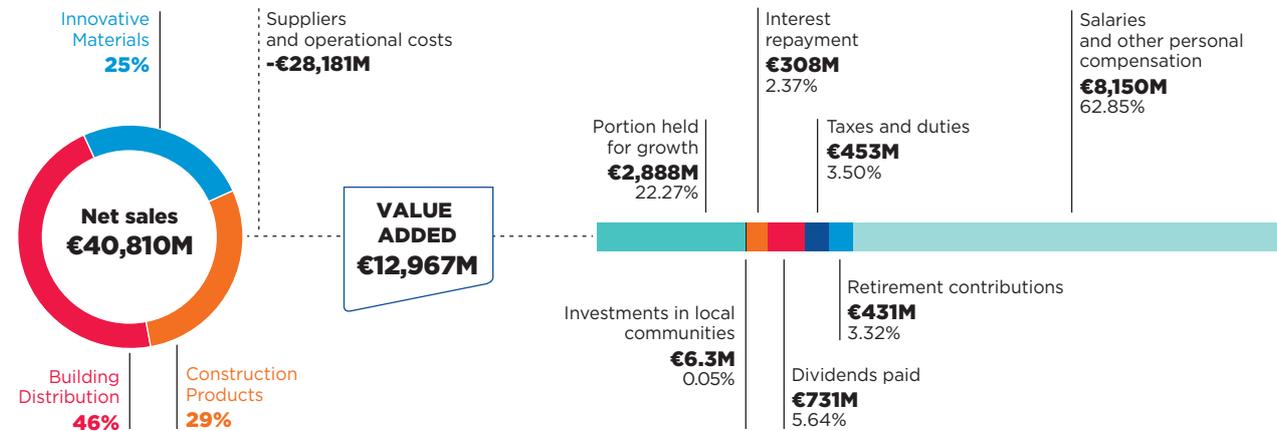


GEOGRAPHIC BREAKDOWN OF GROUP NET SALES AND EMPLOYEES



## CSR

## BREAKDOWN OF NET SALES AND VALUE ADDED BY STAKEHOLDER



549,200  
indirects jobs

90%  
Diversity index<sup>(1)</sup>



2.6

**Total recordable accident rate** with and without more than 24 hours' lost time (employees, temporary workers, subcontractors)



The energy savings generated by the Group's solutions are equivalent to **90** times the greenhouse gas emissions generated throughout their whole life-cycle

## R&amp;D



Nearly **400** patents filed in 2017



**8** cross-functional research centers



**3,700** R&D employees

## Digital



**+13%** increase in traffic to the Group's main websites, to **130** million visits in 2017



Nearly **100** million visitors/year to the Building Distribution Sector's brands' websites



**+17%** increase of **e-commerce sales** for the Building Distribution Sector

## Governance

**14** Directors, of which:



**73%**  
Independent Directors



**42%**  
women



**1**  
Lead Independent Director



**2**  
employee Directors



**1**  
Director representing employee shareholders

1. Proportion of Managers meeting one of the Group's three diversity criteria: a national of a country other than France; a diversity of experience; they are female.



## 1.2 A solid financial base

### 1.2.1 Very good financial results

Recurring earnings per share

€2.96

Shareholders' equity

€18,468M

Net debt

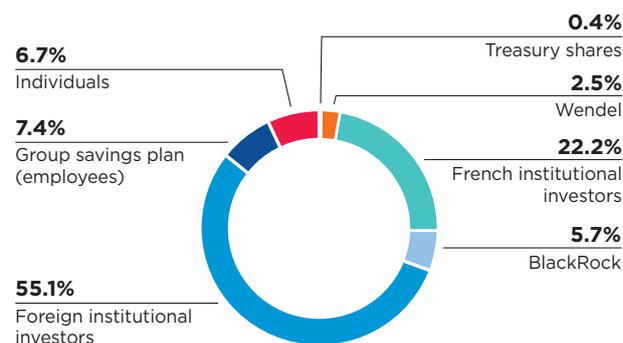
€5,955M

Industrial investment

€1.538M

### 1.2.2 A stable shareholder base

OWNERSHIP STRUCTURE AT DECEMBER 31, 2017



### 1.2.3 Performance acknowledged by the financial and non-financial rating agencies

Saint-Gobain's long-term debt has been rated **BBB with a stable outlook by Standard & Poor's** since December 9, 2014.

Saint-Gobain's long-term debt has been rated **Baa2 with a stable outlook by Moody's** since December 9, 2014.

Saint-Gobain is included on the **CAC 40 index**, the **DJ Euro Stoxx 50 index** and the **Global Dow**, a 150-stock index representing both the traditional and innovative sectors.

**In the area of sustainable development and corporate social responsibility**, Saint-Gobain is included on the MSCI World ESG Leaders, STOXX® Global ESG Leaders, Euronext-Vigeo Europe 120, Euronext Vigeo Eurozone 120, Ethibel ESI Excellence Global, Ethibel ESI Excellence Europe, FTSE4Good indices and Dow Jones Sustainability Index.

Inclusion in ethical stock market indices reveals recognition of **the Group's long-term commitment and of the results achieved** in the area of corporate social responsibility.

## 2. STRONG VALUES

### 2.1 Principles of Conduct and Action

Saint-Gobain's development is founded on nine Principles of Conduct and Action which form the basis of its code of ethical conduct. These Principles were formalized in 2003 and have been translated into 33 languages and rolled out to all employees. Application of the Principles is a condition for being a part of the Group.



5

#### **PRINCIPLES OF CONDUCT**

**PROFESSIONAL COMMITMENT,  
RESPECT FOR OTHERS,  
INTEGRITY,  
LOYALTY,  
SOLIDARITY**

are the fundamental values uniting  
management and employees



4

#### **PRINCIPLES OF ACTION**

**RESPECT FOR THE LAW,  
CARING FOR THE ENVIRONMENT,  
WORKER HEALTH  
AND SAFETY,  
EMPLOYEE RIGHTS**

guide the actions of all management and  
employees in the performance of their duties

The Principles of Conduct and Action refer explicitly to the applicable conventions of the International Labour Organization, the International Charter on Human Rights and the OECD Guidelines on Multinational Enterprises with regard to the fight against corruption.

Saint-Gobain has been signed up to the United Nations Global Compact since 2003. This demonstrates the Group's drive for Corporate Social Responsibility (CSR), which includes regular communication of its progress in areas covered by the Global Compact.

Implementation of the Group's strategy involves policies and commitments that are applied by the Sectors, Activities or General Delegations.

The most important of these are the "reference policies" which derive directly from the Principles of Conduct and Action and define the management principles applicable to all Saint-Gobain units and employees, as well as to subcontractors, in their work for the Group, and suppliers, under the Responsible Purchasing policy.

This desire to establish the Principles of Conduct and Action as a sign of belonging is illustrated by the objective set by the Group's Board of Directors, of training all managers in the Principles in their first year with the Group.

Furthermore, the Principles of Conduct and Action are included in the welcome booklets or all Saint-Gobain employees and in the majority of employment contracts.

## 2.2 Commitments linked to the Principles of Conduct and Action

### 2.2.1 Participation in UN initiatives

Saint-Gobain has been a signatory to the UN Global Compact since 2003 and reports regularly on its progress at Advanced level in the areas covered by the Global Compact, based on 21 criteria. Pierre-André de Chalendar is a member of the France Global Compact Executive Committee.



In 2009, Saint-Gobain endorsed two initiatives related to the Global Compact: Caring for Climate, to combat climate change, and CEO Water Mandate, for the protection of water resources.

The Group involves its supply chain in its approach to reducing environmental impact and commits its suppliers to specifically reducing their air emissions and water footprint.

### 2.2.2 Other partnerships

Saint-Gobain is a member company of the Transparency International France Forum of committed companies. Thus, Saint-Gobain supports the association's activities and has committed to rejecting and combating corruption, in all its forms. Saint-Gobain also undertakes to make its best efforts to implement a solid prevention mechanism, inspired by current best practice in the business world.



The Group participates in public debates on the strategic challenges of its business activity and environment. Accordingly, Compagnie de Saint-Gobain and most of the Group's subsidiaries are members of associations representing their industry nationally or supra-nationally.

Further, Compagnie de Saint-Gobain is directly involved in professional associations representing French companies, such as the AFEP or MEDEF.

The Activities also cooperate with various local associations and organizations involved in environmental, regulatory, social, societal or economic issues. The various Activities and subsidiaries have internal procedures to ensure that their participation in associations is recognized and referenced and that employees who represent them in the associations are trained in the rules of antitrust law.

## 2.3 Commitments linked to the challenges of sustainable development

### 2.3.1 Climate commitment

The Paris Agreement ratified in 2016 creates a multi-dimensional framework for economies to implement carbon reduction policies. Recent Conferences of Parties (COPs) on climate change have marked a turning point, with improved participation in climate negotiations from non-government actors, including businesses. This momentum was confirmed at COP23 in Bonn (Germany) and strengthened by the “One Planet Summit” held in Paris in December 2017. Saint-Gobain took part in several side events at these summits.

Businesses have a key role to play in the search for solutions to climate change. Saint-Gobain is thus among the 1,200 non-state actors that signed the Paris Pledge for Action on Climate Change. More recently, Saint-Gobain was a joint signatory to the French Business Climate Pledge announced at a side event organized by MEDEF at the One Planet Summit. Saint-Gobain also upholds the recommendations of the G20 Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD).

The action taken by Saint-Gobain is geared to reducing greenhouse gas emissions from its processes and its real estate portfolio and, for its clients and its Activities, to enhancing its products and services so as to improve energy efficiency.

In this regard, since January 2016, an internal carbon price now applies to all Group Activities to assist in guiding action to reduce CO2 emissions involving investments. Analysis of R&D projects now uses a significantly higher carbon price than the rate selected for investments. This measure aims to accelerate the transition to low-carbon technologies for Group operations (see Chapter 4, Section 2.3.2).

Lastly, Saint-Gobain is committed to creating a low-carbon trajectory for the global construction industry and this is the reason it is a founder member of the Global Alliance for Buildings and Construction (GABC) and sits on its steering committee. This alliance, launched by France and the United Nations Environment Programme (UNEP) during the COP21, aims to bring states, local authorities, construction businesses and relevant associations together by means of a roadmap to smooth the transition to energy efficient buildings with low greenhouse gas emissions. At global level, less than half of the contributions to which governments have committed in order to achieve the objectives set by the Paris Agreement include measurements for either new or existing buildings. Through its involvement in the GABC, Saint-Gobain seeks to demonstrate to all countries that the technical solutions exist, particularly for improving energy efficiency, regardless of geography - hot countries, cold countries, dry or tropical climates - and that these solutions are affordable. The GABC held a

symposium on construction at the COP23. In the context of the GABC, Saint-Gobain is jointly managing efforts to define targets to reduce carbon intensity following a science-based approach for the construction industry.

Lastly, as part of the Global Climate Action Agenda, Saint-Gobain is a member of the alliance of companies for water and climate change. This initiative supports the actions of cities and watersheds involved in the sustainable management of water resources and adaptation to the consequences of climate change.

### 2.3.2 Developing the circular economy

Saint-Gobain has two priorities for managing raw materials and waste: minimizing production waste and optimizing the recycled content in its products without affecting their performance. As a responsible stakeholder in sustainable building, the sustainable management of resources in conjunction with stakeholders in the regions and in compliance with local regulations is a major challenge for the Group (see the policy on Sustainable management of resources for transition to a circular economy, Chapter 4, Section 2.3.1).

Saint-Gobain is a contributor to the debate on the circular economy and has repeated its support for strong goals for the building sector. In France, the Group has been heavily involved in the AFEP circular economy work group, which prepared a report and recommendations presented at the COP22.

The construction sector generates several million metric tons of waste per year. Saint-Gobain is introducing projects to recover building or demolition waste, such as waste reduction at source with eco-innovation, on-site sorting of waste, and recycling of the waste collected. The Group has contributed to a number of local initiatives to promote sustainable building.

In France, in April 2016 Placoplatre signed a green growth commitment for plaster waste recycling with the Ministry for the environment, energy and the sea. This innovative approach is part of a collaborative effort involving public bodies, the French national union of plaster industries (*Syndicat National des Industries du Plâtre*) and key players in the plaster industry.

The Commitment to Green Growth for flat glass was signed by professional trade unions of the glass activity in 2017 for the whole of the activity in France.

On the international level, Saint-Gobain joined at the end of 2017 the Factor 10 program of the World Business Council for Sustainable Development relative to the circular economy.

### 2.3.3 Contribution to the public debate on sustainable development

As a way of ensuring that it is closely involved in the ongoing national and international debate on the environment and sustainable development, and that it can share its experience in these areas as a manufacturer, Saint-Gobain has been a member of *Entreprises pour l'Environnement* (Businesses for the Environment, EpE) since the organization was founded. EpE is a grouping of around 40 major French and international companies representing all sectors of the economy, who are keen to address the environment more effectively in their strategic decisions and in the way they do business. Pierre-André de Chalendar was the Chairman of EpE from 2012 to 2015.

Since 2016, Saint-Gobain has played an active role in the WBCSD, the World Business Council for Sustainable Development. WBCSD is a worldwide grouping of 200 companies that deliberate on and develop solutions for a more sustainable world. Saint-Gobain has

been a member of the WBCSD board since 2017, with responsibility for "climate, energy, the circular economy, towns and cities, and mobility".

Saint-Gobain also belongs to the ETC (Energy Transition Commission), a group of 30 figures from the energy and climate community. Pierre-André de Chalendar is one of the Commissioners. The aim of the ETC is to accelerate the move to a low-carbon energy system that enables strong economic growth while limiting global warming to levels well below 2°C. In May 2017, the ETC published a report entitled "Better energy, greater prosperity", to which Saint-Gobain contributed.

Saint-Gobain is an active member of the International Energy Agency's (IEA) Energy Efficiency Industrial Advisory Board and the Institute for Sustainable Development and International Relations (IDDRI).

Saint-Gobain is also a partner of the World Material Forum held in Nancy (France) each year that aims to reduce the resource intensity of the economy.

## 3. GOVERNANCE

### Board of Directors

(At January 1, 2018)

**Pierre-André de CHALENDAR**

Chairman and Chief Executive Officer  
of Compagnie de Saint-Gobain

**Alain DESTRAIN**

Employee Director

**Iêda GOMES YELL**

Research fellow and Director of companies

**Anne-Marie IDRAC**

Chairman of the Supervisory Board  
of Aéroport Toulouse-Blagnac

**Pamela KNAPP**

Director of companies

**Pascal LAÏ**

Employee Director

**Agnès LEMARCHAND**

Director of companies

**Frédéric LEMOINE**

Director of companies

**Dominique LEROY**

Chief Executive Officer of Proximus

**Jacques PESTRE**

Deputy Chief Executive Officer of Saint-Gobain  
Distribution Bâtiment France, with responsibility  
for the POINT.P brand and Director representing  
employee shareholders

**Denis RANQUE**

Chairman of the Board of Directors of Airbus

**Gilles SCHNEPP**

Chairman and Chief Executive Officer of Legrand

**Jean-Dominique SENARD**

Chief Executive Officer of Michelin

**Philippe VARIN**

Chairman of the Board of Directors of Areva

Board of Directors' Secretary:

**Antoine VIGNIAL**

General Secretary of Compagnie de Saint-Gobain

### Senior Management Committee

(At January 1, 2018)



1



2



7



8



13



14

1 **Pierre-André de CHALENDAR**, Chairman and Chief Executive Officer ■■ | 2 **Claude IMAUVEN**, Chief Operating Officer ■■  
3 **Claire PEDINI**, Senior Vice-President, in charge of Human Resources ■■ | 4 **Guillaume TEXIER**, Chief Financial Officer ■■  
5 **Antoine VIGNIAL**, General Secretary, in charge of Corporate Social Responsibility ■■ | 6 **Armand AJDARI**, Vice-President,  
Research and Development and Innovation ■■



- Member of the Executive Committee
- Member of the Senior Management Committee

**The Executive Committee meets weekly.**

**The Senior Management Committee meets once a month.**

**7 Benoit BAZIN**, Senior Vice-President, in charge of the Construction Products Sector ■ | **8 Julie BONAMY**, Vice-President, Corporate Planning and Strategy ■ | **9 Fabrice DIDIER**, Vice-President, Marketing ■ | **10 Patrick DUPIN**, Senior Vice-President, in charge of the Flat Glass Sector (Innovative Materials\*) ■ | **11 Laurent GUILLOT**, Senior Vice-President, in charge of the High-Performance Materials Sector (Innovative Materials\*) ■ | **12 Benoît d'IRIBARNE**, General Delegate for Germany, Austria and Benelux ■ | **13 Thomas KINISKY**, Senior Vice-President, in charge of the Delegation for North America ■ | **14 Kåre O. MALO**, Senior Vice-President, in charge of the Building Distribution Sector ■ | **15 Laurence PERNOT**, Vice-President, Communications ■ | **16 Jean-François PHELIZON**, Vice-President, in charge of Internal Audit and Internal Control ■ | **17 Frédéric VERGER**, Vice-President, Purchasing and Information Systems ■

\* Pierre-André de Chalendar supervises the Innovative Materials Sector.

## Liaison Committee

### **Pierre-André de CHALENDAR**

Chairman and Chief Executive Officer

### **Members of the Senior Management Committee**

#### **General Delegates**

#### **Vice-Presidents of the following Activities:**

Sekurit (Houchan Shoeibi)  
 Building Glass Europe (Jean-Marie Vaissaire)  
 Abrasives (Patrick Millot)  
 Ceramic Materials (Daniel Wiechec)  
 Performance Plastics (Laurent Guillot)  
 Adfors (Raimund Heini)  
 Pipe Systems (Gustavo Vianna)  
 Gypsum and Insulation (Claude-Alain Tardy)  
 Mortars (Jean-Luc Gardaz)  
 Exterior Products (Mark Rayfield)  
 Saint-Gobain Distribution Bâtiment France (Patrice Richard)  
 Lapeyre (Gonzague de Pirey)  
 Saint-Gobain Building Distribution UK & Ireland (Mike Newnham)  
 Saint-Gobain Building Distribution Deutschland (Michael Schumacher)  
 Saint-Gobain Building Distribution Nordics (David Molho)

#### **Vice-President, Sustainable Development**

Emmanuel Normant

**The Liaison Committee meets three times a year.**

## General Delegates

### **David ANDERSON**

General Delegate for Sub-Saharan Africa

### **Dominique AZAM**

General Delegate for Mexico, Central America, Venezuela, Colombia, Ecuador and Peru

### **Mike CHALDECOTT**

General Delegate for the United Kingdom and Ireland

### **Erwan DUPUY**

General Delegate for Russia, Ukraine and the Commonwealth of Independent States

### **Javier GIMENO**

General Delegate for Asia-Pacific

### **Thierry FOURNIER**

General Delegate for Brazil, Argentina and Chile

### **Benoit d'IRIBARNE**

General Delegate for Germany, Austria and Benelux

### **Thomas KINISKY**

General Delegate for North America

### **Thierry LAMBERT**

General Delegate for the Nordic and Baltic States

### **Anand MAHAJAN**

General Delegate for India, Sri Lanka and Bangladesh

### **François-Xavier MOSER**

General Delegate for Poland, Bulgaria, Romania and Turkey

### **Hady NASSIF**

General Delegate for the Middle East

### **Tomáš ROSAK**

General Delegate for the Czech Republic, Slovakia, Hungary and Eastern Adriatic Countries

### **Gianni SCOTTI**

General Delegate for the Mediterranean (Spain, Italy, Portugal, Greece, Morocco, Algeria, Tunisia and Libya)

## 4. A DECENTRALIZED ORGANIZATIONAL STRUCTURE

1

### 4.1 Major milestones in the construction of the Group

- ◆ **Saint-Gobain was founded in 1665** under the name of Manufacture royale des glaces, in order to challenge Venice's supremacy in mirror making. From the 19th century onwards, Saint-Gobain diversified its activities, moving into chemicals, all types of glass products, the automotive industry, etc., and began its international expansion.
- ◆ **In 1970**, Saint-Gobain divests its chemicals business and merges with cast iron pipe company Pont-à-Mousson.
- ◆ The acquisition of Norton **in 1990** doubles Saint-Gobain's presence in the United States, opening up new markets for the company and providing the opportunity to develop expertise in abrasives, plastics and ceramics.
- ◆ The acquisition of Poliet **in 1996** provides the basis for developing the distribution businesses. The Group then goes on to make acquisitions in building distribution, which it continues to do to this day.
- ◆ The acquisition **in 2005** of British Plaster Board, the global leader in plasterboard, is Saint-Gobain's largest ever. In combination with Isover glass wool, it makes Saint-Gobain the world number one in interior solutions.
- ◆ **In 2007**, Saint-Gobain focuses its strategy on sustainable habitat, as well as continuing to serve a number of industrial markets. With its extensive network of assets, the Group is growing steadily in emerging countries.
- ◆ The sale of Verallia, the Group's glass jar and bottle-making subsidiary, **in 2015** was part of a strategy of business portfolio optimization.
- ◆ **In 2017**, Saint-Gobain's acquisitions represent a full-year net sales amount of over 550 million euros.

In parallel, Saint-Gobain intensifies its research efforts and accelerates its geographic expansion, taking the number of countries where it has a presence from 18 in 1986 to 64 in 2010.

### 4.2 A regional organizational structure based on General Delegations

**14 General Delegations represent the Group in the countries where it is active and coordinate the various companies' actions.**

#### Central Europe

Austria, Belgium, Germany, Luxembourg and the Netherlands

#### United Kingdom & Republic of Ireland

#### Mediterranean

Spain, Italy, Portugal, Greece, Morocco, Algeria, Tunisia, Libya

#### Nordic Countries and Baltic States

Denmark, Estonia, Finland, Latvia, Lithuania, Norway and Sweden

#### Poland, Romania, Bulgaria and Turkey

#### Czech Republic, Slovakia, Hungary, and Eastern Adriatic Countries

Czech Republic, Slovakia, Hungary, Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, Slovenia

#### Russia, Ukraine and CIS countries

#### Middle-East

Lebanon, Egypt, KSA, UAE, Jordan, Kuwait, Oman, Qatar

#### Sub-Saharan Africa

#### India, Sri Lanka and Bangladesh

India, Sri Lanka, Bangladesh, Bhoutan

#### Asia-Pacific

China, South Korea, Japan, Thailand, Cambodia, Laos, Myanmar, Philippines, Indonesia, Malaysia, Singapore, Vietnam, Australia, New-Zealand

#### North America

United States, Canada

#### Mexico, Central America, Colombia, Venezuela, Ecuador and Peru

Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Caribbean Islands, Colombia, Venezuela, Ecuador and Peru

#### Brazil, Argentina, Chile

Argentina, Brazil, Chile, Bolivia, Paraguay, Uruguay

## 4.3 Three Sectors of activity



### INNOVATIVE MATERIALS

Combining Flat Glass and High-Performance Materials, the Innovative Materials Sector has a unique portfolio of materials and processes in the construction, mobility, healthcare and industry markets.

25% of net sales

#### Flat glass

European no. **1** <sup>(1)</sup>

World no. **2** <sup>(1)</sup>



More than **34,000** employees



Present in **34** countries <sup>(2)</sup>

#### High Performance Materials

World no. **1** <sup>(1)</sup>



More than **28,000** employees



Present in **36** countries <sup>(2)</sup>

(1) Source: Saint-Gobain.

(2) Industrial presence.



## CONSTRUCTION PRODUCTS

The Construction Products Sector offers interior and exterior solutions to enhance comfort in living places: plaster, acoustic and thermal insulation, façade render, roofing, pipe systems.

29% of net sales

### World no. 1 <sup>(1)</sup>

- Plasterboard and plaster
- Mortars and floor coatings
- Ductile cast iron pipes

### World no. 2 <sup>(1)</sup>

- Insulation (all insulating materials combined)
- Tile adhesives

### European no. 1 <sup>(1)</sup>

- Façade render

### US no. 2 <sup>(1)</sup>

- Exterior Products



More than **47,000** employees



Present in **62** countries <sup>(2)</sup>



## BUILDING DISTRIBUTION

The Building Distribution Sector brings the Group a thorough understanding of customers' needs, be they building professionals, private project owners or large companies. It serves over seven million customers each year on the new building, renovation and home improvement markets.

46% of net sales

### European no. 1 <sup>(1)</sup>

- Distribution of construction materials



More than **63,000** employees



More than **4,100** sales outlets



Present in **23** countries <sup>(2)</sup>



## Saint-Gobain today



# One ambition: to improve the well-being of all

# 2

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# 1. THE GROUP AND ITS ENVIRONMENT

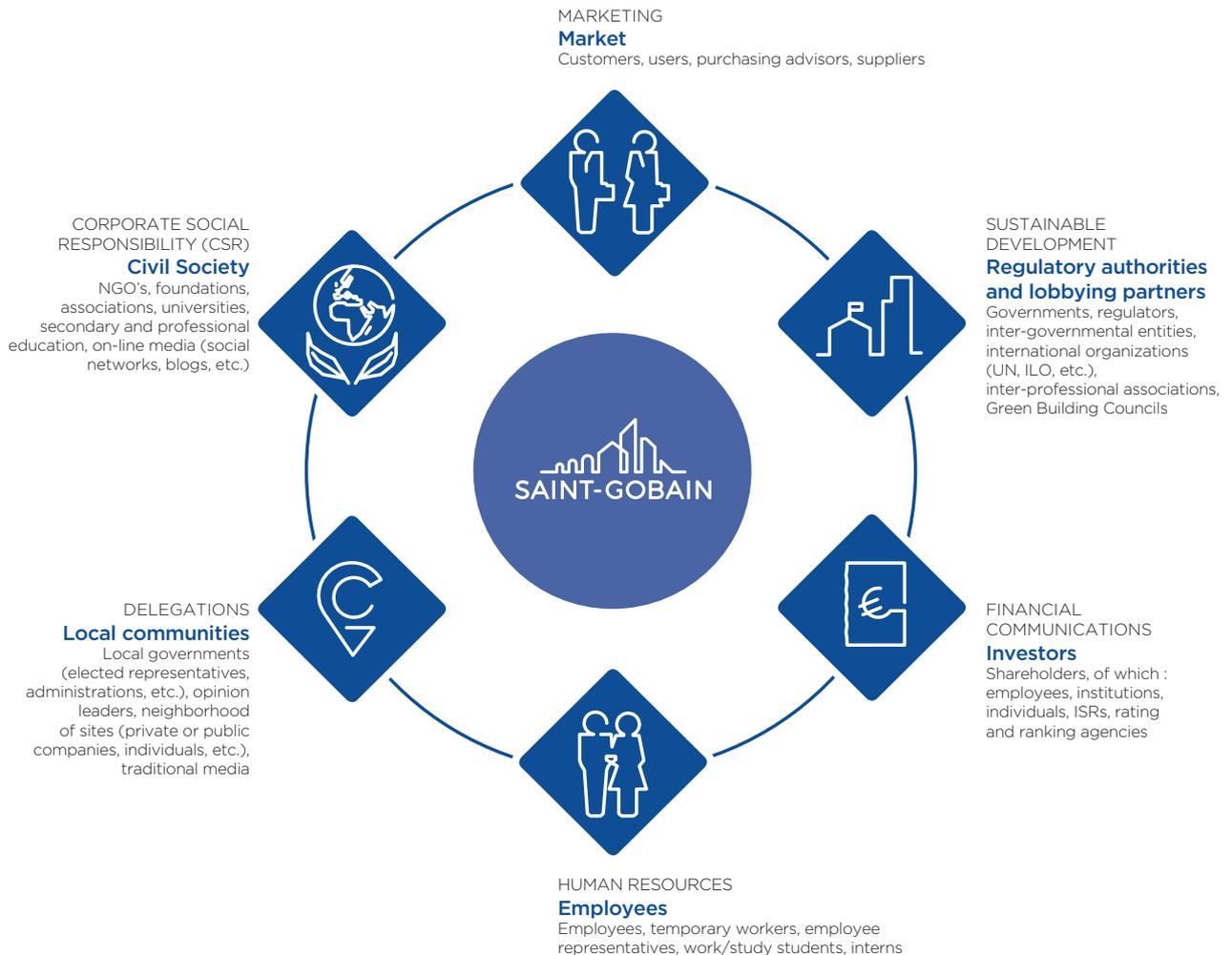
## 1.1 A Group attentive to its ecosystem

Within each of their respective perimeters, the Group's teams listen to their stakeholders and, above all, to their customers. The Group's organization, size, international dimension and diverse business portfolio imply decentralized management of the dialogue with stakeholders, allowing the operating entities broad autonomy in conducting their businesses. Dialogue must be constructive, transparent and based on mutual trust.

To better organize this dialogue, priority stakeholders have been grouped according to challenge (see illustration below). This provides a formal structure for feedback on internal and external stakeholders' expectations, with a Group function being mandated, for each stakeholder, to compile the expectations expressed at the local, national and international levels.

This ensures that stakeholders' key expectations are factored into the Group's long-term strategy.

### STAKEHOLDERS

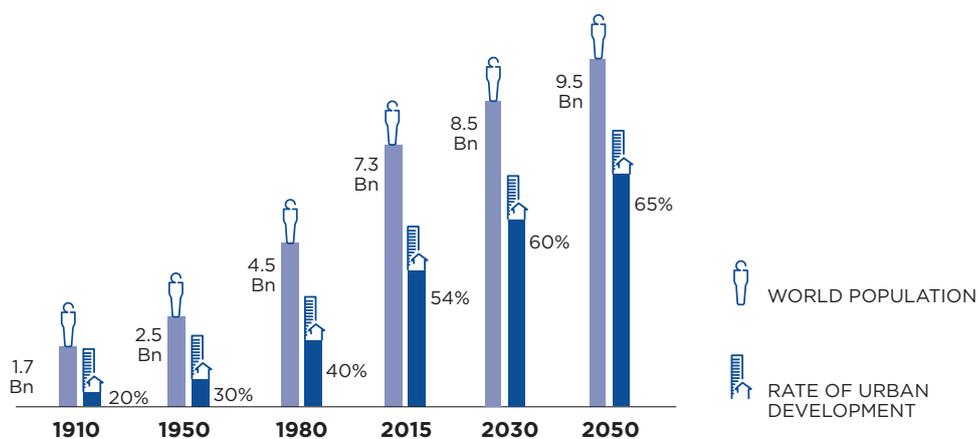


## 1.2 The challenge of population growth and urban development

In 2017, the global population passed 7.5 billion <sup>(1)</sup> and it is expected to reach 9.7 billion by 2050 <sup>(2)</sup>. This demographic growth is accompanied by rapid urbanization. In 2014, there were 17 countries where more than 90% of the population was living in towns and cities, a figure that will have almost

doubled by 2050 <sup>(3)</sup>. The rural exodus today is concentrated in Asia and Africa, resulting in growing demand for housing and infrastructure, particularly in currently mid-sized cities that are destined to become megacities <sup>(4)</sup>.

### DEMOGRAPHIC GROWTH AND URBAN DEVELOPMENT



In developing countries faced with the persistence of slums, access to housing is a major social and economic challenge that calls for appropriate solutions. At the same time, the emergence of a vast middle class, including in Africa, is

stimulating new demand in conjunction with increased purchasing power of the people and with increasingly high comfort requirements.

## 1.3 The challenge of climate change

Twenty-five years after the first report from the Intergovernmental Panel on Climate Change (IPCC), the extent of the problem of global warming has now been fully assessed; the Stern <sup>(5)</sup> report, which provides a benchmark, showed that the cost of doing nothing outweighs the cost of a coordinated plan to reduce climate change.

After more than twenty years of negotiations and as a matter of urgency, governments have therefore decided to commit to quantified targets for greenhouse gas reduction. The Paris

Agreement, which came into force on November 4, 2015, sets the stringent goal of keeping the increase in temperature to below 2°C above pre-industrial levels. To achieve this goal, there is an immediate need to reduce emissions growth by one-third between 2010 and 2030, compared with the previous two decades <sup>(6)</sup>. Beyond the signatory countries, the positive engagement by many players (towns, cities and businesses) brings hope of growing global awareness and compliance with the objectives set by the Paris Agreement.

(1) World Population Prospects 2017 Revision - United Nations.

(2) World Population Prospects 2017 Revision - United Nations.

(3) World Urbanization Prospects 2014 Revision - United Nations.

(4) World Urbanization Prospects 2014 Revision - United Nations.

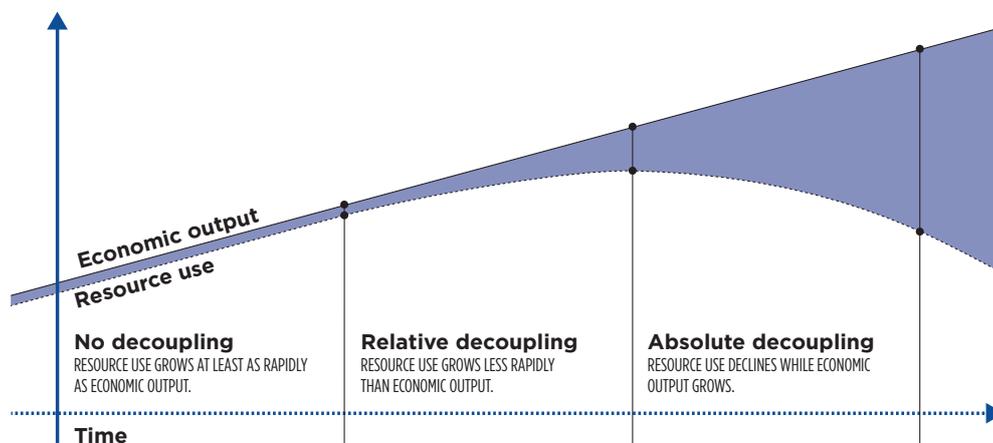
(5) Stern Review on the Economics of Climate Change, 2006.

(6) Synthesis report on the aggregate effect of the intended nationally determined contributions, UNFCCC, October 2015.

In the private sector, there are a number of levers for action to reduce the environmental footprint: in Europe, the building sector alone accounts for 40% of final energy consumption and 36% of greenhouse gas emissions<sup>(1)</sup>. Globally, it represents nearly one-third of direct greenhouse gas emissions, consumes 40% of global resources and is responsible for 40% of waste production. Building energy consumption could double or even triple by 2050<sup>(2)</sup> if nothing is done. However, the full use of best practices in the design, construction and operation of buildings could reduce this increase to just 10%<sup>(3)</sup> of current energy consumption. Building energy efficiency therefore presents many opportunities to address global warming, although public opinion must continue to be made aware of this. Today,

though, the primary trigger for renovation work is to increase the comfort of the home. Under these conditions, combining residential comfort and energy efficiency is a major lever for action to combat climate change.

Furthermore, with increasing frequency, public policies are adopting a life cycle approach, which considers the environmental impact of the building as a whole, from the extraction of raw materials to demolition and recycling. The reuse of materials generates additional economic growth and limits resource usage and emissions. By expanding this kind of approach, greater economic affluence can be decoupled from the use of resources.



Source: European Environment Agency.<sup>(4)</sup>

## 1.4 The challenge of the digital transformation

Digital technology is redefining trade, with a very high annual growth rate for e-commerce throughout the world since the early 2000s. China, which became the world's largest market for B2C online sales in 2015, is catching up quickly in the B2B segment<sup>(5)</sup>. The low cost of investment to launch an online commerce platform has reduced barriers to entry, while asymmetry of information between sellers and customers is falling. Companies must now be closer to their end customers to avoid new intermediations. For differentiation, it is no longer just the company's product that matters, but the services that go along with it. Digital technology is reshaping the competitive balance and the way that businesses interact with their stakeholders (customers, staff and suppliers).

Digital technology is also revolutionizing the way that factories are organized and is producing a major, gradual change in production methods, by providing real-time access to a wealth of information on industrial facilities that are now interconnected and enabling extensive analysis of these data. Progress can thus be seen on two fronts: on the one hand, in the increase in productivity that results from reductions in stock, breakdowns, lost time and scrap material and on the other, in improved flexibility of production processes. Industry 4.0 opens the doors to mass customization, which relies in particular on locating assets as close as possible to end customers.

(1) Energy Union Package: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change policy, European Commission Communication, 2015.

(2) Climate Change 2014: Mitigation of Climate Change, contribution from Working Group III of the Fifth IPCC Assessment report (AR5), 2014.

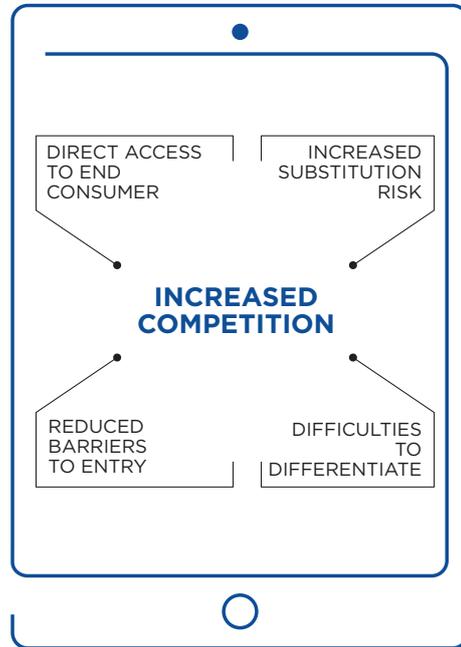
(3) The European Environment: State and outlook 2015 - Synthesis report, European Environment Agency.

(4) The European Environment: State and outlook 2015 - Synthesis report, European Environment Agency.

(5) Unlocking the Potential of e-commerce for Developing Countries, 2015 Information Economy report, United Nations Conference on Trade and Development (UNCTAD), 2015.

With digital technology, a profound rethinking of buildings and habitat is also under way. The digital integration of buildings is leading to technical changes in construction, particularly the increasing use of Building Information Modeling, which provides an integrated view of a building throughout all the stages of its life cycle. Domotics, which contributes in particular to reducing housing energy consumption and improving security, also permits an ever-greater integration of intelligent equipment in everyday use.

## THE CONSEQUENCES OF THE DIGITAL TRANSFORMATION



Source : Porter, Harvard. Business Review.

## 1.5 The Group's key challenges

In 2015, Saint-Gobain conducted a three-stage materiality analysis:

- identification of the key challenges based on a review of the available documentation on the Group, its activities and its environment;
- sharing these challenges with key stakeholders;
- ranking the challenges by comparing stakeholder expectations against the vision of Group management.

The resulting materiality matrix was developed on the basis of looking for consensus between external and internal stakeholders. A methodology note is available on the corporate website at [www.Saint-Gobain.com](http://www.Saint-Gobain.com).

To provide greater transparency around the challenges, in 2016 they were grouped and summarized according to four long-term priority areas for Corporate Social Responsibility (CSR):

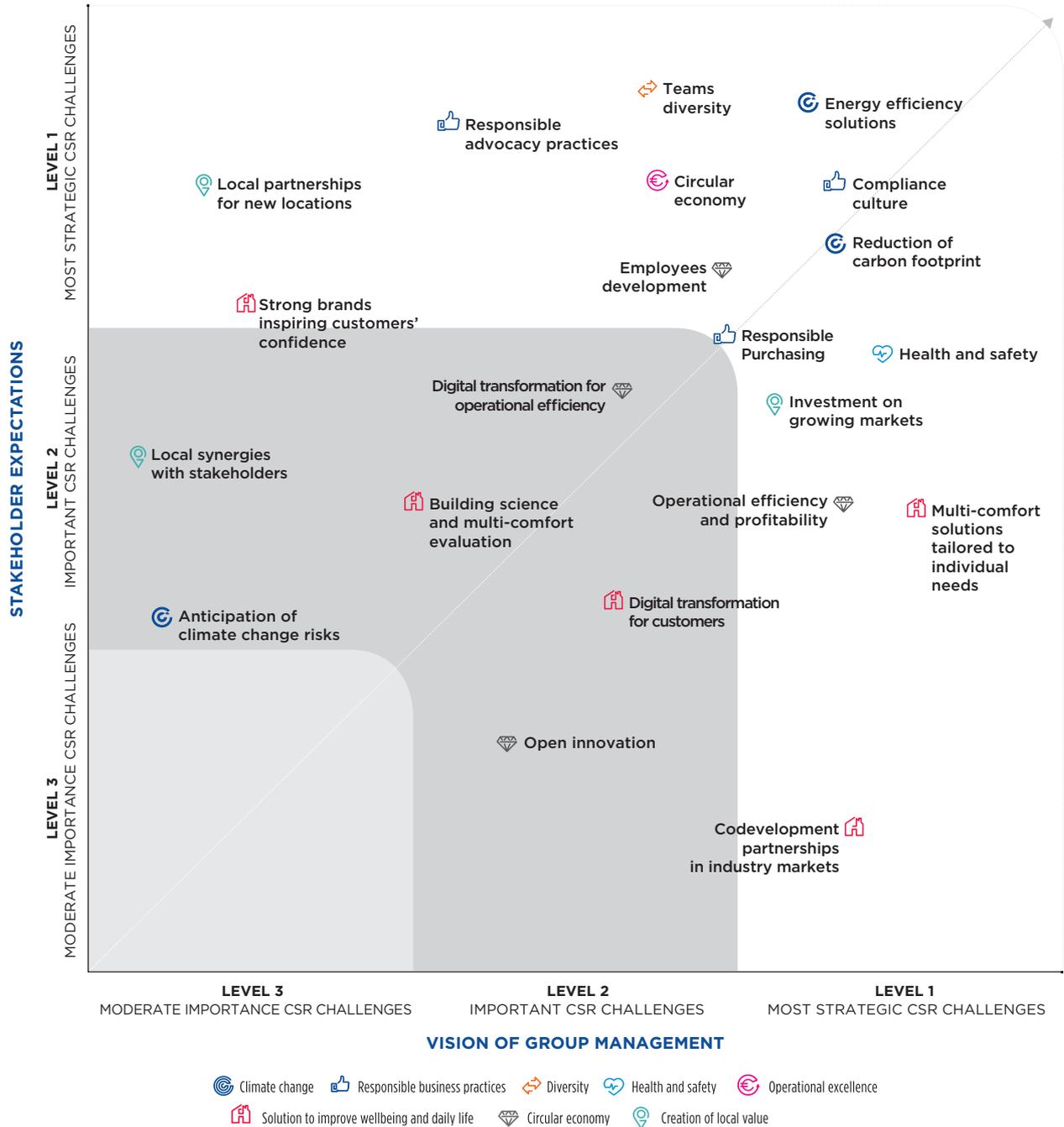
- climate change;
- responsible business practices;
- diversity;
- health and safety.

The Group then added two further CSR challenges associated with its development:

- circular economy;
- creation of local value.

Lastly, Saint-Gobain used stakeholder dialogue to confirm two strategic challenges linked to its performance and to the fulfilment of its brand promise:

- operational excellence;
- solutions to improve well-being and daily life.



The matrix reflects both the Group's strong identity and the more specific challenges associated with its Activities and its local development. It is consistent with the Saint-Gobain rebranding that took place in 2016.

A summary table of the measures adopted and the Group's policies and commitments to address the challenges of CSR is included in Chapter 5, Section 2: Non-financial results.

## 2. CREATING GREAT LIVING PLACES

### 2.1 Trends in the construction market

2

#### 2.1.1 Global prospects for the construction market

Saint-Gobain's largest market, construction, offers considerable growth prospects worldwide on the 2030 horizon<sup>(1)</sup>. Construction volume is thus expected to increase by 85% by 2030, to achieving a total of \$15,500 billion worldwide. China, the United States and India alone will represent over half the market value. With an annual growth rate of +3.9% projected over 2015-2030, the construction market will exceed annual global GDP growth by more than one percentage point.

Chinese construction, affected by the slowing of economy and aging population, is expected to see its growth slow down over the 2030 horizon, while keeping its place as global market leader, which it has held since 2010. The Indian market is projected to grow twice as fast as China's and is expected to overtake Japan in 2021 to become the world's third-largest construction market. The need for infrastructure in emerging countries is also expected to continue growing, particularly in the African market.

Among developed countries, the construction sector is expected to rebound after several years of crisis. The expected growth rates of construction in the United States over the next few years is approaching 5%, a figure close to growth estimates for the Chinese market. In Western Europe, the new construction market is not expected to regain its pre-crisis levels until 2025<sup>(2)</sup>. This trend, however, will be compensated by the renovation market, which represented nearly 40%. In France alone, the renovation market (including improvement and maintenance) is thought to represent around €75 billion per year<sup>(3)</sup>. Currently, 75% of European buildings have been constructed before the implementation of energy efficiency standards<sup>(4)</sup>. Renovation will therefore be stimulated by increasing energy efficiency requirements, on the one hand, which are increasingly reflected in regulatory changes, and on the other hand, by increasing demand for comfort in buildings. In France, the energy transition law passed in July 2015 defines a framework favorable to the acceleration of energy renovation work in accordance with European provisions. The building energy renovation scheme announced by the French government in November 2017 should help to support French renovation in the short- to medium-term.

Lastly, the construction is steering increasingly towards sustainable and environmentally friendly solutions and a more circular economy.

#### 2.1.2 Urban development and sustainable construction

The building sector is engaged in an in-depth process of transformation, fostered particularly by increasingly demanding thermal regulations that enable the Group to promote and deploy its line of energy efficiency solutions (insulation glazing and thermal insulation solutions), in a context where buildings must reduce CO<sub>2</sub> emissions by 84 gigatons by 2050 to limit global warming to under +2°C.

In recent years, a more global approach has emerged, incorporating not only energy aspects but also the other major challenges of sustainable development: sustainable construction. At each stage of its life cycle, a building designed, built or renovated and managed sustainably improves comfort and quality of life, limits the consumption of natural resources, reduces negative effects on the environment and increases value added for all stakeholders. This trend towards more sustainable construction is already clearly visible and is in particular reflected by rapid growth in the number of certified buildings throughout the world. As such, between April 2014 and August 2016, the number of square meters certified under LEED (Leadership in Energy and Environmental Design) rose from 280 million to 1,500 million. This development is also beginning to be reflected in state regulations and policies.

This underlying trend offers the Group a major opportunity for differentiation based on its unique portfolio of innovative, sustainable solutions for the construction and renovation markets that promote the development of energy-efficient, comfortable, healthy and attractive buildings, and conserve natural resources.

There are two pillars to Saint-Gobain's strategy for meeting the collective challenges of sustainable construction:

- promoting sustainable construction so that it becomes standard practice for the sector. To achieve this, the Group strives to lead by example, engaging with other leaders in the sector to speed up its transformation;
- developing and distributing sustainable solutions so that the Group can realize the full potential of the growth in the sustainable construction market. This calls for innovation and for management of the product portfolio, the circular economy, information and training for players in the market (see Chapter 2, Section 2.4).

(1) *Global Construction 2030, Global Construction Perspectives & Oxford Economics, 2015.*

(2) *Global Construction 2030, Global Construction Perspectives & Oxford Economics, 2015.*

(3) *Club de l'Amélioration de l'Habitat - report on the renovation market, 2017.*

(4) *RESIDE: Boosting innovation in the European building Refurbishment sector through roadmaps for demand SIDE policy measures, 2015.*

### a) Promoting sustainable construction with the Green Building Councils

Market transformation means changing the whole of the construction market value chain.

Many stakeholders share this desire to promote more sustainable buildings. Saint-Gobain is forming partnerships with them (see Chapter 1, Commitments). The Green Building Councils (GBC) are a vital partner in this regard. The GBCs form a global network of national associations of construction market professionals and players. The GBC network offers a fast path for deployment of sustainable construction technologies and dissemination of good practices, particularly *via* education for market players. They can create a collective momentum involving the various stakeholders (investors, builders, manufacturers, architects, etc.).

The geographical approach of the GBCs means that every one of Saint-Gobain's national, regional and international units can make an active contribution to their work. The Group is a member of 42 local GBCs worldwide, a partner of the European network of GBCs (ERN), and chairs the Corporate Advisory Board of the World Green Building Council (WGBC). In 2017, Saint-Gobain provided active support for a number of WGBC campaigns, including:

- Better Places for People, which promotes quantification and understanding of the positive impacts of sustainable buildings on health and well-being;
- BuildUpon, a project to support strategies for renovating Europe's existing building stock.

### b) Promoting the energy efficiency of sustainable buildings

Throughout the world, an ambitious political framework can remove technical as well as financial obstacles to the move to an efficient, comfortable and low-energy built environment.

The first priority is to significantly reduce the energy consumption of existing buildings. There are many technical solutions, providing not just environmental benefits but also a great improvement in comfort. The second priority is to ensure minimal energy consumption for all new buildings. Buildings designed with efficiency in mind right from the start are competitive buildings.

With this in mind, Saint-Gobain promotes in-depth energy renovation, in stages, and implementation of a renovation process based on a "renovation passport", identifying the tasks to be completed and scheduling them over time, and optimizing them by incorporating energy efficiency into the renovation work (for example, during alterations or renovations of roofs or façades), while promoting the benefits

of energy renovation (impacts on comfort, savings, etc.). The Group also strives to train professionals so that energy innovation is better integrated into the various works that take place on a building in the course of its lifetime. Lastly, in its R&D centers in India, Brazil and the Middle East, Saint-Gobain is developing energy efficiency solutions for hot countries.

Furthermore, there is a need to reduce the carbon content and more generally, the environmental impact of the materials and solutions used in construction. This involves increasing the recycled content of materials *via* the circular economy and making materials lighter without detracting from their performance, as is the case with glass and plasterboard.

The roll-out of life cycle analyses for construction materials will help to make the respective benefits of the different solutions more objective. In this regard, at European level, Saint-Gobain has been a member of the LEVEL(S) steering committee for two years. The committee is an instrument developed by the European Commission in conjunction with the industry and the public sector and aims to establish a "common language" for sustainable construction, in order to take it beyond energy efficiency. The European Commission launched the pilot phase of LEVEL(S) in 2017; it will continue until 2019. Saint-Gobain will test out this new tool on some of its projects in 2018.

### c) Solutions for individual comfort and the future of all

Sustainable construction is an inevitable solution to the major challenges facing our planet, particularly with regard to population, since growing urban development requires appropriate responses in terms of buildings and infrastructure while preserving resources.

However, all the efforts to promote sustainable construction can only be effective in the long term if they reflect users' needs and expectations. The immediate benefits and the satisfaction provided by sustainable solutions are what make them acceptable to end customers. This is the reason that Saint-Gobain factors in the fulfillment of individual user expectations as a consideration in its strategy.

The choice and use of the products place users and citizens at the center of the city of tomorrow. Market demand only increases if the materials that bring living spaces to life provide comfort and performance. Going beyond political, environmental and fiscal incentives, the perception of individual comfort is what is needed to convince users. This is how the individual comfort of each of us dovetails with the future of all.

## 2.2 Comfort and sustainability: the Group's response

The Group's mission is to create great living places and improve daily life. The Group articulates its promise to its customers as designing, producing and distributing materials which are key ingredients in the wellbeing of each of us and the future of all. Today, the Group places well-being and user comfort (thermal, acoustic and visual comfort, and air quality)

at the heart of its strategy, offering responses to long-term collective challenges. In an increasingly urbanized world, where nearly 90% of the time is spent indoors or in a vehicle, there is a need to design and build living spaces that are both more comfortable and more sustainable.



### WE HELP TO CREATE GREAT LIVING PLACES AND IMPROVE DAILY LIFE by combining

#### Comfort

Which answers today's Individual needs



(performance, safety, adaptability, accessibility, beauty)



#### Sustainability

which addresses tomorrow's collective challenges



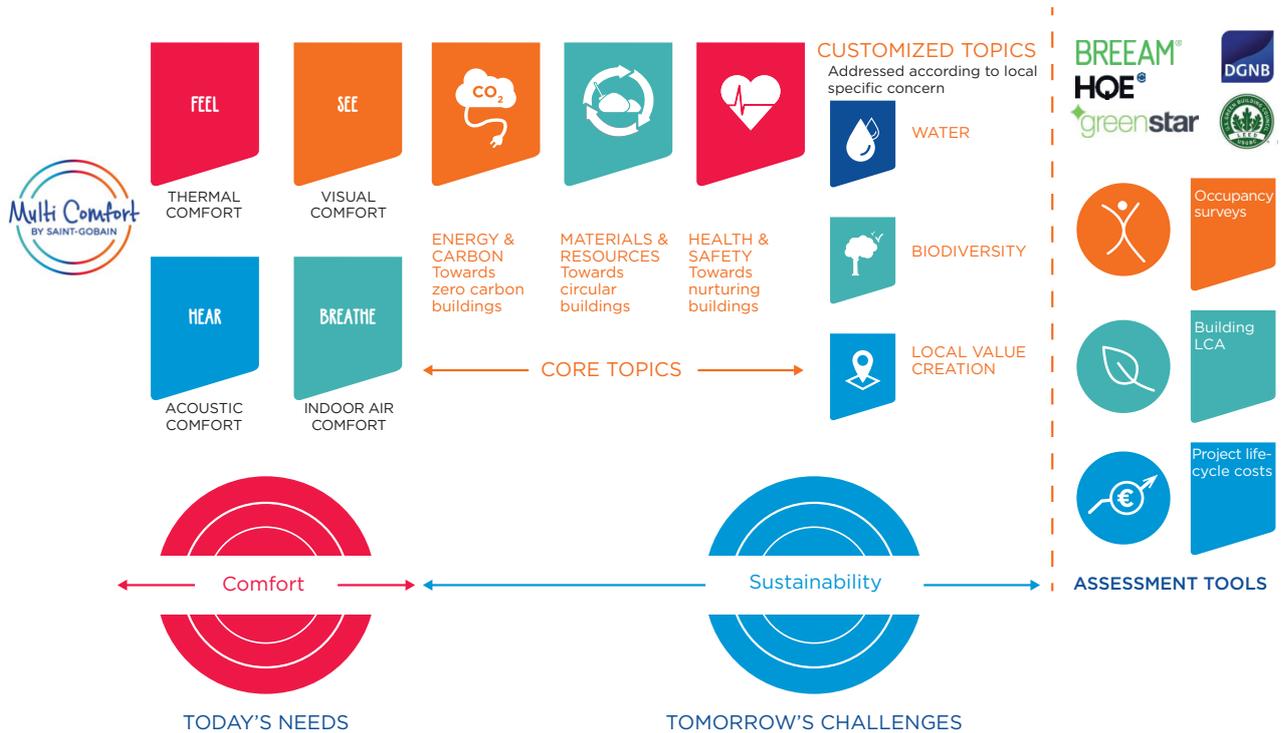
(sustainable building, better mobility, resource efficiency, demographic growth, climate change)

### TO ENHANCE THE WELLBEING OF PEOPLE EVERYWHERE

The Group develops innovative solutions for construction and renovation that encourage the development of energy-efficient, comfortable, healthy and aesthetically pleasing buildings, while preserving natural resources.

A novel approach has been developed around the concept of comfort and the benefits for users of the products and solutions: Multi-Comfort. It encompasses four types of comfort: acoustic, thermal, visual, and air quality.

The sustainable development criteria for the Multi-Comfort concept were clarified and supplemented in 2017 to better reflect the most recent developments in the sustainable construction market. The criteria in three of the areas (energy and carbon, materials and resources, and health and safety) are now part of the common core, alongside the four types of comfort, while for the other three areas (water, biodiversity and local value creation), the criteria will be adapted to suit local projects and challenges.



Saint-Gobain has also launched a project to define an integrated approach to analysis of products and the portfolio of solutions for living spaces based on sustainability criteria (see Chapter 2, Section 2.2.2.b).

## 2.2.1 Designing sustainable, comfortable solutions

### a) A product innovation process focused on safety and performance

The Group has a procedure for monitoring product innovation instigated by R&D and marketing. The tool forms a sequenced operational roadmap for the development teams, where every step in the innovation process is reviewed by a committee set up for this purpose. This methodology allows for identification of and prompt attention to potential problems. Close monitoring of the progress achieved and product performance means that the process of innovation is faster and more secure. The EHS (Environment, Industrial Hygiene, Safety) checklist introduced in 2008 has been incorporated into the R&D "Saint-Gobain gate process". It allows for the qualitative assessment of substances integrated into product formulations and the identification and reduction of EHS impacts associated with product life cycles. With regard to hazardous substances, the aim is to prevent the use of new substances and reduce their use in raw materials while reducing and controlling exposure levels.

The safety of the product design process also relies on the integration of criteria specific to health.

### b) Developing the eco-innovation culture

To develop solutions that anticipate market trends, the Group's Activities can draw on the eco-innovation approach and the toolbox that goes along with it. There are two strands to this innovation methodology:

- tools for understanding market needs and customer expectations in terms of environmental and social impacts;
- tools for finding solutions based on existing best practices or in-depth analysis of the impacts of the existing solution.

Priority lines of action for eco-innovation have been defined, in line with the Group's policies and market expectations, in terms of new sustainable solutions or improvements in existing solutions: health and well-being, energy and climate, water, resources and the circular economy.

These issues are taken into consideration throughout the product life cycle, from extraction of the raw materials through to the end of its life.

The Group began to deliver training in eco-innovation in 2013. Today, eco-innovation is covered in the training provided for new research managers and for R&D project leaders. It is also covered by a specific one-day training course primarily for marketing and R&D teams; more than 650 people have attended this session since it was launched. The approach continues to develop regularly to include new tools and ensure an ever-closer fit with the Activities' expectations. A new version is currently being prepared which will incorporate the lessons learned from the product evaluation methodology.

### c) Users' experience at the heart of the Multi-Comfort approach

In any physical location (a room, a vehicle, etc.), the well-being of the occupant depends on a certain number of factors: temperature, humidity, sound level, air quality, etc. When developing solutions and the products that comprise or delimit this location (ceilings, floors, walls, windows, etc.), the first step is to understand the required comfort levels, in terms of temperature ranges, noise levels in decibels or percentage humidity.

This novel approach to the design process, underpinned by intensive needs analysis, makes the user the central focus of the entire innovation process": several parameters, rather than just one, determine wellbeing, and therefore the health, efficiency and productivity of end customers.

While comfort is an intuitive concept, it is often still difficult to quantify or grasp. Most of the time, a person is capable of giving a qualitative description of what makes their environment uncomfortable. The most commonly cited sources of discomfort, in any environment (residential, professional, transport, etc.) are:

- too high a level of noise;
- too low or too high a temperature;
- polluted air: smells, too much or not enough humidity, dust;
- a light source that is too bright or not bright enough, too point-like, or too colorful;
- in a transport setting, vibrations.

To develop its solutions, Saint-Gobain draws on its innovation processes and its R&D teams organized around the concept of Building Science. A program has been developed to go beyond this handful of observations.

Building on digital techniques, Saint-Gobain has developed a measurement tool, the Comfort-meter, which can immediately characterize a situation by measuring the parameters that describe the different types of sensory comfort. The tool is a portable, pocket-sized box fitted with sensors and connected to a Smartphone *via* an app. A measurement of the parameters is taken on demand. It can be processed locally to provide information to the user – the app gives indications of the recommended levels, etc. It can also be sent to a cloud service: by aggregating all the data, Saint-Gobain's data scientists can derive lessons learned that help the R&D teams to find targeted solutions, and the specification and sales teams to hone their arguments.

For example, based on thousands of measurements sent to the cloud service by Comfort-meter users, it has been possible to prove that the average noise levels in open plan office space, which play a decisive role in employee productivity and health, vary considerably between countries: the measurements give an average of 46 decibels in the US, and 63 in Brazil.

Similarly, the thousands of measurements taken in restaurants have helped to determine that the sound level above which customers complain of discomfort is 71 decibels.

More than the tool, Saint-Gobain's teams have integrated experts in physiology, psychology and sociology to better understand the individual, cultural, and subjective dimension of comfort perception. The objective is still to define comfort for the future and make possible the diagnostic of comfort level of an existing building or to check the quality of the technical improvement during a renovation.

The skills developed in the area of building science, especially *via* cross-functional programs, are key for the success of the Group's construction strategy. They are essential to the roll-out of the Multi-Comfort program developed by the marketing teams. Developing Saint-Gobain's capabilities in this area supports the user comfort and experience-centered approach to designing effective buildings, taking into account the use value of the solutions adopted.

## 2.2.2 Producing and distributing sustainable, comfortable solutions

### a) Product transparency

The Group's industrial Activities linked to the construction markets have completed the life cycle analysis for their products and published environmental product declarations (EPDs) verified by third parties, throughout the world. The first EPDs for Insulation in Argentina and Flat Glass in India were published this year. The Group is the world's first verified EPD supplier.

A new market demand is emerging, coming from across the Atlantic in particular (*via* the development of version 4 of the LEED certification), but also under the impact of the development of the circular economy: transparency around the ingredients contained in Construction Products and the hazards associated with these ingredients. The Group is keen to provide a proper, comprehensive and considered response to this demand that is consistent with existing regulations and has commenced work on exploring and testing the solutions already on the market in order to shape its position on this matter in 2018.

### b) Product stewardship

After investigating the methodologies developed by other groups in different industries in 2016 and exploring its customers' expectations in terms of sustainable solutions, in 2017 the Group developed a methodology appropriate for the sustainable performance criteria for its construction product portfolio. In line with the Group's vision for sustainable construction, this methodology takes a view of a product over the entirety of its life cycle and defines its degree of sustainability from two perspectives:

- its environmental and social impacts, from the extraction of the raw materials and until it leaves the factory;
- its contribution to making the building more sustainable.

The methodology covers a broad range of topics identified as priorities for stakeholders: energy and climate, materials and circular economy, health and well-being, water and local value creation.

In 2017, the methodology was tested in two pilots, in the Construction Products Sector in Sweden and on the exterior wall solutions portfolio of the Flat Glass Activity in Europe. It will help to evaluate the sustainable performance of a product, ensure improvements in overall product performance, and steer eco-innovation.

### c) The Multi-Comfort program, demonstrating solution effectiveness

Innovation is also about new ways of thinking. The Group is leveraging the breadth of its portfolio of Activities to develop new systems and solutions for developing new systems that reinforce building performance and the experience of occupants. The innovation centers enable the design and development - in close partnership with customers and other influencers - of long-term innovations that will shape surroundings and improve quality of life.

In addition to its innovation centers, "demo buildings" are constructed to illustrate the Multi-Comfort program and prove that the recommended solutions are not just theoretical, but rather that they function as real buildings. This constitutes indispensable support for the program.

The data from the 30 new operational projects refine the understanding of Multi-Comfort and thus the credibility of the approach. These projects cover 19 countries in Europe, North and South America, and Asia, making them representative of the diversity of users' expectations in response to their culture and subjective perception of comfort.

As part of the program, housing building and renovation operations were launched in conjunction with players in the construction industry. Using Saint-Gobain solutions, these test sites make it possible to monitor energy efficiency and comfort levels in real time, on a long-term basis.

The Multi-Comfort projects conducted in different countries help the R&D and marketing teams to improve their understanding of buildings' performance in response to the behavior of occupants and the installed Saint-Gobain products, and to develop new and increasingly effective solutions tailored to local construction methods and to occupant comfort.

The Multi-Comfort program is being applied to several market segments, new building and renovation, individual and collective housing, and non-residential building.

The tools for assessing the performance of Multi-Comfort implementation have recently been specified: recognized third-party certification, surveys of occupants, and calculation of the environmental impacts and the costs throughout the building's life cycle.

In keeping with this strategy, Saint-Gobain also strives to improve its own buildings. To achieve this, the CARE:4 program has been applied to new buildings and complete renovations since 2008. As symbols of Saint-Gobain's skills and capacity for innovation, hosting the public, research, training and innovation centers, showrooms, major sales

outlets and headquarters of General Delegations and Activities take priority. These sites, owned or leased by the Group, are "Buildings of Interest for the Group" (BIG). They are intended to become demonstrations of Saint-Gobain's solutions and know-how. Additionally, in 2017, Saint-Gobain unveiled a new roadmap for the CARE:4 approach, with the aim of including within it all the stages and levels of site transformation.

### d) Convincing customers

#### ■ Habitat Committees and educational showrooms

Significant effort has been required in terms of training, explanation and demonstration to redefine the Saint-Gobain value proposition, which is focused on comfort and sustainable development, and this will continue to be the case.

For this purpose, since 2015, the Habitat Committees in the Group's main countries have been tasked with speeding up the development of physical premises where products can be displayed and especially, where their features and impacts can be easily demonstrated to a broad, non-expert audience.

Following the Domolab, which opened in Aubervilliers in 2011, and its equivalents in Russia, Italy and Spain, 2016 saw the opening or renovation of a large number of these educational showrooms:

- in the Capivari R&D center in Brazil;
- in the Chennai R&D center in India;
- at the premises of the General Delegation in Copenhagen;
- at the headquarters of the General Delegation for North America;
- in the Saint-Gobain Innovation Center in central London.

Large numbers of customers are invited to visit these premises on an appointment-only basis. The venues hold numerous blue printing sessions (see Chapter 3, Section 3.2.1) where solutions for the wishes expressed can be suggested directly. In 2017, several tens of thousands of visitors, customers, architects and investors had a practical introduction to the Group's products and services for improving the different types of comfort.

#### ■ Training for customers

The Habitat Committees, coordinating with the Group brands, have introduced training appropriate to the local jobs and markets. The Saint-Gobain teams can thus train students, building companies, trade customers or even a distribution network. General Delegations or Activities in countries have set up training structures such as the Spazio Academy in Italy or the Greenworks Training Academy in the United Kingdom.

This training is generally provided on site, but e-learning solutions are being developed by countries such as Italy. Besides the technical training in products and solutions, the teams offer training in specific subjects such as renovation, modern conveniences, air quality or energy efficiency. The distribution networks have developed specific counters for energy performance in certain branches and outlets in France or Northern Europe (see Chapter 4, Section 4.2.2).

## 2.2.3 A portfolio of respected brands and distribution names

Saint-Gobain has a portfolio of industrial brands and a network of well-known distribution names for developing and marketing sustainable solutions that provide comfort and wellbeing for customers.



### CONSTRUCTION

#### STRATEGIC MARKETS

Residential and commercial construction (new build and renovation), infrastructure

<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Flat glass</div>  	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Insulation</div>   <div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Interior and exterior solutions</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Renders and mortars</div>  <div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Complete pipe systems</div> 
<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Plasteboard and gypsum</div>    	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Acoustic ceilings</div>  	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Technical textiles</div> 

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#### KEY DISTRIBUTION AND SERVICE BRANDS

<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">France</div>  	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Europe</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">United Kingdom</div>  
<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Scandinavia</div>  	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Germany/Central Europe</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Brazil</div> 

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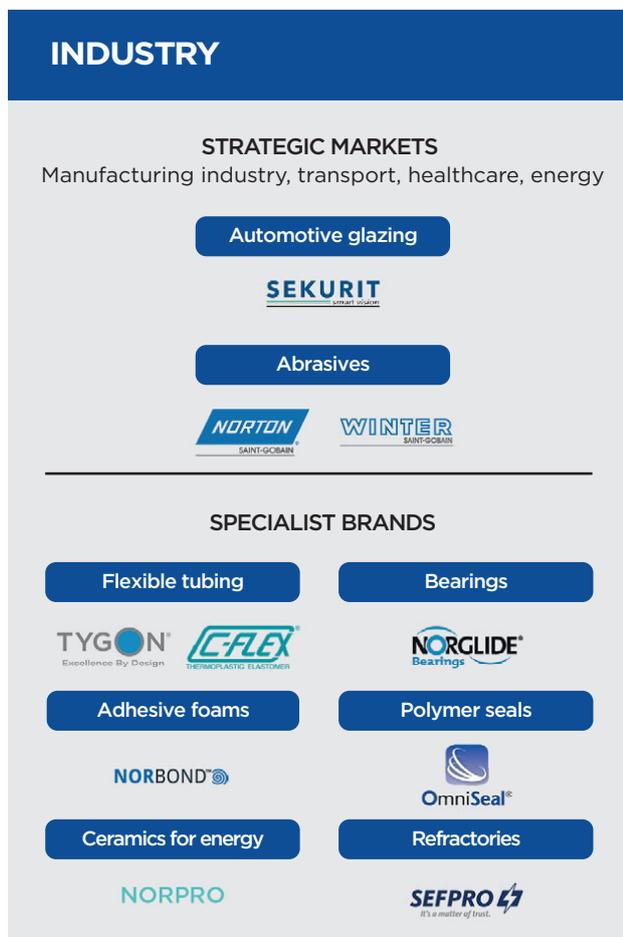
#### SPECIALIST BRANDS

<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Fire resistant glass</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Electrochromic glass</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Window film</div> 	<div style="background-color: #0056b3; color: white; padding: 5px; margin-bottom: 10px;">Architectural membranes</div> 
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## 3. SOLUTIONS SPECIFICALLY FOR INDUSTRIAL MARKETS

For customers in industrial markets, Saint-Gobain aims to be the partner of choice by developing and supplying high-performance products, which ensure the reliability and safety of the solutions to which they contribute, optimize the productivity of manufacturing processes and enhance user comfort and safety. This involves co-development partnerships with industrial customers, with a view to creating solutions for them and with them so they can roll out their activities.

Saint-Gobain has specialist brands in High-Performance Materials, mainly for its industrial markets. These brands are well known for their expertise, particularly in the automotive glazing, abrasives, polymers and ceramics markets.



### 3.1 Products for the automotive market

The automotive market is being driven by demographic growth and the emergence of a new middle class, particularly in Asia. According to a study from McKinsey <sup>(1)</sup>, the annual revenue generated by the global automotive industry could rise by 4.4% a year between now and 2030 (faster than the average annual growth rate of 3.6% between 2010 and 2015).

Global automobile production will be close to 110 million vehicles in 2020, compared with 95 million in 2016 <sup>(2)</sup>. Market growth will be driven by demand from fast-growing countries: China has become the leading global automotive market, representing 27% of the market in 2015 <sup>(3)</sup>. The electric vehicle market is expected to grow strongly in the next few years, to 50% of new vehicle sales in 2030 <sup>(4)</sup>. The speed of the move to electric vehicles will depend in particular on the introduction of public policies to support it.

At a time when automotive manufacturers are especially emphasizing lower energy consumption and CO<sub>2</sub> emissions (reduced vehicle weight, better thermal insulation, aerodynamics), comfort (acoustic, visual, UV protection), safety and connectivity, the Group offers products that meet these new requirements, both in the primary market and in the spare parts market.

Saint-Gobain Glass is constantly being adapted to the needs of automobile manufacturers, particularly with regard to lightweight glass, heads-up display glass and anti-heat glass, not to mention glass in complex shapes, for which Saint-Gobain's expertise is well known. All these solutions promote an optimal driving experience, with increased comfort and safety for both driver and passengers. Similarly, high-performance, polymer-based bearings, seals and foams are custom-designed to meet the needs of automobile manufacturers, in terms of extending useful life and reducing noise and weight. Saint-Gobain's solutions also involve production using, for example, a wide range of abrasive products (adhesives, agglomerates and super abrasives) for finishing and polishing automotive parts. In order to benefit from the opening of new markets in fast-growing countries, the Group is also developing solutions appropriate for these regions, without compromising quality.

(1) *Automotive revolution – perspectives towards 2030*, McKinsey, 2016.

(2) *L'Observatoire Cetelem 2017*, BNP Paribas 2016.

(3) *L'Observatoire Cetelem 2017*, BNP Paribas 2016.

(4) *Global Market Forecast, Growing Horizons 2017/2036*, Airbus 2017.

## 3.2 Solutions for the aerospace market

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With the global growth in passenger traffic, the aerospace market offers strong growth potential. According to Airbus <sup>(1)</sup>, global passenger traffic is expected to increase by 4.4% per year to 2036. Benefiting from an increase in their standard of living, the populations of fast-growing countries will thus represent 72% of air passengers. Further, heightened competition between airlines has led to pressure on operating costs. This context is reviving the demand for weight reduction, particularly by replacing metal parts with composite materials, which are lighter, to reduce jet fuel consumption. The aerospace sector's very high equipment safety and reliability standards are a significant challenge for

Saint-Gobain, which is recognized for its experience and production quality.

The Group's aerospace solutions specifically include cockpit glass, high-performance plastics and ceramics used in aircraft engines. Saint-Gobain's cockpit windows and windshields, both glass and acrylic, are fitted in civil and military aircraft. The Performance Plastics Activity supplies the industry with radomes, composite mold-release films, seals and low-pressure conduits. Ceramic powders and ingots, used for the coatings of aircraft engine components, act as a thermal barrier and offer abrasion and corrosion resistance.

2

## 3.3 Innovations for the healthcare market

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Biopharmacy is one of the most promising markets in the healthcare industry. Between 2015 and 2030, the proportion of over-65s in the population of developed countries will rise from 18% to 23% <sup>(2)</sup>. An aging population and enhanced medical procedures are creating new needs, while biotechnology is having an increasing impact. At a time when liquid management techniques are evolving, the biopharmaceutical sector is seeing a new need for single-use solutions, requiring a more tailored approach.

Healthcare is also a sector where solution reliability and the strict demands of standards are of the utmost importance. The Group also markets a number of tailor-made, single-use plastic solutions (tubes, connectors, pockets, filters, etc.), used in handling fluids. Saint-Gobain has developed and designed high-purity plastic components intended to control fluid circulation during intravenous and ophthalmic treatment and non-invasive surgical intervention. Finally, for the medical imaging market the Group manufactures crystals and scintillators, which are used in particular in medical scanners.

## 3.4 Solutions for the energy markets

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The energy sector is currently experiencing a profound realignment of its model, specifically related to our current economies' heavy dependence on oil. Aware of the risks these changes may represent for their long-term investments, large financial institutions are pushing energy players to reorient themselves toward greener energy sources.

The Group is developing technical solutions specifically tailored to the manufacturing processes of the energy sector, mindful of current needs as well as emerging trends. Specifically, the Group is active in the market for ceramic

pellets to increase the conductivity - and therefore yield - of gas and oil wells. Saint-Gobain also designs numerous high-performance products aimed at the wind energy sector: seals for marine-based wind farms, and glass fiber textiles to improve the surface condition of turbine blades. The Group develops high-tech products, from oil exploration (scintillators used to identify geological layers), to waste recycling (refractory furnace linings), and including operations and storage (seals, flexible caps and insulators for drill pump wires and cables, etc.).

(1) *Global Market Forecast, Growing Horizons 2017/2036, Airbus 2017.*

(2) *World Population Prospects 2017 Revision - United Nations.*

## 4. PROXIMITY TO CUSTOMERS

### 4.1 An ambitious differentiation strategy

#### 4.1.1 An approach tailored to each customer

In the construction markets, Saint-Gobain aims to be the partner of choice for every player, from initial design to worksite implementation and project completion.

The Group has set up Habitat Committees aimed at developing marketing and commercial synergies between various Saint-Gobain companies, through cross-business initiatives tailored to each customer group, such as:

- a coordinated approach to the principal key accounts in construction and renovation projects, organized by market segment (residential, healthcare, education, hotels, etc.), and often based on innovation centers and showrooms in France, the United Kingdom, Italy, the United States and Spain; new innovation centers opened in 2017 in Mexico, Spain and in Côte d'Ivoire;
- combined training provision specifically for installers in several countries, delivered at dedicated Saint-Gobain centers (for example, in France, Italy, Ireland, Russia, Sweden, Austria, the Netherlands, etc.);
- a coordinated presence at major trade shows, such as Greenbuild in the United States, Ecobuild in the United Kingdom, Batimat in France, and the Big 5 in the United Arab Emirates, which provide opportunities to showcase the Group's products and solutions and enable Saint-Gobain experts to give talks on topics such as eco-innovation and sustainable construction, or on new building techniques.

**SAINT-GOBAIN'S VISION: TO BE THE PREFERRED PARTNER OF ALL CONSTRUCTION AND RENOVATION PLAYERS, FROM DESIGN TO COMPLETION**

#### MAJOR TRENDS AFFECTING THE HABITAT MARKETS

- Urban development and demographic change
- Sustainable design, construction and operation
- Holistic building design (multi-dimensional criteria)

#### INVESTORS, DEVELOPERS, ARCHITECTS, SPECIFIERS, PRIVATE INDIVIDUALS

Put the user at the center of the construction and renovation process with a Multi-Comfort approach

Minimize the environmental impact of buildings: eco-innovation policy, life cycle analysis and Environmental Product Declarations for all product families

Support customers in their major projects in coordinated fashion between Saint-Gobain activities (including key accounts), based on the Group's skills in Building Sciences

#### MAIN CONTRACTORS

Develop systems and services to simplify implementation and to optimize costs and delivery times at worksites – specifically by combining the expertise of the Group's various activities

Co-develop new solutions with major builders

Support major projects, with a targeted service offering: BIM objects for digital modeling, adapted logistics, etc.

#### DISTRIBUTORS

Capitalize on strong brands

Develop a service offering to allow distributors to grow their sales and optimize their processes (adapted logistics, training of field teams, optimized merchandising, business support, etc.)

Develop e-commerce and e-services offerings to simplify and optimize processes and facilitate sales development

#### TRADESMEN, PRIVATE INDIVIDUALS, CONTRACTORS, DO-IT-YOURSELFERS

Develop reliable, easy and rapid solutions

Make the lives of installers easier by assisting them to grow their own business through an extended services offering: training, sales assistance, technical assistance, technical studies, etc.

Roll out multi-channel approaches to support them throughout their professional lives

Retain the loyalty of professional clients through a close relationship developed through strong local distribution brands

## 4.1.2 Customer satisfaction

Several practices have been adopted by all the Group's activities to measure customer satisfaction:

- firstly, the use of a short questionnaire, after every interaction, both direct and indirect, to identify the main areas of satisfaction and dissatisfaction and determine the "net promoter score", a single, common metric across all customers;
- secondly, a more stringent, responsive measurement of compliance and timeliness (see Chapter 4, Section 2.1 on the WCM program), since these two parameters recur in

all questionnaires as the most frequent causes of dissatisfaction: customers demand above all else that suppliers keep their promises.

The Group's Activities have all strengthened their marketing teams to organize these kinds of surveys and especially, to respond to them. They have also created customer experience manager posts whose role is to adapt the organizational structure to make it more responsive to new customer expectations.

## 4.2 Local services

### 4.2.1 Using digital technology to increase customer loyalty

Saint-Gobain's interactions with its customers in the broadest sense (direct or indirect, actual or potential) through the Group's different Activities number in the millions each year. This number is increasing by 10% a year as a result of the development of the whole area of communication *via* the Internet and social media.

This provides a challenge for the Group: in many cases, "contact" no longer takes the form of a scheduled, physical meeting, but is made *via* the Group's websites or *via* social networking, at the customer's instigation. In 2017 alone, the number of sessions was more than 130 million, an increase of 13% on 2016.

Clearly, in-person meetings with direct customers remain a crucial form of contact, but there is a need to develop a digital strategy that allows the Group to capitalize on all the individual contact requests. Two background tasks were continued in 2017:

- updating the Group's websites is crucial, to provide visitors using fixed or mobile devices with a high-quality experience that they find useful and which encourages them to extend their visit to the site. This is the approach adopted throughout the Group;
- the Building Distribution Sector has created better-designed, simpler websites to extend e-commerce to all of its brands, in the majority of its countries of operation.

In both cases, data analysis is fundamental in developing the sites in the direction that visitors wish to see. A central R&D team focuses specifically on helping the Activities to make the necessary cultural adjustments.

This background work improves customer proximity and helps the sector to develop services, particularly digital services, which support the customer in their journey. Two types of initiative were undertaken in 2017.

In the construction markets, and primarily in the Distribution Sector, efforts have been made to ensure that interactions with customers are much quicker and more efficient for them:

- websites with customized content depending on the customer profile, which is recognized as soon as the customer arrives on the site - this approach was launched in Denmark and is being rolled out in all the Nordic States, then throughout Europe;
- smartphone applications for rapid repeat customer ordering - the Building Platform application, for example, was downloaded nearly 100,000 times by the end of 2017.

In the industrial arena, the aim was to help in specifying products by explaining their advantages and the benefits they provide as simply as possible. This is achieved in a number of ways:

- simulating their appearance or their properties (for example, the dB Station application creates a representation of the sound level in a room depending on the materials used for the floors, ceilings or walls);
- photo galleries showing the products in place, in every geographic region and in all types of buildings;
- for installers, tutorials to help with implementation.

The ultimate aim of this work is to attract new customers, but also to increase customer loyalty: firstly, because a loyal customer spends more on average than an average customer, but above all, because effective customer loyalty and retention measures (regular interaction, effective services, etc.) are acknowledged to be considerably less costly than measures for winning new customers.

## 4.2.2 New concepts

This marketing strategy of customer interaction using new digital and data analysis tools allows the Activities to develop new concepts essential for maintaining margins, which are more uncertain in the digital era. These new models can be grouped into three main categories:

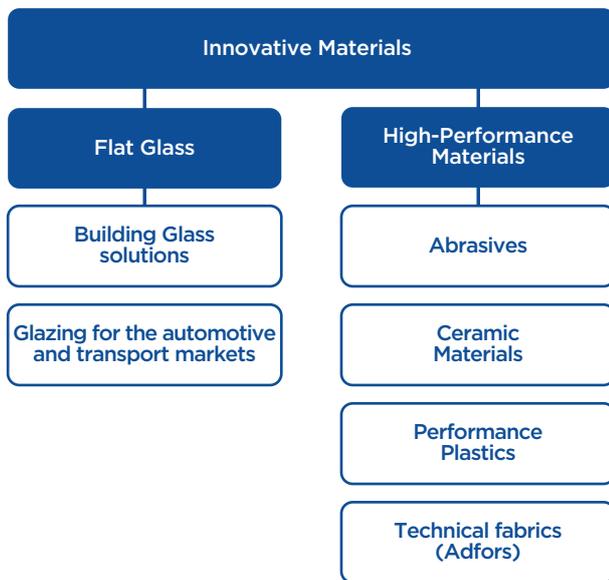
- the first is services for the Group's direct customers. In France and Great Britain, the Distribution Sector has developed software to help with preparing quotes, Solu+ in France and BuildAviator in Great Britain, which helps professionals to make significant time savings on this onerous task. In addition, software for creating layouts, for one-click ordering and for other purposes was introduced in most activities in 2017 and will develop further in 2018;
- the second concerns services to "end customers", or at least, to key influencers in Saint-Gobain's markets, who are not always direct customers - on the contrary, with digital, the decision-making power tends to shift towards the end customer. It is therefore essential to develop products and solutions that cater for their needs and which they are able to understand and evaluate. The "Homly You" offering, launched in 2016, continues its successful development: more than 100,000 requests from private individuals have been sent to professionals selected by the Homly You teams in France. The model is being rolled out to all the European countries where the Distribution Sector has a significant presence. Generally speaking, all of Saint-Gobain's activities either launched user services in 2017 or are currently preparing such services: PAM, for example, with a leak diagnosis tool for water networks, aimed at local authorities; or Sefpro, with diagnostic or maintenance services for industries that use its refractory solutions; or Abrasives, which offers full package services to bodyshops and repair shops, including inventory management and safety training for their staff;
- lastly, the third group comprises "concept" sales. This format involves presenting the end customer with a solution to a problem they are dealing with, in the form of a combination of different products. A number of examples have already been successfully sold in 2017:
  - specification teams in India have a framework agreement with a number of IT service companies: they carry out an assessment of their facilities, particularly their open plan office space, and propose solutions to improve employees' comfort and therefore, their productivity,
  - more and more "manhole cover replacement kits" combining products from PAM, Weber and Adfors are being sold, to ensure that works are carried out properly and will be durable,
  - launched in Norway in 2016, the MyComfort or Multi-Comfort option in residential is being adopted more widely: it involves offering a coherent suite of products for building or renovating housing that noticeably improve all aspects of comfort for the occupant.

The complementary nature of the Group's Activities, brands and trade names, makes these new concepts more effective.

## 5. A GROUP ORGANIZATION TO SERVE CUSTOMER AND MARKET NEEDS

### 5.1 Invent the materials of the future and provide innovative solutions for buildings and industry: the Innovative Materials Sector

2



With its unique portfolio of materials and processes for the construction, transport, healthcare, and industrial markets, the Innovative Materials Sector, combining Flat Glass and High-Performance Materials, provides the Saint-Gobain Group with its innovation-oriented culture.

It consists of two businesses:

- Flat Glass;
- High-Performance Materials (HPM).

In line with the strategy for the sector, its R&D is devoted to serving customers by providing them with differentiated solutions.

It is supported in this aim by the Group's eight cross-business research centers devoted to focused technologies, and local teams close to production sites. Of the 3,700 researchers employed by the Group, 2,100 work in Innovative Materials. They work on over 600 research projects involving the design of new products and procedures, providing technical support to the sales and production teams.

Some development projects are aimed at maintaining technological leadership in current markets: innovative processes for thin coatings, next generation ceramic grains and abrasive products, more effective double and triple glazing, plastic films for automobiles and building, etc. Other major programs target new markets: electrochromic glazing, ceramic cores for fuel cells, materials for energy storage, or single-use systems for the biopharmaceutical and life sciences industry.

#### KEY FIGURES

- More than **500** industrial sites in **45** countries
- Flat Glass: over **34,000** employees
- HPM: over **28,000** employees
- **8** cross-business R&D centers in the United States, Europe, China and India, dedicated mainly to Innovative Materials
- **2,100** researchers
- Over **300** patents filed by the Innovative Materials Sector in 2017
- Approximately **2/3** of the Group's R&D expenditure
- Competitive positions:
  - **No. 2** for Flat Glass in the world <sup>(1)</sup>
  - **No. 1** for Flat Glass in Europe <sup>(1)</sup>
  - Flat Glass: nearly **300** industrial sites across **34** countries
  - **No. 1** <sup>(1)</sup> worldwide High-Performance Materials
    - Ceramics: **no. 1** in the world for silicon carbide, zirconium-based abrasive grains, ceramic balls and refractories for the glass industry
    - Abrasives: **no. 2** in the world for all abrasives lines
    - Performance Plastics: **no. 1** in the world for bearings for automotive applications, single-use tubes and connectors for the pharmaceutical industry, aircraft radomes for communications satellites
    - Saint-Gobain Adfors: **no. 1** in the world for glass fiber wall claddings
    - High-Performance Materials: more than **200** industrial sites across **36** countries

(1) Source: Saint-Gobain

### 5.1.1 Provide customers with effective glass applications, contributing to environmental protection: the Flat Glass Sector

#### A word from the President

“In addition to a passion for glass, we are driven by providing our customers with modern solutions for comfort and safety to cater for their needs and the needs of the end consumer, with an eye to quality and environmental protection.” — Patrick Dupin, President, Flat Glass Sector

Flat Glass combines the production and marketing of flat glass, and the processing and distribution of glass solutions for the building market, the automotive industry and transport. These solutions address the challenges of energy savings, aesthetics, comfort, ergonomics and safety and plan ahead for changes in regulatory obligations. Flat Glass develops products and services to suit local characteristics and uses the new opportunities afforded by digital to enhance its services to customers.

Saint-Gobain offers its customers **innovative, effective glass solutions for residential and non-residential sector construction**. These solutions are intended for the façade, window and interior decoration markets and to protect assets

and people. With a strong manufacturing base incorporating recent carbon footprint-limiting technologies, and a distribution network with unrivaled coverage, Saint-Gobain aspires to be the partner of choice for its customers: installers, processors, manufacturers, distributors and architects.

The Group responds to the needs of its European key accounts with a dedicated structure and sales force for each market segment. Additionally, it caters for the expectations of its installer clients as closely as possible through its own Glassolutions network of 200 processing and distribution sites in Europe.

Saint-Gobain's glass solutions help to improve building energy efficiency and user comfort: thermal insulation, solar control, light transmission (with the new ECLAZ glazing in particular), interior solutions and decoration (kitchen worktops and colored splashbacks, shower screens with anti-corrosion treatment, etc.), and bulletproof and fireproof glass (through its VETROTECH brand). Saint-Gobain also offers a wide range of active glazing such as PRIVA-LITE, which turns opaque on demand when switched on, and the variable-tint SageGlass® solutions, provided mainly for façade projects. Lastly, it provides specialist products for household appliances (EuroKera, a joint venture with Corning, is a world co-leader in glass-ceramic cooking surfaces) and for commercial refrigeration.

Main brands	Positioning
	Provider of effective, aesthetic glass solutions for more comfortable, safer living places
	Processor and distributor of effective glass solutions for residential and non-residential sector construction
	Expert in fireproof glazing and high-security solutions for building and marine applications
	Electronically controlled, dynamic variable-tint glazing to maximize light, save energy and improve interior building comfort
	Thermal spacers for insulating glazing

**Saint-Gobain Sekurit** manufactures and produces windshields, side windows, rear windows, glass sunroofs and pre-assembled modules for major global automotive manufacturers. This glazing ensures everyday comfort for motorists and responds to the changes in mobility in terms of practices and regulations, particularly in the area of the environment. Saint-Gobain is also active in the transportation market, producing glass for the aerospace and railroad sectors, shipping, industrial vehicles and armored vehicles.

Finally, Saint-Gobain Autover distributes replacement automotive glass in the independent market and, under its Glassdrive and France Pare-Brise brands, has a network of repair and replacement facilities.

Saint-Gobain Sekurit offers global coverage for its activities, to meet the needs of users and automobile manufacturers. In addition, a regional organizational structure also provides more local coordination and services in response to local specifics.

Main brands	Positioning
	Innovative security glazing to make the automobile into a comfortable living space
	<b>SAINT-GOBAIN SEKURIT TRANSPORT</b> Specialist glazing for the railroad industry, trucks, buses and coaches, and tractor and machine operator's cabs
	<b>SAINT-GOBAIN SULLY</b> High-performance transparencies for the aerospace and naval industries, and armored vehicles
	<b>SAINT-GOBAIN AUTOVER</b> Distribution of replacement glazing and related products for businesses in the automotive after-sales market
	European network of fixed and mobile assembly stations for automotive glazing repair, fitting and replacement
	French network of specialist automotive glazing repair, fitting and replacement franchise operators

**Main competitors**

- NSG (Japan)
- Asahi (Japan)
- Guardian (United States)
- Sisekam (Turkey)
- Various Chinese glass manufacturers

### 5.1.2 Together we make a material difference: High-Performance Materials

**A word from the President**

**“Together, we make a material difference: working with our customers and partners, we design and produce differentiated solutions that improve the performance of our customers in the automotive, aerospace, healthcare and manufacturing sectors.”** — Laurent Guillot, President, High-Performance Materials Sector

High-Performance Materials (HPM) provides value-added solutions for a wide range of high-tech applications in transport, health, construction and industry. It is developing considerable expertise in a range of technologies, giving it the ability to design solutions tailored to its customers' specific needs.

The HPM Sector is underpinned by strong materials science, formulation and design capabilities in ceramics, performance

polymers and glass fiber. It has expertise in multiple state-of-the-art applications that make use of the specific properties of its materials (high temperature resistance, abrasion, chemical stability, surface properties, etc.).

Many of the sector's products are developed jointly with customers to cater for specific customer needs, particularly in plastic products, highly sophisticated refractory products for the metalworking and glass manufacturing industries, and crystals for radiation detection systems.

In order to be closer to its markets, the sector maintains a large sales force that is supported, in the largest countries, by logistics centers that allow it to provide quick and efficient service to customers.

**The Ceramic Materials Activity** consists of businesses involved in the synthesis and transformation of ceramics raw materials used in a wide variety of markets: abrasives, petroleum extraction, aerospace, defense, paper, etc., as well as refractory products for metallurgy and all glass-related technologies.

Main brands	Positioning
	<b>SAINT-GOBAIN NORPRO</b> Ceramics solutions for the energy markets
	World leader in refractory materials for the glass manufacturing industry
	The leader in ceramic grinding beads, shot-blasting and sandblasting agents, and zirconium oxide powders and products for industrial applications

**The Abrasives Activity** offers complete solutions for each stage of the abrasion, cutting and polishing process. It serves a wide range of markets: construction and habitat (from rough cutting of concrete walls and floors to sanding of wooden floors and decorative finishes), heavy industry (steelworks, paper mills, and mineral extraction), and

manufacturing and high-tech industries (automotive, aerospace, and electronics). Saint-Gobain leverages its expertise in ceramic grains and its in-depth knowledge of materials to design abrasives systems that are optimized for its customers' applications, as well as being safe and comfortable to use.

Main brands	Positioning
	A complete range of abrasives solutions for all industrial application in all markets
	A full range of abrasives for all applications in the automotive after-market and industrial applications
	A comprehensive portfolio of high-performance abrasives for DIY and industrial applications in the metals processing and maintenance markets
	Precision milling tools for high-tech sectors such as the automotive, glazing and aerospace industries
 	Cutting tools, high-performance machinery and abrasives to meet the most demanding requirements of construction and building professionals

**The Performance Plastics Activity** has a wide technological expertise in high-performance polymer products that afford considerable scope for application in industry (automotive, aerospace, and health) and construction. It produces composite materials (specialty films, foams, tapes, specialty

adhesives and coated fabrics for construction and industry), bearings and seals (particularly for the automotive and aerospace industries), and fluid systems (for healthcare, food and beverage, aerospace, electronics, etc.).

Main brands	Positioning
	Essential parts for leak detection under extreme conditions for applications in the aerospace, energy, biology and manufacturing industries
	Bearings for the automotive market in particular, designed to reduce weight, noise and vibrations and improve vehicle performance
	Double-sided adhesive tapes with outstanding viscoelastic properties, for industrial use
	Tolerance rings for the automotive market in particular, designed to reduce weight, noise and vibrations and improve vehicle performance
	Patented thermoplastic elastomers for use in the medical and pharmaceutical industry, research, and biotechnology
	Precision tubes providing maximum performance and ensuring compliance with regulations, for a whole array of applications in specialty fluid transport
	Pumps, valves, connectors and manifolds for safe, accurate distribution of ultrapure fluids
	High-tech glazing films and protective coatings for the automotive and architecture industries
	A pioneer in architectural membranes for sports facilities, transport terminals and other buildings with an eye-catching design
	High-performance technology solution for airplanes and land-based radomes, offering maximum protection and unrivaled radiofrequency performance, and ensuring the highest operational reliability in ongoing communication

**Saint-Gobain Adfors** manufactures technical glass fiber fabrics for the construction and industry markets. With a range of innovative solutions combined with strong customer commitment, it can cater for every kind of market need:

grid systems for wall, floor and roadway reinforcement; glass fiber mat solutions to improve product technical performance; and ranges of wall coverings, joint tapes and insect screens.

Main brands	Positioning
	Reinforcement and covering solutions comprising a broad range of technical fabrics for construction (insect screens, reinforcement grids and mesh, joint tapes, wall coverings) and manufacturing (glass fiber mat and mesh fabrics)
	Glass fiber reinforcement solutions for use in various industrial and construction applications

**Main competitors**

**Ceramic Materials**

- Imerys (France)
- Carbo Ceramics (United States)

**Abrasives**

- 3M (United States)
- Noritake (Japan)
- Tyrolit (Austria)

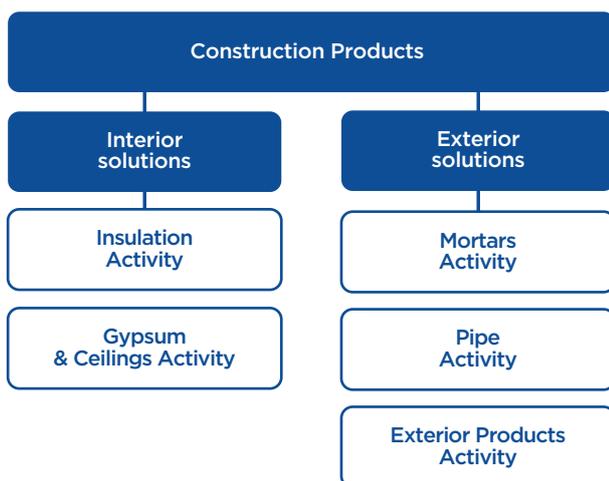
**Performance Plastics**

- 3M (United States)
- Trelleborg (Sweden)

**Saint-Gobain Adfors**

- Johns Manville (United States)
- Phifer (United States)
- Valmiera (Latvia)

## 5.2 Provide customers with the best systems, products and solutions for the construction markets, notably sustainable construction and the supply of water: the Construction Products Sector



**A word from the President**

“The Construction Products Sector is rolling out its growth strategy thanks to the extraordinary commitment of its teams and their in-depth knowledge of local markets in every part of the world. The sector leverages the solid reputation of its brands, the synergies between its different product lines and its leading industry positions in order to ensure the highest level of customer satisfaction. Product and system innovations, marketing initiatives and digital services, excellence in manufacturing and logistics, as well as continued research and development efforts, are key advantages in differentiation and in ensuring attractiveness and competitiveness.” — Benoit Bazin, President, Construction Products Sector

The Construction Products Sector designs and develops innovative solutions to improve the quality of living places and reduce the environmental impact of buildings, with unique product and service offerings for all construction fields, tailored to local conditions. These solutions are intended to improve building energy efficiency and user comfort

– particularly acoustic, thermal, visual and air quality aspects – as well as being environmentally friendly, specifically in accordance with a life cycle analysis of its products.

As the world leader in the interior and exterior home improvement markets with very well-known brands, the sector meets expectations for both user comfort and ease of installation for contractors.

**KEY FIGURES**

- Industrial sites in **62** countries
- Over **47,000** employees
- Around **400** production sites worldwide
- Around **80** patents filed in 2017
- A global network of **8** cross-business, multi-Activity research centers and numerous R&D units and teams for the Activities.
- Competitive positions:
  - No. 1** worldwide <sup>(1)</sup>
    - Plaster and plasterboard
    - Mortars and floor coatings
    - Ductile cast iron pipe
  - No. 2** worldwide
    - Insulation (all types of insulation products)
    - Tile adhesives
  - No. 1** in Europe <sup>(1)</sup>
    - Façade render
  - No. 2** in the United States <sup>(1)</sup>
    - Exterior products

(1) Source: Saint-Gobain.

The Construction Products Sector's aim is to become the reference in sustainable construction and drinking water supply solutions. It relies on its five constituent Activities, which provide systems and bespoke solutions for the interior and exterior home improvement markets.

### 5.2.1 Interior solutions

The interior solutions product line encompasses three main product groups: plaster and plasterboard, acoustic and thermal insulation products, and ceiling solutions. These products and solutions are used in new building and renovation, contributing to everyday wellbeing in healthy, high-performance, comfortable buildings.

The **Gypsum and Ceilings** Activity extracts and processes gypsum into a wide array of plaster products for construction and decoration. These solutions are intended for use in partitions and facings for walls, ceilings and floors. They meet high technical specifications in terms of fire and damp resistance and thermal and acoustic insulation. Easy to install, the products also meet growing customer demand for a comfortable and visually pleasing home environment. The Gypsum and Ceilings Activity offers solutions that comply with the highest technological standards and promote their widespread adoption, and remain a step ahead of new

regulations concerning, for example, the elimination of formaldehyde to improve interior air quality.

The **Insulation** Activity designs, develops and markets products, systems and solutions for thermal and acoustic building insulation as well as for industrial applications. Its line of products made from mineral wool (glass wool and stone wool), polystyrene foam, polyurethane and, most recently, wood fiber, caters for the needs of the residential and commercial building markets. Here, they are used to insulate the building envelope (roofs, walls and floors) in order to reduce energy consumption and improve comfort with insulation from noise pollution. Other needs are also addressed, such as heating and air conditioning system insulation. Finally, some products also afford technical solutions for industrial facilities, the transport sector and various niche industries.

Main brands	Positioning
	Plaster-based solutions for insulation and interior solutions
	Acoustic panel systems, walls and ceilings
	World leader in sustainable insulation solutions for building and technical markets
	Construction Products specifically for North American buildings
	Leader in the UK in PIR insulation solutions for building and the technical markets

### 5.2.2 Exterior solutions

The Construction Products Sector provides a wide range of solutions for exterior improvement, combining performance and architectural improvement. These solutions help to guarantee the sustainable supply of drinking water, and the visual appeal and energy efficiency of buildings, roofs and exterior walls in both new building and renovation.

The **Mortars** Activity is the world leader in its field. It provides a wide range of solutions to protect, insulate and decorate the exterior walls of single-family dwellings and multi-unit housing, commercial and industrial buildings. Its special tiling solutions ensure safety and ease of use. In flooring, its solutions cover various fields of application: new and renovated subfloors, leveling and finishing prior to laying a floor, decoration with the use of self-colored mortars, technical solutions for areas of high footfall, and underfloor heating. A range of technical mortars is available, covering all areas of construction, to help in structural work or rework. The Activity also offers delivery of expanded clay. Lastly, a line of admixtures caters for the growing demand for improved technical properties in concrete for use in construction.

The **Pipe** Activity offers complete solutions leveraging drawing on more than 160 years of experience in the water supply market to meet the highest expectations. It produces and markets ductile cast iron pipe systems for drinking water and sewage systems, steel products for highways and roadways, and wastewater and rainwater drainage systems for buildings. It is also active in the mining, hydroelectric and manufacturing markets.

The **Exterior Products Activity** is active in the North American construction market with a complete range of products specifically for the North American construction market. For roofs, it offers premium asphalt and composite shingles in a wide range of styles and colors. For exterior walls, it provides solutions covering vinyl, polymer shake and insulated siding products in a multitude of materials (PVC, polypropylene, etc.). Easy to maintain, these products are known for combining visual appeal and durability. The Activity also offers complete exterior solutions for single-family and multi-family dwellings, with fencing, decking and railing products in PVC and composite materials.

Main brands	Positioning
	Fixing ceramic tiles, façade solutions, and technical, masonry and flooring mortars
	Full pipe system solutions for water supply and sewage systems
	Construction Products specific to North American buildings



2

#### Main competitors

##### Interior Solutions

- Armstrong (worldwide)
- BNBM (China)
- Boral (Asia)
- Johns Manville (United States)
- Kingspan (worldwide)
- Knauf (worldwide)
- Owens Corning (worldwide)
- Rockwool (worldwide)
- Siniat (Europe, Latin America)
- Technicol (Europe)
- USG (worldwide excluding Europe)

##### Exterior Solutions

- Ardex (worldwide)
- BASF (worldwide)
- Duktus-VonRoll (Germany)
- Electrosteel (India)
- GAF (United States)
- Jindal (India)
- Mapei (worldwide)
- Owens Corning (worldwide)
- Parex (worldwide)
- Ply Gem (United States)
- STO (worldwide)
- XinXing (China)

## 5.3 Be the Reference for customers, suppliers and employees: the Building Distribution Sector

The Building Distribution Sector brings the Group a thorough understanding of customers' needs, be they building professionals, private project owners or large companies. It serves over seven million customers each year on the new building, renovation and home improvement markets.

#### A word from the President

“Our DNA is to be “Customer focus”, for professionals and individuals alike. To do so, digital is a big opportunity to reach all customers in a most efficient way while improving the sector internal efficiency and transforming our relationship with our suppliers. All in all, our permanent search for ensuring even more customer satisfaction will enable us to make further progress towards profitable and sustainable growth for our brands.” — Kåre O. Malo, President, Building Distribution Sector

#### KEY FIGURES

- Sites in **23** countries
- Over **63,000** employees
- Over **4,100** sales outlets
- **Nearly 100 million** visitors/year to its brands' websites
- Serves over **7 million** customers <sup>(1)</sup> each year
- Competitive positions:
  - **No. 1** in Europe <sup>(2)</sup> in Building Distribution
  - A major player <sup>(1)</sup> in the plumbing-heating-sanitary ware market

(1) Source: Saint-Gobain.

(2) In the market for trading in construction materials.

The Building Distribution Sector aims to be the Reference for its customers and suppliers alike. To accomplish this, it has developed a network of strong and complementary brands, generalist, specialist and cross-channel, aimed at trade professionals, the private project owner, and small, medium and large businesses. Each brand is rooted in its local market, positioned so as to cater for the specific needs of that market. It relies on the dynamism, caliber and expertise of its teams.

The sector is building on the development of its cross-channel offer to drive profitable, sustainable growth for its brands, with the aim of providing the same level of service and satisfaction for every type of customer. The sector's strong logistics also mean that it can broaden its range of products and services and continue to improve product availability. It continues to invest in developing its information systems to enhance its internal efficiency and day-to-day productivity. These investments also contribute to improving the customer experience.

***Providing customers with the information necessary for their purchase decision***

The Building Distribution Sector is constantly innovating to give its customers all the information they need. The brands are enhancing the product information available on their websites. New sites have been launched and new digital services have been made available, covering the entire customer journey, from initial inspiration to after-sales. In the United Kingdom, a Digital Hub has been created to provide customers with a "Connected Experience", while helping brands to develop their business using new digital tools. It brings together the expertise of specialists in data analysis, user experience and online advertising.

In traditional sales channels, communication is based on relationships and sales staff providing advice to customers. The sector's brands are enhancing this information *via* digital channels, with online catalogs, video demonstrations, customer testimonials, tutorials on fitting, etc. Showrooms, a source of inspiration for customers and traditionally located in sales outlets, are also becoming mobile, with the introduction of roaming display trucks.

The sector is continuing with the development of services to simplify its customers' journeys, improve their day-to-day efficiency and create productivity gains for them: online appointment bookings with a sales specialist, project simulators, advice from professionals on websites or social media, augmented reality tools, etc.

The brands are also developing the option for their customers to purchase products and services *via* their mobile applications, request construction waste management services, or select a delivery method.

In France, the sector provides an intermediation platform for that puts qualified building professionals and private project owners in touch with one another. Project owners can use it to select the most appropriate tradespeople for their project, while tradespeople can increase their visibility and develop their business.

The sector's increasingly innovative range of services was enhanced this year with the addition of new mobile applications for improving and smoothing the customer journey, even to the point of allowing fast-track payment in

sales outlets. Adapting to modern technology and specific customer needs, the sector now includes drones in its product range and offers 3D printing technology as one of its services.

These multiple interactions provide the brands with an ever more detailed understanding of their customers, whose use of digital technology is increasing. As a result, the sector records nearly 100 million visits per year across all its websites. The data gathered are used to analyze customers' purchasing and browsing behavior, and are used by the brands as a basis for new product and customized service offerings, *via* targeted emails, for example.

***Customer satisfaction at the heart of the sector's strategy***

The sector's brands invest in training for their employees (for example, in the use of digital tools or how products are used) in order to improve their performance, thereby cultivating better support for their customers. They also contribute to increasing the level of professionalism in the building trade through training, with free morning information sessions on new standards and regulations, refresher training leading to qualifications, e-learning to supplement knowledge on energy retrofitting, and self-paced training using practical guides and books.

Many brands have introduced on- and offline tools for measuring customer satisfaction, *via* the Internet, by phone or directly in sales outlets. The results gathered day-to-day enable the brands to develop their product and service lines in real time.

***Segmentation: a response for every customer***

The sector has introduced customized responses for every type of customer. Whether these responses relate to service needs or specific products, the brands develop new concepts and products or invest in new markets. The brands identify needs and take hold of growth levers to diversify their businesses. Thus, some of them provide their customers with specific products and services for roads (guardrails, light poles, etc.). They also supply solutions for the hydroelectric dam market, as well as materials specifically for the marine industry.

Other specialist brands are investing in the prefabricated market, such as bathroom, roofing and structural components.

In anticipation of the major social issue posed by population aging, the sector has a range of products and services devoted more broadly to accessibility for all in living places.

The sector is continuing with the development of shared spaces for several brands, as well as for the logistics centers throughout Europe. It offers a comprehensive, centralized product line to save customers time.

The sector has enhanced its product offering by developing private labels for the sanitaryware-heating, structural work and tooling markets, including four on the international stage. They are positioned as reference brands in each of these product categories, and fulfill strict specifications which guarantee product quality and compliance. The Building Distribution sector also caters for the needs of customers with specific requirements in terms of efficiency and value for money.

### High value-added logistics services

The sector offers diverse logistics services, organizing the routing of materials to increasingly time-pressed, demanding customers in a more fluid, efficient and environmentally friendly way. For example, the Click & Collect system allows customers to collect materials from the nearest sales outlet at short notice.

By pooling their logistics centers, the brands can optimize their stock management and carefully control supply to the different sales outlets, for continuous improvement in terms of product availability. Automation of the centers also means that thousands of order lines can be processed every day,

reducing delivery times to 24 hours, and even just 1 hour in certain major conurbations. The brands are also developing integrated logistics solutions, offering customers end-to-end logistics for a construction or renovation site, from delivery of materials to waste collection.

Overall, the ongoing objective of the Building Distribution Sector is to anticipate and respond to its customers' changing needs, with the aim of simplifying their journey and ensuring their satisfaction. As such, it provides them with increasingly innovative, high value-added products, services and concepts.



### MAIN BRANDS AND SERVICES

Country	Brands and Services	Positioning
FRANCE		Building materials and construction products distributor
		Specialist in plumbing-heating-sanitaryware
		New generation distributor of construction equipment and tools
		Distribution network exclusively reserved for building professionals
		Home improvement specialist (kitchens, bathrooms, joinery) since 1931
		Intermediation website connecting qualified building professionals and individuals with projects
		Online platform connecting individuals, architects and interior decorators
UNITED KINGDOM		A leading supplier of building materials and sustainable timber
		Specialist in plumbing-heating-sanitaryware
		National insulation and dry lining distributor, offering customers a comprehensive range of specialist insulation, plaster board, roofing and ceiling materials
GERMANY		Building materials distributor
		Tiles specialists
		Marketing service for craftsmen: customized websites and advertising materials
NETHERLANDS		Building materials distributor
		Specialist in plumbing-heating-sanitaryware, civil engineering, industry, cooling and property management
		
SWITZERLAND		Specialist in steel, technical insulation and ventilation
		Distributor of bathrooms and kitchens for professionals and individuals
SPAIN		Insulation and interior solutions specialist
		Building materials and construction products distributor
		
		Distribution network exclusively reserved for building professionals
BRAZIL		Sale to professionals and private individuals of home improvement products and services

## BUILDING DISTRIBUTION SECTOR'S INTERNATIONAL PRIVATE LABELS

Country	Private Labels	Market
EUROPE	<b>Altech</b>	Plumbing & Heating
EUROPE AND BRAZIL	<b>Alterna</b>	Sanitaryware
EUROPE	<b>NOVI Pro</b>	Hand tools and power tools, PPEs, building chemicals, jobsite equipment, building hardware.
EUROPE (excluding France)	<b>LJLTI PRO</b>	Heavy building materials, roofing, interior solutions



## Main competitors

- Ferguson (United Kingdom, Switzerland, Netherlands)
- CRH (Netherlands, France, Switzerland, Germany, Belgium)
- BayWa (Germany)
- Travis Perkins (United Kingdom)
- SIG (United Kingdom, France, Germany, Netherlands)
- Grafton (United Kingdom, Belgium, Netherlands)
- Ahlsell (Scandinavia)
- Chausson, Herige, Samse (France)
- Cordes & Graefe (Germany, Poland, Netherlands, Norway)



# Strategic drivers for sustainable growth

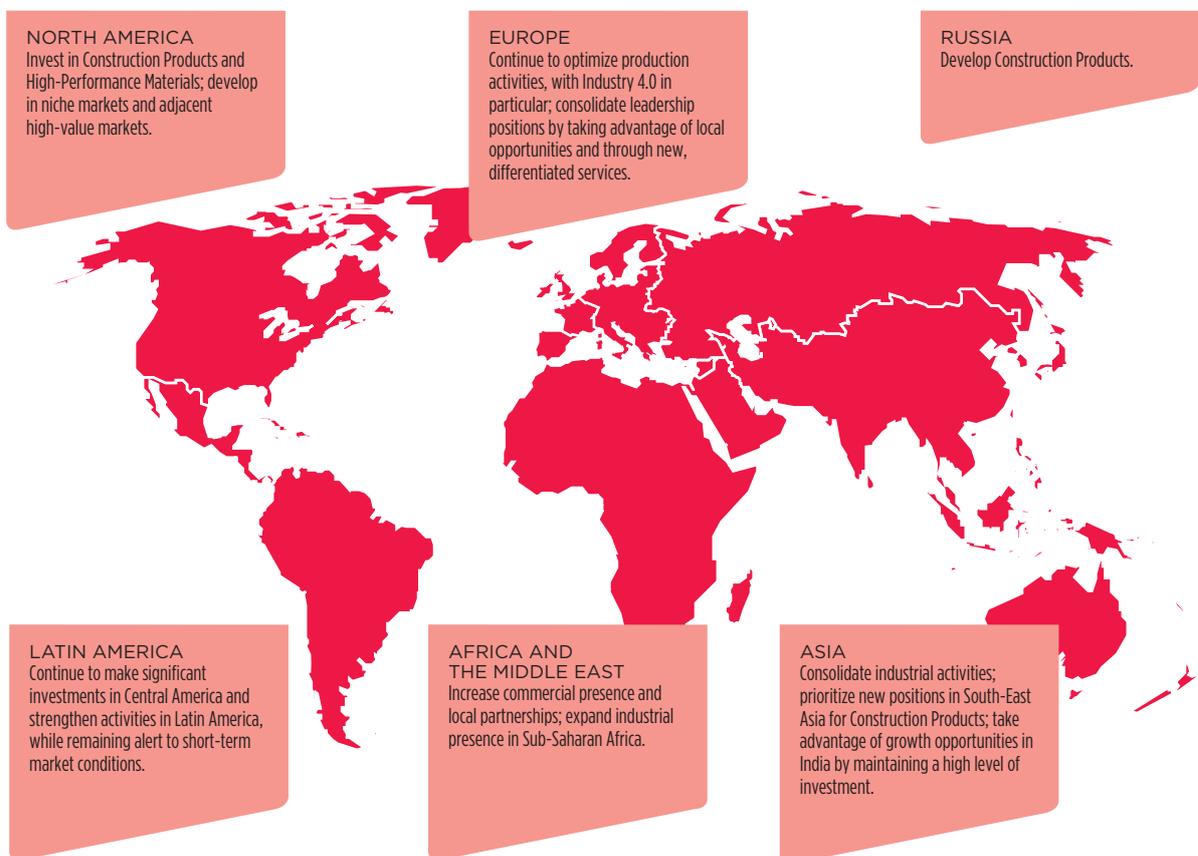
# 3

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# 1. ALLOCATING RESOURCES EFFICIENTLY TO DRIVE GROUP PERFORMANCE

## 1.1 Investment differentiated by geographic region

### KEY POINTS BY GEOGRAPHIC REGION



Although Europe remains one of the largest global markets in terms of GDP, Saint-Gobain's development strategy is aimed at affording the Group a global geographic presence, by increasing its share of the industrial assets of its Innovative Materials and Construction Products Sectors outside Western Europe.

### 1.1.1 Prioritizing investment outside Western Europe

In 2017, Saint-Gobain also strengthened its positioning in emerging countries, notably through the following investments:

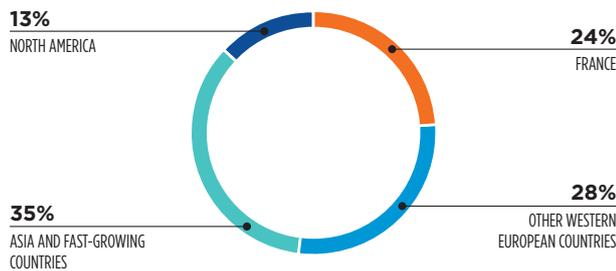
- the Construction Products Sector has started the construction of a new plaster plant in China, and new cement Board lines in Vietnam. The sector also increased the capacity of its plasterboard factory in southern India and its stone wool plant in Poland. Saint-Gobain Weber opened several mortar plants in fast-growing countries, including Vietnam and Indonesia;

- Flat Glass is making significant investments in a new Sekurit plant in Saltillo (Mexico) and in a new coater in Cuautla (Mexico);
- within High Performance Materials, Saint-Gobain Ceramic Materials set out a new grains and powders plant in Paraguay, while Saint-Gobain Abrasives is investing in a new maker in India and Brazil and Saint-Gobain Adfors increases its production capacities in Czech Republic.

The new building market in the United States has remained dynamic and the Group continued to invest there in 2017. For example, CertainTeed is making significant investments in a limestone crushing unit in Jonesburg, Missouri (USA) and in a new generation siding line in Jackson, Michigan (USA). Saint-Gobain is also developing in niche markets and adjacent high value-added markets, which offer significant potential in the US. To this end, in 2017, Saint-Gobain is heavily investing in its Performance Plastics plant sites in Portage, Wisconsin (USA) and San Diego, California, (USA).

In the coming years, the Group intends to pursue its strategy of significant investing in high-growth countries and thereby achieve the critical mass that will afford it real competitive advantage.

**DISTRIBUTION OF INDUSTRIAL ASSETS BY REGION AT DECEMBER 31, 2017**



**Industrial investments (excluding finance lease)**

(in EUR million)

	2017	2016
<b>Innovative Materials</b>	<b>660</b>	<b>573</b>
Flat Glass	468	375
High-Performance Materials	192	198
<b>Construction Products</b>	<b>582</b>	<b>515</b>
Interior Solutions	374	337
Exterior Solutions	208	178
<b>Building Distribution</b>	<b>251</b>	<b>245</b>
<b>Other</b>	<b>45</b>	<b>37</b>
<b>TOTAL OF THE GROUP</b>	<b>1,538</b>	<b>1,370</b>



## 1.2 Active management of the portfolio of activities

There are three complementary strands to the strategy of acquiring small and medium enterprises.

### Make local acquisitions

The Group is continuing its policy of local acquisitions to strengthen its position in those countries where it already has a presence. In that respect, Saint-Gobain has become the largest Building Distribution network in Brazil through the acquisition of Tumelero. Acquisitions in Sweden, France and the United Kingdom have helped the Building Distribution Sector to establish its position in Europe and develop its portfolio of activities; one such acquisition is that of Scotframe, the Scottish market leader in kits for prefabricated houses. The Construction Products Sector is also increasing its presence in Scandinavia with the acquisition of Glava, a major player in insulation in Norway.

### Increasing Group penetration in fast-growing countries through new geographic locations

During the year, the Group invested in companies operating in fast-growth economies. The Construction Products Sector expanded its industrial setup in Southern Africa through the acquisition of Buildezee Adhesives Botswana, the leading local producer in the mortar and tile adhesives market. This acquisition confirms the Group's determination to capitalize on the momentum of Sub-Saharan Africa where it already has a presence in Tanzania and South Africa. Similarly, the acquisition of Tekbond, number two in adhesives in Brazil, reflects the High-Performance Materials Sector's strategy of developing innovative solutions in fast-growing markets.

### Expanding the portfolio of activities

Saint-Gobain acquires companies offering solutions that complement the Group's own and have high growth potential. These acquisitions involve both niche technology companies and companies with innovative business models that take advantage of the move to digital to target end-users. The acquisitions in Germany of adhesive tape manufacturer Biolink and reinforcements specialist Kirson underline the High-Performance Materials Sector's commitment to developing solutions in adjacent markets, to offer its customers a wide range of solutions and take positions today in the markets of the future. To the same end, the Building Distribution Sector acquired start-ups, like Tolteck in France, that offers an ergonomic tool for building trade customers undertaking renovation projects. The software helps them handling quotations and invoicing.

The Group's total acquisitions in 2017 represent full-year consolidated net sales of over €550 million.

Further, Saint-Gobain is continuing its plan to acquire a controlling interest in Sika, a leading construction chemicals company. The plan consists of the acquisition by Saint-Gobain, for 2.83 billion Swiss francs (an amount fully

hedged in euros), of Schenker Winkler Holding AG (SWH) which, at December 31, 2017, held 16.97% of Sika's share capital and 52.92% of its voting rights. After the acquisition, the Saint-Gobain Group will be able to incorporate Sika into its financial statements by global consolidation, with a positive impact on net income from year one.

This plan is fully in line with Saint-Gobain's strategic objectives: improving growth potential, lower capital intensity, presence in fast-growing countries and product differentiation. Given the deal's strong industrial rationale, as a result of complementary technology and products, customer portfolios and markets, this deal will generate synergies from year four following its completion, to be shared between the two groups.

Saint-Gobain intends to pursue Sika's development in a way that is respectful of Sika's business culture, image and roots. Thus, Sika will maintain its integrity while retaining its current headquarters, its brand, and its listing on the Swiss Stock Exchange. Saint-Gobain renews its support to Sika's 2018 strategy and its intent not to undertake any restructuring linked to the transaction within the two years following the completion of the transaction.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions passed by the Annual General Meeting of Sika on April 14, 2015 for which SWH's voting rights had been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by being granted the option to extend the term of the purchase agreement with the Burkard family relating to the disposal of SWH shares. Saint-Gobain exercised its rights, extending the agreement several times, with the most recent extension, in October 2017, taking its term to June 30, 2018. As of this date, Saint-Gobain will once again have the option to extend the term of the agreement until December 31, 2018. These successive extensions of the purchase agreement demonstrate the alignment between the Burkard family and Saint-Gobain and their unwavering determination.

With the support of its Board of Directors, Saint-Gobain is determined to successfully complete its plan to acquire a controlling stake in Sika, an industrial project that will create value for all stakeholders. Pending the decision of the Zug Supreme Court, which is expected early 2018, Saint-Gobain is confident that the Swiss justice system will restore SWH's ownership rights.

Saint-Gobain made disposals in 2017 totaling over €210 million, selling off Vemac in the Building Distribution Sector in Italy and Finglass in the Flat Glass Sector in Finland.

## 2. CONTINUING THE GROUP'S DIGITAL TRANSFORMATION

The digital revolution is bringing about a dramatic change in Saint-Gobain's relations with its stakeholders, as well as in the ways that things are done within the Group. As well as affecting the Sectors, digital technology is transforming the whole Group: not only its interactions with customers, which are being shaped by the explosion in e-commerce, and with suppliers, but also its internal organizational structure, with the advent of Industry 4.0 and the digitization of Human Resources (HR) processes. The increased use of social media

as a tool for internal and external communication is also central to the issues associated with digital technology. However, the entire construction market is also undergoing profound change. Accordingly, Saint-Gobain is refreshing its product and service range to better adapt them to its customers' needs.

2017 provided the opportunity for the Group to continue with and step up its digital transformation, and to take the new opportunities offered.



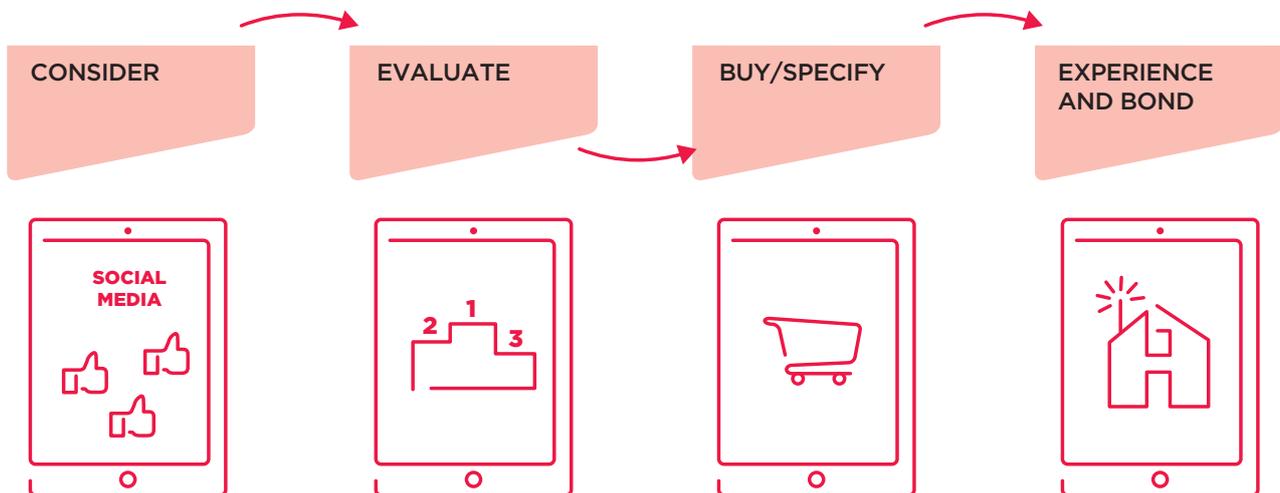
### 2.1 Using digital technology to serve customers

The Group's brands have developed digital strategies to optimize the customer experience and best address and anticipate their customers' expectations.

#### 2.1.1 Being present throughout the customer experience

Digital is transforming customer relationships, affording better interactions with them and improving their experience. Consequently, all Saint-Gobain's Activities are defining and implementing digital roadmaps tailored to their markets. The Activities are developing an in-depth understanding of the customer, by mapping the different stages of their experience.

#### CUSTOMER EXPERIENCES



The Building Distribution brands and trade names are seeking to increase customer engagement by providing appropriate services at every stage of their experience. In France, for instance, POINT.P *Matériaux de Construction* and step by step, all the Distribution Sector brands, are providing its trade customers with a number of innovative services that are unique in the marketplace: Solu+, a worksite configurator to examine and compare solutions including prices evaluations, or Cap Renov+, a simulator that provides the option of immediate energy efficiency evaluation and calculation of the tax incentives for which the end customer may be eligible. Beyond this, there is even assistance for accounting and day-to-day management, following the acquisition of start-up company Tolteck. In parallel, the development of Homly You, launched in 2016, is progressing well, with the aim of becoming the leading site for private individuals looking for a professional for their building work.

The move to digital has also benefited industrial companies which offer their own services to attract, inform, and experiment, and then to sell to and foster loyalty among tradesmen, installers, roofers, façade engineers, specifiers, architects, etc.

- **ATTRACT:** in 2017, Saint-Gobain raised its visibility on the various social networking sites, particularly Facebook, LinkedIn and Twitter. On Facebook in particular, the Group's different activities manage a hundred or so pages with over two million followers, a sharp increase on 2016. In particular, the pages for gypsum in India and for mortars in Latin America have several thousand hundreds followers. They make a significant contribution to traffic on the relevant websites, and therefore to the generation of sales contacts;
- **INFORM AND EXPERIMENT:** digital design and construction are a major trend in the building industry. Driven by the legislative framework in many countries, building professionals are making arrangements to reduce their costs, improve quality and shorten timelines, working collaboratively with a unique digital model that not only embeds the building plans, but also all the information on each of the components, including their properties and performance, enabling previews and forecasts that have not previously been available:

- building performance,
- durability of the building,
- detection of design errors, etc.

The challenge is to significantly reduce the total cost of the building, with improved quality and lower costs throughout the life cycle.

To achieve this, building designers, architects, general contractors, etc., have to download virtual objects containing Saint-Gobain products, to incorporate them into their "BIM" (Building Information Model).

Saint-Gobain has developed a project with strategic impact to create a comprehensive object library and offer a variety of services to building professionals who need them. The initial version has been online since November 2017;

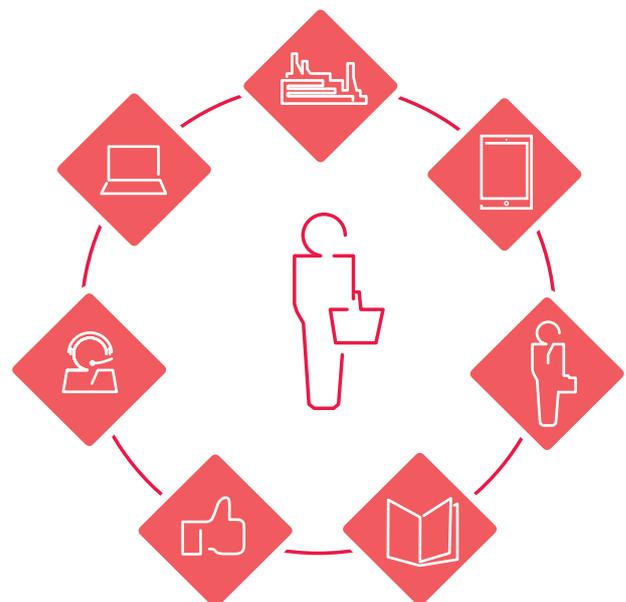
- **SELL AND FOSTER LOYALTY:** in 2017, Abrasives launched an e-shop, a single site for taking orders from its customers around the world. The tool can be used by all distributors to order their abrasives, at their prices and on their terms. It considerably improves the effectiveness of sales departments by allowing teams to focus on prospecting and selling; above all, it provides a smooth customer experience by allowing them to place an order at any time, under any circumstances. Apart from this example, the number of online tools for customer interaction is growing, offering them a host of services from viewing available stock to tracking orders.

The Group has therefore stepped up the development of its digital technology-based products and services. The Group's different Activities are introducing specialist websites, e-commerce or augmented reality applications, marketplaces, training for customers and distributors, cost estimation applications, solutions and services using BIM, etc.: a range of omnichannel solutions to fulfill customers' expectations and improve the quality of their experience, to help them choose the most appropriate products.

## 2.1.2 Structuring the omnichannel approach

The more channels involved in interacting with the customer - websites, social networking pages, emails, forums, online chat, etc. - the more complex the customer's experience. Techniques for targeting and fostering loyalty among a client base are becoming more diverse. Saint-Gobain's omnichannel approach therefore aims to ensure a seamless and consistent customer experience across physical and digital touch points, along the entire customer experience. In a certain number of Activities, the use of a unique and continuous Customer Relationship Management (CRM) tool allows to monitor customers' various interactions with the Group and provide them with flawless service.

### THE OMNICHANNEL APPROACH



All Activities have rolled out digital strategies to differentiate their products and ensure brand visibility. In Distribution, Saint-Gobain is adopting an omnichannel approach to develop e-commerce services, supported by state-of-the-art logistics. The wealth of information available online, real-time inventory checks by customers, the organization of logistics networks, and speed of product delivery are key factors in the success of retail sites.

The aim of all the digital tools developed by the Group's brands is to foster better knowledge of the customer, as well as making the process easier for them and meet for their needs more easily and directly.

### 2.1.3 Analyzing customer data and anticipating customer needs: from Big Data to Smart Data

Customer activity online or in-store generates significant amounts of data. The statistical analysis of these data forms the basis for predictive models that enable a better response to end customer expectations. Once analyzed, the mountain of data – or Big Data – becomes Smart Data, a useful, intelligent data set concerning both the brand and the customer. Tailored services and communication are key to this.

The first challenge in the Smart Data approach is to strengthen relationships with customers, getting to know them better to provide them with a better service. Consequently, the Building Distribution Sector's main e-commerce sites in France and Scandinavia now make systematic use of suggestion-based selling: when a visitor is interested in a product, they are provided with a list of recommendations based on the product combinations seen in shopping baskets. This automatically increases basket values.

In 2017, more highly developed approaches emerged; these are likely to become more widespread in 2018. In this regard,

Saint-Gobain Research data scientists have developed a method for systematic study of the semantics of customer reviews on TripAdvisor. Using this method, hotels and restaurants with poor acoustics can now be identified, allowing the Habitat specification teams to target these establishments and offer them appropriate solutions.

### 2.1.4 Measuring the presence of online activities

By measuring the effectiveness of the digital strategy, a certain number of trends can be highlighted.

For the Building Distribution Sector, the effectiveness of the digital approach is measured by volume of online sales (e-commerce) as well as by sales generated indirectly, through processes that start online and finish in-branch (Web to Store). On this basis, online traffic grew continuously since 2014.

For the Group's manufacturing Activities, the digital strategy is not so much to increase sales as to provide sales support for the Activities, by increasing website traffic and over and above this, the engagement of visitors on the Group's sites. When a visitor downloads a document from a site, and asks a question or tries out the brand, they become a potential identified customer, with whom it is possible to interact.

For all the Activities, industry and distribution, the traffic of Saint-Gobain's main websites increased by 13% in 2017 to achieve a number of connections around 130 million annually.

Social networks allow new ways of communication with customers and brand promotion. Social media presence has become critical both for Saint-Gobain's Activities and for the Group. For its corporate presence alone, Saint-Gobain had nearly 200,000 LinkedIn followers, 16,000 on Twitter and 180,000 on Facebook at the end of 2017. The different Activities have in the region of 300,000 followers on LinkedIn, 270,000 on Twitter and 2 million on Facebook.

## 2.2 Using digital technology to transform HR processes

Digital technology is also changing interactions within the Group. The shift to digital provides an opportunity to redesign and optimize Human Resources (HR) processes relating to new employee recruitment and induction, tools for training and internal mobility.

### 2.2.1 Using new networks to improve recruitment and promote internal mobility

Saint-Gobain is making increasing use of social media and digital technology in its recruitment processes: more use is being made of professional social networking, and Big Data is enabling specific skills to be identified and new talent to be hired.

In 2016, Saint-Gobain launched a worldwide, four-month competition for all the Group's recruitment professionals, in partnership with LinkedIn, with the aim of strengthening digital head-hunting and sharing good in-house practice. Every participant was competing for the highest LinkedIn Recruiter Index. This indicator measures Saint-Gobain's effectiveness in building its employer brand, finding top talent, engaging with candidates and managing the talent pool.

Saint-Gobain also promotes internal mobility and has introduced the OpenJob platform, where all employees are invited to check and apply for job vacancies within the Group. This platform was developed and rolled out in the General Delegations.

### 2.2.2 Using digital technology for employee induction, training and awareness

The Group is also developing new tools to train its employees, both new and existing, in a number of skills. New employees are provided with online training as soon as they arrive at Saint-Gobain, while e-learning and MOOCs on the Boost! Platform are open to all employees. Since 2015, there

has been a particular emphasis on training in the use of digital technology, with e-learning and classroom-based sessions available to all employees.

Digital technology is also playing a role in staff safety. Saint-Gobain Weber's mobile application, WeberKehs, has been rolled out in Brazil, France, Italy, Portugal and Spain and improves employee safety *via* video-assisted system. The tool can be used to identify and evaluate risks in real time and take appropriate corrective decisions. The result of a collaborative effort, the application is aimed at all Saint-Gobain Weber employees.

### 2.2.3 Fostering interaction and data-sharing within the Group

The transition to digital is making it easier for Group employees to interact. Saint-Gobain promotes information and data-sharing in this way by encouraging access to online platforms.

A collaborative company social network, MySaintGobain, was set up in 2011 and has since been developed. The platform makes it easier for employees to exchange information and good practices. They come from all over the world and all Group businesses to look for information, contribute to discussion groups, solve a problem together or share documents and ideas. Employees also use it to share their respective experience within the Group. Each and every day, numerous employees and trainees from purchasing, production engineering, research, finance, marketing and even gender diversity discussion groups interact within their online communities.

The Group Information Systems Department's "Open data for Saint-Gobain" initiative makes ready-to-use data sets, macro-economic indicators from the OECD, and safety indicators available for use by all employees, who can also add to them. An easy-to-use interface open to all users allows data to be retrieved or automatically read into another application.

## 2.3 Using digital technology in our factories to increase operational efficiency

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### 2.3.1 Using digital technology in factories to optimize operations

The way that factories are organized is being transformed by digital technology. Machines are connected in real time and data analysis allows for better control of production processes, more rapid resolution of any technical issues and, more generally, an increase in operational efficiency. Digital technology makes it possible to customize customer solutions further along the value chain and opens up further opportunities for co-development.

The future of industry will also be built on automation and the use of advanced robots for industrial tasks. Collaborative robots and automated trolleys safely perform repetitive tasks. Operators are also assisted by the use of augmented reality, which is particularly effective for maintenance and troubleshooting.

Generally speaking, every Saint-Gobain sector rolls out its technology in stages. For example, the Saint-Gobain Ceramic Materials plant in Mezzocorona (Italy) is rolling out a new data analysis system. Sekurit has invested in new collaborative robots in its factory in Devisa (Spain). The Construction Products Sector is investing in systems for monitoring maintenance.

### 2.3.2 Using digital technology for better supplier interaction

Digital technology is also changing the way we interact with suppliers. Digitizing supplier processes means centralizing and automating the Purchasing Department. Standard tasks have been automated by means of electronic auctions, with the use of online tools. Campaigns to monitor suppliers' e-reputation have also been undertaken, with significant outcomes, to identify potential problems and promote a policy of responsible purchasing.

## 3. SUSTAINABLE DIFFERENTIATION THROUGH INNOVATION AND R&D

### 3.1 Innovation as a pillar of the Group's strategy

Research and Innovation are integral to Saint-Gobain's strategy and key to increasing the share of sales of high value-added products and solutions in the most buoyant sectors.

Differentiation is one of the critical drivers of this strategy which is expressed at all stages of the value chain, from innovation and design of Saint-Gobain's solutions in relation to its customers to the creation of tools and services. It specifically includes an ambitious approach to marketing aimed at better understanding, anticipating and formulating customer needs, supplemented by R&D developments directly involving these customers, to provide tailored solutions.

R&D also contributes to improving industrial manufacturing processes, with regard to competitiveness, capability and environmental performance.

R&D will continue its efforts in the next few years, in particular with regard to investments, to allow the Group to maintain and expand its leadership positions in its Activities and to maintain a high level of performance and operational excellence. In 2017, the Group invested €446 million in research and development, and 3,700 employees worked on nearly 900 research projects, resulting in applications for nearly 400 new patents.

There is continued recognition for Saint-Gobain's approach to innovation. For the seventh year running, Clarivate Analytics ranked Saint-Gobain among its Top 100 Global Innovators.

#### Research and Development costs booked\*

(In EUR million)

2014	395
2015	434
2016	438
2017	446

#### 3.1.1 R&D programs that anticipate the trends of tomorrow

Inventing innovative and high-performance products and solutions to improve construction and everyday life is integral to the Group's strategy. It is a major responsibility and source of motivation for the Saint-Gobain research and development teams.

These teams operate on the basis of individually managed projects. This method of operation allows it to conduct research and development activities with the greatest possible efficiency, assigning the appropriate resources and looking a long way upstream at considerations relating to markets, industrial property, production, respect for health and the environment. This organizational structure also means that Saint-Gobain can ensure a continuous flow of innovations, for market launch at the appropriate time.

The main task of R&D is to provide active and proactive support for the Group's numerous Activities through targeted research projects, yielding developments and innovations involving both processes and products or systems, thus strengthening the competitiveness of its Activities and serving Saint-Gobain's current markets. New projects are initiated each year in every area, while others reach the point of production release or commercial launch.

Its second task is to prepare the Group's future through strategic, cross-functional R&D programs, by anticipating major changes in techniques and markets. These programs, linked to the focus areas for the marketing teams, allow Saint-Gobain to organize skills common to the Group's various Activities and to improve its ability to develop key technologies.

## TRANSVERSAL PROGRAMS



**MATERIAL SCIENCE AND PROCESSES**

- ◆ Physics and chemistry of mineral binders
- ◆ Organic and inorganic foams
- ◆ Adhesives and adhesion
- ◆ Wet coatings
- ◆ Non-destructive evaluation
- ◆ Innovative glass and furnaces



**BUILDING SCIENCE**

- ◆ Acoustics
- ◆ Indoor air quality
- ◆ Energy performance, thermal and visual comfort



**DIGITAL TRANSFORMATION**

- ◆ Additive manufacturing and 3D printing
- ◆ Robotics and automation
- ◆ Connected objects and smart data for our products and services

## STRATEGIC PROGRAM



**IMPROVEMENT OF OUR CO<sub>2</sub> FOOTPRINT**



### 3.1.2 Leveraging internal resources

Group R&D is based on a global network of eight multi-activity, cross-disciplinary research centers and numerous R&D units and teams specific to a single Saint-Gobain Activity.

This networked organization enables it to identify local innovation needs and provide global responses, by drawing on solutions and skills from all of its centers throughout the world.

It helps to speed up the innovation processes that bring together teams from R&D, manufacturing, marketing and sales throughout project durations, ensuring that all the skills that are needed for project success are available.

R&D contributes to the roll-out of the Multi-Comfort program by developing new increasingly efficient solutions, adapted to the local construction methods and focusing on the comfort and experience of occupants. It is supporting the Group in its digital transition, providing strong support for Industry 4.0 and the development of new services and more effective sales strategies.

For several years now, the virtual and augmented reality research teams have contributed their expertise to develop sales support applications. The data science teams have been strengthened to support the Activities with digital marketing and production data analysis.

This support for Group strategy and developments is possible as a result of the prospective development of new skills in the R&D centers in terms of automation, sensors, 3D printing and data science, as well as design and user experience, and sociology and human sciences, to provide better analysis of the impact of these solutions on user behavior.

### 3.1.3 An innovation culture rolled out to the Activities

This innovation culture has been rolled out to all the Group's sectors. As part of its downstream growth in Flat Glass Activities, the Group gives preference to targeted partnerships for joint development projects. Sekurit's differentiation strategy is focused on the development of a number of highly innovative solutions and is aimed at maintaining its position as a preferred partner of automobile manufacturers, helping them to rise to the technology challenges of connected and independent electric vehicles.

In its glass businesses, Saint-Gobain is developing innovative technologies, applying the latest techniques, such as the ECLAZ® range of glazing launched in 2017. This next generation of glass with enhanced insulation for glazing buildings provides improved visual and thermal comfort, while reducing the energy needed for air conditioning and lighting. ECLAZ® is the product of a breakthrough innovation following eight years of in-house research and joint development.

The Group is also accelerating its growth through differentiation in the High-Performance Materials area. Codevelopments in diversified industrial niche markets are yielding superior and long-term profitability. These highly specialized niches include, for example, catalyst substrates for the petrochemicals industry, refractory products for glass furnaces, bearings and customized tolerance rings for the automotive industry, as well as single-use plastics solutions for the biopharmaceuticals industry. In these markets, where Saint-Gobain is a world leader, the High-Performance Materials business model is central to this success: an integrated development strategy, from materials composition and component design to precision manufacturing, affording tailored solutions to cater for specific customer needs.

In 2017, the Construction Products Sector continued its development of R&D projects for wellbeing in buildings by covering a number of areas (acoustic insulation, air quality, visual appeal, environmental sustainability, and recycling) with the aim of providing even easier installation for its trade customers and greater everyday comfort for end users. Its approach to innovation is based on identifying local needs, followed by collaboration between local and worldwide R&D

teams to develop appropriate products and solutions, which may then be rolled out to other geographic areas.

The Building Distribution Sector has relied on the research teams for a number of years for matters to do with optimizing logistics, processing sales data and for developing new digital services. In 2017, these teams were involved in supporting the development of the Homly You intermediation platform.

## 3.2 An open approach to innovation

Saint-Gobain's development strategy and the gradual transformation taking place in the construction markets place the Group in an outward-looking position of attentiveness to its customers' needs. To respond to current needs and anticipate future needs, Saint-Gobain is very open to a culture of partnership and co-development.

### 3.2.1 Attentiveness to customer needs

First and foremost, innovation at Saint-Gobain involves customer attentiveness. Such attentiveness is crucial for:

- understanding their needs and the challenges they face, so as to develop appropriate solutions with them and for them;
- evaluating their level of satisfaction, and the areas where improvements are needed to provide better service, remain competitive, etc.

These two approaches are both separate and complementary.

Various methodologies are used today to better tap into customers' desires and requirements. Over the last few years, the Performance Plastics Activity has been using a methodology based on structured interviews: the new blue printing opportunity. The cross-sectional research centers incorporate industrial designers and sociologists into their teams, which allows these approaches to be adopted.

### 3.2.2 Open innovation

For many years, Saint-Gobain has implemented an External Venturing unit, named NOVA with the objective of create partnership with start-ups. Since its creation, NOVA has already studied 3,400 start-ups and signed more than 80 partnerships.

To accelerate again the process of identification of potential partnerships with the more innovative start-ups, NOVA team has defined a new approach in focusing the evaluations on strategic and transversal topics:

- Multi-Comfort and energy efficiency;
- virtual and augmented reality;
- digital customer journey;
- sensors and connected objects;
- exoskeletons and robotics;

- life sciences;
- advanced materials and processing.

In addition to that approach, the Group has created a partnership arrangement with the world of start-ups. All around the world, notably in Europe, the US, Brazil and China, official partnership agreements were signed with start-up incubators providing the Group's Activities with direct access to start-ups offering innovative services, either to direct clients, or more generally to relevant ecosystems (construction, automotive, civil engineering, healthcare, etc.).

This open innovation program also provides the opportunity to share the Group's missions and issues with an audience of entrepreneurs and future professionals. Business challenges were organized to further refine this approach, taking the form of competitions involving start-ups and/or teams of students looking at a well-defined market issue.

Partnerships with start-up incubators, and business challenges, are set to become more prevalent in the Group's main countries over the next few years.

#### *The Saint-Gobain Business Challenge*

Launched in 2016, this competition takes place in four countries and is expected to be extended in 2018. It involves inviting start-ups (and, in some countries, students) to find solutions, especially digital solutions, to a situation that is problematic for the Group's customers. The theme for France in 2017 was "How can we support building professionals in their renovation work?" Fifty-six start-up teams and 115 teams of students from 91 business, engineering and software engineering schools took part in this second edition.

In the USA, Saint-Gobain thus extended its partnership up to 2019 with Greentown Labs, the largest start-up incubator on the continent specializing in clean technologies. In Brazil, Saint-Gobain has formed part of the Cubo Coworking incubator of the Brazilian bank Itaú since 2016 and is increasing partnerships with an ecosystem of more than 400 start-ups. In China, Saint-Gobain inaugurated its Open Innovation Projects Incubator in 2017, situated on the premises of the Shanghai Innovation Park.

Saint-Gobain has also pursued its policy of developing innovation through SUN, its international network of universities. These long-term academic collaborations provide it with access to the most recent scientific progress in the fields of interest to the Group and to a breeding ground of young talent.

In 2017, Saint-Gobain signed a collaboration agreement in particular with Shanghai Jiao Tong-Antai University as well as a strategic five-year partnership agreement with *Université Technologique de Compiègne* (France) which will lead to research into predictive maintenance, and the application of Big Data to the optimization of processes, autonomous vehicles and flat glass of the future. The Group also renewed the Chair with the ESPCI (*École Supérieure de Physique*

*Chimie Industrielle*, Paris) in “Physics and Chemistry of Innovating Materials”.

Lastly, the Group encourages intrapreneurship amongst employees through an initiative known as Saint-Gobain Intrapreneurs. Employees with a project that is viable for the Group can focus on developing it for a period of 18 months, to enhance agility and performance.

## 4. DEVELOPING AND ADDING VALUE TO THE SAINT-GOBAIN BRAND

### 4.1 The challenges of a strong brand

Given the wide range of areas in which its products and solutions are used, Saint-Gobain serves a very large number of markets and customers. The customers who deal directly with the Group (most often assemblers, manufacturers and trade professionals) are not always those who recommend its solutions (architects and consultancy firms) or who have experience of using them (housing owners or tenants, automobile drivers, and consumers in the broadest sense).

Today, the voice of the end customer is being heard more strongly: better informed, more involved in purchasing decisions, they may have a decisive influence, including on the choice of materials. The boundary between professionals and private individuals is being blurred, with private individuals now becoming key stakeholders in the construction and renovation market. The Group therefore has to deal with a broader range of customer contacts than previously.

Today, Saint-Gobain is seeking to build closer relations with the users of its products, such as building occupants, automobile drivers, and public transport users. By embedding end customer expectations in its value proposition, and factoring in the change in the ways that information is provided and decisions are made, Saint-Gobain is positioning itself firmly as a B to C to B (Business to Customer to Business) brand.

Saint-Gobain has long relied on its decentralized organizational structure, its brands recognition and the strength of its activities throughout the world to drive its development. These attributes provide it with a detailed insight into its customers' needs in all markets. For the Group to be directly relevant to the general public, though, it needs to have a strong brand to rely on. In the digital age, where potential end customers can find information on and compare ranges and products, branding is a key factor for sustainable differentiation.

### 4.2 A growing reputation

The Group measures the impact of the Saint-Gobain brand with its target audiences every three years. In 2017, awareness of the brand among all construction players had significantly improved once again compared with the previous survey in 2014 (an improvement in awareness of eight percentage points); today, the Saint-Gobain brand, or one of the Group's brands, are amongst the top three brands mentioned spontaneously in five countries: France, India, the USA, Germany and the United Kingdom.

The 2017 evaluation also shows that the Group's image has improved significantly: 51% of respondents have a positive image of Saint-Gobain (*versus* 38% in 2014), and 60% recognize the Group as a leader in sustainable construction (*versus* 44%).

Lastly, for the first time, a survey of the general public was conducted in parallel – which is consistent with the aim of

making Saint-Gobain a brand for end consumers – in the four countries where the Distribution Sector has the largest presence. Saint-Gobain is a well-known name in France (more than 80% of respondents said they had heard of Saint-Gobain), but much less so in Germany, the United Kingdom and Sweden (where brand awareness is between 20% and 30%). It is, however, substantially higher than that of the Group's main competitors, whose brands are unknown outside of professional circles.

In 2017, Saint-Gobain launched a mainstream advertising campaign in the form of a film and press advertisements on the theme of "living together". This campaign illustrates the brand's contribution to well-being by featuring the materials and solutions that provide thermal, acoustic and visual comfort, durability and improved air quality, in everyday life.

### 4.3 The Saint-Gobain employer brand

The assurance of a strong brand reflects positively on all the Group's subsidiaries and trade names. It also benefits Saint-Gobain's image as an employer and job creator, making the Group more visible and more attractive to potential applicants.

As an employer, Saint-Gobain also has a duty to lead by example, and corporate social responsibility is embedded in its strategy. Its employees are gearing up for greater transparency of operation, and more collaborative ways of

working that encourage openness and entrepreneurial spirit. Strengthening the brand and renewing its content helps to give meaning and value to the work done by every employee.

In 2017, Saint-Gobain unveiled a new employer brand platform around the statement "Invent Yourself, Reshape the World." This supports Saint-Gobain's local recruitment and promotion initiatives as an employer.



## An efficient and responsible Group

# 4

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# 1. REFERENCE POLICIES

## 1.1 The compliance culture

The compliance culture that drives the Group is developed through its values, formalized in 2003 in the Principles of Conduct and Action (see Chapter 1, Section 2.1).

This compliance culture has been supported by a full program since 2009 which strengthens the effective application of the Principles of Conduct and Action and the resulting obligations, in all the Group's Activities and worldwide.

Compliance is an ongoing obligation that applies to all employees. As regularly noted by the Group's General Management, the principle of zero tolerance is observed. At all hierarchical levels, it becomes obvious for committed managers.

### Teams in charge at all Group levels

The compliance program is monitored by the Board of Directors of Compagnie de Saint-Gobain. Its implementation is based on a compliance network, coordinated by the General Secretary and composed of more than 100 functional operating managers who are members of Compliance Committees within the Group and the General Delegations.

- the Group's Compliance committee is composed of the Chief Operating Officer, the Corporate Secretary, the four Senior Vice Presidents in charge of the Sectors, the Senior Vice President in charge of Internal Audit and Internal Control, the Chief Financial Officer and the Chief Compliance Officer. The committee meets twice a year and monitors the follow-up on completed actions, validates the subjects to reinforce and the action plans to come.
- 35 Compliance Correspondents operate both in countries and in Sectors in order to disseminate the policy of implementation of the programs, to manage the operational teams and to control and report results. In particular, they are trusted to answer operational questions and to advise their teams.
- Compliance committees are set up in each of the 14 General Delegations in the same way that for the Group's committee.

At operational level, the dissemination of the compliance culture and values is supported by:

- the General Management, which engages in the communication and reminders of compliance rules, both internally and externally;
- the Responsible Development Department, which promotes the Principles of Conduct and Action among all employees;
- the Compliance Department within the Legal Department, which draws up and implements the programs associated

with specific themes such as conflicts of interest, the Embargo policy or the action plans relative to the professional associations policy;

- the managers, who are trained regularly and who are responsible to endorse and implement them;
- the Internal Audit and Control Department (see Chapter 7, Section 2), which verifies the effective application thereof.

### A comprehensive set of tools that deploy the compliance program

Regularly enriched since its launch, the compliance program is today focused on the following main subjects:

- compliance with the rules on anti-trust law: as part of the Competition Law Plan established in 2009, various actions are implemented, such as training measures (online and in-person), conduction of audits, provision of practical guides and newsletters but also of dedicated teams for all operational questions on the subject;
- prevention of corruption: a program of measures and good practices is managed and implemented in the Group's subsidiaries in order to prevent the risk specifically connected with international commercial transactions, passive and active corruption in relations with public officials and the private sector. It is composed of training tools (online and in-person), internal policies (gifts, conflicts of interest, intermediaries, HR, etc.) and is monitored by the compliance network;
- compliance with economic sanctions and with embargos for which screening tools, training (online and in-person) and specific policies are applied. An active monitoring of changes is also carried out in close association with specialist external lawyers.

This results in a well-established and well-structured compliance culture. Supported by the Group's General Management and passed on to all levels by the managers and the compliance network, it is constantly developing based on topical subjects.

Various tools are used to implement the Group's compliance program:

- a dedicated Intranet, known as "Compliance", where key messages are passed on and tools are made available to all Group employees;
- several e-learning modules, that must be undertaken by all managers, and various on-site trainings are provided by the Corporate Secretary, the Vice President of Competition and Legal Affairs, the Vice President of Responsible Development and the Compliance Correspondents.

- internal policies that are disseminated throughout the organization by the Compliance network;
  - internal audits, based on compliance questionnaires that are filled out each year by all the entities, and external audits, carried out by specialized lawyers;
  - a compliance alerts system, allowing employees to report any non-compliance with the applicable laws, the Group's internal rules and procedures and the Principles of Conduct and Action. All reports are examined and, if necessary, investigated. When they are found to be justified, appropriate measures are taken.
- a video address from the Group Chairman and Chief Executive Officer and the Corporate Secretary entitled "Compliance, a matter of performance for Saint-Gobain" was broadcasted to all employees throughout the world;
  - each of the Group's Sectors and General Delegations got involved and organized events to illustrate compliance in operation and engage employees through fun activities relating to their working day (exhibitions of Saint-Gobain products that could have a dual use, interactive games, various quizzes, video competitions, etc.)
  - a practical guide on anti-corruption measures was translated into several languages and disseminated (Act for your Business).

Supporting the compliance culture within the Group involves calling upon many participants both centrally and locally. To that end, the Group regularly organizes events in order to mobilize its employees. In 2017, the Group held its first World Compliance Day, when:

Finally, the Group has also strengthened its partnership with charity Transparency International. For every Group employee who completes at least one episode of the optional section of the "Act" training course, the "Business Act Game", Saint-Gobain donates €1 to Transparency International.

## 1.2 Respect for Human rights

The first two principles of the Global Compact, which Saint-Gobain joined in 2003 (see Chapter 1, Section 2.2.1), invite businesses to "promote and respect the protection of internationally proclaimed human rights within their sphere of influence" (principle 1) and to "make sure that their own companies are not complicit in human rights abuses" (principle 2).

In 2008, Pierre-André de Chalendar, Chairman and CEO of Saint-Gobain, signed the statement of support for human rights by company leaders on the occasion of the 60<sup>th</sup> anniversary of the Universal Declaration of Human Rights. Saint-Gobain's values, formalized by the Principles of Conduct and Action, are an essential means of mobilization for human rights owing to their reference to international conventions, particularly the International Charter for Human Rights and the applicable conventions of the International Labor Organization.

More specifically, the Principles of Conduct and Action (Respect for employees' rights) state that "the Group Companies [...] must refrain from any form of recourse to forced labor, to compulsory labor or to child labor, either directly or indirectly or through subcontractors when the latter are working on a Group site", such concepts having to be taken within the meaning of the applicable Conventions of the International Labor Organization. "They shall not apply any discrimination whatsoever *vis-à-vis* their employees, on recruitment, during execution or on termination of their contract of employment".

The Group companies shall verify the age of their employees by performing additional verifications, as needed, in cooperation with the local authority.

Similarly, for child labor, the Group companies shall ensure that they are not involved in forced or compulsory labor in

any way, particularly through dialog with the personnel representation entities, in an effort to detect any violations.

Since 2014, the Group has increased the collection of information on discrimination. The systems for collecting complaints have been improved to favor the expression of employees' concerns. The clarification of internal definitions has made it possible to facilitate the handling and monitoring of information. Companies now declare any incidents of discrimination leading to a complaint or otherwise, in the course of judgment or finally judged and characterized as such. Every incident declared is examined and dealt with in the companies concerned.

Specific reporting has been introduced to measure the results of the actions undertaken to promote the respect for fundamental human rights and to demonstrate to operational managers the Group's determination to ensure that its fundamental values are applied and respected. This measure is extended to Saint-Gobain suppliers by the observance of its Responsible Purchasing policy. This policy specifically incorporates respect for human rights such as the fight against forced labor and child labor. The specific measures taken by the Group to ensure this are set out in Chapter 4, Section 2.2.

Within the scope of its due diligence on human rights, the Group strives to identify and manage the potential risks connected with its activities by integrating its supply chain. Consequently, the Group has implemented a procedure for detecting specific risks based on the countries that it interacts with; either directly by its activities or by the presence of its suppliers. The risk assessments incorporate the Group's perception and that of the relevant stakeholders. This procedure is based on the United Nations' recommendations, in particular the guiding principles on business and human rights.

An evaluation questionnaire, inspired by the Human Rights Compliance Assessment (HRCA) of the Danish Institute for Human Rights, has been developed and is supplemented by a direct questioning of the General Delegations or the Activities concerned for specific risks identified. These particular

monitoring points may relate to employment practices, the impact on local communities or management of the logistics chain.

Depending on residual risks, action plans will specify supplementary measures for risk management.

## 1.3 Environmental, Health and Safety policy

The Environmental, Health and Safety (EHS) policy was defined by the Chairman and CEO of Saint-Gobain in a commitment letter of undertaking updated in 2017. It is an extension of the code of ethical conduct: the Group's Principles of Conduct and Action. It places the environment, health and safety on the same level of requirement and establishes the following as long-term objectives: zero work-related accidents, zero occupational illnesses, zero environmental accidents and minimum impact of the Group's activities on the environment. These objectives are recalled in the Group's EHS Charter, available in 30 languages and displayed on all sites.

To support policy implementation, the EHS Guidelines available to the sites cover all EHS management system requirements as well as risk identification, action plans to be implemented, and monitoring and evaluation in order to ensure compliance and performance.

It describes the approach for identifying and managing environmental risks as well as risks relating to the health and safety of employees and on-site subcontractors. In particular, the Guidelines describe the EHS management system that is to be implemented and set out a methodology for identifying, reducing and controlling risks that meet the requirements of the ISO 14001 and OHSAS 18001 international norms. Alongside the Guidelines, a health and safety risk assessment standard has been developed and circulated in 2014. A self-assessment questionnaire allows the tracking of its effective implementation. As a result, each site defines an EHS mapping and action plan under the responsibility of the Director of the relevant site.

The EHS Guidelines are based on the principle of continuous improvement. At all sites where the World Class Manufacturing program for operational excellence is in place (see Chapter 4, Section 2.1), the EHS policy is incorporated by the site into the "environment and risk prevention" and "health and safety" pillars.

Implementation of the EHS policy is based on a network of correspondents distributed throughout the Group within the

Sectors, General Delegations and sites, reproducing the Saint-Gobain matrix organization coordinated by a central management.

Saint-Gobain EHS Management draws up and circulates framework policies that have to be implemented by the Sectors and General Delegations, worldwide. These policies are supplemented by Saint-Gobain "standards" and "recommendations", which are technical documents that describe the minimum requirements that the sites have to observe whatever the country and the local legislation. The themes for the policies, standards and recommendations are identified based on the recurrence or severity of the risks identified by the sites.

The EHS Guidelines include assessment and oversight of the policy. The matrix of EHS risks and risk controls is also included in the internal control guidelines (see Chapter 7, Section 2.2.4). Audits on compliance of the EHS management system are conducted by the EHS Department and external certification measures complete the system for oversight of EHS policy. This way in 2017, 52 audits "12 steps" and 121 audits "20 steps" were carried out to evaluate industrial activities and 121 audits specific to the distribution activities were realized.

In 2018, the EHS Reference Frame will be updated according to the new international norm ISO 14001: 2015 and the future ISO 45001. A new version of the internal EHS audit consistent with the new EHS Reference Frame will be launched.

When an acquisition is made, the process of integrating the new entity into the Group includes a specific procedure for EHS policy implementation.

Lastly, the EHS training matrix, which defines the training to be provided based on the job held, is a particularly relevant tool to define employees' EHS training paths. A skills matrix is also available. The availability of adapted training, in the local language, falls under the responsibility of the General Delegations.

## 1.4 A Human Resources policy that reflects the Group's values

Building on its history and its rich social dialogue, Saint-Gobain's Human Resources (HR) policy ensures the provision of an environment that is conducive to professional and personal development for every employee and that balances job-related performance with employees' well-being.

This policy is based on compulsory buy-in from all employees for the values that Saint-Gobain expresses in its code of ethical conduct: the Principles of Conduct and Action.

Over the last few years, the Group has experienced profound change, including the shift from a product-oriented rationale to a market-oriented rationale, creating a spirit of openness within Saint-Gobain: outward-looking openness to be attentive to the world around it and provide responses to customers' needs and openness within the business, to foster dialogue, innovation, team- and project-based working and the potential for differentiation.

Social, economic and technological changes make it necessary to rethink managerial practices and the functioning of the Group.

In December 2016, Saint-Gobain announced five "Saint-Gobain Attitudes" to all its employees:

- cultivate customer intimacy: take a "solution-oriented" approach to understanding, anticipating and meeting the needs of external and internal customers;
- act like an entrepreneur: focus on performance and results, being open to new ideas and able to adapt to change;
- innovate: demonstrate curiosity, promote and value diversity to foster the generation of fresh ideas;
- be agile: be proactive and anticipate change, including change related to digital technology, while maintaining a focus on results;
- build an open and engaging culture: exercise considerate leadership in today's volatile, uncertain and complex world.

These five Saint-Gobain Attitudes are relevant to all employees and reflect the Group's heritage and its ambition to create great living places and improve everyday life.

The Attitudes are both an approach to management and a state of mind. They reflect a mentality that binds all Group employees: move forward and win in a fast-paced, ever-changing world.

Employees in management roles are also guided by four specific commitments in addition to the Saint-Gobain Attitudes:

- act in accordance with the Group's ethics and values as expressed in the Principles of Conduct and Action;
- look after your team and each of your employees;
- say what you do and do what you say;
- refrain from any complacency.

The Saint-Gobain Attitudes have been gradually embedded in the Group's HR tools and procedures such as the managerial guidelines, annual appraisals and 360° feedback, induction programs for new arrivals, training, especially management training, talent management, etc. In parallel, they have been rolled out at local level to all employees *via* the General Delegations.

Communication tools have been rolled out to ensure that employees take ownership of the Saint-Gobain Attitudes. These include a series of videos on each of the Attitudes, an e-learning course that is available on the Boost training platform and tools to support managers.

Lastly, Saint-Gobain submits its human resources practices to the Top Employers Institute each year. The Group is one of 13 companies to have gained global recognition for the third year running.

Some General Delegations also responded to the evaluation for their region; as a result, Saint-Gobain has Top Employers recognition in 31 countries.

## 2. OPERATIONAL EXCELLENCE POLICIES

### 2.1 Industrial Excellence with the WCM program

The operational excellence of an industrial site is characterized for the Group by:

- the identification of global best performance;
- the systematic eradication of losses that deviate from this global performance;
- the maintenance and improvement of a high level of performance over time by creating solid foundations and ensuring operator involvement;
- preventive control of machines and working conditions (5S and Autonomous Maintenance);
- the involvement of all employees on site.

In 2007, Saint-Gobain deployed the World Class Manufacturing (WCM) program, an integrated management system designed to improve business performance by seeking industrial excellence in accordance with world standards.

Its ambition is for each Group industrial sites to be exemplary, both through health and safety, attentiveness to customers and customer service, the quality of the products it supplies, and its economic and environmental performance. Performance is measured by quantitative indicators but also by satisfaction assessments of the stakeholders involved, customers and employees in priority.

Because operational excellence can only be obtained with the involvement of all employees and by developing a culture of change, Saint-Gobain has chosen to place people at the heart of this process.

WCM Saint-Gobain is therefore a program specifically adapted to the Group culture, associating the standardization of methods, tools and good practices with an essential modularity to adapt to a wide variety of industrial processes. It is based on pillars that cover performance improvement methods such as Lean, Six Sigma and TPM (Total Productive Maintenance) or 5S.

#### 2.1.1 The pillars of the WCM

Each pillar of the WCM represents a center of excellence on which the organization will draw and organize itself to reduce losses as much as possible. The WCM methods are applied in the same way for each of the pillars under the responsibility and leadership of the manager and the subject-matter expert, working in a cross-functional way and involving the entire organization.

Consequently, the WCM program incorporates and supports the policies implemented by the Group such as the Health and Safety policy or the environmental policy by becoming an operating lever for achieving the Group's objectives in the short-, medium- and long-term.



The WCM program ensures the strict implementation of internal and external standards in each of the pillars and foundations, including certification measures such as standard ISO 9001 for quality, ISO 14001 and 50001 for the environment and OHSAS 18001 for health and safety or internal standards such as the OPEN program or the Saint-Gobain Attitudes for the development of persons, or the GAP guidelines for the prevention of risks.

The WCM program therefore delivers a substantial reduction in production costs at the same time as a significant reduction in health/safety, environmental and industrial risks. The Quality, Industrial Performance and Environment pillars contribute significantly towards reducing the Group's environmental footprint by reducing waste generated in production and water consumption and by optimizing energy efficiency. In addition, it has also been possible to avoid many production investment costs or environmental taxes.

Thanks to the Customer Orientation & Service pillar, significant reductions in stocks of raw materials, semi-finished and end products lead to a significant reduction in the requirement for working capital both in terms of value and in number of stock days, while improving customer service and customer satisfaction as the priority objective.

## 2.1.2 The WCM path of an industrial site

Achieving industrial excellence is a demanding measure that requires gradual implementation, pillar by pillar, with methodology and constancy. The benefits in terms of competitiveness, improvement of customer service and employee commitment can be measured at each stage of the site path.

Tools and methods are therefore made available to the sites to construct their own roadmap and to define their stages of application. Training programs are applied, in advance for managers and as projects are implemented for each site employee.

More than 5,800 managers are trained today in the WCM program and 60% of employees of the industrial sites are involved in the application of this program.

The site preparation stage is essential. It may take one to three months depending on the sites and allows for a team to be formed and brought together around the program, priorities to be identified based on the identification of losses and an initial pilot project to be defined.

The implementation of the pilot project constitutes the second stage of the program. This period of 6 to 9 months is a stage of application of training, of training programs deployment and the application of the methods on site from management to the operators. The WCM is then applied pillar by pillar.

Regular audits make it possible to assess the maturity of the program by site and acknowledge major milestones in the implementation of the program:

- first audit: the site has finalized the pilot stage and started the deployment;
- the “Bronze” level is confirmed at the end of the learning process;
- the “Silver” level is reached when 80% of the site’s critical processes are covered by the WCM program and are delivering a high level of performance;
- lastly, on achieving the “Gold” level, the site has incorporated the WCM methods, Digital and Industry 4.0, is delivering stable, world-class performance and is independent to continue its progress.

## 2.1.3 From continuous improvement to industrial excellence

Today, more than 740 industrial sites in more than 47 countries have initiated this program. They represent more than 80% of the industrial sites of the Group and around 90% of the sales of the industrial Sectors.

Almost half of the sites included in the process have been audited and already more than 18% have reached the Bronze level. Of those sites with more than 80 employees, more than one-third have achieved this level. 25 sites have signed off on a Silver level of excellence. The journey to the Gold level is underway.

The appropriation of this culture of operational excellence common to the Group allows for greater efficiency in the exchange of good practices, and more opportunities for career mobility among the Group’s various Activities, particularly for some technical experts.

Initiated in 2014, the World Class Supply Chain program supports Saint-Gobain in achieving operational excellence by extending the WCM for optimization of the value chain of an Activity covering several sites in a region or a sector of global activity. This program is already producing very substantial results with roll-outs executed in Performance Plastics Activities, Saint-Gobain Glass and Saint-Gobain Sekurit, mainly in Europe and in South America, where the program has been extended to all the Group’s activities.

Beyond the economic gains expected from inventory optimization, logistics and capital employed, the World Class Supply Chain is above all a customer service excellence differentiation program with a target response time and delivery period adapted to the market need. Moreover, the Net Promoter Score, a tool for measuring customer satisfaction (see Chapter 3, Section 4.1.2) forms part of the performance indicators monitored in the program.

Thanks to the WCM program and its extension to the supply chain, Saint-Gobain is continuing its effort to achieve industrial excellence, on all its sites throughout the world. This change of culture and management system provides a higher level of customer service, competitiveness and efficiency in a better health and safety environment for the Group’s employees and partners. It also favors people commitment and employee mobility. It is an essential prerequisite to ensure the digital transformation of the factories (see Chapter 3, Section 2.3). The WCM program is accelerating the introduction of the Saint-Gobain sites to Industry 4.0, with the digitization of the WCM processes and the provision of digital applications for production and maintenance operators.

## 2.2 Purchasing, a competitive challenge

Purchasing is a key factor in the Group's competitiveness and its organization is adapted to the specific features of its activities to ensure its efficiency and risks relating to the supply chain. With a global annual amount of some €29 billion for more than 250,000 active suppliers, Purchasing meets the needs of the Group's industrial and distribution activities.

### 2.2.1 A rigorous organization, a measure of efficiency

The Purchasing Department is divided into non-trade purchases and trade purchases in order to best adapt to the specific nature of the Group's activities.

Although the Purchasing functions are based on common policies and a common base, they do not participate at the same level in the Group's value chain:

- non-trade purchases are upstream of the production stage and all logistic aspects;
- trade purchases are downstream of the production stage.

Consequently, the organizations, strategies and objectives are differentiated.

Beyond the specific features connected with its activities, Saint-Gobain recognizes the major role of the Purchasing Department with regard to competitiveness and innovation. Concerned about its performance, the Group wishes to optimize the purchases of its Activities and strengthen the contribution made by the Purchasing Department in order to meet its economic objectives.

To that end, the Group has endeavored to develop the professionalism of its purchasers through training activities. A training path is open to all Group purchasers within the scope of the Purchasing School. More specific training intended for trade purchasers supplements this program. This training, which is particularly important for newcomers in the Purchasing Department, provides them with tools that enable them, and their teams, to achieve behavioral excellence in their daily activities.

### 2.2.2 Responsible Purchasing policy

The same is true for the Group's Responsible Purchasing policy, the purpose of which is to control and reduce the environmental, social and societal risks to its supply chain. It is built on two pillars, the Purchasers Charter and the Suppliers Charter. It comprises three stages:

- mapping the CSR risks; including human rights, anti-corruption, and environment, health and safety risks;
- evaluating the CSR performance of suppliers to classify the risks;
- building progress plans in conjunction with suppliers.

This general framework is adapted by the operational teams based on the specific features of the trade and non-trade purchases and incorporates the strategy for the development of medium- to long-term partnerships with suppliers.

Following this process, the methodology to map CSR risks was reviewed in 2016, in a coordinated way. Risks connected to the country of origin and risks connected to the purchase categories are integrated. The risk on human rights, in particular the fight against the forced labor and the child labor and those connected to bribery are specifically evaluated. The risks of purchasing categories integrate environmental performance in particular carbon and water footprints and health and safety. The mapping evaluation is based on international and recognized sources. It allows for the identification and evaluation of risks connected to suppliers and thus determines priorities for action and engages a constructive dialogue for improvement.

#### a) Non-trade responsible purchasing

This CSR risk analysis deployed in the non-trade purchasing allow the identification of suppliers "at risk". Depending on the level of risks identified, the supplier answers a questionnaire based on documentation verified and evaluated by a third party and, depending on the results; a social audit on site is organized. The entire approach forms part of a constant dialogue with the supplier and leads to the establishment of action plans and CSR performance improvement plans.

The Responsible Purchasing policy is applied to non-trade suppliers via the R-Net online platform, a private website entirely dedicated to the subject of responsible purchasing. Suppliers have access to R-Net to acknowledge receipt of the Saint-Gobain Suppliers Charter, to send essential supporting documents electronically (wood certificates, quality certificates, ISO standards), to answer self-assessment questionnaires, to obtain all information on Saint-Gobain's responsible purchasing guidelines and to access details of their CSR evaluations or, where appropriate, the social audits.

For the period 2017-2021, the Group has set the objective to assess the CSR performance of almost all suppliers deemed to comprise a CSR risk and achieving annual consolidated net sales of more than €100,000 with the Group. With regard to social audits, the objective is to conduct around 40 to 50 audits a year, mainly in emerging countries. These audits may lead to de-listings if the corrective plans necessary are not implemented within the agreed periods.

The Department of Non-Trade Purchasing initiated in 2016 a program to audit on site the suppliers identified at risk by the Group purchasing managers. The program is deployed in priority in emerging countries (Brazil, China, India). The objective is to propose an alternative to the CSR risk evaluation tools already in place in order to favor suppliers' commitment.

The Responsible Purchasing policy also integrates a continuous training program of purchasing managers on the Principles of Conduct and Action, with a specific attention to anti-bribery, work conditions of suppliers' employees, forced labor or child labor. A constant information on the sustainable development stakes are also communicated.

In 2017, the Department of Non-Trade Purchasing issued a "Best Practices" brochure for all purchasers, to remind them of the CSR best practices to be built into the whole of the purchasing process. This document incorporates the recommendations of the new ISO 20400 Sustainable Procurement standard.

### **b) Trade Responsible Purchasing**

The Group's Responsible Purchasing policy applies to trade purchasing within the Building Distribution Sector according to the same principle of risk assessment, identification and mitigation.

It is initially disseminated at the level of distribution category managers, whose role is to express customer's needs in terms of products and solutions, to then select the best suppliers meeting these needs in the best possible way. Finally, they have to ensure the availability of these products and solutions in the Sector's distribution network.

In order to do this, the first stage of internal stakeholder buy-in involves training and communication. Category managers are trained in Responsible Purchasing before signing the Purchasers Charter. They thus undertake to observe the principles of integrity, professionalism, spirit of service, confidentiality and competition law and to disseminate the Responsible Purchasing policy among their suppliers. In addition, a specific e-learning module was launched in late 2017 in order to reach a larger number of purchasers while taking a pragmatic approach. A community of internal players in the field provides a forum for discussion of the challenges of sustainable development and purchasing.

The partner suppliers, who are signatories to the Suppliers Charter, commit to scrupulously monitor the requirements of responsible development with regard to the environment, social policy, legality and compliance of the products and manufacturing processes with the national and international standards and rules. They also undertake, within the scope of the Sector's "Responsible Together" program, to complete a self-assessment questionnaire every two years and to provide the documents that demonstrate their buy-in for the principles of the Suppliers Charter.

At the same time, the Building Distribution Sector conducts factory audits on selected suppliers whose aim is to assess in particular their management system and the environmental, social and legal aspects of the production activities and to examine their production capacities in terms of volume and quality. These audits also relate to the supply chain upstream.

Following an audit, the supplier receives a report as well as recommendations on compliance with an expected effective date or paths for improvement.

Starting from 2018, the Building Distribution Sector will be part of the Group's supplier audit program in order to undertake additional audits of certain suppliers, identified on the basis of the new risk mapping.

## **2.2.3 Purchases based on the competitiveness factor**

### **a) Non-trade Purchases**

Non-trade purchases are divided into five overall families: production purchases, investment purchases, transport purchases (on sales and on supplies), energy purchases and general purchases (general expenses, non-production services, etc.).

The high number of non-trade suppliers reflects the great diversity of Saint-Gobain's activities.

The non-trade purchases rely on a community of more than 640 professional purchasers, trained in purchasing practices based on the various categories of purchases and positioned within the various levels of the Saint-Gobain organization: Group, General Delegations, Activities, countries, companies and sites.

This collaborative and professional community of purchasers operates at the service of the Group's operations and is recognized as a key factor of the Group's competitiveness and innovation. A specific leadership program has been developed, World Class Purchasing (WCP), in order to strengthen the industry and improve the contribution made by the Purchasing Department to Saint-Gobain's performance, particularly in the field of responsible purchasing.

### **b) Trade Purchases**

Trade purchases are purchases of products made by the brands and entities of the Building Distribution Sector with a view to meeting and serving customer requirements throughout their path.

The Building Distribution supplier portfolio comprises 26,000 suppliers from more than 50 countries distributed over 15 markets, reflecting the various markets of customers of the Building Distribution Sector brands. An annual segmentation of purchases makes it possible to identify the "Strategic Partner" suppliers with whom a strong international partnership is built year after year; the "National Strategic" suppliers on whom the Sector brands rely nationally; and the "Niche" suppliers who contribute particular products that are essential for the product mix of a region.

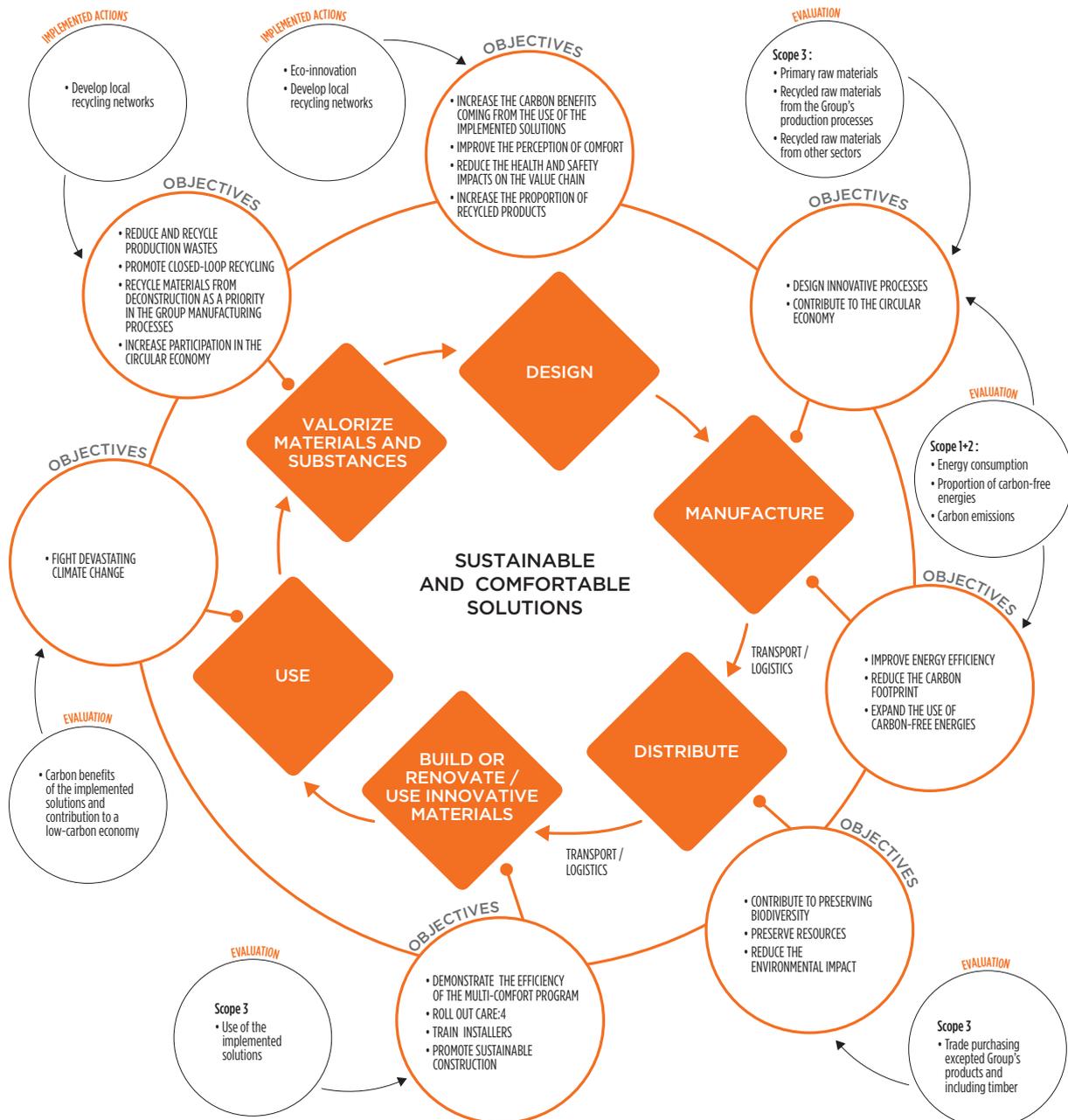
This segmentation constitutes stage 1 of a process of concentrating trade purchases among a certain number of loyal, innovating partners capable of anchoring their activities over time while respecting the environment, offering quality products at a competitive price, supporting brands in sales and advice, providing an effective logistic network and being profitable. This measure results in the approval of the best suppliers selected to provide the best products at the best price with the best service to satisfy customers. Optimization of the supplier portfolio is a priority objective which, following the approval, is reflected in personalized support for partners thanks to the annual Partnership Analysis. Every year, all the Business Units of the Building Distribution Sector evaluate the partners with whom they are working. Feedback to partners takes the form of a report covering the seven assessment criteria: trade, marketing, logistics, purchases, teams, CSR and digital strategy. A report is then drawn up, including the data collected from all the countries in which the Building Distribution Sector and the partner have joint activities,

allowing the approved supplier to measure and understand how he is positioned within the markets in which he is active. An action plan is drawn up jointly in order to improve the quality of the partnership.

The Category Managers form a community of more than 800 employees. They are responsible for the management of one or more supplier portfolios. This community is guided by means of coordination between the units and the Sector International meetings by market categories are organized in order to define common action plans with partners. The 150 representatives of this community meet once a year at the time of the Global Purchasing Committee meeting which provides the opportunity to take stock of the development of the markets, to present the development of the division and to exchange good practices. Finally, sector meetings and progress reports from the entities make it possible to strengthen the community and promote good practices throughout the year.

## 2.3 An environmental policy incorporating the challenges of sustainable development

### ENVIRONMENTAL IMPACTS OF THE GROUP'S ACTIVITIES ON THE VALUE CHAIN



Saint-Gobain's environmental approach is to ensure the sustainable development of its Activities, while controlling the environmental impact of its processes, products and services over their entire life cycle. The Group thus wishes to ensure the preservation of the environment, to meet the expectations of the stakeholders involved and to offer its

customers the greatest value added for a minimum environmental impact.

The Group has set two long-term objectives: zero environmental accidents and maximum reduction of the impact of its activities on the environment.

These objectives are conveyed by means of short- and medium-term objectives which concern the five main environmental challenges identified by the Group: resources; energy, atmospheric emissions and climate; water; biodiversity and the use of soil; environmental accidents and nuisances.

The methodology of the WCM Environment pillar makes it possible to identify environmental aspects and differences and to reduce and control them (see Chapter 4, Section 2.1).

### 2.3.1 Sustainable management of resources: transitioning towards the circular economy

Faced with a decline in raw materials, the sustainable management of resources makes it possible to ensure the competitiveness and continuity of the Group's activities by securing supplies and anticipating changes in legislation and the depletion of natural resources. The treatment and recovery of waste is also a major challenge for Saint-Gobain (see Chapter 4, Section 2.3, diagram of environmental impacts of the Group's activities on the value chain).

Developed in 2015, the Sustainable Management of Resources policy<sup>(1)</sup> aims to reduce the impact of the use of resources and their responsible management to favor the transition to a circular economy. Through cross-business actions and synergies between industry and distribution, Saint-Gobain undertakes to provide innovating solutions for the sustainable management of resources during the lifecycle of its products, throughout the entire value chain.

The short- and medium-term objectives were defined for the application of this policy, with a view to the implementation thereof by all General Delegations, Activities and Group functions, observing local regulations. In particular, each Activity and each General Delegation have to draw up a roadmap by the end of 2019 to develop the circular economy with three priorities:

- have a maximum recycled content in its products;
- generate a minimum amount of production waste;
- recover the waste originating from these processes either internally or externally.

#### a) Industrial processes promoting the incorporation of recycled materials

Some of the Group's products are indefinitely suitable for closed-loop recycling within their industrial process, as is the case for flat glass and plasterboard.

Working with the General Delegations of the countries where it is present, the Gypsum Activity is progressively implementing services for the recovery of plasterboard offcuts. These services currently exist in a quarter of the countries where the Activity is present. These offcuts are reprocessed and folded back into the industrial process in place of natural gypsum. Today, 14 countries throughout the world use plaster waste from the sites in the manufacture of their plasterboard. More than 265,000 tons of waste

plasterboard from the sites were recovered and recycled in this way throughout the world, representing the equivalent of the annual output of two medium-sized factories.

The challenge for the Activity is to increase the quantity of site waste that is recovered whilst ensuring effective sorting to obtain recyclable material of suitable quality to replace the virgin material with a substantial benefit in terms of biodiversity.

The Flat Glass Activity has optimized its logistics to promote the recovery of cullet<sup>(2)</sup> across the entire value chain where the Group is present and especially between glass processing sites (manufacturing windshields or windows, for example) and glass furnaces. In addition to this, systems for recovering windshields or windows are being promoted in the countries where glass furnaces are capable of melting the post-consumer cullet collected.

Other Group products can already tolerate the replacement of virgin raw materials with recycled materials from other consumption circuits: glass wool and cast iron pipe.

Insulation Sector sites already include cullet in their composition, and this has been the case for many years. In 2017, external cullet accounted for 41% of the total materials used in the furnaces, with a total of almost 600,000 tons collected and used throughout the world.

Similarly, the Pipe Activity uses a "second fusion" process which is carried out by fusing scrap and recovery cast iron. The annual quantities depend on their availability on the market.

#### b) A decentralized organizational structure that is particularly conducive to the transition to the circular economy

The Group's decentralized organizational structure based on General Delegations enables it to seize local partnership opportunities.

In France, Saint-Gobain is strongly involved in the AFEP work group on the circular economy. The Group has also contributed to the work groups of "les assises de l'économie circulaire".

Still in France, Saint-Gobain has joined for gypsum and glass the "Commitment to Green Growth" programs set up by the authorities *via* the professional associations that it is a member of.

In April 2016, Placoplatre signed the commitment for green growth relating to the recycling of plaster waste. This innovative approach is part of a process of collaboration between the public authorities, the "Syndicat National des Industries du Plâtre" and reference players from the plaster sector. With nearly 50,000 tons of plaster collected and recycled yearly by Placorecycling<sup>®</sup>, the recycled internal and external plaster scrap content of Placo plasterboard is now close to 10% on average.

The Commitment to Green Growth for flat glass signed by the trade associations in 2017 could lead to the collection and sorting of 80,000 tons of cullet per year in 2025 for the whole of the subsidiary in France.

(1) Saint-Gobain's Sustainable Management of Resources policy is available on request from the Group's EHS Department.

(2) Broken glass coming from manufacturing waste or from the selective collection of waste and recycled content

Saint-Gobain Building Distribution France has had a structure in place since January 1, 2017 to take back waste from the same types of construction materials, products and equipment, which are sold to professionals, thereby becoming the first private network of collection points for waste from construction and civil engineering sites. The network thus created also offers a solution for voluntary selling points that are not concerned by this regulatory requirement.

On the international level, Saint-Gobain joined at the end of 2017 the Factor 10 program of the World Business Council for Sustainable Development relative to the circular economy.

Under the sustainable resource policy, by 2019, the General Delegations will all have introduced specific circular economy roadmaps to coordinate initiatives from the Activities at local level and create synergies to step up the collection of site waste in particular and its recycling as part of the Group's industrial processes or those of its partners.

### c) Minimize the quantities of production waste and non-recovered waste

The priority waste management actions initially relate to a reduction in the quantities of production waste generated. They then relate to the recovery of production waste internally, followed by the promotion of external recovery industries (reuse, recycling or, failing that, recovery of energy by incineration) for production waste that cannot be recovered internally. Waste is landfilled as a last resort, if no other solution is possible.

Progress in the reduction of production waste achieved on certain Group sites shows that "zero non-recovered waste" is an achievable ambition. The Group is also developing the recovery of waste among Activities, so that one's waste becomes the other's raw materials. Some work groups to promote the cooperation between Activities are organized. The Group is also involved in the creation of recycling networks with the help of external local partners.

In connection with the Health policy and in compliance with the local regulations, the management of dangerous waste is closely monitored to protect the health of employees, residents, customers and users of its products and services.

## 2.3.2 Climate change

The challenge of climate change is one of the Group's strategic challenges. Given its markets and its strategic focus on sustainable construction, this challenge presents both risks and opportunities.

The Strategy and CSR Committee of the Board of Directors regularly tracks the implementation of short-, medium- and long-term programs. Leadership for this challenge is provided directly by the Vice President of Sustainable Development, who is a member of the Group's Liaison Committee; this covers risks and opportunities.

Saint-Gobain's objective is to continue to increase the benefits associated with the use of its products and solutions while reducing the carbon impact of its Activities. The Group's strategy is thereby embedding a transition to a low-carbon economy through control of risk and the development of new market opportunities.

The Group responds to market opportunities associated with the challenge of climate change through its sustainable construction strategy (see Chapter 2, Section 2).

Risk management involves four major actions:

- a cross-business R&D program, "Improving our CO<sub>2</sub> footprint": to coordinate and expand research and development efforts devoted to improving manufacturing processes with a view to reducing their greenhouse gas emissions;
- an internal carbon price: to speed up the Group's transition to low-carbon technologies. It allows for the assessment of the current or potential impact of a regulatory carbon price on the Group's activities, identification of opportunities for growth in low-carbon sectors, refocusing investments in manufacturing and R&D, and ranking actions to reduce CO<sub>2</sub> emissions. Saint-Gobain has set two internal carbon price levels. The first is fixed at €30 per ton and applies to industrial investments above a certain threshold, investments associated with a change in energy source, energy investments on an existing or greenfield site with a total annual energy consumption of less than 10 GWh. The second carbon price level of €100 per ton is used for R&D investment in breakthrough technology. This price level is of demonstrable value in supporting low-carbon R&D projects in particular;
- an Energy, Atmospheric Emissions and Climate Change policy: to reduce the energy consumption and the greenhouse gas emissions of its industrial processes, its infrastructures and its transport on all of its sites;
- an assessment of the risks associated with climate change and its consequences at Group level.

The Group's direct CO<sub>2</sub> emissions (scope 1) are mostly connected with its industrial activities. These CO<sub>2</sub> emissions result from the combustion of fossil fuels and chemical reactions used in the manufacturing processes (e.g. the decarbonization of carbonates in the glass fusion processes). The Group's indirect CO<sub>2</sub> emissions (scope 2) are essentially connected with its electricity purchases.

The use of recycled raw materials in processes makes it possible to reduce energy consumption, particularly for glass fusion. In the case of flat glass, energy consumption is reduced by 3% when the percentage of cullet is increased from 20% to 30% of raw materials. This reduction in energy consumption is accompanied by a reduction in CO<sub>2</sub> emissions (scope 1). The efforts made to transition to a circular economy (see Chapter 4, Section 2.3.2) will therefore have a positive effect on emissions.

Since 2003, the Group's commitment to energy efficiency and the fall in its CO<sub>2</sub> emissions has led it to participate in the CDP Climate Change, which aims to encourage businesses to prepare a detailed report on the risks and opportunities of climate change and provide transparent disclosure of the results. In 2016 and 2017, Saint-Gobain was awarded a score of A- in the CDP Climate Change questionnaire.

### a) A policy that applies throughout the organization, including at site level

To coordinate measures to reduce energy consumption and CO<sub>2</sub> emissions (scopes 1 and 2), Energy Climate managers have been appointed in the most energy-intensive activities. They are tasked with analyzing performance gaps relative to the best performers for subsequent improvement, as well as with sharing good practices to be replicated across all sites.

Depending on the Activity to which it belongs, each site defines progress objectives and procedures for monitoring the management of energy, atmospheric emissions, climate change and associated risks. These objectives take into account comparisons made on processes between different sites involved in the same Activity.

The deployment of the World Class Manufacturing (WCM) program (see Chapter 4, Section 2.1) to all of the Group's industrial sites is another driver for progress.

Energy efficiency is an essential factor in the environmental and financial performance of Saint-Gobain's sites which also enables the reduction of greenhouse gas emissions. The Group is encouraging energy audits on its sites and is setting up a system for energy management drawing on ISO 50001 certification. At the end of 2017, 90 sites in the relevant scope were certified to ISO 50001, compared with 85 a year earlier. In addition, the Insulation Activity has launched a process of energy audits with the aim of improving the insulation of the Group's production facilities.

Saint-Gobain places all its sites in a phase of continuous improvement. In this respect, they aim to identify and evaluate the Best Techniques and Practices Available (MTD) and then progressively upgrade them at an economically acceptable cost, in accordance with the Group's environmental vision. An MTD deployment plan is defined, updated annually and included in the three-year strategic plan.

For example, in the renovation of the flat glass float in Aniche, France, the industrial machinery was fully modernized at a cost of €30 million. Compared with the old facility, the resulting reduction in energy consumption is in the region of 20%; for CO<sub>2</sub> emissions, it is 38%.

### b) Promoting the use of low-carbon energy

More than three-quarters of the Group's total energy consumption is directly linked to the use of fossil energies.

The ability of industrial processes to move from using fossil fuels to low-carbon energy solutions, electricity (where this is low-carbon), biogas, or even hydrogen, is therefore crucial.

The Group's industrial processes can be grouped into two categories:

- Processes that are technically suited to the use of electrical power alone. For these processes, the transition is facilitated by the development of local renewable electricity networks and the growing share of low-carbon electricity in national grids. This is the case for glass wool, for example;

- Processes for which the adaptation to the use of electrical energy is technically more complex. This involves a dual approach to innovation, focusing on the expansion of low-carbon forms of energy and the development of processes for easier use of electricity.

In order to reduce the CO<sub>2</sub> emissions connected with electricity purchases (scope 2), several General Delegations and Activities have undertaken a voluntary measure to obtain electricity supplies from renewable sources. On its sites, Saint-Gobain is also developing projects using new energies (wind power, biomass, biogas, solar power, etc.). These developments may be made in association with external partners.

The cross-functional R&D program, "Improvement in our CO<sub>2</sub> footprint", also includes an energy component: recovery of lost energy and research into the use of new, low-carbon forms of energy (such as biogas or hydrogen).

### c) Towards achieving a 2°C scenario

No methodology has yet been published for setting emissions reduction targets for the construction industry. This item of data is essential for Saint-Gobain to position its contribution and its impacts, both positive and negative, on a 2°C trajectory.

This is why Saint-Gobain has mobilized and committed as part of the Global Alliance for Building and Construction, in tandem with other players in the construction value chain (see Chapter 1, Commitments), and the support of "We Mean Business" and the CDP. This approach should allow for the definition of an approach to a low-carbon trajectory for the construction market.

In parallel, Saint-Gobain has continued to evaluate the CO<sub>2</sub> emissions of the entire value chain of its Activities and has identified the main categories forming scope 3 of the Group's industrial activities:

- purchases of raw materials;
- transport and logistics;
- energy excluding scopes 1 and 2;
- use of products sold.

The impact of business travel and home-to-work travel is lower than that of the categories identified above, *i.e.* less than 5% of the total emissions (scopes 1, 2 and 3).

The first evaluations of the scope 3 have estimated soda ash and cement are the two main sources of scope 3 emissions of the Group's purchases.

With regard to the use of products sold, the approach adopted by Saint-Gobain involves two points of view:

- impact: the scope 3 emissions resulting from the use of products sold have been evaluated. For example, for automobile windows, Saint-Gobain Sekurit is continuing to progress in its measures to lighten windows and incorporate external cullet in the composition of the glass in order to reduce vehicle CO<sub>2</sub> emissions;

- benefits: the innovating solutions developed by the Group to improve the energy efficiency of buildings make it possible both to reduce the negative impact of construction on the climate and to reduce the users' energy bill. In order to highlight this contribution, in 2015 Saint-Gobain developed a methodology, in partnership with EY, that made it possible to estimate the greenhouse gas emissions avoided thanks to the insulation sold in Europe by the Group (see Chapter 4, Section 4.2). This calculation, which was updated at global level in 2017, helped to confirm the orders of magnitude established previously, namely that once they have been in use for an average of three months, the Saint-Gobain Group's insulation solutions offset the emissions linked to the whole of their life cycle.

In the next stage, the Group will extend the scope 3 evaluation while estimating the reliability of the methodology and the data for each category, in particular the most significant categories of trade purchases in terms of carbon impact.

#### **d) Manage the risks connected with climate change**

The Group has identified its main risks connected with climate change in order to be able to manage them.

The modification to the water systems and, in particular, the development of water stress areas, which give rise to production risks and penalize local populations, are incorporated into the Water Management policy (see Chapter 4, Section 2.3.3). Through its signature of the CEO Water Mandate, Saint-Gobain forms part of the Alliance of Businesses for Water and Climate Change. This Alliance encourages signatories to measure their water footprint and to reduce their impact.

The Group deals with increased risks of loss due to climate change (flooding, rainfall or storm) within the scope of its industrial and distribution risks prevention policy. This takes into account the increase in extreme climate events, which specifically lead both to damage that may be caused to the facilities or stock and to interruptions in production or supplies. The degree of exposure and vulnerability of the sites to natural events is updated regularly together with the action plan with a view to improving their level of prevention and protection.

#### **e) Limit other atmospheric emissions**

Saint-Gobain has undertaken an active measure to control its atmospheric emissions other than greenhouse gases. The energy and climate managers coordinate this measure within their Activities.

When the primary measures are not sufficiently effective, dust emissions are controlled by investments in electrostatic precipitators or bag filters, depending on the type of industrial facility. This equipment also makes it possible to filter the heavy metals resulting from impurities contained in certain raw materials.

Some Saint-Gobain factories, mainly the glass furnaces and the Pipe Activity sites, emit substances that participate in the acidification of the environment such as sulfur dioxide (SO<sub>2</sub>) or the formation of nitrogen oxides (NO<sub>x</sub>).

The primary measures introduced to reduce sulfur dioxide emissions include the reduction in energy consumption and the use of fuels with a low sulfur content.

Primary measures to optimize processes, particularly combustion, make it possible to reduce NO<sub>x</sub> emissions at source.

In addition to these primary measures, equipment for the secondary treatment of sulfur dioxide and nitrogen oxides is also installed.

### **2.3.3 Water management**

Saint-Gobain's Water policy, which was adopted in 2011, followed the signature in 2009 of the CEO Water Mandate by Pierre-André de Chalendar. It confirms the desire to reduce the quantitative and qualitative impact of Saint-Gobain's activities on water resources as much as possible, both on withdrawals and on discharges.

The long-term objective is to withdraw as little water as possible and to aim for "zero discharge" of industrial water in liquid form, while avoiding generating new impacts for other natural environments and/or for other parties involved.

Particular attention is paid to limiting the Group's withdrawals in water stress areas and in not competing for access to drinking water with the local populations. To this end, the list of priority sites within the framework of the Water policy is not only based on the importance of water withdrawals as it was previously, but also on the concept of water stress. In this regard, Saint-Gobain uses the World Resources Institute's "Aqueduct" atlas of the world, which allows each of the sites to classify its water risk from "low" to "extremely high". This atlas is based not only on qualitative and quantitative physical risks (such as water stress or flood risk), but also on stakeholder risk (like access to water).

In 2017, some 60 Group sites withdrawing more than 5,000 m<sup>3</sup> of water each year and representing around 15% of the Group's water withdrawals were located in high-risk or very high-risk areas. Two sites are in very high-risk areas, one in India and the other in South Africa.

To support the application of its Water policy on the industrial sites, Saint-Gobain has defined a Water standard that describes the minimum requirements that the sites must observe in future. It makes it possible to structure the improvement of the performance of sites in water management and the prevention of risks of water constraints, pollution and flooding. Its application aims to reduce the risks connected with water and the quantities of water withdrawn and of liquid water discharged, to favor the least sensitive sources of withdrawal and discharges, to control the quality of the water and to prevent accidental pollution.

Saint-Gobain regularly evaluates the level of exposure of all its industrial sites to the water risk. The Water standard is applied as a priority on the sites with the highest water risks.

The Group's commitment to water preservation has led it to participate in the CDP Water Disclosure since 2012, which aims to encourage businesses to report in detail on the risks and opportunities concerning water management and to report results transparently.

### 2.3.4 Biodiversity and soil use

Saint-Gobain is committed in particular to those sites with a marked impact or to areas with remarkable biodiversity. Based on its experience in quarries, the Group today has significant internal expertise on the subject. It is now a question of grasping every aspect of the subject. Saint-Gobain has set itself the ambition of preserving, restoring, increasing and enhancing biodiversity, ensuring the sustainable and fair use thereof and managing to involve all parties concerned.

A mapping study of all the sites was conducted in 2016 using geographical tools to evaluate their sensitivity to the ecosystems based on their proximity to areas of high biodiversity value. The protected areas considered are areas recognized by the UICN or more locally defined as Natura 2000, RAMSAR areas or other national areas. As such, of more than 6,000 sites (quarries, factories or selling points), 79 have been identified as being within a protected area and will be priority sites for the management of biodiversity.

Out of the 160 underground or open quarries operated by the Group throughout the world, the vast majority belong to the Gypsum Activity (131, *i.e.* 81.9%), which has drawn up a charter for biodiversity in its quarries. The Group's quarries are operated and then restored with the aim of preserving the environment in accordance with the local rules. During the operating and restoration period, the effects on residents and on the environment are reduced as far as possible: visual impact, dust, noise and vibration, consequences to road traffic and repercussions on the local natural environments.

### 2.3.5 Environmental accidents and nuisances

In 2012, Saint-Gobain launched the standard for managing environmental events and feedback "EvE" (*Événement Environnemental*). The environmental events mainly include accidental discharge into the atmosphere, into the water and onto the soil and events connected with waste, nuisances (smells, noise, etc.) and non-compliance with the regulations in relation to the Group's environmental management system.

The standard also defines criteria for evaluating the severity of an event from three aspects: environmental, regulatory and reputational. The severity of the event is equal to the highest of the three types of severity thus evaluated. The event is declared "major" if it is a major environmental accident whose severity is greater than or equal to 3, on a scale of 0 to 5. The initial stage of application of the standard aims to list all environmental events and to examine their main causes. The second stage aims to reduce the number of these events.

Within the scope of the standard:

- "Environmental event" means an accidental event giving rise to or that may give rise to an environmental impact or an environmental non-compliance, whatever the level of severity;

- "Environmental impact" is defined as any negative change in the environment resulting from the establishment's activities, products or services. Environmental impact resulting from the normal operation of the establishment and/or observing the limits authorized by the establishment's operating permit is excluded.

In 2017, one "major" event occurred in our factory in Tarsus, Turkey. It involved a spillage of untreated industrial water into the river during a thunderstorm. A preventive action plan is in progress.

Thanks to this standard incorporated into the training program, the Group has a common methodology for ensuring that all its sites progress towards the zero environmental accidents objective. Saint-Gobain is thus developing for the environment the same type of feedback tools as those used for safety.

The number of sites that declare events is monitored by the Group's Executive Committee, in the same way that for safety indicators.

### 2.3.6 Consequences of the Group's activities on climate change

Climate change represents a challenge but also an opportunity for Saint-Gobain. Its effects are having an influence on numerous ecosystems throughout the world whose consequences could impact the Group's operations. Present in 67 countries, Saint-Gobain operates in regions with different exposure to climate change. The Group evaluates, controls and aims to reduce the vulnerability of its operations to the consequences of climate change throughout the value chain.

Saint-Gobain's climate strategy is at the heart of its businesses: to design, produce and supply materials and solutions designed for comfort, performance and safety while preserving the environment. This strategy aims to:

- ensure a sustainable management of resources to limit the environmental and financial impact thereof on the value chain;
- reduce discharges and direct and indirect emissions from production activities. The long-term "zero environmental accident" objectives and the maximum reduction in the environmental impact of the Group's activities call upon all the divisions and define the scope of actions. Saint-Gobain has set itself internal objectives for 2025 vs 2010 for the reduction in greenhouse gas emissions, energy consumption, water and waste resulting from such operations;
- improve energy efficiency and reduce greenhouse gas emissions during the use of products and services. Saint-Gobain offers solutions making it possible to optimize energy efficiency in new construction, renovation and industry, thus reducing greenhouse gas emissions. A significant part of the Saint-Gobain product portfolio consists of solutions that provide environmental benefits on use;

- prevent the risks connected with disruptive climate events that may test the continuity of activities;
- manage the risks connected with climate change over all the Group's operations and its value chain.

Finally, considering that climate change is a challenge to the Group, the reduction of CO<sub>2</sub> emissions is a performance criterion integrated into the long-term remuneration plans (see Chapter 6, Section 2.4)

## 3. A GROUP THAT IS COMMITTED TO THE PROFESSIONAL GROWTH OF ITS EMPLOYEES

### 3.1 The Health and Safety policy

Health and safety are central values at Saint-Gobain in the management of its industrial, distribution and research activities. They stem from a strong desire of the company, strengthened by the commitment of employees.

This measure affects all the Group's businesses and endeavors to place safety at the heart of the corporate culture. Safety is a value held by all management grades and by all employees. The objective is that everyone participates in his own safety and in that of all of his colleagues.

With regard to health, in 2013, Saint-Gobain adopted a Health policy that falls within the framework of the continuity of actions already undertaken by the Group. It establishes the guidelines of its action for protecting the health of its employees, its customers and users of its products, as well as for residents adjacent to its sites. All the Group's sites throughout the world have to implement it, in accordance with their local regulations and in addition to the health and industrial hygiene standards and tools already in place.

Employees' safety, in the same way as health, is a priority at all times for the Group with a single acceptable objective: zero work-related accidents. Saint-Gobain aims to ensure for all persons on its sites, including temporary workers and subcontractors, safe conditions and a safe working environment, beyond the requirements of the applicable local legislation and thanks to the identification, reduction and control of risk.

EHS training represents a significant commitment by the Group. The EHS training and competency matrices describe the EHS competencies required for each function.

The requirements of the Health and Safety management system to be implemented across all Group sites are described in the EHS guidelines. Internal EHS audits are arranged by the General Delegations and conducted at intervals of three to five years. In addition, some sites are certified to international standards. As such, the number of sites certified for health and safety (OHSAS 18001 - ILO-OSH 2001) was 378 at December 31, 2017 compared with 365 in 2016, at constant scope.

The World Class Manufacturing operational excellence program (see Chapter 4, Section 2.1) helps to strengthen the requirements of the Health and Safety management system in the industrial entities, by providing a methodology that aims to improve risk identification, reduction and control for the most critical risks, while increasing employee participation on the ground and ensuring that the improvements made are sustainable.

So as to anticipate and prevent risks upstream, during each stage of a research and development projects, the EHS Check-list endeavors to identify and characterize the potential risk throughout product life cycles. Specific training integrated into the training path of R&D project leaders makes it possible to disseminate information and to share good practices on the implementation of the Check-list.

Saint-Gobain rewards its sites, companies, activities, Sectors or General Delegations each year for the development and implementation of noteworthy initiatives and projects or for their significant progress in the area of Health, Safety or Environment. In 2017, for the 27<sup>th</sup> edition of the Safety Diamonds and Environment Emeralds, Health Rubies were introduced. 17 awards were presented: six entities received a Diamond and, for their first edition, six Rubies were awarded. Lastly, four Emeralds went to environmentally innovative units while a Special Jury Award for the environment went to a General Delegation.

#### 3.1.1 Employee health

##### a) A Health policy covering the different Saint-Gobain stakeholders

Saint-Gobain's ambition is to collectively protect the health of its employees, temporary workers and subcontractors working on its sites throughout the world, by anticipating and preventing risks of occupational illness or disability. The Health policy also promotes the individual health of each of the Group employees, by taking actions to prevent illness connected with individual risk factors such as a sedentary lifestyle or nicotine addiction. Taking into account the physical constraints of the workstations, promoting a balance between private life and work life as well as preventing the psycho-social risks and the stress connected with work are all challenges to ensure the health of employees and good working conditions.

The second aspect of the Group's Health policy relates to respect for the health of customers and users of its products and services. This is a major aspect to take into account when designing and launching new products and solutions onto the market. EHS tools are available to R&D and marketing to identify the risks throughout the lifetime of the product. Each Activity incorporates control over the health risks in responsible product management, by carrying out Life Cycle Analyses (LCAs) in particular. The Group's Health policy supplements Saint-Gobain's eco-innovation approach in this sense.

Local residents' health is the third aspect of this policy. The sites take measures to reduce environmental impact that could have consequences on the residential areas nearby: noise and emissions and discharge into the air, water, soil and sub-soil.

Within the scope of the Health policy, Saint-Gobain is strengthening its system of monitoring for occupational illnesses by listing the number and causes of illnesses to adapt its prevention measures to the local contexts.

Each General Delegation draws up and applies action plans for the implementation of the Health policy following consultation with the Sectors and Activities. In recent years, Saint-Gobain has also undertaken various actions in France with its social partners to act on preventing psychosocial risks and improving quality of work life. The Group's framework agreement relating to the prevention of stress is the cornerstone of the action taken by the different companies: the Management Committees and the members of the CHSCT are trained in the prevention of these risks and a diagnosis has been undertaken by the different activities.

**b) Standards and guides, a guarantee of the correct application of the Health policy on all the Group's sites**

To guarantee the same level of protection to all Saint-Gobain employees throughout the world, the Group has also drawn up compulsory standards and recommendations on health and industrial hygiene.

<b>Health Standards</b>	
■ Noise risks (NOS = NOise Standard)	■ Chemical risks (TAS = Toxic Agent Standard)
■ Mobile phones and smartphones	
<b>Health Recommendations</b>	
■ Ergonomic risks:	■ Posture Lifting Movement guideline (PLM)
	■ Crystalline silica
■ Chemical risks: 4 guides on application	■ Construction, renovation and maintenance of smelting furnaces
	■ Handling of nanomaterials in the Research and Development Centers
	■ Use of fibrous materials
<b>Health Tools</b>	
■ Ergonomic risks:	■ PLM
■ Chemical risks:	■ SAFHEAR (2 modules: Inventory of Products/Substances and Evaluation of the Chemical Risks)
	■ SBASE Substances database



These standards and recommendations aim to describe the methodologies of industrial hygiene and assessment of health risks; they also indicate the paths for the prevention and control of risks; the recommendations also indicate areas for risk prevention and control.

The Sectors and General Delegations define them according to their specific characteristics and local requirements. They are supplemented by specific standards for certain activities and operating kits.

In 2017, the noise risk standard (NOS) was revised. Training to strengthen the assessment of noise risks and the introduction of improvement actions will be rolled out in 2018. Similarly, recommendations concerning the organization of first aid and equipping entities with external automatic defibrillators have been communicated.

**c) A structured, cross-functional approach for the management of chemical risks**

For many years, Saint-Gobain has been committed to reducing and controlling the risks associated with chemicals (hazardous substances and products, and dust).

Three complementary tools have been developed to support the sites in managing chemical risks:

- the internal toxic agents standard (TAS) and the analysis of risks, compel the sites to follow an authorization procedure for the use of any new chemical;

- the SBASE database provides a list of chemical substances and their classifications. This database is updated on an ongoing basis in response to changes in the classification of the different regulatory frameworks such as REACH in Europe or TSCA in the United States. SBASE is managed by the EHS department;

- the SAFHEAR management tool allows each site to perform its own inventory of the chemical substances and products used but also potentially generated during industrial production processes. The sites can also perform the evaluation of their chemical risks following the TAS standard using a second module in the tool.

In 2017, the inventory of the products and substances used by Group entities continued. Following training, more than 840 sites (94% of the sites concerned) continued to update their inventory of chemical products. At the same time, the toxic risk analysis module was rolled out: 3% of the sites affected started to perform risk analyses and to input the results into the dedicated module.

In connection with the internal TAS, Saint-Gobain is actively involved in the implementation of the REACH regulation in order to ensure the regulatory compliance of the Group's practices. All the Group's businesses are concerned, whether as manufacturer, importer, user or distributor.

Saint-Gobain is preparing for the deadline for registration in 2018, possibly bringing forward certain registrations in partnership with other European declaring parties concerned by the same substances. The Group is also working to take into account safety data sheets drawn up with exposure scenarios both as user and as manufacturer of substances.

The Group informs its suppliers of its uses of substances, for them to be taken into account in their registration files. It also systematically incorporates the REACH clause, reviewed in 2017, into all the purchase contracts in order to ensure the regulatory compliance of its suppliers.

Finally, Saint-Gobain actively monitors the updates to the list of substances applying for authorization or subject to authorization or restriction. The Group anticipates the deadlines for substance authorization in Europe, in order to fulfil its obligations of substitution and communication to its customers.

In non-EU countries subject to other regulations on chemicals (PARCHEM in Switzerland, Toxic Substances Control Act in the USA, Canadian Environmental Protection Act and the Chemicals Management Plan in Canada, CHINA REACH in China, etc.), Saint-Gobain applies the regulations in force and monitors their development.

To complete the system, a multi-disciplinary cross-functional working party (doctors, hygienists, product managers and environment managers) ensures technical, scientific and regulatory monitoring. It aims to identify and establish control over substances in the nanoparticulate state used within the Group, and in particular monitors the implementation of the practices recommended in the Code of Conduct on the handling of nanomaterials in the Research and Development Centers.

This cross-functional control of chemical products and substances also forms part of the approaches to product innovation and stakeholder and consumer information (see Chapter 2, Section 2.2).

#### **d) A steering indicator for health risks**

In parallel with the indicators monitoring safety (total recordable accident rate: TRAR) and the environment (number of major and significant accidents for 100 sites: T2E), the Group has defined an indicator to control the risk to the health of its employees connected with their activities, in keeping with its health standards and as a priority targeted on toxic agents and noise risk. It constitutes the rate of significant situations of chronic exposure to a danger to health. Tests began in this indicator, known as HICE, on seven pilot sites in 2017.

It testifies to the Group's desire to better understand certain facts by objectivizing them by measure, and thus be able to provide better guidance and make better decisions.

### **3.1.2 Safety, a central value to the Group**

#### **a) Everyone's responsibility**

Employee's safety, in the same way as health, is a priority at all times for the Group with a single acceptable objective: zero work-related accidents. Saint-Gobain aims to ensure for all persons on its sites, including temporary workers and subcontractors, safe conditions and a safe working environment, beyond the requirements of the applicable local legislation.

This measure affects all the group's businesses and endeavors to place safety at the heart of the corporate culture. Safety is a value held by all management grades and all employees. The objective is that everyone participates in his own safety and in that of all its colleagues.

At the highest level, the management has demonstrated its involvement in the development of a culture of safety within the Group. The operational management is responsible everywhere and guarantees all aspects of safety: objectives, action plans and performance measurement. To emphasize this commitment, a portion of the managers' compensation is based on the results and the resources invested, particularly by carrying out safety inspections and by applying safety standards.

Safety inspections are organized on all sites according to the SMAT (Safety Management Tool) standard. These inspections aim to encourage open dialogue with the person visited, on the subject of safety (and health), following the observance of work practices by the inspector. The positive points are noted as a priority, as well as any dangerous acts or conditions, which form the subject of an immediate priority action or an action incorporated into an action plan. In 2017, 510,330 SMAT inspections were made within the Group, which represents a ratio of 2.44 inspections per employee, temporary worker and permanent subcontractor.

When there is a serious accident, local management is responsible for information the reporting line. Once the victim has been rescued and immediate correction action has been taken, an in-depth analysis of the accident is conducted, with the aim of determining the root causes (technical, human and organizational factors) and developing an action plan. This analysis is undertaken with local management and an action plan is approved.

The results of the analysis and the key points identified are then shared *via* the worldwide networks of EHS coordinators but also with management. Alerts are circulated and shared with the other sites, so that staff are made aware of certain risks and can ask themselves the following question: could this happen on our site? If yes, what can we do to prevent it? Sharing information in this way helps to strengthen the action already taken, such as risk assessments for all operations, and the introduction of internal standards.

**b) Technical standards, a guarantee of effective introduction of minimum requirements on all Group sites**

Based on the analysis of serious accidents, the underlying causes contributing most often were identified and the corresponding standards drawn up:

**Technical safety standards, focused on high risks**

Management of external businesses	Work permits
Working at height	Lock-out/tag-out
Confined spaces	Safety of machines
Vehicles and pedestrians	Forklift trucks
Storage and logistics operations	Road risks

A self-assessment questionnaire is made available for each standard, so as to evaluate their introduction. Some General Delegations and Sectors organize cross-audits between sites so as to share good practices.

In addition to these technical standards, an accident analysis standard lays down the methodologies to be used to analyze events and to identify the underlying causes.

The Sectors and the Activities also draw up standards specific to their processes, or guides on application.

The Sectors define the compliance objectives to be achieved for the various technical standards. At the same time, the establishments identify the standards whose implementation is a priority and draw up an annual action plan on that basis.

**c) Safety results continuing to improve**

The Group has recorded a constant fall in the number of work-related accidents, with lost time or non-lost time, illustrated by the change in the TRAR indicator, which fell from 3.3 in 2016 (employees, temporary workers and subcontractors) to 2.6 in 2017. This substantial improvement is the result of reinforcing risk assessments, introducing technical safety standards and sharing a common culture of safety. In order to strengthen this result and to maintain the involvement of all, the TRAR indicator was integrated into the criteria used as part of the long-term compensation plan (see Chapter 6, Section 2.4)

In 2017, 70% of the entities did not declare any work-related accidents, compared with 68% in 2016.

The inclusion of permanent subcontractors in addition to Saint-Gobain employees and temporary workers in monitoring for the TRAR indicator since January 1, 2017 demonstrates the desire to ensure a safe working environment and conditions for all staff on the sites. Total recordable accidents for other subcontractors continue to be logged and reported.

The “Millionaires’ Club” comprises the most exemplary Group sites in terms of safety, with 1 million hours worked or 5 years without any accidents involving lost time specifically, including all the individuals present on a site (employees, temporary workers, subcontractors, visitors, etc.).

In 2017, the Millionaires’ Club included a total of 276 sites compared to 251 at the end of 2016. It increases the standing of the units that have the best results and that demonstrate to all that the objective of zero work-related accidents is possible. Out of these sites, 81 are “silver millionaires” (specifically with 10 years with no lost-time accidents) and 14 are “gold millionaires” (specifically with 15 years with no lost-time accidents) compared to 78 and 11 at December 31, 2016.



## 3.2 The four pillars of the OPEN program to implement the Human Resources policy

Saint-Gobain has launched the OPEN (Our People in an Empowering Network) program, a management tool designed to enhance employee satisfaction. Action plans are defined for each objective identified as a priority for contributing effectively to a working environment that is conducive to professional and personal development and which balances job-related performance with employees' well-being.

The Human Resources' monthly meeting, chaired by the Senior Vice President, in charge of Human Resources and gathering in particular the principal Human Resources Directors of the General Delegations and of the Sectors, ensures the regular follow-up of action plans conducted for each of the program's pillars.

### THE OPEN PROGRAM



### 3.2.1 Enriching the policy of mobility

Every Saint-Gobain employee, no matter what their position in the company, should benefit from career enrichment. Their career path at Saint-Gobain should be a positive marker of their career so they feel they are an ambassador for the Group. Promoting and enriching employees' professional mobility, whether geographic, functional or between the Activities, is a priority for the development of market and customer knowledge and accelerating the Group's growth:

- It is an essential lever for contributing diversity, innovating, developing the individual and collective skills necessary for the organizational and technological requirements of the Group's Activities. This also enables the sharing of market and customer knowledge, exchange of different experiences, development of an open mindset and enrichment of the careers of its employees;
- Mobility should reconcile employees' professional development with business requirements. Offering more opportunities for development fosters employee loyalty and it intensifies the crossover between activities, generating new solutions for customers.

The system used by Saint-Gobain to support mobility is based on broad communication of the policy and associated actions, and on a concerted vision of mobility.

This communication is based on a mobility charter, common to all Group entities, allowing movement management rules to be disseminated and harmonizing employee review practices. Similarly, all employees are invited to consult the job offers that are made and to apply for them. The online platform OpenJob has been developed and used in the General Delegations to meet this requirement. This platform is accessible on mobile devices for all employees.

In the various Group entities, mobility committees bring together human resources managers to share job offers and exchange points of view of employees' development prospects. These mobility committees cover all employees and are reinforced for managers. The management teams also encourage employee mobility and include applications from employees from other Activities in their succession plans.

In the event of geographic mobility, the Group offers each employee support for himself and his family. Finally, within the scope of reorganization projects, Saint-Gobain favors the conclusion of mobility agreements.

### 3.2.2 Promote diversity

With the diversification of its teams, the Group is able to adapt to the world around it and to understand its challenges, to benefit from different skills and experiences while developing its ability to innovate. Exemplary management and an equal treatment policy on recruitment, occupational training and remuneration favor diversity within the Group. Wherever it is present, the Group undertakes to promote diversity in all its forms: gender, nationalities, training, career paths, generational diversity and disabilities.

To favor the multi-disciplinary nature and diversity of nationalities, the emphasis is placed on developing diversified paths in the skill areas (Marketing, Research and Development, etc.), and on establishing local managerial teams.

With regard to generation diversity, Saint-Gobain ensures a balance in the age composition of employees, making room for younger and older employees. Finally, the recruitment and retaining of people with disabilities are important subjects for Saint-Gobain. The Group completes its objectives through the negotiation of work arrangements, the implementation of policies elaborated in association with specialized agencies and the strict application of the principle of non-discrimination.

The increase in the gender diversity of teams is based on a voluntarist recruitment policy and on action plans for occupational promotion, equal pay, training and work/life balance. Tutoring and mentoring programs designed for women have been introduced in several General Delegations, in particular in Europe and in the Asia-Pacific region. An e-learning document on awareness of the challenges of gender diversity, entitled Gender Balance Awareness, has been drawn up and circulated in several languages to the human resources and management teams. Through training programs, communication and the organization of awareness-raising events such as Women's Day in India, gender equality is established in the Group's strategic vision. Present in several countries, Saint-Gobain's female networks feed this culture of gender diversity and act as a lever to promote parity. The implementation of parentality charters in Western Europe and in the Asia-Pacific region formalizes the application of the principle of non-discrimination and promotes the efforts realized to create a hospitable environment for working parents (e.g. work arrangements, work conditions' negotiations, development of paternity leave etc.).

Finally, a systematic evaluation of the pay gap between men and women at equal position is carried out. The average pay gap for managers is recorded between 3% and 9% depending on the seniority of positions (see Chapter 5, Section 2.4).

Objectives relative to gender diversity have been set in 2016 (see Chapter 5, Section 2.4). They are monitored on a trimestral basis by the Senior Management Committee and the Liaison Committee (see Chapter 1, Section 3.2). They have been developed by country and industry and are integrated

into the performance criteria that determine the annual variable compensation of senior managers. Overall at Group level, a Human Resources committee dedicated to female Talents allows for the dynamization of career opportunities.

In addition to these specific objectives, a global diversity indicator which integrates gender, nationality and professional experience diversities is part of the CSR table (see Chapter 5, Section 2.1). This global diversity indicator is also a component of performance for the compensation plans of the Group's managers (see Chapter 6, Section 2.4).

### 3.2.3 Reinforce employees' commitment

Increasing employees' involvement in a context of change, both generational and technological, is an essential challenge for the Group. To meet this challenge, the Group places "managerial attitude and involvement" at the heart of this measure (see Chapter 4, Section 1.4): managers motivate and develop the loyalty of employees by giving more meaning to their everyday work and by favoring a spirit of initiative. Saint-Gobain has defined a set of tools, seeking to contribute towards reinforcing the commitment of its employees: measuring employee commitment, remuneration, health cover, social dialogue, maintaining jobs and corporate culture.

#### a) Tools for attentiveness to employees and measuring commitment

More individually, Saint-Gobain has introduced an annual interview procedure which makes it possible to ensure the regularity and quality of dialogue with employees. Individual interviews are held at least once a year for management and take place regularly among all employees.

Finally, with the help of external partners, Saint-Gobain has developed a 360° assessment tool. This tool is available on request for any manager and is compulsory before taking part in any training in the management school.

Surveys are conducted among employees in all the countries in which the Group is established under the responsibility of the General Delegations in order to measure:

- the conditions of their commitment;
- the individual perception of commitment;
- the understanding and subscription to the Group's values, policies, objectives and strategy.

These surveys by country or region are conducted in a coordinated manner and repeated every two years. The questionnaires are adapted to the local or regional context and include seven recurring questions on understanding and acceptance of the Group's strategy, the sharing of corporate values, leadership, employee commitment, effective implementation of the HR policy, the Group's attractiveness in the choice of professional paths and, finally, trust in the future.

Since 2016, the management of survey results has been coordinated in order to consolidate the lessons learned at Group level. An analysis is performed by broad topic area based on the Saint-Gobain Attitudes. This analysis is focused on the five best and the five worst scores, the three biggest improvements and the three biggest deteriorations, by scope and globally.

At local level, the results of these surveys are analyzed and fed into progress plans and action plans to facilitate employee commitment in the General Delegations.

Group performance indicators are monitored including the number of employees invited to respond, the response rate and the approval rate expressed. The approval rate is the proportion of positive opinions expressed across all seven Group questions. It reflects acceptance of the Group's values and confidence in the strategy and management.

Over the years 2016 and 2017, 148,671 Group employees, about 83% of the total headcount were directly interviewed. 72.9% of the employees that were invited replied to the survey. The question that gained the highest level of global approval was the one that was relative to their confidence in the Group's success, with levels of approval between 74 and 100% depending on the regions. In that way, they expressed their optimism, their commitment and their trust in Saint-Gobain's strategy and management.

### **b) Compensation policy and benefits**

Regarding compensation, the basic salary standards are defined by the General Delegations in each country and activity sector based on the market conditions. The companies then draw up their wage policy. At the same time, employee share ownership offers employees the possibility of becoming shareholders under preferential conditions. The Group Savings Plan (PEG) enables them to acquire Saint-Gobain shares benefiting from a discount and, in some countries, from an additional amount. In France, to encourage a team spirit and to associate each person with the success of the Group, Saint-Gobain favors the conclusion of collective profit-sharing agreements.

Saint-Gobain also seeks to offer its employees health cover enabling them to obtain effective protection against the uncertainties of life. In France, social policy on health and pension expenses has been harmonized for all the companies, by mutualizing plans and benefits in order to offer common cover to everyone. The Group wishes to continue this measure for the social protection systems, in all its countries of establishment.

### **c) Social dialogue**

To address social issues specifically, dialogues are held and applied to local priorities. The Group's General Delegates periodically meet employee representatives to exchange views on the strategy and local challenges. In France, besides the numerous meetings held within the companies in particular, the Chairman and CEO of Saint-Gobain chairs the Group Committee (the authority representing employees at Group level in France) and hosts central union coordinators at least once a year. At European level, the Chairman and CEO chairs the Convention for European Social Dialogue

which brings together 70 union representatives from 27 European countries annually. With the aid of an independent expert, this Convention makes it possible to supplement the national dialogue by dealing with subjects of common interest such as safety or the trend of employment on European industrial sites. These subjects are raised in particular by the members of the Select Committee, which acts as spokesman for the Convention, who benefit from specific training to perform their role.

In an uncertain economic context, Saint-Gobain is committed, as far as possible, to implementing solutions to safeguard employment and only to making job cuts as a last resort. The aim is initially to reorganize to deal with situations on a temporary basis, as in the case of temporary lay-off, or to favor internal mobility agreements which, associated with incentive measures, make it possible to maintain jobs within the Group. When restructuring is inevitable, the employees affected by workforce adjustments benefit from personalized support programs which may result in training associated with retraining, assistance for geographic mobility or support for the execution of a personal project, such as the creation of a business. In France, the Saint-Gobain Development structure provides this supporting role (see Chapter 4, Section 4.1.2).

### **d) Wellbeing at work**

Saint-Gobain is strengthening its human resources policy by including a wellbeing at work program which aims to optimize and harmonize best practices everywhere that the Group is present. This program accounts for specific local and cultural characteristics and draws on the network of General Delegations for its local implementation. During 2017, best practices and employee expectations were collected across all the countries, supplemented by innovative recommendations. These will be referenced and calibrated to facilitate the local roll-out of initiatives with a requirement for operational quality. This first year of consolidation will be followed in 2018 by the worldwide launch of this program.

Generally speaking, Saint-Gobain wishes to create a motivating and engaging work environment, respectful of the work/life balance for all employees. As such, flexible working and telecommuting are encouraged. The same applies to the CARE:4<sup>+</sup> extension, the energy efficiency improvement program for Saint-Gobain's tertiary buildings, based on concepts of working comfort and conditions (see Chapter 2, Section 2.2.2).

## **3.2.4 Develop talent**

The "TALENT" element of the OPEN program is aimed at all employees to anticipate the Group's needs and support its strategy. It is the subject of an annual progress update meeting with the members of the General Management Committee. The "Saint-Gobain Talents" program identifies managers with significant development potential or key skills. Defined locally, at all levels and in all Group businesses, it enables career plans to be drawn up, favoring diversified paths. The development of personal reviews and succession plans, mentoring and relations with the Group's target schools and universities reinforce this measure.

A specific program has also been designed to support and develop experts within the Group.

2017 was marked by the completion of a worldwide review of this program, resulting in a multi-year action plan which is currently being implemented.

Career paths offered to its employees are an asset that Saint-Gobain continues to advertise to students and young graduates to attract the most appropriate talent, particularly through the launch in 2017 of its new Employer Brand, "Invent Yourself. Reshape the World."

Specific programs for young talent coordinated at General Delegation level are being developed in Germany, Brazil, the United States, India, China and the Nordic countries.

Saint-Gobain's ambition is to grow the skills and know-how of its employees while still ensuring excellence in each of its businesses, but also to be an employer of reference, known and recognized for the wealth of the career paths offered. It involves taking into account individual wishes and the requirements of the organization, offering adapted developing paths, whether individual or collective, specific or cross-functional.

The training policy revolves around three areas of focus. Firstly, training must anticipate, facilitate and accompany the Group's transformation. In particular, it should accelerate its digital transformation by continuing to raise employees' awareness to the challenges and modalities of the digital world, while implementing training courses that are specific to our activities and that support sometimes radical changes. Saint-Gobain's transformation is also found at management level: our Saint-Gobain Attitudes have defined the direction in which we want to move and the way that we want to live and work together. Second priority for the upcoming years: implementing training measures that will support growth and the development of our activities, thanks to operational excellence and innovation. Third priority: facilitate access to training and make available to every Saint-Gobain employee a unique and customized offer that fulfills his or her expectations, needs and learning process.

Saint-Gobain develops three types of actions at corporate level:

- training programs deployed throughout the Group in a systematic and uniform way such as compliance programs (Adhere, Comply, Act, etc.) or those dedicated to digital transformation (Digital Journey). In 2017, 51,823 digital journey modules (a program which aims to raise awareness of and expand the digital culture within the Group) were followed;
- training programs dedicated to Group's functional jobs gathering technical trainings with no connection to specific Activities: mixing onsite training, blended path or e-learning modules, these programs communicate the Group's policies and procedures, and favor the good practices sharing;
- the School of Management integrates important stages of a manager's professional life in the Group providing programs in five levels.

The General Delegations deploy these training programs locally and develop a specific offer to answer to local needs. Sectors and Activities have the responsibility for strengthening and improving technical skills in their specific processes.

Throughout their working lives, the training provided by the Group must guarantee the employability and success of all employees. The objective is to facilitate the access to training for all employees through processes and offers that correspond to their needs and expectations. On the one hand, this is based on redesigning training practices, in particular integrating all modalities such as digital skills. Already 185 trainers and training managers are trained in the new techniques of "Blended Learning". On the other hand, it involves changing our habits by instituting a learning culture. Saint-Gobain dedicates an entire week to this theme during the "Learning Week" organized in all of the General Delegations. The 2017 edition, which spread from the 21<sup>st</sup> to the 24<sup>th</sup> of June, was mainly devoted to the Saint-Gobain Attitudes.



## 4. THE GROUP'S CONTRIBUTION TO ENVIRONMENTAL, SOCIAL AND SOCIETAL CHALLENGES TO ACHIEVE A LOCAL AND INCLUSIVE DEVELOPMENT

### 4.1 Contributing to economic development and to local employment

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#### 4.1.1 Development linked to the Group's local presence

Saint-Gobain participates to economic and industrial dynamics in regions where the Group has established sites, as well as in suppliers' labor pools. Saint-Gobain's employment footprint can thus be calculated at three levels:

- direct jobs, which take into account the Group's paid employment;
- indirect jobs, which take into account employment generated by purchases of the Group among its suppliers and subcontractors;
- induced jobs, which take into account employment triggered by purchases within the national economy made

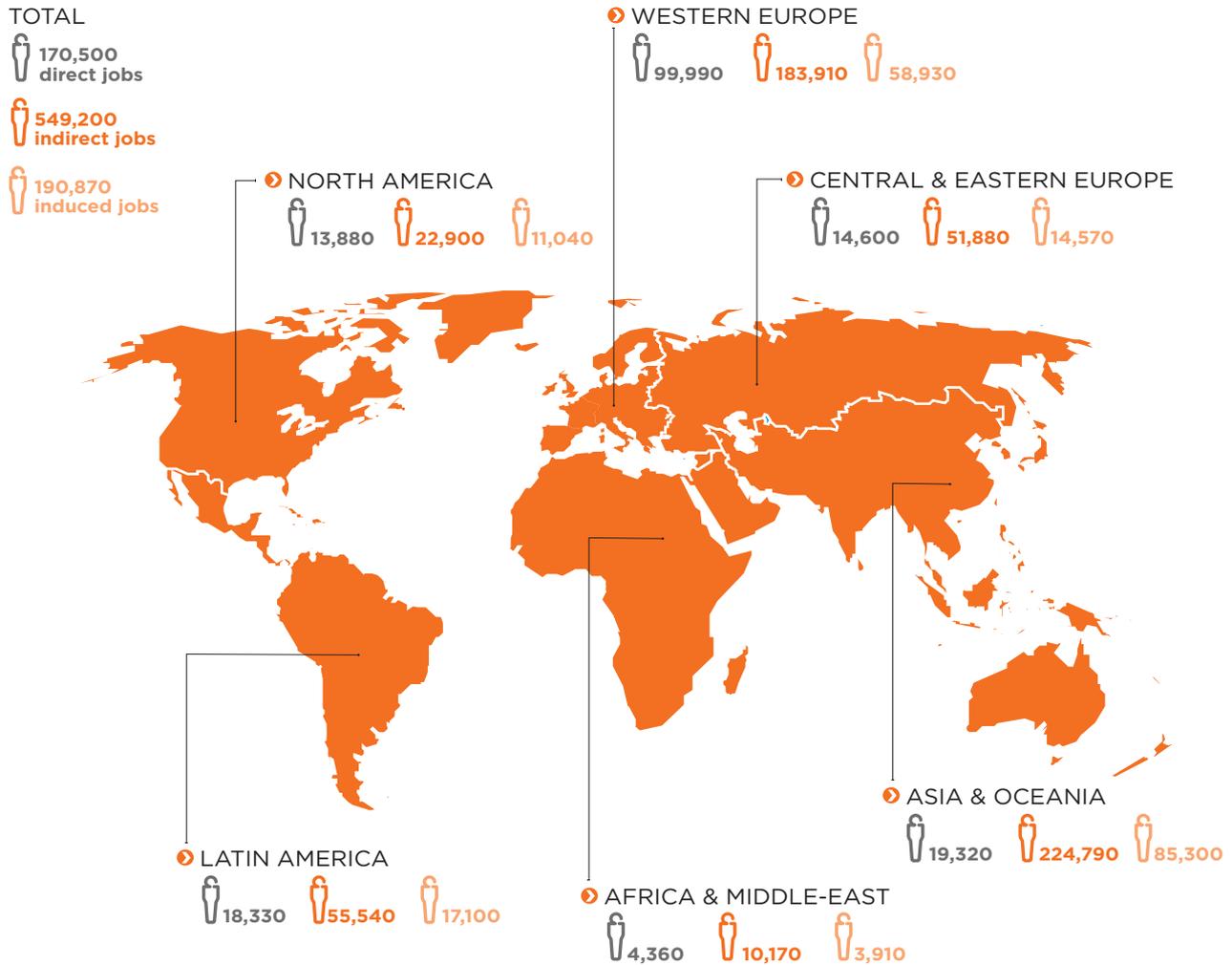
by direct employees of the Group through the wages they receive and by the employees of Saint-Gobain's suppliers to the extent of their solicitation in the purchasing frame of the Group.

In 2016, Saint-Gobain has updated and extended the indirect jobs study. Driven by EY, this study<sup>(1)</sup> henceforth also concerns induced jobs. The study covered the 2015 data and includes more than 90% of the Group's purchases.

For 170,500 direct jobs in 2015, the Group generates over 549,000 indirect jobs, to which are added over 190,000 induced jobs.

(1) Methodology briefing available on the Saint-Gobain website.

THE GROUP'S IMPACT ON EMPLOYMENT (2016)



**4.1.2 The Group's expertise at the service of the development of employment pools and the integration of populations in difficulty**

The Group has established relations with local partners in several General Delegations and in France in order to stimulate employment and to accompany disadvantaged populations into the professional world.

In France, Saint-Gobain Développement is the structure that specializes in assisting local development and the revitalization of the regions through its plural contribution to the local economy:

- Direct partnerships with SMEs: global support is offered for developing SMEs. This consists of participating loans at low rates without guarantees and support in the form of skills and transfer of know-how. This aid falls within the framework of a long-term partnership "from manufacturer to entrepreneur".

- Support in the form of skills: experienced Saint-Gobain employees that wish to share their expertise with the SMEs supported by the Group can provide their technical support. These measures take place on a voluntary basis according to the procedures defined by the engagement letter. This program has a double impact: gain in the efficacy of measures favoring local economic development, and positive returns internally in terms of team motivation and commitment.
- Support for the development networks and local bodies: Saint-Gobain Développement contributes towards the economic development through its permanent collaboration with local participants in the economic development and more particularly the ALIZE system which brings together a large number of local networks and participants (large enterprises, institutional networks, regional communities, chambers of commerce and industry, etc.). Saint-Gobain is more particularly present in the following ALIZE systems: Vaucluze, Nord-Isère, Savoie, Manche, Grand-Hainaut and the L'Arbresle and Tarare region.

- Professional insertion of young people that are alienated from the workplace: the participation in programs such as "100 chances 100 emplois".

Detailed indicators of Saint-Gobain Development's measures are shown in Chapter 5, Section 2.3.

In the United Kingdom and in Ireland, the programs currently underway are numerous and tackle various issues. The Group's teams are most often associated with Non-Governmental Organizations (NGOs).

The "Entrepreneurship Foundation" subsidizes, trains, certifies and supports SME owners in order to boost growth and dynamism in the construction sector. The accredited business skills and practical training equips business owners with the tools to grow their business and consequently add to their workforce. Through this scheme Saint-Gobain addresses the shortage of tradespeople and skilled workers in the UK and in Ireland and stays true to its "Support for the Industry" commitment.

The Delegation's partnership with children's charity Barnardo's brings support to marginalized young people throughout the country by providing them with construction skills training in a purpose built academy, mentoring and access to professional opportunities. The program has also instigated the construction of intermediary homes for them to gain progressively their independence.

The Delegation is also committed to raising the level of new entrants into the construction sector. Its strategic college partnerships deliver an extensive student enrichment and valorize the sector's work. The programme embeds innovation and new product knowledge into the college curriculum, ensuring that the students receive industry led and fit for purpose training. This way, Saint-Gobain works closely with schools and colleges across the UK and Ireland, in particular through a series of partnerships, known as Business Class, in conjunction with Business in the Community.

In North America, Saint-Gobain has built a partnership with the non-profit YouthBuild USA that feeds a double ambition: providing former out-of-school young adults with the opportunity to learn green building skills and participate in sustainable renovation projects while earning their high school equivalences.

This way, the Group has been contributing since 2011 to the integration and sensitization of young people to the

construction sector through a significant financial support (\$1.35 million in seven years), but also through the provision of the time and expertise of its voluntary employees. Nearly a dozen sustainable renovation projects (including affordable homes and schools) have already been realized in four communities where the company has concentrations: Canton, Ohio; Worcester, Mass.; Schenectady, N.Y.; and Philadelphia, Pa. Through the partnership, the company has created what it calls a virtuous cycle. By providing underprivileged young people with the tools to create a brighter future, the company addresses several business and societal issues, including filling the gap for skilled workers in manufacturing and construction and creating an affinity for its building materials among program participants.

These initiatives are even more needed in developing countries like South Africa or India.

That way, the "Saint-Gobain Academy" aims to address the skills shortage in ceiling and partition installation in South Africa. This training program, launched in 2003 and co-funded by YouthBuild International since 2016, transfers part of the Saint-Gobain know-how to young people coming from disadvantaged communities, through a combination of theoretical classes and the realization of a local project of renovation. The Academy is currently the only training provider in Africa accredited to facilitate the National Certificate: Ceiling and Partition Installation NQF 3. The Group thereby supports the sustainability of its students' employability while contributing to the dynamism of its industry.

Finally, The General Delegation of India also invests significantly in the skills development of local communities. For instance, Saint-Gobain Glass has implemented the "Learn while Earn" program in collaboration with the Nettur Technical Training Foundation (NTTF Bangalore), which aims to train young people of the 18-25 age range and delivers a diploma in manufacturing technology. To this day, over 200 young adults and their families have benefited from this innovative program. For its part, the Gypsum Activity imparts training in dry-lining in order to anticipate its rising need in skilled labor. Since 2013, the "Residential Skill Training program" has delivered a professionalizing education to 450 people in a precarious situation. Under the aegis of the "Skill Development Program", 800 additional individuals have obtained a national certification.

## 4.2 Contributing locally to the fight against climate change

### 4.2.1 The carbon emissions prevented by the Group's solutions' performance

Well aware that its activities inevitably have environmental, social and economic impacts, the Group desires to minimize its negative impacts and to continue the expansion of its positive contribution. Controlling greenhouse gas emissions and the global energy consumption are the indispensable prerequisites to containing global warming below 2°C and harnessing the long-term effects of climate change.

The innovative solutions developed by the Group in order to improve the energy efficiency of buildings allow for the decrease of both the negative impacts of the construction sector on the climate and the energy bills of consumers. They therefore play an important role in the fight against climate change, as they permit through a reduction of energy demand to decrease the quantity of greenhouse gases emitted. At the same time, Saint-Gobain has implemented an Energy policy and some ambitious objectives relative to the reduction of the environmental impact of production and logistics operations. Thus, the benefits offered by the Group's thermal insulation products and glass exceed significantly the impacts associated to their production in terms of energy consumption and greenhouse gas emissions.

In partnership with EY, Saint-Gobain developed in 2015 a methodology that allows for the estimation of greenhouse gas emissions prevented thanks to the utilization of its insulation solutions in Europe. The calculations realized with 2014 sales numbers were updated in 2017 with 2016 sales; the scope of Europe was enlarged to the world. These updating efforts have permitted to confirm the three key teachings of 2015:

- After three months of use on average, the Group's solutions compensate the emissions linked to their production. Beyond these three months, the gains continue to accumulate.

- The Group's insulation solutions produced and sold throughout the World in 2016 have generated, across their lifespan, a potential cumulated net prevention of over 1,200 million tons equivalent CO<sub>2</sub>.
- The estimated potential prevention of the said solutions corresponds to about 90 times the Group's greenhouse gas emissions in 2016 over the same geographical scope.

### 4.2.2 The local training courses in sustainable construction and in the energy efficiency of buildings

Among the training courses delivered by local teams (see Chapter 2, Section 2.2), some are dedicated to energy efficiency and to the reduction of the environmental impact of buildings. The Building Distribution Sector is particularly active on that subject. In France, the Point.P network has implemented "Energy Efficiency" counters in over 130 agencies. The sellers are specifically trained and tools such as a simulator that allows for the evaluation of the energy efficiency in the construction sector, baptized Feebat, is offered alongside a support for the official recognition of the efficiency of the measures implemented called Certipro.

In other countries, like The Netherlands, Norway or even Denmark, dedicated spaces are offered to installers and individuals to provide them with advice and training in the realm of renewable energies.

Beyond the Building Distribution Sector, training structures are offered by country. They are open to craftsmen, installers, architects and other actors of the construction sector. They can also be associated with professional schools. In France, the Habitat France structure is committed to eight training centers for apprentices (CFA) for partnerships relative to the provision of training or for the accompaniment of instructors that answer to a center.

## 4.3 Encouraging sponsorship connected with the Group's strategy

### 4.3.1 Programs linked to social and affordable habitat

In the numerous countries where it is present, Saint-Gobain develops solutions adapted to the poorest populations. Programs are initiated locally depending on the particular situations of each country. The solutions offered correspond to the criteria for sustainable and comfortable solutions (see Chapter 2, Section 2.2) with particular attention to the cost price of housing and the ease of implementation of materials. The resulting energy efficiency provides the future tenant with an improved quality of life at a controlled cost. These programs are deployed in particular in Sub-saharan Africa, Brasil, Central America and India.

### 4.3.2 The Saint-Gobain Initiatives International Corporate Foundation



The Saint-Gobain Initiatives International Corporate Foundation relies on employee commitment. All Group employees - whether currently employed or retired - can sponsor solidarity actions in two fields:

- inclusion of young adults in professional life;
- the construction, improvement or renovation for general interest purposes of the social habitat, contributing in particular towards reducing energy consumption and preserving the environment.

The projects must be borne by a non-profit organization and be situated close to a Group site.

The Foundation provides financial support for the projects it selects. In addition, the Saint-Gobain subsidiaries may offer

support in terms of technical skills or donate materials. Certain projects provide the opportunity to involve local employees, who become involved in the association and participate on a voluntary basis.

The Foundation was formed in 2008. In 2017, its endowment was increased to €1.3 million *per annum*.

Over the period 2008-2017:

- 373 projects were submitted to the Foundation, situated in 60 countries and 161 projects were approved;
- 148 projects were supported, representing a commitment by the Foundation of €9.8 million.

### 4.3.3 Local societal actions

In addition to the Saint-Gobain Initiatives Foundation projects, the companies, the Activities and the General Delegations, in their respective scopes and based on their local challenges, carry out sponsorship actions in the Group's reference markets, but also in fields such as education, research, culture or health.

Consequently, all the Group's sites in the UK and in Ireland participate in the charitable program "Together", which brings together employees, customers, suppliers and members of the local communities around a solidarity action.

### 4.3.4 Active local foundations

Certain Saint-Gobain General Delegations or Activities have set up foundations to act more closely with the regions.

#### a) The Saint-Gobain Corporation Foundation

In North America, the Saint-Gobain Corporation Foundation operates three programs:

- "matching gifts", enabling personal gifts made by employees to NGOs or in favor of education to be increased by around 50%;
- "community gifts", whereby each industrial site established in the USA or in Canada makes a contribution to a local community; donations and initiatives are left for the assessment of the sites, based on their priorities and local requirements;

- “direct grants”, a program providing direct support for certain non-government organizations for social and societal development, improvement in energy efficiency and preservation of the environment.

### b) The Saint-Gobain India Foundation

In India, the Saint-Gobain India Foundation has dedicated itself to improving the living conditions of the most destitute people by supporting projects connected with education, particularly for young girls. It also operates in the fields of training, health and the environment.

### c) Foundations in the Activities

In France, the Foundation PAM of the Pipe Activity helps young people experiencing social or financial difficulties by providing them with the support of sponsorship provided by company employees.

The Foundation Placoplatre promotes the inclusion of young people by working in the building businesses. It also supports programs connected with environmental preservation and the development of cultural activities in the vicinity of the Gypsum Activity sites.

## 4.3.5 Cultural, artistic, educational and general interest sponsorship

Every year, Saint-Gobain undertakes to support cultural and scientific projects connected with its identity, its history or its strategy with regard to habitat.

### Cultural sponsorship

Saint-Gobain provides long-term support for large cultural establishments. Every year, exhibition projects that resonate with its identity, its assets or its businesses also benefit from financial sponsorship or sponsorship in kind. The Group's know-how and expertise (in glass and other construction materials) are regularly requested, for exhibition designs in particular.

In 2017, Saint-Gobain provided financial sponsorship for the “Glass: the inventive Middle Ages” at the Museum of Cluny, in France, and on December 5 hosted, at its premises, a study day devoted to medieval glass, in front of a large audience. The “Visitors to Versailles, travelers, princes, ambassadors, 1682-1789” exhibition at the Château de Versailles also received support from Saint-Gobain.

In addition, Saint-Gobain provided financial support to the Fondation Vasarely (Aix-en-Provence) to restore the glass works by Victor Vasarely.

Last year, substantial sponsorship was provided for the Opéra National de Paris which enabled Saint-Gobain interns, employees and shareholders, as well as beneficiaries from charitable organizations supported by the Foundation, to attend opera or dance performances.

### Scientific publications and seminars

Saint-Gobain enables institutions, associations, researchers, etc., to publish works and reviews and to organize seminars, meetings or festivals connected with its history or its fields of

action (architecture in particular). In 2017, support was provided for the journal of the *Société des amis de la Cité de la céramique de Sèvres*, as well as the International Center for Stained Glass Saint-Gobain participated in the day on the history of glass in the Aisne, organized by the *Fédération des Sociétés d'Histoire et d'Archéologie de l'Aisne*, and allowed the conference organized in Charleroi on industry in the First World War: *Composer avec l'ennemi en 14-18 ? La poursuite de l'activité industrielle en zones de guerre* to take place.

The *Revue française d'histoire économique* published an issue devoted to the history of Saint-Gobain, with the support of the Group.

Saint-Gobain is now participating every year to the “Rendez-vous de l'histoire de Blois”. In 2017, the 20th edition's theme was “Eureka: Inventer, découvrir, innover”. Saint-Gobain was also at “Histoire de lire” in Versailles event, where a display on Saint-Gobain during the Great War was presented.

With regard to architecture, Saint-Gobain supported the 5<sup>th</sup> edition of the female architects' prize, awarded in December, as well as the tribute exhibition to architect Jacques Ripault at the MAC VAL, the contemporary art museum in Val-de-Marne. The Group also provided financial assistance for the publication of the catalogue for the exhibition *L'Architecte, portraits et clichés*, at the *Cité de l'architecture et du patrimoine*.

### Educational measures

These measures aim to promote the dissemination of scientific and technical culture among young people. Saint-Gobain has continued to support the *Fondation La Main à la pâte* and the association *C.Génial* (classroom talks by Saint-Gobain employees, factory visits and participation in competitions).

In addition, in December Saint-Gobain signed a partnership agreement with Canopé (national education) to provide content (Saint-Gobain archives, infographics from the Site logbook journal) to the digital platform used by teachers and students in scientific, technical and industrial vocational education.

2017 also saw the completion of an extraordinary operation. Saint-Gobain was asked by the *Institut français* to participate, as part of the opening of the Louvre Abu Dhabi, in the French-Emirati cultural program through the Co-Lab arts project. Four artists living in the United Arab Emirates worked with four renowned French public or private sector manufacturers with unique expertise, to create four works of art.

Saint-Gobain subsidiary La Verrerie de Saint-Just, which has a long tradition of artistic collaboration and interaction and which has been blowing colored glass in the traditional manner for a century, was selected to work with Emirati artist Zeinab Alhashemi for a year. The work that was created, *Meta-Morphic*, is an abstract representation of the duality of man and nature, a symbolic simulation of the speed at which the planet is changing. It was unveiled to the public on December 21, 2017 at the Louvre Abu Dhabi.

**An efficient and responsible Group**

The Group's contribution to environmental, social and societal challenges to achieve a local and inclusive development



# 2017 results and outlook for 2018

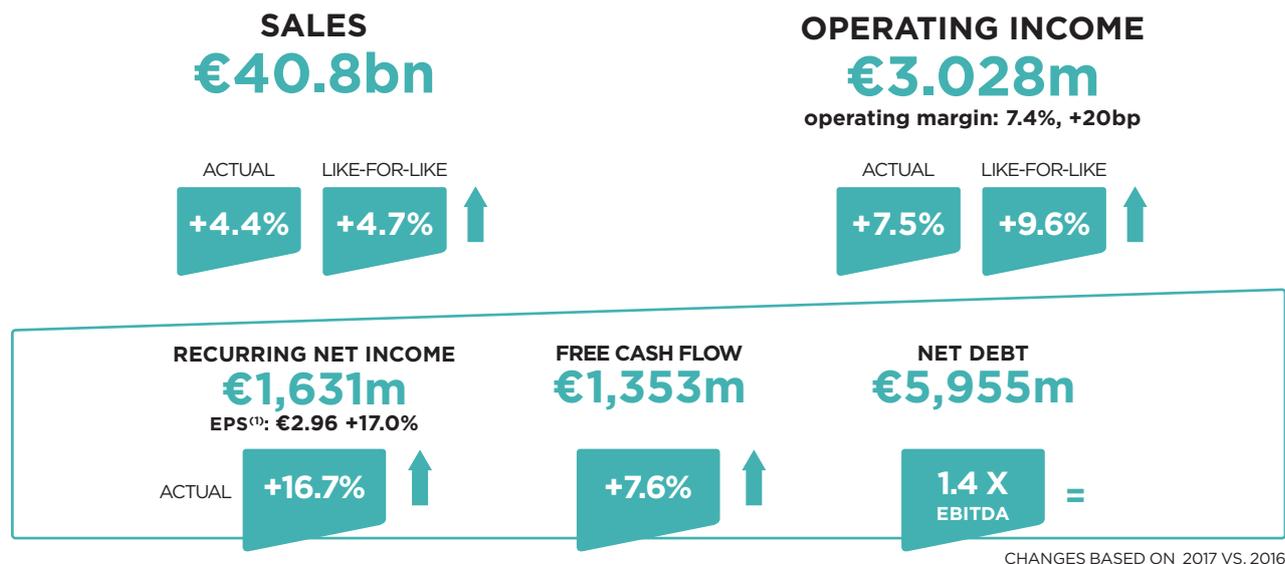
# 5

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# 1. FINANCIAL RESULTS

The 2017 consolidated financial statements were approved and adopted by Saint-Gobains's Board of Directors at its meeting of February 22, 2018. The consolidated financial statements were audited and certified by the Statutory Auditors.

## 2017 KEY FIGURES



- Solid organic growth in all Business Sectors and regions (up 4.7%); acceleration in H2 (up 6.0%) and in Q4 (up 6.5%);
- Positive trends in sales prices, up 2.0%; acceleration in H2 (up 2.3%) and in Q4 (up 2.7%);
- Further rise in operating income, up 9.6% like-for-like, and in operating margin, up to 7.4% from 7.2%;
- Further strong increase in recurring net income <sup>(2)</sup>, up 16.7%;
- Free cash flow <sup>(3)</sup> up 7.6% to €1,353 million;
- Ahead of our strategic objectives, with €641 million in acquisitions and €290 million in cost savings;
- Net debt at €5.95 billion (*versus* €5.64 billion at end-2016); buyback of 8.3 million shares during the year;
- 2017 dividend up at €1.30 per share, to be paid wholly in cash.

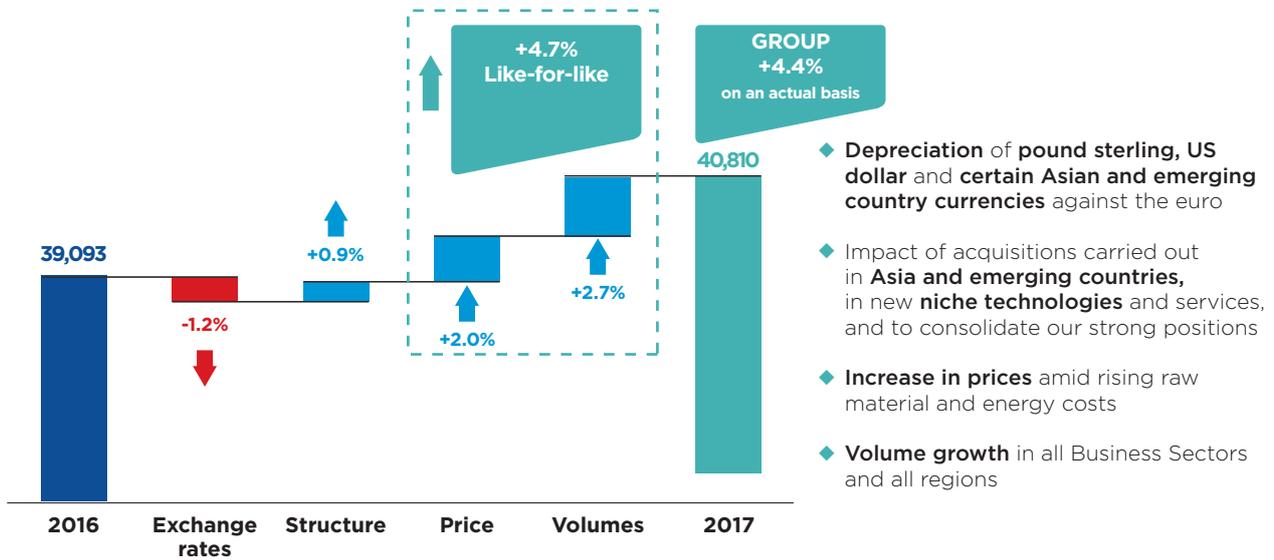
(1) Calculated on the number of shares in circulation of 550,785,719 shares at December 31, 2017.

(2) Recurring net income: net attributable income excluding capital gains and losses on disposals, asset write-downs and material non-recurring provisions

(3) Cash flow from operations excluding the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions, less capital expenditure.

# 1.1 Operating performance

## SALES (in €m)



The Group's **2017 sales** totaled **€40,810 million**, up 4.4% on a reported basis and **up 4.7% like-for-like**. Organic growth was driven both by higher volumes (up 2.7%) and higher prices (up 2.0%) in all Business Sectors and all regions, despite the adverse impact of the June 2017 cyber-attack. The price effect continued to grow (up 2.3% in the second half), against a backdrop of rising raw material and energy costs over the course of the year.

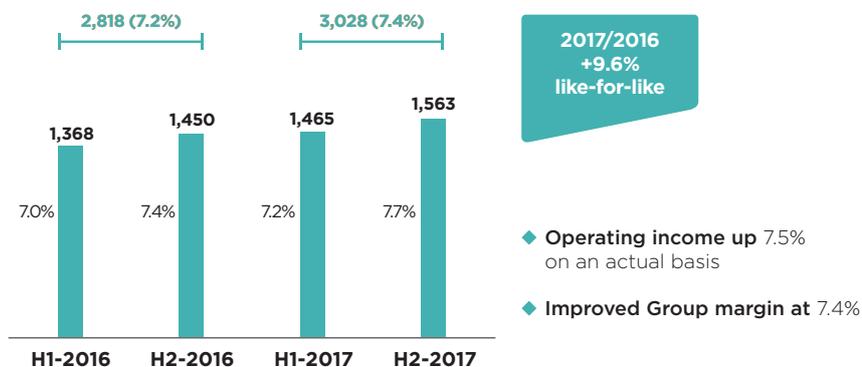
**The Group structure impact** added 0.9% to growth as the Group's stepped up its acquisitions with the consolidation of

companies in Asia and emerging countries (Emix, Tumelero, Solcrom, Megaflex), in new niche technologies and services (H-Old, France Pare-Brise, Scotframe), and to consolidate our strong positions (Glava, Pietta Glass, SimTek, bolt-on acquisitions in Building Distribution).

However, overall growth was tempered by a negative 1.2% **currency effect** over the year (a negative 2.6% in the second half), mainly reflecting the depreciation of the pound sterling, US dollar and certain Asian and emerging country currencies against the euro.

## OPERATING INCOME

(in €m and % of sales)



The Group's operating margin<sup>(1)</sup> widened to **7.4%** from 7.2% in 2016, with 7.7% for the second half (*versus* 7.4% in second-half 2016). There was a further like-for-like increase in operating income, up 12.4% in the second half, bringing growth over the full year to 9.6%.

The year was also marked by the cyber-attack on June 27; the Group was able to react swiftly not only to re-establish a return to normal in our operating activities, but also to reinforce our defenses. The impact on 2017 is estimated at a negative €80 million on operating income. Overall, around half of the impact of the cyber-attack concerned Building Distribution, while the rest concerned the Group's industrial businesses, particularly Construction Products. From a geographical perspective, Western European countries were the hardest hit, especially Nordic countries, Germany and France.

**Capital expenditure** increased to **€1.54 billion** in 2017 from €1.37 billion in 2016, and focused on growth capex outside Western Europe, Industry 4.0 and digitalization.

The Group achieved **€290 million in cost savings** compared to 2016, exceeding its objectives.

**Free cash flow** showed a clear improvement, up 7.6% to €1,353 million.

**Operating working capital requirements** remained stable at a good level of 28 days.

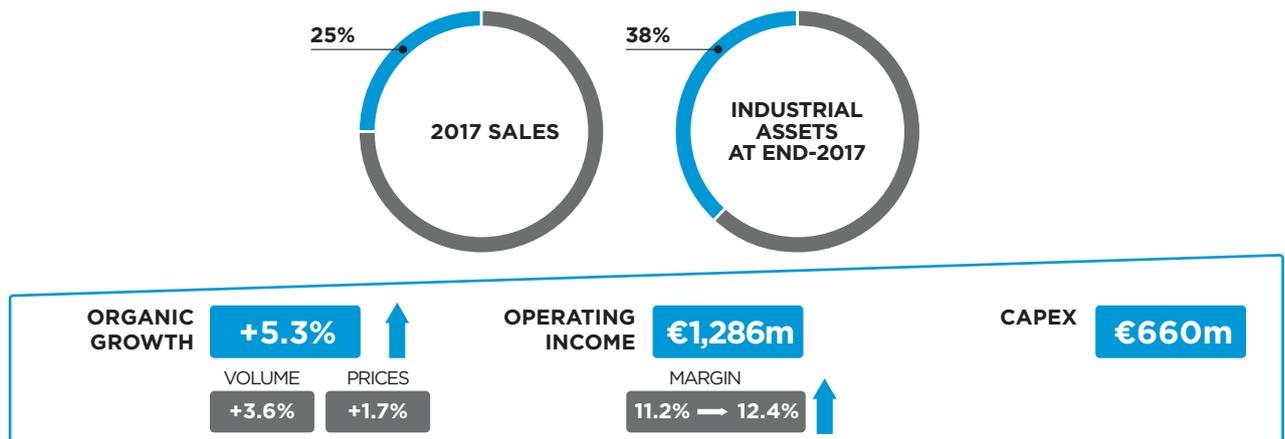
The Group stepped up its **acquisitions**, which represented over €500 million in full-year sales.

Legal proceedings initiated by Schenker-Winkler Holding to restore its voting rights are in progress. Saint-Gobain remains confident in the outcome of its plan to acquire a controlling interest in Sika.

## 1.1.1 Operating performance by Business Sector

### a) Innovative Materials

#### Innovative Materials



2017 VS. 2016

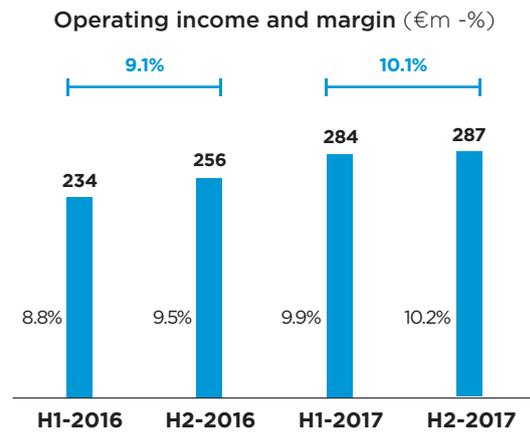
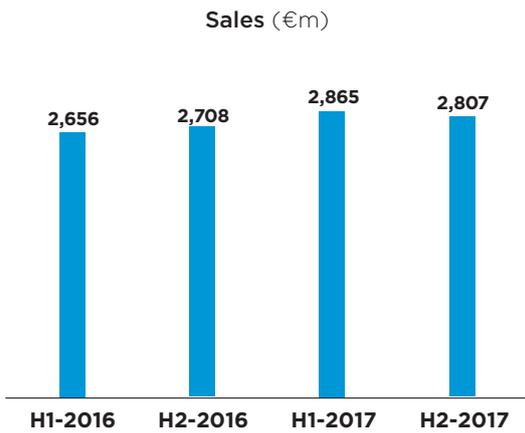
**Innovative Materials** sales climbed 5.3% like-for-like over the year and 6.5% in the second half. The operating margin for the Business Sector improved significantly, to 12.4% from 11.2%, spurred by both Flat Glass and High-Performance Materials.

(1) Operating margin = Operating income expressed as a percentage of sales

Flat Glass



2017 VS. 2016



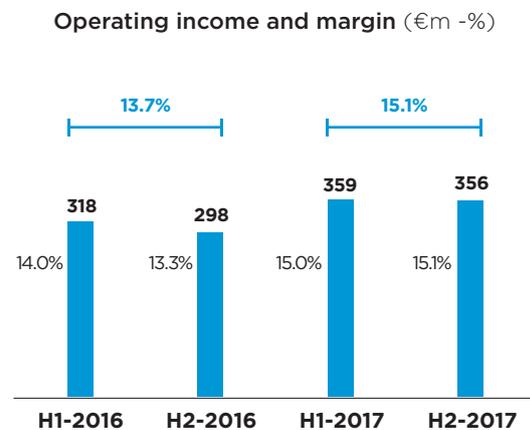
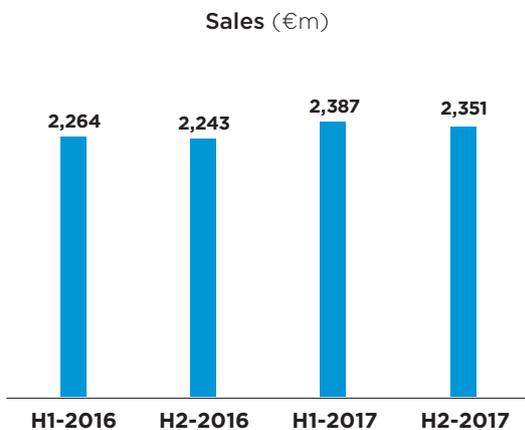
**Flat Glass** like-for-like sales increased 5.2% over the year (up 4.7% in the second half). Automotive glass advanced in all regions in terms of both sales and orders, bolstered in particular by strong momentum in Asia and emerging countries. Sales linked to the construction market in Western Europe improved, with float glass price trends stabilizing and

higher prices for transformed glass in the second half; Asia and emerging countries continued to grow. Organic growth along with a positive price-cost spread for raw materials and energy drove a further rally in the operating margin, up to 10.1% from 9.1% in 2016.

High-Performance Materials



2017 VS. 2016



**High-Performance Materials (HPM)** sales rose 5.8% on a like-for-like basis (up 9.2% in the second half), lifted by all regions and especially Asia and emerging countries. After a

hesitant start to the year, North America saw good momentum in the second half. All HPM businesses reported growth over the year, particularly Ceramics on the back of

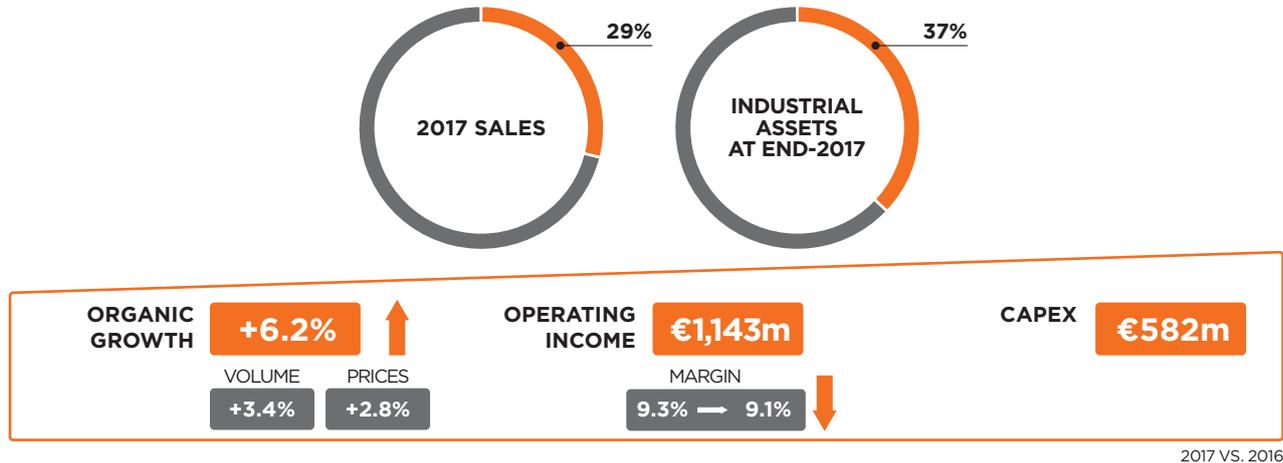


strong sales in the second half. The operating margin continued to improve, up to 15.1% from 13.7% in 2016 driven

by volumes, amid limited increases in raw material and energy costs.

## b) Construction Product

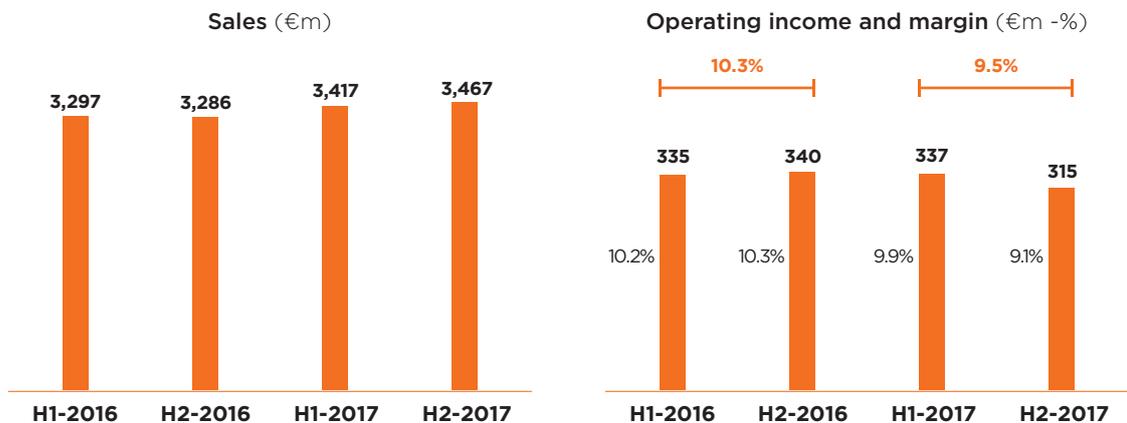
### Construction products



**Construction Products** (CP) reported 6.2% organic growth, with 8.8% in the second half. The operating margin was 9.1% versus 9.3% in 2016, affected primarily by the timelag

between pricing and cost increases, with however a more significant pricing effect at the end of the year.

### Interior Solutions



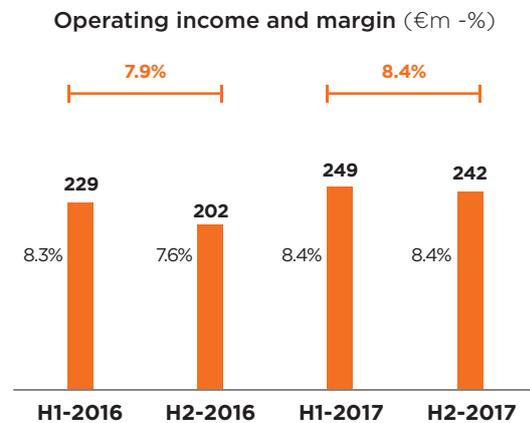
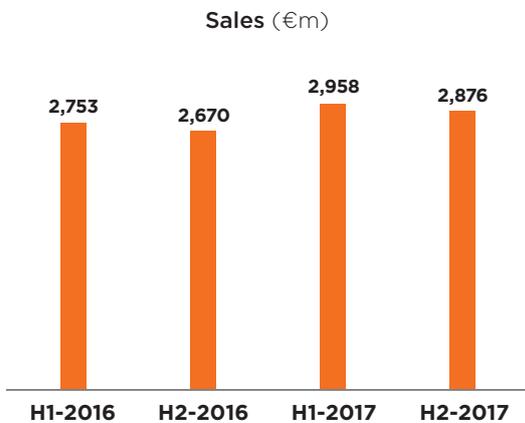
**Interior Solutions** like-for-like sales moved up 5.9% over the year and 7.6% in the second half, spurred by growth in Asia and emerging countries. Volumes continued to pick up in Western Europe and especially France. Trading in North America improved in the second half. Prices rose significantly,

with an acceleration over the course of the year, but remained behind the sharp increase in raw material and energy costs. This led to a decline in the margin, at 9.5% in 2017 *versus* 10.3% in 2016.

*Exterior Solutions*



2017 VS. 2016



**Exterior Solutions** reported 6.7% organic growth in 2017, driven by an improvement in all businesses in the second half (up 10.1%) and particularly Exterior Products in the US. In the second half, this business benefited from additional weather-related demand in the US, whilst the pricing environment remained tough. Pipe began to recover, led by the rise in prices amid strong inflation in raw material costs; volumes were down over the year, hit by the lack of major export contracts, but stabilized in the second half thanks to

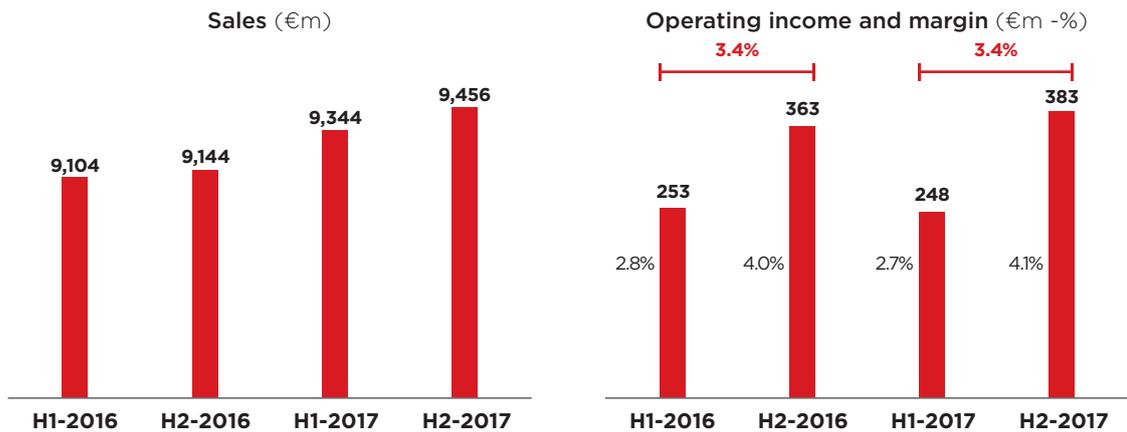
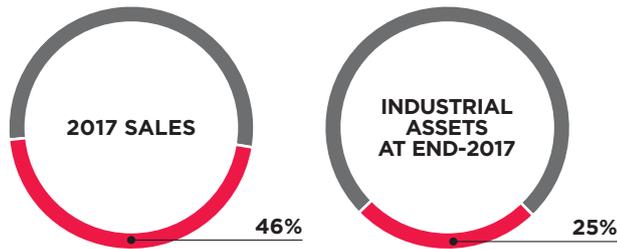
the upturn in Brazil and the improvement in China. Mortars had a very good year, reporting an acceleration in growth in the second half thanks to Asia and emerging countries, with an improved performance in Brazil in a construction market that nevertheless remains uncertain. The operating margin moved up to 8.4% from 7.9% in 2016 despite raw material and energy cost inflation.



## c) Building Distribution



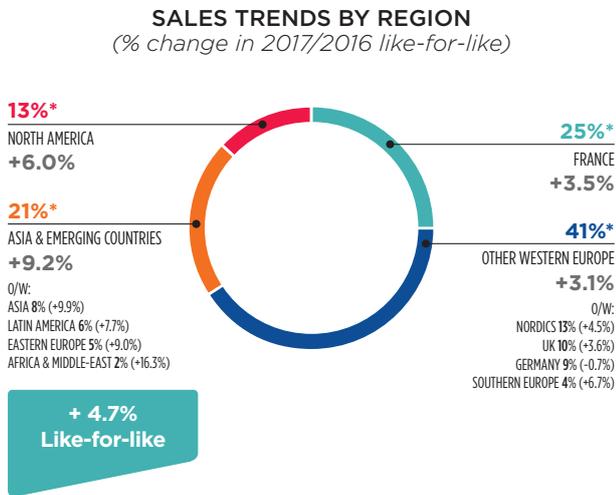
2017 VS. 2016



**Building Distribution** posted 3.6% organic growth for the year, with 4.1% in the second half. Trading in France continued to recover, led by good momentum in new-builds and the progress in renovation. Nordic countries enjoyed robust growth throughout the year, as did the Netherlands and Spain. The UK grew at the same rate in the second half as

in the first half, with prices rising but volumes down. Germany and Brazil contracted slightly. The operating margin for 2017 remained stable at 3.4%, despite the impact of the cyber-attack and of the acceleration in digital investments, edging up to 4.1% in the second half (*versus* 4.0% in second-half 2016).

### 1.1.2 Operating performance by region



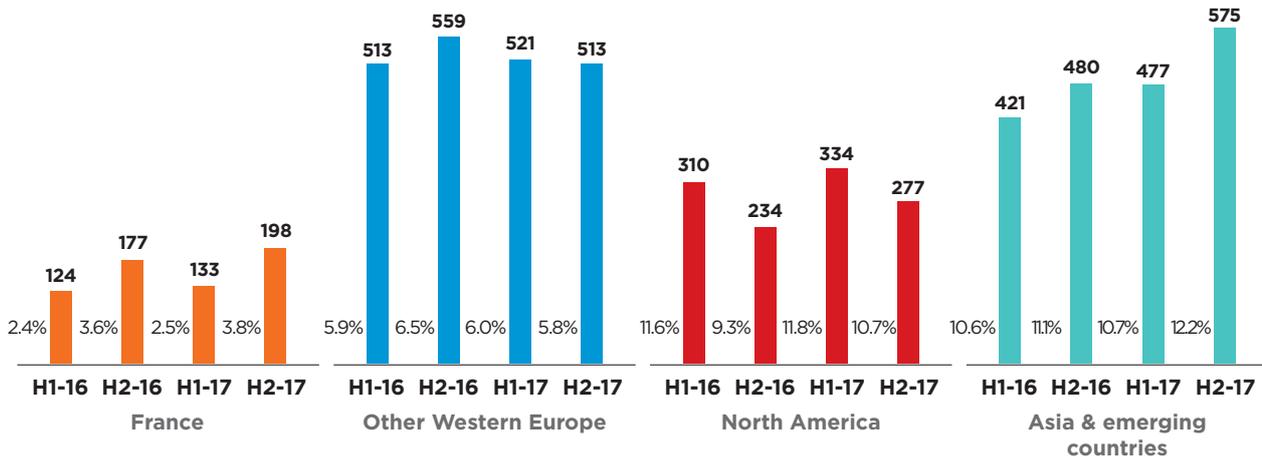
\* Breakdown of 2017 sales.

- **France** confirmed its recovery over the year with 3.5% organic growth, including 4.8% in the second half buoyed by dynamic new-build activity and progress in renovation. The operating margin for 2017 widened, at 3.1% *versus* 2.9% in 2016.
- **Other Western European countries** saw like-for-like sales growth of 3.1%, with 3.6% growth in the second half. This reflects advances in all our countries with the exception of Germany which remains hesitant, affected by production transfers. The UK delivered further growth driven by prices, despite volumes settling and a lack of visibility. The operating margin was down, at 5.9% compared to 6.2% in 2016, hit by the impact of the cyber-attack which primarily affected this region, and by the rise in raw material and energy costs.
- **North America** improved, posting like-for-like growth of 6.0%, including 9.8% growth in the second half. Construction volumes continued to trend well, boosted namely by additional weather-related demand in the second half; industry also saw a good improvement overall. The price effect improved slightly in an inflationary cost environment. The operating margin gained ground, up to 11.3% from 10.5% in 2016.
- **Asia and emerging countries** continued to advance, posting robust organic growth of 9.2% led by all regions. Growth came in at 11.4% in the second half, driven by an improved performance in Brazil in particular. The operating margin continued to rise, up to 11.5% from 10.9% in 2016.



### OPERATING INCOME BY REGION

(in €m and % of sales)



## 1.2 Financial results

Consolidated **sales** increased by 4.7% like-for-like, led by both volumes and prices. On a reported basis, sales were up 4.4% with a negative 1.2% **currency impact** (even stronger in the second half at -2.6%), due mainly to the depreciation of the pound sterling, US dollar and certain Asian and emerging country currencies against the euro. The positive 0.9% **Group structure impact** essentially reflects the consolidation of acquisitions made in Asia and emerging countries, in new

niche technologies and services, and to consolidate our strong positions.

**Operating income** increased 7.5% on a reported basis despite a negative currency effect, and by 9.6% like-for-like. The operating margin stood at 7.4% of sales *versus* 7.2% of sales in 2016. **EBITDA** climbed 5.9% to €4,234 million, or 10.4% of sales (10.2% of sales in 2016).

### Business income

(in € million)	2016	2017	2017/2016	Like-for-like change
<b>Operation income</b>	<b>2,818</b>	<b>3,028</b>	<b>+7.5 %</b>	<b>+9.6 %</b>
Non operating cost	(312)	(337)		
<i>o/w provisions for asbestos-related litigation</i>	(90)	(90)		
<i>o/w other expenses</i>	(222)	(247)		
Other operating expenses	(202)	(180)		
<i>o/w disposal gains (losses)</i>	(12)	57		
<i>o/w asset write-downs</i>	(190)	(237)		
<b>Business income</b>	<b>2,304</b>	<b>2,511</b>	<b>+9 %</b>	

**Non-operating costs** were higher at €337 million *versus* €312 million in 2016, with a decrease in restructuring costs but a rise in litigation-related expenses. Non-operating costs include a €90 million accrual to the provision for asbestos-related litigation involving CertainTeed in the US, unchanged from 2016.

**The net balance of capital gains and losses on disposals, asset write-downs and corporate acquisition fees** was an expense of €180 million compared to an expense of €202 million in 2016. In 2017, this item includes €237 million in asset write-downs and €57 million in gains on disposals of assets less acquisition fees. **Business income** rose 9.0%.

### Net income

(in € million)	2016	2017	2017/2016
<b>Net financial expense</b>	<b>541</b>	<b>448</b>	
<i>Average cost of gross debt</i>	3.4 %	2.8 %	
<b>Income tax</b>	<b>416</b>	<b>438</b>	
<i>Tax rate on recurring net income</i>	27.0 %	25.0 %	
<b>Net attributable income</b>	<b>1,311</b>	<b>1,566</b>	<b>+19,5 %</b>
<i>EPS (€)</i>	2.36	2.84	+20,3 %
<b>Recurring net income</b>	<b>1,398</b>	<b>1,631</b>	<b>+16,7 %</b>
<i>Recurring EPS (€)</i>	2.53	2.96	+17,0 %

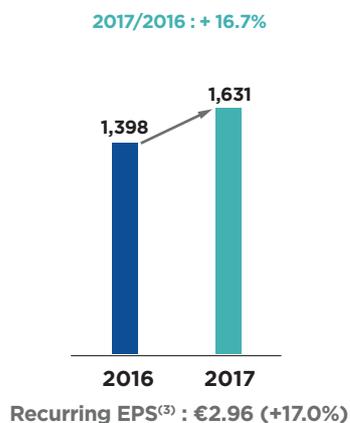
**Net financial expense** improved sharply, down 17.2% to €448 million from €541 million in 2016. This primarily reflects the decrease in the cost of gross debt to 2.8% at December 31, 2017 from 3.4% at end-2016.

The tax rate on recurring net income was 25% compared to 27% in 2016, owing mainly to items such as the

reimbursement of the 3% tax on dividends in France. **Income tax expense** was €438 million *versus* €416 million in 2016, with the US tax reform resulting in a non-recurring gain of €91 million.

**RECURRING NET INCOME <sup>(1)</sup>**

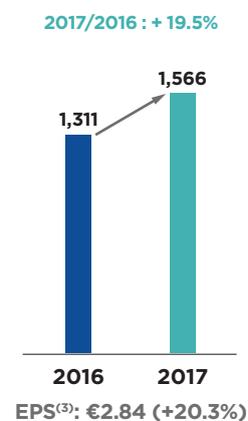
(in € million)



**Recurring net income** (excluding capital gains and losses, asset write-downs and material non-recurring provisions) jumped 16.7% to €1,631 million.

**NET INCOME <sup>(2)</sup>**

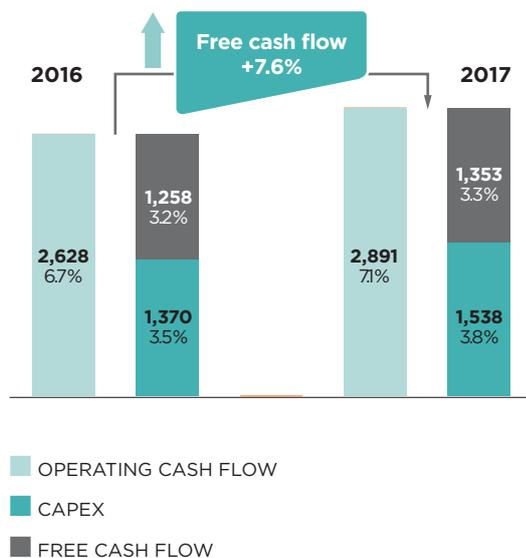
(in € million)



**Net attributable income** climbed 19.5% to €1,566 million in 2017.

**CASH FLOW FROM OPERATIONS <sup>(4)</sup> AND CAPEX**

(in € million and % of sales)



**Capital expenditure** totaled €1,538 million (€1,370 million in 2016), representing 3.8% of sales (3.5% of sales in 2016).

**Cash flow from operations** improved, up 9.9% to €3,020 million (€2,749 million in 2016). Before the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions, cash flow from operations climbed 10.0% to €2,891 million and **free cash flow**

increased 7.6% to €1,353 million (3.3% of sales versus 3.2% of sales in 2016).

(1) Net income from continuing operations excluding capital gains and losses on disposals, asset write-downs and material non-recurring provisions.

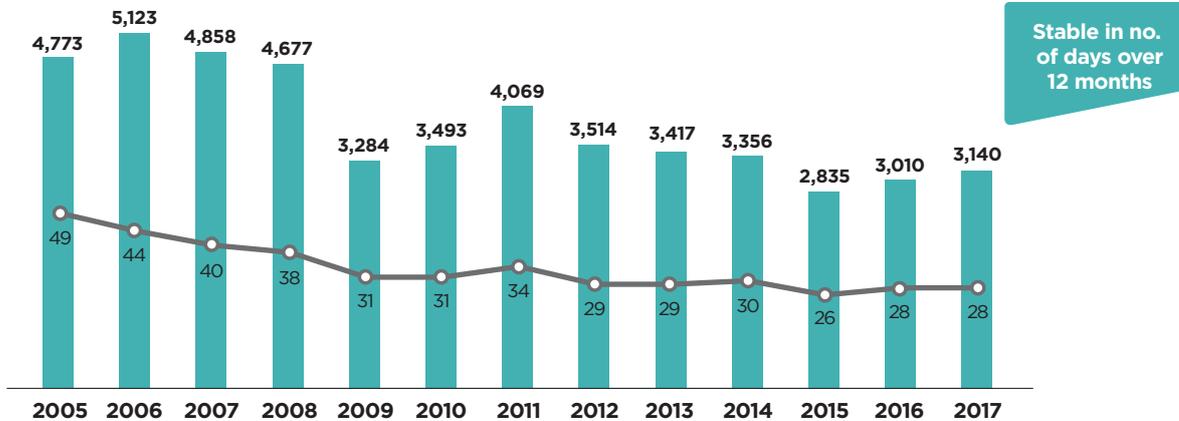
(2) Net attributable income.

(3) Calculated on the number of shares in circulation of 550,785,719 shares at December 31, 2017.

(4) Cash flow from operations excluding the tax impact of capital gains and losses on disposals, asset write-downs and material non-recurring provisions, less capital expenditure.

## OPERATING WCR

(at December 31, in € million and no. of days)



### ONGOING TIGHT REIN ON OPERATING WCR

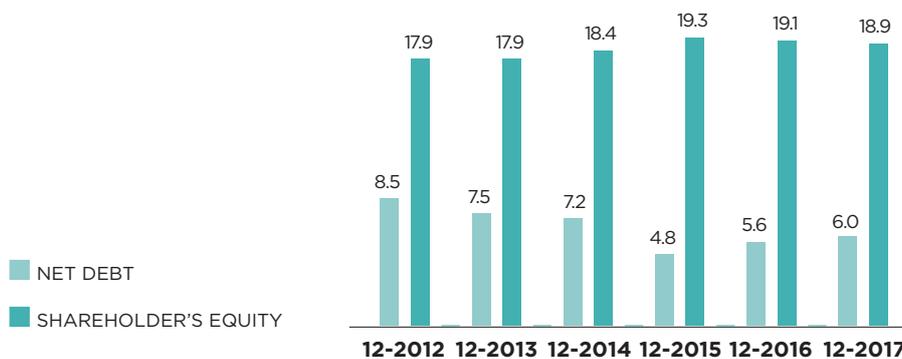
**Operating working capital requirements (WCR)** remained stable at a good level of 28 days' sales, a rise of €130 million in value terms (to €3,140 million).

**Investments in securities** picked up pace, at €641 million (€362 million in 2016), and relate to targeted acquisitions in

Asia and emerging countries (Megaflex, Isoroc, Tumelero), in new niche technologies and services (TekBond, Maris, Scotframe), and to consolidate our strong positions (Glava, Biolink, Kirson, Wattex, SimTek, bolt-on acquisitions in Building Distribution).

## NET DEBT AND SHAREHOLDERS' EQUITY

(in € billion)



NET DEBT	47%	42%	39%	25%	29%	32%
SHAREHOLDER'S EQUITY / EBITDA <sup>(1)</sup>	1.9	1.8	1.8	1.2	1.4	1.4

### STRONG BALANCE SHEET MAINTAINED

**Net debt** rose to €5.95 billion from €5.64 billion, due mainly to the acceleration in acquisitions and to share buybacks for €403 million. Net debt represents 32% of consolidated equity, compared to 29% at December 31, 2016.

**The net debt to EBITDA** ratio remained stable at 1.4 at end-2017.

(1) EBITDA = Operating income + operating depreciation/amortization over a 12-month period.

## 1.3 Strategic priorities and outlook

The Group continued to implement its strategic priorities in 2017:

- **€290 million in cost savings** versus 2016, ahead of our objectives, as part of the €1.2 billion cost reduction program for 2017-2020. Our focus on Industry 4.0 and digitalization is beginning to bear fruit;
- **28 acquisitions** of small and mid-sized companies for a total of **€641 million** and disposals for a total of €213 million, as part of the portfolio optimization strategy targeting €2 billion in acquisitions for 2017-2020;
- **8.3 million shares bought back** (€403 million) in line with long-term objectives, and 7 million shares canceled, thereby reducing the number of outstanding shares to 550.8 million at December 31, 2017 (553.4 million at December 31, 2016).

In 2018, the Group should benefit from a supportive economic environment:

- further growth in **France**, led by the new-build market and by progress in renovation;
- progression in other **Western European countries**, despite continued uncertainty in the UK;
- growth in **North America**, in both construction markets and industry;
- good momentum in **Asia and emerging countries**.

For 2018, the Group expects the following for its Business Sectors:

- continued growth and a good margin level in **Innovative Materials**;
- better volumes and prices, focus on the price-cost spread in **Construction Products**;
- **Building Distribution** should benefit from volume growth in Western Europe.

Saint-Gobain will continue its disciplined approach to cash management and financial strength. In particular, it will pursue:

- its **focus on sales prices** amid continued inflationary pressure on costs;
- its **cost savings program**, with the aim of unlocking additional savings of around **€300 million** (calculated on the 2017 cost base);
- its **capital expenditure** program of around €1.7 billion (representing around 4% of sales, in line with our objectives), with a focus on growth capex outside Western Europe and also on productivity (Industry 4.0) and digital transformation, particularly in Building Distribution;
- its **commitment to invest in R&D** to support its differentiated, high value-added strategy;
- its **focus on high levels of free cash flow generation**.

**The Group is targeting a further like-for-like increase in operating income in 2018.**

*These statements on outlook constitute either trends or objectives, and are not to be considered as projected results. Although Saint-Gobain believes that the expectations reflected in such forward-looking statements are based on reasonable assumptions as at the time of publishing this document, investors are cautioned that these statements are not guarantees of its future performance. Actual results may differ materially from the forward-looking statements as a result of a number of known and unknown risks, uncertainties and other factors, many of which are difficult to predict and are generally beyond the control of Saint-Gobain, including but not limited to the risks described in Chapter 7, Section 1 of Saint-Gobain's Registration Document. Accordingly, readers of this document are cautioned against relying on these forward-looking statements. These forward-looking statements are made as of the date of this document. Saint-Gobain disclaims any intention or obligation to complete, update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.*

## 2. NON-FINANCIAL RESULTS

### 2.1 Alignment of the CSR dashboard with the Group's challenges

The Group has prioritized its CSR challenges and actions, improving clarity and refining its long-term objectives. The CSR roadmaps provide a medium/long-term vision for each

category of challenge, and short-term action plans are rolled out across the businesses by the General Delegations and the Activities.

Priority challenge category	CSR roadmap	Operational action plan
<b>Fight against climate change</b>	Sustainable solutions: Sustainable Habitat – industrial markets Limitation of environmental impacts	Habitat Committees, Sustainable Habitat tools Strategic R&D program: improvement in the CO <sub>2</sub> footprint Internal price of carbon Environmental action plan WCM Training in eco-innovation
<b>Act according to ethical and responsible practices</b>	CSR governance	Responsible purchasing Compliance program Internal audits Management reference base Vigilance plan
<b>Promote all diversities</b>	Development of employees' professional growth	WIN program Training OPEN program
<b>Improve health and safety for all stakeholders</b>	Employees: Development of employees' professional growth  Customers and consumers: Sustainable Solutions Suppliers and subcontractors: CSR Governance (Responsible Purchasing)	Implementation of the Health and Safety policy WCM Training in eco-innovation Action plan for responsible purchasing Vigilance plan
<b>Develop a circular economy</b>	Sustainable Solutions Limitation of environmental impacts	Action plans by General Delegation as per Sustainable Resource Management policy; Cross-business R&D program
<b>Contribute to local development for inclusive growth</b>	Group contribution to local development	Responsible Purchasing, Compliance program, OPEN program

In 2016, the Group developed its CSR dashboard under the supervision of the Board of Directors.

Challenges	Definition	Objective	2016	2017
<b>PRIORITY INDICATORS: IMPERATIVES</b>				
<b>Responsible practices</b>	Percentage of new managers having completed Adhere (Principles of Conduct and Action)	100% in 2018	73.1%	80.7%
	Percentage of new managers having completed Comply (competition law)	100% in 2018	86.6%	88.7%
	Percentage of new managers having completed Act (anti-corruption)	100% in 2018		87.2%
<b>Climate change</b>	CO <sub>2</sub>	-20% by 2025 (base 2010)	-7.4% (base 2010)	-7.6% (base 2010)
<b>Diversity</b>	Diversity index: Senior executives that meet one of the following 3 criteria: – a national of a country other than France – a diversity of experience (countries, industries or experience outside the Group) – gender (female)	Keep the index above 90%	91.0%	90.0%
	Percentage of female managers	25% in 2020	22.0%	22.5%
	Percentage of female senior executives	25% in 2025	11%	13%
<b>Health and Safety</b>	Safety: TRAR Employees, temporary workers and permanent subcontractors	3.6 in 2016 (excluding permanent subcontractors) 3.1 in 2017 2.5 in 2018	3.3	2.6
<b>OTHER INDICATORS</b>				
<b>Solutions developed and distributed to help with the Group's CSR challenges, with benefits in terms of carbon and health/safety.</b>	Product stewardship: Completion of 2 pilot projects to assess the CSR benefits of a portfolio of products in 2017	New objective for 2018: - put into practice the appropriation of the tool by the teams - continue the deployment in two additional BUs or countries - propose an integration method into the innovation process	27 multi-comfort projects: 18 countries ; residential and non-residential markets; new buildings and renovation. 623 employees trained in eco-innovation	Done
<b>Operational excellence</b>	Loyalty index: attendance rate + training + turnover rate + mobility rate. Score of A = 4 objectives achieved Score of B = 3 objectives achieved	Positive trend	A	B
<b>Creation of local value</b>	Direct and indirect jobs (calculated every 2 years)		Direct jobs: 170,500 Indirect jobs: 549,200 Induced jobs: 190,870	
<b>Evidence and commitments</b>	GRI-G4, remain included in the FTSE4good and CDP/DJSI indices for 3 years	DJSI World CDP Climat A-	Done	Done

## 2.2 Integration of the United Nations Sustainable Development Goals

Saint-Gobain integrates the Sustainable Development Goals (SDG) into its approach to CSR, building on the materiality analysis (see Chapter 2, Section 1.5), the Group's stakeholder dialogue, and its understanding of its value chain.

The 17 SDGs were subdivided into three levels of alignment with the Group's strategy and activities:

- SDGs aligned with the strategy: those where the Group has levers of action, either via its activity or its value chain;
- moderately aligned SDGs or in connection with a specific Group activity: those where Saint-Gobain has a limited levers of action;

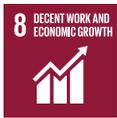
- non-priority SDGs: those where the Group has little or no impact.

Saint-Gobain recognizes the importance of the SDG17, partnerships for the goals, and develops multi-stakeholders partnerships to mobilize for the SDG.

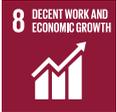
Generally, Saint-Gobain is actively following the debates on SDGs and reporting, especially the working group initiated by the Global Compact. In the future, the Group could make changes in the SDG reporting considering the progress of these works.

The following table lists and explains the SDGs that are aligned with the Group's strategy:

Challenges	Actions	Indicators/Objectives	2017 achievements	Other objectives and commitments	UN Sustainable Development Goals	
Fight against climate change	Reduce the carbon impacts of activities	CO <sub>2</sub> emissions: 20% reduction by 2025 (base 2010)	(7.6)% (base 2010)	CDP A-		
	Accelerate the transition towards low-carbon technologies through the implementation of an internal price of carbon for investments and R&D projects	Price of carbon integrated into decision-making for investments and R&D projects	Done			
	Create and offer innovative solutions to limit the impact of construction	Implementation of an evaluation tool for the sustainable performance of products (product stewardship) 2017: carry out two pilot schemes 2018: put into practice the appropriation of the tool by the teams; continue the deployment in two additional BUs or countries; propose an integration method into the innovation process	Done			
	Reduce energy consumption at company's sites and promote use of carbon-free energies	Energy consumption: 15% reduction by 2025 (base 2010)	(2.8)% (base 2010)			
	Integrate our objectives on a 2°C trajectory	A roadmap enabling the assessment of Saint-Gobain's contribution to the decarbonization of the construction sector is being finalized. This roadmap will allow to determine indicators and objectives for the Science Based Target commitment.			Global Alliance for Building and Construction SBT TCFD	
	Analyze the risks associated to climate change	New roadmap is being finalized.			TCFD	

Challenges	Actions	Indicators/Objectives	2017 achievements	Other objectives and commitments	UN Sustainable Development Goals
Act according to ethical and responsible practices	Share our values, in particular our ethical code of conduct	100% of new managers to have completed the Adhere training program in the year they join the company by 2018	Adhere: 80.7%		 
	Develop a compliance culture: anti-corruption, competition and embargoes	100% of new managers to have completed the Comply (competition) and Act (anti-corruption) training programs in the year they join the company by 2018	Comply: 88.7% Act: 87.2%	Global compliance day on October 10, 2017	
	Oversee the improvement of working conditions through social dialogue	New local actions are implemented; a roadmap is finalized		Global Deal	
	Communicate our actions to fight against corruption to stakeholders	New			
	Connect our suppliers in a responsible supply chain	100% of non-trade suppliers categorized at high risk to be evaluated by 2021.			
Promote all diversities	Promote diversity within teams: male/female	25% of female managers by 2020 25% of female executive managers by 2025	Recruitment rate for female managers >30%		 
	Promote diversity within teams: experience, cultures, generations, disabilities, etc.	Diversity indicator among executive managers: indicator higher than 90%	90%		
Improve health and safety for all stakeholders	Reduce frequency of accidents at our sites (employees, temps, permanent subcontractors)	TRAR integrating employees, temporary employees and subcontractors: 2017 objective: 3.1 2018 objective: 2.5	TRAR: 2.6		 
	Manage presence of dangerous products on sites over time including the evolution in knowledge of substances	Implement SAFHEAR management tool: inventory to be realized by all sites by the end of 2019	In progress		
	Create and offer innovative solutions to reduce health and safety risks across the life cycle of products	Implement an assessment tool for sustainable performance of products (product stewardship): 2017: carry out two pilot schemes 2018: put into practice the appropriation of the tool by the teams; continue the deployment of two additional entities; propose an integration method into the innovation process	Done		
	Implement HICE indicator promote health and well-being at work	Implement HICE indicator: Carry out 2 pilot schemes in 2017	7 pilot sites		

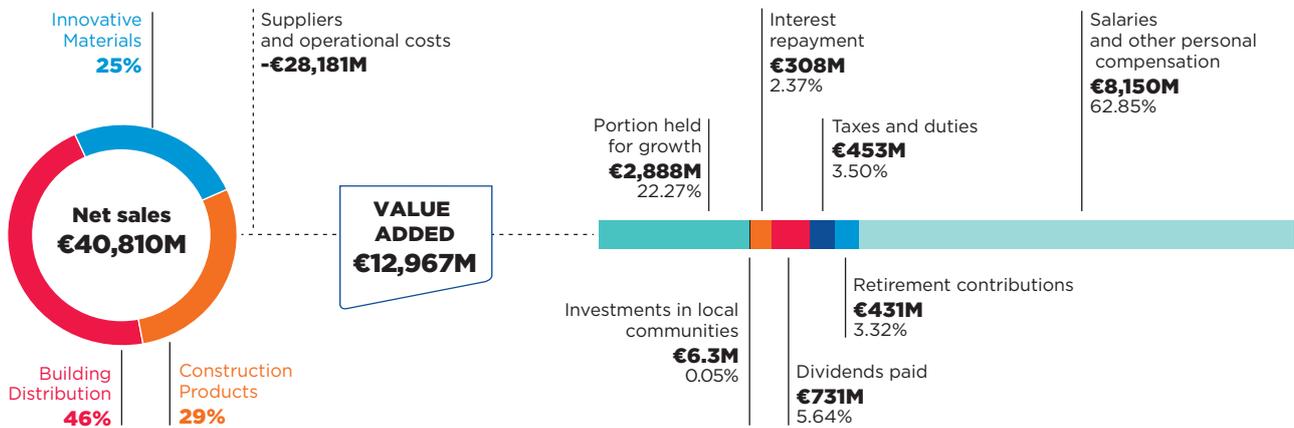


Challenges	Actions	Indicators/Objectives	2017 achievements	Other objectives and commitments	UN Sustainable Development Goals
Develop the circular economy	Promote use of recycled materials in production	Implement an assessment tool for sustainable performance of products (product stewardship): 2017: Carry out two pilot schemes 2018: put into practice the appropriation of the tool by the teams; continue the deployment of two additional entities; propose an integration method into the innovation process	Done	Factor 10 WBCSD	
	Recover end-of-life waste and in particular construction waste: deployment of action plans by geographical zone according to existing Group's Activities and to local legislation	New		Factor 10 WBCSD	
	Minimize production residue and non-recovered waste	Quantity of non-recovered waste: 50% reduction in non-recovered waste by 2025 (base 2010)	(13.2)% in 2017 (base 2010)		
	Create local or sectorial synergies within the Group	100% of Delegations have a roadmap by 2019	In progress		
Contribute to local development in order to achieve inclusive growth	Promote commitment of employees	Surveys to measure the commitment of all employees over 2 years	Coverage: 86% Participation: 72.9%		
	Run campaigns with local communities that are in the general interest				
	Use our expertise to develop employment pools or the integration of excluded populations	Action plans and local roadmaps will be revised for the 10th anniversary of the Saint-Gobain Initiatives Foundation			
	Use our expertise to improve living spaces in particular affordable housing				

The SDGs moderately aligned with Saint-Gobain's strategy are tracked by the most relevant: an activity or a Group policy:

- SDG 6: Clean water and sanitation. This SDG relates directly to the Group's Pipe Systems Activity. More generally, implementation of the Group's Water policy fulfills the aim of limiting withdrawals and promoting water reuse.
- SDG 15: Life on land. Saint-Gobain's wood purchases and its quarrying operations have an impact on biodiversity. The Wood Purchasing policy and the Gypsum Activity's Biodiversity Charter are the cornerstones of the Group's commitment to biodiversity.

## 2.3 Distribution of the creation of value based on stakeholders' expectations



The distribution of turnover and value added by Saint-Gobain to its stakeholders indicates the amounts distributed in salaries paid to employees, purchase costs paid to suppliers, shareholder dividends or State taxes.

These amounts distributed may be expressed as social benefits: purchasing power and increase in competence of employees, long-term employment for suppliers and all procurement channels, contribution to the financing of the public services and a return for investors.



## 2.4 Non-financial indicators

ENVIRONMENT	2017	2016	2015	GRI
<b>ENVIRONMENTAL MANAGEMENT</b>				
Total environmental expenditure, of which*:	150.2 M€	127.1 M€	127.4 M€	
a) Salaries and other payroll expenses for environmental officers	28.6 M€	26.1 M€	27.0 M€	103-2
b) Environmental certification and renewal costs	3.1 M€	3.5 M€	2.6 M€	307-1
c) Environmental taxes	6.0 M€	6.9 M€	5.8 M€	307-1
d) Insurance and warranties	9.2 M€	8.4 M€	6.1 M€	103-2
e) Environmental fines	0.2 M€	0.3 M€	0.1 M€	307-1
f) Cost of environmental incidents	1.0 M€	3.9 M€	0.3 M€	307-1
g) Cost of technical measures	7.9 M€	6.7 M€	6.0 M€	103-2
h) Environmental R&D budget	75.2 M€	59.7 M€	61.8 M€	103-2
i) Soil decontamination, site remediation and other clean-up costs	19.0 M€	18.4 M€	17.7 M€	307-1
Capital expenditure on environmental management measures	74.1 M€	78.8 M€	63.3 M€	
Provisions for environmental risks	154.4 M€	180.3 M€	163.3 M€	
Number of sites certified for Environment management (ISO 140001 and/or EMAS)*	76%	76%	77%	
Number of sites concerned certified for Energy management (ISO 50001)*	90	83	78	
Number of sites certified for Quality* (including ISO 9001)	690 (637)	664 (610)	648 (592)	

\* The values are adjusted to the 2017 scope and/or to the scope concerned by the 2017-2019 environment

REVIEW OF MEDIUM-TERM OBJECTIVES FOR THE ENVIRONMENT (2010-2025)	2017	2016	2015	GRI
Reduction of non-recovered waste by 50% (base 2010)	(13.2)%	(7.9)%	(11.1)%	
Reduction of energy consumption by 15% (base 2010)	(2.8)%	(0.9)%	(2.4)%	302-3
Reduction of CO <sub>2</sub> emissions (scope 1 and 2) (base 2010)	(7.6)%	(7.4)%	(6.1)%	305-4
Reduction of SO <sub>2</sub> emissions by 20% (base 2010)	(44.8)%	(50.6)%	(43.3)%	
Reduction of NO <sub>x</sub> emissions by 20% (base 2010)	(19)%	(10.3)%	(5.2)%	
Reduction of dust emissions by 20% (base 2010)	(43.3)%	(50.3)%	(32.6)%	
Reduction of water discharge by 80% (base 2010)	(36.9)%	(31.8)%	(16.0)%	

RAW MATERIALS AND PRODUCTION WASTE	2017	2016	2015	GRI
Quantity of waste generated	1.755 Mt	1.668 Mt	1.514 Mt	306-2
Quantity of hazardous waste generated	0.111 Mt	0.113 Mt	0.111 Mt	306-2
Quantity of non-recovered waste	0.575 Mt	0.590 Mt	0.505 Mt	306-2
Quantity of non-recovered hazardous waste	0.032 Mt	0.030 Mt	0.034 Mt	306-2
Consumption of primary raw materials in glass furnaces	6.96 Mt	6.93 Mt	6.81 Mt	
Consumption of cullet in glass furnaces. <i>The internal cullet is the cullet generated and reused in the same industrial site.</i>	1.88 Mt of internal cullet, and 1.36Mt of external cullet	1.79 Mt of internal cullet, and 1.31 Mt of external cullet	1.75 Mt of internal cullet, and 1.13 Mt of external cullet	301-2
Percentage of ton of finished product from primary melt of cast iron produced	77.7 %	82.1 %	83.2 %	301-2
Percentage of recycled material in each ton of finished product of cast iron produced	38,0%	44,0%	43,0%	301-2
Percentage of recycled material in each ton of finished product of gypsum produced	30,0%	34,0%	34,0%	301-2

**ENERGY**

Variation in production in sellable units	9%	18%	7%	
Total energy consumption of entire Group	45,789 GWh	44,521 GWh	43,719 GWh	302-1
Annual variation in total energy consumption	1,267 GWh (+2.8%)	803 GWh (+1.8%)	521 GWh (+1.2%)	302-4
Total indirect energy consumption	9,486 GWh	9,295 GWh	8,919 GWh	302-1
Variation in indirect total energy consumption	191 GWh (+2%)	376 GWh (+4.2%)	(59) GWh (-0.7%)	302-4
Electricity consumption	9,325 GWh	9,152 GWh	8,721 GWh	302-1
Consumption of renewable electricity generated on site	5 GWh	4 GWh	6 GWh	
Steam and hot water consumption	156 GWh	140 GWh	198 GWh	302-1
Direct total energy consumption	36,303 GWh	35,226 GWh	34,800 GWh	302-1
Variation in direct total energy consumption	1,077 GWh (+3.1%)	426 GWh (+1.2%)	580 GWh (+1.7%)	302-4
Coal and coke consumption	5,576 GWh	5,632 GWh	6,110 GWh	302-1
Natural gas consumption	26,088 GWh	24,810 GWh	23,909 GWh	302-1
Petroleum products consumption	3,415 GWh	3,447 GWh	3,330 GWh	
Sale outside the Group of renewable electricity generated on site	99 GWh	96 GWh	Unavailable	
Sale outside the Group of utilities (steam, hot water, etc.) generated on site	2 GWh	Unavailable	Unavailable	

**GHG EMISSIONS**

Variation in production in sellable units	9%	18%	7%	
Total CO <sub>2</sub> emissions (scope 1 and 2)	13.0 Mt	12.6 Mt	12.7 Mt	305-1
Variation in total CO <sub>2</sub> emissions (scope 1 and 2)	0.4 Mt (+3.2%)	(0.1) Mt (-1.1%)	(0.4) Mt (-3.3%)	305-5
Direct CO <sub>2</sub> emissions	9.6 Mt	9.2 Mt	9.3 Mt	305-1
Variation in direct CO <sub>2</sub> emissions	0.4 Mt (+4.3%)	(0.1) Mt (-0.8%)	(0.3) Mt (-3.3%)	305-5
Other relevant indirect emissions (entire Group or scope of reporting concerned) of greenhouse gases, by weight (tons-equivalent of CO <sub>2</sub> )	Not applicable	Not applicable	Not applicable	305-1
Indirect emissions of greenhouse gases (purchases of electricity, steam, hot water)	3.4 Mt eq.CO <sub>2</sub>	3.4 Mt eq.CO <sub>2</sub>	3.4 Mt eq.CO <sub>2</sub>	305-2
Variation in indirect emissions of greenhouse gases (purchases of electricity, steam, hot water)	0 Mt eq.CO <sub>2</sub> (0%)	0 Mt eq.CO <sub>2</sub> (0%)	(0.1) Mt eq.CO <sub>2</sub> (-3.2%)	305-5
Development in CO <sub>2</sub> impact on Group turnover (value in 2010: 0.47)	0.32 kgCO <sub>2</sub> /€	0.34 kgCO <sub>2</sub> /€	0.33 kgCO <sub>2</sub> /€	305-4

**OTHER AIR EMISSIONS**

SO <sub>2</sub> emissions	18,229 t	16,509 t	18,019 t	305-7
NO <sub>x</sub> emissions	20,704 t	22,258 t	22,630 t	305-7
Dust emissions	7,732 t	6,455 t	8,193 t	305-7

**WATER**

Total water withdrawal	54.6 M of m <sup>3</sup>	52.9 M of m <sup>3</sup>	65.5 M of m <sup>3</sup>	303-1
Water withdrawal on sites with very high water stress (sites with withdrawal >5,000 m <sup>3</sup> /year)	61,202 m <sup>3</sup>	63,826 m <sup>3</sup>	61,671 m <sup>3</sup>	303-2
Water withdrawal on sites with high and very high water stress (sites with withdrawal >5,000 m <sup>3</sup> /year)	0.013 m <sup>3</sup> per unit produced	0.015 m <sup>3</sup> per unit produced	0.017 m <sup>3</sup> per unit produced	
Rainwater withdrawal	1.0 M of m <sup>3</sup>	0.7 M of m <sup>3</sup>	0.7 M of m <sup>3</sup>	303-1
Municipal water withdrawal	15.5 M of m <sup>3</sup>	15.2 M of m <sup>3</sup>	14.6 M of m <sup>3</sup>	303-1
Surface water withdrawal	17.7 M of m <sup>3</sup>	15.5 M of m <sup>3</sup>	29.2 M of m <sup>3</sup>	303-1
Ground water withdrawal	19.2 M of m <sup>3</sup>	20.3 M of m <sup>3</sup>	19.7 M of m <sup>3</sup>	303-1
Total water discharge	27.5 M of m <sup>3</sup>	29.4 M of m <sup>3</sup>	39.0 M of m <sup>3</sup>	306-1
Water discharges into the surrounding environment	18.4 M of m <sup>3</sup>	19.2 M of m <sup>3</sup>	29.7 M of m <sup>3</sup>	306-1
Water discharges into the municipal waste water collection system	8.7 M of m <sup>3</sup>	9.6 M of m <sup>3</sup>	8.9 M of m <sup>3</sup>	306-1

**ENVIRONMENTAL EVENTS**

Number of Seveso sites	5	3	4	
Number of serious major Group environmental events or accidents	1	0	0	

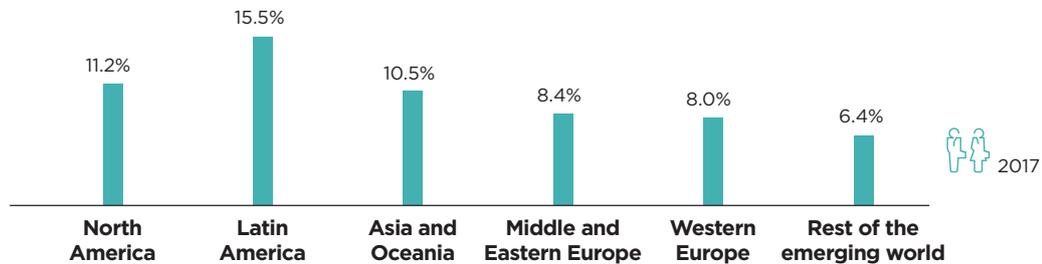
HEALTH AND SAFETY	2017	2016	2015	GRI
Lost-time and non-lost-time accidents rate (TRAR), Group (employees, temporary workers and permanent subcontractors) <i>2015 figure does not include permanent subcontractors.</i>	2.6	3.3	3.9	403-2
Lost-time accident rate (LTAR) (employees, temporary workers with permanent subcontractors only included in 2017)	1.3	1.7	1.9	403-2
Group accident severity rate (employees)	0.11	0.09	0.12	403-2
Number of fatal incidents involving Saint-Gobain employees	1	2	1	403-2
Number of fatal incidents connected with the work of subcontractors	0	2	4	
Number of fatal incidents connected with the work of temporary workers	0	0	0	
Number of fatal incidents connected with the work of third parties	2	1	0	
Number of sites with over one million hours worked without lost-time accidents, and/or accumulating over five years of work without lost-time accidents	276	251	243	
Number of Health & Safety certified sites at the actual scope (OHSAS 18001 – ILO OSH 2001)	378	365	365	
Percentage of sites offering regular and periodic medical inspection	78%	80%	79%	
Number of occupational illnesses in France	43	174	166	
Absenteeism rate	3.4%	3.6%	5.8%	
Percentage of employees covered by social security in France, and coverage rate	100% receive 95% coverage rate	100% receive 95% coverage rate	95% receive 94% coverage rate	401-2
Education, training, advising, prevention and risk control programs to assist employees in the event of severe illness	YES	YES	YES	
Extension of the program to families	advice and assistance in case of severe accident	advice and assistance in case of severe accident	advice and assistance in case of severe accident	
Extension of the program to communities	sometimes in collaboration with associations	sometimes in collaboration with associations	sometimes in collaboration with associations	
Proportion of health and safety agreements entered into with entities representing personnel	5.8%	4.9%	5.4%	403-4

EMPLOYMENT	2017	2016	2015	GRI
<b>WORKFORCE</b>				
Total headcount	179,149 persons	172,696 persons	170,372 persons	
Rate of blue-collar workers	40.6%	40.8%	40.6%	
Rate of employees, technicians and supervisors	42.8%	43%	43.5%	
Rate of managers	16.5%	16.2%	15.9%	
Fixed-term employment contract <sup>(1)</sup>	6.7%	5.0%	4.6%	102-8
Percentage of fixed-term employment contracts transformed into permanent contract	48.6%	44.6%	43.1%	
Turnover rate	9.5%	9.0%	14.0%	
<i>The indicator's definition is aligned with international standard. The indicator could not be recalculated for 2015.</i>				
Layoff rate	3.2%	2.8%	3.8%	
Resignation rate	5.4%	5.1%	5.3%	
Managers turnover	8.0%			
<b>RECRUITMENT</b>				
Hiring rate	15.9%	16.2%	16.2%	401-1
Number of employees hired	28,412 persons	27,635 persons	27,576 persons	401-1
Hiring rate of young people under 26	31.8%	32.6%	30.7%	401-1
Proportion of youth contracts (work/study programs, apprenticeship etc.) in France	4.1%	3.8%	3.7%	
Hiring rate of employees aged 50 or older	11.0%	7.8%	6.0%	401-1
Hiring rate by gender M/F	74.4%	74.9%	74.9%	
	25.6%	25.1%	25.1%	401-1
Manager hiring rate by gender M/F <sup>(1)</sup>	69.7%	72.5%	71.3%	
	30.3%	27.5%	28.7%	401-1
<b>MOBILITY</b>				
Number of inter-activity mobility of managers <sup>(2)</sup>	528	588	537	
Number of inter-profession mobility of managers <sup>(2)</sup>	1,006	993	986	
Number of geographical mobility of managers <sup>(2)</sup>	212	184	209	
<b>WORK ORGANIZATION</b>				
Share of employees working on shifts	28.0%	31.7%	31.7%	102-8
Rate of overtime	4.1%	4.0%	3.8%	102-8
Rate of temporary employees	8.1%	6.7%	6.1%	102-8
Rate of part-time employees	3.7%	2.3%	2.6%	102-8

(1) Basis of calculation: excluding North America, i.e. 91.8% of the scope of the reporting.

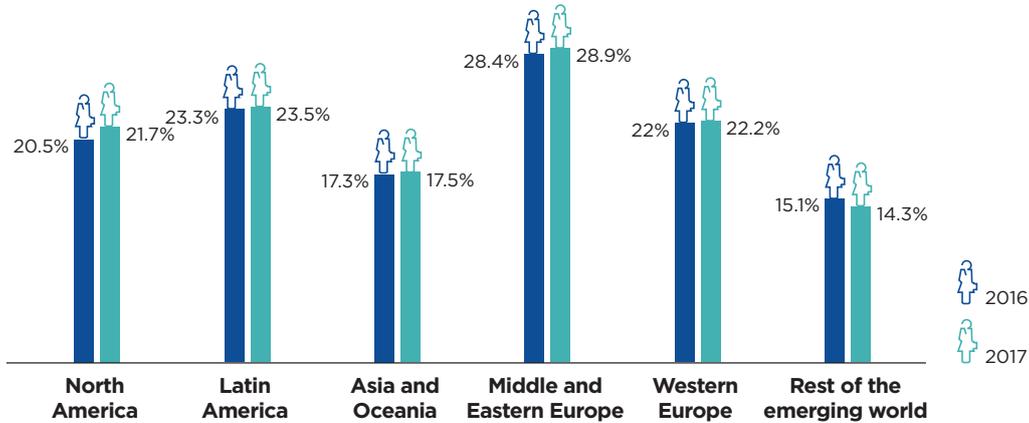
(2) Source: PeopleGroup.

## EMPLOYEE TURNOVER BY GEOGRAPHIC REGION



DIVERSITY	2017	2016	2015	GRI
<b>GENDER DIVERSITY</b>				
Employee distribution by gender (M/F)	77.8% / 22.2%	78.1% / 21.9%	78.6% / 21.4%	102-8
Proportion of women workers among all women employees	20.5%	19.9%	19.0%	405-1
Proportion of women managers among all women employees	16.8%	16.3%	15.7%	405-1
Share of women managers among managers	22.5%	22.0%	21.4%	405-1
Promotion of female managers among all management promotions	25.5%	28.7%	27.5%	405-1
Percentage of female managers among all senior executives	13%	11%	8.7%	405-1
Turnover rate by gender	M: 9.4% F: 9.8%	M: 10.2% F: 10.5%		
<b>AGE DIVERSITY</b>				
Proportion of young people under 25	7.1%	5.9%	5.2%	405-1
Proportion of people between 25 and 44	51.7%	52.2%	50.8%	405-1
Proportion of people between 44 and 54	26.7%	27.4%	28.8%	405-1
Proportion of people over 55	14.4%	14.5%	15.2%	405-1
<b>CULTURAL DIVERSITY</b>				
Proportion of national managers				
Germany	93.3%	94.0%	94.0%	202-2
Poland	97.7%	97.9%	98.0%	202-2
Brazil	98.9%	98.9%	98.0%	202-2
China	94.7%	93.8%	93.0%	202-2
India	99.2%	99.8%	99.9%	202-2
<b>DISABILITY</b>				
Proportion of disabled employees within the Group	1.6%	1.7%	1.7%	405-1
Proportion of disabled employees in France	3.0%	3.0%	3.2%	405-1
Number of workstations fitted out for disabled employees in France	182	121	172	

## PROPORTION OF FEMALE EMPLOYEES BY GEOGRAPHIC REGION



TALENT DEVELOPMENT	2017	2016	2015	GRI
<b>TRAINING</b>				
Proportion of payroll of training investment	1.1%	1.8%	2.0%	
Employees who have received training during the year	87.2%	83.9%	83.7%	404-1
Share of management employees who have received training	100%	100%	100%	404-1
Share of non-management employees who have received training	83.9%	78.4%	78.2%	404-1
Average number of training hours per employee per year	19.3h	25.4 h	26.3 h	404-1
Average number of training hours per employee per year and per gender	Male: 19.2 h Female: 19.6 h	Male: 24.7 h Female: 27.9 h		404-1
Share of technical and EHS training <sup>(1)</sup>	46.5% EHS training	51% EHS training	40.3% EHS training	

(1) In 2016, the indicators are calculated based on the number of technical, EHS and personal development numbers of training courses.

EMPLOYEES' ENGAGEMENT	2017	2016	2015	GRI
<b>ANNUAL REVIEWS</b>				
Proportion of Group employees receiving annual reviews	61.2%	64.6%	65.0%	404-3
Proportion of non-managers receiving annual reviews	55.8%	59.5%	60.1%	404-3
Proportion of managers receiving annual reviews	88.4%	90.9%	90.5%	404-3
<b>SOCIAL RELATIONSHIPS</b>				
Percentage of employees with employee representation	57.5%	64.5%	66.9%	
Percentage of Group employees covered by a collective bargaining agreement (in France)	69.0% (100% in France)	79.8% (100% in France)	71.5% (100% in France)	102-41
Number of agreements signed with employee representatives	1,595	1,569	1,677	
Minimum prior notice period before any organizational change	two weeks to several months, depending on the country	two weeks to several months, depending on the country	two weeks to several months, depending on the country	402-1
<b>THE GROUP SAVINGS PLAN</b>				
Proportion of shares held by Group employees	7.4%	7.7%	7.6%	401-2
Number of countries participating in the Group Savings Plan	42	41	43	401-2
Proportion of employees covered by profit sharing agreement in France	98.9%	99.1%	98.6%	401-2

NON-DISCRIMINATION	2017	2016	2015	GRI
<b>TRAINING FOCUSED ON NON-DISCRIMINATION</b>				
e-learning Gender Balance for managers: number of persons	1,471	1,157		
e-learning Gender Balance for managers: number of hours	1,103 h	778 h		
<b>EQUAL TREATMENT</b>				
Ratio of basic average male to female wages	0.91	0.90	0.90	405-2
Ratio of basic average male to female wages for junior managers	0.97	0.97	0.97	405-2
Ratio of basic average male to female wages for confirmed managers	0.95	0.93	0.91	405-2
Ratio of basic average male to female wages for senior managers	0.94	0.94	0.91	405-2
Ratio of total average male to female remuneration	0.87			405-2
Ratio of total average male to female remuneration for junior managers	0.95			405-2
Ratio of total average male to female remuneration for confirmed managers	0.93			405-2
Ratio of total average male to female remuneration for senior managers	0.91			405-2
<b>NUMBER OF INCIDENTS COLLECTED</b>				
Total of incidents including:	77	65	89	406-1
Disability	5	6	6	
Harassment	49	37	64	
Ethnic origin	1	6	6	
Gender	0	2	2	
Other	22	14	11	
<b>GROUP VALUES</b>				
<b>PRINCIPLES OF CONDUCT AND ACTION</b>				
Proportion of managers trained in the 1 <sup>st</sup> year after joining the Group	80.7%	73.1%		412-2
Incorporation of the Principles into the employee welcome booklets (fixed-term and indefinite-term contracts)	100%			
Number of persons trained during dedicated training sessions provided by the Responsible Development Department	857	602	1 185	
Number of persons receiving in presence training in the management school	619	581	676	
Number of trainers trained for local deployment	82	161	244	
Proportion of General Delegations including France with at least one local trainer	93%			
<b>HUMAN RIGHTS</b>				
Proportion of General Delegations identified as human rights risks having a local trainer in the Principles of Conduct and Action	100%			
Number of incidents involving child labor	0	0	0	408-1
Number of incidents involving forced or mandatory labor	0	0	0	409-1
Number of incidents involving union freedom	1	0	2	407-1
Other incidents involving human rights	0	0	0	
Reports received through the occupational whistle-blowing system	211	79	63	103-2
<b>ANTI-CORRUPTION</b>				
Number of managers trained (e-learning ACT launched in 2015) <i>As from 2017, ACT will be compulsory for all managers joining the Group in the 1<sup>st</sup> year of presence, considering other managers are trained.</i>	26,869	24,463	23,313	205-2
ACT training: training of managers in their first year of presence	87.2%			
Number of cases of corruption reported	0	0	0	205-3
<b>COMPLIANCE PROGRAM</b>				
Compliance statements (Internal Audit program)	659	655	Almost 700	
Training seminars including anti-corruption, competition and embargos	336	209	207	
<b>COMPLIANCE WITH THE LAW</b>				
Online training Comply (anti-trust laws): Proportion of managers trained in the 1 <sup>st</sup> year after joining the Group <i>Considering the managers are already trained since the beginning of the program, the indicator changed to focus on managers joining the Group with an objective of 100% trained in their 1<sup>st</sup> year.</i>	88.7%	86.6%		
Major fines for non-compliance with laws and regulations	0	0	0	206-1
Number of non-financial penalties for violation of laws and regulations	0	0	0	206-1

RESPONSIBLE PURCHASING	2017	2016	2015	GRI
<b>TRADE SUPPLIERS AND OUTSIDE CONTRACTORS</b>				
Training of Buyers in the Responsible Purchasing policy (category managers)	98%	100%	100%	
Total trade purchases covered by the Suppliers Charter	83.5%	83.5%	77%	
Proportion of suppliers per CSR performance level (evaluation includes in particular human rights, working conditions, fight against corruption, against forced labor, against child labor, etc.)				
Critical	4%	4.0%	4.5%	414-2
To be improved	29%	28.0%	32.0%	414-2
Effective	67%	68.0%	63.5%	414-2
Number of audited supplier plants	46	32	23	
Critical	0%	0%	0%	
To be improved	62%	69%	70%	
Effective	34%	31%	30%	
Responsibly sourced Timber	94%	94%	85%	
<b>NON-TRADE SUPPLIERS AND OUTSIDE CONTRACTORS</b>				
Training in the Responsible Purchasing policy (including Purchasing Department)	2,279 (1,171)	1,930 (1,295)	1,244 (1,006)	
Total trade purchases covered by the Suppliers Charter	80.4%	65.5%	53.5%	
Proportion of suppliers per CSR performance level (evaluation includes in particular human rights, working conditions, fight against corruption, against forced labor, against child labor, etc.)				
Critical	1.8%	1.7%	2.0%	414-2
To be improved	92.7%	93.7%	93.6%	414-2
Effective	5.5%	4.6%	4.3%	414-2
Number of audits: 376 Third party audits from 2011 and 94 audits managed by employees since 2016 including:				
Proportion of audits concluding on a "Critical" CSR performance	8.5%	7.7%	6.9%	
Proportion of audits concluding on a "To be improved" CSR performance	60.9%	57.7%	57.4%	
Proportion of audits concluding on an "Effective" CSR performance	30.6%	34.5%	35.6%	
Percentage of certified timber purchases (pallets)	96.2%	96.1%	95.0%	

LOCAL IMPACT	2017	2016	2015	GRI
<b>LOCAL ECONOMIC DEVELOPMENT</b>				
Number of agreements signed with companies to create external jobs in France	40 agreements	28 agreements	24 agreements	203-2
Financial commitments under agreements to assist SMEs in France	€1.43 million	€1.46 million	€1.1 million	203-2
Number of days of technical support to SMEs in France	211 days	255 days	206 days	203-2
Number of external jobs created in France through the support of Saint-Gobain Développement	320 jobs	359 jobs	274 jobs	203-2
<b>SOCIAL AND ECONOMIC FOOTPRINT</b>				
Indirect jobs		549,000	460,000	203-2
Induced jobs		190,800		203-2
Ratio indirect jobs/direct jobs		3.20	2.50	203-2
<b>SUPPORT TO LOCAL COMMUNITIES</b>				
Investments in projects				
<i>The decrease compared to 2015 (-2%) is due to a change in the scope of reporting in India to be aligned to a new local context. At equivalent scope, the global figure will be €6.8 million, an increase of +5%.</i>	€6.3 million	€6.3 million	€6.4 million	
Number of projects received by the International Saint-Gobain Initiatives Corporate Foundation	56	49	48	
Number of projects accepted by the International Saint-Gobain Initiatives Corporate Foundation	25	24	16	
Cultural sponsorship	1.1 million euros	1.2 million euros	0.8 million euros	

### Information and labeling required for products and services

Group products comply with current regulation such as EC marking or the obligation for chemical products to have Safety Files (SF) labels.

Saint-Gobain also provides specific non-mandatory information on its products, such as:

- voluntary reporting files on safety data for non-classified items or substances;
- declaration in IMDS (International Material Data System), an automobile industry database, of the composition of components and materials supplied;

- specific labels such as the Environmental and Health Data Sheet in France for Construction Products;

- programs to ensure compliance with laws, standards and voluntary codes on marketing communications, including advertising, promotion and sponsorships.

Saint-Gobain bases its development on the values contained in the Principles of Conduct and Action. These specifically require compliance with regulation (compliance with the law), professional standards (professional commitment) and internal rules (principle of loyalty). Their application is subject to the Group compliance program (see Chapter 4, Section 1.1).

# Corporate governance

6

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# 1. COMPOSITION AND OPERATION OF THE BOARD OF DIRECTORS

This Section, prepared with the assistance of the Board's Nomination and Remuneration Committee and the Lead Independent Director pursuant to Articles L.225-37 *et seq.* of the French Commercial Code, reports the composition of the Board, and conditions for the preparation and organization of the Board's work (see Chapter 6, Section 4 for the entire report by the Board of Directors on corporate governance).

## Compliance with the AFEP-MEDEF corporate governance code

Compagnie de Saint-Gobain refers to and complies with the AFEP-MEDEF Corporate Governance Code for French listed companies in its updated version of November 2016, which may be found on the MEDEF website at the following address: [www.medef.com](http://www.medef.com).

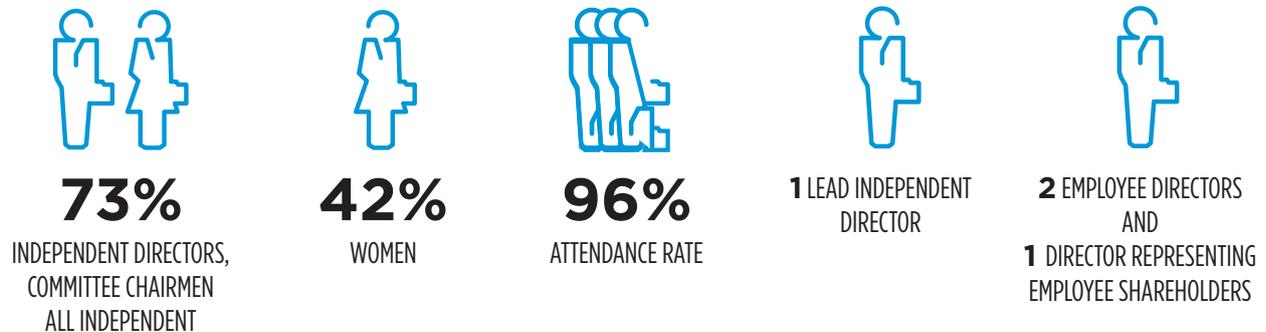
The Company's practices comply with all recommendations contained in the AFEP-MEDEF Code (the "AFEP-MEDEF Code").

AFEP-MEDEF Code recommendation revoked	Saint-Gobain practice and justification
None	None

## 1.1 Composition of the Board of Directors

### 1.1.1 Members of the Board of Directors

The Board of Directors consists of the 14 members named below, appointed for four-year terms. It includes one Director representing employee shareholders and two employee Directors, in accordance with the law, and one Lead Independent Director in charge of overseeing the efficient running of the Company's governance bodies.



The table below gives a general overview of the members of the Board of Directors and Committees as at February 1, 2018.

Name	Age	Independent <sup>(1)</sup>	Other offices <sup>(6)</sup>	ARC <sup>(7)</sup>	NRC <sup>(8)</sup>	SCSRC <sup>(9)</sup>	Years of seniority
Pierre-André de Chalendar	59	No	1			(M) <sup>(10)</sup>	12
Alain Destrain	61	No <sup>(2)</sup>	0				3
Iêda Gomes Yell	61	Yes	2		(M)		2
Anne-Marie Idrac	66	Yes	3		(C)		7
Pamela Knapp	60	Yes	3	(M)			5
Pascal Lai	55	No <sup>(2)</sup>	0		(M)		3
Agnès Lemarchand	63	Yes	2	(M)			5
Frédéric Lemoine	52	No	0			(M)	9
Dominique Leroy <sup>(3)</sup>	53	Yes	3				0
Jacques Pestre	61	No <sup>(4)</sup>	0				7
Denis Ranque	66	No	1		(M)		15
Gilles Schnepf	59	Yes	1	(M)			9
Jean-Dominique Senard <sup>(5)</sup>	65	Yes	1			(C) <sup>(11)</sup>	6
Philippe Varin	65	Yes	1	(C)			5
<b>Number of meetings</b>			<b>Board: 10</b>	<b>ARC: 4</b>	<b>NRC: 4</b>	<b>SCSRC: 6</b>	
<b>Attendance rate</b>			<b>96%</b>	<b>83%</b>	<b>96%</b>	<b>100%</b>	

(1) According to the criteria expressed by Recommendation 8.5 of the AFEP-MEDEF Code: (i) not be or not have been during the preceding five years an employee or Executive Director of Compagnie de Saint-Gobain nor an employee, Executive Director or non-Executive Director of a company that Compagnie de Saint-Gobain consolidates, (ii) not hold cross-directorship in the meaning of Recommendation 8.5.2 of the AFEP-MEDEF Code, (iii) not have significant business relationships with the Saint-Gobain Group, (iv) not have close family ties with a Director of Compagnie de Saint-Gobain, (v) not have been a Statutory Auditor of Compagnie de Saint-Gobain during the preceding five years and (vi) not have been a Director of Compagnie de Saint-Gobain for more than twelve years, it being specified that the forfeiture of the position as independent Director occurs at twelve years.

(2) Employee Director, appointed pursuant to the law, not included in the calculation of the Director independence ratio at the Board of Directors, in compliance with the recommendations of the AFEP-MEDEF Code, nor in the gender parity ratio at the Board of Directors, in accordance with the law.

(3) Director co-opted by the Board of Directors on November 23, 2017, on the recommendation of the Nomination and Remuneration Committee (see Chapter 6, Section 1.1.4).

(4) Director representing employee shareholders, appointed pursuant to the law, not included in the calculation of Director independence and gender parity ratios at the Board of Directors, in compliance with the recommendations of the AFEP-MEDEF Code.

(5) Lead Independent Director.

(6) Held within listed companies (excluding Compagnie de Saint-Gobain).

(7) Audit and Risk Committee.

(8) Nomination and Remuneration Committee.

(9) Strategy and Corporate Social Responsibility Committee.

(10) Member of a committee.

(11) Chairman of a committee.

Each year, specifically on the occasion of its assessment, the Board of Directors considers the desirable balance of its composition and that of the Committees. Regarding the diversity and internationalization of the Saint-Gobain Group's activities, it specifically provides for the presence of Directors with international experience, and ensures that the profiles

and competencies represented at the Board reflect, to the greatest possible extent, the diversity of challenges the Group may face, to guarantee to shareholders and the market that its tasks are executed with the necessary competency, independence and objectivity.

The following biographies show the members of the Board of Directors as of February 1, 2018, their experience and their respective competencies, and the principal offices and functions they exercise or have exercised outside the Group over the past five years, to the best of the Company's knowledge.



## PIERRE-ANDRÉ DE CHALENDAR

Chairman of the Board of Directors and CEO  
 Member of the Strategy and CSR Committee  
 Principal office held: Chairman and Chief Executive Officer of Compagnie de Saint-Gobain  
 Professional address: Compagnie de Saint-Gobain – “Les Miroirs” –  
 18 avenue d’Alsace – 92400 Courbevoie

**Age 59**

**French**

**Number of shares held:**  
**165,024**

**Date of first election:**  
**June 2006**

**Term start date:**  
**June 2014**

**Term end date: General Shareholders’ Meeting convened to approve the financial statements for fiscal year 2017**

### Expertise and experience

A graduate of ESSEC, alumnus of École nationale d’administration and former Finance Inspector, Pierre-André de Chalendar joined Compagnie de Saint-Gobain as Corporate Planning Director on October 1, 1989. Appointed Director of Abrasives Europe (1992-1996), then of the Abrasives Division (1996-2000), the Head Office of which was located in Worcester, United States, before being named Vice President for the United Kingdom and the Republic of Ireland (2000-2002), Pierre-André de Chalendar was named Senior Vice President of Compagnie de Saint-Gobain in charge of the Building Distribution Sector in 2003. Appointed Chief Operating Officer of Compagnie de Saint-Gobain in May 2005, elected Director in June 2006, then Chief Executive Officer of Compagnie de Saint-Gobain on June 7, 2007, he has been Chairman and Chief Executive Officer since June 3, 2010. Within the Saint-Gobain Group, he is a Director of Saint-Gobain Corporation and of GIE SGPM Recherche. He was Chairman of the Board of Directors of Verallia (former Packaging Sector) from March 2011 to March 2014. His offices and duties held outside the Group over the past five years are described below. Pierre-André de Chalendar has been a Director of Compagnie de Saint-Gobain since June 2006.

### Offices and duties held outside the Group

- Director of BNP Paribas\*

### Other offices held outside the Group and expired over the past five years

- Director of Veolia Environnement\* (up to April 2015)

\* Listed company



## ALAIN DESTRAIN

Employee Director  
 Principal office held: Safety Auditor, Saint-Gobain Interservices  
 Professional address: Compagnie de Saint-Gobain – “Les Miroirs” –  
 18 avenue d’Alsace – 92400 Courbevoie

**Age 60**

**French**

**Number of shares held:**  
**954**

**Date of first election:**  
**Dec. 2014**

**Term start date:**  
**Dec. 2014**

**Term end date: General Shareholders’ Meeting convened to approve the financial statements for fiscal year 2017**

### Expertise and experience

Alain Destrain has served the majority of his professional career in the Vauxrot plant at Saint-Gobain Packaging (SGE, former Packaging Sector). Very early on, he took a union career path at the Vauxrot plant, then in the local and national union organizations as Secretary responsible for union affairs at the departmental Union of Aisne for three years, then as member of the Federal Glass and Ceramics Office since 1999. In 2002, he was in charge of collective bargaining in the Mechanical Glass Division through the FNTVC. At Saint-Gobain Packaging and the Saint-Gobain Group, he has been union representative (affiliated with the Confédération Générale du Travail - CGT), then titular member of the Central Enterprise Committee of SGE, Central Union Delegate of Verallia, Secretary of the Saint-Gobain Group Committee, member of the European Convention for Social Dialog and member of the Select Committee. In 2013, in recognition of his union career, he pursued certification training at Sciences Po Paris. Alain Destrain has served as Safety Auditor within Saint-Gobain Interservices since January 1, 2015. Alain Destrain has been a Director of Compagnie de Saint-Gobain since December 2014.

### Offices and duties held outside the Group

None

### Other offices held outside the Group and expired over the past five years

None



## IÊDA GOMES YELL

Independent Director

Member of the Nomination and Remuneration Committee

Principal office held: Research fellow and Director of companies

Professional address: Compagnie de Saint-Gobain - "Les Miroirs" -  
18 avenue d'Alsace - 92400 Courbevoie

Age 61

Brazilian English

Number of shares held:  
800

Date of first election:  
June 2016

Term start date:  
June 2016

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2019

### Expertise and experience

Iêda Gomes Yell graduated in Chemical Engineering from the Federal University of Bahia, in Energy from the University of São Paulo and in Environmental Engineering from the École Polytechnique Fédérale de Lausanne. Iêda Gomes Yell was Chief Executive Officer of the Companhia de Gas de São Paulo from 1995 to 1998.

She then held various senior positions within the BP Group, in particular as Vice President of Pan American Energy (1998-1999), Vice President of Regulatory Affairs (1999-2000), Chairman of BP Brazil (2000-2002), Vice President of Development of BP Solar (2002-2004), and Vice President of BP Integrated Supply and Trading (2004-2011). She has also been Vice President of New Ventures for the Middle East and South Asia (2004-2011) and Independent Chairman of British Taekwondo Ltd (2011-2016).

She has also held several senior positions within professional organizations (the Brazilian Association of Infrastructure, the International Gas Union, the US Civil Engineering Foundation and the Brazilian Association of Gas Distribution Companies).

In 2013, she founded Energix Strategy Ltd, a consulting company on the energy markets based in Warrington that she chaired until October 2017.

In addition, Iêda Gomes Yell serves as Director of the Department of the Infrastructure of the Federation of the State Industry of São Paulo (since 2012), member of the Advisory Board of the Companhia de Gas de São Paulo (since 2013), Councillor to the Brazilian Chamber of Commerce of England, research fellow within the Fundação Getúlio Vargas Energia and Director and co-founder of Will Latam, a non-profit organization (since 2014). Iêda Gomes Yell has been a visiting research fellow at the Oxford Institute for Energy Studies since September 2012.

Her other offices and duties held over the past five years are described below.

Iêda Gomes Yell has been a Director of Compagnie de Saint-Gobain since June 2016.

### Offices and duties held outside the Group

- Director and member of the Audit & Risk Committee and of the Strategy Committee of Bureau Veritas\*
- Director and member of the Nominating and Corporate Governance Committee of Exterran Corporation\* (United States)
- Director and Chairman of the Governance Committee of InterEnergy Holdings\*\*

### Other offices held outside the Group and expired over the past five years

- Founding Chairman of Energix Strategy Ltd\*\* (up to 2017)
- Member of the Board of BP Brasil Ltd and BP Egypt Investments Ltd\*\* (up to 2011)

\* Listed company

\*\* Foreign company



## ANNE-MARIE IDRAC

Independent Director

Chair of the Nomination and Remuneration Committee

Principal office held: Chairman of the Supervisory Board of Aéroport Toulouse-Blagnac

Professional address: Compagnie de Saint-Gobain - "Les Miroirs" -  
18 avenue d'Alsace - 92400 Courbevoie

Age 66

French

Number of shares held:  
827

Date of first election:  
June 2011

Term start date:  
June 2015

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2018

### Expertise and experience

Anne-Marie Idrac is a graduate of Institut d'études politiques de Paris and an alumna of École nationale d'administration. As a civil administrator, she held various positions from 1974 to 1995 in the Ministry of Public Works in the areas of environment, housing, urban development and transport, specifically as Chief Executive Officer of the Établissement Public d'Aménagement de Cergy-Pontoise (1990-1993), then Director of Land Transport (1993-1995).

In 1995, she was appointed Junior Minister for Transport, a position she held until June 1997.

She was elected Member of Parliament for Yvelines in 1997 and 2002, and Regional Council Member for Île-de-France from 1998 to 2002.

From 2002 to 2006, Anne-Marie Idrac was Chairman and Chief Executive Officer of RATP, then Chairman of SNCF from 2006 to 2008.

In March 2008, she was appointed Junior Minister for Foreign Trade, a position she held until November 2010.

Anne-Marie Idrac was also President of the European-France Movement from 1999 to 2005 and member of the Economic and Social Council from 2004 to 2008. She is also Chairman of the Advisory Board of the School of Public Affairs of Sciences Po Paris and Deputy Chair of the Robert Schuman Foundation.

Her other offices and duties over the past five years are described below.

Anne-Marie Idrac has been a Director of Compagnie de Saint-Gobain since June 2011.

### Offices and duties held outside the Group

- Director of Air-France KLM\*
- Chairman of the Supervisory Board of Aéroport Toulouse-Blagnac<sup>(1)</sup>
- Director of Bouygues\*
- Director of Total\*

### Other offices held outside the Group and expired over the past five years

- Member of the Supervisory Board of Vallourec\* (up to May 2015)
- Director of Médiobanca\* (Italy) (up to 2014)

\* Listed company

<sup>(1)</sup> Anne-Marie Idrac intends to resign as Chairman of the Supervisory Board of Aéroport Toulouse-Blagnac mid-May 2018.



## PAMELA KNAPP

Independent Director  
 Member of the Audit and Risk Committee  
 Principal office held: Director of companies  
 Professional address: Compagnie de Saint-Gobain – “Les Miroirs” –  
 18 avenue d’Alsace – 92400 Courbevoie

Age 59

German

Number of shares held:  
818

Date of first election:  
June 2013

Term start date:  
June 2017

Term end date: General  
Shareholders’ Meeting  
convened to approve  
the financial statements  
for fiscal year 2020

### Expertise and Experience

A graduate of Berlin University and Harvard University, Pamela Knapp started her career in 1987 as a Mergers and Acquisitions Consultant at Deutsche Bank Morgan Grenfell GmbH and at Fuchs Consult GmbH.

In 1992, she was named Director of Strategic Projects, then of the Maintenance & Services Branch in the Transportation Systems Division of the Siemens Group, where she served until 1997. From 1998 to 2000, she was a Board member and Chief Financial Officer (CFO) of Siemens SA, Belgium and Luxembourg.

In 2000, she became Director of the Siemens Group’s central Corporate Development Executives Department then, starting in 2004, Board member and Chief Financial Officer of the Power Transmission and Distribution Division of the Siemens Group, until 2009. From 2009 until October 2014, she was a member of the Management Board of GfK SE.

Her other offices and duties held over the past five years are described below.

Pamela Knapp has been a Director of Compagnie de Saint-Gobain since June 2013.

### Offices and duties held outside the Group

- Member of the Supervisory Board, the Nomination, Remuneration and Governance Committee and the Finance and Audit Committee of Peugeot SA\*
- Director of HKP Group AG (Switzerland)
- Director and member of the Audit Committee of Panalpina World Transport (Holding) Ltd.\* (Switzerland)
- Director and member of the Audit Committee of NV Bekaert\* (Belgium)

### Other offices held outside the Group and expired over the past five years

- Member of the Management Board of GfK SE, (Germany) (2009-2014)
- Member of the Supervisory Board of Monier Holdings SCA (Luxembourg) (2009-2013)

\* Listed company



## PASCAL LAÏ

Employee Director  
 Member of the Nomination and Remuneration Committee  
 Principal office held: Environment, Health and Safety Promoter of Saint-Gobain Sekurit France  
 Professional address: Saint-Gobain Sekurit France – 249 Bd. Drion – 59580 Aniche

Age 55

French

Number of shares held:  
1,426

Date of first election:  
Dec. 2014

Term start date:  
Dec. 2014

Term end date: General  
Shareholders’ Meeting  
convened to approve  
the financial statements  
for fiscal year 2017

### Expertise and experience

Pascal Lai joined the Group in 1986 at the Aniche plant (Saint-Gobain Sekurit, Innovative Materials Sector) where he worked for 20 years in production in the furnace environment, then as a toolmaker. In 2000, he started a union career path (affiliated with the Confédération Française Démocratique du Travail - CFDT), where he has successively held positions in the Aniche Facility Committee, as Personnel Representative and as full member of the CHSCT. He is also a full member of the Saint-Gobain Sekurit France Central Enterprise Committee. He has also held member positions on the Saint-Gobain Group Committee, as Group coordinator since 2011 and as full member of the Convention for European Social Dialog. Pascal Lai has held the position of Environment, Health and Safety Officer at Saint-Gobain Sekurit France since December 1, 2014.

Pascal Lai has been a Director of Compagnie de Saint-Gobain since December 1, 2014.

### Offices and duties held outside the Group

None

### Other offices held outside the Group and expired over the past five years

None



## AGNÈS LEMARCHAND

Independent Director  
 Member of the Audit and Risk Committee  
 Principal office held: Director of companies  
 Professional address: Compagnie de Saint-Gobain – “Les Miroirs” –  
 18 avenue d’Alsace – 92400 Courbevoie

Age 63

French

Number of shares held:  
**2,252**

Date of first election:  
**June 2013**

Term start date:  
**June 2017**

Term end date: **General Shareholders’ Meeting convened to approve the financial statements for fiscal year 2020**

### Expertise and experience

A graduate of École Nationale Supérieure de Chimie de Paris (ENSCP) and MIT (USA), and holder of an MBA from INSEAD, Agnès Lemarchand began her professional career with various operational responsibilities within the Rhône-Poulenc Group from 1980 to 1985.

Appointed in 1986 as Chief Executive Officer of Industrie Biologique Française (IBF), she created IBF Biotechnics, a subsidiary of the Rhône-Poulenc Group and the Institut Mérieux, in the United States in 1987, of which she was appointed Chairman and Chief Executive Officer.

In 1991, she joined the Ciments Français Group as Chief Executive Officer of Prodical, an industrial minerals subsidiary which she led from 1991 to 1996. She joined the Lafarge Group in 1997, held the position of Director of Strategy for the Specialty Materials branch, then in 1999 was appointed Chairman and Chief Executive Officer of Lafarge Chaux.

In 2004, she took over, together with its senior executives, the Lafarge Chaux subsidiary in the United Kingdom and founded Steetley Dolomite Limited, where she served as executive Chairman for 10 years before selling the company to the industrial group Lhoist. Agnès Lemarchand was a member of the Economic, Social and Environmental Council (Economic Activities Section), from March 2012 to April 2014.

Her other offices and duties held over the past five years are described below.

Agnès Lemarchand has been a Director of Compagnie de Saint-Gobain since June 2013.

### Offices and duties held outside the Group

- Director of Solvay\* (Belgium)
- Director of BioMérieux\*
- Chairman of Orchard SAS

### Other offices held outside the Group and expired over the past five years

- Director of CGG\* (up to November 2017)
- Member of the Supervisory Board of Vivescia Industries, representing BPI France Participations (up to December 2015)
- Member of the Supervisory Board of Areva\* (up to January 2015)
- Executive Chairman of Steetley Dolomite Limited (United Kingdom) (up to 2014)
- Member of the Supervisory Board of Mersen\* (up to 2013)

\* Listed company



## FRÉDÉRIC LEMOINE

Director  
 Member of the Strategy and CSR Committee  
 Principal office held: Director of companies  
 Professional address: Compagnie de Saint-Gobain – “Les Miroirs” –  
 18 avenue d’Alsace – 92400 Courbevoie

Age 52

French

Number of shares held:  
**835**

Date of first election:  
**April 2009**

Term start date:  
**June 2016**

Term end date: **General Shareholders’ Meeting convened to approve the financial statements for fiscal year 2019**

### Expertise and experience

Graduate of École des hautes études commerciales (HEC) and Institut d’études politiques de Paris, holding a degree in law, an alumnus of École nationale d’administration, Frédéric Lemoine is a Finance Inspector.

In 1992-1993, he led the Heart Institute of Ho Chi Minh City, Vietnam, for one year, and became from 2004 to 2013 General Secretary of the Alain Carpentier Foundation which supported that hospital.

From 1995 to 1997, he was Deputy Chief of Staff to the Ministry of Labor and Social Affairs, in charge of coordinating social security reform and hospital reform, and was simultaneously a Technical Advisor for the Secretary of State for Health and Social Security.

From 1998 to 2002, he reported to Serge Kampf and the Management Board of Capgemini as Vice-Executive Director, then Chief Financial Officer, before being appointed Senior Vice President in charge of Capgemini Ernst & Young finances.

From 2002 to 2004, he was Deputy Secretary-General to the office of the French President Jacques Chirac, specifically in charge of economic and financial affairs.

From October 2004 to 2008, he was Senior Advisor at McKinsey. From March 2005 to April 2009 he was Chairman of the Supervisory Board of Areva, and member and then non-voting member of the Supervisory Board of Générale de Santé from 2006 to 2009.

He became a member of the Wendel Supervisory Board in June 2008, a position he resigned from upon his appointment as Chairman of the Management Board of Wendel in April 2009. His ceased to hold office at Wendel on December 31, 2017 but remains its only representative on the Board of Directors of Compagnie de Saint-Gobain until 2020.

His other offices and duties held over the past five years are described below.

Frédéric Lemoine has been a Director of Compagnie de Saint-Gobain since April 2009.

### Offices and duties held outside the Group

None

### Other offices held outside the Group and expired over the past five years

- Chairman of the Management Board of Wendel\* (2009-2017) and various offices in companies in which Wendel held an interest
- Vice Chairman then Chairman of the Board of Directors of Bureau Veritas\* (up to 2013 and 2017 respectively)
- Director of Legrand\* (2009-2013)

\* Listed company



## DOMINIQUE LEROY

Independent Director

Principal office held: Chief Executive Officer of Proximus  
Professional address: Compagnie de Saint-Gobain "Les Miroirs" –  
18 avenue d'Alsace 92400 Courbevoie

Age 53

Belgian

Number of shares held: -

Date of first election:  
November 23, 2017

Term start date:  
November 23, 2017

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2018

### Expertise and experience

Holder of a Master's in Commercial Engineering and Management from the Solvay Business School (1987), Dominique Leroy spent 24 years in various roles at Unilever. Having started out in marketing, finance and client development, between 1999 and 2006 she was appointed first Director of Operations Division, then Director of Logistics and finally Director of Client Development at Unilever Foods Belgium. Up to 2011, she was then Director of Client Development and member of the Management Committee, then Managing Director of Unilever Belgium and sat on the Management Committee of Unilever Benelux from 2008 to 2011.

In 2011, she joined Proximus Group (formerly Belgacom) as Vice President with responsibility for sales and e-business for the Consumer Business Unit, before becoming its Executive Vice President in June 2012. Since January 2014, Dominique Leroy has been CEO of Proximus Group, listed on the first market of Euronext Brussels.

At Proximus Group, she also chairs the Boards of Directors of BICS and Be-Mobile and is a Director of Proximus Art.

Dominique Leroy is currently an independent member of the Supervisory Board and the Sustainability and Innovation Committee of Ahold Delhaize. She is a Director and chairs the Audit Committee of Lotus Bakeries. She also chairs the International Advisory Board of the Solvay Brussels School of Economics and Management.

Her other offices and duties held over the past five years are described below.

Dominique Leroy has been an independent Director of Compagnie Saint-Gobain since November 23, 2017\*\*.

### Offices and duties held outside the Group

- CEO of Proximus\* (Belgium)
- Member of the Supervisory Board and member of the Sustainability and Innovation Committee of Ahold Delhaize\* (Netherlands)
- Director and Chairman of the Audit Committee of Lotus Bakeries\* (Belgium) <sup>(1)</sup>

### Other offices held outside the Group and expired over the past five years

None

\* Listed company

\*\* Co-optation subject to ratification by the General Shareholders' Meeting to be held on June 7, 2018

<sup>(1)</sup> Dominique Leroy intends to resign as Director of Lotus Bakeries mid-May 2018



## JACQUES PESTRE

Director representing employee shareholders

Principal office held: Senior Vice President of SGDB France, in charge of Point. P

Professional address: SGDB France - Immeuble le Mozart –  
13/15 rue Germaine Tailleferre – 75940 Paris cedex 19

Age 61

French

Number of shares: 3,447

Date of first election:  
June 2011

Term start date:  
June 2015

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2018

### Expertise and experience

Jacques Pestre is a graduate of École Supérieure de Commerce de Toulouse. Joining the Saint-Gobain Group more than 30 years ago, he began his career in 1980 within the Insulation Division as a field sales representative, then as Director of Sales (1982-1984), before being appointed Southwest Regional Director of Isover.

In 1987, Jacques Pestre was appointed Regional Director of Saint-Gobain Flat Glass, a position he held until 1988, before being appointed as Agency Head of Miroiteries de l'Ouest. From 1989 to 1995, Jacques Pestre was Chief Executive Officer of Somir SA. From 1995 to the end of August 2011, Jacques Pestre successively served as Operational Sales Director for Point.P BMSO (until 2000), Regional President for the POINT.P Group (until 2007) then Area President for the POINT.P Group (2010), Senior Vice President in charge of Specialist Brands of SGDB France.

Since September 2011, Jacques Pestre has been Deputy CEO of SGDB France responsible for the POINT.P brand.

Jacques Pestre also serves as Chairman, Chairman of the Board of Directors or Director in the following companies of the Saint-Gobain Group Building Distribution Sector: DOCKS DE L'OISE, SONEN (since 2012), BMSO, BMCE, COMASUD, BMRA, Méridionale des Bois et Matériaux MBM, CIBOMAT, DMO and TROUILLARD.

Jacques Pestre has been a Director of Compagnie de Saint-Gobain since June 2011 and Chairman of the Supervisory Board of FCPE "Saint-Gobain PEG France".

### Offices and duties held outside the Group

None

### Other offices held outside the Group and expired over the past five years

None



## DENIS RANQUE

Director

Member of the Nomination and Remuneration Committee

Principal office held: Chairman of the Board of Directors of Airbus

Professional address: Airbus - 12 rue Pasteur - BP 76 - 92152 Suresnes Cedex

Age 66

Nationality: French

Number of shares held:  
888

Date of first election:  
June 2003

Term start date:  
June 2015

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2018

### Expertise and experience

Denis Ranque is an alumnus of École Polytechnique and of École des Mines.

He began his career at the Ministry of Industry, where he held several positions in the energy sector, before joining the Thomson Group in 1983 as Planning Director.

The following year he was transferred to the Electronic Tubes Division, first as Director of the "Space" activity then, starting 1986, as Director of the Hyperfrequency Tubes Department. Two years later, this division became a subsidiary of Thomson Tubes Electroniques, for which he was appointed Chief Executive Officer in 1989.

In April 1992, he was appointed Chairman and Chief Executive Officer of Thomson Sintra "Submarine Activities". Four years later, he became Chief Executive Officer of Thomson Marconi Sonar, the sonar systems joint venture of THOMSON-CSF and GEC-MARCONI.

In January 1988, Denis Ranque was appointed Chairman and Chief Executive Officer of the THOMSON-CSF Group, which in 2000 took the name THALES. He left in 2009 due to a change in shareholder control. He is currently Chairman of the Board of Directors of the Airbus Group. He has served as Chairman of the Board of Mines Paris Tech, of the Cercle de l'Industrie and Association Nationale Recherche et Technologie. Denis Ranque is currently Chairman of the Haut Comité de Gouvernement d'Entreprise (High Committee on Corporate Governance) and Chairman of the Board of Directors of the Fondation École Polytechnique.

His other offices and duties held over the past five years are described below.

Denis Ranque has been a Director of Compagnie de Saint-Gobain since June 2003.

### Offices and duties held outside the Group

- Chairman of the Board of Directors of Airbus\* (Netherlands)
- Director of CMA-CGM

### Other offices held outside the Group and expired over the past five years

- Director of Scilab Enterprises (up to 2017)

\* Listed company



## GILLES SCHNEPP

Independent Director

Member of the Audit and Risk Committee

Principal office held: Chairman and Chief Executive Officer of Legrand

Professional address: Legrand - 128 avenue du Maréchal de Lattre de Tassigny - 87045 Limoges Cedex

Age 59

French

Number of shares held:  
800

Date of first election:  
June 2009

Term start date:  
June 2017

Term end date: General  
Shareholders' Meeting  
convened to approve  
the financial statements  
for fiscal year 2020

### Expertise and experience

Gilles Schnepf is a graduate of École des hautes études commerciales (HEC). He began his career at Merrill Lynch as Director of the Bonds and Derivatives Departments. In 1989, he joined the Legrand Group where he held several positions before being appointed Senior Vice President (2000), member of the Management Committee and Director (2001), Vice Chairman and Chief Executive Officer (2004) then Chairman and Chief Executive Officer of Legrand since 2006. He has also been Chairman of FIEEC (Federation of Electrical, Electronic and Communications Industries) since July 2013.

His other offices and duties held over the past five years are described below.

Gilles Schnepf has been a Director of Compagnie de Saint-Gobain since June 2009.

### Offices and duties held outside the Group

- Chairman and Chief Executive Officer of Legrand\*
- Various positions and functions within subsidiaries of the Legrand Group

### Other offices held outside the Group and expired over the past five years

- Various positions and functions within subsidiaries of the Legrand Group

\* Listed company



## JEAN-DOMINIQUE SENARD

Lead Independent Director  
 Independent Director  
 Chairman of the Strategy and CSR Committee  
 Principal office held: Chief Executive Officer of Michelin  
 Professional address: Michelin – 23 place des Carmes-Déchaux – 63040 Clermont-Ferrand Cedex 9

Age 64

French

Number of shares held:  
**1,830**

Date of first election:  
**June 2012**

Term start date:  
**June 2016**

Term end date: **General Shareholders' Meeting convened to approve the financial statements for fiscal year 2019**

### Expertise and experience

A graduate of École des hautes études commerciales (HEC) and with a master's degree in law, Jean-Dominique Senard began his career with various financial and operational responsibilities within the Total Group from September 1979 to September 1987, then at Saint-Gobain from 1987 to 1996.

From September 1996 to March 2001, he was Finance Director of the Pechiney Group and member of the Group's Executive Committee. He then managed the Primary Aluminum Division of the Pechiney Group until 2004. Then, as member of the Alcan Group Executive Committee, he was in charge of Pechiney's integration and Chairman of Pechiney SA.

Jean-Dominique Senard joined Michelin in March 2005 as Chief Financial Officer and member of the Executive Council of the Michelin Group. In May 2007, he became Non-Limited Partner of the Michelin Group before being appointed Limited Managing Partner in May 2011 alongside Michel Rollier, and then Chairman in May 2012.

His other offices and duties held over the past five years are described below.

Jean-Dominique Senard has been a Director of Compagnie de Saint-Gobain since June 2012.

### Offices and duties held outside the Group

- Chief Executive Officer of Michelin\*

### Other offices held outside the Group and expired over the past five years

- Director of SEB\* (up to 2013)

\* Listed company



## PHILIPPE VARIN

Independent Director  
 Chairman of the Audit and Risk Committee  
 Principal office held: Chairman of the Board of Directors of Areva  
 Professional address: Areva – 1 place Jean Millier – 92400 Courbevoie

Age 65

French

Number of shares held:  
**3,026**

Date of first election:  
**June 2013**

Term start date:  
**June 2017**

Term end date: **General Shareholders' Meeting convened to approve the financial statements for fiscal year 2020**

### Expertise and experience

An alumnus of École Polytechnique and of École des Mines de Paris, Philippe Varin joined the Pechiney Group in 1978 as a researcher. He subsequently held various management positions within this Group (management control, strategy, project management), before being appointed as head of the Rhenalu Division in 1995 and then General Director of the Aluminum Division and member of the Group's Executive Committee in 1999.

In 2003, he joined the Anglo-Dutch Steelmaking Group Corus as Chief Executive Officer.

In June 2009, he was appointed as Chairman of the Board of PSA Peugeot Citroën, and left the Group in June 2014.

He is currently Chairman of the Board of Directors of Areva. He is also special representative of the Minister of Foreign Affairs and International Development for the ASEAN countries and Chairman of the Cercle de l'Industrie (since 2012).

His other offices and duties held over the past five years are described below.

Philippe Varin has been a Director of Compagnie de Saint-Gobain since June 2013.

### Offices and duties held outside the Group

- Chairman of the Board of Directors of Areva\*

### Other offices held outside the Group and expired over the past five years

- Chairman of the Board of Directors of PSA Peugeot Citroën\* (2009-2014)
- Director of PCMA Holding BV (2009-2014)
- Director of Faurecia SA\* (2009-2014)
- Director of Banque PSA Finance SA (2009-2014)
- Director of BG Group Plc (2006 to 2013)
- Director of EDF\* (2014-2016)

\* Listed company

### 1.1.2 Independence of the members of the Board of Directors, representation of employee shareholders and employees, and diversity policy at the Board of Directors

#### Independence

The Board has reviewed each Director's situation with regard to all the independence criteria set out in the AFEP-MEDEF Code, with which the Company complies, at the proposal of the Nomination and Remuneration Committee.

Firstly, on June 5, 2017, the Board of Directors re-examined the independence status of Gilles Schnepf, following the partial withdrawal of Wendel announced on June 2, 2017 (see Chapter 8, Section 2.2.2).

The Board of Directors decided, at the proposal of the Nomination, Remuneration and Governance Committee, to maintain at the agenda of the General Shareholders' Meeting of June 8, 2017 the proposal to renew Gilles Schnepf's term of office as Director, who previously represented Wendel, and, in case of approval, to qualify him as an independent Director.

The Board considered that Gilles Schnepf had no special ties with Compagnie de Saint-Gobain, including through Wendel, which he no longer represented, pursuant to the governance agreements in place between Saint-Gobain and Wendel. In fact, Legrand, of which Gilles Schnepf is the Chairman and Chief Executive Officer, is no longer controlled by Wendel since 2011 and Wendel ceased to hold any interest in Legrand in June 2013.

Gilles Schnepf has therefore been qualified as an independent Director since 8 June 2017, the date on which his term of office was renewed by the General Shareholders' Meeting.

The Board of Directors, at its meeting of February 22, 2018, also scrutinized, as it does every year, with the same attention as it reviewed the other criteria, the business relationships that existed between the Saint-Gobain Group and the other companies or groups of companies where each Director holds office. The Board's review concluded that, with the exception of Jean-Dominique Senard, Gilles Schnepf and Dominique Leroy, as described below, none of the Directors, nor any company or group of companies within which they hold office as senior executives, has any business relationship with the Company, its group or its management.

The Board then carried out a quantitative and qualitative review of the particular case of Jean-Dominique Senard, Chief Executive Officer of Michelin, Gilles Schnepf, Chairman and Chief Executive Officer of Legrand, and Dominique Leroy, Chief Executive Officer of Proximus and the business relationship between, on the one hand, the Michelin, Legrand or Proximus groups respectively and Saint-Gobain on the other.

The business transactions between each of these three groups and Saint-Gobain, including business activities at an international level, represent less than 0.1% of their respective consolidated net sales and fall substantially below the 1% materiality threshold set by the Board. Furthermore, the Board of Directors highlighted that, because of the structure of the Saint-Gobain Group, its size and the diversity of its business activities, the Board's role was not designed to intervene in the business relations of the Group's various business activities: the sectors and their branches (Activities, Business lines and their divisions) are in effect managed in a decentralized manner by their respective heads. Jean-Dominique Senard, Gilles Schnepf and Dominique Leroy, therefore, in their capacity as Directors of the Saint-Gobain Group, have no direct or indirect decision-making powers within the implementation or the carrying out of these business transactions. If, however, for any extraordinary reason, such an issue should be discussed by the Board, the Board's internal rules regarding conflict of interest are such that the Director concerned would be required to inform the Chairman and the Lead Independent Director of his situation, and to abstain from participating in such debates or deliberations on the matter in question (see Chapter 10, Section 1.1.2).

On the basis of the above, the Board has deemed that Jean-Dominique Senard, Gilles Schnepf and Dominique Leroy do not maintain, either directly or indirectly, any significant business relationship with the Group which may affect their freedom of judgement or their independence.

Chapter 6, Section 1.1.3 deals with conflicts of interest of members of the Board of Directors, and the absence of services contract between Directors and the Company or any company within the Group.

The Board of Directors concluded from its review of Directors' independence against the criteria set down by the AFEP-MEDEF code that, as of February 1, 2018, eight Directors out of 11 (*i.e.* 72.7%) completely satisfied the independence criteria, and were therefore considered to be independent Directors: Iêda Gomes Yell, Anne-Marie Idrac, Pamela Knapp, Agnès Lemarchand, Dominique Leroy, Jean-Dominique Senard, Gilles Schnepf and Philippe Varin. In compliance with the recommendations of the AFEP-MEDEF Code, Jacques Pestre, representing employee shareholders, and Alain Destrain and Pascal Lai, representing employees, were not included in calculating that proportion.

#### Diversity, complementarity of skills and experience of the Directors

As of February 1, 2018, three members of the Board of Directors out of 11 (*i.e.*, 27%) are of foreign nationality (Jacques Pestre, representing the employee shareholders, and Alain Destrain and Pascal Lai representing the employees, are not included to establish this percentage). Further, the majority of Directors has, or has had, very strong international exposure, managing groups with a significant proportion of their activities, or exercising significant duties, outside of France (see Chapter 6, Section 1.1.1).

As part of its self-assessment carried out during 2017 (see Chapter 6, Section 1.2.4), the Board of Directors deemed that the expertise and experience of its members were varied and complementary, in terms of both knowledge of the industry or the Group's Activities/Businesses, and in terms of innovation/digital, management, strategy, finance, governance, and/or corporate social responsibility knowledge (see biographies in Chapter 6, Section 1.1.1). It also deemed that it would be desirable, at the time of future replacements or renewals, to retain the Distribution and Digital skills, increase international exposure and maintain the ratio of executive Directors operating within other large groups. Hence, the co-optation of Dominique Leroy by the Board of Directors at its November 23, 2017 meeting, on the recommendation of the Nomination and Remuneration Committee, fully satisfies these objectives. In particular, Dominique Leroy will bring to the Board of Directors of Saint-Gobain her experience as a non-French executive officer of a listed group and her operational knowledge of the distribution sector and of digital transformation matters.

Furthermore, while the Board of Directors wants to maintain a balance between Directors on the Board with a certain level of seniority and Directors appointed more recently, it nonetheless deemed that for future appointments, it was desirable to include a younger age profile than the average age of the Board, as with the co-optation of Dominique Leroy.

Lastly, the Board intends to maintain balanced numbers of men and women (see the paragraph on Gender parity below).

### Gender parity

As of February 1, 2018, the Board includes five women among 12 members (41.7%), *i.e.* more than 40%, in accordance with the Law of January 27, 2011 on gender parity at boards of Directors. In accordance with the law, Jacques Pestre, representing employee shareholders, is counted in calculating this proportion, unlike Alain Destrain and Pascal Laï, representing employees, who are not.

### Representation of employee shareholders and employees

Pursuant to the bylaws of the Company and to the laws, Alain Destrain and Pascal Laï were appointed employee Directors by the Company's Group Committee. These two Directors, as well as Jacques Pestre, the Director representing employee shareholders appointed pursuant to the law as well, sit on the

Board of Directors and are entitled to vote in the same way as the other Directors. Subject to the laws applying specifically to them, these Directors are subject to all legal and statutory provisions, have the same rights and are subject to the same duties, as fixed, in particular, by the Board's internal rules, as those applicable to the other Directors.

By law, one member of the Works Council (Vincent Cotrel, elected by the members of the Works Council and representing employees) holds a seat on the Board of Directors in a consultative capacity.

The Company bylaws and the Board's internal rules provide that each Director must hold a minimum of 800 registered shares, with the law exempting employee Directors, whether shareholders or not, from this type of obligation.

### 1.1.3 Conflicts of interest and statements regarding members of the Board of Directors

To the best knowledge of Compagnie de Saint-Gobain, as of February 1, 2018 there are no family relationships between the Company's Directors and, within the past five years, no Director has been found guilty of fraud, been associated with a bankruptcy, sequestration or liquidation, received an official public penalty or sanction issued by a statutory or regulatory authority, and/or been prevented by a court from acting as a member of an administrative, management or supervisory body of an issuer of securities, or from taking part in managing or conducting an issuer's business.

To the best of the Company's knowledge, there are no conflicts of interest between Compagnie de Saint-Gobain and the personal and professional activities of the members of its Board of Directors, and there are no service contracts between any members of the Board and either Compagnie de Saint-Gobain or any of its subsidiaries that provide for the conferral of benefits at the term of such contracts. The Lead Independent Director reviewed for this purpose the responses provided by each Director to the questionnaire sent to them.

The Board's internal rules address conflicts of interest in the event such a situation arises: the concerned Director has the duty to inform the Chairman and Chief Executive Officer and the Lead Independent Director thereof, and to refrain from participating in the discussions and deliberations on the subject in question (see Chapter 10, Section 1.1.2).

## 1.1.4 Re-election of the Board of Directors and changes in its composition

The members of the Board of Directors may be re-elected in a staggered and balanced fashion as follows:

Date of expiration of the term of office	Director and date of first election
<b>Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2017</b>	Pierre-André de Chalendar (June 2006) Alain Destrain (December 2014) Pascal Lai (December 2014)
<b>Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2018</b>	Anne-Marie Idrac (June 2011) Jacques Pestre (June 2011) Dominique Leroy (November 2017) Denis Ranque (June 2003)
<b>Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2019</b>	Iêda Gomes Yell (June 2016) Frédéric Lemoine (April 2009) Jean-Dominique Senard (June 2012)
<b>Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2020</b>	Pamela Knapp (June 2013) Agnès Lemarchand (June 2013) Gilles Schnepf (June 2009) Philippe Varin (June 2013)

At the proposal of the Nomination and Remuneration Committee, the Board of Directors, at its meeting held on November 23, 2017, decided unanimously to propose to the General Shareholders' Meeting to be held on June 7, 2018 the renewal of the Director's term of office of Pierre-André de Chalendar. Furthermore, the Board of Directors announced its intention to reappoint him as Chairman and Chief Executive Officer if the General Shareholders' Meeting approves the renewal of his term of office (see Chapter 6, Section 1.2.1 on the combination of the Chairman of the Board of Directors and Chief Executive Officer roles).

In order to replace Olivia Qui, who resigned for personal reasons, the Board of Directors, at its meeting held on November 23, 2017, co-opted Dominique Leroy as an independent Director, at the proposal of the Nomination and Remuneration Committee.

This co-optation will be subject to ratification by the General Shareholders' Meeting to be held on June 7, 2018. Should it be ratified, Dominique Leroy's term of office will be granted for the remainder of Olivia Qiu's term of office, *i.e.* until the close of the General Shareholders' Meeting approving the financial statements for the fiscal year 2018.

In case of renewal of the term of office of Pierre-André de Chalendar and the ratification of the co-optation of Dominique Leroy, the number of women sitting at the Board of Directors will remain at five out of twelve (*i.e.*, a proportion of 41.7%), and the number of independent Directors at the Board, calculated in accordance with the rules set by the AFEP-MEDEF Code, will be eight out of eleven (*i.e.*, a proportion of 72.7%).

## Summary of changes in the composition of the Board of Directors

The following table shows the changes in the composition of the Board of Directors in fiscal year 2017 and the changes proposed to the General Shareholders' Meeting of June 7, 2018:

	General Shareholders' Meeting of June 8, 2017	General Shareholders' Meeting of June 7, 2018
<b>Cessation of duties</b>	Jean-Martin Folz Bernard Gautier <sup>(1)</sup>	None
<b>Renewal</b>	Pamela Knapp <sup>(2)</sup> Agnès Lemarchand <sup>(2)</sup> Gilles Schnep <sup>(2)</sup> Philippe Varin <sup>(2)</sup>	Pierre-André de Chalendar
<b>Proposed nomination/ratification</b>	None	Dominique Leroy <sup>(3)</sup>

(1) In accordance with existing agreements between the Company and Wendel (see Chapter 8, Section 2.4).

(2) Independent Director.

(3) Independent Director, co-opted on November 23, 2017 following the resignation of Olivia Qiu on June 30, 2017.

The following table shows the changes in the composition of the Board with regard to independence, representation of women, and representation of foreign members during fiscal year 2017, and as envisaged by the end of the General Shareholders' Meeting to be held in 2018:

	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017	As from the General Shareholders' Meeting of June 7, 2018 (contemplated)
<b>Percentage of independents</b> <sup>(1)</sup>	54%	73%	73%
<b>Percentage of women</b> <sup>(2)</sup>	36%	42%	42%
<b>Percentage of foreign nationals</b> <sup>(3)</sup>	23%	27%	27%

(1) In compliance with computation rules set by the AFEP-MEDEF Code.

(2) Excluding employee Directors, in accordance with the law.

(3) Excluding employee Directors appointed under specific mandatory legal provisions.

## Summary of the composition of the Board of Directors Committees

The following tables show the changes in the composition of the three Board of Directors Committees in fiscal year 2017. No changes are planned upon completion of the General Shareholders' Meeting scheduled for June 7, 2018:

Audit and Risk Committee	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017
<b>Chairman</b>	Jean-Dominique Senard <sup>(1)</sup>	Philippe Varin <sup>(1)</sup>
<b>Members</b>	Pamela Knapp <sup>(1)</sup> Agnès Lemarchand <sup>(1)</sup> Frédéric Lemoine	Pamela Knapp <sup>(1)</sup> Agnès Lemarchand <sup>(1)</sup> Gilles Schnep <sup>(1)</sup>

(1) Independent Director.

Nomination and Remuneration Committee	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017	As from the General Shareholders' Meeting of June 8, 2017
<b>Chairman</b>	Philippe Varin <sup>(1)</sup>	Anne-Marie Idrac <sup>(1)</sup>	Anne-Marie Idrac <sup>(1)</sup>
<b>Members</b>	Bernard Gautier Anne-Marie Idrac <sup>(1)</sup> Pascal Lai <sup>(2)</sup> Olivia Qiu <sup>(1)</sup>	Frédéric Lemoine Pascal Lai <sup>(2)</sup> Olivia Qiu <sup>(1)</sup>	Iêda Gomes Yell <sup>(1)</sup> Pascal Lai <sup>(2)</sup> Denis Ranque

(1) Independent Director.

(2) Employee Director, not included in the ratio of Independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code.

Strategy and Corporate Social Responsibility Committee	As from the General Shareholders' Meeting of June 2, 2016	As from the General Shareholders' Meeting of June 8, 2017
<b>Chairman</b>	Jean-Martin Folz	Jean-Dominique Senard <sup>(1)</sup>
<b>Members</b>	Pierre-André de Chalendar Frédéric Lemoine	Pierre-André de Chalendar Frédéric Lemoine

(1) Independent Director.

## 1.2 Operation of the Board of Directors

### 1.2.1 Governance structure: combined Chairman of the Board/CEO roles and Lead Independent Director

#### Combination of the Chairman of the Board and CEO roles

At its meeting of June 3, 2010, the Board of Directors of Compagnie de Saint-Gobain resolved to recombine the roles of Chairman of the Board of Directors and Chief Executive Officer by appointing Pierre-André de Chalendar as Chairman and Chief Executive Officer.

The roles of Chairman of the Board of Directors and Chief Executive Officer were separated in June 2007 to ensure a smooth handover of powers from Jean-Louis Beffa - then reaching the age limit for the position of Chief Executive Officer, and who subsequently became honorary Chairman of Compagnie de Saint-Gobain - to Pierre-André de Chalendar.

Having discussed the matter most recently in their meeting of November 23, 2017 in connection with the assessment of the Board conducted by the Lead Independent Director, the Board of Directors concluded that combining the two roles is in the best interests of the company as it is well suited to Saint-Gobain and to the experience and highly transparent approach of the Chairman and Chief Executive Officer, and it helps to ensure more responsive and efficient corporate governance and strategy implementation.

Moreover, the decision to combine the two roles once again was in line with the Group's longstanding management tradition. The assessment of the Board's work completed in 2013, on the occasion of the renewal of the term of Director of Pierre-André de Chalendar, and repeated every year since, found that all Directors were satisfied with the combining of the roles, and wished for this to continue including, in 2018, if the General Shareholders' Meeting decides to renew the Director's term of office of Pierre-André de Chalendar.

The Chairman and Chief Executive Officer is vested with the broadest authority to act under all circumstances on behalf of the Company within the scope of its corporate purpose and subject to the limits set by law, the bylaws and/or internal rules of the Board of Directors (see Chapter 6, Section 1.2.2 and Chapter 10, Section 1.1).

In addition, the key factor in good governance is that the other members serve as a counterweight on the Board. Must be especially emphasized:

- all Board Directors, especially, but not only, independent Directors, who account for 73% of the Board of Directors, 100% of members of the Audit and Risk Committee and two-thirds of the members of the Nomination and Remuneration Committee, and the Committee Chairmen, all independent, all of whom are extremely competent and experienced; as well as
  - the permanent representatives of the main shareholders, the PEG corporate mutual fund and Wendel; and
  - the employee Directors appointed by the Saint-Gobain Group Works Council, in accordance with the bylaws of the Company and prevailing legislation.
- To this should be added:
- the specific role played in respect of governance matters and management of conflicts of interests by the Lead Independent Director, a position held by Jean-Dominique Senard, an independent Director, who has good knowledge of the Group (see below);
  - the ability of the Directors to meet in the absence of the executive Director during or after a Board meeting (see Chapter 6, Section 1.2.2 and Chapter 10, Section 1.1.2);
  - the limitation of the powers of the Chairman and Chief Executive Officer regarding all capital expenditures, restructuring, disposals, acquisitions and financial investment and divestment projects in individual amounts greater than €150 million, and any material transaction that fall outside the scope of Saint-Gobain's stated strategy, which require the prior approval of the Board of Directors (see Chapter 6, Section 1.2.2 and Chapter 10, Section 1.1.2).

#### Lead Independent Director (*Administrateur Référent*)

The Board of Directors, taking into account the development of the practice within companies in France chaired by a combined Chairman of the Board/CEO and the expectation of certain investors expressed during the dialogue that the Company has with them, has created the role of Lead Independent Director, a position held by Jean-Dominique Senard, an independent Director, since June 8, 2017. The Lead Independent Director oversees in particular the efficient running of the Company's governance bodies.

#### Responsibilities

His responsibilities, which are described in the internal rules of the Board of Directors (see Chapter 10, Section 1.1.2), are the following:

- prevent and manage conflicts of interest: the Lead Independent Director is responsible for preventing the occurrence of situations of conflicts of interest. He brings to the attention of the Board of Directors possible conflicts of interest that he is aware of concerning the Directors;
- lead the assessment of the organization and the operations of the Board of Directors which is periodically carried out;
- convene, chair, organize and report to the Chairman and Chief Executive Officer on the meetings of the Directors held without the presence of the executive Directors ("executive sessions"). These sessions may be held during or at the close of a meeting of the Board of Directors, as the case may be such sessions may be co-chaired with the Chairman of the Nomination and Remuneration Committee in the event he/she is a different person and for matters falling under the responsibility of the Nomination and Remuneration Committee (in particular succession plans and the executive Director's compensation);

- be a point of contact of the shareholders of Compagnie de Saint-Gobain on governance matters, and meet them at the request of the Chairman and Chief Executive Officer;
- ensure that the Directors receive the relevant information to exercise their duties under the best possible conditions, in accordance with the provisions of the internal rules of the Board of Directors;
- more generally, ensure compliance with the internal rules of the Board of Directors is honored.

In the course of his duties, the Lead Independent Director has the right to:

- suggest to the Chairman and Chief Executive Officer the addition of points to the agenda of any meeting of the Board of Directors;
- request the Chairman and Chief Executive Officer to convene the Board of Directors on a specific agenda;
- convene and chair the meetings of the Board of Directors in the event of the temporary inability or death of the Chairman and Chief Executive Officer; and
- attend, as the case may be, the meetings of the Committees of which he is not a member to the extent strictly necessary to accomplish his duties and upon the approval of the Chairman of the relevant Committee.

The Lead Independent Director reports to the Board of Directors on the completion of his mission on an annual basis.

#### Activities during fiscal year 2017

In 2017, the Lead Independent Director attended nine out of the ten meetings of the Board of Directors, all the meetings of the Strategy and Corporate Social Responsibility Committee, which he has chaired since the close of the General Shareholders' Meeting of June 8, 2017, and the meetings of the Nomination and Remuneration Committee dealing with the renewal of the term of office of Pierre-André de Chalendar.

At the meeting of the Board of Directors on February 22, 2018, Jean-Dominique Senard presented a review of his activity as Lead Independent Director for fiscal year 2017. This included:

- working with the Chairman of the Nomination and Remuneration Committee to examine the independence status of the Directors and of potential independent Directors, in light of the criteria set out in the AFEP-MEDEF code (including through the review of conflict of interests questionnaires and the analysis of business relationships);
- verifying the existence and content of succession plans for the Chairman and Chief Executive Officer in the event of an unanticipated vacancy as well in the long term, and discussing them with the Chairman and Chief Executive Officer; presenting this work to the members of the Nomination and Remuneration Committee and to the Board together with the Chairman of the Nomination and Remuneration Committee;

- chairing, or co-chairing with the Chairman of the Nomination and Remuneration Committee based on the topics being addressed, meetings of the Board held without the presence of the executive Directors ("executive sessions") (see Section 1.2.2 below); at the meeting of November 23, 2017, the Directors discussed and decided to maintain the combined Chairman and Chief Executive Officer roles, in light of the proposed renewal of Pierre-André de Chalendar's term of office (see Section 1.2.1 below);

- conducting the assessment of the organization and operation of the Board and the Committees, which took place as follows:

- The Lead Independent Director reviewed the draft questionnaire to be submitted to the Directors by the General Secretary, as well as the responses provided, all Directors having had the opportunity to speak with the Lead Independent Director on this topic.
- The Lead Independent Director spoke with the Chairman and Chief Executive Officer and the Chairman of the Nomination and Remuneration Committee, and individually with Directors who wished so, about the Directors' individual contributions to the work of the Board, in light of their skills and their respective participation in discussions.
- The Lead Independent Director also presented the results of the Board's self-assessment to the Directors at an executive session and led the debate in order to draw conclusions (see Section 1.2.4 below).

- at the request of the Chairman and Chief Executive Officer, meeting and engaging in dialogue with several shareholders about Saint-Gobain's principles of governance, in preparation for the 2018 General Shareholders' Meeting;

- discussing with the Chairman of the Nomination and Remuneration Committee the opportunity and arrangements for reconfiguring the Committee and the Board, following the resignation of one of its members and the reduction of Wendel's interest in the capital of Compagnie de Saint-Gobain;

- speaking with the future independent Director, attending the meeting of the Nomination and Remuneration Committee that approved her selection and the proposal to reappoint Pierre-André de Chalendar in his role as Chairman and Chief Executive Officer;

- reviewing the draft agendas for the meetings of the Board of Directors and the Committees in fiscal year 2018;

- reviewing the section of this chapter on the "Composition and operation of the Board of Directors".

## 1.2.2 Operating rules of the Board of Directors - internal rules

In line with the recommendations of the AFEP-MEDEF corporate governance code for French listed companies, the Board of Directors adopted a set of internal rules in 2003, as a supplement to the applicable laws and regulations and the Company's bylaws, aimed at defining the conditions for the operation of the Board and its committees (Nomination and Remuneration Committee, Audit and Risk Committee, Strategy and Corporate Social Responsibility Committee), as well as the Lead Independent Director's responsibilities and powers.

The version of the Board's internal rules in force at February 1, 2018, which incorporates successive revisions of the AFEP-MEDEF Code, is reproduced in its entirety in Chapter 10, Section 1.1.2, with the exception of the provisions regarding the Board Committees which are reproduced below.

### Board activities

The internal rules provide for Board activities to include the following:

- examination and approval of the Saint-Gobain Group annual report and consolidated and corporate financial statements, both annual and interim;
- examination and approval each year of the Saint-Gobain Group budget;
- examination and approval at least once per year of the Saint-Gobain Group's strategic guidelines;
- prior approval of investment transactions, restructurings, disposals, acquisitions, taking or selling of equity interests in individual amounts greater than €150 million, and any significant transaction not falling within the strategy announced by the Saint-Gobain Group.

### Ability to debate without the presence of the executive Directors

The Board's current internal regulation affords Directors the authority to meet without the presence of the executive Directors during or after a session, in order to assess the performance of the executive Directors and to reflect on the future of the Saint-Gobain Group's senior management. Thus, each year, the Chairman and Chief Executive Officer shall leave the sessions of the Board and the Nomination and Remuneration Committee during such discussions (deliberations and votes) on issues involving the assessment of his performance and the setting of his variable compensation (February sessions), as well as during the

Board's assessment, the discussions on the combination of the Chairman of the Board of Directors and CEO roles, on his succession plans and on his long-term compensation scheme (November sessions). In addition, the Chairman and Chief Executive Officer left the November Board meeting for it to examine the renewal of his term of office.

The Board intends to continue meeting in 2018 without the presence of the Chairman and Chief Executive Officer to discuss matters of governance in general, beyond the issues of compensation of the Chairman and Chief Executive Officer and assessment of the Board, and at the initiative and under the lead of the Lead Independent Director, if need be as co-chair with the Chairman of the Nomination and Remuneration Committee (Chapter 6, Section 1.2.1). This option applies at the start of every meeting of the Board of Directors.

### Prior and permanent information for Directors

At each meeting, the Board is provided with an analysis of the Saint-Gobain Group's operating income and net debt situation, prepared as of the end of the month preceding the meeting, as well as an update on the Saint-Gobain stock price compared to the CAC 40 index and an industry index.

Between meetings, Directors receive copies of all press releases issued by the Company, along with relevant information, if required, about events or transactions that are material for the Group. Directors are entitled to request any other documents they consider necessary to make an informed contribution to the Board's discussions; requests are put to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

The Lead Independent Director ensures that the Directors receive the relevant information to exercise their duties under the best possible conditions.

### Directors' duties

The internal rules stipulate the duties of Directors, specifically with regard to stock trading ethics (status of occasional insider, closed periods, reporting of trades involving Saint-Gobain securities and the obligation to hold their Saint-Gobain shares in registered form), with regard to confidentiality and the management of potential conflicts of interest.

### Other provisions in the internal rules

Finally, the internal rules provide for the distribution of attendance fees and the right of Directors to additional training on the specific activities of the Saint-Gobain Group, its businesses and its business lines.

### 1.2.3 Principal activities of the Board and Committees in 2017

#### a) Principal activities of the Board in 2017

The Board of Directors held ten meetings in 2017. The rate of attendance of those Directors in office at February 1, 2018 at all these meetings was 96%, and no Director had a rate of attendance below 90%. Eight of the fourteen Directors attended every meeting of the Board and five Directors missed a single meeting. No Director missed more than one meeting.

The principal topics discussed during these meetings are listed below.

#### **Monitoring of the strategic orientations of the Group and its Activities**

At each meeting, consistent with its internal rules, the Board is informed of the Group's situation and discusses it. During each meeting, including a half-day seminar dedicated to a presentation on the Group's strategy, the Board reviewed and approved the Group's strategic orientations or a specific aspect of the strategy (specifically, planned acquisitions and disposals, including the plan to acquire a controlling interest in Sika (see Chapter 3, Section 1.2), benchmarks with the main competitors, status of a sector, Delegation or Activity, etc.) where appropriate after hearing members of the senior management of the Activities in question.

The Group's strategy was presented to the Board of Directors in advance of the presentations to the financial community at the Investors' Day held on May 17, 2017. As it does every year, the Board discussed the strategic plans for the sectors and the Group's principal Activities with their operations managers at the strategy seminar in September. The Board took the opportunity of these reviews in particular to follow up on the implementation of the roadmap relative to the digital transformation of the Group. It also discussed value creation and the Group's interaction with start-ups.

#### **Financial management**

Pursuant to its legal competency, the Board approved the annual and consolidated financial statements, as well as the various reports relating to them, after hearing the opinions of the Chairman of the Audit and Risk Committee and the Statutory Auditors. The Board also approved the draft resolutions to be submitted to the General Shareholders' Meeting of June 8, 2017, specifically the proposed dividend distribution, and the reports provided to shareholders, and convened the General shareholders' and holders of *Titres Participatifs's* Meetings. It approved the report on payments made to Governments (extractive industries).

It approved the budget of the Saint-Gobain Group, various provisional management reports and documents, and renewed the annual authorizations granted to the Chairman and Chief Executive Officer to issue bonds, sureties and

guarantees. It also examined related-party agreements and commitments entered into and authorized in previous years, the execution of which continued during fiscal year 2016.

It implemented the Company's stock buyback program.

#### **Internal control and risk management**

The Board of Directors undertook a review of the internal control and risk management processes in force within the Group, following analysis of the risk mapping updated in 2017 by the Audit and Internal Control Department, and after hearing the report of the Chairman of the Audit and Risk Committee on these topics.

In particular, it reviewed and discussed cyber threats to Saint-Gobain at its April meeting, the causes and the consequences of the cyberattack on June 27, 2017 at its July meeting and the updated cyber defense plan at its September meeting.

On several occasions, it reviewed the position of the Company and Group with regard to certain risks, procedures, litigation (specifically asbestos, competition and environment) and the evolving regulatory environment. The Corporate Secretary reported on the implementation and changes in the Group's Compliance program (see Chapter 4, Section 1.1).

Lastly it reviewed the services assigned to the Statutory Auditors and their network as authorized by the Audit and Risk Committee.

#### **Corporate Social Responsibility/Climate change**

Over five sessions, one point on the agenda was dedicated to corporate social responsibility matters, specifically the following topics:

- non-financial results and development of the dashboard to focus on the key challenges (see Chapter 2, Section 1.5);
- climate change and reducing CO<sub>2</sub> emissions (carbon impact of production and contribution of Saint-Gobain solutions);
- CO<sub>2</sub> and energy roadmaps, "R&D, CO<sub>2</sub> and energy" innovation programs;
- compliance program (anti-trust, embargoes, fight against corruption);
- human resources policy (in particular gender diversity and professional equality and equal pay, talent management), (see Chapter 4, Section 3.2);
- health and safety policy (see Chapter 4, Section 3.1)
- environment policy (see Chapter 4, Section 2,3), and more generally,
- corporate social responsibility policy within the Group (participation at a very satisfactory level for the second consecutive year in the Dow Jones Sustainability Index) (see Chapter 8, Section 3.1).

Furthermore, in February 2018, the Directors attended a half-day seminar devoted to climate change and its consequences for the businesses. External experts, recognized internationally and in complementary fields of expertise, gave presentations to the Directors and discussed their following approaches with them:

- environmental: understand the causes and consequences of climate change to measure the importance of limiting temperature rises to 2°C;
- economic: assess the risks and opportunities connected with the consequences of climate change: cost of energy transition, carbon tax, role and expectations of investors, etc.;
- political and societal: anticipate the risks and opportunities and favor the emergence of new business models for the companies.

This seminar was intended to give every Director a better understanding of the challenges of climate change for the Saint-Gobain Group and its implications for the Group's strategy.

### Governance

Pursuant to the AFEP-MEDEF code of corporate governance for French listed companies and under the supervision of the Lead Independent Director, the Board formally performed the annual assessment of its operations and discussed the results of this assessment (see Chapter 6, Section 1.2.4).

At the proposal of the Lead Independent Director, it discussed the combining of the roles of Chairman of the Board and Chief Executive Officer, particularly in view of the renewal of Pierre-André de Chalendar's term of office as a Director.

It confirmed the existence and implementation of succession plans for the Chairman and Chief Executive Officer in the event of an unanticipated vacancy as well in the long-term.

It reviewed the situation of Director independence. It also discussed, at the proposal of the Nomination and Remuneration Committee, the size and changes in its composition as a result of the expiration of the terms of office of certain Directors, as well as pursuant to the governance agreements in force, following the disposal of a block of Saint-Gobain shares announced by Wendel on June 2, 2017 (see Chapter 8, Section 2.2.2). It made proposals for the renewal of terms of office, the nomination of a Director and composition of the Committees in view of the General Shareholders' Meeting of June 8, 2017 and of the General Shareholders' Meeting of June 7, 2018 (see Chapter 6, Section 1.1.4).

The Board ruled on the renewal of Pierre-André de Chalendar's term of office as a Director, which will expire at the close of the General Shareholders' Meeting of June 7, 2018. At its meeting of November 23, 2017 and at the proposal of the Nomination and Remuneration Committee, the Board unanimously confirmed its confidence in Pierre-André de Chalendar, decided to propose to the General Shareholders' Meeting to be held on June 7, 2018 the renewal of his term of office, and announced its intention, should the General Shareholders' Meeting approve this renewal, to reappoint Pierre-André de Chalendar as Chairman and Chief Executive Officer of Compagnie de Saint-Gobain.

Furthermore, during the same meeting and at the proposal of the Nomination and Remuneration Committee, the Board of

Directors co-opted Dominique Leroy as an Independent Director (see activities of the Nomination and Remuneration Committee below).

Lastly, it ruled on the training program of the employee Directors.

### Compensation of the Chairman and Chief Executive Officer and long-term employee profit sharing

The Board reviewed and prepared the various components of Pierre-André de Chalendar's compensation (fixed and variable compensations and allocations of stock options and performance shares) and their respective balance (see Chapter 6, Section 2.2). It also decided the general principles of the Chairman and Chief Executive Officer compensation policy for 2017 and at its February 22, 2018 meeting, for 2018 (see Chapter 6, Section 2.2.6).

The Board further approved the implementation of and adopted the principal features of the stock options and performance share plans, and set the performance criteria for these plans, from which the executive Director and certain categories of employees may benefit (see Chapter 6, Section 2.4).

As part of the ongoing development of employee shareholders, the Board resolved to again offer its employees and former employees the opportunity to subscribe to, under certain conditions, a share capital increase reserved for them in 2018, up to a maximum of six million shares, *i.e.* slightly more than 1% of share capital at a maximum (see Chapter 8, Section 2.3).

Finally, it discussed the Group and Company's policy regarding professional and salary equality.

## b) Principal activities of the Committees in 2017

### Board Committees

The Board has established three Committees aimed at improving its operations and effectively contributing to the preparation of its deliberations: the Audit and Risk Committee, the Nomination and Remuneration Committee, and the Strategy and Corporate Social Responsibility Committee. These Committees do not have their own decision-making authority (barring specific provision otherwise provided for by the internal rules of the Board of Directors as regards the Audit and Risk Committee's approval of non-audit services assigned to the Statutory Auditors), and report to the Board regarding their activities, conclusions and proposals.

The Board's internal rules incorporate the rules governing the composition, prerogatives and responsibilities of each Committee, as described below.

The activities of these three Committees in 2017 were regularly presented to the Board in the form of activity reports and proposals.

### Composition of Committees

The Board's practice is to allow some time for all new Directors to adapt before proposing a position on a committee, since active participation on a committee requires familiarity with the operation of a Board of Directors and its committees, and the ability to understand the major challenges with which the Company is faced and which, without the necessary experience, is only acquired after a certain period of time.

At the recommendation of the Nomination and Remuneration Committee, the Board of Directors thus considers, on a case-by-case basis, the opportunity to propose to Directors their participation in one of the three Committees, depending upon the most appropriate schedule. Further, in its examination of the composition of the Committees and appointment of new Directors to these Committees, the Board ensures compliance with the recommendations of the AFEP-MEDEF Code with regard to the proportion of independent Directors on these Committees.

Considering the departures of Jean-Martin Folz and Bernard Gautier, the renewals of the Directors' term decided by the General Shareholders' Meeting of June 8, 2017, and the departure of Olivia Qiu, the chairs of the Committees and their composition were modified as indicated in Section 1.1.4 of Chapter 6 ("Summary of changes in the composition of the Committees of the Board of Directors").

### Audit and Risk Committee

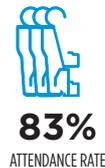
#### Composition

**PHILIPPE VARIN**  
Chairman (since June 8, 2017)

**PAMELA KNAPP**  
Member

**AGNÈS LEMARCHAND**  
Member

**GILLES SCHNEPP**  
Member (since June 8, 2017)



At February 1, 2018, all of the members of the Audit and Risk Committee (100%), including its Chairman, were independent Directors. No executive Directors sit on the Committee.

By virtue of their current or past positions as finance Directors and/or Chief Executive Officers, each Committee member has considerable experience and high-level expertise in financial and accounting matters (see biographies in Chapter 6, Section 1.1.1). It should be noted that each newly appointed member consults with the Group's Chief Financial Officer on specific accounting, financial and operational aspects of the Saint-Gobain Group.

### Responsibilities (extracts from the Board's internal rules)

According to the Board of Directors' internal rules, the Audit and Risk Committee has the following responsibilities:

- Without encroaching on the role of the Board of Directors, the Audit and Risk Committee is primarily responsible for overseeing the following matters:
  - processes used to prepare financial information;
  - efficiency of the internal control and risk management systems;
  - work performed by the Statutory Auditors on the financial statements of the Company and the Group;
  - Statutory Auditor's independence.
- It ensures that any questions relating to the preparation and control of accounting and financial information are followed up, that the accounting policies used to prepare the financial statements are both appropriate and applied consistently from one period to the next, and that the internal procedures used to collect and control accounting and financial information provide the necessary assurance in this regard.
- It reviews the interim and annual financial statements of the Company and the Group, as presented by senior management, prior to their examination by the Board of Directors.
- It reviews the scope of consolidation and, if applicable, the reasons why any companies have been excluded.
- It reviews significant risks and off-balance sheet commitments, based on an explanatory report prepared by the Chief Financial Officer.
- It receives updates from senior management on organization and operation of the risk management system.
- It reviews the Group's internal control action plan and receives updates at least once a year on the plan's results.
- It makes recommendations concerning the organization of the internal audit function and receives a copy of the internal audit program as well as executive summaries of the internal audit reports.
- It reviews the external Statutory Auditors' work plan and conclusions of their checks, as well as the post-audit report prepared by the Statutory Auditors concerning their main observations and the accounting options selected for preparation of the financial statements.
- It conducts the Statutory Auditor selection process, expresses an opinion on the amount of proposed statutory audit fees requested for performing tasks connected with a statutory audit, submits the results of the selection process to the Board and puts forward candidate Statutory Auditors for appointment by the General Shareholders' Meeting.
- It approves, with regard to rules in force and in accordance with the procedures implemented within the Group, under the responsibility of the Board of Directors, the services other than the certification of the accounts they can be assigned to the Statutory Auditors and members of their network to be provided to Compagnie de Saint-Gobain and other Group entities.

- Each year it reviews the Statutory Auditors statement of independence, the amount and breakdown of the fees paid to them and to the members of their network by the Group over the past year, by category of service, as well as the percentage of these fees in their turnover, and reports to the Board its opinion concerning the Statutory Auditors' independence.

### Activities in 2017

The Audit and Risk Committee met four times in 2017, in February, April, June, July and September, with an attendance rate at these meetings of 83%.

The following were the major topics of discussion:

- Detailed advance review of the annual and consolidated financial statements (February) and interim statements (July) and discussions with senior management, the Finance Department and the Statutory Auditors prior to the meetings scheduled with the Board of Directors. On these occasions, the Committee discussed with the Statutory Auditors the main audit issues raised with the Finance Department during the accounts closing process, particularly the key risk exposures and material off-balance sheet commitments described in the Chief Financial Officer's explanatory report to the Committee. The main points of the results of the statutory audit, as well as the accounting options applied, were also discussed.
- Review of the Audit and Internal Control Department's activity report for 2017, its audit plan for 2018 and its report on major fraud incidents.
- Review of works related to the 2017 update of the risk mapping by the Audit and Internal Control Department and discussion with senior management, the Finance Department and Audit and Internal Control.
- The Audit and Risk Committee reviewed and discussed cyber threats for Saint-Gobain at its April meeting, the causes and consequences of the cyberattack on June 27, 2017 at its July meeting and the revised cyber defense plan at its September meeting.
- Review of the Group's fiscal policy.
- The status of asbestos litigation, in particular in the United States and France. The Committee regularly discusses in detail with the Statutory Auditors the financial and accounting consequences of this litigation for the US subsidiaries involved and for the Group, in order to present a report on this issue to the Board.
- Granted authorization for services other than statutory certification assigned to the Statutory Auditors and review of fees received by each Statutory Auditor of the Group's companies during 2016 for their auditing assignments, as well as for their other services (see Chapter 10, Section 1.4.2).

The Committee also held one-on-one discussions with the Statutory Auditors, the Vice President - Financial Management, the Vice President - Treasury and Financing, Risks & Insurance, the Senior-Vice President in charge of Internal Audit and Internal Control, and the Chief Financial Officer, in accordance with the recommendations of the AFEP-MEDEF Code. It did not call on outside experts to assist in the fulfillment of its tasks.

The Committee reported to the Board of Directors on its activities during the Board meetings of February 23, May 24, July 27 and September 25, 2017.

### Nomination and Remuneration Committee

#### Composition

**ANNE-MARIE IDRAC**  
Chairman (since June 8, 2017)

**IÉDA GOMES YELL**  
Member (since  
October 27, 2017)

**PASCAL LAÏ**  
Member

**DENIS RANQUE**  
Member (since  
October 27, 2017)



The Nomination and Remuneration Committee (formerly the Nomination, Remuneration and Governance Committee up to June 8, 2017, the date on which the Lead Independent Director took office) includes two independent Directors out of three (67%), including its Chairman, as of February 1, 2018, and an employee Director in accordance with the recommendations of the AFEP-MEDEF Code. This Director is not included in the computation of the ratio of independent Directors, in accordance with the recommendations of that same code. No executive Directors sit on this Committee.

### Responsibilities (extracts from the Board's internal rules)

The Committee fulfills the duties of both a nominations committee and a remuneration committee, provided for in the AFEP-MEDEF Code.

According to the Board of Directors' internal rules in force at February 1, 2018, the Nomination and Remuneration Committee has the following responsibilities:

- It is responsible for making proposals to the Board in all cases where one or more seats on the Board fall vacant or the terms of one or more Directors are due to expire. The Committee organizes the procedure to select candidates for election as Independent Directors, based on the independence criteria set out in the AFEP-MEDEF Code.
- It reviews annually each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF code, and reports its conclusions to the Board.
- Through its Chairman, it obtains assurance from the Chairman and Chief Executive Officer that a candidate has been identified for succession to his position in the event that it falls vacant for an unforeseen reason, and that enough potential successors are available to step in when they might be needed.
- It recommends candidates to the Board in the event that the position of Chairman and Chief Executive Officer falls vacant for any reason.

- It reviews any proposals by the Chairman and Chief Executive Officer for the appointment of a Chief Executive Officer and/or one or more Chief Operating Officers, and reports its conclusions to the Board.
- It makes recommendations to the Board concerning the Chairman and Chief Executive Officer's compensation package, and the criteria to be applied to determine his bonus, as well as the other aspects of his position.
- It discusses the Group's overall stock option and performance share policy and whether options should be exercisable for new or existing shares, and reviews senior management's proposals concerning stock option and performance share plans for Group employees.
- It reviews the Chairman and Chief Executive Officer's recommendations concerning his implementation of long-term incentive plans.
- It makes recommendations concerning the granting of stock options, performance shares and long-term incentives to the Chairman and Chief Executive Officer and other members of senior management.

### Activities in 2017

The Nomination and Remuneration Committee met four times in 2017, in February, June, September and November, with an attendance rate of 96%.

The following were the major topics of discussion:

- The Committee made recommendations to the Board on Pierre-André de Chalendar's 2016 variable part of his compensation. It also made proposals to the Board regarding the compensation policy for the Chairman and Chief Executive Officer for 2017 pursuant to the new "say on pay" ex ante regime, particularly as regards the amount of the fixed compensation and the cap, the criteria and the targets to use to determine the variable part of his compensation for 2017, as well as the rules on caps to be applied to allocations of stock options and performance shares in 2017 (see Chapter 6, Section 2.2.6). It made proposals to the Board for allocations or payment when the compensation policy was implemented to the benefit of Pierre-André de Chalendar in 2017 (see Chapter 6 of Section 2.2).
- The Chairman of the Committee spoke to each of the Directors about the renewal of the Director's term of office of Pierre-André de Chalendar, to be proposed to the General Shareholders' Meeting of June 7, 2018, and specifically the separation or combination of the roles of Chairman of the Board of Directors and Chief Executive Officer. Based on these conversations and the results of the Board's self-assessment, which revealed that almost all of the Directors favored combining the roles, the Committee and the Lead Independent Director recommended that the Board of Directors propose to the General Shareholders' Meeting the renewal of the Director's term of office of Pierre-André de Chalendar and his reappointment as Chairman and Chief Executive Officer. The Committee also made proposals to the Board regarding the compensation policy for the Chairman and Chief Executive Officer for 2018, in view of Pierre-André de Chalendar's proposed reappointment.
- In the presence of the Lead Independent Director and following discussions between the Chairman of the Committee and the Lead Independent Director with the Chairman and Chief Executive Officer, it confirmed the existence of succession plans for the Chairman and Chief Executive Officer in the event of an unanticipated vacancy and on the long-term.
- The Committee examined the Directors' independence status with regard to all independence criteria set forth in the AFEP-MEDEF Code, together with the Lead Independent Director with regard to conflicts of interest and business relationships (see Chapter 6, Section 1.1.2).
- Due to the resignation of Olivia Qiu, the Committee launched, with a specialist firm, a process of identifying a new female independent Director with an international background, assuming an executive role and with experience in innovation/digital and/or distribution. On completion of a selection process and interviews conducted by the Chairman of the Committee and the Lead Independent Director as well as the specialist firm, the Committee recommended that the Board co-opt Dominique Leroy, who brings to the Board of Directors of Saint-Gobain her experience as a non-French executive officer of a listed group and her operational knowledge of the distribution sector and of digital transformation matters. The Committee examined the consequences of this proposal with regard to the proportion of independent Directors, the composition of the Committees and the representation of women and men at the Board.
- The Committee also discussed the stock option and performance share plans to be renewed by the Board - all consisting of long-term incentive, deferred, variable, and performance-based compensation payable to the executive Director and certain employees, all subject to performance criteria being met - and specifically set the service and performance criteria applying to these plans.
- It made proposals regarding the training program of the employee Directors.
- Finally, it reviewed the "Corporate Governance" section of the 2016 Registration Document.

The Committee reported to the Board on its activities and offered its recommendations during the Board meetings of February 23, June 5, September 11, October 27 and November 9, 2017.

## Strategy and Corporate Social Responsibility Committee

### Composition

**JEAN-DOMINIQUE SENARD**  
Chairman (since June 8, 2017)

**PIERRE-ANDRÉ DE CHALENDAR**  
Member

**FRÉDÉRIC LEMOINE**  
Member



### Responsibilities (extracts from the Board's internal rules)

According to the Board of Directors' internal rules in force as of February 1, 2018, the Strategy and Corporate Social Responsibility (CSR) Committee has the following responsibilities:

It is responsible for examining and identifying potential improvements to the Group's business plan, reviewing any strategic issues proposed by its members.

It ensures that corporate social responsibility issues are taken into account when defining and implementing the Group's strategy.

### Activities during 2017

The Strategy and CSR Committee met six times in 2017, in February, March, May, July, September and November, with an attendance rate of 100% by its current members.

During these meetings, the Committee discussed the 2017 budget, the outlook and development of the Group's business, the potential impact on the Group of various economic scenarios, planned acquisitions and disposals – including the plan to acquire a controlling interest in Sika (see Chapter 3, Section 1.2), and all strategic issues presented to the Board. More specifically, the Committee examined certain aspects of the Group's strategy (specifically the status of a sector, Delegation or Activity). It also proposed to the Board subjects to address during the course of the strategic seminar.

It also worked on corporate social responsibility matters, specifically the following topics: non-financial results and development of the dashboard to focus on priority challenges, climate change and reducing CO<sub>2</sub> emissions (carbon impact of production and contribution of Saint-Gobain solutions), CO<sub>2</sub> and energy roadmaps, "R&D, CO<sub>2</sub> and energy" innovation programs.

The Committee reported to the Board on its activities during the Board meetings of February 23, May 24, July 27, September 28 and November 23, 2017.

## 1.2.4 Board assessment

### Procedure

Formal assessments of the Board's performance and that of the Committees are carried out each year, in accordance with the Board's internal rules.

These assessments are conducted with the assistance of outside consultants (as in 2016) every three years.

In the intermediate years, it is conducted using a questionnaire sent to each Director, and, in accordance with the wishes expressed by the Directors on completion of the 2016 assessment for those who wish so to obtain feedback on their individual contribution, the self-assessment also included the following three steps in 2017:

- confidential review of each Director's individual contribution by the Chairman of the Nomination and Remuneration Committee, the Lead Independent Director and the Chairman and Chief Executive Officer;
- individual review for each Director with the Chairman of the Board of Directors; and
- the option for every Director who wishes so, to request feedback on his/her individual contribution from the Chairman and Chief Executive Officer or the Lead Independent Director.

The Directors who are members of a Board Committee also report on the operation of the Committees in which they participate.

The organization of the 2017 assessment was decided by the Board at its meeting of September 28, 2017, upon proposal from the Lead Independent Director, for the first time. The 13 Directors in office as of that date were consulted and participated in the Board's assessment process. The Lead Independent Director led the self-assessment and reported the results at the Board of Directors meeting of November 23, 2017, making proposals for improvement.

The Lead Independent Director, the Chairman of the Nomination and Remuneration Committee and the Chairman and Chief Executive Officer have reviewed the effective contributions of each Director to the Board's work, with regard to their competencies and their respective participation in the discussions. The detailed questionnaire that each Director completes that specifically addresses the Board's operation, allows them, if they so wish, to freely express their assessment of the other Directors' individual contributions. The Directors' individual contributions are also closely examined by the Nomination and Remuneration Committee, and then by the Board, on the occasion of the renewal of the terms of Directors and recomposition of the Committees, as needed.

### General observations

The assessments highlighted the satisfaction of the Directors with the significant progress made, over several years. This positive perception is therefore confirmed in the long term.

A vast majority of the Directors are of the opinion that the dynamics of the Board, characterized by the interaction of the Directors in the decision-making process for all matters within their remit, as well as its performance, characterized by the quality of the decisions made, are absolutely satisfactory.

The Directors considered indeed that the Board operates well, is independent, competent, is balanced and diversified in its composition, and addresses all the topics within its remit. They were satisfied with the relevance, quality and clarity of the information made available to them for fulfilling their role, particularly on the risk mapping and the risks Saint-Gobain is facing, cyberattacks and cyber defense, analysis of value creation and the monitoring of acquisition projects. They noted the constructiveness of the dialogue and the free discussions within the Board and with senior management, the transparent operation of the Board, the contribution of the preparatory work of the Committees, as well as the availability of the management.

The Directors once again appreciated the strategic seminar and noted the usefulness of on-site visits, allowing them in particular to meet the Sector and Business Directors and the delegates. Finally, they praised the quality of the work of the Board Committees.

### Composition of the Board of Directors

The Board's size has changed over the last three years, from 18 members in December 2014 due to the incorporation of two employee Directors whose appointment was required by law, to 17 members after the 2015 General Shareholders' Meeting, 16 members after the 2016 General Shareholders' Meeting, then 14 members after the 2017 General Shareholders' Meeting (see Chapter 6, Section 1.1.4).

Directors noted their desire, for future replacements, to retain the proportion of executive Directors operating within other large groups, while continuing to diversify the Board's composition with regard to gender, age, nationality, profile and skills and maintaining the distribution and innovation/digital profiles. The co-optation of Dominique Leroy, whose experience as a non-French executive officer of a listed group, and operational knowledge of the distribution sector and digital transformation matters caught the attention of the Nomination and Remuneration Committee, the Lead Independent Director and the Board, highlights this approach (see Chapter 6, Section 1.1.2).

Employee Directors who took office in December 2014 are considered to be well integrated.

The assessment of the Board carried out during 2017 revealed that the expertise and experience of the Directors were deemed varied and complementary, in terms of knowledge of the industry and the Group's Activities/Businesses and in terms of innovation/digital, management, strategy, finance, governance and/or corporate social responsibility knowledge.

Further to discussion, the Directors confirmed their desire to maintain the combined roles of Chairman of the Board of

Directors and Chief Executive Officer (see Chapter 6, Section 1.2.1).

### Results of implementing the 2017 recommendations and paths to improvement in 2018

Directors believe that the recommendations formulated upon completion of the 2016 assessment were duly taken into account in 2017. They concern improvement of the feedback to the Directors regarding their individual contribution, continuing review of the Board's composition (reducing its size while maintaining the proportion of executive Directors and continuing to diversify the profiles and expertise and retaining the distribution and innovation/digital skills), improving the Directors' knowledge of the principal operational managers of the Group, improving the monitoring by the Board of the implementation of its decisions, and continuing the in-depth exploration of the strategic subjects, the creation of value, innovation, digital transformation and geographic dynamics.

In order to sustain progress, the Board adopted the following conclusions on the proposal of the Lead Independent Director resulting from the assessment:

- for any potential future nominations, recruit a younger non-French Director with experience of digital and/or distribution or a candidate with operational experience in one of the fastest-growing countries in which the Saint-Gobain Group has a presence (United States, Asia, Africa);
- continue the in-depth exploration of strategic matters and plans for acquisitions, value creation (including in the context of acquisitions), digital transformation and technology risks and opportunities, particularly the evolution of the cybersecurity risk;
- improve Directors' knowledge of the Group's main operational managers.

### 1.2.5 Directors' induction process

The Board of Directors meets once a year at one of the Group's plants or research centers.

In May 2017, the Board of Directors visited the Saint-Gobain Sekurit de L'Arboç factory in Spain, which specializes in automotive glass within the Flat Glass Sector.

Each new Director may ask for training on the topic of his or her choice and visit the Group's plants, distribution facilities or research centers. As part of this process, new Directors are also able to tour various manufacturing or Building Distribution sites and, upon their request, to meet the Sector general managers or members of senior management.

Further, employee Directors benefit from the law on supplementary training, the content of which is set every year by the Board of Directors, after consultation of such employee Directors.

## 2. MANAGEMENT AND DIRECTORS' COMPENSATION

This section, prepared with the assistance of the Board's Nomination and Remuneration Committee, describes the compensation for the Directors, the executive Director and members of Group General Management, and sets out the long-term compensation schemes in place within the Group.

### 2.1 Compensation paid to Directors - attendance fees

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Directors receive attendance fees which amount has been set at €1.1 million by the General Shareholders' Meeting of June 5, 2014 with effect from January 1, 2015.

The rules for distribution of attendance fees, applicable since the 2015 fiscal year, and agreed by the Board of Directors on September 25, 2014, are the following:

- the Chairman and Chief Executive Officer receives no attendance fees;
- the other Directors each receive a fixed amount of €24,750 per year plus €3,300 for each Board meeting attended during the year;
- the Chairmen and members of the Audit and Risk Committee, the Nomination and Remuneration Committee, the Strategy and Corporate Social Responsibility Committee (excluding Pierre-André de Chalendar) each receive a fixed amount of €5,500 and €2,750 per year,

respectively, plus a variable portion of €2,200 for each Committee meeting attended during the year;

- the amounts granted in respect of the fixed base amount are pro-rated when terms of office begin or end during the course of a fiscal year;
- the fees are paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the next year based on each Director's or Committee member's attendance rate at the prior year's Board or Committee meetings.

The variable fee represents the bulk of their compensation if Directors consistently attend both Board and Committee meetings.

The Lead Independent Director did not wish to receive any compensation in respect of this role.

The total fixed and variable Director's fees paid to each individual Director in respect of 2016 and 2017 are shown in Table 3 below.

**TABLE 3 – SUMMARY OF EACH DIRECTOR'S COMPENSATION (AMF NOMENCLATURE)**

Non-executive Directors	Gross amounts received (in EUR)	
	for 2017	for 2016
Isabelle Bouillot <sup>(1)</sup>	-	30,443
Alain Destrain <sup>(2)</sup>	66,717	64,808
Jean-Martin Folz <sup>(3)</sup>	50,481	89,002
Bernard Gautier <sup>(3)</sup>	46,175	78,241
Iêda Gomes Yell <sup>(4)</sup>	70,315	30,359
Anne-Marie Idrac	83,454	71,564
Sylvia Jay <sup>(1)</sup>	-	32,935
Pamela Knapp	78,793	74,235
Pascal Lai <sup>(2)</sup>	83,456	71,742
Agnès Lemarchand	83,456	78,241
Frédéric Lemoine	101,259	93,008
Dominique Leroy <sup>(5)</sup>	2,577	-
Jacques Pestre	71,380	64,808
Olivia Qiu <sup>(6)</sup>	30,735	53,049
Denis Ranque	74,978	56,797
Gilles Schnepf	79,149	60,803
Jean-Dominique Senard	87,760	72,980
Philippe Varin	89,315	76,985
<b>TOTAL</b>	<b>1,100,000</b>	<b>1,100,000</b>

(1) Director up to June 2, 2016.

(2) It should be noted that, at the time they took up their positions in December 2014 and for the entire duration of their terms as employee Directors, Alain Destrain and Pascal Lai each decided to donate to the trade unions with which they are each affiliated, i.e. Confédération générale du travail and Confédération française démocratique du travail, respectively, all the attendance fees (net of social charges) paid by the Company for their terms as Directors. The net amount of these Director's fees is consequently paid directly by Compagnie de Saint-Gobain to these trade unions.

(3) Director up to June 8, 2017.

(4) Director since June 2, 2016.

(5) Director co-opted by the Board of Directors on November 23, 2017 (see Chapter 6, Section 1.1.4).

(6) Director up to June 30, 2017.

With the exception of Alain Destrain, Safety Auditor for Saint-Gobain Interservices, Pascal Lai, Saint-Gobain Sekurit France Environment, Health and Safety Promoter, and Jacques Pestre, Senior Vice President of SGDB France, in charge of POINT.P *Matériaux de Construction*, who received

compensation in respect of their salaried positions, none of the non-executive Directors received any other compensation from Compagnie de Saint-Gobain or any Saint-Gobain subsidiary for 2016 or 2017.

## 2.2 Chairman and Chief Executive Officer's compensation policy

### 2.2.1 Reminder of the general principles of the Chairman and CEO's compensation policy for 2017

The policy governing the Chairman and Chief Executive Officer's compensation for 2017 was decided by the Board, at its meeting of February 23, 2017, based on the recommendations of the Nomination and Remuneration Committee and was approved by the General Shareholders' Meeting of June 8, 2017 (tenth resolution).

The Board of Directors and the Nomination and Remuneration Committee are committed to ensuring that the Chairman and Chief Executive Officer's compensation complies at all times with the recommendations of the AFEP-MEDEF corporate governance code for French listed

companies and in particular meets transparency and performance measurement requirements. They also ensure that it evolves taking into account the Group's performance and market's practices.

The Chairman and Chief Executive Officer's compensation package is determined by taking into account all pay components (fixed compensation, annual variable compensation, multi-year variable compensation, compensation for loss of office and pension benefits), with a view to achieving a balanced mix of these components.

When setting the various components of the Chairman and Chief Executive Officer's compensation, the Board of Directors also takes into consideration benchmarks of CAC 40 companies comparable to Saint-Gobain in terms of sales, workforce and international scope of operations.

The Board also seeks to ensure that the allocation of long-term compensation instruments, (stock options, performance shares and performance units, as the case may be) to the Chairman and Chief Executive Officer in a given

year does not represent a disproportionate share of his total maximum compensation for that year and has conditioned these allocations to demanding ceiling and holding rules (see paragraph c) of Section 2.2.3 below).

## 2.2.2 Summary of compensation and benefits allocated to the Chairman and Chief Executive Officer for fiscal year 2017

The following table presents a summary of the total compensation, stock options and performance shares allocated to Pierre-André de Chalendar, Chairman and Chief Executive Officer, for the fiscal years ended December 31, 2016 and 2017. No performance unit has been allocated since the last plan implemented in 2015.

**TABLE 1 - SUMMARY OF COMPENSATION, STOCK OPTIONS AND PERFORMANCE SHARES ALLOCATED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)**

<i>(in EUR before social charges and income tax)</i>	Fiscal year 2017	Fiscal year 2016
<b>Pierre-André de Chalendar, Chairman and Chief Executive Officer</b>		
Compensation for the year (see Table 2 for details)	2,590,877	2,632,531
Value in multi-year variable compensation allocated during the year	0	0
Value of stock options granted during the year (see Table 4 for details)	293,626	244,200
Value of performance shares granted during the year (see Table 6 for details)	1,710,478	1,189,900
<b>TOTAL</b>	<b>4,594,981</b>	<b>4,066,631</b>

## 2.2.3 Compensation and benefits allocated to the Chairman and Chief Executive Officer

The table below presents a breakdown of the fixed and variable compensation and other benefits allocated to Pierre-André de Chalendar, Chairman and Chief Executive Officer, for the fiscal years ended December 31, 2016 and 2017.

**TABLE 2 - SUMMARY OF THE COMPENSATION OF THE EXECUTIVE DIRECTOR (AMF NOMENCLATURE)**

<i>(in EUR before social charges and income tax)</i>	2017		2016	
	Amount due <sup>(2)</sup>	Amount paid <sup>(3)</sup>	Amount due <sup>(2)</sup>	Amount paid <sup>(3)</sup>
<b>Pierre-André de Chalendar, Chairman and Chief Executive Officer</b>				
Fixed compensation <sup>(1)</sup>	1,100,000	1,100,000	1,100,000	1,100,000
Annual variable compensation <sup>(1)</sup>	1,487,270	1,529,879	1,529,879	1,284,067
Multi-year variable compensation	0	0	0	0
Exceptional compensation <sup>(1)</sup>	0	0	0	0
Directors' attendance fees <sup>(4)</sup>	0	0	0	0
Benefits in kind: company car	3,607	3,607	2,652	2,652
<b>TOTAL</b>	<b>2,590,877</b>	<b>2,632,531</b>	<b>2,632,531</b>	<b>2,386,719</b>

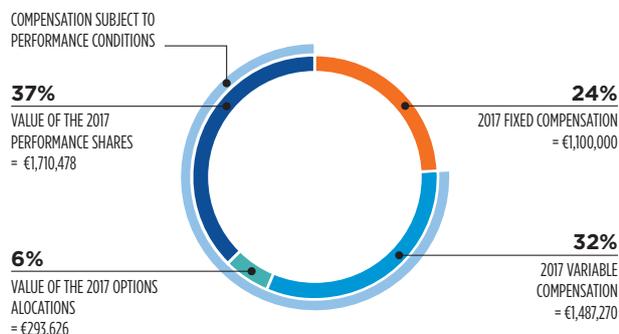
(1) On a gross basis before taxes.

(2) Compensation allocated during the year, regardless of payment date.

(3) Compensation paid during the year.

(4) Attendance fees allocated to Compagnie de Saint-Gobain's Chairman and Chief Executive Officer for his Director's duties in non-Group companies, in which the Group holds stakes, are repaid to Compagnie de Saint-Gobain in their entirety.

The following chart presents the distribution of the various components of the compensation of Pierre-André de Chalendar, Chairman and Chief Executive Officer, paid or granted in respect of fiscal year 2017.



The various components of the compensation paid or granted to Pierre-André de Chalendar in respect of fiscal year 2017 were decided by the Board of Directors at its meetings of February 23, 2017, November 23, 2017 and February 22, 2018, as follows:

#### a) Fixed compensation

The fixed compensation component is commensurate with the Chairman and Chief Executive Officer's experience and responsibilities in this role, and shall be compared with fixed compensations offered by large companies that are similar in terms of their sales, workforce and international footprint. The level of the fixed compensation is reviewed at relatively long intervals. Pierre-André de Chalendar's 2017 fixed compensation was set by the Board at €1,100,000, an amount that has not changed since 2010.

Variable compensation owed for fiscal year 2017 to the Chairman and Chief Executive Officer was set by the Board of Directors at its meeting of February 22, 2018, at the proposal of the Nomination and Remuneration Committee, as follows:

	Weighting of objectives	Assessment scale for each objective	Percentage completion	Completion by amount (in EUR)	
ROCE	25%	0 to 100%	79%	246,848	
<b>Quantifiable objectives* (2/3), of which:</b>	Group operating income	25%	0 to 100%	242,449	
	Group recurring net income per share	25%	0 to 100%	300,077	
	OFCF	25%	0 to 100%	199,226	
	<b>Total quantifiable</b>	2/3	-	79%	988,600
<b>Qualitative objective (1/3)</b>	<b>Qualitative (global)</b>	1/3	0 to 100%	80%	498,670
<b>TOTAL VARIABLE SHARE</b>		<b>100%</b>	<b>-</b>	<b>80%</b>	<b>1,487,270</b>

\* For each quantifiable objective, the corresponding portion of variable compensation becomes payable if from 91% to 93% of the budget is achieved, depending on the objective concerned, and it reaches its maximum if the objective reaches 109% to 111% of the budget, depending on the objective concerned (with base 100 corresponding to the budget). If actual performance is less than the above-mentioned thresholds from 91% to 93%, the portion of variable compensation corresponding to the objective in question is equal to 0.

When the budget is met, the variable compensation determined according to all quantifiable criteria is 68% of the fixed part of his compensation. Within the Group, the budget is based on ambitious objectives that are not always met and the variable compensation's objectives are therefore challenging.

#### b) Annual variable compensation

The annual variable compensation, expressed as a percentage of his annual fixed compensation, is allocated to the Chairman and Chief Executive Officer in recognition of his contribution to the Group's results for the year.

At its meeting of February 23, 2017, based on the recommendation of the Nomination and Remuneration Committee, the Board decided to maintain the cap on Pierre-André de Chalendar's variable compensation for 2017 unchanged, at 170% of his annual fixed compensation (cap unchanged since 2014).

Based on the recommendation of the Nomination and Remuneration Committee, during the same meeting, the Board also decided on the components and objectives of Pierre-André de Chalendar's 2017 variable compensation, as follows (structure unchanged since 2014):

- concerning the quantitative portion of the variable compensation, which represents two-thirds, the four following objectives adapted to the strategy of the Group, each counting for 25%, were defined:
  - ROCE (Return on Capital Employed),
  - the Group's operating income,
  - the Group's recurring net income per share, and
  - OFCF (Operating Free Cash Flow);
- a qualitative portion consisting of one-third, based on the following three objectives:
  - continuation of the Group's digital transformation,
  - implementation of the corporate social responsibility policy, and
  - continuation of the Group's development strategy.

The Board meeting held on February 22, 2018, at the proposal of the Nomination and Remuneration Committee, set at 80% the global level of achievement of the three qualitative objectives applying to the 2017 variable compensation indicated above. It took the following main achievements into consideration in particular:

- very good continuation of the Group's digital transformation, particularly through the deployment of digital committees over the entire Group and the monitoring of key indicators, disseminating a culture of monitoring the customer experience over all Saint-Gobain Activities, adaptation of the IT infrastructure and the systematic use of data (see Chapter 3, Section 2);
- very good implementation of the corporate social responsibility policy: significant improvement in the total recordable accident rate, with and without more than 24 hours' lost time (TRAR) compared to 2016, achievement of the 90% diversity objective for executive managers and the introduction of a specific action plan with a view to speeding up the representation of female senior executive in order to achieve the 25% objective by 2025 (see Chapter 5, Section 2.1), implementation of specific actions

within the scope of the competition, anti-corruption and embargos compliance program (see Chapter 4, Section 1.1), development of a methodology for the evaluation of sustainable performance of the Construction Products portfolio (see Chapter 2, Section 2.2) and the introduction of a roadmap into each of the Group's Activities with a view to achieving the objective of reducing the Group's CO<sub>2</sub> emissions by 20% by 2025 (see Chapter 5, Section 2.1);

- excellent continuation of the Group's development strategy: organic growth concentrated in the growth geographic areas and trades for the Group, the Board of Directors' involvement in the subjects of external growth, realization of local acquisitions in line with the Group's three priorities (see Chapter 3, Section 1.2), the Group's rating for the seventh year running as one of 100 most innovating global organizations.

In all, Pierre-André de Chalendar's total compensation (fixed and variable) for fiscal year 2017 represented €2,587,270, a decrease of 1.62% on that of 2016.

### c) Long-term incentive policy

#### **Cap on the Chairman and Chief Executive Officer's total compensation**

In addition to the restrictions set out below, the Board of Directors resolved, in accordance with the AFEP-MEDEF Code, and as in previous years, that at the time they would be granted to the Chairman and Chief Executive Officer the 2017 allocations of stock options, performance shares and performance units could not represent a value (according to IFRS standards) greater than 100% of his total gross maximum compensation for the same year (fixed compensation plus maximum variable compensation for the same year).

In 2017, stock options and performance shares granted to the Chairman and Chief Executive Officer represented a total value (according to IFRS standards), at the time of their grant, of €2,004,104 corresponding to 68% of his 2017 total maximum gross compensation.

#### **Cap on the Chairman and Chief Executive Officer's allocation relative to the overall allocation envelope**

At its meeting of February 23, 2017, the Board of Directors decided, as in previous years, that the Chairman and Chief Executive Officer could not receive more than 10% of the overall grants of performance shares and performance units allocated under long-term compensation plans to be set up in 2017.

#### **Hedging rules**

The Chairman and Chief Executive Officer formally undertook not to hedge his risk either on stock options or on shares allocated upon the exercise of stock options, on performance shares or on performance units he has been or will be granted, until the cessation of his duties. To the best of the Company's knowledge, the Chairman and Chief Executive Officer has not hedged his risk.

#### **Closed periods**

Under the Board's internal regulations (see Chapter 10, Section 1.1.2), Pierre-André de Chalendar, as a Director, is required to abstain from trading in Saint-Gobain shares for 30 days prior to Board meetings at which the annual and semi-annual consolidated financial statements are examined, for 15 days preceding publication of quarterly consolidated net sales, as well as on the day following the publication of the annual and half-year results. Outside these periods, he is also required, as are the other Directors, to abide by the provisions on the prevention of insider trading.

## Stock options

The following tables show the allocation of stock options to the Chairman and Chief Executive Officer in 2017 and the options he exercised.

**TABLE 4 – STOCK OPTIONS GRANTED IN 2017 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)**

Name	Plan date	Options exercisable for new or existing shares	Value (based on method used to prepare the consolidated financial statements)	Number of options granted during the year	Exercise price	Exercise period
Pierre-André de Chalendar	11/23/2017	Not yet defined	€293,626	58,000	€49.38	from 11/23/2021 to 11/22/2027

**TABLE 5 – STOCK OPTIONS EXERCISED IN 2017 BY THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)**

Name	Plan date	Options exercisable for new or existing shares	Number of options exercised during the year	Exercise price
Pierre-André de Chalendar	11/20/2008	new shares	15,000	€25.88

At its meeting of November 23, 2017, the Board granted 58,000 stock options to Pierre-André de Chalendar, as in 2016, representing approximately 0.01% of the share capital, and less than the sub-cap set by the General Shareholders' Meeting on June 2, 2016.

The features of the stock options, specifically the service and performance conditions to which the allocation is subject and which apply to the Chairman and Chief Executive Officer, are explained in Chapter 6, Section 2.4.

### Rules for holding shares

As for previous years, the Chairman and Chief Executive Officer is required to retain a number of Saint-Gobain shares equal to at least 50% of the net capital gain on the underlying shares (after deducting social charges and taxes) at the time he exercises the 2017 options, until the cessation of his duties. However, this obligation will cease to apply if and when the total number of Saint-Gobain shares he personally holds in registered form, on the day the options are exercised, represents the equivalent of five years' gross fixed compensation (based on the opening price quoted for Saint-Gobain shares on the option exercise date and the amount of his gross compensation applicable at that time).

## Performance shares

The following tables show the performance shares granted or delivered to the Chairman and Chief Executive Officer during the 2017 fiscal year.

**TABLE 6 – PERFORMANCE SHARES GRANTED IN 2017 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)**

Name	Plan date	Number of shares granted during year	Value (based on method used to prepare the consolidated financial statements)	Vesting date	Availability date	Performance conditions
Pierre-André de Chalendar	11/23/2017	67,000	€1,710,478	11/24/2021	11/25/2021	See Chapter 6 Section 2.4.3

During the Board meeting of November 23, 2017, Pierre-André de Chalendar was granted 67,000 performance shares, as in 2016, representing approximately 0.01% of the share capital, less than the sub-cap set by the General Shareholders' Meeting of June 2, 2016 and less than the 10% cap on the overall allocation envelope for performance shares and performance units decided by the Board.

The features of the performance shares, specifically the service and performance conditions to which the allocation is subject and which apply to the Chairman and Chief Executive Officer, are explained in Chapter 6, Section 2.4.

**TABLE 7 - PERFORMANCE SHARES DELIVERED IN 2017 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)**

Name	Plan date	Number of shares delivered during year	Availability date
Pierre-André de Chalendar	-	-	-

**Rules for holding shares**

The Chairman and Chief Executive Officer is required to retain 50% of the performance shares he received in 2017, that will be delivered to him, until the cessation of his duties. However, this obligation will cease to apply if and when the total number of Saint-Gobain shares he personally holds in registered form, at the delivery date of the performance shares, represents the equivalent of five years' gross fixed compensation (based on the average opening price quoted for Saint-Gobain shares in the twenty trading days preceding the delivery date of the performance shares and the amount of his gross compensation applicable at that time).

**Performance units**

By analogy with the rules applicable to performance shares, the tables below present performance units granted to the Chairman and Chief Executive Officer during 2017, and the number of performance units that became exercisable during the year

**TABLE 6 BIS - PERFORMANCE UNITS GRANTED IN 2017 TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER**

Name	Plan date	Number of performance units granted during year	Value of units (based on method used to prepare the consolidated financial statements)	Exercise period	Performance conditions
Pierre-André de Chalendar	-	-	-	-	-

No performance units plan was implemented during the 2017 fiscal year.

**TABLE 7 BIS - PERFORMANCE UNITS THAT BECAME EXERCISABLE BY THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER DURING 2017**

Name	Plan date	Number of performance units that became exercisable in 2017	Start date of the exercise period
Pierre-André de Chalendar	11/21/2013	53,520	11/21/2017

## 2.2.4 Employment contract, retirement benefits and termination benefits allocated in case of termination of office of the Chairman and Chief Executive Officer

TABLE 11 - EMPLOYMENT CONTRACT, RETIREMENT BENEFITS AND TERMINATION BENEFITS ALLOCATED IN CASE OF TERMINATION OF OFFICE OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

Name	Employment contract		Supplementary pension plan		Benefits due or falling due owing to termination or a change of functions		Non-compete indemnity	
	Yes	No	Yes	No	Yes	No	Yes	No
<b>Pierre-André de Chalendar Chairman and Chief Executive Officer</b>		X <sup>(1)</sup>	X		X		X	

(1) Termination of his employment contract as of June 3, 2010.

At its meeting of March 20, 2014 and at the recommendation of the Nomination, Remuneration and Governance Committee, the Board authorized renewal of the following commitments in favor of Pierre-André de Chalendar, Chairman and Chief Executive Officer, corresponding to components of compensation, indemnities or benefits due or to be due for termination of his duties as Chairman and Chief Executive Officer of Compagnie de Saint-Gobain, within the scope of application of Article L.225-42-1 of the French Commercial Code. These commitments were approved by the General Shareholders' Meeting of June 5, 2014 (resolutions 6, 7 and 8).

The terms of these commitments, similar to those of 2010, were amended on the occasion of their renewal to incorporate the new recommendations introduced by the revised version of the AFEP-MEDEF code, published in June 2013.

In view of the renewal of the Director's term of office of Pierre-André de Chalendar which will be proposed to the General Shareholders' Meeting to be held on June 7, 2018, the shareholders will be asked to vote on the renewal of these commitments (see Chapter 6, Section 2.2.6).

### a) Compensation for loss of office of the Chairman and Chief Executive Officer

The conditions applying to Pierre-André de Chalendar's compensation for termination of office as Chairman and Chief Executive Officer of Compagnie de Saint-Gobain are the following:

#### Forced departure

The indemnity for termination of office may only be paid in the event that Pierre-André de Chalendar's loss of office as Chairman and Chief Executive Officer was due to forced departure, regardless of the form such departure might take, and related to a change of control or strategy under the following circumstances:

- he is removed before the end of his term of office or his mandate as Chairman and Chief Executive Officer is not renewed on expiry, unless this is at his own initiative, or in the event of gross or willful misconduct or serious

misconduct not related to his duties as Chairman and Chief Executive Officer; or

- he is forced to resign within the twelve months following:
  - the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain, or
  - the effective date on which an investor or group of investors acting in concert acquire control of the Company (as defined by Article L.233-3 of the French Commercial Code), or
  - the announcement by Compagnie de Saint-Gobain's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.

In any case, no compensation for termination of office would be due if Pierre-André de Chalendar were to leave the Company at his own initiative under circumstances other than those described above, or if, upon leaving the Company at his own initiative under one of the circumstances described above, he were eligible to retire during the twelve months following the date on which he ceases his functions, and to receive a pension under the so-called "SGPM" defined-benefit plan for engineers and supervisory employees (see paragraph (c) below).

#### Cap on indemnity for termination of office

Pierre-André de Chalendar will be able to receive compensation for termination of office not to exceed a maximum of the equivalent of double his gross total annual compensation, defined as the sum of his final year's fixed compensation as Chairman and Chief Executive Officer paid as of the date on which his functions cease, and of the average of the variable part of the annual compensation received or receivable as Chairman and Chief Executive Officer for his last three full years in office. This gross total annual compensation is henceforth defined as the "Reference Compensation".

Under no circumstances may the cumulative amount of such indemnity for termination of office and the non-compete indemnity (see paragraph (b) below) exceed twice the amount of Pierre-André de Chalendar's Reference Compensation.

### **Performance condition**

Payment of the compensation for termination of office will be subject to fulfillment of a performance condition defined as an allocation by the Board of Directors of a variable part of compensation at least equal to one-half of the average maximum amount fixed for this variable part for the last three full fiscal years during which he will be Chairman and Chief Executive Officer and ending prior to the date on which he ceases his duties. This performance condition is challenging, as demonstrated by the overall completion rate of the objectives corresponding to the variable share of his compensation for the past two fiscal years, which in 2017 totaled 80%, and 82% in 2016.

Payment of an indemnity for termination of office will be subject to the Board's prior determination, in accordance with applicable laws, of fulfillment of this performance condition, on the date of his termination of office.

### **Stock options, performance shares and performance units in the event of termination of office of the Chairman and Chief Executive Officer**

In the event of termination of his office as Chairman and Chief Executive Officer under circumstances qualifying him for compensation for termination of office (see the cases listed in the paragraph "Forced departure" above), and subject to fulfillment of the performance condition described in the previous paragraph, the Board reserves the right, on the proposal of the Nomination and Remuneration Committee, to decide whether or not to maintain all or some of Pierre-André de Chalendar's rights to Saint-Gobain stock options, performance shares and performance units granted to him as of the date of termination and which have not been delivered as of this date, or for which the exercise period has not expired, as the case may be, provided at all times, the performance condition(s) set out in the plans concerned have been fulfilled.

### **b) Non-compete indemnity**

Pierre-André de Chalendar has signed a firm and irrevocable non-compete agreement with Compagnie de Saint-Gobain for a period of one year from the date his functions as Chairman and Chief Executive Officer are terminated in circumstances qualifying him for compensation for termination of office.

In consideration for this commitment, Pierre-André de Chalendar would receive a non-compete indemnity equal to the Reference Compensation (see Paragraph (a) above), it being specified that the amount of the compensation for termination of office due to Pierre-André de Chalendar will, if necessary, be reduced so that the sum of the compensation under the non-compete agreement and the compensation for termination of office amount to no more than twice the Reference Compensation.

In accordance with the recommendations of the AFEP-MEDEF Code, the Board of Directors is entitled to unilaterally waive application of the non-compete agreement, no later than the date of termination of Pierre-André de Chalendar's duties as Chairman and Chief Executive Officer, in which case he shall be free of any commitment and no sum shall be due to him on this account.

### **c) Supplementary pension arrangements**

#### ***Pension commitments to Pierre-André de Chalendar in his capacity as non-employee Executive Director***

Pierre-André de Chalendar continues to benefit from all provisions governing the so-called "SGPM" defined benefits pension plan for engineers and executive staff, on the same basis as for all other beneficiaries of this plan.

Pierre-André de Chalendar does benefit from the SGPM pension plan covering all employees who, as he did, joined Compagnie de Saint-Gobain before January 1, 1994, the date the plan was closed to new entrants. It is a so-called differential type system, according to Article 39 of the General Tax Code. As of December 31, 2017, 234 retired former employees of Compagnie de Saint-Gobain were receiving benefits under the plan and a further 25 active employees will be entitled to benefits on retirement.

Commitments made to Pierre-André de Chalendar and all beneficiaries of the retirement system (current and retired employees) are partly financed, in the amount of approximately 60% of the total, through outsourcing to two insurance companies, without transfer of the lifetime income risk.

To benefit from the plan, Pierre-André de Chalendar will have to retire at 60 or over on a full pension under the compulsory government-sponsored schemes after contributing to the SGPM plan for at least 15 years. If he leaves Compagnie de Saint-Gobain before fulfilling these conditions, he will not be able to claim this benefit, unless forced to terminate his activity for health reasons.

Benefits under the plan are determined so that retirees receive a guaranteed total income in retirement. The guaranteed amount depends on the retiree's years of service (up to 35 years) and is determined on a declining scale for each tranche of gross annual compensation excluding exceptional or temporary payments.

Benefits received by the retiree under other basic and compulsory pension plans during the period are deducted from the guaranteed amount for the purpose of calculating the plan's total guaranteed benefits.

Pierre-André de Chalendar's pension will be based on his final year's fixed compensation and his years of service with the Group, calculated as from October 1, 1989, the date on which he joined the Saint-Gobain Group. If he were to leave after completing the maximum number of pensionable years of service under the SGPM plan, Pierre-André de Chalendar would be entitled to total guaranteed pension benefits (including pension benefits paid under the basic and compulsory pension schemes) representing a guaranteed replacement rate of approximately 49% of his final year's fixed compensation. The seniority-based supplementary pension benefits under the SGPM plan that would be paid by Compagnie de Saint-Gobain, which corresponds to the difference between these guaranteed total benefits and the amount of the benefits paid under the basic and compulsory pension schemes, would therefore be approximately 37% of his latest fixed compensation set in the event of retirement at maximum seniority.

Pierre-André de Chalendar's maximum supplementary retirement payout is significantly lower than the AFEP-MEDEF code's recommended ceiling, which is 45% of the sum of the fixed and variable compensations. The annual increase in Pierre-André de Chalendar's potential rights is 1.5%

of his fixed compensation per year of seniority, and thus represents only 50% of the 3% ceiling of the annual compensation set by law, that will be applicable from June 7, 2018 should Pierre-André de Chalendar's term of office be renewed.

Finally, with regard to expenses associated with the payment of the seniority-based supplementary pension benefits referred to above, the Company would be required to pay a contribution on the premiums paid to the two insurance companies mentioned above, the rate of which is set at 24%.

At December 31, 2017, the estimated amount of the pension that Pierre-André de Chalendar will receive as supplemental pension would come to a gross amount of €300,000 per year. This indicative amount is calculated in accordance with the methodology set by Article D.225-104-1 of the French Commercial Code, according to which the pension must be estimated on an annual basis, take into account the seniority acquired by the Executive Director in his/her duties at the closing date of the fiscal year, be based on the remunerations recorded during the last fiscal year(s) and be calculated independently of the conditions of realization of the

commitment, as if the Executive Director could benefit from it starting the day after the close of the fiscal year.

The lifetime benefits granted consist of the retirement income described above, as well as life insurance, to which Pierre-André de Chalendar will have an opportunity to subscribe like other retirees upon retiring, the annual premium of which is estimated as at December 31, 2017 to be less than €9,000. This premium is assumed in its entirety by Compagnie de Saint-Gobain in the first year of retirement, after which only 50% continues to be assumed by the Company.

***Benefits under the Group health and personal risk insurance policies applicable to Compagnie de Saint-Gobain employees maintained for Pierre-André de Chalendar in his capacity as non-salaried Executive Director.***

Pierre-André de Chalendar continues to benefit in full from the Group's health and personal risk insurance policies entered into with GAN and Mutuelle Malakoff Médéric, respectively, which all the employees of Compagnie de Saint-Gobain also benefit from.

## **2.2.5 Compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer, in 2017 subject to shareholders' approval at the General Shareholders' Meeting of June 7, 2018 ("Say on Pay" ex post).**

The so-called "Sapin II" law (*loi relative à la transparence, à la lutte contre la corruption et à la modernisation de la vie économique*), enacted on December 9, 2016, requires that the fixed, variable and exceptional components of overall compensation and benefits of any kind paid or granted to executive Directors in respect of the past fiscal year, be submitted to the approval of the Ordinary Shareholders' Meeting each year, and for the first time in 2018. This vote is binding (in contrast to the advisory vote previously provided by the AFEP-MEDEF code).

The compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer, in respect of 2017 were decided by the Board of Directors at its meetings on February 23, 2017, November 23, 2017 and February 22, 2018, upon proposal of the Nomination and Remuneration Committee and pursuant to the compensation policy - namely, the principles and criteria applying to the determination, distribution and allocation of the compensation components - for the Chairman and Chief Executive Officer approved by the General Shareholders' Meeting of June 8, 2017 (tenth resolution).

The following table shows the compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer in respect of 2017, subject to shareholders' approval at the General Shareholders' Meeting of June 7, 2018, in accordance with Article L.225-100 of the French Commercial Code.

<b>Compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer, in respect of 2017 (Article L.225-100 of the French Commercial Code) ("Say on pay" ex post)</b>		
<b>Compensation components paid or granted in respect of 2017</b>	<b>Amount or book value submitted to vote (in EUR)</b>	<b>Description</b>
<b>Fixed compensation</b>	<b>Amount due: €1,100,000</b>	Fixed compensation unchanged since 2010.
<b>Annual variable compensation</b>	<b>Amount due: €1,487,270 (Board of Directors' meeting of February 22, 2018)</b>	<p>At its February 23, 2017 meeting, the Board of Directors decided, based on the recommendations of the Nomination and Remuneration Committee, to maintain the cap on the amount of Pierre-André de Chalendar's variable compensation in respect of fiscal year 2017 unchanged at 170% of his fixed compensation, and fixed the quantifiable and qualitative objectives detailed below, determining, up to a limit of 2/3 and 1/3 respectively, the variable portion of his compensation (cap and structure unchanged since 2014).</p> <p>Based on the recommendations of the Nomination and Remuneration Committee, the Board of Directors, at its February 22, 2018 meeting, determined Pierre-André de Chalendar's variable compensation as follows, taking into account the extent to which the objectives outlined below have been achieved:</p> <ul style="list-style-type: none"> <li>■ the portion of the variable compensation based on the fulfillment of the four quantifiable objectives (return on capital employed (ROCE), Group operating income, Group recurring earnings per share and operating free cash flow) amounted to €988,600, corresponding to an achievement rate of 79% (the completion rate of the various quantifiable objectives is presented in Chapter 6, Section 2.2.3);</li> <li>■ the amount of the variable portion of the three qualitative objectives (continuation of the digital transformation of the Group, implementation of the corporate social responsibility policy and continuation of the Group's development strategy) amounted to €498,670, corresponding to a percentage of overall completion of the qualitative objectives of 80% (see details in Chapter 6, Section 2.2.3).</li> </ul> <p>On this basis, his 2017 annual variable compensation totaled €1,487,270, corresponding to an achievement rate of 80%.</p> <p>Overall, Pierre-André de Chalendar's total compensation (fixed and variable) amounted to €2,587,270 for 2017, a decrease of 1.62% over 2016.</p> <p><i>Pursuant to the law, payment of the variable compensation is subject to the approval of the Ordinary Shareholders' Meeting of June 7, 2018.</i></p>
<b>Deferred variable compensation</b>	<b>None</b>	Pierre-André de Chalendar has not been granted any deferred variable compensation.
<b>Multi-year variable compensation</b>	<b>None</b>	Pierre-André de Chalendar has not been granted any multi-year variable compensation.
<b>Exceptional compensation</b>	<b>None</b>	Pierre-André de Chalendar has not been granted any exceptional compensation.
<b>Stock options</b>	<b>Amount allocated: €293,626 (valuation based on method used to prepare the consolidated financial statements)</b>	<p>On November 23, 2017, based on the recommendations of the Nomination and Remuneration Committee, the Board of Directors decided, as in 2016, to grant Pierre-André de Chalendar 58,000 stock options, <i>i.e.</i>, less than the sub-cap set by the General Shareholders' Meeting of June 2, 2016.</p> <p>On February 23, 2017, the Board of Directors decided, as in previous years, that the grants of stock options, performance shares and performance units to the Chairman and Chief Executive Officer could not, at the time of their allocation, represent a value (according to IFRS) of more than 100% of his total maximum gross compensation for the same year (fixed compensation plus maximum variable compensation for the same year).</p> <p>In 2017, these allocations represented a total value (according to IFRS) at the time of their grant of €2,004,104, corresponding to 68% of his total maximum gross compensation for 2017.</p> <p>Refer to Chapter 6, Section 2.4.2 for a description of the service and performance conditions applying to the exercise of the options.</p> <p>The performance conditions applying to stock options granted by the Group are demanding as evidenced by the achievement rates of the latest three stock option plans for which the performance condition has been determined (58.9% for the 2013 plan, 16.5% for the 2012 plan and 0% for the 2011 plan).</p> <p>Percentage of share capital represented by the allocation of performance shares to the Chairman and Chief Executive Officer: approximately 0.01%.</p> <p>Date of authorization by the General Shareholders' Meeting: June 2, 2016 (resolution 13).</p> <p>Date of the Board's grant decision: November 23, 2017.</p>

**Compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer, in respect of 2017 (Article L.225-100 of the French Commercial Code) ("Say on pay" ex post)**

Compensation components paid or granted in respect of 2017	Amount or book value submitted to vote (in EUR)	Description
<b>Performance shares</b>	<b>Amount allocated: €1,710,478 (valuation based on method used to prepare the consolidated financial statements)</b>	<p>On November 23, 2017, the Board of Directors decided, as in 2016, to grant Pierre-André de Chalendar 67,000 performance shares, <i>i.e.</i> less than the sub-cap set by the General Shareholders' Meeting of June 2, 2016 and less than the 10% cap on the overall grants of performance share and performance unit decided by the Board.</p> <p>Refer to the "Stock options" <i>item</i> above for the cap on grants to the Chairman and Chief Executive Officer relative to his overall compensation.</p> <p>Refer to Chapter 6, Section 2.4.3 for a description of the service and performance conditions applying to the vesting of performance shares.</p> <p>The performance conditions applying to performance shares allocated by the Group are demanding as evidenced by the achievement rates of the latest three performance share plans for which the performance condition has been determined (86.4% for the 2014 plan, 89.2% for the 2013 plan and 65.5% for the 2012 plan).</p> <p>Percentage of share capital represented by the allocation of performance shares to the Chairman and Chief Executive Officer: approximately 0.01%.</p> <p>Date of authorization by the General Shareholders' Meeting: June 2, 2016 (resolution 14).</p> <p>Date of the Board's grant decision: November 23, 2017.</p>
<b>Performance units</b>	<b>None</b>	No performance units were allocated to Pierre-André de Chalendar in 2017.
<b>Directors' attendance fees</b>	<b>None</b>	Pierre-André de Chalendar is not paid any Directors' fees.
<b>In-kind benefits</b>	<b>Amount due: €3,607 (book value)</b>	Pierre-André de Chalendar has use of a company car.

**Compensation components paid or granted to Pierre-André de Chalendar, Chairman and Chief Executive Officer, in respect of 2017, authorized by the General Shareholders' Meeting of June 5, 2014 as related-party agreements and undertakings**

Compensation components	Amounts paid or granted in 2017 (in EUR)	Description
<b>Compensation for loss of office</b>	<b>None</b>	<p>In the event of forced termination of office, irrespective of the form of termination, linked to a change in control or strategy under the following circumstances:</p> <p>a) he is removed from office or his mandate as Chairman and Chief Executive Officer is not renewed on expiry, other than at his own initiative or as a result of gross or willful misconduct or serious misconduct not related to his duties as Chief Executive Officer; or</p> <p>b) he is forced to resign within the 12 months following:</p> <ul style="list-style-type: none"> <li>■ the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain, or</li> <li>■ the effective date on which a third party or group of third parties acting in concert acquires control of Compagnie de Saint-Gobain (in accordance with Article L.233-3 of the French Commercial Code), or</li> <li>■ the announcement by the Company's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.</li> </ul> <p>Pierre-André de Chalendar will be able to receive compensation not to exceed the double of the sum of the fixed portion of his annual compensation received as of the date of termination of his duties, and the average annual variable compensation received or receivable in respect of his last three full fiscal years in office.</p> <p>In any case, no compensation for loss of office would be due if Pierre-André de Chalendar were to leave Compagnie de Saint-Gobain at his own initiative under circumstances other than those described above, or if, upon leaving the Company under one of the circumstances described above, he were eligible to retire during the twelve months following termination of his duties as Chairman and Chief Executive Officer and to receive a pension under the so-called "SGPM" defined benefit plan.</p> <p>In no case may the sum of the indemnity for termination of office and the non-compete indemnity described below exceed twice Pierre-André de Chalendar's gross annual total compensation.</p> <p>The indemnity for loss of office shall be subject to fulfillment of a performance condition: see Chapter 6, Section 2.2.4.</p> <p>Date of renewal of the authorization by the Board of Directors: March 20, 2014. Date of approval by the General Shareholders' Meeting: June 5, 2014 (6th resolution).</p>
<b>Non-compete indemnity</b>	<b>None</b>	<p>Pierre-André de Chalendar has signed a firm and binding non-compete undertaking in favor of Compagnie de Saint-Gobain with a term of one year as from the date of his loss of office as Chairman and Chief Executive Officer in circumstances entitling him to compensation for loss of office (see description above).</p> <p>In return for this undertaking, he would receive a non-compete indemnity equal to one year's total gross compensation. Gross annual compensation is considered as comprising the same fixed and variable amounts used to calculate his compensation for loss of office referred to above.</p> <p>Under no circumstances will the sum of the indemnity under the non-compete agreement and the compensation for loss of office exceed double Pierre-André de Chalendar's total gross annual compensation.</p> <p>The Board of Directors reserves the right to unilaterally waive application of the non-compete agreement no later than on the date of termination of the Chairman and Chief Executive Officer's duties, in which case he will be released from any commitment and no amount will be due to him on this account.</p> <p>Date of renewal of the authorization by the Board of Directors: March 20, 2014. Date of approval by the General Shareholders' Meeting: June 5, 2014 (6th resolution).</p>
<b>Supplementary pension plan</b>	<b>None</b>	<p>Pierre-André de Chalendar participates in the defined benefit pension plan ("SGPM") applicable to all employees and managers of Compagnie de Saint-Gobain who, as he did, joined the Company prior to January 1, 1994, and which was closed to new entrants as from that date.</p> <p>For information about the triggering events for benefits payments and potential benefits rights, see Chapter 6, Section 2.2.4.</p> <p>Date of renewal of the authorization by the Board of Directors: March 20, 2014. Date of approval by the General Shareholders' Meeting: June 5, 2014 (7th resolution).</p>



## 2.2.6 Compensation policy for the Chairman and Chief Executive Officer subject to shareholders' approval at the General Shareholders' Meeting of June 7, 2018 ("Say on Pay" ex ante)

The so-called "Sapin II" law (*loi relative à la transparence, à la lutte contre la corruption et à la modernisation de la vie économique*), enacted on December 9, 2016 requires that the compensation policy for the executive Directors, i.e., the principles and criteria applying to the determination, distribution and allocation of fixed, variable and exceptional components of their total compensation and the benefits of any kind attributable to them in respect of their mandate, be submitted every year to the approval of the Ordinary Shareholders' Meeting. This vote is binding (as opposed to an advisory vote).

At the proposal of the Nomination and Remuneration Committee, the Board of Directors, at its meeting of November 23, 2017 decided unanimously to propose to the General Shareholders' Meeting to be held on June 7, 2018 the renewal of the Director's term of office of Pierre-André de Chalendar, and announced its intention to reappoint him as Chairman and Chief Executive Officer, should the General Shareholders' Meeting approve the renewal of his term of office.

At its meeting of February 22, 2018, at the proposal of the Nomination and Remuneration Committee, the Board of Directors decided the compensation policy for the Chairman and Chief Executive Officer, the sole executive Director of Compagnie de Saint-Gobain, and in view of the renewal of Pierre-André de Chalendar's term of office, approved the renewal of the commitments described below, made for his benefit and corresponding to compensation components, indemnities or benefits due or to be due for termination of his duties covered by the scope of Article L.225-42-1 of the French Commercial Code. Renewal of these commitments will be subject to the approval of the General Shareholders' Meeting to be held on June 7, 2018.

The general principles of the compensation policy of the Chairman and Chief Executive Officer described in Chapter 6, Section 2.2.1 were reviewed by the Board of Directors in view of the renewal of the Chairman and Chief Executive Officer's term of office and were confirmed for the 2018 fiscal year.

The following table describes the principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Chief Executive Officer for the 2018 fiscal year, subject to the approval of the General Shareholders' Meeting of June 7, 2018 in accordance with Article L.225-37-2 of the French Commercial Code.

### Principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Executive Officer, for the 2018 fiscal year, submitted to the approval of the Ordinary General Shareholders' Meeting (Article L.225-37-2 of the French Commercial Code)

Compensation components attributable to the Chairman and Chief Executive Officer	Cap	Description
<b>Fixed compensation</b>	-	<p>The fixed compensation of the Chairman and Chief Executive Officer is commensurable with his experience and responsibilities as Chairman and Chief Executive Officer, and shall be compared with fixed compensation offered by similar large companies in terms of sales, workforce and international scope of operations. This amount is reviewed at relatively long intervals of time.</p> <p><i>In application of these principles, taking into account the fact that the fixed compensation of Pierre-André de Chalendar has remained unchanged since his appointment as Chairman and Chief Executive Officer in 2010, that the operational performance has been restored in all of the Group's activities and given its very good 2017 results, the Board decided on February 22, 2018, at the proposal of the Nomination and Remuneration Committee, in view of the renewal of Pierre-André de Chalendar's term of office and for its full term, to increase this fixed compensation from €1,100,000 to €1,200,000 for 2018 (+9%). The Committee noted that, on the one hand, this increase was less than that of base salaries within the Group in France since 2010, and that on the other hand, with the help of an external firm, this level of compensation was at the median for industrial CAC 40 companies comparable to Saint-Gobain in terms of size: whether in terms of sales, workforce or international footprint.</i></p>

**Principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Executive Officer, for the 2018 fiscal year, submitted to the approval of the Ordinary General Shareholders' Meeting (Article L.225-37-2 of the French Commercial Code)**

Compensation components attributable to the Chairman and Chief Executive Officer	Cap	Description
<b>Annual variable compensation</b>	<b>170% of the fixed compensation</b>	<p>The Board of Directors decided to maintain the cap on the annual variable part of the compensation of the Chairman and Chief Executive Officer unchanged at 170% of his fixed compensation (cap unchanged since 2014).</p> <p>The amount of the variable compensation for the 2018 fiscal year will be decided by the Board of Directors in 2019 based on the achievement of quantifiable and qualitative objectives that it established, respectively at 2/3 and 1/3 of the variable portion of his compensation (structure unchanged since 2014).</p> <p>As regards the quantifiable objectives, the Board decided to maintain for the 2018 fiscal year, the following four quantifiable objectives, each counting for 25%, deemed relevant for assessing the operational and financial performance of the Saint-Gobain Group and its strategy (unchanged since the renewal of his mandate in 2010): the rate of return on capital employed (ROCE), the operating income of the Group, the recurring net income of the Group per share and the operating free cash flow.</p> <p>In addition, the Board retained the following qualitative objectives, deemed relevant to the extent that they reflect the implementation of strategic orientations for the 2018 fiscal year: continuation of the digital transformation of the Group, implementation of the corporate social responsibility policy and continuation of the Group's development strategy.</p> <p><i>In accordance with the law, the payment of the annual variable compensation will be conditioned to the approval of the 2019 Ordinary Shareholders' Meeting.</i></p>
<b>Deferred variable compensation</b>	<b>None</b>	The Board of Directors does not intend to grant deferred variable compensation to the Chairman and Chief Executive Officer in 2018.
<b>Multi-year variable compensation</b>	<b>None</b>	The Board of Directors does not intend to grant multi-year compensation to the Chairman and Chief Executive Officer in 2018.
<b>Exceptional compensation</b>	<b>None</b>	<p>The Board of Directors does not intend to grant exceptional compensation to the Chairman and Chief Executive Officer in 2018.</p> <p><i>In accordance with the law, the payment of the exceptional compensation would be conditioned to the approval of the 2019 Ordinary Shareholders' Meeting.</i></p>
<b>Indemnity for taking up office</b>	-	The Board of Directors reserves the option, if a new Chief Executive Officer should be recruited outside the Group, to grant him/her an indemnity for taking up office to compensate for the loss of benefits, in compliance with current practices, such as the annual variable compensation and/or long-term compensation components which he/she was entitled to as part of his/her previous duties. This indemnity for taking up office could take the form of payments in cash and/or allocation of securities subject to performance conditions.

**Principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Executive Officer, for the 2018 fiscal year, submitted to the approval of the Ordinary General Shareholders' Meeting (Article L.225-37-2 of the French Commercial Code)**

Compensation components attributable to the Chairman and Chief Executive Officer	Cap	Description
Long-term compensation	<p><b>Cap for grants of long-term compensation instruments to the Chairman and CEO, i.e., stock options, free shares and performance units (valuation based on IFRS standards) set at 85% of his 2018 total maximum gross compensation</b></p> <p>and</p> <p><b>Cap for allocation to the Chairman and CEO fixed at 10% of the overall grants performance shares and performance units in 2018</b></p> <p>and</p> <p><b>Caps for allocation to the Chairman and CEO provided by resolutions 13 (stock options) and 14 (free shares) of the General Shareholders' Meeting of June 2, 2016</b></p>	<p>The Board of Directors has decided that grants of stock options, performance shares and performance units to the Chairman and Chief Executive Officer in 2018, could not, at the time of their grant, represent a value (in accordance with the IFRS standards) greater than 85% of his total maximum gross compensation for the 2018 fiscal year (fixed compensation plus maximum variable compensation for the 2018 fiscal year).</p> <p>The grants of stock options, performance shares and performance units to the Chairman and Chief Executive Officer for the 2017 and 2016 fiscal years represented a value of less than 70% and 50% respectively of his total maximum gross compensation for such fiscal years.</p> <p>In addition, the Board of Directors has decided that the Chairman and Chief Executive Officer may not receive more than 10% of the overall grants of performance shares and performance units allocated under the long-term compensation plans 2018.</p> <p>For the record, the sub-limit for the grant of stock options to the executive Directors was set by the General Shareholders' Meeting of June 2, 2016 at 10% of the limit determined by the 13th resolution (such limit being also applicable to the 14th resolution of the same General Shareholders' Meeting relative to the grant of free shares which fixed a sub-limit at 10% of the limit set by the resolution for the allocation to the Executive Directors).</p> <p>At the occasion of the General Shareholders' Meeting of June 2, 2016, the Board of Directors indicated its intention to subject the exercise of the stock options and the vesting of the performance shares under long-term compensation plans to <b>a service condition and performance conditions which will be based as a minimum on an internal performance criterion (Group ROCE) and on a relative performance criterion (the stock market performance of Saint-Gobain vis-à-vis the CAC 40 stock market index), taken individually or combined, and that it reserves the right to add the criterion of free cash flow</b>, a published market indicator (for more information see pages 31 and 32 of the Notice of Meeting for the General Shareholders' Meeting of June 2, 2016).</p> <p>Furthermore, following dialogue with investors and as announced in 2016, the Board of Directors decided on November 23, 2017, at the proposal of the Nomination and Remuneration Committee, <b>to add a criterion related to corporate social responsibility, comprising the following three indicators, all quantifiable and published each year as key CSR indicators: total recordable accident rate – more than 24 hours' lost time and non lost time (TRAR), the reduction rate of CO<sub>2</sub> emissions and the senior executives diversity index</b>. These criteria have been considered relevant by the Board of Directors as they reflect the operational, financial and non-financial performance of the Saint-Gobain Group and ensure an alignment of the beneficiaries with the interest of Saint-Gobain shareholders.</p> <p><b>The duration of vesting periods applicable under long-term compensation plans shall not be shorter than three years.</b></p> <p>In the event that the Board of Directors should decide in 2018 to implement in favor of certain beneficiaries a plan of performance units instead of the grant of performance shares, as in the past, the grants of performance units will be subject to the same service and performance conditions as the grants under performance share plans which would be implemented in 2018 in favor of other beneficiaries of long-term compensation plans.</p> <p>As in the past, the Board will set for the Chairman and Chief Executive Officer, for any allocation in 2018 under long-term compensation plans, a <b>demanding obligation</b> to retain shares resulting from the exercise of stock options or vested performance shares or to reinvest in shares upon exercise of performance units, that the Chairman and Chief Executive Officer will be required to retain in registered form until the cessation of his duties.</p>

Principles and criteria applying to the determination, distribution and allocation of the compensation components of the Chairman and Executive Officer, for the 2018 fiscal year, submitted to the approval of the Ordinary General Shareholders' Meeting (Article L.225-37-2 of the French Commercial Code)

Compensation components attributable to the Chairman and Chief Executive Officer	Cap	Description
<b>Consequences of departure of the Director on his stock options, performance shares and performance units</b>	-	<p>a) In the event of his departure as Director as a result of death, disability or retirement, as provided in the rules of the relevant long-term compensation plans, the Chairman and Chief Executive Officer will not be deprived of his right to exercise stock options and performance units or to receive the performance shares that he has been granted on his departure date.</p> <p>b) In the event of his departure as Director for other reasons, with the exception of the following, which will lead to forfeiture of the rights:</p> <ul style="list-style-type: none"> <li>- dismissal for serious misconduct or gross negligence separate from his duties; and</li> <li>- resignation (other than in the 12 months following a merger or demerger affecting Compagnie de Saint-Gobain, the acquisition of control of Compagnie de Saint-Gobain or a material change in the Group's strategy leading to a major refocusing of its activity),</li> </ul> <p><b>the Board of Directors may</b>, at the proposal of the Nomination and Remuneration Committee, decide whether to <b>maintain, purely on a pro rata temporis basis</b>, his benefit of all or part of the stock options, performance shares and performance units that he holds on his departure date and for which the minimum exercise period has not elapsed or which have not been delivered on that date, as the case may be.</p> <p>Any such decision by the Board of Directors must be justified in accordance with the AFEP-MEDEF code.</p> <p>The exercise of stock options and performance units, and the allocation of performance shares, would nonetheless remain <b>subject</b> in this case <b>to the performance condition(s)</b> stipulated in the rules of the relevant plans <b>being met</b>.</p>
<b>Directors' attendance fees</b>	<b>None</b>	The Chairman and Chief Executive Officer is not paid any Directors' fees.
<b>In-kind benefits</b>	-	The Chairman and Chief Executive Officer has use of a company car.

**Compensation components subject to the approval of the General Shareholders' Meeting of June 7, 2018 as related-party agreements and undertakings**

**Description**

**Compensation for loss of office**

In the event of forced termination of office, irrespective of the form of termination under the following circumstances:

- a) he is removed from office or his mandate as Chairman and Chief Executive Officer is not renewed on expiry, other than at his own initiative or as a result of gross or willful misconduct or serious misconduct not related to his duties as Chief Executive Officer; or
- b) he is forced to resign within the 12 months following:
  - the date of approval by the shareholders of a merger or demerger affecting Compagnie de Saint-Gobain; or
  - the effective date on which a third party or group of third parties acting in concert acquires control of Compagnie de Saint-Gobain (in accordance with Article L.233-3 of the French Commercial Code); or
  - the announcement by the Company's governance bodies of a significant change in the Group's strategy leading to a major refocusing of its business.

**Pierre-André de Chalendar would be able to receive compensation not to exceed the double of the sum of the fixed portion of his annual compensation received as of the date of termination of his duties, and the average annual variable compensation received or receivable in respect of his last three full fiscal years in office.**

In any case, no compensation for loss of office would be due if Pierre-André de Chalendar were to leave Compagnie de Saint-Gobain at his own initiative under circumstances other than those described above, or if, upon leaving the Company under one of the circumstances described above, he were eligible to retire during the twelve months following termination of his duties as Chairman and Chief Executive Officer and to receive a pension under the so-called "SGPM" defined benefit plan.

**In no case may the sum of the indemnity for termination of office and the non-compete indemnity described below exceed twice Pierre-André de Chalendar's gross annual total compensation.**

The indemnity for loss of office shall be subject to fulfillment of a performance condition defined as the allocation by the Board of Directors of a variable part of compensation at least equal to one-half of the average maximum amount fixed for this variable part for the last three full fiscal years during which he will be Chairman and Chief Executive Officer and ending prior to the date on which he ceases his duties.

Payment of this compensation for loss of office will be subject to prior determination by the Board of Directors, in accordance with applicable law, of fulfillment of this performance condition, on the date of his loss of office.

Date of authorization by the Board of Directors: February 22, 2018.

Date of approval by the General Shareholders' Meeting: June 7, 2018 (in connection with the renewal of Pierre-André de Chalendar's term of office).

**Non-compete indemnity**

Pierre-André de Chalendar has signed a firm and binding non-compete undertaking in favor of Compagnie de Saint-Gobain with a term of one year as from the date of his loss of office as Chairman and Chief Executive Officer.

In consideration for this undertaking, in the event of his loss of office as Chairman and Chief Executive Officer for any reason whatsoever, he would receive a non-compete **indemnity equal to one year's total gross compensation**. Gross annual compensation is considered as comprising the same fixed and variable amounts used to calculate his compensation for loss of office referred to above.

Under no circumstances will the **sum of the indemnity under the non-compete agreement and the compensation for loss of office exceed twice Pierre-André de Chalendar's total gross annual compensation**.

It should be noted that the non-compete undertaking is a **means of protection for Saint-Gobain**, a non-compete indemnity being a mandatory compensation for the restrictions imposed.

The Board of Directors reserves the right to unilaterally waive application of the non-compete agreement no later than on the date of termination of the Chairman and Chief Executive Officer's duties, in which case he will be released from any commitment and no amount will be due to him on this account.

Date of authorization by the Board of Directors: February 22, 2018.

Date of approval by the General Shareholders' Meeting: June 7, 2018 (in connection with the renewal of Pierre de Chalendar's term of office).

Compensation components subject to the approval of the General Shareholders' Meeting of June 7, 2018 as related-party agreements and undertakings	Description
<b>Supplementary pension plan</b>	<p>Pierre-André de Chalendar is a beneficiary under the defined benefit pension plan applicable to all employees and managers of Compagnie de Saint-Gobain who, as he did, joined the Company prior to January 1, 1994, date on which this plan was closed to new entrants. It is a so-called differential type system, according to Article 39 of the General Tax Code.</p> <p>As of December 31, 2017, 234 retired former employees of Compagnie de Saint-Gobain were receiving benefits under the plan – so-called "SGPM" - and a further 25 active employees will be entitled to benefits on retirement.</p> <p>To benefit from the plan, Pierre-André de Chalendar will have to retire at 60 or over on a full pension under the compulsory government-sponsored schemes after contributing to the SGPM plan for at least 15 years. If he leaves Compagnie de Saint-Gobain before fulfilling these conditions, he will not be able to claim this benefit, unless forced to terminate his activity for health reasons.</p> <p>Benefits under the plan are determined so that retirees receive a guaranteed total income in retirement. The guaranteed amount depends on the retiree's years of service (up to 35 years) and is determined on a declining scale for each tranche of gross annual compensation excluding exceptional or temporary payments.</p> <p>Benefits received by the retiree under other basic and compulsory pension plans during the period are deducted from the guaranteed amount for the purpose of calculating the plan's total guaranteed benefits.</p> <p>Pierre-André de Chalendar's pension will be based on his final year's fixed compensation and his years of service with the Group, calculated as from October 1, 1989, the date on which he joined the Saint-Gobain Group. If he were to leave after completing the maximum number of pensionable years of service under the SGPM plan, Pierre-André de Chalendar would be entitled to total guaranteed pension benefits (including pension benefits paid under the basic and compulsory pension schemes) representing a guaranteed replacement rate of approximately 49% of his final year's fixed compensation. The seniority-based supplementary pension benefits under the SGPM plan that would be paid by Compagnie de Saint-Gobain, which corresponds to the difference between these guaranteed total benefits and the amount of benefits paid under the basic and compulsory pension schemes, would therefore be approximately 37% of his latest fixed compensation set in the event of retirement at maximum seniority.</p> <p>Pierre-André de Chalendar's maximum supplementary retirement payout is significantly lower than the AFEP-MEDEF code's recommended ceiling, which is 45% of the sum of the fixed and variable compensations.</p> <p>In accordance with Article L.225-42-1 of the French Commercial Code based on the recommendations of the Nomination and Remuneration Committee, the Board of Directors, at its meeting of February 22, 2018, decided upon the <b>performance condition to which the annual increase in Pierre-André de Chalendar's retirement benefits will be subject</b>, defined as follows: allocation by the Board of Directors of a variable part of compensation at least equal to one-half of the average maximum amount fixed for this variable part for the last three full fiscal years during which he will be Chairman and Chief Executive Officer and ending prior to the date on which he ceases his duties (this condition being the same as for the compensation for loss of office). Fulfillment of this performance condition determining the increase in rights as of October 1<sup>st</sup> will be ascertained each year by the Board of Directors, in accordance with the law.</p> <p>Date of authorization by the Board of Directors: February 22, 2018.</p> <p>Date of approval by the General Shareholders' Meeting: June 7, 2018 (in connection with the renewal of Pierre-André de Chalendar's term of office).</p>



## 2.3 Compensation of members of the Group's Senior Management

Compensation paid to members of the Group's senior management (see Chapter 1, Section 3) is set at a level consistent with compensation packages offered by comparable companies. It is determined and reviewed, among other things, based on the results of specific surveys from specialized consultants commissioned by senior management.

In addition to a fixed portion, it consists of a variable compensation set at a reasonable proportion of total compensation, the purpose of which is to reflect the manager's personal contribution to the Group's growth and results.

This principle has now been extended to all managerial staff. The performance objectives used are based on financial indicators such as Return On Investment (ROI) and Return On Capital Employed (ROCE), as well as personal objectives such as developing a certain type of business or entering a new geographic market. Most often, a safety indicator is also applied.

In this way, management compensation is clearly linked to performance and to the achievement of objectives that

promotes a high level of personal commitment. Each manager's compensation can fluctuate significantly from one year to the next, based on the results achieved.

Gross compensation received by the members of senior Management Committee (excluding the Chairman and Chief Executive Officer and long-term compensation) in 2017 from Group companies in and outside France, totaled €11.9 million (2016: €10.9 million), including gross variable compensation of €4.2 million (2016: €3.2 million) and termination benefits of €0.1 million (2016: no termination benefits).

Pensions and other post-employment benefits (defined benefit obligations in respect of retirement bonuses and pensions) accruing to the members of the Senior Management Committee (including the Chairman and Chief Executive Officer) totaled €46.6 million at December 31, 2017 (€47.0 million at December 31, 2016).

Attendance fees allocated to Directors representing the Group (particularly members of Group management) in Group companies other than Compagnie de Saint-Gobain are either reverted to their employer company, or paid directly to that company.

## 2.4 Long-term compensation plans (stock options, performance shares and performance units)

### 2.4.1 Allocation policy

The objective of the Group's long-term compensation policy is to retain and motivate the Group's senior management, officers and employees, and to associate them with the Group's performance, in particular through conditional allocations of stock options, performance shares or performance units to reflect their fulfillment of the Group's long-term strategy.

At the recommendation of the Nomination and Remuneration Committee, the Board of Directors authorizes the features of the stock option and performance share plans, as well as the identity of the beneficiaries, and approves the principle of long-term compensation plans in the form of performance units to be implemented, if need be, by the Chairman and Chief Executive Officer. These plans are subject to a service condition and to the strict internal and/or relative performance criteria set by the Board (see below for details of each allocation).

In 2017, these plans covered 2,105 Group officers and employees, in France and outside France, including high-potential managers and managers who have performed exceptionally well (260 grantees), key corporate and line

executives in the Sectors and General Delegations (1,803 grantees), members of the Group Liaison Committee excluding the senior management team (31 grantees) and senior management (10 grantees), with grants to the Chairman and Chief Executive Officer being described in Chapter 6, Section 2.2.3(c).

The beneficiaries of these plans belong to 58 different nationalities and work in 55 countries.

On November 23, 2017 the Board of Directors resolved that the origin of the shares of the 2017 stock options plan, new or existing shares, would be determined at its discretion no later than by the end of the vesting period. This plan represents 0.05% of the share capital and therefore has no material impact in terms of dilution. The performance share plan entitles beneficiaries to existing shares and therefore has no impact in terms of dilution. No performance unit plan was implemented during fiscal year 2017.

The members of the Liaison Committee were allocated both stock options and performance shares.

The other instruments designed to associate employees with business results are presented in Chapter 8, Section 2.3 and Chapter 4, Section 3.2.3.

## 2.4.2 Stock option plans

Stock option plans have been set up by the Board of Directors every year since 1987.

Under the authorization granted by the 13<sup>th</sup> resolution of the General Shareholders' Meeting of June 2, 2016, at its meeting of November 23, 2017 the Board of Directors resolved to implement a stock option plan, following analysis and the recommendation of the Nomination and Remuneration Committee.

This plan covers 42 employees and officers of the Group, in France and outside France, who were granted a total of 284,500 options (including allocations to the Chairman and Chief Executive Officer), with the type of options, whether for new or existing shares, to be determined by the Board no later than by the end of the vesting period (noting that any options that may be exercised before their type is determined will be options to subscribe for new shares). Grants to the Chairman and Chief Executive Officer are less than the grant sub-cap defined by the General Shareholders' Meeting on June 2, 2016.

The lifetime of the options is 10 years. The option price was set at €49.38, without rebate or discount based on the average opening price of the Saint-Gobain shares in the 20 trading days preceding the date of the grant by the Board of Directors.

The performance criteria applicable to the stock options plan implemented on November 23, 2017 entail, as since 2015, an internal performance condition linked to Saint-Gobain Group's Return on Capital Employed, including goodwill, and a relative performance condition linked to the performance of the Saint-Gobain stock price compared to the performance of the CAC 40 stock market index. Furthermore, following dialogue with investors and as announced in 2016, the Board of Directors decided, at its meeting of November 23, 2017, at the proposal of the Nomination and Remuneration Committee, to add a criterion related to corporate social responsibility. These criteria have been considered relevant by the Board of Directors as they reflect the operational, financial and non-financial performance of the Saint-Gobain Group and ensure an alignment of the beneficiaries with the interest of Saint-Gobain shareholders.

In the past, the performance conditions for stock option plans on the one hand, and performance shares and units on the

other, were identical in nature but inversely weighted. At its meeting of November 23, 2017, the Board of Directors decided, at the proposal of the Nomination and Remuneration Committee, to apply the same exact conditions, weighted and calculated in the same way, to all 2017 long-term compensation plans (stock options and performance shares), with the aim of putting an end to the dual exposure to the stock market price of beneficiaries of stock options (via the overweighting of the stock market criterion provided in the plans implemented up to that date and the value of the - non-discounted - strike price for stock options).

Exercise of the stock options is subject to fulfillment of the following cumulative conditions:

- service condition: to be an employee or a Director of a Saint-Gobain Group company throughout the period up to the exercise date of the stock options, without interruption, except in a number of defined specific cases such as death, disability (as defined in paragraphs (2) and (3) of Article L.341-4 of the French Social Security Code), no-fault termination, negotiated departure, retirement, transfer to another position within the Group, or change of control of the grantee's host company to outside the Group;
- performance condition linked to the following three criteria:
  - 65% of the options initially allocated are subject to the criteria of Return On Capital Employed, including goodwill, of the Saint-Gobain Group ("ROCE");
  - 20% of the options initially allocated are subject to a criterion linked to the performance of the Saint-Gobain stock price *versus* the performance of the CAC 40 stock market index; and
  - 15% of the options initially allocated are subject to a criterion linked to corporate social responsibility. This criterion comprises the following three indicators, all quantifiable and published each year as key CSR indicators, each applying to 5% of the options initially allocated: the total recordable accident rate - more than 24 hours' lost and non lost time (TRAR), the reduction rate of CO<sub>2</sub> emissions and the senior executives diversity index.

ROCE performance will be calculated as follows:

Arithmetic average of the ROCE for the years 2018, 2019 and 2020	Percentage of options initially granted, contingent upon the ROCE (i.e. 65% of allocation), exercisable
Greater than 12.5%	All
Between 9.5% and 12.5%	$[\text{Arithmetic average of 2018, 2019 and 2020 ROCE} - 9.5\%] / [12.5\% - 9.5\%]$
9.5% or less	None

Stock price performance will be calculated by comparing the average opening listing price of the Saint-Gobain stock price and the CAC 40 index over the six months prior to November 23, 2017 to the average over the six months prior to November 23, 2021, as follows:

Performance of the Saint-Gobain stock price compared to the CAC 40 index	Percentage of options initially granted, contingent upon stock market performance (i.e. 20% of allocation), exercisable
At least 10% greater	All
Between 0% and +10%	$2/3 + 1/3 * [(\text{Performance of the Saint-Gobain stock} / \text{CAC 40 index})^{(1)} - 100\%] / [110\% - 100\%]$
Lower than the CAC 40 index	None

(1) Saint-Gobain stock price performance/CAC 40 index performance (performance of the Saint-Gobain stock price versus performance of the CAC 40 index) is equal to: 100% + the difference between the performance of the Saint-Gobain stock price and that of the CAC 40 index, in both cases expressed as a percentage.

Performance in respect of the corporate social responsibility criterion is calculated as follows:

Arithmetic average TRAR of the Group for the years 2018, 2019 and 2020 <sup>(1) (2)</sup>	Percentage of options initially granted, contingent upon the TRAR (i.e., 5% of the allocation), exercisable
Less than 2.5	All
Between 2.5 and 2.8	Linear interpolation
Greater than 2.8	None

(1) Total recordable accident rate - more than 24 hours' lost time and non lost time - for a million hours worked by the permanent and temporary employees and by permanent subcontractors of Saint-Gobain Group.

(2) In light of the excellent 2017 results, the TRAR having decreased from 3.3 in 2016 to 2.6 in 2017, the Group set, early 2018, the objective to consolidate in 2018 the performance achieved in 2017 and to reach a TRAR of 2.5 (see Chapter 5, Section 2.1).

Reduction of the Group's CO <sub>2</sub> emissions between 2016 and 2020 <sup>(1) (2)</sup>	Percentage of options initially granted, contingent on the reduction rate of the CO <sub>2</sub> emissions (i.e. 5% of the allocation), exercisable
Greater than 5.6%	All
Between 4.8% and 5.6%	Linear interpolation
Less than 4.8%	None

(1) The results will be assessed based on iso-production compared with 2016, the reference year for the 2017 plan.

(2) The Group set the objective of reducing Group CO<sub>2</sub> emissions by at least 20% by 2025 compared with the level measured for the year 2010 (see Chapter 5, Section 2.1).

Arithmetic average of the diversity index for the years 2018, 2019 and 2020 <sup>(1) (2)</sup>	Percentage of options initially granted, contingent on the diversity index (i.e. 5% of the allocation), exercisable
Greater than 90%	All
Between 85% and 90%	Linear interpolation
Less than 85%	None

(1) Index corresponding to the proportion of the Group's senior executives satisfying at least one of the three following diversity characteristics: being non-French, having diverse professional experiences (having worked at Saint-Gobain in two countries different from the country of origin or at least in three different sectors, or having an experience of more than 12 years outside the Saint-Gobain Group), being a woman (see Chapter 5, Section 2.1).

(2) The Group set a general objective of maintaining a minimum of 90% of senior executives meeting one of the three abovementioned criteria and a target for 2025 of 25% of its senior executives being female (see Chapter 5, Section 2.1).

The performance conditions for stock options granted by the Group are demanding, as evidenced by the achievement rates for the three latest stock option plans for which the performance condition has been determined (58.9% for the 2013<sup>(1)</sup> plan, 16.5% for the 2012 plan, and 0% for the 2011 plan).

The following table shows stock options granted to the ten highest-paid non-executive employees, and options exercised by them in 2017 (global information).

**TABLE 9 - OPTIONS GRANTED TO THE TEN EMPLOYEES (EXCLUDING EXECUTIVE OFFICERS) WHO WERE GRANTED THE HIGHEST NUMBER OF OPTIONS AND OPTIONS EXERCISED BY THEM (AMF NOMENCLATURE)**

	Total options granted or subscribed or purchased shares	Weighted average price	Plans
Options granted during the year by the issuer and any company included within the scope of the options allocation, to the ten employees of the issuer or of any company within this scope with the highest number of options granted (global information)	132,500	€49.38	2017
Options on the issuer and the companies referenced above, exercised during the year by the ten employees of the issuer or of these companies with the highest number of options thus purchased or subscribed (global information)	129,643	€30.86	2008-2009-2012

<sup>(1)</sup> For the record, the performance condition for the 2013 stock option plan, which became exercisable on November 21, 2017, is set out on page 90 of the 2013 Registration Document:

"Performance conditions [are] linked, for stock options, to Saint-Gobain's stock market performance compared with a reference stock market index which is based for 50% on the CAC 40 and for 50% on a sample of eight listed companies - NSG, 3M, Imerys, CRH, Travis Perkins, Wolseley, Owens Corning and Rockwool - operating in one or more of Saint-Gobain's businesses (with each accounting for 1/8th of the 50%)."

"The applicable performance conditions are as follows: a) for the stock options, Saint-Gobain's stock market performance will be calculated by comparing average prices for Saint-Gobain shares for the six months to November 21, 2013 with the average prices for the six months to November 21, 2017. Based on this comparison, at the end of the four-year vesting period the options will be exercisable as follows:

- if Saint-Gobain's stock market performance exceeds that of the reference index by at least 10%, all of the options will be exercisable;
- if Saint-Gobain's stock market performance is between 10% higher and 20% lower than that of the reference index, the number of exercisable options will be calculated by the following formula:  $([\text{Saint-Gobain's stock market performance}/\text{performance of the index}] - 80\%) / (110\% - 80\%)$
- if Saint-Gobain's stock market performance is 20% or more below that of the reference index, none of the options will be exercisable."

The following table shows the history of the stock option allocation plans in place at December 31, 2017. There are no other stock option plans in place or other option instruments involving the shares, whether listed or non-listed, of Group companies within or outside France.

**TABLE 8 - HISTORICAL INFORMATION ABOUT STOCK OPTION PLANS (AMF NOMENCLATURE)**

Year	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Date of General Meeting	06/02/2016	06/02/2016	06/05/2014	06/05/2014	06/07/2012	06/07/2012	06/04/2009	06/04/2009	06/04/2009	06/07/2007
Date of Board of Directors' meeting	11/23/2017	11/24/2016	11/26/2015	11/20/2014	11/21/2013	11/22/2012	11/24/2011	11/18/2010	11/19/2009	11/20/2008
Type*	Purchase or subscription	Purchase or subscription	Purchase or subscription	Purchase or subscription	Purchase	Subscription	Subscription	Subscription	Subscription	Subscription
Total number of exercisable options at the start of the plan	284,500	280,000	224,950	234,550	247,250	253,000	482,150	1,144,730	1,479,460	3,551,900
Adjustment to number of shares under option**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	375,614
Cumulative number of cancelled or forfeited options	0	0	0	0	98,047 <sup>(5)</sup>	202,994 <sup>(4)</sup>	459,650 <sup>(3)</sup>	1,117,390 <sup>(3)</sup>	493,154 <sup>(2)</sup>	773,932 <sup>(1)</sup>
Total number of exercisable options after adjustments and forfeitures:	284,500 <sup>(8)</sup>	280,000 <sup>(7)</sup>	224,950 <sup>(7)</sup>	234,550 <sup>(6)</sup>	149,203	50,006	22,500	27,340	986,306	3,153,582
Of which: options granted to Executive Directors:										
Jean-Louis Beffa	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	46,856 <sup>(9)</sup>
Pierre-André de Chalendar	58,000	58,000	50,000	50,000	29,465 <sup>(9)</sup>	8,235 <sup>(9)</sup>	0 <sup>(10)</sup>	0 <sup>(10)</sup>	133,333 <sup>(9)</sup>	109,331 <sup>(9)</sup>
Starting date of exercise period	11/23/2021	11/24/2020	11/26/2019	11/20/2018	11/21/2017	11/22/2016	11/25/2015	11/19/2014	11/20/2013	11/21/2012
Expiry date of exercise period	11/22/2027	11/23/2026	11/25/2025	11/19/2024	11/20/2023	11/21/2022	11/23/2021	11/17/2020	11/18/2019	11/19/2018
Exercise price**	€49.38	€40.43	€39.47	€34.13	€38.80	€27.71	€31.22	€35.19	€36.34	€25.88
Number of options exercised at 12/31/2017**	0	0	0	0	17,071	30,044	22,500	27,340	331,792	1,968,567
Exercisable options outstanding at 12/31/2017**	284,500	280,000	224,950	234,550	132,132	19,962	0	0	654,514	1,185,015

\* Of the plans in place at December 31, 2017, 2008-2012 plans are for the subscription of new shares and the 2013 plan is a purchase plan. For the 2014-2017 plans, the Board of Directors resolved that the type of options, whether for the purchase of existing shares or the subscription of new shares, would be determined at its discretion no later than the beginning of the exercise period, and that any options that might be exercised before their type had been determined would be to subscribe new shares.

\*\* Following the March 23, 2009 capital increase in cash carried out by issuing and allocating stock warrants, the rights of stock option plan holders were maintained in accordance with the applicable regulations (Article R.228-91 of the French Commercial Code). The new exercise price was determined by taking into account the number of shares issued per existing share (2 new shares for 7 existing shares), the issue price of the new shares (€14) and the cumulative rights share price (€24.58, corresponding to the weighted average price for the three trading days preceding the rights issue, i.e. March 18, 19 and 20, 2009).

On this basis, the original exercise price was multiplied by an adjustment coefficient of 0.904363 to calculate the new price and the number of options was multiplied by 1.10575 so that the total value of option holders' rights (number of options multiplied by the exercise price) was the same before and after the adjustment.

(1) Including 718,644 non-exercisable options because the performance condition was only partly met (performance condition attached to all the options granted in November 2008 to corporate Directors, and half of the options granted in November 2008 to 176 members of the Group's senior management).

(2) Including 493,154 non-exercisable options because the performance condition was only partly met (performance condition attached to all the options granted in November 2009).

(3) Because the performance condition for the 2010 and 2011 plans was not met, options not exercised before determining the result of the performance conditions as part of the early-exercise conditions were forfeited.

(4) Options which cannot be exercised following the partial fulfillment of performance conditions related to the relative performance of the Saint-Gobain share price to which all options granted in November 2012 were subject.

(5) Options which cannot be exercised following the partial fulfillment of performance conditions related to the relative performance of the Saint-Gobain share price to which all options granted in November 2013 were subject.

(6) Before application of the performance condition relative to Saint-Gobain share price performance (see 2014 Registration Document).

(7) Before application of the performance conditions relative to Saint-Gobain share price performance and the ROCE of the Saint-Gobain Group (see 2015 and 2016 Registration Documents).

(8) Before application of the performance conditions relative to the ROCE of the Saint-Gobain Group, the Saint-Gobain share price performance and the Group's corporate social responsibility (see above).

(9) After deducting the options granted that are not exercisable because the performance condition was only partly met.

(10) After deducting all the options granted that are not exercisable because the performance condition was not met.

### 2.4.3 Performance share plans

Performance share plans have been set up by the Board of Directors every year since 2009.

Under the authorization granted by the fourteenth resolution of the General Shareholders' Meeting of June 2, 2016, at its meeting of November 23, 2017 the Board of Directors resolved to implement a performance share plan, following analysis and the recommendation of the Nomination and Remuneration Committee.

This plan covers 2,105 employees and officers of the Group in France and abroad, who were granted a total of 1,226,680 performance shares (including the grant to the Chairman and Chief Executive Officer). It should be noted that no performance units plan was implemented in 2017, all the beneficiaries being granted performance shares.

The duration of the vesting period was set at four years, with delivery of the shares to occur on the day after the close of this period.

The performance criteria applicable to the performance share plan implemented on November 23, 2017 and their respective weightings are strictly identical to those applying to stock

options and will be calculated in the same way (see Section 2.4.2 above).

However, the first 100 shares allocated to each grantee other than to Liaison Committee members will be exempt from the performance conditions.

The performance conditions for performance shares allocated by the Group are demanding, as evidenced by the achievement rates for the latest three performance share plans for which the performance condition has been determined (86.4% for the 2014 <sup>(1)</sup> plan, 89.2% for the 2013 plan and 65.5% for the 2012 plan).

Vesting of performance shares is subject to fulfillment of a service condition that applies for the entire duration of the acquisition period in a manner similar to that stipulated for stock options above (see Section 2.4.2 above).

The ten Group employees and non-executive officers who were granted the highest number of shares in 2017 were allocated 195,500 performance shares (global information), valued at €48.37 per share based on the closing stock price on the day preceding the grant decided by the Board of Directors' meeting of November 23, 2017.

The following table shows the history of the performance share plans outstanding at December 31, 2017 as well as the features of the 2013 plan, delivered in November 2017.

**TABLE 10 – HISTORICAL INFORMATION ABOUT PERFORMANCE SHARE PLANS (AMF NOMENCLATURE)**

Year	2017	2016	2015	2014	2013
Date of General Shareholders' Meeting	06/02/2016	06/02/2016	06/04/2015	06/05/2014	06/07/2012
Date of Board of Directors' meeting	11/23/2017	11/24/2016	11/26/2015	11/20/2014	11/21/2013
Type of shares	existing	existing	existing	existing	existing
Total number of performance share rights initially granted (4+0)	1,226,680 <sup>(3)</sup>	1,231,320 <sup>(2)</sup>	500,910 <sup>(2)</sup>	530,240 <sup>(1)</sup>	541,655
Of which, rights granted to Executive Director, P-A. de Chalendar	67,000	67,000	0	0	0
Cumulative number of shares delivered	0	410	400	900 <sup>(5)</sup>	458,085 <sup>(4)</sup>
Number of rights forfeited	0	0	0	56,160 <sup>(6)</sup>	83,570 <sup>(6)</sup>
Total outstanding performance share rights	1,226,680 <sup>(8)</sup>	1,230,910 <sup>(8)</sup>	500,510 <sup>(8)</sup>	473,180 <sup>(7)</sup>	0

(1) Before application of the performance condition related to the ROCE of the Saint-Gobain Group (see 2014 Registration Document).

(2) Before application of the performance conditions related to the ROCE of the Saint-Gobain Group and the Saint-Gobain share price performance (see 2015 and 2016 Registration Documents).

(3) Before application of the performance conditions related to the ROCE of the Saint-Gobain Group, the Saint-Gobain share price performance and the Group's corporate social responsibility (see above).

(4) After taking into account service and performance conditions.

(5) By anticipation, as part of the exceptions defined in the service conditions (including death, disability – see Chapter 6, Section 2.4.2).

(6) Including 46,671 rights under the 2013 plan and 56,160 rights under the 2014 plan forfeited following partial achievement of the performance condition.

(7) Subject to fulfillment of the service condition.

(8) Subject to cumulative fulfillment of the service and performance conditions (see the Registration Document relating to the year in which the plan in question was implemented).

(1) For the record, the performance condition for the 2014 performance share plan is set out on page 149 of the 2014 Registration Document: "[The] performance condition: function of the arithmetic average of return on capital employed (ROCE) (including goodwill), for 2015, 2016 and 2017, at constant accounting standards and perimeter, calculated as follows:

Arithmetic average of ROCE 2015-2017	Vesting percentage of performance shares
Greater than 11%	100 %
Between 8.5% and 11%	$[\text{arithmetic average of the ROCE for 2015, 2016 and 2017} - 8.5\%] / [11\% - 8.5\%]$
Less than or equal to 8.5%	0 %

### 2.4.4 Performance unit plans

The Board approved the principle of implementing performance unit plans annually from 2012 to 2015, implemented by the Chairman and Chief Executive Officer (with the performance units granted to the latter being approved by the Board of Directors). No performance unit plan was implemented in 2017.

Subject to fulfillment of the service and performance conditions, performance unit plans in place offer grantees the opportunity to receive, over the long term (an exercise period of between four years from the grant date to 10 years from that date), cash compensation for each unit equal to the Saint-Gobain share price on the reference date plus any dividend paid or distribution made from the start of the exercise period up to the reference date. Performance units constitute an operating expense adjustable each year but creating no shareholder dilution since they do not result in the creation of new shares.

The performance criteria applying to the performance unit plans implemented between 2012 and 2015 are strictly identical to those applicable to the performance share plans for the same year.

The performance conditions pertaining to the performance units granted by the Group are demanding, as evidenced by the achievement rates of the performance unit plans for which the performance condition has been determined (86.4% for the 2014 <sup>(1)</sup> plan, 89.2% for the 2013 plan and 65.5% for the 2012 plan).

Exercise of performance units is subject to fulfillment of a service condition that applies during the entire duration of the exercise period in a manner similar to that stipulated for stock options above (see Section 2.4.2 above).

The following table shows the history of performance unit plans not vested at December 31, 2017 as well as the features of the 2013 plan, which vested in November 2017.

**TABLE 10 BIS - HISTORICAL INFORMATION ABOUT PERFORMANCE UNIT PLANS**

Year	2017	2016	2015	2014	2013
Date of Board of Directors' meeting	N/A	N/A	11/26/2015	11/20/2014	11/21/2013
Total number of units initially granted (4+0)	-	-	556,340 <sup>(2)</sup>	598,400 <sup>(1)</sup>	588,535
Of which, units granted to Executive Director, P-A. de Chalendar	-	-	60,000	60,000	60,000
Starting date of exercise period	-	-	11/26/2019	11/20/2018	11/21/2017
Expiry date of performance unit exercise period	-	-	11/25/2025	11/19/2024	11/20/2023
Total number of units that have become exercisable	-	-	0	1,550 <sup>(4)</sup>	508,664 <sup>(3)</sup>
Total number of units forfeited	-	-	0	81,172 <sup>(5)</sup>	79,871 <sup>(5)</sup>
Of which, number of performance units granted to Executive Director, P-A. de Chalendar, forfeited	-	-	0	8,160	6,480
Performance units outstanding	-	-	556,340 <sup>(7)</sup>	515,678 <sup>(6)</sup>	-

(1) Before application of the performance condition related to the ROCE of the Saint-Gobain Group (see 2014 Registration Document).

(2) Before application of the performance conditions related to the ROCE of the Saint-Gobain Group and Saint-Gobain share price performance (see 2015 Registration Document).

(3) After taking into account service and performance conditions and including 17,750 performance units exercised by anticipation, as part of the exceptions defined in the service condition (including death, disability – see Chapter 6, Section 2.4.2).

(4) By anticipation, as part of the exceptions defined in the service condition (including death, disability – see Chapter 6, Section 2.4.2).

(5) Including 61,645 units under the 2013 plan and 81,172 units under the 2014 plan forfeited following partial achievement of the performance condition.

(6) Subject to fulfillment of the service condition.

(7) Subject to cumulative fulfillment of the service and performance conditions (see the Registration Document relating to the year in which the plan in question was implemented).

(1) The performance condition for the 2014 performance units plan is strictly identical to the condition applying to the 2014 performance share plan referred to in the footnote on the previous page.

### 3. COMPANY STOCK TRADED BY DIRECTORS

Transactions by Directors involving Compagnie de Saint-Gobain shares exceeding an aggregate amount of €20,000 reported to the French *Autorité des marchés financiers* in 2017 pursuant to Article L.621-18-2 of the French Financial and Monetary Code were the following:

	Securities	Type of transaction	Transaction date	Unit price	Total amount
<b>Pierre-André de Chalendar</b>	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Subscription	May 17, 2017	€36.72	€305,164
	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Sale	August 03, 2017	€47.45	€414,345
	Exercise of stock options	Subscription	August 08, 2017	€25.88	€388,200

## 4. REPORT OF THE BOARD OF DIRECTORS ON CORPORATE GOVERNANCE (ARTICLE L.225-37 OF THE FRENCH COMMERCIAL CODE)

### **Report of the Board of Directors on corporate governance**

This report on corporate governance was prepared in accordance with Articles L.225-37 *et seq.* of the French Commercial Code, under the responsibility of the Board of Directors and based on information provided by the relevant departments of Compagnie de Saint-Gobain, and was approved by the Board of Directors at its meeting of February 22, 2018.

The law stipulates that this report should include a number of corporate governance items.

#### **Management and Directors' compensation (Articles L.225-37-2 and L.225-37-3)**

With regard to compensation, *the* report must set out the draft resolution prepared by the Board of Directors relating to the principles of and criteria for determination, distribution and allocation of the fixed, variable and exceptional components of overall compensations and benefits of any kind, attributable to the Chairman and Chief Executive Officer (Compensation policy).

Furthermore, the report must include the total compensation and benefits of any kind paid by Compagnie de Saint-Gobain to the Directors during the year, as well as commitments of any kind made by Compagnie de Saint-Gobain to the benefit of the Directors, corresponding to compensation components, indemnities or benefits due or to be due as a result of taking, losing or changing office or subsequent to the performance thereof, including retirement commitments and other annuity benefits.

This information, set out in Chapter 6, Section 2.2 and prepared on the basis of details provided by the Legal, Human Resources and Financial departments, was reviewed by the Nomination and Remuneration Committee and is included by reference in this report.

### **Composition and operation of the Board of Directors (Article L.225-37-4)**

The report must include the composition of the Board of Directors and the conditions for preparing and organizing its work, as well as any limitations on the powers of the Chairman and Chief Executive Officer (see Chapter 6, Section 1 and Chapter 10, Section 1.1).

The report must also include a list of all offices and duties held in all companies by every Compagnie de Saint-Gobain Board member during the year (see Chapter 6, Section 1.1), the method for exercising general management (see Chapter 6, Section 1.2.1), and adherence to a corporate governance code and application of its recommendations (see Chapter 6, Section 1).

This information, prepared on the basis of details provided by the Legal Department, was reviewed by the Nomination and Remuneration Committee and the Lead Independent Director, and is included by reference in this report.

#### **Other information (Articles L.225-37-4 and 5)**

Lastly, the report must include information that may have an impact in case of a public offering (see Chapter 8, Section 2.6), related party agreements and undertakings (see Chapter 6, Section 5), and the specific formalities for shareholder participation in the General Shareholders' Meeting (Chapter 10, Section 1.1). It must also contain a summary table of the current delegations of authority granted by the General Shareholders' Meeting for purpose of completing share capital increases showing the use of these delegations during the year (see Chapter 8, Section 1.2).

This information is prepared on the basis of details provided by the Legal and Financial Departments and is included by reference in this report.

## 5. STATUTORY AUDITORS' SPECIAL REPORT ON RELATED-PARTY AGREEMENTS AND UNDERTAKINGS

(Annual General Meeting for the approval of the financial statements for the year ended December 31, 2017)

*This is a free translation into English of the Statutory Auditors' special report on related party agreements and undertakings issued in French and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

### Compagnie de Saint-Gobain S.A.

Les Miroirs  
18, avenue d'Alsace  
92400 Courbevoie  
France

To the Shareholders,

In our capacity as Statutory Auditors of Compagnie de Saint-Gobain, we hereby report to you on related party agreements and undertakings.

It is our responsibility to report to you, based on the information provided to us, on the main terms, conditions of agreements and undertakings, and the reasons put forward for their benefit to the company that have been disclosed to us or that we may have identified as part of our engagement, without commenting on their relevance or substance or identifying any undisclosed agreements or undertakings. Under the provisions of article R.225-31 of the French Commercial Code (*Code de commerce*), it is your responsibility to assess whether the agreements and undertakings are appropriate and should be approved.

Where applicable, it is also our responsibility to provide you with the information required by article R.225-31 of the French Commercial Code (*Code de commerce*) in relation to the implementation during the year of agreements and undertakings already approved by the Annual General Meeting.

We performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in verifying that the information given to us is consistent with the underlying documents.

## Agreements and undertakings to be submitted for the approval of the annual general meeting

### Agreements and undertakings authorized during the year

We were not informed of any agreements or undertakings authorized during the year to be submitted for the approval of the Annual General Meeting in accordance with article L.225-38 of the French Commercial Code (*Code de commerce*).

### Agreements and undertakings authorized since the closing

We have been advised of the following agreements and undertakings, which have been authorized since the closing of the previous financial year and which have been subject to the prior authorization of your Board of Directors.

## Undertakings given to Pierre-André de Chalendar concerning the compensation and benefits potentially due, in certain cases, on the termination of his duties as Chairman and Chief Executive Officer

### Nature

On recommendation of the Nomination and Remuneration Committee, at its meeting of February 22, 2018, the Board of Directors authorized the renewal of benefits payable to Pierre-André de Chalendar on the termination of his duties as Chairman and Chief Executive Officer ("compensation for termination of office") of Compagnie de Saint-Gobain ("the Company").

The terms and conditions of this compensation for termination of office are as follows:

1. The compensation for termination of office will be paid in the event of the forced termination of Pierre-André de Chalendar's duties as Chairman and Chief Executive Officer, irrespective of the form of termination under the following circumstances:
  - a. he is removed from office or his appointment as Chairman and Chief Executive Officer is not renewed, other than at his own initiative or as a result of gross or willful misconduct (by reference to case law relating to employment matters) or serious misconduct not related to his duties as Chief Executive Officer (in accordance with the case law definition), or
  - b. he is forced to resign within the twelve months following:
    - the date of approval by the shareholders of a merger or a demerger affecting the Company, or
    - the date on which a third party or group of third parties acquires control of the Company (in accordance with article L.233-3 of the French Commercial Code), or
    - the announcement by the Company's management bodies of a significant shift in the Group's strategy leading to a major change in its business.
2. No compensation for termination of office will be due if Pierre-André de Chalendar leaves the Company (i) at his own initiative in circumstances other than those described in 1. above, or (ii) in one of the circumstances described in 1. above, if he would have been eligible to retire during the following twelve months and to receive a pension under the SGPM supplementary pension plan for engineers and managers.
3. The amount of the compensation for termination of office will be equal to no more than twice the amount of Pierre-André de Chalendar's total gross annual compensation as Chairman and Chief Executive Officer, defined as the sum of the fixed portion of the annual compensation of the Chairman and Chief Executive Officer received as of the date of termination of his duties, and the average annual variable bonus of the Chairman and Chief Executive Officer received or receivable in respect of his last three full fiscal years in office (this total gross annual compensation is defined hereinafter as the "Reference Compensation"). In any case, the sum of the compensation for termination of office and of the non-compete agreement compensation will not exceed two times the amount of the Reference Compensation.
4. Payment of the compensation for termination of office will be subject to fulfilment of a performance condition evidenced by the Board of Directors' decision to award him an average bonus for the last three full fiscal years ended before the termination of his duties as Chairman and Chief Executive Officer at least equal to one half of the average maximum bonus.

Payment of the compensation for termination of office will be dependent on the Board of Directors' acknowledgement, under the conditions set out by the legislation in force, of the fulfilment of this performance condition as of the date his duties are terminated.

On the recommendation of the Nomination and Remuneration Committee, at its meeting on February 22, 2018, the Board of Directors authorized the renewal of a firm and irrevocable non-compete undertaking between Pierre-André de Chalendar and the Company for a period of one year from the date on which his functions as Chairman and Chief Executive Officer are terminated in circumstances qualifying him for the compensation for termination of office. In consideration for this undertaking, Pierre-André de Chalendar will receive a compensation equal to the Reference Compensation, it being specified that the amount of the compensation for termination of office due to Pierre-André de Chalendar will, if necessary, be reduced so that the sum of the non-compete agreement compensation and the compensation for termination of office amount will not exceed two times the Reference Compensation. The Board of Directors reserves the right to unilaterally waive the implementation of the non-competition agreement no later than the day of termination of the Chairman and Chief Executive Officer's duties, in which case he would be released from any commitment and no amount would be due to him on this account.

### Person concerned

Pierre-André de Chalendar – Chairman and Chief Executive Officer

### Reason explaining the interest of the undertakings for the company

Your Board of Directors explained the interest of these undertakings by recalling that Pierre-André de Chalendar waived his employment contract in 2010 to be appointed as Chairman and Chief Executive Officer, which is why these undertakings have been given and renewed since that date.

**Pension plan for Pierre-André de Chalendar in his capacity as non-salaried executive corporate officer****Nature**

On the recommendation of the Nomination and Remuneration Committee, at its meeting on February 22, 2018, the Board of Directors decided, in accordance with article 17 of the rules and regulations of the SGPM supplementary pension plan for engineers and managers, that Pierre-André de Chalendar would continue to benefit in full from the provisions of said rules and regulations under the same conditions as those applicable to all members of the pension plan, except for the following amendment. In accordance with law (article L.225-42-1, paragraphs 7 and 8 of the French Commercial Code), the Board of Directors has decided that, as from the renewal of the mandate of Pierre-André de Chalendar, the annual increase of his potential rights under the SGPM supplementary pension plan for engineers and managers will be subject to a performance condition defined as having been allocated by the Board of Directors a variable part of compensation at least equal to one half of the average maximum amount fixed for this variable part for the last three full fiscal years during which he will be Chairman and Chief Executive Officer and ending prior to the date on which he ceases his duties (this condition being the same as for the compensation for termination of office described above).

**Person concerned**

Pierre-André de Chalendar - Chairman and Chief Executive Officer

**Reason explaining the interest of the undertaking for the company**

Your Board of Directors explained the interest of this undertaking by recalling that Pierre-André de Chalendar waived his employment contract in 2010 to be appointed as Chairman and Chief Executive Officer, which is why this undertaking has been given and renewed since that date.

**Benefits under the Group health and personal risk insurance contracts applicable to employees of Compagnie de Saint-Gobain to be maintained for Pierre-André de Chalendar in his capacity as non-salaried executive corporate officer****Nature**

On the recommendation of the Nomination and Remuneration Committee, at its meeting on February 22, 2018, the Board of Directors decided that Pierre-André de Chalendar will continue to benefit in full from the Group health and personal risk insurance contracts entered into with GAN and Mutuelle Malakoff Médéric respectively.

**Person concerned**

Pierre-André de Chalendar - Chairman and Chief Executive Officer

**Reason explaining the interest of the undertaking for the company**

Your Board of Directors explained the interest of this undertaking by recalling that Pierre-André de Chalendar waived his employment contract in 2010 to be appointed as Chairman and Chief Executive Officer, which is why this undertaking has been given and renewed since that date.

## Agreements and undertakings previously approved by the annual general meeting

### Agreements and undertakings approved in previous years

#### a) Which were implemented during the year

Pursuant to article R.225-30 of the French Commercial Code, we were informed that the following agreements and undertakings, approved in previous years by the Annual General Meeting, were implemented during the year.

Nature and date of approval by the Annual General Meeting	Person(s)/entity(ies) concerned	Implementation in the year ended December 31, 2017
Agreements with Wendel, a shareholder of Compagnie de Saint-Gobain	Wendel, shareholder with an interest of over 10% in Compagnie de Saint-Gobain	These agreements, which were entered into on May 26, 2011 for a ten-year term, and which set out the principles and objectives of the long-term cooperation between Wendel and Saint-Gobain, have not given rise to any payment and mainly concern corporate governance, voting rights and changes in Wendel's interest in the capital of the Company.
<b>Approved by the Annual General Meeting of:</b> June 7, 2012  (Statutory Auditors' special report of March 9, 2012)	Directors : Frédéric Lemoine, Chairman of the Management Board of Wendel and Bernard Gautier, member of the Management Board of Wendel	
Group health and personal risk insurance contract for employees and corporate officers	Chairman and Chief Executive Officer:  Pierre-André de Chalendar	On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors decided that Pierre-André de Chalendar would continue to benefit in full from the Group health and personal risk insurance contracts entered into with GAN and Mutuelle Malakoff Médéric respectively.
<b>Approved by the Annual General Meeting of:</b> June 5, 2014  (Statutory Auditors' special report of March 24, 2014)		Payment of €8,246, made by the Company for Pierre André de Chalendar's insurance coverage in respect of 2017.

#### b) Which were not implemented during the year

Furthermore, we were informed that the following agreements and undertakings, already approved by an Annual General Meeting in previous years, remained in force but were not implemented during the year.

### Undertakings given to Pierre-André de Chalendar concerning the compensation and benefits potentially due, in certain cases, on the termination of his duties as Chairman and Chief Executive Officer

#### Nature and date of approval by the Annual General Meeting

On recommendation of the Nomination, Remuneration and Governance Committee, at its meeting of March 20, 2014, the Board of Directors authorized the renewal of benefits payable to Pierre-André de Chalendar on the termination of his duties as Chairman and Chief Executive Officer ("compensation for termination of office") of Compagnie de Saint-Gobain (the "Company").

The terms and conditions of this compensation for termination of office are as follows:

1. The compensation for termination of office will be paid in the event of the forced termination of Pierre-André de Chalendar's duties as Chairman and Chief Executive Officer, irrespective of the form of termination, resulting from a change in control or strategy, if and only if:
  - a. he is removed from office or his appointment as Chairman and Chief Executive Officer is not renewed, other than at his own initiative or as a result of gross or willful misconduct (by reference to case law relating to employment matters) or serious misconduct not related to his duties as Chief Executive Officer (in accordance with the case law definition), or
  - b. he is forced to resign within the twelve months following:
    - the date of approval by the shareholders of a merger or a demerger affecting the Company, or
    - the date on which a third party or group of third parties acquires control of the Company (in accordance with article L.233-3 of the French Commercial Code), or
    - the announcement by the Company's management bodies of a significant shift in the Group's strategy leading to a major change in its business.

2. No compensation for termination of office will be due if Pierre-André de Chalendar leaves the Company (i) at his own initiative in circumstances other than those described in 1. above, or (ii) in one of the circumstances described in 1. above, if he would have been eligible to retire during the following twelve months and to receive a pension under the SGPM supplementary pension plan for engineers and managers.
3. The amount of the compensation for termination of office will be equal to no more than twice the amount of Pierre-André de Chalendar's total gross annual compensation as Chairman and Chief Executive Officer, defined as the sum of the fixed portion of the annual compensation of the Chairman and Chief Executive Officer received as of the date of termination of his duties, and the average annual variable bonus of the Chairman and Chief Executive Officer received or receivable in respect of his last three years in office (this total gross annual compensation is defined hereinafter as the "Reference Compensation"). In any case, the sum of the compensation for termination of office and of the non-compete agreement compensation (defined hereinafter) will not exceed two times the amount of the Reference Compensation.
4. Payment of the compensation for termination of office will be subject to fulfilment of a performance condition evidenced by the Board of Directors' decision to award him an average bonus for the last three full years ended before the termination of his duties as Chairman and Chief Executive Officer at least equal to one half of the average maximum bonus.

Payment of the compensation for termination of office will be dependent on the Board of Directors' acknowledgement, under the conditions set out by the legislation in force, of the fulfilment of this performance condition as of the date his duties are terminated.

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors authorized the renewal of a firm and irrevocable non-compete agreement between Pierre-André de Chalendar and the Company for a period of one year from the date on which his functions as Chairman and Chief Executive Officer are terminated in circumstances qualifying him for the compensation for termination of office. In consideration for this undertaking, Pierre-André de Chalendar will receive a compensation ("non-compete agreement compensation") equal to the Reference Compensation, it being specified that the amount of the compensation for termination of office due to Pierre-André de Chalendar will, if necessary, be reduced so that the sum of the non-compete agreement compensation and the compensation for termination of office amount will not exceed two times the Reference Compensation.

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors decided that, in the event of termination of his duties as Chairman and Chief Executive Officer under circumstances qualifying him for the compensation for termination of office, it reserves the right, on the proposal of the Nomination, Remuneration and Governance Committee, to choose whether or not to maintain all or some of Pierre-André de Chalendar's rights to Saint-Gobain stock options, performance shares and performance units granted to him as of the date of termination that have not been delivered as of this date or for which the exercise period has not expired, as the case may be, provided that, where applicable, the performance condition(s) set out in the plans concerned have been fulfilled.

**Approved by the Annual General Meeting of:** June 5, 2014

(Statutory Auditors' special report of March 24, 2014)

#### **Person concerned**

Pierre-André de Chalendar - Chairman and Chief Executive Officer

**Pension plan for Pierre-André de Chalendar in his capacity as non-salaried executive corporate officer****Nature and date of approval by the Annual General Meeting**

On the recommendation of the Nomination, Remuneration and Governance Committee, at its meeting on March 20, 2014, the Board of Directors decided, in accordance with article 17 of the rules and regulations of the SGPM supplementary pension plan for engineers and managers, that Pierre-André de Chalendar would continue to benefit in full from the provisions of said rules and regulations under the same conditions as those applicable to all members of the pension plan.

**Approved by the Annual General Meeting of:** June 5, 2014

(Statutory Auditors' special report of March 24, 2014)

**Person concerned**

Pierre-André de Chalendar – Chairman and Chief Executive Officer

Neuilly-sur-Seine and Paris La Défense, March 12, 2018

The Statutory Auditors

PricewaterhouseCoopers Audit

KPMG Audit

Department of KPMG S.A.

Edouard Sattler

Cécile Saint-Martin

Jean-Paul Thill

Bertrand Pruvost

# Risks and control

# 7

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# 1. RISK FACTORS

The Saint-Gobain Group conducts its affairs in a constantly evolving environment. It is therefore exposed to risks, the occurrence of which could have a material adverse effect on its businesses, financial position, results and outlook. This chapter presents the significant risks to which the Group believes it is exposed, as of the date of this Registration Document.

However, there are other risks which may exist or arise, of which the Group is not aware as of the date of this Registration Document, or the occurrence of which has not been considered as of that date as being likely to have a material adverse effect on the Group, its businesses, financial position, results and outlook.

## 1.1 Risks associated with the Group and its operations

### 1.1.1 Risks associated with economic cycles

Most of the Group's markets are cyclical in nature. A significant portion of revenues depends on the level of investment in the construction market, which generally closely follows the cyclicity of economic trends. Consequently, the Group's results are sensitive to the macroeconomic conditions of the geographic zones, both at regional and local levels, where the Group is active.

Further deterioration in the global economic environment and in financial markets conditions could have a material adverse effect on the Group's sales, results, cash flow and outlook.

### 1.1.2 Risks associated with the Group's international operations

The Group is active worldwide, including outside Western Europe and North America. Specifically, it is active in Eastern Europe, Asia, the Middle East and emerging countries, particularly Brazil. In certain countries located in these regions, there is greater economic and political instability, as well as greater exposure to social disruption and infrastructure malfunctions than in the more mature markets. Thus, the direct and indirect consequences of political instability, or of an unstable economic or regulatory environment in which the Group operates, in a country in which the Group is active or markets its products, could have a material adverse impact on investment levels in that country's construction sector, and consequently on the Group's businesses, financial position, results or outlook.

Moreover, legal or regulatory changes (involving, among other things, taxation, restrictions on capital transfers, customs duties, intellectual property and import and export licenses, the employment system or health, safety or the environment) could significantly increase the Group's costs in the various countries in which it is active, or limit its ability to freely transfer its capital, and consequently have a material adverse impact on its businesses, financial position, results and outlook.

### 1.1.3 Risks associated with innovation and the digital revolution

The Group has made research and innovation the focus of its strategy, in order to remain competitive and maintain a high level of financial and non-financial performance and operational excellence. The emergence of new technologies, new products and new communication and distribution channels is driving rapid change in some of the Group's markets. The Group has to keep pace with these changes at all times and integrate these new technologies into its product offerings, in order to respond effectively to customers' needs.

This innovation policy requires significant spending on research and development, computer network infrastructure and logistics, with no guaranteed impacts.

The Group's sales, operating margins and results could be affected if it fails to invest in appropriate technologies or to rapidly bring new products to market, or if competing products are introduced or the Group's new products do not adequately address customer needs.

### 1.1.4 Intellectual property risk

Development of the Group's business relies on protecting its manufacturing secrets, patents, trademarks and models and other intellectual property rights. If the Group was unable to obtain, protect and preserve its intellectual property rights, this could result in the loss of its exclusive right to use technologies and processes, with a material adverse effect on results.

Since the Group's activities are, in part, in countries where the protection of intellectual property rights is not as developed as in Western Europe or North America, the Group cannot guarantee the level of protection that will be accorded to its portfolio of patents and brands, and must address risks of counterfeiting of its products, and the appropriation or illicit use of its intellectual property rights.

The Group may be forced to take legal action against third parties suspected of breaching its rights. Any such proceedings may give rise to significant costs and hamper growth in sales of the products manufactured using the rights concerned, or force the Group to incur additional expenses to develop other technologies that do not use the disputed technology.

### 1.1.5 Risks associated with the cost and supply of raw materials

The Group's businesses, some of which are heavy consumers of energy, may be affected by a significant increase in prices and difficulties in obtaining a supply of raw materials and/or energy (such as natural gas). Its ability to pass on these cost increases to its customers depends to a large extent on market conditions and practices. If the Group's ability to immediately and/or fully pass on increases in raw materials and/or energy costs were limited, this could have a material adverse effect on its businesses, financial position or results.

### 1.1.6 Industrial and environmental risks

The Group could incur significant expenses and be exposed to environmental liabilities as a result of its operation of past, present or future industrial sites.

The industrial and environmental risks arising from the operation of some sites primarily relate to the storage of certain hazardous substances.

As at December 31, 2017, five sites were classified under Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances, known as "Seveso III". These industrial sites are subject to specific regulations and close supervision by the competent authorities and the Group's Environment, Health and Safety Department.

Of these facilities, the Balsta (Gypsum) site in Sweden, which stores liquid natural gas, the Etolikon (Gypsum) site in Greece, which stores liquid petroleum gas, and the Mannheim (Flat Glass) site in Germany, which stores oil products, are classified as "lower-tier" under the Seveso III Directive. Two other facilities are classified as "upper-tier": Bagneaux-sur-Loing (Flat Glass) in France, which stores arsenic (AS<sub>2</sub>O<sub>3</sub>) and Carrascal del Río (Flat Glass) in Spain, which stores, among other things, hydrofluoric acid (HF).

In France, under the Law of July 30, 2003 on the prevention of technological and natural risks and the remediation of contaminated sites, specific risk prevention and safety policies have been implemented at all of the French sites

listed above. After identifying accident risks and their potential impact on the environment, preventive measures were implemented at these facilities, covering the design and construction of storage areas, as well as the manner in which they are used and maintained. Internal contingency plans have been developed to respond to incidents. The financial consequences of personal injury and damage to property that may arise by accident from plant operations are covered by the current Group civil liability insurance program, except for the Bagneaux-sur-Loing plant, which is insured under a specific policy subscribed by the joint venture operating the facility. In the event of a technological accident, compensation payments to victims would be organized jointly by the joint venture, the insurance broker and the insurer.

The Saint-Gobain Group also has to deal with risks relating to chronic pollution, and could therefore be required to incur expenses to restore industrial sites or clean up the environment. 72 Group sites are classified as "IED" installations as defined by Directive 2010/75/EU on industrial emissions, and are subject to integrated pollution prevention and control regulations.

Breach of these regulations could result in fines or other civil, administrative or criminal penalties, specifically the withdrawal of permits and licenses needed for the activities in question to continue operations.

Lastly, changes in environmental regulations, including their interpretation, and consideration of climate change risks (see Sections 2.3.2 c) and 2.3.6 of Chapter 4 and Section 3 of Chapter 7) could cause the Group to incur significant expenses and/or investments.

### 1.1.7 Risks associated with external growth

The Group's strategy is based, in part, on external growth, in particular by acquiring businesses or assets, taking equity interests or establishing joint ventures in the Group's business lines and in geographic regions where the Group seeks to establish or strengthen itself. The Group may, however, not be able to identify attractive targets or enter into transactions at the optimal time and/or under satisfactory conditions. The expected benefits of these external growth operations depend, in part, on the realization of expected synergies and integration of the activities of the acquired companies, and on relationships with other participants in the joint ventures. The Group gives no guarantees as to these objectives, which, if not fulfilled within the expected timeframes and at the expected levels, could affect the Group's financial position, results and outlook.

### 1.1.8 Risks associated with information systems

Daily management of the Group's activities, specifically the conduct of its commercial, industrial and accounting processes, particularly in its Distribution activities, requires the proper functioning of all technical infrastructure and computer applications. The risk of system malfunction or shutdown, which may be external or internal in origin (computer viruses or hacking, service providers' defaults, blackouts or network shutdowns, natural disasters, human error, etc.) cannot be underestimated.

To minimize the impact of this type of malfunction, the Information Systems Department has set strict rules for information systems governance and security, relating to infrastructure and applications, data backups and business

continuity plans, rolled out at the Group level and controlled by the Internal Audit and Control Department.

The occurrence of such malfunctions may adversely affect the Group's operations, the protection of its know-how and its financial results.

### 1.1.9 Customer credit risk

The Group's exposure to customer credit risk is limited due to its wide range of businesses, worldwide presence and very large customer base. Past-due receivables are regularly analyzed and provisions are booked whenever necessary (see Note 3 to the Consolidated Financial Statements, Chapter 9, Section 1). Nevertheless, changes in the economic situation could lead to an increase in customer credit risk.

## 1.2 Group structural risks

### 1.2.1 Cost reduction and restructuring risks

The Group has undertaken a variety of cost-cutting and restructuring initiatives. While further savings are planned, there is no guarantee that the forecast reductions will be achieved or that the related restructuring costs will not be higher than originally budgeted. In particular, certain restructuring operations and other initiatives may cost more than expected, or the cost savings may be less than expected or take longer than expected to achieve. An increase in restructuring costs and/or the Group's inability to achieve the expected savings could have a material adverse effect on the Group's results and outlook.

### 1.2.2 Risks associated with the Group's pension commitments and similar commitments

The Group makes significant accounting accruals to cover pension and other post-employment benefit plans, mainly in Western Europe (particularly France, Germany, the Netherlands and the United Kingdom) and in North America (United States and Canada). Most of these plans are closed to new entrants. At December 31, 2017, total commitments under pension and other post-employment benefit plans were €11.9 billion.

The provision for pension plans recognized in the consolidated balance sheet (€2.9 billion at

December 31, 2017) may be affected by adverse changes in the actuarial assumptions used to calculate the projected benefit obligation, by a reduction in the discount rates used to measure future commitments, a change in life expectancy or higher inflation, or a fall in the market values of plan assets, consisting mainly of equities and bonds.

### 1.2.3 Risks associated with goodwill and impairment of property, plant and equipment and intangible assets

Brands and goodwill make up a significant proportion of the Group's intangible assets, representing €2.0 billion and €10.6 billion, respectively, at December 31, 2017. In line with Group accounting policies, goodwill and certain other intangible assets with indefinite use lives are tested for impairment periodically and whenever there is an indication that their carrying amount may not be fully recoverable. Goodwill and other identified intangible assets may become impaired as a result of worse-than-expected Group performance, unfavorable market conditions, unfavorable legal or regulatory changes or many other factors. The recognition of impairment losses on goodwill could have an adverse effect on consolidated net income.

Property, plant and equipment (€11.6 billion at December 31, 2017) represent roughly one-quarter of total assets and may become impaired in the event of adverse development of the business.

## 1.3 Financial risks

### 1.3.1 Liquidity risk

#### a) Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. Generally, the subsidiaries enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the National Delegations' cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is bonds, which are generally issued under the Medium-Term Notes program. Saint-Gobain also uses perpetual bonds, participating securities, a long-term securitization program, bank borrowings and lease financing.

Short-term debt is composed of borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by two confirmed syndicated lines of credit (see Chapter 9, Section 1).

A breakdown of long-and short-term debt by type and maturity is provided in Note 8.3 to the Consolidated Financial Statements, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

Saint-Gobain's long-term debt issues have been rated BBB with a stable outlook by Standard & Poor's since December 9, 2014.

Saint-Gobain's long-term debt issues have been rated Baa2 with a stable outlook by Moody's since December 9, 2014.

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

#### b) Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and volatility risk, whenever possible, the Group invests in money market and/or bond funds.

### 1.3.2 Market risks

#### a) Interest rate risks

The Group's overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain. Where subsidiaries use derivatives to hedge interest rate risks, their counterparty is generally Compagnie de Saint-Gobain, the Group's parent company.

The Group's policy is aimed at fixing the cost of its medium-term debt against interest rate risk and optimizing borrowing costs. According to Group policy, the derivative financial instruments used to hedge these risks can include interest rate swaps, cross-currency swaps, options – including caps, floors and swaptions – and forward rate agreements.

The table below shows the sensitivity at December 31, 2017 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group's net debt after hedging:

<i>(in € millions)</i>	<b>Impact on pre-tax income</b>	<b>Impact on pre-tax equity</b>
Interest rate increase of 50 basis points	10	7
Interest rate decrease of 50 basis points	(10)	(7)

Note 8.4 to the Consolidated Financial Statements (see Chapter 9, Section 1) provides a breakdown of interest rate risk hedging instruments and of gross debt by rate type (fixed or variable) after hedging.

#### b) Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than the functional currency of the particular entity. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries set up contracts generally through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transaction, or through the National Delegations' cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2017, 98% of the Group's foreign exchange exposure eligible for hedging was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2017:

<i>(in million of euro equivalent)</i>	<b>Long</b>	<b>Short</b>
EUR	1	5
USD	13	7
Other currencies	0	4
<b>TOTAL</b>	<b>14</b>	<b>16</b>

The table below shows the sensitivity at December 31, 2017 of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies to which the subsidiaries are exposed after hedging:

<b>Currency of exposure</b> <i>(in million of euro equivalent)</i>	<b>Impact on pre-tax income</b>
EUR	(0.4)
USD	0.7
Other currencies	(0.4)
<b>TOTAL</b>	<b>(0.1)</b>

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2017 would have the opposite impact.

Note 8.4 to the Consolidated Financial Statements (see Chapter 9, Section 1) provides a breakdown of foreign exchange risk hedging instruments.

### c. Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options

are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are managed by a steering committee comprising members of the Group Finance Department, the Group Purchasing Department and the relevant Delegations.

Hedges of energy purchases (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with the Delegations' treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities, in accordance with the same principles as those outlined above for energy purchases.

Note 8.4 to the Consolidated Financial Statements (see Chapter 9, Section 1) provides a breakdown of instruments used to hedge energy and commodity risks.

### 1.3.3 Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance unit plans. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 8.4 to the Consolidated Financial Statements (see Chapter 9, Section 1) provides a breakdown of these share price risk hedging instruments.

### 1.3.4 Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the Group.

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit the Group's exposure to credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor's or A3 or above from Moody's. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS (Credit Default Swap) level of each counterparty.

## 1.4 Legal risks

### 1.4.1 Risk of regulatory changes

The Group is not subject to any specific regulations that could have an impact on its financial position, although the Group companies that operate industrial sites are generally required to comply with the specific national laws and regulations of the country where such sites are located. In France, for example, Group plants are subject to the laws and regulations applicable to classified sites.

Laws and regulations applicable to the Group and to the materials and products it uses in its activities may change in a manner that may be unfavorable to the Group. The introduction of stricter regulations or more diligent enforcement of existing regulations may affect the conditions under which the Group operates its businesses, which could increase its operating expenses, limit the scope of its activities or act as a brake on business growth. More generally, the Group cannot guarantee that there will be no rapid or significant regulatory changes in the future with a material adverse effect on its business, financial position or results.

### 1.4.2 Risks associated with legal and administrative procedures

#### a) Asbestos-related litigation

Current legal actions related to asbestos are described below.

##### ***Asbestos-related litigation in France*** ***Inexcusable fault lawsuits***

In France, 10 further individual lawsuits were filed in 2017 by former employees (or persons claiming through them) of Everite and Saint-Gobain PAM which in the past had carried out fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31, 2017, a total of 815 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2017, 775 of these 815 lawsuits had been completed in terms of liability and quantum as well as in terms of liability for the payment of compensation. In all these cases, the employers were held liable on the grounds of “inexcusable fault”.

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €3 million.

Concerning the 40 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2017, seven have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 33 remaining lawsuits, at December 31, 2017 the procedures relating to the merits of 28 cases were at different stages, with two in the process of being investigated by the French Social Security authorities and 26 pending before the Social Security Courts or the Appeal Courts. The last five actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period following their cancellation.

In addition, as of December 31, 2017, 228 similar suits had been filed since the outset of the litigation by current or former employees, or persons claiming through them, of 13 other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2017, 191 lawsuits had been completed. In 110 of these cases, the employer was held liable for “inexcusable fault”.

The compensation definitively paid by these companies totaled approximately €6.1 million.

With regard to the 37 suits outstanding at December 31, 2017, two cases were still at the investigation stage by the French Social Security authorities, 34 were being investigated – including 24 pending before the Social Security Courts, eight before the Appeal Courts and two before the Civil Supreme Court (Court of Cassation). Lastly, one suit has been canceled but the plaintiff may request its restoration at any time within a two-year period following its cancellation.

##### ***Anxiety claims***

Eight of the Group’s French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

“Facilities classified as containing asbestos” are defined as industrial facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2017, a total of 822 suits had been brought by current or former employees claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 693 have been terminated. Three plaintiffs had their claims dismissed, while for the 690 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2017. Of the remaining 129 suits, two are pending before the competent Appeal Courts and 116 have been canceled but the plaintiffs may request their restoration at any time during a period of two years following their cancellation. Finally, six suits have been dismissed by the competent labor tribunals and five plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

#### **Asbestos-related litigation in the United States**

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory – and in some cases punitive – damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

#### **Developments in 2017**

About 3,100 new claims were filed against CertainTeed in 2017, a slight decrease compared to the 3,200 filed in 2016. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,900 of the pending claims were resolved in 2017, compared to 3,700 in 2016 and 4,600 in 2015. Taking into account the 35,100 outstanding claims at the end of 2016 and the new claims having arisen during the year, as well as claims settled, around 34,300 claims were outstanding at December 31, 2017. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

#### **Impact on the Group's financial statements**

The Group recorded a USD 102 million charge in 2017 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2016 and 2015. At December 31, 2017, the Group provision for asbestos-related claims against CertainTeed in the United States amounts to USD 555 million (compared to USD 562 million at December 31, 2016 and USD 581 million at December 31, 2015).

#### **Cash-flow impact**

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2017 but only paid out in 2017, and those fully resolved and paid in 2017, and compensation paid in 2017 by other Group businesses in the United States in connection with asbestos-related litigation, amounted to USD 76 million (compared to USD 97 million in 2016 and USD 65 million in 2015).

#### **Situation in Brazil**

In Brazil, former employees of Brasilit suffering from asbestos-related occupational illnesses are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments were signed accordingly so far.

Two collective actions were initiated against Brasilit in 2017 by two associations defending the former exposed workers of plants of São Caetano (SP) and Recife (PE), asking for reconsideration of medical assistance and compensation. These cases are at very early stage for the moment.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all its legal obligations with regard to medical assistance of employees and former employees.

In November 2017, the Supreme Court of Brazil has decided to ban asbestos definitively across the country. Brasilit stopped using this material voluntarily as soon as 2002.

#### **b) Anti-trust law and related proceedings**

Legal provisions covering competition apply to the Group companies in countries in which it operates. Violation of competition law exposes the Group to fines and, in certain countries, potential criminal sanctions on the Group and its employees involved. Any litigation filed by a competition authority could, in the event of conviction, give rise to the payment of fines and potentially damages, which is likely to have a significant impact on the Group's reputation, financial situation and operating results.

The Saint-Gobain Group is firmly committed to opposing any practice that might violate competition rules and has long applied the principle of zero tolerance. A plan for compliance with competition law (the "Competition Plan") has been in place within the Group since 2007. The content of the Competition Plan is described further above in Chapter 4, Section 1.1.

#### **Investigation by the Swiss Competition Commission in the sanitary products wholesale**

In November 2011, the Swiss Competition Commission (*Commission Suisse de la Concurrence*) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however, a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2017).

### **Investigation by the French Competition Authority in the building insulation products sector**

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (*Autorité de la Concurrence Française*). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. A hearing was held on May 11, 2016. The Competition Authority's final ruling was postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the Centre Scientifique et Technique du Bâtiment, and the FILMM before the Paris Civil Court (*Tribunal de Grande Instance*) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

### **Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry**

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

### **c) Environmental-related litigation**

#### **PFOA matters in the United States**

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North

Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York and Vermont pursuant to which SG PPL has agreed to complete investigations and implement interim remediation measures. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2017, the provision recorded by the Company in respect of this matter amounts to € 44 million.

### **d) Other potential liabilities**

#### **Grenfell Tower fire in the United-Kingdom**

At the time of the refurbishing of the Grenfell Tower in 2015, Celotex sold through distributors an insulation product for use as part of multicomponent ventilated rainscreen cladding system.

Following the Grenfell Tower fire on June 14, 2017, investigations are ongoing, and, in this context, Celotex as well as more than 60 other companies or organizations, is heard by the British authorities.

### **e) Other proceedings and disputes**

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last 12 months, a significant impact on the financial or profit position of the Company and/or Group. Note 7 to the Consolidated Financial Statements (see Chapter 9, Section 1) is related to the provision for claims and litigation.

## 1.5 Insurance

The Group transfers its risks to the insurance market when this is the most efficient solution. Default by one or more of the Group's insurers could therefore lead to financial losses.

The Group's policy is to implement preventive programs and purchase insurance coverage to protect its assets and revenue. This policy is embedded within a Group doctrine, which takes into account current conditions in the insurance market. It is determined, coordinated and overseen by the Risks and Insurance Department. It defines insurance criteria for the most significant risks, such as property and business interruption, as well as general and product liability.

For other types of coverage, such as automobile fleet insurance, the Risks and Insurance Department advises the individual operating units on policy content, broker selection and which market to consult. These are called "high-frequency" risks, for which claims are monitored internally and appropriate action taken. The 2016 policies were renewed as 2017 policies.

The captive insurance company set up to cover property risks was highly successful and delivered real benefits for the Group.

Companies acquired during the year have been integrated into existing insurance programs.

### 1.5.1 Property and business interruption insurance

The Group's non-excluded property and casualty risks and business interruption risks arising from accidental damage to insured assets are covered by a worldwide insurance program.

The programs meet the insurance criteria laid down by the Department, specifically:

- all policies are "all risks" policies with named exclusions;
- claims limits of liability are based on worst-case scenarios where safety systems operate effectively;
- deductibles are proportionate to the size of the site concerned and cannot be qualified as self-insurance.

These criteria take into account current insurance offerings, which exclude certain risks and cover natural disasters like floods, storms, earthquakes or tsunamis only up to a certain amount.

In extreme scenarios, such events could have a substantial uninsured financial impact in terms of both reconstruction costs and lost production costs.

The Risks and Insurance Department's policy is based on the findings of the annual audits carried out by independent prevention experts recognized by the Group's insurers. These audits give a clear picture of the risk exposure of the main sites in the event of a fire or other incident, and provide an

estimate of the financial consequences in a worst-case scenario.

Individual claims in excess of €12.5 million are transferred to the insurance market for all Group subsidiaries.

Claims up to this amount are self-insured through the Group's captive insurance company, which purchases reinsurance coverage against increases in frequency and/or severity rates.

### 1.5.2 Liability insurance

A program provides coverage for third-party personal injury and property damage claims for which the Group would be legally held liable. This program comprises several programs for the lower tranches of coverage.

The first program covers all subsidiaries and has a coverage limit of €100 million. Subsidiaries situated in the geographical territory of the United States and Canada Delegation have a deductible of USD 50 million. The program's exclusions are consistent with market practice and concern in particular potentially carcinogenic substances and gradual pollution.

In order to satisfy local regulatory requirements, a policy is taken out in each country in which the Group has a significant presence. Local policies are backed up by the master policy issued in Paris, which can be activated when local coverage proves inadequate.

The second program covers subsidiaries located in the geographic area covered by the United States and Canada Delegation and has a coverage limit of USD 50 million. This program is structured differently to deal with the specific nature of liability risks in the United States. It is divided into several lines of coverage, requiring it to be placed, if needed, on the London insurance market. Exclusions are in line with current market practice in the United States and primarily concern contractual liability, pollution and third-party consequential loss.

In addition to the two programs described above, a number of supplementary programs have been set up in order to bring the total coverage limit to a level considered compatible with the Group's businesses.

Within the operating units, action is taken to raise awareness of liability risks, and the units are motivated to control costs by assuming a deductible that does not, however, constitute self-insurance. The Group also runs a risk prevention program at its operating units with the support of the Environment, Health and Safety Department.

### 1.5.3 Exceptions

Joint ventures and companies not controlled by the Group are excluded from the above programs and purchase separate insurance coverage.

## 2. INTERNAL CONTROL

Every Group company assesses the key risks affecting the application of its strategy, the effective conduct of operations, compliance with laws and regulations, and resilience to external events as quantified in a business continuity plan.

The entities are responsible for their own internal control and for managing their process risks in their processes.

They work collaboratively with teams under the umbrella of the shared service centers or competency centers. It is essential that there is a segregation of tasks between these organizations for successful skills optimization and transaction security. In France, the shared service centers are managed by the Sectors and Activities; elsewhere, they are managed by the General Delegations. The Group Corporate

Departments help to define shared common guidelines with the Sectors and General Delegations.

Priority measures, or “6 Essentials”, have been defined in connection with balance sheet and cash flow reviews, improved competitive bidding, analysis of inventory discrepancies, margin analysis and validation of sales policies, and excellence in managing travel expenses. The systematic addition of computer access rights management and risk management helps to ensure optimum performance and alignment of objectives.

Internal control and risk management are all Group employees responsibility. It is up to each entity to implement an internal control system appropriate to its needs, under the personal responsibility of its manager.

### 2.1 Compagnie de Saint-Gobain’s internal control and risk management system

Saint-Gobain’s internal control and risk management system is based on the internal control and risk management framework defined by the French securities regulator (*Autorité des marchés financiers* - AMF), as updated in July 2010, and on the 2013 update to the framework from the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The system complies with the legal requirements applicable to companies listed on the Euronext Paris regulated market.

Supported by a continuous improvement process and an Internal Control Reference Framework, Saint-Gobain Group’s internal control and risk management system is a whole set of means, behaviors, procedures and actions tailored to each company’s specific characteristics which:

- contributes to the control of its activities and the implementation of its strategy, the effectiveness of its operations and the efficient use of its resources;
- enables it to appropriately address material operational, financial, compliance and other risks.

It is more specifically designed to provide assurance concerning:

- application of general management’s instructions and orientations;
- compliance with the laws and regulations applicable to the company;
- the efficiency and effectiveness of internal operating, industrial, marketing, financial and other processes;
- the protection of tangible and intangible assets, in particular the prevention of fraud;
- the reliability of financial information.

The Saint-Gobain Group’s internal control and risk management system is therefore more than just a set of procedures and it extends beyond accounting and financial processes. It is in place in all Group entities, where it contributes to value creation and strengthens companies’ performance.

#### 2.1.1 The internal control and risk management environment

The foundations of the internal control and risk management system are as follows:

- adherence to the values and behavioral rules set out in the Saint-Gobain Principles of Conduct and Action (regarding the Principles, see Chapter 1, Section 2), which are distributed to all employees;
- clearly defined organization and allocation of responsibilities, supported by written procedures and ensuring effective segregation of duties;
- delegations of signature authority and other powers that are aligned with the effective allocation of responsibilities;
- policies for human resources management aimed at ensuring that new hires have the knowledge and skills needed to fulfill their responsibilities and training policies to help Group employees expand and update their skills and knowledge;
- written internal procedures distributed in an appropriate manner to employees;

- secure information systems with access rights granted on the basis of allocated roles and responsibilities, to maintain effective segregation of duties. Saint-Gobain subsidiaries have an obligation to comply with the basic security rules issued by the Group Information Systems Department.

### 2.1.2 Internal control and risk management process

Within Saint-Gobain, internal control is a continuous and ongoing process that integrates risk management procedures. It involves four key stages:

- analyzing the main identifiable risks; a Group risk mapping is updated each year and is submitted to and analyzed by the Audit and Risks Committee and the Board of Directors;

- developing controls that are proportionate to the risks involved in each process;
- communicating the objectives of internal control to employees and implementing controls;
- permanent oversight of and regular checks on the effectiveness of internal control.

This process is described in the Internal Control Reference Framework (see paragraph 2.4.2) and applies to all Group subsidiaries.

Oversight controls and effectiveness checks may lead to corrective action being taken, and to changes, as needed, to the internal control and risk management system.

## 2.2 Organization of internal control and the risk management system

Everyone within the organization has some responsibility for internal control and risk management, from general management down to the employees of the individual entities.

### 2.2.1 The Board of Directors of Compagnie de Saint-Gobain

Regular reports on the Group's internal control and risk management are submitted to the Board of Directors after being reviewed by the Audit and Risks Committee (see Chapter 6, Section 1 - Corporate Governance).

The Audit and Risks Committee is specifically tasked with monitoring the process of preparing financial information and the effectiveness of the internal control and risk management system. It also reviews the risks map prepared by the Internal Audit and Business Control Department. It provides regular reports to the Board of Directors on the performance of its mission and informs the Board promptly of any issues encountered (see Chapter 6, Section 1 - Corporate Governance).

### 2.2.2 Group General Management

The Group's general management oversees implementation of the internal control process and the existence and appropriateness of internal control and risk management monitoring systems within the subsidiaries.

### 2.2.3 Internal Audit and Business Control Department

The Internal Audit and Business Control Department is tasked by the Group's general management with designing the Group's internal control and risk management system and with coordinating the roll-out of the system, in conjunction with the Company's corporate departments, the General Delegations and the Sectors.

The Internal Audit and Business Control Department also seeks to deliver added value to the Group and enhance its performance. Its general remit is to provide systematic, methodical assurance that the internal control systems are relevant and effective, and to make recommendations for reinforcing them.

With that in mind, and in connection with its move to digital, in 2017, the Internal Audit and Business Control Department introduced some new tools in audit assignments:

- a performance-oriented tool for process analysis that can be used to analyze and represent an entity's organizational structure and its processes, to identify bottlenecks and irregularities in process flows;
- a compliance-oriented tool for data analysis that is useful in targeted searches for inconsistencies with business control rules.

Compared with the historical approach to auditing by extrapolation from samples of a limited size, these two highly complementary tools enable extensive analysis of the populations in question (transactions, master data, access rights, etc.), meaning that more robust conclusions can be drawn.

Together, they illustrate the shift towards higher value-added audit assignments.

The Internal Audit and Business Control Department organizes oversight of internal control and risk management systems based on four principal components, which are: the compliance statement, the audit results, the action plan follow-up system and the fraud and incident monitoring system. The results of this oversight are reported to the Audit and Risks Committee.

The Internal Audit and Business Control Department plays a key role in the Group Compliance Program.

At the end of 2017, the Internal Audit and Business Control Department had 104 staff, working in the areas of audit, internal control and anti-fraud.

Internal Audit and Business Control Department	Main responsibilities	Reference standards and/or measures	2017 key figures
<b>Internal control</b>	<ul style="list-style-type: none"> <li>■ Develop and maintain the Internal Control Reference Framework</li> <li>■ Communicate and provide training on internal control and risk management</li> <li>■ Lead the annual compliance statement process</li> <li>■ Analyze incidents, self-assessments and audit results</li> <li>■ Monitor implementation of action plans</li> </ul>	<ul style="list-style-type: none"> <li>■ Internal Control Reference Framework and associated practical data sheets or Group memos</li> <li>■ Internal Control briefs</li> <li>■ Webinars and training sessions (Business Control Forums <sup>(1)</sup>)</li> <li>■ Intranet and Internal Control Community (My SG)</li> <li>■ ACTT2 database <sup>(2)</sup></li> <li>■ Dashboard/QlikView <sup>(3)</sup></li> </ul>	<ul style="list-style-type: none"> <li>■ 2017 Compliance Statement update (659 questionnaires sent)</li> <li>■ Approximately 5,000 action plans open within ACTT2 database at the end of 2017</li> <li>■ 1,202 corporate leaders and managers trained during 17 Business Control Forums in 16 different countries</li> <li>■ 18 webinars delivered and 15 newsletters published</li> <li>■ Approximately 673 members of the Internal Control community</li> </ul>
<b>Risk management</b>	<ul style="list-style-type: none"> <li>■ Define and maintain the Group's risk universe</li> <li>■ Perform risks map</li> <li>■ Update, maintain and take responsibility for the risk management methodology</li> </ul>	<ul style="list-style-type: none"> <li>■ Risks universe</li> <li>■ Risks cartography</li> <li>■ Methodological tool for Group companies</li> <li>■ Risk database</li> </ul>	<ul style="list-style-type: none"> <li>■ 68 existing maps, of which 24 were updated in 2017</li> </ul>
<b>Internal Audit</b>	<ul style="list-style-type: none"> <li>■ Ensure the relevance and effectiveness of internal control and computer security systems</li> <li>■ Check the accuracy of compliance statements</li> <li>■ Identify and share best practices</li> <li>■ Perform organizational advisory tasks at general management's request</li> <li>■ Cross-functional audits according to the department's main objectives</li> </ul>	<ul style="list-style-type: none"> <li>■ Audit plan</li> <li>■ Audit methodology</li> <li>■ 6 Essentials <sup>(4)</sup></li> <li>■ Best practices library</li> <li>■ Process and data analysis tools <sup>(5)</sup></li> <li>■ Auditor training Program</li> </ul>	<ul style="list-style-type: none"> <li>■ 154 audits performed, including 69 with the process and data analysis tools</li> <li>■ 19 new best practice briefs published</li> <li>■ Entities covered every 5 years</li> </ul>
<b>Anti-fraud</b>	<ul style="list-style-type: none"> <li>■ Develop anti-fraud policies</li> <li>■ Ensure fraud prevention</li> <li>■ Investigate fraud incidents</li> </ul>	<ul style="list-style-type: none"> <li>■ Training and awareness</li> <li>■ Fraud incident reports</li> </ul>	<ul style="list-style-type: none"> <li>■ 51 Directors and managers trained</li> </ul>

(1) The Business Control Forums are training sessions delivered over one or two days by the Delegations, for executives and managers. The topics such as the fundamentals of internal control and the fight against fraud, audit results and compliance statements, as well as case studies on various processes.

(2) Central database for monitoring compliance statements and action plans.

(3) Online dashboard containing information on internal control (compliance statements results, implementation rate for action plans), audit assignments, computer security, risks and insurance, fraud reporting, and financial data.

(4) Fraud detection audit methodology.

(5) See paragraph 2.2.3 for further details on the tools for process and data analysis.

## 2.2.4 Corporate departments

Compagnie de Saint-Gobain's corporate departments are responsible for setting up an internal control structure and defining internal control strategies and procedures in their area. To this end, they:

- identify and analyze the main risks associated with their internal processes;
- define appropriate controls based on those described in the Internal Control Reference Framework;

- inform and train the employees responsible for internal controls within their area;
- analyze any internal control weaknesses or incidents and the results of internal audits.

The corporate departments are also responsible for the internal control system within the Company entities.

Corporate departments	Main responsibilities	Reference standards and/or measures	2017 key figures
<b>Environment, Health and Safety (EHS) Department and Medical Department</b>	<ul style="list-style-type: none"> <li>■ Promote and coordinate Group EHS policy</li> <li>■ Monitor the application of EHS reference framework principles</li> </ul>	<ul style="list-style-type: none"> <li>■ EHS reference framework and standards</li> <li>■ Integrated EHS audits</li> <li>■ Self-diagnostic tool</li> <li>■ OSHAS 18001, ISO 14001 and ISO 50001 standards</li> </ul>	<ul style="list-style-type: none"> <li>■ Industry audits:               <ul style="list-style-type: none"> <li>- 52 "12-step" audits</li> <li>- 121 "20-step" audits <sup>(1)</sup></li> </ul> </li> <li>■ Distribution audits:               <ul style="list-style-type: none"> <li>- 323 ESPR audits <sup>(2)</sup></li> </ul> </li> </ul>
<b>Information Systems Department</b>	<ul style="list-style-type: none"> <li>■ Define Group policy for information systems and computer network security</li> <li>■ Promote and coordinate an annual self-assessment plan</li> <li>■ Develop rules and best practices</li> </ul>	<ul style="list-style-type: none"> <li>■ Minimum security rules</li> <li>■ Technical standards</li> <li>■ Development standard for secure web applications</li> <li>■ Note on the Cloud</li> <li>■ Datacenter security rules</li> <li>■ ITAC reference bases</li> <li>■ SAP users control tool</li> </ul>	<ul style="list-style-type: none"> <li>■ See Chapter 7, Section 2.4.5, General doctrine on information systems security</li> </ul>
<b>Purchasing Department</b>	<ul style="list-style-type: none"> <li>■ Manage the World-Class Purchasing program, an approach focusing on purchasing performance, department professionalization and supplier innovation</li> <li>■ Execute multi-business and multi-country purchasing</li> <li>■ Coordinate the purchasing function in France and conduct multi-business purchasing activities in France</li> </ul>	<ul style="list-style-type: none"> <li>■ ISO 9001 standard with certification in Raw Materials, Precious Metals and Energy for Saint-Gobain Purchasing</li> <li>■ Purchasing process of the Internal Control Reference Framework (14 risks, 38 controls to be applied)</li> </ul>	<ul style="list-style-type: none"> <li>■ Completion of more than 12,000 individual purchaser actions in 2017</li> <li>■ 15 internal audit assignments on local and technical purchases</li> <li>■ 53 Buy/Techs executed in 16 different countries</li> </ul>
<b>Risk and Insurance Department</b>	<ul style="list-style-type: none"> <li>■ Define Group policy for property damage at industrial or distribution sites</li> <li>■ Define Group policy for insurance and monitoring its implementation</li> <li>■ Steering centralized insurance programs</li> </ul>	<ul style="list-style-type: none"> <li>■ Prevention/ protection reference base</li> <li>■ "Risks Grading" self-assessment tool</li> <li>■ Doctrine memos</li> <li>■ Risks and Insurance Intranet</li> </ul>	<ul style="list-style-type: none"> <li>■ 429 site visits by prevention engineers</li> <li>■ 1,372 sites that have performed their Risk Grading self-assessment</li> <li>■ 933 assessments of Building Distribution Sector sales outlets by, including 115 ESPR audits</li> <li>■ 20 prevention training sessions</li> <li>■ Regular field inspections</li> </ul>
<b>Treasury and Financing Department</b>	<ul style="list-style-type: none"> <li>■ Define policy for financing, market risk control and banking relationships for the entire Group</li> </ul>	<ul style="list-style-type: none"> <li>■ Procedures reference base               <ul style="list-style-type: none"> <li>- for DTF activities</li> <li>- for subsidiary activities</li> </ul> </li> <li>■ Daily reports (DTF) and monthly reports (subsidiaries and DTF)</li> </ul>	<ul style="list-style-type: none"> <li>■ 118,662 internal/external foreign exchange transactions in 2017</li> <li>■ 22,785 internal/external transfers issued in 2017</li> </ul>

(1) Audits following a 12- and 20-step schedule for the Group's industrial activities.

(2) ESPR (Environment, Safety, Prevention of Risks) audit: specific to the Building Distribution Sector.

Corporate departments	Main responsibilities	Reference standards and/or measures	2017 key figures
<b>Financial Control Department</b>	<ul style="list-style-type: none"> <li>Implement continuous control of the Group's results and operating performance</li> <li>Participate in drawing up the budget and quarterly budget reviews</li> <li>Oversee monthly results figures at all levels of the organization</li> <li>Closely analyze and validate the financial consequences of investment, acquisition, divestment, merger and capital expenditure plans and restructurings</li> </ul>	<ul style="list-style-type: none"> <li>Dashboards</li> <li>Permanent relationship with Delegations and Sectors</li> <li>Oversight of the network of Group controllers</li> <li>Implementation of common analysis tools</li> <li>Group reference base and notices to corporate departments and Sectors</li> </ul>	<ul style="list-style-type: none"> <li>Over 150 meetings per year with Sectors and Delegations</li> <li>11 training sessions with the participation of 173 employees</li> <li>199 DAC (Credit Authorization Requests)</li> <li>58 planned acquisitions, 36 of which have been completed</li> <li>29 divestments and mergers completed</li> </ul>
<b>Doctrine Department</b>	<ul style="list-style-type: none"> <li>Manage, update and distribute all financial, administrative and management procedures applicable to the Group's companies</li> </ul>	<ul style="list-style-type: none"> <li>Group organization and procedures</li> <li>Financial and accounting standards</li> <li>Group Intranet</li> </ul>	<ul style="list-style-type: none"> <li>650 documents available on the Doctrine intranet</li> <li>388 questions addressed via the hotline</li> <li>1,573 employee subscribers to Doctrine News</li> </ul>
<b>Legal Department</b>	<ul style="list-style-type: none"> <li>Identify the main legal risks</li> <li>Define and implement relevant policies and controls</li> <li>Provide guidance to operational staff through the network of compliance and embargo correspondents</li> </ul>	<ul style="list-style-type: none"> <li>Group Doctrine in respect of legislation in force (particularly in relation to laws on competition, fight against corruption, economic sanctions and embargos, gifts and invitations policies, conflicts of interest, etc.)</li> <li>Employee training related to legislation in force and Group policy adopted on the subject (online and in person trainings)</li> <li>Questions on the compliance statement on compliance-related topics</li> </ul>	<ul style="list-style-type: none"> <li>More than 27,000 employees completed online training on the prevention of corruption or competition law at least once</li> <li>Almost 9,000 employees completed "Saint-Gobain Economic Sanctions and Embargos" online training on economic sanctions and embargos</li> <li>More than 150 sites subject to competition audit by specialized legal counsel (since 2007)</li> <li>In 3 years, more than 700 in-person compliance training seminars (competition law, anti-corruption rules, economic sanctions and embargos) have been organized</li> </ul>

## 2.2.5 Sectors, Activities and General Delegations

The Presidents of the Sectors, Activities on the one hand, and of the General Delegations on the other, are tasked with distributing the Internal Control Reference Framework to the companies under their responsibilities and ensuring compliance with Group instructions. They are responsible for managing the specific risks associated with their business. Their responsibilities also include:

- assessing and managing the principal risks in their domain which are laid out in their own risk map;
- specifying, so far as is necessary, the specific conditions for implementation of Group controls to reflect the particular features of the processes and information systems within their scope;

- prescribing the supplementary controls which are made necessary by risks specific to the operations carried out in entities in their scope;
- leading the compliance statement procedure set up by the Internal Audit and Business Control Department;
- analyzing internal control failures and incidents, and the results of audits to achieve continuous improvement of the internal control system;
- coordinating the supervisory controls or second line of defense, which they represent directly through the dissemination of standard procedures or the sampling of controls on major points.

## 2.3 Implementation of the internal control and risk management process in the Group's entities

Each entity is responsible for implementing an internal control system that is appropriate to its needs and aligned with the Group's internal control system. The head of each entity is responsible for:

- the relevance and effectiveness of the internal control system in place within their entity;
- its compliance with the Group's internal control system;
- appropriate management of the risks faced by their entity.

This responsibility cannot be delegated and is exercised with support from the Company's corporate and operational Directors and from the site Directors.

To build a suitable internal control system for their business, the Directors of the entities have to follow the steps described below:

- introducing the fundamentals of internal control;
- implementing the controls described in the Internal Control Reference Framework;
- analyzing the main risks and extending the Internal Control by incorporating controls for dealing with the identified risks;
- deploying the internal control in all of the entities' sites;
- overseeing the internal control and risk management system, specifically at the time of the compliance statement.

### 2.3.1 Compliance statement

The compliance statement is a self-assessment process which is used to periodically assess entities' compliance with a limited number of Internal Control Reference Framework fundamentals.

Directors of the operating entities, the heads of the IT centers and the heads of the shared service centers report annually to the Group's General Management on the level of internal control within their entity or center, by filling out a questionnaire relating to the Internal Control Reference Framework. They also commit to taking all necessary actions to remedy any cases of non-compliance with the internal control reference framework.

The compliance statements and action plans are centralized and tracked by the Internal Audit and Internal Control Department, which also prepares an executive summary of the information. They are reviewed if necessary with the heads of the Company's Sectors, General Delegations and corporate departments. An annual report on compliance statements is submitted to Saint-Gobain's Chairman and Chief Executive Officer, to whom the Internal Audit and Business Control Department reports, and to the Audit and Risks Committee of the Board of Directors.

### 2.3.2 Action plans follow-up

An action plan management and monitoring database is used to centralize information about the measures implemented to remedy any non-compliance issues identified during the compliance statement campaign, and about the action plans drawn up following audits performed by the internal audit.

This means that each Group company has access to a centralized operational platform it can use to manage its action plans by reporting the corrective measures taken and the progress made compared with the predefined implementation schedule. The corporate departments can also use the system to monitor these action plans.

Compliance statements results, internal audit memoranda and changes to the related action plans are also monitored *via* a dashboard circulated to the heads of the Sectors, Activities and General Delegations.

## 2.4 Reference standards and procedures

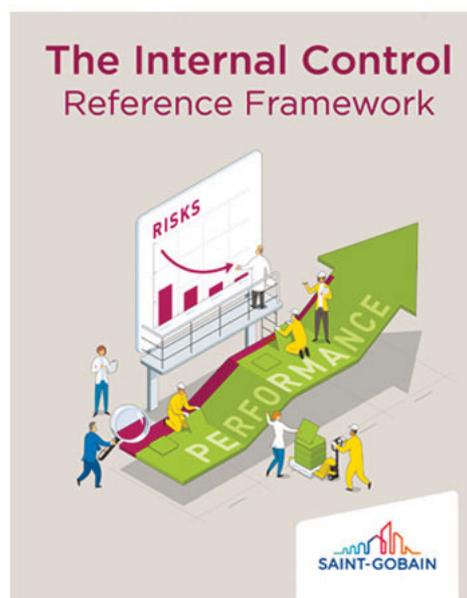
Compagnie de Saint-Gobain has developed internal control and risk management procedures for its own needs and those of its subsidiaries.

Each process contains a control/risk matrix used to refer specifically to risk types by control and contributing to understanding the control system.

### 2.4.1 Risk universe

The Group's risk universe was updated in 2017. It comprises 13 main categories of risk, covering 64 subcategories (compared with 86 in 2016). The changes mainly relate to the amalgamation of digital technology and information systems on the one hand, and the separate treatment of legal and tax risks on the other,

The Internal Control Reference Framework and the methodology are based on identifying risks as defined below.



### 2.4.2 Internal Control Reference Framework

There are three parts to the Internal Control Reference Framework:

- part 1 - Internal control and risk management at Saint-Gobain;
- part 2 - Risk universe;
- part 3 - The 18 internal control processes.

Part 1 describes the Group's internal control and risk management system, its implementation in the subsidiaries and the current oversight arrangements.

Part 2 introduces the Group's risk universe. The framework thus provides Directors with a means of identifying the risks for their entities.

Part 3 contains all 548 controls, organized by process and sub-process. The controls identified as "Key controls" (around 200) are mandatorily implemented in all Group entities.



The Internal Control Reference Framework is reviewed regularly in response to developments in the Group and in regulatory changes.

Furthermore, the Internal Control Reference Framework is available on the IABC (Internal Audit and Business Control) portal and on My SG (My Business Control), as well in iPhone/iPad-compatible interactive iBook format.

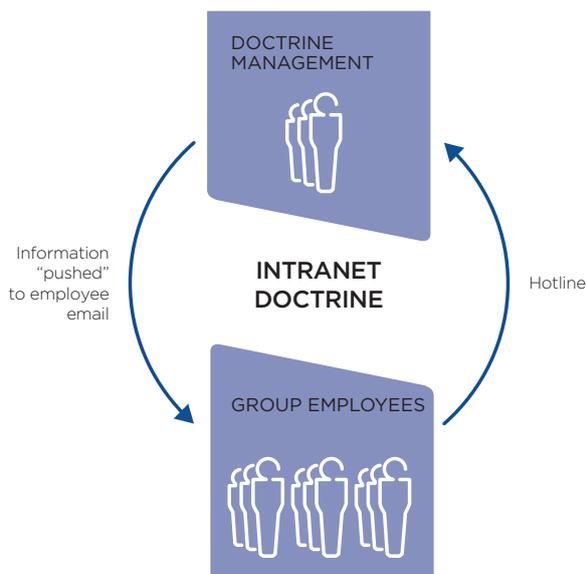


### 2.4.3 Doctrine

The Doctrine Department is responsible for preparing all financial, administrative and management procedures applicable to Group companies.

These procedures, accessible on the Group's intranet, cover two main themes: Group Organization and Procedures, and Financial and Accounting Standards.

Reports on the Doctrine Department's activities are prepared twice a year for the Audit and Risk Committee.



### 2.4.4 Environment, Health and Safety (EHS) Reference Manual

The EHS Reference Manual describes the approach to be followed by all entities to introduce an EHS management system and contributes to meeting the objectives set by the Group in terms of environmental protection and prevention of workplace accidents and occupational illnesses. The approach is structured around the main steps of risk identification, preventive actions implementation, reduction and control of risks.

The EHS Reference Manual (2012 version) is accessible on the Group Intranet and is distributed to all sites. It is consistent with the ISO 14001:2004 and OHSAS 18001 certifications and with the Group's World Class Manufacturing (WCM) approach (see Chapter 4, Section 2), and is used as the reference document for the audit of the EHS management systems (12- and 20-step audit). The new versions of the Reference Manual and the audit were released at the beginning of 2018 to reflect the latest developments in international standards.

In addition, the purpose of the EHS Handbook, updated in 2014, is to help all Group entities to develop and roll out an integrated EHS management system as required by the EHS

Reference Manual. The EHS Handbook is intended as a tool to be available to all, and follows the continuous improvement cycle to describe and illustrate how to implement the chapters of the Reference Manual. Hence, it describes the requirements for each area and provides reference documents, examples of implementation or best practices.

Furthermore, the EHS Department works with its network to develop and update Group EHS standards, which describe the minimum applicable requirements and/or methodologies. These tools help to ensure that risks are assessed and controlled on the same basis in all Group entities, irrespective of the country and the local laws and regulations (see Chapter 4, Section 1.3). Implementation guides, procedures, training packs, assessment questionnaires, and cross-audits of standards implementation and computer tools have been developed to support the application of the standards at the sites.

### 2.4.5 General doctrine on information systems security

The Information Systems Department compiles rules and best practices concerning information systems and networks, based on four sets of compulsory minimum security rules in the following areas:

- infrastructure, with 15 minimum security rules (22 control points, 94 entities) and SGTS Security Reporting (34 control points, 20 SGTS covering 428 entities);
- industrial information technology systems, with 14 minimum security rules (20 control points, 303 entities with critical or large industrial IT systems);
- research and development systems, with 7 minimum security rules (13 control points, 14 R&D Centers);
- applications, with 22 minimum security rules (50 control points, 63 competency centers);
- hosting of our resources in partner-operated Datacenters coordinated by the Group DSI or the SGTS (99 control points, 17 Datacenters).

These rules are the operational application by area of another two key high-level documents in the IT security document reference system:

- the General IT Security policy letter, ensuring the importance of this issue and its sponsorship by top management;
- the Group IT Security Doctrine, the essential standards that form the Information Systems Security policy;
- the reference framework for short- and medium-term actions to strengthen Saint-Gobain's cyber defenses against new cyber-attacks. This framework is divided into four specific operational action plans covering global infrastructure, local infrastructure, application continuity plans and user-focused actions.

Lower-level technical standards are also issued as a supplement to these rules, and are updated periodically to keep pace with technological advances and control infrastructure services.

The Information Systems Department has defined and rolled out:

- a tool (RMT, Rights Management Tool) for controlling SAP user rights and managing conflicting segregations of duties. This tool will be gradually integrated into all the Group's SAP systems;
- a technical standard to manage technical and business accounts that access to applications (ATA/ABA, Application Technical Accounts/Application Business Accounts);
- a Web Application Secured Development (3.2) standard (WASD);
- a technical standard to Secure the Hosting of Internet Applications (SHIA);
- a technical standard for SaaS systems which defines responsibilities and security measures for implementation;
- a set of security rules to annually monitor the security of the central and regional datacenters (Datacenter Security Rules 4 SG, the new version of the 55 Datacenter Rules);
- a technical standard for the security of applications hosted by Saint-Gobain partners for publication on the internet.

Moreover, the ITAC reference guide was published in 2012 as an addition to the Internal Control Reference Framework. It describes the automated and semi-automated controls used for five key processes: Purchasing, Sales, Inventory, Cash Management and Accounting. It covers the Group's main ERP software and includes:

- a reference guide for SAP: ITAC4SAP with 143 control points;
- a reference guide for MOVEX M3: ITAC4M3 with 96 control points;
- a reference guide for EXACT: ITAC4EXACT with 85 control points.

The ITAC4SAP reference guide was updated for consistency with the update to the Internal Control Reference Framework (143 control points, including the controls for the separation of tasks).

The controls are being gradually integrated into the Group's information systems as follows:

- ITAC100 ITAC4SAP for SAP systems (deployed in 22 SAP systems covering 121 Group companies), including specific updates for the Building Distribution Sector;
- ITAC96 ITAC4M3 for MOVEX M3 systems (deployed in 4 M3 systems covering 17 Group companies);
- ITAC85 ITAC4EXACT for EXACT systems (deployed in 1 EXACT system covering 2 Group companies);
- ITAC principles deployed in 1 MS Dynamics system covering 1 Group company.

## 2.4.6 Industrial and distribution risk prevention manual

The Group's policy for prevention of property damage and the resulting operating losses, compiled as part of an internal collection of standards and best practices, is defined by the Risk and Insurance Department (DRA). The DRA coordinates policy implementation through the Sectors and Activities with the support of the General Delegations. Within the Sectors and Activities, Prevention Coordinators manage the application of Group policy within the scope of their activities.

At the site level, those in charge of Prevention Management perform an annual self-assessment of risks at their sites *via* a risk rating software package. This tool assesses risks as well as the corresponding levels of protection and prevention. This self-assessment is updated annually by the industrial sites, the Research and Development Centers and logistical sites. A special assessment is carried out for the points of sale.

Furthermore, regular inspections of the Group's most important sites are carried out by prevention engineers, who are auditors external to the Group (approximately 450 inspections per year). The sites update their action plans with a view to improving their level of prevention and protection based on recommendations prepared by these prevention engineers.

## 2.4.7 Tools of the Group's culture of compliance

The culture of compliance that drives the Group has developed through its values, which are formally stated in the Principles of Conduct and Action.

The compliance program currently focuses on the following main themes: compliance with rules relating to competition law, preventing corruption, and compliance with economic sanctions and embargos.

The tools used in implementing the program include:

- a dedicated intranet, entitled Conform'Action, on which key messages are posted and tools made available;
- online training modules such as Comply (competition law), ACT (preventing corruption) and Saint-Gobain Economic Sanctions and Embargos (rules relating to economic sanctions and embargos);
- in-person training;
- distribution of practical and technical guides:
  - the Thread of Competition,
  - 20 best practices in competition law for purchasers,
  - the Thread of Anti-Corruption;
- the dissemination and implementation of internal policies such as:
  - anti-corruption policy,
  - gifts and invitations policy,

- conflicts of interest policy,
- economic sanctions and embargos policy,
- sales agents policy,
- policy on membership of professional associations,
- frequent dissemination of messages from Saint-Gobain's Chairman and Chief Executive Officer and General managers of the Group's Sectors and Activities,
- a network of compliance and embargo officers in each of the Saint-Gobain General Delegations.

## 2.5 Organization of internal control in preparing and processing financial and accounting information for shareholders

### 2.5.1 Compagnie de Saint-Gobain (parent company) financial statements

The Accounting Department is responsible for producing financial information for shareholders, partners and other third parties in accordance with French legal requirements. This information is prepared in accordance with current and generally accepted accounting standards and principles, including the going concern principle, the principles of consistent application of accounting policies, alignment of the opening balance sheet with the prior-period closing balance sheet, recognition of expenses in the same period as the revenue to which they relate, segregation of accounting periods, and substance over form.

### 2.5.2 Accounting organization

The accounting organization is based on the rules, methods and procedures set out in the Group's doctrine memos. It enables the monthly reconciliation and substantiation of the accounts and the true and fair view of the events which are represented. The organization also has an advisory role and works upstream to anticipate the accounting impacts of events and the regulatory changes that are likely to have a material impact on the Company's financial statements.

The chart of accounts is aligned with the Company's needs in terms of classification of transactions, and complies with the materiality principle. It is linked to the Group's Financial Information system.

### 2.5.3 Internal control

Internal control is based on periodic assessments of the process for preparing accounting and financial information.

In addition to controlling compliance with payment authorization procedures and the double signature rule for secure payment means, the Accounting Department contributes to internal control by acting as guarantor in respect of responsibilities defined by general management and formalized through a cost accounting system organized by cost center. Specifically, cost center managers receive monthly schedules listing the expenses incurred under their

signature, allowing them to check these expenses and also to compare actual and year-to-date expenses with the initial budget.

A summary of these cost accounting reports is sent to the Finance Department and the Group's general management at the end of each month.

Measures are implemented to strengthen the arrangements for managing accounting risks and contributing to the reliability of the financial statements.

For this purpose, since 2016, Group units have been subject to a Balance Sheet Review procedure under the direction of the Group Financial Control Department, with the aim of increasing the level of accounting control by the Finance Department of each entity.

### 2.5.4 Group consolidated financial statements

The consolidated financial statements are prepared by the Group Consolidation and Reporting Department. This department is also responsible for updating consolidation procedures, training, and integrating the subsidiaries into the consolidation process, processing information, and utilizing, maintaining and developing consolidation systems and the Financial Information System for the Group and all the Sectors.

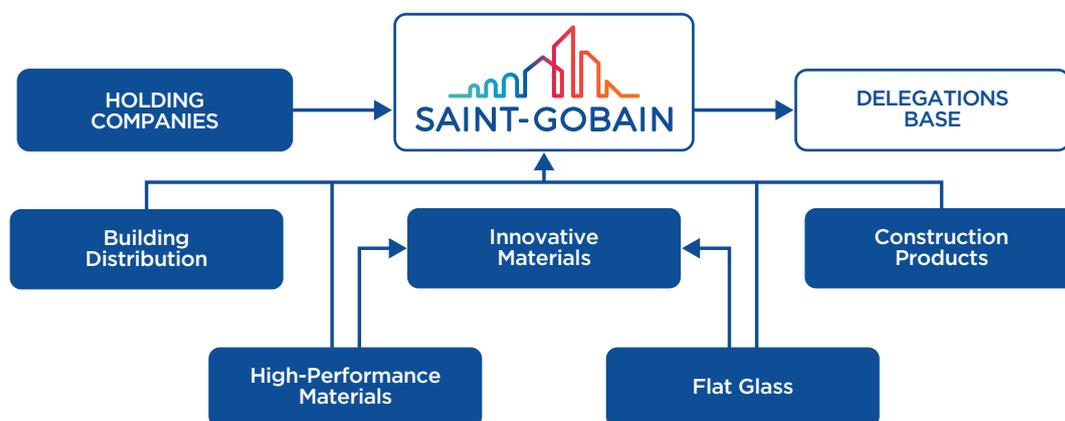
### 2.5.5 Group standards

The Consolidation Department is responsible for providing information and periodic training to subsidiaries in conjunction with the Sectors and General Delegations, using the consolidation manual, a number of data input manuals, an intranet site and an online training application in French and English. New consolidation instructions are issued for each monthly closing, describing the changes compared with the previous period-end and enhancements to reporting systems, standards and procedures, in collaboration with the Group's Doctrine Department.

Each year, the Consolidation Department offers training sessions.

## 2.5.6 Organization of the Group's consolidation process

The consolidation is organized by consolidation levels with hierarchical relationships with the head of each Sector, and reporting directly to the Group Consolidation and Reporting Department.



## 2.5.7 Processing information and control of the accounts

Each subsidiary submits its accounts in accordance with the timetable set by the Company. The account packages are checked and processed at Sector level, reviewed by the General Delegation concerned, then transmitted to the Consolidation Department, which performs an overall review of the Group's accounts and records the necessary consolidation adjustments. These consolidated accounts are submitted to General Management every month.

The consolidated financial statements are then examined by the external auditors in accordance with professional auditing standards.

## 2.5.8 Consolidation tools

The consolidated financial statements are prepared using consolidation software equipped with a powerful, efficient and highly secure database that is aligned with the Group's matrix management structure. The software is regularly updated to guarantee the financial information system's sustainability. A tightly controlled access procedure has also been put in place to ensure that the overall system is secure, and a comprehensive access review is performed every quarter.

This tool is capable of managing a database with several levels of consolidation and transparently centralizing data in the Group database.

It feeds data into a secure reporting system accessible on the Group's intranet for Group general management and the management of the Sectors and General Delegations, contributing to internal control of information output.

## 2.5.9 A reporting process that contributes to the reliability of financial statements

The monthly reporting process ensures that the annual and interim consolidated financial statements are reliable. Hard closes are performed at May 31 and October 31, to reduce the workload at June 30 and December 31. Hard close results and balance sheets are reviewed by finance executives from the Finance Department, the Sectors and the General Delegations in the same detail and in accordance with the same principles as the annual and interim financial statements. The entity's accounts are then analyzed before the final closing dates of June 30 and December 31 and are reviewed by the external auditors. This procedure helps to ensure early detection of any errors and their adjustment during the actual close.

A consolidated report is prepared each month for the Company's general management, with supporting comments and analyses of material events over the period.





# Capital and ownership structure

## 8

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# 1. CAPITAL

## 1.1 Capital stock

### 1.1.1 Capital stock at December 31, 2017

At December 31, 2017, Compagnie de Saint-Gobain's capital stock amounted to €2,214,228,364, represented by 553,557,091 common shares with par value of €4, compared with 555,280,358 shares at the previous year-end, fully paid up and all of the same category.

At December 31, 2017, the Company had issued no shares not representing its capital stock and had issued no securities giving access to its capital stock other than stock options and performance shares (see Chapter 6, Sections 2.4.2 and 2.4.3).

### 1.1.2 Changes in capital stock over the last three fiscal years

Since December 31, 2014, Saint-Gobain's capital stock has changed as follows:

Date	Type of transaction	Capital stock after transaction	Number of shares after transaction
12/2017	Issuance of 200,241 shares upon exercise of the same number of subscription options	€2,214,228,364	553,557,091
11/2017	Capital reduction: cancellation of 2,000,000 shares	€2,213,427,400	553,356,850
09/2017	Capital reduction: cancellation of 5,000,000 shares	€2,221,427,400	555,356,850
08/2017	Issuance of 482,685 shares upon exercise of the same number of subscription options	€2,241,427,400	560,356,850
05/2017	Group Savings Plan: issuance of 4,593,807 shares (at €36.72)	€2,239,496,660	559,874,165
12/2016	Issuance of 433,292 shares upon exercise of the same number of subscription options and allocation of 86 performance shares to employees	€2,221,121,432	555,280,358
05/2016	Capital reduction: cancellation of 10,984,088 shares	€2,219,387,920	554,846,980
05/2016	Group Savings Plan: issuance of 4,653,810 shares (at €29.42)	€2,263,324,272	565,831,068
04/2016	Allocation of 29,211 performance shares to employees	€2,244,709,032	561,177,258
03/2016	Issuance of 16,790 shares upon exercise of the same number of subscription options and allocation of 187,818 performance shares to employees	€2,244,592,188	561,148,047
12/2015	Issuance of 60,983 shares upon exercise of the same number of subscription options	€2,243,773,756	560,943,439
11/2015	Capital reduction: cancellation of 4,000,000 shares	€2,243,529,824	560,882,456
10/2015	Issuance of 431,641 shares upon exercise of the same number of subscription options and allocation of 325 performance shares to employees	€2,259,529,824	564,882,456
10/2015	Capital reduction: cancellation of 9,000,000 shares	€2,257,801,960	564,450,490
07/2015	Payment of 50% of the dividend in stock: issuance of 6,559,204 shares (at €36.62)	€2,293,801,960	573,450,490
06/2015	Issuance of 240,615 shares upon exercise of the same number of subscription options and allocation of 685 performance shares to employees	€2,267,565,144	566,891,286
05/2015	Group Savings Plan: issuance of 4,449,939 shares (at €32.44)	€2,266,599,944	566,649,986
04/2015	Allocation of 28,825 performance shares to employees	€2,248,800,188	562,200,047
03/2015	Issuance of 68,601 shares upon exercise of the same number of subscription options and allocation of 207,055 performance shares to employees	€2,248,684,888	562,171,222

### 1.1.3 Liens, guarantees and pledges

At December 31, 2017, to the best of the Company's knowledge, there were no significant liens, guarantees or pledges applying to Compagnie de Saint-Gobain shares.

## 1.2 Current financial authorizations

The following table shows the status of delegations of authority and authorizations granted by the General Shareholders' Meetings of June 2, 2016 and June 8, 2017 to the Board of Directors and the use made of these delegations during the 2017 fiscal year.

Purpose of the resolution and types of securities concerned	Source (resolution no.)	Authorization duration and expiration	Maximum par value of the capital increase
<b>Issuances with preferential subscription right</b>			
Capital increase (ordinary shares or securities giving access to shares in the Company or its subsidiaries) (A)	2017 AGM 12th resolution	26 months (August 2019)	€444 million excluding adjustments, i.e. approximately 20% of the share capital <sup>(1)</sup> (A)+(B)+(C)+(D)+(I) limited to €444 million ("Global Cap") <sup>(2)</sup>
Capital increase by incorporation of premiums, reserves, profits and free allocation of shares to shareholders (B)	2017 AGM 16th resolution	26 months (August 2019)	€111 million, excluding adjustments, i.e. approximately 5% of the share capital Included in the Global Cap <sup>(2)</sup>
<b>Issuance without preferential subscription right</b>			
Capital increase, by public offer, with compulsory priority period for shareholders, through issuance of ordinary shares or securities giving access to shares in the Company or its subsidiaries, or shares in the Company to which securities to be issued by subsidiaries would grant entitlement, where applicable by subsidiaries (C)	2017 AGM 13th resolution	26 months (August 2019)	€222 million (shares), excluding adjustments, i.e. approximately 10% of the share capital <sup>(1)</sup> Included in the Global Cap <sup>(2)</sup>
Capital increase (ordinary shares or securities giving access to shares in the Company with shares as primary securities) in compensation for contribution in kind (D)	2017 AGM 15th resolution	26 months (August 2019)	10% of the share capital, i.e. approximately €222 million, excluding adjustments Allocation to the cap of (C), included in the Global Cap <sup>(2)</sup>
<b>Issuances reserved for Group employees and Directors</b>			
Capital increase (equity securities) through the Group Savings Plan (E)	2017 AGM 17th resolution	26 months (August 2019)	€49 million, excluding adjustments, i.e. approximately 2.2% of the share capital <sup>(3)</sup>
Capital increase (equity securities) reserved for certain categories of beneficiaries to allow Group's employees outside France to benefit a mechanism equivalent to the Group Savings Plan (F)	2017 AGM 18th resolution	18 months (December 2018)	€880,000, i.e. approximately 0.04% of the share capital Allocation to the cap of E <sup>(2)</sup>
Allocation of stock options for new or existing shares (G)	2016 AGM 13th resolution	38 months (August 2019)	1.5% of the share capital on the date of the 2016 AGM, i.e. approximately €33.2 million, with a sub-cap of 10% of this limit of 1.5% for executive Directors <sup>(4)</sup> (G)+(H), limited to 1.5% of the share capital
Allocation of existing free shares (H)	2016 AGM 14th resolution	38 months (August 2019)	1.2% of the share capital on the date of the 2016 AGM, i.e. approximately €26.6 million with a sub-cap of 10% of this limit of 1.2% for executive Directors <sup>(5)</sup> Allocation to the cap of (G)
<b>Other</b>			
Option for complementary issuance in case of oversubscription of an issuance of ordinary shares or securities giving access to the share capital with or without preferential subscription right (I)	2017 AGM 14th resolution	26 months (August 2019)	For each issuance, legal limit of 15% of the initial issuance <sup>(1)</sup> Included in the Global Cap <sup>(2)</sup>
<b>Share buyback program</b>			<b>Features</b>
Share buyback <sup>(6)</sup>	2017 AGM 11th resolution	18 months (December 2018)	10% of the total number of shares forming the share capital on the date of the AGM <sup>(7)</sup> Maximum purchase price per share: €80
Cancellation of shares	2017 AGM 19th resolution	26 months (August 2019)	10% of the share capital per 24-month period <sup>(8)</sup>

(1) Maximum nominal amount of debt securities giving access to the share capital that may be issued capped at €1.5 billion. Global cap applicable to (A), (C) and (I) resolutions.

(2) No use of the delegation of authority in 2017.

(3) No use of the delegation of authority in 2017. Based on the 17th resolution of the AGM of June 4, 2015, confirmation of the issuance of 4,593,807 shares in May 2017 by the Chairman and Chief Executive Officer, acting pursuant to a delegation of authority granted by the Board of Directors on November 24, 2016 to implement a capital increase reserved to employees through the Group Savings Plan.

(4) Allocation of 284,500 options to purchase new or existing shares by the Board of Directors on November 23, 2017.

(5) Allocation of 1,226,680 existing free performance shares by the Board of Directors on November 23, 2017.

(6) The purposes of the program are the following: cancellation, delivery of shares upon exercise of the rights attached to securities giving access in any way to the allocation of shares of the Company or in the context of external growth, merger, demerger and contribution transactions, market animation under a liquidity agreement, delivery of existing shares in the context of free shares allocations, upon exercise of stock options, or as part of an Employee Group Savings Plan or other similar schemes, hedging against the potential dilutive impact of free share allocations, the grant of stock options and employee share subscriptions under the Group Savings Plan or other similar schemes, the implementation of any market practice that may become authorized by the French Financial Markets Authority (Autorité des marchés financiers) and, more generally, for any other transaction authorized under the relevant laws and regulations.

(7) See Chapter 8, Section 1.3 for a description of implementation of the share buyback program in 2017.

(8) Cancellations of (i) five million shares resulting in a reduction in share capital of a par value of €20 million, decided by the Board of Directors on September 28, 2017, effective on September 29, 2017 and (ii) two million shares resulting in a reduction in share capital of a par value of €8 million, decided by the Board of Directors on November 23, 2017, effective on November 30, 2017 (see Chapter 8, Section 1.3.1).

## 1.3 Saint-Gobain treasury shares and acquisition of own shares

### 1.3.1 Treasury shares and own stock

At December 31, 2017, Compagnie de Saint-Gobain directly held a total of 2,110,133 own shares, *i.e.* 0.38% of its capital stock, with par value of €4, acquired at an average purchase price of €43.81. At that date, it was not holding any own shares indirectly.

The following table shows, at December 31, 2017, the allocation of treasury shares held directly by Compagnie de Saint-Gobain for purposes of the program authorized by the General Shareholders' Meeting of June 8, 2017:

Purpose	Number of shares and percentage of capital stock	Average purchase price (in euros)
Coverage of performance share plans and other allocations to employees (including stock options for existing shares)	1,912,347 shares (0.35% of capital stock)	€43.36
Liquidity agreement	43,500 shares (0.008% of capital stock)	€46.98
Cancellation	154,286 shares (0.03% of capital stock)	€48.44

During the 2017 fiscal year, 458,795 treasury shares were remitted as part of existing performance share plans and 7,071 treasury shares were remitted as part of stock option plans.

By resolutions of the Board of Directors, five million shares were cancelled on September 29, 2017, of which one million shares had been previously bought back on June 2, 2017, as part of an accelerated book building process completed by Wendel (see Section 2.2.2 of this Chapter 8), and two million shares were cancelled on November 30, 2017. These share cancellations resulted in share capital reductions of par values of €20 million and €8 million respectively.

### 1.3.2 Information on transactions involving own shares during the 2017 fiscal year (excluding liquidity agreement)

In 2017, as part of the authorizations granted by the General Shareholders' Meetings of June 2, 2016 and June 8, 2017 to the Board of Directors, the Company purchased, excluding the liquidity agreement, 8,301,783 shares, at an average price of €48.59, and did not sell any of its own shares. Total trading expenses, fees and taxes incurred by the Company in 2017 in connection with all transactions on its own shares (including the liquidity agreement) amounted to €1,664,000.

It made no use of derivative products in connection with these transactions. Further, the Company was holding no open purchase or sale positions at December 31, 2017.

### 1.3.3 Liquidity agreement

In November 2007, Compagnie de Saint-Gobain entered into an agreement with Exane BNP Paribas to provide liquidity for Saint-Gobain shares, in accordance with the code of ethics issued by the *Association française des marchés financiers* (AMAFI). Under the terms of the agreement, Exane is mandated to maintain a liquid market in Compagnie de Saint-Gobain shares and ensure that prices are regularly quoted for the shares, so as to avoid price fluctuations not justified by market trends.

The resources provided by Compagnie de Saint-Gobain under this agreement and applied to the credit of the liquidity account were reduced from €6.7 million at December 31, 2013 to €5 million at June 26, 2014. At December 31, 2017, 43,500 shares were held in the account, which was in credit for €3.4 million in cash.

Cumulative purchases during the 2017 fiscal year under the liquidity agreement involved 1,293,253 shares at an average price of €47.44, while 1,249,753 shares were sold at an average price of €47.55. No shares allocated to the liquidity agreement were reallocated to another purpose of the share buyback program in 2017.

## 2. OWNERSHIP STRUCTURE

### 2.1 Major shareholders

At December 31, 2017, Compagnie de Saint-Gobain's capital stock amounted to €2,214,228,364, represented by 553,557,091 common shares, corresponding to 622,287,669 theoretical voting rights.

The following table presents, to the best of the Company's knowledge, changes in the distribution of the Company's capital stock and voting rights over the last three years.

	December 31, 2017			December 31, 2016			December 31, 2015		
	Number of shares	% of capital stock <sup>(1)</sup>	% of voting rights <sup>(2)</sup>	Number of shares	% of capital stock <sup>(1)</sup>	% of voting rights <sup>(2)</sup>	Number of shares	% of capital stock <sup>(1)</sup>	% of voting rights <sup>(2)</sup>
Group Savings Plan Funds	40,898,426	7.4	12.8	42,736,720	7.7	12.7	42,424,604	7.6	11.9
BlackRock Inc.	<sup>(5)</sup> 31,494,449	5.7	5.1	<sup>(4)</sup> 28,199,633	5.1	4.4	<sup>(3)</sup> 29,025,332	5.2	4.3
Wendel	14,153,490	2.5	4.5	35,812,635	6.4	11.1	65,812,635	11.7	19.3
Treasury shares	2,110,133	0.4	0.0	1,230,716	0.2	0.0	1,674,679	0.3	0.0
Other shareholders <sup>(6)</sup>	464,900,593	84.0	77.6	447,300,654	80.6	71.8	422,006,189	75.2	64.5
<b>TOTAL</b>		<b>100</b>	<b>100</b>		<b>100</b>	<b>100</b>		<b>100</b>	<b>100</b>

(1) The percentages of capital stock are calculated with reference to the total number of shares comprising the Company's capital stock, including treasury shares.

(2) The percentages of voting rights are calculated with reference to the number of voting rights exercisable at General Shareholders' Meetings. Since 1987, registered shares in the name of a single shareholder for at least two years benefit from a double voting right. For further information, see Chapter 10, Section 1.1.1.

(3) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on December 4, 2015.

(4) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on June 10, 2016.

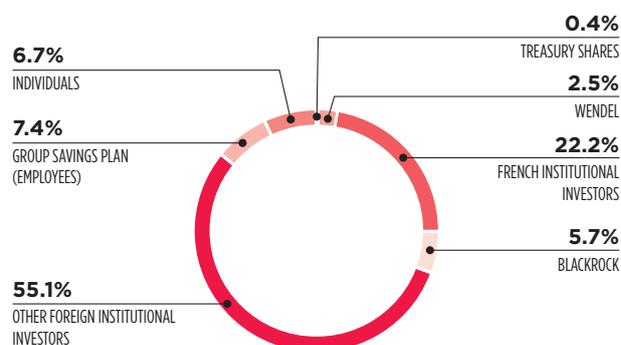
(5) To the best of the Company's knowledge, based on the disclosure threshold statement prepared by BlackRock, Inc. on August 29, 2017. For further information, see Chapter 8, Section 2.2.1.

(6) The percentage of capital stock and voting rights held by all Directors and members of the Group's Senior Management is less than 0.5%. The number of shares held by each Director is shown in Chapter 6, Section 1.1.1.

To the best of the Company's knowledge, at December 31, 2017 no other shareholder directly or indirectly, acting alone or in concert, held more than 5% of the Company's capital stock or voting rights.

According to the latest study of identifiable bearer shares, at December 31, 2017 the number of shareholders was estimated at approximately 210,000.

The following graphic shows Compagnie de Saint-Gobain's ownership structure at December 31, 2017 by major shareholder category.



## 2.2 Disclosure thresholds in 2017

### 2.2.1 BlackRock

During the 2017 fiscal year, BlackRock, Inc., acting on behalf of customers and funds it manages, made several threshold disclosures stating that it had exceeded or dropped below the 5% legal threshold. Most recently, on August 30, 2017 BlackRock Inc., acting on behalf of customers and funds it manages, disclosed to the French Financial Markets Authority (*Autorité des marchés financiers*) that on August 29, 2017, it had exceeded the threshold of 5% of the capital stock of Compagnie de Saint-Gobain, holding 5.62% of the capital stock and 5.01% of the voting rights on behalf of those customers and funds.

BlackRock, Inc. also reported that it held 1,093,523 “contracts for differences” (cash unwinding derivative instruments), with no scheduled maturity date, applying to Compagnie de Saint-Gobain shares, settled solely in cash. BlackRock, Inc. disclosed that it also holds 3,528,868 shares of Compagnie de Saint-Gobain on behalf of customers who have retained the exercise of voting rights.

### 2.2.2 Wendel

On June 7, 2017, Wendel informed the *Autorité des marchés financiers* that, on June 6, 2017, it had indirectly, through companies it controls, dropped below the thresholds of 10% of Compagnie de Saint-Gobain’s voting rights and 5% of its capital stock and voting rights and indirectly held 2.53% of the capital stock and 4.50% of the voting rights. These thresholds were crossed following an off-market block trade of 20 million Saint-Gobain shares.

### 2.2.3 Statutory disclosure thresholds

In addition, the Company received several notifications during the year in respect of the obligation set out in the Company’s bylaws to disclose any and all changes in interest to above or below 0.5% of the capital stock or voting rights, or any multiple thereof. Those disclosure notifications, upwards or downwards, were received following the sale of shares or changes in Compagnie de Saint-Gobain’s shares and voting rights.

## 2.3 Employee ownership structure

At December 31, 2017, Group employees held 7.4% of the capital and 12.8% of the voting rights attached to Compagnie de Saint-Gobain shares, through the Group Savings Plan. The Funds of the Group Savings Plan are thus the Group’s main shareholder.

The Group Savings Plan (*Plan d’Épargne Groupe*, “PEG”) is a key feature of Saint-Gobain’s social contract. It represents an excellent means of giving employees a stake in the Group’s success and profits.

In 2017, 4,593,807 shares were issued under a standard plan offering Group employees two classic formulae with a five- or

ten-year lock-up, for a total of €168.7 million (compared with 4,653,810 shares and €136.9 million in 2016).

In France, 57.2% of employees invested in the PEG through Employee Mutual Funds (*fonds communs de placement d’entreprise*, “FCPE”). With employees in 26 other European countries and 15 countries outside Europe also given the opportunity to take part in the PEG, in all, 40,893 Group employees participated in the PEG during 2017.

A new plan will be launched in 2018, giving employees the opportunity to acquire up to six million shares, *i.e.* just over 1% of the capital stock, with a five- or ten-year lock-up.

## 2.4 Shareholder pacts or agreements involving Compagnie de Saint-Gobain shares

The Company has no knowledge of shareholder pacts or agreements, nor of shareholders acting in concert with regard to the shares comprising its capital stock.

Since the agreements signed with Wendel on March 20, 2008 expired upon completion of the General Shareholders’ Meeting of June 9, 2011, new agreements between Wendel and Compagnie de Saint-Gobain setting the principles and objectives of the long-term cooperation were entered into and announced on May 26, 2011 (see the press release available at [www.Saint-Gobain.com](http://www.Saint-Gobain.com) and pages 58 to 60 of the Registration Document prepared for the 2011 fiscal year). On that occasion, Wendel and Saint-Gobain reiterated their adherence to the following principles:

- support for the strategy approved by the Board of Directors and implemented by its Senior Management, primarily organized around three priorities: Construction Products, Building Distribution and Innovative Materials, each of which contributes specific factors to the Group and which, together, will serve as growth drivers, particularly through targeted acquisitions;
- respect for the independence of the Saint-Gobain Group and equal treatment of all shareholders; and
- stability in share ownership, Wendel’s contribution to the Group’s projects, and its long-term commitment.

These agreements specifically provide for the following:

- a cap on Wendel's stake, either direct or indirect, alone or in concert, up to 21.5% of the Company's capital stock, except in the case of passive accretion by Wendel. This cap will cease to apply in the event that another shareholder, acting alone or in concert, comes to own more than 11% of Saint-Gobain's capital stock or in case of filing of a takeover bid targeting Saint-Gobain's shares;
- a right of first offer in favor of Saint-Gobain in the event that Wendel seeks, on one or more occasions, to transfer securities representing at least 5% of Saint-Gobain's capital stock to a limited number of buyers;
- regarding governance, three seats on the Board of Directors appointed at Wendel's proposal, unless Wendel's stake falls under 10% of the voting rights, in which case

this number shall be reduced to one, and participation on the Board committees; and

- coordination on any draft resolution to be submitted to the Saint-Gobain General Shareholders' Meetings.

Finally, Wendel agrees not to participate in a takeover bid whose terms are not approved by the Saint-Gobain Board of Directors, to abstain from any measure that would provoke, encourage or favor the success of such a takeover bid, and to abstain from publicly recommending it, being provided that Wendel will remain free to contribute all or part of its shares if such an offering were nevertheless to occur.

The commitments provided for under these agreements will remain in force for a 10-year period after the General Shareholders' Meeting of June 9, 2011 and were approved as related-party transactions by the General Shareholders' Meeting of June 7, 2012.

## 2.5 Control of the Company

At December 31, 2017, to the best of its knowledge, the Company was not controlled and has not been subject to any agreement binding on one or more shareholders or any other individual or legal entity, acting alone or in concert,

concerning the direct or indirect holding of its capital or its control, or for which the implementation thereof might subsequently involve a change in the Company's control.

## 2.6 Information that could have an impact in the event of a takeover bid

### 2.6.1 Agreements that could result in restrictions on share transfers and the exercise of voting rights

See Chapter 8, Section 2.4 for a summary of the agreements entered into with Wendel on May 26, 2011. These may also be consulted at [www.saint-gobain.com](http://www.saint-gobain.com).

### 2.6.2 Impact of a change of control on certain Company operations

Company bonds issued since 2006 contain a bearer protection clause in the event of change of control (a change of control put), allowing bearers to request the Company (at its discretion) for either their early redemption, or their purchase at par (plus accrued interest). This option is only available in the following cases: (i) the rating of the bonds in question by a designated rating agency falls from "investment grade" to "non-investment grade"; (ii) the

"non-investment grade" rating of the bonds in question by a designated rating agency falls by one notch (e.g. from BB+ to BB); (iii) the rating is withdrawn; - and, in each of these cases (i) to (iii), the rating agency's action is expressly associated with the change of control - or (iv) at the time of the change of control, the concerned bonds had no rating. Total outstanding borrowings concerned at December 31, 2017 were €7,620 million.

In addition, the agreements relating to the syndicated lines of credit for general corporate purposes (made available in December 2017 for €1,520 million and €2,480 million respectively) also contain change of control clauses.

Finally, certain deferred compensation and defined benefit pension plans of the Group's U.S. subsidiaries would be immediately terminated in case of change of control with the rights of the beneficiaries to become due within 12 months. The total potential cost was USD 166.6 million at December 31, 2017.

## 3. STOCK MARKET/SECURITIES MARKET INFORMATION

### 3.1 The Saint-Gobain share

Compagnie de Saint-Gobain shares are traded on Compartment A of the Euronext market in Paris (ISIN FR0000125007). As of December 31, 2017, the Company represented the 21st largest market capitalization of the CAC 40 (€25,448 million), and the 17th most actively traded stock on this market, with average daily trading volume of 1,619,743 shares during 2017. Saint-Gobain shares are also traded on the London and Zurich stock exchanges (since 1987) and on the Amsterdam and Brussels stock exchanges (since 1988).

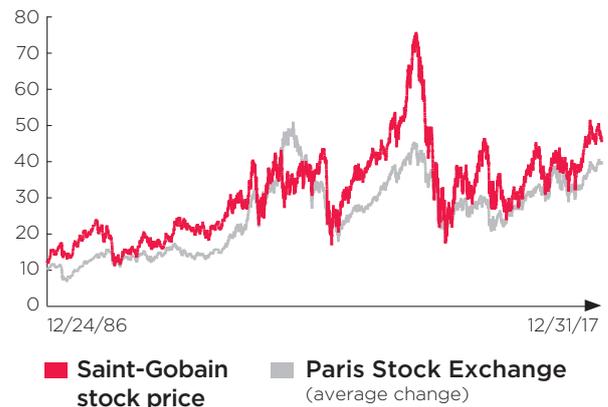
During the fiscal year ended December 31, 2016, the Group undertook a process of delisting from the Frankfurt Stock Exchange regulated market owing to the low trading volume recorded on that market. Delisting took effect on February 2, 2017.

Compagnie de Saint-Gobain is included on the DJ Euro Stoxx 50 index and the Global Dow, a 150-stock index representing both the traditional and innovative sectors.

With regard to sustainable development and corporate social responsibility, Saint-Gobain is also included on the MSCI World ESG Leaders, STOXX® Global ESG Leaders, Euronext Vigeo Europe 120, Euronext Vigeo Eurozone 120, Ethibel's ESI Excellence Global, Ethibel's ESI Excellence Europe and FTSE4Good indices and the Dow Jones Sustainability Index.

Saint-Gobain equity options are also traded on the options markets in Paris (MONEP) and on the London Stock Exchange, with MONEP trading volume representing 517,108 contracts in 2017, versus 438,387 in 2016.

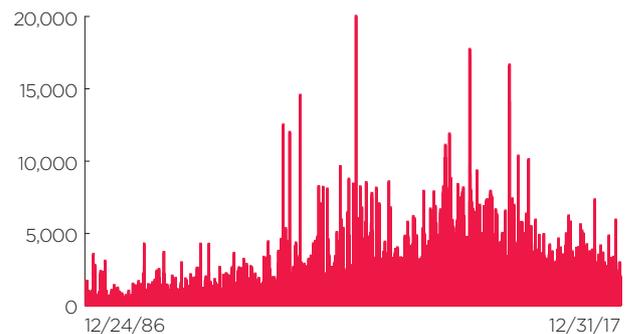
#### SAINT-GOBAIN STOCK PRICE <sup>(1)</sup>



(Source: Euronext Paris)

#### NUMBER OF SHARES TRADED (in thousands) <sup>(1)</sup> UNTIL THE END OF 2017

Historical data of the number of shares traded per day (in thousands) until the end of 2017



(Source: Euronext Paris)

<sup>(1)</sup> Data adjusted for the effects of the March 1994 and February 2009 capital increases, and the four-for-one stock split in June 2002.

#### HIGHEST AND LOWEST SHARE PRICES (IN EUROS)

Year	Highest	Lowest	Year-end price
2015	44.840	32.360	39.850
2016	44.255	31.470	44.255
2017	52.400	43.395	45.980

(Source: Euronext Paris)

## 3.2 Total shareholder return (TSR)

The total shareholder return on Saint-Gobain shares amounts to:

- 8.5% *per annum* over the period from December 22, 1986 (date of privatization of Saint-Gobain) to December 29, 2017;
- 10.7% *per annum* over the last five years (from December 30, 2012 to December 29, 2017).

The TSR is the effective profitability rate for the shareholder: it includes the variation in the share price, the dividends received over the period and deemed to be reinvested in shares and securities transactions (share capital increases).

It is calculated based on the "Total Return" published by Datastream for all listed companies.

### TRADING VOLUME SINCE JANUARY 2016

Paris Stock Exchange ISIN FR0000125007	Number of shares	Amount (in €)	Highest (in €)	Lowest (in €)
<b>2016</b>				
January	49,198,536	1,803,706,235	39.540	34.980
February	47,323,748	1,638,177,029	38.020	31.470
March	38,690,936	1,453,455,472	39.000	35.700
April	34,756,991	1,371,187,675	41.175	37.170
May	36,980,909	1,437,777,520	40.450	37.730
June	56,686,326	2,084,905,311	40.385	32.285
July	37,173,518	1,314,117,621	38.040	32.150
August	28,786,037	1,114,683,434	39.975	36.725
September	32,998,319	1,269,412,576	40.000	37.040
October	28,258,796	1,101,946,039	41.180	37.365
November	35,254,796	1,432,255,964	42.500	38.050
December	32,226,246	1,376,465,705	44.255	39.815
<b>TOTAL</b>	<b>458,335,158</b>	<b>17,398,090,580</b>		
<b>2017</b>				
January	34,289,406	1,567,206,508	48.115	43.980
February	29,819,321	1,358,243,051	46.820	43.395
March	32,478,871	1,504,104,548	48.135	45.290
April	33,724,997	1,613,199,002	50.510	45.180
May	42,184,483	2,126,053,496	52.400	48.960
June	47,684,673	2,308,262,457	50.740	46.400
July	36,605,699	1,730,012,642	48.470	46.000
August	28,790,176	1,346,966,198	48.465	44.865
September	32,837,742	1,599,011,901	50.420	45.985
October	28,597,577	1,437,002,482	51.400	48.985
November	33,843,946	1,651,531,827	50.900	47.335
December	32,177,690	1,516,812,073	48.385	45.970
<b>TOTAL</b>	<b>413,034,581</b>	<b>19,758,406,184</b>		

(Source: Euronext Paris)

In 2017, 158,429,700 shares were traded on the London Stock Exchange (Source: Datastream).

The only other Group companies whose shares are traded on a regulated market are Hankuk Glass Industries (Seoul Stock Exchange), Grindwell Norton and Saint-Gobain Sekurit India (Mumbai Stock Exchange), Izocam (Istanbul Stock Exchange) and Compañía Industrial El Volcán (Santiago de Chile Stock Exchange).

## 3.3 Bonds

The majority of bonds issued by the Company are traded on a regulated market (See Note 8.3 to the Consolidated Financial Statements, Chapter 9, Section 1).

## 3.4 Non-voting participating securities (*titres participatifs*)

### 3.4.1 Non-voting participating securities (*titres participatifs*) issued in June 1983

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities (*titres participatifs*) with a face value of FRF 1,000. Their face value is now €152.45, following their conversion to euros in 1999.

Interest on those securities ranges from 75% to 125% of the average corporate bond rate (TMO), based on the Group's consolidated earnings. Interest paid in 2017 amounted to €1.36 per security.

A certain number of securities have been repurchased over the years. At December 31, 2017, 606,883 securities were outstanding with an aggregate face value of €92.5 million.

#### TRADING VOLUME SINCE JANUARY 2016 (1<sup>ST</sup> TRANCHE)

Paris Stock Exchange ISIN FR0000140030	Number of securities	Amount (in €)	Highest (in €)	Lowest (in €)
<b>2016</b>				
January	2,125	313,712	155.000	137.150
February	986	140,013	149.000	137.000
March	1,258	181,788	148.500	137.550
April	1,087	155,716	148.900	140.550
May	1,568	223,659	146.950	137.500
June	1,256	178,770	146.500	138.100
July	1,424	204,051	145.950	139.350
August	8,812	1,247,578	144.000	136.000
September	4,575	648,780	141.950	138.500
October	3,961	553,384	141.950	135.000
November	4,985	695,531	141.500	138.250
December	14,578	2,037,363	141.000	137.600
<b>TOTAL</b>	<b>46,615</b>	<b>6,580,345</b>		
<b>2017</b>				
January	5,536	784,665	142.000	140.000
February	5,691	806,963	142.000	141.000
March	10,597	1,489,364	142.000	134.000
April	7,219	1,012,339	141.000	139.000
May	5,133	724,408	142.000	140.000
June	5,077	712,335	143.000	136.050
July	7,703	1,082,841	143.000	137.050
August	3,914	547,654	141.000	137.260
September	3,581	500,255	141.000	137.870
October	3,638	503,534	140.000	137.030
November	976	136,877	141.000	137.260
December	1,073	149,834	141.000	137.410
<b>TOTAL</b>	<b>60,138</b>	<b>8,451,070</b>		

(Source: Euronext Paris)

## TRADING VOLUME SINCE JANUARY 2016 (2<sup>ND</sup> TRANCHE)

Paris Stock Exchange ISIN FR0000047607	Number of securities	Amount (in €)	Highest (in €)	Lowest (in €)
<b>2016</b>				
January	251	30,063	120.000	119.550
February	39	4,641	119.000	119.000
March	219	25,829	119.000	117.100
April	386	46,182	119.900	115.250
May	307	35,691	119.850	115.150
June	246	29,036	120.850	115.000
July	0	0		
August	220	24,855	115.100	109.120
September	190	21,499	115.000	109.890
October	262	29,926	115.470	112.510
November	59	6,718	114.760	113.610
December	386	44,702	118.570	112.010
<b>TOTAL</b>	<b>2,565</b>	<b>299,143</b>		
<b>2017</b>				
January	137	15,898	116.090	116.000
February	45	5,220	116.000	116.000
March	410	50,148	125.000	119.490
April	110	14,300	130.000	130.000
May	10	1,250	125.000	125.000
June	20	2,520	126.000	126.000
July	140	17,360	124.750	123.000
August	20	2,436	121.800	121.800
September	90	10,745	119.390	119.390
October	110	13,046	119.400	117.080
November	168	19,572	118.000	115.040
December	193	22,371	117.000	114.680
<b>TOTAL</b>	<b>1,453</b>	<b>174,867</b>		

(Source: Euronext Paris)

### 3.4.2 Non-voting participating securities (*titres participatifs*) issued in April 1984

In April 1984, 194,633 non-voting participating securities (*titres participatifs*) were also issued with a face value of ECU 1,000, now €1,000.

A certain number of those securities have been repurchased over the years. At December 31, 2017, 77,516 securities were outstanding with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net income of the previous fiscal year and the LIBOR EUR 6-month reference rate +7/8%. The amount paid per security in 2017 is €65.35, paid in two installments (€32.55+€32.80).

## TRADING VOLUME SINCE MARCH 2013

Luxembourg Stock Exchange ISIN LU0002804531	Number of securities	Amount (in €)	High (in €)	Low (in €)
<b>2013</b>				
March	16	13,753	875.00	847.50
April	12	9,810	830.00	815.00
May	56	42,050	800.00	750.00
June	4,001	2,920,730	730.00	730.00
December	51	33,200	700.00	700.00
<b>TOTAL</b>	<b>4,136</b>	<b>3,019,543</b>		
<b>2014</b>				
April	1,545	817,500	530.00	500.00
June	11	6,600	600.00	600.00
July	4,002	2,401,100	600.00	550.00
September	12	7,800	650.00	612.00
December	2	1,400	700.00	700.00
<b>TOTAL</b>	<b>5,572</b>	<b>3,234,400</b>		
<b>2015</b>				
<b>No trade</b>				
<b>2016</b>				
February	55	41,250	750.00	750.00
April	2	1,420	720.00	700.00
<b>TOTAL</b>	<b>57</b>	<b>42,670</b>		
<b>2017</b>				
<b>No trade</b>				

(Source: Luxembourg Stock Exchange)

None of the non-voting participating securities is redeemable and interest on them is classified as a component of finance costs. No securities issued by Compagnie de Saint-Gobain were traded on a stock market in 2017, other than shares, bonds and non-voting participating securities (*titres participatifs*).

## 4. INFORMATION POLICY AND FINANCIAL CALENDAR

### Information policy

The Investor Relations Department is responsible for implementing the Group's information policy with the financial community, investors and shareholders. The head of Investor Relations is Mr. Vivien Dardel.

This department is available to answer questions and address requests for information about the Group:

Saint-Gobain  
Direction de la Communication Financière  
Les Miroirs  
92400 Courbevoie Cedex (France)  
Tel. +33 (0)1 47 62 33 33 - Fax: +33 (0)1 47 62 50 62  
Toll-free number 0800 32 33 33

Numerous meetings were organized throughout 2017 with various members of the international financial community, including analysts, institutional investors and journalists. In addition to the annual and interim results presentations held in Paris, London, New York and Boston following the publication of its annual and interim results in February and July, Compagnie de Saint-Gobain held several dozen road shows in various financial centers.

Compagnie de Saint-Gobain offered its individual shareholders a diverse program of visits to places of cultural interest (including the Hall of Mirrors in the Palace of Versailles, the first floor of the Eiffel Tower and a working session at the Bastille Opera House), manufacturing site visits, and meetings with the Group's executives. It organized meetings in Aix-en-Provence, Lyon and Rennes. A conference also took place during the Salon Actionaria, in which Compagnie de Saint-Gobain participated for the twentieth time. The Investor Relations Department also provides regular communication with the Group's shareholders, including *via* shareholder newsletters.

The Compagnie de Saint-Gobain website ([www.saint-gobain.com](http://www.saint-gobain.com)) gives information about the Group and its businesses, including downloadable information documents and webcasts of General Shareholders' Meetings and meetings with analysts.

The Saint-Gobain Shareholder app, which is free to download from the Apple Store and Google for Android, lets investors

follow the Saint-Gobain Group's financial news, and provides essential and useful investor information (share prices, financial calendar dates, important investors' club dates, press releases, etc.).

In order to ensure privileged contact, the Investor Relations team can be contacted by email at the following address:

[actionnaires@saint-gobain.com](mailto:actionnaires@saint-gobain.com)

Compagnie de Saint-Gobain also makes additional services available to holders of registered shares through BNP Paribas, to improve the management of their fully registered shares. For more information, contact the Compagnie de Saint-Gobain Investor Relations Department or:

BNP Paribas Securities Services  
BP2S/GCT - Émetteur Adhérents Euroclear 30  
Immeuble GMP - Europe  
9 rue du Débarcadère -93761 Pantin Cedex (France)  
By telephone: Toll-free number in France 0 800 03 33 33  
By fax: +33 (0)1 55 77 34 17  
Online, on the PlanetShares website:  
[www.planetshares.bnpparibas.com](http://www.planetshares.bnpparibas.com)

### 2018 Financial calendar

2017 final results: February 22, 2018, after the market closes.

First quarter 2018 sales: April 26, 2018 after the market closes.

General Shareholders' Meeting: June 7, 2018 at 3:00 p.m., at Palais des Congrès (Porte Maillot), Paris 17 (France).

Dividend:

- ex-dividend date: June 11, 2018;
- dividend payment date: June 13, 2018;

First-half 2018 results: July 26, 2018, after the market closes.

Sales for the first nine months of 2018: October 25, 2018, after the market closes.

### 2019 Financial calendar

General Shareholders' Meeting: June 6, 2019.

## 5. DIVIDENDS

Year	Number of shares with dividend rights	Net dividend per share (in €)	Adjusted yield based on year-end share price
2015	548,857,730 shares <sup>(1)</sup>	1.24	3.1%
2016	550,907,388 shares <sup>(2)</sup>	1.26	2.85%
2017	551,321,425 shares <sup>(3)</sup>	1.30	2.83%

(1) Based on 549,959,351 shares which entitled to dividend in respect of the financial year ending December 31, 2015 minus 1,101,621 treasury shares held on the ex-dividend date.

(2) Based on 555,284,802 shares which entitled to dividend in respect of the financial year ending December 31, 2016 minus 4,377,414 treasury shares held on the ex-dividend date.

(3) Amount estimated, based on 553,557,091 shares entitled to dividend at January 31, 2018 in respect of the financial year ending December 31, 2017 minus 2,235,666 treasury shares held on January 31, 2018.

Dividends not claimed within five years are time-barred and are paid over to the French State.

At its meeting of February 22, 2018, the Board of Directors of Compagnie de Saint-Gobain decided to recommend to the General Shareholders' Meeting on June 7, 2018 a dividend of €1.30 per share.

# Financial and accounting information

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# 1. 2017 CONSOLIDATED FINANCIAL STATEMENTS

## Consolidated balance sheet

At December 31

### Assets

<i>(in € millions)</i>	Notes	2017	2016
Goodwill	(5)	10,575	10,669
Other intangible assets	(5)	2,603	2,662
Property, plant and equipment	(5)	11,590	11,654
Investments in equity-accounted companies	(6)	379	376
Deferred tax assets	(10)	938	1,188
Other non-current assets	(6)	774	710
<b>NON-CURRENT ASSETS</b>		<b>26,859</b>	<b>27,259</b>
Inventories	(3)	6,041	5,875
Trade accounts receivable	(3)	5,134	4,935
Current tax receivable	(10)	204	445
Other receivables	(3)	1,395	1,515
Cash and cash equivalents	(8)	3,284	3,738
<b>CURRENT ASSETS</b>		<b>16,058</b>	<b>16,508</b>
<b>TOTAL ASSETS</b>		<b>42,917</b>	<b>43,767</b>

**Equity and liabilities**

<i>(in € millions)</i>	<b>Notes</b>	<b>2017</b>	<b>2016</b>
Capital stock	(9)	2,214	2,221
Additional paid-in capital and legal reserve	(9)	5,944	6,090
Retained earnings and consolidated net income	(9)	12,167	11,077
Cumulative translation adjustments		(1,756)	(742)
Fair value reserves		22	191
Treasury stock	(9)	(123)	(72)
<b>SHAREHOLDERS' EQUITY</b>		<b>18,468</b>	<b>18,765</b>
Minority interests		384	375
<b>TOTAL EQUITY</b>		<b>18,852</b>	<b>19,140</b>
Non current portion of long-term debt	(8)	7,655	6,959
Provisions for pensions and other employee benefits	(4)	2,927	3,615
Deferred tax liabilities	(10)	427	363
Other non-current liabilities and provisions	(7)	1,053	1,242
<b>NON-CURRENT LIABILITIES</b>		<b>12,062</b>	<b>12,179</b>
Current portion of long-term debt	(8)	1,064	1,835
Current portion of other liabilities and provisions	(7)	412	436
Trade accounts payable	(3)	6,027	5,805
Current tax liabilities	(10)	157	148
Other payables	(3)	3,823	3,636
Short-term debt and bank overdrafts	(8)	520	588
<b>CURRENT LIABILITIES</b>		<b>12,003</b>	<b>12,448</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>42,917</b>	<b>43,767</b>

The accompanying notes are an integral part of the consolidated financial statements.

## Consolidated income statement

<i>(in € millions)</i>	Notes	2017	2016
Net sales	(3)	40,810	39,093
Cost of sales	(3)	(30,420)	(29,106)
General expenses including research	(3)	(7,395)	(7,200)
Share in net income of core business equity-accounted companies	(6)	33	31
<b>OPERATING INCOME</b>		<b>3,028</b>	<b>2,818</b>
Other business income	(3)	121	61
Other business expense	(3)	(638)	(575)
<b>BUSINESS INCOME</b>		<b>2,511</b>	<b>2,304</b>
Borrowing costs, gross		(298)	(376)
Income from cash and cash equivalents		23	27
Borrowing costs, net		(275)	(349)
Other financial income and expense		(173)	(192)
<b>NET FINANCIAL EXPENSE</b>	<b>(8)</b>	<b>(448)</b>	<b>(541)</b>
Share in net income of non-core business equity-accounted companies	(6)	0	5
Income taxes	(10)	(438)	(416)
<b>NET INCOME</b>		<b>1,625</b>	<b>1,352</b>
<b>GROUP SHARE OF NET INCOME</b>		<b>1,566</b>	<b>1,311</b>
Minority interests		59	41

<b>Earnings per share</b> <i>(in €)</i>	Notes	2017	2016
Weighted average number of shares in issue		553,383,836	554,624,285
Earnings per share, Group share	(9)	2.83	2.36
Weighted average number of shares assuming full dilution		556,655,598	557,163,247
Diluted earnings per share, Group share	(9)	2.81	2.35

The accompanying notes are an integral part of the consolidated financial statements.

## Consolidated statement of recognized income and expense

<i>(in € millions)</i>	Notes	2017	2016
<b>NET INCOME</b>		<b>1,625</b>	<b>1,352</b>
Items that may be subsequently reclassified to profit or loss			
Translation adjustments		(1,048)	(217)
Changes in fair value of financial instruments	(8)	(169)	10
Tax on items that may be subsequently reclassified to profit or loss		59	(3)
Items that will not be reclassified to profit or loss			
Changes in actuarial gains and losses	(4)	465	(366)
Tax on items that will not be reclassified to profit or loss	(10)	(89)	76
Liability method on items that will not be reclassified to profit or loss and other	(10)	(254)	(49)
<b>INCOME AND EXPENSE RECOGNIZED DIRECTLY IN EQUITY</b>		<b>(1,036)</b>	<b>(549)</b>
<b>TOTAL RECOGNIZED INCOME AND EXPENSE FOR THE YEAR</b>		<b>589</b>	<b>803</b>
Group share		563	766
Minority interests		26	37

The accompanying notes are an integral part of the consolidated financial statements.

## Consolidated statement of cash flows

<i>(in € millions)</i>	Notes	2017	2016
<b>GROUP SHARE OF NET INCOME</b>		<b>1,566</b>	<b>1,311</b>
Minority interests in net income	(a)	59	41
Share in net income of equity-accounted companies, net of dividends received	(6)	(13)	(20)
Depreciation, amortization and impairment of assets	(3)	1,442	1,369
Gains and losses on disposals of assets	(3)	(46)	2
Unrealized gains and losses arising from changes in fair value and share-based payments		16	42
Changes in inventory	(3)	(348)	(173)
Changes in trade accounts receivable and payable, and other accounts receivable and payable	(3)	139	72
Changes in tax receivable and payable	(3)	236	(135)
Changes in deferred taxes and provisions for other liabilities and charges	(4)(7)(10)	(286)	(544)
<b>NET CASH FROM OPERATING ACTIVITIES</b>		<b>2,765</b>	<b>1,965</b>
Acquisitions of property, plant and equipment [2017: (1,538), 2016: (1,370)] and intangible assets	(5)	(1,722)	(1,521)
Increase (decrease) in amounts due to suppliers of fixed assets	(3)	99	24
Acquisitions of shares in consolidated companies [2017: (553), 2016: (252)], net of cash acquired		(492)	(233)
Acquisitions of other investments	(6)	(84)	(110)
Increase in investment-related liabilities	(7)	17	15
Decrease in investment-related liabilities	(7)	(42)	(9)
<b>Investments</b>		<b>(2,224)</b>	<b>(1,834)</b>
Disposals of property, plant and equipment and intangible assets	(5)	183	85
Disposals of shares in consolidated companies, net of cash divested		4	49
Disposals of other investments	(6)	1	1

<i>(in € millions)</i>	<b>Notes</b>	<b>2017</b>	<b>2016</b>
<b>Desinvestments</b>		<b>188</b>	<b>135</b>
Increase in loans, deposits and short-term loans	(6)	(183)	(144)
Decrease in loans, deposits and short-term loans	(6)	186	150
<b>Changes in loans, deposits and short-term loans</b>		<b>3</b>	<b>6</b>
<b>NET CASH FROM (USED IN) INVESTMENT AND DIVESTMENT ACTIVITIES</b>		<b>(2,033)</b>	<b>(1,693)</b>
Issues of capital stock	(a)	187	149
(Increase) decrease in treasury stock	(a)	(406)	(418)
Dividends paid	(a)	(693)	(680)
<b>Transactions with shareholders of the parent company</b>		<b>(912)</b>	<b>(949)</b>
Minority interests' share in capital increases of subsidiaries	(a)	7	2
Acquisitions of minority interests without gain of control	(6)	(4)	0
Disposals of minority interests without loss of control	(6)	25	0
Changes in investment-related liabilities following the exercise of put options of minority shareholders	(7)	(36)	(13)
Dividends paid to minority shareholders of consolidated subsidiaries	(a)	(27)	(31)
Change in dividends payable		(11)	0
<b>Transactions with minority interests</b>		<b>(46)</b>	<b>(42)</b>
Increase (decrease) in bank overdrafts and other short-term debt		(107)	(138)
Increase in long-term debt	(b)(8)	1,603	1,322
Decrease in long-term debt	(b)(8)	(1,655)	(2,104)
<b>Changes in gross debt</b>		<b>(159)</b>	<b>(920)</b>
<b>NET CASH FROM (USED IN) FINANCING ACTIVITIES</b>		<b>(1,117)</b>	<b>(1,911)</b>
<b>INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>		<b>(385)</b>	<b>(1,639)</b>
Net effect of exchange rate changes on cash and cash equivalents		(70)	(1)
Net effect of changes in fair value on cash and cash equivalents		1	(2)
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>		<b>3,738</b>	<b>5,380</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>		<b>3,284</b>	<b>3,738</b>

(a) Please refer to the consolidated statement of changes in equity.

(b) Including bond premiums, prepaid interest and issue costs.

In 2017, income tax paid amounted to €209 million (2016: €460 million) and interest paid net of interest received totaled €308 million (2016: €369 million).

The accompanying notes are an integral part of the consolidated financial statements.

## Consolidated Statement of Changes in Equity

(number of shares)

(in € millions)

Issued	Outstanding		Capital stock	Additional paid-in capital and legal reserve	Retained earnings and consolidated net income	Cumulative translation adjustments	Fair value reserves	Treasury stock	share-holders' equity	Minority interests	Total equity
		<b>AT JANUARY 1, 2016</b>	<b>2,244</b>	<b>6,341</b>	<b>10,805</b>	<b>(528)</b>	<b>181</b>	<b>(87)</b>	<b>18,956</b>	<b>364</b>	<b>19,320</b>
		Income and expenses recognized directly in equity	0	0	(341)	(214)	10	0	(545)	(4)	(549)
		Net income for the year			1,311				1,311	41	1,352
		<b>Total income and expense for the year</b>	<b>0</b>	<b>0</b>	<b>970</b>	<b>(214)</b>	<b>10</b>	<b>0</b>	<b>766</b>	<b>37</b>	<b>803</b>
		Issues of capital stock									
4,653,810	4,653,810	Group Savings Plan	18	118					136		136
667,197	667,197	Stock option plans	3	10					13		13
		Other							0	2	2
		Dividends paid (€1.24 per share)			(680)				(680)	(31)	(711)
	(12,246,156)	Shares purchased						(468)	(468)		(468)
	1,706,031	Shares sold			(10)			60	50		50
(10,984,088)		Shares canceled	(44)	(379)				423	0		0
		Share-based payments			11				11		11
		Changes in Group structure			(19)				(19)	3	(16)
		<b>AT DECEMBER 31, 2016</b>	<b>2,221</b>	<b>6,090</b>	<b>11,077</b>	<b>(742)</b>	<b>191</b>	<b>(72)</b>	<b>18,765</b>	<b>375</b>	<b>19,140</b>
		Income and expenses recognized directly in equity	0	0	180	(1,014)	(169)	0	(1,003)	(33)	(1,036)
		Net income for the year			1,566				1,566	59	1,625
		<b>Total income and expense for the year</b>	<b>0</b>	<b>0</b>	<b>1,746</b>	<b>(1,014)</b>	<b>(169)</b>	<b>0</b>	<b>563</b>	<b>26</b>	<b>589</b>
		Issues of capital stock									
4,593,807	4,593,807	Group Savings Plan	18	150					168	7	175
682,926	682,926	Stock option plans	3	16					19		19
		Dividends paid (€1.26 per share)			(693)				(693)	(27)	(720)
	(9,595,036)	Shares purchased			(15)			(462)	(477)		(477)
	1,715,619	Shares sold						71	71		71
(7,000,000)		Shares canceled	(28)	(312)				340	0		0
		Share-based payments			17				17		17
		Changes in Group structure and other			35				35	3	38
		<b>AT DECEMBER 31, 2017</b>	<b>2,214</b>	<b>5,944</b>	<b>12,167</b>	<b>(1,756)</b>	<b>22</b>	<b>(123)</b>	<b>18,468</b>	<b>384</b>	<b>18,852</b>

The accompanying notes are an integral part of the consolidated financial statements.

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The consolidated financial statements reflect the accounting position of Compagnie de Saint-Gobain and its subsidiaries ("the Group"), as well as the Group's interests in associate companies and joint ventures. They are expressed in euros rounded to the nearest million.

These consolidated financial statements were adopted on February 22, 2018 by the Board of Directors and will be submitted to the shareholders' Meeting of June 7, 2018 for approval.

*Accounting principles and policies are highlighted in a specific colour.*

## NOTE 1 ACCOUNTING PRINCIPLES AND POLICIES

The accounting policies applied are consistent with those used to prepare the financial statements for the year ended December 31, 2016, except for the application of the new standards and interpretations described below. The consolidated financial statements have been prepared using the historical cost convention, except for certain assets and liabilities that have been measured using the fair value model as explained in these notes.

### 1.1. Standards applied

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and interpretations adopted for use in the European Union at December 31, 2017. These financial statements have also been prepared in accordance with the IFRS issued by the International Accounting Standards Board (IASB), with the exception of those standards not yet adopted by the European Union, namely IAS 40, "Transfers of Investment Property" amendments, IFRIC 22, "Foreign Currency Transactions and Advance Consideration", IFRIC 23, "Uncertainty over Income Tax Treatments" and the Annual Improvements to IFRS (2014-2016 Cycle). Standards adopted by the European Union may be consulted on the European Commission website, at [http://ec.europa.eu/finance/accounting/ias/index\\_en.htm](http://ec.europa.eu/finance/accounting/ias/index_en.htm).

#### 1.1.1. Standards, interpretations and amendments to existing standards applicable for reporting periods beginning on or after January 1, 2017

The standards, interpretations and amendments to published standards applicable for the first time for reporting periods beginning on or after January 1, 2017 do not have a material impact on the consolidated financial statements:

- amendment to IAS 7, "Disclosure Initiative";
- amendment to IAS 12, "Recognition of Deferred Tax Assets for Unrealized Losses".

#### 1.1.2. Standards, interpretations and amendments to existing standards available for early adoption in reporting periods beginning on or after January 1, 2017

The new standards, interpretations and amendments to existing standards applicable to accounting periods starting on or after January 1, 2018 were not early adopted by the Group at December 31, 2017.

- IFRS 9, "Financial Instruments" is applicable as of January 1, 2018 and supersedes IAS 39, "Financial Instruments: Recognition and Measurement". It sets out

new principles for recognizing financial instruments and in particular requires entities to apply an impairment model for trade accounts receivable based on expected losses.

The Group carried out a project to determine the impacts of IFRS 9 on the financial statements of its different entities and to bring its trade accounts receivable impairment policy into line with the impairment rules under the new standard as from January 1, 2018.

At December 31, 2017, the additional impairment recognized against trade accounts receivable in accordance with IFRS 9 is not material with regard to the trade receivables line.

- IFRS 15, "Revenue from Contracts with Customers" supersedes IAS 18 "Revenue" and IAS 11, "Construction Contracts", along with the related interpretations. IFRS 15 is applicable as of January 1, 2018 and sets out new principles for recognizing revenue and for identifying performance obligations contained in contracts.

Saint-Gobain develops innovative products and solutions for the construction and renovation industries, promoting buildings that are energy efficient, comfortable, healthy and esthetically superior, while at the same time protecting natural resources.

Owing to the nature of its business activities, Saint-Gobain did not expect IFRS 15 to have a material impact on its financial statements.

However, it launched an in-depth review which was rolled down to all Group entities with the aim of identifying and quantifying the potential impacts of the standard. This review confirmed that IFRS 15 would not have a material impact on the Group's consolidated financial statements.

- IFRS 16, "Leases" was identified by the Group from the outset as potentially having a material impact on its financial statements, particularly due to the scale of the Building Distribution Sector.

The Group launched a series of IFRS 16 projects very early on (as soon as the standard was first published at the beginning of 2016), including awareness-raising, training initiatives and technical documentation. Following an impact assessment carried out in 2016, data was compiled on all leases and Group employees were confronted with the issues raised by the standard. This process also helped the Group in its decision to adopt the 'full retrospective' transition method.

In 2017, a central project team was set up consisting of experienced employees along with external consultants. The project team relies on a network of IFRS 16 officers in the Group's General Delegations and regularly reports on progress to the steering committee, comprising key finance personnel from the Group's Business Sectors.

In 2017 Saint-Gobain also selected the software it would use in this respect. Training sessions and data preparation workshops were organized, helping to guarantee a smooth transition to IFRS 16 at January 1, 2019.

- Amendments to IFRS 4, "Applying IFRS 9 with IFRS 4".

## 1.2. Estimates and assumptions

The preparation of consolidated financial statements in compliance with IFRS requires management to make estimates and assumptions that affect the amounts of assets and liabilities reported in the balance sheet and the disclosure of contingent assets and liabilities in the notes to the financial statements, as well as the reported amounts of income and expenses during the period. These estimates and assumptions are based on past experience and on various

other factors seen in the prevailing economic and financial environment, which makes it difficult to predict future business performance. Actual amounts may differ from those obtained through the use of these estimates and assumptions.

The main estimates and assumptions described in these notes concern the measurement of employee benefit obligations and share-based payment (Note 4 "Employees, personnel expenses and employee benefit obligations"), asset impairment tests (Note 5 "Intangible assets and property, plant and equipment"), provisions for other liabilities and charges (Note 7 "Other current and non-current liabilities and provisions, contingent liabilities and litigation"), the measurement of financial instruments (Note 8 "Financing and financial instruments"), and taxes (Note 10 "Taxes").

## NOTE 2 SCOPE OF CONSOLIDATION

### 2.1. Accounting principles related to consolidation

The Group's consolidated financial statements include the accounts of Compagnie de Saint-Gobain and of all companies controlled by the Group, as well as those of jointly controlled companies and companies over which the Group exercises significant influence.

#### 2.1.1. Consolidation methods

##### a) Full consolidation

Companies over which the Group exercises exclusive control, either directly or indirectly, are fully consolidated.

##### b) Joint arrangements

Joint arrangements that meet the definition of joint ventures are accounted for by the equity method. Balance sheet and income statement items relating to joint arrangements that meet the definition of joint operations are consolidated line-by-line based on the amount actually contributed by the Group.

##### c) Equity accounting

Companies over which the Group directly or indirectly exercises significant influence are accounted for by the equity method.

The Group's share of the income of equity-accounted companies is shown on two separate lines of the income statement. The income of equity-accounted companies whose main business activity is in keeping with the Group's core operational business is presented in business income under "Share in net income of core business equity-accounted companies" while the income of other equity-accounted companies is shown under "Share in net income of non-core business equity-accounted companies" in pre-tax income.

#### 2.1.2. Business combinations

##### a) Step acquisitions and partial disposals

When the Group acquires control of an entity in which it already holds an equity interest, the transaction is treated as

a step acquisition (an acquisition in stages), as follows: (i) as a disposal of the previously-held interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of all of the shares, with recognition of the corresponding goodwill on the entire interest (previous and new acquisitions).

When the Group disposes of a portion of an equity interest leading to the loss of control (but retains a minority interest), the transaction is also treated as both a disposal and an acquisition, as follows: (i) as a disposal of the entire interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of a minority interest, measured at fair value.

##### b) Potential voting rights and share purchase commitments

Potential voting rights conferred by call options on minority interests are taken into account in determining whether the Group exclusively controls an entity only when the Group has control.

When calculating its percentage interest in controlled companies, the Group considers the impact of cross put and call options on minority interests in the companies concerned. This approach gives rise to the recognition in the financial statements of an investment-related liability, included within other provisions and non-current liabilities, corresponding to the present value of the estimated exercise price of the put option, with a corresponding reduction in minority interests and equity attributable to equity holders of the parent. Any subsequent changes in the fair value of the liability are recognized by adjusting equity.

##### c) Minority interests

Under IFRS 10, minority interests (referred to as "non-controlling interests" in IFRS 3R) are considered as a shareholder category (single economic entity approach). As a result, changes in minority interests with no loss of control continue to be recorded in the statement of changes in equity and have no impact on the income statement or balance sheet, except for changes in cash and cash equivalents.

### 2.1.3. Non-current assets and liabilities held for sale – Discontinued operations

Assets and liabilities that are immediately available for sale and for which a sale is highly probable are classified as non-current assets and liabilities held for sale. When several assets are held for sale in a single transaction, they are accounted for as a disposal group, which also includes any liabilities directly associated with those assets. The assets or disposal groups held for sale are measured at the lower of carrying amount and fair value less costs to sell. Depreciation/amortization ceases when non-current assets are classified as held for sale. Non-current assets and liabilities held for sale are presented separately on two lines of the consolidated balance sheet, and income and expenses continue to be recognized in the consolidated income statement on a line-by-line basis. At the end of each reporting period, the value of the assets and liabilities held for sale is reviewed to determine whether any provision adjustments should be recorded due to a change in their fair value less costs to sell.

An operation is classified as discontinued when it represents a separate major line of business for the Group, and when the criteria for classification as an asset held for sale have been met, or when the Group has sold the asset. Discontinued operations are reported on a single line in the Group's income statement. This line shows the after-tax net income from discontinued operations until the date of disposal and the gains or losses net of taxes realized on the disposals of these operations. In addition, cash flows generated by the discontinued operations are reported, by type of operation, on a separate line in the consolidated statement of cash flows for the relevant periods.

### 2.1.4. Intragroup transactions

All intragroup balances and transactions are eliminated in consolidation.

### 2.1.5. Translation of the financial statements of foreign companies

The consolidated financial statements are presented in euros, which is Compagnie de Saint-Gobain's functional and presentation currency.

Assets and liabilities of subsidiaries outside the Eurozone are translated into euros at the closing exchange rate, while income and expense items are translated using the average exchange rate for the period, except in the case of significant exchange rate volatility.

The Group's share of any translation gains or losses is included in equity under "Cumulative translation adjustments" until the assets or liabilities and all foreign operations to which they relate are sold or liquidated. In this case, these translation differences are either taken to the income statement, if the transaction results in a loss of control, or recognized directly in the statement of changes in equity, if the change in minority interests does not result in a loss of control.

### 2.1.6. Foreign currency transactions

Expenses and income from operations in currencies other than the Company's functional currency are translated at the exchange rates prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the closing rate and any exchange differences are recorded in the income statement. However, exchange differences relating to loans and borrowings between consolidated Group companies are recorded in equity net of tax under "Cumulative translation adjustments", as they are in substance an integral part of the net investment in a foreign subsidiary.

## 2.2. Changes in Group structure

Significant changes in the Group's structure during 2017 and 2016 are presented below and a list of the main consolidated companies at December 31, 2017 is provided in Note 13 "Principal consolidated companies".

### 2.2.1. Transactions carried out in 2017

In 2017, Saint-Gobain continued to actively manage its portfolio of businesses, fully in line with its strategy. Various operations were completed in order to strengthen the Group's profile in high added-value businesses and growing markets.

Further, Saint-Gobain is continuing its plan to acquire a controlling interest in Sika, a leading construction chemicals company. The plan consists of the acquisition by Saint-Gobain, for 2.83 billion Swiss francs (an amount fully hedged in euros), of Schenker Winkler Holding AG (SWH) which, at December 31, 2017, held 16.97% of Sika's share capital and 52.92% of its voting rights. After the acquisition, the Saint-Gobain Group will be able to incorporate Sika into its financial statements by global consolidation, with a positive impact on net income from year one.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions passed by the Annual General Meeting of Sika on April 14, 2015 for which SWH's voting rights had been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by being granted the option to extend the term of the purchase agreement with the Burkard family relating to the disposal of SWH shares. Saint-Gobain exercised its rights, extending the agreement several times, with the most recent extension, in October 2017, taking its term to June 30, 2018. As of this date, Saint-Gobain will once again have the option to extend the term of the agreement until December 31, 2018. These successive extensions of the purchase agreement demonstrate the alignment between the Burkard family and Saint-Gobain and their unwavering determination.

With the support of its Board of Directors, Saint-Gobain is determined to successfully complete its plan to acquire a controlling stake in Sika, an industrial project that will create value for all stakeholders. Pending the decision of the Zug Supreme Court, which is expected early 2018, Saint-Gobain is confident that the Swiss justice system will restore SWH's ownership rights.

## 2.2.2. Transactions carried out in 2016

In 2016, Saint-Gobain continued to actively manage its portfolio of businesses, fully in line with its strategy. Various operations were completed in order to strengthen the Group's profile in high added-value businesses and growing markets.

## 2.3. Changes in the number of consolidated companies

At December 31, 2017, the number of consolidated companies was as follows:

	France	OutsideFrance	Total
<b>Fully consolidated companies</b>			
<b>AT JANUARY 1, 2017</b>	<b>141</b>	<b>603</b>	<b>744</b>
Newly consolidated companies	7	59	66
Merged companies	(5)	(18)	(23)
Deconsolidated companies	0	(16)	(16)
Change in consolidation method	0	0	0
<b>AT DECEMBER 31, 2017</b>	<b>143</b>	<b>628</b>	<b>771</b>
<b>Equity-accounted companies and joint arrangements</b>			
<b>AT JANUARY 1, 2017</b>	<b>4</b>	<b>91</b>	<b>95</b>
Newly consolidated companies	0	7	7
Merged companies	0	(1)	(1)
Deconsolidated companies	0	(2)	(2)
Change in consolidation method	0	0	0
<b>AT DECEMBER 31, 2017</b>	<b>4</b>	<b>95</b>	<b>99</b>
<b>TOTAL AT JANUARY 1, 2017</b>	<b>145</b>	<b>694</b>	<b>839</b>
<b>TOTAL AT DECEMBER 31, 2017</b>	<b>147</b>	<b>723</b>	<b>870</b>

## 2.4. Off-balance sheet commitments related to companies within the scope of consolidation

At December 31, 2017, non-cancelable purchase commitments include the commitment on equity holdings in the Sika group totaling €2,369 million.

## NOTE 3 INFORMATION CONCERNING THE GROUP'S OPERATING ACTIVITIES

### 3.1. Income statement items

#### 3.1.1. Revenue recognition

Revenue generated by the sale of goods or services is recognized net of rebates, discounts and sales taxes (i) when the risks and rewards of ownership have been transferred to the customer, or (ii) when the service has been rendered, or (iii) by reference to the stage of completion of the services to be provided.

Construction contracts are accounted for by the Group's companies using the percentage-of-completion method, as explained below. When the outcome of a construction contract can be estimated reliably, contract revenue and costs are recognized as revenue and expenses, respectively, by reference to the stage of completion of the contract activity at the end of the reporting period. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that it is probable will be recovered. When it is probable that total contract costs will exceed total contract

revenue, the expected loss is recognized as an expense immediately.

Construction contract revenues are not material in relation to total consolidated net sales.

#### 3.1.2. Operating income

Operating income is a measure of the performance of the different sectors and has been used by the Group as its key external and internal management indicator for many years. Foreign exchange gains and losses are included in operating income, as are changes in the fair value of financial instruments that do not qualify for hedge accounting when they relate to operating items. The share of income of core business equity-accounted companies is also posted under operating income.

Discounts granted by suppliers to the Building Distribution Sector are included in operating income. Contractual supplier discounts are customary practice in the industrial goods distribution sector. These discounts are mostly calculated by applying a contractually guaranteed rate by product type to volumes purchased. The calculation is made automatically,

based on the supplier invoices. Consequently, little judgment is needed when determining the amounts to be recognized in the income statement for these discounts. Other discounts are calculated based on a step mechanism linked to specified targets, whereby the percentage discount increases as the entity achieves the various targets over a given period. In this case, judgment is required based on historical data, past performance and future trends in order to determine the discount to be recognized in the income statement. Such judgment is exercised in a prudent manner and consistently from one period to the next.

### 3.1.3. Other business income and expense

Other business income and expense mainly include movements in provisions for claims and litigation and environmental matters, disposal gains and losses, asset impairment, restructuring costs incurred upon the disposal or discontinuation of operations and the costs of workforce reduction measures.

Other business income and expense can be analyzed as follows:

(in € millions)	2017	2016
Restructuring costs <sup>(a)</sup>	(120)	(144)
Provisions and expenses relating to claims and litigation <sup>(b)</sup>	(150)	(134)
Other <sup>(c)</sup>	(67)	(34)
<b>NON-OPERATING INCOME AND EXPENSE</b>	<b>(337)</b>	<b>(312)</b>
Impairment of assets and other <sup>(d)</sup>	(226)	(200)
Other business expense <sup>(e)</sup>	(75)	(63)
<b>IMPAIRMENT OF ASSETS AND OTHER BUSINESS EXPENSES</b>	<b>(301)</b>	<b>(263)</b>
<b>GAINS ON DISPOSALS OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS</b>	<b>121</b>	<b>61</b>
<b>CAPITAL GAINS AND LOSSES ON DISPOSALS, ASSET IMPAIRMENT, ACQUISITION FEES AND CONTINGENT CONSIDERATION</b>	<b>(180)</b>	<b>(202)</b>
<b>OTHER BUSINESS INCOME AND EXPENSE</b>	<b>(517)</b>	<b>(514)</b>

(a) Restructuring costs in 2017 mainly consist of retirement benefits totaling €65 million (2016: €76 million).

(b) In both 2017 and 2016, movements in provisions and expenses relating to litigation as detailed and explained in Note 7 "Other current and non-current liabilities and provisions, contingent liabilities and litigation" chiefly concern asbestos-related litigation.

(c) In 2017, the "Other" line mainly relates to the cost of environmental litigation and the June 27, 2017 cyber-attack.

(d) The "Impairment of assets and other business expense" line essentially includes impairment of goodwill and other intangible assets and property, plant and equipment for €237 million in 2017 (2016: €189 million) and acquisition fees and contingent consideration incurred in connection with business combinations, representing net income of €11 million in 2017 (net expense of €11 million in 2016).

(e) Other business expense in both 2017 and 2016 relates primarily to capital losses on assets divested or scrapped.

### 3.1.4. Business income

Business income includes all income and expenses other than financial income and expense, the Group's share in net income of non-core business equity-accounted companies, and income taxes.

Business income is detailed by type below:

(in € millions)	2017	2016
<b>NET SALES</b>	<b>40,810</b>	<b>39,093</b>
Personnel expenses:		
Salaries and payroll taxes	(8,150)	(7,819)
Share-based payments <sup>(a)</sup>	(38)	(30)
Pensions and employee benefit obligations <sup>(a)</sup>	(125)	(197)
Depreciation and amortization	(1,206)	(1,180)
Share in net income of core business equity-accounted companies	33	31
Other <sup>(b)</sup>	(28,296)	(27,080)
<b>OPERATING INCOME</b>	<b>3,028</b>	<b>2,818</b>
Other business income	121	61
Other business expense	(638)	(575)
<b>OTHER BUSINESS INCOME AND EXPENSE</b>	<b>(517)</b>	<b>(514)</b>
<b>BUSINESS INCOME</b>	<b>2,511</b>	<b>2,304</b>

(a) Share-based payments (IFRS 2 expense) and details of changes in employee benefit expense are detailed in Note 4 "Employees, personnel expenses and employee benefit obligations".

(b) The "Other" operating income line relates to cost of sales, supplier discounts and selling expenses for the Building Distribution Sector, and to transport costs, raw materials costs, and other production costs for the other sectors. This item also includes research and development costs recorded under operating expenses, amounting to €450 million in 2017 (2016: €440 million).

### 3.2. Segment information

In accordance with IFRS 8, segment information reflects the Group's internal organization as presented to management. The Group has chosen to present segment information by sector and business in line with its internal reporting. There were no changes in the presentation of segment information in 2017 compared with prior years.

Segment assets and liabilities include net property, plant and equipment, working capital, goodwill and net other intangible assets, after deducting deferred taxes on brands and land.

Capital expenditure corresponds to acquisitions of property, plant and equipment and does not include the cost of acquiring non-current assets under finance leases.

Segment information is presented by sector and by business as follows:

- Innovative Materials (IM) Sector:
  - Flat Glass,
  - High-Performance Materials (HPM);
- Construction Products (CP) Sector:
  - Interior Solutions: Insulation and Gypsum,
  - Exterior Solutions: Industrial Mortars, Pipe and Exterior Products;
- Building Distribution Sector.

Management uses several different internal indicators to measure operational performance and to make resource allocation decisions. These indicators are based on the data used to prepare the consolidated financial statements and meet financial reporting requirements. Intragroup ("internal") sales are generally carried out on the same terms as sales to external customers and are eliminated in consolidation. The "Other" column includes holding companies and certain corporate support functions (tax, cash management, purchasing, etc.).

Segment information for 2017 and 2016 by sector and by business is as follows:

#### 2017

(in € millions)	Innovative Materials			Construction Products			Building Distribution	Other*	Total		
	Flat Glass	High-Performance Materials	Intra-segment eliminations	Interior Solutions	Exterior Solutions	Intra-segment eliminations	Total				
External sales	5,633	4,588		10,221	6,246	5,527	11,773	18,797	19	40,810	
Internal sales	39	150	(27)	162	638	307	851	3	(1,016)	0	
Net sales	5,672	4,738	(27)	10,383	6,884	5,834	(94)	12,624	18,800	(997)	40,810
Operating income	571	715		1,286	652	491	1,143	631	(32)	3,028	
Business income	580	608		1,188	556	394	950	493	(120)	2,511	
Share in net income of equity-accounted companies	22	2		24	3	5	8	0	1	33	
Depreciation and amortization	280	167		447	301	165	466	261	32	1,206	
Impairment of assets	48	1		49	47	37	84	103	0	236	
EBITDA	851	882		1,733	953	656	1,609	892	0	4,234	
Capital expenditure	468	192		660	374	208	582	251	45	1,538	
Cash flow from operations				1,188			1,015	653	164	3,020	
Goodwill, net	189	1,602		1,791	3,615	2,399	6,014	2,770	0	10,575	
Non-amortizable brands	0	0		0	735	89	824	1,191	0	2,015	
Total segment assets and liabilities				7,389			12,209	7,645	120	27,363	

\* "Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 2016

(in € millions)	Innovative Materials			Construction Products			Building Distribution	Other*	Total		
	Flat Glass	High-Performance Materials	Intra-segment eliminations	Total	Interior Solutions	Exterior Solutions	Intra-segment eliminations	Total			
External sales	5,338	4,385		9,723	5,978	5,126	11,104	18,245	21	39,093	
Internal sales	26	122	(14)	134	605	297	(85)	817	3	(954)	0
Net sales	5,364	4,507	(14)	9,857	6,583	5,423	(85)	11,921	18,248	(933)	39,093
Operating income	490	616		1,106	675	431	1,106	616	(10)	2,818	
Business income	426	475		901	555	386	941	552	(90)	2,304	
Share in net income of equity-accounted companies	17	2		19	12	3	15	1	1	36	
Depreciation and amortization	272	161		433	307	154	461	254	32	1,180	
Impairment of assets	19	75		94	88	3	91	4		189	
EBITDA	762	777		1,539	982	585	1,567	870	22	3,998	
Capital expenditure	375	198		573	337	178	515	245	37	1,370	
Cash flow from operations				1,031			899	519	300	2,749	
Goodwill, net	240	1,679		1,919	3,631	2,293	5,924	2,826	0	10,669	
Non-amortizable brands	0	0		0	749	90	839	1,305	0	2,144	
Total segment assets and liabilities				7,553			12,225	7,501	659	27,938	

\* "Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 3.3. Information by geographic area

Segment information for 2017 and 2016 by geographic area is as follows:

## 2017

(in € millions)	France	Other Western European countries	North America	Emerging countries and Asia	Internal sales	Total
	Net sales	10,600	17,611	5,418	9,166	(1,985)
Operating income	331	1,034	611	1,052		3,028
Business income	187	865	388	1,071		2,511
EBITDA	624	1,398	777	1,435		4,234
Capital expenditure	293	431	201	613		1,538
Cash flow from operations	397	1,026	554	1,043		3,020

## 2016

(in € millions)	France	Other Western European countries	North America	Emerging countries and Asia	Internal sales	Total
	Net sales	10,225	17,292	5,198	8,281	(1,903)
Operating income	301	1,072	544	901		2,818
Business income	252	980	249	823		2,304
EBITDA	587	1,438	717	1,256		3,998
Capital expenditure	262	387	203	518		1,370
Cash flow from operations	316	1,060	412	961		2,749

### 3.4. Performance indicators

#### 3.4.1. EBITDA

EBITDA corresponds to operating income plus depreciation and amortization of property, plant and equipment and intangible assets.

EBITDA amounted to €4,234 million in 2017 (2016: €3,998 million), calculated as follows:

(in € millions)	2017	2016
Operating income	3,028	2,818
Depreciation/amortization of property, plant and equipment and intangible assets	1,206	1,180
<b>EBITDA</b>	<b>4,234</b>	<b>3,998</b>

#### 3.4.2. Return on capital employed

Return on capital employed (ROCE) corresponds to annualized operating income adjusted for changes in the scope of consolidation, expressed as a percentage of total assets at year-end. Total assets include net property, plant and equipment, working capital, net goodwill and other intangible assets, but exclude deferred tax assets arising on non-amortizable brands and land.

#### 3.4.3. Recurring net income

Recurring net income corresponds to income after tax and minority interests but before disposal gains or losses, asset impairment, material non-recurring provisions and the related tax and minority interests.

Recurring net income totaled €1,631 million in 2017 (2016: €1,398 million). Based on the weighted average number of shares outstanding at December 31 (553,383,836 shares in 2017 and 554,624,285 shares in 2016), recurring earnings per share amounted to €2.95 in 2017 and €2.52 in 2016.

The difference between net income and recurring net income corresponds to the following items:

(in € millions)	2017	2016
<b>GROUP SHARE OF NET INCOME</b>	<b>1,566</b>	<b>1,311</b>
<b>Less:</b>		
Gains and losses on disposals of assets	46	(2)
Impairment of assets and other	(226)	(201)
Changes in provision for anti-trust litigation and other non-recurring provisions	4	(4)
Impact of minority interests	(18)	(1)
Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions	129	121
<b>GROUP SHARE OF RECURRING NET INCOME</b>	<b>1,631</b>	<b>1,398</b>

#### 3.4.4. Cash flow from operations

Cash flow from operations corresponds to net cash generated from operating activities before the impact of changes in working capital requirements, changes in current taxes and changes in provisions for pensions and other employee benefit obligations as well as for other liabilities and charges and deferred taxes. Cash flow from operations is adjusted for the effect of material non-recurring provision charges.

Cash flow from operations before tax on disposal gains and losses and non-recurring provisions corresponds to cash flow from operations less the tax effect of asset disposals, asset impairment and non-recurring provisions.

Cash flow from operations totaled €3,020 million in 2017 (€2,749 million in 2016) and cash flow from operations excluding income tax on disposal gains and losses and non-recurring provisions amounted to €2,891 million in the year (€2,628 million in 2016). These amounts are calculated as follows:

(in € millions)	2017	2016
<b>GROUP SHARE OF NET INCOME</b>	<b>1,566</b>	<b>1,311</b>
Minority interests in net income	59	41
Share in net income of equity-accounted companies, net of dividends received	(13)	(20)
Depreciation, amortization and impairment of assets	1,442	1,369
Gains and losses on disposals of assets	(46)	2
Changes in provision for anti-trust litigation and other non-recurring provisions	(4)	4
Unrealized gains and losses arising from changes in fair value and share-based payments	16	42
<b>CASH FLOW FROM OPERATIONS</b>	<b>3,020</b>	<b>2,749</b>
Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions	(129)	(121)
<b>CASH FLOW FROM OPERATIONS BEFORE TAX ON CAPITAL GAINS AND LOSSES AND NON-RECURRING PROVISIONS</b>	<b>2,891</b>	<b>2,628</b>

### 3.5. Working capital

#### 3.5.1. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of inventories includes purchase costs (net of supplier discounts), processing costs and other costs incurred in bringing the inventories to their present location and condition. Cost is generally determined using the weighted-average cost method, and in some cases the First-In-First-Out (FIFO) method. Inventory costs may also include the transfer from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of raw materials. Net realizable value is the selling price in the ordinary course of business, less estimated completion and selling costs. No account is taken in the inventory valuation process of the impact of below-normal capacity utilization rates.

As of December 31, 2017 and 2016, inventories were as follows:

<i>(in € millions)</i>	<b>Dec. 31, 2017</b>	<b>Dec. 31, 2016</b>
<b>Gross value</b>		
Raw materials	1,391	1,327
Work in progress	330	318
Finished goods	4,770	4,678
<b>GROSS INVENTORIES</b>	<b>6,491</b>	<b>6,323</b>
<b>Provision for impairment</b>		
Raw materials	(139)	(143)
Work in progress	(12)	(11)
Finished goods	(299)	(294)
<b>TOTAL PROVISION FOR IMPAIRMENT</b>	<b>(450)</b>	<b>(448)</b>
<b>NET VALUE</b>	<b>6,041</b>	<b>5,875</b>

The net value of inventories was €6,041 million at December 31, 2017 compared with €5,875 million at December 31, 2016.

Impairment losses on inventories recorded in the 2017 income statement totaled €207 million (2016: €176 million). Reversals of impairment losses on inventories amounted to €183 million in 2017 (2016: €176 million).

### 3.5.2. Operating and non-operating receivables and payables

Trade accounts receivable and payable and other receivables and payables are stated at their carrying amount which approximates their fair value as they generally have maturities of less than three months. Provisions for impairment are booked to cover the risk of total or partial non-recovery.

The Group deems that its exposure to concentrations of credit risk is limited due to its diversified business line-up, broad customer base and global presence. Past-due trade receivables are regularly monitored and analyzed, and provisions are set aside when appropriate.

For trade receivables transferred under securitization programs, the contracts concerned are analyzed and if substantially all the risks associated with the receivables are not transferred in substance to the financing institutions, they remain on the balance sheet and a corresponding liability is recognized in short-term debt (further information is provided in Note 8.3.8).

#### a) Trade and other accounts receivable

Trade and other accounts receivable can be analyzed as follows:

<i>(in € millions)</i>	<b>Dec. 31, 2017</b>	<b>Dec. 31, 2016</b>
<b>Gross value</b>	<b>5,527</b>	<b>5,361</b>
Provision for impairment	(393)	(426)
<b>TRADE ACCOUNTS RECEIVABLE</b>	<b>5,134</b>	<b>4,935</b>
Discounts and advances to suppliers	637	567
Prepaid payroll taxes	25	24
Other prepaid and recoverable taxes (other than income tax)	372	348
Miscellaneous operating receivables	250	248
Other non-operating receivables and provisions	117	339
Provision for impairment of other operating receivables	(6)	(11)
<b>OTHER RECEIVABLES</b>	<b>1,395</b>	<b>1,515</b>

Movements in impairment provisions for trade accounts receivable in 2017 primarily reflect €98 million in additions (2016: €84 million) and €111 million in reversals (2016: €98 million), resulting from recoveries as well as write-offs. Bad debt write-offs are also reported under this caption for €78 million (2016: €69 million).

Trade accounts receivable at December 31, 2017 are analyzed below by maturity:

<i>(in € millions)</i>	<b>Gross value</b>	<b>Impairment</b>	<b>Net value</b>
<b>TRADE ACCOUNTS RECEIVABLE NOT YET DUE</b>	<b>4,318</b>	<b>(30)</b>	<b>4,288</b>
Trade account receivables past due			
Less than 1 month	478	(12)	466
1-3 months	201	(21)	180
More than 3 months	530	(330)	200
<b>TRADE ACCOUNTS RECEIVABLE PAST DUE</b>	<b>1,209</b>	<b>(363)</b>	<b>846</b>
<b>TRADE ACCOUNTS RECEIVABLE</b>	<b>5,527</b>	<b>(393)</b>	<b>5,134</b>

#### b) Trade and other accounts payable

Trade and other accounts payable and accrued expenses can be analyzed as follows:

<i>(in € millions)</i>	<b>Dec. 31, 2017</b>	<b>Dec. 31, 2016</b>
<b>TRADE ACCOUNTS PAYABLE</b>	<b>6,027</b>	<b>5,805</b>
Customer deposits	1,133	1,056
Payables to suppliers of non-current assets	367	277
Grants received	78	88
Accrued personnel expenses	1,231	1,178
Accrued taxes (other than on income)	423	416
Other operating payables	499	521
Other non-operating payables	92	100
<b>OTHER PAYABLES</b>	<b>3,823</b>	<b>3,636</b>

### 3.5.3. Changes in working capital requirement

Changes in working capital requirement can be analyzed as follows:

(in € millions)	Dec. 31, 2017	Dec. 31, 2016
<b>INVENTORIES, NET</b>	<b>6,041</b>	<b>5,875</b>
<b>TRADE ACCOUNTS RECEIVABLE, NET</b>	<b>5,134</b>	<b>4,935</b>
Other operating receivables	1,278	1,176
Other non-operating receivables	117	339
<b>OTHER RECEIVABLES</b>	<b>1,395</b>	<b>1,515</b>
<b>CURRENT TAX RECEIVABLE</b>	<b>204</b>	<b>445</b>
<b>TRADE ACCOUNTS PAYABLE</b>	<b>6,027</b>	<b>5,805</b>
Other operating payables	3,286	3,171
Other non-operating payables	537	465
<b>OTHER PAYABLES</b>	<b>3,823</b>	<b>3,636</b>
<b>CURRENT TAX LIABILITIES</b>	<b>157</b>	<b>148</b>
Operating working capital requirements	3,140	3,010
Non-operating working capital requirements (including current tax receivables and liabilities)	(373)	171
<b>WORKING CAPITAL REQUIREMENTS</b>	<b>2,767</b>	<b>3,181</b>

## 3.6. Off-balance sheet commitments related to operating activities

### 3.6.1. Obligations under finance leases

Non-current assets acquired under finance leases are recognized as an asset and a liability in the balance sheet (see Note 5.4 for further information).

Future payment commitments under finance leases are as follows:

(in € millions)	2017	2016
<b>Future minimum lease payments</b>		
Due within 1 year	19	17
Due in 1 to 5 years	43	40
Due beyond 5 years	17	12
<b>TOTAL FUTURE MINIMUM LEASE PAYMENTS</b>	<b>79</b>	<b>69</b>
Less finance charge	(13)	(10)
<b>PRESENT VALUE OF FUTURE MINIMUM LEASE PAYMENTS</b>	<b>66</b>	<b>59</b>

At December 31, 2017, future finance lease payment commitments represented €56 million under equipment and machinery leases and €23 million under leases of land and buildings.

### 3.6.2. Obligations under operating leases

The Group leases equipment, vehicles, offices, warehouses and production or sales premises. Lease terms generally range from one to nine years. The liability for total future minimum payments over the lease terms is discounted. The leases contain rollover options for varying periods of time and some include clauses covering the payment of real estate taxes and insurance. In most cases, management expects that these leases will be rolled over or replaced by other leases in the normal course of business.

In 2017, rental expenses amounted to €870 million, including €569 million for land and buildings, and revenue from subleases represented €19 million. Net rental expense was €851 million.

Payments due under non-cancelable operating leases are as follows:

(in € millions)	Total 2017	Payments due by period			Total 2016
		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Rental expense	3,209	727	1,572	910	3,185
Subletting revenue	(81)	(17)	(29)	(35)	(76)
<b>TOTAL</b>	<b>3,128</b>	<b>710</b>	<b>1,543</b>	<b>875</b>	<b>3,109</b>

### 3.6.3. Non-cancelable purchase commitments

Non-cancelable purchase commitments include contractual commitments to purchase raw materials and services along with firm orders for property, plant and equipment and intangible assets.

(in € millions)	Total 2017	Payments due by period			Total 2016
		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Property, plant and equipment and intangible assets	48	45	3	0	49
Commodities and energy	1,308	354	669	285	1,080
Services	157	63	81	13	184
<b>TOTAL</b>	<b>1,513</b>	<b>462</b>	<b>753</b>	<b>298</b>	<b>1,313</b>

### 3.6.4. Guarantee commitments

In some cases, the Group grants seller's warranties to the buyers of divested businesses. A provision is set aside whenever a risk is identified and the related cost can be estimated reliably.

The Group also receives guarantees, amounting to €78 million at December 31, 2017 (December 31, 2016: €93 million).

### 3.6.5. Commercial commitments

(in € millions)	Total 2017	Commitment amounts by period			Total 2016
		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Security for borrowings	39	17	12	10	41
Other commitments given	237	88	120	29	214
<b>TOTAL</b>	<b>276</b>	<b>105</b>	<b>132</b>	<b>39</b>	<b>255</b>

Guarantees given to the Group in respect of receivables totaled €104 million at December 31, 2017 (December 31, 2016: €105 million).

At December 31, 2017, pledged assets represented €330 million (December 31, 2016: €343 million). This change is primarily due to a decrease in pledges of property, plant and equipment in Brazil.

### 3.6.6. Other commitments

A provision for greenhouse gas emissions allowances is recorded in the consolidated financial statements to cover

any shortage between the Group's emissions and the allowances granted.

Greenhouse gas emissions allowances allocated to the Group's companies in 2017 represented approximately 3.2 million metric tons of CO<sub>2</sub>. The new 2018 allowances will be added to the residual inventory of prior allocations and will cover the level of greenhouse gas emissions for the year. As a result, no provision has been recorded in this respect in the Group's financial statements.

## NOTE 4 EMPLOYEES, PERSONNEL EXPENSES AND EMPLOYEE BENEFIT OBLIGATIONS

### 4.1. Employees of fully consolidated companies

	2017	2016
Managerial-grade employees	28,991	27,677
Administrative employees	75,664	74,202
Other employees	71,795	70,184
<b>TOTAL AVERAGE NUMBER OF EMPLOYEES</b>	<b>176,450</b>	<b>172,063</b>

The total number of Group employees for fully consolidated companies was 179,149 at December 31, 2017 and 172,696 at December 31, 2016.

### 4.2. Management compensation

Direct and indirect compensation and benefits paid to members of the Board of Directors and the Group's senior management were as follows in 2017 and 2016:

(in € millions)	2017	2016
Attendance fees	1.1	1.1
Direct and indirect compensation (gross)		
Fixed portion	8.6	8.9
Variable portion	5.8	4.4
Estimated cost of pensions and other employee benefit obligations (IAS 19)	3.2	3.4
Share-based payment expense (IFRS 2)	11.1	8.5
Termination, retirement and other benefits	0.1	0.0
<b>TOTAL</b>	<b>29.9</b>	<b>26.3</b>

Total gross compensation and benefits paid in 2017 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash settled compensation) amounted to €14.5 million (2016: €13.3 million), including €5.8 million in gross variable compensation (2016: €4.4 million) and €0.1 million in termination benefits (2016: nil).

Provisions for pensions and other post-employment benefits (defined benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to Group management totaled €46.6 million at December 31, 2017 (December 31, 2016: €47.0 million).

### 4.3. Provisions for pensions and other employee benefits

#### 4.3.1. Description of defined benefit plans

After retirement, the Group's former employees are eligible for pension benefits in accordance with the applicable laws and regulations in the respective countries in which the Group operates. There are also additional pension obligations in certain Group companies, both in France and in other countries.

The Group's obligation for the payment of pensions and length-of-service awards is determined at the end of the reporting period by independent actuaries using the projected unit credit method, taking into account changes in salaries until retirement and the economic conditions in each country. These obligations may be financed by pension funds, with a provision recognized in the balance sheet for the unfunded portion.

When plan assets exceed the defined benefit obligation, the excess is recognized in other non-current assets under "net pension assets". These assets are capped at the level of future economic benefits they provide. Changes in the asset ceiling are recognized in equity.

Actuarial gains and losses result from changes in actuarial assumptions, experience adjustments and the difference between the funds' actual and estimated (calculated) rates of return. They are recognized against equity as and when they arise.

The interest cost of these obligations and the return on the related plan assets are measured by the Group using the discount rate applied to estimate the obligation at the beginning of the period, and are recognized as financial income or expense.

The Group's main defined benefit plans are as follows:

In France, employees receive length-of-service awards on retirement based on years of service and the calculation

methods prescribed in the applicable collective bargaining agreements.

In addition to length-of-service awards, there are three defined benefit plans, all of which are final salary plans. These plans were closed to new entrants by the companies concerned between 1969 and 1997. Effective March 1, 2012, a defined benefit plan complying with Article L.137-11 of France's Social Security Code (*Code de la sécurité sociale*) was set up by Compagnie de Saint-Gobain.

In Germany, retirement plans provide pensions and death and disability benefits for employees. These plans have been closed to new entrants since 1996. Since January 1997, new employees have been offered pension plans based on contributions financed jointly by employer and employee.

In the Netherlands, ceilings have been introduced for defined benefit supplementary pension plans, above which they are converted into defined contribution plans.

In the United Kingdom, retirement plans provide pensions as well as death and permanent disability benefits. These defined benefit plans - which are based on employees' average salaries over their final years of employment - have been closed to new entrants since 2001.

In the United States and Canada, the Group's defined benefit plans are final salary plans. Since January 1, 2001, new employees have been offered a defined contribution plan.

In the United States and Spain, retired employees receive benefits other than pensions, mainly concerning healthcare benefits. The Group's obligation under these plans is determined using the actuarial method and is covered by a provision recorded in the balance sheet.

Provisions for other long-term employee benefits cover all other employee benefits. These benefits primarily include long-service awards in France, jubilee awards in Germany, deferred compensation, provisions for social security benefits in the United States, and termination benefits in different countries. The related defined benefit obligation is generally calculated on an actuarial basis using the same rules as for pension obligations. Actuarial gains and losses relating to these benefits are recognized immediately in income statement.

#### 4.3.2. Actuarial assumptions used to measure defined benefit obligations and plan assets

##### 4.3.2.1. Interest rate assumptions

Assumptions related to mortality, employee turnover and future salary increases take into account the economic conditions specific to each country and Group company.

The discount rates are established by region or country based on observed bond rates at December 31, 2017.

The rates used in 2017 for the Group's main plans are the following:

(in %)	France	Eurozone	United Kingdom	United States
Discount rate	1.70%	1.70%	2.45%	3.60%
Salary increases	2.50%	1.50% to 2.40%	2.00%*	3.00%
Inflation rate	1.50%	1.40% to 1.80%	2.30%	2.50%

\* A cap applies to the reference salaries used to calculate benefit entitlements.

The rates used in 2016 for the Group's main plans are the following:

(in %)	France	Eurozone	United Kingdom	United States
Discount rate	1.80%	1.80%	2.60%	4.10%
Salary increases	2.50%	1.40% to 2.40%	2.00%*	3.00%
Inflation rate	1.50%	1.40% to 1.55%	2.35%	2.50%

\* A cap applies to the reference salaries used to calculate benefit entitlements.

#### 4.3.2.2. Sensitivity of assumptions

A 0.5-point decrease (increase) in the discount rate would lead to an increase (decrease) in defined benefit obligations of around €190 million for the US plans, €215 million for the Eurozone plans and €475 million for the UK plans. A 0.5-point increase in the inflation rate would lead to an overall increase in defined benefit obligations of around €610 million.

The same assumptions concerning mortality, employee turnover and interest rates are used to determine the Group's defined benefit obligations for other long-term employee benefits. In the United States, retirees' healthcare costs are projected to rise by 7.02% or 7.44% per year, depending on the age of the beneficiary (a 1-point increase in this rate

would lead to an increase of around €35 million in the related projected benefit obligation).

### 4.3.3. Breakdown of and changes in pension and other post-employment benefit obligations

#### 4.3.3.1. Net book value of provisions

Provisions for pensions and other employee benefit obligations consist of the following:

(in € millions)	Dec. 31, 2017	Dec. 31, 2016
Pension commitments	2,076	2,673
Length-of-service awards	361	355
Post-employment healthcare benefits	350	435
<b>TOTAL PROVISIONS FOR PENSIONS AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS</b>	<b>2,787</b>	<b>3,463</b>
Healthcare benefits	25	27
Long-term disability benefits	15	20
Other long-term benefits	100	105
<b>PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS</b>	<b>2,927</b>	<b>3,615</b>

Provisions for all other long-term benefits totaled €140 million at December 31, 2017 (€152 million at December 31, 2016).

The following table shows net obligations under pension and other post-employment benefit plans and the related plan assets:

(in € millions)	Dec. 31, 2017	Dec. 31, 2016
Provisions for pensions and other post-employment benefit obligations - liabilities	2,787	3,463
Pension plan surpluses - assets	(161)	(41)
<b>NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS</b>	<b>2,626</b>	<b>3,422</b>

#### 4.3.3.2. Analysis of obligations

At December 31, 2017, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

Dec. 31, 2017 (in € millions)	France	Eurozone	United Kingdom	United States	Rest of the World	Net total
<b>AVERAGE DURATION (IN YEARS)</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>13</b>	<b>15</b>	<b>16</b>
Defined benefit obligations - funded plans	685	1,750	5,018	2,662	866	10,981
Defined benefit obligations - unfunded plans	297	116	0	315	188	916
Fair value of plan assets	(261)	(741)	(4,899)	(2,535)	(838)	(9,274)
<b>DEFICIT/(SURPLUS)</b>	<b>721</b>	<b>1,125</b>	<b>119</b>	<b>442</b>	<b>216</b>	<b>2,623</b>
Asset ceiling					3	3
<b>NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS</b>	<b>721</b>	<b>1,125</b>	<b>119</b>	<b>442</b>	<b>219</b>	<b>2,626</b>

At December 31, 2016, pension obligations and provisions for other post-employment benefit obligations by major geographic region were as follows:

Dec. 31, 2016 (in € millions)	France	Eurozone	United Kingdom	United States	Rest of the World	Net total
<b>AVERAGE DURATION (IN YEARS)</b>	<b>16</b>	<b>16</b>	<b>19</b>	<b>13</b>	<b>15</b>	<b>16</b>
Defined benefit obligations - funded plans	563	1,781	5,278	2,975	937	11,534
Defined benefit obligations - unfunded plans	402	126		402	200	1,130
Fair value of plan assets	(256)	(829)	(4,814)	(2,519)	(828)	(9,246)
<b>DEFICIT/(SURPLUS)</b>	<b>709</b>	<b>1,078</b>	<b>464</b>	<b>858</b>	<b>309</b>	<b>3,418</b>
Asset ceiling					4	4
<b>NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS</b>	<b>709</b>	<b>1,078</b>	<b>464</b>	<b>858</b>	<b>313</b>	<b>3,422</b>

#### 4.3.3.3. Changes in provisions

Changes in pension and other post-employment benefit obligations are as follows:

(in € millions)	Pension obligations	Fair value of plan assets	Asset ceiling	Net pension and other post-employment benefit obligations
<b>AT JANUARY 1, 2016</b>	<b>11,770</b>	<b>(8,136)</b>	<b>6</b>	<b>3,640</b>
<b>Changes during the year</b>				
Service cost	189			189
Interest cost/return on plan assets as per calculations	382	(278)		104
Employee contributions and plan administration costs		(1)		(1)
Past service cost	(12)			(12)
Plan curtailments/settlements	(53)	51		(2)
Pension contributions		(732)		(732)
Benefit payments	(491)	399		(92)
Actuarial gains and losses and asset ceiling	1,474	(1,106)	(2)	366
Currency translation adjustments	(599)	558		(41)
Changes in Group structure and reclassifications	4	(1)		3
<b>TOTAL CHANGES</b>	<b>894</b>	<b>(1,110)</b>	<b>(2)</b>	<b>(218)</b>
<b>AT DECEMBER 31, 2016</b>	<b>12,664</b>	<b>(9,246)</b>	<b>4</b>	<b>3,422</b>
<b>Changes during the year</b>				
Service cost	210			210
Interest cost/return on plan assets as per calculations	324	(247)		77
Employee contributions and plan administration costs		(1)		(1)
Past service cost	(89)			(89)
Plan curtailments/settlements	(67)	48		(19)
Pension contributions		(306)		(306)
Benefit payments	(626)	530		(96)
Actuarial gains and losses and asset ceiling	109	(573)	(1)	(465)
Currency translation adjustments	(674)	564		(110)
Changes in Group structure and reclassifications	46	(43)		3
<b>TOTAL CHANGES</b>	<b>(767)</b>	<b>(28)</b>	<b>(1)</b>	<b>(796)</b>
<b>AT DECEMBER 31, 2017</b>	<b>11,897</b>	<b>(9,274)</b>	<b>3</b>	<b>2,626</b>

In the United States, plan amendments led to a reduction of around USD 100 million (€88 million) in pension obligations, recognized within "Past service cost".

#### 4.3.3.4. Actuarial gains and losses

Actuarial gains and losses on provisions result from the following items:

(in € millions)	2017	2016
Pension obligations	109	1,474
Fair value of plan assets	(573)	(1,106)
Asset ceiling	(1)	(2)
<b>TOTAL MOVEMENTS</b>	<b>(465)</b>	<b>366</b>

#### 4.3.3.5. Plan assets

Plan assets have been progressively built up by contributions, primarily in the United Kingdom and the United States. Contributions paid by the Group into these plans in 2017 totaled €306 million (2016: €732 million), including €182 million (2016: €578 million) paid in the United States in September 2017.

Actual market returns generated an increase of €820 million in plan assets, compared with an increase of €1,384 million in 2016. This actual return is €573 million higher than the estimated return of €247 million calculated using the discount rate.

A 0.5-point increase or decrease in the actual return on plan assets would have an impact of approximately €46 million on equity.

Plan assets mainly comprise:

(in %)	Dec. 31, 2017	Dec. 31, 2016
Equities	29%	27%
Bonds	48%	55%
Other	23%	18%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Contributions to pension plans for 2018 are estimated at around €110 million.

#### 4.3.3.6. Employee benefit expense

The cost of the Group's pension and other post-employment benefit plans (excluding other employee benefits) is as follows:

(in € millions)	2017	2016
Service cost	210	189
Interest cost	324	382
Return on plan assets	(247)	(278)
Past service cost, plan curtailments and settlements	(108)	(14)
Employee contributions and plan administration costs	(1)	(1)
<b>PENSIONS, LENGTH-OF-SERVICE AWARDS AND OTHER POST-EMPLOYMENT BENEFITS</b>	<b>178</b>	<b>278</b>

#### 4.3.4. Defined contribution plans

Contributions to defined contribution plans are expensed as incurred.

Contributions to defined contribution plans for 2017 represented an estimated €644 million (2016: €628 million), including €434 million for government-sponsored basic pension schemes (2016: €418 million), €131 million for government-sponsored supplementary pension schemes, mainly in France (2016: €131 million), and €79 million for corporate-sponsored supplementary pension plans (2016: €79 million).

### 4.4. Share-based payments

#### 4.4.1. Group Savings Plan

The Group Savings Plan (Plan Epargne Groupe) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service within the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five- or ten-year lock-up, except following the occurrence of certain events. The Board of Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

The compensation cost recorded in accordance with IFRS 2 is measured by reference to the fair value of a discount offered on restricted stock (*i.e.*, stock subject to a lock-up). The cost of the lock-up for the employee is defined as the cost of a two-step strategy that involves first selling the restricted stock forward five or ten years and then purchasing the same number of shares on the spot market and financing the purchase with debt. The borrowing cost is estimated at the rate that would be charged by a bank to an individual with an average risk profile for a general-purpose, five- or ten-year consumer loan repayable at maturity. The cost of the plans is recognized in full at the end of the subscription period.

In 2017, 4,593,807 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €36.72 (2016: 4,653,810 shares at an average price of €29.42), representing a share capital increase of €168 million (€136 million in 2016), net of transaction fees.

No amount was expensed in respect of the plans in 2017 or 2016 owing to the lock-in cost.

The following table shows the main features of the standard plans, the amounts invested in the plans and the valuation assumptions applied in 2017 and 2016:

	2017	2016
<b>Plan characteristics</b>		
Date of shareholders' Meeting	June 4, 2015 (17 <sup>th</sup> resolution)	June 4, 2015 (17 <sup>th</sup> resolution)
Date of the Chief Executive Officer's decision fixing the subscription price	March 20	March 21
Plan duration (in years)	5 or 10	5 or 10
Reference price (in €)	45.89	36.77
Subscription price (in €)	36.72	29.42
Discount (in %)	20.00%	20.00%
Total discount on the date of the Chief Executive Officer's decision (in %) (a)	21.25%	21.94%
Employee investments (in € millions)	168.7	136.9
Total number of shares subscribed	4,593,807	4,653,810
<b>Valuation assumptions (5-year maturity)</b>		
Interest rate applicable to employees*	4.80%	5.00%
Risk-free interest rate	0.19%	-0.15%
Repo rate	0.47%	0.50%
Lock-up discount (in %) (b)	21.17%	22.92%
Total cost to the Group (in %) (a-b)	0.08%	-0.98%

\* A 0.5-point decline in borrowing costs for the employee would have no material impact on the 2017 share-based payment expense as calculated in accordance with IFRS 2.

#### 4.4.2. Stock option plans

Compagnie de Saint-Gobain has stock option plans available to certain employees.

The Board of Directors grants options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, options may only be exercised after four years of the grant date. During this period, none of the options received may be exercised. Options must be exercised within 10 years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2017, plans launched between 2008 and 2012 offer subscription options, while the 2013 plan offers purchase options. For plans launched between 2014 and 2017, the Board of Directors has decided that it would determine the type of option (subscription or purchase) at the latest on the day before the start of the exercise period, with any options exercised prior to such decision considered as subscription options.

Until 2008, options were subject to a performance condition for certain grantees only. A performance condition applies for all grantees in plans awarded since 2009.

For options granted under the 2017 plan, the value used to calculate the 30% *contribution sociale* tax due by grantees employed by French companies in the Group is €5.06 per option granted.

The following table presents changes in the number of outstanding options:

	€4 par value shares	Average exercise price (in €)
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2015</b>	<b>11,601,857</b>	<b>48.69</b>
Options granted	280,000	40.43
Options exercised	(450,082)	27.50
Options forfeited	(4,509,448)	51.40
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2016</b>	<b>6,922,327</b>	<b>47.97</b>
Options granted	284,500	49.38
Options exercised	(689,997)	28.39
Options forfeited*	(3,501,207)	63.99
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2017</b>	<b>3,015,623</b>	<b>33.97</b>

\* Including 3,403,160 subscription options granted under the 2007 plan that had not been exercised when the plan expired, and 98,047 purchase options granted under the 2013 plan that had lapsed because the performance condition had only been partly met.

The cost of stock option plans is calculated using the Black & Scholes option pricing model.

The following inputs were used:

- volatility assumptions that take into account the historical volatility of the share price over a rolling 10-year period, as well as implied volatility from traded share options. Periods of extreme share price volatility are disregarded;

- assumptions relating to the average holding period of options, based on observed behavior of option holders;
- expected dividends, as estimated on the basis of historical dividend information dating back to 1988;
- a risk-free interest rate corresponding to the yield on long-term government bonds;
- the effect of any stock market performance conditions, which is taken into account in the initial measurement of IFRS 2 share-based payment expense.

The cost calculated using this method is recognized in the income statement over the vesting period of the options, which is four years.

Stock option expense recorded in the income statement amounted to €1 million in both 2017 and 2016. The fair value of options granted in 2017 amounted to €1 million.

The table below summarizes information about stock options outstanding at December 31, 2017, after taking into account partial fulfillment of the performance criteria attached to certain plans:

Grant date	Exercisable options			Non-exercisable options		Total options outstanding	
	Exercise price (in €)	Number of options	Weighted average contractual life (in months)	Exercise price (in €)	Number of options	Number of options	Type of options
2008	25.88	1,185,015	11			1,185,015	Subscription
2009	36.34	654,514	23			654,514	Subscription
2010	35.19	0	35			0	Subscription
2011	31.22	0	47			0	Subscription
2012	27.71	19,962	59			19,962	Subscription
2013	38.80	132,132	71			132,132	Purchase
2014			83	34.13	234,550	234,550	Subscription or purchase*
2015			95	39.47	224,950	224,950	Subscription or purchase*
2016			107	40.43	280,000	280,000	Subscription or purchase*
2017			119	49.38	284,500	284,500	Subscription or purchase*
<b>TOTAL</b>		<b>1,991,623</b>			<b>1,024,000</b>	<b>3,015,623</b>	

\* 2014, 2015, 2016 and 2017 plans: see above.

For subscription options, the sum received by the Company when options are exercised is recorded in "Capital stock" for the portion representing the par value of the shares, with the balance - net of directly attributable transaction costs - recorded under "Additional paid-in capital".

At December 31, 2017, 1,991,623 stock options were exercisable (at an average exercise price of €30.19) and 1,024,000 options (with an average exercise price of €41.26) had not yet vested.

#### 4.4.3. Performance shares and performance unit grants

The Group set up a worldwide share grant plan in 2009 whereby each Group employee was awarded seven shares. This plan ended in the first half of 2014. Since 2009, performance share plans have also been set up for certain categories of employees. These plans are subject to eligibility criteria based on the grantee's period of service (service conditions) with the Group as well as performance criteria (performance conditions), which are described below. The IFRS 2 share-based payment expense takes into account these criteria as well as the lock-up feature. It is determined after deducting the present value of forfeited dividends on the performance shares and are recognized over the vesting period, which ranges from two to four years depending on the country.

Since 2012, performance unit plans have been set up for certain employees in France. These plans are also subject to service and performance conditions. The IFRS 2 share-based payment expense therefore takes into account these factors, as well as the fact that the units are cash-settled. IFRS 2 stipulates that for cash-settled share-based payment transactions, the granted instruments are initially measured at fair value at the grant date, then remeasured at the end of each reporting period, with the expense adjusted accordingly pro rata to the rights that have vested at the reporting date. The expense is recognized over the vesting period of the rights.

##### a) Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009.

Four performance share plans were outstanding at December 31, 2017. The plans approved by the Board of Directors in 2014 and 2015 solely concern certain managerial-grade employees and senior managers of the Group outside France. The plans approved by the Board of Directors in 2016 and on November 23, 2017 concern managerial-grade employees and senior managers of the Group both within and outside France.

All plans are subject to service and performance conditions. The vesting period for the plans is four years and the shares will be delivered the day after the end of the vesting period.

The table below shows changes in the number of performance share rights:

	Number of rights
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2015</b>	<b>2,351,881</b>
Performance share rights granted in November 2016	1,231,320
Shares issued/delivered	(583,220)
Lapsed and canceled rights	(196,856)
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2016</b>	<b>2,803,125</b>
Performance share rights granted in November 2017	1,226,680
Shares issued/delivered*	(458,795)
Lapsed and canceled rights	(83,570)
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2017</b>	<b>3,487,440</b>

\* Including 457,535 existing shares delivered under the 2013 plan, and 1,260 existing shares delivered in advance under the 2014, 2015 and 2016 plans.

The fair value of the performance shares corresponds to the Saint-Gobain share price on the grant date less the value of dividends not payable on the shares during the vesting period and, as for the Group Savings Plan, minus the discount on restricted stock (i.e., stock subject to a four-year lock-up), which has been estimated at around 30% of the share price. The share-based payment expense is recognized over the two- or four-year vesting period of the performance shares.

The expense recorded in the income statement in 2017 for these plans amounted to €16 million (2016: €10 million).

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2017 will be delivered (except in the case of early release following the grantee's death or disability), along with the service and performance conditions remaining to be fulfilled:

Grant date	Number of rights at December 31, 2017*	End of vesting and lock-up period	Type of shares
November 20, 2014	529,340	November 20, 2018	existing
November 26, 2015	500,510	November 26, 2019	existing
November 24, 2016	1,230,910	November 24, 2020	existing
November 23, 2017	1,226,680	November 23, 2021	existing
<b>TOTAL</b>	<b>3,487,440</b>		

\* Subject to fulfillment of the service and performance conditions applicable to each plan.

### b) Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015 for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to the Company's share price.

No long-term payment plan in the form of performance units was set up in 2017 or 2016, since all beneficiaries received rights to performance shares.

In 2017, 490,914 performance units under the 2013 plan vested, while 79,871 performance units under the same plan lapsed, including 61,645 because the related performance condition was only partly met.

The table below shows historical data for the performance unit plans in the process of vesting at December 31, 2017:

Grant date	Number of performance units granted at inception of plan	Exercised early	Number of performance units at December 31, 2017*
November 20, 2014	598,400	1,550	596,850
November 26, 2015	556,340		556,340
<b>TOTAL</b>	<b>1,154,740</b>	<b>1,550</b>	<b>1,153,190</b>

\* Subject to fulfillment of the service and performance conditions applicable to each plan.

The expense recorded in the income statement in 2017 for these plans amounted to €21 million (2016: €20 million).

## NOTE 5 INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

### 5.1. Goodwill

When an entity is acquired by the Group, its identifiable assets and assumed liabilities are recognized at their fair value within a 12-month measurement period and retroactively at the acquisition date.

The final acquisition price ("consideration transferred" in IFRS 3R), including, as appropriate, the estimated fair value of any earn-out payments or other deferred consideration ("contingent consideration" in IFRS 3R), is determined in the 12 months following the acquisition. Under IFRS 3R, any adjustments to the acquisition price beyond this 12-month period are recorded in the income statement. All costs directly attributable to the acquisition, *i.e.*, costs that the acquirer incurs to effect a business combination, such as professional fees paid to investment banks, attorneys, auditors, independent appraisers and other consultants, are no longer capitalized as part of the cost of the business combination. They are therefore expensed as incurred and are no longer included in the cost of acquisition.

In addition, goodwill is recognized only at the date that control is achieved. Any subsequent increase in ownership interest (without change of control) is recorded as a change in equity without adjusting goodwill.

Goodwill is recorded in the consolidated balance sheet as the difference between (i) the acquisition-date fair value plus the amount of any minority interests in the acquisition - measured either at fair value (full goodwill method) or at the proportionate interest in the fair value of the net identifiable assets acquired (partial goodwill method) - and (ii) the net amount of assets and liabilities acquired at their fair value at the acquisition date. The Group generally applies the partial goodwill method and the amount of goodwill calculated under the full goodwill method is not therefore material.

Any excess of the cost of an acquisition over the fair value of the Group's share of the assets and liabilities of the acquired entity is recorded as goodwill. Any negative difference between the cost of the acquisition and the fair value of the net assets and liabilities acquired is recognized in the income statement during the year of acquisition.

Changes in goodwill in 2017 and 2016 are detailed below:

<i>(in € millions)</i>	2017	2016
<b>At January 1</b>		
Gross value	12,160	12,180
Accumulated impairment	(1,491)	(1,497)
<b>NET VALUE</b>	<b>10,669</b>	<b>10,683</b>
<b>Changes during the year</b>		
Impairment	(70)	(13)
Translation adjustments	(497)	(189)
Changes in Group structure	473	188
<b>TOTAL CHANGES</b>	<b>(94)</b>	<b>(14)</b>
<b>At December 31</b>		
Gross value	12,023	12,160
Accumulated impairment	(1,448)	(1,491)
<b>NET VALUE</b>	<b>10,575</b>	<b>10,669</b>

In 2017, changes in Group structure related mainly to newly consolidated companies in the Construction Products Sector representing €474 million. Impairment tests performed in 2017 led to the recognition of goodwill impairment, primarily in the Flat Glass business in the United States and the United Kingdom. The 2017 currency translation adjustments primarily reflect the impact of fluctuations in the US dollar, pound sterling, Norwegian krone and Brazilian real.

In 2016, changes in Group structure related mainly to newly consolidated companies representing €189 million. Impairment tests performed in 2016 led to the recognition of goodwill impairment, primarily on the Interior Solutions business. Currency translation adjustments primarily reflected the impact of fluctuations in the pound sterling, US dollar, and Brazilian real.

The net value of goodwill by sector and by business at December 31, 2017 and 2016 can be analyzed as follows:

<i>(in € millions)</i>	2017	2016
Flat Glass	189	240
High-Performance Materials	1,602	1,679
Construction Products	6,014	5,924
Building Distribution	2,770	2,826
<b>TOTAL</b>	<b>10,575</b>	<b>10,669</b>

Goodwill is essentially allocated to the Construction Products Sector, mainly Gypsum (€3,264 million at December 31, 2017) and Industrial Mortars (€2,075 million at December 31, 2017), and to the Building Distribution Sector, primarily in the United Kingdom, France and Scandinavia.

## 5.2. Other intangible assets

Other intangible assets primarily include patents, brands, software and development costs. They are measured at historical cost less accumulated amortization and impairment.

Acquired retail brands and certain manufacturing brands are treated as intangible assets with indefinite useful lives as they have a strong national and/or international reputation. These brands are not amortized but are tested systematically for impairment on an annual basis. Other brands are amortized over their useful lives, not exceeding 40 years.

Costs incurred to develop software in-house - primarily configuration, programming and testing costs - are recognized as intangible assets. Patents and purchased computer software are amortized over their estimated useful lives, not exceeding 20 years for patents and three to five years for software.

Research costs are expensed as incurred. Development costs meeting the recognition criteria under IAS 38 are included in intangible assets and amortized over their estimated useful lives (not exceeding five years) from the date when the products to which they relate are first marketed.

Changes in other intangible assets during 2017 and 2016 are analyzed below:

<i>(in € millions)</i>	Patents	Non-amortizable brands	Software	Development costs	Other	Total
<b>At January 1, 2016</b>						
Gross value	162	2,872	1,000	131	425	4,590
Accumulated amortization and impairment	(138)	(587)	(806)	(97)	(214)	(1,842)
<b>NET VALUE</b>	<b>24</b>	<b>2,285</b>	<b>194</b>	<b>34</b>	<b>211</b>	<b>2,748</b>
<b>Changes during the year</b>						
Acquisitions	5	0	91	17	38	151
Disposals	0	0	(12)	0	(1)	(13)
Translation adjustments	1	(140)	3	1	0	(135)
Amortization and impairment	(4)	0	(68)	(13)	(12)	(97)
Changes in Group structure and other	0	(1)	12	(3)	0	8
<b>TOTAL CHANGES</b>	<b>2</b>	<b>(141)</b>	<b>26</b>	<b>2</b>	<b>25</b>	<b>(86)</b>
<b>At December 31, 2016</b>						
Gross value	165	2,731	1,066	147	451	4,560
Accumulated amortization and impairment	(139)	(587)	(846)	(111)	(215)	(1,898)
<b>NET VALUE</b>	<b>26</b>	<b>2,144</b>	<b>220</b>	<b>36</b>	<b>236</b>	<b>2,662</b>
<b>Changes during the year</b>						
Acquisitions	0	0	97	8	79	184
Disposals	0	0	(3)	0	(1)	(4)
Translation adjustments	(2)	(55)	(9)	(2)	(11)	(79)
Amortization and impairment	(4)	(80)	(74)	(13)	(11)	(182)
Changes in Group structure and other	0	6	8	2	6	22
<b>TOTAL CHANGES</b>	<b>(6)</b>	<b>(129)</b>	<b>19</b>	<b>(5)</b>	<b>62</b>	<b>(59)</b>
<b>At December 31, 2017</b>						
Gross value	149	2,682	1,093	119	505	4,548
Accumulated amortization and impairment	(129)	(667)	(854)	(88)	(207)	(1,945)
<b>NET VALUE</b>	<b>20</b>	<b>2,015</b>	<b>239</b>	<b>31</b>	<b>298</b>	<b>2,603</b>

Impairment of non-amortizable brands in 2017 concerned Lapeyre.

The breakdown of non-amortizable brands by sector is provided in the segment information tables in Note 3 "Information concerning the Group's operating activities".

### 5.3. Property, plant and equipment

Land, buildings and equipment are carried at historical cost less accumulated depreciation and impairment.

Cost may also include incidental expenses directly attributable to the acquisition, as well as the impact of transfers from equity of any gains/losses on qualifying cash flow hedges of property, plant and equipment purchases.

Expenses incurred in exploring and evaluating mineral resources are included in property, plant and equipment when it is probable that associated future economic benefits will flow to the Group. They include mainly the costs of topographical or geological studies, drilling costs, sampling costs and all costs incurred in assessing the technical feasibility and commercial viability of extracting the mineral resource.

Material borrowing costs incurred for the construction and acquisition of property, plant and equipment are included in the cost of the related asset if they are significant.

Property, plant and equipment are considered as having no residual value, as they chiefly consist of industrial assets that are intended to be used until the end of their useful lives.

Property, plant and equipment other than land are depreciated using the components approach on a straight-line basis over the following estimated useful lives, which are regularly reviewed:

■ Major factories and offices	30 - 40 years
■ Other buildings	15 - 25 years
■ Production machinery and equipment	5 - 16 years
■ Vehicles	3 - 5 years
■ Furniture, fixtures, office and computer equipment	4 - 16 years

Gypsum quarries are depreciated over their estimated useful lives, based on the quantity of gypsum extracted during the year compared with extraction capacity.

Provisions for site restoration are recognized as components of assets whenever the Group has a legal or constructive obligation to restore a site in accordance with contractually determined conditions or in the event of a sudden deterioration in site conditions. These provisions are reviewed periodically and may be discounted over the expected useful lives of the assets concerned. The component is depreciated over the same useful life as that used for mines and quarries.

Government grants for purchases of property, plant and equipment are recorded under "Other payables" and taken to the income statement over the estimated useful lives of the relevant assets.

Changes in property, plant and equipment in 2017 and 2016 are analyzed below:

<i>(in € millions)</i>	<b>Land and quarries</b>	<b>Buildings</b>	<b>Machinery and equipment</b>	<b>Assets under construction</b>	<b>Total</b>
<b>At January 1, 2016</b>					
Gross value	2,493	8,500	19,549	1,064	31,606
Accumulated amortization and impairment	(533)	(4,911)	(14,520)	(55)	(20,019)
<b>NET VALUE</b>	<b>1,960</b>	<b>3,589</b>	<b>5,029</b>	<b>1,009</b>	<b>11,587</b>
<b>Changes during the year</b>					
Acquisitions	50	63	329	928	1,370
Disposals	(41)	(18)	(19)	(7)	(85)
Translation adjustments	(7)	(7)	30	(3)	13
Amortization and impairment	(35)	(264)	(958)	(2)	(1,259)
Transfers		199	709	(908)	0
Changes in Group structure and other	23	(23)	28	0	28
<b>TOTAL CHANGES</b>	<b>(10)</b>	<b>(50)</b>	<b>119</b>	<b>8</b>	<b>67</b>
<b>At December 31, 2016</b>					
Gross value	2,510	8,607	19,744	1,067	31,928
Accumulated depreciation and impairment	(560)	(5,068)	(14,596)	(50)	(20,274)
<b>NET VALUE</b>	<b>1,950</b>	<b>3,539</b>	<b>5,148</b>	<b>1,017</b>	<b>11,654</b>
<b>Changes during the year</b>					
Acquisitions	15	68	269	1,186	1,538
Disposals	(31)	(18)	(31)	(17)	(97)
Translation adjustments	(67)	(158)	(251)	(64)	(540)
Amortization and impairment	(33)	(263)	(883)	(11)	(1,190)
Transfers		213	687	(900)	0
Changes in Group structure and other	43	61	53	68	225
<b>TOTAL CHANGES</b>	<b>(73)</b>	<b>(97)</b>	<b>(156)</b>	<b>262</b>	<b>(64)</b>
<b>At December 31, 2017</b>					
Gross value	2,454	8,558	19,575	1,335	31,922
Accumulated amortization and impairment	(577)	(5,116)	(14,583)	(56)	(20,332)
<b>NET VALUE</b>	<b>1,877</b>	<b>3,442</b>	<b>4,992</b>	<b>1,279</b>	<b>11,590</b>

In 2017, "Changes in Group structure and other" related mainly to newly consolidated companies in the Construction Products Sector.

## 5.4. Finance leases and operating leases

Assets held under finance leases that transfer to the Group substantially all of the risks and rewards of ownership are recognized as property, plant and equipment (land, buildings and equipment). They are recorded at the inception of the lease term at the lower of the fair value of the leased assets and the present value of the minimum lease payments.

Property, plant and equipment acquired under finance leases are depreciated on a straight-line basis over the shorter of the estimated useful life of the asset – determined using the same criteria as for assets owned by the Group – or the lease term. The corresponding liability is shown in the balance sheet net of related interest.

Rental payments under operating leases are expensed as incurred.

In 2017, other movements in property, plant and equipment include an amount of €15 million (2016: €21 million) relating to assets acquired under new finance leases not included in the cash flow statement in accordance with IAS 7. At December 31, 2017, total property, plant and equipment acquired under finance leases amounted to €83 million (December 31, 2016: €71 million).

## 5.5. Impairment review

### 5.5.1. Impairment of property, plant and equipment, intangible assets and goodwill

Property, plant and equipment, goodwill and other intangible assets are tested for impairment on a regular basis. These tests consist of comparing the asset's carrying amount to its recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use, calculated by reference to the net present value of the future cash flows expected to be derived from the asset.

For property, plant and equipment and amortizable intangible assets, an impairment test is performed whenever revenues from the asset decline or the asset generates operating losses due to either internal or external factors, and no material improvement is forecast in the annual budget or the relevant business plan.

For goodwill and other intangible assets (including brands with indefinite useful lives), an impairment test is performed at least annually based on the business plan. Goodwill is reviewed systematically and exhaustively at the level of each cash-generating unit (CGU). The Group's reporting segments are its business sectors, which may each include several CGUs. A CGU is a reporting sub-segment, generally defined as a core business of the segment in a given geographic area. It typically reflects the level at which the Group organizes its businesses and analyzes its results for internal reporting purposes. The number of CGUs in both 2017 and 2016 was 30.

The method used for these impairment tests is consistent with that employed by the Group for the valuation of companies acquired in business combinations or acquisitions of equity interests. The carrying amount of the CGUs is compared to their value in use, corresponding to the net present value of future cash flows excluding interest but including tax. It is determined using assumptions made by senior management based on estimates and judgments including future changes in net sales, profitability, investments and other cash flows arising from the use of the corresponding assets, as well as the discount rate applied to future cash flows. Cash flows for the last year of the business plan are rolled forward over the following two years. For impairment tests of goodwill, normative cash flows (corresponding to cash flows at the mid-point in the business cycle) are then projected to perpetuity using a low annual growth rate (generally 1.5%, except for emerging markets or businesses with a high organic growth potential where a 2% rate is used). Growth data are supported by external data issued by prominent organizations. The discount rate applied to these cash flows corresponds to the Group's average cost of capital (7.25% in 2017 and 2016) plus a country risk premium where appropriate depending on the geographic area concerned. The discount rates applied in 2017 for the main operating regions were 7.25% for the Eurozone and North America, 8.25% for Eastern Europe and emerging Asia-Pacific and 8.75% for South America, Russia and the Middle East.

The recoverable amount calculated using a post-tax discount rate gives the same result as a pre-tax rate applied to pre-tax cash flows.

### 5.5.2. CGU impairment tests

When the annual impairment test reveals that the recoverable amount of an asset is less than its carrying amount, an impairment loss is recorded.

Impairment losses on goodwill can never be reversed through income. For property, plant and equipment and other intangible assets, an impairment loss recognized in prior periods may be reversed, taking into account depreciation/amortization adjustments, if there is an indication that the impairment no longer exists and that the recoverable amount of the asset concerned exceeds its carrying amount.

During the impairment tests, different assumptions measuring the method's sensitivity are systematically tested using the following inputs:

- 0.5-point increase or decrease in the discount rate applied to cash flows;
- 0.5-point increase or decrease in the annual average rate of growth in cash flows projected to perpetuity;
- 1-point decrease in the operating income rate for industrial activities and 0.5-point decrease for distribution activities.

At December 31, 2017, a 0.5-point increase in the discount rate for all CGUs would have led to approximately €81 million in additional intangible asset impairment, while a 0.5-point decrease in the average annual cash flow growth rate, projected to perpetuity for all CGUs would have resulted in additional intangible asset impairment of around €58 million.

The impact of a 1-point decrease in the operating income rate for all industrial CGUs would have generated additional intangible asset impairment of roughly €154 million, while a 0.5-point decrease in the rate for distribution activities would have generated additional impairment of €64 million.

<i>(in € millions)</i>	Impact of			
	0.5% increase in the discount rate	0.5% decrease in the growth rate	1-point decrease in the operating income rate	0.5 point decrease in the operating income rate
Flat Glass				
High-Performance Materials				
Construction Products	(43)	(26)	(154)	
Building Distribution	(38)	(32)		(64)
<b>TOTAL</b>	<b>(81)</b>	<b>(58)</b>	<b>(154)</b>	<b>(64)</b>

The breakdown of asset impairment by sector for 2017 and 2016 is provided in the segment information tables in Note 3 "Information concerning the Group's operating activities".

## NOTE 6 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES AND OTHER NON-CURRENT ASSETS

### 6.1. Changes in investments in equity-accounted companies

Changes in investments in equity-accounted companies in 2017 and 2016 can be analyzed as follows:

(in € millions)	2017	2016
<b>At January 1</b>		
Group share in:		
Associates	181	140
Joint ventures	183	168
<b>TOTAL</b>	<b>364</b>	<b>308</b>
Goodwill	12	11
<b>INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES</b>	<b>376</b>	<b>319</b>
<b>Changes during the year</b>		
Group share in net income of:		
Associates	3	11
Joint ventures	30	25
<b>TOTAL</b>	<b>33</b>	<b>36</b>
Dividends paid	(20)	(16)
Translation adjustments	(18)	7
Transfers, share issues and other movements	6	3
Changes in Group structure and acquisitions	2	27
<b>TOTAL CHANGES</b>	<b>3</b>	<b>57</b>
<b>At December 31</b>		
Group share in:		
Associates	173	181
Joint ventures	187	183
<b>TOTAL</b>	<b>360</b>	<b>364</b>
Goodwill	19	12
<b>INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES</b>	<b>379</b>	<b>376</b>

The principal financial aggregates of equity-accounted companies are as follows:

(in € millions)	2017			2016		
	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Net sales	789	709	1,498	710	673	1,383
Net income	28	67	95	26	54	80
Current assets	495	310	805	458	283	741
Non-current assets	533	337	870	526	321	847
Current liabilities	227	145	372	235	126	361
Non-current liabilities	801	502	1,303	749	478	1,227
Shareholders' equity	592	409	1,001	580	401	981

### 6.2. Transactions with equity-accounted companies - related-parties

The consolidated financial statements include transactions conducted by the Group in the normal course of its businesses with associates and joint ventures. These transactions are carried out on an arm's length basis.

The assets and liabilities of equity-accounted companies at December 31 are as follows:

(in € millions)	Dec. 31, 2017	Dec. 31, 2016
Financial receivables	1	1
Inventories	0	0
Short-term receivables	7	8
Cash and cash equivalents	0	0
Provisions for asset impairment	0	0
Short-term debt	2	2
Cash advances	0	0

Purchases and sales with equity-accounted companies are as follows:

(in € millions)	2017	2016
Purchases	2	2
Sales	40	43

### 6.3. Transactions with key shareholders

Some subsidiaries of the Saint-Gobain Group, particularly in the Building Distribution Sector, carry out commercial transactions with subsidiaries of the Wendel Group. These transactions are carried out on an arm's-length basis.

### 6.4. Other non-current assets

Investments classified as "available-for-sale" are carried at fair value. Unrealized gains and losses on these investments are recognized in equity, unless the investments have suffered a material or other-than-temporary decline in value, in which case an impairment loss is recorded in the income statement.

Changes in other non-current assets in 2017 and 2016 are analyzed below:

(in € millions)	Available-for-sale and other securities	Loans, deposits and surety	Pension plan surpluses	Total
<b>At January 1, 2016</b>				
Gross value	76	519	63	658
Provision for impairment	(14)	(9)		(23)
<b>NET VALUE</b>	<b>62</b>	<b>510</b>	<b>63</b>	<b>635</b>
<b>Changes during the year</b>				
Increases/(decreases)	109	(6)	(15)	88
Provisions for impairment	(1)	1		0
Translation adjustments	1	10	(7)	4
Transfers and other movements	(1)	6		5
Changes in Group structure	(22)	0		(22)
<b>TOTAL CHANGES</b>	<b>86</b>	<b>11</b>	<b>(22)</b>	<b>75</b>
<b>At December 31, 2016</b>				
Gross value	163	526	41	730
Provision for impairment	(15)	(5)		(20)
<b>NET VALUE</b>	<b>148</b>	<b>521</b>	<b>41</b>	<b>710</b>
<b>Changes during the year</b>				
Increases/(decreases)	82	(3)	123	202
Provisions for impairment	0	2		2
Translation adjustments	(10)	(11)	(3)	(24)
Transfers and other movements	3	0		3
Changes in Group structure	(122)	3		(119)
<b>TOTAL CHANGES</b>	<b>(47)</b>	<b>(9)</b>	<b>120</b>	<b>64</b>
<b>At December 31, 2017</b>				
Gross value	111	516	161	788
Provision for impairment	(10)	(4)		(14)
<b>NET VALUE</b>	<b>101</b>	<b>512</b>	<b>161</b>	<b>774</b>

Increases/(decreases) in available-for-sale securities and other securities primarily relate to acquisitions/(disposals) of securities in the period that will be consolidated/(deconsolidated) in the following period.

## NOTE 7 OTHER CURRENT AND NON-CURRENT LIABILITIES AND PROVISIONS, CONTINGENT LIABILITIES AND LITIGATION

A provision is booked when (i) the Group has a present legal or constructive obligation towards a third party as a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligation, and (iii) the amount of the obligation can be estimated reliably.

If the amount or due date of the obligation cannot be estimated reliably, it is classified as a contingent liability and reported as an off-balance sheet commitment.

Provisions for other material liabilities and charges whose timing can be estimated reliably are discounted to present value.

### 7.1. Provisions for other liabilities and charges

The table below provides a breakdown by type along with details of changes in other provisions and current and non-current liabilities:

(in € millions)	Provisions for claims and litigation	Provisions for environmental risks	Provisions for restructuring costs	Provisions for personnel expenses	Provisions for customer warranties	Provisions for other contingencies	Total provisions for other liabilities	Investment-related liabilities	Total
<b>At January 1, 2016</b>									
Current portion	127	39	67	27	130	60	450	4	454
Non-current portion	468	124	72	56	125	247	1,092	184	1,276
<b>TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES</b>	<b>595</b>	<b>163</b>	<b>139</b>	<b>83</b>	<b>255</b>	<b>307</b>	<b>1,542</b>	<b>188</b>	<b>1,730</b>
<b>Movements during the year</b>									
Additions	144	15	49	43	70	60	381		381
Reversals	(8)	(4)	(17)	(14)	(26)	(65)	(134)		(134)
Utilizations	(150)	(12)	(70)	(11)	(65)	(33)	(341)		(341)
Changes in Group structure						0	0		0
Other (reclassifications and translation adjustments)	19	(4)	(2)	4	(1)	12	28	14	42
<b>TOTAL MOVEMENTS</b>	<b>5</b>	<b>(5)</b>	<b>(40)</b>	<b>22</b>	<b>(22)</b>	<b>(26)</b>	<b>(66)</b>	<b>14</b>	<b>(52)</b>
<b>At December 31, 2016</b>									
Current portion	125	36	52	29	122	60	424	12	436
Non-current portion	475	122	47	76	111	221	1,052	190	1,242
<b>TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES</b>	<b>600</b>	<b>158</b>	<b>99</b>	<b>105</b>	<b>233</b>	<b>281</b>	<b>1,476</b>	<b>202</b>	<b>1,678</b>
<b>Movements during the year</b>									
Additions	155	12	49	62	64	73	415		415
Reversals	(3)	(3)	(9)	(13)	(23)	(25)	(76)		(76)
Utilizations	(135)	(12)	(58)	(34)	(54)	(99)	(392)		(392)
Changes in Group structure			2	1	3	6	12		12
Other (reclassifications and translation adjustments)	(71)	(1)	(4)	(6)	(25)	(1)	(108)	(64)	(172)
<b>TOTAL MOVEMENTS</b>	<b>(54)</b>	<b>(4)</b>	<b>(20)</b>	<b>10</b>	<b>(35)</b>	<b>(46)</b>	<b>(149)</b>	<b>(64)</b>	<b>(213)</b>
<b>At December 31, 2017</b>									
Current portion	137	30	38	21	102	71	399	13	412
Non-current portion	409	124	41	94	96	164	928	125	1,053
<b>TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES</b>	<b>546</b>	<b>154</b>	<b>79</b>	<b>115</b>	<b>198</b>	<b>235</b>	<b>1 327</b>	<b>138</b>	<b>1 465</b>

### 7.1.1. Provisions for claims and litigation

At December 31, 2017 and 2016, provisions for claims and litigation mainly covered asbestos-related lawsuits filed against the Group. These provisions are described in further detail in Note 7.2 "Contingent liabilities and litigation".

### 7.1.2. Provisions for environmental risks

These provisions cover costs relating to environmental protection measures, as well as site rehabilitation and clean-up costs.

### 7.1.3. Provisions for restructuring costs

Provisions for restructuring costs amounted to €79 million at December 31, 2017 (December 31, 2016: €99 million), including net additions of €40 million during the year. The provisions primarily concern Benelux (€26 million), Germany (€18 million), and the United Kingdom (€12 million).

### 7.1.4. Provisions for personnel expenses

These provisions primarily cover indemnities due to employees that are unrelated to the Group's reorganization plans.

### 7.1.5. Provisions for customer warranties

These provisions cover the Group's commitments under warranties granted to customers mainly in the United States. They are determined on a statistical basis using a range of criteria and take into account contractual warranty payments made in prior years in the business and region concerned. In addition, specific provisions may be set aside for identified risks.

### 7.1.6. Provisions for other contingencies

At December 31, 2017, provisions for other contingencies amounted to €235 million (December 31, 2016: €281 million) and mainly concerned the United States (€59 million), France (€46 million), Germany (€43 million) and Brazil (€39 million).

### 7.1.7. Investment-related liabilities

Investment-related liabilities correspond to commitments to purchase minority interests, liabilities relating to the acquisition of shares in Group companies, and minority shareholder puts.

In 2017, changes in investment-related liabilities primarily concerned minority shareholder puts.

## 7.2. Contingent liabilities and litigation

### 7.2.1. Asbestos-related litigation

Current legal actions related to asbestos are described below.

#### 7.2.1.1. Asbestos-related litigation in France

##### a) Inexcusable fault lawsuits

In France, 10 further individual lawsuits were filed in 2017 by former employees (or persons claiming through them) of

Everite and Saint-Gobain PAM which in the past had carried out fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31, 2017, a total of 815 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2017, 775 of these 815 lawsuits had been completed in terms of liability and quantum as well as in terms of liability for the payment of compensation. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €3 million.

Concerning the 40 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2017, seven have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 33 remaining lawsuits, at December 31, 2017 the procedures relating to the merits of 28 cases were at different stages, with two in the process of being investigated by the French Social Security authorities and 26 pending before the Social Security Courts or the Appeal Courts. The last five actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period following their cancellation.

In addition, as of December 31, 2017, 228 similar suits had been filed since the outset of the litigation by current or former employees, or persons claiming through them, of 13 other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2017, 191 lawsuits had been completed. In 110 of these cases, the employer was held liable for "inexcusable fault".

The compensation definitively paid by these companies totaled approximately €6.1 million. With regard to the 37 suits outstanding at December 31, 2017, two cases were still at the investigation stage by the French Social Security authorities, 34 were being investigated - including 24 pending before the Social Security Courts, eight before the Appeal Courts and two before the Civil Supreme Court (Court of Cassation). Lastly, one suit has been canceled but the plaintiff may request its restoration at any time within a two-year period following its cancellation.

##### b) Anxiety claims

Eight of the Group's French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

“Facilities classified as containing asbestos” are defined as industrial facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2017, a total of 822 suits had been brought by current or former employees claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 693 have been terminated. Three plaintiffs had their claims dismissed, while for the 690 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2017. Of the remaining 129 suits, two are pending before the competent Appeal Courts and 116 have been canceled but the plaintiffs may request their restoration at any time during a period of two years following their cancellation. Finally, six suits have been dismissed by the competent labor tribunals and five plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

#### 7.2.1.2. Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory – and in some cases punitive – damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

#### a) Developments in 2017

About 3,100 new claims were filed against CertainTeed in 2017, a slight decrease compared to the 3,200 filed in 2016. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,900 of the pending claims were resolved in 2017, compared to 3,700 in 2016 and 4,600 in 2015. Taking into account the 35,100 outstanding claims at the end of 2016 and the new claims having arisen during the year, as well as claims settled, around 34,300 claims were outstanding at December 31, 2017. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

#### b) Impact on the Group's financial statements

The Group recorded a USD 102 million charge in 2017 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2016 and 2015. At December 31, 2017, the Group provision for asbestos-related claims against CertainTeed in the United States amounts to USD 555 million (compared to USD 562 million at December 31, 2016 and USD 581 million at December 31, 2015).

#### c) Cash flow impact

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2017 but only paid out in 2017, and those fully resolved and paid in 2017, and compensation paid in 2017 by other Group businesses in the United States in connection with asbestos-related litigation, amounted to USD 76 million (compared to USD 97 million in 2016 and USD 65 million in 2015).

#### 7.2.1.3. Situation in Brazil

In Brazil, former employees of Brasilit suffering from asbestos-related occupational illnesses are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments were signed accordingly so far.

Two collective actions were initiated against Brasilit in 2017 by two associations defending the former exposed workers of plants of São Caetano (SP) and Recife (PE), asking for reconsideration of medical assistance and compensation. These cases are at very early stage for the moment.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all its legal obligations with regard to medical assistance of employees and former employees.

In November 2017, the Supreme Court of Brazil has decided to ban asbestos definitively across the country. Brasilit stopped using this material voluntarily as soon as 2002.

### 7.2.2. Anti-trust law and related proceedings

#### 7.2.2.1. Investigation by the Swiss Competition Commission in the sanitary products wholesale

In November 2011, the Swiss Competition Commission (*Commission Suisse de la Concurrence*) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however, a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2017).

### 7.2.2.2. Investigation by the French Competition Authority in the building insulation products sector

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (*Autorité de la Concurrence Française*). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. A hearing was held on May 11, 2016. The Competition Authority's final ruling was postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the *Centre Scientifique et Technique du Bâtiment*, and the FILMM before the Paris Civil Court (*Tribunal de Grande Instance*) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

### 7.2.2.3. Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

## 7.2.3. Environmental-related litigation

### 7.2.3.1. PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics

(SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York and Vermont pursuant to which SG PPL has agreed to complete investigations and implement interim remediation measures. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2017, the provision recorded by the Company in respect of this matter amounts to € 44 million.

## 7.2.4. Other potential liabilities

### 7.2.4.1. Grenfell Tower fire in the United Kingdom

At the time of the refurbishing of the Grenfell Tower in 2015, Celotex sold through distributors an insulation product for use as part of multicomponent ventilated rainscreen cladding system.

Following the Grenfell Tower fire on June 14, 2017, investigations are ongoing, and, in this context, Celotex as well as more than 60 other companies or organizations, is heard by the British authorities.

## 7.2.5. Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last 12 months, a significant impact on the financial or profit position of the Company and/or Group.

## NOTE 8 FINANCING AND FINANCIAL INSTRUMENTS

### 8.1. Risk factors: financial risks

#### 8.1.1. Liquidity risk

##### a) Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. The subsidiaries generally enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the National Delegations' cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is bonds, which are generally issued under the Medium Term Notes program. Saint-Gobain also uses perpetual bonds, participating securities, a long-term securitization program, bank borrowings and lease financing.

Short-term debt comprises borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by confirmed syndicated lines of credit.

A breakdown of long- and short-term debt by type and maturity is provided in Note 8.3, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

Saint-Gobain's long-term debt issues have been rated BBB with a stable outlook by Standard & Poor's since December 9, 2014.

Saint-Gobain's long-term debt issues have been rated Baa2 with a stable outlook by Moody's since December 9, 2014.

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

##### b) Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and high volatility risks, whenever possible, the Group invests in money market and/or bond funds.

#### 8.1.2. Market risks

##### a) Interest rate risks

The Group's overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain. Where subsidiaries use derivatives to hedge interest rate risks, their counterparty is generally Compagnie de Saint-Gobain, the Group's parent company.

The Group's policy is aimed at fixing the cost of its medium-term debt against interest rate risk and optimizing borrowing costs. According to Group policy, the derivative financial instruments used to hedge these risks can include interest rate swaps, cross-currency swaps, options - including caps, floors and swaptions - and forward rate agreements.

The table below shows the sensitivity at December 31, 2017 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group's net debt after hedging:

<i>(in € millions)</i>	<b>Impact on pre-tax income</b>	<b>Impact on pre-tax equity</b>
Interest rate increase of 50 basis points	10	7
Interest rate decrease of 50 basis points	(10)	(7)

Note 8.4 to the consolidated financial statements provides a breakdown of interest rate risk hedging instruments and of gross debt by rate type (fixed or variable) after hedging.

## b) Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than their functional currencies. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries set up contracts generally through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transaction, or through the National Delegations' cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2017, 98% of the Group's foreign exchange exposure eligible for hedging was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2017:

<i>(in millions of € equivalent)</i>	Long	Short
EUR	1	5
USD	13	7
Other currencies	0	4
<b>TOTAL</b>	<b>14</b>	<b>16</b>

The table below gives an analysis, as of December 31, 2017, of the sensitivity of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies given the subsidiaries' residual net foreign exchange exposure:

<i>Currency of exposure (in millions of € equivalent)</i>	Impact on pre-tax income
EUR	(0.4)
USD	0.7
Other currencies	(0.4)
<b>TOTAL</b>	<b>(0.1)</b>

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2017 would have the opposite impact.

Note 8.4 provides a breakdown of foreign exchange risk hedging instruments.

## c) Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are managed by steering committees comprising members of the Group Finance Department, the Group Purchasing Department and the relevant Delegations.

Hedges of energy purchases (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with the Delegations' treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities, in accordance with the same principles as those outlined above for energy purchases.

Note 8.4 provides a breakdown of instruments used to hedge energy and commodity risks.

### 8.1.3. Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance unit incentive plans. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 8.4 provides a breakdown of these share price risk hedging instruments.

### 8.1.4. Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the Group.

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and by regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit the Group's exposure to credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor's or A3 or above from Moody's. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS ("Credit Default Swap") level of each counterparty.

## 8.2. Net financial expense

Net financial expense includes borrowing and other financing costs, income from cash and cash equivalents, interest cost for pensions and other employee benefits, net of the return on plan assets, and other financial income and expense such as exchange gains and losses and bank charges.

(in € millions)	2017	2016
Borrowing costs, gross	(298)	(376)
Income from cash and cash equivalents	23	27
<b>NET BORROWING COSTS</b>	<b>(275)</b>	<b>(349)</b>
Interest cost – pensions and other employee benefits	(327)	(387)
Return on plan assets	247	278
<b>NET INTEREST COST – PENSIONS</b>	<b>(80)</b>	<b>(109)</b>
Other financial expense	(118)	(111)
Other financial income	25	28
<b>OTHER FINANCIAL INCOME AND EXPENSE</b>	<b>(93)</b>	<b>(83)</b>
<b>NET FINANCIAL EXPENSE</b>	<b>(448)</b>	<b>(541)</b>

## 8.3. Net debt

### 8.3.1. Long- and short-term debt

#### a) Long-term debt

Long-term debt includes bonds, perpetual bonds, participating securities, long-term securitizations and all other types of long-term financial liabilities, including finance lease liabilities and the fair value of interest rate hedging derivatives.

Under IAS 32, the distinction between financial liabilities and equity is based on the substance of the contracts concerned rather than their legal form. As a result, participating securities are classified as debt.

At the end of the reporting period, long-term debt (excluding interest rate derivatives) is measured at amortized cost. Premiums and issuance costs are amortized using the effective interest method.

#### b) Short-term debt

Short-term debt includes the current portion of long-term debt described above, short-term financing programs such as commercial paper, short-term securitizations, bank overdrafts and other short-term bank borrowings, the fair value of derivatives related to debt, and accrued interest on borrowings.

Short-term debt, excluding derivatives related to debt, is measured at amortized cost at the end of the reporting period. Premiums and issuance costs are amortized using the effective interest rate method.

#### c) Cash and cash equivalents

Cash and cash equivalents mainly consist of bank accounts and marketable securities that are short-term (*i.e.*, generally with maturities of less than three months), highly liquid investments readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

Marketable securities are measured at fair value through profit or loss.

Long- and short-term debt consists of the following:

<i>(in € millions)</i>	Dec. 31, 2017	Dec. 31, 2016
Bond issues	6,757	6,089
Perpetual bonds and participating securities	203	203
Long-term securitization	400	350
Other long-term financial liabilities	295	317
<b>NON CURRENT PORTION OF LONG-TERM DEBT</b>	<b>7,655</b>	<b>6,959</b>
<b>CURRENT PORTION OF LONG-TERM TERM</b>	<b>1,064</b>	<b>1,835</b>
Short-term financing programs (NEU CP, US CP, Euro CP)	0	0
Short-term securitizations	174	173
Bank overdrafts and other short-term financial liabilities	346	415
<b>SHORT-TERM DEBT AND BANK OVERDRAFTS</b>	<b>520</b>	<b>588</b>
<b>TOTAL GROSS DEBT</b>	<b>9,239</b>	<b>9,382</b>
Cash at banks	(1,658)	(1,529)
Mutual funds and other marketable securities	(1,626)	(2,209)
<b>CASH AND CASH EQUIVALENTS</b>	<b>(3,284)</b>	<b>(3,738)</b>
<b>TOTAL NET DEBT</b>	<b>5,955</b>	<b>5,644</b>

Changes in the Group's long-term debt can be analyzed as follows:

<i>(in € millions)</i>	Dec. 31, 2016	Cash impact		No cash impact			Dec. 31, 2017
		Increases	Decreases	Changes in Group structure	Translation adjustments	Other	
Long-term debt	6,959	1,597	(73)	76	(122)	(782)	7,655
Current portion of long-term term	1,835	6	(1,582)	13	(5)	797	1,064
<b>TOTAL LONG-TERM DEBT</b>	<b>8,794</b>	<b>1,603</b>	<b>(1,655)</b>	<b>89</b>	<b>(127)</b>	<b>15</b>	<b>8,719</b>

The main changes with an impact on cash are described in Note 8.3.3. The main changes with no cash impact in the "Other" column relate to the reclassification of debt maturing within 12 months in short-term debt.

The fair value of gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain amounted to €8.4 billion at December 31, 2017, for a carrying amount of €7.8 billion. The fair value of bonds corresponds to the market price on the last day of the year. For other borrowings, fair value is considered as equal to the amount repayable.

### 8.3.2. Debt repayment schedule

The schedule of the Group's gross debt as of December 31, 2017 is as follows:

<i>(in € millions)</i>	Currency	Within 1 year	1 to 5 years	Beyond 5 years	Total
Bond issues	EUR	737	3,689	2,451	6,877
	GBP	0		617	617
	NOK	76			76
Perpetual bonds and participating securities	EUR			203	203
Long-term securitization	EUR	100	400		500
Other long-term financial liabilities	All currencies	56	131	164	351
Accrued interest on long-term debt	All currencies	95			95
<b>TOTAL LONG-TERM DEBT</b>		<b>1,064</b>	<b>4,220</b>	<b>3,435</b>	<b>8,719</b>
<b>TOTAL SHORT-TERM DEBT</b>	<b>All currencies</b>	<b>520</b>			<b>520</b>
<b>TOTAL GROSS DEBT</b>		<b>1,584</b>	<b>4,220</b>	<b>3,435</b>	<b>9,239</b>

At December 31, 2017, future interest payments on gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain can be broken down as follows:

<i>(in € millions)</i>	Within 1 year	1 to 5 years	Beyond 5 years	Total
Future interest payments on gross long-term debt	230	632	590	1,452

Interest on perpetual bonds and on participating securities is calculated up to 2049.

### 8.3.3. Bonds

Compagnie de Saint-Gobain issued:

- a €750 million 1% bond on March 17, 2017, maturing on March 17, 2025;
- a €750 million 1.375% bond on June 14, 2017, maturing on June 14, 2027.

These issues, which were used to refinance existing debt, extend the average maturity of the Group's debt while also optimizing average borrowing costs.

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- a JPY 5 billion 1.903% private placement on January 13, 2017;
- a €1,250 million 4.75% bond on April 11, 2017;
- a €200 million 6% private placement on June 29, 2017.

### 8.3.4. Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today).

A total of 18,496 perpetual bonds have since been bought back and canceled, and 6,504 perpetual bonds were outstanding at end-2017, representing a total face value of €33 million.

The bonds bear interest at a variable rate (average of interbank rates offered by the five reference banks for six-month euro deposits). The amount paid out per bond in 2017 was €3.16.

The bonds are not redeemable and interest on the bonds is classified as a component of finance costs.

At December 31, 2017, issuance under these programs was as follows:

<i>(in € millions)</i>	<b>Authorized drawings</b>	<b>Authorized limits at Dec. 31, 2017</b>	<b>Balance outstanding at Dec. 31, 2017</b>	<b>Balance outstanding at Dec. 31, 2016</b>
Medium Term Notes		15,000	7,776	7,777
NEU CP	up to 12 months	3,000		0
US Commercial Paper	up to 12 months	834*		0
Euro Commercial Paper	up to 12 months	834*		0

\* Equivalent to USD 1,000 million based on the exchange rate at December 31, 2017.

In accordance with market practices, Negotiable European Commercial Paper (NEU CP), US Commercial Paper and Euro Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

### 8.3.7. Syndicated lines of credit

Compagnie de Saint-Gobain has two syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper programs):

- a €2.5 billion syndicated line of credit which was contracted in December 2013. This facility was

### 8.3.5. Participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their translation into euros in 1999.

A certain number of these participating securities have been bought back over the years. At December 31, 2017, 606,883 securities were still outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond yield (*TMO*), based on the Group's consolidated income. The amount paid out per security in 2017 was €1.36.

In April 1984, 194,633 non-voting participating securities were issued with a face value of ECU 1,000 (€1,000 today).

A certain number of these securities have been bought back over the years. At December 31, 2017, 77,516 securities were still outstanding with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net income of the previous year and to the reference six-month Libor EUR rate +7/8%. The amount paid per security in 2017 was €65.35, paid in two installments (€32.55 and €32.80).

These participating securities are not redeemable and the interest paid on them is reported under borrowing costs.

### 8.3.6. Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

renegotiated in December 2017 and rolled over until December 2022, with two further one-year rollover options;

- a second €1.5 billion syndicated line of credit which was contracted in December 2017. This facility expires in December 2022 and has two one-year rollover options. It replaces a syndicated line of credit for an equivalent amount initially maturing in 2018.

Based on the Group's current credit rating for long-term debt issues, the two facilities are not subject to any hard covenants.

Neither of these two lines of credit had been drawn down at December 31, 2017.

### 8.3.8. Receivables securitization programs

The Group has set up two receivables securitization programs, one through its French subsidiary Point.P Finances GIE, and the other through its US subsidiary, Saint-Gobain Receivables Corporation.

The French program was rolled over on November 10, 2016 for a maximum amount of €500 million. It amounted to €500 million at both December 31, 2017 and December 31, 2016. Based on observed seasonal fluctuations in receivables included in the program and on the contract's features, €400 million of this amount was classified as non-current and the balance as current.

The US program was renewed on October 21, 2015 for a maximum amount of \$350 million. Its euro-equivalent value at December 31, 2017 was €174 million (December 31, 2016: €173 million).

### 8.3.9. Collateral

At December 31, 2017, €11 million of Group debt was secured by various non-current assets (real estate and securities).

## 8.4. Financial instruments

The Group uses interest rate, foreign exchange and commodity derivatives to hedge its exposure to changes in interest rates, exchange rates and commodity prices that may arise in the normal course of business.

In accordance with IAS 32 and IAS 39, all such instruments are recognized in the balance sheet and measured at fair value, irrespective of whether or not they are part of a hedging relationship that qualifies for hedge accounting under IAS 39.

Changes in the fair value of both derivatives that are designated and qualified as fair value hedges and derivatives that do not qualify for hedge accounting during the period are taken to the income statement (in business income and expense for operational foreign exchange derivatives and commodity derivatives not qualifying for hedge accounting, and in net financial income and expense for all other derivatives). However, in the case of derivatives that qualify as cash flow hedges, the effective portion of the gain or loss arising from changes in fair value is recognized directly in equity, and only the ineffective portion is recognized in the income statement.

#### a) Fair value hedges

Fair value hedge accounting is applied by the Group mainly for derivative instruments which swap fixed rates against

variable rates (fixed-for-floating interest rate swaps). These derivatives hedge fixed-rate debts exposed to a fair value risk. In accordance with hedge accounting principles, debt included in a designated fair value hedging relationship is remeasured at fair value and to the extent of the risk hedged. As the loss or gain on the underlying hedged item offsets the effective portion of the gain or loss on the fair value hedge, the income statement is only impacted by the ineffective portion of the hedge.

#### b) Cash flow hedges

Cash flow hedge accounting is applied by the Group mainly for derivative instruments which fix the cost of future investments (financial assets or property, plant and equipment) and the price of future purchases, mostly gas and fuel oil (commodity swaps) or foreign currencies (foreign exchange forwards). Transactions hedged by these instruments are qualified as highly probable. The application of cash flow hedge accounting allows the Group to defer the impact on the income statement of the effective portion of changes in the fair value of these derivatives by recording them in a hedging reserve in equity. This reserve is reclassified to the income statement when the hedged transaction occurs and the hedged item itself affects income. In the same way as for fair value hedges, cash flow hedging limits the Group's exposure to changes in the fair value of these derivatives to the ineffective portion of the hedge.

#### c) Derivatives that do not qualify for hedge accounting

Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized in the income statement. Instruments concerned are primarily foreign exchange swaps and foreign exchange forwards.

#### d) Fair value of financial instruments

The fair value of financial assets and financial liabilities corresponds to their quoted price on an active market (if any): this represents level 1 in the fair value hierarchy defined in IFRS 7 and IFRS 13. The fair value of instruments not quoted in an active market, such as derivatives or financial assets and liabilities, is determined by reference to commonly used valuation techniques such as the fair value of another recent and similar transaction, or discounted cash flow analysis based on observable market inputs. This represents level 2 in the fair value hierarchy defined in IFRS 7 and IFRS 13.

The fair value of short-term financial assets and liabilities is considered as being the same as their carrying amount due to their short maturities.

The following table presents a breakdown of the principal derivatives used by the Group:

(in € millions)	Fair value		Nominal amount by maturity					Dec. 31, 2017
	Derivatives recorded in assets	Derivatives recorded in liabilities	Dec. 31, 2017	Dec. 31, 2016	Within 1 year	1 to 5 years	Beyond 5 years	
<b>FAIR VALUE HEDGES</b>			<b>0</b>	<b>0</b>				<b>0</b>
<b>Cash flow hedges</b>								
Currency	6	(23)	(17)	231	2,782	0	0	2,782
Interest rate	0	(71)	(71)	(70)	0	0	377	377
Energy and commodities	4	0	4	5	18	0	0	18
Other risks: equities	14	0	14	13	0	30	47	77
<b>CASH FLOW HEDGES – TOTAL</b>	<b>24</b>	<b>(94)</b>	<b>(70)</b>	<b>179</b>	<b>2,800</b>	<b>30</b>	<b>424</b>	<b>3,254</b>
<b>Derivatives not qualifying for hedge accounting mainly contracted by Compagnie de Saint-Gobain</b>								
Currency	83	(11)	72	(5)	6,185	12	0	6,197
Interest rate	0	0	0	0	0	0	0	0
Energy and commodities	0	0	0	0	0	0	0	0
<b>DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING – TOTAL</b>	<b>83</b>	<b>(11)</b>	<b>72</b>	<b>(5)</b>	<b>6,185</b>	<b>12</b>	<b>0</b>	<b>6,197</b>
<b>TOTAL</b>	<b>107</b>	<b>(105)</b>	<b>2</b>	<b>174</b>	<b>8,985</b>	<b>42</b>	<b>424</b>	<b>9,451</b>

### 8.4.1. Currency instruments

#### Currency swaps

The Group uses currency swaps mainly to convert euro-denominated funds into foreign currencies for cash management purposes.

#### Forward foreign exchange contracts and currency options

Forward foreign exchange contracts and currency options are used to hedge foreign currency transactions, particularly commercial transactions (purchases and sales) and investments.

### 8.4.2. Interest rate instruments

#### Interest rate swaps

The Group uses interest rate swaps to convert part of its fixed (variable) rate bank debt and bond debt to variable (fixed) rates.

#### Cross-currency swaps

The Group uses cross-currency swaps to convert foreign currency debt (euro debt) into euro debt (foreign currency debt).

### 8.4.3. Energy and commodity instruments

#### Energy and commodity swaps

Energy and commodity swaps are used to hedge the risk of changes in the price of certain purchases used in the Group subsidiaries' operating activities, particularly energy (fuel oil, natural gas and electricity) purchases.

### 8.4.4. Other risks

#### Equity derivatives

Equity derivatives are used to hedge the risk of changes in the Saint-Gobain share price in connection with the performance units long-term incentive plan.

### 8.4.5. Credit value adjustments to derivative instruments

Credit value adjustments to derivative instruments are calculated in accordance with IFRS 13 based on historical probabilities of default derived from calculations performed by a leading rating agency and on the estimated loss given default. At December 31, 2017, credit value adjustments were not material.

### 8.4.6. Impact on equity of financial instruments qualifying for cash flow hedge accounting

At December 31, 2017, the cash flow hedging reserve carried in equity in accordance with IFRS had a credit balance of €21 million, consisting mainly of:

- a debit balance of €29 million in relation to cross-currency swaps designated as cash flow hedges that are used to convert a GBP bond issue into euros;
- a credit balance of €49 million corresponding to changes in the fair value of currency hedges taken out in relation to the acquisition of a controlling interest in Sika, breaking down as:
  - a credit balance of €70 million taken to equity when the initial hedge was unwound,
  - a debit balance of €21 million corresponding to changes in the fair value of the new hedge, measured at a spot exchange rate of CHF 1.17 for €1. An increase of 10% in this exchange rate would result in a decrease of around €245 million in equity. A decrease of 10% in this exchange rate would have the opposite impact.

The ineffective portion of cash flow hedging derivatives is not material.

#### 8.4.7. Impact on income of financial instruments not qualifying for hedge accounting

The fair value of derivatives classified as financial assets and liabilities at fair value through profit or loss represented a gain of €2 million in 2017 compared to a loss of €5 million in 2016. Changes in the fair value of the initial hedge are offset in the income statement against the unwinding of the hedge taken out in connection with the acquisition of a controlling interest in Sika.

#### 8.4.8. Embedded derivatives

The Saint-Gobain Group regularly analyzes its contracts in order to separately identify financial instruments classified as embedded derivatives under IFRS.

At December 31, 2017, no embedded derivatives deemed to be material at Group level were identified.

#### 8.4.9. Group debt structure

The weighted average interest rate on total gross debt under IFRS and after hedging (interest rate swaps, currency swaps and cross-currency swaps) was 2.8% at December 31, 2017, compared with 3.4% at December 31, 2016.

The average internal rate of return for the main component of long-term debt before hedging (bonds) was 3.2% in 2017, compared with 3.9% in 2016.

The table below presents the breakdown by interest rate (fixed or variable) of the Group's gross debt at December 31, 2017, taking into account interest rate, currency and cross-currency swaps:

(in € millions)	Gross debt after hedging		
	Variable rate	Fixed rate	Total
EUR	1,219	7,264	8,483
Other currencies	153	438	591
<b>TOTAL</b>	<b>1,372</b>	<b>7,702</b>	<b>9,074</b>
(in %)	15%	85%	100%
Accrued interest and other financial liabilities			165
<b>TOTAL GROSS DEBT</b>			<b>9,239</b>

### 8.5. Financial assets and liabilities

Financial assets and liabilities are classified as follows in accordance with IFRS 7:

#### At December 31, 2017:

(in € millions)	Financial instruments at fair value			Other financial instruments			Financial instruments at fair value according to the IFRS 7 hierarchy			Total financial instruments measured at fair value		
	Financial instruments through profit or loss	Qualifying derivatives	Assets and liabilities measured at fair value (fair value option)	Total financial instruments measured at fair value	Available-for-sale financial assets	Loans and receivables	Liabilities at amortized cost	Total financial instruments	Level 1 inputs		Level 2 inputs	Level 3 inputs
Trade and other accounts receivable	(3)			0	6,425		6,425					0
Loans, deposits and surety	(6)			0	512		512					0
Available-for-sale and other securities	(6)			0	101		101					0
Derivatives recorded in assets	83	24		107			107			107		107
Cash and cash equivalents			3,284	3,284			3,284	1,626	1,658			3,284
<b>TOTAL ASSETS</b>	<b>83</b>	<b>24</b>	<b>3,284</b>	<b>3,391</b>	<b>101</b>	<b>6,937</b>	<b>0</b>	<b>10,429</b>	<b>1,626</b>	<b>1,765</b>	<b>0</b>	<b>3,391</b>
Trade and other accounts payable	(3)			0		(9,818)	(9,818)					0
Long- and short-term debt				0		(9,169)	(9,169)					0
Derivatives recorded in liabilities	(11)	(94)		(105)	0		(105)		(105)			(105)
<b>TOTAL LIABILITIES</b>	<b>(11)</b>	<b>(94)</b>	<b>0</b>	<b>(105)</b>	<b>0</b>	<b>0</b>	<b>(18,987)</b>	<b>(19,092)</b>	<b>0</b>	<b>(105)</b>	<b>0</b>	<b>(105)</b>
<b>TOTAL</b>	<b>72</b>	<b>(70)</b>	<b>3,284</b>	<b>3,286</b>	<b>101</b>	<b>6,937</b>	<b>(18,987)</b>	<b>(8,663)</b>	<b>1,626</b>	<b>1,660</b>	<b>0</b>	<b>3,286</b>

**At December 31, 2016:**

(in € millions)		Financial instruments at fair value			Other financial instruments			Financial instruments at fair value according to the IFRS 7 hierarchy			Total financial instruments measured at fair value		
		Financial instruments through profit or loss	Qualifying derivatives	Assets and liabilities measured at fair value (fair value option)	Total financial instruments measured at fair value	Available-for-sale financial assets	Loans and receivables	Liabilities at amortized cost	Total financial instruments	Level 1 inputs		Level 2 inputs	Level 3 inputs
Trade and other accounts receivable	(3)				0	6,193		6,193				0	
Loans, deposits and surety	(6)				0	521		521				0	
Available-for-sale and other securities	(6)				0	148		148				0	
Derivatives recorded in assets		5	256		261			261		261		261	
Cash and cash equivalents				3,738	3,738			3,738	2,209	1,529		3,738	
<b>TOTAL ASSETS</b>		<b>5</b>	<b>256</b>	<b>3,738</b>	<b>3,999</b>	<b>148</b>	<b>6,714</b>	<b>0</b>	<b>10,861</b>	<b>2,209</b>	<b>1,790</b>	<b>0</b>	<b>3,999</b>
Trade and other accounts payable	(3)				0		(9,433)	(9,433)				0	
Long- and short-term debt					0		(9,307)	(9,307)				0	
Derivatives recorded in liabilities		(10)	(77)		(87)			(87)		(87)		(87)	
<b>TOTAL LIABILITIES</b>		<b>(10)</b>	<b>(77)</b>	<b>0</b>	<b>(87)</b>	<b>0</b>	<b>0</b>	<b>(18,740)</b>	<b>(18,827)</b>	<b>0</b>	<b>(87)</b>	<b>0</b>	<b>(87)</b>
<b>TOTAL</b>		<b>(5)</b>	<b>179</b>	<b>3,738</b>	<b>3,912</b>	<b>148</b>	<b>6,714</b>	<b>(18,740)</b>	<b>(7,966)</b>	<b>2,209</b>	<b>1,703</b>	<b>0</b>	<b>3,912</b>

IFRS 13 ranks the inputs used to determine fair value:

■ Level 1: inputs resulting from quoted prices on an active market for identical instruments;

■ Level 2: inputs other than Level 1 inputs that can be observed directly or indirectly;

■ Level 3: all other non-observable inputs.

## NOTE 9 SHAREHOLDERS' EQUITY AND EARNINGS PER SHARE

### 9.1. Equity

#### 9.1.1. Capital stock

As of December 31, 2017, the number of shares composing the capital stock of Compagnie de Saint-Gobain was 553,557,091 shares with a par value of €4 (555,280,358 shares at December 31, 2016). At December 31, 2017, capital stock comprised a single share class.

#### 9.1.2. Additional paid-in capital and legal reserve

This item includes capital contributions in excess of the par value of capital stock as well as the legal reserve, which corresponds to a cumulative portion of the yearly net income of Compagnie de Saint-Gobain.

#### 9.1.3. Retained earnings and consolidated net income for the year

Retained earnings and consolidated net income for the year correspond to the Group's share in the undistributed earnings of all consolidated companies.

#### 9.1.4. Treasury stock

Treasury stock is measured at cost and recorded as a deduction from equity. Gains and losses on disposals of treasury stock are recognized directly in equity and have no impact on net income for the period.

Forward purchases of treasury stock are treated in the same way. When a fixed number of shares is purchased forward at a fixed price, this amount is recorded in "Other liabilities" against a deduction from equity under "Retained earnings and net income for the year".

Saint-Gobain shares held or controlled by Compagnie de Saint-Gobain and Saint-Gobain Corporation are shown as a deduction from equity under "Treasury stock" at acquisition cost.

The liquidity agreement signed with Exane BNP Paribas on November 16, 2007 and implemented on December 3, 2007 for a period up to December 31, 2007 has been automatically renewed since that date.

At December 31, 2017, 2,771,372 shares were held in treasury stock (December 31, 2016: 1,891,955 shares). In 2017, the Group acquired 9,595,036 shares (12,246,156 shares in 2016) directly on the market and sold 1,715,619 shares (2016: 1,706,031 shares). Lastly, 7,000,000 shares were canceled in 2017 and 10,984,088 shares in 2016.

For the purposes of a compensation plan set up in January 2008 for certain employees in the United States, Compagnie de Saint-Gobain shares are held by the trustee,

Wachovia Bank, National Association. In the consolidated financial statements, these shares are treated as being controlled by Saint-Gobain Corporation.

### 9.1.5. Dividends

The Annual shareholders' Meeting of June 8, 2017 approved the recommended dividend payout for 2016, representing €1.26 per share.

## 9.2. Earnings per share

Basic earnings per share are calculated by dividing net income by the weighted average number of shares of the Group outstanding during the period.

Diluted earnings per share are calculated by adjusting earnings per share and the average number of shares outstanding for the effects of all potential dilutive common shares, such as stock options and performance shares.

Basic and diluted earnings per share are as follows:

	2017		2016	
	Basic	Diluted	Basic	Diluted
Income (in € millions)				
<b>GROUP SHARE OF NET INCOME</b>	<b>1,566</b>	<b>1,566</b>	<b>1,311</b>	<b>1,311</b>
<b>Number of shares</b>				
Weighted average number of shares in issue	553,383,836		554,624,285	
Weighted average number of shares assuming full dilution		556,655,598		557,163,247
Earnings per share (in €)				
<b>EARNINGS PER SHARE, GROUP SHARE</b>	<b>2.83</b>	<b>2.81</b>	<b>2.36</b>	<b>2.35</b>

The weighted average number of shares assuming full dilution is calculated based on the weighted average number of shares outstanding, assuming conversion of all dilutive instruments. The Group's dilutive instruments include stock

options and performance share grants corresponding to a weighted average of 975,772 and 2,295,990 shares, respectively, at December 31, 2017.

## NOTE 10 TAXES

### 10.1. Income taxes

Current income tax is the estimated amount of tax payable in respect of income for a given period, calculated by reference to the tax rates that have been enacted or substantively enacted at the end of the reporting period, plus any adjustments to current taxes recorded in previous financial periods.

Income tax expense breaks down as follows:

(in € millions)	2017	2016
<b>CURRENT TAXES</b>	<b>(445)</b>	<b>(325)</b>
France	(18)	(45)
Outside France	(427)	(280)
<b>DEFERRED TAXES</b>	<b>7</b>	<b>(91)</b>
France	64	86
Outside France	(57)	(177)
<b>TOTAL INCOME TAX EXPENSE</b>	<b>(438)</b>	<b>(416)</b>

Theoretical tax expense was reconciled with current tax expense using a tax rate of 34.43% in 2017 and 2016, and can be analyzed as follows:

(in € millions)	2017	2016
Net income	1,625	1,352
Less:		
Share in net income of equity-accounted companies	33	36
Income taxes	(438)	(416)
<b>PRE-TAX INCOME OF CONSOLIDATED COMPANIES</b>	<b>2,030</b>	<b>1,732</b>
French tax rate	34.43%	34.43%
Theoretical tax expense at French tax rate	(699)	(596)
Impact of different tax rates	161	161
Asset impairment, capital gains and losses and anti-trust provision	(37)	(8)
Deferred tax assets not recognized	(10)	(75)
Liability method	98	67
Research tax credit, tax credit for competitiveness and employment (CICE) and value-added contribution for businesses (CVAE)	9	5
Costs related to dividends*	31	(5)
Other taxes and provision writebacks	9	35
<b>TOTAL INCOME TAX EXPENSE</b>	<b>(438)</b>	<b>(416)</b>

\* Including the cancellation of the 3% tax on dividends in 2017.

Changes in deferred tax rates in certain countries led the Group to recognize an income tax gain of €98 million in 2017 (€67 million gain in 2016). The main contributors to this item are the United States and France.

In view of the late adoption of US tax reform, some impact assessments remain to be completed during the first half of 2018. The residual impact is however expected to be limited. The impact of the tax on repatriated profits of foreign subsidiaries is not material in view of the limited number of foreign operations owned by Saint-Gobain's US entities.

The contribution of countries with low tax rates explains the impact of the different tax rates applicable outside France. The main contributors are Poland, the United Kingdom, the Czech Republic, Sweden and Norway.

## 10.2. Deferred tax

Deferred taxes are recorded using the balance sheet method for temporary differences between the carrying amount of assets and liabilities and their tax basis. Deferred tax assets and liabilities are measured at the tax rates expected to apply to the period when the asset is realized or the liability settled, based on the tax laws that have been enacted or substantively enacted at the end of the reporting period.

No deferred tax liability is recognized in respect of undistributed earnings of subsidiaries that are not intended to be distributed.

For investments in subsidiaries, deferred tax is recognized on the difference between the consolidated carrying amount of the investments and their tax basis when it is probable that the temporary difference will reverse in the foreseeable future.

Deferred taxes are recognized as income or expense in the income statement, unless they relate to items that are recognized directly in equity, in which case the deferred tax is also recognized in equity. Income tax resulting from changes in tax rates is recognized in income, except when it relates to items initially recognized in equity.

In the balance sheet, changes in the net deferred tax liability break down as follows:

(in € millions)	Net deferred tax asset/(liability)
<b>AT JANUARY 1, 2016</b>	<b>871</b>
Deferred tax (expense)/benefit	(91)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	76
Liability method on actuarial gains and losses	(51)
Translation adjustments	29
Impact of changes in Group structure and other	(9)
<b>AT DECEMBER 31, 2016</b>	<b>825</b>
Deferred tax (expense)/benefit	7
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	(89)
Liability method on actuarial gains and losses*	(252)
Translation adjustments	(40)
Impact of changes in Group structure and other	60
<b>AT DECEMBER 31, 2017</b>	<b>511</b>

\* The liability method on actuarial gains and losses mainly concerns the United States.

The table below shows the main deferred tax components:

(in € millions)	Dec. 31, 2017	Dec. 31, 2016
Pensions	562	846
Brands	(425)	(474)
Depreciation and amortization, accelerated capital allowances and tax-driven provisions	(711)	(887)
Tax loss carry-forwards	633	765
Other	452	575
<b>NET DEFERRED TAX</b>	<b>511</b>	<b>825</b>
Of which:		
Deferred tax assets	938	1,188
Deferred tax liabilities	(427)	(363)

Deferred taxes are offset at the level of each tax entity, i.e., by tax group where applicable (mainly in France, the United Kingdom, Spain, Germany, the United States and the Netherlands).

Deferred tax assets of €938 million were recognized at December 31, 2017 (€1,188 million at December 31, 2016), primarily in the United States (€245 million), Germany (€203 million) and France (€161 million). Deferred tax liabilities of €427 million were recognized at December 31, 2017 (€363 million at December 31, 2016), including €144 million in the United Kingdom, €52 million in India, €50 million in Switzerland, and €41 million in Denmark.

Deferred tax liabilities recognized in other countries represented considerably smaller amounts.

### 10.3. Tax loss carry-forwards

Deferred tax assets are recognized only if it is considered probable that there will be sufficient future taxable income against which the temporary difference can be utilized. They are reviewed at the end of each reporting period and written down to the extent that it is no longer probable that there will be sufficient taxable income against which the temporary difference can be utilized. In determining whether to recognize deferred tax assets for tax loss carry-forwards, the Group applies a range of criteria that take into account the probable recovery period based on business plan projections and the strategy for the long-term recovery of tax losses applied in each country.

The Group recognized deferred income tax assets on loss carry-forwards for a net amount of €633 million at December 31, 2017 and €765 million at December 31, 2016. This principally relates to the United States, for which the recovery period is shorter than the maximum utilization period of 20 years, and to France, Germany and Spain, where tax consolidation ensures that deferred tax can be recovered. In these countries, tax losses may be carried forwards indefinitely. Nevertheless, after analyzing each situation, the Group may decide not to recognize them.

At December 31, 2017, deferred tax assets whose recovery is not considered probable totaled €330 million (December 31, 2016: €393 million) and a provision had been accrued for the full amount. Unrecognized deferred tax assets chiefly relate to China, Spain, Germany and the United States.

## NOTE 11 SUBSEQUENT EVENTS

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None.

## NOTE 12 FEES PAID TO THE STATUTORY AUDITORS

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Total fees paid to the Statutory Auditors and recognized in the income statement in 2017 and 2016 are detailed in the "Additional information and cross-reference tables" section of the Registration Document.

**NOTE 13 PRINCIPAL CONSOLIDATED COMPANIES**

The table below shows the Group's principal consolidated companies, typically those with annual sales of over €100 million.

**Innovative Materials Sector**

FLAT GLASS	Country	Dec. 31, 2017	
		Consolidation method	Percentage held directly and indirectly
Saint-Gobain Glass Deutschland GmbH, Stolberg*	Germany	Full consolidation	99.99%
Saint-Gobain Sekurit Deutschland GmbH & CO Kg, Herzogenrath*	Germany	Full consolidation	99.99%
Saint-Gobain Deutsche Glas GmbH, Stolberg*	Germany	Full consolidation	99.99%
Flachglas Torgau GmbH, Torgau*	Germany	Full consolidation	99.99%
Saint-Gobain Weisswasser GmbH, Aachen*	Germany	Full consolidation	99.99%
Glasverarbeitungs-Gesellschaft Bremen mbH, Bremen*	Germany	Full consolidation	99.99%
Saint-Gobain Glassolutions Nord GmbH, Lübeck*	Germany	Full consolidation	99.99%
Saint-Gobain Glassolutions Süd GmbH, Tuttlingen*	Germany	Full consolidation	99.99%
Saint-Gobain Glassolutions Objekt-Center GmbH, Radeburg*	Germany	Full consolidation	99.99%
Glas-Funke GmbH, Kall*	Germany	Full consolidation	99.99%
Glasverarbeitungs-Gesellschaft Deggendorf mbH, Deggendorf*	Germany	Full consolidation	99.99%
Vetrotech Saint-Gobain Kinon GmbH, Aachen*	Germany	Full consolidation	99.99%
Saint-Gobain Autoglas GmbH, Herzogenrath*	Germany	Full consolidation	99.99%
Saint-Gobain Sekurit Deutschland Beteiligungen GmbH, Herzogenrath*	Germany	Full consolidation	99.99%
FABA Autoglas Technik GmbH & Co. Betriebs-KG, Berlin*	Germany	Full consolidation	99.99%
Freeglass GmbH & Co. KG, Schwaikheim*	Germany	Full consolidation	99.99%
Saint-Gobain Autover Deutschland GmbH, Kerpen*	Germany	Full consolidation	99.99%
Freudenberger Autoglas GmbH, München*	Germany	Full consolidation	99.99%
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%
Cebrace Cristal Plano Ltda	Brazil	Full consolidation	50.00%
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%
SG Hanglas Sekurit (Shanghai) Co., Ltd	China	Full consolidation	90.24%
Hankuk Sekurit Limited	South Korea	Full consolidation	90.13%
Hankuk Glass Industries Inc.	South Korea	Full consolidation	80.47%
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%
Saint-Gobain Glass France	France	Full consolidation	100.00%
Saint-Gobain Sekurit France	France	Full consolidation	100.00%
Eurofloat	France	Full consolidation	100.00%
Saint-Gobain Glass Solutions Menuisiers Industriels	France	Full consolidation	100.00%
Saint-Gobain India Private Limited	India	Full consolidation	99.14%
Saint-Gobain Glass Italia S.p.a	Italy	Full consolidation	100.00%
Saint-Gobain Mexico	Mexico	Full consolidation	99.83%
Saint-Gobain Polska Sp Zoo	Poland	Full consolidation	99.11%
Saint-Gobain Innovative Materials Polska Sp Zoo	Poland	Full consolidation	98.61%
Saint-Gobain Sekurit CZ, Spol S.R.O	Czech Republic	Full consolidation	100.00%
Saint-Gobain Glass (United Kingdom) Limited	United Kingdom	Full consolidation	100.00%
Vetrotech Saint-Gobain International	Switzerland	Full consolidation	100.00%

HIGH PERFORMANCE MATERIALS	Country	Dec. 31, 2017	
		Consolidation method	Percentage held directly and indirectly
Saint-Gobain Abrasives GmbH, Wesseling*	Germany	Full consolidation	100.00%
Saint-Gobain Diamantwerkzeuge GmbH, Norderstedt*	Germany	Full consolidation	100.00%
Supercut Europe GmbH, Baesweiler*	Germany	Full consolidation	100.00%
Ernst Winter & Sohn Norderstedt GmbH & Co. KG, Norderstedt*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Isofluor GmbH, Neuss*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics MG Silikon GmbH, Lindau*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Pampus GmbH, Willich*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics L+S GmbH, Wertheim*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Biolink GmbH, Waakirchen*	Germany	Full consolidation	100.00%
Kirson Industrial Reinforcement GmbH, Neustadt an der Donau*	Germany	Full consolidation	100.00%
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canada, Inc.	Canada	Full consolidation	100.00%
Saint-Gobain Performance Plastics (Shanghai) Co., LTD	China	Full consolidation	100.00%
Saint-Gobain Abrasives (Shanghai) Co., LTD	China	Full consolidation	100.00%
Saint-Gobain Abrasives, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Ceramics & Plastics, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Performance Plastics Corporation	United States	Full consolidation	100.00%
Saint-Gobain Adfors America, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Abrasifs	France	Full consolidation	99.98%
Société Européenne des Produits Réfractaires - SEPR	France	Full consolidation	100.00%
Grindwell Norton Ltd	India	Full consolidation	51.59%
Saint-Gobain K.K.	Japan	Full consolidation	100.00%
Saint-Gobain America S.A De C.V	Mexico	Full consolidation	99.83%
Saint-Gobain Abrasives BV	Netherlands	Full consolidation	100.00%
Saint-Gobain HPM Polska Sp Zoo	Poland	Full consolidation	100.00%
Saint-Gobain Adfors CZ S.R.O.	Czech Republic	Full consolidation	100.00%

## Construction Products Sector

		Dec. 31, 2017	
INTERIOR SOLUTIONS	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Construction Products South Africa Ltd	South Africa	Full consolidation	100.00%
Saint-Gobain Rigips GmbH	Germany	Full consolidation	100.00%
Saint-Gobain Isover G+H Aktiengesellschaft	Germany	Full consolidation	99.91%
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%
CertainTeed Gypsum Canada, Inc.	Canada	Full consolidation	100.00%
Saint-Gobain Placo Iberica	Spain	Full consolidation	99.83%
CertainTeed Corporation	United States	Full consolidation	100.00%
CertainTeed Gypsum & Ceillings USA, Inc.	United States	Full consolidation	100.00%
CertainTeed Ceillings Corporation	United States	Full consolidation	100.00%
Saint-Gobain Finland OY	Finland	Full consolidation	100.00%
Placoplatre SA	France	Full consolidation	99.75%
Saint-Gobain Isover	France	Full consolidation	100.00%
Saint-Gobain India Private Limited	India	Full consolidation	99.14%
Saint-Gobain PPC Italia S.p.a	Italy	Full consolidation	100.00%
Mag-Isover K.K.	Japan	Full consolidation	99.98%
Glava As	Norway	Full consolidation	100.00%
Saint-Gobain Construction Products Nederland BV	Netherlands	Full consolidation	100.00%
Saint-Gobain Construction Products Polska Sp Zoo	Poland	Full consolidation	100.00%
Saint-Gobain Construction Products CZ AS	Czech Republic	Full consolidation	100.00%
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Construction Products Russia ooo	Russia	Full consolidation	100.00%
Saint-Gobain Ecophon AB	Sweden	Full consolidation	100.00%
Saint-Gobain Sweden AB	Sweden	Full consolidation	100.00%
Izocam Ticaret VE Sanayi A.S.	Turkey	Full consolidation	47.53%
Vinh Tuong Industrial Corporation	Vietnam	Full consolidation	98.65%

		Dec. 31, 2017	
EXTERIOR SOLUTIONS	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Weber GmbH	Germany	Full consolidation	100.00%
Saint-Gobain PAM Deutschland GmbH	Germany	Full consolidation	100.00%
Saint-Gobain Argentina S.A	Argentina	Full consolidation	100.00%
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canalizaçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain (Xuzhou) Pipe Co., Ltd	China	Full consolidation	100.00%
Saint-Gobain (Xuzhou) Pipelines Co., Ltd	China	Full consolidation	100.00%
Saint-Gobain Pipelines Co., Ltd	China	Full consolidation	100.00%
CertainTeed Corporation	United States	Full consolidation	100.00%
Saint-Gobain Finland OY	Finland	Full consolidation	100.00%
Saint-Gobain Weber	France	Full consolidation	100.00%
Saint-Gobain PAM	France	Full consolidation	100.00%
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Sweden AB	Sweden	Full consolidation	100.00%
Saint-Gobain Weber AG	Switzerland	Full consolidation	100.00%

## Building Distribution Sector

	Country	Dec. 31, 2017	
		Consolidation method	Percentage held directly and indirectly
Saint-Gobain Building Distribution Deutschland GmbH, Offenbach/Main*	Germany	Full consolidation	100.00%
Fliesen Discount GmbH, Berlin*	Germany	Full consolidation	100.00%
Chr.Balzer GmbH & Co. KG, Marburg*	Germany	Full consolidation	67.34%
Balzer & Nassauer GmbH & Co. KG, Herborn*	Germany	Full consolidation	67.34%
Christian Balzer Beteiligungs GmbH & Co. KG, Allendorf (Eder)*	Germany	Full consolidation	67.34%
Balzer GmbH & Co. KG, Allendorf (Eder)*	Germany	Full consolidation	67.34%
Saint-Gobain Distribuição Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Distribution Denmark	Denmark	Full consolidation	100.00%
Saint-Gobain Distribucion Construccion, S.L	Spain	Full consolidation	99.83%
Distribution Sanitaire Chauffage	France	Full consolidation	100.00%
Lapeyre	France	Full consolidation	100.00%
Saint-Gobain Distribution Bâtiment France	France	Full consolidation	100.00%
Optimera As	Norway	Full consolidation	100.00%
Saint-Gobain Distribution The Netherlands B.V	Netherlands	Full consolidation	100.00%
Saint-Gobain Building Distribution Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Distribution Nordic Ab	Sweden	Full consolidation	100.00%
Sanitas Troesch Ag	Switzerland	Full consolidation	100.00%

\* German consolidated subsidiary or sub-group with corporate or limited liability status and meeting the criteria under Articles 264 paragraph 3, 264b and 291 of the German Commercial Code (HGB) exempting the relevant entities and sub-groups from publishing their statutory and consolidated financial statements or notes to the financial statements and management reports (entities or sub-groups above or below the €100 million threshold).

## 2. STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

*This is a free translation into English of the Statutory Auditors' report on the consolidated financial statements issued in French and is provided solely for the convenience of English-speaking users. This report includes information specifically required by European regulations and French law, such as information about the appointment of Statutory Auditors or verification of the management report. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

**For the year ended December 31, 2017**

**Compagnie de Saint-Gobain S.A.**

Les Miroirs  
18 avenue d'Alsace  
92400 Courbevoie  
France

To the Shareholders,

### 1. Opinion

In compliance with the engagement entrusted to us by your Annual General Meetings, we have audited the accompanying consolidated financial statements of Compagnie de Saint-Gobain for the year ended December 31, 2017.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as of December 31, 2017 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

### 2. Basis for opinion

#### **Audit framework**

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements" section of our report.

#### **Independence**

We conducted our audit engagement in compliance with the independence rules applicable to us, for the period from January 1, 2017 to the date of our report and in particular we did not provide any prohibited non-audit services prohibited by article 5(1) of Regulation (EU) No 537/2014 or the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

### 3. Justification of our assessments – Key audit matters

In accordance with the requirements of articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon. We do not provide a separate opinion on specific items of the consolidated financial statements.

#### **Measurement of provisions for liabilities and litigation**

##### **Description of risk**

The Group is exposed to various legal risks, including asbestos-related litigation in the United States and Brazil.

As indicated in Note 7 to the consolidated financial statements, provisions amounting to €1,327 million were recognized at December 31, 2017 for contingent liabilities and litigation. Significant contingent liabilities, whose amount or timing cannot be estimated with sufficient reliability, are disclosed in the notes to the consolidated financial statements.

Determining and measuring the provisions recognized for contingent liabilities and litigation and assessing the appropriateness of information provided thereon in the notes to the consolidated financial statements are a key audit matter given the amounts involved, the importance of estimates and the level of judgment required by Management in determining those provisions.

#### **How our audit addressed this risk**

To obtain an understanding of contingent liabilities and litigation and the related matters of judgment, we held discussions with Management at Group, Sector and Delegation level as well as at the main subsidiaries. We also contacted the main law firms involved. We reviewed the minutes of the Board of Directors' meetings and the Group's risk mapping prepared by Management and presented to the Audit and Risk Committee.

For each of the main contingent liabilities and items of litigation identified, we:

- familiarized ourselves with the procedures implemented by Management when measuring the corresponding provisions and determining the disclosures thereon in the notes to the consolidated financial statements;
- carried out a critical review of internal analyses relating to the probability and possible impact of each liability and item of litigation, examining the available information relating to the proceedings (correspondence, claims, judgments, notifications, etc.). We also reviewed the legal or technical opinions of the law firms or external specialists chosen by Management. We used our professional judgment, with the help of our own specialists where necessary, to assess the positions adopted by Management, to see where they fell within risk assessment ranges, and the consistency of those positions over time.

To measure the provisions relating to asbestos-related litigation, based on a statistical model, we verified that the consistency principle was complied with and checked the relevance and reliability of the source data and calculation formulas used. Where applicable, we compared the amounts paid with previously recognized provisions in order to form an opinion on the quality of Management's estimates.

We assessed the appropriateness of information provided in the notes to the consolidated financial statements regarding the main items of litigation and contingent liabilities identified.

#### **Measurement of goodwill, intangible assets and property, plant & equipment**

##### **Description of risk**

The carrying amounts of goodwill, intangible assets and property, plant & equipment were significant at December 31, 2017, amounting to €10,575 million, €2,603 million and €11,590 million, respectively. The assets may be impaired due to internal or external factors, including a decline in Group performance, changes in competition, unfavorable market conditions and changes in legislation or regulations. These changes are likely to have an impact on the Group's forecast cash flow and, consequently, the assets' recoverable amount.

The impairment tests performed by Management using the method described in Note 5.5 to the consolidated financial statements led to the recognition of impairment losses of €237 million in the fiscal year ended December 31, 2017, as indicated in Note 3 to the consolidated financial statements.

Determining the assets' recoverable amount is a key audit matter given the potentially significant nature of impairment, the importance of estimates and the level of judgment required by Management in measuring impairment loss. Management exercises judgment when making assumptions regarding future changes in sales (in both volume and value terms), profitability, investments and the other cash flows required to operate the assets, and when determining an appropriate discount rate to apply to future cash flows.

#### **How our audit addressed this risk**

We familiarized ourselves with the procedures implemented by Group Management for impairment testing, verified that the consistency principle had been complied with and tested the effectiveness of the controls performed by Management to ensure the quality and reliability of the impairment testing process and its consistency with budget data and the strategic plan prepared by General Management and presented to the Board of Directors.

We also assessed the consistency and relevance of Management's approach to determine the cash generating units for asset impairment testing. We adapted our audit approach to the risk of impairment loss which varies depending on the cash generating unit.

Our valuation specialists performed an independent analysis of certain key assumptions used by Management for impairment testing, in particular the discount rate and average annual growth rate to infinity of future cash flows, by referring to both external market data and comparable company analyses.

For a selection of cash generating units, we analyzed the consistency of future cash flow projections with regard to past performance, our knowledge of the business, confirmed by interviews with the Heads of the relevant Sectors and Activities and, where available, external market or competition data. We carefully reviewed the calculation of the normalized amount of the terminal cash flows projected until perpetuity. We performed our own sensitivity analyses of certain key variables of the measurement model to assess the materiality of their potential impact on the recoverable amount of the most high-risk assets.

We verified that the information provided in the notes to the consolidated financial statements on the measurement of goodwill, intangible assets and property, plant & equipment, the underlying assumptions and sensitivity analyses was appropriate.

**Planned acquisition of a controlling interest in Sika****Description of risk**

As indicated in Notes 2.2, 2.4 and 8.4 to the consolidated financial statements, the Saint-Gobain Group announced, on December 8, 2014, its plan to acquire a controlling interest in Sika. The project consists in acquiring, for CHF 2.83 billion, Schenker Winkler Holding AG (SWH), which controls Sika and is currently held by the Burkard family.

The transaction is subject to a favorable outcome for SWH in the case it brought before the Swiss courts against Sika's Board of Directors' decision of April 2015 to restrict SWH's voting rights for certain resolutions at Sika's General Shareholders' Meetings. Saint-Gobain had foreseen the situation by allowing itself the option of extending the term of the purchase agreement with the Burkard family relating to the disposal of SWH shares. Saint-Gobain exercised its rights, extending the agreement several times, with the most recent extension in October 2017 taking its term to June 30, 2018. At this date, Saint-Gobain will once again have the option of extending the term of the agreement until December 31, 2018.

The Group's commitment to acquire SWH shares exposes it to currency risk, which was hedged using financial instruments measured in accordance with IAS 39. Assessing the transaction's likelihood of occurrence, which affects the accounting treatment of the hedging transaction, is a key audit matter, as the Group's Senior Management considers that the acquisition is "highly probable".

**How our audit addressed this risk**

To obtain a clear understanding of this transaction, including its terms, conditions and likelihood of occurrence, we analyzed the various contracts between the Group and the Burkard family, and contacted the main Group departments involved. We also reviewed the Board of Directors' minutes relating to the planned transaction, court rulings, and the attorneys' opinions on the procedure underway before the Swiss courts.

We also analyzed the currency hedges taken out by the Group in connection with its commitment to acquire the SWH shares and checked the appropriateness of their accounting treatment in accordance with IFRS.

We assessed the appropriateness of information provided in the notes to the consolidated financial statements regarding the planned acquisition and its accounting impact.

**Measurement of supplier discounts in the Building Distribution Sector****Description of risk**

The Building Distribution Sector accounted for 46% of the Group's sales for fiscal year 2017. The profitability of the Sector's business activities varies depending on supplier discounts received, which lower the cost price of negotiated goods. As indicated in Notes 3.1.2, 3.5.1 and 3.5.2 to the consolidated financial statements, the recognition of supplier discounts specifically affects "Cost of sales" in the consolidated income statement as well as "Inventories" and "Other receivables" in the consolidated balance sheet.

Given the diversity of products and suppliers in the Building Distribution Sector, supplier contracts are numerous, complex and varied. They give rise to several supplier discounts, some of which are subject to volume conditions or targets, granted at various Sector levels (local, regional, national and international). Measuring accrued supplier discounts is a key audit matter as it is complex and requires significant estimates made by Management. Determining the amounts of supplier discounts to be taken into account when measuring inventories for brands in the Building Distribution Sector is also a significant audit matter.

**How our audit addressed this risk**

We gained an understanding of the process used by the Sales and Finance Departments of the Building Distribution Sector to estimate accrued supplier discounts at the reporting date and performed tests on the effectiveness of the controls performed by Management.

We also assessed, on a multi-year basis, the consistency of the supplier discount rates obtained per brand and country, confirmed by interviews with the Sales and Finance Departments at various levels within the Sector. Using a sample, we remeasured the supplier discounts obtained based on the terms and conditions of the relevant agreements and volumes purchased. We also retrospectively cross-checked cash and credit notes received after the reporting date against the receivables recognized and asked a sample of suppliers to directly confirm the discount amounts due for the fiscal year.

With regard to the accuracy of the supplier discounts taken into account when measuring inventories for brands in the Building Distribution Sector, we verified that the accounting methods were applied consistently across all the brands. Using sampling techniques, we cross-checked the measurement of certain inventory items against supplier invoices, estimating supplier discounts granted subsequently.

We verified that the information provided in the notes to the consolidated financial statements regarding supplier discounts was appropriate.

#### 4. Verification of the information pertaining to the Group presented in the management report

As required by law we have also verified in accordance with professional standards applicable in France the information pertaining to the Group presented in the management report of the Board of Directors.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

#### 5. Report on other legal and regulatory requirements

##### *Appointment of the Statutory Auditors*

We were appointed Statutory Auditors of Compagnie de Saint-Gobain by the Annual General Meetings of June 26, 1986 for Petiteau Scacchi and subsequently PricewaterhouseCoopers Audit and June 10, 2004 for KPMG Audit.

As of December 31, 2017, PricewaterhouseCoopers Audit and KPMG Audit were in the thirty-second year and the fourteenth year of total uninterrupted engagement, respectively.

#### 6. Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparing consolidated financial statements presenting a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union, and for implementing the internal control procedures it deems necessary for the preparation of consolidated financial statements free of material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless it expects to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems, as well as, where applicable, any internal audit systems, relating to accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

#### 7. Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements

##### *Objective and audit approach*

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free of material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in article L.823-10-1 of the French Commercial Code (*Code de commerce*), our audit does not include assurance on the viability or quality of management of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit. He also:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the related disclosures in the notes to the consolidated financial statements;

- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, he is required to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or are inadequate, to issue a qualified opinion or a disclaimer of opinion;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Statutory Auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

**Report to the Audit and Risk Committee**

We submit a report to the Audit and Risk Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in articles L.822-10 to L.822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics for Statutory Auditors (*Code de déontologie*). Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Risk Committee.

Neuilly-sur-Seine and Paris La Défense, February 22, 2018

The Statutory Auditors

PricewaterhouseCoopers Audit

KPMG Audit

Department of KPMG S.A.

Edouard Sattler

Cécile Saint-Martin

Jean-Paul Thill

Bertrand Pruvost

### 3. COMPAGNIE DE SAINT-GOBAIN 2017 ANNUAL FINANCIAL STATEMENTS (PARENT COMPANY)

#### Income statement

(in EUR thousand)	2017	2016
<b>Operating revenue</b>		
Royalties and license fees	106,158	104,332
Other services	74,916	71,430
<b>NET REVENUE</b>	<b>181,074</b>	<b>175,762</b>
Write-backs of depreciation, amortization, impairment and provisions	4,691	2,777
Expense transfers	17,726	5,199
Other operating income	1,050	925
<b>TOTAL I</b>	<b>204,541</b>	<b>184,663</b>
<b>Operating expenses</b>		
Other purchases and external charges	(137,116)	(113,147)
Taxes other than on income	(7,332)	(6,668)
Wages and salaries	(49,133)	(50,952)
Payroll taxes	(16,903)	(18,033)
Depreciation, amortization, impairment and provisions	(14,933)	(26,825)
Other operating expenses	(2,250)	(2,473)
<b>TOTAL II</b>	<b>(227,667)</b>	<b>(218,099)</b>
<b>OPERATING LOSS (NOTE 2)</b>	<b>(23,126)</b>	<b>(33,436)</b>
<b>Share in profits/losses of joint ventures</b>		
<b>Profits</b>	<b>TOTAL III</b>	
<b>Losses</b>	<b>TOTAL IV</b>	
<b>Financial income</b>		
Income from investments in subsidiaries and affiliates	845,058	915,743
Income from loans and other investments	290,148	363,011
Income from other non-current investment securities	11	11
Other interest income	3,075	6,088
Write-backs of impairment and provisions, expense transfers	0	11
Foreign exchange gains	5,461	7,946
Net income from sales of marketable securities	10	1,325
<b>TOTAL V</b>	<b>1,143,763</b>	<b>1,294,135</b>
<b>Financial expense</b>		
Amortization, impairment and provisions	(21,264)	(20,218)
Interest expense	(260,670)	(328,498)
Foreign exchange losses	0	0
Net losses on sales of marketable securities	(891)	(12)
<b>TOTAL VI</b>	<b>(282,825)</b>	<b>(348,728)</b>
<b>NET FINANCIAL INCOME (NOTE 3)</b>	<b>860,938</b>	<b>945,407</b>
<b>INCOME BEFORE TAX AND EXCEPTIONAL ITEMS</b>	<b>837,812</b>	<b>911,971</b>

<i>(in EUR thousand)</i>	<b>2017</b>	<b>2016</b>
<b>Exceptional income</b>		
On revenue transactions	27,957	9,330
On capital transactions	417	2
Write-backs of depreciation, amortization, impairment and provisions	45,597	46,987
<b>TOTAL VII</b>	<b>73,971</b>	<b>56,319</b>
<b>Exceptional expense</b>		
On revenue transactions	(33,212)	(16,045)
On capital transactions	(347)	(436)
Depreciation, amortization, impairment and provisions	(52,760)	(31,483)
<b>TOTAL VIII</b>	<b>(86,319)</b>	<b>(47,964)</b>
<b>NET EXCEPTIONAL INCOME/(EXPENSE) (NOTE 4)</b>	<b>(12,348)</b>	<b>8,355</b>
<b>INCOME TAXES (NOTE 5)</b>	<b>14,032</b>	<b>128,412</b>
<b>TOTAL IX</b>		
<b>TOTAL INCOME</b>	<b>1,422,275</b>	<b>1,535,117</b>
<b>TOTAL EXPENSES</b>	<b>(582,779)</b>	<b>(486,379)</b>
<b>NET INCOME</b>	<b>839,496</b>	<b>1,048,738</b>

## Balance sheet

### Assets

(in EUR thousand)	2017			2016
	GROSS	Depreciation, amortization and impairment	NET	
<b>NON-CURRENT ASSETS</b>				
<b>Intangible fixed assets (note 6)</b>				
Goodwill <sup>(1)</sup>	567	(567)	-	-
Other intangible assets	50,892	(42,034)	8,858	10,009
Intangible assets in progress	3,545	0	3,545	2,114
<b>Property, plant and equipment (note 7)</b>				
Land	51	0	51	51
Buildings	1,400	(675)	725	790
Other	12,768	(7,338)	5,430	3,739
Assets under construction	8,982	0	8,982	2,451
<b>Financial investments <sup>(2)</sup> (note 8)</b>				
Investments in subsidiaries and affiliates	13,105,066	(30,068)	13,074,998	13,035,692
Loans and advances to subsidiaries and affiliates	13,461,488	0	13,461,488	12,557,738
Other investment securities	14,025	(1,413)	12,612	33
Loans	378,729	0	378,729	360,142
Other financial investments	1,415	0	1,415	1,152
<b>TOTAL I</b>	<b>27,038,928</b>	<b>(82,095)</b>	<b>26,956,833</b>	<b>25,973,911</b>
<b>CURRENT ASSETS (NOTE 9)</b>				
Other receivables <sup>(3)</sup>	1,236,609	0	1,236,609	2,164,749
Marketable securities	1,368,987	(33)	1,368,954	1,982,377
Cash and cash equivalents	541,724	0	541,724	721,205
<b>Accruals</b>				
Prepayments <sup>(3)</sup>	1,707	0	1,707	836
<b>TOTAL II</b>	<b>3,149,027</b>	<b>(33)</b>	<b>3,148,994</b>	<b>4,869,166</b>
Deferred charges	<b>TOTAL III</b>	57,487	57,487	62,521
Translation losses	<b>TOTAL IV</b>			
<b>TOTAL ASSETS</b>	<b>30,245,442</b>	<b>(82,128)</b>	<b>30,163,314</b>	<b>30,905,598</b>
(1) including leasehold rights				
(2) of which due within one year			2,788,313	3,270,916
(3) of which due beyond one year			347	372

## Liabilities

(in EUR thousand)	2017	2016
<b>SHAREHOLDERS' EQUITY (NOTE 10)</b>		
Capital stock	2,214,228	2,221,121
Additional paid-in capital	5,722,606	5,867,533
Revaluation reserve	45,023	45,023
Other reserves:		
Legal reserve <sup>(a)</sup>	221,423	222,112
Untaxed reserves	2,617,758	2,617,758
Other reserves	301,428	301,428
Unappropriated retained earnings	5,448,361	5,093,766
Net income for the year	839,496	1,048,738
Untaxed provisions (note 12)	3,247	3,247
<b>TOTAL I</b>	<b>17,413,570</b>	<b>17,420,725</b>
<b>OTHER EQUITY (NOTE 11)</b>		
Non-voting participating securities	<b>TOTAL I bis</b> 170,035	170,035
<b>PROVISIONS (NOTE 12)</b>		
Provisions for contingencies	29,613	85,119
Provisions for charges	241,826	211,402
<b>TOTAL II</b>	<b>271,439</b>	<b>296,521</b>
<b>DEBT AND PAYABLES <sup>(1)</sup> (NOTE 13)</b>		
Bonds	7,742,616	7,800,066
Bank borrowings <sup>(2)</sup>	35,559	63,707
Other borrowings	4,204,668	4,828,917
Tax and social charges payable	192,681	40,014
Other payables	132,674	285,272
Accruals		
Deferred income	72	340
<b>TOTAL III</b>	<b>12,308,270</b>	<b>13,018,316</b>
Translation gains	<b>TOTAL IV</b>	
<b>TOTAL LIABILITIES</b>	<b>30,163,315</b>	<b>30,905,599</b>
(a) of which long-term capital gains reserve	14,225	14,225
(1) of which due beyond one year	6,826,143	6,265,379
of which due within one year	5,482,127	6,752,937
(2) of which short-term bank loans and overdrafts	35,559	63,707

## Statement of cash flows

<i>(in EUR thousand)</i>	<b>2017</b>	<b>2016</b>
<b>NET INCOME</b>	<b>839,496</b>	<b>1,048,738</b>
Depreciation and amortization	26,244	24,054
Changes in provisions	12,423	4,699
Gains and losses on disposals of assets, net	(66)	52
<b>CASH FLOW FROM OPERATIONS</b>	<b>878,097</b>	<b>1,077,543</b>
(Increase) decrease in other receivables	928,140	(667,382)
(Increase) decrease in deferred charges and prepaid expenses	(17,046)	(1,215)
Increase (decrease) in taxes and social charges payable	152,668	(46,412)
Increase (decrease) in other payables	(152,867)	18,770
<b>NET CHANGE IN WORKING CAPITAL</b>	<b>910,895</b>	<b>(696,239)</b>
<b>NET CASH FROM OPERATING ACTIVITIES</b>	<b>1,788,992</b>	<b>381,304</b>
Acquisition of intangible assets	(3,048)	(2,575)
Acquisition of property, plant and equipment	(10,427)	(3,420)
Acquisition of investments in subsidiaries and affiliates and other investment securities	(39,306)	(15)
Acquisition of treasury stock	(403,344)	(416,955)
Proceeds from disposals of property, plant and equipment and intangible assets	416	4
(Increase) decrease in loans and advances to subsidiaries and affiliates	(903,750)	(1,059,619)
(Increase) decrease in long-term loans	(18,587)	1,241,491
(Increase) decrease in other financial investments	(263)	(99)
<b>NET CASH FROM / (USED IN) INVESTING ACTIVITIES</b>	<b>(1,378,309)</b>	<b>(241,188)</b>
Issue of capital stock	187,230	148,540
Dividend paid	(694,143)	(680,584)
Increase (decrease) in provisions for contingencies and charges	(36,161)	(2,310)
Increase (decrease) in short- and long-term debt	(133,462)	(647,130)
Increase (decrease) in bank overdrafts and other short-term debt	(576,385)	(719,542)
Decrease (increase) in marketable securities	662,757	2,003,293
Increase (decrease) in translation adjustments	0	0
<b>NET CASH FROM / (USED IN) FINANCING ACTIVITIES</b>	<b>(590,164)</b>	<b>102,267</b>
<b>INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(179,481)</b>	<b>242,383</b>
Cash and cash equivalents at January 1	721,205	478,822
Cash and cash equivalents at December 31	541,724	721,205
<b>Analysis of cash and cash equivalents at December 31</b>		
Cash at bank	541,724	721,205
Cash on hand	0	0
Total	541,724	721,205

## Notes to the 2017 annual financial statements

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<b>NOTE 1</b>	<b>Accounting principles and methods</b>	<b>282</b>	<b>NOTE 12</b>	<b>Provisions</b>	<b>292</b>
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The financial statements cover the twelve-month period from January 1 to December 31, 2017.

The following notes form an integral part of the annual financial statements.

These financial statements were approved by the Board of Directors on February 22, 2018.

## NOTE 1 ACCOUNTING PRINCIPLES AND METHODS

The financial statements of Compagnie de Saint-Gobain have been drawn up in accordance with the French Chart of Accounts, French law, and accounting principles generally accepted in France.

The financial statements include the accounts of Compagnie de Saint-Gobain's German branch.

### Intangible assets

Purchased goodwill that is not legally protected is amortized over 25 years. Other intangible assets, consisting of computer software, are measured at acquisition cost and amortized over periods of three, five or ten years.

### Property, plant and equipment

Property, plant and equipment are stated at cost (purchase price plus incidental expenses), except for assets acquired prior to December 31, 1976, which have been revalued.

They are depreciated over their estimated useful lives using the straight-line or declining-balance method. The most commonly used useful lives are as follows:

■ buildings	40 to 50 years	Straight-line
■ improvements and additions	12 years	Straight-line
■ fixtures and fittings	5 to 12 years	Straight-line
■ office furniture	10 years	Straight-line
■ office equipment	5 years	Straight-line
■ vehicles	4 years	Straight-line
■ computer equipment	3 years	Straight-line or declining-balance

### Investments in subsidiaries and affiliates, other investment securities

On initial recognition, investments in subsidiaries and affiliates are stated at cost excluding any incidental expenses. They are then periodically measured at fair value, in particular when an inventory is done. Fair value is estimated based on various criteria: Company's equity in the underlying net assets, proportion of consolidated net assets, net present value of future cash flows, excluding interest expense but after tax, based on business plans (or long-term budget projections), or multiple of a normative performance basis.

When the fair value of the investments falls below their cost, a provision is set aside for impairment. No unrealized capital gain is recorded if fair value exceeds cost, and unrealized capital gains and losses are not offset.

Treasury shares held by the Company at year-end for allocation upon exercise of stock options are recorded in the balance sheet under "Other investment securities". They are carried at the lower of cost, market price or the option exercise price when it is probable that the options will be exercised.

Treasury shares held for cancellation are carried at cost and are not revalued or provided for.

### Receivables

Receivables are stated at nominal value. A provision is set aside for impairment when inventory value is less than book value.

### Marketable securities

Marketable securities mainly include units in money market funds (OPCVM and FCP) and are stated at acquisition cost or at market value at year end, if the latter is lower than the acquisition cost.

This item also includes treasury shares held by the company other than those classified as investment securities.

These securities are valued in accordance with the first in / first out (FIFO) method.

### Foreign currency transactions

Income and expenses in foreign currencies are recorded at the euro exchange rate prevailing on the transaction date. Receivables, payables and bank balances in foreign currencies are converted at the year-end exchange rate, along with the related hedging instruments, and differences arising on translation are recorded under "Translation gains or losses." Provisions are booked for any exceptional unrealized translation losses that are not hedged.

### Risk management / Financial instruments

Liquidity risk is managed with the main objective of ensuring the timely renewal of its financings at an optimal cost. Long-term debt therefore systematically represents a high proportion of overall debt. Similarly, the long-term debt maturity schedule is set so that the financing raised through the markets when the debt is renewed is spread over several years.

Currency, interest rate, and commodity (energy and raw materials) price risks resulting from the Group's international activities are hedged by Compagnie de Saint-Gobain, mainly on behalf of subsidiaries. In addition, on its own behalf and for its subsidiaries, Compagnie de Saint-Gobain hedges the risk of fluctuations in the Saint-Gobain share price that could affect the cost of performance unit plans.

Currency risks are hedged mainly by fixed-term forward purchase and sale contracts and currency options. Currency receivables and payables hedged by forward purchase and sale contracts are recorded in the balance sheet at the hedging rate.

The portion of the unrealized gain or loss on currency options qualifying for hedge accounting that represents the extrinsic (time) value is taken to income, and the portion that represents the intrinsic value is recorded in the balance sheet. Only unrealized losses on currency options that do not qualify for hedge accounting are recognized in the income statement.

The Company uses mainly interest rate swaps and cross-currency swaps to hedge its exposure to fluctuations in interest rates.

Financial income and expenses on interest rate swaps and cross-currency swaps are recognized in the income statement on a symmetrical basis against income and expenses on the hedged items.

The portion of the unrealized gain or loss on interest rate options qualifying for hedge accounting that represents the extrinsic (time) value is taken to income, and the portion that represents the intrinsic value is recorded in the balance sheet. Interest rate options that do not qualify for hedge accounting are recognized in the income statement at market value.

The commodity price risks (energy and raw materials) of subsidiaries are hedged by the Company, mainly using energy and raw materials swaps. Financial income and expenses on these swaps are recognized in the income statement on a symmetrical basis against the income and expenses on the hedged items.

The risk of fluctuations in the Saint-Gobain share price that could affect the cost of performance unit plans is hedged

using cash-settled equity swaps, which qualify for hedge accounting.

Since January 1st 2017, Compagnie de Saint-Gobain has applied ANC regulation 2015-05 of July 2, 2015 ("ANC 2015-05") on forward financial instruments and hedging operations to all outstanding operations.

#### Tax consolidation agreements

Compagnie de Saint-Gobain was previously assessed for income tax on its worldwide taxable income as provided for under Article 209 *quinquies* of the French Tax Code. The last period covered by this agreement was 2004-2006. The Company chose not to renew this agreement for the accounting period starting January 1, 2007.

A tax provision is recorded in Compagnie de Saint-Gobain's accounts for taxes that may be payable in future periods following the non-renewal of this agreement. Movements in this provision are recorded under exceptional income or expense. The balance of this provision has been written back in 2017, the tax administration having drawn this year the conclusions of the ruling in our favour by the French Conseil d'Etat, on September 21, 2016.

As a result, since January 1, 2007 only the tax consolidation regime provided for in Articles 223 A *et seq.* of the French Tax Code has remained in effect.

The tax consolidation agreements between Compagnie de Saint-Gobain and its subsidiaries provide for tax neutrality for consolidated subsidiaries. In their relationship with Compagnie de Saint-Gobain, the consolidating parent company, the subsidiaries discharge their taxes as if they had been taxed on a stand-alone basis. When a loss-making subsidiary leaves the Group, they are not, in principle, entitled to any payments for losses transferred to the consolidating parent company during the consolidation period.

## NOTE 2 OPERATING INCOME

Operating income improved by €10.3 million in 2017 (loss of €23.1 million *versus* an operating loss of €33.4 million in 2016). This was mainly due to the decrease of the accounting

charge on pension and other post-employment benefit obligations compared with the amounts recorded in 2016.

## NOTE 3 NET FINANCIAL INCOME

Net financial income decreased by €84.5 million, from €945.4 million in 2016 to €860.9 million, largely reflecting:

- a €70.7 million decrease in income from investments in subsidiaries and affiliates (dividends received from subsidiaries and 2017 profit transferred from the subsidiaries of the German branch);

- a €10.2 million decrease in income from loans and investments net of interest expense incurred;
- a €1 million increase in net of provisions accruals and reversals (net expense of €21.2 million in 2017 *versus* €20.2 million in 2016);
- a foreign exchange gain decrease of €2.5 million.

## NOTE 4 EXCEPTIONAL INCOME AND EXPENSE

The Company reported a net exceptional expense of €12.3 million primarily due to exceptional costs incurred following the cyber-attack experienced by the Group in June 2017, and

to the accounting charge related to long term compensation plans, partially offset by a €20.6 million tax provision reversal, mainly coming from the German branch.

## NOTE 5 INCOME TAXES

The Company recorded an income taxes profit of €14 million, corresponding primarily to:

- a tax charge valued at €14 million under the 2017 tax consolidation regime (France)

This figure includes corporate taxes, additional contributions to corporate taxes, the 3% tax on dividends, and the impact of all rulings and claims on all these taxes and contributions.

Income taxes recorded in Compagnie de Saint-Gobain accounts reflect its tax position towards the French tax administration, but also towards consolidated companies in its capacity as consolidating parent company.

- a net tax profit of €28 million for the German branch;

The French tax group generated a tax loss in 2017. The Group also has unused tax loss carry-forwards. At December 31, 2017, unused tax loss carry-forwards represented €793.9 million.

Compagnie de Saint-Gobain's permanent German establishment, which is the Group's leading entity under the *Organschaft* local consolidation regime, reported a tax credit in 2017. At December 31, 2017, future tax savings corresponding to the branch's unused tax loss carry-forwards amounted to €44.9 million.

In both cases, these future tax savings have been recorded in the consolidated financial statements, but not in the parent company financial statements.

## NOTE 6 INTANGIBLE ASSETS

(in EUR thousand)	Intangible assets			Amortization				Net at Dec. 31, 2017	
	Gross at January 1, 2017	Additions	Disposals	Gross at Dec. 31, 2017	Accumulated at January 1, 2017	Increases	Decreases		Accumulated at Dec. 31, 2017
Purchased goodwill	567	0	0	567	567	0	0	567	0
Other intangible assets	49,284	1,616	(8)	50,892	39,275	2,767	(8)	42,034	8,858
Intangible assets in progress	2,114	2,408	(977)	3,545	0	0	0	0	3,545
	<b>51,965</b>	<b>4,024</b>	<b>(985)</b>	<b>55,004</b>	<b>39,842</b>	<b>2,767</b>	<b>(8)</b>	<b>42,601</b>	<b>12,403</b>

## NOTE 7 PROPERTY, PLANT AND EQUIPMENT

(in EUR thousand)	Property Plant and Equipment			Amortization				Net at Dec. 31, 2017	
	Gross at January 1, 2017	Additions	Disposals	Gross at Dec. 31, 2017	Accumulated at January 1, 2017	Increases	Decreases		Accumulated at Dec. 31, 2017
Land	51	0	0	51	0	0	0	0	51
Buildings	1,400	0	0	1,400	610	65	0	675	725
Other	9,136	3,896	(264)	12,768	5,397	2,203	(262)	7,338	5,430
Assets under construction	2,451	6,913	(382)	8,982	0	0	0	0	8,982
Prepayments	0	0	0	0	0	0	0	0	0
	<b>13,038</b>	<b>10,809</b>	<b>(646)</b>	<b>23,201</b>	<b>6,007</b>	<b>2,268</b>	<b>(262)</b>	<b>8,013</b>	<b>15,188</b>

Additions to assets under construction are mostly expenditures related to the construction of Compagnie de Saint-Gobain future headquarters which are the responsibility of the lessee.

**NOTE 8 FINANCIAL INVESTMENTS**

<i>(in EUR thousand)</i>	Financial investments			Gross at December 31, 2017
	Gross at January 1, 2017	Additions	Disposals	
Investments in subsidiaries and affiliates	13,065,760	39,306	0	13,105,066
Loans and advances to subsidiaries and affiliates	12,557,738	15,006,258	(14,102,508)	13,461,488
Other investment securities	135	353,977	(340,086)	14,026
Loans	360,142	318,407	(299,820)	378,729
Other financial investments	1,152	836	(573)	1,415
<b>TOTAL</b>	<b>25,984,927</b>	<b>15,718,784</b>	<b>(14,742,987)</b>	<b>26,960,724</b>

**Changes in investments in subsidiaries and affiliates**

<i>(in EUR thousand)</i>	Additions	Disposals
Purchase of Saint-Gobain Cristaleria shares	15	
Capital increase of Saint-Gobain Do Brasil	39,291	
<b>TOTAL</b>	<b>39,306</b>	<b>0</b>

No provision was set aside in 2017 for impairment of investment in subsidiaries

**Analysis of loans, receivables and other financial investments by maturity**

<i>(in EUR thousand)</i>	Gross	Due	
		Within 1 year	Beyond 1 year
Loans and advances to subsidiaries and affiliates	13,461,488	2,410,234	11,051,254
Loans	378,729	378,079	650
Other financial investments	1,415	0	1,415
<b>TOTAL</b>	<b>13,841,632</b>	<b>2,788,313</b>	<b>11,053,319</b>

**Changes in other investment securities**

<i>(in EUR thousand)</i>	Additions	Disposals
Purchase of treasury shares for cancellation	347,211	0
Purchase of treasury shares for stock option plans	6,766	0
Cancellation of treasury shares		(339,738)
Sale of treasury shares under stock option plans		(344)
Other financial investments sold		(4)
<b>TOTAL</b>	<b>353,977</b>	<b>(340,086)</b>

## Changes in treasury shares classified as financial investments

	No. of shares held	(in EUR thousand)	
		Gross value	Net value
<b>AT DECEMBER 31, 2015</b>	<b>563,858</b>	<b>21,853</b>	<b>21,853</b>
Shares purchased in 2016	10,420,230	400,490	400,490
Shares cancelled in 2016	(10,984,088)	(422,343)	(422,343)
<b>AT DECEMBER 31, 2016</b>	<b>0</b>	<b>0</b>	<b>0</b>
Shares purchased in 2017	7,293,489	353,977	352,613
Shares sold in 2017	(7,071)	(344)	(275)
Shares cancelled in 2017	(7,000,000)	(339,738)	(339,738)
<b>AT DECEMBER 31, 2017</b>	<b>286,418</b>	<b>13,895</b>	<b>12,600</b>

During 2017, Compagnie de Saint-Gobain bought back, excluding the liquidity agreement, 8,301,783 treasury shares with a par value of €4 each, for a total amount of €403.3 million (€33.2 million aggregate par value) of which 1 million shares were bought back on June 2<sup>nd</sup> 2017 as part of an accelerated book building process completed by Wendel.

Of these 8,301,783 treasury shares,

- 7,154,286 shares bought for cancellation and 139,203 shares bought for stock option plans have been recorded under "Financial investments" for an amount of €354 million, of which €29.2 million par value
- The balance of 1,147,497 shares, bought for the coverage of performance share plans and other allocation to employees has been recorded under "Marketable securities" for an amount of €49.4 million, of which €4.6 million par value.

5,000,000 shares were cancelled on September 29, 2017 and 2,000,000 share were cancelled on November 30, 2017

In 2017, 458,795 treasury shares were remitted as part of existing performance share plans and 7,071 treasury shares were remitted as part of stock option plans for existing shares (respectively 366,105 and 0 shares in 2016).

At December 31, 2017, Compagnie de Saint-Gobain held 2,110,133 treasury shares, of which:

- 43,500 treasury shares held in connection with a liquidity agreement (see Note 9 "Marketable securities");
- 154,286 treasury shares held for cancellation (see above);
- 132,132 treasury shares held for coverage of stock option plans (see above);
- 1,780,215 treasury shares held for coverage of performance share plans and other allocation to employees (see Note 9 "Marketable securities").

## NOTE 9 CURRENT ASSETS

### Maturities of receivables reported under "Current assets"

(in EUR thousand)	Gross	Due	
		Within 1 year	Beyond 1 year
Other receivables	1,236,609	1,236,364	245
Prepayments	1,707	1,605	102
<b>TOTAL</b>	<b>1,238,316</b>	<b>1,237,969</b>	<b>347</b>
Provision for doubtful receivables	-	-	-

## Analysis of “Other receivables”

(in EUR thousand)	2017	2016
Current account advances to subsidiaries	1,128,524	1,886,234
Mark-to-market adjustments to swaps and options <sup>(1)</sup>	60,139	233,402
Accounts receivable - Group	25,848	27,492
Accruals for income and credit notes receivable	16,732	0
Tax receivables	1,954	1,277
Accruals for income and credit notes receivable - Group	799	1,280
Accounts receivable - External companies	769	1,348
Prepayments to suppliers	417	788
Income tax prepayments	374	11,626
Other	1,053	1,302
<b>TOTAL</b>	<b>1,236,609</b>	<b>2,164,749</b>

(1) All mark-to-market adjustments to swaps and options that represent debit entries are recorded as assets on the balance sheet under “Other receivables” and those representing credit entries are recorded as liabilities on the balance sheet under “Other payables.”

## Marketable securities

Marketable securities amounted to €1,369 million at December 31, 2017.

They consist mainly of €1,287 million worth of units in money market funds, representing the investment of funds held by the cash pool managed by the Company on behalf of the Group to yield a return on temporary cash surpluses.

The securities also include 1,780,215 treasury shares held to cover performance share plans and other allocation to employees.

Finally, marketable securities include those held under a liquidity agreement the Company entered into on November 16, 2007 with Exane BNP Paribas. This agreement complies with the code of ethics issued by the *Association française des marchés financiers* (AMAFI), which is recognized by the *Autorité des marchés financiers* (AMF). It came into effect on December 3, 2007 for an initial period ending on December 31, 2007, since when it has been automatically renewable.

Under this liquidity agreement, at December 31, 2017 the Company held:

- €3.4 million worth of units in a euro-denominated money market fund; and
- 43,500 treasury shares.

In 2017, 1,293,253 shares were purchased under this agreement (2016: 1,325,926 shares) and 1,249,753 shares were sold (2016: 1,339,926 shares).

## Deferred charges

(in EUR thousand)	2017	2016
Bond issuance costs	47,216	55,271
Syndicated credit facility arrangement fees	10,271	7,250
<b>DEFERRED CHARGES</b>	<b>57,487</b>	<b>62,521</b>

In 2017, new debt issuance costs recorded under “Deferred charges” totaled €19.5 million and amortization for the year amounted to €24.6 million.

The corresponding refinancing transactions are presented in Note 13.

## NOTE 10 SHAREHOLDERS’ EQUITY

### 10.1 Changes in capital stock

Par value at December 31, 2016: 4 euros Par value at December 31, 2017: 4 euros	Number of shares	Amount (EUR thousand)
<b>CAPITAL STOCK AT JANUARY 1, 2017</b>	<b>555,280,358</b>	<b>2,221,121</b>
Shares issued under the Group Savings Plan on May 17, 2017	4,593,807	18,375
Shares issued upon exercise of stock options on August 31, 2017	482,685	1,931
Shares cancelled on September 29 2017	(5,000,000)	(20,000)
Shares cancelled on November 30 2017	(2,000,000)	(8,000)
Shares issued upon exercise of stock options on December 31, 2017	200,241	801
<b>CAPITAL STOCK AT DECEMBER 31, 2017</b>	<b>553,557,091</b>	<b>2,214,228</b>

At December 31, 2017, capital stock amounted to €2,214,228 thousand, represented by 553,557,091 shares of common stock with a par value of €4 each.

## 10.2 Statement of changes in shareholders' equity

(in EUR thousand)

	Amount
<b>SHAREHOLDERS' EQUITY AT 12/31/2016 BEFORE APPROPRIATION OF 2016 NET INCOME:</b>	<b>17,420,726</b>
Shares issued under the Group Savings Plan on May 17, 2017	167,912
Payment of the 2016 dividend	(694,143)
Shares issued upon exercise of stock options on August 31, 2017	13,534
Shares cancelled on September 29 2017	(243,734)
Shares cancelled on November 30 2017	(96,004)
Shares issued upon exercise of stock options on December 31, 2017	5,783
Net income for 2017	839,496
<b>SHAREHOLDERS' EQUITY AT 12/31/2017 BEFORE APPROPRIATION OF 2017 NET INCOME:</b>	<b>17,413,570</b>

## 10.3 Significant events

The principal events that contributed to changes in capital stock and shareholders' equity were as follows:

- **the May 2017 increase in capital stock through the subscription of 4,593,807 shares under the Group Savings Plan at a price of €36.72.** The issue proceeds amounted to €168,685 thousand (€167,912 thousand after deducting the issue costs, net of tax, from the premium);
- **the capital reductions of September 29, 2017 and November 30, 2017 through the cancellation of respectively 5,000,000 and 2,000,000 shares** for a total gross and net amount of €339,738 thousand:

- **finally, in August and December, were respectively issued 482,685 shares at an average price of €28.04, and 200,241 shares at an average price of €28.88,** upon exercise of stock options. Gross as well as net issue proceeds amounted to €19,317 thousand:

These various transactions had the effect of decreasing **capital stock** by €6,893 thousand, the **legal reserve** by €689 thousand and **additional paid-in capital** by €144,926 thousand.

Changes in **unappropriated retained earnings** during the year were as follows (changes pursuant to 3<sup>rd</sup> resolution of the AGM of June 8, 2017 (appropriation of income)):

(in EUR thousand)

<b>AT DECEMBER 31, 2016 (BEFORE APPROPRIATION OF 2016 NET INCOME)</b>	<b>5,093,766</b>
Net income for 2016	1,048,738
Less: final dividend taking into account the actual number of treasury shares held	(694,143)
<b>AT DECEMBER 31, 2017 (BEFORE APPROPRIATION OF 2017 NET INCOME)</b>	<b>5,448,361</b>

## 10.4 Stock option plans

Compagnie de Saint-Gobain has stock option plans available to certain employees.

The Board of Directors grants options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, options may only be exercised after four years vesting period. During this period, none of the options received may be exercised. Options must be exercised within ten years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2017, plans launched between 2008 and 2012 offer subscription options

while the 2013 plan offers purchase options. For plans launched between 2014 and 2017, the Board of Directors has decided that it would determine the type of option (subscription or purchase) at the latest on the day before the start of the exercise period, with any options exercised prior to such decision considered as subscription options.

Until 2008, options were subject to a performance condition for certain grantees only. A performance condition applies for all grantees in plans awarded since 2009.

For options granted under the 2017 plan, the value used to calculate the 30% *contribution sociale* tax due for grantees employed by French companies in the Group is €5.06 per option granted.

The following table presents changes in the number of outstanding options:

	€4 par value shares	Average exercise price (in €)
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2015</b>	<b>11,601,857</b>	<b>48.69</b>
Options granted	280,000	40.43
Options exercised	(450,082)	27.50
Options forfeited	(4,509,448)	51.40
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2016</b>	<b>6,922,327</b>	<b>47.97</b>
Options granted	284,500	49.38
Options exercised	(689,997)	28.39
Options forfeited*	(3,501,207)	63.99
<b>OPTIONS OUTSTANDING AT DECEMBER 31, 2017</b>	<b>3,015,623</b>	<b>33.97</b>

(\*) Including 3,403,160 subscription options granted under the 2007 plan that had not been exercised when the plan expired, and 98,047 purchase options granted under the 2013 plan that had lapsed because the performance condition had only been partly met.

The table below summarizes information about stock options outstanding at December 31, 2017, after taking into account partial fulfillment of the performance criteria attached to certain plans:

Grant date	Exercisable options			Non-exercisable options		Total options outstanding	
	Exercise price (in €)	Number of options	Weighted average contractual life (in months)	Exercise price (in €)	Number of options	Number of options	Type of options
2008	25.88	1,185,015	11			1,185,015	Subscription
2009	36.34	654,514	23			654,514	Subscription
2010	35.19	0	35			0	Subscription
2011	31.22	0	47			0	Subscription
2012	27.71	19,962	59			19,962	Subscription
2013	38.80	132,132	71			132,132	Purchase
2014			83	34.13	234,550	234,550	See 10.4 above
2015			95	39.47	224,950	224,950	See 10.4 above
2016			107	40.43	280,000	280,000	See 10.4 above
2017			119	49.38	284,500	284,500	See 10.4 above
<b>TOTAL</b>		<b>1,991,623</b>			<b>1,024,000</b>	<b>3,015,623</b>	

At December 31, 2017, 1,991,623 stock options were exercisable at an average exercise price of €30.19, and 1,024,000 options at an average exercise price of €41.26 had not yet vested.

## 10.5 Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009.

Four performance share plans were outstanding at December 31, 2017. The plans approved by the Board of Directors in 2014 and 2015 solely concern certain managerial-grade employees and senior managers of the Group outside France. The plans approved by the Board of Directors in 2016 and on November 23, 2017 concern managerial-grade employees and senior managers of the Group within and outside France.

All plans are subject to service and performance conditions. The vesting period is 4 years for all plans, and the shares will be delivered the day after the end of this vesting period.

The table below shows changes in the number of performance share rights:

	Number of rights
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2015</b>	<b>2,351,881</b>
■ performance share rights granted in November 2016	1,231,320
■ shares issued/delivered	(583,220)
■ lapsed and canceled rights	(196,856)
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2016</b>	<b>2,803,125</b>
■ performance share rights granted in November 2017	1,226,680
■ shares issued/delivered	(458,795)
■ lapsed and canceled rights*	(83,570)
<b>NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2017</b>	<b>3,487,440</b>

\* Including 457,535 existing shares delivered under the 2013 plan, and 1,260 shares delivered in advance under the 2014, 2015 and 2016 plans.

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2017 will be delivered, except in the case of early release following the grantee's death or disability, along with the service and performance conditions remaining to be fulfilled:

Grant date	Number of rights granted at inception of Plan	early deliveries	Outstanding rights at Dec 31, 2017 *	delivery date				Type of shares
				Nov.20, 2018	Nov.26, 2019	Nov.24, 2020	Nov.23, 2021	
Nov. 20, 2014	530,240	900	529,340	529,340				existing
Nov. 26, 2015	500,910	400	500,510		500,510			existing
Nov. 24, 2016	1,231,320	410	1,230,910			1,230,910		existing
Nov. 23, 2017	1,226,680		1,226,680				1,226,680	existing
<b>TOTAL</b>	<b>3,489,150</b>	<b>1,710</b>	<b>3,487,440</b>	<b>529,340</b>	<b>500,510</b>	<b>1,230,910</b>	<b>1,226,680</b>	

\* subject to fulfillment of the service and performance conditions applicable to each plan

## 10.6 Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015, for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares, but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to the Company's share price.

No long term payment plan in the form of performance units was set up in 2017 or 2016, since all beneficiaries received rights to performance shares (see above).

In 2017, 490,914 performance units under the 2013 plan vested, while 79,871 performance units under the same plan lapsed, including 61,645 because the related performance condition was only partly met.

The table below shows historical data for the performance unit plans in the process of vesting at December 31, 2017:

Grant date	Number of performance units granted at inception of plan	Exercised early	Number of performance units at December 31, 2017*
November 20, 2014	598,400	1,550	596,850
November 26, 2015	556,340		556,340
<b>TOTAL</b>	<b>1,154,740</b>	<b>1,550</b>	<b>1,153,190</b>

\* Subject to fulfillment of the service and performance conditions applicable to each plan.

## 10.7 Compagnie de Saint-Gobain Group Savings Plan (PEG)

The Group Savings Plan (PEG) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service with the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five or ten years lock-up, except following the occurrence of certain events. The Board of

Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

In 2017, 4,593,807 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €36.72 (4,653,810 shares at an average price of €29.42 in 2016), representing a share capital increase of €169 million (€136 million in 2016).

## 10.8 Potential number of shares

At the **Annual General Meeting of June 2, 2016**, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

- grant stock options exercisable for new or existing shares, subject to performance conditions, representing up to 1.5% of the share capital on the day the AGM was held, with a sub-limit of 10% of this limit for corporate Directors of Compagnie de Saint-Gobain, *i.e.* 8,322,705 options, including a maximum of 832,270 options for corporate Directors (13th resolution/38-month authorization commencing June 2, 2016). The Board of Directors made partial use of this authorization on November 24, 2016, by granting 280,000 options (including 58,000 for corporate Directors), and on November 23, 2017, by granting 284,500 options (including 58,000 for corporate Directors) (see section 10.4);
- grant free performance existing shares, subject to performance conditions, representing up to 1.2% of the share capital on the day the AGM was held, with a sub-limit of 10% of this limit for corporate Directors of Compagnie de Saint-Gobain, *i.e.* 6,658,164 performance shares, including a maximum of 665,816 performance shares for corporate Directors (14th resolution/38-month authorization commencing June 2, 2016). The limit of 1.2% and sub-limit of 10% are being set off against the limits specified under the 13th resolution of the Annual General Meeting referred to above regarding stock options. The Board of Directors made partial use of this authorization on November 24, 2016, by granting 1,231,320 performance shares (including 67,000 for corporate Directors), and on November 23, 2017, by granting 1,226,680 performance shares (including 67,000 for corporate Directors) (see section 10.5).

At the **Annual General Meeting of June 8, 2017**, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

- issue, on one or several occasions, up to 111,000,000 new shares or securities giving access to the share capital of the Company or subsidiaries, with preferential subscription rights, or without preferential subscription rights but with a compulsory priority period for existing shareholders, or to issue new shares through the capitalization of premiums, reserves, profits and free allocation of shares to the existing shareholders, or without preferential subscription rights in consideration for contributions in kind (12th to 16th resolutions/26-month authorization commencing June 8, 2017);
- issue, on one or several occasions, up to 12,225,000 new shares to members of the Group Savings Plan (17th resolution/26-month authorization commencing June 8, 2017);
- issue, on one or several occasions, directly or indirectly, up to 220,000 new shares to certain employees of the Saint-Gobain Group companies with headquarters based outside France (18th resolution, to be deducted from the ceiling of 12,225,000 referred to above/18-month authorization commencing June 8, 2017).

If all outstanding stock options were to be exercised with the issue of new shares, this would potentially have the effect of increasing the number of shares outstanding to 556,440,582 shares. In addition, if the authorizations described above were to be used in full by the Board of Directors, this would potentially have the effect of increasing the number of shares outstanding to 684,965,787 shares.

## NOTE 11 OTHER EQUITY

### Non-voting participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their conversion to euros in 1999.

A certain number of these securities have been bought back over the years. At December 31, 2017, 606,883 were outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond rate (TMO), based on the Group's consolidated income. Interest paid in 2017 amounted to €1.36 per security.

In April 1984, 194,633 non-voting participating securities were issued with a face value of ECU 1,000, now €1,000.

A certain number of those securities have been repurchased over the years. At December 31, 2017, 77,516 were outstanding with an aggregate face value of €77.5 million.

Interest on these securities comprises (i) a fixed portion of 7.5% per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the security, which is linked to consolidated net income of the previous year and to the Libor EUR 6 month reference rate +7/8%. The amount paid per security in 2017 totaled €65.35, paid in two installments (€32.55 + €32.80).

None of these securities are redeemable and the remuneration paid to investors is qualified as interest expense.

**NOTE 12 PROVISIONS**

<i>(in EUR thousand)</i>	At January 1, 2017	Charge for the year	Write-backs of utilized provisions	Write-backs of surplus provisions	Other (transfers)	At December 31, 2017
<b>Untaxed provisions</b>						
Reinvested capital gains	3,247	0	0	0	0	3,247
Other	0	0	0	0	0	0
	<b>3,247</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,247</b>
<b>Provisions for contingencies</b>						
Provisions for taxes	83,422	2,170	0	(22,858)	(34,551)	28,183
Provisions for stock option plan costs	0	0	0	0	0	0
Provisions for other contingencies	1,697	340	0	0	(607)	1,430
	<b>85,119</b>	<b>2,510</b>	<b>0</b>	<b>(22,858)</b>	<b>(35,158)</b>	<b>29,613</b>
<b>Provisions for charges</b>						
Provisions for pensions and other post-employment benefit obligations <sup>(1)</sup>	132,077	9,190	(3,971)	0	(971)	136,325
Provisions for performance share and performance unit plan costs	78,634	48,754	(22,485)	0	0	104,903
Provisions for other charges	691	128	(191)	0	(30)	598
	<b>211,402</b>	<b>58,072</b>	<b>(26,647)</b>	<b>0</b>	<b>(1,001)</b>	<b>241,826</b>
<b>Provisions for impairment</b>						
Investments in subsidiaries and affiliates	30,068	0	0	0	0	30,068
Other investment securities	102	1,385	(70)	(4)	0	1,413
Doubtful receivables	0	0	0	0	0	0
Marketable securities	0	33	0	0	0	33
	<b>30,170</b>	<b>1,418</b>	<b>(70)</b>	<b>(4)</b>	<b>0</b>	<b>31,514</b>
<b>Impact on operating income</b>		<b>9,189</b>	<b>(3,981)</b>	<b>0</b>	<b>0</b>	
<b>Impact on net financial income</b>		<b>54</b>	<b>0</b>	<b>(4)</b>	<b>0</b>	
<b>Impact on exceptional items</b>		<b>52,758</b>	<b>(22,736)</b>	<b>(22,858)</b>	<b>0</b>	

(1) The Company's obligations with respect to supplementary pension plans and other post-employment benefits are measured using the actuarial method of projected unit credits based on end-of-career salaries and employees' vested rights at the measurement date.

Actuarial gains and losses arising in the year under defined-benefit retirement plans are recognized immediately and in full in the income statement.

The discount rate used was 1.70% in 2017, and 1.80% in 2016.

## NOTE 13 DEBT AND PAYABLES

Total debt and payables (€12,308 million) recorded a net decrease of €710 million, which is largely explained by the reduction of €624 million in other borrowings.

### Analysis of debt and payables

(in EUR thousand)	Gross	Due	
		Within 1 year	Beyond 1 year
Bonds <sup>(1)</sup>	7,742,616	916,689	6,825,927
Bank Borrowings <sup>(1) and (2)</sup>	35,559	35,559	0
Other borrowings <sup>(3)</sup>	4,204,668	4,204,452	216
<b>SUB-TOTAL DEBT</b>	<b>11,982,843</b>	<b>5,156,700</b>	<b>6,826,143</b>
Tax and social charges payable	192,681	192,681	0
Other payables <sup>(3)</sup>	132,674	132,674	0
Deferred income	72	72	0
<b>TOTAL DEBT AND PAYABLES <sup>(4)</sup></b>	<b>12,308,270</b>	<b>5,482,127</b>	<b>6,826,143</b>
(1) New debt for the year	1,500,000		
Debt repaid during the year	1,490,519		
(2) Of which:			
▪ debt with original maturity of up to two years	35,559		
▪ debt with original maturity of more than two years	0		
(3) Of which:			
▪ shareholders' loans	NIL		
▪ new loans from subsidiaries	518		
▪ loans from subsidiaries repaid during the year *	859,565		
(4) Debt due beyond five years	3,126,143		

\* Including net variation of current accounts with Group entities.

### Long- and short-term debt

(in EUR thousand)	2017	2016
<b>1. Medium- and long-term debt</b>		
Long-term portion		
Due between January 1 and December 31:		
2018	0	832,542
2019	950,000	950,000
2020	1,000,000	1,000,000
2021	750,000	750,000
2022	1,000,000	1,000,000
2023 and beyond	3,093,407	1,615,888
No fixed maturity	32,736	116,748
<b>TOTAL LONG- AND MEDIUM-TERM DEBT EXCLUDING SHORT-TERM PORTION:</b>	<b>6,826,143</b>	<b>6,265,178</b>
<b>SHORT-TERM PORTION:</b>	<b>924,689</b>	<b>1,619,116</b>
<b>TOTAL:</b>	<b>7,750,832</b>	<b>7,884,294</b>
<b>2. Short-term debt</b>		
Borrowings from Group entities	4,193,114	4,741,839
Bank overdrafts and other short-term borrowings	35,559	63,707
Other	3,338	2,850
<b>TOTAL:</b>	<b>4,232,011</b>	<b>4,808,396</b>
<b>TOTAL LONG- AND SHORT-TERM DEBT</b>	<b>11,982,843</b>	<b>12,692,690</b>

Long-term debt can be analyzed as follows by currency:

(in EUR thousand)	2017	2016
Euro	7,038,705	7,110,306
Pound sterling	625,355	648,034
Norwegian krone	78,556	85,075
Yen	0	40,879
<b>TOTAL</b>	<b>7,742,616</b>	<b>7,884,294</b>

Note that the amortization of expenses in respect of borrowing placements is prorated over the life of the borrowings in question. This is shown on the "Deferred charges" line on the balance sheet (see Note 9, deferred charges).

### 13.1 Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds each with a face value of Ecu 5,000, now €5,000.

As at December 31, 2017, 18,496 perpetual bonds had been bought back and canceled, and 6,504 perpetual bonds were outstanding, representing a total face value of €33 million.

The bonds bear interests at a variable rate (average of interbank rates offered by five reference banks for euro six-month deposits). The amount paid per security in 2017 was €3.16.

The bonds are not redeemable and interest on them is classified as a component of finance costs.

### 13.2 Main changes in bond debt in 2017

Compagnie de Saint-Gobain issued:

- a €750 million 1% bond on March 17, 2017, maturing on March 17, 2025;
- a €750 million 1.375% bond on June 14, 2017, maturing on June 14, 2027.

These issues, which were used to refinance existing debt, extend the average maturity of the Group's debt while also optimizing average borrowing costs.

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- a JPY 5 billion 1.903% private placement on January 13, 2017;
- a €1,250 million 4.75% bond on April 11, 2017;
- a €200 million 6% private placement on June 29, 2017.

### 13.3 Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

At December 31, 2017, issuance under these programs was as follows:

(in EUR millions)	Authorized drawings	Authorized limits at Dec. 31, 2017	Outstanding issues at Dec. 31, 2017	Outstanding issues at Dec. 31, 2016
Medium Term Notes		15,000	7,776	7,777
NEU CP	Up to 12 months	3,000		
US Commercial Paper	Up to 12 months	834*		
Euro Commercial Paper	Up to 12 months	834*		0

\* Equivalent to \$1,000 million based on the exchange rate at December 31, 2017.

In accordance with market practices, *Negotiable European Commercial Paper* (NEU CP), *US Commercial Paper* and *Euro-Commercial Paper* are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

### Syndicated lines of credit

Compagnie de Saint-Gobain has two syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper programs):

- a €2.5 billion syndicated line of credit which was contracted in December 2013. This facility was renegotiated in December 2017 and rolled over until December 2022, with two further one-year rollover options;
- a second €1.5 billion syndicated line of credit which was contracted in December 2017. This facility expires in December 2022 and has two one-year rollover options. It replaces a syndicated line of credit for an equivalent amount initially maturing in 2018.

Based on the Group's current credit rating for long-term debt issues, the two facilities are not subject to any hard covenants.

Neither of these two lines of credit had been drawn down at December 31, 2017.

## NOTE 14 RELATED PARTY TRANSACTIONS

### 14.1 Transactions with related companies

(in EUR thousand)	Net amount concerning related companies			Net balance sheet amount at Dec. 31, 2017
	<sup>(1)</sup> Subsidiaries	<sup>(2)</sup> Other related companies	Other companies	
<b>Balance sheet items:</b>				
Investments in subsidiaries and affiliates	13,074,998	0		13,074,998
Loans and advances to subsidiaries and affiliates	13,461,488	0	0	13,461,488
Other investment securities	12,600	12	0	12,612
Loans	311,244	0	67,485	378,729
Other receivables	1,155,175	0	81,434	1,236,609
Marketable securities	78,534	0	1,290,420	1,368,954
Cash and cash equivalents			541,724	541,724
Bonds			7,742,616	7,742,616
Bank borrowings			35,559	35,559
Other borrowings	4,199,586	1,879	3,202	4,204,667
Tax and social charges payable	155,466	0	37,215	192,681
Other payables	13,509	330	118,835	132,674
<b>Income statement items:</b>				
Income from investments in subsidiaries and affiliates	845,058	0	0	845,058
Income from loans and other investments	290,148	0	0	290,148
Other interest income	0	0	67,666	67,666
Interest expense	9,741	0	315,520	325,261

(1) Fully consolidated companies.

(2) Companies that are not fully consolidated.

### 14.2 Transactions with other related parties

There are no material transactions with other related parties.

**NOTE 15 INVESTMENT PORTFOLIO**

	Country	Net book value (in EUR thousand)	% interest	Number of shares
SPAFI	France	5,768,287	100.00	251,014,613
Partidis	France	2,065,919	100.00	58,597,751
Saint-Gobain Matériaux de Construction	France	2,123,712	100.00	112,145,608
Vertec	France	891,512	100.00	11,790,698
Saint-Gobain Benelux	Belgium	812,344	100.00	3,296,475
Saint-Gobain Do Brasil	Brazil	259,292	55.31	93,891
Saint-Gobain Cristaleria	Spain	211,250	16.35	3,660,366
Saint-Gobain Building Distribution Deutschland	Germany	194,609	100.00	100,000,000
Saint-Gobain Isover G+H AG	Germany	153,815	99.91	3,197,111
Saint-Gobain PPL Isofluor GmbH	Germany	153,764	100.00	23,008,200
Saint-Gobain Innovative Materials	Belgium	132,080	15.00	1,667,698
Saint-Gobain Glass Deutschland GmbH	Germany	86,660	60.00	119,999,970
Saint-Gobain Autoglas GmbH	Germany	72,833	60.00	120,000,000
Saint-Gobain Diamant Werkzeuge GmbH	Germany	61,151	100.00	20,000,000
SEPR	France	53,310	25.73	407,600
Saint-Gobain PAM	France	30,733	8.10	360,255
SCI Île-de-France	France	3,428	94.00	22,560
Miscellaneous French companies		-	-	-
Miscellaneous foreign companies		299	-	-
<b>INVESTMENTS IN SUBSIDIARIES AND AFFILIATES</b>		<b>13,074,998</b>		
Cie de Saint-Gobain (treasury shares)	France	5,127	-	132,132
Cie de Saint-Gobain (treasury shares held for cancellation)	France	7,473	-	154,286
Miscellaneous French companies		12	-	-
<b>OTHER INVESTMENT SECURITIES</b>		<b>12,612</b>		
<b>TOTAL</b>		<b>13,087,610</b>		

## NOTE 16 INFORMATION ABOUT DIRECT INVESTMENTS IN SUBSIDIARIES AND AFFILIATES WITH A CARRYING AMOUNT REPRESENTING OVER 1% OF THE COMPANY'S CAPITAL STOCK

COMPANIES (in thousand euros: EUR k or local currency)	Capital stock	Reserves	% interest	Book value of shares held		Loans and advances granted by the Company (in EUR thousand)	Guarantees given by the Company (in EUR thousand)	2017 net sales	2017 net income (loss)	Dividends received by the Company in 2017 (in EUR thousand) <sup>(1)</sup>
				Gross (in EUR thousand)	Net (in EUR thousand)					
<b>1 - SUBSIDIARIES</b>										
At least 50%-owned by the Company										
<b>SPAFI</b>										
18, avenue d'Alsace	EUR k	EUR k						EUR k	EUR k	
92400 Courbevoie	3,012,175	4,077,910	100.00	5,768,287	5,768,287			-	477,442	444,296
<b>Partidis</b>										
18, avenue d'Alsace	EUR k	EUR k						EUR k	EUR k	
92400 Courbevoie	893,616	89,362	100.00	2,065,919	2,065,919	1,355,000		4,613	94,258	72,661
<b>S.G. Matériaux de Construction</b>										
18, avenue d'Alsace	EUR k	EUR k						EUR k	EUR k	
92400 Courbevoie	476,619	(71,940)	100.00	2,123,712	2,123,712	4,771,000		32,196	(18,715)	-
<b>Vertec</b>										
18, avenue d'Alsace	EUR k	EUR k						EUR k	EUR k	
92400 Courbevoie	188,651	756,929	100.00	891,512	891,512	-		-	26,703	149,978
<b>S. G. Benelux</b>										
6, Avenue Einstein	EUR k	EUR k						EUR k	EUR k	-
1300 Wavre, Belgium	812,345	197,378	100.00	812,345	812,345	-		-	4,872	-
<b>Saint-Gobain Building Distrib Deutschland</b>										
Hafeninsel 9	EUR k	EUR k						EUR k	EUR k	
D-63067, Offenbach/Main	100,000	94,600	100.00	194,609	194,609	-		1,452,587	(1,762)	(1,762)
<b>S. G. Isover G+H AG</b>										
1 Bürgermeister- Grünzweig Strasse	EUR k	EUR k						EUR k	EUR k	
D-67059 Ludwigshafen	82,000	11,426	99.91	153,815	153,815	-		349,134	17,330	17,330
<b>S. G. PPL Isofluor GmbH</b>										
Ziegeleistrasse 2 / Kreitzweg	EUR k	EUR k						EUR k	EUR k	
D-41472, Neuss	23,008	139,936	100.00	153,764	153,764	-		11,439	64,790	64,790
<b>S. G. Glass Deutschland GmbH</b>										
Nikolausstrasse 1	EUR k	EUR k						EUR k	EUR k	
D-52222, Stolberg	102,258	32,899	60.00	87,197	86,660	-		397,269	50,323	31,615
<b>S. G. Do Brasil</b>										
482, avenida Santa Marina								k BRL	k BRL	
Agua Branca	k BRL	k BRL						k BRL	k BRL	
05036-903 São Paulo-SP (Brésil)	1,697,564	853,915	55.31	259,292	259,292	-		3,217,718	91,935	-
<b>Saint-Gobain Autoglas GmbH</b>										
Glasstrasse 1	EUR k	EUR k						EUR k	EUR k	
D-52134, Herzogenrath	102,258	19,130	60.00	72,833	72,833	-		-	30,114	30,114
<b>Saint-Gobain Diamant Werkzeuge GmbH</b>										
Schuetzenwall 13-17	EUR k	EUR k						EUR k	EUR k	
D-22844, Norderstedt	10,226	50,925	100.00	61,151	61,151	-		50,938	(6,092)	(6,092)

COMPANIES (in thousands of euros: EUR k or local currency)	Capital stock	Reserves	% interest	Book value of shares held		Loans and advances granted by the Company (in EUR thousand)	Guarantees given by the Company (in EUR thousand)	2017 net sales	2017 net income (loss)	Dividends received by the Company in 2017 (in EUR thousand) <sup>(1)</sup>
				Gross (in EUR thousand)	Net (in EUR thousand)					
<b>2 - AFFILIATES</b>										
10%- to 50%-owned by the Company										
<b>S. G. Cristaleria</b>										
132, Principe de Vergara 28002 Madrid	EUR k	EUR k						EUR k	EUR k	
	134,512	748,795	16.35	211,250	211,250	320,000	0	372,152	73,225	42,058
<b>Saint-Gobain Innovative Materials</b>										
6, Avenue Einstein 1300 Wavre, Belgium	EUR k	EUR k						EUR k	EUR k	
	390,566	(49,408)	15.00	160,880	132,080	0	0	182,686	10,798	-
<b>SEPR</b>										
18, avenue d'Alsace 92400 Courbevoie	EUR k	EUR k						EUR k	EUR k	
	63,361	7,237	25.73	53,310	53,310	10,000	0	165,336	13,219	-
<b>OTHER COMPANIES</b>										
<b>Subsidiaries (over 50%-owned)</b>										
Total French companies				3,428	3,428					79
Total foreign companies				382	299					2
<b>Affiliates (10%- to 50%-owned)</b>										
Total French companies										
Total foreign companies										
<b>Other investments</b>				31,511	30,745	1,175,000				0
<b>Treasury stock</b>				6,422	5,127					
<b>Treasury stock held for cancellation</b>				7,473	7,473					
<b>TOTAL</b>				<b>13,119,092</b>	<b>13,087,611</b>	<b>7,631,000</b>	<b>0</b>			<b>845,069</b>

(1) The amount shown for subsidiaries of the German branch corresponds to 2017 profit or loss transferred under the tax consolidation system.

**NOTE 17 OFF-BALANCE SHEET COMMITMENTS****Off-balance sheet commitments given on behalf of consolidated companies.**

<b>Off-balance sheet commitments given on behalf of consolidated companies</b>	<b>Date</b>	<b>Counterparty</b>	<b>2017 amount (in EUR thousand)</b>	<b>2016 amount (in EUR thousand)</b>
Commitment related to the project of acquisition of Schenker Winkler Holding AG <sup>(1)</sup>	2018	Schenker Winkler Holding AG shareholders	2,368,622	2,397,984
Guarantee issued in connection with the planned lease of the new Saint-Gobain headquarter following its completion (2)	04/06/2020	SCI Iris La Défense	77,507	77,507
Guarantee given on behalf of Saint-Gobain Icover (electricity purchases)	12/31/2025	Exeltium	19,900	22,270
Guarantee issued in connection with disputes between members of the tax group and the French tax authorities	Indefinite	Tax authorities	10,466	10,466
Guarantee given to French companies whose employees have received performance units	Multiple	Multiple	7,865	5,640
Commitments towards other members of Economic Interest Groupings (GIE)	Indefinite	GIE counterparts	5,020	3,752
Commitment given to employees of the Company who have received performance units	Multiple	Multiple	4,234	3,282
Rent guarantee (Les Miroirs headquarters building)	06/30/2023	Miroirs A & B	3,000	3,000
Commitment towards the Saint-Gobain Initiatives foundation	Multiple	SG Initiatives counterparts	1,000	2,000
Commitment to employees of the German companies in the Group (early retirement plan)	05/31/2022	Sparkasse Aachen	1,478	1,250
Other commitments given	Multiple	Multiple	86	86

(1) On December 5, 2014, Compagnie de Saint-Gobain signed an agreement to purchase the company Schenker-Winkler Holding AG, which holds, as of December 31, 2017, 16.97% of the share capital and 52.92% of the voting rights of the company SIKA. On December 22, 2014, Compagnie de Saint-Gobain signed an agreement to transfer to its direct subsidiary SPAFI the benefits and obligations of the agreement mentioned above. The term of the purchase agreement has been extended several times, with the most recent extension in October 2017, taking its term to June 30, 2018. As of this date, Saint-Gobain will once again have the option to extend the term of the agreement until December 31, 2018. The payment of the purchase price, which amounts to 2.83 billion Swiss francs, fully hedged for an equivalent amount of €2.37 billion, is guaranteed by Compagnie de Saint-Gobain.

(2) Within the frame of the off-plan lease, Compagnie de Saint-Gobain benefits jointly with SCI Iris La Défense from a full completion bank guarantee given by the property developer.

**Financing-related off-balance sheet commitments**

<b>Financing-related off-balance sheet commitments given</b>	<b>Date</b>	<b>Counterparty</b>	<b>2017 amount (in EUR thousand)</b>	<b>2016 amount (in EUR thousand)</b>
Liquidity agreement guarantee	January 2018	Exane	393	219
Euro equivalent of forward currency sale contracts	Multiple	Multiple	11,163,895	1,398,837
Euro equivalent of forward currencies payable under currency swaps	Multiple	Multiple	6,330,508	6,331,401

<b>Financing-related off-balance sheet commitments received</b>	<b>Date</b>	<b>Counterparty</b>	<b>2017 amount (in EUR thousand)</b>	<b>2016 amount (in EUR thousand)</b>
Liquidity agreement guarantee	January 2018	Exane	233	219
Euro equivalent of forward foreign currency purchase contracts	Multiple	Multiple	11,163,413	1,398,593
Euro equivalent of foreign currencies receivable under currency swaps	Multiple	Multiple	6,364,366	6,356,447
2013/ 2022 undrawn line of credit	12/20/2022	Multiple	2,480,000	2,539,000
2017/ 2022 undrawn line of credit	12/20/2022	Multiple	1,520,000	1,461,000
Equity swaps acquired as hedges of performance units	Multiple	Multiple	14,480	12,602

Financing-related off-balance sheet commitments given and received	Date	Counterparty	2017 amount (in EUR thousand)	2016 amount (in EUR thousand)
Interest-rate swaps Fixed-rate borrower/Fixed-rate lender	Multiple	Multiple	281,776	291,995
Interest-rate swaps Variable-rate borrower/Fixed-rate lender	Multiple	Multiple	95,000	95,000
Commodity swaps Fixed-price buyer/Variable-price seller	Multiple	Multiple	9,634	1,065
Commodity swaps Variable-price buyer/Fixed-price seller	Multiple	Multiple	9,634	1,065

#### Operations-related off-balance sheet commitments: None

As part of tax litigations which are duly provided for in the balance sheet, the tax administration has been granted liens on assets in its favor in the amount of €16,273 thousand, and delivered a notice confirming that these amounts were contended. In exchange for a stay of payment for part of these litigations, Compagnie de Saint-Gobain has obtained tax bonds from its banks in the amount of €10,466 thousand.

Given the favourable outcome of some of these litigations for the Group, these amounts could be reduced during 2018.

In some cases, Compagnie de Saint-Gobain, or other Group Companies may grant seller's warranties to the buyers of divested businesses. A provision is recognized whenever a risk is identified and the related cost can be estimated reliably.

## NOTE 18 INFORMATION ON FEES PAID TO THE STATUTORY AUDITORS

Total fees (excluding VAT) paid and payable to the auditors for 2017, as reflected in the income statement, may be broken down as follows:

- statutory audit fees of €1.6 million;
- fees for audit-related advice and services of €0.6 million.

## NOTE 19 INFORMATION ON EMPLOYEES

### Number of employees

Paris Head Office (Les Miroirs, La Défense)	2017	2016
Managers	159	159
Supervisors	31	36
Administrative staff	9	10
<b>TOTAL</b>	<b>199</b>	<b>205</b>
of which, employees under fixed-term contracts	5	5

German branch (Aachen)	2017	2016
Managers	92	78
Supervisors	122	131
Administrative staff	0	1
<b>TOTAL</b>	<b>214</b>	<b>210</b>
of which, employees under fixed-term contracts	10	7

### Management compensation

Total compensation and benefits paid in 2017 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash-settled compensation) amounted to €14.5 million (€13.3 million in 2016), including €5.8 million in gross variable compensation (€4.4 million in 2016) and €0.1 million in termination, retirement or other benefits (nil in 2016).

Provisions for pensions and other post-employment benefits (Defined-Benefit Obligations (DBO) in respect of length-of-service awards and pensions) accruing to Group management totaled €46.6 million at December 31, 2017 (€47.0 million at December 31, 2016).

Attendance fees paid to members of the Board of Directors for 2017 totaled €1.1 million, the same as in previous year.

## NOTE 20 LITIGATION

The lawsuits described below involve Group subsidiaries and the related costs and provisions are recorded in the accounts of the subsidiaries concerned.

### 20.1 Asbestos-related litigation

#### Asbestos-related litigation in France

##### Inexcusable fault lawsuits

In France, 10 further individual lawsuits were filed in 2017 by former employees (or persons claiming through them) of Everite and Saint-Gobain PAM which in the past had carried out fiber-cement operations for asbestos-related occupational diseases they have or had. As at December 31, 2017, a total of 815 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2017, 775 of these 815 lawsuits had been completed in terms of liability and quantum as well as in terms of liability for the payment of compensation. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €3 million.

Concerning the 40 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2017, seven have been completed in terms of both liability and quantum, but liability for the payment of compensation has not yet been assigned.

Out of the 33 remaining lawsuits, at December 31, 2017 the procedures relating to the merits of 28 cases were at different stages, with two in the process of being investigated by the French Social Security authorities and 26 pending before the Social Security Courts or the Appeal Courts. The last five actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period following their cancellation.

In addition, as of December 31, 2017, 228 similar suits had been filed since the outset of the litigation by current or former employees, or persons claiming through them, of 13 other French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2017, 191 lawsuits had been completed. In 110 of these cases, the employer was held liable for "inexcusable fault".

The compensation definitively paid by these companies totaled approximately €6.1 million.

With regard to the 37 suits outstanding at December 31, 2017, two cases were still at the investigation stage by the French Social Security authorities, 34 were being investigated –

including 24 pending before the Social Security Courts, eight before the Appeal Courts and two before the Civil Supreme Court (*Court of Cassation*). Lastly, one suit has been canceled but the plaintiff may request its restoration at any time within a two-year period following its cancellation.

##### Anxiety claims

Eight of the Group's French companies, including six that operate or have operated facilities classified as containing asbestos, are subject of damages claims that are different from those described above.

"Facilities classified as containing asbestos" are defined as industrial facilities, that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefits paid to asbestos workers (ACAATA).

At December 31, 2017, a total of 822 suits had been brought by current or former employees claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 suits, 693 have been terminated. Three plaintiffs had their claims dismissed, while for the 690 others who were recognized as having been exposed to an asbestos risk, the total amount of compensation is €7.6 million at December 31, 2017. Of the remaining 129 suits, two are pending before the competent Appeal Courts and 116 have been canceled but the plaintiffs may request their restoration at any time during a period of two years following their cancellation. Finally, six suits have been dismissed by the competent labor tribunals and five plaintiffs have withdrawn the action they initiated.

It should be clarified that the figures above do not take into account suits filed against companies that are no longer part of the Group.

#### Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory – and in some cases punitive – damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities which have been manufacturers, distributors, installers or users of products containing asbestos.

### Developments in 2017

About 3,100 new claims were filed against CertainTeed in 2017, a slight decrease compared to the 3,200 filed in 2016. Over the last few years, the number of new claims has remained relatively stable.

Almost all of the claims against CertainTeed are settled out of court or dismissed. Approximately 3,900 of the pending claims were resolved in 2017, compared to 3,700 in 2016 and 4,600 in 2015. Taking into account the 35,100 outstanding claims at the end of 2016 and the new claims having arisen during the year, as well as claims settled, around 34,300 claims were outstanding at December 31, 2017. A large number of these pending claims were filed more than five years ago by individuals without any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

### Impact on the Group's financial statements

The Group recorded a USD 102 million charge in 2017 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2016 and 2015. At December 31, 2017, the Group provision for asbestos-related claims against CertainTeed in the United States amounts to USD 555 million (compared to USD 562 million at December 31, 2016 and USD 581 million at December 31, 2015).

### Cash-flow impact

Compensation paid in respect of these claims against CertainTeed, including claims settled prior to 2017 but only paid out in 2017, and those fully resolved and paid in 2017, and compensation paid in 2017 by other Group businesses in the United States in connection with asbestos-related litigation, amounted to USD 76 million (compared to USD 97 million in 2016 and USD 65 million in 2015).

### Situation in Brazil

In Brazil, former employees of Brasilit suffering from asbestos-related occupational illnesses are offered, depending on the case, solely financial compensation, or otherwise lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments were signed accordingly so far.

Two collective actions were initiated against Brasilit in 2017 by two associations defending the former exposed workers of plants of São Caetano (SP) and Recife (PE), asking for reconsideration of medical assistance and compensation. These cases are at very early stage for the moment.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all its legal obligations with regard to medical assistance of employees and former employees.

In November 2017, the Supreme Court of Brazil has decided to ban asbestos definitively across the country. Brasilit stopped using this material voluntarily as soon as 2002.

## 20.2 Antitrust law and related proceedings

### Investigation by the Swiss Antitrust Commission in the sanitary products wholesale

In November 2011, the Swiss Antitrust Commission (*Commission suisse de la concurrence*) opened an investigation for anti-competitive practices in the sanitary products wholesale sector. In May 2014, the Commission Secretariat issued a notification of complaints against Sanitas Troesch and against other wholesalers in the sector alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine decided against all the companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016. Sanitas Troesch continues to firmly refute the claims made; however, a provision for litigation was recognized at December 31, 2015 for an amount equivalent to the fine (unchanged at December 31, 2017).

### Investigation by the French Competition Authority in the Building Insulation Products Sector

On August 6, 2014, Saint-Gobain Isover and Compagnie de Saint-Gobain (as the parent company of Saint-Gobain Group) received a notice of complaints from the French Competition Authority (*Autorité de la concurrence française*). The only complaint made was of having exchanged allegedly strategic and confidential information, between 2002 and 2007, relating to a certification request lodged by Actis before the Versailles Commercial Court for one of its products, and in relation to a dispute between Actis and the mineral wool manufacturers' association (FILMM), of which Saint-Gobain Isover was a member.

Saint-Gobain Isover and Compagnie de Saint-Gobain are challenging this complaint. A hearing was held on May 11, 2016. The Competition Authority's final ruling was postponed to a date not yet known.

In the civil law area, in March 2013 Actis served a civil liability writ on Saint-Gobain Isover, the *Centre scientifique et technique du bâtiment*, and the FILMM before the Paris Civil Court (*Tribunal de grande instance*) for the adverse consequences of facts forming the subject of the investigation by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

### Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court. An appeal against this decision is still possible.

## 20.3 Environmental related litigation

### PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluoroethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, and installed carbon filtration systems on the municipal water supply in Hoosick Falls. In addition, it has voluntarily committed to fund water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established.

Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York and Vermont pursuant to which SG PPL has agreed to complete

investigations and implement interim remediation measures. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls' site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2017, the provision recorded by the Company in respect of this matter amounts to € 44 million.

## 20.4 Other potential liabilities

### Grenfell Tower fire in the United-Kingdom

At the time of the refurbishing of the Grenfell Tower in 2015, Celotex sold through distributors an insulation product for use as part of multicomponent ventilated rainscreen cladding system.

Following the Grenfell Tower fire on June 14, 2017, investigations are ongoing, and, in this context, Celotex as well as more than 60 other companies or organizations, is heard by the British authorities.

## 20.5 Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or which has had, in the last 12 months, a significant impact on the financial or profit position of the Company and/or Group.

## NOTE 21 SUBSEQUENT EVENTS

No material events have occurred since the balance sheet date.

## 4. STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

*This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English-speaking readers. This report includes information specifically required by European regulations and French law, such as information about the appointment of Statutory Auditors or verification of the management report and other documents provided to shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

**For the year ended December 31, 2017**

**COMPAGNIE DE SAINT-GOBAIN S.A.**

Les Miroirs  
18 avenue d'Alsace  
92400 Courbevoie  
France

To the Shareholders,

### 1. Opinion

In compliance with the engagement entrusted to us by your Annual General Meetings, we have audited the accompanying financial statements of Compagnie de Saint-Gobain for the year ended December 31, 2017.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as of December 31, 2017 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

### 2. Basis for opinion

***Audit framework***

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Responsibilities of the Statutory Auditors relating to the audit of the financial statements" section of our report.

***Independence***

We conducted our audit engagement in compliance with the independence rules applicable to us, for the period from January 1, 2017 to the date of our report and in particular we did not provide any non-audit services prohibited by article 5(1) of Regulation (EU) No 537/2014 or the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

### 3. Emphasis of matter

Without qualifying our opinion, we draw your attention to the matter set out in Note 1 to the financial statements concerning the change of accounting policies due to the first-time application of ANC regulation 2015-05 of July 2, 2015 on forward financial instruments and hedging operations.

### 4. Justification of assessments – Key audit matters

In accordance with the requirements of articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed as in the context of our audit of the financial statements as a whole, and therefore contributed to the opinion we formed as expressed above. We do not provide a separate opinion on specific items of the financial statements.

## **Measurement of financial investments**

### **Description of risk**

At December 31, 2017, the carrying amount of the Company's financial investments, chiefly comprising investments in subsidiaries and affiliates and related loans and advances, stood at €26,536 million, or 88% of the Company's net assets. Investments in subsidiaries and affiliates are initially stated at cost and are impaired based on their value in use, corresponding to the amount the Company would be prepared to pay for the investment if it were to acquire it. A decline in the performance of certain subsidiaries or affiliates or risks relating to the international locations of those companies could lead to impairment losses.

We deemed the measurement of the value in use of these investments, which is performed each year by Management using the multi-criteria approach described in Note 1 to the Company's financial statements, to be a key audit matter in light of the potential materiality of any impairment and the high degree of estimation and judgment required from Management to assess impairment losses. Management's judgment is based in part on assumptions relating, on the one hand, to the multiples applicable to the valuation of the investments and, on the other, to future changes in the cash flows relating to the investments, as well as to the calculation of the appropriate discount rate applied to future cash flows.

As described in Note 8 to the financial statements, no impairment losses were recognized as a result of the impairment tests performed by Management for the year ended December 31, 2017.

### **How our audit addressed this risk**

We examined the impairment test procedure applied by the Company's financial Management team, verified the consistency of the method used and tested the effectiveness of the controls implemented by Management to ensure the quality and reliability of the procedure.

We carried out an independent analysis of certain key assumptions used by Management to perform the tests, pertaining, as appropriate, to the multiple deemed applicable to the valuation of the investments or to the discount rate and average perpetual growth rate used to project future cash flows, referring both to external market data and analyses of comparable companies.

For each investment selected for our tests of detail, we corroborated the calculation parameters applied in Management's multi-criteria approach with the accounting and budget data available for that investment. Where projected future cash flows were used, we analyzed the consistency of the projections with past performance and our knowledge of the Company's business, supported by interviews with managers from the various businesses and, in so far as they were available, external data relating to markets or competitors. We paid particularly close attention to the calculation of the normalized amount of the terminal cash flows projected until perpetuity.

We verified the disclosures provided in the notes to the financial statements concerning the valuation of financial investments to ensure their appropriateness.

## **5. Verification of the management report and of the other documents provided to the Shareholders**

In accordance with professional standards applicable in France, we have also performed the specific verifications required by French law.

### **Information given in the management report with respect to the Company's financial position and the financial statements**

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors, and in the other documents provided to the Shareholders with respect to the financial position and the financial statements.

### **Report on corporate governance**

We attest that the Board of Directors' report on corporate governance sets out the information required by articles L.225-37-3 and L.225-37-4 of the French Commercial Code.

Concerning the information given in accordance with the requirements of article L.225-37-3 of the French Commercial Code relating to remuneration and benefits received by corporate officers and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlling it or controlled by it. Based on this work, we attest to the accuracy and fair presentation of this information.

Concerning the information relating to those items your Company has deemed liable to have an impact in the event of a takeover bid or exchange offer, given in accordance with the requirements of article 225-37-5 of the French Commercial Code, we have verified its consistency with the underlying documents, which were disclosed to us. Based on this work, we have no matters to report with regard to this information.

### **Other information**

In accordance with French law, we have verified that the required information concerning the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

## **6. Report on other legal and regulatory requirements**

### **Appointment of the Statutory Auditors**

We were appointed Statutory Auditors of Compagnie de Saint-Gobain by the Annual General Meetings of June 26, 1986 for Petiteau Scacchi and subsequently PricewaterhouseCoopers Audit and June 10, 2004 for KPMG Audit.

As of December 31, 2017, PricewaterhouseCoopers Audit and KPMG Audit were in the thirty-second year and the fourteenth year of total uninterrupted engagement, respectively.

## **7. Responsibilities of management and those charged with governance for the financial statements**

Management is responsible for preparing financial statements presenting a true and fair view in accordance with French accounting principles, and for implementing the internal control procedures it deems necessary for the preparation of financial statements free of material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless it expects to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems, as well as, where applicable, any internal audit systems, relating to accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

## **8. Responsibilities of the Statutory Auditors relating to the audit of the financial statements**

### **Objective and audit approach**

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free of material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in article L.823-10-1 of the French Commercial Code (*Code de commerce*), our audit does not include assurance on the viability or quality of management of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit. He also:

- identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the related disclosures in the notes to the financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, he is required to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or are inadequate, to issue a qualified opinion or a disclaimer of opinion;
- evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

***Report to the Audit and Risk Committee***

We submit a report to the Audit and Risk Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in articles L.822-10 to L.822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors. Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Risk Committee.

Neuilly-sur-Seine and Paris La Défense, February 22, 2018

The Statutory Auditors

PricewaterhouseCoopers Audit

KPMG Audit  
*Département de KPMG S.A.*

Edouard Sattler

Cécile Saint-Martin

Jean-Paul Thill

Bertrand Pruvost

## 5. MANAGEMENT REPORT COMPAGNIE DE SAINT-GOBAIN ANNUAL FINANCIAL STATEMENTS

Compagnie de Saint-Gobain's corporate net income totaled €839.5 million in 2017 (2016: €1,048.7 million). This income consisted largely of financial income from subsidiaries and shareholdings (dividends and income transfers from subsidiaries of the German branch) totaling €845.1 million in 2017 (2016: €915.7 million).

Shareholders' equity before allocation of income for the year totaled €17,414 million at December 31, 2017 (December 31, 2016: €17,421 million).

### Significant events during the year

#### 1.1 Transactions involving shareholders' equity

The main changes in shareholders' equity included:

- an increase in shareholders' equity on May 17, 2017 of €167.9 million, through the subscription of 4,593,807 shares at a price of €36.72 under the Group Savings Plan;
- a reduction in shareholder's equity of €339.7 million, following the cancellation of 5,000,000 shares on September 29, 2017 and of 2,000,000 shares on November 30, 2017;
- the payment on June 14, 2017, of the 2016 company dividend of €694.1 million.

#### 1.2 Acquisition plans

Saint-Gobain is continuing its plan to acquire a controlling interest in Sika, a leading construction chemicals company

To this effect, Compagnie de Saint-Gobain signed on December 5, 2014, an agreement to acquire Schenker Winkler Holding AG (SWH), which, at December 31, 2017, held 16.97% of the share capital and 52.92% of the voting rights of Sika. On December 22, 2014, Compagnie de Saint-Gobain signed an agreement with its direct subsidiary SPAFI transferring to the latter the benefits and obligations of the contract mentioned above. The payment of the purchase price, which amounts to 2.83 billion Swiss francs (which is fully hedged in euros), is guaranteed by Compagnie de Saint-Gobain.

Completion of this deal is subject to clearance from the competent anti-trust authorities, which were all obtained on December 2, 2015. Further, on August 27, 2015, the Swiss Federal Administrative Court confirmed in last resort the validity of the opt-out clause provided in Sika's bylaws exempting Saint-Gobain from launching a mandatory takeover bid following the acquisition of the SWH shares.

Saint-Gobain and its Board of Directors took note of the ruling handed down by the Cantonal Court of Zug on October 28, 2016, which rejected SWH's demand for cancellation of the resolutions of the Annual General Meeting of Sika on April 14, 2015 for which SWH voting rights had

been restricted, and SWH's appeal to the Zug Supreme Court against this decision. Saint-Gobain had anticipated these decisions by being granted the option to extend the term of the purchase agreement with the Burkard family relating to the disposal of SWH shares. Saint-Gobain exercised its rights, extending the agreement several times, with the most recent extension, in October 2017, taking its term to June 30, 2018. As of this date, Saint-Gobain will once again have the option to extend the term of the agreement until December 31, 2018.

These successive extensions of the purchase agreement demonstrate the alignment between the Burkard family and Saint-Gobain and their unwavering determination.

With the support of its Board of Directors, Saint-Gobain is determined to successfully complete its plan to acquire a controlling stake in Sika, an industrial project that will create value for all stakeholders. Pending the decision of the Zug Supreme Court, which is expected early 2018, Saint-Gobain is confident that the Swiss justice system will restore SWH's ownership rights.

#### 1.3 Future Saint-Gobain headquarters

In April 2015, Compagnie de Saint-Gobain signed with the Company "SCI Iris La Défense" an off-plan lease regarding the occupation of its future headquarters. Construction work has continued in 2017, with a completion due in 2019

#### 1.4 Financing activities

During 2017, Compagnie de Saint-Gobain issued

- a €750 million 1% bond on March 17, 2017, maturing on March 17, 2025;
- a €750 million 1.375% bond on June 14, 2017, maturing on June 14, 2027.

These issues, which were used to refinance existing debt, extend the average maturity of the Group's debt while also optimizing average borrowing costs.

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- a JPY5 billion 1.903% private placement on January 13, 2017;
- a €200 million 6% private placement on June 29, 2017.
- a €1,250 million 4.75% bond on April 11, 2017;

## Other required information

### 2.1 Maturity date of debt to suppliers and from customers

Pursuant to article D 441-4, the breakdown of its debt to non Group suppliers and from non Group customers by maturity date, is the following:

	Article D.441 I.-1°: Overdue invoices from suppliers not paid at December 31 2017						Article D.441 I.-2°: Overdue invoices to customers not paid at December 31 2017					
	0 day (for information)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1day and more)	0 day (for information)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1day and more)
<b>(A) OVERDUE BY DELAY</b>												
Quantity of invoices						94						96
Total value of invoices TTC	13,566	118	132	39	55	344	442	189	84	0	54	327
Percentage of 2017 total purchases TTC	11.39	0.10	0.11	0.03	0.05	0.29						
Percentage of 2017 total sales turnover							0.13	0.06	0.02	0.00	0.02	0.10
<b>(B) INVOICES EXCLUDED FROM (A) DUE TO DISPUTE OR NOT RECORDED IN THE ACCOUNTS</b>												
Quantity of invoices						0						0
<b>(C) METHOD FOR THE CALCULATION OF THE OVERDUE (BY CONTRACT OR LEGAL DELAY - ARTICLE L.441-6 OR ARTICLE L.443-1 FROM FRENCH TRADE REGULATION)</b>												
Method for the calculation of the overdue							Due date of the invoice					Due date of the invoice

Compagnie de Saint-Gobain settles its debts by their given due dates. The only invoices not settled by their due dates are those subject to litigation and classified as awaiting decision, and invoices that were received late.

### 2.2 Branch of the company

Compagnie de Saint-Gobain has a German branch

## 6. FIVE YEAR FINANCIAL SUMMARY

(in EUR thousand)	2017	2016	2015	2014	2013
<b>1 - CAPITAL STOCK AT YEAR-END</b>					
Share capital	2,214,228	2,221,121	2,243,774	2,247,582	2,220,707
Number of common shares outstanding	553,557,091	555,280,358	560,943,439	561,895,566	555,176,790
<b>2 - RESULTS OF OPERATIONS</b>					
Net sales	181,074	175,762	176,004	166,988	176,945
Income before tax, depreciation, amortization and provisions	864,136	952,078	967,838	1,045,415	775,752
Income tax	14,032	128,412	147,122	165,867	201,647
Income after tax, depreciation, amortization and provisions (Net income)	839,496	1,048,738	1,070,854	1,129,366	915,758
Dividends	716,718 <sup>(1)</sup>	694,143 <sup>(2)</sup>	680,584 <sup>(3)</sup>	695,017 <sup>(4)</sup>	684,560 <sup>(5)</sup>
<b>3 - EARNINGS PER SHARE (IN EUR)</b>					
Income before tax, depreciation, amortization and provisions	1.56	1.71	1.73	1.86	1.40
Income after tax, depreciation, amortization and provisions (Net income)	1.52	1.89	1.91	2.01	1.65
Net dividend per share	1.30	1.26	1.24	1.24	1.24
<b>4 - EMPLOYEE INFORMATION <sup>(6)</sup></b>					
Average number of employees during the year	199	205	209	210	222
Total payroll for the year	29,867	33,059	32,165	28,431	29,350
Total benefits for the year	14,612	15,572	14,573	12,911	13,781

(1) Estimated amount based on 553 557 091 shares entitled to dividend in respect of the financial year ending December 31, 2017, at January 31, 2018, less 2 235 666 treasury shares held at January 31, 2018.

(2) Based on 555 284 802 shares entitled to dividend in respect of the financial year ending December 31, 2016, less 4 377 414 treasury shares held on the ex-dividend date.

(3) Based on 549 959 351 shares entitled to dividend in respect of the financial year ending December 31, 2015, less 1 101 621 treasury shares held on the ex-dividend date.

(4) Based on 561 895 566 shares entitled to dividend in respect of the financial year ending December 31, 2014, less 1 397 640 treasury shares held on the ex-dividend date.

(5) Based on 555 176 790 shares entitled to dividend in respect of the financial year ending December 31, 2013, less 3 112 210 treasury shares held on the ex-dividend date.

(6) Employee numbers only include staff at the company's head office and exclude the German branch.



# Additional information and cross-reference tables

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# 1. ADDITIONAL INFORMATION

## 1.1 Principal statutory provisions and internal rules of the Board of Directors

### 1.1.1 Principal statutory provisions

The main provisions of Saint-Gobain Compagnie's bylaws are summarized below.

A complete version of the bylaws may be consulted on the Company's website ([www.saint-gobain.com](http://www.saint-gobain.com)). A copy may also be obtained upon request from the Clerk of the Commercial Court of Nanterre and at the Company's headquarters.

- Corporate name, form, corporate headquarters and duration (Articles 1, 2, 4 and 5)

A French *société anonyme* governed by the provisions of Articles L.210-1 *et seq.* of the French Commercial Code, Compagnie de Saint-Gobain maintains its corporate headquarters at Les Miroirs, 18 avenue d'Alsace, 92400 Courbevoie, France (tel.: +33 (0)1 47 62 30 00). It is registered with the Trade and Companies Register of Nanterre under No. 542 039 532.

The Company was founded in 1665 and registered with the Trade and Companies Register on July 21, 1954 for a period that will expire on December 31, 2040, unless it is subject to early dissolution or extension.

- Corporate purpose (Article 3)

The Company's corporate purpose is, in summary form, to conduct and manage, in France and internationally, any and all industrial, commercial, financial, securities and real estate transactions related to its manufacturing and contracting activities, through French or foreign subsidiaries or affiliates or otherwise.

- Fiscal year (Article 19)

Its fiscal year runs from January 1 to December 31.

- Share capital and disclosure thresholds (Articles 6 and 7)

At December 31, 2017, the share capital was set at €2,214,228,364, divided among 553,557,091 shares with a par value of €4 each, entirely paid in and all of the same type.

The bylaws (Article 7.4) require shareholders to disclose to the Company within five trading days any direct, indirect or joint interest representing at least 0.50% of the capital or voting rights, or any multiple of this percentage.

The same disclosure requirement applies when a direct, indirect or joint holding falls below any of these thresholds.

Failure to comply with these disclosure rules may result in the undisclosed shares exceeding this percentage being stripped of voting rights for a period of two years from the date when the non-disclosure is remedied, at the request of one or more shareholders representing at least 3% of the capital or voting rights, as recorded in the minutes of the General Meeting.

In addition, the Company may request disclosure of information about its ownership structure and ownership of its securities pursuant to the relevant laws and regulations.

- Share rights (Article 8)

Each share entitles the owner to ownership of corporate assets and liquidation proceeds in an equal proportion to the share capital it represents.

Whenever it is necessary to hold a certain number of shares in order to exercise a right, it is for the owners who do not possess such number to assume responsibility, as necessary, to create the corresponding grouping up to the required number of shares.

Each share entitles the holder to vote at the General Meetings under the conditions stipulated in the bylaws (see Article 18 below).

Share ownership automatically requires compliance with the Company's bylaws and the decisions taken by the General Meeting.

- Company Management (Articles 9 to 12, 14 and 15)

The Company is administered by a Board of Directors comprised of at least three members and no more than eighteen members, subject to the exceptions provided for by law in the event of a merger.

Directors are elected for a four-year term which is renewable, subject to the age limits for holding office, which is 70 for a Director and 68 for the Chairman of the Board. The Board may decide to combine the functions of Chairman of the Board and Chief Executive Officer, in which case the holder's title shall be Chairman and Chief Executive Officer. The age limit for holding office as Chairman and Chief Executive Officer is 65 (the same as for the Chief Executive Officer and Chief Operating Officers).

A Director representing employee shareholders shall be appointed at the General Meeting, upon proposal of the Board of Directors, among the members of the supervisory boards of the corporate mutual funds of the Company's Group Savings Plan. Such Director will be subject to all legal and statutory provisions applicable to Directors appointed by the General Meeting.

One or two employee Directors shall be appointed by the Group Works Council (*Comité de Groupe*) of the Company. If the number of Directors appointed by the General Meeting is less than or equal to twelve, one employee Director shall be appointed by the Group Works Council. If the number of Directors appointed by the General Meeting is or becomes greater than twelve, a second employee Director shall be appointed by the Group Works Council (provided that this number remains higher than twelve on the date of the appointment). If the number of Directors appointed by the General Meeting becomes less than or equal to twelve, the terms of each of the two employee Directors shall continue up to the expiration of their term. The appointment of the

employee Director or Directors by the Works Council shall occur within six months of the General Meeting. The Director representing employee shareholders, appointed by the General Meeting, is not taken into account for the purpose of determining the number of employee Directors to be appointed.

The duties of the members of the Board of Directors and the Chairman of the Board of Directors (whether or not he is Chairman and Chief Executive Officer) shall end upon completion of the Annual General Meeting called to approve the financial statements for the year during which they reach the age limit. The duties of an employee Director shall also terminate in the event of termination of his or her employment contract, on the date of the termination, subject to intragroup transfer. If the conditions for application of the law are not met, the term of office of the employee Director or Directors shall end upon completion of the meeting of the Board of Directors that confirms the Company's *exit* from the scope of application of the law.

The Board of Directors determines the Company's overall business strategy and examines any issues related to the efficient operation of business.

The Board's activities are organized and led by the Chairman of the Board.

Board meetings may be held using videoconferencing or other interactive telecommunication technology, under the conditions stated by law.

Each Director appointed by the General Meeting is required to hold at least 800 shares.

#### ■ General Management (Articles 13 and 15)

At the choice of the Board of Directors, the Company's General Management is assumed either by the Chairman of the Board of Directors, in this case in his capacity as Chairman and Chief Executive Officer, or by the Chief Executive Officer.

The Chief Executive Officer, chosen by the Board of Directors, whether or not from among its own members, is vested with the broadest authority to act under any circumstances in the name of the Company within the limits of the corporate purpose and subject to such powers as the law expressly attributes to General Meetings and to the Board of Directors. He represents the Company in its relations with third parties.

#### ■ General Meetings and voting rights (Article 18)

Any shareholder may participate in General Meetings in person or by proxy, provided that his/her/its shares have been formally recorded in the accounts, subject to the applicable legal provisions.

Where decided by the Board, shareholders may be convened to and vote at a General Meeting by any form of electronic communication. All shareholders may give proxy to another person or entity to represent them at a General Meeting, subject to the applicable legal provisions. Legal entities shareholders are represented at a General Meeting by their

legal representative or by any person designated by such legal representative.

At all General Meetings, voting rights are exercisable by the beneficial owner of the shares. Each shareholder has a number of voting rights corresponding to the number of shares held, without limitation.

However, double voting rights are allocated to fully paid-up shares registered in the name of the same holder for at least two years.

In addition, in the case of a capital increase through capitalization of reserves, profits or share premiums, registered shares allocated free of charge to a shareholder carry double voting rights from the date on which they are issued on the basis of shares already held by the shareholder carrying such entitlement.

Double voting rights are forfeited when the shares are converted to bearer form or sold. However, double voting rights are not forfeited when title is transferred by way of an inheritance or as a result of the liquidation of the marital estate or an inter vivos donation to a spouse or a relative in the direct line of succession, and the transfer is not taken into account for the purpose of calculating the two-year qualifying period.

shareholders may vote by mail in accordance with applicable laws and regulations.

#### ■ Allocation and appropriation of net income (Article 20)

Each year, 5% of net income for the year less any losses carried forward from prior years, is credited to the legal reserve, until such time as the legal reserve represents 10% of the share capital. If the share capital is increased, the same transfer requirement applies until the legal reserve represents 10% of the new share capital.

Distributable income corresponds to net income for the year less any losses carried forward from prior years and less any amounts to be credited to reserves in application of the law or the Company's bylaws, plus retained earnings.

The General Meeting may appropriate this distributable income as follows:

1. All or part of this amount to any contingency or special reserves or to retained earnings, based on a recommendation of the Board of Directors.
2. If these appropriations do not absorb the total amount of distributable income, shareholders are paid a non-cumulative first dividend equal to 5% of the paid-up par value of shares, without being entitled to claim such payment from appropriations from the distributable income of subsequent years.
3. If any funds remain after paying these appropriations, they are used to pay a second dividend.

The Annual General Meeting approving the financial statements for the fiscal year may decide to offer shareholders the option of receiving all or part of the dividend (or any interim dividend) in cash or in shares.

## 1.1.2 Internal Rules of the Board of Directors

The Compagnie de Saint-Gobain's Internal Rules of the Board of Directors in force on February 1, 2018 describe the Board's organization and functioning. The Internal Rules were last updated by the Board of Directors on November 24, 2016.

"These internal rules aim to set out the organization and functioning of Compagnie de Saint-Gobain's Board of Directors.

They are to be applied in conjunction with the rules and duties laid out in those applicable legal and regulatory provisions and the Company's bylaws which have not been reproduced below.

They implement the recommendations published by the AFEP-MEDEF corporate governance code for French listed companies.

### I. Meetings of the Board of Directors

The Board holds at least seven scheduled meetings each year. At each year-end, an annual work program is drafted and distributed to Directors for the following year. The draft minutes of each meeting are sent to the Directors at the same time as the agenda for the next meeting. They are approved at that meeting and the final minutes are then sent with the agenda for the following meeting.

Except for meetings held to approve the annual financial statements of the Company, the annual consolidated financial statements and the annual management report, Directors who take part in a Board meeting using videoconferencing or other telecommunication technology without any break in transmission, enabling them to be identified and to participate actively in the discussion, are deemed to be present for calculation of the *quorum* and voting majority.

### II. Prior and permanent information for Directors

Each time a meeting is called, Directors are provided with a selection of financial analyses and a range of press articles concerning the Saint-Gobain Group published in the period since the last Board meeting.

The text of explanations and presentations scheduled on the agenda for a meeting is sent to the Directors prior to the meeting.

The draft annual report for the Saint-Gobain Group and the draft Group and Company annual and interim financial statements are sent to the Directors prior to the meeting at which they are to be considered.

The information file handed out to the Directors at each meeting includes, among other things, an analysis of the Saint-Gobain Group's operating income and its net debt at the previous month-end, as well as details of the Saint-Gobain share performance compared with the CAC 40 and an industry index.

One Board meeting is held at a different Saint-Gobain Group site each year, to give the Directors an opportunity to also visit the site concerned.

The provisions of the Board of Director's Internal Rules are reproduced in their entirety below, except for the provisions that concern Board committees, which are set out in chapter 6, section 1.2.3. (b). Paragraphs shown in italics below provide commentary.

Between meetings, the Directors receive copies of all press releases issued by the Company, along with any relevant information about events or transactions that are material for the Saint-Gobain Group.

Directors have the right to ask for any other documents that they consider necessary in order to make an informed contribution to the Board's discussions; the request is made to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

Directors may also ask to meet senior executives of the Saint-Gobain Group and to request that no executive Directors are present; in the latter case, notice shall first be given to the Chairman and Chief Executive Officer, who may submit the request to the Board for a decision.

### III. Decisions of the Board

The Board examines all issues that fall within its remit, as specified in the applicable laws and regulations and the Company's bylaws, particularly on the following subjects:

The Board meets annually to review and approve the budget for the Saint-Gobain Group.

A meeting is held at least once a year to review and decide on the Saint-Gobain Group's overall strategy.

All capital expenditures, restructuring, disposals, acquisitions and financial investment and divestment projects in individual amounts greater than €150 million must be submitted to the Board for prior approval, along with any material transactions that fall outside the Group's stated strategy.

For urgent matters where there is not enough time to call a Board meeting, the Chairman and Chief Executive Officer provides the Directors with all relevant information by the most efficient method in order to obtain their opinion.

The Board's practices are reviewed during at least one meeting each year and a formal assessment of its organization and practices is conducted periodically on the initiative of the Lead independent Director; the results of this assessment are reviewed at the next Board of Directors' meeting.

Every year, the Board also reviews each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF code, based on a report prepared by the Nomination and Remuneration Committee. The results of the review are reported to shareholders in the annual report.

Non-executive Directors may meet during or after a Board meeting, without the executive Directors being present, so that they can assess the performance of the executive Directors and consider the future line-up of Saint-Gobain Group's senior management.

#### IV. Board committees

Three Board committees exclusively composed of Directors – the Audit and Risk Committee, the Nomination and Remuneration Committee, and the Strategy and Corporate Social Responsibility Committee – prepare the Board of Directors' tasks and deliberations in their respective areas.

Committee members may participate in meetings either by videoconference or telephone, enabling them to be identified ensuring their effective participation in the meetings, and shall thus be deemed present at such committees.

For the purposes of carrying out their duties, these committees may commission technical studies by outside experts at Compagnie de Saint-Gobain's expense, and consult Group executives after notifying the Chairman and Chief Executive Officer, who may submit the request to the Board for decision. They report to the Board on the opinions and information obtained.

The Chairman of each Board Committee designates the person responsible for acting as secretary of the committee.

*The Board's internal rules also cover, among other things, the respective duties and areas of the three Board committees. A description of these duties and areas is provided in chapter 6, section 1.2.3 in the section dedicated to each committee.*

#### V. Lead independent Director

The Board of Directors may appoint a Lead independent Director among the independent Directors of the Board. The Lead independent Director will remain in office throughout his/her term of office as a Director. The Lead independent Director's term of office is renewable and may be revoked at any time by the Board of Directors.

#### Responsibilities of the Lead independent Director

The Lead independent Director's main responsibility is to oversee the efficient running of the Company's governance bodies. As such, he/she is in charge of:

- preventing and managing conflicts of interest: the Lead independent Director is responsible for preventing the occurrence of situations of conflicts of interest. He/She brings to the attention of the Board of Directors possible conflicts of interest that he/she is aware of concerning the Directors.
- leading the assessment of the organization and operations of the Board of Directors which is periodically carried out;
- convening, chairing, organizing and reporting to the Chairman and Chief Executive Officer on the meetings of the Directors held without the presence of the executive Directors. Such sessions may be held during or at the close of a meeting of the Board of Directors and, as the case may be, such sessions may be co-chaired by the Chairman of the Nominations and Remuneration Committee in the event he/she is a different person, and for matters falling under the responsibility of the Nominations and Remuneration Committee (in particular succession plans and the executive Directors' compensation);
- being a point of contact for shareholders of Compagnie de Saint-Gobain on governance matters, and meeting with them, at the request of the Chairman and Chief Executive Officer;

- ensuring that the Directors receive the relevant information to exercise their duties under the best possible conditions, in accordance with these internal rules;
- more generally, ensuring compliance with the internal rules of the Board of Directors.

#### Powers of the Lead independent Director

In the course of his/her duties, the Lead independent Director shall have the right to:

- suggest to the Chairman and Chief Executive Officer the addition of points to the agenda of any meeting of the Board of Directors;
- request the Chairman and Chief Executive Officer to convene a meeting of the Board of Directors on a specific agenda;
- convene and chair meetings of the Board of Directors in the event of the temporary incapacity or death of the Chairman and Chief Executive Officer; and
- attend, as the case may be, the meetings of the committees of which he/she is not a member, to the extent strictly necessary to accomplish his/her duties and upon the approval of the Chairman of the relevant committee.

The Lead independent Director reports to the Board of Directors on the completion of his/her mission on an annual basis

#### VI. Directors' duties

Directors have a regular access to insider information in the meaning of financial markets legislation and regulations and as such are required to comply with the laws and regulations concerning insider trading.

Closed periods are also set each year, during which Directors are prohibited from trading directly or indirectly and from derivative transactions in Compagnie de Saint-Gobain's securities.

These closed periods cover the 30 days preceding the Board meetings at which the annual and interim consolidated financial statements are reviewed, the 15 days preceding the publication of quarterly sales figures, and the day following the publication of the annual and half-year results.

The calendar of the closed periods is sent each year to the Directors by the Board Secretary. *The Group's senior management, as well as employees having regular or occasional access to insider information, are also subject to these closed periods.*

Directors must declare to the French Financial Markets Authority (*Autorité des marchés financiers*) any trades they have executed involving Compagnie de Saint-Gobain's securities, in compliance with applicable regulations.

Directors hold their Compagnie de Saint-Gobain shares in registered form.

Beyond the obligation of discretion provided by law, Directors are bound by a general duty of confidentiality with regard to the documents and information communicated to them before or during the meetings, as well as on the deliberations of the Board of Directors, until such time as they have been made public.

They must seek to avoid any actual or potential conflict of interest, whether direct or indirect, and if any such conflict of interest should arise, they must inform the Chairman and Chief Executive Officer and the Lead independent Director and refrain from participating in discussions and votes on the concerned topics.

The Chairman and Chief Executive Officer must consult the Board before accepting any new appointment in a publicly traded company.

**VII. Attendance fees and reimbursement of expenses**

The attendance fees approved by the shareholders at the General Meeting are allocated by the Board of Directors among its members.

The Chairman and Chief Executive Officer does not receive any attendance fees.

For Directors who are elected or retire/resign from the Board during the year, the fixed fee is paid *pro rata* to the actual period served.

The fees are paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the following year, based on variable parts allocated to each Director depending both on his/her participation to Board and committees meetings held during the prior fiscal year.

Directors may be reimbursed upon submission the necessary supporting documents, for travel expenses, and any expenses incurred within the course of carrying out their duties as Directors of the Company.

**VIII. Other provisions**

If he or she considers it necessary, each Director may receive additional training about the Saint-Gobain Group's specific characteristics, businesses and operating segments.

Those appointed to the Audit and Risk Committee may, if they consider it useful, receive training in the accounting, financial and operational specificities of the Group's activities.

Unless impeded, Directors attend General Meetings."

## 1.2 Publicly available documents

For the lifetime of this Registration Document, the following documents (or a copy of them) relating to the Company may be consulted through the Financial Communications Department at the Company's corporate headquarters, at Les Miroirs, 18, avenue d'Alsace, 92400 Courbevoie (France), and may be viewed online at [www.saint-gobain.com](http://www.saint-gobain.com):

- this Registration Document, which may also be consulted on the French Financial Markets Authority (*Autorité des marchés financiers*) website ([www.amf-france.org](http://www.amf-france.org));
- the Company bylaws; and
- any reports, letters and other documents, historical financial information, assessments and statements prepared by an outside expert at the Company's request, a part of which is included in or referred to in this Registration Document.

## 1.3 Persons responsible for the Registration Document

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### 1.3.1 Appointment of the person responsible for the Registration Document

Pierre-André de Chalendar, Chairman and Chief Executive Officer of Compagnie de Saint-Gobain.

### 1.3.2 Statement by the person responsible for the Registration Document including the Annual Financial Report

I hereby declare, after having taken all reasonable care to ensure that such is the case, that the information contained in this Registration Document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I further declare that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and of all the companies included in the consolidation scope, and that the information provided in the management report contained in this Registration Document and listed in the Cross-reference Table in chapter 10, section 3.2 provides a true and fair view of the evolution of the business, results and financial position of the Company and of all the companies included in the consolidation scope, as well as a description of the main risks and uncertainties to which they are exposed.

I obtained a completion letter from the Statutory Auditors in which they state that they have audited the information relating to the financial position and the financial statements included in this Registration Document, and that they have read this Registration Document in its entirety.

Courbevoie, March 15, 2018

Pierre-André de Chalendar  
Chairman and Chief Executive Officer

## 1.4 Information about the Statutory Auditors

### 1.4.1 Statutory Auditors and Substitute Auditors

As at December 31, 2017, the Statutory Auditors of the Company are:

- PricewaterhouseCoopers Audit <sup>(1)</sup>, 63 rue de Villiers, 92208 Neuilly-sur-Seine, France, represented by Mr. Edouard Sattler and Mrs. Cécile Saint-Martin. Its mandate was renewed on June 2, 2016 for a period of six years and expires at the 2022 Annual Shareholders' Meeting;
- KPMG Audit, a Division of KPMG S.A. <sup>(1)</sup>, Tour Eqho, 2 avenue Gambetta, CS 60055 - 92066 Paris La Défense (France), represented by Mr. Jean-Paul Thill and Mr. Bertrand Pruvost. Its mandate was renewed on June 7, 2012, for a period of six years and expires at the 2018 Annual Shareholders' Meeting.

The Substitute Auditors are:

- Mr. Jean-Baptiste Deschryver, 63 rue de Villiers 92208 Neuilly-sur-Seine (France), appointed on June 2, 2016. His mandate will expire at the 2022 Annual Shareholders' Meeting;
- Mr. Fabrice Odent, Tour Eqho, 2 avenue Gambetta, CS 60055 - 2066 Paris La Défense (France), appointed on June 7, 2012. His mandate will expire at the 2018 Annual Shareholders' Meeting.

### 1.4.2 Statutory Auditors' fees

#### FEES OF THE STATUTORY AUDITORS AND MEMBERS OF THEIR NETWORKS PAID BY THE GROUP FOR FISCAL YEAR 2017

(in € million)	PricewaterhouseCoopers				KPMG			
	2017		2016		2017		2016	
	Amount before tax	%	Amount before tax	%	Amount before tax	%	Amount before tax	%
<b>AUDIT</b>								
Accounts certification services								
Issuer	1.0	7%	0.9	9%	1.1	12%	0.8	11%
Fully consolidated subsidiaries	7.7	58%	7.5	80%	7.4	83%	6.6	86%
<b>Subtotal</b>	<b>8.7</b>	<b>65%</b>	<b>8.4</b>	<b>89%</b>	<b>8.5</b>	<b>95%</b>	<b>7.4</b>	<b>97%</b>
Services other than accounts certification <sup>(2)</sup>								
Issuer	0.3	2%	0.2	2%	0.1	1%	0.0	0%
Fully consolidated subsidiaries	4.4	33%	0.8	9%	0.3	4%	0.3	3%
<b>Subtotal</b>	<b>4.7</b>	<b>35%</b>	<b>1.0</b>	<b>11%</b>	<b>0.4</b>	<b>5%</b>	<b>0.3</b>	<b>3%</b>
<b>TOTAL</b>	<b>13.4</b>	<b>100 %</b>	<b>9.4</b>	<b>100 %</b>	<b>8.9</b>	<b>100 %</b>	<b>7.7</b>	<b>100 %</b>

(1) Members of the Versailles branch of the French Regional Auditors' Association.

(2) The nature of non-audit services provided by statutory auditors to the parent company and its subsidiaries is composed of mainly audit procedures, as independent third party, on the management report on the consolidated or statutory human resources, environmental and social information, compliance services on accounting, tax and regulatory issues, as well as training.

## 1.5 Main addresses

### COMPAGNIE DE SAINT-GOBAIN

#### France General Management

##### Headquarters

Les Miroirs  
18, Avenue d'Alsace  
92400 Courbevoie France  
Tel.: +33 (1) 47 62 30 00  
[www.saint-gobain.com](http://www.saint-gobain.com)

#### Innovative Materials

##### Flat Glass

Tel.: +33 (1) 47 62 34 00

##### High-Performance Materials

Tel.: +33 (1) 47 62 37 00

#### Construction Products

Tel.: +33 (1) 47 62 45 00

#### Building Distribution

Tel.: +33 (1) 47 62 53 00

### CENTRAL EUROPE

#### General Delegation

Krefelder Straße 195  
52070 Aachen  
Germany  
Tel.: +49 (241) 400 20-0  
[www.saint-gobain.de](http://www.saint-gobain.de)

### NORDIC COUNTRIES AND BALTIC STATES

#### General Delegation

Robert Jacobsens Vej 62A  
2300 Copenhagen S  
Denmark  
Tel.: +45 70 300 688

### UNITED KINGDOM AND REPUBLIC OF IRELAND

#### General Delegation

Saint-Gobain House  
Binley Business Park  
Coventry CV3 2TT  
United Kingdom  
Tel.: +44 (0) 2476 56 0700  
[www.saint-gobain.co.uk](http://www.saint-gobain.co.uk)

### POLAND, ROMANIA, BULGARIA AND TURKEY

#### General Delegation

Iris B,  
ul. Cybernetyki 9  
02-677 Warszawa,  
Poland  
Tel.: +48 (22) 653 79 00  
[www.saint-gobain.pl](http://www.saint-gobain.pl)

### CZECH REPUBLIC, SLOVAKIA, HUNGARY AND EASTERN ADRIATIC REGION

#### General Delegation

Smrčková 2485/4  
Prague 180 00 8  
Czech Republic  
Tel.: +420 724 738 135  
[www.saint-gobain.cz](http://www.saint-gobain.cz)  
[www.saint-gobain.sk](http://www.saint-gobain.sk)  
[www.saint-gobain.hu](http://www.saint-gobain.hu)

### RUSSIA, UKRAINE AND CIS COUNTRIES

#### General Delegation

PREO 8 Business Center, 19<sup>th</sup> floor  
8, Preobrazhenskaya ploschad 107061,  
Moscow Russia  
Tel.: +7 (495) 775 15 10  
[www.saint-gobain.ru](http://www.saint-gobain.ru)

### MEDITERRANEAN

#### General Delegation

Príncipe de Vergara 132  
28002 Madrid  
Spain  
Tel.: +34 (91) 397 20 55  
[www.saint-gobain.es](http://www.saint-gobain.es)

**SUB-SAHARAN AFRICA****General Delegation**

No. 1 Shale Road  
 N1 Business Park  
 Cnr. Old Johannesburg and Tlokwā Roads  
 Kosmosdal Ext. 7  
 Samrand 0157  
 South Africa  
 Tel.: +27 12 657 2800

**MIDDLE EAST****General Delegation**

Mitsulift Bldg 3<sup>rd</sup> Floor,  
 Dbayeh Main road-  
 Lebanon  
 P.O. Box 55-44  
 Beirut  
 Lebanon  
 Tel: +961 4 546 870/1/2

**ASIA-PACIFIC****General Delegation**

7F. Office Tower. Bund Center  
 222 Yan An East Road  
 Shanghai 200002  
 People's Republic of China  
 Tel.: +86 (21) 63 61 88 99  
 www.saint-gobain.com.cn

**Office in Japan**

Saint-Gobain Bldg  
 3-7 Kojimachi, Chiyoda-ku 102-0083 Tokyo Japan  
 Tel.: +81 3 6272 6250  
 www.saint-gobain.co.jp

**Office in South Korea**

10F, KFAS Bldg.  
 211, Teheran-ro  
 Gangnam-gu  
 Seoul 06141  
 South Korea  
 Tel.: +82 2 3706 9073  
 www.hanglas.co.kr

**Office in Thailand**

12F, Gypsum Metropolitan Tower  
 539/2, Si Ayutthaya Road  
 Thanonphayathai, Ratchathewi  
 Bangkok 10400  
 Thailand  
 Tel.: +(66)2 640 8721

**Office in Australia**

60 Hume Hwy,  
 Somerton, VIC 3062  
 Australia  
 Tel.: +61 3 9930 7852  
 www.saint-gobain.com.au

**INDIA, SRI LANKA AND BANGLADESH****General Delegation**

Level 5, Leela Business Park  
 Andheri Kurla Road  
 Andheri (East)  
 Mumbai - 400059  
 India  
 Tel.: +91 (022) 40 21 21 21  
 www.saint-gobain.co.in

**NORTH AMERICA****General Delegation**

Saint-Gobain Corporation  
 20 Moores Road  
 Malvern, PA 19355  
 United States  
 Tel.: +1 610-893-5000  
 www.saint-gobain-northamerica.com

**BRAZIL, ARGENTINA AND CHILE****General Delegation**

Avenida Santa Marina, 482  
 Agua Branca  
 SP 05036-903 São Paulo  
 Brazil  
 Tel.: +55 (11) 2246-7000  
 www.saint-gobain.com.br

**MEXICO, CENTRAL AMERICA, COLOMBIA,  
VENEZUELA, ECUADOR AND PERU****General Delegation**

Legaria 549,  
 torre 1, piso  
 14, Colonia  
 10 de abril. Delegación Miguel Hidalgo,  
 11250, Mexico City.  
 Mexico  
 Tel.: +52 (55) 52 79 16 00  
 www.saint-gobain.com.mx

## 2. CSR INFORMATION

### 2.1 Duty of vigilance plan

Saint-Gobain's vigilance plan is established with respect to the French law n°2017-399 of 27 March, 2017 on the duty of vigilance of parent and subcontracting companies. It is constituted of two plans that are both distinct and complementary:

- the vigilance plan for the Activities of the Group (holding company, subsidiaries, joint-ventures and on-site subcontractors);
- the vigilance plan relative to Purchases, including tier 1 suppliers and external subcontractors.

These two plans are based on the application of Saint-Gobain's ethical code of conduct, the Principles of Conduct and Action, and on Group-level policies that most often apply to several stakeholders, thus integrating the Group's activities and its value chain.

Depending on the cases, procedures for policy implementation are disseminated in particular:

- risk assessment procedure for human rights;
- the Frame of Reference for the Environment, industrial Hygiene, Health and Safety management system (EHS).

The implementation modalities of the Responsible Purchasing policy for trade and non-trade purchases are integrated into the policy's annex.

#### 2.1.1 The vigilance plan relative to the Group's Activities

##### a) Risks linked to human rights

The implementation procedure of the "human rights" policy adopts the methodology of risk identification of real or potential negative impacts. This method is based on the United Nations' recommendations, in particular those relative to the guiding principles on business and human rights.

The mapping of risks tackles the nature of risks linked to both the activities and the countries in which Saint-Gobain is present. The identification of risks linked to the activities was carried out internally according to the methods put forward by the Danish Institute.

The selected salient risks are:

- Forced labor;
- Child labor;

- Freedom of association;
- The use of recruitment agencies;
- Discrimination.

The identification method for risks linked to countries is coordinated with that of the Responsible Purchasing program.

Following the Group's organization, countries at risk are grouped by General Delegation. This way, Saint-Gobain has identified 6 General Delegations that are concerned over their entire perimeter:

- Sub-Saharan Africa;
- Middle-East;
- Central America, Venezuela, Colombia, Ecuador and Peru;
- Asia-Pacific;
- Russia, Ukraine and CIS countries;
- India, Sri Lanka and Bangladesh.

Three General Delegations are only concerned for specific countries:

- Mediterranean: Morocco and Algeria ;
- Poland, Bulgaria, Romania and Turkey: Turkey;
- Czech Republic, Slovakia, Hungary and Eastern Adriatic countries: Albania.

A preliminary questionnaire relative to risk assessment and the identification of risk management programs has been addressed to the General Delegations concerned. Depending on the residual risks, action plans specific to each General Delegation or country will be established. These action plans will specify the measures for specific risk management and their efficiency.

Human rights incidents are reported in Chapter 5, Section 2.4.

##### b) Risks linked to the environment, the health and safety of employees

The EHS Reference Frame is applicable to all of Saint-Gobain's sites. It specifies the EHS management system to put in place and explains the risk identification and management method for environmental, health and safety risks posed to employees and on-site subcontractors. It is coordinated with the ISO 14001 and OHSAS 18001 requirements.

Below is the summary table of correspondances:

Saint-Gobain EHS Frame of Reference		OHSAS 18001 : 2007		ISO 14001 : 2004	
1	Presentation and objectives	1	Scope	1	Scope
2	General Outline of the Approach	2	Normative Reference	2	Normative Reference
3	Definitions	3	Terms & Definitions	3	Terms & Definitions
4	EHS Management System requirements <sup>4</sup>		OH&S Management System Elements	4	Environmental management system requirements (title only)
4.1	General Principles	4.1	General Requirements	4.1	General Requirements
4.2	EHS Policy	4.2	OH&S Policy	4.2	Environmental Policy
4.3	Identification and planning	4.3	Planning	4.3	Planning
4.3.1	Identification of environmental aspects, health and safety hazards and EHS risk assessment	4.3.1	Hazard Identification, Risk Assessment and determining controls	4.3.1	Environmental Aspects
4.3.2	Legal, internal and other requirements	4.3.2	Legal and other requirements	4.3.2	Legal and other requirements
4.3.3	EHS risk management	4.3.3	Objectives and programme(s)	4.3.3	Objectives, targets and programme(s)
4.3.4	Objectives and EHS management program			4.3.3	
4.3.5	Resources, roles, responsibilities, accountability and authority				
4.4	Implementation and Operation	4.4	Implementation and operation	4.4	Implementation and operation
4.4.1	Competency, training and awareness	4.4.1	Resources, roles, responsibility, accountability and authority	4.4.1	Resources, roles, responsibility and authority
4.4.2	Communication and participation of employees	4.4.2	Competence, training and awareness	4.4.2	Competence, training and awareness
4.4.3	Documentation and data control	4.4.3	Communication, participation and consultation	4.4.3	Communication
4.4.4	Operational control	4.4.4	Documentation	4.4.4	Documentation
4.4.5	Emergency Preparedness and response and crisis management	4.4.5	Control of documents	4.4.5	Control of documents
		4.4.6	Operational Control	4.4.6	Operational Control
		4.4.7	Emergency Preparedness and Response	4.4.7	Emergency Preparedness and Response
4.5	Assessment and control	4.5	Checking	4.5	Checking
4.5.1	Performance measurement and monitoring	4.5.1	Performance measurement and monitoring	4.5.1	Monitoring and measurement
4.5.2	Inspections and evaluation of compliance	4.5.2	Evaluation of compliance	4.5.2	Evaluation of compliance
4.5.3	Handling, prevention and follow-up EHS events	4.5.3	Incident Investigation, nonconformity, corrective action and preventive action	4.5.3	Nonconformity, corrective action and preventive action
4.5.4	Control of records	4.5.4	Control of records	4.5.4	Control of records
4.5.5	EHS audits	4.5.5	Internal Audit	4.5.5	Internal Audit
4.6	EHS Management review	4.6	Management Review	4.6	Management Review

Whether it is certified or not, each site of the Group carries out its own mapping of environmental, health and safety risks. In addition to the information linked to the Reference Frame and to the certifications, the health-safety risk assessment is subject to a specific standard disseminated by EHS network members.

All mappings are checked by the internal network of EHS correspondents. Each EHS correspondent reports the mapping and the EHS action plan to the site director who is responsible for its relevance and implementation. They pass on this information to the EHS organization of their Sector or General Delegation, according to the Group's matrix organization.

Thanks to this network, the Group's EHS at corporate level identifies priority risks and disseminates a specific policy, standard or recommendation for action in order to manage them.

The specific policies are:

- The Health policy;
- The Water policy;
- The Energy and Air emissions policy;
- The Sustainable Management of primary resources policy.

The concerned standards are:

- The NOSE standard on noise;
- The TAS standard (Toxic Agent Standard) on toxic agent exposition;

- The accident analysis safety standard;
- The working at height safety standard;
- The management of external companies present on-site safety standard;
- The work permits safety standard;
- The lock-out/tag-out safety standard;
- The forklift trucks safety standard;
- The safety of machines safety standard;
- The vehicles and pedestrians safety standard;
- The confined spaces safety standard;
- The storage and logistics operations safety standard;
- The road hazards management safety standard;
- The industrial health-hygiene standard on the purchase and use of mobile phones and smartphones.

The EHS network has implemented audit programs:

- two audit types adapted to the Group's industrial activities:
  - 52 audits "12 steps" carried out in 2017
  - 121 audits "20 steps" carried out in 2017
- audits adapted to the distribution sector: 323 audits carried out in 2017.

In addition to the audit program carried out by the EHS network, the verification of the EHS Reference Frame, policies and standards training is part of the Internal Control referential, in particular the 9.2.03, 9.2.04, 9.2.05 controls regarding the EHS risk assessment, the elaboration of the EHS plan and its follow-up.

Monthly and yearly EHS reporting allows monitoring incidents and performance evolution. This reporting is published in Chapter 5, Section 2.4.

### 2.1.2 The vigilance plan linked to the Group's Purchases

The Responsible Purchasing Policy aims to identify, manage and reduce environmental, social and societal risks linked to the Saint-Gobain Group's supply chain.

It is articulated around 3 stages:

- risk mapping;
- evaluation of suppliers' CSR performance;
- construction of improvement plans in collaboration with suppliers.

Risk identification tackles the nature of risks linked to the purchasing category, the production type and the geographical zone that the activity is present in.

The risks linked to human rights, in particular forced labor, child labor and corruption are in majority linked to geographical zones. Work conditions and in particular the evaluation of decent work are accounted for in the evaluation of both country risks and risks linked to activities. Environmental risks, and risks linked to health and safety are mostly linked to purchasing categories and to the supplier's performance.

The policy is differentiated for trade and non-trade purchases, because of their location on the supply chain:

- non-trade purchases are located upstream from production and all logistical aspects;
- trade purchases are located downstream from production.

The suppliers identified at risk are evaluated either by a documentary evaluation or by an on-site audit depending on the nature of risks and on the supplier's ability to manage them.

If the methodology and risk criteria are identical, the policy's application procedures are thus differentiated between trade Purchases and non-trade Purchases.

The Group's desire is to commit suppliers to an effort towards continuous improvement and partnership.

If a supplier demonstrates their inability to improve their CSR performance despite shared action plans, Saint-Gobain reserves the right to end commercial relations and to exclude the supplier from the Group's tender processes.

Saint-Gobain's Responsible Purchasing effort is presented in Chapter 4, Section 2.2 and the annual reporting is published in Chapter 5, Section 2.4.

## 2.2 Note on methodology

The content of the CSR chapters of this document reflects broad consultation with internal and external stakeholders.

In-house, the sectors, Activities, General Delegations and a number of corporate departments (Human Resources, Responsible Purchasing, Financial Communications, Responsible Development, EHS, etc.) have been asked to contribute, in order to enhance the report with examples.

Externally, stakeholders are regularly consulted on general policy or various specific aspects of Saint-Gobain's social responsibility. These consultations assist in developing the Group's CSR reporting and communications.

### 2.2.1 Reference bases

The reference bases used for social reporting, EHS reporting and for defining indicators have been prepared in accordance with the United Nations' Global Compact and the French New Economic Regulations (NRE) Act of 2001, as well as with the 2012 Grenelle II law.

In order to have a global reference framework, since 2011 these reference bases follow GRI indicators (Global Reporting Initiative).

The Saint-Gobain Group's Social Affairs Department, which is responsible for social reporting, regularly collaborates and exchanges information with leading contributors of the Human Resources Department in order to improve the doctrine and reporting processes.

For EHS reporting, working groups suggest developments in the new EHS indicators, to monitor changes in international standards, and enhance feedback from the sites. These proposals are then discussed and validated at Management Committee level twice a year.

The data published on Saint-Gobain's CSR, following the GRI methodology, comes from three different Group reporting systems:

- the Smart'R management tool for employee reporting and the annual social report;
- management and reporting system, PeopleGroup, for managerial staff;
- the EHS (Environment, Health, Safety) reporting system known as Gaïa.

### 2.2.2 Social reporting

#### a) Basis

##### Scope of reporting

Following the integration of the management tool, a significant modification was made to the consolidation system. Social reporting has a total of 651 consolidated companies at the end of 2017 and is no longer based on specific reporting entities.

- the system used to count the number of employees (SIS), which is updated monthly, includes the fully consolidated Group companies. It forms the basis for calculation of the consolidated total number of employees, and the distribution of employees by gender, sector, geographic region, socio-professional category and contract type.
- the annual social report, created in 2002 to account for the Group's social performance, is based on a limited scope of reporting, representing 98,5% of the consolidated number of employees. All other social indicators are calculated on this basis.

Newly integrated companies are accounted for in accordance with their financial integration, and companies sold during the past year are not included.

#### b) Management tool

Smart'R is a decision-making tool, introduced by Human Resources in order to provide computer-based data on employees.

Since January 2017, Smart'R has integrated payroll details on a monthly basis. Data is incorporated automatically for more than 91,5% of the Group's employees and manually for those entities not incorporated into the shared service centers (8,5% of employees are not interfaced).

We are setting up interfaces as soon as it becomes possible to do so, but some data is still entered manually, particularly for the newly acquired companies.

Details of the annual social reporting were collected and entered in Smart'R. The entire consolidation of data is effected by Groupe Saint-Gobain.

The data on the organization and scope of the Group is updated in Smart'R each month, based on the changes in scope such as acquisitions, sales or mergers, dealt with in the Group's financial consolidation report.

Smart'R allows social reporting to take place. In fact, the social data required for the analysis is extracted by means of the MicroStrategy reporting tool, supported by Smart'R.

The GRI-HR questionnaire is completed each year by the HR Departments of the General Delegations and Activities in France in order to collect qualitative indicators, and consult internal stakeholders when drafting the report.

### c) Continuous improvement

The Saint-Gobain Group has taken a voluntary and progressive approach to enhancing the reliability of its social data, through:

- continuous exchanges of information with the General Delegations and Activities in France and also with the reporting contributors (651) to ensure proper understanding and application of the rules for calculating the social indicators defined in the Group's doctrine, available in French and in English;
- the choice of indicators, in the interests of stability to ensure the reliability of comparisons over time, as far as possible;
- the annual submission of a selection of social data for external assessment;
- strengthening of the controls implemented at each collection and consolidation level;
- automation of collection, by a growing number of interfaces between shared service centers (SSC) and Smart'R, to ensure reliability and continuous improvement in data quality. Smart'R's purpose is to collect data from payment systems at the end of each month. Since the closing payment dates are different depending on the countries, some indicators are solely calculated over 12 rolling months in order to accommodate the potential discrepancies emerging from these different closing dates.

### d) Data consolidation

The reporting process is organized into four stages:

- monthly incorporation into Smart'R of interface files originating from shared service centers and questionnaire for non-interfaced entities;
- collection of annual social data in questionnaires, which is carried out by contributors at company level; this is additional data not present in Smart'R such as indicators of social relations (e.g. number of agreements signed);
- verification and consolidation within the Group's Social Affairs Department;
- the report allows spreadsheets to be generated as management tools for the Group's Human Resources Department and at all levels of the structure, both for individual companies and for individual General Delegations.

### e) Absenteeism indicator

The absence data of certain entities is sometimes difficult to collect in view of local contexts. Absenteeism is thus calculated over a more limited scope than that of the annual social reporting campaign.

Absenteeism is expressed as a percentage and corresponds to the total number of hours of absence over the total number of theoretical hours worked. The reasons for absence taken into account in this indicator are absences for illness, absences relating to occupational accidents (or travel), absences due to strike and unjustified absences. Authorized or anticipated absences (e.g. leave, family events) are not included in this indicator.

In some countries, entities have been excluded from the indicator's calculation because of the lack of data explained by a variety of reasons (no interfaces, local regulation, etc.). The following countries are concerned by this exclusion: USA, Canada, Austria, India, Bhutan, Philippines, South Korea and Finland.

The absence data is in the process of being rendered reliable and forms part of our measure for improving the quality of data.

### f) Difficulties and restrictions

The main difficulty lies in the variety of countries in which the Group is active. The guidelines for the calculation of social reporting indicators are distributed each year to contributors, but the indicators are sometimes interpreted according to local contexts (national laws or practices). This is the case, for example, with the concepts of training or permanent employment contracts. To make the training data report reliable, the Group redefined the principles for these indicators in 2016. The data collected now include all training hours appropriately substantiated as such. In France, training for apprentices is no more integrated in the global reporting, in hours or in associated cost.

When it comes to security, for most entities permanent subcontractors worked hours and reported on the basis of partners' declarations or on estimations.

Further, data on local contexts is sometimes impossible to collect. Therefore, certain indicators are calculated over a more limited scope of reporting than the scope of the annual social reporting campaign. This scope is defined each time.

## 2.2.3 EHS reporting

### a) Basis

#### Scope of reporting

The EHS report covers 1,513 entities corresponding to all the Group's facilities. All entities belonging to consolidated companies in which Saint-Gobain held a stake of 50% or more at balance sheet date are monitored, including, where possible, facilities that came on-stream or were acquired during the year and excluding facilities that were closed or sold.

The entities are defined by the type of establishment according to the following categories: factory, sales branch or group of stores, office, warehouse, Research and Development Center, mines and quarries and building site.

The data is entered directly on the EHS data reporting system, called Gaïa, for all EHS entities. The various questionnaires sent, as well as their frequency, scope of reporting and content, are shown in the following table:

Questionnaire	Frequency	Scope of reporting	Content
Safety-On-Line	When needed	World, all categories of victims	Instant alert in case of accidents involving fatalities or lost time
Environment-On-Line	When needed	World, Environmental events	Instant alert in case of major or significant environmental accidents
Safety	Monthly	World, all categories of employees	Accidents, numbers of days lost, worked hours, etc.
General & Health	Annually	World (all entities except certain offices or attached sites)	Certification, audit results, monitoring of health programs, etc.
Environment	Annually	"Environmental concerned scope" sites + mines and quarries (excluding sites connected to plants) + other sites at the Sector's initiative	Output, raw materials, energy consumption, atmospheric emissions, water, waste, mitigation plan, etc.

The Safety, Industrial Hygiene and Safety, General and Safety-On-Line (SOL) questionnaires are designed to cover all facilities and Saint-Gobain employees. Depending on the questionnaire, they also cover temporary employees and subcontractors (Safety and Safety-On-Line questionnaires).

Safety data are reported on a monthly basis and comprise all accidents occurring during the month and their severity level. The system covers approximately 98% of the Group's employees. Full coverage is not achieved because of the maximum of two years' grace for newly acquired establishments to be included in Gaïa.

One-time reporting also allows entities, through the Safety-On-Line system, to systematically report any occupational accident, with or without lost time, including fatal incidents, and to explain the circumstances.

The industrial hygiene and health questionnaire and the General questionnaire are completed annually.

The Environment questionnaire is also completed annually, by 840 entities. The consolidated data from these entities corresponds to the "Group Scope". An "environmental scope" has also been established to focus efforts on establishments having the greatest impact, and to improve data legibility and progress toward goals. The Activities have therefore also validated certain criteria (energy and water consumption, quantity of non-recovered waste, etc.) enabling clear identification and monitoring. This scope includes 508 entities.

Data for the sites concerned is presented using environmental sub-areas. Because of the wide range of

Activities of the Group, not all the environmental indicators in the Gaïa EHS data reporting system are relevant for all Activities. These indicators are therefore consolidated by "batches" and allocated to groups of entities with the same environmental impacts and ratios (indicators corresponding to the production unit, in general tons of finished products). These groups of entities are called "environmental sub-scopes", with the main ones as follows:

- the Glass sub-scope, which includes Flat Glass Activities, Saint-Gobain Adfors (Innovative Materials Sector), and the Insulation Activity (Construction Products Sector) which have a glass smelting facility (72 sites covered, across 73 entities);
- the Pipe Systems Activity sub-scope of the Construction Products Sector (concerning 17 sites out of 20 entities);
- the "Other" sub-scope covering all entities not included in the previous sub-scopes (industrial mortars, Lapeyre factories, glass conversion subsidiaries, gypsum, etc.) (concerning 419 sites out of 747 entities). This sub-scope also includes the 102 quarries in operation.

One of the principles applied by the Group when calculating ratios is to use tons of finished products when relevant, rather than tons floated (for glass) or cast (for cast iron).

The EvE standard for environmental events management identifies and manages events that could potentially occur at the sites.

EHS financial data (expenses and capital expenditure) are tracked in the SIF, the Group's financial reporting tool, since 2013.

**b) 2010-2025 and 2014-2016 objectives**

The Group has set medium-term objectives, up to 2025, based on the 2010 results. To achieve them, intermediate objectives are established for a three-year period. The baseline year for the intermediate objectives is the year prior to the period start. The current period 2017-2019 therefore uses 2016 as its base year.

Based on the results for the baseline year, every three years the Group updates the scope of "concerned sites" for which environmental results are tracked for the next three years (2011-2013/2014-2016/2017-2019/2020-2022/2023-2025).

The published results for this scope therefore have a comparable scope for the three years within the period: sites closed or sold are removed from current year and baseline year, but no acquisitions are taken into account. They are included in the subsequent period.

In addition, for the indicators tracking environmental objectives, results are published using comparable production to the baseline year. This means that 2014-2016 emissions and consumption are recalculated based on 2016 production.

Progress achieved over these five three-year periods (between 2010 and 2025) will be cumulated to assess whether the 2025 objectives have been achieved based on the 2010 results.

**c) Data consolidation**

The EHS reporting protocol is available in French and English. The EHS reporting process (both monthly and annual) involves three stages:

- data input, performed by the EHS correspondent(s) at the reporting unit concerned;
- data verification, by the EHS Directors of each Sector;
- data consolidation by the Group's EHS Department management.

**d) Difficulties and limitations**

Since the launch of the Group's reporting tools, the quality of the reports has continuously improved thanks to effective feedback and better use of the systems by the specialized teams. These factors allow the Group to prevent potential errors such as differences in units of measurement between businesses and countries, and difficulties in interpreting technical terms.

## 2.3 Auditors' opinion

### COMPAGNIE DE SAINT-GOBAIN

*This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.*

#### **Report by one of the Statutory Auditors, appointed as an independent third party, on the consolidated human resources, environmental and social information included in the management report**

**For the year ended December 31<sup>st</sup>, 2017**

To the Shareholders,

In our capacity as Statutory Auditor of Compagnie de Saint-Gobain (the "Company"), appointed as independent third party and certified by COFRAC under number 3-1060 (whose scope is available at [www.cofrac.fr](http://www.cofrac.fr)), we hereby report to you our report on consolidated human resources, environmental and social information for the year ended December 31<sup>st</sup>, 2017, included in the management report (hereinafter named "CSR Information"), pursuant to article L.225-102-1 of the French Commercial Code (*Code de commerce*).

#### **Company's responsibility**

The Board of Directors is responsible for preparing the company's management report including the CSR Information required by article R.225-105-1 of the French Commercial Code in accordance with the procedures <sup>(1)</sup> used by the Company (hereinafter the "Guidelines"), summarised in the management report and available on request from the company's head office.

#### **Independence and quality control**

Our independence is defined by regulatory texts, the French Code of ethics (*Code de déontologie*) of our profession and the requirements of article L.822-11-3 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements and applicable legal and regulatory requirements.

#### **Statutory Auditor's responsibility**

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of article R.225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented in accordance with the Guidelines (Conclusion on the fairness of CSR Information).

However, it is not for us to express an opinion on the compliance with the other legal provisions applicable, in particular those set out by the article L. 225-102-4 of the commercial code (plan of vigilance) and by the law n ° 2016-1691 of December 9, 2016 known as Sapin II (fight against corruption).

Our work involved about fifteen persons and was conducted between October 2017 and March 2018 during a 14 week period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement and with the professional guidance issued by the French Institute of statutory auditors (*Compagnie nationale des commissaires aux comptes*) relating to this engagement and with ISAE 3000<sup>(2)</sup> concerning our conclusion on the fairness of CSR Information.

### 1. Attestation regarding the completeness of CSR Information

#### **Nature and scope of our work**

On the basis of interviews with the individuals in charge of the relevant departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in article R.225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with article R.225-105, paragraph 3 of the French Commercial Code.

(1) *Social indicators* : Contributor Guide for CSR-HR indicators of the social reporting (November 2017), Glossary of social reporting indicators collected in "Gathering Tool" - Annual CSR - HR Campaign (October 2017).

*Environmental and Health & Safety indicators* : EHS Reporting Protocol (November 2017).

(2) ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information

We verified that the CSR Information covers the scope of consolidation, i.e., the Company, its subsidiaries as defined by article L.233-1 and the controlled entities as defined by article L.233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in the management report.

## Conclusion

Based on the work performed, we attest that the required CSR Information has been disclosed in the management report.

## 2. Conclusion on the fairness of CSR Information

### Nature and scope of our work

We conducted around eight interviews with persons responsible for preparing the CSR Information in the departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

- assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;
- verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important:

- at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;
- at the level of a sample of 32 sites selected by us (Building Distribution Sector: 5 entities (France, The Netherlands, Norway, Spain, United Kingdom), for which social indicators were also verified at company level ; Construction Products Sector: 16 entities (Austria, Brazil, China, France, Germany, Japan, Spain, South Africa, United States of America), also verified at company level ; Innovative Materials Sector: 11 sites (Brazil, Czech Republic, France, Germany, India, Italy, Mexico, Norway, United States of America), also verified at company level) on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents on average 21% of headcount considered as material data of social issues and between 16% and 27% of quantitative environmental data considered as material data of environmental issues.

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the CSR information cannot be totally eliminated.

## Conclusion

Based on the work performed, no material misstatement has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Issued at Neuilly-sur-Seine, February 22nd, 2018

One of the Statutory Auditors  
PricewaterhouseCoopers Audit

Cécile Saint-Martin  
Partner

Edouard Sattler  
Partner

Sylvain Lambert  
Partner in charge of the  
Sustainable Development department

## Appendix

### List of the CSR Information considered to be the most important

#### Quantitative social Information:

- Total number of employees per socio-professional category
- Total workforce, and workforce by gender (male/female)
- Recruitments by gender (male/female)
- Departures by gender (male/female)
- Average number of training hours per employee and per year in nine countries (Belgium, Brazil, France, Germany, Italy, North America, Portugal, Spain, United Kingdom)
- Absenteeism rate
- Number of employees having subscribed to the Group's Savings Plan
- Ratio of lost-time accidents involving Group employees, temporary workers and contractors to the number of hours worked by Group employees, temporary workers and contractors (TF<sub>1</sub>)
- Ratio of declared accidents with or without absence from work involving Group employees, temporary workers and contractors to the number of hours worked by Group employees, temporary workers and contractors (TF<sub>2</sub>)
- Number of fatal accidents of Saint-Gobain employees, temporary workers and contractors.

#### Qualitative social Information:

- Training policy
- Gender equality policy and measures taken in favor of gender equality.

#### Quantitative environmental Information:

- Direct and indirect CO<sub>2</sub> emissions coming from energy and raw material consumptions
- NO<sub>x</sub> emissions
- SO<sub>2</sub> emissions

- Energy use per type of energy
- Water input (withdrawn) per type of source
- Water discharges quantities (total, into surrounding environment, into municipal wastewater collection system)
- Total amount of waste generated
- Amount of hazardous waste, non-hazardous waste and non-recovered waste
- Production (Net saleable production).

#### Qualitative environmental Information:

- Circular economy : Actions aiming to reduce the amount of waste produced and to facilitate recycling, reuse, and other forms of waste recovery and disposal;
- Climate change: main sources of greenhouse gas emissions generated by company activities, as well as by the use of the goods and services produced by the company.

#### Quantitative societal Information:

- Saint-Gobain Foundation Initiatives :
  - Number of projects received;
  - Number of projects approved ;
  - Number of projects supported;
  - Funds granted for the projects.
- Subcontracting and suppliers: Number of suppliers (distribution and non-distribution) audited (initial audits).

#### Qualitative societal Information:

- Prevention of corruption;
- Vigilance plan;
- Territorial, economic and social impact of the company activity in terms of employment and regional development;
- Partnerships and sponsorships.

## 3. CROSS-REFERENCE TABLES

### 3.1 Cross-reference table for the Registration Document

For the convenience of readers of this Registration Document, the following table provides an index to the main disclosures required by Annex 1 of European Commission (EC) Regulation No. 809/2004.

<b>Contents of Annex I of European Commission (EC) Regulation No. 809/2004</b>		<b>Pages</b>
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7.2 List of major subsidiaries		267-270, 297-298
<b>8 Property, plants and equipment</b>		<b>18-19, 33, 39, 43, 45, 245-246, 278, 284</b>
<b>9 Profits and financial overview</b>		<b>9, 96-106, 220, 228-232, 257, 276-277, 283, 310</b>
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10.4 Restriction on use of capital		N/A
10.5 Expected financing sources that will be required in order to meet the commitments referred to at 5.2 and 8.1		N/A
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<b>17 Employees</b>		
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17.2 Shareholding of company officers in the issuer's capital and stock options		152-153, 157-158, 162, 166-171, 240-242, 288-290
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21.1.6 Capital of any member of the Group which is under option or has agreed conditionally or unconditionally to be put under option	N/A
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21.2.4 Actions necessary to change the rights of shareholders, indicating where the conditions are stricter than required by law	N/A
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<b>22 Material contracts</b>	<b>N/A</b>
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<b>25 Information on holdings</b>	<b>N/A</b>

## Incorporation by reference

Pursuant to Article 28 of European (EC) Regulation No. 809/2004 of April 29, 2004, this Registration Document incorporates the following information by reference which the reader is invited to refer to:

- In relation to the fiscal year ended December 31, 2016: the management report, the consolidated financial statements, the annual financial statements, and the related reports of the Statutory Auditors, which are included in the Registration Document filed with the French Financial Markets Authority (*Autorité des marchés financiers*) on March 15, 2017 under number D.17-0171;

- In relation to the fiscal year ended December 31, 2015: the management report, the consolidated financial statements, the annual financial statements, and the related reports of the Statutory Auditors, which are included in the Registration Document filed with the French Financial Markets Authority (*Autorité des marchés financiers*) on April 4, 2016 under number D.16-0265.

The information included in these two Registration Documents, other than the information referred to above, is replaced or updated by the information included in this Registration Document. These two Registration Documents are available at the head offices of the Company and on its website at [www.saint-gobain.com](http://www.saint-gobain.com).

## 3.2 Cross-reference table for the Annual Financial Report

For the convenience of readers of the Annual Financial Report, the following table provides an index to the main disclosures required by Article L.451-1-2 of the French Monetary and Financial Code.

<b>Information required in the Annual Financial Report</b>	<b>Pages</b>
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### 3.3 Concordance table for social and environmental information

Below is the summary table for correspondances:

		Description	Item	
Social information	Employment	Total number of employees and distribution by sex, age and geographic region	V – 2.4; Employment and Diversity	
		Hirings and layoffs	V – 2.4; Employment	
		Compensation and changes in compensation	V – 2.4; Employees engagement	
	Work structure	Organization of work hours	V – 2.4; Employment – Work organization	
		Absenteeism	V – 2.4; Health and safety	
	Social relations	Organization of social dialog	IV – 3.2.3	
		Outcome of collective agreements	V – 2.4; Collaborators commitment – social relations	
	Health and safety	Occupational health and safety conditions	IV – 3.1	
		Outcome of agreements signed with union organizations in occupational health and safety	V – 2.4 Health and safety	
		Frequency and severity of work accidents, occupational illnesses	V – 2.4; Health and safety	
	Training	Training policies implemented	IV – 3.2.4	
		Total number of training hours	V – 2.4; Talents development	
	Equality of treatment	Measures taken to promote gender equality	IV – 3.2.2.	
		Measures taken to promote the employment and integration of the disabled	IV – 3.2.2.	
		Anti-discrimination policy	IV – 1.2 IV – 3.2.2.	
	Promotion of and compliance with stipulations of ILO agreements	Respect for freedom of association and right to collective bargaining	IV – 1.2	
		Elimination of job and professional discrimination	IV – 1.2	
		Elimination of forced or compulsory labor	IV – 1.2.	
		Effective abolition of child labor	IV – 1.2	
	Environmental information	General environmental policy	Organization of the company to take into account environmental issues and certification procedures in the field of environmental protection	IV – 1.3 and 2.3 V – 2.4. Environment
			Employee training and information measures relating to environmental protection	V – 2.4 Environment
			Measures to prevent environmental and pollution risks	V – 2.4 Environmental management
			Amount of provisions and guarantees against environmental risks	V – 2.4 Environmental management
Pollution		Measures to prevent, reduce and mitigate waste in the air, water and soil seriously affecting the environment	IV – 2.3; V – 2.4 Environment	
		Response to noise pollution and any other form of pollution specific to an activity	IV – 2.3.5	
Circular economy		<b>Waste prevention and management</b>		
		Measures to prevent, recycle reuse waste, and other forms of recovery and disposal	IV – 2.3.1 ; V – 2.4 Environment	
			Initiative to reduce food waste: <i>Saint-Gobain is concerned about food waste and establishes a continuous dialogue with the managers of the company restaurants implemented in its sites</i>	
			<b>Sustainable use of natural resources</b>	

	Description	Item	
<b>Information on corporate commitments to promote sustainable development</b>			
	<b>Climate Change</b>	Water consumption and supplies as a function of local restrictions	V – 2.4; Environment - Water
		Consumption of raw materials and measures taken to improve their efficient use	V – 2.4; Environment - Raw materials
		Energy consumption and measures taken to improve energy efficiency and use of renewable energies	V – 2.4; Environment - Energy
		Land use	IV – 2.3.4
		Significant greenhouse gas emissions generated as a result of activity	IV – 2.3.2 and V – 2.4 Environment - GES emissions
		Adaptation to the consequences of climate change	IV – 2.3.6
	<b>Protection of biodiversity</b>	Measures taken to preserve or develop biodiversity	IV – 2.3.4
	<b>Territorial, economic and social impact of the company's activity</b>	Territorial, economic and social impact on employment and regional development	IV – 4.1.2. and V – 2.4 Local impact
		Territorial, economic and social impact on neighboring or local populations	IV – 4.1 and 4.2 V – 2.4 Local impact
	<b>Relations with persons or organizations affected by the Company's activities, specifically integration associations, teaching establishments, environmental protection associations, consumer associations and neighboring populations</b>	Conditions of dialog with these persons or organizations	II-1.1
		Partnership or sponsorship activities	IV – 4.2. and V – 2.4 Local impact
	<b>Subcontracting and suppliers</b>	Response in the purchasing policy to social and environmental challenges.	IV – 2.2.2
		Importance of subcontracting and application of social and environmental responsibility in relations with suppliers and subcontractors	V – 2.2.
	<b>Loyalty of practices</b>	Anti-corruption measures	IV – 1.1.
		Measures taken to promote consumer health and safety	II – 2.2 and V – 2.4. Information on and labeling on products and services
Other actions taken to promote human rights		IV – 1.2.	



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