

# BUILDING OUR ENVIRONMENT TOGETHER



**SUSTAINABLE DEVELOPMENT  
REPORT 2011**



  
SAINT-GOBAIN

2011



# BUILDING OUR ENVIRONMENT TOGETHER

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✓ 2011 indicators that have been verified by the Statutory Auditors.  
The Statutory Auditors' review report for 2011 is presented on pages 90 and 91.

# PIERRE-ANDRÉ DE CHALENDAR'S MESSAGE



**O**ur ambition at Saint-Gobain is to continuously enhance our standing as the reference in the sustainable habitat market. This means developing construction and renovation solutions to ensure that buildings are energy efficient, comfortable, healthy and esthetically superior, while at the same time protecting natural resources.

We invent, produce and distribute materials for the habitat solutions of the future. Already, our solutions facilitate the construction of low and zero-energy buildings with the smallest environmental footprint possible. We also know how to make buildings that produce more energy than they use. While they are attractive and comfortable, these projects are still too few and far between. Soon, however, they will fill our landscapes and become the norm, rather than the exception.

Saint-Gobain has a unique role to play in this drive towards the future. Our R&D teams are actively involved in designing materials that deliver top performance. At the same time, our sales and manufacturing teams are listening carefully to customers and architects and devising comprehensive solutions that combine products and services to deliver even more value added and to make this exciting future broadly affordable in the very near term.

## Growth engine

This trend is a fantastic growth engine for Saint-Gobain. In developed countries, demand is led by tighter regulations, notably for energy efficiency, while in fast-growing economies, massive urbanization and population growth are creating huge housing and infrastructure needs.

To serve these markets effectively, we leverage a winning business model based on three strategically related Sectors:

- Building Distribution, which gives us an intimate understanding of our markets and close proximity to our customers;
- Innovative Materials, which propels innovation at Saint-Gobain. With its vast portfolio of materials and technologies, Innovative Materials provides, in a number of areas, new solutions that can be used in the homes and buildings of tomorrow;
- Construction Products, which combines world class leaders and unique expertise, notably in the area of energy efficiency. The Construction Products Sector gives us a global stage for developing appropriate solutions to all construction needs, for buildings that are both more comfortable and more energy efficient.

Our Packaging Sector, Verallia, a leading manufacturer of glass containers for the food and beverage industries, also contributes to our sustainable development policy in its area of expertise.

Our highly respected brands play an important role in promoting our strategy, as does the Saint-Gobain name, which is now being used more systematically. This brand endorsement will give a more explicit view of the scope and consistency of our sustainable habitat commitment.

## An integral part of our culture

Saint-Gobain's commitment to sustainable development is part of its corporate DNA.

Founded over three centuries ago, Saint-Gobain has developed its business over the years with the deepest respect for people and their environment. Our culture is based on a set of intangible values that guide each of us in our daily work. These values have been formalized in our Principles of Conduct and Action, which the Board of Directors and I ensure are effectively applied.

Being a member of the Saint-Gobain community means being professional and helping everyone to develop his or her skills. In all our decisions and actions, we take into account the resulting impact on the economy, the environment and the community. No short cuts are allowed when it comes to the health and safety of our employees and subcontractors. We comply with the law, respect employee rights and act with integrity and loyalty at all times. Being a member of Saint-Gobain also means being a team player, because for us, collective success is much more important than individual performance.

All of this goes to show that sustainable development is a daily challenge. Our ambition to be the reference in our businesses carries with it the responsibility to lead by example in our conduct and practices and to raise awareness about the challenges of sustainable development among internal and external stakeholders.

## Shared commitments

Leading a Group as multi-faceted as Saint-Gobain involves adapting to multiple environments as we deploy our strategy with conviction and determination. Constant vigilance is required to ensure consistency across our operations in more than 60 countries. Although sustainable development issues are not perceived in the same way everywhere, all Saint-Gobain companies share the same commitment in all our host countries. Embracing this commitment means accepting a collective obligation and effort.

Our diversity offers an extraordinary reservoir of creativity in which emulation, cross-functional cooperation and solidarity are key levers for improvement.

## Meaningful dialogue with stakeholders

At Saint-Gobain, we firmly believe that a company will develop more effectively and with a stronger foundation if it looks to the long term and acts responsibly in its dealings with stakeholders. We make every effort to build relationships of mutual trust with our customers, suppliers and employees and to contribute to the development and well-being of our host communities. Similarly, we are committed to creating a climate of confidence and respect with individual shareholders, investors and financial analysts.

As a Global Compact signatory, we have pledged to incorporate the initiative's ten principles concerning human rights, labor, the environment and anti-corruption in our action and strategy. We have also endorsed the Caring for Climate statement and the CEO Water Mandate for Water Resource Protection.

Dialogue with stakeholders is a key priority. We listen carefully to their expectations so we can define our sustainable development challenges together and identify the most effective responses. Meaningful dialogue requires a long-term commitment and approach, and we are prepared to devote all our energy to this effort.

For Saint-Gobain, sustainable development means moving forward and growing together, in a spirit of respect for ourselves, for others and for the environment.

**Pierre-André de Chalendar**  
Chairman and Chief Executive Officer



# OUR GUIDELINES

We have chosen to present our sustainable development commitment with guidelines that correspond to Saint-Gobain's three main roles: Solutions Provider (products and services), Responsible Business Actor (design, production, distribution, purchasing, finance, human resources, etc.) and Socio-Economic Stakeholder.

In each of these roles, we have an impact, actions and commitments in terms of sustainable development. These are examined and described in relation to the three key components of sustainable development: economic growth, environmental challenges and social commitment.

	<b>ECONOMIC GROWTH</b>	<b>ENVIRONMENTAL CHALLENGES</b>	<b>SOCIAL COMMITMENT</b>
<b>A SOLUTIONS PROVIDER THAT...</b>	<i>Contributes to customers' performance.</i>	<i>Helps to improve the environment.</i>	<i>Enhances users' comfort and well-being.</i>
<b>A RESPONSIBLE BUSINESS ACTOR THAT...</b>	<i>Invests locally.</i>	<i>Designs, manufactures and distributes in respect of the environment.</i>	<i>Takes care of its employees.</i>
<b>A SOCIO-ECONOMIC STAKEHOLDER THAT...</b>	<i>Contributes to global economic growth.</i>	<i>Is committed to the major environmental challenges.</i>	<i>Takes on social challenges.</i>



# SUSTAINABLE DEVELOPMENT GUIDELINES

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With a rich history stretching back almost 350 years, Saint-Gobain has based its development on a set of values that inform its daily actions. Since 2003, these values have been spelled out in our shared Principles of Conduct and Action, which all employees are expected to apply as members of our corporate community.

## 5 Principles of Conduct

The values of **professional commitment, respect for others, integrity, loyalty** and **solidarity** represent a unifying force and shape the conduct of each and every member of Saint-Gobain, from senior management down to junior staff.

## 4 Principles of Action

**Respect for the law, caring for the environment, worker health and safety** and **employee rights** guide the actions of all corporate leaders and employees in the performance of their duties.

The Principles explicitly refer to International Labor Organization (ILO) conventions, OECD guiding principles and the OECD Anti-bribery Convention.

## Our international commitments



*By joining the United Nations Global Compact in 2003, we confirmed our commitment to sustainable development in line with our Principles of Conduct and Action. In January 2009, the Group took its commitment to the UN Global Compact one step further by endorsing the Caring for Climate statement and the CEO Water mandate for Water Resource Protection as part of the UN's Millennium Development Goals. This commitment was deepened on December 10, 2008 - the 60th anniversary of the Universal Declaration of Human Rights - with the signature by our Chief Executive Officer of the declaration of management support for human rights, an initiative organized by the United Nations.*

## SRI ratings

Saint-Gobain is rated by socially responsible investment agencies on the basis of publicly available information and declarations.

Our presence in ethical stock indexes reflects our long-term commitment and sustainable development achievements.

In 2011, the Saint-Gobain share was included in the FTSE4Good and Aspi Eurozone sustainable development indexes and was selected to be part of the Ethibel Excellence Register.

# SAINT-GOBAIN TODAY

Saint-Gobain is organized into four Sectors:  
Innovative Materials, Construction Products,  
Building Distribution and Packaging.



## INNOVATIVE MATERIALS

**The Innovative Materials Sector**, which comprises the Flat Glass and High-Performance Materials Activities, is Saint-Gobain's technological bridgehead. With its unique portfolio of materials and processes for the habitat, construction and industrial markets, the Sector embodies the Group's innovation-oriented culture and accounts for almost two-thirds of our total research and development commitment.

## CONSTRUCTION PRODUCTS

**The Construction Products Sector** offers plaster and plasterboard products, acoustic and thermal insulation products, wall facings, roofing products, pipes and other interior and exterior solutions for the buildings of today and tomorrow. Its diversified business base provides an unmatched referral network, a global industrial footprint and a portfolio of high profile brands like ISOVER, PAM, Weber, British Gypsum®, Gyproc and CertainTeed.

## BUILDING DISTRIBUTION

**The Building Distribution Sector**, which is sharply focused on services for building professionals, private project owners and large companies, has a thorough knowledge of the new building, renovation and building improvement markets and how they are changing. It plays a key role in helping contractors embrace and acquire new building renovation techniques.

## PACKAGING VERALLIA

**Verallia, Saint-Gobain's Packaging Sector** and the world's number two manufacturer of glass containers, makes bottles for wines and spirits and jars for food products. It also markets glass containers for beer, fruit juices, soft drinks, mineral water and oil. Verallia, which is not directly involved in the Group's sustainable habitat strategy, will be gradually divested.

# SAINT-GOBAIN

## KEY FACTS AND FIGURES

NET SALES

€ **42,116**  
million

PROCEEDS  
FROM DISPOSALS (+)

€ **100**  
million

OPERATING  
COSTS - PAYMENTS  
TO SUPPLIERS (-)

€ **28,906**  
million

In € millions	2011	2010
<b>NET SALES</b>	<b>42,116</b>	<b>40,119</b>
Operating income	3,441	3,117
Net income	1,360	1,213
Recurring net income <sup>(1)</sup>	1,736	1,335
Recurring earnings per share (in €) <sup>(1)(2)</sup>	3.24	2.51
Net income attributable to equity holders of the parent	1,284	1,129
Earnings per share (in €) <sup>(2)</sup>	2.40	2.13
Total investments <sup>(3)</sup>	2,638	1,580
Equity (including minority interests)	18,218	18,232
Net debt	8,095	7,168
Non-current assets	29,877	28,933
Working capital	3,161	3,188

(1) Excluding disposal gains and losses, asset impairment charges and material non-recurring provision charges.  
(2) Earnings per share are calculated based on the number of shares outstanding at December 31.  
(3) Capital expenditure and financial investments, excluding share buybacks.

### BY SECTOR

BREAKDOWN OF NET SALES 2011



BREAKDOWN OF OPERATING INCOME 2011



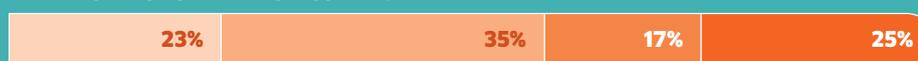
■ Innovative Materials   
 ■ Construction Products   
 ■ Building Distribution   
 ■ Packaging Verallia

### BY GEOGRAPHIC AREA

BREAKDOWN OF NET SALES 2011



BREAKDOWN OF OPERATING INCOME 2011



■ France   
 ■ Other Western European countries   
 ■ North America   
 ■ Emerging markets and Asia



NEARLY  
**195,000**  
 EMPLOYEES

OPERATIONS IN  
**64** COUNTRIES



- |                |                      |
|----------------|----------------------|
| ALGERIA        | MEXICO               |
| ARGENTINA      | MOROCCO              |
| AUSTRALIA      | NETHERLANDS          |
| AUSTRIA        | NEW ZEALAND          |
| BELGIUM        | NORWAY               |
| BHUTAN         | PERU                 |
| BRAZIL         | POLAND               |
| BULGARIA       | PORTUGAL             |
| CANADA         | QATAR                |
| CHILE          | REPUBLIC OF IRELAND  |
| CHINA          | ROMANIA              |
| COLOMBIA       | RUSSIA               |
| CZECH REPUBLIC | SAUDI ARABIA         |
| DENMARK        | SERBIA               |
| EGYPT          | SINGAPORE            |
| ESTONIA        | SLOVAKIA             |
| FINLAND        | SLOVENIA             |
| FRANCE         | SOUTH AFRICA         |
| GERMANY        | SOUTH KOREA          |
| GREECE         | SPAIN                |
| HUNGARY        | SWEDEN               |
| INDIA          | SWITZERLAND          |
| INDONESIA      | SYRIA                |
| ITALY          | THAILAND             |
| JAPAN          | TURKEY               |
| JORDAN         | UKRAINE              |
| KUWAIT         | UNITED ARAB EMIRATES |
| LATVIA         | UNITED KINGDOM       |
| LEBANON        | UNITED STATES        |
| LITHUANIA      | VENEZUELA            |
| LUXEMBOURG     | VIETNAM              |
| MALAYSIA       | ZIMBABWE             |

## BREAKDOWN OF 2011 VALUE ADDED

Value added totaled €13,310 million in 2011. Of this, €7,955 million was redistributed to employees and €3,002 million was retained to finance future growth.

	in € millions	in %
<b>VALUE ADDED</b>	<b>13,310</b>	
Wages and other compensation	7,955	59.77
Pension contributions	347	2.61
Income and other taxes	895	6.72
Dividend	623	4.68
Interest repayments	484	3.64
Investments in local communities	4	0.03
Retained for future growth	3,002	22.55

# GOVERNANCE

## BOARD OF DIRECTORS

(AS OF MARCH 1, 2012)

**Pierre-André de CHALENDAR**

Chairman and Chief Executive Officer  
of Compagnie de Saint-Gobain

**Jean-Louis BEFFA**

Honorary Chairman of Compagnie  
de Saint-Gobain  
Senior Advisor, Lazard Frères

**Isabelle BOUILLLOT**

Chairman, China Equity Links  
Director of Dexia

**Gerhard CROMME**

Chairman of the Supervisory Board  
of ThyssenKrupp AG.

**Jean-Martin FOLZ**

Chairman of the Board of Directors  
of Eutelsat

**Bernard GAUTIER**

Member of the Management Board  
of Wendel

**Anne-Marie IDRAC**

Consultant  
Director of Mediobanca S.p.A  
Member of the Supervisory Board  
of Vallourec

**Sylvia JAY**

Chairman of L'Oréal UK & Ireland

**Frédéric LEMOINE**

Chairman of the Management Board  
of Wendel

**Gérard MESTRALLET**

Chairman and Chief Executive Officer,  
GDF Suez

**Michel PÉBEREAU**

Honorary Chairman, BNP Paribas

**Jacques PESTRE**

Senior Vice President of Point.P  
Chairman of the Supervisory Board  
of the Saint-Gobain PEG France  
corporate mutual fund

**Olivia QIU**

Vice President, Strategic Market  
Development, Alcatel-Lucent

**Denis RANQUE**

Chairman of the Board of Directors  
of Technicolor

**Gilles SCHNEPP**

Chairman and Chief Executive Officer,  
Legrand

**Jean-Cyril SPINETTA**

Chairman and Chief Executive Officer  
of Air France-KLM

Board secretary:

**Antoine VIGNIAL**

Corporate Secretary of Compagnie  
de Saint-Gobain

Compagnie de Saint-Gobain complies with the principles outlined in the corporate governance code issued by *Association Française des Entreprises Privées* (AFEP) and *Mouvement des Entreprises de France* (MEDEF).



For full details, see  
the 2011 registration document  
at [www.saint-gobain.com](http://www.saint-gobain.com).

## A MATRIX ORGANIZATION

COMPAGNIE  
DE SAINT-GOBAIN

**Top Management  
Departments**

- Human Resources
- Finance
- Corporate Planning
- Audit and Internal Control
- Legal/Tax
- Research and Innovation
- Communications
- Marketing

**GENERAL DELEGATIONS**

Central Europe  
Nordic and Baltic Countries  
United Kingdom, Republic of Ireland and South Africa  
Spain, Portugal and Morocco  
Eastern Europe  
Italy, Greece, Egypt and Turkey  
Russia, Ukraine and the countries of the Commonwealth  
of Independent States  
North America  
Brazil, Argentina and Chile  
Mexico, Central American Countries, Venezuela, Colombia,  
Ecuador and Peru  
Asia-Pacific  
India, Sri Lanka and Bangladesh

**SECTORS**

**Innovative Materials**  
**Construction Products**  
**Building Distribution**  
**Packaging**



## STRATEGIC INNOVATION

In 2011, Saint-Gobain was ranked among the Top 100 World Leaders in Innovation by Thomson Reuters – the only global innovator on the list from the habitat and construction industry.

With a steadily increasing budget (€431 million in 2011), Research and innovation are key building blocks of Saint-Gobain's strategy. Our patent filings increased sharply, to nearly 400 in 2011 from 260 a year in 2004-2006. 3,700 team members work on research projects, including in the Group's major strategic programs and cross-functional programs (see Annual Report pages 26-27).

Cross-business, outward-looking research that anticipates market expectations is also a key factor in our progress.

In particular, the NOVA External Venturing unit focuses on nurturing long-term partnerships between Saint-Gobain and start-ups with innovative technologies. At the same time, the Saint-Gobain University Network (SUN)<sup>(1)</sup> contributes to our strategy by establishing cooperation agreements with universities involved in cutting-edge research in our areas of expertise.

*(1) SUN : Saint-Gobain University Network.*



## SUSTAINABLE HABITAT MISSION

An internal sustainable habitat mission was set up in late 2010 to support the Group's strategy. Led by members of Senior Management and comprising representatives from R&D, Environment, Health and Safety (EHS) and Marketing, this multidisciplinary team is working on three key areas based on life cycle assessment (see pages 26-27).

These include:

- proposing a policy for **managing and recycling jobsite waste** in each business;
- developing an **eco-innovation policy**;
- defining the priorities of the Group regarding **building assessment scheme and eco labels** and drawing up recommendations so that our customers can be fully informed and make fact-based decisions.

For each area, the mission has identified member company practices in all host countries and drafted recommendations to help teams improve by promoting a shared vision and the use of common resources.

## SUSTAINABLE DEVELOPMENT: A CROSS-FUNCTIONAL ORGANIZATION

- Senior Management is responsible for driving and coordinating our strategy and for monitoring the results.
- The Chairman and Chief Executive Officer sets strategic objectives. The Corporate Secretary coordinates sustainable development policy with support from the following departments:
  - Responsible Development,
  - Human Resources,
  - Environment, Health and Safety (EHS),
  - Purchasing,
  - Marketing,
  - Research & Development.

Saint-Gobain's sustainable development policy is periodically presented and discussed at the annual senior management seminar. A specific presentation is made each year to the Board of Directors on the compliance program's deployment and progress. This presentation includes a section on cascading and front-line application of the Principles of Conduct and Action (see page 5).



# STAKEHOLDERS

Saint-Gobain interacts with a very large number of stakeholders. In each of our businesses and host regions, and for all existing or potential impacts, our teams at both the corporate and local levels listen closely to stakeholder concerns and organize effective dialogue.

A summary of information channels and dialogue opportunities is presented in the table opposite. Stakeholders are divided into three broad categories that correspond to our three sustainable development guidelines (see page 4).

In our role as a **solutions provider**, our stakeholders include direct and indirect customers and everyone who uses our products and benefits from our services. To a lesser extent, institutions may be considered as stakeholders in that our solutions have an influence on the quality of homes and buildings and on energy efficiency, for example.

Saint-Gobain is also an organization with manufacturing facilities, research centers, supply chain platforms and a multitude

of sales outlets. We have close to 200,000 employees and work with more than a million suppliers around the world. In our role as a **responsible business actor**, our stakeholders include our employees and their representatives, suppliers, customers and shareholders (employee, individual and institutional).

Lastly, in our role as a **socio-economic stakeholder** with an impact on its environment, we dialogue with professional associations, regional bodies, non-governmental organizations (NGOs) and other associations, as well as socially responsible investment (SRI) rating agencies.

We organize relations with each stakeholder, based on the situation, by identifying appropriate information

channels and, when necessary, selecting a suitable framework and venue in application of the **subsidiarity principle**. This system reflects the Group's matrix organization, global scope, diverse business portfolio and decentralized management strategy, which gives the operating units a great deal of freedom in conducting their activities. Each business therefore has a specific responsibility to listen to stakeholders, establish effective dialogue and take action on sustainable development issues.



Stakeholders	Information channels	Opportunities for dialogue	Page
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## SOLUTIONS PROVIDER

Users	<ul style="list-style-type: none"> <li>Websites showcasing solutions.</li> <li>Recommendations charter designed to promote insulation in existing buildings.</li> <li>Participation in associations, industry groups, tradeshows, etc.</li> <li>Presentations to schoolchildren.</li> </ul>	<ul style="list-style-type: none"> <li>Town hall meetings, partnerships with community representatives through associations or groups like <i>Effinergie</i>, <i>Isolons la Terre</i>, <i>Casa que Ahorra</i> and <i>Spaar het klimaat</i>.</li> </ul>	p 78-79
Customers, businesses	<ul style="list-style-type: none"> <li>Websites, magazines such as “Carnets de Chantiers”, forums, tradeshows, training courses.</li> <li>The publication of numerous guides on energy efficiency and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Conventions, training sessions, networks.</li> <li>Distribution networks.</li> </ul>	p 20-21
Institutions		<ul style="list-style-type: none"> <li>Dialogue on environmental and social impact of habitat solutions.</li> </ul>	p 78-79

## RESPONSIBLE BUSINESS ACTOR

Employees	<ul style="list-style-type: none"> <li>Internal communication media.</li> <li>Meetings with Group executives.</li> </ul>	<ul style="list-style-type: none"> <li>Events, meetings, surveys, etc.</li> </ul>	p 66-67
Employee representatives		<ul style="list-style-type: none"> <li>Labor union agenda, European social dialogue, works council.</li> </ul>	p 14 and 66-67
Employee shareholders	<ul style="list-style-type: none"> <li>Intranet.</li> <li>PEG corporate mutual fund brochure.</li> <li>Dedicated website.</li> </ul>	<ul style="list-style-type: none"> <li>Saint-Gobain employees’ club.</li> <li>Representative on the Board of Directors.</li> </ul>	p 65
Individual shareholders	<ul style="list-style-type: none"> <li>Letter to Shareholders, Shareholders’ Handbook, corporate website, regional meetings, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Regional meetings, investors’ fair, site visits, stock market primers, Shareholders’ Club, etc.</li> </ul>	
Institutional shareholders	<ul style="list-style-type: none"> <li>Website.</li> <li>- Registration document.</li> </ul>	<ul style="list-style-type: none"> <li>Road shows, meetings with analysts, etc.</li> </ul>	p 16
Suppliers	<ul style="list-style-type: none"> <li>Self-assessments.</li> <li>Suppliers’ charter, responsible procurement clauses.</li> </ul>	<ul style="list-style-type: none"> <li>Supplier/customer agreements (Saint-Gobain Distribution).</li> <li>Audits and action plans.</li> </ul>	p 74-75
Research centers, universities, etc.	<ul style="list-style-type: none"> <li>Gay-Lussac days, participation in university training courses, school forums, etc.</li> <li>Sponsoring.</li> </ul>	<ul style="list-style-type: none"> <li>Academic chairs, partnerships, scholarships, thesis placements, internships, etc.</li> <li>Student contests.</li> </ul>	p 11 and 54-55

## SOCIO-ECONOMIC STAKEHOLDER

Professional associations	<ul style="list-style-type: none"> <li>Participation in working groups, development of technical standards.</li> <li>Green Building Councils.</li> </ul>	<ul style="list-style-type: none"> <li>Various commissions and committees.</li> </ul>	p 78-79
Regional bodies	<ul style="list-style-type: none"> <li>Regular meetings with elected officials and civil servants.</li> </ul>	<ul style="list-style-type: none"> <li>Participation in economic development programs, chambers of commerce, etc.</li> </ul>	p 76-77 and 78-79
NGOs and other associations	<ul style="list-style-type: none"> <li>Annual report, Group communication, meetings.</li> </ul>	<ul style="list-style-type: none"> <li>Participation in surveys, cooperation on development and training projects, partnerships, sponsoring in areas related to the environment or access to energy efficiency solutions, support for job opportunities.</li> </ul>	p 80-83
SRI rating agencies	<ul style="list-style-type: none"> <li>Communication media, registration document, brochures and other public documents, websites, press, public declarations, position statements, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings, evaluation processes.</li> </ul>	p 16
Media	<ul style="list-style-type: none"> <li>Communication media, registration document, brochures and other public documents, websites, press, public declarations, position statements, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Meetings.</li> </ul>	

## DIALOGUE WITH STAKEHOLDERS

### TESTIMONIAL

**KONRAD  
ECKENSCHWILLER,**  
*Permanent Representative  
of the Global Compact  
in France*

The concept of sustainable development is going to evolve significantly. One key issue that will arise in the years ahead is that of reducing inequality worldwide. Saint-Gobain, a leader in progress and innovation, will also have to show how it will help to reduce this inequality through its sustainable development approach. Energy-saving solutions need to be made accessible to people who do not have the means to buy top-line products.

A second important issue has to do with the widespread—and most likely lasting—decline in government budget resources. Businesses will no longer be able to count on government to pick up the tab in a number of areas, notably as concerns social protection. They will have to do more than in the past and will be held responsible. The corporate contribution to local development will have to go far beyond sponsoring. Saint-Gobain has started down this path, but it will undoubtedly have to go much farther in the future.

## DIALOGUE WITH EMPLOYEES

**Social dialogue (see pages 66-67) is essential at Saint-Gobain, as the numerous agreements signed with employee representatives attest.**

In each business, most of the social dialogue process takes place at the company or facility level, where it can deliver an appropriate response to local concerns and issues.

Team managers lead social dialogue on a day-to-day basis, in a process that relies on employee involvement, discussions with employee representatives and active communication.

At the corporate level, Senior Management is deeply involved in the European Social Dialogue Convention, a body of 70 labor union representatives from 27 European countries who meet to discuss strategy and cross-border issues with the Group's leadership team (see testimonial).

A number of regular events enable managers to talk directly with Senior Management. The *Carrefour* Saint-Gobain executive forums, for example, offer 200 to 300 managers an opportunity to gain greater insight into our strategic vision so they can cascade it down to their teams, as senior executives talk about our strategic challenges, priorities and objectives, and then answer questions from participants.

### TESTIMONIAL



At Saint-Gobain, there's a real commitment to open social dialogue at the Group level. For example, when we wanted to discuss World Class Manufacturing, there was no stonewalling. Senior Management gave us all the information we asked for and put us in contact with the leading specialists in this area.

**LYDIE CORTES,**  
*secretary of the  
Saint-Gobain  
European Social  
Dialogue  
Convention*

Sustainable Development is a topic that labor unions take seriously. The European Social Dialogue Convention will have to address this topic, with the goal of moving towards a Europe-wide agreement.



## DIALOGUE WITH CUSTOMERS

**Customers are key stakeholders for two reasons:**

- First, they use our solutions and are directly aware of how our products improve insulation, safety, comfort, etc.
- Second, they play a role in the economy and want to deal with responsible partners who are actively committed to continuous improvement in the area of sustainable development.

The Group's member companies, businesses and Sectors conduct the dialogue process with customers on a daily basis. At the corporate level, Habitat Committees (see pages 22-23) maintain a regular dialogue with specifiers.

### TESTIMONIAL



**SERGE GRZYBOWSKI,**  
*Chairman and CEO of property developer ICADE and Chairman of France Green Building Council<sup>(2)</sup>*

Saint-Gobain understands the challenges of construction and renovation as seen from the perspective of tomorrow's cities. Its sustainable development policy is based on specific, tangible objectives and indicators. This policy is also reflected in Saint-Gobain's powerful community commitment.

Saint-Gobain's participation in the France Green Building Council (France GBC), a forum for discussing and sharing on innovation, sustainable development and industrial challenges, is highly appreciated. The Group's presence in France GBC gives it the opportunity to be in direct contact with investors and people who use its products, and thereby get a better understanding of their needs. These types of exchanges accelerate innovation and help bring new solutions to market faster. In my opinion, this is all the more important in that Saint-Gobain both makes and distributes building materials, giving it a role across a building's life cycle, from design to demolition.

(2) Professional association devoted to the promotion of sustainable habitat solutions and member of the World Green Building Council.

### TESTIMONIAL



**DR. CONSUELO ADELAIDA GARCIA DE LA TORRE,**  
*Professor and Research Director of the Humanism and Administration and Business, Chair at EGADE Business School - Instituto Tecnológico de Estudios Superiores en Monterrey, ITESM (Mexico)*

Saint-Gobain understands all aspects of sustainable development and does its best to keep them in balance. Saint-Gobain's commitment is reflected in its strategy. In its drive to act as a responsible enterprise, your Group is focusing on innovation in its processes, to protect the environment and well-being of its stakeholders. It would be good to address the balance between the social, environmental and

business aspects more explicitly in the sustainable development report.

I am glad to see that Saint-Gobain classifies its stakeholders and makes efforts to communicate with them. It's important for Saint-Gobain to set up mechanisms that will enable it to understand stakeholders' needs and demands so it can establish two-way communication.

## DIALOGUE WITH SHAREHOLDERS, INVESTORS AND THE FINANCIAL COMMUNITY

We regularly provide analysts, institutional investors and individual shareholders with information on our results, strategy and major achievements. This information is presented in the registration document and letters to shareholders, on our website, at road shows and during meetings with shareholders, shareholder fairs and other events. Through the Investor Relations Department, Senior Management keeps a close eye on the financial community's perception of our main strategic and financial decisions (see testimonial).

### TESTIMONIAL

Saint-Gobain's 2010 sustainable development report provided us, in a transparent manner, with the key information we needed to carry out our ESG<sup>(3)</sup> analysis and meet investors' expectations. Among the data provided, we particularly appreciated the information on the breakdown of value added. It would be very useful if other companies were to adopt this voluntary disclosure. On the other hand, in the description of sustainable development governance, we would like to see more details about how the teams are structured, the different levels of responsibility and the number of people involved. The report could also be improved by including more objectives with specific timeframes and by measuring their cost impact. Aside from these areas for improvement, we feel that this is one of the best reports issued. It particularly stands out for the way it weaves Saint-Gobain's CSR commitment into the Group's overall strategy.

(3) Environmental, Social and Governance (ESG).



**STÉPHANE VOISIN,**  
*Head of  
Sustainability  
Research &  
Responsible  
Investment at  
Crédit Agricole  
Cheuvreux*

## DIALOGUE WITH SUPPLIERS

As part of the responsible purchasing policy (see pages 74-75) implemented several years ago and expanded in 2011, Saint-Gobain has set up resources and procedures to monitor suppliers more effectively and improve dialogue on the basis of mutual commitments and fact-based evaluations.

# FOCUS

## Socially responsible investment (SRI) perception study

Socially responsible investors and their advisors are particularly attentive to corporate performance in the area of sustainable development. To get a better view of their expectations, we asked Phoenix Investor Relations srl to conduct a perception study of Saint-Gobain and its 2010 sustainable development report. The firm surveyed a panel of 13 people in France and abroad in November 2011.

We took their responses into account in preparing the 2011 sustainable development report. In particular, sections on strategy, stakeholder dialogue and major challenges have been enriched. Similarly, we have highlighted the link with the Group's sustainable development commitments in the paragraphs on products and services, human resources and sponsoring.



# PRIORITY CHALLENGES

While we are committed to addressing all sustainable development issues, we have set priorities to focus our efforts on areas that appear essential to us or that are particularly important for our stakeholders.

Priority challenges	Indicators	Achieved in 2011	Objectives
<b>Products and services</b>	Percentage of sales generated by products and services that contribute significantly to energy efficiency and/or environmental protection	33%	38% in 2015
<b>Climate change<sup>(4)</sup></b>	Reduction in direct CO <sub>2</sub> emissions	0%	-6% less in 2013 than in 2010
<b>Managing natural resources<sup>(4)</sup></b>	<ul style="list-style-type: none"> <li>Reduction in water withdrawals</li> <li>Percentage of sites with environmental certification</li> </ul>	-3.3% 71.9%	-6% less in 2013 than in 2010 90% of concerned sites by 2013
<b>Safety<sup>(4)</sup></b>	Reduction in the incident frequency rate Frequency rates: <ul style="list-style-type: none"> <li>Lost time incidents (LTIR)</li> <li>Total recordable incidents (TRIR)</li> </ul> These indicators concern employees and temporary staff	Overall LTIR: 3.1 ✓ <ul style="list-style-type: none"> <li>Distribution LTIR = 5.1 ✓</li> <li>Industrial TRIR = 6.3 ✓</li> </ul>	In 2013: <ul style="list-style-type: none"> <li>Overall LTIR of less than 2.8</li> <li>Building Distribution LTIR of less than 5</li> <li>TRIR of less than 6 for the industrial Sectors</li> </ul>
<b>Human resources management: deployment of the OPEN program</b>	<ul style="list-style-type: none"> <li>Mobility</li> <li>Diversity</li> </ul>	Inter-functional and geographical mobility	Inter-business mobility  1 woman in each succession plan
<b>Responsible purchasing</b>	<ul style="list-style-type: none"> <li>Number of audited suppliers</li> </ul>	57	20% increase in 2012

The measures we are taking in each of these areas are described in the body of this report. Summary tables at the end of the report provide details on the indicators tracked in compliance with France's NRE Act and the Global Reporting Initiative (GRI), as well as on our progress with regard to the Global Compact's ten principles.

(4) See EHS policy, pages 34-35.



# SAINT-GOBAIN, **A SOLUTIONS PROVIDER**

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**Sustainable habitat solutions are our way of contributing to sustainable development in our area of expertise.**

In all of our markets, we offer solutions that contribute to our customers' business development while protecting the environment and enhancing user well-being.

The goal of our eco-innovation policy is to reduce the environmental impacts of our processes and solutions, from the drawing board to the end of their life cycle.

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**UNITED KINGDOM**  
Greenworks Training Academy.

# CONTRIBUTING TO OUR CUSTOMERS' PERFORMANCE

We devise our products and services for habitat and construction industry professionals, who process or integrate them to serve their own customers. Our optimized solutions are safe to use and easy to install.

## Supporting fast-growing markets

Saint-Gobain solutions help improve the energy performance of buildings and comply with local regulations. In addition, we forge partnerships with our customers and suppliers to support their development in fast-growing markets.

In the United Kingdom, for example, Saint-Gobain Glass has created a specialized network of contractors and suppliers for its PLANITHERM TOTAL+ glass, which helps save energy thanks to its enhanced insulation qualities. A widespread TV and radio advertising campaign was launched to promote the network, which had 1,600 members as of December 31, 2011. Their contact information is available to the general public on a dedicated website.

In the United States, CertainTeed has forged a partnership with recycling centers and installers to recover old or damaged shingles from worksites for use in road pavement. In addition, CertainTeed gives its installer partners marketing resources so they can advertise their recycling commitment. First launched in eastern Pennsylvania, the program was introduced in Connecticut and Texas in 2011 and should be extended to Oregon, Illinois and western New York in 2012.

## Training customers

Teaching building industry professionals about energy efficiency and sustainable construction has a positive impact on the industry's growth.

In our view, training is most effective at the local level, led by each business and each country organization, to ensure that our solutions are used and installed properly in the front lines. In 2011, we opened several training centers in Brazil, Slovakia, Denmark, the United Kingdom and the Netherlands.

During the year, Saint-Gobain Abrasives inaugurated a new center of excellence in Belgium. Like its sister centers in the Netherlands, Poland, Luxembourg and Spain, the facility gives plumbers, tile layers, carpenters, painters, plasterers, masonry workers, structural builders and other professionals an opportunity to learn how to use the brand's products and solutions.

After opening its first Klimacenter in Denmark in 2012, Brødrene Dahl has adapted the concept for Norway. Customers and partners can discover and learn about products and solutions related to renewable energies and ventilation at the Klimacenter showroom and training facility.

Greenworks, the Building Distribution Sector's renewable energies brand in the UK, opened the Greenworks Training Academy in Birmingham in the spring of 2011. Building industry professionals, craftsmen and specifiers can visit the 1,400 square-meter facility to deepen their knowledge of sustainable products and solutions and renewable technologies. Some 1,500 people have been through the training program since the center was launched.

A sister Greenworks brand was launched in the Netherlands, with the participation of the Dutch government and several large organizations. The entire staff took an e-learning course on sustainable materials. Greenworks has been present in Raab Karcher and Galvano sales outlets since February 2011.

Alongside training, we also use trade shows<sup>(5)</sup> as an opportunity to raise awareness about sustainable construction.

(5) Batimat (France); Klimahouse (Italy); Ecobuild (UK); Greenbuild (Canada); Mosbuild (Russia); Feicon (Brazil); Batibouw (Belgium); BAU (Germany); Environmental Show (United Arab Emirates).

# FOCUS



## ROVING TRAINING COURSES

Several Saint-Gobain subsidiaries train craftsmen and building industry professionals directly at building materials sales outlets or worksites.

### HUNGARY

A special Weber bus has been touring major worksites, DIY stores and building products outlets around the country for the past four years to provide technical assistance to contractors.

**>1,500**

contractors trained since 2007



### FRANCE

ISOVER organized the Isover'AIR Tour to explain the insulation and airtightness requirements of the country's thermal regulations for 2012. Two specially-fitted exhibit trucks visited 240 sales outlets all around France between March and November 2011.

**>12,000**

professionals informed



### BRAZIL

ISOVER, Brasilit, Placo®, Weber and Norton have created a shared roving training center that has been travelling nationwide since October 2011. It is scheduled to stop in 120 cities between now and September 2014.

### Objective

**>15,000**

professionals trained in three years

## MOBILE APPLICATIONS

Saint-Gobain subsidiaries are also developing mobile applications to make their customers' lives easier. Smartphone apps from Saint-Gobain Glass, Weber, ISOVER and CertainTeed provide technical information for assistance in choosing and using products. Other apps from Building Distribution brands Point.P, Jewson, Graham and Raab Karcher give updated information on products distributed in sales outlets and allow users to contact sales reps directly, making the banners more accessible and attractive.

### Saint-Gobain Glass Compass

Saint-Gobain Glass has developed a tool for selecting the best windows for optimized comfort and energy savings based on a home's location and the direction in which the windows are facing. An energy calculator determines the potential savings compared to the home's existing windows.



## CONTRIBUTING TO OUR CUSTOMERS' PERFORMANCE



DomoLab entirely devoted to innovation (France).



### TESTIMONIAL



**GABRIEL MARLY,**  
*Head of the DomoLab innovation center*

## WE MEET WITH SPECIFIERS

At DomoLab, we meet with specifiers to think about their needs and market expectations and about how we can meet those needs and expectations with new products and solutions. Being located near the Saint-Gobain R&D center in Aubervilliers will make it easier to produce mock-ups and prototypes so we can co-develop solutions with customers.

### Inventing the habitat solutions of the future

As part of our drive to set the benchmark in sustainable habitat solutions, we opened a habitat innovation center in October 2011 to help us achieve our mission of inventing new solutions. The 1,500 square-meter DomoLab, located near Paris, France, offers a forum where we can engage in creative exchanges and dialogue with architects, engineering firms, builders, property developers, manufacturers and other key industry players, regardless of their status as Group customers.

DomoLab reflects our commitment to co-developing solutions with customers in a spirit of openness and partnership. It was designed to give us greater insight into the habitat markets and allow us to meet these markets' needs more effectively with support from outside partners.

DomoLab is housed in a CARE:4®-certified high energy performance building (see pages 50-51).

### Habitat Committees to enhance cooperation among subsidiaries

Saint-Gobain has set up Habitat Committees in 32 countries to ensure that its strategy is successfully deployed. Several activities work together in each committee with the goal of meeting customer needs more effectively.

The committees take action in a number of ways, for example by developing joint solutions, participating together in construction and renovation projects, training customers and informing specifiers.



# HABITAT COMMITTEES IN ACTION



## SOUTH AFRICA

In South Africa, representatives from Saint-Gobain Gyproc, ISOVER, PAM and Weber organize joint training sessions and meetings to share information and knowledge about their products. They also offer combined system solutions for major projects that guarantee a certain level of energy efficiency for buildings. Through a shared database, they can identify specifiers and their business portfolios, find out about projects before launch and track project progress.

## SWEDEN

Weber, Gyproc and ISOVER have developed a program to renovate deteriorated external wall insulation systems. The solution is marketed throughout the country.



## RUSSIA

ISOVER, Gyproc and CertainTeed Siding have developed a new external wall insulation solution together. A purpose-designed software program helps users determine how much insulation they need and a dedicated training program has been created for distributors.

## AUSTRIA

Four Saint-Gobain subsidiaries in Austria (ISOVER, Rigips, GlassolutionsEckelt and Weber) have joined forces to convert a seven-story apartment building in Stockerau into a retirement home, health center and daycare center. The "Together under the same roof" responsible renovation program complies with passive house standards.

# HOTEL CONSTRUCTION

The hotel construction market has enjoyed strong growth, year after year. In early 2011, Saint-Gobain and its brands launched a full range of solutions for this particular market.

A dedicated network of correspondents, known as Saint-Gobain Hotel Applications, was formed to nurture relations with the leading hotel chains.

The network currently has 56 members in 17 countries.





# HELPING TO IMPROVE THE ENVIRONMENT

Numerous Saint-Gobain solutions have been designed to make buildings more energy efficient and to expand the use of renewable energies.

## Saving energy

With its lineup of insulation solutions, Saint-Gobain helps save energy and reduce greenhouse gas emissions. A properly insulated building consumes four or five times less energy for heating (or air-conditioning) than a non-insulated home<sup>(6)</sup>.

Windows also play a critical role in a building's energy performance. A 2009 study suggests that replacing every window in the European Union with advanced, low-emissivity double glazing would cut CO<sub>2</sub> emissions by up to 90 million metric tons annually<sup>(7)</sup>—equivalent to one third of the European Union's building greenhouse gas emissions target.

The world's leading producer of coated glass, Saint-Gobain has increased its window glazing's energy performance by a factor of six in the past 20 years through a major research and development commitment.

## Leveraging renewable energies

Saint-Gobain is involved in research on alternatives to fossil energies and is participating in the development of renewable energies.

### Solar

- With a presence across the value chain and the technology base, including photovoltaic panels, solar heating systems and concentrating solar power plants, we are innovating simultaneously in components, modules and systems. In particular, we are working on new generations of products that are lighter and more efficient, as well as on systems that are easier to install.
- CertainTeed has launched Apollo™, a new solar roofing system made of high performance polycrystalline silicon solar cells. Attractive and easy to install, Apollo™ is



# ZOOM

## 3-IN-1 FACADE F4

ISOVER's Facade F4 is a complete solution that combines internal and external insulation along with airtightness. This innovation offers optimized thermal insulation, acoustic performance, cost benefits and a smaller environmental footprint. It can be applied to other Group systems for housing and office or commercial buildings, both in the newbuild and renovation segments. Facade F4 complies with France's new RT2012 thermal performance regulations.

# THERMAL INSULATION

In 2011, we expanded our portfolio of products for enhancing building insulation with:

- Solutions that improve the performance of external insulating systems and ventilated walls while reducing their thickness.
- Vacuum insulation solutions for both internal and external use.
- Solutions that combine insulation with internal and external wall coatings.
- New types of coatings to diversify the style of facades with external wall insulation.

<sup>(6)</sup> Source: European Insulation Manufacturers Association (Eurima).

<sup>(7)</sup> Study conducted by TNO, a Dutch scientific research organization, for the Glass for Europe association.



## CLIMACOAT

SGS ClimaCoat is a Saint-Gobain Sekurit innovation from the new generation of all-weather windshields. In the winter, the heatable glass defrosts and demists quickly, improving both visual comfort and onboard safety. In the summer, the glass's reflective properties keep the passenger compartment at a comfortable temperature by

reducing the amount of heat coming through the windshield. Invisible to the naked eye, this solution has a positive impact on fuel consumption and CO<sub>2</sub> emissions. SGS ClimaCoat shaves around 0.1 liter per 100 km off the additional fuel consumption caused by the air conditioning system, thereby reducing CO<sub>2</sub> emissions by around 2.5g/km.

## FLEXIBLE FUNCTIONAL FILMS

For several years, we have been looking for ways to use our flat-glass expertise in applying thin films to manufacture functional plastic films. These films make it possible to control the thermal and optical performance of windows more effectively and also open the door to elegant, simple solutions for flexible applications in photovoltaics and OLED lighting.

In both the automobile and building industries, flexible functional films are frequently used in upgrading and renovation, notably for solar control. Many customers in China, India and the United States, have these films applied to their car or home windows to improve energy efficiency and comfort.

The recent acquisition of Solar Gard offers us the possibility to perfect our skills in this area and quickly develop a new range of functional plastic films.

lightweight, durable and easy to integrate into either an existing roof or with the installation of a new roof that combines solar panels and asphalt shingles.

- In 2011, our solar energy unit Saint-Gobain Solar continued to expand in designing and marketing building-integrated photovoltaic solutions and in supplying products and solutions to the photovoltaic industry.
- Saint-Gobain Solar's first production line for solar thermal power plant mirrors was built in the US during the year. This silver coating line will allow the Group to support the ambitious US solar program. It extends Saint-Gobain's existing solar mirror production base, which includes a parabolic mirror plant in Portugal and a flat mirror site in Germany.
- As announced in 2010, Saint-Gobain subsidiary Avancis has started building a new plant to make high efficiency photovoltaic modules in South Korea in a joint venture with Hyundai Heavy Industries. The facility will be the exact replica of the plant that came on line in Germany in late 2011. The two sites, each with an annual capacity of 100 MW, will make thin-film photovoltaic modules using copper-indium-gallium-selenium (CIGS) technology.

### Hydroelectric power

We also supply equipment for producing hydroelectric power. Hydroelectric power plants do not generate waste or CO<sub>2</sub> emissions and they adapt well to the surrounding environment. These plants use rushing water channeled through penstocks to generate electricity. The penstocks must be able to withstand very high internal pressure and conform to difficult installation and operating conditions in areas with steep slopes and rough terrain. Saint-Gobain PAM is the European leader in pipe systems for this type of application.

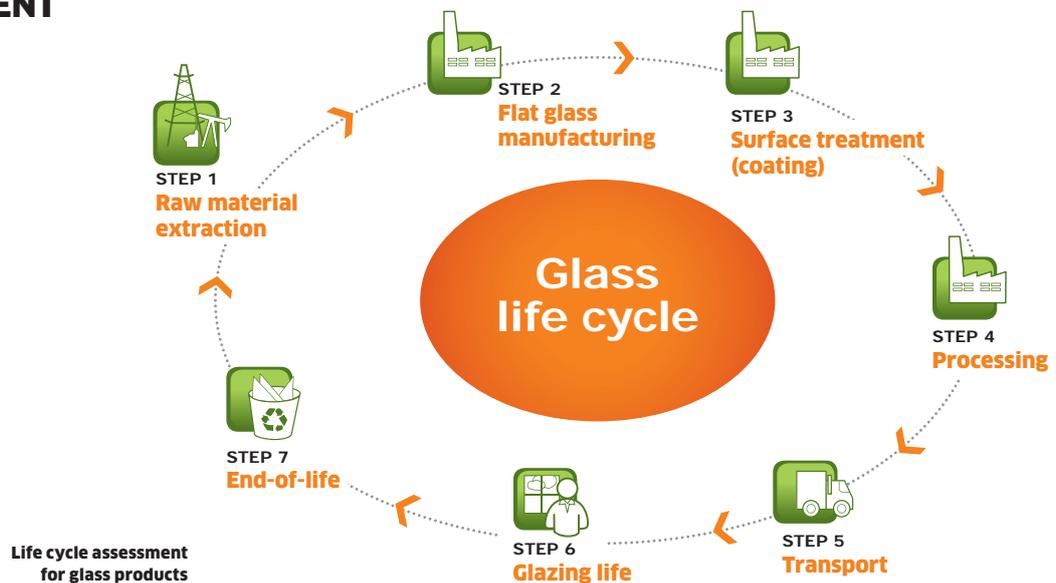


### NORWAY

#### Hydroelectric power

Saint-Gobain PAM works with local hydroelectric power companies on more than 50 projects a year.

# HELPING TO IMPROVE THE ENVIRONMENT



## Limiting the environmental footprint of our products and solutions

### Life cycle assessment

We have set an objective of conducting life cycle assessments for all our building industry product ranges—including solar solutions—by 2013.

A life cycle assessment (LCA) involves evaluating the environmental impact of our products across their life cycle, from extraction of raw materials to end-of-life.

To meet this objective, we have produced a common methodological framework for all building industry products that complies with international standards and provides a single format for reporting results.

In 2011, in each major product family, a life cycle assessment has been conducted for a representative product in at least one manufacturing country.

At Saint-Gobain, we prefer Type III ecolabels, which are based on LCAs and are validated by independent third parties.

### Eco-innovation

The goal of eco-innovation is to reduce the environmental impacts of our processes and solutions, from the drawing board to the end of their life cycle.

Using eco-innovation success stories from our various businesses as a base, we have studied how to devise a systematic approach and promote a common culture and shared tools and methods at the

Group level. Eco-innovation will be more systematically deployed as from 2012, and managers and designers will receive specific training.

Our long-term goal is to conduct a comprehensive environmental impact study for each new product before it is launched.

### Waste management

Improved management of production waste, as well as of construction and demolition site waste, should help us optimize our processes and provide effective services for customers.

Managing worksite waste breaks down into three key challenges: organizing waste selection and sorting at the lowest cost, recycling building product waste to achieve the same quality and properties as original products (or find alternative recovery solutions), and designing systems that facilitate dismantling, collection, sorting and recycling.

The Group wants to evaluate the percentage of recycled or re-used content in its products and packaging. A survey launched in 2011 by the sustainable habitat mission identified waste management and recycling initiatives within our industrial and distribution operations. Our different businesses have already implemented a number of product and packaging recycling solutions, including recovery channels (see pages 44-45 and 46-47). The Building Distribution Sector, for example, has set up a waste disposal system for customers in several countries.

In addition, the Gypsum activity has recycled plaster waste for many years.

- In France, 33,191 metric tons of waste were recovered through the plaster waste collection and recycling channel set up by Placoplatre®.
- In the United Kingdom, British Gypsum recycled 34,148 metric tons of used plasterboard to make new products and recovered 93,010 pallets from customers for re-use in 2011.
- In Switzerland, Rigips SA commissioned the first plaster *RiCycling*® plant. By collecting plaster waste at worksites, reprocessing it in the plant and reintroducing the material into the plasterboard production cycle, Rigips is helping to significantly reduce the need for raw gypsum from local quarries and to take pressure off of traditional waste disposal channels.



# LIFE CYCLE ASSESSMENT

## FOR GLASS PRODUCTS

Saint-Gobain Glass and Glassolutions were the world's first glassmakers to conduct a full life cycle assessment for their products<sup>(8)</sup>, based on ISO 14040 and 14044.

Saint-Gobain Glass has also published a brochure that describes the measures taken throughout the product life cycle.

Sales staff in Europe began receiving training on the products' environmental benefits in December 2011.



# ecova

In 2011, Verallia continued to develop its eco-designed product ranges in France, Brazil, Argentina, the United States and Canada.

Primarily marketed under the ECOVA name (a French acronym: ECO for Eco-friendliness and Eco-design and VA for value - packaging value perceived by the consumer), these esthetically pleasing and environmentally friendly products help make the contents even more attractive. They correspond to a combined environmental and marketing strategy.

Used mainly for wine and beer, ECOVA products have been extremely successful, notably in Argentina and Chile, where the customers export a large percentage of their production. For them, lighter weight bottles are a major selling point.



## INTERNAL RECYCLING AND WASTE MANAGEMENT INITIATIVES

In June 2011, 132 Group employees from Europe, Asia and North America participated in a Saint-Gobain Innovation Day devoted to recycling and waste management.

Opportunities for creating value were a key topic, backed by real-world examples of construction and demolition site waste management and recycling.

## WEBER INTRODUCES BIODEGRADABLE BAGS

In the fall of 2011, Saint-Gobain Weber France introduced brown paper bags with a film lining made from corn. The new bags are biodegradable and can be recovered in industrial composting facilities.

Contractors and builders simply take the bags to a composting facility or collection center as yard waste. The resulting compost is used in farming. For the moment, 11 facade renovation products are being sold in the new biodegradable bags. Further out, phased deployment is planned across the entire Weber lineup.



(8) Products covered include: sgg PLANILUX, sgg DIAMANT, sgg ALBARINO, sgg CLIMAPLUS, sgg CLIMAPLUS PROTECT, sgg CLIMAPLUS SOLAR CONTROL, sgg CLIMAPLUS 4S, sgg CLIMATOP, sgg STADIP PROTECT or SILENCE, sgg MIRALITE REVOLUTION and sgg DECORGLASS or MASTERGLASS.

**AUSTRIA**

Glassolutions, Saint-Gobain Rigips Austria, Saint-Gobain Weber Terranova and ISOVER Austria renovated an apartment in Vienna using the Multicomfort concept.



# ENHANCING USERS' COMFORT AND WELL-BEING



In 2011, our subsidiaries participated in numerous shared initiatives as part of our sustainable habitat strategy and carried out construction and renovation projects in line with Multicomfort criteria.

## Multi-Comfort sustainable habitat solutions

Multicomfort criteria focus on enhancing user comfort while reducing a building's environmental impact.

The Saint-Gobain Multi-Comfort House, a low-consumption energy-producing home, was inaugurated in Beaucoz , France on July 5, 2011.

Designed to deliver maximum thermal, acoustic and visual comfort, this healthy home can expand to accommodate a growing family or be adapted for specific accessibility needs, notably for persons with reduced mobility.

Fifteen Saint-Gobain member companies worked on the house, which produces more energy than it consumes (61kWh/sq.m/year versus 39kWh/sq.m/year).

This green home's high energy performance stems from its bioclimatic design, extremely effective insulation and a combination of technical features that make use of renewable energies. The building materials have a limited

environmental impact, from manufacture to end-of-life recycling, recovery and disposal.

Waste was sorted during construction with big bags for wood, mortar, plastic, metal and cardboard packaging. Point.P then collected the waste for recycling and recovery.

We intend to extend the Multicomfort concept to other countries and other climates for use in a wide range of applications, from single-family homes and apartment buildings to schools and other public facilities.

The performance of the Saint-Gobain products used in these projects will be measured in real-life conditions to show that it is possible to combine comfort and energy performance with existing solutions while limiting the life-cycle impact of building materials, worksite waste and energy consumption.

## Products that enhance users' comfort and well-being

We develop solutions to enhance users' comfort and well-being. These solutions help improve acoustic, insulation and air quality in homes, offices, classrooms, hospitals and other living spaces, for a more comfortable interior environment.

In partnership with Sage Electrochromics, Saint-Gobain has broken new ground for using electrochromic glass in homes and buildings with a thin-film technology that combines protection, visual comfort and energy efficiency for more sustainable architecture. This intelligent glass adjusts light and heat transmission depending on the amount of sunlight and the outdoor temperature while maintaining good outward vision. Thanks to these features, electrochromic glass reduces the need for air conditioning and lighting. When integrated in a home or building automation system, this solution helps cut energy use by 30-50%.



**MAURICE MANCEAU,**  
*Head of Habitat France*

**TESTIMONIAL**

## WALKING THE TALK

The Saint-Gobain Multi-comfort home in Beaucouzé is a tangible example of the Group's sustainable habitat strategy and the product of hard work by the Habitat France team and all the companies involved in the project. It successfully showcases the brands and their solutions. We wanted to build a house in real-life worksite conditions. It is located in a development that already had homes with people living in them.



**ROMANIA**

Saint-Gobain Glass and Saint-Gobain Construction Products Romania (through Rigips, Weber and ISOVER) built the country's first Multicomfort home in Bucharest in July 2011.



# FOCUS

## LIGHTING

Saint-Gobain has a significant R&D program devoted to lighting, to optimize the use of natural light in buildings and improve the energy performance of LEDs and OLEDs using new-generation substrates. Our teams are employing a new technology to develop sapphire wafers for LEDs that makes it possible to achieve a larger size wafer than those currently on the market at lower cost. They are also perfecting Silverduct technology (a transparent electrode material for OLEDs with silver layers), which will offer a path to higher performance lighting that uses less energy.

## Improving indoor air quality

CertainTeed in the United States and Rigips in Germany offer innovative solutions to improve indoor air quality.

- CertainTeed's AirRenew™ gypsum board takes harmful volatile organic compounds (VOCs) such as aldehydes out of the air and converts them into safe, inert compounds that are captured in the board.
- Rigips' Rigidur H, based on a similar concept, contains a natural material that absorbs harmful substances in the air.



# SAINT-GOBAIN, **A RESPONSIBLE BUSINESS ACTOR**

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**As a responsible business actor, we are committed to attenuating the environmental impacts stemming from the production and distribution of our solutions.**

In particular, we are focusing on carefully managing our consumption of natural resources, reducing emissions, producing less waste and using less energy.

We also pay close attention to our employees' professional growth, well-being and safety. Our human resources policy supports the Group's and our team members' growth around the world.

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**UNITED STATES**

CertainTeed re-opened its roofing shingle plant in Ennis, Texas.



# A MULTIREGIONAL ORGANIZATION

Saint-Gobain is a multiregional organization serving local markets. Today, solutions and services created and distributed locally account for more than 90% of our sales.

We invest in both developed countries and high-growth economies. These investments contribute to local economic development in our host regions and cut down on shipping, which has a positive impact on both energy consumption and CO<sub>2</sub> emissions.

## Huge needs in high-growth regions

Fast-growing economies, with their rapid urban development and huge infrastructure needs, provide considerable growth opportunities for housing and construction.

We are enhancing our presence in these countries and stepping up our development in all high-growth regions.

The percentage of consolidated net sales attributable to emerging markets is targeted to rise to 26% in 2015 from 19% in 2011, with these markets accounting for 39% of aggregate Innovative Materials and Construction Products sales in 2015, versus 33% in 2011.

In the 2011-2015 period, 65% of our growth investments will be made in fast-growing economies. During that time, 80% of spending will be devoted to solar, high value-added habitat and construction solutions and to expansion in emerging markets.

During the year, we enhanced our presence in all fast-growing regions. In China, we announced the construction of a second automotive glass plant in Qingdao, in partnership with Central Glass, while in

India, we extended our industrial base by acquiring a new float plant in Gujarat. In Latin America, we acquired two abrasives manufacturers in Argentina, together with their subsidiaries in Brazil and Uruguay. Our Industrial Mortars activity made three acquisitions in Indonesia, Brazil and Turkey. At the same time, our Insulation activity built a new glass wool plant in Japan and acquired stone wool manufacturer Linerock in Russia. Lastly, the Gypsum activity strengthened its presence in Turkey with the acquisition of Doğaner, a company that produces plaster and plasterboard.

## Energy efficiency, a major challenge for developed countries

Developed markets are driven by energy performance requirements, particularly in Western Europe where new regulations are coming into force. For example, these regulations will significantly increase the use of large window surfaces in new buildings and encourage the installation of ever more efficient insulation.

We intend to strengthen our positioning in high value-added habitat and construction solutions, with the goal of raising their contribution to consolidated net sales to 60% by 2015 from 53% in 2010.

Our capital expenditure choices and acquisitions strategy will lead us in this direction. In 2011, for example, we acquired Solar Gard, a company that makes coated films with applications in the habitat and

automotive markets, and Edilcalce, an industrial mortars business in Italy. We also announced the construction of a new plant to manufacture proppants (spherical beads used in the oil and gas industry) in the United States.

In the Building Distribution Sector, we announced plans to acquire Build Center, a major UK general builders' merchant, and Brossette, a plumbing, heating and sanitary-ware distributor in France.



**UNITED STATES**

We acquired Solar Gard, a company that makes coated films with applications in the habitat and automotive markets.

**ITALY**

Saint-Gobain Glass updated its Pisa facility.



**SPAIN**

Saint-Gobain Glass inaugurated a new solar glass furnace in Renedo.



**ARGENTINA**

Construction began on a third Verallia furnace in Mendoza.

**INDIA**

Saint-Gobain Glass India acquired Sezal Glass Limited and a new flat glass furnace.



**FRANCE**

A new Industrial Mortar plant was commissioned in Château-Thébaud.



**CHINA**

A new bonded abrasives plant was inaugurated in Handan.



# Preventing industrial risks

The Group's policy for protecting facilities against risk of accidents is presented on pages 92, 103, 105 and 106 of the Registration Document. Prevention plays a key role in this policy. Priority is given to reducing incident frequency and severity, with the goal of preserving the integrity of equipment, jobs and personal safety; limiting the site's impact on the surrounding environment; and avoiding business interruption whenever possible.

The Group's managers are empowered to deploy the program. Similar to the internal control system, site managers fill out a questionnaire each year to assess the effectiveness of risk management at their facilities, gauge the progress made and outline areas for improvement. Recommended measures are classified in two categories depending on whether or not investment is required.

This system is backed by an external audit program conducted by an independent firm's engineering and prevention specialists.

**TESTIMONIAL**

## 500 VISITS EACH YEAR



**JAN VAN CAESBROECK,**  
*Risk Engineering Leader, Global Asset Protection Services, XL Group*

Saint-Gobain devotes substantial resources to preventing industrial risks. We carry out around 500 preventive visits each year to Group sites. We are also involved far upstream in all new capex projects. Our volume of work in this area has doubled in the last three years. In addition to internal programs, we lead 10 to 15 training seminars each year on asset protection and business continuity.

**€118,1M**

Total environmental  
expenditure



# OUR ENVIRONMENTAL, HEALTH AND SAFETY POLICY

At Saint-Gobain, we are committed to reducing our impact on the environment. We also deploy measures to prevent workplace health and safety risks as effectively as possible for employees, temporary staff and subcontractors.

## Our environmental, health and safety commitments

Our Environmental, Health and Safety (EHS) policy flows from our Principles of Conduct and Action (see page 5). The main components are summarized and listed in a charter displayed at all of our facilities and currently translated into 38 languages.

## EHS objectives

In implementing EHS policy, senior management sets Group-wide objectives in the areas of health, safety and the environment. Applied in each activity and Delegation<sup>(9)</sup>, these objectives are used by the units as a reference in drawing up their annual EHS policy. The objectives are set for three-year periods (2008-2010 and 2011-2013). The results for 2008-2010 were presented in the 2010 sustainable development report (see page 35).

## Rigorous EHS standards and recommendations

Saint-Gobain has drawn up various standards and recommendations to support the implementation of EHS principles. These standards and recommendations were developed in response to specific EHS concerns (see pages 58-60). The standards are compulsory, and describe the minimum requirements with which sites must ultimately comply, regardless of country or local legislation.

## An efficient management method

World Class Manufacturing (WCM) is a comprehensive management system intended to improve company performance by eliminating losses. The structured operating excellence method has proven effective in the areas of safety, quality and productivity. Over 90% of our manufacturing sites will have adopted the WCM method by 2015.

## Close cooperation with research and development centers

The research and development teams cooperate with the EHS department to integrate EHS concerns into product and process innovation and to address new EHS issues that arise. An EHS checklist is used to verify specifications on raw materials, manufacturing processes, product use or end-of life treatment.

To ensure that R&D specifications take health and environmental concerns into account, the R&D tracking process includes an EHS validation procedure.

In the field of nanomaterials, for instance, a code of conduct has been drawn up by both teams to identify handling procedures and to ensure that ultra-fine particles that may present a hazard are used solely at three authorized sites equipped with specific installations to protect employees.

## Accurate EHS reporting

Since 2004, the Group has used a centralized EHS reporting system known as Gaïa (see reporting methodology, pages 86-89).

<sup>(9)</sup> Saint-Gobain representations outside France.



# HIGHLIGHTS IN 2011

- **The Group-wide roll-out of a sustainable management policy for water** (see pages 38-39).
- **The implementation of a carbon assessment tool** to get a better idea of our companies' emissions (see pages 46-47).
- **The adoption of three new safety standards** adding to those already in place at the sites (see pages 58-59).
- **The deployment of a specific resource for managing** toxic, mechanical, electrical and other risks in our industrial facilities (see pages 60-61).

# 25%

Percentage of training hours devoted to EHS

## OBJECTIVES FOR 2011-2013\*

### Safety

Achieve a lost-time incident rate (LTIR) of 5 for the Building Distribution Sector at end-2013; a total recordable incident rate (TRIR) of under 6 for the Industrial Sectors; and an overall lost-time incident rate of less than 2.8 for the Group. These indicators include temporary employees.

### Occupational health and industrial hygiene

Deploy the new SAFHEAR risk analysis software introduced in 2011 (see pages 60-61) to identify exposure risks and define and implement preventive measures.

### Environment

Pursue efforts to reduce the environmental footprint of our sites. We are defining and deploying new cross-functional policies concerning water, timber, biodiversity, and life cycle assessments.

To encourage progress, we have included smaller sites in the list of entities covered by our three-year measurable objectives for environment. As a result, the program's scope expanded to 544 entities in 2011 from 400 in 2010 (see pages 86-89), allowing us to cover, among other items, more than 90% of our water consumption (excluding Building Distribution).

\* The results are presented on the following pages.

## THE EMERALD AND DIAMOND AWARDS



For over twenty years, the Diamond Awards have recognized outstanding progress and performance in health and safety at the Group's sites. In 2011, the Environmental Emerald Awards were created to spotlight environmental performance.

The sites competed in five categories: water, waste, atmospheric emissions, climate change, and biodiversity/soil/noise, odor or visual pollution. Four of the 32 entries were selected for outstanding achievement:

- the Emerald Award for fighting climate change went to La Plateforme du Bâtiment (Building Distribution) in Aubervilliers, France (see pages 50-51);
- the Emerald Award for waste reduction and recovery went to Saint-Gobain Abrasives, in Lorena, Brazil (see page 44);
- the Emerald Award for sustainable water management went to the Greendale Campus in Worcester, Massachusetts (United States);
- the Emerald Award for biodiversity protection went to Saint-Gobain Placo Iberica in Sorbas, Spain, for its restoration of the "Los Yesares" quarry (see page 41).

Twenty-one sites received a Diamond Award.

Chairman and CEO Pierre-André de Chalendar and other members of senior management attended the Emerald and Diamond Awards Ceremony, held on June 24, 2011.

## **OUR ENVIRONMENTAL, HEALTH AND SAFETY POLICY**

### **A coordinated network of expertise**

Our EHS structure is built around a network of correspondents in the Group's Sectors, Delegations<sup>(10)</sup> and sites. This organizational structure enables the EHS function to remain close to business operations, respond to specific local circumstances and ensure overall consistency.

Within each Sector, one or more employees are appointed to propose an EHS policy tailored to the specific nature of the Sector's operations and to oversee its implementation. Similarly, within each Delegation, a representative coordinates Group and activity EHS initiatives at the local level and ensures compliance with local regulations and Group standards. These coordinators work with a team of correspondents within the various companies and facilities.

In liaison with the central EHS Department, these professionals form a network responsible for supporting operations managers in developing and implementing EHS policies.

### **TESTIMONIAL**



**HUIDONG ZHOU,**  
*EHS Director, Asia-Pacific Delegation*

## **POOLING BEST PRACTICES**

**Huidong Zhou joined Saint-Gobain in 2004 as EHS Manager for the Pipe Activity in China. He became EHS Director for China in 2009, and then for the Asia-Pacific Delegation in 2010.**

My job is to supervise and support the Delegation's EHS network in China, Japan, South Korea, Southeast Asia and the Pacific. I keep the front-line teams up to date by organizing training and sharing best practices. I manage the EHS audits and supervise implementation of the resulting recommendations. I also spend a great deal of time in the field meeting with the various people involved to raise their awareness about EHS issues and encourage their progress.

### **TESTIMONIAL**



**JÜRGEN WESTRUP,**  
*EHS Manager at Saint-Gobain ISOVER, Speyer, Germany*

## **TRAIN THE EMPLOYEES**

I am in charge of applying programs to ensure our site complies with local regulations and Saint-Gobain standards in the areas of health, safety and environmental protection. If an incident occurs, I help determine the cause and take measures for improvement. In the area of occupational health, my job includes measuring noise levels near workstations, for example. As concerns the environment, I am responsible for monitoring atmospheric emissions and water and waste management. I also handle the site's EHS reporting. To ensure that employees work in safe conditions, I organize special safety training sessions. It's important for me to share experiences with colleagues at other facilities. Being an EHS auditor gives me the opportunity to visit other activities' sites.

*(10) Saint-Gobain representations outside France.*



**KOREA**

Employees reading information on EHS.



Raising awareness of life-saving gestures.

**A comprehensive audit system**

Our audit system is based on the EHS and self-diagnostic audits initiated by the EHS department and a self-assessment questionnaire introduced by the Internal Audit and Internal Control Department.

The EHS audits address environment, health and safety issues and are the most thorough EHS assessments. Because of the Group's size, we are able to send teams from other Sectors to audit sites, thereby benefitting from their membership in Saint-Gobain and knowledge of our EHS approach. These cross audits are performed by experienced, specially-trained in-house auditors. They are crucial to obtaining a reliable assessment of the EHS management system and give rise to practical recommendations. The audits are designed to give site directors an objective view of their situation and EHS management system, and to provide suggested action plans for improvement.

On average, each manufacturing site is audited once every three years. In 2011, 279 audits were performed.

The Building Distribution Sector has its own tailored audit. Known as ESPR for Environment, Safety and Prevention of Risks, the audit also includes a section on equipment safety and business interruption risk. The majority of ESPR auditors belong to the Building Distribution Sector. In 2011, 326 ESPR audits were carried out within the Group.



**TESTIMONIAL**

**MARLA HOLT,**  
*Regional EHS Manager for Alabama, Tennessee, Mississippi and Arkansas and EHS Manager for the Saint-Gobain NorPro Business*

**USING AUDITS TO DRIVE IMPROVEMENT**

**What is your mission in the audit process?**

As the Regional EHS Manager, I help the sites for audits, assist them, if necessary, during the audits and advise on the implementation of any ensuing recommendations. I also audit sites myself that are outside my region and business.

**What are the advantages of cross audits?**

The auditors are Saint-Gobain employees, but usually from a different business. It saves a great deal of time because they know the Group's EHS policy and procedures inside and out. At the same time, they really do bring fresh eyes to the situation. Cross audits provide an opportunity for us to learn from each other and share ideas and good practices. They help us progress.



## The CEO Water Mandate

## OBJECTIVE FOR 2011-2013

Reduce water withdrawals by 6% between 2011 and 2013 at concerned sites, based on 2010 production output.

# MANAGING NATURAL RESOURCES AND PRESERVING BIODIVERSITY

At Saint-Gobain, we are deeply aware of the need to preserve biodiversity. That's why we take measures to limit our impact on ecosystems and to optimize natural resources use. We have also been working to preserve water resources for several years.

## Water

Water resources are becoming scarcer around the world, due in particular to demographic growth and urbanization. This phenomenon, combined with pollution risks, can have a negative impact on living conditions. As a responsible company, Saint-Gobain has the duty to promote rational, constructive dialogue with host communities to improve understanding of our activities and foster sustainable, shared management of local water supplies.

### Group water policy

A Group-wide sustainable water management policy was issued in 2011<sup>(1)</sup>, confirming our commitment to reducing the quantitative and qualitative impact of our activities on water resources as much as possible, both in terms of withdrawals and discharges. Our long-term goal is to withdraw the minimal amount of water

required and aim for zero industrial liquid discharge<sup>(12)</sup> while preventing new impacts on other ecosystems or stakeholders.

To support the deployment of this policy across the industrial base, we defined an EHS standard for water that sets out the minimum requirements to be fulfilled in the long term. We have also introduced an assessment grid for risk exposure and site vulnerability.

This Group-wide assessment grid examines three interdependent quantitative and qualitative risks:

1. The risk of water constraint: factors that can affect or compromise water supply, and therefore business, at any given site.
2. The risk of pollution: factors relating to site discharges and their impact on the receiving environment.
3. The risk of flooding: vulnerability factors relating to the frequency and intensity of adverse weather phenomena, particularly natural disasters.

The EHS water standard will be implemented at industrial sites to structure improved performance in water management and the prevention of these three

risks. In the deployment process, priority will be given to sites identified in 2012 as having the highest levels of risk.

The Group's water policy grew out of extensive, cross-departmental discussions between EHS, Responsible Development, Risks and Insurance, Purchasing, R&D and the EHS network in the Sectors and Activities with a focus on:

- raising awareness and concern about water issues among all Group functions, sites and stakeholders (including suppliers), taking socio-economic considerations into account through community dialogue;
- planning the implementation of tailored actions at the Group's sites, based on their exposure to water risks;
- measuring progress using common indicators consistent with international frameworks and benchmarks;
- anticipating regulatory changes in host countries and including water considerations in the Group's innovation strategy.

<sup>(1)</sup> The Group's Water Policy is available upon request.

<sup>(12)</sup> This target does not include steam discharge.



# FOCUS

## UNITED STATES

### MANAGING WATER NEEDS MORE EFFECTIVELY

The Saint-Gobain Ceramic Materials refractories in Buckhannon, West Virginia (United States) reduced their annual water consumption and cooling water discharge by 265,000 cubic meters. The industrial facility inventoried its areas of consumption, then assessed the amounts used before launching corrective measures. These included recycling wastewater, closing water cooling circuits, installing thermostatic valves, setting up a closed-loop circuit for compressor cooling, and replacing a water cooled compressor system with an air cooled unit.



## PORTUGAL

### A 7% DECLINE IN WATER CONSUMPTION

The Mondego site in Portugal decreased its water consumption by 7% between 2008 and 2011 by implementing several good practices. These included installing a rainwater capture basin that makes it possible to re-inject water into the process water system; installing a set of valves to control the flow of water injected as gobs exit the furnace; and monitoring water temperature throughout the process water system.

#### Group water withdrawals

Sustained efforts over the 2008-2010 period allowed us to reduce water withdrawals at concerned sites<sup>(13)</sup> by 12% based on 2007 output, compared with a target of 6%. We pursued these efforts in 2011.

In 2011, based on 2010 output, the Group's concerned sites withdrew 73.6 million cubic meters of water, down 3.3% from 76.1 million cubic meters in 2010. Most of the activities contributed to this improvement.

Based on actual output<sup>(14)</sup>, the concerned sites withdrew 73.3 million cubic meters of water in 2011, for a 3.6% reduction in absolute value. In all, the Group's sites used 81.7 million cubic meters of water. ✓

#### Water discharges

In 2011, the Group's liquid water discharges totaled 48.1 million cubic meters.

The water standard, which will be applied for the first time in 2012, requires sites to limit the number of discharge points and ensure discharge quality before channeling effluent into the municipal sewage system, natural environment, or other outlet. A risk assessment for accidental chemical pollution will also be included in the water standard.

#### Water recycling

We encourage in-house water recycling, particularly through the use of closed circuits, as this considerably limits withdrawals from natural resources. Due to the complex nature of many of the Group's processes, it is difficult to calculate the rate of water recycling and reuse. In applying the water standard, we intend to make improvements in this area and ultimately produce a reliable metric for the entire scope of reporting.

## FRANCE

The ISOVER plant in Chemillé recycles water.



(13) 544 "concerned" sites have been identified based on 2010 reporting data, and their performance is being tracked in relation to 2011-2013 environmental targets (see pages 34-35 and 86-89).  
(14) Actual output in 2010.



## Mapping

We have established a map of what we call concerned<sup>(15)</sup> industrial sites, to quickly identify facilities located within or near protected areas or zones that are strategic to biodiversity<sup>(16)</sup>. These findings will be taken into account in the assessment of site exposure and vulnerability, as part of our water policy (see pages 38-39).



## Quarries

The Group's quarries are operated in an environmentally friendly manner in compliance with local regulations. During extraction and restoration, the effects on local communities and the environment are reduced as much as possible. These include the visual impact of the operations, dust, noise and vibration, added road traffic and any repercussions on the natural surroundings.

The Group operates 140 underground and open-cast quarries worldwide. The vast majority (109, or 77%) belong to the Gypsum Activity.

As part of its ongoing efforts to address the environmental impact of its extraction sites, the Gypsum Activity deployed a biodiversity policy for quarries in 2010. We will leverage the results of this project to establish a meaningful biodiversity policy for all Group activities by 2013.

### BRAZIL

## PRESERVING BIODIVERSITY

In Brazil, Saint-Gobain Canalização owns 24,700 hectares of land on which eucalyptus is grown to produce charcoal, a coke substitute in cast iron manufacturing. Part of this land (36%) is a nature reserve with woodland, springs and waterways located in the Atlantic Forest, which has been protected for over 30 years.

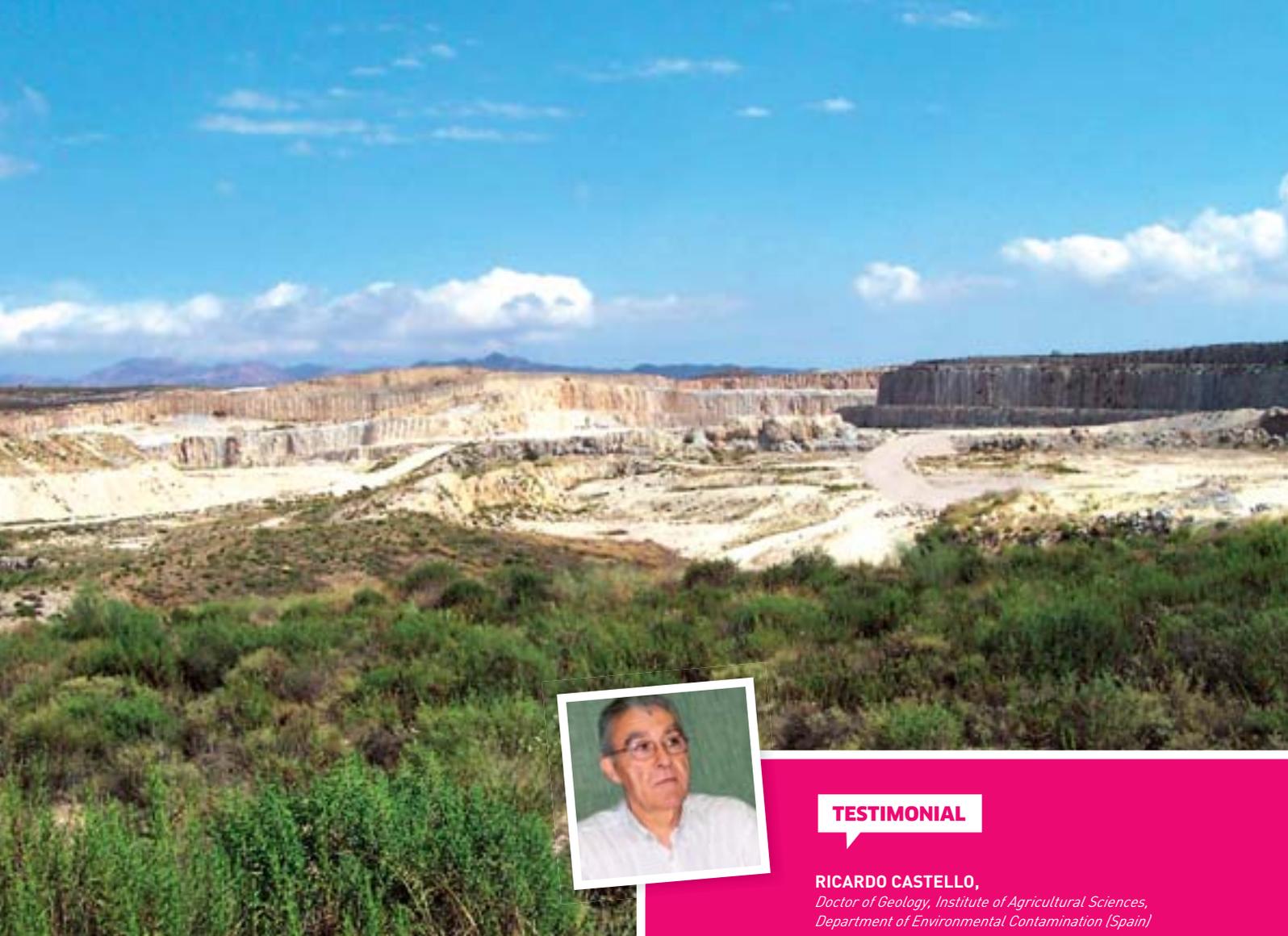
To preserve biodiversity, Saint-Gobain Canalização restores degraded zones, monitors animal and plant species, protects springs and waterways, and encourages the development of beekeeping.

A 2009-2010 study carried out by the Universidade Federal de Lavras discovered 182 species of birds and 26 species of medium-size and large mammals.

Biodiversity preservation also has a social and economic impact. Forestry directly or indirectly employs 2,400 people with an elementary education, meaning that they can stay with their families and in their villages, rather than migrating to cities.

*(15) The Group has identified a number of "concerned" sites and is tracking their performance in relation to environmental targets for a three-year period (see pages 34-35 and 86-89).*

*(16) Based on such references as the Ramsar Convention on Wetlands or Conservation International's Biodiversity Hotspots and Wilderness Areas.*



#### TESTIMONIAL

**RICARDO CASTELLO,**  
*Doctor of Geology, Institute of Agricultural Sciences,  
Department of Environmental Contamination (Spain)*

#### SPAIN

## RESTORATION OF THE “LOS YESARES” QUARRY

Saint-Gobain Placo Iberica, certified ISO 14001 since 2010, has restored the Los Yesares quarry in partnership with scientific experts. This pilot project, located in the arid and semi-arid Sorbas basin, was launched in 2000. In all, 45 hectares were restored and local ecosystems were conserved with endemic species, many of them protected. Several doctoral theses were written in conjunction with the project and their results were presented in international scientific forums. Visitors from schools, universities and local communities also toured the site. The restoration not only illustrated the site's commitment to preserving natural resources, but also its societal responsibility, through its contribution to the region's social and economic development. Similar projects are being carried out in other Saint-Gobain Placo quarries in Spain.

## A SCIENTIFIC COOPERATION

### How did the partnership with Saint-Gobain get started?

Saint-Gobain Placo Iberica initiated its scientific cooperation with our research team in 2001. From the beginning, the company wanted to go beyond the basic regulatory obligations in restoring its gypsum quarry by researching environmental disturbance and developing new restoration methodologies.

### How has this cooperation developed?

The agreement, which has been renewed every year, has made it possible to restore landscapes degraded by gypsum mining in that area of Spain, by promoting biological conservation and preserving several species, including endemic gypsophytes. This is one of the most noteworthy examples of sustainable extraction in the world.

## **OBJECTIVE FOR 2011-2013**

Extend environmental certification (ISO 14001 and/or EMAS) to more than 90% of concerned sites by end-2013.

### **UNITED STATES**

#### **New integrated management system for Saint-Gobain NorPro**

Saint-Gobain NorPro has developed a management system for all of its US-based sites that complies with the requirements of various international standards (ISO 14001 for environmental management, ISO 9001 for quality and OHSAS<sup>(18)</sup> 18001 for safety) and integrates Saint-Gobain's EHS internal audit system and WCM<sup>(19)</sup> program.

# **RESPECTING THE ENVIRONMENT AT OUR SITES**

Our environmental policy cascades down into action plans developed at the local level.

### **An assertive certification policy**

In 2011, Saint-Gobain pursued its well-established policy of obtaining environmental certification for its units. Certification is an effective way to include environmental issues in overall unit management. It is also a way to build in a commitment to continuous improvement and to preventing pollution.

As of December 31, 2011, 69.5% of concerned sites (378 in all) were certified to ISO 14001 and/or EMAS standards (see pages 34-35) versus 63.8% in 2010 for a comparable scope of reporting<sup>(17)</sup>. In 2012, 28 additional units should obtain environmental certification, bringing the percentage of concerned sites with certification up to 74.6%. Our objective is 90% of concerned sites by end-2013.

Systems for detecting and remediating instances of non-conformity (accidents, incidents, etc.) are included in the ISO 14001 approach. Sites that have obtained environmental certification are responsible for managing all environmental incidents, such as accidental spills.

The Gypsum activity has set up an environmental system to detect, treat and analyze accidental pollution. Five minor spills were recorded in the Gypsum activity in 2011.

Verallia and the Innovative Materials Sector launched a similar approach in 2011. A common methodology for the entire Group will be deployed in 2012.

### **Atmospheric emissions**

#### **NO<sub>x</sub> and SO<sub>2</sub>**

Some of our facilities—mainly glass furnaces and Pipe Activity plants—emit sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), which contribute to acid rain.

Our different Sectors have been working to cut their sulfur dioxide emissions for several years now by using higher-quality fuel oil or coal slack, reducing their energy consumption and introducing desulfurization processes. Investments in pollution control equipment are part of this effort. In 2011, glass furnaces at concerned sites discharged 2.22 kg of SO<sub>2</sub>✓ per metric ton of finished glass produced, while concerned sites in the Pipe Division discharged 2.68 kg of SO<sub>2</sub>✓ for each metric ton of cast

iron produced, representing a total of 36,686 metric tons of SO<sub>2</sub>✓.

Saint-Gobain companies seek to reduce their nitrogen oxide emissions by emphasizing primary measures to prevent or limit NO<sub>x</sub> production at the source. In 2011, glass furnaces at concerned sites discharged 2.17 kg of NO<sub>x</sub> per metric ton of finished glass produced✓, while Pipe Division concerned sites discharged 1.45 kg of NO<sub>x</sub> for each metric ton of cast iron produced✓, representing a total of 33,877 metric tons of NO<sub>x</sub> ✓.

Between 2010 and 2011, cumulative NO<sub>x</sub> and SO<sub>2</sub> emissions from Pipe Division and glass operations declined by 12% and 4.5%, respectively.

(17) 144 new sites were included in the scope of sites concerned by our 2010-2013 objectives. The percentage of certified sites is lower for this new group than for the sites already covered by our 2007-2010 objectives. As a result, the percentages for the new scope (63.8% in 2010 and 69.5% in 2011) are lower than those for the previous scope (calculated at 67.5% in 2010 and estimated at 78% in 2011), presented in the 2010 sustainable development report.



#### UNITED KINGDOM

### Pasquill earns certification for its environmental management

The Building Distribution Sector's Pasquill brand has earned ISO 14001:2004 certification for its 14 manufacturing sites and 21 design locations.



*We're extremely proud to have gained ISO 14001:2004 accreditation across all our sites. Along with our additional certifications it provides our customers with further reassurance that we are working (...) to enhance the quality of our products and systems while minimizing our impact on the environment."*

**Stuart McKill,**  
Managing Director of Pasquill.



Our project team on the Holwell site.

#### UNITED KINGDOM

## REDUCING THE SITE'S ENVIRONMENTAL FOOTPRINT

Saint-Gobain PAM UK has made several major investments at its Holwell plant, near Melton Mowbray.

The installation of a dry bag filter system has reduced particulate emissions from the cupola furnace by 99% to 0.3 kg per metric ton of castings. At the same time, water consumption has declined by 63% and electricity use by 9%. As an added bonus, the risk of downstream pollution has been reduced now that the plant no longer uses caustic soda for cleaning the wet filtration system.

A heat exchanger recovers waste heat from combustion gas to heat input air to the furnace. As a result, CO<sub>2</sub> emissions have declined by 2,200 metric tons.

Lastly, Saint-Gobain PAM UK has been awarded certification to the world-class, ISO-accredited CEMARS<sup>(21)</sup> standard.

Saint-Gobain PAM UK has set a target for 2014 of improving energy efficiency at all its sites to achieve a cumulative reduction in emissions of more than 7%.

## LIMITING ATMOSPHERIC EMISSIONS

Saint-Gobain Glass is optimizing combustion to reduce NO<sub>x</sub> emissions at the source. Thanks to these efforts, the direct global NO<sub>x</sub> emissions discharged during the melting of one metric ton of SGG PLANILUX glass declined by 31% between 2007 and 2011. The EU's latest BREF<sup>(20)</sup> for glass manufacturing lists Saint-Gobain Glass' FENIX process as the Best Available Technique in this area.

In addition to reducing emissions at the source, flue gas treatment systems have been installed to remove particulates, SO<sub>x</sub>, heavy metals and acid gases. Eight new filtration systems have been installed since 2007, bringing the total number of equipped sites up to 22 in 2011. Worldwide, the amount of particulates released during the melting of one metric ton of glass decreased by 40.3% between 2007 and 2011.

In 2012, all of Saint-Gobain Glass's float lines in Europe and 83% worldwide will be equipped with this type of filtration system.

In addition, in 2012, two gas treatment systems have been installed in South Korea to capture NO<sub>x</sub> emissions. The installation of similar equipment is planned elsewhere in South Korea, Germany, France and other European countries.

When primary measures alone are no longer sufficient to achieve the necessary reduction in NO<sub>x</sub> emissions, catalytic reduction of NO<sub>x</sub> may be used on top of these particulate abatement systems. Four South Korean furnaces have already been equipped with these De-NO<sub>x</sub> systems and three European furnaces are following suit.

(18) OHSAS: Occupational Health and Safety Assessment Series.

(19) World Class Manufacturing.

(20) Best Available Techniques Reference Documents, or BREFs are drawn up by the European Commission and the industry in question to serve as a reference guide for manufacturers.

(21) CEMARS: Certified Emissions Measurement and Reduction Scheme.

## **OBJECTIVE FOR 2011-2013**

Reduce landfill waste by 6%  
by end-2013 on the basis of  
2010 production at concerned sites.



### **BRAZIL**

## **RECYCLING ABRASIVES WASTE**

Our facility in Lorena, Brazil recycles production waste from Saint-Gobain Abrasives plants throughout the country. Thanks to this process, some 10,000 metric tons of waste have not been landfilled since 2007. Organic waste is burned at a temperature of 1000°C and the 85 metric tons of abrasive grains recovered each month are re-used as raw material for new abrasive products. Eight people work full time on this project, which can be replicated in other countries and other activities. The site was certified ISO 14001 in 2006.

### **Dust**

Saint-Gobain takes an active approach to managing dust emissions. We have invested extensively in electrostatic precipitators and bag filters, depending on the type of furnace. In addition, filtration dust is increasingly recycled at the plants themselves or utilized through special processes.

In 2011, glass furnaces and glass production lines at concerned sites (see pages 86-87) discharged an average of 0.25 kg of particulates per metric ton of glass produced.

Verallia has made substantial outlays to equip its plants with electrostatic precipitators, leading to a decrease in the amount of dust emitted by glass furnaces. All of the plants in Western Europe and Brazil now have electrostatic precipitators.

The Innovative Materials - Flat Glass Sector is also taking measures to manage atmospheric emissions from its furnaces and is pursuing its investments in electrostatic precipitators.

In 2011, the Pipe Division's concerned sites generated 3.84 kg of dust per metric ton of finished cast iron produced following treatment versus 4.69 kg in 2010.

Between 2010 and 2011, the cumulative amount of dust emitted by glass furnaces and glass production lines and by the Pipe Activity at concerned sites declined by 21.7%.

### **Other regulated substances**

Heavy metals resulting from impurities in raw materials, cullet<sup>(22)</sup> and other furnace input are closely monitored. Pollution control equipment, such as the electrostatic precipitators described above, has proven effective in reducing emissions of heavy metals.

### **Reducing production waste and consumption of raw materials**

In 2011, concerned sites generated 2.97 million metric tons of production waste, compared with 3.0 million in 2010 based on comparable output, a reduction of 1%. On an actual production basis over the same period, the reduction came to 2.6% in absolute value (2.92 million metric tons in 2011).

In the objective for 2011-2013, the indicator covers landfill waste. A new waste management standard will help us make this metric reliable.

In addition to recovering our own waste products, we use recycled materials from outside sources, such as cullet and recovered scrap metal, to optimize our raw material consumption.

(22) Broken glass from production waste, sorted waste or recycling containers.



## CHILE

# OFFERING INNOVATIVE SOLUTIONS

In Chile, Verallia has developed a system to reduce the volume of glass at customer sites. A number of containers are provided for collecting used glass, to be sorted by color (green, clear or russet) and state (clean or dirty).

An easy-to-use crusher is placed to the right of the container to reduce volume on site.

The collected glass comes from winemakers, who until now have had difficulty recovering and recycling their waste. Their employees collect the glass and Verallia picks it up when the containers are full, using the same trucks that deliver new products.



## FRANCE

# WASTE RECOVERY AND RECYCLING

In France, Saint-Gobain Weber France entered into a partnership in 2008 with SITA FD, a company that processes and stores hazardous waste. Weber operates several industrial mortar plants that make powder-based products for wall and flooring systems. These plants generate waste that cannot be re-used internally, most of it cementing materials. This non-hazardous waste is delivered to SITA FD as a secondary raw material (inorganic by-product) to be used with other binders in stabilizing hazardous waste. The project is part of Weber's overall approach to reduce and recycle waste.

### Glass <sup>(23)</sup>

The primary method for reducing resource consumption in glass furnaces is to include cullet (crushed recycled glass) among the raw materials. The proportion of cullet used within the Group fell between 2010 and 2011 based on a comparable scope of consolidation. In 2011, glass furnaces at concerned sites used 11.9 million metric tons of primary raw materials, compared with 11.6 million metric tons in 2010; 4.5 million metric tons of externally-sourced cullet, versus 4.5 million in 2010; and 3.2 million metric tons of internally generated cullet, compared with 3.3 million in 2010.

### Cast iron

The Pipe Activity uses two melting processes to produce cast iron: primary melting, which produces cast iron from iron ore in blast furnaces, and secondary melting, in which cast iron is manufactured from scrap metal and recovered cast iron. In 2011, the use of primary melting increased, representing 80.5% of production at concerned sites (compared with 78.3% in 2010 based on a comparable scope). This trend primarily reflects lower demand in Europe, where our main secondary melting facilities are located. During the year, 35.9% of finished cast iron was produced from recycled materials at concerned sites (versus 30.3% in 2010 based on a comparable scope) thanks to higher recovery and recycling rates in the primary melting circuit.

### Gypsum

Gypsum is a natural, recyclable and abundantly available material. Its conversion into plaster is an age-old process. Plaster requires very little energy to be produced. As with cullet, the only limitation on recycling is the problem of waste sorting. In 2011, at the concerned sites within the Gypsum activity, 30.7% of finished gypsum was produced from recycled materials compared with 32.9% in 2010. Waste recycling facilities have been established in several countries. This type of system can vary in scope, depending on the country and local demand.

(23) Flat glass, container glass and glass wool.

## **OBJECTIVE FOR 2011-2013**

Reduce direct CO<sub>2</sub> emissions by 6% based on 2010 performance at concerned sites

# **CLIMATE CHANGE AND ENERGY CONSUMPTION**

The issues of climate change and energy use are among the biggest challenges our planet will face in the decades ahead. It's up to us to integrate these challenges in our strategy and in the way we manage our sites and buildings on a daily basis.

### **Climate change's risks for Saint-Gobain**

We have identified and integrated the consequences of climate change in our daily risk management. For Saint-Gobain, the main risks include:

- an increase in extreme weather events;
- changes in water balance and, in particular, the expansion of regions experiencing water stress;
- the enactment of stringent regulations on industrial activities.

In 2011, we mapped our sites to help us assess the medium and long-term consequences of climate change. Increasingly, this aspect will be integrated in our risk prevention policy.

### **Understanding our CO<sub>2</sub> emissions**

Producing and distributing quality products and services generates greenhouse gasses all along the value chain. To gain a better understanding of our emissions, we launched the Saint-Gobain Carbon Assessment in 2011, as CO<sub>2</sub> is the main greenhouse gas emitted by our activities<sup>(24)</sup>. This program will help us reduce the greenhouse gas emissions from our operations more effectively by tracking them regularly across the value chain (intrants and shipping included).

As part of our commitment to publishing our greenhouse gas emission data, we

have participated in the Carbon Disclosure Project (CDP) since 2003. The benchmark CDP questionnaire encourages businesses to provide information on their approach to climate change in a transparent manner. In 2011, we were included in the Carbon Disclosure Leadership Index for the second year in a row. Each year, this index lists the top 500 global companies on the basis of their disclosure scores.

### **Our strategy for combating climate change**

#### **Energy efficiency**

Energy efficiency is a key component in our sites' environmental and financial performance. We are making advances in this area by optimizing existing equipment. This means improving combustion processes, making refractories more effective, recovering heat from furnaces and driers and replacing end of life equipment. We are also developing energy management systems and energy audits at our sites. The deployment of the World Class Manufacturing (WCM) approach across the industrial base is also driving improvement.

A substantial part of our research and development is devoted to enhancing production processes with the goal of reducing atmospheric emissions. Since 2000, the amount of energy used by our flat glass furnaces has decreased by 10% for equivalent cullet input.

#### **Recycling**

The use of secondary raw materials in our processes considerably reduces our energy bill.

For the moment, this practice is primarily held back by technical constraints and the availability of quality materials in a tight market.

To give an example, for each 10% of cullet added to a glass batch, 2.5% to 3% of melting energy is saved.

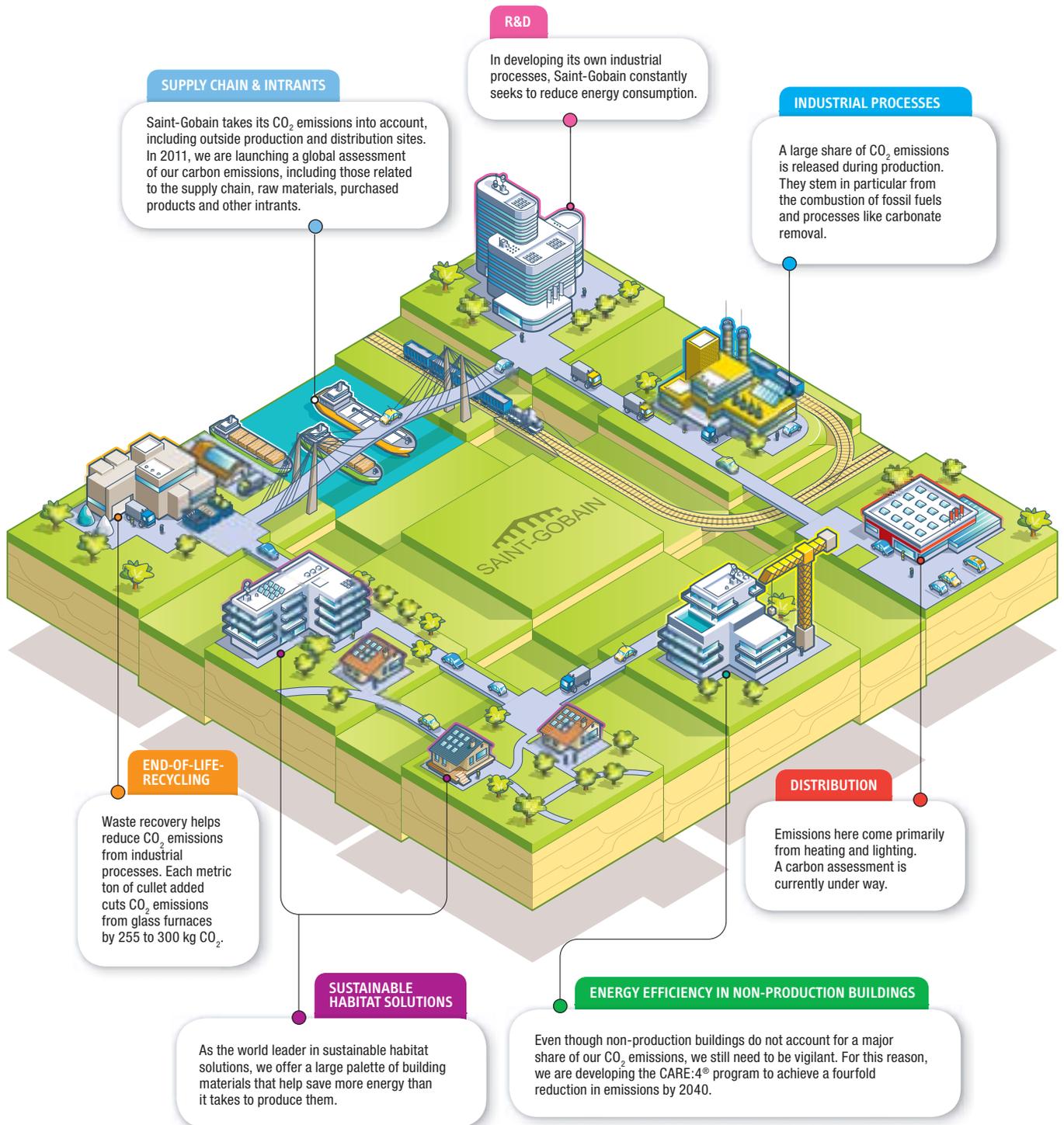
#### **New energies**

Using biomass to power industrial processes represents another path for reducing greenhouse gas emissions. Several of our sites use biomass as an energy source (charcoal for iron-ore smelting in Brazil, biogas in Finland, etc.) and a number of industrial pilot tests are underway.

*(24) A review of our greenhouse gas emissions shows that emissions of gasses other than CO<sub>2</sub> are negligible.*



# GAINING A BETTER UNDERSTANDING OF OUR IMPACT ON CLIMATE CHANGE



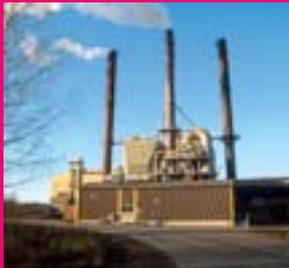
# REDUCING OUR CARBON EMISSIONS AND ENERGY CONSUMPTION

**UNITED KINGDOM**

## RECOVERING UNUSED GLASS

Saint-Gobain Glass UK's flat glass plant in Eggborough recovers unused glass from its customers and recycles it in the glass furnace, which now uses nearly 34% recycled glass.

So far, more than 270,000 metric tons of cullet have been recycled through this project, representing avoided emissions of around 50,000 metric tons of CO<sub>2</sub> equivalent.



**FINLAND**

## HEAT RECOVERY SYSTEM

The Weber plant in Kuusankoski, Finland has installed a heat recovery system to capture energy lost in its processes. The project was carried out in cooperation with a local energy firm and government agencies. The recovered heat is sold to the municipality and piped two kilometers for use in the district heating system. The amount recovered is enough to heat 3,000 homes.

In an added benefit, the wet scrubber in the heat recovery system also reduces the plant's atmospheric emissions.

**IRELAND**

## IMPROVING ENERGY EFFICIENCY

Gyproc plant in Kingscourt, Ireland, has been certified EN 16001<sup>(25)</sup>. This standard helps to improve the energy efficiency of the site and thus helps to reduce emissions of greenhouse gas and operating costs. The plant has decreased its energy consumption in the plaster mill area by 14% between 2009 and 2011. The plant is also certified to ISO 14001 and actively engaged in reducing our environmental impact through initiatives such as increasing the rate of scrap recycling around 95% and harvesting rain water for reuse in board manufacture around 49% water.

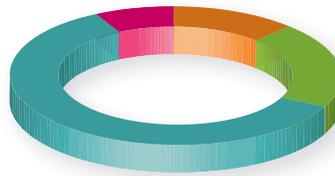
(25) EN 16001: energy management systems.

# 2011 RESULTS



## GROUP'S DIRECT CO<sub>2</sub> EMISSIONS

Industrial processes account for the vast majority of our direct emissions. These CO<sub>2</sub> emissions stem from the burning of fossil fuels and from chemical reactions such as carbonate removal. More than 90% of the Group's direct carbon emissions are related to the production of glass, cast iron and gypsum (see chart).



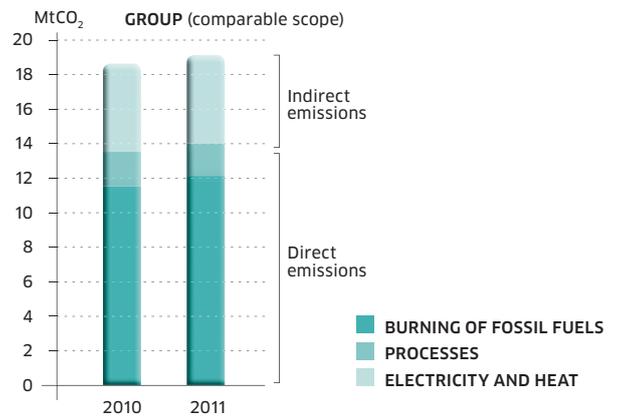
60% GLASS\*  
20% PIPES  
12% GYPSUM  
8% OTHER

\* Flat glass, container glass, glass wool.

## INDUSTRIAL OUTPUT

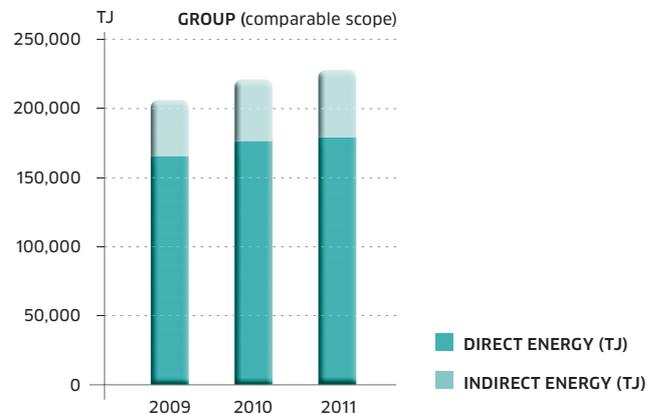
In 2011, industrial output was shaped by low growth in developed countries and continued expansion in high-growth countries. This led to a mixed CO<sub>2</sub> performance depending on the region and activity. Overall, our CO<sub>2</sub> emissions rose by a slight 2% in volume from 2010, based on a comparable scope (see chart).

Looking at the concerned scope, direct CO<sub>2</sub> emissions held steady based on 2010 output:  
2010 = 12.5 MtCO<sub>2</sub>  
2011 = 12.6 MtCO<sub>2</sub> ✓



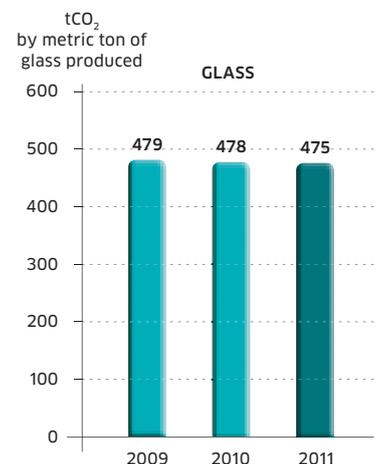
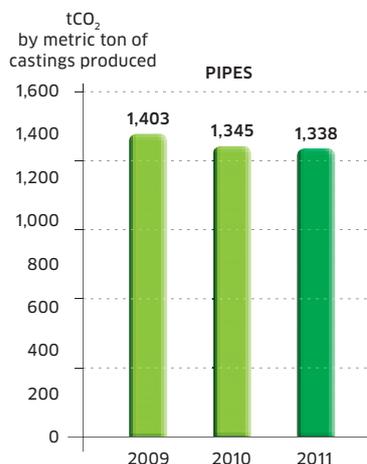
## ENERGY CONSUMPTION AT GROUP SITES

In 2011, energy consumption at Group sites totaled 227,432 TJ ✓ versus 221,010 TJ in 2010. The percentage of indirect energy was relatively stable at 21% of the total.



## GLASS AND PIPE ACTIVITIES

Energy efficiency is particularly important in processes with high energy use. It is a key factor in industrial performance. Our Glass and Pipe Activities are continuously improving their performance, as can be seen in the opposite charts.



**CLIMATE CHANGE  
AND ENERGY CONSUMPTION**

**Transport: close to customers**

The carbon assessment currently underway indicates that transportation accounts for a non-negligible portion of our indirect emissions at the various stages of the product manufacturing and distribution process. Transferring raw materials to the plant, transporting certain products to a second site for additional processing and delivering finished products to the distribution outlet all generate emissions. This is one of the reasons why we choose to locate our industrial and sales facilities as close to customers as possible.

Alternatives to road haulage are used by Building Distribution brands, as well as by other Group Sectors. For example, some 40% of Saint-Gobain PAM products are shipped to their destination entirely via sea, river and/or rail links.

**Energy efficient offices and services buildings**



At Saint-Gobain, we walk the talk by making our own buildings more energy efficient. Launched in April 2008, our **CARE:4**® (Company Actions for the Reduction of Energy by 4) program calls for a fourfold reduction in overall energy consumption and greenhouse gas emissions in our office buildings by 2040.

CARE:4® covers all heated or air-conditioned administrative and services buildings owned by Saint-Gobain. This includes offices, sales outlets, training and product demonstration centers and research centers.

The program was first applied to new buildings as from 2008, setting a performance target aligned with the best local energy consumption standard. In 2011, CARE:4® was extended to renovation projects.

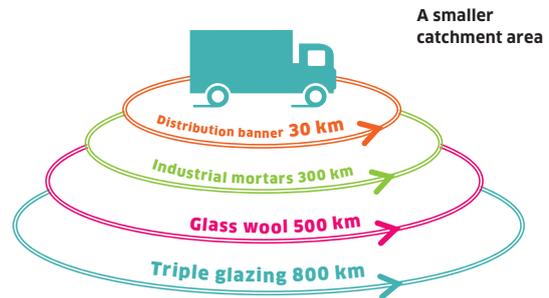
**Inventory**

All the Delegations have been asked to inventory their buildings, both in Building Distribution and the Industrial Sectors, to establish an analysis and classify facilities in terms of energy consumption.

A number of participants are involved in deploying CARE:4®, including the EHS network; the manufacturing, risk and insurance departments; asset managers; renovation and maintenance teams; general services and building users.

**Eco-transport at Point.P**

Point.P has launched several initiatives since 2008 to limit its environmental impact from transport. The objective is to reduce carbon emissions across the shipping chain, from supply to delivery.



SUPPLYING THE LOGISTICS BASES	
<ul style="list-style-type: none"> <li>• 80% of containers are transported by waterway to the new Brie-Comte-Robert base in France.</li> <li>• 30% of the tile that goes through the bases is transported by rail or sea.</li> </ul>	<p>Equals 2,500 fewer trucks on the road in 2012.</p>
SHIPPING TO THE SALES OUTLETS	
<ul style="list-style-type: none"> <li>• The use of double stacking trucks allows us to increase loads by 30% compared with conventional trucks.</li> <li>• Two crane barges supply outlets on the banks of the Seine.</li> </ul>	<p>Equals 5,700 fewer trucks on the road in 2012.</p>
DELIVERING TO CUSTOMERS	
<ul style="list-style-type: none"> <li>• Centralized fleet management has allowed us to reduce the fleet by 7% since 2008 and manage deliveries and routes more effectively.</li> <li>• More than 1,000 team members have received eco-driving training since 2008.</li> <li>• The maximum speed has been limited to 80 kph on 90% of the fleet, for fuel savings of around 13% (or around 1,700,000 liters of diesel per year).</li> <li>• The fleet is renewed every six years.</li> <li>• We have taken delivery of the first 26 metric ton hybrid raised platform truck in Europe, for fuel savings of 20%.</li> </ul>	<p>Equals 150 fewer trucks on the road in 2012.</p>





# CARE:4 THREE NEW PROJECTS IN 2011

**15** in preparation  
(including two renovations)  
for certification in 2012-2013

**7** CARE:4® certified buildings  
as of end-2011



## FRANCE

**The Plateforme du Bâtiment in Livry-Gargan**, France, achieved CARE:4® compliance for the same cost as a traditional building. Drawing on the lessons learned with the Plateforme du Bâtiment in Aubervilliers, certified in 2010, the new building's energy performance (sales area and offices combined) exceeds the requirements of France's energy efficient building standard (BBC), as well as the forthcoming RT2012 thermal standards.

## FRANCE

**DomoLab**, Saint-Gobain's first habitat innovation center (see pages 22-23), has been awarded CARE:4® certification. The center is located in a former storage facility in France that has been rehabilitated using Saint-Gobain solutions to achieve high energy performance.



## CHINA

The administrative buildings at the Handan abrasives plant in China are the first CARE:4® project in Asia. Thanks to the use of highly effective insulation, a geothermal heat pump and heat recovery from the production furnaces, the buildings are six times more energy efficient than what is required by local legislation.



## TESTIMONIAL

**HAI QUAN XU**,  
*engineer in charge  
of the CARE:4® building  
in Handan, China*

## KEEP COSTS UNDER CONTROL

We looked at the most effective solutions and chose the ones that helped us keep our costs under control. We focused on energy savings in three main areas: the building envelope, heating, ventilation and air conditioning (HVAC) and lighting.

For the envelope, we added considerably more insulation than required under Chinese law, notably for the roofs, walls and floors, and we selected windows and doors that delivered higher performance.

For the HVAC, we chose a geothermal heat pump that cools air in the summer and heats it in the winter, without using a boiler.

The system costs more than conventional HVAC devices, but it uses 30-40% less energy for heating and cooling.

Lastly, by choosing a more energy efficient lighting system for the offices, we've been able to reduce energy consumption in this area by 40%.



**194,658** ✓  
employees in **64** countries

# HUMAN RESOURCES POLICY

We support the Group's strategy and we unite employees in an atmosphere of openness and interaction.

Our sustainable habitat strategy requires effective teamwork so that we can deliver solutions, products and services that are increasingly innovative and more closely aligned with our customers' needs.

Our human resources policy supports the Group's strategy and unites employees in an atmosphere of openness and interaction. Applied uniformly in all our host countries (see list on page 9), it formally expresses a long-standing tradition of respecting people and their diversity, paying close attention to employment conditions and the work environment, and promoting social dialogue. This tradition is reflected in Saint-Gobain's Principles of Conduct and Action, which explicitly refer to the OECD Guidelines for Multinational Enterprises.

To meet our challenges, the OPEN program introduced in 2011 sets out four priority areas for action in our human resources policy: professional mobility, team diversity, employee commitment and development of talent.

The aim is to adopt more outward-looking human resources management, develop a culture of cooperation and nurture deep ties in each of our host regions to reflect our increasingly multi-local profile.

With these priorities in mind, our highly professional human resources teams

promote openness and dialogue with employees and help them build diverse career paths to leverage their experience and broaden their expertise. The teams are supported in this task by tailored human resources procedures and a decentralized management organization that encourages a local approach.

## Our employer image

In 2011, we launched a number of initiatives to raise our profile among prospective job applicants and enhance our appeal as an employer, using our employees as ambassadors. The aim of these initiatives is to promote our professions and career opportunities and to position Saint-Gobain as a great place to work. In-house, this means fostering our employees' sense of belonging, motivating them to take on the Group's challenges and enabling them to imagine a career at Saint-Gobain that fits with their specific needs and ambitions.

An external communication campaign will be launched in several countries in 2012, highlighting the main focuses of Saint-Gobain's human resources policy and showcasing the key role played by employees in supporting the Group's strategy.

## Leadership by example

For Saint-Gobain's Senior Management team, having high quality managers is of critical importance. For this reason, the team has leveraged our Principles of Conduct and Action to define four managerial attitudes that must guide the behavior of all Saint-Gobain employees in leadership roles, regardless of job level, region, function or business:

- Always be consistent with our values.
- No leadership without close focus on people.
- Walk the talk.
- No complacency allowed.

These managerial attitudes are modeled by all Group executives and cascaded down the ranks throughout the organization. Available in several languages, they are systematically presented at the beginning of seminars at the Saint-Gobain School of Management (see pages 62-63) and are also included in many in-house training modules.

These fundamental attitudes are supplemented by a managerial competencies guide, which is used to prepare job descriptions and to conduct annual performance reviews.



# FOCUS

## THE COMMUNITY OF SAINT-GOBAIN FACTS AND FIGURES

### Breakdown by category:

- **26,360** managers ✓
- **80,071** administrative employees, technicians and supervisors ✓
- **88,227** operators ✓
- **75% of employees are located outside France** ✓
- **Nearly 100 nationalities are represented in the workforce**
- **20.0% of our employees are women** ✓
- **LTIR\* of 3,1 in 2011** ✓

Workforce trends and breakdowns by business, country and job category can be found at the end of the report (see pages 94-95).

\* Lost-time incident rate (LTIR) (more than 24 hours' lost time) - Group, including temporary employees.



## WINNER OF THE 2011 TROPHÉE DU CAPITAL HUMAIN GRAND PRIZE

In France, Saint-Gobain was awarded the 2011 *Trophée du Capital Humain*\* Grand Prize and was singled out in the "Ethics and exemplary conduct" category... We also won an award in the "Ethics and exemplary conduct" category for our Principles of Conduct and Action and commitment to distributing the Principles to all employees worldwide.

This award provides important recognition for the Group and for the values that have shaped our business model for many years.

Also in 2011, several Group companies - in Germany, the United States, Brazil, Thailand and India - were recognized as great places to work and commended more generally for their human resources policies.

\* Initiated three years ago, the *Trophée du Capital Humain Grand Prize* is awarded to a CAC 40 company each year in recognition of its commitment, initiatives and performance in managing human resources.

## THE IMPORTANT ROLE OF LOCAL MANAGERS

In 2011, a survey was conducted by the Building Distribution Sector, which has 4,200 outlets and nearly 67,000 employees in 26 countries, to get its front-line managers' views on their role in the company's success.



### TESTIMONIALS

#### RUNNING THE COMPANY ON A DAILY BASIS

**UDO BRANDT,**  
*Executive Board Chairman of Saint-Gobain  
Building Distribution Deutschland GmbH*

While a corporate management team is necessary to establish the core components of our strategy and our long-term objectives, the people who run the company on a daily basis are our thousands of branch managers and team leaders. We wanted to know how these dedicated men and women drive their teams to achieve the highest levels of performance and what motivates them to succeed.



#### SUCCESS MEANS FEELING GOOD

**LEIGH HILL,**  
*Branch Manager for Jewson  
in the United Kingdom*

For me, the key to success is ensuring that my team members are happy and motivated, that they trust me and are satisfied with their jobs. Thanks to my team, the branch has made phenomenal progress and I'm proud to be a part of it. Success means feeling good at the end of the day and knowing that you did your job well. Being able to make things happen is a reward in itself. More than the money, what's really important to me is being successful and having that success recognized by others.

**In South Korea, HanGlas Group organizes a one-year mentoring program** for new hires to facilitate their integration into the company through corporate culture and knowledge transfer, ensuring that they are operational as quickly as possible.



**29,718**  
people are hired  
by Saint-Gobain in 2011

## **A WELCOMING, OPEN-MINDED COMPANY**

A welcoming, solid, open-minded company that offers long-term career opportunities.

### **Hiring talent and seeking out diverse profiles**

The gradual return to hiring that began in 2010 continued during first-half 2011. However, the downturn in the global economy during the second half of the year led to restrictions on hiring in many countries.

Except in rare cases, hiring is handled locally by the Delegations and companies, who define the most appropriate strategy for their situation.

Every step in the Group's hiring process, from advertising open positions to selecting applicants and conducting interviews, is based on the most objective, professional criteria possible. Although specific practices naturally vary from one company or country to another, all forms of discrimination are universally proscribed.

### **Attracting young applicants**

In 2011, applicants under 26 accounted for 35.4% of new hires, all employee categories combined.

Saint-Gobain takes part in university recruitment forums in many countries and nurtures ties with institutes of higher

education through programs to sponsor a class year or to provide mentoring for selected students.

We have dedicated training programs for young people in numerous countries and regions, including Germany, the United Kingdom, Brazil and Eastern Europe. In Germany, we focus on apprenticeships that allow us to recruit and train young people, giving them the necessary know-how specific to their profession. Around 90% of apprentices are hired at the end of their apprenticeships, which lasts between 2.5 and 3.5 years. In 2011, Saint-Gobain had more than 800 apprentices in Germany, across all Sectors.

In France, the number of young people participating in work-study programs under skills-acquisition or apprenticeship contracts increased significantly in 2011, to a total of 1,458, for a youth contract rate of 3%.

For several years now, the Central Europe Delegation has participated in the Global Player Program to recruit high potential graduates and prepare them for an international career at Saint-Gobain (see testimonial on opposite page). The 18-month program includes three successive missions, one of which must be performed outside the participants' home country

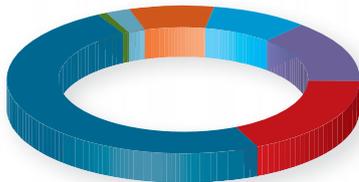
and Sector to enhance their ability to adapt to new environments. Adopted by the General Delegation for Nordic and Baltic Countries in 2011, the Global Player Program will soon be extended to other Delegations, particularly those in fast-growing markets.

Internships during a student's final year of study are a particularly effective way of introducing our businesses and corporate culture to potential applicants, who can then be integrated more easily into the workforce upon completing their studies. Each year in France, more than 1,000 interns receive training in programs lasting six months or more. The internships are government-regulated and remunerated according to a uniform recommended pay scale.

In cooperation with the French Agency for International Business Development (UBIFRANCE), Saint-Gobain also offers assignments worldwide to French students as part of the country's Volunteer for International Experience (VIE) program. In all, 46 students participated in the VIE program at Saint-Gobain in 2011, with the United States, Germany, Belgium and Japan ranking as the top destinations. Half of the VIE participants whose assignments ended during the year were subsequently hired,



## HIRING BY REGION IN 2011



0.2%	■ DEVELOPED ECONOMIES IN ASIA AND OCEANIA
2.2%	■ EMERGING ECONOMIES IN THE REST OF THE WORLD
7.9%	■ NORTH AMERICA
9%	■ CENTRAL AND EASTERN EUROPE
13.7%	■ EMERGING ECONOMIES IN ASIA
17.9%	■ LATIN AMERICA
49.1%	■ WESTERN EUROPE

## PARTNERSHIPS with universities

In 2011, Saint-Gobain signed an agreement with Warsaw University of Technology in Poland, undertaking to actively cooperate in the fields of research and development, to organize experience sharing initiatives and to support top students and graduates as they start their careers.

In France, we support the Renewable Energy Science & Technology Master II program, which was introduced by ParisTech in October 2011 for engineering, mechanical science and physics students from leading universities worldwide.

In China, we have signed an agreement with Tongji University in Shanghai to create a one million yuan (€119,000) "habitat" fund to finance scholarships and activities for students in the areas of civil engineering, architectural design and building materials.

principally in the fields of production, finance, marketing and research and development. The Group has welcomed 304 VIE participants since 2001 and will offer 15 new assignments in early 2012.

### Supporting innovation

Because innovation is an integral part of Saint-Gobain's strategy, particular care is given to recruiting researchers. In 2011, nearly 200 research managers were hired to support major strategic projects and contribute to organic growth.

We also conduct long-term collaborative research projects with top-ranked university laboratories, with the ultimate goal of hiring researchers in strategic countries to help drive our local growth. Higher learning institutions meeting the Group's specifications are being identified and financing has been put in place for thesis work and post-doctoral internships.

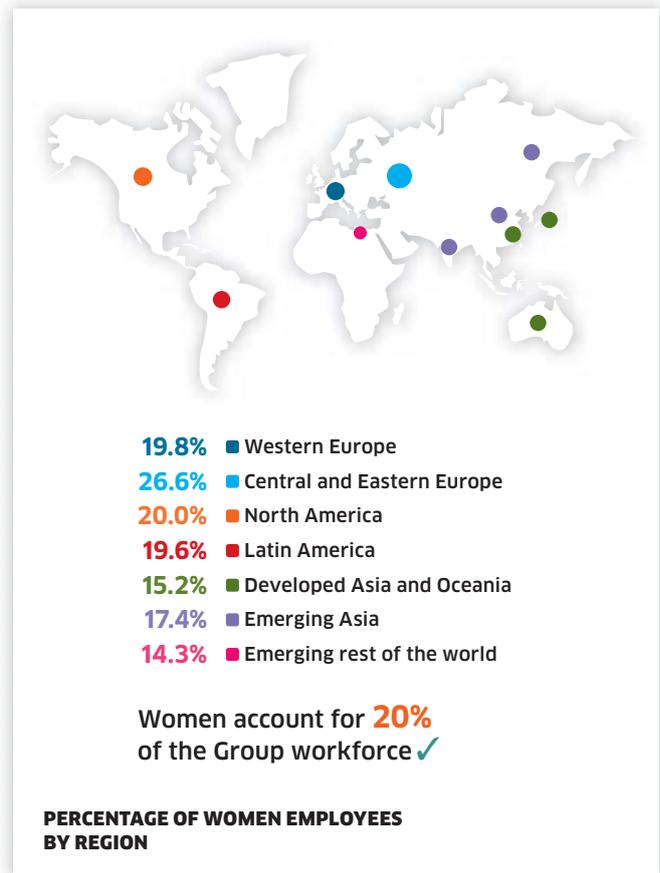
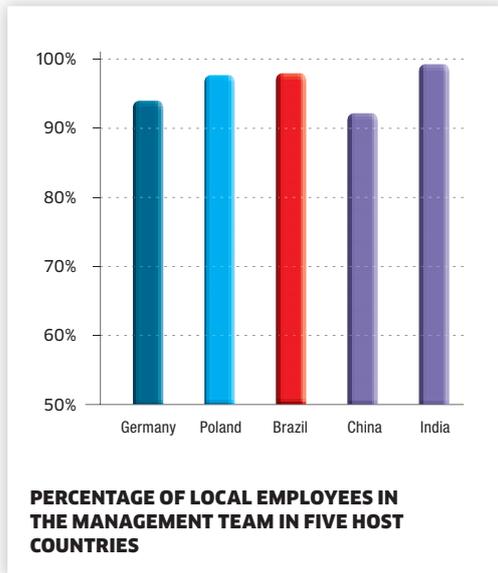


### TESTIMONIAL

**KATHRIN BONNERMANN,**  
*Financial Controller, Germany*

## I LEARNED THE CRAFTS OF FINANCIAL CONTROLLING

The *Global Player* Program allowed me to live a rewarding first experience in a large international group. During my three missions in France and Germany, I learned the crafts of financial controlling by intervening on operational projects and by being in contact with experts. This experience also opened me up to other areas, such as human resources, which I would not have gained access to if I had followed a more traditional route. The *Global Player* Program allows graduates to develop their skills in real situations and to discover the diversity of the businesses and activities of the Saint-Gobain Group.



**Embracing difference**

**Promoting multi-cultural management teams**

To develop our businesses internationally, particularly in our new host countries, we need to build local teams who embrace our values and culture. This enables us to continuously adapt our approach to each country's specific situation and conditions, making us a local player in all of our host countries. We also have a general policy of promoting local managers.

A number of resources are available to facilitate international mobility, including employee reviews and succession planning, which help to anticipate changes in positions and skills in all units (see pages 62-63).

The School of Management (see pages 62-63) also trains local managers. The number of participants from fast-growing markets has increased significantly since the School of Management was first created, from 15 in 2001 to 200 in 2011. The regions with the greatest representation among participants are Asia-Pacific, Eastern Europe and Latin America.

**Fostering gender diversity**

Saint-Gobain is committed to achieving a better gender balance, particularly at the managerial level, with regard to both hiring and access to positions of responsibility. Action plans are underway worldwide to actively promote women and inspire a cultural shift toward gender diversity. The

measures being taken cover equal pay, hiring policies, promotion and training.

In 2011, 23.1% of our new hires were women. At end-2011, our workforce included 37,505 ✓ women, representing 20% of the total.

Breakdown by category:

- **4,631**, or 18.0%, managers ✓
- **24,546**, or 31.3%, administrative employees, technicians and supervisors ✓
- **8,328**, or 9.9%, operators ✓

The percentage of women managers continued to increase, to 18.0% ✓ at end-2011 versus 17.2% in 2010 and 16.4% in 2009. The highest percentages were reported by Russia and Ukraine (30.1%), Eastern Europe (22.9%) and France (21.5%), which continued to make steady progress.

Among managers working outside their home countries, 22.8% were women.

**Ensuring work-life balance**

At Saint-Gobain, we pay close attention to our employees' work-life balance, particularly with regard to parental leave, and we make every effort to ensure a smooth return to work.

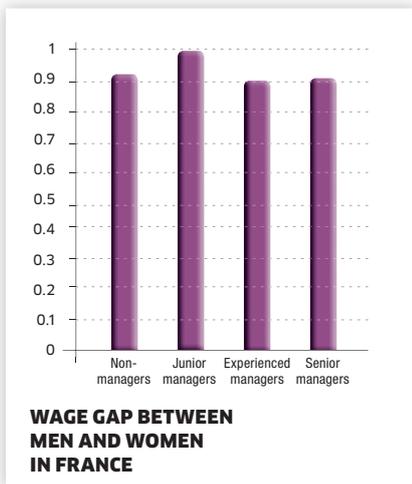
The percentage of employees who have access to parental leave and the percentage of employees who benefited from this type of leave in 2011 is presented in the table below.

**Expanding diversity and equal opportunity**

Respect for diversity and opposition to any form of discrimination are enshrined in the Group's Principles of Conduct and Action (see page 5).

**HELPING EMPLOYEES FIND THE RIGHT WORK-LIFE BALANCE**

In Germany, Saint-Gobain Sekurit received "Berufundfamilie" certification for the measures it has taken to improve its employees' work-life balance. The audited measures covered a variety of areas including work hours and organization, personal development, compensation and family assistance. The initiatives carried out included the creation of a website offering practical information on family-related issues and a discussion forum.



Percentage of female employees who have access to parental leave	52.7%
Percentage of male employees who have access to parental leave	38.7%
Percentage of female employees who took parental leave in 2011	5.1%
Percentage of male employees who took parental leave in 2011	1.6%

In addition to its general commitments to fostering diversity, the Group actively develops initiatives in each host country that are aligned with local practices and culture and that meet the specific needs of each business.

### Supporting integration of the disabled

A wide range of measures has been deployed at Saint-Gobain to support integration of the disabled.

In France, where disabled people represented 3.7% of the workforce<sup>(26)</sup> at end-2011, action plans primarily focused on recruiting and retaining disabled employees, with 52 workstations adapted during the year, and on outsourcing to the sheltered and supported employment sector (see pages 74-75, Responsible Purchasing).

In 2011, working groups were set up to reflect on how to address disability issues in-house and raise awareness among employees. This led to the creation of the Handibox, a toolbox that lists best practices and provides ideas on how to manage disability on a day-to-day basis. Designed for human resources managers in France, the Handibox will be updated regularly.

Many Group units undertake practical initiatives at their sites. In the greater Paris area, for example, Compagnie de Saint-Gobain, Saint-Gobain Glass and Saint-Gobain Recherche are all members of Tremplin, a French association that assists and supports disabled students and graduates entering the job market by giving them access to a network of employers. At Point.P, initiatives carried out during the year focused primarily on keeping disabled employees in their jobs.

### Hiring and retaining older employees

At Saint-Gobain, we take care to achieve a good balance between generations in our workforce. Applicants aged 50 and over represented 5.3% of new hires in 2011. While benefiting from Group-wide policies and best practice sharing, each country addresses the issue of employment for seniors in its own way, in accordance with the local demographics and socioeconomic conditions. Initiatives undertaken include hiring people over 55, promoting forward-looking career planning, improving working conditions, preventing physically challenging situations, developing skills and providing access to training.

We also offer older employees the opportunity to transmit their skills through temporary assignments, to carry out an

investment for example or train teams in production processes or marketing techniques (see pages 76-77).

A program has been deployed at Saint-Gobain's French subsidiaries to encourage mobility and enhance the career prospects of employees over 50. Integrated in the forward-looking management of jobs and skills agreement (GPEC), the program involves:

- a career meeting for older employees, separate from the annual performance review, to reexamine their skills, identify their expectations and assess their career development opportunities;
- a skills pooling system that provides an inventory of senior, expert employees who are willing to contribute their know-how to assignments both inside and outside the Group.

### TESTIMONIAL

## I WAS OFFICIALLY RECOGNIZED

I was hired as a lift truck driver, but I was soon diagnosed by the occupational physician with a progressive disease that made it impossible for me to do that type of work. Thanks to cooperation between the occupational physician, the social worker and the deputy human resources manager at the plant, measures were taken to enable me to stay in the workforce. I was officially recognized as a disabled employee and plant management offered me a job as an electrician, which suited my situation and my career aspirations. This job is perfect for me because there are no physical constraints and my workstation and work hours have been adapted to my needs.



**DAVID ROMANELLI,**  
Electrician,  
Saint-Gobain PAM,  
Pont-à-Mousson,  
France

(26) Workforce in units of 20 employees or more, who must report their statistics in accordance with the French law of February 11, 2005.

# A STRONG FOCUS ON WORKING CONDITIONS

A lost-time incident frequency rate (LTIR) of less than 5 for the Building Distribution Sector, a total reportable incident rate (TRIR) of less than 6 for the industrial Sectors and an overall LTIR of less than 2.8. These indicators include both Saint-Gobain employees and temporary staff.

At Saint-Gobain, employee health and safety are a constant priority. Our long-term objective<sup>(27)</sup> is towards zero work-related accidents and towards zero occupational illnesses. We ensure that all of our employees worldwide benefit from working conditions and a work environment that are compatible with this objective, going above and beyond the standards required by local legislation.

## Safety: building on our achievements

Our safety performance continued to improve in 2011, exceeding our targets.

### A sharp decrease in work accidents

#### 2011 RESULTS

In 2011, the lost-time incident frequency rate (LTIR) was 3.1 ✓ for the Group and 5.1 ✓ for the Building Distribution Sector, while the total reportable incident rate (TRIR) in the industrial Sectors stood at 6.3 ✓.

This performance exceeded the targets set for 2011 of an overall lost-time incident frequency rate (LTIR) of less than 3.2, with a goal of 5.7 for the Building Distribution Sector, and a total reportable incident rate (TRIR) of less than 7 for the industrial Sectors.

### Preventing serious accidents

Our objective is to reduce the number of fatal accidents in the Group to zero.

A total of 8 work-related fatalities occurred in 2011, compared to 11 in 2010.

They concerned:

- three Saint-Gobain employees (versus two in 2010);
- three outside contractors (six in 2010);
- one temporary worker (one in 2010);
- one third party (two in 2010).

The Group also recorded 11 non-work-related deaths among employees in 2011 (versus 10 in 2010) and 12 fatal accidents during commutes (five in 2010).

### Safety standards

The causes of the most frequently reported accidents have been identified to define standards for priority deployment.

Three new safety standards were introduced in 2011 concerning:

- confined spaces;
- vehicles and pedestrians;
- warehousing and loading.

These have been added to the list of safety standards already implemented across the Group<sup>(28)</sup>.

Following the increase in 2010 of fatal accidents related to working at height, a worldwide action plan was launched in 2011. The plan included strengthening three standards concerning work at height, work permits and the management of outside contractors.



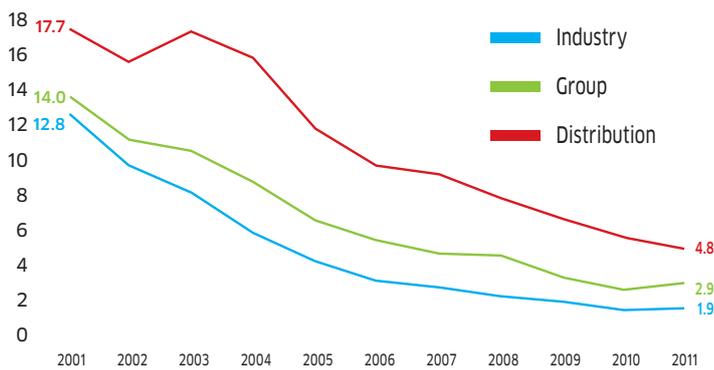
## ENCOURAGING PROGRESS

The Millionaires Club is made up of the sites that deliver the best safety performance. As of December 31, 2011, the Club had 179 member sites compared with 156 the year before. Of these, 50 were Millionaire sites with no lost-time incidents over the past 10 years and 5 were Millionaire sites with no lost-time incidents over the past 15 years. This compares with 38 and 8 respectively at December 31, 2010.

(27) The EHS charter displayed at all Group sites sets out our long-term health and safety objectives: zero workplace accidents and zero occupational illnesses.  
(28) Working at height, control of contractors, permit to work, lock out/tag out, fork lift truck and machinery safety.



**LOST-TIME INCIDENT RATE  
MORE THAN 24 HOURS' LOST TIME**



For Saint-Gobain employees and temporary workers, the lost-time incident rate (LTIR), defined as more than 24 hours' lost time, stood at 3.1✓ in 2011, representing a 0.4-point improvement from 2010. This compares with a target for 2011 of less than 3.2. The severity rate (SR), defined as the number of lost-time days per thousand hours worked, stood at 0.19, a 0.02-point improvement over 2010. The Group also monitors the frequency of reportable incidents, corresponding to incidents that lead to medically diagnosed injuries regardless of whether they result in lost time. In the industrial Sectors, the total reportable incident rate (TRIR) stood at 6.3 in 2011✓ compared with 7.5 in 2010, representing a 1.2-point improvement.



**TESTIMONIAL**

**KAROL SOKOLOWSKI,**  
*Manager of the Weber plant  
in Gora Kalwaria, Poland*

**SAINT-GOBAIN  
WINS SAFETY AWARDS  
IN 2011**

**UNITED KINGDOM**

Together with its partners Wincanton and Gundel Transport Services, Saint-Gobain PAM UK received the prestigious 'Partnership Initiative of the Year' award from the Institution of Occupational Safety and Health (IOSH) and its magazine *Safety & Health Practitioner*. The SHP IOSH Awards are presented to individuals or organizations in recognition of their good health and safety practices. Saint-Gobain PAM UK and its partners won the award for setting up a safe incident free pipe delivery system, a project that combined the efforts of customers, staff and suppliers.

**POLAND**

The Saint-Gobain Sekurit HanGlas plant in Żary, western Poland, won the 'Employer/Occupational Safety Organizer' award at the 18th national competition organized by the country's Labor Inspection Department. The plant was competing in the category reserved for companies with more than 250 employees. The competition promotes best practice sharing in order to improve working and safety conditions and reduce occupational risks.



**THE IMPORTANCE  
OF SAFETY**

**The former Maxit plant in Gora Kalwaria became a Saint-Gobain facility in February 2009.**

**What effect has this had on safety management?**

The managers and operators had to change their attitudes towards safety once the plant became a Saint-Gobain facility. The most important thing was to make all the employees aware of the importance of safety in their daily work through a dedicated campaign.

**What steps were taken to support change?**

A new safety approach was deployed based on Maxit's old standards and enhanced with new safety guidelines for our employees and visitors. Specific training, staff meetings and examples of good practices from other sites helped us improve.

**Have there been any changes in LTIR and TRIR since the plant came under the Saint-Gobain umbrella?**

The last lost-time incident (LTIR) occurred in April 2009, two months after the plant became a Saint-Gobain facility. Thanks to preventive action and continuous improvement measures, we have now worked 1,000 days without an incident (LTIR or TRIR).



# Industrial hygiene

As part of our operations, we process and use mineral and chemical substances that may potentially expose some of our employees to risks. The industrial hygiene initiatives we have implemented and the innovative solutions we have developed are designed to keep these risks under control.

## **Standards and recommendations**

To ensure the same high level of protection for all Saint-Gobain employees and contractors, we have prepared industrial health and safety standards and recommendations that are applicable worldwide.

- **A Noise Standard** (NOS) enables us to detect, measure and control potential sources of noise exposure in the workplace. The standard is designed to protect all employees and contractors from excessive exposure to noise.
- **A specific Posture/Lifting/Movement (PLM) method** for identifying the risks inherent in handling operations and work postures has been developed and distributed to EHS managers in the Sectors and Delegations for use in industrial and distribution facilities. An EHS recommendation has been issued concerning the use of this method.
- **The Toxic Agent Standard** (TAS) provides a framework for identifying, assessing and eliminating or controlling potential sources of exposure to toxic agents in the workplace.

## **Managing toxic and other risks**

A new tool for managing toxic, mechanical, electric and other risks is being deployed at all of our manufacturing facilities. Known as SAFHEAR<sup>(29)</sup>, it leverages both internal and external best practices and comprises a training kit and a software application on the Group's intranet.

The toxic risk assessment module was successfully tested at nine pilot sites in November 2011 and the "other risks" module is due to be deployed in early 2012.

Each Delegation has initiated a program for identifying and training the employees who will be responsible for SAFHEAR's deployment. The objective is to finish deploying the tool and assessing the risks by the end of 2013.

Designed to help industrial facilities manage risk and ensure their compliance with local regulations, SAFHEAR includes the new online inventory of products and substances, with a link to the internal S'B@se database on substance hazards. The overall policy and related resources aim to ensure uniform prevention of health risks for all employees and product users.

## **REACH regulation<sup>(30)</sup>**

Saint-Gobain implements REACH, the European Union regulation on chemicals. We have successfully submitted a number of dossiers as lead registrant in various consortia and we are also working in partnership with other reporting companies in Europe who want to register the same substances. The dossiers for the substances covered by the next registration deadline are now being prepared.

To ensure compliance with regulations as a downstream user, we communicate actively with our suppliers. In particular, we inform them about how we use substances so that they can cover these uses in their registration documents. At the same time, we monitor updates to the list of authorized or restricted substances so that we can fulfill our obligation to inform customers about specific hazards or substitutes. We also include a clause in all purchasing contracts to ensure that our suppliers also comply with REACH.

*(29) SAFety and HEAlth Risk management tool.*

*(30) EC regulation 1907/2006 concerning the registration, evaluation, authorization and restriction of chemicals, and establishing a European Chemicals Agency.*



## TESTIMONIAL

# TRAINING THE EHS NETWORK

**CLARA FICILI,**  
*Health and Safety (EHS)  
Manager at  
Saint-Gobain's General  
Delegation for Italy,  
Egypt, Greece and Turkey*

### How is SAFHEAR being deployed?

We selected the most experienced EHS managers and trained them to use the tool at headquarters. They, in turn, trained the rest of the network. Each site now has a SAFHEAR expert who is responsible for updating the chemical products inventory and toxic risk assessment for their site.

### What benefits does it bring?

SAFHEAR will enable us to standardize risk assessment across the Group. Easy to use, it provides clear results that will help site managers prepare improvement plans and set priorities for reducing health and safety risks. By providing us with a centralized, up-to-date inventory of products and substances within the Group, the tool also makes it easy to assess and verify our compliance with the European Union's REACH regulation on chemicals.

# A COMPANY THAT SUPPORTS, MOTIVATES AND EMPOWERS ITS EMPLOYEES

Managing, developing and transmitting employee skills are daily challenges for Saint-Gobain.

## Skills management

### Career mobility

Increasing the number of employees who take advantage of geographical, job and inter-activity mobility opportunities is a priority for our human resources teams. Mobility broadens our employees' horizons, facilitates cross-functional initiatives and fosters innovation. It also encourages personal development and an open-minded attitude, and gives our teams a clearer picture of how our organization works. By enabling employees to move around the company, we can also strengthen our corporate culture and values. Over the past ten years, inter-Sector and inter-activity mobility has virtually doubled.

At Saint-Gobain, we are committed to expanding mobility among all employees, managers and non-managers alike. To further this commitment, we published a "Career Mobility Charter" in 2011, defining the roles and responsibilities of each participant—employee, supervisor and human resources manager—in ensuring a successful mobility experience. The charter was widely distributed during the year and is also available via the Group intranet.

Employees interested in mobility assignments are guided through the process by members of our human resources teams. They also have access to several sources of information in-house, including a list of job

openings by country, profession and type of contract posted on the Group intranet.

Mobility Committees meet regularly in each country to discuss job offers and employee aspirations. While mobility managers guide employees through the process, managers at all levels have an important role to play in encouraging mobility, as they are the first point of contact for their team members.

Various resources facilitate the exchange of information on mobility opportunities.

Performance reviews, employee reviews and succession planning are performed every year using the same standardized form in every unit. They enable human resources managers to anticipate possible changes in positions and individual situations in the various activities, Sectors and Delegations. In 2011, 80.9% of managers and 49.5% of non-managers had a performance review. Our long-term target is 100% for all job categories.

### TESTIMONIAL

**PIERRE-MARIE DURIAUD,**  
*Logistics Manager, Saint-Gobain ISOVER,  
Suresnes, France*



## PLENTY OF MOBILITY OPPORTUNITIES

Working in an organization as big as Saint-Gobain means that employees have plenty of mobility opportunities. As a team leader, I have to add that when an employee expresses an interest in a mobility assignment, the necessary support must be provided, in the interests of both the employee and the company.



**PAUL BEGLEY,**  
*Director, Customised Programmes,  
 University of Cambridge Programme  
 for Sustainability Leadership (CPSL)*



## AN ACCOUNTABLE MANAGEMENT

**CPSL, in association with the UK Green Building Council <sup>(31)</sup>, delivered an education program to equip Saint-Gobain's senior leaders from the UK and Ireland with an understanding of sustainability and to enable the company to take leadership.**

Saint-Gobain is taking these issues seriously: a total of 24 of senior executives, including the General Delegate <sup>(32)</sup>, attended our programme in December 2011. Gaining this high-level buy-in is critical to changing behaviours within the company. Based on the level of engagement from these participants, it seems that they will have the confidence and desire to find new ways to embed sustainability into the core strategy. Saint-Gobain has huge potential to take leadership on sustainability and we hope it will emerge as the sector leader.

### International career opportunities

We encourage our teams—and future executives in particular—to acquire international experience and diversified skills. To help them, we offer international career paths and multiple skill-set experience whenever possible. At the end of 2011, 1,470 managers, including 406 expatriates, were working outside their home countries. Technicians are also offered opportunities to apply their experience abroad or as part of project teams in multicultural environments.

An International Mobility Guide and dedicated intranet site are available to facilitate the process of relocating to a new country.

### Training

At Saint-Gobain, we are strongly committed to developing our employees' skills and expertise. We take a dual approach to skills enhancement, deploying training initiatives extensively across all segments of the Group and offering personalized, targeted programs tailored to the needs of each employee.

Our training policy is designed to meet four important challenges:

- Facilitating the deployment of our sustainable habitat strategy and getting employees involved in making this strategy a reality.
- Driving change within the Group to place greater emphasis on innovation and to meet customer needs and expectations more effectively.

*(31) Trade association that promotes sustainable habitat and part of the World Green Building Council.*

*(32) Head of the General Delegation.*

## FOCUS



## TRAINING IN SUSTAINABLE DEVELOPMENT

Various initiatives were undertaken in 2011 to educate employees about sustainable habit solutions and the broader issue of sustainable development.

- In the United States, more than 1,000 CertainTeed employees received best practice training in energy efficiency, water management and waste reduction and recycling. They were also encouraged to think outside the box to find innovative solutions in these areas. CertainTeed has reduced its waste by 20% over the past two years thanks to this type of program.
- In France and Germany, training was organized in Saint-Gobain's research centers to ensure that environment, health and safety (EHS) issues are more effectively taken into account during research and development projects and new product launches.
- More than 2,000 Group employees have tested their knowledge thanks to the "Sustainable Pursuit" board game developed in-house. Both fun and educational, the game enables employees to gain a better understanding of sustainable habitat and development and to discover what Saint-Gobain has already achieved in these areas and what remains to be done. It involves nine players, divided into three teams, answering questions in nine different categories. Distribution began in 2011 and will continue during 2012 to reach a greater number of employees in all our host countries.

**A COMPANY THAT  
SUPPORTS, MOTIVATES  
AND EMPOWERS  
ITS EMPLOYEES**

**Saint-Gobain  
is committed**  
to developing the  
skills of its employees.



- Consolidating the operational and technical know-how that gives us a competitive advantage in our markets.
- Supporting Saint-Gobain's development in fast-growing markets.

Built around new content and resources, our training policy offers programs for all types of skill sets and levels of experience. We also encourage continuous skills development and discussions with our stakeholders, including customers, specifiers and business partners, at our training centers around the world and via programs conducted in partnership with universities.

The Saint-Gobain School of Management guides employees in leadership positions through the various stages of their careers. The training provided enhances participants' skills and encourages them to share experiences and best practices. The 32 sessions organized in 2011 were attended by 962 people. A total of 33 different nationalities were represented, including a number of participants from fast-growing markets, reflecting Saint-Gobain's growing cultural diversity.

We are stepping up our efforts in the area of distance learning, which allows us to train a large number of employees in many countries faster and more interactively, using information and communication technologies. Distance learning can also be adapted more easily to employees' schedules.

**Skills transfer**

Transferring skills among countries and generations is a challenge that has a major impact on our performance and that of our businesses. Various methods are used within the Group, including mentoring, apprenticeships and skills transfer programs like MKT<sup>2</sup> in the Flat Glass and Insulation Activities, which celebrated its 10th anniversary in 2011. Some of our activities and entities—including Abrasives Europe, Flat Glass, Pipe, Point.P and Lapeyre—also have their own training centers or schools, which offer specific training modules.

## NURTURING TALENT

The Saint-Gobain Talents program, launched in 2009, is designed to identify managers throughout the Group who have significant growth potential or key competencies and demonstrate a high level of professional commitment.

As a likely source of future senior managers and executives, this talent pool needs to be prepared via a career shaped by mobility.

That's why initiatives are being taken to offer appropriate training and career development opportunities for each profile. Pilot programs are currently being conducted in the United States (*Essentials of Leadership*), Poland (*Young Talents*) and several other countries (*STEPS*).

### Motivating and empowering employees

**Compensation**

Compensation policies are designed to be fair, motivating and transparent.

The Delegations set base salary scales for their region by country and activity, in line with market practices. Each company establishes its compensation policy on this basis, according to its own specific situation. Where employee contracts are covered by collective-bargaining agreements, salaries are calculated in accordance with the levels defined in those agreements.

In addition, to foster team spirit and ensure that all employees have a stake in the Group's success, we encourage member companies to sign discretionary profit-sharing agreements whenever possible. In France, virtually all employees are now covered by such an agreement. In 2011, French subsidiaries paid a total of €74.9 million under discretionary profit-sharing agreements and €28.7 million in relation to statutory profit-sharing, representing 6.2% of total payroll.

Managerial compensation generally includes a bonus, governed by rules set at the Group level and tailored to each region based on local conditions. The bonus also takes into account individual performance, as assessed during the annual performance review, and the results of the unit to which the employee belongs.

**Health coverage**

Saint-Gobain offers employees healthcare and insurance benefits that are aligned with changing needs. In 2011, the death, disability and health insurance policy in France was harmonized to offer benefits under a common system for all the subsidiaries. By leveraging the Group's size, we are able to obtain competitive rates, reduce withholding of taxes and provide employees with high-quality cover.

**Employee share ownership**

Employee share ownership has been a major part of Saint-Gobain's social contract for over 20 years. The program strengthens ties between the Group and its employees by enabling team members to become shareholders under preferential terms, giving them an even greater



# FOCUS

## 2011 TRAINING FACTS AND FIGURES:

- **2.0%** of total payroll was invested in training.
- **139,862** employees representing 74.7% of the workforce received training.
- **Among the employees trained, 15.6% were managers and 84.4% were non-managers.**
- **Among the employees trained, 19.9% were women.**
- **Employees received an average 23.5 hours of training each.**
- **50% of training was technical.**
- **25% of training was related to environment, health and safety topics.**

stake in their company's growth and performance.

Employees are offered Saint-Gobain shares at a discount and, in some countries, they are entitled to a matching contribution as well. The investments must be held for a period of five or ten years.

Introduced in France in 1988, the Group Savings Plan is offered annually. It has been steadily extended to employees outside France, notably in fast-growing markets. The Plan now covers 41 other countries, including virtually all of Europe, Latin America and Southeast Asia, as well as China, India and South Africa. In 2011, these 41 countries represented an aggregate 32% of Plan subscribers. Employee shareholders are represented on the Board of Directors of Compagnie de Saint-Gobain, giving them a voice in the strategic decision-making process.

At December 31, 2011, the Employee Shareholders' Fund held 8% of the capital (versus 7.8% at end-2010) and 11.8% of the voting rights (versus 10.7% at end-2010), making it Saint-Gobain's second-largest shareholder. The Fund comprises more than 80,000 individual accounts and repre-

sents a core of loyal, long-term investors who support the Group's growth strategy and intend to participate in sharing the value created by Saint-Gobain.

In 2009, Saint-Gobain set up a socially responsible investment fund within the Group Savings Plan in France with a focus on sustainable development to give employees the opportunity to invest on the basis of both financial and non-financial criteria. Five to ten percent of the diversified fund is continuously invested in socially responsible French companies to finance inclusion programs, and the rest is invested primarily in bonds and shares of socially responsible companies in other European countries.

## UNITED STATES

# LIVEWELL

The North America Delegation launched the "LiveWell" program in 2010 to promote health and well-being among employees and their families. To ensure it reaches the widest possible audience, the program is primarily conducted via social media. E-newsletters are regularly sent to employees to help them make the right choice regarding their social benefits. Lifestyle improvement tips are posted daily via Twitter, employee testimonials about healthy habits are broadcast twice a month and a blog gives everyone the opportunity to ask questions or comment on the articles published. The program also has a website.



Employee share ownership has been a major part of Saint-Gobain's social contract for over 20 years.

**A COMPANY THAT  
SUPPORTS, MOTIVATES  
AND EMPOWERS  
ITS EMPLOYEES**



**Social dialogue**

Saint-Gobain sees social dialogue as a critical lever in the company's long-term development. The social dialogue process occurs primarily at the company or facility level, where it can most effectively take into account the local situation and deliver an appropriate response. Employee representatives negotiate and sign agreements in accordance with local legislation and practices. These practices vary from country to country. In 2011, 67% of employees had an employee representative body in their unit.

Managers lead social dialogue on a day-to-day basis, in a process that relies on employee involvement, discussions with employee representatives and active communication about the work environment, the problems encountered and the action plans deployed. For all organizational changes that are likely to have a significant impact on employees' work, an information process is conducted within the timeframe required by the applicable legislation or the relevant corporate or industry collective-bargaining agreement.

In 2011, we pursued our commitment in this area via the European Social Dialogue Convention (see page 14). This Saint-Gobain body, which comprises union representatives from 27 European countries, provides an opportunity for employee representatives to exchange views on the Group's strategy and cross-border issues with the Chairman and Chief Executive Officer. Initiatives to promote sustainable development will soon be added to its agenda.

In France, the Chairman and Chief Executive Officer meets periodically with the French labor union coordinators, demonstrating his commitment to fostering open, constructive social dialogue. He also attends works council meetings in France.

Thanks to the solid social dialogue process within the Group, agreements are often signed with employee representatives. Of the 1,383 agreements signed during

the year, 37% addressed compensation issues, 21% work organization and 16% jobs. In all, 70.2% of employees (100% in France) benefit from employment terms and conditions set by legislation or by a corporate or industry collective bargaining agreement.

**Restructuring**

Layoffs, restructuring programs or site closures are carried out only when they are unavoidable to preserve the financial health of the subsidiary or Sector in question. In such cases, the Group's size and the

## MANAGING AND PREVENTING WORKPLACE STRESS

In line with the framework agreement on preventing workplace stress in France, signed in 2010 by Saint-Gobain Chairman and CEO Pierre-André de Chalendar and all of the French labor unions, a major training program was deployed during the year.

More than 100 members of activity management committees in France and all of the labor unions party to the agreement received awareness training to give them a better understanding of workplace stress and the practical methods and tools for assessing and preventing psychosocial risks.

A second round of training began in September 2011, to raise awareness among facility managers, occupational physicians, social workers, nurses, human resources managers, and occupational health, safety and working conditions committee (CHSCT) secretaries. Training will continue in 2012 so that these employees will be able to relay the stress assessment and prevention process among their teams.

A program to identify psychosocial risks was initiated at ten Group facilities in October 2011 and will be extended in 2012. Facilities can also request short-term interventions, in the form of qualitative surveys or working groups, to identify high-risk situations and take the necessary action.





## LISTENING TO EMPLOYEES' CONCERNS

An employee survey known as “Building Saint-Gobain Together” was carried out in all the activities of the Delegation for Russia, Ukraine and the Commonwealth of Independent States (CIS). Conducted via an online questionnaire, the survey assessed employees’ level of satisfaction, gauged their expectations and gathered their opinions on areas that require improvement. The topics covered in the survey included corporate culture and image, leadership, working conditions and productivity, compensation and personal development.

The findings were communicated to employees during working groups led by team managers. The Delegation will conduct the survey every year so that it can monitor changes in the social climate over time.

diversity of our activities and facilities offer a wide variety of opportunities for in-placement transfers.

In France, restructuring may include plans to preserve employment and voluntary separation plans. In all cases, Saint-Gobain Développement leads an active support process designed to place as many of the affected employees as possible in new positions (see pages 76-77). In particular, it works with local job centers to deliver ongoing, personalized support, even after the work site has closed. Procedures are also in place to address the professional, material, psychological and personal consequences of losing one’s job. Depending on their needs, employees may benefit from additional training, relocation assistance, spousal job placement or support for pursuing a personal project such as the creation or acquisition of a business. This work is carried out by a team of career advisors and job developers, trained in structured, standardized methods.

In addition, in all of the employment catchment areas where restructuring is necessary, Saint-Gobain Développement offers its services to help revitalize the region concerned (see pages 76-77).

### Gauging the social climate

The Group is constantly seeking opportunities for dynamic and interactive exchange with its staff, in the form of meetings, surveys and interviews so that it can ensure social cohesion among internal stakeholders and understand the expectations and aspirations of its employees. Many of the Delegations and companies—including in Brazil, China, the United Kingdom, Spain, the United States, Germany and Russia—also regularly conduct surveys to gauge employee opinion at every level and define local action plans.





# SAINT-GOBAIN, **A SOCIO-ECONOMIC STAKEHOLDER**

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**As a market leader, Saint-Gobain has an obligation to be exemplary in its practices and conduct, both in-house and outside**

**the company.** We devote a great deal of time and energy to bringing sustainable development issues to the attention of our employees and stakeholders.

More directly, we promote economic development in our local employment areas and carry out initiatives to support our host communities.

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# EXEMPLARY IN OUR PRACTICES AND CONDUCT

As a leader in our business areas, we have a responsibility to set the example. In addition to complying fully with regulations, our teams must be above reproach in their conduct and practices, both inside and outside the company.

In 2009, the Board of Directors approved the launch of a Group Compliance Program to ensure that the Principles of Conduct and Action (see page 5) are applied properly in all activities worldwide.

## Group Compliance Program

The Group Compliance Program consists of four main components;

- the Responsible Development;
- the Competition Law Plan;
- the internal Audit and Internal Control;
- the Compliance alerts system.

A detailed review of its implementation is presented each year to the Board of Directors of Compagnie de Saint-Gobain.

## Responsible development

The Responsible Development Department ensures that the Principles of Conduct and Action are distributed to all employees, that everyone understands them and that the operational departments have deployed good practices.

The training in the Principles of Conduct and Action provided by the School of Management (see pages 64-65) is designed

to strengthen managers' understanding of issues relating to both compliance and sustainable development. A total of 800 managers received this training in 2011.

The "ADHERE" online training program also raises awareness of the Principles of Conduct and Action. It was completed by all of the Group's managers, or some 25,000 people, in just two years and is now systematically undertaken by all new managers when they join the Group.

To extend the awareness-raising process beyond management and reach a much wider internal audience, an International Principles of Conduct and Action Day was organized for the first time on November 29, 2011 (see opposite page).

## Competition Law Plan

Everyone in the Saint-Gobain corporate community is expected to comply at all times with good competition practices and rules. General Management regularly reminds team members of the Group's zero tolerance policy.

The Competition Law Plan, launched in 2007, is designed to ensure compliance via three main avenues:

## Training

- The "Comply" online training program for managers, available in 19 languages, must be completed every two years. Nearly 11,000 employees completed the program in 2010 and 2011.

- Seminars led by lawyers and Group legal specialists are organized for the most directly concerned managers. Since the Competition Law Plan was launched, 7,000 team members have attended 244 seminars in 19 countries.

## Unannounced audits

They are performed by specialized lawyers. So far, a total of 102 sites have been audited in 24 countries.

## A Competition Law Compliance Guide

The Guide is available in 17 languages and distributed to around 33,000 employees worldwide. The Guide reviews competition rules, describes procedures to be followed and explains the consequences of non-compliance.

# International Principles of Conduct and Action Day

On November 29, 2011, an International Principles of Conduct and Action Day was held at all Group sites.

The day began with a video message from the Chairman and Chief Executive Officer and the heads of the Group's four Sectors. Local managers then presented the Principles to their teams, using an explanatory presentation translated into the local language. This was followed by a screening of short films illustrating each of the nine Principles and a quiz for employees divided into small teams led by their supervisor.

The day also provided the opportunity for sites to enhance ownership of the Principles through an initiative or event of their choice.



## THAILAND

Celebrating the Principles at Saint-Gobain Abrasives in Nakornpathom.



## BRAZIL

Teams at the Saint-Gobain Canalização de Barra Mansa plant watch the Chairman and Chief Executive Officer's video message.



## CZECH REPUBLIC

The principle of solidarity illustrated by children's drawings at Saint-Gobain ADFORS in Litomyšl.

## POLAND

Winners of the Principles quiz organized for teams at the Platforma Materiały Budowlane sales outlet in Warsaw.

## ARGENTINA

Promoting the Principles at the Verallia plant in Mendoza.



**EXEMPLARY  
IN OUR PRACTICES  
AND CONDUCT**

**Internal Audit and Internal Control**

The Internal Control system is responsible for controlling the units' main business risks. It is designed to ensure that units comply with laws and regulations and apply the strategy and guidelines set by General Management. Internal control also verifies that processes operate properly, that financial information is reliable, that property, plant and equipment and intangible assets are safeguarded and that fraud is detected and eradicated.

As part of the Group Compliance Program, the Internal Audit and Internal Control Department has designed and deployed a

compliance statement that all general managers must sign each year.

A detailed description of the Group's internal audit and internal control system is provided in the Annual Report (pages 89-91).

**Compliance alerts system**

The Group's Compliance alerts system has been deployed in virtually all of our host countries, in line with local administrative constraints and legislation.

In each country, an intranet link enables employees to send an e-mail to the regional compliance correspondent, who is responsible for collecting and processing the messages

and for ensuring that the identities of the authors and the persons discussed remain confidential. This non-obligatory system provides a way to report serious violations of applicable laws, internal rules and procedures, or the Principles of Conduct and Action. All reports must be submitted in good faith. Anonymous reports are not accepted.

In addition to this system, employees in North America, the United Kingdom and India continue to have access to local hotlines. The alerts received via hotlines are also processed in a way that ensures that the identities of the callers and the persons discussed remain confidential.



## SETTING THE EXAMPLE WITH SOCIAL AUDITS

Drawing inspiration from the process undertaken in the area of responsible purchasing, Verallia decided to commission social and environmental audits of its own facilities. Conducted by an outside firm, the audits provided an overview of corporate social responsibility performance at the vast majority of Verallia's sites. The topics covered include working conditions, compensation, working hours, health and safety, the environment, and supervision. The audits involved verifying the proper application of management systems and processes, and conducting qualitative interviews with a large number of employees.

The results were very positive. They indicated that, on the whole, Verallia's facilities perform better than other companies in the same business segment. By highlighting the importance Saint-Gobain places on its units' social responsibility performance, the audit program also had a positive impact for the facilities concerned, both internally and in relation to external stakeholders.



The online training program ADHERE for the Principles of Conduct and Action.



### Compliance network

The Group Compliance Program is implemented, under the authority of the Corporate Secretary, by a dedicated network comprising:

- 25 compliance correspondents;
- a compliance committee in each General Delegation;
- a Group Compliance Committee, made up of top executives from the Sectors and from Compagnie de Saint-Gobain.

In total, the network includes around 80 corporate and line executives.

In early 2011, the Group Compliance Committee adopted clear-cut policies on gifts and conflicts of interest, which were then implemented throughout the Group.

### Fighting corruption

In line with UN Global Compact Principle 10, Saint-Gobain's commitment to fighting corruption is set out in our Principles of Conduct and Action, specifically under Respect for the Law, which states that "All Group companies [...] reject all forms of active or passive corruption whether in domestic or international transactions".

To fulfill this commitment, we have established a corruption prevention system inspired by the initiatives and best practices that certain businesses and countries have already implemented, notably to prevent the risks associated with international sales transactions. One of the main

components is the internal control system, which describes risk factors related to practices that could be construed as corruption. The internal control reference base provides a precise framework for relations with third parties and their remuneration. The level of control is assessed through annual compliance statements (see page 90 of the Annual Report) covering all of the Group's businesses and, in some cases, by specific audits.

One case of corruption was reported in 2011, in the private sector. An investigation was carried out and action was taken against those involved.

### Human rights

The first two principles of the UN Global Compact urge businesses to "support and respect the protection of internationally proclaimed human rights" (Principle 1) and "make sure that they are not complicit in human rights abuses" (Principle 2).

Our Principles of Conduct and Action are more specific. The principle concerning employee rights states that "Group companies [...] must refrain from any form of recourse to forced labor, compulsory labor, or child labor - whether directly or indirectly or through sub-contractors when the latter are working on a Group site." Saint-Gobain refers to the applicable Conventions of the International Labor Organization for the definition of these concepts. The principle also states that



**All Group companies reject all forms of active or passive corruption whether in domestic or international transactions.**



Group companies "must refrain from any form of discrimination with respect to their employees, whether in the recruitment process, at hiring, or during or at the end of the employment relationship."

A specific reporting process was introduced in 2010, to measure the results of our efforts and to signal the Group's determination to apply and enforce its fundamental values in the front lines. Several new indicators were added in 2011 (see pages 96-97).

## EXEMPLARY IN OUR PRACTICES AND CONDUCT

# PURCHASES

## FROM SHELTERED WORKSHOPS AND COMPANIES EMPLOYING PEOPLE WITH SPECIAL NEEDS

A dedicated training module has been deployed in France to raise awareness among purchasing officers and specifiers about sheltered workshops and companies employing people with special needs and to encourage them to source products and services from this segment. Saint-Gobain is also a founding member of Pas@Pas, an association that brings together several companies to encourage the development of business with organizations who work with job seekers, sheltered workshops and people with special needs.

### Responsible purchasing

The Principles of Conduct and Action are put into practice in the area of purchasing via the responsible purchasing process, which is based on:

- a **Purchasing Charter**, which provides guidelines for routine purchasing practices;
- a **Suppliers' Charter**, which spells out the Group's environmental and social criteria for suppliers and service providers. This Charter is distributed to all our suppliers;
- the inclusion of **responsible purchasing clauses**, in all framework agreements signed by the Group, to remind suppliers about the Saint-Gobain's sustainable development requirements;
- a **self-assessment questionnaire** for suppliers, which is systematically included in all requests for proposals generated by the central SRM Procurement software package;
- a program of **supplier audits** (see zoom page 75) to ensure that our suppliers comply with their commitments as set out in the Suppliers' Charter;
- investment and team participation in **training** (see page 75);
- a **dedicated structure** comprising a network of purchasing officers working in the various country organizations and activities, as well as experts who offer methodology and advice. The objective is to foster good practice sharing and encourage local discussion on integrating corporate social responsibility criteria into the purchasing process.



### In the Building Distribution

The Building Distribution Sector has introduced its own responsible purchasing policy, which was inspired by Group policy and adapted to the requirements and responsibilities inherent in distribution. The Sector's teams worked hard throughout

## ADVANCES IN ENVIRONMENTAL POLICY ON WOOD

The Building Distribution Sector introduced an environmental policy on wood in 2007 to ensure the origin and traceability of its products. At end-2010, it had achieved the main objectives set in 2007, exceeding the initial target of 80% of wood and wood-related products sourced from certified forests.

While maintaining the same level of control over its wood supply, in 2011 the Sector focused on driving improvement by:

- significantly increasing its range of products made from FSC<sup>(33)</sup> or PEFC<sup>(34)</sup> -certified wood;
- obtaining FSC or PEFC chain-of-custody certification for its sales outlets. In 2011, certification was obtained for all of the outlets in the Dispano network in France and the Jewson network in the United Kingdom, as well as for the main Raab Karcher timber outlets in Germany, representing a total of more than 600 outlets so far. The certification process will continue in 2012;
- extending the environmental policy on wood to distribution operations in the United States (Norandex) and to other



Saint-Gobain businesses and activities, such as Abrasives and pallet purchases.

The Building Distribution Sector is also working actively with its entire European network to implement its own due diligence system. This will be the main requirement applicable to private operators under the European Union's proposed FLEGT<sup>(35)</sup> regulation, which aims to eradicate illegal wood from the European market.

(33) Forest Stewardship Council.

(34) Program for the Endorsement of Forest Certification.

(35) Forest Law Enforcement, Governance and Trade.



# ZOOM

## SUPPLIER AUDITS

2011 to prepare and launch the policy.

The policy is now being deployed in an atmosphere of constructive dialogue between purchasers trained in responsible purchasing and their suppliers. Initially used with suppliers in Europe, the policy will be deployed among the brands national suppliers starting in 2013.

### A dedicated training module

A two-day training module on responsible purchasing was introduced in 2011 to broaden participants' theoretical knowledge of environment, health and safety (EHS) and sustainable development issues and to train purchasing officers on how to apply this knowledge and use the resources at their disposal.

The first session took place in September 2011 and deployment in the Delegations is scheduled for 2012.

To support the program and rapidly extend its reach to a much wider audience, an online training module was also developed during the year. Inspired by the "ADHERE" program covering the Principles of Conduct and Action (see page 70), the online module on responsible purchasing is scheduled for launch in 2012.

In 2011, the Purchasing Department launched a pilot campaign of supplier audits, based on Intertek's Workplace Conditions Assessment (WCA).

More than just a risk management tool, supplier audits are a way for Saint-Gobain to encourage suppliers to enter a virtuous circle of continuous improvement, giving them the opportunity to take their corporate social responsibility commitment to a new level. The audits assess the supplier's corporate social responsibility performance and encourage dialogue between the buyer and the supplier to resolve any issues.

Five areas are covered by the audits:

- Compliance with labor standards, including legislation on discrimination, child and forced labor, freedom of association, abuse and harassment and employment contracts.
- Working hours and compensation.
- Compliance with occupational health and safety standards, including such issues as the general condition of buildings, management of hazardous materials and machine safety.
- The management system, including continuous improvement processes, document management, level of employee participation and attention paid to employee opinions.
- respect for the environment, including compliance with environmental legislation, environmental management, discharges and emissions.

This first campaign was launched worldwide, targeting a diverse sample of 57 suppliers in all of the Group's host regions.



### TESTIMONIAL

## SHARING OUR SUSTAINABLE DEVELOPMENT COMMITMENTS

**MARY E. CHANTRY,**  
*Delegation  
Procurement,  
Saint-Gobain  
Corporation,  
United States*

### Have you encountered any difficulties in implementing the audit program?

"The paragraph on working conditions raised concern among certain suppliers. We had to clearly explain the reason behind our approach, not only to our direct contacts but also to our suppliers' executives and legal teams."

### Have the audits driven suppliers to change their conduct or practices?

The experience strengthened our ties and allowed us to more effectively share our sustainable development commitments. Our suppliers now realize that these programs also contribute to their own improvement process and will ultimately give them a competitive advantage.

# SUPPORTING LOCAL ECONOMIC DEVELOPMENT

In more ways than one, Saint-Gobain has a stake in the economic development of the employment catchment areas around its sites. We contribute to our host regions' social and economic vibrancy, which benefits all local players. When restructuring cannot be avoided, we do everything in our power to limit the impact and to help revitalize the affected areas.

## **Saint-Gobain Development**

Relations with local communities are the most highly structured in France, where the Group's presence is the most concentrated. This is primarily due to *Saint-Gobain Développement*, which supports local development and the revitalization of employment catchment areas.

*Saint-Gobain Développement* contributes to local economies in a variety of ways, from forging direct partnerships with small- and medium-sized enterprises

(SMEs) and helping employees create their own businesses to participating in regional events and providing assistance to local development networks and organizations.

To support growing SMEs, *Saint-Gobain Développement* offers a comprehensive range of solutions, such as unsecured, low-interest participating loans, expertise sharing and skills transfers, as part of a long-term "manufacturer-entrepreneur" partnership.

In 2011, *Saint-Gobain Développement* signed 54 agreements involving nearly €1 million in loans, thereby helping to finance the creation of 234 jobs in our host communities. Priority was given to companies involved in sustainable development.

In response to the growing number of requests for assistance, we launched an in-house program called Senior Initiatives through which experienced employees can share their expertise with small- and medium-sized businesses and industries supported by the Group. Interested candidates and their skills are identified during second-half career assessments. Participants receive training from a specialized consultancy, as well as a formal, detailed letter of assignment. This initiative is giving us a way to promote local economic development even more effectively. We are also expecting a positive impact on our own teams' motivation and interaction with the outside community.



**Izocam** trains young graduates entering the job market (Turkey).



# FOCUS

## THE “100 OPPORTUNITIES - 100 JOBS” PROGRAM

In 2011, Saint-Gobain led the launch of two new “100 opportunities – 100 jobs” initiatives in Bagneaux-sur-Loing and Rueil-Malmaison, France, in collaboration with Schneider Electric. Carried out in cooperation with the local job placement and unemployment offices, local communities and other businesses in the area, the initiative is designed to provide an on-ramp for disadvantaged young people with few skills by organizing mock

interviews, site visits, vocational training programs, work/study contracts, and other types of support. The program serves both a social and an economic purpose in that it gives companies an opportunity to recruit people who are located near their sites but who, for a variety of reasons, are too often disconnected from the workplace. Saint-Gobain is also involved in the program in Chalon-sur-Saône, Grenoble, Chambéry, Lyon, Nice and Aubervilliers.

### TESTIMONIAL

*Saint-Gobain Développement* also helps employees who want to start their own businesses by conducting feasibility and other in-depth studies and, if appropriate, by providing technical and/or financial support for up to five years. Energy efficiency projects are a special focus, as are projects with the potential to create jobs in regions with high unemployment.

#### Turkey: Izocam trains young graduates entering the job market

Group companies nurture a close relationship with professional organizations and local authorities, while the Delegations maintain contacts with national government agencies, chambers of commerce and industry federations.

In Turkey, Izocam gives mechanical engineering, civil engineering and architecture graduates an added plus as they enter the job market by providing training in sustainable construction. The Insulation and Application of Principles course, which offers both classroom and hands-on training, is offered at technical high schools throughout the country.

## LEVERAGING OUR SENIOR EMPLOYEES' EXPERTISE



In addition to providing financial support, we are interested in sharing our skills more effectively. One of our roles at Saint-Gobain is to help foster the growth of SMEs nationwide. Our local managers know first hand about the kinds of issues small businesses face, because they face them as well. However, because our people belong to a world-class organization, they have access to methods and resources that aren't necessarily available to managers in smaller companies. We are ready to share our expertise with local companies who ask for our help on a wide variety of topics, from obtaining ISO 9000 or 14000 certification to deploying 5S methodology, and from setting up a works council to filing for an operating permit in a protected site.

**YVES GOUGOUYAN,**  
*Saint-Gobain Développement*  
*Delegate in charge of developing small- and medium-sized businesses and industries*

# RAISING AWARENESS AMONG STAKEHOLDERS

In addition to our manufacturing and sales operations, we carry out a number of programs to raise awareness among various audiences—notably building professionals—about sustainable development and habitat issues.

We are involved in forward-looking thinking on the sustainable buildings of tomorrow, both at the local level, taking regional or national characteristics into account, and internationally, with the deployment of shared solutions.

In line with this philosophy, we promote approaches that make life cycle assessment (LCA) a deciding criterion for products and buildings (see pages 26-27).

This work has translated into a number of tangible initiatives carried out in cooperation with other manufacturers and public partners.

## **An international commitment to sustainable building**

Saint-Gobain has joined the Sustainable Building Alliance, an organization whose goal is to develop common metrics that can

be used to monitor the environmental quality of buildings. These metrics are to be based on a shared methodology but adapted to local labor, economic, cultural or weather conditions.

Group experts are also participating in the development of the ISO 21931 and CEN TC 350 international standards to assess the environmental, social and economic impact of buildings.

We encourage and support the deployment of harmonized approaches based on life cycle assessments for evaluating the environmental performance of buildings and building products.

## **A local commitment to sustainable building**

### **Recognizing each country's specific characteristics**

To promote sustainable habitat solutions at the local level, we encourage our subsidiaries to join trade associations known as Green Building Councils. In 2011, we joined the Green Building Council in Poland. We are already member in France, the United States, Colombia, South Africa, the United Kingdom, Italy, the Netherlands, Spain and Germany.

These partnerships give Saint-Gobain the opportunity to share its expertise in environmental quality and encourage best practices in the building industry, while recognizing each country's specific characteristics.

### **Promoting energy efficiency in buildings**

- In response to the challenge of global warming, we have adopted a proactive communications policy to raise public awareness about the impact of buildings on the environment and on energy consumption and to encourage action to significantly reduce this impact.

- We have also helped to create and develop a number of local associations to generate support for energy efficient buildings, among them *Isolons la Terre contre le CO<sub>2</sub>* in France, *Isoterra* in Belgium, *Spaar het Klimaat* in the Netherlands and *La Casa que Ahorra* in Spain.

## ACTIVE HOUSE ALLIANCE PARTNERS

In 2011, Saint-Gobain Glass and Glassolutions joined the Active House alliance, a network of businesses, universities, institutions and individuals who pool their skills and share a vision of buildings that create healthier and more comfortable lives for their occupants without negatively impacting the environment.

Active Houses<sup>(36)</sup> are designed to interact positively with the environment while delivering energy efficiency and a healthier indoor climate—three major priorities for Saint-Gobain.

(36) Active House - [www.activehouse.info](http://www.activehouse.info).



# ZOOM



## RENOVATE EUROPE

The Renovate Europe campaign launched by the European Alliance of Companies for Energy Efficiency in Buildings (EuroACE) and supported by ISOVER aims to triple the annual building renovation rate by 2020 and improve the energy performance of existing buildings by 80% by 2050.

In April 2011, a coalition of companies (including Saint-Gobain ISOVER and Saint-Gobain Glass) and associations in the energy efficiency sector sent an open letter to the European Commissioner for Energy and all 27 EU Energy Ministers urging them to make building renovation an integral part of Europe's energy policy. The letter was published in a number of newspapers, including The European Voice, Berlingske Tidende, Handelsblatt, Le Monde and The Financial Times.



## LA CASA QUE AHORRA

In Spain, Saint-Gobain has been involved in *La Casa que Ahorra*, a foundation devoted to energy efficient homes, since 2010. Six of the foundation's thirteen member companies are Saint-Gobain subsidiaries.

In 2011, *La Casa que Ahorra* signed an agreement with the Spanish federation of towns and provinces to conduct energy audits in five cities. It is using Twitter and other resources to campaign for tighter thermal regulations.



## KILL THE BILL MANGA VERSION

Japanese insulation market leader Mag-ISOVER presented its first manga promoting insulation during the Japan Kenzai building materials fair. The adventures of Belle-Chan and her friend Iso-Kun (a Japanese play on words incorporating the ISOVER name) are posted on the web and have already

attracted hundreds of followers on Twitter.

Dressed in ISOVER colors and sporting glass-wool-like blonde hair, Belle-Chan is always ready to whip out her samurai sword to cut energy bills. Raising awareness about insulation solutions is crucial in Japan, a country for which saving energy is a major concern.



## **SUPPORTING COMMUNITY DEVELOPMENT**

At both the corporate level and in our sites around the world, we initiate sponsorship programs to support local community development. Including the contribution of the Saint-Gobain Initiatives International Corporate Foundation, a total of €5.1 million was devoted to these programs in 2011.

### **A wide array of local initiatives**

Our sites around the world interact with their immediate environment through a variety of community development initiatives.

Examples include:

- in North America: the Saint-Gobain Corporation Foundation, which coordinates charitable donations to non-profit organizations in the United States and Canada;
- in India: the Saint-Gobain India Foundation, which is active in educational projects;
- in France: Fondation PAM and Fondation Placoplatre® which have programs to provide job opportunities for young people in their respective businesses.

Although these initiatives focus on the Group's reference markets, others cover more general areas such as education, research, culture or health.

### **FRANCE**

#### **Employees united to protect biodiversity**

A total of 64 Saint-Gobain employees participated in the "Pandathlon" organized by WWF France on May 21 and 22, 2011. Seventeen Saint-Gobain teams successfully completed the 27.5-kilometer walk, which included a 1,600-meter climb up Mont Ventoux in southern France, in less than 10 hours. Partly financed by their respective sites, the teams each raised around €1,600 for projects aimed at preserving the biodiversity of the Mont Ventoux biosphere reserve. The Saint-Gobain employees who participated in the challenge collected a total of €22,000.

### **RUSSIA**

#### **Helping to replant a forest**

Saint-Gobain Construction Products Rus donated 480,000 rubles (around €12,000) to the regional authorities of Nijni Novgorod in Russia to finance the replanting of 40 hectares of forest. The funds represent half of the budget required to restore the region's forests following devastating fires in the summer of 2010. The first seedlings were planted on May 14, 2011.

### **MALI**

#### **Developing local business**

Specialized in recycling end-of-life refractory products within Saint-Gobain Sefpro, Valoref donated refractory materials to NGO Synergie Environnement for the construction of a small glass furnace.

The furnace will be given to the Mali village of Krikania, located in the protected areas of Gallé/Limakolé, where Synergie Environnement operates. It will be installed by a volunteer glassblower, who will also train local workers. The furnace will be used to manufacture blown glass packaging for the traditional agricultural products processed in the area.

The initiative is being carried out in a particularly poor region of Mali, where per capita income is around five euro cents per day. Valoref has broadened its commitment to sustainable development by participating in the initiative, which aims to teach local communities new skills that will enable them to earn additional revenue.



## UNITED KINGDOM AND IRELAND

# A NEW PARTNER FOR THE “TOGETHER” PROGRAM

As part of its “Together” charity program, Saint-Gobain Building Distribution UK & Ireland signed a new partnership in 2011 to support non-profit organization Barnardo’s. One of the organization’s objectives is to provide training to disadvantaged young people who have dropped out of the education system. Since its creation, Barnardo’s has conducted more than 400 projects and has worked with 100,000 young people in the United Kingdom and Ireland.

The partnership has given new momentum to the “Together” program, which receives massive support from Saint-Gobain Building Distribution UK & Ireland’s employees, customers

and suppliers and their families and friends. Numerous events were organized during the year, including the “Tour de Jewson” charity cycle challenge. A total of 250 participants, including many employees from the Delegation’s various functions and activities as well as external partners, cycled 1,800 miles, raising £24,000 (around €29,000) for Barnardo’s.

Since its launch in 2002, the “Together” charity program has raised nearly £2 million (around €2.4 million) for worthy causes, including Help the Hospices, the British Heart Foundation and Cancer Research UK.

## UNITED STATES

# YOUTHBUILD

YouthBuild is a non-profit association that provides education and job training opportunities for low-income youth. In November 2010, Saint-Gobain Corporation Foundation entered into a \$550,000 three-year partnership with YouthBuild. In the programs under way, young adults from disadvantaged neighborhoods are building affordable housing that complies with demanding environmental criteria. Participants learn techniques that help make buildings more energy efficient. Saint-Gobain employees volunteer their time to provide assistance and advice. At the same time, the young people continue their schooling, with the goal of obtaining a high school degree and then finding a job or going on to university.



## TESTIMONIAL



**DOROTHY STONEMAN,**  
*President  
and Founder,  
YouthBuild USA*

# FORGING NEW PARTNERSHIPS

## What has been achieved so far?

Four programs to provide opportunities for disadvantaged youth have been launched in Philadelphia, Pennsylvania; Worcester, Massachusetts; Schenectady, New York and Akron, Ohio. Discussions on environmental building techniques have been organized with experts and employees from Saint-Gobain and YouthBuild. In particular, it was decided that the first four projects will aim for LEED (Leadership in Energy and Environmental Design) certification. Building has begun in all four cities.

## What have you learned from this experience?

The personal involvement of your Group’s senior managers has been crucial. Clearly, Saint-Gobain’s participation has far exceeded our expectations. More generally speaking, the program’s success has helped us forge new partnerships, for example with the US Green Building Council, as well as in other parts of the world. We’re currently supporting 56 programs in 12 countries.



### **The Saint-Gobain Initiatives International Corporate Foundation**

The Saint-Gobain Initiatives International Corporate Foundation expresses our commitment to our host communities. The foundation supports projects in three focus areas that are aligned with Group strategy:

- **youth integration** through the housing sector;
- **construction, refurbishment or renovation** of social housing, to support local communities;
- **energy efficiency** and environmental protection in social housing.

Each project is submitted or championed by a current or retired Saint-Gobain employee and must be carried out by a

non-profit organization. The foundation's support can take the form of financing or technical expertise.

By giving our employees the opportunity to participate in initiatives aimed at serving the public interest and providing assistance to the poor, the foundation is helping to create a community of socially responsible men and women who share common values.

A total of 38 projects were submitted in 2011, representing a 35% increase over 2010. Since its launch in late 2008, the foundation has received submissions for 102 projects in 34 different countries.

Certain submissions have not been accepted, either because they did not correspond to one of the foundation's three focus areas or because their distance from a Saint-Gobain facility

made tracking the project too difficult.

In 2011, 15 new projects were selected by the foundation's selection and management committees, representing a total of €1 million.

The foundation's overall budget for 2008-2012 is €4.5 million.

At December 31, 2011, the foundation had firm commitments worth €2.8 million and was examining a number of other projects representing an additional €850,000.

**BRAZIL**

# FOR UNDERPRIVILEGED SINGLE MOTHERS

In Brazil's São Paulo region, the foundation is participating in the construction of 12 homes for underprivileged single mothers. The project is organized by non-profit association *Lua Nova*, which aims to facilitate the social reintegration of young women in difficulty. The association provides these women and their children with assistance, education and their own homes, to help them adapt psychologically to a new life. Whenever possible, the young women participate in building their new homes, after receiving safety and product use training organized by Saint-Gobain.

**MALAYSIA**

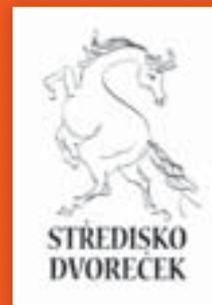
# AL-MUNIRAH CHARITY HOME

The foundation is participating in the construction of a building that will be used by the *Al-Munirah Charity Home* for educational and social activities. The home looks after abandoned children and poor families in the Klang Valley, in the Malaysian state of Selangor, helping to educate and integrate the children and providing support for single mothers.

**CZECH REPUBLIC**

# DVOREČEK CENTRE

Located near Ostrava, this project carried out by non-profit association SDO Brontosauři involves renovating a home for children with severe social or mental disabilities and building housing for young adults leaving the home to facilitate their integration into society.

**TESTIMONIAL**

# HELPING MARGINALIZED AND HOMELESS PEOPLE

**DAMIEN HOTTEBART,**  
Marketing Director  
DSC (CEDEO)  
cosponsor  
of the Emmaüs  
Bernes-sur-Oise  
project, France

Emmaüs is an association that helps marginalized and homeless people rebuild their lives by inviting them to join a community where residents, called 'companions', collect objects for recycling or reuse. This work generates an income, which is used to meet the community's needs. At the Emmaüs community in Bernes-sur-Oise, housing for the companions was located far from their workplace and not linked by public transport, making community life difficult. It was therefore decided that social housing for 50 residents would be built right on the Emmaüs site. The Saint-Gobain Initiatives International Corporate Foundation agreed to provide

€200,000 to support the project, which united employee sponsors from three of the Group's Sectors—Verallia, Construction Products and Building Distribution.

The project has also received funding from the French government, the local and regional authorities and the Abbé Pierre Foundation. Work began recently and is scheduled for completion in late 2012-early 2013. The housing is designed to meet high energy efficiency standards, including France's Habitat et Environnement and THPE<sup>(37)</sup> certification. Solar panels will be installed on the roof to provide domestic hot water.

(37) French acronym for very high energy efficiency.



# **METHODOLOGY AND INDICATORS**

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# REPORTING METHODOLOGY

## **The contents of this report reflect broad consultation with internal and external stakeholders.**

- In-house, the Sectors, Delegations and a number of corporate functions (Human Resources, Responsible Purchasing, Investor Relations, Responsible Development, EHS, Risks and Insurance, etc.) were asked to contribute examples and real-world case studies to make this year's report even more informative. In particular, the Sectors were involved in the sections on solutions and the Delegations provided examples and testimonials.
- Outside the Group, a diverse panel of stakeholders was consulted on Saint-Gobain's general strategy and on specific aspects of our sustainable development approach. Their comments are included in the report. In addition, we interviewed a group of socially responsible investors and analysts (see page 16).

A steering committee comprising the Corporate Secretary and representatives from the Responsible Development, EHS, Corporate Communication, Investor Relations and Social Affairs departments defined the report's priorities and set the editorial line. The committee met six times between July 2011 and March 2012.

## **The data published in this chapter devoted to sustainable development at Saint-Gobain comes from two separate reporting systems:**

- The NRE system set up in 2002 to comply with the disclosure requirements of France's NRE Act. Data on employee numbers from a reporting system established several years ago has been included since 2008.
- The Gaia environment, health and safety (EHS) reporting system set up in 2003, which was upgraded in 2008.





## Basic reporting principles

### Baseline

The baseline for Saint-Gobain social reporting and the Gaïa EHS system was developed in line with the requirements of the UN Global Compact and France's NRE Act of 2001.

### Social Reporting

Stability was a primary consideration in determining social indicators, to provide the most reliable basis for comparison. Consequently, there have been no major modifications to these indicators since they were introduced in 2002. The only changes concern the introduction of new indicators on gender (by socio-professional category) and age to refine the analyses and the inclusion of four indicators on human rights in 2010.

### EHS Reporting

To keep pace with developments in international standards such as the Global Reporting Initiative and leverage feedback from sites, working groups meet on a regular basis to propose improvements to the EHS indicators. These proposals are discussed and approved at steering committee meetings held twice a year.

### Scope

#### Social Reporting

In 2011, there were 1,405 social reporting entities for 610 fully consolidated companies at year-end.

The two reporting systems used in prior years have been merged.

- The employee numbers report (SIS), prepared monthly, contains data from all companies controlled by the Group, including joint ventures in which Saint-Gobain holds at least a 50% interest. It is the basis for calculating the total consolidated workforce.
- The NRE reporting system, created in 2002 to provide information on the Group's social performance, has a somewhat smaller scope, covering 96.2% of the consolidated workforce in 2011. It is the basis for calculating all the social indicators.

New companies joining the Group are included from the date on which they are consolidated, while divested companies are excluded from the figures for the year of divestment.

### EHS Reporting

There were nearly 1,630 EHS reporting entities in 2010, corresponding to all of the Group's facilities. The increase from 2010 reflects the more targeted data collection process. The scope of reporting covers the facilities operated by all companies that were at least 50%-owned by Saint-Gobain at the balance sheet date, including, where possible, facilities that came on-stream or were acquired during the year and excluding facilities that were closed or sold.

The majority of data are entered directly in the Gaïa system by the EHS entities, and the remaining information is extracted from reporting systems used for other purposes (such as "Teams" for the Insulation activity).

- **The Safety, Industrial Health & Hygiene, General and Safety-On-Line (SOL)** questionnaires are designed to cover all facilities and all Group employees. The Safety and Safety-On-Line questionnaires include questions about temporary staff, and the Safety-On-Line questionnaire also includes questions about sub-contractors.

Safety data are reported on a monthly basis and comprise information about all accidents that occurred during the month and their severity. The system covers approximately 98% of employees across the Group.

Lost-time accidents (including fatal accidents) are reported systematically via the Safety-On-Line system, with a description of the circumstances.

The Industrial Health & Hygiene questionnaire and the General questionnaire are completed annually.

- **The Environment questionnaire** is completed annually by 1,032 facilities, including "concerned" sites, mines and quarries (except for sites connected to plants) and other sites selected by the Sectors.

This choice was made in order to focus efforts on the facilities with the greatest environmental impact, as well as to make the data and progress in meeting objectives easier to understand. The activities have validated certain criteria, such as energy consumption, water consumption, and quantity of non-recycled waste, enabling clear identification and moni-

toring. Among the 544 concerned sites, only the 222 with the highest emissions are tracked in relation to the CO<sub>2</sub> targets. They include glass production entities within the Flat Glass, High-Performance Materials and Insulation activities and Verallia, as well as Gypsum and Pipe plants. Together, these sites represent 90% of the Group's CO<sub>2</sub> emissions (excluding Building Distribution).

Data for concerned sites are presented using environmental subgroups. Because of the Group's wide-ranging operations, the environmental indicators managed in Gaïa do not all apply to all activities. The indicators are therefore combined into "batches" and allocated to groups of entities with similar environmental impacts and ratios (i.e., indicators expressed by unit of production, generally per metric ton of finished product<sup>(38)</sup>). The main entity groups - referred to as environmental sub-scopes - are as follows:

- The "Glass" sub-scope, comprising entities in the Innovative Materials Sector - Flat Glass, Verallia, the ADFORS activity (Innovative Materials Sector - High-Performance Materials) and the Insulation activity excluding stone wool (Construction Products Sector), that use glass furnaces (121 concerned sites out of a total of 126 entities).
- The "Pipe" sub-scope (21 concerned sites out of a total of 22 entities).
- The "Others" sub-scope, covering all other entities (Industrial Mortars, Lapeyre plants, glass products, Gypsum, etc.) (402 concerned sites out of 874 entities). This sub-scope also includes the 140 quarries.

One of the principles applied by the Group for the calculation of ratios is to use tons of finished products, rather than tons floated (for glass) or cast (for cast iron)<sup>(39)</sup>.

(38) Corresponds to finished products that leave the plant to be sold.

(39) Corresponds to all products that come off the production line, including finished and substandard products.

## REPORTING METHODOLOGY

• **EHS objectives for 2011-2013:**

“Concerned” sites have been identified based on 2010 reporting data, and their performance will be tracked in relation to 2013 environmental targets. Results for concerned sites will therefore be reported on a comparable scope basis in each year through 2013. Any divested facilities will be removed (from current year indicators and the 2010 baseline) but no acquisitions will be taken into account until January 1, 2014, when the scope will be adjusted. In addition, environmental indicators will be calculated each year by reference to the 2010 baseline. In line with this principle, 2011 emissions and consumption have been adjusted based on 2010 production output.

• **EHS financial data** (expenses and capital expenditure) have been tracked in Gaïa since 2007. Annual data are adjusted during the following year to take into account information obtained after the year-end.

The frequency, scope and content of the various questionnaires are described in the table below.

Questionnaire	Frequency	Scope	Content
Safety-On-Line	When needed	Global, all categories of victims	Instant alert in the event of accidents involving fatalities or lost time
Safety	Monthly	Global, all categories of victims	Accidents, number of days lost, hours worked, etc.
General	Annually	Global (all facilities except certain offices or related sites)	Certification, audit results, etc.
Complaints and financial data	Annually	"Concerned" sites + Mines and quarries (excluding sites connected to plants) + Other sites at the Sectors' discretion	Complaints and financial data in compliance with the NRE Act
Health	Annually	Global (all facilities except certain offices or related sites)	Assessment campaign, health standards tracking, etc.
Environment & Mines and quarries	Annually	"Concerned" sites + Mines and quarries (excluding sites connected to plants) + Other sites at the Sectors' discretion	Output, raw materials, energy consumption, atmospheric emissions, water, waste, rehabilitation plan, etc.

**Indicator definitions**

The indicators are defined in the EHS reporting protocol and the Saint-Gobain Group doctrine (for social indicators), which have been prepared in several languages to ensure that all contributors understand what is required.

**Social Reporting**

The Saint-Gobain Group doctrine for social indicators is available in French and in English and is distributed by the Delegations.

**EHS Reporting**

The EHS reporting protocol is available in French and in English.



## Consolidated data

### **Social Reporting**

Saint-Gobain's social reporting process comprises three stages:

- data input by contributors at the individual company level;
- data validation by the head of Human Resources at the company or Delegation level, depending on the country;
- data verification and consolidation by the Group Social Affairs Department.

### **EHS Reporting**

The EHS reporting process (monthly and yearly) involves four stages:

- data input by the EHS correspondent or correspondents at the reporting entity concerned;
- data validation, usually by the entity manager or by the company or activity coordinator;
- data verification by EHS managers in each Sector;
- data consolidation by the Group EHS Department.

## Difficulties and limitations

### **Social Reporting**

The main difficulty in social reporting stems from the Group's wide geographic presence. Indicators may be interpreted differently from one country to another, due to differences in local legislation and practices. For example, certain employee categories commonly used in France, such as "cadre" (roughly translatable as "manager") and "CDI" (employee with a permanent employment contract) may not have any direct equivalent in other countries. The Doctrine Department is working on commonly understood definitions to avoid this problem.

### **EHS Reporting**

Difficulties can be experienced with consolidating data across businesses that use different units of measurement. Problems can also arise from differences in the interpretation of technical terms across different countries and businesses. The definition of "waste", for example, can vary depending on local legislation, as can that of its components (production waste, by-product, final waste, etc.). Since Group-wide reporting systems were launched, reporting quality has steadily improved thanks to effective feedback and increased familiarity with the systems.



# STATUTORY AUDITORS' REVIEW REPORT

Review report on a selection of environmental, health, safety and social indicators published in the 2011 sustainable development report of Saint-Gobain Group.

*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. The report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

Further to your request and in our capacity as Statutory Auditors of Compagnie de Saint-Gobain, we have carried out a review to enable us to provide limited assurance on certain environmental, health and safety (hereinafter referred to as EHS) and social indicators, identified by the symbol ✓ and published on pages 92-95 and 98-100 of the 2011 sustainable development report of Saint-Gobain Group.

The selected EHS and social indicators are as follows:

• **Environmental indicators:**

- Direct and indirect CO<sub>2</sub> emissions,
- NO<sub>x</sub> emissions,
- SO<sub>x</sub> emissions,
- Energy use per type of energy,
- Water input (withdrawn) per type of source,
- Total volume of waste generated.

• **Health and safety indicators:**

- Ratio of lost-time accidents involving Group employees to the number of hours worked by Group employees (TF1);
- Ratio of declared accidents with or without absence from work involving Group employees to the number of hours worked by Group employees (TF2);
- Ratio of lost-time accidents involving temporary staff to the number of hours worked by temporary staff (TF1).

• **Social indicators:**

- Total number of employees per socio-professional category at year-end,
- Total number of employees by gender at year-end.

These indicators were prepared under the responsibility of the Environment, Health and Safety (EHS) Department and the Employee Relations Department, in accordance with the EHS reporting rules and the Group's procedures for the monthly reporting of employee data, both of which can be consulted at the Group's head office and appear in a summary on pages 86-89 of the 2011 sustainable development report. It is our responsibility to express an opinion on the selected indicators based on our review.

## NATURE AND SCOPE OF OUR WORK

We performed our review in accordance with the International Standard on Assurance Engagements (ISAE) 3000 and the professional standards applicable in France.

We carried out the limited review procedures to provide limited assurance that the EHS and social indicators are free of material misstatement. A higher level of assurance would have required a more extensive review. For the selected indicators:

- We reviewed the reporting procedures prepared by the Group with regard to their relevance, reliability, objectivity, comprehensibility and completeness.



- We selected the following sites on the basis of quantitative and qualitative criteria applied to the indicators, enabling us to cover a representative sample of the Group's activities in the geographic areas where it operates:
  - Building Distribution Sector: 9 Point P group regions (France) and 2 Lapeyre group companies (France), 3 other companies (United Kingdom, Germany, Sweden),
  - Innovative Materials Sector: 10 sites (Brazil, China, Spain, France, India, Mexico, Poland, Republic of Korea), of which 2 were verified at company level for social indicators,
  - Construction Products Sector: 8 sites (South Africa, Brazil, China, United States, France, United Kingdom), of which 6 were verified at company level for social indicators,
  - Packaging Sector: 6 sites (Germany, Spain, United States, France, Italy, Ukraine), of which one was verified at company level for social indicators,
  - Head office of the General Delegation, United States.
- At the level of the sites selected:
  - On the basis of interviews with the people in charge of preparing the indicators, we verified the proper understanding and application of the procedures;
  - On a sample basis, we performed detailed tests which consisted in verifying the calculations and in reconciling the indicators with substantiating documents.
- At Group level, we carried out analytical procedures and verified, on a sample basis, the calculations and the consolidation of data used to generate the indicators. This work mainly relied on interviews with the members of the EHS Department and the Employee Relations Department responsible for the preparation and application of the procedures, as well as the consolidation of the indicators.

The contribution of the sites included in our review represents between 14% and 31% of the consolidated EHS and social indicators selected.

We were assisted in our work by our specialized sustainable development teams.

## CONCLUSION

Based on our work, no material misstatement has come to our attention that causes us to believe that the EHS and social indicators reviewed, identified by the symbol ✓ and published on pages 92-95 and 98-100 of the 2011 sustainable development report, were not prepared, in all material respects, in accordance with the EHS reporting rules and Group procedures for the monthly reporting of employee data.

**Neuilly-sur-Seine and Paris-La Défense, May 9, 2012**

### The Statutory Auditors

#### PricewaterhouseCoopers Audit

**Jean-Christophe Georghiou**

**Thierry Raes**  
Partner of the Sustainable  
Business Solution Department

#### KPMG Audit Department of KPMG S.A.

**Philippe Grandclerc**

**Philippe Arnaud**  
Partner of the Sustainability  
& Climate Change Services

# EHS SUMMARY TABLES

Area	2011 results	Comments	Objectives for 2013
<b>ENVIRONMENT</b>			
Reduce CO <sub>2</sub> emissions at concerned sites**	Up 0.1% based on 2010 output Up 1.1% in absolute value	The Group will have to take measures to reduce its CO <sub>2</sub> emissions and reach the three-year objective	Reduce CO <sub>2</sub> emissions at concerned sites** by 6%*
Assess the Group's greenhouse gas emissions	Saint-Gobain Carbon Assessment launched	The French manufacturing subsidiaries have undergone a carbon assessment since 2009	Deploy the assessment across the Group's main companies worldwide
Define Factor 4 targets for office buildings: Care:4® project	Support tools for conducting energy audits in office buildings introduced. 3 new buildings certified to CARE:4® standards	In all, 7 buildings are certified to CARE:4® standards	Deploy CARE:4® action plans (renovation, etc.) in each Sector
Water management	Group water policy deployed Water withdrawals at concerned sites** Down 3.3% based on 2010 output Down 3.6% in absolute value	Results are positive. Measures continue to be taken in the activities	- Reduce water withdrawals at concerned sites** by 6%* - Deploy the water-related risks assessment grid and the Water Standard at industrial sites
Reduce landfill waste at concerned sites**	Waste produced down 1% based on 2010 output Waste produced down 2.6% in absolute value	A waste management standard scheduled for launch in the near future will allow reliable tracking of landfill waste	Reduce landfill waste at concerned sites** by 6%*
Obtain environmental certification for concerned sites	69.5% of sites were certified in 2011	In all, 74.6% will be certified in 2012	Obtain ISO 14001 certification for more than 90% of concerned sites**
Apply the environmental policy on wood in the Building Distribution Sector	Nearly 80% of wood product purchases sourced from certified forests		Deploy the environmental policy on wood at all sites, including those in the industrial Sectors
Conduct systematic life-cycle assessments (LCAs) for all product lines	LCAs conducted for all construction product lines	A methodology for evaluating and communicating LCAs for all construction products has been deployed	Conduct LCAs for all construction and solar product lines



Area	2011 results	Comments	Objectives for 2013
<b>SAFETY</b>			
Reduce the incident frequency rate as follows: Objectives for 2011 - Overall LTIR of less than 3.2 (less than 5.7 for the Distribution Sector). - TRIR of less than 7 for the Distribution Sector	LTIR: 3.1 ✓ -Distribution = 5.1 ✓ TRIR: - Industrial = 6.3 ✓	We exceeded our target for 2011	Reduce the incident frequency rate as follows: - LTIR of 5 for Building Distribution - TRIR of less than 6 for the industrial Sectors - Overall LTIR of less than 2.8 These indicators concern employees and temporary staff
Deploy safety standards	Safety standards deployed for confined spaces, vehicles and pedestrians, and warehouses and loading in 2011. Improved front-line application of the SMAT standard on behavior	Nine safety standards have been deployed on working at height, control of contractors, permit to work, lock out/tag out, machine and fork lift truck, machinery safety, confined spaces, vehicles and pedestrians and warehousing and loading	Deploy standards at all new sites within three years of joining the Group. Have the Delegations implement the EHS training matrix in liaison with the Sectors. Update the SMAT standard on behavior***
<b>HEALTH</b>			
Assess risk using SAFHEAR	Toxic risk assessment module deployed. Module tested and validated at 9 pilot sites in 2011	The module on other risks is scheduled to be deployed as from H2 2012	Deploy SAFHEAR across the Group. Ensure exposure traceability with SAFHEAR in accordance with French regulations
Deploy guide on crystalline silica and respirable dust			Ensure that the silica indicator is reliable and reduce exposure (target defined by activity). Implement annual individual measuring of exposure and reduce exposure (target defined by activity)
Analyze EHS hazards and impacts in R&D projects using the Stage Gate procedure	Training on the Stage Gate procedure deployed at the R&D centers	In all, 77 people were trained in 2011	Deploy a training module on the procedure among R&D project managers

\* Based on 2010 output, in relation to 2010 scope.

\*\* See reporting Methodology, pages 86-87.

SMAT: Safety Management Tool

LCA: Life Cycle Assessment

MSD: Musculoskeletal Disorders

# SOCIAL INDICATORS

## Employment data

At December 31, 2011, Saint-Gobain had 194,658 ✓ employees, up 2.9% from 2010.

On a like-for-like basis, the increase came to 0.4%.

### By Sector

The Building Distribution Sector accounted for 35% of total headcount, followed by the Innovative Materials Sector (32%) and Construction Products (25%).

Verallia's workforce represented 8% of the Group total.

### Innovative Materials

The number of employees rose 3% during the year.

High Performance Materials saw the largest increase (up 5.6%), notably in Performance Plastics and Ceramic Materials.

Headcount in the Flat Glass activity grew by 1%.

### Construction Products

The Construction Products Sector's workforce increased by 4%, with the sharpest increases in Industrial Mortars and Insulation.

### Building Distribution

Headcount was up 1.5% overall, reflecting mixed trends in the different businesses and countries.

### Verallia

Verallia saw its workforce increase by 2.5%.

### By Delegation

From a geographic standpoint, headcount rose in almost all regions, with mixed trends in countries hit hard by the economic and financial climate (notably in Southern Europe) and more pronounced growth in emerging economies (Latin America and Asia).

## Employee categories

### Managers

The proportion of managers in the workforce rose to 13.9% ✓ in 2011 from 13.2% the year before.

The percentage is generally higher in developed countries, where our longer history is reflected in a greater number of head offices and Research and Development centers. This is especially true in Western Europe (14.5%) and North America (21.1%), as well as countries like India (18.3%).

### Administrative employees, technicians and supervisors

This category, which also includes sales personnel, stood at 41.2% ✓ of the total workforce in 2011, on a par with 2010 and 2009.

In 2011, women accounted for 31.8% ✓ of employees in this category overall, and were particularly well represented in Russia, Eastern Europe and North America.

### Operators

Overall, operators represented 44.9% ✓ of the total workforce in 2011. The percentage was much higher in the industrial Sectors, at 59%, than in distribution (20%).

Women accounted for 9.8% of the category in 2011.

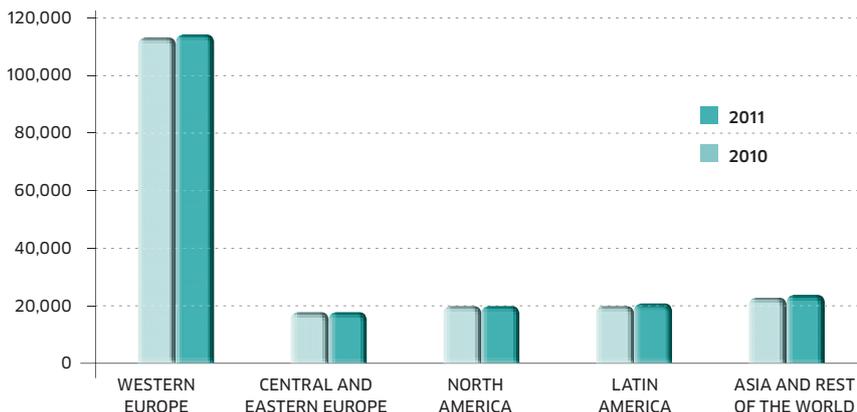
In all, 77.8% ✓ of the women at Saint-Gobain were employed in white collar positions, versus 77.5% in 2010.

## Separations

The separation rate continued to decline, to 14.7% from 15.2% in 2010 and 17.8% in 2009.

- Attrition declined to 10.9% from 12.1% in 2010.
- The resignation rate edged up slightly to 5.6% from 5.3% the year before.
- The termination rate narrowed to 4.2% from 5.0% in 2010.

## Growth in headcount by region





## Hiring

The hiring rate continued to trend upward, rising to 15.9% from 14.4% in 2010 and 9.2% in 2009.

Generally speaking, the increase covered all activities, with certain differences by region.

In all, the Group hired 29,718 people in 2011, an increase of 10% from 2010 and 71% from 2009.

In 2011, applicants under 26 accounted for 35.4% of new hires, all employee categories combined.

Applicants age 50 and better represented 5.3% of new hires in 2011, up from 4.7% in 2010, while women accounted for 23.1%. The percentage of women in the total workforce now stands at 20% ✓.

## Use of temporary workers and subcontractors

### Temporary work

Hours worked by temporary staff represented 5.9% of total hours worked in 2011, unchanged from 2010.

Fixed-term employment contracts are more effective for assignments spanning several months, such as to replace workers on maternity leave or extended sick leave, or to handle spikes in production resulting from large orders. The percentage of Group employees on fixed-term contracts rose slightly to 3.9% in 2011 from 3.7% in 2010.

During the year, 35.0% of fixed-term employment contracts were converted to permanent contracts, compared with 28.2% in 2010.

## Subcontracting

Group companies in every host country use subcontractors to perform certain activities that fall outside their core competencies.

Before signing an outsourcing agreement, subsidiaries are required to verify that the partner company's operations and employment contracts comply with applicable legislation. Employees of service providers and subcontractors working on a Group site are expected to familiarize themselves with site safety standards upon their arrival. During their presence on-site, they are subject to the same health and safety rules and regulations applicable to Group employees working at the same facility. They receive specific training in these areas as needed.

## Working conditions

### Absenteeism

Absenteeism edged back to 3.7% from 3.8% 2010. The most frequent causes are illness, maternity and work accidents.

### Shift work

Shift work primarily concerns the manufacturing operations, where it is organized in response to technical production requirements. Distribution operations are not generally organized in shifts.

In 2011, 32.5% of employees in manufacturing operations worked in shifts. Days may be organized into two, three or more shifts, in the case of round-the-clock production, 365 days a year. Group-wide, round-the-clock production is performed in cycles, with alternating active and idle periods. In every country, shift workers work fewer hours a year than day workers.

In Building Distribution, customer needs at certain businesses sometimes require that employees work in shifts. This is the case in Brazil, for example, where some stores are open 24 hours a day.

### Overtime

To respond to a temporary increase in workload, some Group companies are occasionally required to ask their employees to work overtime. On average, overtime represented 4.7% of all hours worked in 2011.

### Part-time work

Part-time work concerned 3.1% of the workforce in 2011.

# OTHER INDICATORS

## Human Rights

### Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening (HR1).

100% of investment agreements are governed by the Saint-Gobain Principles of Conduct and Action, which include human rights clauses.

The Principles of Conduct and Action are distributed to employees of newly acquired companies and deployed by their management teams.

### Total number of incidents of discrimination and corrective actions taken (HR4).

During the year, 29 grievances were lodged in various countries. Each was reviewed on a case-by-case basis and actions plans were implemented in the corresponding entity, when appropriate.

### Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights (HR5).

Two incidents involving union activities were recorded during the year. After a review, local judges closed the two cases without further action.

Generally speaking, Group companies in France and the rest of the world conduct an active policy to establish transparent, meaningful social dialogue that is respectful of employee representatives (see pages 66-67).

### Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor (HR6).

No incidents were reported in 2011.

Group companies verify their employees' ages and carry out additional checks, if needed, in liaison with local authorities.

Concerning purchasing, the Group's responsible purchasing policy (described on pages 74-75) prohibits working with suppliers who use child labor.

### Operations identified as having significant risk for incidents of forced or compulsory labor and measures to contribute to the elimination of all forms of forced or compulsory labor (HR7).

No incidents were reported in 2011.

As with child labor, Group companies take care to ensure they do not participate in forced or compulsory labor practices, either directly or through suppliers and subcontractors.

- In-house, they identify possible cases of non-compliance through dialogue with employee representatives.
- Outside the Group, they apply the responsible purchasing policy (pages 74-75).

### Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments (HR10).

100% of the Group's operations are covered by the internal control system. Compliance with the values and rules of conduct formalized in the Saint-Gobain Principles of Conduct and Action, which refer explicitly to human rights, is a basic component of our internal control system. More detailed information is provided in the Annual Report (pages 89-91).

### Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms (HR11).

No grievances were lodged in 2011.

Generally speaking, the Group demonstrates its commitment to human rights by promoting its Principles of Conduct and Action (see page 5), the hands-on involvement of its executives and human resources managers, and open dialogue with employees, notably through employee representatives.

## Labor Practices and Decent Work

### Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements (LA5).

Notice processes prior to changes in organization vary widely from one country to another. In most of the Delegations, the process is either a legal obligation or specified in a company agreement. Depending on the region, notice periods can range from 2 to 15 weeks, although special cases do exist (in Germany, for example, notice periods can range from 2 weeks to 7 months).

### Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases (LA8).

Programs vary from one country to another. We offer programs for employees in the areas of education (training on occupational health, chemical products, noise, first aid, etc.), prevention (campaigns against obesity, vaccination drives, monitoring for psychosocial risks, etc.), assistance and advice (on-site social workers, appointments with psychologists, help in stopping smoking, etc.) and treatment (health coverage, accident insurance, etc.).

In numerous cases, these services are also open to family members. A number of education and prevention campaigns are carried out in local communities.



## Product Responsibility

### Life cycle stages in which health and safety impacts of products and services are assessed (PR1).

For new products, R&D specifications take health and safety concerns into account. The tracking process includes an EHS validation procedure covering all topics to be verified for raw materials, production processes, product use and end-of-life treatment. In France and Germany, training is organized in Saint-Gobain's research centers to ensure that EHS issues are more effectively taken into account during research and development projects and new product launches. In 2011, nine training sessions were organized, with a total of 77 participants.

The Group also assesses the impact of existing products on health and safety. Specific programs to measure exposure are carried out for certain products. Emissions of volatile organic compounds are an example.

Products undergo a safety assessment before they are brought to market, in compliance with regulations such as the European directive on product safety.

### Type of product and service information required by procedures (PR3).

Our products comply with current regulations, such as the CE marking or Safety Data Sheets (SDS) for chemicals.

We also provide non-mandatory information specific to certain products, including:

- voluntary declarations with safety data for non-classified articles or substances;
- the declaration of materials and substances for the International Material Data System (IMDS) used by the automobile industry;
- specific labels such as the environmental and health data sheet in France for construction products.

### Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion and sponsorship (PR6).

Saint-Gobain bases its growth on values that have been spelled out in our shared Principles of Conduct and Action, which all employees are expected to apply as members of our corporate community (see page 5). In particular, the Principles call for compliance with regulations (respect for the law), professional standards (professional commitment) and internal rules (principle of loyalty). The Group Compliance Program is designed to ensure the Principles are applied properly (see pages 70-73).

The Sustainable Habitat Mission (see page 11) has issued recommendations to give marketing teams in the activities a better understanding of existing labels for buildings and construction products with the goal of promoting labels that make life-cycle assessment a deciding criterion.

Lastly, Saint-Gobain Glass and Glassolutions have deployed a training program on the environmental benefits of their products for sales staff so that these team members can inform customers more effectively.

### Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services (PR9).

The Group did not pay any fines of this type in 2011.

## Economic

### Significant financial assistance received from government (EC4).

Our activities do not depend directly on government grants or assistance. Any government grants or assistance received are not consolidated at the Group level. Assistance may be international, national or local in nature.

Examples include:

- case-by-case assistance for certain industrial facilities;
- Support for locating R&D operations in certain areas, notably in France;
- insurance programs for foreign investments.

### Policy, practices and proportion of spending on locally-based suppliers at significant locations of operation (EC6).

In 2011, Saint-Gobain made 18.7% of its purchases (excluding distribution) from local suppliers.

Generally speaking, subsidiaries are encouraged to participate in the economic development of their host regions.

In France, Saint-Gobain has signed a charter on behalf of its suppliers governing the quality of relations between major customers and small and medium enterprises (SMEs). This charter comprises ten good practice commitments for dealing with suppliers. In particular, it promotes the concept of regional responsibility, which encourages companies to develop economic activity in their host regions and to forge strong relationships with local customers and suppliers

# KEY INDICATORS

Indicator	2010	2011	GRI	Pages
<b>ENVIRONMENT</b>				
Number of quality-certified sites - comparable scope*	750	773		-
Percentage of concerned sites that are environmentally certified*	63.8%	69.5%		p 42-43
Number of Seveso-classified sites	6	5		AR <sup>(40)</sup> p 103
Total environmental expenditure*:	€123.4m	€118.1m	EN30	p 34-35
- Salaries and other payroll expenses for environmental officers*	€20.8m	€21.7m	EN30	-
- ISO 14001 and EMAS environmental certification and renewal costs*	€2.1m	€2.4m	EN30	-
- Environmental taxes*	€4.95m	€4.83m	EN30	-
- Insurance and warranties	€2.46m	€2.67m	EN30	-
- Environmental fines	€1.69m	€0.55m	EN28	-
- Cost of environmental incidents	€0.82m	€0.82m	EN30	-
- Cost of technical measures*	€8.11m	€8.29m	EN30	-
- Environmental R&D budget*	€69.3m	€67.2m	EN30	-
- Soil decontamination, site remediation and other clean-up costs*	€13.1m	€9.6m	EN30	-
- Capital expenditure on environmental protection measures*	€61.95m	€72.07m	EN30	-
- Provisions for environmental risks	€174m	€169m	EN30	-
Quantity of production waste - concerned sites (based on 2010 production output)*	3.00 Mt	2.97 Mt	EN22	p 44-45
Consumption of primary raw materials in glass furnaces - concerned sites*	11.6 Mt	11.9 Mt	EN1	p 44-45
Consumption of cullet in glass furnaces - concerned sites*	3.30 Mt internally sourced, 4.55 Mt externally sourced	3.16 Mt internally sourced, 4.52 Mt externally sourced	EN2	p 44-45
Percentage of cullet in each ton of finished product of glass wool produced - concerned sites*	16.2% internally sourced 46.7% externally sourced	15.0% internally sourced 47.2% externally sourced	EN2	-
Percentage of cullet in each ton of finished product of container glass produced - concerned sites*	21.1% internally sourced 45.3% externally sourced	19.3% internally sourced 44.7% externally sourced	EN2	-
Percentage of cullet in each ton of finished product of flat glass produced - concerned sites*	29.8% internally sourced 8.5% externally sourced	27.8% internally sourced 6.3% externally sourced	EN2	-
Percentage of tons of finished products from primary melt of cast iron- concerned sites	78.3%	80.5%		p 44-45
Percentage of recycled materials in each ton of finished product of cast-iron produced - concerned sites	30.3%	35.9%	EN2	p 44-45
Percentage of recycled materials in each ton of finished product of gypsum - concerned sites*	32.9%	30.7%	EN2	p 44-45
Percentage of waste generated by the processing of recycled stack gas in Saint-Gobain Glass furnaces - concerned sites	58.3%	52.8%		-
Direct CO <sub>2</sub> emissions, based on 2010 production output - concerned sites*	12.5 Mt	12.6 Mt ✓	EN16	p 46-47
Direct CO <sub>2</sub> emissions - Group, based on a comparable scope	13.8 Mt CO <sub>2</sub>	14.1 Mt CO <sub>2</sub> ✓	EN16	p 46-47
Direct CO <sub>2</sub> emissions per ton of finished product of glass produced - concerned sites	573 kg CO <sub>2</sub> /ton of finished product of glass produced	571 kg CO <sub>2</sub> /ton of finished product of glass produced ✓	EN16	-
Direct CO <sub>2</sub> emissions per ton of finished product of cast-iron produced - concerned sites	1,541 kg of CO <sub>2</sub> /ton of finished product of cast iron produced	1,598 kg of CO <sub>2</sub> /ton of finished product of cast iron produced ✓	EN16	-
Direct CO <sub>2</sub> emissions per ton of finished product of plaster produced - concerned sites	125 kg of CO <sub>2</sub> /ton of finished product of plaster produced	128 kg of CO <sub>2</sub> /ton of finished product of plaster produced ✓	EN16	-
Number of facilities concerned by the EU greenhouse gas emission allowance trading scheme*	80	80		-
CO <sub>2</sub> emissions concerned by greenhouse gas emission allowances	5.6 Mt CO <sub>2</sub> , i.e. 0.3% of allocated allowances in Europe	5.5 Mt CO <sub>2</sub> , i.e. 0.3% of allocated allowances in Europe ✓	EN16	-

(40) AR: Annual Report.

✓ 2011 indicators verified by the Statutory Auditors. The Statutory Auditors' review report for 2011 is presented on pages 90 and 91.

(\*) Adjusted to reflect 2011 scope of reporting. 2010 data has been updated to take site closings and openings into account.



Indicator	2010	2011	GRI	Pages
Other relevant indirect emissions of greenhouse gasses, in tons CO <sub>2</sub> equivalent	0	0	EN17	
Energy use – Group, based on a comparable scope*	221,010 TJ	227,432 TJ ✓	EN3	p 48-49
Indirect energy consumption – Group, based on a comparable scope*	45,265 TJ	47,709 TJ ✓	EN4	-
Electricity consumption – Group, based on a comparable scope*	44,394 TJ	46,756 TJ ✓	EN4	-
Steam and hot water consumption – Group, based on a comparable scope*	870 TJ	953 TJ	EN4	-
Direct energy consumption – Group, based on a comparable scope*	175,745 TJ	179,722 TJ ✓	EN3	p 48-49
Coal and coke consumption – Group, based on a comparable scope*	27,928 TJ	27,515 TJ ✓	EN3	-
Natural gas consumption – Group, based on a comparable scope*	107,935 TJ	113,705 TJ ✓	EN3	-
Petroleum product consumption – Group, based on a comparable scope*	37,222 TJ	36,356 TJ ✓	EN3	-
Indirect greenhouse gas emissions from electricity, steam and hot water purchases*	4.8 Mt CO <sub>2</sub> equivalent	5.0 Mt CO <sub>2</sub> equivalent ✓	EN4	p 48-49
SO <sub>2</sub> emissions per ton of finished product of glass produced - concerned sites*	2.29 kg	2.22 kg ✓	EN20	p 42-43
SO <sub>2</sub> emissions per ton of finished product of cast-iron produced - concerned sites*	3.38 kg	2.68 kg ✓	EN20	p 42-43
SO <sub>2</sub> emissions by the Pipes activity and the glass businesses - concerned sites*	38,480 t	36,686 t ✓	EN20	p 42-43
NO <sub>x</sub> emissions per ton of finished product of glass produced - concerned sites*	2.48 kg	2.17 kg ✓	EN20	p 42-43
NO <sub>x</sub> emissions per ton of finished product of cast iron produced - concerned sites*	1.77 kg	1.45 kg ✓	EN20	p 42-43
NO <sub>x</sub> emissions by the Pipes activity and glass businesses - concerned sites*	37,897 t	33,877 t ✓	EN20	p 42-43
Particulate emissions per ton of finished product of glass produced - concerned sites*	0.29 kg	0.25 kg	EN20	p 44-45
Particulate emissions per ton of finished product of cast-iron produced - concerned sites*	4.69 kg	3.84 kg	EN20	p 44-45
Water withdrawals, based on 2010 production output - concerned sites*	76.1 million cu.m.	73.6 million cu.m. ✓	EN8	p 38-39
Water withdrawals - Group, based on a comparable scope*	84.4 million cu.m.	81.7 million cu.m. ✓	EN8	p 38-39
Rainwater withdrawals - Group, based on a comparable scope	0.7 million cu.m.	0.8 million cu.m. ✓	EN8	-
Municipal water withdrawals - Group, based on a comparable scope*	18.6 million cu.m.	19.7 million cu.m. ✓	EN8	-
Surface water withdrawals (from rivers, lakes, etc.) - Group, based on a comparable scope	38.1 million cu.m.	35.5 million cu.m. ✓	EN8	-
Groundwater withdrawals - Group, based on a comparable scope*	27.0 million cu.m.	25.3 million cu.m. ✓	EN8	-
Number of accidental spills (Gypsum activity)	-	5	EN23	-
Volume of accidental spills (Gypsum activity)	-	2.7 cu.m. of fuel oil	EN23	-
Water discharges - Group, based on a comparable scope	62.1 million cu.m.	48.1 million cu.m.	EN21	p 38-39
Water discharges into surrounding environment - Group, based on a comparable scope	40.1 million cu.m.	33.7 million cu.m.	EN21	-
Water discharges into city wastewater collection system - Group, based on a comparable scope	22.0 million cu.m.	14.3 million cu.m.	EN21	-

## SOCIAL INDICATORS

Number of millionaire sites (sites that have clocked up over one million incident-free hours of work and/or more than five years' work without any lost-time incidents)	156	179		p 58-59
Lost-time incident rate (LTIR) (more than 24 hours' lost time) - Group*	3.5	3.1 ✓	LA7	p 58-59
Severity rate - Group	0.21	0.19	LA7	p 58-59
Lost-time incident rate (LTIR) (more than 24 hours' lost time) - Building Distribution Sector*	6.3	5.1 ✓	LA7	p 58-59
Total recordable incident rate (TRIR) - industrial Sectors*	7.5	6.3 ✓	LA7	p 58-59
Number of workplace fatalities - Saint-Gobain employees	2	3	LA7	p 58-59
Number of Health & Safety-certified sites - comparable scope*	307	363		-
Total headcount	189,193 employees	194,658 employees ✓	LA1	p 52-53, 94-95
Departure rate	15.2%	14.7%	LA2	p 94-95
Resignation rate	5.3%	5.6%	LA2	p 94-95
Termination rate	5.0%	4.2%	LA2	p 94-95
Recruitment rate	14.4%	15.9%	LA2	p 94-95

**KEY INDICATORS**

Indicator	2010	2011	GRI	Pages
Percentage of temporary workers	5.9%	5.9%	LA1	p 94-95
Percentage of fixed-term employment contracts	3.7%	3.9%	LA1	p 94-95
Percentage of fixed-term employment contracts transformed into permanent contracts	28.2%	35.0%	LA1	p 94-95
Training expenditure as a percentage of total payroll	2.0%	2.0%	LA10	p 64-65
Percentage of employees who took at least one training course during the year	71.6%	74.7%	LA10	p 64-65
Number of training hours per employee	23.9	23.5	LA10	p 64-65
Percentage of training hours dedicated to technical training and EHS	Technical training 48.0% EHS training 24.1%	Technical training 50.0% EHS training 24.8%	LA10	p 64-65
Percentage of female employees	20%	20% ✓	LA1	p 56-57
Percentage of white-collar workers among female employees	77.5%	77.8% ✓	LA1	p 56-57
Female managers as a % of total managers	17.2%	18.0% ✓	LA1	p 56-57
Percentage of disabled employees in France	4.1%	3.7%		p 56-57
Percentage of employees with employee representation	65.2%	67.0%	LA4	p 66-67
Number of agreements signed with employee representatives	1,343	1,383	LA4	p 66-67
Percentage of employees covered by a collective bargaining agreement (and percentage for France)	67.2% (France: 99.8%)	70.2% (France: 100%)	LA4	p 66-67
Percentage of employees in France covered by the discretionary profit-sharing scheme	97.5% (€72.3m)	97.8% (€74.9m)		p 64-65
Percentage of shares held by Group employees	7.8%	8%		p 64-65
Number of countries covered by the Group Savings Plan	42	42		p 64-65
Absenteeism rate	3.8%	3.7%	LA7	p 94-95
Percentage of employees in manufacturing operations performing shift work	44.7%	32.5%		p 94-95
Overtime rate	4.8%	4.7%		p 94-95
Percentage of part-time employees	2.8%	3.1%	LA1	p 94-95
Percentage of executives and managers	13.2%	13.9% ✓	LA1	p 94-95
Percentage of administrative employees, technicians and supervisors	41.2%	41.2% ✓	LA1	p 94-95
Percentage of operators	45.6%	44.9% ✓	LA1	p 94-95
Percentage of managers who had a performance review	82%	81%	LA12	p 62-63
Percentage of employees in France taken on under a youth employment scheme	2.9%	3%		p 54-55
Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	0	0	S08	p 70-73

**SOCIETAL INDICATOR**

Group community development spending	€4.4m	€5.1m		p 80-81
Number of jobs created outside the Group in France with the support of Saint-Gobain Développement	226 jobs (through 66 SME support agreements representing €1m)	234 jobs (through 54 SME support agreements representing close to €1m)		p 76-77
Total number of incidents of discrimination	-	29	HR4	p 96-97
Operations identified in which the right to exercise freedom of association and collective bargaining may be at risk	-	2	HR5	p 96-97
Operations identified as having significant risk for incidents of child labor	-	0	HR6	p 96-97
Operations identified as having significant risk for incidents of forced or compulsory labor	-	0	HR7	p 96-97
Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	-	0	HR11	p 96-97



# GRI TABLE

Category	Subsection	GRI ref.	Description	Pages
<b>PROFILE</b>				
<b>Strategy and Analysis</b>		1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	p 2-3, <input checked="" type="checkbox"/>
		1.2	Description of key impacts, risks and opportunities.	p 12, 17, 32-33 AR p 100-106, <input checked="" type="checkbox"/>
<b>Organization Profile</b>		2.1	Name of the organization.	Cover, <input checked="" type="checkbox"/>
		2.2	Primary brands, products and/or services.	p 6-7, 18-29 AR p 10-28, <input checked="" type="checkbox"/>
		2.3	Operational structure of the organization including main divisions, operating companies, subsidiaries and ventures.	p 6-9 AR p 10, 84-85, <input checked="" type="checkbox"/>
		2.4	Location of organization headquarters.	AR p 203, <input checked="" type="checkbox"/>
		2.5	Number of countries where the organization operates and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	p 8-9 AR p 9, <input checked="" type="checkbox"/>
		2.6	Nature of ownership and legal form.	AR p 58, <input checked="" type="checkbox"/>
		2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries).	p 6-7 AR p 10-25, <input checked="" type="checkbox"/>
		2.8	Scale of the reporting organization, including: <ul style="list-style-type: none"> <li>• Number of employees.</li> <li>• Net sales (for private sector organizations) or net revenues (for public sector organizations).</li> <li>• Number of operations.</li> <li>• Total capitalization broken down in terms of debt and equity (for private sector organizations).</li> <li>• Quantity of products or services provided.</li> </ul>	p 8-9 AR p 4, 6, 9, 11, 15, 20, 23, 25, 38-54, 108-113, 188-199, <input checked="" type="checkbox"/>
		2.9	Significant changes during the reporting period regarding size, structure or ownership, including: <ul style="list-style-type: none"> <li>• The location of, or changes in operations, including facility openings, closings and expansions.</li> <li>• Changes in the share capital structure and other capital formation, maintenance and alteration operations (for private sector organizations).</li> </ul>	AR p 122-124, <input checked="" type="checkbox"/>
		2.10	Awards received in the reporting period.	p 52-53, 58-59, <input checked="" type="checkbox"/>
<b>Report Parameters</b>	Report Profile	3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	AR p 165, <input checked="" type="checkbox"/>
		3.2	Date of most recent previous report (if any).	2010, <input checked="" type="checkbox"/>
		3.3	Reporting cycle (annual, biennial, etc.).	AR p 165, <input checked="" type="checkbox"/>
		3.4	Contact point for questions regarding the report or its contents.	Back cover, <input checked="" type="checkbox"/>
	Report Scope and Boundary	3.5	Process for defining report content, including: <ul style="list-style-type: none"> <li>• Determining materiality. Prioritizing topics within the report.</li> <li>• Identifying which stakeholders the organization expects to use the report.</li> </ul>	p 14-16, 86-89, <input checked="" type="checkbox"/>
		3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	p 86-89, <input checked="" type="checkbox"/>
		3.7	Any specific limitations on the scope or boundary of the report.	p 86-89, <input checked="" type="checkbox"/>
		3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	p 86-89, <input checked="" type="checkbox"/>
		3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report.	p 86-89, <input checked="" type="checkbox"/>
		3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of the business, measurement methods).	p 86-89, <input checked="" type="checkbox"/>
		3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report..	p 86-89, <input checked="" type="checkbox"/>

Fully reported
  Partially reported
  Not reported

Category	Subsection	GRI ref.	Description	Pages
Report Parameters	GRI Content Index	3.12	Table identifying the location of the Standard Disclosures in the report. Identification of the page numbers or web links where the following can be found: <ul style="list-style-type: none"> <li>• Strategy and Analysis 1.1-1.2.</li> <li>• Organizational Profile 2.1-2.10.</li> <li>• Report Parameters 3.1-3.13.</li> <li>• Governance, Commitments and Engagement 4.1-4.17.</li> <li>• Disclosure of Management Approach, per category.</li> <li>• Core Performance Indicators.</li> <li>• Any GRI Additional Indicators included.</li> <li>• Any GRI Sector Supplement Indicators included in the report.</li> </ul>	p 101-105,
	Assurance	3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	p 90-91,
Governance, Commitments and Engagement	Governance	4.1	Governance structure of the organization, including committees under the highest governance body (Board of Directors or other) responsible for specific tasks, such as setting strategy or organizational oversight.	p 10 AR p 66-77,
		4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	p 10,
		4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	AR p 68,
		4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	p 12-16 AR p 87,
		4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	AR p 76-83,
		4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	p 70-73 AR p 73-74,
		4.7	Process for determining the qualifications and expertise required of the members of the highest governance body for making decisions on economic, environmental and social strategy.	p 10-11 AR p 74,
		4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	p 2-3, 5, 70-75 AR p 30,
		4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	p 72-73 DR p 74,
		4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	AR p 31-32, 74,
	Commitments to External Initiatives	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	AR p 100-106,
		4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	p 5, 106-107,
		4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies.</li> <li>• Participates in projects or committees.</li> <li>• Provides substantive funding beyond routine membership dues.</li> <li>• Views membership as strategic.</li> </ul>	p 5, 13, 78-79,
	Stakeholder Engagement	4.14	List of stakeholder groups engaged by the organization.	p 12-16,
		4.15	Basis for identification and selection of stakeholders with whom to engage.	p 12-13, 78-79,
		4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	p 12-14, 86,
		4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	p 7, 12-16, 86,

(\*) AR: Annual Report



Category	Subsection	GRI ref.	Description	Pages
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## MANAGERIAL APPROACH AND PERFORMANCE INDICATORS

Disclosure on management approach and performance indicators	Environment	DMA EN	<b>Environment</b>	
			Materials	p 44-45,
			Energy	p 46-49,
			Water	p 38-39,
			Biodiversity	p 40-41,
			Emissions, effluents and waste	p 42-49,
			Products and services	p 4, 24-29,
			Compliance	p 34-35, 72-73, DR p 89-90, 92,
	Overall	p 34-37, 92-93, 98-100,		
	Human rights	DMA HR	<b>Human rights</b>	
			Investment and procurement practices	p 70-75, 96-97,
			Non-discrimination	p 70-73, 96-97,
			Freedom of association and collective bargaining	p 14-16, 66-67, 96-97,
			Prevention of child labor	p 70-73, 96-97,
			Prevention of forced and compulsory labor	p 70-73, 96-97,
			Assessment	p 72-73,
			Remediation	p 72-73, 96-97,
	Labor practices and decent work	DMA LA	<b>Labor practices and decent work</b>	
			Employment	p 52-57,
			Labor/management relations	p 66-67,
			Occupational health and safety	p 34-35, 58-61, 64-65,
			Training and education	p 62-65,
			Diversity and equal opportunity	p 52-57,
			Equal remuneration for women and men	p 56-57,
	Society	DMA SO	<b>Society</b>	
			Community	p 32-33, 76-77, 80-83,
			Corruption	p 70-73,
Public policy			p 78-79,	
Compliance			p 70-73,	
Product responsibility	DMA PR	<b>Product responsibility</b>		
		Customer health and safety	p 96-97,	
		Product and service labeling	p 96-97,	
		Communication marketing	p 96-97,	
Economic	DMA EC	<b>Economic</b>		
		Economic performance	p 8-9, 34-35, 46-49, 96-97,	
		Market presence	p 56-57, 62-63, 96-97,	
		Indirect economic impacts	p 82-83,	

Category	Subsection	Indicator	Description	Pages
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**GRI INDICATORS**

Environmental	Materials	EN1	Materials used by weight or volume.	p 44-45, 98-100,
		EN2	Percentage of materials used that are recycled input materials.	p 44-45, 98-100,
	Energy	EN3	Direct energy consumption by primary energy source.	p 46-49, 98-100,
		EN4	Indirect energy consumption by primary source.	p 46-49, 98-100,
	Water	EN8	Total water withdrawal by source.	p 38-39, 98-100,
		EN10	Percentage and total volume of water recycled and reused.	p 38-39,  (1)
	Biodiversity	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	p 40-41,  (1)
		EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	p 40-41,  (4)
	Emissions, Effluents and Waste	EN16	Total direct and indirect greenhouse gas emissions by weight (tons CO <sub>2</sub> equivalent).	p 46-49, 98-100,
		EN17	Other relevant indirect greenhouse gas emissions by weight (tons CO <sub>2</sub> equivalent).	p 46-49, 98-100,
		EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	p 46-49, 98-100,
		EN19	Emissions of ozone-depleting substances by weight.	
		EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight.	p 42-45, 98-100,  (4)
		EN21	Total water discharge by quality and destination.	p 98-100,  (2)
		EN22	Total weight of waste by type and disposal method.	p 44-45, 98-100,  (4)
		EN23	Total number and volume of significant spills.	p 42-43, 98-100,
	Products and services	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	p 11, 24-29,
		EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	p 11, 24-29,  (2)
	Compliance	EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	p 98-100,  (4)
	Overall	EN30	Total environmental protection expenditures and investments by type.	p 98-100,
Human rights	Investment and Procurement Practices	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	p 96-97,
		HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	p 74-75,
		HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	p 70-75,
	Non -discrimination	HR4	Total number of incidents of discrimination and corrective actions taken.	p 72-73, 96-97, 98-100,
	Freedom of association and collective bargaining	HR5	Operations identified in which the rights to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	p 14-16, 66-67, 96-97, 98-100,
	Child labor	HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	p 72-73, 96-97, 98-100,
	Forced and Compulsory Labor	HR7	Operations identified as having significant risk for incidents of forced or compulsory labor and measures to contribute to the elimination of all forms of forced or compulsory labor.	p 72-73, 96-97, 98-100
	Assessment	HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	p 72-73, 96-97 AR p 89-90,
	Remediation	HR11	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.	p 72-73, 96-97, 98-100,

(1) Certain required information is not available - to be reported in 2015.  
 (2) Certain required information is not available - to be reported in 2014.  
 (3) Certain required information is not available - to be reported in 2012.



Category	Subsection	Indicator	Description	Pages
Labor Practices and Decent Work	Employment	LA1	Total workforce by employment type, employment contract, and region.	p 52, 54-57, 94-95, 98-100, (3)
		LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	p 54-57, 94-95, 98-100, (3)
		LA15	Return to work and retention rates after parental leave, by gender.	p 56-57, (3)
	Labor/Management Relations	LA4	Percentage of employees covered by collective bargaining agreements.	p 66-67, 98-100, (3)
		LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	p 96-97, (3)
	Occupational health and safety	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	p 34-35, 58-61, 94-95, 98-100, (5)
		LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	p 64-65, 96-97, (3)
	Training and education	LA10	Average hours of training per year per employee by gender, and by employee category.	p 64-65, 98-100, (6)
		LA 12	Percentage of employees receiving regular performance and career development reviews, by gender	p 62-63, 98-100, (3)
	Diversity and Equal Opportunity	LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	p 52-57, 94-95, 98-100 AR p 66-68, (5)
Equal remuneration for women and men	LA14	Ratio of basic salary and remuneration of women to men by employee category.	p 56-57, (3)	
Society	Community	S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	p 76-77, 80-83, (3)
		S09	Operations with significant potential or actual negative impacts on local communities.	p 32-33 AR p 103, (3)
		S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	p 32-33, (3)
	Corruption	S02	Percentage and total number of business units analyzed for risks related to corruption.	p 70-73, (3)
		S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	p 70-73, (3)
		S04	Actions taken in response to incidents of corruption.	p 70-73, (5)
	Public Policy	S05	Public policy positions and participation in public policy development and lobbying.	p 78-79, (3)
	Compliance	S08	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	p 98-100, (4)
Product Responsibility	Customer Health and Safety	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	p 96-97, (6)
	Product and service labeling	PR3	Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.	p 96-97, (4)
	Communications marketing	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotions and sponsorship.	p 96-97, (3)
	Compliance	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	p 96-97, (3)
Economic	Economic Performance	EC1	Direct economic value generated and distributed, including revenue, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	p 8-9, (3)
		EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	p 34-35, 46-49, 98-100, (3)
		EC3	Coverage of the organization's defined benefit plan obligations.	AR p 103, (3)
		EC4	Significant financial assistance received from government.	p 96-97 AR p 167, (6)
	Market Presence	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	p 96-97, (3)
		EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	p 56-57, 62-63, (3)
Indirect economic impacts	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	p 82-83, (4)	

(4) Certain required information is not applicable to Saint-Gobain, notably due to the diversity of the Group's sites and businesses.

(5) Certain required information is confidential or not allowed to be collected under certain laws.

(6) Certain required information does not concern Saint-Gobain or has very low relevance to the Group.

# PROGRESS REPORT

## UN GLOBAL COMPACT

Global Compact principles	Main actions in 2011	GRI Indicators
<b>HUMAN RIGHTS</b>		
1. Businesses should support and respect the protection of internationally proclaimed human rights.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> Respect for the law: "All Group companies are to apply in all areas all laws and regulations in force in those countries where they carry on business." Respect for others: "Respect for others is an absolute prerequisite for the professional and personal development of each person. It must be applied throughout the Group worldwide and implies an acceptance of pluralism and others cultures and of people of all origins." - International Principles of Conduct and Action Day organized on November 29, 2011. - All managers, or around 25,000 people worldwide, completed the "ADHERE" on-line training program on our Principles of Conduct and Action. - 800 managers were trained in seminars at the Saint-Gobain School of Management.</li> <li>• <b>Reporting</b> - Specific reporting on human rights was enhanced with two new indicators in 2011.</li> <li>• <b>Responsible purchasing</b> - Development of a responsible purchasing training module. - Deployment of a supplier audit program (57 suppliers audited in 2011). - Inclusion of responsible purchasing clauses in all framework contracts signed by the Group.</li> </ul>	HR1 HR2 HR3 HR10 HR11 S03
2. Business should make sure that they are not complicit in human rights abuses.	<ul style="list-style-type: none"> <li>• See above.</li> <li>• <b>Social audits</b> - Deployment of social audits at Verallia sites.</li> </ul>	HR10 HR11
<b>LABOR</b>		
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Respect for employee rights: "Group companies are to scrupulously ensure that employees' rights are respected. They are to promote an active dialogue with their employees."</li> <li>• <b>Reference to ILO standards</b></li> <li>• <b>Indicator tracking</b> - Percentage of employees covered by collective bargaining agreements: 70.2% - Number of agreements signed with employee representatives: 1,383 - Two incidents involving union activities were recorded during the year. After a review, local judges closed the two cases without further action.</li> </ul>	HR5 LA4
4. Businesses should uphold the elimination of all forms of forced and compulsory labor.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Respect for employee rights: "Group companies shall refrain from any form of recourse to forced labor, compulsory labor or child labor – whether directly or indirectly or through sub-contractors where the latter are working on a Group site."</li> <li>• <b>Reporting</b> - Group Delegations outside France were surveyed; no actions or legal complaints were filed for these types of incidents.</li> <li>• <b>Responsible purchasing</b> (see above for main actions carried out in 2011).</li> </ul>	HR7
5. Businesses should uphold the effective abolition of child labor.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Respect for employee rights: "Group companies shall refrain from any form of recourse to forced labor, compulsory labor or child labor – whether directly or indirectly or through sub-contractors where the latter are working on a Group site."</li> <li>• <b>Reporting</b> - Group Delegations outside France were surveyed; no actions or legal complaints were filed for these types of incidents.</li> <li>• <b>Specific procedures</b> - Group companies verify their employees' ages and carry out additional checks, if needed, in liaison with local authorities.</li> <li>• <b>Responsible purchasing</b> (see above)</li> </ul>	HR6
6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Respect for employee rights: "Group companies shall refrain from any form of discrimination with respect to their employees, whether in the recruitment process, at hiring, or during or at the end of the employment relationship."</li> <li>• <b>Reporting</b> - Group Delegations outside France were surveyed; during the year, 29 grievances were lodged in various countries. Each was reviewed on a case-by-case basis and actions plans were implemented in the corresponding entity, when appropriate.</li> <li>• <b>Human resources policy</b> - Human resources policies are designed to promote gender and other types of diversity, equal opportunity, inclusion of disabled persons and employment of seniors.</li> <li>• <b>Indicator tracking</b> - One case of sexual harassment was recorded in 2011. A corrective action plan was implemented that included terminating the employment relationship with the person responsible.</li> <li>• <b>Compliance alerts system</b> - The network of e-mailboxes has been deployed in virtually all host countries.</li> </ul>	LA 13 LA 14 HR4



Global Compact principles	Main actions in 2011	GRI Indicators
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## ENVIRONMENT

<p><b>7.</b> Businesses should support a precautionary approach to environmental challenges.</p>	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Caring for the environment: “Group Companies are to actively promote the protection of the environment. At company sites management methods shall be followed, wherever the site may be located, which allow measurable environmental performance standards to be set, and actual performance to be regularly evaluated and checked against the applicable standards.”</li> <li>• <b>Water policy</b> - A sustainable management policy for water was rolled out Group-wide.</li> <li>• <b>Reduction of CO<sub>2</sub> emissions</b> - A carbon assessment tool was implemented to get a better idea of our companies’ emissions.</li> <li>• <b>EHS standards and recommendations</b> - Three new safety standards were adopted, adding to those already in place at the sites.</li> <li>• <b>Toxic risks</b> - A specific resource was deployed for managing toxic, mechanical, electrical and other risks in our industrial facilities.</li> </ul>	<p>EC2 EN8 EN16 EN18 EN21</p>
<p><b>8.</b> Businesses should undertake initiatives to promote greater environmental responsibility.</p>	<ul style="list-style-type: none"> <li>• <b>Jobsite waste management and recycling</b> - An evaluation of the management and of the recycling of jobsite waste was conducted in each business to identify effective ways of handling end-of-life products and packaging during construction, renovation and demolition projects.</li> <li>• <b>Eco-innovation</b> - An eco-innovation policy was defined to ensure that everyone involved in the innovation chain takes into account our solutions’ life-cycle environmental impact, so that this impact can be reduced from the development stage onwards.</li> <li>• <b>Raising awareness among stakeholders</b> - Recommendations for building standards and environmental labels were drafted so that our customers can be fully informed and make fact-based decisions.</li> </ul>	<p>EN26 EN27 PR1</p>
<p><b>9.</b> Businesses should encourage the development and diffusion of environmentally friendly technologies.</p>	<ul style="list-style-type: none"> <li>• <b>Sustainable habitat strategy</b> - Construction and renovation solutions were developed and launched to ensure that buildings are energy efficient, comfortable, healthy and esthetically superior, while at the same time protecting natural resources. - In 2011, 33% of Group sales were generated by products and services that contribute significantly to energy efficiency and/or environmental protection.</li> </ul>	<p>EN26 PR3</p>

## ANTI-CORRUPTION

<p><b>10.</b> Businesses should work against corruption in all its forms, including extortion and bribery.</p>	<ul style="list-style-type: none"> <li>• <b>Principles of Conduct and Action</b> (see above for main actions carried out in 2011) Respect for the law: “All Group companies (...) reject all forms of active or passive corruption whether in domestic or international transactions.” »</li> <li>• <b>Reference to the OECD Convention</b> on Combatting Bribery of Foreign Public Officials (published on December 17, 1997).</li> <li>• <b>Group Compliance Program</b> - Responsible development (see above) - Competition plan - Audits and internal controls - Compliance alerts system (see above)</li> <li>• <b>Compliance network</b> - Implementation of a Group Compliance Program under the authority of the Corporate Secretary, supported by a dedicated network comprising 25 compliance correspondents, a compliance committee in each General Delegation and a Group Compliance Committee. In total, the network includes around 80 corporate and line executives.</li> <li>• <b>Indicator tracking</b> - One case of corruption in the private sector was reported in 2011. An investigation was conducted and the individuals involved were disciplined.</li> </ul>	<p>S02 S03 S04 S05</p>
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## Statement GRI Application Level Check

GRI hereby states that **SAINT-GOBAIN** has presented its report "Sustainable Development Report 2011" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, March 30th 2012

  
Nelmar Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The "+" has been added to this Application Level because **SAINT-GOBAIN** has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on March 23rd 2012. GRI explicitly excludes the statement being applied to any later changes to such material.

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