# CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2018

CONSOLIDATION REPORTING GROUP DEPARTMENT

**Compagnie de Saint-Gobain**

**STATUTORY AUDITORS' REPORT**
**ON THE CONSOLIDATED FINANCIAL STATEMENTS**

**For the year ended December 31, 2018**

**The Statutory Auditors**


**PricewaterhouseCoopers Audit**
**Crystal Park**
**63, rue de Villiers**
**92208 Neuilly-sur-Seine Cedex**
**France**

**KPMG Audit**
**Tour Eqho**
**2, avenue Gambetta**
**CS 60055**
**92066 Paris La Défense Cedex**
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## STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

### For the year ended December 31, 2018

*This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report includes information specifically required by European regulations or French law, such as information about the appointment of Statutory Auditors. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

**Compagnie de Saint-Gobain SA**
Les Miroirs
18, avenue d'Alsace
92400 Courbevoie
France

**To the Shareholders,**

## 1. Opinion

In compliance with the engagement entrusted to us by your Shareholders' Meeting, we have audited the accompanying consolidated financial statements of Compagnie de Saint-Gobain for the year ended December 31, 2018.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group at December 31, 2018 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

## 2. Basis for opinion

### *Audit framework*

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under these standards are further described in the "Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements" section of our report.

### *Independence*

We conducted our audit engagement in compliance with the independence rules applicable to us for the period from January 1, 2018 to the date of our report and, in particular, we did not provide any non-audit services prohibited by article 5(1) of Regulation (EU) No 537/2014 or the French Code of Ethics (*Code de déontologie*) for Statutory Auditors.

## 3. Emphasis of matter

Without qualifying our opinion, we draw your attention to Note 3 "Impact of new standards" to the consolidated financial statements, which describes the consequences of the adoption on January 1, 2018 of IFRS 15 – "Revenue from Contracts with Customers" and IFRS 9 – "Financial Instruments".

## 4. Justification of assessments – Key audit matters

In accordance with the requirements of articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgment, were the most significant in our audit of the consolidated financial statements, as well as how we addressed those risks.

These matters were addressed as part of our audit of the consolidated financial statements as a whole, and therefore contributed to the opinion we formed as expressed above. We do not provide a separate opinion on specific items of the consolidated financial statements.

### *Measurement of goodwill, intangible assets and property, plant & equipment*

**Description of risk**

The carrying amounts of goodwill, intangible assets and property, plant & equipment were significant at December 31, 2018, amounting to €9,988 million, €2,526 million and €11,335 million, respectively. These assets may be impaired due to internal or external factors, including decisions to change the Group's strategy in certain markets, a decline in Group performance, changes in competition, unfavorable market conditions and changes in legislation or regulations. These changes are likely to have an impact on the Group's forecast cash flow and, consequently, the assets' recoverable amount.

The impairment tests and analyses of fair value less costs to sell performed by Management using the method described in Note 6.5 to the consolidated financial statements led to the recognition of impairment losses of €2,003 million in the fiscal year ended December 31, 2018, as indicated in Note 4 to the consolidated financial statements.

Determining the assets' recoverable amount is a key audit matter given the potentially significant nature of any impairment, the importance of estimates and the level of judgment required by Management in assessing impairment losses. Management exercises judgment when making assumptions regarding future changes in sales (in both volume and value terms), profitability, investments and the other cash flows required to operate the assets, and when determining an appropriate discount rate to apply to future cash flows.

**How our audit addressed this risk**

We familiarized ourselves with the procedures implemented by Group Management for impairment testing and analysis purposes, verified the consistency of the method used for impairment testing, and tested the effectiveness of the controls performed by Management to ensure the quality and reliability of the impairment testing process and its consistency with budget data and the strategic plan prepared by General Management and presented to the Board of Directors in September 2018. We assessed the consistency and relevance of the modifications made to certain forecast data in the September 2018 strategic plan in light of subsequent events, such as the announcement of the Transform & Grow plan and developments in Brexit negotiations.

We also assessed the consistency and relevance of Management's approach to determine the cash generating units for asset impairment testing. We adapted our audit approach to the risk of impairment, which varies depending on the cash generating unit.

Our valuation specialists performed an independent analysis of certain key assumptions used by Management for impairment testing and analysis purposes, in particular the discount rate and average annual growth rate to infinity of future cash flows, by referring to both external market data and comparable company analyses.

For a selection of cash generating units, we analyzed the consistency of future cash flow projections with regard to past performance, our knowledge of the business, confirmed by interviews with the Heads of the relevant Sectors and Activities and, where available, external market or competition data. We carefully reviewed the calculation of the normalized amount of the terminal cash flows projected until perpetuity. We performed our own sensitivity analyses of certain key variables of the measurement model to assess the materiality of their potential impact on the recoverable amount of the most high-risk assets.

We verified that the disclosures provided in the notes to the consolidated financial statements on the measurement of goodwill, intangible assets and property, plant & equipment, the underlying assumptions and sensitivity analyses was appropriate.

## *Measurement of provisions for liabilities and litigation related to asbestos*

**Description of risk**

The Group is exposed to various legal risks, including asbestos-related litigation in the United States and Brazil.

As indicated in Note 8 to the consolidated financial statements, provisions amounting to €1,328 million were recognized at December 31, 2018 for contingent liabilities and litigation. Significant contingent liabilities, whose amount or timing cannot be estimated with sufficient reliability, are disclosed in the notes to the consolidated financial statements.

With regard to asbestos-related risks in the United States and Brazil, determining and measuring the provisions recognized for contingent liabilities and litigation and assessing the appropriateness of the related disclosures in the notes to the consolidated financial statements are a key audit matter given the amounts involved, the importance of estimates and the level of judgment required by Management in determining those provisions. Judgment was required, in particular, in estimating the number and cost of future disputes.

**How our audit addressed this risk**

To obtain an understanding of contingent liabilities and litigation regarding asbestos in the United States and Brazil and the related matters of judgment, we held discussions with Management at Group, Sector and Delegation level as well as at the main subsidiaries.

In addition, we:

- reviewed the minutes of the Board of Directors' meetings and the Group's risk mapping prepared by Management and presented to the Audit and Risk Committee;
- familiarized ourselves with the procedures implemented by Management when measuring the provisions for asbestos-related risks in the United States and Brazil and determining the disclosures thereon in the notes to the consolidated financial statements;
- carried out a critical review of internal analyses relating to the probability and possible impact of these liabilities and items of litigation, examining the available information relating to the proceedings (correspondence, claims, judgments, notifications, etc.). We also reviewed the legal or technical opinions of the law firms or external specialists chosen by Management, as well as their responses to confirmation letters. We used our professional judgment to assess the positions adopted by Management, to see where they fell within risk assessment ranges and the consistency of those positions over time;
- measured the asbestos-related provisions, based on a statistical model, verified that the consistency principle was complied with and checked the relevance and reliability of the source data and calculation formulas used. Where applicable, we compared the amounts paid with previously recognized provisions in order to form an opinion on the quality of Management's estimates.

We assessed the appropriateness of the disclosures provided in the notes to the consolidated financial statements regarding these items of litigation and contingent liabilities identified.

## *Agreement relating to the purchase of Sika shares*

**Description of risk**

As indicated in Notes 2.2 and 2.5 to the consolidated financial statements, the Saint-Gobain Group announced on May 11, 2018 that it had entered into an overall agreement with Sika and the Burkard family under which, following several successive transactions over the year 2018, Saint-Gobain, through SWH, became Sika's largest shareholder, holding 10.75% of the share capital and voting rights, and agreed to certain lock-up periods on shares and standstill obligations over specific time frames. This overall agreement terminated and resolved the disputes between Sika, the Burkard family and Saint-Gobain.

For Saint-Gobain, the agreement resulted in total income of €781 million, including a financial gain of €601 million (i.e., the difference between the fair value of the shares at the date of the transaction and the value of the call entered into in December 2014), and a compensatory indemnity of €180 million recorded in other business income. The Group has elected to recognize subsequent changes in the fair value of the Sika shares held by SWH within income and expenses recognized directly in equity.

The allocation of the overall amount from this agreement to the various lines in the income statement, the presentation of the shares in the balance sheet and the accounting treatment of the transaction in Swiss francs are a key audit matter given the amounts at stake, the complex nature of the components making up the overall agreement, the multiple accounting impacts and the degree of judgment required by Management in the choice and use of the applicable accounting standards.

**How our audit addressed this risk**

In order to obtain a thorough understanding of the various components making up the overall agreement, including its terms and conditions, and to assess the accounting treatment of the agreement, we:

- analyzed the various contracts entered into by the Group: firstly those between the Group and Sika and the Burkard family, and secondly those entered into as part of the financing and currency hedges associated with the agreement;
- familiarized ourselves with the minutes of the related Board of Directors' meetings;
- performed a critical assessment of the methods used to determine the fair value of the Sika shares at the time of the transaction; and
- conducted interviews with the main Group departments involved.

We familiarized ourselves with the procedures implemented by the Group to ensure that the agreement and related transactions were properly accounted for in the consolidated financial statements and to determine the disclosures to be provided in the notes to the consolidated financial statements.

With regard to how the overall amount of the agreement was determined and presented in the consolidated income statement and the consolidated statement of cash flows, we:

- assessed compliance with IFRS;
- corroborated the amounts with the items in the underlying contracts; and
- verified the accuracy of the calculations.

We ensured that the presentation and subsequent accounting and valuation rules applied to the shares held by the Group following the transaction complied with IFRS.

We assessed the appropriateness of the disclosures provided in the notes to the consolidated financial statements regarding the agreement and its accounting impact.

### *Measurement of supplier discounts in the Building Distribution Sector*

**Description of risk**

The Building Distribution Sector accounted for 46% of the Group's sales for fiscal year 2018. The profitability of the Sector's business activities varies depending on supplier discounts received, which lower the cost price of negotiated goods. As indicated in Notes 4.1.2, 4.5.1 and 4.5.2 to the consolidated financial statements, the recognition of supplier discounts specifically affects "Cost of sales" in the consolidated income statement as well as "Inventories" and "Other receivables" in the consolidated balance sheet.

Given the diversity of products and suppliers in the Building Distribution Sector, supplier contracts are numerous, complex and varied. They give rise to several supplier discounts, some of which are subject to volume conditions or targets, granted at various Sector levels (local, regional, national and international). Measuring accrued supplier discounts is a key audit matter as the monitoring thereof is complex and requires estimates to be made by Management. Determining the amounts of supplier discounts to be taken into account when measuring inventories for brands in the Building Distribution Sector is also a significant audit matter.

**How our audit addressed this risk**

We gained an understanding of the process used by the Sales and Finance Departments of the Building Distribution Sector to estimate accrued supplier discounts at the reporting date and performed tests on the effectiveness of the controls performed by Management.

We also assessed, on a multi-year basis, the consistency of the supplier discount rates obtained per brand and country, confirmed by interviews with the Sales and Finance Departments at various levels within the Sector. Using a sample, we remeasured the supplier discounts obtained based on the terms and conditions of the relevant agreements and volumes purchased. We also retrospectively cross-checked cash and credit notes received after the reporting date against the receivables recognized and asked a sample of suppliers to directly confirm the discount amounts due for the fiscal year.

With regard to the accuracy of the supplier discounts taken into account when measuring inventories for brands in the Building Distribution Sector, we verified that the accounting methods were applied consistently across all the brands. Using sampling techniques, we cross-checked the measurement of certain inventory items against supplier invoices, estimating supplier discounts granted subsequently.

We verified that the disclosures provided in the notes to the consolidated financial statements regarding supplier discounts was appropriate.

## 5. Specific verifications

As required by legal and regulatory provisions and in accordance with professional standards applicable in France, we have also verified the information pertaining to the Group presented in the Board of Directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the information pertaining to the Group provided in the management report comprises the consolidated non-financial information statement required under article L.225-102-1 of the French Commercial Code. However, in accordance with article L.823-10 of the French Commercial Code, we have not verified the fair presentation and consistency with the consolidated financial statements of the information given in that statement, which will be the subject of a report by an independent third party.

## 6. Report on other legal and regulatory requirements

### *Appointment of the Statutory Auditors*

We were appointed Statutory Auditor of Compagnie de Saint-Gobain by the Shareholders' Meetings held on June 26, 1986 for Petiteau Scacchi (subsequently PricewaterhouseCoopers Audit) and on June 10, 2004 for KPMG Audit.

As of December 31, 2018, PricewaterhouseCoopers Audit and KPMG Audit were in the thirty-third year and the fifteenth consecutive year of their engagement, respectively.

## 7. Responsibilities of Management and those charged with governance for the consolidated financial statements

Management is responsible for preparing consolidated financial statements giving a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and for implementing the internal control procedures it deems necessary for the preparation of consolidated financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern, and using the going concern basis of accounting, unless it expects to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems, as well as, where applicable, any internal audit systems, relating to accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

## 8. Responsibilities of the Statutory Auditors relating to the audit of the consolidated financial statements

### *Objective and audit approach*

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free of material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions taken by users on the basis of these consolidated financial statements.

As specified in article L.823-10-1 of the French Commercial Code, our audit does not include assurance on the viability or quality of the Company's management.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditors exercise professional judgment throughout the audit. They also:

- identify and assess the risks of material misstatement in the consolidated financial statements, whether due to fraud or error, design and perform audit procedures in response to those risks, and obtain audit evidence considered to be sufficient and appropriate to provide a basis for their opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtain an understanding of the internal control procedures relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the consolidated financial statements;

- assess the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of the audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditors conclude that a material uncertainty exists, they are required to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or are inadequate, to issue a qualified opinion or a disclaimer of opinion;

- evaluate the overall presentation of the consolidated financial statements and assess whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;

- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The Statutory Auditors are responsible for the management, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed thereon.

## *Report to the Audit and Risk Committee*

We submit a report to the Audit and Risk Committee which includes, in particular, a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were the most significant for the audit of the consolidated financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Risk Committee.

Neuilly-sur-Seine and Paris La Défense, February 21, 2019

The Statutory Auditors

| PricewaterhouseCoopers Audit | KPMG Audit<br>*Department of KPMG SA* |
|---|---|
| Edouard Sattler     Cécile Saint-Martin | Jean-Paul Thill     Bertrand Pruvost |

## CONSOLIDATION REPORTING GROUP DEPARTMENT

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# CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED BALANCE SHEET

At December 31

| *(in € millions)* | Notes | 2018 | 2017 |
|---|---|---|---|
| **Assets** | | | |
| Goodwill | (6) | 9,988 | 10,575 |
| Other intangible assets | (6) | 2,526 | 2,603 |
| Property, plant and equipment | (6) | 11,335 | 11,590 |
| Investments in equity-accounted companies | (7) | 412 | 379 |
| Deferred tax assets | (11) | 837 | 938 |
| Other non-current assets | (7) | 2,527 | 774 |
| **Non-current assets** | | **27,625** | **26,859** |
| Inventories | (4) | 6,252 | 6,041 |
| Trade accounts receivable | (4) | 4,968 | 5,134 |
| Current tax receivable | (11) | 286 | 204 |
| Other receivables | (4) | 1,609 | 1,395 |
| Assets held for sale | (2) | 614 | 0 |
| Cash and cash equivalents | (9) | 2,688 | 3,284 |
| **Current assets** | | **16,417** | **16,058** |
| **Total assets** | | **44,042** | **42,917** |
| **Equity and liabilities** | | | |
| Capital stock | (10) | 2,186 | 2,214 |
| Additional paid-in capital and legal reserve | (10) | 5,646 | 5,944 |
| Retained earnings and consolidated net income | (10) | 11,969 | 12,167 |
| Cumulative translation adjustments | | (1,640) | (1,756) |
| Fair value reserves | | (124) | 22 |
| Treasury stock | (10) | (106) | (123) |
| **Shareholders' equity** | | **17,931** | **18,468** |
| Minority interests | | 331 | 384 |
| **Total equity** | | **18,262** | **18,852** |
| Non-current portion of long-term debt | (9) | 9,218 | 7,655 |
| Provisions for pensions and other employee benefits | (5) | 2,525 | 2,927 |
| Deferred tax liabilities | (11) | 472 | 427 |
| Other non-current liabilities and provisions | (8) | 1,036 | 1,053 |
| **Non-current liabilities** | | **13,251** | **12,062** |
| Current portion of long-term debt | (9) | 1,184 | 1,064 |
| Current portion of other liabilities and provisions | (8) | 465 | 412 |
| Trade accounts payable | (4) | 6,116 | 6,027 |
| Current tax liabilities | (11) | 104 | 157 |
| Other payables | (4) | 3,859 | 3,823 |
| Liabilities held for sale | (2) | 322 | 0 |
| Short-term debt and bank overdrafts | (9) | 479 | 520 |
| **Current liabilities** | | **12,529** | **12,003** |
| **Total equity and liabilities** | | **44,042** | **42,917** |

The accompanying notes are an integral part of the consolidated financial statements.

## CONSOLIDATED INCOME STATEMENT

| *(in € millions)* | Notes | 2018 | 2017 |
|---|---|---|---|
| Net sales | (4) | 41,774 | 40,810 |
| Cost of sales | (4) | (31,172) | (30,420) |
| General expenses including research | (4) | (7,510) | (7,395) |
| Share in net income of core business equity-accounted companies | (7) | 30 | 33 |
| **Operating income** | | **3,122** | **3,028** |
| Other business income | (4) | 435 | 121 |
| Other business expense | (4) | (2,759) | (638) |
| **Business income** | | **798** | **2,511** |
| Borrowing costs, gross | | (300) | (298) |
| Income from cash and cash equivalents | | 22 | 23 |
| Borrowing costs, net | | (278) | (275) |
| Other financial income and expense | | 467 | (173) |
| **Net financial expense** | **(9)** | **189** | **(448)** |
| Share in net income of non-core business equity-accounted companies | (7) | 0 | 0 |
| Income taxes | (11) | (490) | (438) |
| **Net income** | | **497** | **1,625** |
| **Group share of net income** | | **420** | **1,566** |
| Minority interests | | 77 | 59 |
| | | | |
| Earnings per share, Group share *(in €)* | **(10)** | 0.77 | 2.83 |
| Weighted average number of shares in issue | | 547,105,985 | 553,383,836 |
| **Diluted earnings per share, Group share** *(in €)* | **(10)** | 0.76 | 2.81 |
| Weighted average number of shares assuming full dilution | | 550,016,438 | 556,655,598 |

The accompanying notes are an integral part of the consolidated financial statements.

## CONSOLIDATED STATEMENT OF RECOGNIZED INCOME AND EXPENSE

| *(in € millions)* | Notes | 2018 | 2017 |
|---|---|---|---|
| **Net income** | | **497** | **1,625** |
| **Items that may be subsequently reclassified to profit or loss** | | | |
| Translation adjustments | | (56) | (1,048) |
| Changes in fair value of financial instruments | (9) | (77) | (169) |
| Tax on items that may be subsequently reclassified to profit or loss | | 24 | 59 |
| **Items that will not be reclassified to profit or loss** | | | |
| Changes in actuarial gains and losses | (5) | 307 | 465 |
| Tax on items that will not be reclassified to profit or loss | (11) | (69) | (89) |
| Changes in assets at fair value through equity | (7) | (69) | 0 |
| Liability method on items that will not be reclassified to profit or loss | (11) | (1) | (252) |
| Other | | (45) | (2) |
| **Income and expense recognized directly in equity** | | **14** | **(1,036)** |
| **Total recognized income and expense for the year** | | **511** | **589** |
| Group share | | 452 | 563 |
| Minority interests | | 59 | 26 |

The accompanying notes are an integral part of the consolidated financial statements.

## CONSOLIDATED STATEMENT OF CASH FLOWS

| *(in € millions)* | Notes | 2018 | 2017 |
|---|---|---|---|
| **Group share of net income** | | **420** | **1,566** |
| Minority interests in net income | (a) | 77 | 59 |
| Share in net income of equity-accounted companies, net of dividends received | (7) | (19) | (13) |
| Depreciation, amortization and impairment of assets | (4) | 3,205 | 1,442 |
| Gains and losses on disposals of assets | (4) | (20) | (46) |
| Non-recurring SWH/Sika net income | (2) | (781) | 0 |
| Unrealized gains and losses arising from changes in fair value and share-based payments | | 23 | 16 |
| Restatement for hyperinflation in Argentina | | (4) | 0 |
| Changes in inventory | (4) | (418) | (348) |
| Changes in trade accounts receivable and payable, and other accounts receivable and payable | (4) | 98 | 139 |
| Changes in tax receivable and payable | (4) | (133) | 236 |
| Changes in deferred taxes and provisions for other liabilities and charges | (5)(8)(11) | 44 | (286) |
| **Net cash from operating activities** | | **2,492** | **2,765** |
| Acquisitions of property, plant and equipment [2018: (1,666), 2017: (1,538)] and intangible assets | (6) | (1,855) | (1,722) |
| Increase (decrease) in amounts due to suppliers of fixed assets | (4) | (19) | 99 |
| Acquisitions of shares in consolidated companies [2018: (669), 2017: (553)], net of cash acquired | | (626) | (492) |
| Acquisitions of other investments | (7) | (937) | (84) |
| Increase in investment-related liabilities | (8) | 39 | 17 |
| Decrease in investment-related liabilities | (8) | (25) | (42) |
| **Investments** | | **(3,423)** | **(2,224)** |
| Disposals of property, plant and equipment and intangible assets | (6) | 30 | 158 |
| Disposals of shares in consolidated companies, net of cash divested | | 192 | 4 |
| Disposals of other investments | (7) | 3 | 1 |
| (Increase) decrease in amounts receivable on sales of fixed assets | (4) | (108) | 25 |
| **Divestments** | | **117** | **188** |
| Increase in loans, deposits and short-term loans | (7) | (268) | (183) |
| Decrease in loans, deposits and short-term loans | (7) | 155 | 186 |
| **Changes in loans, deposits and short-term loans** | | **(113)** | **3** |
| **Net cash from (used in) investment and divestment activities** | | **(3,419)** | **(2,033)** |
| Issues of capital stock | (a) | 193 | 187 |
| (Increase) decrease in treasury stock | (a) | (532) | (406) |
| Dividends paid | (a) | (707) | (693) |
| **Transactions with shareholders of the parent company** | | **(1,046)** | **(912)** |
| Minority interests' share in capital increases of subsidiaries | (a) | 16 | 7 |
| Acquisitions of minority interests without gain of control | (7) | (93) | (4) |
| Disposals of minority interests without loss of control | (7) | 0 | 25 |
| Changes in investment-related liabilities following the exercise of put options of minority shareholders | (8) | 0 | (36) |
| Dividends paid to minority shareholders of consolidated subsidiaries | (a) | (55) | (27) |
| Change in dividends payable | | 11 | (11) |
| **Transactions with minority interests** | | **(121)** | **(46)** |
| Increase (decrease) in bank overdrafts and other short-term debt | | (4) | (107) |
| Increase in long-term debt | (b)(9) | 2,512 | 1,603 |
| Decrease in long-term debt | (b)(9) | (962) | (1,655) |
| **Changes in gross debt** | | **1,546** | **(159)** |
| **Net cash from (used in) financing activities** | | **379** | **(1,117)** |
| **Increase (decrease) in cash and cash equivalents** | | **(548)** | **(385)** |
| Net effect of exchange rate changes on cash and cash equivalents | | (39) | (70) |
| Net effect of changes in fair value on cash and cash equivalents | | 0 | 1 |
| Cash and cash equivalents classified within assets held for sale | | (9) | 0 |
| **Cash and cash equivalents at beginning of year** | | **3,284** | **3,738** |
| **Cash and cash equivalents at end of year** | | **2,688** | **3,284** |

(a) Please refer to the consolidated statement of changes in equity.

(b) Including bond premiums, prepaid interest and issue costs.

In 2018, income tax paid amounted to €537 million (2017: €209 million) and interest paid net of interest received totaled €267 million (2017: €308 million).

The accompanying notes are an integral part of the consolidated financial statements.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

| (number of shares) | | | (in € millions) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Issued | Outstanding | | Capital stock | Additional paid-in capital and legal reserve | Retained earnings and consolidated net income | Cumulative translation adjustments | Fair value reserves | Treasury stock | Shareholders' equity | Minority interests | Total equity |
| **555,280,358** | **553,388,403** | **At December 31, 2016** | **2,221** | **6,090** | **11,077** | **(742)** | **191** | **(72)** | **18,765** | **375** | **19,140** |
| | | Income and expenses recognized directly in equity | 0 | 0 | 180 | (1,014) | (169) | 0 | **(1,003)** | (33) | **(1,036)** |
| | | Net income for the year | | | 1,566 | | | | **1,566** | 59 | **1,625** |
| | | **Total income and expense for the year** | **0** | **0** | **1,746** | **(1,014)** | **(169)** | **0** | **563** | **26** | **589** |
| | | Issues of capital stock | | | | | | | | | |
| 4,593,807 | 4,593,807 | Group Savings Plan | 18 | 150 | | | | | **168** | | **168** |
| 682,926 | 682,926 | Stock option plans | 3 | 16 | | | | | **19** | | **19** |
| | | Other | | | | | | | **0** | 7 | **7** |
| | | Dividends paid (€1.26 per share) | | | (693) | | | | **(693)** | (27) | **(720)** |
| | (9,595,036) | Shares purchased | | | (15) | | | (462) | **(477)** | | **(477)** |
| | 1,715,619 | Shares sold | | | | | | 71 | **71** | | **71** |
| (7,000,000) | | Shares canceled | (28) | (312) | | | | 340 | **0** | | **0** |
| | | Share-based payments | | | 17 | | | | **17** | | **17** |
| | | Changes in Group structure and other | | | 35 | | | | **35** | 3 | **38** |
| **553,557,091** | **550,785,719** | **At December 31, 2017** | **2,214** | **5,944** | **12,167** | **(1,756)** | **22** | **(123)** | **18,468** | **384** | **18,852** |
| | | IFRS 9 and IFRS 15* restatements | | | (24) | | | | **(24)** | 0 | **(24)** |
| | | Restatement for hyperinflation in Argentina | | | (93) | 154 | | | **61** | | **61** |
| **553,557,091** | **550,785,719** | **Restated at January 1, 2018** | **2,214** | **5,944** | **12,050** | **(1,602)** | **22** | **(123)** | **18,505** | **384** | **18,889** |
| | | Income and expenses recognized directly in equity | 0 | 0 | 216 | (38) | (146) | 0 | **32** | (18) | **14** |
| | | Net income for the year | | | 420 | | | | **420** | 77 | **497** |
| | | **Total income and expense for the year** | **0** | **0** | **636** | **(38)** | **(146)** | **0** | **452** | **59** | **511** |
| | | Issues of capital stock | | | | | | | | | |
| 4,932,767 | 4,932,767 | Group Savings Plan | 20 | 159 | | | | | **179** | | **179** |
| 556,595 | 556,595 | Stock option plans | 2 | 12 | | | | | **14** | | **14** |
| | | Other | | | | | | | **0** | 16 | **16** |
| | | Dividends paid (€1.30 per share) | | | (707) | | | | **(707)** | (55) | **(762)** |
| | (14,050,245) | Shares purchased | | | (30) | | | (583) | **(613)** | | **(613)** |
| | 1,654,431 | Shares sold | | | | | | 81 | **81** | | **81** |
| (12,461,449) | | Shares canceled | (50) | (469) | | | | 519 | **0** | | **0** |
| | | Share-based payments | | | 28 | | | | **28** | | **28** |
| | | Changes in Group structure and other | | | (8) | | | | **(8)** | (73) | **(81)** |
| **546,585,004** | **543,879,267** | **At December 31, 2018** | **2,186** | **5,646** | **11,969** | **(1,640)** | **(124)** | **(106)** | **17,931** | **331** | **18,262** |

* The restatements are explained in Note 3 “Impact of new standards”.

The accompanying notes are an integral part of the consolidated financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The consolidated financial statements reflect the accounting position of Compagnie de Saint-Gobain and its subsidiaries (“the Group”), as well as the Group’s interests in associate companies and joint ventures. They are expressed in euros rounded to the nearest million.

These consolidated financial statements were adopted on February 21, 2019 by the Board of Directors and will be submitted to the Shareholders’ Meeting of June 6, 2019 for approval.

Accounting principles and policies are highlighted in a distinct color.

## NOTE 1 ACCOUNTING PRINCIPLES AND POLICIES

The accounting policies applied are consistent with those used to prepare the financial statements for the year ended December 31, 2017, except for (i) the application of the new standards and interpretations described below and (ii) IAS 29, “Financial Reporting in Hyperinflationary Economies”. The consolidated financial statements have been prepared using the historical cost convention, except for certain assets and liabilities that have been measured using the fair value model as explained in these notes.

### 1.1. Standards applied

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and interpretations adopted for use in the European Union at December 31, 2018. These financial statements have also been prepared in accordance with the IFRS issued by the International Accounting Standards Board (IASB). Standards adopted by the European Union may be consulted on the European Commission website, at https://ec.europa.eu/info/law/international-accounting-standards-regulation-ec-no-1606-2002/

#### 1.1.1. Standards, interpretations and amendments to existing standards applicable for reporting periods beginning on or after January 1, 2018

Certain new standards, interpretations and amendments to existing standards are applicable for the 2018 reporting period. The Group changed its accounting policies accordingly and recorded retrospective restatements following the adoption of:

- IFRS 9, “Financial Instruments”
- IFRS 15, “Revenue from Contracts with Customers”

The impact of adopting these standards is set out in Note 3.

- Amendments to IFRS 2, “Share-based Payment”
- Amendments to IFRS 4, “Insurance Contracts”
- Amendments to IAS 40, “Investment Property”
- IFRIC 22, “Foreign Currency Transactions”
- Annual improvements to IFRSs – 2014-2016 cycle.

The adoption of these amendments and interpretations did not have a material impact on the Group’s consolidated financial statements.

#### 1.1.2. Standards, interpretations and amendments to existing standards available for early adoption in reporting periods beginning on or after January 1, 2018

The new standards, interpretations and amendments to existing standards applicable to accounting periods starting on or after January 1, 2019 were not early adopted by the Group at December 31, 2018.

- IFRS 16, "Leases"

Saint-Gobain has chosen to apply IFRS 16 using the full retrospective method with effect from January 1, 2019 and will restate all of its leases that fall within the scope of the standard. IFRS 16 provides for a number of recognition exemptions:

- leases with a lease term of 12 months or less;
- leases where the underlying asset has a value of less than USD 5,000 when new.

After organizing its IFRS 16 projects in 2017, the Group continued to identify and compile data on its leases in 2018. The Group identified some 47,000 leases, including 5,500 property leases.

In order to calculate the relevant impacts and monitor the leases from an operational standpoint, the Group put in place an IT solution enabling it to:

- record and perform calculations for all leases,
- update information in real time,
- generate accounting entries,
- manage forecast data,
- analyze financial impacts.

The estimated impact of applying IFRS 16 on the opening balance sheet at January 1, 2018 is as follows:

- recognition of a right-of-use asset of between €2.8 billion and €3.0 billion,
- recognition of a lease liability of between €3.0 billion and €3.3 billion,
- decrease in equity of between €0.2 billion and €0.3 billion.

The lease liability approximates the amount disclosed in off-balance sheet commitments for leases.

The estimated impact of applying IFRS 16 on the 2018 income statement is as follows:

- a positive impact of between €0.7 billion and €0.8 billion on EBITDA,
- a negative impact of around €0.1 billion on net financial income (expense).

These amounts include assets and liabilities held for sale and any related gains and losses (see section 2.3).

Leases of property assets: the Group has reviewed and analyzed all of its property leases in light of the lease definition criteria set out in IFRS 16. The lease term corresponds to the non-cancelable period of the lease, plus any renewal (termination) options that the Group is reasonably certain to exercise (not to exercise). The Group has adopted the position of the French accounting standard-setter (*Autorité des normes comptables* – ANC) in respect of "3/6/9-year" commercial leases in France, i.e., limiting the term of such leases to nine years. The discount rate used to determine the right-of-use asset and the lease liability for each country and leased asset is calculated based on the incremental borrowing rate at inception of the lease. The Group calculated the rate applicable to each lease contract on the basis of the lease term.

Leases of non-property assets: the Group has reviewed and analyzed all of its non-property leases to ensure they meet the definition and recognition criteria set out in IFRS 16. Based on this analysis, the main leases identified correspond to leases of vehicles, machinery and production equipment.

- IFRIC 23, "Uncertainty over Income Tax Treatments"

The Group is currently analyzing the impact of IFRIC 23 on its consolidated financial statements. It did not elect to early adopt IFRIC 23, which it does not expect to have a material impact on its consolidated financial statements.

- Amendments to IFRS 9, "Financial Instruments"

The Group did not elect to early adopt IFRS 9, which it does not expect to have a material impact on its consolidated financial statements.

### 1.2. Estimates and assumptions

The preparation of consolidated financial statements in compliance with IFRS requires management to make estimates and assumptions that affect the amounts of assets and liabilities reported in the balance sheet and the disclosure of contingent assets and liabilities in the notes to the financial statements, as well as the reported amounts of income and expenses during the period. These estimates and assumptions are based on past experience and on various other factors seen in the prevailing economic and financial environment, which makes it difficult to predict future business performance. Actual amounts may differ from those obtained through the use of these estimates and assumptions.

The main estimates and assumptions described in these notes concern the measurement of employee benefit obligations and share-based payment (Note 5 “Employees, personnel expenses and employee benefit obligations”), asset impairment tests (Note 6 “Intangible assets and property, plant and equipment”), provisions for other liabilities and charges (Note 8 “Other current and non-current liabilities and provisions, contingent liabilities and litigation”), the measurement of financial instruments (Note 9 “Financing and financial instruments”), and taxes (Note 11 “Taxes”).

## NOTE 2 SCOPE OF CONSOLIDATION

### 2.1. Accounting principles related to consolidation

The Group’s consolidated financial statements include the accounts of Compagnie de Saint-Gobain and of all companies controlled by the Group, as well as those of jointly controlled companies and companies over which the Group exercises significant influence.

#### 2.1.1. Consolidation methods

a) Full consolidation

Companies over which the Group exercises exclusive control, either directly or indirectly, are fully consolidated.

b) Joint arrangements

Joint arrangements that meet the definition of joint ventures are accounted for by the equity method. Balance sheet and income statement items relating to joint arrangements that meet the definition of joint operations are consolidated line-by-line based on the amount actually contributed by the Group.

c) Equity accounting

Companies over which the Group directly or indirectly exercises significant influence are accounted for by the equity method.

The Group’s share of the income of equity-accounted companies is shown on two separate lines of the income statement. The income of equity-accounted companies whose main business activity is in keeping with the Group’s core operational business is presented in business income under “Share in net income of core business equity-accounted companies” while the income of other equity-accounted companies is shown under “Share in net income of non-core business equity-accounted companies” in pre-tax income.

#### 2.1.2. Business combinations

a) Step acquisitions and partial disposals

When the Group acquires control of an entity in which it already holds an equity interest, the transaction is treated as a step acquisition (an acquisition in stages), as follows: (i) as a disposal of the previously-held interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of all of the shares, with recognition of the corresponding goodwill on the entire interest (previous and new acquisitions).

When the Group disposes of a portion of an equity interest leading to the loss of control (but retains a minority interest), the transaction is also treated as both a disposal and an acquisition, as follows: (i) as a disposal of the entire interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of a minority interest, measured at fair value.

b) Potential voting rights and share purchase commitments

Potential voting rights conferred by call options on minority interests are taken into account in determining whether the Group exclusively controls an entity only when the Group has control.

When calculating its percentage interest in controlled companies, the Group considers the impact of cross put and call options on minority interests in the companies concerned. This approach gives rise to the recognition in the financial statements of an investment-related liability, included within other provisions and non-current liabilities, corresponding to the present value of the estimated exercise price of the put option, with a corresponding reduction in minority interests and equity attributable to equity holders of the parent. Any subsequent changes in the fair value of the liability are recognized by adjusting equity.

c) Minority interests

Under IFRS 10, minority interests (referred to as "non-controlling interests" in IFRS 3R) are considered as a shareholder category (single economic entity approach). As a result, changes in minority interests with no loss of control continue to be recorded in the statement of changes in equity and have no impact on the income statement or balance sheet, except for changes in cash and cash equivalents.

### 2.1.3. Non-current assets and liabilities held for sale – Discontinued operations

Assets and liabilities that are immediately available for sale and for which a sale is highly probable within the next 12 months are classified as non-current assets and liabilities held for sale. When several assets are held for sale in a single transaction, they are accounted for as a disposal group, which also includes any liabilities directly associated with those assets. The assets or disposal groups held for sale are measured at the lower of carrying amount and fair value less costs to sell. Depreciation/amortization ceases when non-current assets are classified as held for sale. Non-current assets and liabilities held for sale are presented separately on two lines of the consolidated balance sheet, and income and expenses continue to be recognized in the consolidated income statement on a line-by-line basis. The reclassified assets are carried at the lower of their fair value less costs to sell and their carrying amount. At the end of each reporting period, the value of the assets and liabilities held for sale is reviewed to determine whether any provision adjustments should be recorded due to a change in their fair value less costs to sell.

An operation is classified as discontinued when it represents a separate major line of business for the Group, and when the criteria for classification as an asset held for sale have been met, or when the Group has sold the asset. Discontinued operations are reported on a single line in the Group's income statement. This line shows the after-tax net income from discontinued operations until the date of disposal and the gains or losses net of taxes realized on the disposals of these operations. In addition, cash flows generated by the discontinued operations are reported, by type of operation, on a separate line in the consolidated statement of cash flows for the relevant periods.

### 2.1.4. Intragroup transactions

All intragroup balances and transactions are eliminated in consolidation.

### 2.1.5. Translation of the financial statements of foreign companies

The consolidated financial statements are presented in euros, which is Compagnie de Saint-Gobain's functional and presentation currency.

Assets and liabilities of subsidiaries outside the Eurozone are translated into euros at the closing exchange rate, while income and expense items are translated using the average exchange rate for the period. In the event of significant volatility in exchange rates or in the exchange rates of hyperinflationary economies, the financial statements of the subsidiaries concerned are translated at the exchange rates prevailing at year-end.

The Group's share of any translation gains or losses is included in equity under "Cumulative translation adjustments" until the assets or liabilities and all foreign operations to which they relate are sold, liquidated or deconsolidated. In this case, these translation differences are either taken to the income statement, if the transaction results in a loss of control, or recognized directly in the statement of changes in equity, if the change in minority interests does not result in a loss of control.

#### 2.1.6. Foreign currency transactions

Expenses and income from operations in currencies other than the Company's functional currency are translated at the exchange rates prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the closing rate and any exchange differences are recorded in the income statement. However, exchange differences relating to loans and borrowings between consolidated Group companies are recorded in equity net of tax under "Cumulative translation adjustments", as they are in substance an integral part of the net investment in a foreign subsidiary.

#### 2.1.7. Hyperinflation in Argentina

Argentina is classified as a hyperinflationary economy with effect from July 1, 2018. IAS 29, "Financial Reporting in Hyperinflationary Economies" is therefore applicable to entities using the Argentine peso as their functional currency. Under IAS 29, financial statements prepared based on historical cost must be restated. This involves applying a general price index that enables the financial statements to be presented in terms of the measuring unit current at the reporting date. All non-monetary assets and liabilities must therefore be adjusted for inflation in order to reflect their 'actual value' at the reporting date. Similarly, the income statement is adjusted for inflation during the period. Monetary items do not need to be restated as they already reflect purchasing power at the reporting date.

IAS 29 is to be applied as from the start of the reporting period during which the country concerned is classified as hyperinflationary. In the 2018 financial statements, the provisions of IAS 29 are applied with effect from January 1, 2018 as if Argentina had always been a hyperinflationary economy. Under IAS 21, published data for reporting periods prior to the adoption of hyperinflationary accounting cannot be restated. Accordingly, no restatement is required for 2017 financial data.

The Group does not have significant exposure to Argentina. The impacts of hyperinflationary accounting are included in certain non-cash balance sheet items.

### 2.2. Changes in Group structure

Significant changes in the Group's structure during 2018 and 2017 are presented below and a list of the main consolidated companies at December 31, 2018 is provided in Note 14 "Principal consolidated companies".

#### 2.2.1. Transactions carried out in 2018

In 2018, Saint-Gobain continued to actively manage its portfolio of businesses, fully in line with its strategy. Various operations were completed in order to strengthen the Group's profile in high added-value businesses and growing markets. The Group carried out 27 acquisitions of consolidated companies for €669 million in 2018, plus €93 million in acquisitions of minority interests that did not involve taking control of the company concerned.

The main transactions are summarized below:

- On January 11, 2018, Saint-Gobain and the Kuwait-based company Alghanim Industries, who are already partners in insulation manufacturing joint ventures in Turkey (Izocam) and Saudi Arabia (SIIMCO), decided to extend their partnership in Kuwait with the KIMMCO joint venture,
- On March 1, 2018, Saint-Gobain acquired all of the shares of Per Strand. With 12 outlets in northern Norway, Per Strand is the leading building distribution generalist in its region,
- On March 1, 2018, Saint-Gobain acquired HyComp, a leading supplier of composite components made with proprietary carbon fibers and thermoplastic materials, used in high-temperature and long-life applications in the aerospace industry,
- On April 13, 2018, Saint-Gobain acquired the pharmaceutical business of Micro Hydraulics, an Ireland-based supplier and manufacturer of single-use fluid handling components and systems in high-performance plastics for high purity applications in the pharmaceutical and biopharmaceutical industries,
- On July 3, 2018, Saint-Gobain signed an agreement to purchase Hunter Douglas' North American ceilings business. A leading manufacturer of architectural ceilings, this business has two production sites in Norcross (Georgia) and Denver (Colorado),
- On August 1, 2018, Saint-Gobain acquired the German company HKO, which designs, produces and distributes a complete range of very high temperature thermal insulation and fire protection solutions made from various types of glass fibers able to cover temperature resistance between 600°C and 1,000°C,

- On September 20, 2018, Hankuk Glass Industries (HGI), a South Korean subsidiary of Saint-Gobain on the Seoul stock exchange, launched a tender offer to acquire the 23% of shares owned by minority shareholders. As a result of this successful offer, Saint-Gobain and HGI now hold 96.8% of the company's share capital, with a delisting planned,
- On October 5, 2018, Saint-Gobain signed an agreement to acquire all of the capital of Kaimann, one of Europe's leading manufacturers of elastomeric insulation products.

The Group's acquisitions in 2018 represent full-year sales of around €570 million.

In the first half of 2018, Saint-Gobain also pressed ahead with its plan to acquire a controlling interest in Sika (see Section 1.2, Chapter 3, of the 2017 Registration Document) A decision from the Zug Supreme Court was expected for the second half of 2018.

On May 11, 2018, Saint-Gobain, Sika and the Burkard family announced that they had found an overall agreement under which:

- Saint-Gobain acquired all outstanding shares of Schenker-Winkler Holding AG (SWH) from the Burkard family for a purchase price of CHF 3.22 billion.

- Sika purchased 6.97% of its own capital from SWH (representing a 23.7% voting interest in the company) for a total consideration of CHF 2.08 billion.

- Sika held an extraordinary general meeting on June 11, 2018 which decided to convert all of its shares into a single class of registered shares ("one share, one vote"), to eliminate the opting-out clause and the 5% share transfer restriction, and to cancel the 6.97% shares acquired from SWH.

- The two groups announced that they would also continue their existing business relationship and seek to further expand it into areas of mutual benefit, while preserving and respecting each group's economic and legal independence.

Saint-Gobain, through SWH, became Sika's largest shareholder, holding 10.75% of the share capital and voting rights. With regard to this stake, the parties agreed on a two-year lock-up period and on standstill obligations (up to 10.75% of Sika's capital for four years and up to 12.875% of its capital for the following two years). In the event of an intended sale by SWH, these shares would first be offered to Sika, within the limit of 10.75% of Sika's capital.

This overall agreement terminated and resolved the disputes between Sika, the Burkard family and Saint-Gobain to the common benefit of all parties involved and that of their respective shareholders and stakeholders.

For Saint-Gobain, the transaction results in total income of €781 million, which includes a financial gain of €601 million (i.e., the difference between the fair value of the shares at the date of the transaction and the value of the call entered into in December 2014), and a compensatory indemnity of €180 million recorded in other business income. The Group has elected to recognize subsequent changes in the fair value of the Sika shares held by SWH within income and expenses recognized directly in equity.

The Group's Venezuelan subsidiaries have been deconsolidated: operational oversight of the businesses has become increasingly difficult owing to (i) the country's worsening political and economic climate, (ii) exchange rate volatility, as a result of which our Venezuelan operations are not material, and (iii) increasing difficulties in obtaining reliable financial information within the appropriate time frames.

The Group stepped up restructuring measures in China aimed at restoring the profitability of its Pipe business. Following the decision of the Xuzhou city council on April 8 to request operations at the local plant to be suspended in light of new environmental regulations, the Group concluded that it was unable to profitably operate the facility and that it would definitively shut down operations, with a portion of production being transferred to the other Chinese factory in Ma'anshan. In parallel with the immediate launch of a process to close down the plant, the Group has entered into talks with several investors with a view to selling the shares of the three legal entities concerned. On November 23, 2018, the Group completed the sale of the entities operating at the Xuzhou plant along with their industrial and real estate assets, to Nanjing Manyuan Technology Co., Ltd. (NMT).

#### 2.2.2. Transactions carried out in 2017

In 2017, Saint-Gobain continued to actively manage its portfolio of businesses, fully in line with its strategy. Various operations were completed in order to strengthen the Group's profile in high added-value businesses and growing markets.

Saint-Gobain, supported by its Board of Directors, continued with the plan to acquire a controlling interest in Sika, a value-creating industrial project for all parties, pending the decision from the Zug Supreme Court initially expected at the start of 2018.

### 2.3. Assets and liabilities held for sale

The exhaustive review of the Group's business portfolio announced in November 2018 and currently in progress, has led Saint-Gobain to launch a process to divest the following businesses, the assets and liabilities of which are classified as held for sale at December 31, 2018:

Silicon carbide business: Saint-Gobain has entered into exclusive negotiations to sell its silicon carbide operations (part of the High-Performance Materials Sector). It granted exclusivity to private equity firm OpenGate Capital after having received a purchase offer from the latter for the Group's silicon carbide operations. This firm and binding offer is not subject to any financing conditions. The planned transaction may be finalized following the customary information and consultation procedures with the competent employee representative bodies. Completion of the deal is subject to clearance from the anti-trust authorities and should be effective in the first half of 2019.

Building Distribution business in Germany: as part of the acceleration of the rotation of its portfolio, in November 2018 the Group also announced it was planning to sell its Building Distribution operations in Germany.

As a result, since these businesses meet the qualifying criteria set out in IFRS 5 (see section 2.1.3), the balance sheet accounts of the entities concerned were combined and measured within assets and liabilities held for sale in the consolidated balance sheet at December 31, 2018, with the exception of debt owed to other Group companies and equity.

The breakdown of assets and liabilities held for sale at the end of the reporting period is as follows:

| *(in € millions)* | **Total** |
|---|---|
| Intangible assets, property, plant and equipment and goodwill | 161 |
| Inventories, trade accounts receivable, other receivables and other non-current assets | 444 |
| Cash and cash equivalents | 9 |
| **Assets held for sale** | **614** |
| Provisions for pensions and other employee benefits | 82 |
| Other current and non-current liabilities and provisions | 22 |
| Trade accounts payable, other payables and other current liabilities | 195 |
| Debt and bank overdrafts | 23 |
| **Liabilities held for sale** | **322** |
| **Net assets (liabilities) held for sale** | **292** |

### 2.4. Changes in the number of consolidated companies

At December 31, 2018, the number of consolidated companies was as follows:

| | France | Outside France | Total |
|---|---|---|---|
| **Fully consolidated companies** | | | |
| **At December 31, 2017** | **143** | **628** | **771** |
| Newly consolidated companies | 2 | 42 | 44 |
| Merged companies | (5) | (14) | (19) |
| Deconsolidated companies | 0 | (29) | (29) |
| Change in consolidation method | 0 | 1 | 1 |
| **At December 31, 2018** | **140** | **628** | **768** |
| **Equity-accounted companies and joint arrangements** | | | |
| **At December 31, 2017** | **4** | **95** | **99** |
| Newly consolidated companies | 0 | 6 | 6 |
| Merged companies | 0 | 0 | 0 |
| Deconsolidated companies | 0 | (3) | (3) |
| Change in consolidation method | 0 | (1) | (1) |
| **At December 31, 2018** | **4** | **97** | **101** |
| **Total at December 31, 2017** | **147** | **723** | **870** |
| **Total at December 31, 2018** | **144** | **725** | **869** |

### 2.5. Off-balance sheet commitments related to companies within the scope of consolidation

At December 31, 2017, non-cancelable purchase commitments included the commitment on equity holdings in the Sika group totaling €2,369 million. On May 11, 2018, this commitment was terminated following Saint-Gobain's purchase of Sika group shares from SWH.

The Group unwound the currency hedges taken out in connection with the acquisition of a controlling interest in Sika further to the purchase of shares in the company.

## NOTE 3 IMPACT OF NEW STANDARDS

This note sets out the new accounting policies applied with effect from January 1, 2018 and explains the impact on the consolidated balance sheet of adopting IFRS 9, "Financial Instruments" and IFRS 15, "Revenue from Contracts with Customers".

The Group has chosen to apply the simplified retrospective method and has recorded the cumulative impact of IFRS 9 and IFRS 15 in equity at January 1, 2018.

The restatements made are described below in further detail.

### 3.1. Accounting policies applied as from January 1, 2018

- IFRS 9, "Financial Instruments" supersedes IAS 39, "Financial Instruments: Recognition and Measurement". It sets out new principles for recognizing financial instruments and in particular requires entities to apply an impairment model for trade accounts receivable based on expected losses. The impacts of IFRS 9 chiefly concern the impairment of trade accounts receivable. Debt was also adjusted for the remaining expenses to be amortized on one of the two undrawn credit lines. The total impact on equity net of tax was a negative €23 million, including a negative €20 million impact relating to the impairment of trade accounts receivable.

- IFRS 15,"Revenue from Contracts with Customers" supersedes IAS 18 "Revenue" and IAS 11, "Construction Contracts", along with the related interpretations, in terms of revenue recognition. The new revenue recognition rules did not lead to significant changes in the accounting policies at Group level.

  The Group's sales generally comprise only one performance obligation. Saint-Gobain does not usually offer additional or optional warranties beyond the statutory or customary warranty period (resulting from market conditions) covering design or manufacturing defects of products delivered. As a result, no separate performance obligation was recognized in this respect.

  Under IFRS 15, the estimated amount of any variable consideration is to be included in the transaction price.

Discounts, refunds and rebates, performance-based penalties or bonuses relating to late/early production/delivery, and rights of return granted to customers, have the effect of decreasing or increasing revenue provided that, in the case of performance-based bonuses, they are highly probable. Rights of return are recorded against a refund liability, which is classified within current items. An asset is recognized in inventories to reflect the Group's right to recover products. Saint-Gobain estimates any such variable consideration based on historical data and limits the amount recognized in this respect to the amount it deems highly probable it will receive.

In most cases, revenue is recognized for performance obligations at a point in time, i.e., when control of the goods or services is transferred to the customer. This generally occurs upon delivery or installation of the goods, when the installation is not a separate performance obligation. When the installation is a separate performance obligation, the related revenue is recognized over time, based on costs incurred.

Revenue under some Group contracts is recognized over time. This is the case for sales of specific products to certain customers in the Innovative Materials Sector whenever an unconditional right to payment exists.

The application of IFRS 15 does not have a material impact on the financial statements, reducing equity by €1 million net of tax. This chiefly relates to adjustments concerning the recognition of rights to return goods in the Building Distribution Sector and adjustments concerning performance bonuses and the timing of revenue recognition applicable to specific products for certain customers in the Innovative Materials Sector.

### 3.2. Impact on the consolidated balance sheet

| *(in € millions)* | **Dec. 31, 2017** | **Impact of IFRS 9 and IFRS 15** | **Jan. 1, 2018, restated** |
|---|---|---|---|
| **Assets** | | | |
| Non-current assets | 26,859 | 9 | 26,868 |
| Inventories | 6,041 | 9 | 6,050 |
| Trade accounts receivable | 5,134 | (27) | 5,107 |
| Other receivables | 1,395 | 6 | 1,401 |
| Other current assets | 3,488 | 0 | 3,488 |
| **Total assets** | **42,917** | **(3)** | **42,914** |
| **Equity and liabilities** | | | |
| Shareholders' equity | 18,468 | (24) | 18,444 |
| Minority interests | 384 | 0 | 384 |
| Other non-current assets | 12,062 | 4 | 12,066 |
| Other payables | 3,823 | 17 | 3,840 |
| Other short-term debt | 8,180 | 0 | 8,180 |
| **Total equity and liabilities** | **42,917** | **(3)** | **42,914** |

## NOTE 4 INFORMATION CONCERNING THE GROUP'S OPERATING ACTIVITIES

### 4.1. Income statement items

#### 4.1.1. Revenue recognition

Revenue generated by the sale of goods or services is recognized net of rebates, discounts and sales taxes when control of the goods or services has been transferred to the customer. Revenue generated by the sale of goods is primarily recognized at the time the goods are delivered. Revenue generated by the sale of services is recognized when the services have been rendered, or by reference to the stage of completion of the services, as calculated based on costs incurred. Similarly, within the Building Distribution Sector, estimated returns are recognized as a deduction from revenue (net sales) and reclassified within inventories for their net carrying amount, since there is a possibility that goods will be returned within the allotted timeframe. A liability relating to future refunds for goods returned is also recognized.

Revenue generated under construction contracts is accounted for by the Group's companies on a percentage-of-completion basis, as calculated based on costs incurred. The related costs are expensed as incurred. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that it is probable will be recovered. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

Construction contract revenues are not material in relation to total consolidated net sales.

#### 4.1.2. Operating income

Operating income is a measure of the performance of the different sectors and has been used by the Group as its key external and internal management indicator for many years. Foreign exchange gains and losses are included in operating income, as are changes in the fair value of financial instruments that do not qualify for hedge accounting when they relate to operating items. The share of income of core business equity-accounted companies is also posted under operating income.

Discounts granted by suppliers to the Building Distribution Sector are included in operating income. Contractual supplier discounts are customary practice in the industrial goods distribution sector. These discounts are mostly calculated by applying a contractually guaranteed rate by product type to volumes purchased. The calculation is made automatically, based on the supplier invoices. Consequently, little judgment is needed when determining the amounts to be recognized in the income statement for these discounts. Other discounts are calculated based on a step mechanism linked to specified targets, whereby the percentage discount increases as the entity achieves the various targets over a given period. In this case, judgment is required based on historical data, past performance and future trends in order to determine the discount to be recognized in the income statement. Such judgment is exercised in a prudent manner and consistently from one period to the next.

### 4.1.3. Business income

Business income includes all income and expenses other than financial income and expense, the Group's share in net income of non-core business equity-accounted companies, and income taxes.

Business income is detailed by type below:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| **Net sales** | **41,774** | **40,810** |
| Personnel expenses: | | |
| Salaries and payroll taxes | (8,243) | (8,110) |
| Share-based payments[(a)] | (35) | (38) |
| Pensions and employee benefit obligations[(a)] | (180) | (125) |
| Depreciation and amortization | (1,202) | (1,206) |
| Share in net income of core business equity-accounted companies | 30 | 33 |
| Other[(b)] | (29,022) | (28,336) |
| **Operating income** | **3,122** | **3,028** |
| Other business income[(c)] | 435 | 121 |
| Other business expense[(a)] | (2,759) | (638) |
| **Other business income and expense** | **(2,324)** | **(517)** |
| **Business income** | **798** | **2,511** |

(a) Share-based payments (IFRS 2 expense) and changes in employee benefit expense are detailed in Note 5 "Employees, personnel expenses and employee benefit obligations".

(b) The "Other" operating income line relates to cost of sales, supplier discounts and selling expenses for the Building Distribution Sector, and to transport costs, raw materials costs, and other production costs for the other sectors. This item also includes research and development costs recorded under operating expenses, amounting to €454 million in 2018 (2017: €450 million) and the settlement of one-off disputes in favor of the Group for around €70 million in 2018.

(c) "Other business income" mainly includes the compensatory indemnity of €180 million in connection with SWH/Sika and the gain on the disposal of entities operating at the Group's Xuzhou plant in China (see section 2.2).

#### 4.1.3.1. Other business income and expense

Other business income and expense mainly include changes in provisions for claims and litigation (excluding those arising in the ordinary course of operations) and environmental matters, disposal gains and losses, asset impairment, restructuring costs incurred upon the disposal or discontinuation of operations and the costs of workforce reduction measures.

Other business income and expense can be analyzed as follows:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| Restructuring costs[(a)] | (308) | (120) |
| Provisions and expenses relating to claims and litigation[(b)] | (116) | (150) |
| Other[(c)] | 140 | (67) |
| **Non-operating income and expense** | **(284)** | **(337)** |
| Impairment of assets and other[(d)] | (2,060) | (226) |
| Other business expense[(e)] | (235) | (75) |
| **Impairment of assets and other business expenses** | **(2,295)** | **(301)** |
| **Gains on disposals of property, plant and equipment and intangible assets** | **255** | **121** |
| **Capital gains and losses on disposals, asset impairment, acquisition fees and contingent consideration** | **(2,040)** | **(180)** |
| **Other business income and expense** | **(2,324)** | **(517)** |

(a) Restructuring costs in 2018 mainly consist of retirement benefits totaling €127 million (2017: €65 million).

(b) In both 2018 and 2017, changes in provisions and expenses relating to litigation as detailed and explained in Note 8 "Other current and non-current liabilities and provisions, contingent liabilities and litigation" chiefly concern asbestos-related litigation.

(c) In 2018, "Other" mainly includes the compensatory indemnity of €180 million in connection with SWH/Sika (see section 2.2). In 2017, it mainly related to the cost of the June 27, 2017 cyber-attack.

(d) The "Impairment of assets and other business expense" line essentially includes (i) impairment of goodwill, other intangible assets and property, plant and equipment for €2,003 million in 2018 (2017: €236 million) (see sections 6.1, 6.2 and 6.3), (ii) the impairment of other assets for €34 million (2017: €1 million), and (iii) acquisition fees and contingent consideration incurred in connection with business combinations, representing a net expense of €23 million in 2018 (net income of €11 million in 2017).

(e) Other business expense in 2018 relates primarily to capital losses on disposals, the impacts of deconsolidating the Group's Venezuelan subsidiaries, and assets that were scrapped.

### 4.2. Segment information

In accordance with IFRS 8, segment information reflects the Group's internal organization as presented to management. The Group has chosen to present segment information by sector and business in line with its internal reporting. There were no changes in the presentation of segment information in 2018 compared with prior years.

Segment assets and liabilities include net property, plant and equipment, working capital, goodwill and net other intangible assets, after deducting deferred taxes on brands and land.

Capital expenditure corresponds to acquisitions of property, plant and equipment and does not include the cost of acquiring non-current assets under finance leases.

Segment information is presented by sector and by business as follows:

- Innovative Materials (IM) Sector
  - Flat Glass
  - High-Performance Materials (HPM)
- Construction Products (CP) Sector
  - Interior Solutions: Insulation and Gypsum
  - Exterior Solutions: Industrial Mortars, Pipe and Exterior Products
- Building Distribution Sector (BD).

Management uses several different internal indicators to measure operational performance and to make resource allocation decisions. These indicators are based on the data used to prepare the consolidated financial statements and meet financial reporting requirements. Intragroup ("internal") sales are generally carried out on the same terms as sales to external customers and are eliminated in consolidation. The "Other" column includes holding companies and certain corporate support functions (tax, cash management, purchasing, etc.).

Following the announcement of the Group's "Transform & Grow" program in November 2018, changes in the Group's organizational structure in 2019 will alter the breakdown of reporting segments to be presented.

Segment information for 2018 and 2017 by sector and by business is as follows:

## 2018

| | Innovative Materials | | | | Construction Products | | | | Building Distribution | Other* | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *(in € millions)* | Flat Glass | High-Performance Materials | Intra-segment eliminations | Total | Interior Solutions | Exterior Solutions | Intra-segment eliminations | Total | | | |
| External sales | 5,593 | 4,824 | | 10,417 | 6,475 | 5,472 | | 11,947 | 19,397 | 13 | **41,774** |
| Internal sales | 39 | 96 | (28) | 107 | 692 | 317 | (101) | 908 | 3 | (1,018) | **0** |
| Net sales | 5,632 | 4,920 | (28) | 10,524 | 7,167 | 5,789 | (101) | 12,855 | 19,400 | (1,005) | **41,774** |
| Operating income | 501 | 803 | | 1,304 | 756 | 436 | | 1,192 | 634 | (8) | **3,122** |
| Business income | 320 | 564 | | 884 | 698 | (48) | | 650 | (782) | 46 | **798** |
| Share in net income of equity-accounted companies | 15 | 2 | | 17 | 6 | 7 | | 13 | 0 | 0 | **30** |
| Depreciation and amortization | 271 | 167 | | 438 | 304 | 153 | | 457 | 269 | 38 | **1,202** |
| Impairment of assets | 59 | 60 | | 119 | 2 | 530 | | 532 | 1,352 | | **2,003** |
| EBITDA | 772 | 970 | | 1,742 | 1,060 | 589 | | 1,649 | 903 | 30 | **4,324** |
| Capital expenditure | 486 | 227 | | 713 | 402 | 219 | | 621 | 263 | 69 | **1,666** |
| Cash flow from operations | | | | 1,186 | | | | 1,030 | 583 | 224 | **3,023** |
| Goodwill, net | 201 | 1,826 | | 2,027 | 3,804 | 2,182 | | 5,986 | 1,975 | | **9,988** |
| Non-amortizable brands | 0 | 0 | | 0 | 732 | 89 | | 821 | 1,080 | | **1,901** |
| Total segment assets and liabilities | | | | 8,242 | | | | 12,140 | 6,431 | 255 | **27,068** |

*"Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 2017

| | Innovative Materials | | | | Construction Products | | | | Building Distribution | Other* | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *(in € millions)* | Flat Glass | High-Performance Materials | Intra-segment eliminations | Total | Interior Solutions | Exterior Solutions | Intra-segment eliminations | Total | | | |
| External sales | 5,633 | 4,588 | | 10,221 | 6,246 | 5,527 | | 11,773 | 18,797 | 19 | **40,810** |
| Internal sales | 39 | 150 | (27) | 162 | 638 | 307 | (94) | 851 | 3 | (1,016) | **0** |
| Net sales | 5,672 | 4,738 | (27) | 10,383 | 6,884 | 5,834 | (94) | 12,624 | 18,800 | (997) | **40,810** |
| Operating income | 571 | 715 | | 1,286 | 652 | 491 | | 1,143 | 631 | (32) | **3,028** |
| Business income | 580 | 608 | | 1,188 | 556 | 394 | | 950 | 493 | (120) | **2,511** |
| Share in net income of equity-accounted companies | 22 | 2 | | 24 | 3 | 5 | | 8 | 0 | 1 | **33** |
| Depreciation and amortization | 280 | 167 | | 447 | 301 | 165 | | 466 | 261 | 32 | **1,206** |
| Impairment of assets | 48 | 1 | | 49 | 47 | 37 | | 84 | 103 | 0 | **236** |
| EBITDA | 851 | 882 | | 1,733 | 953 | 656 | | 1,609 | 892 | 0 | **4,234** |
| Capital expenditure | 468 | 192 | | 660 | 374 | 208 | | 582 | 251 | 45 | **1,538** |
| Cash flow from operations | | | | 1,188 | | | | 1,015 | 653 | 164 | **3,020** |
| Goodwill, net | 189 | 1,602 | | 1,791 | 3,615 | 2,399 | | 6,014 | 2,770 | 0 | **10,575** |
| Non-amortizable brands | 0 | 0 | | 0 | 735 | 89 | | 824 | 1,191 | 0 | **2,015** |
| Total segment assets and liabilities | | | | 7,389 | | | | 12,209 | 7,645 | 120 | **27,363** |

*"Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.

## 4.3. Information by geographic area

Segment information for 2018 and 2017 by geographic area is as follows:

### 2018

| *(in € millions)* | France | Other Western European countries | North America | Emerging countries and Asia | Internal sales | Total |
|---|---|---|---|---|---|---|
| Net sales | 10,935 | 18,265 | 5,536 | 9,127 | (2,089) | **41,774** |
| Operating income | 389 | 1,008 | 659 | 1,066 | | **3,122** |
| Business income | (415) | (196) | 446 | 963 | | **798** |
| EBITDA | 682 | 1,388 | 822 | 1,432 | | **4,324** |
| Capital expenditure | 337 | 441 | 213 | 675 | | **1,666** |
| Cash flow from operations | 363 | 1,039 | 539 | 1,082 | | **3,023** |

### 2017

| *(in € millions)* | France | Other Western European countries | North America | Emerging countries and Asia | Internal sales | Total |
|---|---|---|---|---|---|---|
| Net sales | 10,600 | 17,611 | 5,418 | 9,166 | (1,985) | **40,810** |
| Operating income | 331 | 1,034 | 611 | 1,052 | | **3,028** |
| Business income | 187 | 865 | 388 | 1,071 | | **2,511** |
| EBITDA | 624 | 1,398 | 777 | 1,435 | | **4,234** |
| Capital expenditure | 293 | 431 | 201 | 613 | | **1,538** |
| Cash flow from operations | 397 | 1,026 | 554 | 1,043 | | **3,020** |

## 4.4. Performance indicators

### 4.4.1. EBITDA

EBITDA corresponds to operating income plus depreciation and amortization of property, plant and equipment and intangible assets.

EBITDA amounted to €4,324 million in 2018 (2017: €4,234 million), calculated as follows:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| Operating income | 3,122 | 3,028 |
| Depreciation/amortization of property, plant and equipment and intangible assets | 1,202 | 1,206 |
| **EBITDA** | **4,324** | **4,234** |

### 4.4.2. Operating free cash flow

Operating free cash flow (OFCF) represents the surplus cash generated from the entity’s operations.

### 4.4.3. Return on capital employed

Return on capital employed (ROCE) corresponds to annualized operating income adjusted for changes in the scope of consolidation, expressed as a percentage of total assets at year-end. Total assets include net property, plant and equipment, working capital, net goodwill and other intangible assets, but exclude deferred tax assets arising on non-amortizable brands and land.

### 4.4.4. Recurring net income

Recurring net income corresponds to income after tax and minority interests but before disposal gains or losses, asset impairment, material non-recurring provisions and the related tax and minority interests.

Recurring net income totaled €1,729 million in 2018 (2017: €1,631 million). Based on the weighted average number of shares outstanding at December 31 (547,105,985 shares in 2018 and 553,383,836 shares in 2017), recurring earnings per share amounted to €3.16 in 2018 and €2.95 in 2017.

The difference between net income and recurring net income corresponds to the following items:

| *(in € millions)* | **2018** | **2017** |
|---|---|---|
| **Group share of net income** | **420** | **1,566** |
| **Less:** | | |
| Gains and losses on disposals of assets | 20 | 46 |
| Impairment of assets and other | (2,060) | (226) |
| Non-recurring SWH/Sika net income | 781 | 0 |
| Changes in provisions for non-recurring items and other | (139) | 4 |
| Impact of minority interests | 2 | (18) |
| Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions | 87 | 129 |
| **Group share of recurring net income** | **1,729** | **1,631** |

### 4.4.5. Cash flow from operations

Cash flow from operations corresponds to net cash generated from operating activities before the impact of changes in working capital, changes in current taxes and changes in provisions for pensions and other employee benefit obligations as well as for other liabilities and charges and deferred taxes. Cash flow from operations is adjusted for the effect of material non-recurring provision charges.

Cash flow from operations before tax on disposal gains and losses and non-recurring provisions corresponds to cash flow from operations less the tax effect of asset disposals, asset impairment and non-recurring provisions.

Cash flow from operations totaled €3,023 million in 2018 (€3,020 million in 2017) and cash flow from operations excluding income tax on disposal gains and losses and non-recurring provisions amounted to €2,936 million in the year (€2,891 million in 2017).

These amounts are calculated as follows:

| *(in € millions)* | **2018** | **2017** |
|---|---|---|
| **Group share of net income** | **420** | **1,566** |
| Minority interests in net income | 77 | 59 |
| Share in net income of equity-accounted companies, net of dividends received | (19) | (13) |
| Depreciation, amortization and impairment of assets | 3,205 | 1,442 |
| Gains and losses on disposals of assets | (20) | (46) |
| Changes in provisions for non-recurring items | 122 | (4) |
| Non-recurring SWH/Sika net income | (781) | 0 |
| Unrealized gains and losses arising from changes in fair value and share-based payments | 23 | 16 |
| Restatement for hyperinflation in Argentina | (4) | 0 |
| **Cash flow from operations** | **3,023** | **3,020** |
| Tax on disposal gains and losses, asset impairment and non-recurring charges to provisions | (87) | (129) |
| **Cash flow from operations before tax on disposal gains and losses and non-recurring provisions** | **2,936** | **2,891** |

## 4.5. Working capital

Working capital can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| **Inventories, net** | **6,252** | **6,041** |
| **Trade receivables, net** | **4,968** | **5,134** |
| Other operating receivables | 1,407 | 1,278 |
| Other non-operating receivables | 202 | 117 |
| **Other receivables** | **1,609** | **1,395** |
| **Current tax receivable** | **286** | **204** |
| **Trade accounts payable** | **6,116** | **6,027** |
| Other operating payables | 3,284 | 3,286 |
| Other non-operating payables | 575 | 537 |
| **Other payables** | **3,859** | **3,823** |
| **Current tax liabilities** | **104** | **157** |
| Operating working capital | 3,227 | 3,140 |
| Non-operating working capital (including current tax receivables and liabilities) | (191) | (373) |
| **Working capital** | **3,036** | **2,767** |

### 4.5.1. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of inventories includes purchase costs (net of supplier discounts), processing costs and other costs incurred in bringing the inventories to their present location and condition. Cost is generally determined using the weighted-average cost method, and in some cases the First-In-First-Out (FIFO) method. Inventory costs may also include the transfer from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of raw materials. Net realizable value is the selling price in the ordinary course of business, less estimated completion and selling costs. No account is taken in the inventory valuation process of the impact of below-normal capacity utilization rates.

At December 31, 2018 and 2017, inventories were as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| **Gross value** | | |
| Raw materials | 1,494 | 1,391 |
| Work in progress | 363 | 330 |
| Finished goods | 4,849 | 4,770 |
| **Gross inventories** | **6,706** | **6,491** |
| **Provision for impairment** | | |
| Raw materials | (149) | (139) |
| Work in progress | (13) | (12) |
| Finished goods | (292) | (299) |
| **Total provision for impairment** | **(454)** | **(450)** |
| **Net** | **6,252** | **6,041** |

The net value of inventories was €6,252 million at December 31, 2018 compared with €6,041 million at December 31, 2017. Impairment losses on inventories recorded in the 2018 income statement totaled €179 million (2017: €207 million). Reversals of impairment losses on inventories amounted to €159 million in 2018 (2017: €183 million).

### 4.5.2. Operating and non-operating receivables and payables

Trade accounts receivable and payable and other receivables and payables are stated at their carrying amount, which approximates their fair value as they generally have maturities of less than three months. Provisions for impairment are booked to cover the risk of total or partial non-recovery, within the limit of expected credit losses.

The Group deems that its exposure to concentrations of credit risk is limited due to its diversified business line-up, broad customer base and global presence. Past-due trade receivables are regularly monitored and analyzed, and impairment losses recognized are adjusted where appropriate.

For trade receivables transferred under securitization programs, the contracts concerned are analyzed and if substantially all the risks associated with the receivables are not transferred in substance to the financing institutions, they remain on the balance sheet and a corresponding liability is recognized in short-term debt (further information is provided in Note 9.3.8).

a) Trade and other accounts receivable

Trade and other accounts receivable can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Gross value | 5,347 | 5,527 |
| Provision for impairment | (379) | (393) |
| **Trade accounts receivable** | **4,968** | **5,134** |
| Discounts and advances to suppliers | 633 | 637 |
| Prepaid payroll taxes | 36 | 25 |
| Other prepaid and recoverable taxes (other than income tax) | 478 | 372 |
| Miscellaneous operating receivables | 269 | 250 |
| Other non-operating receivables and provisions | 204 | 117 |
| Provision for impairment of other operating receivables | (9) | (6) |
| Provision for impairment of other non-operating receivables | (2) | 0 |
| **Other receivables** | **1,609** | **1,395** |

As a result of applying IFRS 9, the Group recognized an additional €28 million provision for impairment of trade accounts receivable at January 1, 2018 (€20 million net of tax).

Changes in impairment provisions for trade accounts receivable in 2018 primarily reflect €87 million in additions (2017: €98 million) and €114 million in reversals (2017: €111 million), resulting from recoveries as well as write-offs. Write-offs of doubtful and bad debts are also reported under this caption for €76 million (2017: €78 million).

Trade accounts receivable at December 31, 2018 and 2017 are analyzed below by maturity:

| *(in € millions)* | Gross value | | Impairment | | Net value | |
|---|---|---|---|---|---|---|
| | Dec. 31, 2018 | Dec. 31, 2017 | Dec. 31, 2018 | Dec. 31, 2017 | Dec. 31, 2018 | Dec. 31, 2017 |
| **Trade accounts receivable not yet due** | **4,172** | **4,318** | **(32)** | **(30)** | **4,140** | **4,288** |
| Trade accounts receivable past due | | | | | | |
| Less than 1 month | 478 | 478 | (22) | (12) | 456 | 466 |
| 1-3 months | 206 | 201 | (25) | (21) | 181 | 180 |
| More than three months | 491 | 530 | (300) | (330) | 191 | 200 |
| **Trade accounts receivable past due** | **1,175** | **1,209** | **(347)** | **(363)** | **828** | **846** |
| **Trade accounts receivable** | **5,347** | **5,527** | **(379)** | **(393)** | **4,968** | **5,134** |

b) Trade and other accounts payable

Trade and other accounts payable and accrued expenses can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| **Trade accounts payable** | **6,116** | **6,027** |
| Downpayments received and rebates granted to customers | 1,161 | 1,133 |
| Payables to suppliers of non-current assets | 372 | 367 |
| Grants received | 87 | 78 |
| Accrued personnel expenses | 1,242 | 1,231 |
| Accrued taxes other than on income | 416 | 423 |
| Other operating payables | 465 | 499 |
| Other non-operating payables | 116 | 92 |
| **Other payables** | **3,859** | **3,823** |

## 4.6. Off-balance sheet commitments related to operating activities

### 4.6.1. Obligations under finance leases

Non-current assets acquired under finance leases are recognized as an asset and a liability in the balance sheet (see Note 6.4 for further information).

Future payment commitments under finance leases are as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| **Future minimum lease payments** | | |
| Due within 1 year | 25 | 19 |
| Due in 1 to 5 years | 51 | 43 |
| Due beyond 5 years | 15 | 17 |
| **Total future minimum lease payments** | **91** | **79** |
| Less finance charge | (16) | (13) |
| **Present value of future minimum lease payments** | **75** | **66** |

At December 31, 2018, future finance lease payment commitments represented €69 million under equipment and machinery leases and €22 million under leases of land and buildings.

### 4.6.2. Obligations under operating leases

The Group leases equipment, vehicles, offices, warehouses and production or sales premises. Lease terms generally range from one to nine years. The liability for total future minimum payments over the lease terms is discounted. The leases contain rollover options for varying periods of time and some include clauses covering the payment of real estate taxes and insurance. In most cases, management expects that these leases will be rolled over or replaced by other leases in the normal course of business.

Payments due under non-cancelable operating leases are as follows:

| | Total 2018 | Payments due by period | | | Total 2017 |
|---|---|---|---|---|---|
| *(in € millions)* | | Due within 1 year | Due in 1 to 5 years | Due beyond 5 years | |
| Rental expense | 3,248 | 697 | 1,550 | 1,001 | 3,209 |
| Subletting revenue | (88) | (15) | (31) | (42) | (81) |
| **Total** | **3,160** | **682** | **1,519** | **959** | **3,128** |

In 2018, rental expenses amounted to €859 million, including €577 million for land and buildings, and revenue from subleases represented €19 million. Net rental expense was €840 million.

### 4.6.3. Non-cancelable purchase commitments

Non-cancelable purchase commitments include contractual commitments to purchase raw materials and services along with firm orders for property, plant and equipment and intangible assets.

| | Total 2018 | Payments due by period | | | Total 2017 |
|---|---|---|---|---|---|
| *(in € millions)* | | Due within 1 year | Due in 1 to 5 years | Due beyond 5 years | |
| Property, plant and equipment and intangible assets | 43 | 42 | 1 | 0 | 48 |
| Commodities and energy | 1,501 | 396 | 860 | 245 | 1,308 |
| Services | 128 | 49 | 61 | 18 | 157 |
| **Total** | **1,672** | **487** | **922** | **263** | **1,513** |

#### 4.6.4. Guarantee commitments

In some cases, the Group grants seller's warranties to the buyers of divested businesses. A provision is set aside whenever a risk is identified and the related cost can be estimated reliably.

The Group also receives guarantees, amounting to €83 million at December 31, 2018 (December 31, 2017: €78 million).

#### 4.6.5. Commercial commitments

The Group's commercial commitments are shown below:

| (in € millions) | Total 2018 | Commitment amounts by period | | | Total 2017 |
|---|---|---|---|---|---|
| | | Due within 1 year | Due in 1 to 5 years | Due beyond 5 years | |
| Security for borrowings | 48 | 21 | 18 | 9 | 39 |
| Other commitments given | 217 | 78 | 95 | 44 | 237 |
| **Total** | **265** | **99** | **113** | **53** | **276** |

Guarantees given to the Group in respect of receivables totaled €107 million at December 31, 2018 (December 31, 2017: €104 million). At December 31, 2018, pledged assets represented €577 million (December 31, 2017: €330 million) and chiefly concerned fixed assets pledged in the United Kingdom. Other commitments given by the Group also include the €77.5 million take-up guarantee granted in connection with its future head office premises at La Défense up to April 6, 2020.

#### 4.6.6. Other commitments

A provision for greenhouse gas emissions allowances is recorded in the consolidated financial statements to cover any difference between the Group's emissions and the allowances granted.

Greenhouse gas emissions allowances allocated to Group companies by the European Union in 2018 represented approximately 3.2 million metric tons of $CO_2$. The new 2019 allowances will be added to the residual inventory of prior allocations and will cover the level of greenhouse gas emissions for the year. As a result, no provision has been recorded in this respect in the Group's financial statements.

## NOTE 5 EMPLOYEES, PERSONNEL EXPENSES AND EMPLOYEE BENEFIT OBLIGATIONS

### 5.1. Employees of fully consolidated companies

| | 2018 | 2017 |
|---|---|---|
| Managerial-grade employees | 30,292 | 28,991 |
| Administrative employees | 77,416 | 75,664 |
| Other employees | 73,828 | 71,795 |
| **Total average number of employees** | **181,536** | **176,450** |

The total number of Group employees for fully consolidated companies was 181,001 at December 31, 2018 and 179,149 at December 31, 2017.

## 5.2. Management compensation

Direct and indirect compensation and benefits paid to members of the Board of Directors and the Group's senior management were as follows in 2018 and 2017:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| Attendance fees | 1.1 | 1.1 |
| Direct and indirect compensation (gross) | | |
| Fixed portion | 9.7 | 8.6 |
| Variable portion | 5.7 | 5.8 |
| Estimated cost of pensions and other employee benefit obligations (IAS 19) | 2.5 | 3.2 |
| Share-based payment expense (IFRS 2) | 9.2 | 11.1 |
| Termination, retirement and other benefits | 2.7 | 0.1 |
| **Total** | **30.9** | **29.9** |

Total gross compensation and benefits paid in 2018 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash settled compensation) amounted to €18.1 million (2017: €14.5 million), including €5.7 million in gross variable compensation (2017: €5.8 million) in respect of the gross variable portion and €2.7 million in termination benefits (2017: €0.1 million).

Provisions for pensions and other post-employment benefits (defined benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to Group management totaled €50.9 million at December 31, 2018 (December 31, 2017: €46.6 million).

## 5.3. Provisions for pensions and other employee benefits

### 5.3.1. Description of defined benefit plans

After retirement, the Group's former employees are eligible for pension benefits in accordance with the applicable laws and regulations in the respective countries in which the Group operates. There are also additional pension obligations in certain Group companies, both in France and in other countries.

The Group's obligation for the payment of pensions and length-of-service awards is determined at the end of the reporting period by independent actuaries using the projected unit credit method, taking into account changes in salaries until retirement and the economic conditions in each country. These obligations may be financed by pension funds, with a provision recognized in the balance sheet for the unfunded portion.

When plan assets exceed the defined benefit obligation, the excess is recognized in other non-current assets under "net pension assets". The asset ceiling corresponds to the maximum future economic benefit. Changes in the asset ceiling are recognized in equity.

Actuarial gains and losses result from changes in actuarial assumptions, experience adjustments and the difference between the funds' actual and estimated (calculated) rates of return. They are recognized against equity as and when they arise.

The interest cost of these obligations and the return on the related plan assets are measured by the Group using the discount rate applied to estimate the obligation at the beginning of the period, and are recognized as financial income or expense.

The Group's main defined benefit plans are as follows:

In France, employees receive length-of-service awards on retirement based on years of service and the calculation methods prescribed in the applicable collective bargaining agreements.

In addition to length-of-service awards, there are three defined benefit plans, all of which are final salary plans. These plans were closed to new entrants by the companies concerned between 1969 and 1997. Effective March 1, 2012, a defined benefit plan complying with Article L.137-11 of France's Social Security Code (*Code de la sécurité sociale*) was set up by Compagnie de Saint-Gobain.

In Germany, retirement plans provide pensions and death and disability benefits for employees. These plans have been closed to new entrants since 1996. Since January 1997, new employees have been offered pension plans based on contributions financed jointly by employer and employee.

In the Netherlands, ceilings have been introduced for defined benefit supplementary pension plans, above which they are converted into defined contribution plans.

In the United Kingdom, retirement plans provide pensions as well as death and permanent disability benefits. These defined benefit plans – which are based on employees' average salaries over their final years of employment – have been closed to new entrants since 2001.

In the United States and Canada, the Group's defined benefit plans are final salary plans. Since January 1, 2001, new employees have been offered a defined contribution plan.

In the United States and Spain, retired employees receive benefits other than pensions, mainly concerning healthcare benefits. The Group's obligation under these plans is determined using the actuarial method and is covered by a provision recorded in the balance sheet.

Provisions for other long-term employee benefits cover all other employee benefits. These benefits primarily include long-service awards in France, jubilee awards in Germany, deferred compensation, provisions for social security benefits in the United States, and termination benefits in different countries. The related defined benefit obligation is generally calculated on an actuarial basis using the same rules as for pension obligations. Actuarial gains and losses relating to these benefits are recognized immediately in the income statement.

### 5.3.2. Actuarial assumptions used to measure defined benefit obligations and plan assets

#### 5.3.2.1. Interest rate assumptions

Assumptions related to mortality, employee turnover and future salary increases take into account the economic conditions specific to each country and Group company. The discount rates are established by region or country based on observed bond rates at December 31, 2018.

To provide a more accurate estimate of the value of these commitments, the Group fine-tuned its estimation approach for the Eurozone as from June 30, 2018. In the yield curve model developed by the Mercer practice, two discount rates were calculated based on the term of the plans: one rate for plans with a term of 14 years or less and one for plans with a term of over 14 years.

The rates used in 2018 for the Group's main plans are the following:

| | **France** | | **Eurozone** | | **United Kingdom** | **United States** |
|---|---|---|---|---|---|---|
| *(in %)* | **Short-term plans** | **Long-term plans** | **Short-term plans** | **Long-term plans** | | |
| Discount rate | 1.80% | 2.15% | 1.80% | 2.15% | 2.80% | 4.20% |
| Salary increases | 2.50% | | 1.60% to 2.80% | | 2.10%* | 3.00% |
| Inflation rate | 1.50% | | 1.40% to 1.80% | | 2.10% | 2.50% |

* A cap applies to the reference salaries used to calculate benefit entitlements.

The rates used in 2017 for the Group's main plans are the following:

| *(in %)* | **France** | **Eurozone** | **United Kingdom** | **United States** |
|---|---|---|---|---|
| Discount rate | 1.70% | 1.70% | 2.45% | 3.60% |
| Salary increases | 2.50% | 1.50% to 2.40% | 2.00%* | 3.00% |
| Inflation rate | 1.50% | 1.40% to 1.80% | 2.30% | 2.50% |

* A cap applies to the reference salaries used to calculate benefit entitlements.

As the above three regions account for substantially all of the pension obligation, the revised actuarial assumptions, notably the discount and inflation rates, contributed to a decrease in the obligation, and therefore the provision, in an amount of €816 million.

Returns on substantially all plan assets were a negative €258 million, which was €502 million below projected returns recognized based on the discount rates used to measure pension benefit obligations at the start of the period in accordance with IAS 19.

#### 5.3.2.2. Sensitivity of assumptions

A 0.5-point decrease (increase) in the discount rate would lead to an increase (decrease) in defined benefit obligations of around €170 million for the US plans, €190 million for the Eurozone plans and €400 million for the UK plans. A 0.5-point increase in the inflation rate would lead to an overall increase in defined benefit obligations of around €510 million.

The same assumptions concerning mortality, employee turnover and interest rates are used to determine the Group’s defined benefit obligations for other long-term employee benefits. In the United States, retirees’ healthcare costs are projected to rise by 6.68% or 7.02% per year, depending on the age of the beneficiary. A 1-point increase in this rate would lead to an increase of around €32 million in the related projected benefit obligation.

These amounts include assets and liabilities held for sale.

### 5.3.3. Breakdown of and changes in pensions and other post-employment benefit obligations

#### 5.3.3.1. Carrying amount of provisions

Provisions for pensions and other employee benefit obligations consist of the following:

| *(in € millions)* | **Dec. 31, 2018** | **Dec. 31, 2017** |
|---|---|---|
| Pension obligations | 1,732 | 2,076 |
| Length-of-service awards | 378 | 361 |
| Post-employment healthcare benefits | 276 | 350 |
| **Total provisions for pensions and other post-employment benefit obligations** | **2,386** | **2,787** |
| Healthcare benefits | 27 | 25 |
| Long-term disability benefits | 11 | 15 |
| Other long-term benefits | 101 | 100 |
| **Provisions for pensions and other employee benefits** | **2,525** | **2,927** |

Provisions for all other long-term benefits totaled €139 million at December 31, 2018 (€140 million at December 31, 2017).

The following table shows net obligations under pensions and other post-employment benefit plans, excluding other long-term benefits, and the related plan assets:

| *(in € millions)* | **Dec. 31, 2018** | **Dec. 31, 2017** |
|---|---|---|
| Provisions for pensions and other post-employment benefit obligations - liabilities | 2,386 | 2,787 |
| Pension plan surpluses - assets | (193) | (161) |
| **Net pension and other post-employment benefit obligations** | **2,193** | **2,626** |

#### 5.3.3.2. Analysis of obligations

At December 31, 2018, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

| *(in € millions)* | **France** | **Eurozone** | **United Kingdom** | **United States** | **Rest of the World** | **Net total** |
|---|---|---|---|---|---|---|
| **Average duration** *(in years)* | **15** | **16** | **20** | **12** | **16** | **16** |
| Defined benefit obligations - funded plans | 628 | 1,337 | 4,526 | 2,606 | 920 | 10,017 |
| Defined benefit obligations - unfunded plans | 313 | 134 | | 244 | 152 | 843 |
| Fair value of plan assets | (235) | (503) | (4,605) | (2,473) | (861) | (8,677) |
| **Deficit/(surplus)** | **706** | **968** | **(79)** | **377** | **211** | **2,183** |
| Asset ceiling | | | 2 | | 8 | 10 |
| **Net pension and other post-employment benefit obligations** | **706** | **968** | **(77)** | **377** | **219** | **2,193** |

At December 31, 2017, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

| *(in € millions)* | France | Eurozone | United Kingdom | United States | Rest of the World | Net total |
|---|---|---|---|---|---|---|
| **Average duration** *(in years)* | **16** | **17** | **18** | **13** | **15** | **16** |
| Defined benefit obligations - funded plans | 685 | 1,750 | 5,018 | 2,662 | 866 | 10,981 |
| Defined benefit obligations - unfunded plans | 297 | 116 | 0 | 315 | 188 | 916 |
| Fair value of plan assets | (261) | (741) | (4,899) | (2,535) | (838) | (9,274) |
| **Deficit/(surplus)** | **721** | **1,125** | **119** | **442** | **216** | **2,623** |
| Asset ceiling | | | | | 3 | 3 |
| **Net pension and other post-employment benefit obligations** | **721** | **1,125** | **119** | **442** | **219** | **2,626** |

### 5.3.3.3. Changes in provisions

Changes in pensions and other post-employment benefit obligations are as follows:

| *(in € millions)* | Pension obligations | Fair value of plan assets | Asset ceiling | Net pension and other post-employment benefit obligations |
|---|---|---|---|---|
| **At January 1, 2017** | **12,664** | **(9,246)** | **4** | **3,422** |
| **Changes during the year** | | | | |
| Service cost | 210 | | | 210 |
| Interest cost/return on plan assets as per calculations | 324 | (247) | | 77 |
| Employee contributions and plan administration costs | | (1) | | (1) |
| Past service cost | (89) | | | (89) |
| Plan curtailments/settlements | (67) | 48 | | (19) |
| Pension contributions | | (306) | | (306) |
| Benefit payments | (626) | 530 | | (96) |
| Actuarial gains and losses and asset ceiling | 109 | (573) | (1) | (465) |
| Currency translation adjustments | (674) | 564 | | (110) |
| Changes in Group structure and reclassifications | 46 | (43) | | 3 |
| **Total changes** | **(767)** | **(28)** | **(1)** | **(796)** |
| **At December 31, 2017** | **11,897** | **(9,274)** | **3** | **2,626** |
| **Changes during the year** | | | | |
| Service cost | 197 | | | 197 |
| Interest cost/return on plan assets as per calculations | 299 | (244) | | 55 |
| Employee contributions and plan administration costs | | (1) | | (1) |
| Past service cost | (33) | | | (33) |
| Plan curtailments/settlements | (199) | 199 | | 0 |
| Pension contributions | | (205) | | (205) |
| Benefit payments | (497) | 413 | | (84) |
| Actuarial gains and losses and asset ceiling | (816) | 502 | 7 | (307) |
| Currency translation adjustments | 98 | (86) | | 12 |
| Changes in Group structure and reclassifications | 20 | (9) | | 11 |
| Liabilities held for sale | (106) | 28 | | (78) |
| **Total changes** | **(1,037)** | **597** | **7** | **(433)** |
| **At December 31, 2018** | **10,860** | **(8,677)** | **10** | **2,193** |

In the United States, plan amendments led to a reduction of around €29 million in pension obligations in 2018, recognized within “Past service cost”.

### 5.3.3.4. Actuarial gains and losses

Actuarial gains and losses on provisions result from the following items:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| Pension obligations | (816) | 109 |
| Fair value of plan assets | 502 | (573) |
| Asset ceiling | 7 | (1) |
| **Total movements** | **(307)** | **(465)** |

The obligation under the Guaranteed Minimum Pension (GMP) in the United Kingdom, which is designed to equalize benefits for men and women, is reflected in the provision for pensions and other post-employment benefit obligations at December 31, 2018. This additional obligation was included in the consolidated statement of recognized income and expense.

##### 5.3.3.5. Plan assets

Plan assets have been progressively built up by contributions, primarily in the United Kingdom and the United States. Contributions paid by the Group in 2018 totaled €205 million (2017: €306 million).

A 0.5-point increase or decrease in the actual return on plan assets would have an impact of approximately €43 million on equity.

Plan assets mainly comprise:

| | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Equities | 23% | 29% |
| Bonds | 58% | 48% |
| Other | 19% | 23% |

Contributions to pension plans for 2019 are estimated at around €110 million.

##### 5.3.3.6. Employee benefit expense

Provisions for pensions and other post-employment benefit plans are as follows:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| Service cost | 197 | 210 |
| Interest cost | 299 | 324 |
| Return on plan assets | (244) | (247) |
| Past service cost, plan curtailments and settlements | (33) | (108) |
| Employee contributions and plan administration costs | (1) | (1) |
| **Pensions, length-of-service awards and other post-employment benefits** | **218** | **178** |

#### 5.3.4. Defined contribution plans

Contributions to defined contribution plans are expensed as incurred.

Contributions to defined contribution plans for 2018 represented an estimated €667 million (2017: €644 million), including €442 million for government-sponsored basic pension schemes (2017: €434 million), €137 million for government-sponsored supplementary pension schemes, mainly in France (2017: €131 million), and €88 million for corporate-sponsored supplementary pension plans (2017: €79 million).

### 5.4. Share-based payments

#### 5.4.1. Group Savings Plan

The Group Savings Plan (*Plan Epargne Group* - PEG) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service with the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five- or ten-year lock-up, except following the occurrence of certain events. The Board of Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

The compensation cost recorded in accordance with IFRS 2 is measured by reference to the fair value of a discount offered on restricted stock (i.e., stock subject to a lock-up). The cost of the lock-up for the employee is defined as the cost of a two-step strategy that involves first selling the restricted stock forward five or ten years and then purchasing the same number of shares on the spot market and financing the purchase with debt. The borrowing cost is estimated at the rate that would be charged by a bank to an individual with an average risk profile for a general-purpose, five- or ten-year consumer loan repayable at maturity. The cost of the plans is recognized in full at the end of the subscription period.

In 2018, 4,932,767 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €36.31 (2017: 4,593,807 shares at an average price of €36.72), representing a share capital increase of €179 million (€168 million in 2017), net of transaction fees.

No amount was expensed in respect of the plans in 2018 or 2017 owing to the lock-in cost.

The following table shows the main features of the standard plans, the amounts invested in the plans and the valuation assumptions applied in 2018 and 2017:

| | 2018 | 2017 |
|---|---|---|
| **Plan characteristics** | | |
| Date of Shareholders' Meeting | June 8, 2017 (17th Resolution) | June 4, 2015 (17th Resolution) |
| Date of the Chief Executive Officer's decision fixing the subscription price | March 19 | March 20 |
| Plan duration (in years) | 5 or 10 | 5 or 10 |
| Reference price (in €) | 45.38 | 45.89 |
| Subscription price (in €) | 36.31 | 36.72 |
| Discount (in %) | 20.00% | 20.00% |
| Total discount on the date of the Chief Executive Officer's decision (in %) **(a)** | 20.76% | 21.25% |
| Employee investments (in € millions) | 179.1 | 168.7 |
| Total number of shares subscribed | 4,932,767 | 4,593,807 |
| **Valuation assumptions (5-year maturity)** | | |
| Interest rate applicable to employees* | 4.80% | 4.80% |
| Risk-free interest rate | 0.09% | 0.19% |
| Repo rate | 0.34% | 0.47% |
| Lock-up discount (in %) **(b)** | 20.93% | 21.17% |
| Total cost to the Group (in %) **(a-b)** | -0.17% | 0.08% |

* A 0.5-point decline in borrowing costs for the employee would have no material impact on the 2018 share-based payment expense as calculated in accordance with IFRS 2.

### 5.4.2. Stock option plans

Compagnie de Saint-Gobain has stock option plans available to certain employees.

The Board of Directors grants options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, options may only be exercised after four years of the grant date. During this period, none of the options received may be exercised. Options must be exercised within 10 years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2018, plans launched between 2009 and 2012 offer subscription options, while the 2013 and 2014 plans offer purchase options. For plans launched between 2015 and 2018, the Board of Directors has decided that it would determine the type of option (subscription or purchase) at the latest on the day before the start of the exercise period, with any options exercised prior to such decision considered as subscription options.

Until 2008, options were subject to a performance condition for certain grantees only. A performance condition applies for all grantees in plans awarded since 2009.

For options granted under the 2018 plan, the value used to calculate the 30% *contribution sociale* tax due by grantees employed by French companies in the Group is €1.88 per option granted.

The following table presents changes in the number of outstanding options:

| | €4 par value shares | Average exercise price (in €) |
|---|---|---|
| **Options outstanding at December 31, 2016** | **6,922,327** | **47.97** |
| Options granted | 284,500 | 49.38 |
| Options exercised | (689,997) | 28.39 |
| Options forfeited | (3,501,207) | 63.99 |
| **Options outstanding at December 31, 2017** | **3,015,623** | **33.97** |
| Options granted | 290,500 | 32.24 |
| Options exercised | (568,380) | 26.64 |
| Options forfeited* | (889,736) | 28.05 |
| **Options outstanding at December 31, 2018** | **1,848,007** | **38.78** |

* Including 655,186 subscription options granted under the 2008 plan that had not been exercised when the plan expired, and 234,550 purchase options granted under the 2014 plan that had lapsed because the performance condition had only partly been met.

The cost of stock option plans is calculated using the Black & Scholes option pricing model.

The following inputs were used:

- volatility assumptions that take into account the historical volatility of the share price over a rolling 10-year period, as well as implied volatility from traded share options. Periods of extreme share price volatility are disregarded;
- assumptions relating to the average holding period of options, based on observed behavior of option holders;
- expected dividends, as estimated on the basis of historical dividend information dating back to 1988;
- a risk-free interest rate corresponding to the yield on long-term government bonds;
- the effect of any stock market performance conditions, which is taken into account in the initial measurement of IFRS 2 share-based payment expense.

The cost calculated using this method is recognized in the income statement over the vesting period of the options, which is a maximum of four years.

Stock option expense recorded in the income statement amounted to €2 million in 2018 (2017: €1 million). The fair value of options granted in 2018 amounted to €1 million.

The table below summarizes information about stock options outstanding at December 31, 2018, after taking into account partial fulfillment of the performance criteria attached to certain plans.

| | Exercisable options | | | Non-exercisable options | | Total options outstanding | |
|---|---|---|---|---|---|---|---|
| **Grant date** | **Exercise price** (in €) | **Number of options** | **Weighted average contractual life** (in months) | **Exercise price** (in €) | **Number of options** | **Number of options** | **Type of options** |
| 2009 | 36.34 | 627,748 | 11 | | | 627,748 | Subscription |
| 2010 | 35.19 | 0 | 23 | | | 0 | Subscription |
| 2011 | 31.22 | 0 | 35 | | | 0 | Subscription |
| 2012 | 27.71 | 19,962 | 47 | | | 19,962 | Subscription |
| 2013 | 38.80 | 120,347 | 59 | | | 120,347 | Purchase |
| 2014 | 34.13 | | 71 | | | 0 | Purchase |
| 2015 | | | 83 | 39.47 | 224,950 | 224,950 | Subscription or purchase* |
| 2016 | | | 95 | 40.43 | 280,000 | 280,000 | Subscription or purchase* |
| 2017 | | | 107 | 49.38 | 284,500 | 284,500 | Subscription or purchase* |
| 2018 | | | 119 | 32.24 | 290,500 | 290,500 | Subscription or purchase* |
| **Total** | | **768,057** | | | **1,079,950** | **1,848,007** | |

* 2015, 2016, 2017 and 2018 plans: see above.

For subscription options, the sum received by the Company when options are exercised is recorded in "Capital stock" for the portion representing the par value of the shares, with the balance – net of directly attributable transaction costs – recorded under "Additional paid-in capital".

At December 31, 2018, 768,057 stock options were exercisable (at an average exercise price of €36.50) and 1,079,950 options (with an average exercise price of €40.38) had not yet vested.

### 5.4.3. Performance shares and performance unit grants

The Group set up a worldwide share grant plan in 2009 whereby each Group employee was awarded seven shares. This plan was fulfilled in the first half of 2014. Since 2009, performance share plans have also been set up for certain categories of employees. These plans are subject to eligibility criteria based on the grantee's period of service (service conditions) with the Group as well as performance criteria (performance conditions), which are described below. The IFRS 2 share-based payment expense takes into account these criteria as well as the lock-up feature. It is recognized over the vesting period, which covers a maximum of four years.

Since 2012, performance unit plans have been set up for certain employees in France. These plans are also subject to service and performance conditions. The IFRS 2 share-based payment expense therefore takes into account these factors, as well as the fact that the units are cash-settled. IFRS 2 stipulates that for cash-settled share-based payment transactions, the granted instruments are initially measured at fair value at the grant date, then remeasured at the end of each reporting period, with the expense adjusted accordingly pro rata to the rights that have vested at the reporting date. The expense is recognized over the vesting period of the rights.

a) Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009.

Four performance share plans were outstanding at December 31, 2018. The plan approved by the Board of Directors in 2015 solely concerns certain managerial-grade employees and senior managers of the Group outside France. The 2016 and 2017 plans and the plan approved by the Board of Directors on November 22, 2018 concern both managerial-grade employees and senior managers of the Group both within and outside France.

All plans are subject to service and performance conditions. The vesting period for the plans is four years and the shares will be delivered the day after the end of the vesting period for the 2015-2017 plans, and on the third day after the end of the vesting period for the 2018 plan.

The table below shows changes in the number of performance share rights:

| | Number of rights |
|---|---|
| **Number of performance share rights at December 31, 2016** | **2,803,125** |
| Performance share rights granted in November 2017 | 1,226,680 |
| Shares issued/delivered | (458,795) |
| Lapsed and canceled rights | (83,570) |
| **Number of performance share rights at December 31, 2017** | **3,487,440** |
| Performance share rights granted in November 2018 | 1,219,619 |
| Shares issued/delivered | (438,468) |
| Lapsed and canceled rights* | (91,602) |
| **Number of performance share rights at December 31, 2018** | **4,176,989** |

* Including 56,160 option rights granted under the 2014 plan that had lapsed because the performance condition had only been partly met, and 35,442 option rights granted under 2014 plan that had lapsed after the service condition was considered.

The fair value of the performance shares corresponds to the Saint-Gobain share price on the grant date less the value of dividends not payable on the shares during the vesting period and, as for the Group Savings Plan, minus the discount on restricted stock (i.e., stock subject to a four-year lock-up), which has been estimated at around 30% of the share price. The expense is recognized over the vesting period, which covers a maximum of four years.

The expense recorded in the income statement in 2018 for these plans amounted to €26 million (2017: €16 million).

The table below summarizes information about stock options outstanding at December 31, 2018, after taking into account partial fulfillment of the performance criteria attached to certain plans.

| Grant date | Number of rights at December 31, 2018* | End of vesting and lock-up period | Type of shares |
|---|---|---|---|
| November 26, 2015 | 500,210 | November 26, 2019 | existing |
| November 24, 2016 | 1,230,680 | November 24, 2020 | existing |
| November 23, 2017 | 1,226,480 | November 23, 2021 | existing |
| November 22, 2018 | 1,219,619 | November 22, 2022 | existing |
| **Total** | **4,176,989** | | |

* Subject to fulfillment of the service and performance conditions applicable to each plan.

b) Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015 for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to the Company's share price.

No long-term payment plan in the form of performance units has been set up since 2016, as all beneficiaries received rights to performance shares.

In 2018, 495,087 performance units under the 2014 plan vested, while 103,313 performance units under the same plan lapsed, including 81,172 units because the performance condition had only been partly met and 22,141 units because the service condition had not been met.

The table below shows historical data for the performance unit plans in the process of vesting at December 31, 2018:

| Grant date | Number of performance units granted at inception of plan | Exercised early | Number of performance units at December 31, 2018* |
|---|---|---|---|
| November 26, 2015 | 556,340 | | 556,340 |

* Subject to fulfillment of the service and performance conditions applicable to each plan.

The expense recorded in the income statement in 2018 for these plans amounted to €11 million (2017: €21 million).

## NOTE 6 PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

### 6.1. Goodwill

When an entity is acquired by the Group, its identifiable assets and assumed liabilities are recognized at their fair value within a 12-month measurement period and retroactively at the acquisition date.

The final acquisition price ("consideration transferred" in IFRS 3R), including, as appropriate, the estimated fair value of any earn-out payments or other deferred consideration ("contingent consideration" in IFRS 3R), is determined in the 12 months following the acquisition. Under IFRS 3R, any adjustments to the acquisition price beyond this 12-month period are recorded in the income statement. Directly-attributable acquisition costs are expensed as incurred.

In addition, goodwill is recognized only at the date that control is achieved. Any subsequent increase in ownership interest (without change of control) is recorded as a change in equity without adjusting goodwill.

Goodwill is recorded in the consolidated balance sheet as the difference between (i) the acquisition-date fair value plus the amount of any minority interests in the acquisition – measured either at fair value (full goodwill method) or at the proportionate interest in the fair value of the net identifiable assets acquired (partial goodwill method) – and (ii) the net amount of assets and liabilities acquired at their fair value at the acquisition date. The Group generally applies the partial goodwill method and the amount of goodwill calculated under the full goodwill method is not therefore material.

Any excess of the cost of an acquisition over the fair value of the Group's share of the assets and liabilities of the acquired entity is recorded as goodwill. Any negative difference between the cost of the acquisition and the fair value of the net assets and liabilities acquired is recognized in the income statement during the year of acquisition.

Changes in goodwill in 2018 and 2017 are detailed below:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| **At January 1** | | |
| Gross value | 12,023 | 12,160 |
| Accumulated impairment | (1,448) | (1,491) |
| **Net value** | **10,575** | **10,669** |
| **Changes during the year** | | |
| Impairment | (1,116) | (70) |
| Translation adjustments | 30 | (497) |
| Restatement for hyperinflation in Argentina | 27 | 0 |
| Changes in Group structure | 476 | 473 |
| Assets held for sale | (4) | 0 |
| **Total changes** | **(587)** | **(94)** |
| **At December 31** | | |
| Gross value | 12,394 | 12,023 |
| Accumulated impairment | (2,406) | (1,448) |
| **Net value** | **9,988** | **10,575** |

In 2018, changes in Group structure relate mainly to newly consolidated companies in all sectors (see section 2.2.1). Impairment recognized in 2018 is detailed in Note 6.5.3. The 2018 currency translation adjustments primarily reflect the impacts of fluctuations in the US dollar, Brazilian real, pound sterling, Argentine peso and Turkish lira.

In 2017, changes in Group structure related mainly to newly consolidated companies in the Construction Products Sector representing €474 million. Impairment tests performed in 2017 led to the recognition of goodwill impairment, primarily in the Flat Glass business in the United States and the United Kingdom. Currency translation adjustments primarily reflected the impacts of fluctuations in the US dollar, pound sterling, Norwegian krone and Brazilian real.

The net value of goodwill by sector and by business can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Flat Glass | 201 | 189 |
| High-Performance Materials | 1,826 | 1,602 |
| Construction Products | 5,986 | 6,014 |
| Building Distribution | 1,975 | 2,770 |
| **Total** | **9,988** | **10,575** |

Goodwill is essentially allocated to the Construction Products Sector, mainly Gypsum (€3,304 million at December 31, 2018) and Industrial Mortars (€2,077 million at December 31, 2018), and to the Building Distribution Sector, primarily in France and Scandinavia.

## 6.2. Other intangible assets

Other intangible assets primarily include patents, brands, software and development costs. They are measured at historical cost less accumulated amortization and impairment.

Acquired retail brands and certain manufacturing brands are treated as intangible assets with indefinite useful lives as they have a strong national and/or international reputation. These brands are not amortized but are tested systematically for impairment on an annual basis. Other brands are amortized over their useful lives, not exceeding 40 years.

Costs incurred to develop software in-house – primarily configuration, programming and testing costs – are recognized as intangible assets. Patents and purchased computer software are amortized over their estimated useful lives, not exceeding 20 years for patents and three to five years for software.

Research costs are expensed as incurred. Development costs meeting the recognition criteria under IAS 38 are included in intangible assets and amortized over their estimated useful lives (not exceeding five years) from the date when the products to which they relate are first marketed.

Changes in other intangible assets during 2018 and 2017 are analyzed below:

| *(in € millions)* | Patents | Non-amortizable brands | Software | Development costs | Other | Total intangible assets |
|---|---|---|---|---|---|---|
| **At December 31, 2016** | | | | | | |
| Gross value | 165 | 2,731 | 1,066 | 147 | 451 | 4,560 |
| Accumulated amortization and impairment | (139) | (587) | (846) | (111) | (215) | (1,898) |
| **Net value** | **26** | **2,144** | **220** | **36** | **236** | **2,662** |
| **Changes during the year** | | | | | | |
| Acquisitions | 0 | 0 | 97 | 8 | 79 | 184 |
| Disposals | 0 | 0 | (3) | 0 | (1) | (4) |
| Translation adjustments | (2) | (55) | (9) | (2) | (11) | (79) |
| Amortization and impairment | (4) | (80) | (74) | (13) | (11) | (182) |
| Changes in Group structure and other | 0 | 6 | 8 | 2 | 6 | 22 |
| **Total changes** | **(6)** | **(129)** | **19** | **(5)** | **62** | **(59)** |
| **At December 31, 2017** | | | | | | |
| Gross value | 149 | 2,682 | 1,093 | 119 | 505 | 4,548 |
| Accumulated amortization and impairment | (129) | (667) | (854) | (88) | (207) | (1,945) |
| **Net value** | **20** | **2,015** | **239** | **31** | **298** | **2,603** |
| **Changes during the year** | | | | | | |
| Acquisitions | 2 | 0 | 142 | 9 | 36 | 189 |
| Disposals | (1) | 0 | (5) | (2) | (16) | (24) |
| Translation adjustments | 0 | (8) | (1) | 0 | (1) | (10) |
| Amortization and impairment | (4) | (109) | (108) | (12) | (90) | (323) |
| Changes in Group structure and other | 2 | 3 | 8 | (2) | 81 | 92 |
| Assets held for sale | 0 | 0 | (1) | 0 | 0 | (1) |
| **Total changes** | **(1)** | **(114)** | **35** | **(7)** | **10** | **(77)** |
| **At December 31, 2018** | | | | | | |
| Gross value | 148 | 2,649 | 1,170 | 121 | 568 | 4,656 |
| Accumulated amortization and impairment | (129) | (748) | (896) | (97) | (260) | (2,130) |
| **Net value** | **19** | **1,901** | **274** | **24** | **308** | **2,526** |

Impairment recognized in 2018 is detailed in Note 6.5.3.

The breakdown of non-amortizable brands by sector is provided in the segment information tables in Note 4 “Information concerning the Group’s operating activities”.

### 6.3. Property, plant and equipment

Land, buildings and equipment are carried at historical cost less accumulated depreciation and impairment.

Cost may also include incidental expenses directly attributable to the acquisition, as well as the impact of transfers from equity of any gains/losses on qualifying cash flow hedges of property, plant and equipment purchases.

Expenses incurred in exploring and evaluating mineral resources are included in property, plant and equipment when it is probable that associated future economic benefits will flow to the Group. They include mainly the costs of topographical or geological studies, drilling costs, sampling costs and all costs incurred in assessing the technical feasibility and commercial viability of extracting the mineral resource.

Material borrowing costs incurred for the construction and acquisition of property, plant and equipment are included in the cost of the related asset if they are significant.

Property, plant and equipment are considered as having no residual value, as they chiefly consist of industrial assets that are intended to be used until the end of their useful lives.

Property, plant and equipment other than land are depreciated using the components approach on a straight-line basis over the following estimated useful lives, which are regularly reviewed:

- Major factories and offices 30 - 40 years
- Other buildings 15 - 25 years
- Production machinery and equipment 5 - 16 years
- Vehicles 3 - 5 years

- Furniture, fixtures, office and computer equipment 4 - 16 years

Gypsum quarries are depreciated over their estimated useful lives, based on the quantity of gypsum extracted during the year compared with extraction capacity.

Provisions for site restoration are recognized as components of assets whenever the Group has a legal or constructive obligation to restore a site in accordance with contractually determined conditions or in the event of a sudden deterioration in site conditions. These provisions are reviewed periodically and may be discounted over the expected useful lives of the assets concerned. The component is depreciated over the same useful life as that used for mines and quarries.

Government grants for purchases of property, plant and equipment are recorded under “Other payables” and taken to the income statement over the estimated useful lives of the relevant assets.

Changes in property, plant and equipment in 2018 and 2017 are analyzed below:

| *(in € millions)* | Land and quarries | Buildings | Machinery and equipment | Assets under construction | Total property, plant and equipment |
|---|---|---|---|---|---|
| **At December 31, 2016** | | | | | |
| Gross value | 2,510 | 8,607 | 19,744 | 1,067 | 31,928 |
| Accumulated depreciation and impairment | (560) | (5,068) | (14,596) | (50) | (20,274) |
| **Net value** | **1,950** | **3,539** | **5,148** | **1,017** | **11,654** |
| **Changes during the year** | | | | | |
| Acquisitions | 15 | 68 | 269 | 1,186 | 1,538 |
| Disposals | (31) | (18) | (31) | (17) | (97) |
| Translation adjustments | (67) | (158) | (251) | (64) | (540) |
| Depreciation and impairment | (33) | (263) | (883) | (11) | (1,190) |
| Transfers | 0 | 213 | 687 | (900) | 0 |
| Changes in Group structure and other | 43 | 61 | 53 | 68 | 225 |
| **Total changes** | **(73)** | **(97)** | **(156)** | **262** | **(64)** |
| **At December 31, 2017** | | | | | |
| Gross value | 2,454 | 8,558 | 19,575 | 1,335 | 31,922 |
| Accumulated depreciation and impairment | (577) | (5,116) | (14,583) | (56) | (20,332) |
| **Net value** | **1,877** | **3,442** | **4,992** | **1,279** | **11,590** |
| **Changes during the year** | | | | | |
| Acquisitions | 12 | 72 | 286 | 1,296 | 1,666 |
| Disposals | (29) | (13) | (25) | (7) | (74) |
| Translation adjustments | 2 | (32) | (43) | (10) | (83) |
| Restatement for hyperinflation in Argentina | 2 | 12 | 13 | 4 | 31 |
| Depreciation and impairment | (145) | (500) | (1,083) | (38) | (1,766) |
| Transfers | 0 | 255 | 862 | (1,117) | 0 |
| Changes in Group structure and other | 71 | (13) | 73 | (4) | 127 |
| Assets held for sale | (56) | (26) | (45) | (29) | (156) |
| **Total changes** | **(143)** | **(245)** | **38** | **95** | **(255)** |
| **At December 31, 2018** | | | | | |
| Gross value | 2,463 | 8,331 | 19,802 | 1,421 | 32,017 |
| Accumulated depreciation and impairment | (729) | (5,134) | (14,772) | (47) | (20,682) |
| **Net value** | **1,734** | **3,197** | **5,030** | **1,374** | **11,335** |

In 2018, "Changes in Group structure and other" related mainly to newly consolidated companies in the Construction Products and Innovative Materials Sectors and to deconsolidated items in the Construction Products Sector, mainly assets belonging to entities operating at the PAM Xuzhou plant (see Note 2). Impairment recognized in 2018 is detailed in Note 6.5.3.

### 6.4. Finance leases and operating leases

Assets held under finance leases that transfer to the Group substantially all of the risks and rewards of ownership are recognized as property, plant and equipment (land, buildings and equipment). They are recorded at the inception of the lease term at the lower of the fair value of the leased assets and the present value of the minimum lease payments.

Property, plant and equipment acquired under finance leases are depreciated on a straight-line basis over the shorter of the estimated useful life of the asset – determined using the same criteria as for assets owned by the Group – or the lease term. The corresponding liability is shown in the balance sheet net of related interest.

Rental payments under operating leases are expensed as incurred.

In 2018, other changes in property, plant and equipment include an amount of €24 million (2017: €15 million) relating to assets acquired under new finance leases not included in the cash flow statement in accordance with IAS 7. At December 31, 2018, total property, plant and equipment acquired under finance leases amounted to €99 million (December 31, 2017: €83 million).

## 6.5. Impairment review

### 6.5.1. Impairment of property, plant and equipment, intangible assets and goodwill

Property, plant and equipment, goodwill and other intangible assets are tested for impairment on a regular basis. These tests consist of comparing the asset's carrying amount to its recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use, calculated by reference to the net present value of the future cash flows expected to be derived from the asset.

For property, plant and equipment and amortizable intangible assets, an impairment test is performed whenever revenues from the asset decline or the asset generates operating losses due to either internal or external factors, and no material improvement is forecast in the annual budget or the relevant business plan.

For goodwill and other intangible assets (including brands with indefinite useful lives), an impairment test is performed at least annually based on the business plan. Goodwill is reviewed systematically and exhaustively at the level of each cash-generating unit (CGU). The Group's reporting segments are its business sectors, which may each include several CGUs. A CGU is a reporting sub-segment, generally defined as a core business of the segment in a given geographic area. It typically reflects the level at which the Group organizes its businesses and analyzes its results for internal reporting purposes.

The number of CGUs in both 2018 and 2017 was 30. Since the Building Distribution business in Germany is classified as held for sale (see section 2.3), the assets and liabilities relating to the Building Distribution CGU in Germany are carried at the lower of their fair value less costs to sell and their carrying amount.

The method used for these impairment tests is consistent with that employed by the Group for the valuation of companies acquired in business combinations or acquisitions of equity interests. The carrying amount of the CGUs is compared to their value in use, corresponding to the net present value of future cash flows excluding interest but including tax. It is determined using assumptions made by senior management based on estimates and judgments including future changes in net sales, profitability, investments and other cash flows arising from the use of the corresponding assets, as well as the discount rate applied to future cash flows. Cash flows for the last year of the business plan are rolled forward over the following two years. For impairment tests of goodwill, normative cash flows (corresponding to cash flows at the mid-point in the business cycle) are then projected to perpetuity using a low annual growth rate (generally 1.5%, except for emerging markets or businesses with a high organic growth potential where a 2% rate is used). Growth data are supported by external data issued by prominent organizations. In light of continued falling interest rates on the Group's borrowings, the discount rate was reduced to 6.85% in 2018 from 7.25% in 2017 and 2016. This rate corresponds to the Group's average cost of capital, plus a country risk premium where applicable depending on the geographic area concerned. The discount rates applied in 2018 were 6.85% for Western Europe and North America, 7.85% for Eastern Europe and emerging Asia-Pacific and 8.75% for South America, Russia and the Middle East.

The recoverable amount calculated using a post-tax discount rate gives the same result as a pre-tax rate applied to pre-tax cash flows.

### 6.5.2. CGU impairment tests

When the annual impairment test reveals that the recoverable amount of an asset is less than its carrying amount, an impairment loss is recorded.

Impairment losses on goodwill can never be reversed through income. For property, plant and equipment and other intangible assets, an impairment loss recognized in prior periods may be reversed, taking into account depreciation/amortization adjustments, if there is an indication that the impairment no longer exists and that the recoverable amount of the asset concerned exceeds its carrying amount.

During the impairment tests, different assumptions measuring the method's sensitivity are systematically tested using the following inputs:

- 0.5-point increase or decrease in the discount rate applied to cash flows;
- 0.5-point increase or decrease in the annual average rate of growth in cash flows projected to perpetuity;
- 1-point decrease in the operating income rate for industrial activities and 0.5-point decrease for distribution activities.

At December 31, 2018, a 0.5-point increase in the discount rate for all CGUs would have led to approximately €147 million in additional impairment of non-current assets, while a 0.5-point decrease in the average annual cash flow growth rate projected to perpetuity for all CGUs would have resulted in additional non-current asset impairment of around €115 million. The impact of a 1-point decrease in the operating income rate for all industrial CGUs would have generated additional non-current asset impairment of roughly €105 million, while a 0.5-point decrease in the rate for distribution activities would have generated additional impairment of €223 million. The sensitivity for the Building Distribution Sector takes into account a no-deal Brexit risk assumption at the reporting date.

| | Impact of | | | |
|---|---|---|---|---|
| *(in € millions)* | 0.5% increase in the discount rate | 0.5% decrease in the growth rate | 1 point decrease in the operating income rate | 0.5 point decrease in the operating income rate |
| Flat Glass | | | (2) | |
| High-Performance Materials | | | | |
| Construction Products | (31) | (24) | (103) | |
| Building Distribution | (116) | (91) | | (223) |
| **Total** | **(147)** | **(115)** | **(105)** | **(223)** |

### 6.5.3. Impairment recognized in the year

The Group reviewed its impairment tests in light of the current situation and the downward revision to the outlook for certain business and countries.

With the United Kingdom facing uncertainty due to Brexit in a more competitive environment which is weighing on margins, the Group recognized a €750 million impairment loss against goodwill relating to the Building Distribution business.

In the first half of 2018, impairment totaling €223 million was recognized in respect of the Pipe business. Following the closure of the PAM Xuzhou plant in China, the Group conducted impairment tests on assets allocated to the Pipe CGU, leading it to recognize impairment of €130 million against the corresponding goodwill. In the second half of 2018, Saint-Gobain completed the sale of the entities operating at the PAM Xuzhou plant and continued to restructure the Pipe business, recognizing additional impairment against the corresponding assets. Annual impairment totaled €511 million, including €224 million charged against goodwill.

Lapeyre continued to roll out restructuring measures, and an impairment loss was recognized against its assets in an amount of €372 million, including €131 million in respect of other intangible assets.

The value of the Building Distribution business in Germany was adjusted in the context of its sale (see section 2.3) in an amount of €212 million, including €130 million relating to goodwill.

The breakdown of asset impairment by sector for 2018 and 2017 is provided in the segment information tables in Note 4 “Information concerning the Group’s operating activities”.

# NOTE 7 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES AND OTHER NON-CURRENT ASSETS

A joint venture is a joint arrangement whereby the parties have joint control of the arrangement and decisions about the relevant activities require the unanimous consent of the parties sharing control. The parties that have joint control of the arrangement have rights to the net assets of the arrangement. By contrast, an associate is an entity over which a partner has significant influence over the power to participate in decisions, but not control.

Under IAS 28, investments in both associates and joint ventures must be recognized using the same equity-accounting consolidation method.

## 7.1. Changes in investments in equity-accounted companies

Changes in investments in equity-accounted companies in 2018 and 2017 can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| **At January 1** | | |
| Group share in: | | |
| Associates | 173 | 181 |
| Joint ventures | 187 | 183 |
| **Total** | 360 | 364 |
| Goodwill | 19 | 12 |
| **Investments in equity-accounted companies** | **379** | **376** |
| **Changes during the year** | | |
| Group share in net income of: | | |
| Associates | 11 | 3 |
| Joint ventures | 19 | 30 |
| **Total** | 30 | 33 |
| Dividends paid | (11) | (20) |
| Translation adjustments | (2) | (18) |
| Transfers, share issues and other movements | 16 | 6 |
| Changes in Group structure | 0 | 2 |
| **Total changes** | **33** | **3** |
| **At December 31** | | |
| Group share in: | | |
| Associates | 185 | 173 |
| Joint ventures | 207 | 187 |
| **Total** | 392 | 360 |
| Goodwill | 20 | 19 |
| **Investments in equity-accounted companies** | **412** | **379** |

The principal financial aggregates of equity-accounted companies are as follows:

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| *(in € millions)* | Associates | Joint ventures | Total | Associates | Joint ventures | Total |
| Net sales | 774 | 670 | 1,444 | 789 | 709 | 1,498 |
| Net income | 52 | 41 | 93 | 28 | 67 | 95 |
| Current assets | 528 | 305 | 833 | 495 | 310 | 805 |
| Non-current assets | 480 | 372 | 852 | 533 | 337 | 870 |
| Current liabilities | 225 | 116 | 341 | 227 | 145 | 372 |
| Non-current liabilities | 783 | 561 | 1,344 | 801 | 502 | 1,303 |
| Shareholders' equity | 622 | 444 | 1,066 | 592 | 409 | 1,001 |

### 7.2. Transactions with equity-accounted companies – related parties

The consolidated financial statements include transactions conducted by the Group in the normal course of its businesses with associates and joint ventures. These transactions are carried out on an arm's length basis.

The assets and liabilities of equity-accounted companies at December 31 are as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Financial receivables | 2 | 1 |
| Inventories | 0 | 0 |
| Short-term receivables | 9 | 7 |
| Cash and cash equivalents | 0 | 0 |
| Provisions for asset impairment | 0 | 0 |
| Short-term debt | 5 | 2 |
| Cash advances | 0 | 0 |

Purchases and sales with equity-accounted companies are as follows:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Purchases | 2 | 2 |
| Sales | 33 | 40 |

### 7.3. Other non-current assets

As of January 1, 2018, the Group has elected to present changes in the fair value of equity investments in the consolidated statement of recognized income and expense. Up to December 31, 2017, equity investments were classified within the "available-for-sale" category.

Changes in other non-current assets in 2018 and 2017 are analyzed below:

| *(in € millions)* | Equity investments and other | Loans, deposits and surety | Pension plan surpluses | Total |
|---|---|---|---|---|
| **At December 31, 2016** | | | | |
| Gross value | 163 | 526 | 41 | 730 |
| Provision for impairment | (15) | (5) | | (20) |
| **Net value** | **148** | **521** | **41** | **710** |
| **Changes during the year** | | | | |
| Increases/(decreases) | 82 | (3) | 123 | 202 |
| Provisions for impairment | 0 | 2 | | 2 |
| Translation adjustments | (10) | (11) | (3) | (24) |
| Transfers and other movements | 3 | 0 | | 3 |
| Changes in Group structure | (122) | 3 | | (119) |
| **Total changes** | **(47)** | **(9)** | **120** | **64** |
| **At December 31, 2017** | | | | |
| Gross value | 111 | 516 | 161 | 788 |
| Provision for impairment | (10) | (4) | | (14) |
| **Net value** | **101** | **512** | **161** | **774** |
| **Changes during the year** | | | | |
| Increases/(decreases) | 1,756 | 113 | 34 | 1,903 |
| Provisions for impairment | (1) | (7) | | (8) |
| Translation adjustments | (5) | (1) | (2) | (8) |
| Transfers and other movements | 0 | (2) | | (2) |
| Changes in Group structure | (68) | 5 | | (63) |
| Change in fair value | (69) | 0 | | (69) |
| **Total changes** | **1,613** | **108** | **32** | **1,753** |
| **At December 31, 2018** | | | | |
| Gross value | 1,742 | 625 | 193 | 2,560 |
| Provision for impairment | (28) | (5) | | (33) |
| **Net value** | **1,714** | **620** | **193** | **2,527** |

Increases/(decreases) and changes in the fair value of equity investments and other securities in 2018 primarily reflect the SWH/Sika transaction (see Note 2).

# NOTE 8 OTHER CURRENT AND NON-CURRENT LIABILITIES AND PROVISIONS, CONTINGENT LIABILITIES AND LITIGATION

A provision is booked when (i) the Group has a present legal or constructive obligation towards a third party as a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligation, and (iii) the amount of the obligation can be estimated reliably.

If the amount or due date of the obligation cannot be estimated reliably, it is classified as a contingent liability and reported as an off-balance sheet commitment.

Provisions for other material liabilities and charges whose timing can be estimated reliably are discounted to present value.

## 8.1. Provisions for other liabilities and charges

The table below provides a breakdown by type along with details of changes in other provisions and current and non-current liabilities:

| *(in € millions)* | Provisions for claims and litigation | Provisions for environmental risks | Provisions for restructuring costs | Provisions for personnel expenses | Provisions for customer warranties | Provisions for other contingencies | Total provisions for other liabilities | Investment-related liabilities | Total |
|---|---|---|---|---|---|---|---|---|---|
| **At December 31, 2016** | | | | | | | | | |
| Current portion | 125 | 36 | 52 | 29 | 122 | 60 | 424 | 12 | 436 |
| Non-current portion | 475 | 122 | 47 | 76 | 111 | 221 | 1,052 | 190 | 1,242 |
| **Total provisions for other liabilities and investment-related liabilities** | **600** | **158** | **99** | **105** | **233** | **281** | **1,476** | **202** | **1,678** |
| **Movements during the year** | | | | | | | | | |
| Additions | 155 | 12 | 49 | 62 | 64 | 73 | 415 | | 415 |
| Reversals | (3) | (3) | (9) | (13) | (23) | (25) | (76) | | (76) |
| Utilizations | (135) | (12) | (58) | (34) | (54) | (99) | (392) | | (392) |
| Changes in Group structure | | | 2 | 1 | 3 | 6 | 12 | | 12 |
| Other movements (reclassifications and translation adjustments) | (71) | (1) | (4) | (6) | (25) | (1) | (108) | (64) | (172) |
| **Total movements** | **(54)** | **(4)** | **(20)** | **10** | **(35)** | **(46)** | **(149)** | **(64)** | **(213)** |
| **At December 31, 2017** | | | | | | | | | |
| Current portion | 137 | 30 | 38 | 21 | 102 | 71 | 399 | 13 | 412 |
| Non-current portion | 409 | 124 | 41 | 94 | 96 | 164 | 928 | 125 | 1,053 |
| **Total provisions for other liabilities and investment-related liabilities** | **546** | **154** | **79** | **115** | **198** | **235** | **1,327** | **138** | **1,465** |
| **Movements during the year** | | | | | | | | | |
| Additions | 122 | 10 | 150 | 35 | 71 | 51 | 439 | | 439 |
| Reversals | (3) | (2) | (9) | (14) | (23) | (53) | (104) | | (104) |
| Utilizations | (126) | (13) | (47) | (31) | (54) | (49) | (320) | | (320) |
| Changes in Group structure | | 2 | (32) | | | 1 | (29) | | (29) |
| Other movements (reclassifications and translation adjustments) | 25 | | (4) | (2) | 2 | (6) | 15 | 35 | 50 |
| **Total movements** | **18** | **(3)** | **58** | **(12)** | **(4)** | **(56)** | **1** | **35** | **36** |
| **At December 31, 2018** | | | | | | | | | |
| Current portion | 127 | 27 | 106 | 19 | 102 | 73 | 454 | 11 | 465 |
| Non-current portion | 437 | 124 | 31 | 84 | 92 | 106 | 874 | 162 | 1,036 |
| **Total provisions for other liabilities and investment-related liabilities** | **564** | **151** | **137** | **103** | **194** | **179** | **1,328** | **173** | **1,501** |

### 8.1.1. Provisions for claims and litigation

At December 31, 2018 and 2017, provisions for claims and litigation mainly covered asbestos- and PFOA-related lawsuits filed against the Group. These provisions are described in further detail in Note 8.2 “Contingent liabilities and litigation”.

### 8.1.2. Provisions for environmental risks

These provisions cover costs relating to environmental protection measures, as well as site rehabilitation and clean-up costs.

### 8.1.3. Provisions for restructuring costs

Provisions for restructuring costs amounted to €137 million at December 31, 2018 (December 31, 2017: €79 million), including net additions of €141 million during the year.

### 8.1.4. Provisions for personnel expenses

These provisions primarily cover indemnities due to employees that are unrelated to the Group’s reorganization plans.

#### 8.1.5. Provisions for customer warranties

These provisions cover the Group's commitments under warranties granted to customers mainly in the United States. They are determined on a statistical basis using a range of criteria and take into account contractual warranty payments made in prior years in the business and region concerned. In addition, specific provisions may be set aside for identified risks.

#### 8.1.6. Provisions for other contingencies

At December 31, 2018, provisions for other contingencies amounted to €179 million (December 31, 2017: €235 million) and mainly concerned the United States (€39 million), Brazil (€34 million), Germany (€33 million), France (€29 million) and Italy (€13 million).

#### 8.1.7. Investment-related liabilities

Investment-related liabilities correspond to commitments to purchase minority interests, liabilities relating to the acquisition of shares in Group companies, and minority shareholder puts.

In 2018, changes in investment-related liabilities primarily concerned minority shareholder puts.

### 8.2. Contingent liabilities and litigation

#### 8.2.1. Asbestos-related litigation

Current legal actions related to asbestos are described below.

##### 8.2.1.1. Asbestos-related litigation in France

a) Inexcusable fault lawsuits

In France, seven further individual lawsuits were filed in 2018 by former employees (or persons claiming through them) of Everite and Saint-Gobain PAM – which in the past had carried out fiber-cement operations – for asbestos-related occupational diseases that affect or have affected them. As of December 31, 2018, a total of 822 such lawsuits had been issued against the two companies since 1996 with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of December 31, 2018, 789 of these 822 lawsuits had been completed in terms of both liability and quantum. In all these cases, the employers were held liable on the grounds of "inexcusable fault".

Compensation paid by Everite and Saint-Gobain PAM in settlement of these lawsuits totaled approximately €4.6 million.

Concerning the 33 lawsuits outstanding against Everite and Saint-Gobain PAM at December 31, 2018, five have been completed in terms of both liability and quantum, but are still pending on the determination of who will pay the compensation due.

Out of the 28 remaining lawsuits, at December 31, 2018 the procedures relating to the merits of 24 cases were at different stages, with three in the process of being investigated by the French Social Security authorities and 21 pending before the Social Security or Appeal Courts. The last four actions have been canceled but the plaintiffs may request their restoration at any time within a two-year period following their cancellation.

In addition, as of December 31, 2018, 237 similar suits had been filed since the outset of the litigation by current or former employees, or persons claiming through them, of 13 French companies of the Group (excluding suits against companies that are no longer part of the Group), in particular by current or former employees who used equipment containing asbestos to protect themselves against heat from furnaces.

As of December 31, 2018, 211 lawsuits had been completed. In 129 of these cases, the employer was held liable for "inexcusable fault".

At the same date, compensation paid by these companies totaled approximately €7.0 million.

As regards the 26 suits outstanding at December 31, 2018, two cases were still being investigated by the French Social Security authorities and 23 were being tried – including 20 pending before the Social Security Courts and three before the Appeal Courts. Lastly, for one lawsuit, a decision has been rendered on the finding of liability but is still pending regarding the determination of who will pay the compensation due.

b) Anxiety claims

Eight of the Group's French subsidiaries, including six that operate or have operated facilities in France classified as containing asbestos, are the subject of damages claims that are different from those described above.

"Facilities classified as containing asbestos" are defined as industrial facilities that have been closed or are still operating, which previously manufactured materials containing asbestos or used protection and insulation equipment containing asbestos and that are included by ministerial decree on the official list of facilities whose current or former employees are entitled to the early-retirement benefit paid to asbestos workers (ACAATA).

As of December 31, 2018, a total of 822 suits had been brought by current or former employees claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos. None of these plaintiffs were suffering from an asbestos-related disease and some of them were not receiving the ACAATA benefit. Of these 822 lawsuits, 720 have been finally disposed of, representing total amount of compensation of €7.6 million at December 31, 2018. The remaining 102 lawsuits are pending before the competent labor tribunals.

It should be clarified that the above figures do not take into account suits filed against companies that are no longer part of the Group.

#### 8.2.1.2. Asbestos-related litigation in the United States

In the United States, several companies that once manufactured products containing asbestos such as asbestos-cement pipes, roofing products, specialized insulation or gaskets, are facing legal action from persons other than their employees or former employees. These claims for compensatory – and in some cases punitive – damages are based on alleged exposure to these products, although in many instances the claimants cannot demonstrate any specific exposure to one or more products, or any specific illness or physical disability. The vast majority of these claims are made simultaneously against many other non-Group entities that have been manufacturers, distributors, installers or users of products containing asbestos.

a) Developments in 2018

Approximately 2,600 new asbestos-related claims were filed against CertainTeed in the United States in 2018 (compared to 3,100 new claims in 2017). The number of new claims is significantly down on the past few years.

Virtually all lawsuits involving CertainTeed have either been settled out of court or dismissed. Around 4,300 of the pending claims were settled in 2018, compared to 3,900 in 2017 and 3,700 in 2016. Taking into account the number of claims outstanding at the end of 2017 (34,300), new claims arising during the year and settled claims, some 32,600 claims remain outstanding at December 31, 2018. A large number of these pending claims were filed more than five years ago by individuals who have been unable to demonstrate any significant asbestos-related impairment, and it is likely that many of these claims will ultimately be dismissed.

b) Impact on the Group's financial statements

The Group recorded a USD 106 million charge in 2018 to cover future developments in relation to claims. This amount is stable compared to the amount recorded in 2017 and 2016. At December 31, 2018, the Group's provision for asbestos-related litigation against CertainTeed in the United States amounts to USD 568 million (compared to USD 555 million at December 31, 2017 and USD 562 million at December 31, 2016).

c) Cash flow impact

Compensation paid in respect of these claims against CertainTeed (including claims settled prior to 2018 but only paid out in 2018 as well as claims fully settled and paid out in 2018), as well as compensation paid in 2018 by other Group businesses in the United States in connection with asbestos litigation, amounted to USD 67 million (compared to USD 76 million in 2017 and USD 97 million in 2016).

#### 8.2.1.3. Situation in Brazil

In Brazil, former employees of Brasilit suffering from asbestos-related occupational illnesses are offered, depending on the case, either financial compensation alone or lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments have accordingly been signed to date.

Two class actions were initiated against Brasilit in 2017 by two associations defending former employees exposed to asbestos at the São Caetano (São Paulo state) and Recife (Pernambouc state) plants, asking for their medical assistance and compensation to be revised. These suits are currently at a very early stage.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all of its legal obligations with regard to medical assistance for its current and former employees.

In November 2017, the Supreme Court of Brazil decided to ban asbestos definitively across the country. Brasilit stopped using asbestos voluntarily as early as 2002.

### 8.2.2. Anti-trust law and related proceedings

#### 8.2.2.1. Investigation by the Swiss Competition Commission in the sanitary products wholesale industry

In November 2011, the Swiss Competition Commission (*Commission Suisse de la Concurrence*) opened an investigation into anti-competitive practices in the sanitary products wholesale industry. In May 2014, the Commission Secretariat issued a notice of complaints against Sanitas Troesch and other wholesalers in the industry alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine imposed on all companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.5 million. Sanitas Troesch appealed this decision on May 2, 2016 and continues to firmly refute the claims made. However, a provision for claims and litigation was recognized at December 31, 2015 in an amount equivalent to the fine (unchanged at December 31, 2018).

#### 8.2.2.2. Investigation by the French Competition Authority in the building insulation products industry

On August 6, 2014, the French Competition Authority sent a statement of objections to Saint-Gobain Isover and Compagnie de Saint-Gobain (as parent company of the Saint-Gobain Group). A hearing took place on May 11, 2016, whereupon the Competition Authority sent the case back for further investigation in light of the arguments put forward by Saint-Gobain Isover and Compagnie de Saint-Gobain. In October 2018, Saint-Gobain Isover and Compagnie de Saint-Gobain received a second statement of objections, in which the Competition Authority alleges anti-competitive practices in the building insulation products market, between 2001 and 2013.

Saint-Gobain Isover and Compagnie de Saint-Gobain reject the allegations.

On the civil law front, Actis served in March 2013 a damages claim on Saint-Gobain Isover, the *Centre Scientifique et Technique du Bâtiment*, and the FILMM before the Paris Civil Court (*Tribunal de grande instance*) based on the facts being investigated by the Competition Authority. In an order dated December 16, 2014, the pre-trial judge declared a stay of proceedings while waiting for the decision from the Competition Authority.

#### 8.2.2.3. Investigation by the Anti-trust Division of the United States Department of Justice in the United States drywall industry

In July 2015, the Anti-trust Division of the United States Department of Justice opened a criminal investigation into potential anti-competitive practices, specifically a price agreement, in the United States drywall industry. This investigation followed complaints filed in late 2012 in the form of class actions in the civil courts against eight drywall manufacturers in the sector, including CertainTeed, by some of their customers.

On the basis of testimony and documents submitted in the civil proceedings, CertainTeed and its attorneys have not identified any element that might create liability for CertainTeed, and as a result filed a motion for summary judgment in May 2015 in order to end the civil proceedings. This application was accepted on February 18, 2016 by the competent court.

In autumn 2018, the lawsuit was terminated: no liability was assigned to CertainTeed and no fine was levied.

### 8.2.3. Environmental disputes

#### 8.2.3.1. PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) or state health advisories have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained traces of PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in the Hoosick Falls and North Bennington areas, installed carbon filtration systems on the municipal water supply in Hoosick Falls and agreed to fund the installation of a carbon filtration system on the Merrimack Valley District's municipal water supply. In addition, it has voluntarily funded both completed and on-going construction of water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation and clean-up obligations at these sites has not yet been established. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York in 2016, in Vermont in 2017, and in New Hampshire in 2018, pursuant to which SG PPL has agreed to complete investigations, implement interim or final remediation measures at its current and former facilities and in the case of Vermont and New Hampshire, fund construction of water lines. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL.

On December 31, 2018, the provision recorded by the Company in respect of this matter amounts to €30 million.

### 8.2.4. Other contingent liabilities

#### 8.2.4.1. Grenfell Tower fire in the United Kingdom

Celotex provides insulation materials for specific applications for the building and construction industry.

Insulation materials from two Celotex ranges were purchased via distributors and used in refurbishing Grenfell Tower, London in 2015/2016, including as one component of the rainscreen cladding system designed and installed (by third parties) on the tower's external facade.

Following the Grenfell Tower fire on 14 June 2017, a Public Inquiry is underway, which will consider, among other things, the modifications made to the building as part of the refurbishment, the role played by the various construction professionals, and the information provided by the manufacturers of the products used. A criminal investigation into the circumstances of the fire is also in progress.

There are a large number of issues and circumstances that need to be explored and the implications for Celotex are unlikely to be known for some time.

The extent to which Celotex may incur civil or criminal liability in connection with the production, marketing, supply or use of its products is currently unclear.

### 8.2.5. Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities. Apart from the proceedings and litigation described above, to the best of the Company's knowledge no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or have had, in the last 12 months, a significant impact on the financial position or profitability of the Company and/or Group.

# NOTE 9 FINANCING AND FINANCIAL INSTRUMENTS

## 9.1. Risk factors: financial risks

### 9.1.1. Liquidity risk

#### 9.1.1.1. Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. The subsidiaries generally enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the regional cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is bonds, which are generally issued under the Medium Term Notes program. Saint-Gobain also uses perpetual bonds, participating securities, a long-term securitization program, bank borrowings and lease financing.

Short-term debt comprises borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by confirmed syndicated lines of credit.

A breakdown of long- and short-term debt by type and maturity is provided in Note 9.3, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

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

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

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

#### 9.1.1.2. Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and high volatility risks, whenever possible, the Group invests in money market and/or bond funds.

### 9.1.2. Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the Group.

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit the Group’s exposure to credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor’s or A3 or above from Moody’s. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS (“Credit Default Swap”) level of each counterparty.

### 9.1.3. Market risk

#### 9.1.3.1. Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are contracted in accordance with the Group’s purchasing policy.

These hedges (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with regional treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities, in accordance with the same principles as those outlined above for energy purchases.

Note 9.4 provides a breakdown of instruments used to hedge energy and commodity risks.

#### 9.1.3.2. Interest rate risk

The Group’s overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain. Where subsidiaries use derivatives to hedge interest rate risks, their counterparty is generally Compagnie de Saint-Gobain, the Group’s parent company.

The Group’s policy is aimed at fixing the cost of its medium-term debt against interest rate risk and optimizing borrowing costs. According to Group policy, the derivative financial instruments used to hedge these risks can include interest rate swaps, cross-currency swaps, options – including caps, floors and swaptions – and forward rate agreements.

The table below shows the sensitivity at December 31, 2018 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group’s net debt after hedging:

| *(in € millions)* | **Impact on pre-tax income** | **Impact on pre-tax equity** |
|---|---|---|
| Interest rate increase of 50 basis points | 4 | 12 |
| Interest rate decrease of 50 basis points | (4) | (12) |

Note 9.4 to the consolidated financial statements provides a breakdown of interest rate risk hedging instruments and of gross debt by type of interest (fixed or variable) after hedging.

#### 9.1.3.3. Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than the functional currency of the particular entity. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries set up contracts generally through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transaction, or through the regional cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2018, 97% of the Group's foreign exchange exposure eligible for hedging was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2018:

| *(in millions of € equivalent)* | **Long** | **Short** |
|---|---|---|
| EUR | 2 | 8 |
| USD | 13 | 7 |
| Other currencies | 0 | 5 |
| **Total** | **15** | **20** |

The table below gives an analysis, as of December 31, 2018, of the sensitivity of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies given the subsidiaries' residual net foreign exchange exposure:

| Currency of exposure<br>*(in millions of € equivalent)* | **Impact on pre-tax income** |
|---|---|
| EUR | (0.6) |
| USD | 0.6 |
| Other currencies | (0.5) |
| **Total** | **(0.5)** |

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2018 would have the opposite impact.

Note 9.4 provides a breakdown of foreign exchange risk hedging instruments.

#### 9.1.3.4. Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance unit incentive plans. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 9.4 provides a breakdown of these share price risk hedging instruments.

## 9.2. Net financial expense

Net financial expense includes borrowing and other financing costs, income from cash and cash equivalents, interest cost for pensions and other post-employment benefit obligations, net of the return on plan assets, and other financial income and expense such as exchange gains and losses and bank charges.

Net financial income/expense in 2018 and 2017 includes:

| *(in € millions)* | **2018** | **2017** |
|---|---|---|
| Borrowing costs, gross | (300) | (298) |
| Income from cash and cash equivalents | 22 | 23 |
| **Borrowing costs, net** | **(278)** | **(275)** |
| Interest cost – pensions and other post-employment benefit obligations | (303) | (327) |
| Return on plan assets | 244 | 247 |
| **Interest cost – pension and other post-employment benefit obligations, net** | **(59)** | **(80)** |
| Other financial expense | (107) | (118) |
| Other financial income* | 633 | 25 |
| **Other financial income and expense** | **526** | **(93)** |
| **Net financial expense** | **189** | **(448)** |

* Including €601 million relating to the SWH/Sika transaction.

## 9.3. Net debt

### 9.3.1. Long- and short-term debt

#### 9.3.1.1. Long-term debt

Long-term debt includes bonds, perpetual bonds, participating securities, long-term securitizations and all other types of long-term financial liabilities, including finance lease liabilities and the fair value of interest rate hedging derivatives.

Under IAS 32, the distinction between financial liabilities and equity is based on the substance of the contracts concerned rather than their legal form. As a result, participating securities are classified as debt.

At the end of the reporting period, long-term debt (excluding interest rate derivatives) is measured at amortized cost. Premiums and issuance costs are amortized using the effective interest method.

#### 9.3.1.2. Short-term debt

Short-term debt includes the current portion of long-term debt described above, short-term financing programs such as commercial paper, short-term securitizations, bank overdrafts and other short-term bank borrowings, the fair value of derivatives related to debt, and accrued interest on borrowings.

Short-term debt, excluding derivatives related to debt, is measured at amortized cost at the end of the reporting period. Premiums and issuance costs are amortized using the effective interest rate method.

#### 9.3.1.3. Cash and cash equivalents

Cash and cash equivalents mainly consist of bank accounts and marketable securities that are short-term (i.e., generally with maturities of less than three months), highly liquid investments readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

Marketable securities are measured at fair value through profit or loss.

Long- and short-term debt consists of the following:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Bond issues | 8,309 | 6,757 |
| Perpetual bonds and participating securities | 203 | 203 |
| Long-term securitization | 400 | 400 |
| Other long-term financial liabilities | 306 | 295 |
| **Non-current portion of long-term debt** | **9,218** | **7,655** |
| **Current portion of long-term debt** | **1,184** | **1,064** |
| Short-term financing programs (*NEU CP, US CP, Euro CP*) | 0 | 0 |
| Short-term securitizations | 160 | 174 |
| Bank overdrafts and other short-term financial liabilities | 319 | 346 |
| **Short-term debt and bank overdrafts** | **479** | **520** |
| **Total gross debt** | **10,881** | **9,239** |
| Cash at banks | (1,551) | (1,658) |
| Mutual funds and other marketable securities | (1,137) | (1,626) |
| **Cash and cash equivalents** | **(2,688)** | **(3,284)** |
| **Total net debt** | **8,193** | **5,955** |

Changes in the Group's long-term debt can be analyzed as follows:

| *(in € millions)* | Dec. 31, 2017 | Cash impact | | No cash impact | | | Dec. 31, 2018 |
|---|---|---|---|---|---|---|---|
| | | Increases | Decreases | Changes in Group structure | Translation adjustments | Other | |
| Non-current portion of long-term debt | 7,655 | 2,508 | (93) | 55 | 16 | (923) | 9,218 |
| Current portion of long-term debt | 1,064 | 4 | (869) | 33 | (1) | 953 | 1,184 |
| **Total long-term debt** | **8,719** | **2,512** | **(962)** | **88** | **15** | **30** | **10,402** |

The main changes with an impact on cash are described in Note 9.3.3. The main change with no cash impact in the "Other" column relates to the reclassification of debt maturing within 12 months in the current portion of long term debt.

The fair value of gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain amounted to €9.8 billion at December 31, 2018, for a carrying amount of €9.5 billion. The fair value of bonds corresponds to the market price on the last day of the year. For other borrowings, fair value is considered as equal to the amount repayable.

### 9.3.2. Debt repayment schedule

The schedule of the Group's gross debt as of December 31, 2018 is as follows:

| *(in € millions)* | Currency | Within 1 year | 1 to 5 years | Beyond 5 years | Total |
|---|---|---|---|---|---|
| Bond issues | EUR | 949 | 4,080 | 3,618 | 8,647 |
| | GBP | 0 | 0 | 611 | 611 |
| Perpetual bonds and participating securities | EUR | 0 | 0 | 203 | 203 |
| Long-term securitization | EUR | 100 | 400 | 0 | 500 |
| Other long-term financial liabilities | All currencies | 38 | 131 | 175 | 344 |
| Accrued interest on long-term debt | All currencies | 97 | 0 | 0 | 97 |
| **Total long-term debt** | | **1,184** | **4,611** | **4,607** | **10,402** |
| **Total short-term debt** | All currencies | **479** | **0** | **0** | **479** |
| **Total gross debt** | | **1,663** | **4,611** | **4,607** | **10,881** |

At December 31, 2018, future interest payments on gross long-term debt (including the current portion) managed by Compagnie de Saint-Gobain can be broken down as follows:

| *(in € millions)* | Within 1 year | 1 to 5 years | Beyond 5 years | Total |
|---|---|---|---|---|
| Future interest payments on gross long-term ( | 213 | 593 | 604 | 1,410 |

Interest on perpetual bonds and on participating securities is calculated up to 2049.

### 9.3.3. Bonds

Compagnie de Saint-Gobain issued:

- €750 million worth of 1.125% bonds on March 23, 2018, maturing on March 23, 2026;
- a €20 million private placement on April 18, 2018, indexed to the 20-year CMS curve and maturing on April 18, 2033; a €60 million private placement on May 25, 2018, indexed to the 20-year CMS curve and maturing on May 25, 2033, the Group entered into swaps in order to fix the interest rate on these two private placements;
- two floating-rate 3-month Euribor +0.23% private placements on June 25, 2018, maturing on June 25, 2020, amounting to €180 million and €300 million, respectively;
- €500 million worth of 0.875% bonds on September 21, 2018, maturing on September 21, 2023, and €500 million worth of 1.875% bonds maturing on September 21, 2028. The nominal amount of the latter bond issue was increased to €700 million through two €100 million additions on October 11 and October 12, 2018, respectively.

These issues extended the average maturity of the Group's debt while also optimizing average borrowing costs.

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- NOK 750 million worth of 4% bonds on March 27, 2018;
- €750 million worth of 4% bonds on October 8, 2018.

### 9.3.4. Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today).

A total of 18,496 perpetual bonds have since been bought back and canceled, and 6,504 perpetual bonds were outstanding at end-2018, representing a total face value of €33 million.

The bonds bear interest at a variable rate (average of interbank rates offered by the five reference banks for six-month euro deposits). The amount paid out per bond in 2018 was zero.

The bonds are not redeemable and interest on the bonds is classified as a component of finance costs.

### 9.3.5. Participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their translation into euros in 1999.

A certain number of these participating securities have been bought back over the years. At December 31, 2018, 606,883 securities were still outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond yield (TMO), based on the Group's consolidated income. The amount paid out per security in 2018 was €2.

In April 1984, 194,633 non-voting participating securities were issued with a face value of ECU 1,000 (€1,000 today).

A certain number of these securities have been bought back over the years. At December 31, 2018, 77,516 securities were still outstanding with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net income of the previous year and to the reference six-month Libor EUR rate +7/8%. The amount paid per security in 2018 was €66.33, paid in two installments (€32.80 and €33.53).

These participating securities are not redeemable and the interest paid on them is reported under borrowing costs.

### 9.3.6. Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (commercial paper).

At December 31, 2018, issuance under these programs was as follows:

| *(in € millions)* | Authorized drawings | Authorized limits at Dec. 31, 2018 | Balance outstanding at Dec. 31, 2018 | Balance outstanding at Dec. 31, 2017 |
|---|---|---|---|---|
| Medium Term Notes | | 15,000 | 9,435 | 7,776 |
| *NEU CP* | up to 12 months | 3,000 | 0 | 0 |
| US Commercial Paper | up to 12 months | 873 * | 0 | 0 |
| Euro Commercial Paper | up to 12 months | 873 * | 0 | 0 |

* Equivalent of USD 1,000 million based on the exchange rate at December 31, 2018.

In accordance with market practices, Negotiable European Commercial Paper (NEU CP), US Commercial Paper and Euro Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

### 9.3.7. Syndicated lines of credit

Compagnie de Saint-Gobain has two syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper programs):

- a €2.5 billion syndicated line of credit expiring in December 2022 with two one-year rollover options. The first option was exercised, extending maturity until December 2023;
- a second €1.5 billion syndicated line of credit also expiring in December 2022 with two one-year rollover options. The first option was exercised, extending maturity until December 2023.

Based on the Group's current credit rating for long-term debt issues, the two facilities are not subject to any hard covenants.

Neither of these two lines of credit had been drawn down at December 31, 2018.

### 9.3.8. Receivables securitization programs

The Group has set up two receivables securitization programs, one through its French subsidiary Point.P Finances GIE, and the other through its US subsidiary, Saint-Gobain Receivables Corporation.

The €500 million French program was rolled over on November 10, 2016. It amounted to €500 million at both December 31, 2018 and December 31, 2017. Based on observed seasonal fluctuations in receivables included in the program and on the contract's features, €400 million of this amount was classified as non-current and the balance as current.

The US program was renewed on December 19, 2018 for a maximum amount of USD 400 million. Its euro-equivalent value at December 31, 2018 was €160 million (December 31, 2017: €174 million).

### 9.3.9. Collateral

At December 31, 2018, €9 million of Group debt was secured by various non-current assets (real estate and securities).

### 9.4. Financial instruments

The Group uses interest rate, foreign exchange and commodity derivatives to hedge its exposure to changes in interest rates, exchange rates and commodity prices that may arise in the normal course of business.

In accordance with IAS 32 and IFRS 9, all such instruments are recognized in the balance sheet and measured at fair value, irrespective of whether or not they are part of a hedging relationship that qualifies for hedge accounting under IFRS 9.

Changes in fair value of both derivatives that are designated and qualified as fair value hedges and derivatives that do not qualify for hedge accounting during the period are taken to the income statement (in business income and expense for operational foreign exchange derivatives and commodity derivatives not qualifying for hedge accounting, and in net financial income and expense for all other derivatives). However, in the case of derivatives that qualify as cash flow hedges, the effective portion of the gain or loss arising from changes in fair value is recognized directly in equity, and only the ineffective portion is recognized in the income statement.

a) Fair value hedges

Fair value hedge accounting is applied by the Group mainly for derivative instruments which swap fixed rates against variable rates (fixed-for-floating interest rate swaps). These derivatives hedge fixed-rate debts exposed to a fair value risk. In accordance with hedge accounting principles, debt included in a designated fair value hedging relationship is remeasured at fair value and at the level of risk covered. As the loss or gain on the underlying hedged item offsets the effective portion of the gain or loss on the fair value hedge, the income statement is only impacted by the ineffective portion of the hedge.

b) Cash flow hedges

Cash flow hedge accounting is applied by the Group mainly for derivative instruments which fix the cost of future investments (financial assets or property, plant and equipment) and the price of future purchases, mostly gas and fuel oil (commodity swaps) or foreign currencies (foreign exchange forwards). Transactions hedged by these instruments are qualified as highly probable. The application of cash flow hedge accounting allows the Group to defer the impact on the income statement of the effective portion of changes in the fair value of these derivatives by recording them in a hedging reserve in equity. This reserve is reclassified to the income statement when the hedged transaction occurs and the hedged item itself affects income. In the same way as for fair value hedges, cash flow hedging limits the Group’s exposure to changes in the fair value of these derivatives to the ineffective portion of the hedge.

c) Derivatives that do not qualify for hedge accounting

Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized in the income statement. Instruments concerned are primarily foreign exchange swaps and foreign exchange forwards.

d) Fair value of financial instruments

The fair value of financial assets and financial liabilities corresponds to their quoted price on an active market (if any): this represents level 1 in the fair value hierarchy defined in IFRS 7 and IFRS 13. The fair value of instruments not quoted in an active market, such as derivatives or financial assets and liabilities, is determined by reference to commonly used valuation techniques such as the fair value of another recent and similar transaction, or discounted cash flow analysis based on observable market inputs. This represents level 2 in the fair value hierarchy defined in IFRS 7 and IFRS 13.

The fair value of short-term financial assets and liabilities is considered as being the same as their carrying amount due to their short maturities.

Saint-Gobain has applied IFRS 9 in its entirety since January 1, 2018, including the standard’s hedge accounting requirements. The Group’s risk management and hedging documentation strategies are compliant with IFRS 9. Given the nature of the Group’s transactions, applying IFRS 9 has no impact on hedge accounting at the transition or reporting date.

The following table presents a breakdown of the principal derivatives used by the Group:

| *(in € millions)* | Fair value | | | | Nominal amount by maturity | | | |
|---|---|---|---|---|---|---|---|---|
| | Derivatives recorded in assets | Derivatives recorded in liabilities | Dec. 31, 2018 | Dec. 31, 2017 | Within 1 year | 1 to 5 years | Beyond 5 years | Dec. 31, 2018 |
| **Fair value hedges** | | | 0 | **0** | | | | 0 |
| **Cash flow hedges** | | | | | | | | |
| Currency | 3 | (1) | 2 | (17) | 342 | 0 | 0 | 342 |
| Interest rate | 0 | (85) | (85) | (71) | 0 | 0 | 424 | 424 |
| Energy and commodities | 1 | (8) | (7) | 4 | 54 | 11 | 0 | 65 |
| Other risks: equities | 0 | (13) | (13) | 14 | 0 | 33 | 12 | 45 |
| **Cash flow hedges – total** | **4** | **(107)** | (103) | **(70)** | **396** | **44** | **436** | 876 |
| **Derivatives not qualifying for hedge accounting mainly contracted by Compagnie de Saint-Gobain** | | | | | | | | |
| Currency | 3 | (5) | (2) | 72 | 1,424 | 3 | 0 | 1,427 |
| Interest rate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Energy and commodities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Derivatives not qualifying for hedge accounting – total** | **3** | **(5)** | (2) | **72** | **1,424** | **3** | **0** | 1,427 |
| **Total** | **7** | **(112)** | (105) | **2** | **1,820** | **47** | **436** | 2,303 |

### 9.4.1. Currency instruments

a) Currency swaps

The Group uses currency swaps mainly to convert euro-denominated funds into foreign currencies for cash management purposes.

b) Forward foreign exchange contracts and currency options

Forward foreign exchange contracts and currency options are used to hedge foreign currency transactions, particularly commercial transactions (purchases and sales) and investments.

### 9.4.2. Interest rate instruments

a) Interest rate swaps

The Group uses interest rate swaps to convert part of its fixed (variable) rate bank debt and bond debt to variable (fixed) rates.

b) Cross-currency swaps

The Group uses cross-currency swaps to convert foreign currency debt (euro debt) into euro debt (foreign currency debt).

### 9.4.3. Energy and commodities

a) Energy and commodity swaps

Energy and commodity swaps are used to hedge the risk of changes in the price of certain purchases used in Group subsidiaries' operating activities, particularly energy (fuel oil, natural gas and electricity) purchases.

### 9.4.4. Other risks

a) Equity derivatives

Equity derivatives are used to hedge the risk of changes in the Saint-Gobain share price in connection with the performance units long-term incentive plan.

### 9.4.5. Credit value adjustments to derivative instruments

Credit value adjustments to derivative instruments are calculated in accordance with IFRS 13 based on historical probabilities of default derived from calculations performed by a leading rating agency and on the estimated loss given default. At December 31, 2018, credit value adjustments were not material.

### 9.4.6. Impact on equity of financial instruments qualifying for cash flow hedge accounting

At December 31, 2018, the cash flow hedging reserve carried in equity in accordance with IFRS had a debit balance of €57 million, consisting mainly of:

- a debit balance of €38 million in relation to cross-currency swaps designated as cash flow hedges that are used to convert a GBP bond issue into euros;
- a debit balance of €12 million corresponding to changes in the value of interest rate hedges classified as cash flow hedges;
- a debit balance of €7 million corresponding to changes in the value of energy and raw materials hedges classified as cash flow hedges.

The ineffective portion of cash flow hedging derivatives is not material.

### 9.4.7. Impact on income of financial instruments not qualifying for hedge accounting

The fair value of derivatives classified as "Financial assets and liabilities at fair value through profit or loss" represented a loss of €2 million in 2018 compared to a gain of €2 million in 2017.

### 9.4.8. Embedded derivatives

The Saint-Gobain Group regularly analyzes its contracts in order to separately identify financial instruments classified as embedded derivatives under IFRS.

At December 31, 2018, no embedded derivatives deemed to be material at Group level were identified.

### 9.4.9. Group debt structure

The weighted average interest rate on total gross debt under IFRS and after hedging (interest rate swaps, currency swaps and cross-currency swaps) was 2.3% at December 31, 2018, compared with 2.8% at December 31, 2017.

The average internal rate of return on the Group's main component of long-term debt item before hedging (bonds) was 2.4% in 2018 compared to 3.2% in 2017.

The table below presents the breakdown by interest rate (fixed or variable) of the Group's gross debt at December 31, 2018, taking into account interest rate, currency and cross-currency swaps.

| *(in € millions)* | Gross debt after hedging | | |
|---|---|---|---|
| | **Variable rate** | **Fixed rate** | **Total** |
| EUR | 1,478 | 8,550 | 10,028 |
| Other currencies | 320 | 343 | 663 |
| **Total** | **1,798** | **8,893** | **10,691** |
| *(in %)* | 17% | 83% | 100% |
| Accrued interest and other financial liabilities | | | 190 |
| **Total gross debt** | | | **10,881** |

### 9.5. Financial assets and liabilities

Financial assets and liabilities are classified as follows in accordance with IFRS 9:

At December 31, 2018:

| *(in € millions)* | Notes | Financial instruments: Fair value through profit or loss | Financial instruments: Fair value through the statement of recognized income and expense | Financial instruments: Amortized cost | Total financial instruments | Financial instruments at fair value: Level 1 inputs | Financial instruments at fair value: Level 2 inputs | Financial instruments at fair value: Level 3 inputs | Total financial instruments measured at fair value |
|---|---|---|---|---|---|---|---|---|---|
| Trade and other accounts receivable | (4) | | | 6,572 | **6,572** | | | | **0** |
| Loans, deposits and surety | (7) | | | 620 | **620** | | | | **0** |
| Equity investments and other | (7) | | 1,714 | | **1,714** | 1,685 | | 29 | **1,714** |
| Derivatives recorded in assets | | 3 | 4 | | **7** | | 7 | | **7** |
| Cash and cash equivalents | | 1,137 | | 1,551 | **2,688** | 1,137 | 1,551 | | **2,688** |
| **Total assets** | | **1,140** | **1,718** | **8,743** | **11,601** | **2,822** | **1,558** | **29** | **4,409** |
| Trade and other accounts payable | (4) | | | (9,952) | **(9,952)** | | | | **0** |
| Long- and short-term debt | | | | (10,794) | **(10,794)** | | | | **0** |
| Derivatives recorded in liabilities | | (5) | (107) | | **(112)** | | (112) | | **(112)** |
| **Total liabilities** | | **(5)** | **(107)** | **(20,746)** | **(20,858)** | **0** | **(112)** | **0** | **(112)** |
| **Total** | | **1,135** | **1,611** | **(12,003)** | **(9,257)** | **2,822** | **1,446** | **29** | **4,297** |

At December 31, 2017:

| *(in € millions)* | Notes | Financial instruments: Fair value through profit or loss | Financial instruments: Fair value through the statement of recognized income and expense | Financial instruments: Amortized cost | Total financial instruments | Financial instruments at fair value: Level 1 inputs | Financial instruments at fair value: Level 2 inputs | Financial instruments at fair value: Level 3 inputs | Total financial instruments measured at fair value |
|---|---|---|---|---|---|---|---|---|---|
| Trade and other accounts receivable | (4) | | | 6,425 | **6,425** | | | | **0** |
| Loans, deposits and surety | (7) | | | 512 | **512** | | | | **0** |
| Equity investments and other | (7) | | 101 | | **101** | | | 101 | **101** |
| Derivatives recorded in assets | | 83 | 24 | | **107** | | 107 | | **107** |
| Cash and cash equivalents | | 1,626 | | 1,658 | **3,284** | 1,626 | 1,658 | | **3,284** |
| **Total assets** | | **1,709** | **125** | **8,595** | **10,429** | **1,626** | **1,765** | **101** | **3,492** |
| Trade and other accounts payable | (4) | | | (9,818) | **(9,818)** | | | | **0** |
| Long- and short-term debt | | | | (9,169) | **(9,169)** | | | | **0** |
| Derivatives recorded in liabilities | | (11) | (94) | | **(105)** | | (105) | | **(105)** |
| **Total liabilities** | | **(11)** | **(94)** | **(18,987)** | **(19,092)** | **0** | **(105)** | **0** | **(105)** |
| **Total** | | **1,698** | **31** | **(10,392)** | **(8,663)** | **1,626** | **1,660** | **101** | **3,387** |

IFRS 13 ranks the inputs used to determine fair value:

- Level 1: inputs resulting from quoted prices on an active market for identical instruments;
- Level 2: inputs other than Level 1 inputs that can be observed directly or indirectly;
- Level 3: all other non-observable inputs.

## NOTE 10 SHAREHOLDERS' EQUITY AND EARNINGS PER SHARE

### 10.1. Equity

#### 10.1.1. Equity

As of December 31, 2018, the number of shares composing the capital stock of Saint-Gobain was 546,585,004 shares with a par value of €4 (553,557,091 shares at December 31, 2017).

#### 10.1.2. Additional paid-in capital and legal reserve

This item includes capital contributions in excess of the par value of capital stock as well as the legal reserve, which corresponds to a cumulative portion of the yearly net income of Compagnie de Saint-Gobain.

#### 10.1.3. Retained earnings and consolidated net income

Retained earnings and consolidated net income correspond to the Group's share in the undistributed earnings of all consolidated companies.

#### 10.1.4. Treasury stock

Treasury stock is measured at cost and recorded as a deduction from equity. Gains and losses on disposals of treasury stock are recognized directly in equity and have no impact on net income for the period.

Forward purchases of treasury stock are treated in the same way. When a fixed number of shares is purchased forward at a fixed price, this amount is recorded in "Other liabilities" against a deduction from equity under "Retained earnings and net income for the year".

Saint-Gobain shares held or controlled by Compagnie de Saint-Gobain and Saint-Gobain Corporation are shown as a deduction from equity under "Treasury stock" at acquisition cost.

The liquidity agreement signed with Exane BNP Paribas on November 16, 2007 and implemented on December 3, 2007 for a period up to December 31, 2007 has been automatically renewed since that date.

At December 31, 2018, 2,705,737 shares were held in treasury stock (December 31, 2017: 2,771,372 shares). In 2018, the Group acquired 14,050,245 shares (2017: 9,595,036 shares) directly on the market and sold 1,654,431 shares (2017: 1,715,619 shares). Lastly, 12,461,449 shares were canceled in 2018 and 7,000,000 shares in 2017.

For the purposes of a compensation plan set up in January 2008 for certain employees in the United States, Compagnie de Saint-Gobain shares are held by the trustee, Wachovia Bank, National Association. In the consolidated financial statements, these shares are treated as being controlled by Saint-Gobain Corporation.

#### 10.1.5. Dividends

The Annual Shareholders' Meeting of June 7, 2018 approved the recommended dividend payout for 2017, representing €1.30 per share.

### 10.2. Earnings per share

#### 10.2.1. Basic earnings per share

Basic earnings per share are calculated by dividing net income by the weighted average number of shares of the Group outstanding during the period.

Basic earnings per share are as follows:

| | 2018 | 2017 |
|---|---|---|
| Group share of net income *(in € millions)* | 420 | 1,566 |
| Weighted average number of shares in issue | 547,105,985 | 553,383,836 |
| Basic earnings per share, Group share *(in €)* | 0.77 | 2.83 |

### 10.2.2. Diluted earnings per share

Diluted earnings per share are calculated by adjusting earnings per share and the average number of shares outstanding for the effects of all potential dilutive common shares, such as stock options and performance shares.

Diluted earnings per share are as follows:

| | 2018 | 2017 |
|---|---|---|
| Group share of net income *(in € millions)* | 420 | 1,566 |
| Weighted average number of shares assuming full dilution | 550,016,438 | 556,655,598 |
| Diluted earnings per share, Group share *(in €)* | 0.76 | 2.81 |

The weighted average number of shares assuming full dilution is calculated based on the weighted average number of shares outstanding, assuming conversion of all dilutive instruments. The Group's dilutive instruments include stock options and performance share grants corresponding to a weighted average of 200,702 and 2,709,751 shares, respectively, at December 31, 2018.

## NOTE 11 TAX

### 11.1. Income taxes

Current income tax is the estimated amount of tax payable in respect of income for a given period, calculated by reference to the tax rates that have been enacted or substantively enacted at the end of the reporting period, plus any adjustments to current taxes recorded in previous financial periods.

Income tax expense breaks down as follows:

| *(in € millions)* | 2018 | 2017 |
|---|---|---|
| **Current taxes** | **(404)** | **(445)** |
| France | (36) | (18) |
| Outside France | (368) | (427) |
| **Deferred taxes** | **(86)** | **7** |
| France | 25 | 64 |
| Outside France | (111) | (57) |
| **Total income tax expense** | **(490)** | **(438)** |

Theoretical tax expense was reconciled with current tax expense using a tax rate of 34.43% in 2018 and 2017, and can be analyzed as follows:

| *(in € millions)* | **2018** | **2017** |
|---|---|---|
| Net income | 497 | 1,625 |
| Less: | | |
| Share in net income of equity-accounted companies | 30 | 33 |
| Income taxes | (490) | (438) |
| **Pre-tax income of consolidated companies** | **957** | **2,030** |
| French tax rate | 34.43% | 34.43% |
| Theoretical tax expense at French tax rate | (330) | (699) |
| Impact of different tax rates | 136 | 161 |
| Asset impairment, capital gains and losses on asset disposals | (297) | (37) |
| Deferred tax assets not recognized | (57) | (10) |
| Liability method | (7) | 98 |
| Research tax credit, tax credit for competitiveness and employment (CICE) and value-added contribution for businesses (CVAE) | 6 | 9 |
| Costs related to dividends | (10) | 31 |
| Other taxes and provision writebacks | 69 | 9 |
| **Total income tax expense** | **(490)** | **(438)** |

The contribution of countries with low tax rates explains the impact of the different tax rates applicable outside France. The main contributors are the United States, India, Germany and the United Kingdom.

### 11.2. Deferred tax

Deferred taxes are recorded using the balance sheet method for temporary differences between the carrying amount of assets and liabilities and their tax basis. Deferred tax assets and liabilities are measured at the tax rates expected to apply to the period when the asset is realized or the liability settled, based on the tax laws that have been enacted or substantively enacted at the end of the reporting period.

No deferred tax liability is recognized in respect of undistributed earnings of subsidiaries that are not intended to be distributed.

For investments in subsidiaries, deferred tax is recognized on the difference between the consolidated carrying amount of the investments and their tax basis when it is probable that the temporary difference will reverse in the foreseeable future.

Deferred taxes are recognized as income or expense in the income statement, unless they relate to items that are recognized directly in equity, in which case the deferred tax is also recognized in equity. Income tax resulting from changes in tax rates is recognized in income, except where it relates to items initially recognized in equity.

In the balance sheet, changes in the net deferred tax liability break down as follows:

| *(in € millions)* | **Net deferred tax asset/(liability)** |
|---|---|
| **At December 31, 2016** | **825** |
| Deferred tax (expense)/benefit | 7 |
| Changes in deferred taxes relating to actuarial gains and losses (IAS 19) | (89) |
| Liability method on actuarial gains and losses | (252) |
| Translation adjustments | (40) |
| Changes in Group structure and other | 60 |
| **At December 31, 2017** | **511** |
| Deferred tax (expense)/benefit | (86) |
| Changes in deferred taxes relating to actuarial gains and losses (IAS 19) | (69) |
| Liability method on actuarial gains and losses | (1) |
| Translation adjustments | 9 |
| Assets and liabilities held for sale | (20) |
| Changes in Group structure and other* | 21 |
| **At December 31, 2018** | **365** |

* In 2018, the “Changes in Group structure and other” line mainly reflects the impact of applying IFRS 9 and IFRS 15 for €9 million.

The table below shows the main deferred tax components:

| *(in € millions)* | Dec. 31, 2018 | Dec. 31, 2017 |
|---|---|---|
| Pensions | 460 | 562 |
| Brands | (397) | (425) |
| Depreciation and amortization, accelerated capital allowances and tax-driven provisions | (705) | (711) |
| Tax loss carry-forwards | 562 | 633 |
| Other | 445 | 452 |
| **Net deferred tax** | **365** | **511** |
| Of which: | | |
| Deferred tax assets | 837 | 938 |
| Deferred tax liabilities | (472) | (427) |

Deferred taxes are offset at the level of each tax entity, i.e., by tax group where applicable (mainly in France, the United Kingdom, Spain, Germany, the United States and the Netherlands).

Deferred tax assets of €837 million were recognized at December 31, 2018 (€938 million at December 31, 2017), primarily in France (€209 million), the United States (€197 million) and Germany (€153 million). Deferred tax liabilities of €472 million were recognized at December 31, 2018 (€427 million at December 31, 2017), including €179 million in the United Kingdom, €65 million in India, €58 million in Switzerland, and €42 million in Denmark. Deferred tax liabilities recognized in other countries represented considerably smaller amounts.

### 11.3. Tax loss carry-forwards

Deferred tax assets are recognized only if it is considered probable that there will be sufficient future taxable income against which the temporary difference can be utilized. They are reviewed at the end of each reporting period and written down to the extent that it is no longer probable that there will be sufficient taxable income against which the temporary difference can be utilized. In determining whether to recognize deferred tax assets for tax loss carry-forwards, the Group applies a range of criteria that take into account the probable recovery period based on business plan projections and the strategy for the long-term recovery of tax losses applied in each country.

The Group recognized deferred tax assets for tax loss carry-forwards for a net amount of €562 million at December 31, 2018 and €633 million at December 31, 2017. This principally relates to the United States, for which the recovery period is shorter than the maximum utilization period of 20 years, and to France, Germany and Spain, where tax consolidation generally ensures that deferred tax can be recovered. In these countries, tax losses may be carried forward indefinitely. Nevertheless, after analyzing each situation, the Group may decide not to recognize them.

At December 31, 2018, deferred tax assets whose recovery is not considered probable totaled €451 million (December 31, 2017: €330 million) and a provision had been accrued for the full amount. Unrecognized deferred tax assets chiefly relate to France, China, Spain and the United States.

## NOTE 12 SUBSEQUENT EVENTS

None.

## NOTE 13 FEES PAID TO THE STATUTORY AUDITORS

Total fees paid to the Statutory Auditors and recognized in the income statement in 2018 and 2017 are detailed in the "Additional information and cross-reference tables" section of the Registration Document.

## NOTE 14 PRINCIPAL CONSOLIDATED COMPANIES

The table below shows the Group's principal consolidated companies, typically those with annual sales of over €100 million.

### INNOVATIVE MATERIALS SECTOR

| FLAT GLASS | Country | Consolidation method | Dec. 31, 2018<br>Percentage held directly and indirectly |
|---|---|---|---|
| Saint-Gobain Glass Deutschland GmbH, Stolberg* | Germany | Full consolidation | 99.99% |
| Flachglas Torgau GmbH, Torgau* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Weisswasser GmbH, Aachen* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Deutsche Glas GmbH, Stolberg* | Germany | Full consolidation | 99.99% |
| Glasverarbeitungs-Gesellschaft Bremen mbH, Bremen* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Glassolutions Nord GmbH, Melsdorf* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Glassolutions Süd GmbH, Tuttlingen* | Germany | Full consolidation | 99.99% |
| Glas-Funke GmbH, Kall* | Germany | Full consolidation | 99.99% |
| Glasverarbeitungs-Gesellschaft Deggendorf mbH, Deggendorf* | Germany | Full consolidation | 99.99% |
| Vetrotech Saint-Gobain Kinon GmbH, Aachen* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Autoglas GmbH, Herzogenrath* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Sekurit Deutschland Beteiligungen GmbH, Herzogenrath* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Sekurit Deutschland GmbH & CO Kg, Herzogenrath* | Germany | Full consolidation | 99.99% |
| FABA Autoglas Technik GmbH & Co. Betriebs-KG, Berlin* | Germany | Full consolidation | 99.99% |
| Freeglass GmbH & Co. KG, Schwaikheim* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Autover Deutschland GmbH, Kerpen* | Germany | Full consolidation | 99.99% |
| Freudenberger Autoglas GmbH, München* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Glassolutions Objekt-Center GmbH, Radeburg* | Germany | Full consolidation | 99.99% |
| Saint-Gobain Construction Products Belgium | Belgium | Full consolidation | 100.00% |
| Cebrace Cristal Plano Ltda | Brazil | Full consolidation | 50.00% |
| Saint-Gobain Do Brasil Ltda | Brazil | Full consolidation | 100.00% |
| SG Hanglas Sekurit (Shanghaï) Co., Ltd | China | Full consolidation | 98.99% |
| Hankuk Glass Industries Inc. | South Korea | Full consolidation | 97.98% |
| Hankuk Sekurit Limited | South Korea | Full consolidation | 97.87% |
| Saint-Gobain Cristaleria S.L | Spain | Full consolidation | 99.83% |
| Saint-Gobain Glass Solutions Menuisiers Industriels | France | Full consolidation | 100.00% |
| Saint-Gobain Glass France | France | Full consolidation | 100.00% |
| Saint-Gobain Sekurit France | France | Full consolidation | 100.00% |
| Eurofloat | France | Full consolidation | 100.00% |
| Saint-Gobain India Private Limited | India | Full consolidation | 99.14% |
| Saint-Gobain Glass Italia S.p.a | Italy | Full consolidation | 100.00% |
| Saint-Gobain Mexico | Mexico | Full consolidation | 99.83% |
| Saint-Gobain Polska Sp Zoo | Poland | Full consolidation | 99.90% |
| Saint-Gobain Innovative Materials Polska Sp Zoo | Poland | Full consolidation | 99.85% |
| Saint-Gobain Sekurit CZ, Spol S.R.O | Czech Republic | Full consolidation | 100.00% |
| Saint-Gobain Glass (United Kingdom) Limited | United Kingdom | Full consolidation | 100.00% |
| Vetrotech Saint-Gobain International | Switzerland | Full consolidation | 100.00% |

| HIGH PERFORMANCE MATERIALS | Country | Consolidation method | Dec. 31, 2018<br>Percentage held directly and indirectly |
|---|---|---|---|
| Saint-Gobain Diamantwerkzeuge GmbH, Norderstedt* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Abrasives GmbH, Wesseling* | Germany | Full consolidation | 100.00% |
| Supercut Europe GmbH, Baesweiler* | Germany | Full consolidation | 100.00% |
| Ernst Winter & Sohn Norderstedt GmbH & Co. KG, Norderstedt* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics Isofluor GmbH, Neuss* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics MG Silikon GmbH, Lindau* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics Pampus GmbH, Willich* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics L+S GmbH, Wertheim* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics Biolink GmbH, Waakirchen* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Adfors Deutschland GmbH, Neustadt an der Donau* | Germany | Full consolidation | 100.00% |
| H.K.O. Isolier- und Textiltechnik GmbH, Oberhausen* | Germany | Full consolidation | 100.00% |
| BEUHKO Fasertechnik GmbH, Leinefelde-Worbis* | Germany | Full consolidation | 100.00% |
| SEPR Keramik GmbH & Co. KG, Aachen* | Germany | Full consolidation | 100.00% |
| Saint-Gobain Innovative Materials Belgium | Belgium | Full consolidation | 100.00% |
| Saint-Gobain Do Brasil Ltda | Brazil | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics (Shanghaï) Co., Ltd | China | Full consolidation | 100.00% |
| Saint-Gobain Abrasives (Shanghaï) Co., Ltd | China | Full consolidation | 100.00% |
| Saint-Gobain Adfors America, Inc. | United States | Full consolidation | 100.00% |
| Saint-Gobain Performance Plastics Corporation | United States | Full consolidation | 100.00% |
| Saint-Gobain Abrasives, Inc. | United States | Full consolidation | 100.00% |
| Saint-Gobain Ceramics & Plastics, Inc. | United States | Full consolidation | 100.00% |
| Saint-Gobain Abrasifs | France | Full consolidation | 99.98% |
| Société Européenne des Produits Réfractaires - SEPR | France | Full consolidation | 100.00% |
| Grindwell Norton Ltd | India | Full consolidation | 51.59% |
| Saint-Gobain K.K. | Japan | Full consolidation | 100.00% |
| Saint-Gobain America S.A De C.V | Mexico | Full consolidation | 99.83% |
| Saint-Gobain Abrasives BV | Netherlands | Full consolidation | 100.00% |
| Saint-Gobain HPM Polska Sp Zoo | Poland | Full consolidation | 100.00% |
| Saint-Gobain Adfors CZ S.R.O. | Czech Republic | Full consolidation | 100.00% |

## CONSTRUCTION PRODUCTS SECTOR

| INTERIOR SOLUTIONS | Country | Consolidation method | Dec. 31, 2018<br>Percentage held directly and indirectly |
|---|---|---|---|
| Saint-Gobain Construction Products South Africa Ltd | South Africa | Full consolidation | 100.00% |
| Saint-Gobain Isover G+H Aktiengesellschaft | Germany | Full consolidation | 99.91% |
| Saint-Gobain Rigips GmbH | Germany | Full consolidation | 100.00% |
| Saint-Gobain Construction Products Belgium | Belgium | Full consolidation | 100.00% |
| CertainTeed Gypsum Canada, Inc. | Canada | Full consolidation | 100.00% |
| Saint-Gobain Denmark A/S | Denmark | Full consolidation | 99.97% |
| Saint-Gobain Placo Iberica | Spain | Full consolidation | 99.83% |
| CertainTeed Corporation | United States | Full consolidation | 100.00% |
| CertainTeed Gypsum & Ceillings USA, Inc. | United States | Full consolidation | 100.00% |
| CertainTeed Ceilings Corporation | United States | Full consolidation | 100.00% |
| Saint-Gobain Finland OY | Finland | Full consolidation | 100.00% |
| Placoplatre SA | France | Full consolidation | 99.75% |
| Saint-Gobain Isover | France | Full consolidation | 100.00% |
| Saint-Gobain India Private Limited | India | Full consolidation | 99.03% |
| Saint-Gobain Construction Products (Ireland) Limited | Ireland | Full consolidation | 100.00% |
| Saint-Gobain PPC Italia S.p.a | Italy | Full consolidation | 100.00% |
| Mag-Isover K.K. | Japan | Full consolidation | 99.98% |
| Glava As | Norway | Full consolidation | 100.00% |
| Saint-Gobain Byggevarer AS | Norway | Full consolidation | 100.00% |
| Saint-Gobain Construction Products Nederland BV | Netherlands | Full consolidation | 100.00% |
| Saint-Gobain Construction Products Polska Sp Zoo | Poland | Full consolidation | 100.00% |
| Saint-Gobain Construction Products CZ AS | Czech Republic | Full consolidation | 100.00% |
| Saint-Gobain Construction Products United Kingdom Ltd | United Kingdom | Full consolidation | 100.00% |
| Saint-Gobain Construction Products Russia ooo | Russia | Full consolidation | 100.00% |
| Saint-Gobain Ecophon AB | Sweden | Full consolidation | 100.00% |
| Saint-Gobain Sweden AB | Sweden | Full consolidation | 100.00% |
| Izocam Ticaret VE Sanayi A.S. | Turkey | Full consolidation | 47.53% |
| Vinh Tuong Industrial Corporation | Vietnam | Full consolidation | 98.65% |

| EXTERIOR SOLUTIONS | Country | Consolidation method | Dec. 31, 2018<br>Percentage held directly and indirectly |
|---|---|---|---|
| Saint-Gobain Weber GmbH | Germany | Full consolidation | 100.00% |
| Saint-Gobain PAM Deutschland GmbH | Germany | Full consolidation | 100.00% |
| Saint-Gobain Argentina S.A | Argentina | Full consolidation | 100.00% |
| Saint-Gobain Do Brasil Ltda | Brazil | Full consolidation | 100.00% |
| Saint-Gobain Canalizaçao Ltda | Brazil | Full consolidation | 100.00% |
| Saint-Gobain Pipelines Co., Ltd | China | Full consolidation | 100.00% |
| CertainTeed Corporation | United States | Full consolidation | 100.00% |
| Saint-Gobain Finland OY | Finland | Full consolidation | 100.00% |
| Saint-Gobain Weber | France | Full consolidation | 100.00% |
| Saint-Gobain PAM | France | Full consolidation | 100.00% |
| Saint-Gobain Construction Products United Kingdom Ltd | United Kingdom | Full consolidation | 100.00% |
| Saint-Gobain Sweden AB | Sweden | Full consolidation | 100.00% |
| Saint-Gobain Weber AG | Switzerland | Full consolidation | 100.00% |

## BUILDING DISTRIBUTION SECTOR

| | | Dec. 31, 2018 | |
|---|---|---|---|
| | Country | Consolidation method | Percentage held directly and indirectly |
| Saint-Gobain Building Distribution Deutschland GmbH, Offenbach/Main* | Germany | Full consolidation | 100.00% |
| Fliesen Discount GmbH, Berlin* | Germany | Full consolidation | 100.00% |
| Chr.Balzer GmbH & Co. KG, Marburg* | Germany | Full consolidation | 67.34% |
| Balzer & Nassauer GmbH & Co. KG, Herborn* | Germany | Full consolidation | 67.34% |
| Christian Balzer Beteiligungs GmbH & Co. KG, Allendorf (Eder)* | Germany | Full consolidation | 67.34% |
| Balzer GmbH & Co. KG, Allendorf (Eder)* | Germany | Full consolidation | 67.34% |
| Muffenrohr Tiefbauhandel GmbH, Ottersweier* | Germany | Full consolidation | 67.34% |
| Platten-Peter Fliesenzentrum Nord GmbH, Münster* | Germany | Full consolidation | 67.34% |
| Dr. Sporkenbach GmbH Holz- und Baufachhandel, Magdeburg* | Germany | Full consolidation | 67.34% |
| Saint-Gobain Distribuiçao Brasil Ltda | Brazil | Full consolidation | 100.00% |
| Saint-Gobain Distribution Denmark | Denmark | Full consolidation | 100.00% |
| Saint-Gobain Idaplac, S.L. | Spain | Full consolidation | 99.83% |
| Saint-Gobain Distribucion Construccion, S.L | Spain | Full consolidation | 99.83% |
| Distribution Sanitaire Chauffage | France | Full consolidation | 100.00% |
| Lapeyre | France | Full consolidation | 100.00% |
| Saint-Gobain Distribution Bâtiment France | France | Full consolidation | 100.00% |
| Optimera As | Norway | Full consolidation | 100.00% |
| Saint-Gobain Distribution The Netherlands B.V | Netherlands | Full consolidation | 100.00% |
| Saint-Gobain Building Distribution Ltd | United Kingdom | Full consolidation | 100.00% |
| Saint-Gobain Distribution Nordic Ab | Sweden | Full consolidation | 100.00% |
| Sanitas Troesch Ag | Switzerland | Full consolidation | 100.00% |

* German consolidated subsidiary or sub-group with corporate or limited liability status and meeting the criteria under Articles 264 paragraph 3, 264b and 291 of the German Commercial Code (HGB) exempting the relevant entities and sub-groups from publishing their statutory and consolidated financial statements or notes to the financial statements and management reports (entities or sub-groups above or below the €100 million threshold).