SAINT-GOBAIN

CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2020

GROUP CONSOLIDATION REPORTING DEPARTMENT

Compagnie de Saint-Gobain

STATUTORY AUDITORS' REPORT
ON THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2020

The Statutory Auditors

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STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2020

This is a translation into English of the statutory auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.
This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the information concerning the Group presented in the management report and other documents provided to shareholders.
This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Compagnie de Saint-Gobain SA
Tour Saint-Gobain
12, place de l'Iris
92400 Courbevoie cedex

To the Shareholders,

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 ("the Group") for the year ended December 31, 2020.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2020 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union.

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

Basis for Opinion

Audit Framework

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

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (code de commerce) and the French Code of Ethics (code de déontologie) for statutory auditors, for the period from January 1st, 2020 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

Justification of Assessments - Key Audit Matters

Due to the global crisis related to the Covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, 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 risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and 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, 2020, representing €10,028 million, €2,505 million and €11,072 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 particularly in the context of the Covid-19 pandemic 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 amounts.

The impairment tests performed by Management using the method described in Note 6.5 to the consolidated financial statements led to the recognition of impairment losses of €958 million in the year ended December 31, 2020 (including impairment on assets held for sale), as indicated in Note 4 to the consolidated financial statements.

Determining the assets' recoverable amounts is a key audit matter given the potentially significant nature of any impairment and the high degree of estimation and 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 within the Group for impairment testing purposes particularly with regard to take into account the impacts of the health crisis of Covid-19 on the parameters activity and profitability, and tested the effectiveness of the controls implemented by the Group to ensure the quality and reliability of the aforementioned procedures and their consistency with data from the budget and the medium-term business plan prepared by Management.

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 purposes, in particular the discount rate, 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 and our knowledge of the business, confirmed by interviews with the Heads of the relevant Segments and

Businesses and qualitative and quantitative parameters relating to the depth and potential duration of the health crisis triggered by Covid-19.
We carefully examined the calculation of the normalized amount of the terminal cash flows projected to 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 amounts 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 were appropriate and in particular that, given the recent context related to Covid-19, the sensitivity ranges communicated have been extended.

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 €1,187 million were recognized at December 31, 2020 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 and the high degree of estimation and judgment required by Management in determining those provisions. Judgment is required, in particular, to assess the status and resolution of the ongoing legal proceedings (in particular the voluntary petition for relief under Chapter 11 in the United States and class actions in Brazil): duration, cost, estimation of the number of current and future cases covered, definition of the damages by the judicial authority, etc.

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 judgments made, we held discussions with Management and lawyers chosen by Management, at the Group and country level as well as at the main subsidiaries concerned. We also contacted certain law firms and external experts chosen by Management to assist them with the monitoring of these risks.
We:

- examined 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;
- assessed the permanence of methods and performed a critical review of internal analyses relating to the probability and possible impact of these contingent liabilities and new items of litigation by examining the available information relating to the proceedings (correspondence, judgments, notifications, etc.). We also reviewed the responses to the confirmation letters of the law firms chosen by Management, particularly in terms of their experience at resolving comparable situations in the past. We also 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;
- verified the arithmetical accuracy of the calculations of changes in provisions and the consistency of the main items of change in relation to the underlying data, in particular the payments made during the year in respect of these risks.

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

Measurement of supplier discounts in Distribution

Description of risk

The Distribution entities in Europe accounted for 43% of the Group's sales for the fiscal year 2020. The profitability of these entities varies depending on supplier discounts received, which lower the cost price of negotiated goods. As indicated in Notes 4.1.2, 4.4.1 and 4.4.2 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 Distribution business, 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 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 held by the Distribution entities is also a significant audit matter.

How our audit addressed this risk

We gained an understanding of the process used by Management 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 entity and country, confirmed by interviews with Management. We assessed the way in which the consequences of the health crisis of Covid-19 were taken into account in the determination of these supplier discounts. 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 held by the Distribution entities, we assessed that the accounting methods were applied consistently across all the entities. Using sampling techniques, we cross-checked the measurement of certain inventory items against supplier invoices, estimating supplier discounts granted subsequently.

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

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verification required by laws and regulations of the Group's information given in the management report of the Board of Directors.

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

We attest that the consolidated non-financial statement required by Article L.225-102-1 of the French Commercial Code (code de commerce) is included in the Group's management report (or in the Group's information given in the management report], it being specified that, in accordance with Article L.823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein. This information should be reported on by an independent third party.

Report on Other Legal and Regulatory Requirements

Format of the presentation of the consolidated financial statements intended to be included in the annual financial report

In accordance with Article 222-3, III of the AMF General Regulation, the Company's management informed us of its decision to postpone the presentation of the consolidated financial statements in compliance with the European single electronic format as defined in the European Delegated Regulation No 2019/815 of 17 December 2018 to years beginning on or after January 1st, 2021. Therefore, this report does not include a conclusion on the compliance with this format of the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (code monétaire et financier).

Appointment of the Statutory Auditors

We were appointed Statutory Auditors of Compagnie de Saint-Gobain by the Shareholders' Meeting held on June 26, 1986 for Petiteau Scacchi and subsequently PricewaterhouseCoopers Audit and on June 10, 2004 for KPMG Audit.
At December 31, 2020 PricewaterhouseCoopers Audit and KPMG Audit were in the thirty-fifth and seventeenth consecutive year of their engagement, respectively.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from 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 is expected 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 risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

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

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

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

As specified in Article L.823-10-1 of the French Commercial Code (code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

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

- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements.

- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.

- Evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit and Risk Committee

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

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore 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) N° 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code (code de commerce) and in the French Code of Ethics *(code de déontologie)* for statutory auditors. Where appropriate, we discuss with the Audit and Risk Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris La Défense, February 25, 2021

The Statutory Auditors

PricewaterhouseCoopers Audit

Edouard Sattler   Cécile Saint-Martin

KPMG Audit
Department of KPMG SA

Pierre-Antoine Duffaud   Bertrand Pruvost

GROUP CONSOLIDATION REPORTING DEPARTMENT

CONTENTS

2020 CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEET

(in € millions)	Notes	Dec. 31, 2020	Dec. 31, 2019
ASSETS			
Goodwill	(6.1)	10,028	10,029
Other intangible assets	(6.2)	2,505	2,709
Property, plant and equipment	(6.3)	11,072	11,707
Right-of-use assets	(6.4)	2,902	2,954
Investments in equity-accounted companies	(7.1) (7.2)	462	437
Deferred tax assets	(11.2)	665	833
Other non-current assets	(7.3)	845	3,511
NON-CURRENT ASSETS		**28,479**	**32,180**
Inventories	(4.4)	5,362	6,200
Trade accounts receivable	(4.4)	4,597	4,813
Current tax receivable	(4.4) (11.1)	147	194
Other receivables	(4.4)	1,269	1,609
Assets held for sale	(3.3)	329	0
Cash and cash equivalents	(9.3)	8,443	4,987
CURRENT ASSETS		**20,147**	**17,803**
TOTAL ASSETS		**48,626**	**49,983**

EQUITY AND LIABILITIES			
Capital stock	(10.1)	2,131	2,179
Additional paid-in capital and legal reserve	(10.1)	5,104	5,551
Retained earnings and consolidated net income	(10.1)	13,687	12,518
Cumulative translation adjustments		(2,857)	(1,467)
Fair value reserves		(48)	743
Treasury stock	(10.1)	(125)	(108)
SHAREHOLDERS' EQUITY		**17,892**	**19,416**
Non-controlling interests		311	364
TOTAL EQUITY		**18,203**	**19,780**
Non-current portion of long-term debt	(9.3)	10,179	10,286
Non-current portion of long-term lease liabilities	(9.3)	2,442	2,552
Provisions for pensions and other employee benefits	(5.3)	2,629	2,648
Deferred tax liabilities	(11.2)	360	448
Other non-current liabilities and provisions	(8.1)	965	1,126
NON-CURRENT LIABILITIES		**16,575**	**17,060**
Current portion of long-term debt	(9.3)	1,846	1,751
Current portion of long-term lease liabilities	(9.3)	656	665
Current portion of other liabilities and provisions	(8.1)	361	343
Trade accounts payable	(4.4)	5,897	6,000
Current tax liabilities	(4.4) (11.1)	175	156
Other payables	(4.4)	3,911	4,004
Liabilities held for sale	(3.3)	501	0
Short-term debt and bank overdrafts	(9.3)	501	224
CURRENT LIABILITIES		**13,848**	**13,143**
TOTAL EQUITY AND LIABILITIES		**48,626**	**49,983**

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

CONSOLIDATED INCOME STATEMENT

(in € millions)	Notes	2020	2019
Sales	(4.1)	38,128	42,573
Cost of sales	(4.1)	(28,635)	(31,717)
General expenses including research	(4.1)	(6,651)	(7,490)
Share in net income of core business equity-accounted companies	(7.1)	13	24
OPERATING INCOME		**2,855**	**3,390**
Other business income	(4.1)	88	196
Other business expense	(4.1)	(1,511)	(1,033)
BUSINESS INCOME		**1,432**	**2,553**
Borrowing costs, gross		(274)	(300)
Income from cash and cash equivalents		6	27
Borrowing costs, net, excluding lease liabilities		(268)	(273)
Interest on lease liabilities		(58)	(71)
Other financial income and expense		(93)	(124)
NET FINANCIAL EXPENSE	**(9.2)**	**(419)**	**(468)**
Share in net income of non-core business equity-accounted companies	(7.1)	2	0
Income taxes	(11.1) (11.2) (11.3)	(526)	(631)
NET INCOME		**489**	**1,454**
GROUP SHARE OF NET INCOME		**456**	**1,406**
Non-controlling interests		33	48

	Notes	2020	2019
EARNINGS PER SHARE, GROUP SHARE *(in €)*	**(10.2)**	**0.85**	**2.59**
Weighted average number of shares in issue		536,452,195	542,079,771
DILUTED EARNINGS PER SHARE, GROUP SHARE *(in €)*	**(10.2)**	**0.85**	**2.58**
Weighted average number of shares assuming full dilution		539,325,415	545,159,839

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME AND EXPENSE

(in € millions)	Notes	2020	2019
NET INCOME		**489**	**1,454**
Items that may be subsequently reclassified to profit or loss			
Translation adjustments		(1,442)	309
Changes in fair value of financial instruments	(9.4)	(3)	(4)
Tax on items that may be subsequently reclassified to profit or loss		18	0
Items that will not be reclassified to profit or loss			
Changes in actuarial gains and losses	(5.3)	9	(80)
Tax on items that will not be reclassified to profit or loss	(11.1) (11.2)	20	27
Changes in assets at fair value through equity	(7.3)	(157)	871
OTHER ITEMS OF COMPREHENSIVE INCOME (EXPENSE)		**(1,555)**	**1,123**
COMPREHENSIVE INCOME (EXPENSE)		**(1,066)**	**2,577**
Group share		(1,047)	2,528
Non-controlling interests		(19)	49

Translation adjustments in 2020 primarily concern the pound sterling and Brazilian real.

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

CONSOLIDATED STATEMENT OF CASH FLOWS

(in € millions)	Notes	2020	2019
GROUP SHARE OF NET INCOME		**456**	**1,406**
Non-controlling interests in net income	(a)	33	48
Share in net income of equity-accounted companies, net of dividends received	(7.1)	(1)	(8)
Depreciation, amortization and impairment of assets (including right-of-use assets)	(4.1) (6)	2,906	2,243
Gains (losses) on disposals of assets	(4.3)	28	2
Unrealized gains and losses arising from changes in fair value and share-based payments		46	31
Restatement for hyperinflation		9	20
Changes in inventory	(4.4)	410	(55)
Changes in trade accounts receivable and payable, and other accounts receivable and payable	(4.4)	685	25
Changes in tax receivable and payable	(4.4)	53	108
Changes in deferred taxes and provisions for other liabilities and charges	(5.3) (8.1) (11.2) (11.3)	86	(16)
NET CASH FROM OPERATING ACTIVITIES		**4,711**	**3,804**
Acquisitions of property, plant and equipment [2020: (1,122), 2019: (1,656)] and intangible assets	(6.2) (6.3)	(1,236)	(1,818)
Increase (decrease) in amounts due to suppliers of fixed assets	(4.4)	(54)	(30)
Acquisitions of shares in controlled companies [2020: (1,240), 2019: (168)], net of cash acquired		(1,100)	(155)
Increase in investment-related liabilities	(8.1)	12	11
Decrease in investment-related liabilities	(8.1)	(20)	(18)
Acquisitions of other investments	(7.3)	(74)	(120)
Investments		**(2,472)**	**(2,130)**
Disposals of property, plant and equipment and intangible assets	(6.2) (6.3)	213	157
Disposals of shares in controlled companies, net of cash divested		(43)	267
Disposals of other investments	(7.3)	2,389	1
(Increase) decrease in amounts receivable on sales of fixed assets	(4.4)	10	74
Divestments		**2,569**	**499**
Increase in loans and deposits	(7.3)	(81)	(99)
Decrease in loans and deposits	(7.3)	178	157
NET CASH FROM (USED IN) INVESTMENT AND DIVESTMENT ACTIVITIES		**194**	**(1,573)**
Issues of capital stock	(a)	139	165
(Increase) decrease in treasury stock	(a)	(658)	(273)
Dividends paid	(a)	0	(716)
Transactions with shareholders of the parent company		**(519)**	**(824)**
Capital increases in non-controlling interests	(a)	10	35
Acquisitions of minority interests without gain of control		(29)	(9)
Changes in investment-related liabilities following the exercise of put options of minority shareholders	(8.1)	(5)	(3)
Dividends paid to non-controlling interests	(a)	(44)	(37)
Change in dividends payable		0	(13)
Transactions with non-controlling interests		**(68)**	**(27)**
Increase (decrease) in bank overdrafts and other short-term debt		218	62
Increase in long-term debt	(b) (9.3)	1,621	2,708
Decrease in long-term debt	(b) (9.3)	(1,786)	(1,045)
Decrease in lease liabilities	(b)	(766)	(815)
Change in debt		**(713)**	**910**
NET CASH FROM (USED IN) FINANCING ACTIVITIES		**(1,300)**	**59**
Net effect of exchange rate changes on cash and cash equivalents		(126)	7
Net effect of changes in fair value on cash and cash equivalents		(4)	2
Cash and cash equivalents classified within assets held for sale		(19)	0
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		**3,456**	**2,299**
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD		**4,987**	**2,688**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**8,443**	**4,987**

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

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

In 2020, income tax paid represented €466 million (€493 million in 2019), total rental expenses paid €853 million (€924 million in 2019), including €58 million in interest paid on lease liabilities (€71 million in 2019), and interest paid net of interest received €243 million (€258 million in 2019).

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

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(in € millions)

	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	Non-controlling interests	Total equity
AT JANUARY 1, 2019	**2,186**	**5,646**	**11,864**	**(1,775)**	**(124)**	**(106)**	**17,691**	**330**	**18,021**
Income and expenses recognized directly in equity	0	0	(53)	308	867	0	**1,122**	1	**1,123**
Net income for the year			1,406				**1,406**	48	**1,454**
Total income and expense for the year	**0**	**0**	**1,353**	**308**	**867**	**0**	**2,528**	**49**	**2,577**
Issues of capital stock									
Group Savings Plan	25	128					**153**		**153**
Stock subscription option plans	1	11					**12**		**12**
Other							**0**	35	**35**
Dividends paid (€1.33 per share)			(716)				**(716)**	(37)	**(753)**
Shares purchased			(4)			(321)	**(325)**		**(325)**
Shares sold						52	**52**		**52**
Shares canceled	(33)	(234)				267	**0**		**0**
Share-based payments			28				**28**		**28**
Changes in Group structure and other			(7)				**(7)**	(13)	**(20)**
AT DECEMBER 31, 2019	**2,179**	**5,551**	**12,518**	**(1,467)**	**743**	**(108)**	**19,416**	**364**	**19,780**
Income and expenses recognized directly in equity	0	0	47	(1,390)	(160)	0	**(1,503)**	(52)	**(1,555)**
Net income for the period			456				**456**	33	**489**
Total income and expense for the year	**0**	**0**	**503**	**(1,390)**	**(160)**	**0**	**(1,047)**	**(19)**	**(1,066)**
Issues of capital stock									
Group Savings Plan	24	115					**139**		**139**
Other							**0**	10	**10**
Dividends paid							**0**	(44)	**(44)**
Shares purchased			(7)			(706)	**(713)**		**(713)**
Shares sold						55	**55**		**55**
Shares canceled	(72)	(562)				634	**0**		**0**
Reclassification of the fair value reserve to reserves further to the disposal of Sika			631		(631)		**0**		**0**
Share-based payments			32				**32**		**32**
Changes in Group structure and other			10				**10**	0	**10**
AT DECEMBER 31, 2020	**2,131**	**5,104**	**13,687**	**(2,857)**	**(48)**	**(125)**	**17,892**	**311**	**18,203**

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 25, 2021 by the Board of Directors and will be submitted to the Shareholders' Meeting of June 3, 2021 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, 2019, except for the application of the new standards and interpretations described below. The consolidated financial statements have been prepared using the historical cost convention, except for certain assets and liabilities that have been measured using the fair value model as explained in these notes.

1.1. Standards applied

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and interpretations adopted for use in the European Union at December 31, 2020. These consolidated 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, 2020

The following standards and amendments, effective since January 1, 2020, were applied to the consolidated financial statements for the year ended December 31, 2020:

- Amendments to IAS 1 and IAS 8, "Definition of Material";
- Amendments to IFRS 9, IAS 39 and IFRS 7, "Interest Rate Benchmark Reform" – Phase 1;
- Amendments to IFRS 3, "Business Combinations – Definition of a Business";
- Amendment to IFRS 16, "Covid-19-Related Rent Concessions".

These amendments have no 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, 2020

The new standards, interpretations and amendments to existing standards applicable to accounting periods starting on or after January 1, 2021 were not early adopted by the Group at December 31, 2020. These are:

- Amendments to IFRS 3, "Reference to the Conceptual Framework";
- Amendment to IAS 37, "Onerous Contracts – Cost of Fulfilling a Contract";

The annual improvements to IFRSs – 2018-2020 Cycle that are available for early adoption concern the following standards:

- IFRS 9, “Fees in the ‘10 per cent’ Test for Derecognition of Financial Liabilities”;
- IFRS 16, “Lease Incentives Illustrative Example”.

1.1.3. Standards, interpretations and amendments to existing standards published but not yet applicable

The new standards, interpretations and amendments to existing standards that have been published but are not yet applicable concern:

- Amendment to IAS 1, “Classification of Liabilities as Current or Non-current”;
- Amendments to IFRS 9, IAS 39 and IFRS 7, “Interest Rate Benchmark Reform” – Phase 2
- Amendment to IAS 16, “Property, Plant and Equipment – Proceeds before Intended Use”;
- Amendment to IFRS 17, “Insurance Contracts”, published in June 2020.

These amendments are currently being analyzed by the Group.

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 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 and the determination of lease terms (note 6 "Intangible assets, property, plant and equipment, and right-of-use assets"), 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 "Tax").

Due to the mainly local nature of the Group’s operations, Brexit did not have a direct material impact on the financial statements. However, it does give rise to a degree of macroeconomic uncertainty that could affect business in the United Kingdom and, therefore, Group entities operating in the country.

In the unprecedented context of the coronavirus pandemic, the estimates and assumptions applied by the Group in 2020 take into account the impacts of the Covid-19 crisis, the most important of which are described in note 2 below.

NOTE 2 IMPACTS OF THE COVID-19 PANDEMIC

The Group was severely affected by the Covid-19 pandemic in the first half of 2020. However, trading in the second half of the year was almost back to normal levels for most of its businesses.

In this context, the measures taken by the Group to address the crisis caused by the pandemic were the result of both swift decisions taken locally and coordinated international action based on the experience of our different countries and in line with the Group's new organization by country and by market.

The measures were rolled out in compliance with the Group's main priorities:

- protecting the health and safety of employees and other stakeholders across the globe, introducing strict social distancing measures adapted to its different businesses and encouraging remote working wherever possible;
- strengthening the Group's liquidity, with new sources of financing put in place to maintain a robust cash position;
- preserving free cash flow generation through strict measures to adapt production facilities, reduce costs and discretionary spending and closely monitor working capital, and exceptionally, deciding not to pay a dividend in 2020;
- continuing to serve our customers, with increased use of digital channels since the start of the crisis, completed by the launch of new services to adapt our solutions to meet the needs of the post-coronavirus world;
- ensuring – well ahead of time – that the necessary conditions were in place for the restart of our commercial, industrial and logistics operations, allowing us to support the recovery as effectively as possible as soon as lockdown measures were lifted.

2.1. Adapting production facilities and making use of schemes designed to support businesses hit by the Covid-19 pandemic

While prioritizing the health and safety of all of its employees and stakeholders, the Group ensured the continuity of its operations in each of the countries in which it does business by swiftly adapting to changes in demand linked to the health situation and to local government decisions.

As well as adjusting its production levels and rolling out measures to cut costs, the Group also made use of government-backed business support schemes. It benefited – mainly in the first half of the year – from furlough schemes in the countries where such measures were introduced, with the positive €169 million impact recognized as a deduction from the corresponding salaries and payroll taxes.

The costs of the measures taken to address the Covid-19 crisis are reflected in full in operating income. These costs result from purchases of protective equipment (masks, hand sanitizers, tests, etc.) and from adapting production to demand (fixed costs not absorbed due to the downturn in business).
Additional specific expenditure related to the Covid-19 pandemic was estimated at €88 million (of which more than half in Europe, primarily in Southern Europe – ME & Africa), including €62 million for protective equipment. The balance reflects miscellaneous costs of travel cancellations, staff overtime and miscellaneous outside services such as cleaning.

- Management compensation

In March 2020, the Chairman and Chief Executive Officer and the Chief Operating Officer wished to show their solidarity with the efforts being made by the Group's employees and stakeholders impacted by the unprecedented crisis. Consequently, they informed the Board of Directors of their decision to waive 25% of their compensation to be paid in 2020, i.e. 25% of their variable compensation in respect of the 2019 fiscal year and 25% of their fixed compensation for 2020, for as long as the Group's employees were subject to partial employment in the context of the emergency measures taken by the French Government to halt the spread of the coronavirus epidemic. At their April 22, 2020 and April 23, 2020 respective meetings, the Nomination and Remuneration

Committee and the Board of Directors acknowledged this decision and unanimously praised it. Upon proposal of the Chairman and Chief Executive Officer and the Chief Operating Officer, the Board of Directors decided to review and reduce accordingly their variable compensation due in respect of the 2019 fiscal year and their fixed compensation for 2020.
The Board of Directors decided, in its April 23, 2020 meeting and in a similar move of solidarity as the executive corporate officers, to join this effort by also reducing by 25% the amount of the compensation that will be due to the Directors for the same period as for the executive corporate officers.

The amounts corresponding to these compensation reductions were donated by Saint-Gobain to the Paris public hospitals foundation (*Fondation de L'Assistance Publique – Hôpitaux de Paris*, or APHP) for an amount of €305,000, to charities supporting vulnerable populations affected by the Covid-19 pandemic, namely the humanitarian medical association "The Alliance for International Medical Action" (ALIMA), the *Abbé Pierre* Foundation, the *Secours Populaire*, and to employees in extreme difficulty in Brazil.

2.2. Strengthening the Group’s liquidity

- New sources of financing

From March, the Group bolstered the structure of its debt in the context of the Covid-19 pandemic, reinforcing its sources of financing through:

- a €1.5 billion bond issued on April 3, consisting of €750 million with a 3-year maturity and a 1.75% coupon and €750 million with a 7.5-year maturity and a 2.375% coupon;
- a syndicated credit line totaling €2.5 billion, including €1 billion drawn for a bond repayment of the same amount at the end of March, in addition to €4.0 billion in confirmed and undrawn back-up credit lines;
- access to the new commercial paper Pandemic Emergency Purchase Program (PEPP) launched by the European Central Bank on March 18, 2020.

In light of its robust cash position in the second half of the year, at the end of September the Group canceled the short-term syndicated credit line it had arranged in March 2020 for an initial amount of €2.5 billion, which had been subsequently reduced to €1.0 billion (undrawn) at the end of June.

- Dividend distribution

Given the context of the coronavirus pandemic and the introduction of furlough measures, during its April 23, 2020 meeting, the Board of Directors decided not to recommend any dividend distribution to the June 4, 2020 Shareholders’ Meeting. Although the Group recently further strengthened its liquidity, the Board of Directors considered that this exceptional decision was in the best interests of the Group and its stakeholders, given the uncertainty as to the impact and duration of the crisis, and the caution required at this time.

As announced in April, the Board of Directors’ meeting of November 26, 2020 reviewed the Group’s shareholder return policy. Based on the sales and results growth in the third quarter and the good start to the fourth quarter, the Board announced that it would be recommending to the June 3, 2021 Shareholders’ Meeting that it set the dividend in respect of 2020 – payable in June 2021 – at €1.33 per share, to be paid in cash, i.e., the level of the dividend paid in June 2019.

The Board of Directors also confirmed that it would be maintaining its policy of favoring a dividend in cash and targeting a normalized dividend payout rate representing between 35% and 40% of recurring net income, a rate that will be exceeded for the dividend payable in respect of 2020.

- Other specific measures taken to strengthen the Group’s liquidity

As the economic situation gradually improves in certain countries, the Group’s sale of its interest in Sika at the end of May helped boost cash by €2.4 billion (see note 3.2, “Changes in Group structure”).

Various countries benefited from postponements of tax and social security payments, with the exception of France where these measures were not used. At December 31, 2020, there were no longer any significant amounts of deferred tax and social security payments within the Group.

2.3. Impairment review in light of the Covid-19 pandemic

- Impairment review of property, plant and equipment and intangible assets

The impacts of the pandemic – though much less significant in the second half – were taken into account when measuring these assets at the reporting date, using the approach described in note 6.5.
The start of 2021 has validated the projections used for the impairment tests at December 31, 2020.

- Impairment review of other non-current assets

The impacts of the Covid-19 health crisis were also taken into account when measuring other non-current assets. In particular, this led to adjustments in the carrying amount of investments in equity-accounted companies to reflect their estimated value.

- Impacts of the Covid-19 crisis on the recognition of deferred tax assets on tax loss carryforwards

Due to short-term uncertainties related to the Covid-19 health crisis, the Group measured deferred tax assets based on an analysis of the tax position in each country concerned. The additional reduction in deferred tax assets on tax loss carryforwards in France recognized in an amount of €58 million at end-June 2020 was maintained at December 31, 2020.

- Impairment review of current assets: impacts of the Covid-19 pandemic on impairment provisions for trade accounts receivable and on the value of inventories

The review of trade accounts receivable in light of the Covid-19 crisis did not highlight any major default risks (see note 4.4.2 “Operating and non-operating receivables and payables”).

Fixed costs relating to idle capacity attributable to the Covid-19 crisis were not included in calculating the value of inventories and were classified within operating items.

2.4. Impact on current operating items

- Amendment to IFRS 16 relating to Covid-19-related rent concessions

The amendment to IFRS 16 on Covid-19-related rent concessions was published by the IASB on May 28, 2020 and adopted by the European Union in early October 2020. It did not have a material impact on the Group’s consolidated financial statements for the year ended December 31, 2020.

- Impacts of the Covid-19 crisis on the calculation of supplier and customer discounts

The consequences of the Covid-19 health crisis were taken into account when calculating supplier discounts to be recognized in operating income (as a deduction from cost of sales) by entities in the Distribution business (see note 4.1.3 “Business income”) and customer discounts to be recognized as a deduction from sales by entities in the Industry business.

- Reduction in business travel costs

Operating income includes business travel cost savings resulting from the reduction in, or cancellation of, business trips in most countries where the Group does business.

- Provisions for management bonuses

In first-half 2020, budgeted management bonuses were revised in light of the impact of Covid-19 on annual earnings forecasts.
As earnings improved in the second half of the year, the provisions were adjusted accordingly at December 31, 2020 (see note 5.4.3).

The impacts described above reflect the current Covid-19 environment. 2020 was a year of stark contrasts, with the strong negative impacts of the pandemic in the six months to June 30 partly countered by more limited impacts in the second half. These impacts may change in the coming months depending on the pandemic's development, duration, magnitude and available medical treatment, as well as on its consequences for the Group's partners (customers, suppliers, etc.).

NOTE 3 SCOPE OF CONSOLIDATION

3.1. 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.

3.1.1. Consolidation methods

- Full consolidation

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

- 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.

- 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.

3.1.2. Business combinations

- 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 all 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 non-controlling 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 non-controlling interest, measured at fair value.

- 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 non-controlling interests and shareholders' equity. Any subsequent changes in the fair value of the liability are recognized by adjusting equity.

- Non-controlling interests

Under IFRS 10, non-controlling interests 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.

3.1.3. 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 net book value. 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.

3.1.4. Intragroup transactions

All intragroup transactions in the balance sheet and income statement are eliminated in consolidation.

3.1.5. 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.

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.

3.1.6. 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.

3.1.7. Hyperinflation

Under IAS 29, "Financial Reporting in Hyperinflationary Economies", 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 the measuring unit in force at the reporting date. All non-monetary assets and liabilities must therefore be adjusted for inflation in order to reflect changes in purchasing power 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.

3.1.7.1. Argentina

Argentina has been classified as a hyperinflationary economy since July 1, 2018. IAS 29 therefore applies to entities using the Argentine peso as their functional currency (based on the table of indices issued by FACPCE).

3.1.7.2. Lebanon

The financial and political crisis in Lebanon has been growing since the end of 2019. As a result, inflation in the country has risen sharply, topping 100% in 2020 compared to a rate of 10% or lower up to the end of 2019 (since December 1997, the Lebanese pound has been indexed to the US dollar at USD 1 = LBP 1,507.5).
Since economic forecasts do not anticipate any improvement in the short term, Lebanon has been classified as a hyperinflationary economy since October 2020. As from December 31, 2020, IAS 29 is therefore applicable to entities using the Lebanese pound as their functional currency.
However, as the Group's exposure to Lebanon is not material (sales in the country represent less than 1% of total Group revenue), IAS 29 will be applied to the Group's Lebanese companies with effect from January 1, 2021.

3.2. Changes in Group structure

Significant changes in the Group's structure during 2020 and 2019 are presented below and a list of the main consolidated companies at December 31, 2020 is provided in note 14 "Principal consolidated companies".

3.2.1. Transactions carried out in 2020

In 2020, Saint-Gobain acquired 13 consolidated companies for a total purchase price of €1,229 million. The Group also sold six consolidated companies for a sale price of €11 million.

3.2.1.1. Main acquisitions in 2020

Acquisitions in 2020 represent full-year sales of around €500 million and €110 million in EBITDA.

- On January 30, 2020, Saint-Gobain announced that Continental Building Products (NYSE: CBPX), a key player in the plasterboard industry in North America, obtained shareholder approval to be acquired by Saint-Gobain and that the American anti-trust authorities authorized the transaction. The acquisition was finalized on February 3, 2020.

  Upon completion of the operation, Saint-Gobain acquired all of the shares of Continental Building Products for US$37.00 per share in a transaction valued at approximately US$1.4 billion (around €1.3 billion).

  The process of identifying and measuring the assets acquired and liabilities assumed at their fair value began during first-half 2020 and was finalized at December 31, 2020. Goodwill relating to Continental Building Products cannot be amortized for tax purposes and its amount as measured by the Group is final.

The table below shows the fair value measurement of each major category of assets acquired and liabilities assumed:

(in € millions)	Continental Building Products	Other newly-consolidated companies	Total at the acquisition date
Intangible assets	425	32	**457**
Property, plant and equipment	289	30	**319**
Financial assets and other non-current assets	15	0	**15**
NON-CURRENT ASSETS	**729**	**62**	**791**
Inventories	28	11	**39**
Trade accounts receivable, net	49	9	**58**
Other receivables	14	(8)	**6**
Cash and cash equivalents	130	10	**140**
CURRENT ASSETS	**221**	**22**	**243**
Non-current portion of long-term debt and lease liabilities	236	6	**242**
Non-current portion of provisions and other liabilities	103	11	**114**
NON-CURRENT LIABILITIES	**339**	**17**	**356**
Current portion of long-term debt and lease liabilities	5	0	**5**
Trade accounts payable	68	6	**74**
Other payables	21	0	**21**
Short-term debt and bank overdrafts	0	2	**2**
CURRENT LIABILITIES	**94**	**8**	**102**
TOTAL FAIR VALUE OF NET ASSETS ACQUIRED	**517**	**59**	**576**
Acquisition cost of shares	1,154	135	**1,289**
Minority interests	0	6	**6**
GOODWILL	**637**	**82**	**719**

The Continental Building Products acquisition presents a strong geographic fit with Saint-Gobain's North American operations, as well as cost synergies. The acquisition broadens the Group's product portfolio, allowing it to provide innovative solutions to a wider customer base.

This acquisition represents pro forma full-year sales of €421 million (USD 480 million) and €98 million (USD 112 million) in EBITDA for 2020.

- On September 1, 2020, Saint-Gobain acquired Strikolith in the Netherlands, a company specialized in the production of external insulation systems, interior finishings and renovation products and solutions. The complementarity of Strikolith with Saint-Gobain's existing businesses enhances the Group's range of solutions in External Thermal Insulation Composite Systems (ETICS) and in construction chemicals in the Netherlands.

- On September 7, 2020, Saint-Gobain acquired two subsidiaries of the family-owned MS Group: MS Techniques, which specializes in high-precision tubing for medical applications, and Transluminal, a specialist in R&D and sales in the area of minimally invasive catheter design expertise for OEMs.

The Group began its process of identifying and measuring the assets acquired and liabilities assumed at their fair value within the scope of the Strikolith and MS Group acquisitions during the last quarter of 2020 and will finalize the purchase price accounting within 12 months of the acquisition date.

3.2.1.2. Main disposals and deconsolidations in 2020

Disposals in 2020 represent full-year sales of around €130 million.

The main company deconsolidations in 2020 are summarized below:

- Following the commencement of the proceeding under Chapter 11 of the U.S. Bankruptcy Code on January 23, 2020, the assets and liabilities of DBMP LLC and its wholly-owned subsidiary Millwork & Panel LLC were no longer consolidated in the Group’s financial statements (see note 8.2.2.2 on the asbestos-related liabilities in the United States). This did not have a material impact on the Group’s consolidated income.

- On March 10, 2020, Saint-Gobain divested part of Glasssolutions, its glass processing business in Germany, to DIK Deutsche Industriekapital GmbH.

- In May 2018, Saint-Gobain had acquired a 10.75% interest in Sika indirectly through the acquisition of 100% of Schenker-Winkler Holding AG (SWH) shares held by the Burkard family, as part of a global agreement with the Burkard family and Sika (see section 5.4.2, Chapter 2 of the 2018 Registration Document and section 2.2, note 2 to the consolidated financial statements in Chapter 8 of the 2019 Universal Registration Document).

  Following expiration of the two-year lock-up period set out in the May 2018 agreement with Sika, and as Sika decided not to exercise its right of first offer, on May 27, 2020 Saint-Gobain announced that it had completed the sale of approximately 15.2 million Sika shares held through its subsidiary SWH, representing its entire 10.75% stake in Sika’s share capital, for a total amount of CHF 2.56 billion (€2.4 billion). The sale took the form of a private placement with qualified institutional investors.

  The shares in Sika were classified as equity investments, and the Group chose to recognize changes in the fair value of the shares within other comprehensive income directly in equity.

3.2.2. Transactions carried out in 2019

Saint-Gobain pursued a portfolio optimization strategy in 2019. Various acquisitions were completed in order to strengthen the Group’s profile in high added-value businesses and in growing markets. In 2019, 18 acquisitions of consolidated companies or of companies in the process of being consolidated were completed for a total amount of around €260 million. Saint-Gobain also sold 15 consolidated companies for a total amount of €370 million.

The main transactions are summarized below:

- On January 11, 2019, Saint-Gobain sold its regional glass business Glassolutions Norway and Sweden to Mimir Invest AB, a Swedish investment firm;
- On February 1, 2019, Saint-Gobain completed the acquisition of American Seal and Engineering Co., a leader in technical sealing solutions;
- On April 24, 2019, Saint-Gobain completed the acquisition of the entire share capital of Knauf Mexico, a company specializing in the manufacture and distribution of plasterboard;
- On May 14, 2019, Saint-Gobain completed the sale of its silicon carbide grains and powders business to the private equity firm OpenGate Capital;
- On May 28, 2019, Saint-Gobain acquired UK-based Pritex, a key player in acoustic and thermal insulation solutions made from polymer-based composite materials and intended for the mobility market;
- On September 30, 2019, Saint-Gobain completed the sale of Saint-Gobain Building Distribution Deutschland to the Stark group;
- On October 1, 2019, Saint-Gobain completed the sale of K par K, specializing mainly in the door-to-door sale of customized woodwork and windows on the French market;

- On October 7, 2019, Saint-Gobain announced that it had completed the sale of its Optimera construction materials distribution business in Denmark to Davidsens Tommerhandel;
- On October 16, 2019, Saint-Gobain announced that it had acquired 100% of the mortars division of the Celima group in Peru. The mortars division leads the country's tiling adhesives market;
- On November 4, 2019, Saint-Gobain sold its regional glass transformation business Glassolutions in the Netherlands to the German family office Aequita;
- On November 29, 2019, Saint-Gobain completed the sale of Distribution Matériaux pour les Travaux Publics (DMTP) to the Frans Bonhomme group;
- On December 19, 2019, Saint-Gobain sold Hankuk Glass Industries, its construction glass activity in South Korea, to Glenwood Private Equity, a leading investment management company in South Korea specialized in industrial activities and the construction sector;
- On December 26, 2019, Saint-Gobain acquired Sonex, a Brazilian company specialized in the manufacture and supply of acoustic ceiling systems, marketed in particular under the Sonex, Nexacustic and Fiberwood brands;
- On December 31, 2019, Saint-Gobain acquired Belgium-based High Tech Metal Seals (HTMS), a designer and manufacturer of metal seals for the industrial, energy and aerospace markets;
- On December 31, 2019, Saint-Gobain entered into an agreement with Hirsch Servo and BEWiSynbra, through its subsidiary Placoplatre, to sell its expanded polystyrene (EPS) business in France.

At December 31, 2019, acquisitions represented full-year sales of around €189 million and €36 million in EBITDA. Disposals represented full-year sales of around €2.9 billion.

3.3. Assets and liabilities held for sale

On November 9, 2020, Saint-Gobain announced that it had entered into exclusive negotiations with Mutares, listed in Frankfurt, in preparation for the sale of Lapeyre (Southern Europe – ME & Africa segment), its home improvement business in France, on the basis of a firm and binding offer. This important step sets in motion a period of consultations and approvals (particularly with employee representatives), with the transaction expected to be completed in the first half of 2021. The Group will inject €245 million into Lapeyre in order to give it a strong cash position ahead of its sale.

Similarly, on January 4, 2021, Saint-Gobain announced that it was in exclusive negotiations with BME (Building Materials Europe) in preparation for the sale of Saint-Gobain Distribution The Netherlands (SGD NL, Southern Europe – ME & Africa segment). SGD NL operates in the Netherlands under the Raab Karcher, Tegelgroep Nederland, Galvano and Van Keulen brands.
The transaction is subject to approval by the European competition authorities and to communication and consultation obligations with regard to the employee representatives of the relevant Dutch entities. The sale is expected to be finalized by the end of 2021.

These disposals are part of Saint-Gobain's portfolio optimization strategy, which is designed to improve the Group's growth and profitability profile.

Since the assets and liabilities held for sale meet the qualifying criteria (see section 3.1.3), the balance sheet accounts of Lapeyre and SGD NL were combined and measured within assets and liabilities held for sale in the consolidated balance sheet at December 31, 2020, in accordance with IFRS 5.
For confidentiality reasons, the position of each individual company at December 31, 2020 is not disclosed.
These entities in the process of being sold were not considered as discontinued operations within the meaning of IFRS 5 as they do not represent a major line of business for the Group.

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

(in € millions)	Dec. 31, 2020
Intangible assets, property, plant and equipment, right-of-use assets and other non-current assets	164
Inventories, trade accounts receivable and other receivables	146
Cash and cash equivalents	19
ASSETS HELD FOR SALE	**329**
Provisions for pensions and other employee benefits	36
Other current and non-current liabilities and provisions	17
Trade accounts payable, other payables and other current liabilities	281
Debt and bank overdrafts	167
LIABILITIES HELD FOR SALE	**501**
NET ASSETS (LIABILITIES) HELD FOR SALE	**(172)**

3.4. Changes in the number of consolidated companies

At December 31, 2020, the number of consolidated companies was as follows:

	France	Outside France	Total
Fully consolidated companies			
At December 31, 2019	**133**	**618**	**751**
Newly consolidated companies	2	35	37
Merged companies	(4)	(14)	(18)
Deconsolidated companies	(2)	(25)	(27)
Change in consolidation method		2	2
At December 31, 2020	**129**	**616**	**745**
Equity-accounted companies and joint arrangements			
At December 31, 2019	**2**	**97**	**99**
Newly consolidated companies	1	4	5
Merged companies			0
Deconsolidated companies		(16)	(16)
Change in consolidation method		(2)	(2)
At December 31, 2020	**3**	**83**	**86**
Total			
At December 31, 2019	**135**	**715**	**850**
At December 31, 2020	**132**	**699**	**831**

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

The Group’s call option on Continental Building Products expired on February 3, 2020 when it acquired the company.

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 based on the stage of completion of the services, as calculated based on costs incurred. Similarly, within the Distribution entities, estimated returns are recognized as a deduction from revenue (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 sales.

4.1.2. Operating income

Operating income is a measure of the performance of the Group’s different reporting segments 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.

Supplier discounts granted to entities in the Distribution business are included in operating income as a reduction of cost of sales. 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)	**2020**	**2019**
SALES	**38,128**	**42,573**
Personnel expenses:		
Salaries and payroll taxes[(1)]	(7,625)	(8,336)
Share-based payments[(2)]	(45)	(33)
Pensions and employee benefit obligations[(2)]	(222)	(158)
Depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets[(3)]	(1,902)	(1,901)
Share in net income of core business equity-accounted companies	13	24
Other[(4)]	(25,492)	(28,779)
OPERATING INCOME	**2,855**	**3,390**
Other business income	88	196
Other business expense[(3)]	(1,511)	(1,033)
OTHER BUSINESS INCOME AND EXPENSE	**(1,423)**	**(837)**
BUSINESS INCOME	**1,432**	**2,553**

(1) The year-on-year fall in salaries and payroll taxes in 2020 is attributable to the reduction in headcount (see note 5.1) and to the use of furlough schemes in response to the crisis triggered by the Covid-19 pandemic (see note 2.1);

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

(3) Total depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets, along with amortization charged against intangible assets within the scope of purchase price accounting (PPA), represented €1,948 million in 2020 versus €1,901 million in 2019. As from 2020, the "Other business expense" item includes amortization charged against intangible assets within the scope of purchase price accounting, representing €46 million in the year (see note 4.1.4);

(4) The "Other" operating income line relates to cost of sales, supplier discounts and selling expenses for Distribution entities, and to transport costs, raw materials costs, and other production costs for the other entities. This item also includes research and development costs recorded under operating expenses, amounting to €429 million in 2020 (2019: €466 million).

4.1.4. 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, amortization charged against intangible assets within the scope of purchase price accounting, 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)	**2020**	**2019**
Restructuring costs[1]	(261)	(248)
Provisions and expenses relating to claims and litigation[2]	(4)	(89)
Other	(77)	(84)
NON-OPERATING INCOME AND EXPENSE	**(342)**	**(421)**
Impairment of assets and other[3]	(1,007)	(414)
Amortization of intangible assets related to PPA[4]	(46)	0
Other business expense [5]	(116)	(198)
Impairment of assets and other business expenses	**(1,169)**	**(612)**
Gains on disposals of non-current assets	**88**	**196**
GAINS (LOSSES) ON DISPOSALS, ASSET IMPAIRMENT, IMPACT OF CHANGES IN GROUP STRUCTURE	**(1,081)**	**(416)**
OTHER BUSINESS INCOME AND EXPENSE	**(1,423)**	**(837)**

(1) Restructuring costs in 2020 mainly consist of severance payments totaling €124 million (2019: €59 million);

(2) Up to 2019, 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 concerned asbestos-related litigation. In 2020, the decrease in provisions for asbestos-related litigation is primarily attributable to the deconsolidation of DBMP LLC (see note 8.2.2.2 discussing asbestos-related litigation in the United States);

(3) The "Impairment of assets and other" line essentially includes (i) impairment of goodwill, other intangible assets, property, plant and equipment, right-of-use assets and assets held for sale for €958 million in 2020 (mainly reflecting write-downs taken against intangible assets of the Distribution business in the United Kingdom and assets held for sale), compared to €342 million in 2019 (mainly assets held for sale), (ii) the impairment of other assets for €19 million (2019: €61 million), and (iii) acquisition fees and contingent consideration incurred in connection with business combinations, representing a net expense of €30 million in 2020 (2019: net expense of €11 million);

(4) In light of the major Continental Building Products acquisition carried out this year, amortization charged against brands and customer lists is now included on a separate line within "Impairment of assets and other business expenses" together with other gains and losses arising on business combinations which are not taken into account when determining the performance of the Group's operating segments. This amortization totaled €46 million in 2020;

(5) Other business expense in 2020 as in 2019, mainly include capital losses on assets divested or 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 in line with its internal reporting.

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, and assets and liabilities held for sale.

Capital expenditure corresponds to acquisitions of property, plant and equipment and does not include right-of-use assets.

The Group is organized into five reporting units: four regional businesses and a global High Performance Solutions unit. Segment information is presented for:

- High Performance Solutions (HPS), which is organized by market for global customers, i.e., Mobility, Life Sciences, Construction Industry and Industry;

And for four regions, plus the holding companies:

- Northern Europe, comprising the Nordic countries, United Kingdom, Ireland, Switzerland, Germany, Austria, Eastern Europe and Russia;
- Southern Europe – Middle East (ME) & Africa, comprising France, Benelux, Mediterranean, Middle East and Africa;
- Americas, comprising North America and Latin America;
- Asia-Pacific, comprising the Asia region and India
- Other, comprising the Group's various holding companies.

Segment information for 2020 and 2019 is as follows:

2020

(in € millions)	High Performance Solutions[2]	Northern Europe	Southern Europe[2] – ME & Africa	Americas[2]	Asia-Pacific	Other[1]	Group Total
Sales	6 544	12 807	12 454	5 697	1 520	(894)	**38 128**
Operating income (loss)	613	788	644	656	163	(9)	**2 855**
Business income (loss)	407	73	479	516	151	(194)	**1 432**
Share in net income (loss) of equity-accounted companies	0	8	(16)	17	5	2	**16**
Operating depreciation and amortization	331	594	582	258	89	48	**1 902**
Impairment of assets	39	639	88	24	0	167	**957**
EBITDA	810	1 305	1 153	872	245	30	**4 415**
Acquisitions of property, plant and equipment and intangible assets[3]	262	329	291	216	99	39	**1 236**
Goodwill, net[4]	1 840	4 106	2 024	1 778	280	0	**10 028**
Brands, customer relationships and intellectual property[4]	59	1 026	485	392	0	0	**1 962**
Total segment assets and liabilities[4]	5 329	9 092	7 164	4 541	1 302	195	**27 623**

(1) "Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions;
(2) France and United States sales represent €9,765 million and €5,436 million, respectively. France and United States segment assets represent €6,128 million and €5,148 million, respectively;
(3) Capital expenditure does not include right-of-use assets;
(4) "Net goodwill" and "Brands, customer relationships and intellectual property" do not include assets relating to companies held for sale (assets and liabilities relating to companies held for sale are however included in the line "Total segment assets and liabilities").

2019

(in € millions)	High Performance Solutions[2]	Northern Europe	Southern Europe[2] – ME & Africa	Americas[2]	Asia-Pacific	Other[1]	Group Total
Sales	7,584	15,058	13,624	5,555	1,888	(1,136)	**42,573**
Operating income (loss)	966	946	736	562	200	(20)	**3,390**
Business income (loss)	794	574	537	410	260	(22)	**2,553**
Share in net income (loss) of equity-accounted companies	1	9	(3)	15	4	(2)	**24**
Operating depreciation and amortization	345	610	582	238	99	27	**1,901**
Impairment of assets	0	224	86	7	23	2	**342**
EBITDA	1,211	1,455	1,244	666	292	2	**4,870**
Acquisitions of property, plant and equipment and intangible assets[3]	424	475	418	316	139	46	**1,818**
Goodwill, net	1,937	4,331	2,120	1,337	304	0	**10,029**
Brands, customer relationships and intellectual property	67	1,525	491	22	0	0	**2,105**
Total segment assets and liabilities	5,805	10,368	7,835	4,115	1,529	304	**29,956**

(1) "Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions;
(2) France and United States sales represent €10,684 million and €5,357 million, respectively. France and United States segment assets represent €6,615 million and €4,590 million, respectively;
(3) Capital expenditure does not include right-of-use assets.

Sales and operating income derived from European operations (Northern Europe and Southern Europe – ME & Africa) can be analyzed as follows by Industry and Distribution entities:

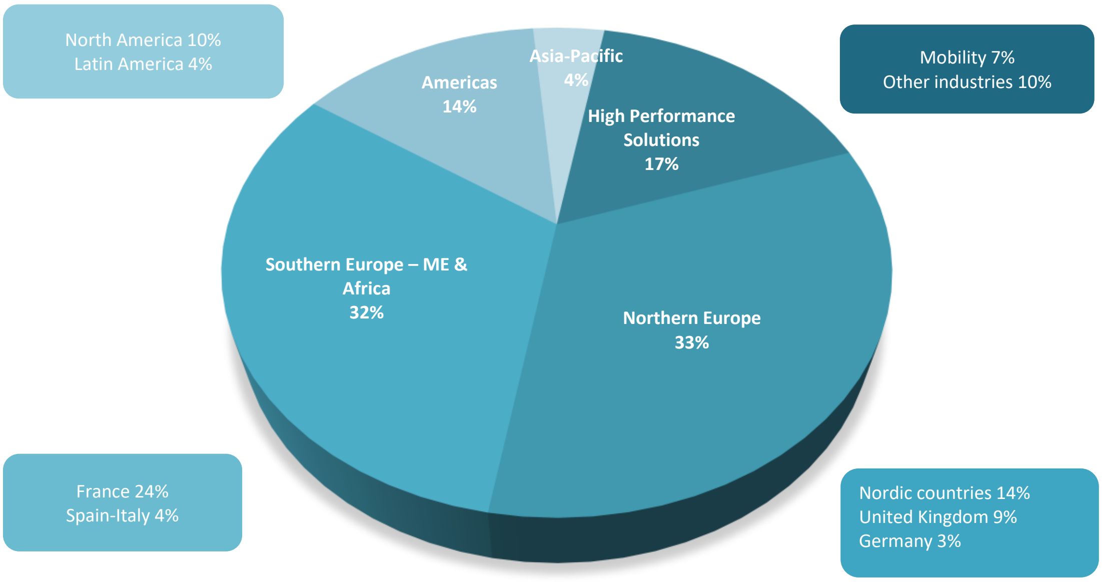
2020

(in € millions)	Sales	Operating income
Industry Europe	9,240	752
Distribution Europe	16,347	680

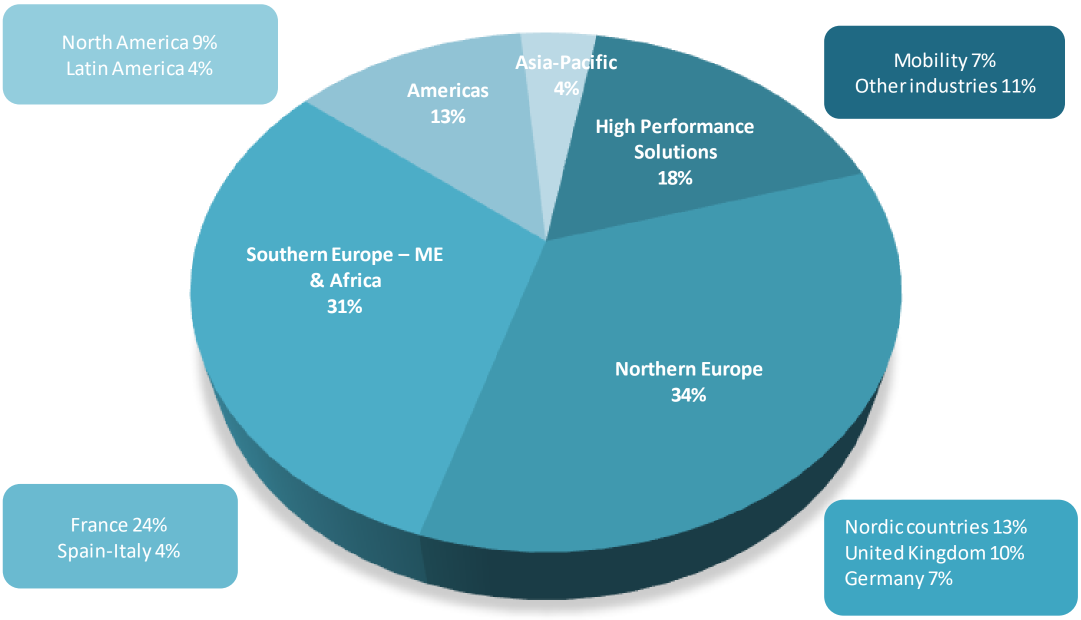
2019

(in € millions)	Sales	Operating income
Industry Europe	10,115	933
Distribution Europe	19,006	749

In 2020, the breakdown of sales by segment and for the Group's main countries is as follows:



In 2019, the breakdown of sales by segment was as follows:



4.3. Performance indicators

4.3.1. EBITDA

EBITDA represents operating income plus depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets, as well as non-operating income and expense.

EBITDA amounted to €4,415 million in 2020 (2019: €4,870 million), calculated as follows:

(in € millions)	**2020**	**2019**
Operating income	2,855	3,390
Depreciation/amortization of property, plant and equipment and intangible assets	1,227	1,219
Depreciation of right-of-use assets	675	682
Non-operating income and expense	(342)	(421)
EBITDA	**4,415**	**4,870**

4.3.2. Free cash flow

Free cash flow (FCF) represents the surplus cash generated from the entity's operations. Free cash flow represents EBITDA plus net financial income/(expense), income tax and changes in working capital, less depreciation of right-of-use assets and investments in property, plant and equipment and intangible assets excluding additional capacity investments.

4.3.3. Operating free cash flow

Operating free cash flow (OFCF) represents the surplus cash generated from the entity's operations and is calculated as operating income plus non-operating income and expense and changes in working capital, less operating depreciation and amortization, investments in property, plant and equipment and intangible assets, and right-of-use assets.

4.3.4. Return on capital employed

Return on capital employed (ROCE) corresponds to annualized operating income adjusted for changes in the scope of consolidation (based on 12 months' of operating income for acquired companies and with no operating income taken into account for divested companies), expressed as a percentage of total assets at year-end. Total assets include net property, plant and equipment, working capital, net goodwill, other intangible assets and assets and liabilities held for sale, but exclude deferred tax assets arising on non-amortizable brands and land.

4.3.5. Recurring net income

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

Recurring net income totaled €1,470 million in 2020 (2019: €1,915 million). Based on the weighted average number of shares outstanding at December 31 (536,452,195 shares in 2020 and 542,079,771 shares in 2019), recurring earnings per share amounted to €2.74 in 2020 and €3.53 in 2019.

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

(in € millions)	2020	2019
GROUP SHARE OF NET INCOME	**456**	**1,406**
Less:		
Gains (losses) on disposals of assets	(28)	(2)
Impairment of assets and other	(1,007)	(414)
Changes in provisions for non-recurring items	(42)	(128)
Impact of non-controlling interests	1	(1)
Tax on disposal gains and losses, asset impairment, non-recurring provisions and write-downs of deferred taxes on tax loss carry-forwards	62	36
GROUP SHARE OF RECURRING NET INCOME	**1,470**	**1,915**

4.4. Working capital

Working capital can be analyzed as follows:

(in € millions)	Dec. 31, 2020	Dec. 31, 2019
INVENTORIES, NET	**5,362**	**6,200**
TRADE ACCOUNTS RECEIVABLE, NET	**4,597**	**4,813**
Other operating receivables	1,206	1,471
Other non-operating receivables	63	138
OTHER RECEIVABLES, NET	**1,269**	**1,609**
CURRENT TAX RECEIVABLE	**147**	**194**
TRADE ACCOUNTS PAYABLE	**5,897**	**6,000**
Other operating payables	3,454	3,457
Other non-operating payables	457	547
OTHER PAYABLES	**3,911**	**4,004**
CURRENT TAX LIABILITIES	**175**	**156**
Operating working capital	1,814	3,027
Non-operating working capital (including current tax receivables and liabilities)	(422)	(371)
WORKING CAPITAL	**1,392**	**2,656**

4.4.1. 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, 2020 and 2019, inventories were as follows:

(in € millions)	**Dec. 31, 2020**	**Dec. 31, 2019**
Gross value		
Raw materials	1,368	1,494
Work in progress	308	344
Finished goods	4,170	4,856
GROSS INVENTORIES	**5,846**	**6,694**
Provisions for impairment		
Raw materials	(175)	(191)
Work in progress	(15)	(16)
Finished goods	(294)	(287)
TOTAL PROVISIONS FOR IMPAIRMENT	**(484)**	**(494)**
INVENTORIES, NET	**5,362**	**6,200**

The net value of inventories is €5,362 million at December 31, 2020 compared to €6,200 million at December 31, 2019. Impairment losses on inventories recorded in the 2020 income statement totaled €222 million (2019: €229 million). Reversals of impairment losses on inventories amounted to €175 million in 2020 (2019: €198 million).

The decrease in inventories at December 31, 2020 reflects the close monitoring of purchases and production during and outside lockdown periods, coupled with solid sales towards the end of the year.

4.4.2. 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.

The Group has various securitization and factoring programs for its trade receivables. Receivables transferred under some of these programs continue to be shown on the balance sheet with a corresponding liability in short-term debt if, based on an analysis of the contracts, the risks associated with the receivables are not transferred in substance to the financing institutions (further information is provided in notes 9.3.8 and 9.3.10).

▪ Trade and other accounts receivable

Trade and other accounts receivable can be analyzed as follows:

(in € millions)	Dec. 31, 2020	Dec. 31, 2019
Gross value	4,959	5,177
Provisions for impairment	(362)	(364)
TRADE ACCOUNTS RECEIVABLE, NET	**4,597**	**4,813**
Discounts obtained from and advances granted to suppliers	566	660
Prepaid payroll taxes	36	35
Other prepaid and recoverable taxes (other than income tax)	350	476
Miscellaneous operating receivables	260	301
Other non-operating receivables and provisions	64	139
Provisions for impairment of other operating receivables	(6)	(1)
Provisions for impairment of other non-operating receivables	(1)	(1)
OTHER RECEIVABLES, NET	**1,269**	**1,609**

In 2020, provisions and losses on trade accounts receivable were adversely affected by the consequences of the Covid-19 pandemic. Changes in impairment provisions for trade accounts receivable primarily reflect €121 million in additions (€99 million in 2019) and €102 million in reversals resulting from recoveries as well as write-offs (€113 million in 2019), as well as changes in exchange rates and Group structure. Bad debt write-offs remained stable at €76 million compared to €79 million at December 31, 2019.

Trade accounts receivable at December 31, 2020 and 2019 are analyzed below by maturity:

(in € millions)	Gross value		Impairment		Net value	
	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2019
TRADE ACCOUNTS RECEIVABLE NOT YET DUE	**4,121**	**4,046**	**(60)**	**(34)**	**4,061**	**4,012**
Less than 1 month	330	471	(18)	(21)	312	450
1-3 months	125	184	(26)	(20)	99	164
More than 3 months	383	476	(258)	(289)	125	187
TRADE ACCOUNTS RECEIVABLE PAST DUE	**838**	**1,131**	**(302)**	**(330)**	**536**	**801**
TRADE ACCOUNTS RECEIVABLE	**4,959**	**5,177**	**(362)**	**(364)**	**4,597**	**4,813**

▪ Trade and other accounts payable

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

(in € millions)	Dec. 31, 2020	Dec. 31, 2019
TRADE ACCOUNTS PAYABLE	**5,897**	**6,000**
Downpayments received and rebates granted to customers	1,356	1,338
Payables to suppliers of non-current assets	274	346
Grants received	99	108
Accrued personnel expenses	1,263	1,242
Accrued taxes other than on income	368	418
Other operating payables	467	459
Other non-operating payables	84	93
OTHER PAYABLES	**3,911**	**4,004**

4.5. Off-balance sheet commitments related to operating activities

4.5.1. 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 2020	Payments due by period			Total 2019
(in € millions)		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Property, plant and equipment and intangible assets	33	30	3	0	45
Raw materials and energy	1,357	406	721	230	1,491
Services	183	99	76	8	276
TOTAL	**1,573**	**535**	**800**	**238**	**1,812**

4.5.2. Guarantee commitments

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

The Group also receives guarantees, amounting to €72 million at December 31, 2020 (December 31, 2019: €93 million).

4.5.3. Commercial commitments

The Group's commercial commitments are shown below:

	Total 2020	Commitment amounts by period			Total 2019
(in € millions)		Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	
Security for borrowings	45	23	11	11	44
Other commitments given	144	72	24	48	157
TOTAL	**189**	**95**	**35**	**59**	**201**

Guarantees given to the Group in respect of receivables totaled €77 million at December 31, 2020 (December 31, 2019: €83 million). At December 31, 2020, pledged assets represented €674 million (December 31, 2019: €714 million) and chiefly concerned fixed assets pledged in the United Kingdom.

4.5.4. 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 2020 represented approximately 3.3 million metric tons of CO_2. This will enable the Group to surrender enough allowances to cover its actual emissions for 2020. As a result, no provision has been recorded in this respect in the Group's financial statements.
2021 marks the start of Phase IV of the CO_2 emissions market (EU ETS). The 2021 allowances will be added to the residual inventory of prior allocations and will enable the Group in early 2022 to cover the level of its greenhouse gas emissions in 2021.

NOTE 5 EMPLOYEES, PERSONNEL EXPENSES AND EMPLOYEE BENEFIT OBLIGATIONS

5.1. Employees of fully consolidated companies

- Average headcount

	2020	2019
Managerial-grade employees	29,027	30,555
Administrative employees	70,658	77,341
Other employees	68,775	73,045
TOTAL AVERAGE NUMBER OF EMPLOYEES	**168,460**	**180,941**

- Closing headcount

The total number of Group employees for fully consolidated companies was 167,552 employees at December 31, 2020 and 170,643 employees at December 31, 2019.

5.2. Management compensation

Direct and indirect compensation and benefits paid to the members of the Board of Directors and to the Group's senior management were as follows in 2020 and 2019:

(in € millions)	2020	2019
Directors' compensation	1.0	1.1
Direct and indirect compensation (gross)		
Fixed portion	8.1	7.7
Variable portion	5.2	3.7
Share-based payment expense (IFRS 2)	6.6	7.6
TOTAL excluding estimated cost of pensions and other employee benefit obligations (IAS 19)	**20.9**	**20.1**
Estimated cost of pensions and other employee benefit obligations (IAS 19)*	1.8	-2.0
TOTAL	**22.7**	**18.1**

* The 2019 gain takes into account the impact of settling certain plans (see note 5.3 dealing with provisions for pensions and other employee benefits).

Total gross compensation and benefits paid in 2020 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash settled compensation) amounted to €13.3 million (2019: €11.4 million), including €5.2 million in gross variable compensation (2019: €3.7 million).

Provisions for pensions and other post-employment benefit obligations (defined benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to Group management totaled €46.3 million at December 31, 2020 (December 31, 2019: €41.5 million).

5.3. Provisions for pensions and other employee benefits

5.3.1. Description of defined benefit plans

After retirement, some of 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. Pursuant to an order of July 4, 2019 issued in the wake of France’s “*Pacte*” law setting out an action plan for business growth and transformation, this plan was closed and any vested rights frozen at December 31, 2019.

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.

On January 1, 2019, the main pension plan in the Netherlands covering 80% of employees was converted into a defined contribution plan with a residual defined benefit plan for a transitional period of up to 12 years.

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, 2020.

For the Eurozone, two discount rates were calculated based on the term of the plans using a yield curve model developed by the consultants Mercer: 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 2020 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	0.70%	1.11%	0.70%	1.11%	1.20%	2.30%
Salary increases	3.10%		1.20% to 2.30%		2.00%*	3.00%
Inflation rate	1.50%		0.90% to 1.60%		2.15%	2.20%

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

The rates used in 2019 for the Group's main plans were the following:

	France		**Eurozone**		**United Kingdom**	**United States**
(in %)	**Short-term plans**	**Long-term plans**	**Short-term plans**	**Long-term plans**		
Discount rate	1.01%	1.39%	1.01%	1.39%	2.00%	3.20%
Salary increases	2.50%		1.80% to 2.40%		2.00%*	3.00%
Inflation rate	1.50%		1.00% to 1.70%		1.90%	2.20%

* 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 an increase in the obligation, and therefore the provision, in an amount of €1,070 million.

The actual return on plan assets for almost all plans amounts to €1,290 million. It is €1,086 million higher than the expected return, leading to a decrease in the provision of the same amount.

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 €210 million for the United States plans, €190 million for the Eurozone plans and €480 million for the United Kingdom plans. A 0.5-point increase in the inflation rate would lead to an overall increase in defined benefit obligations of around €610 million.

The same assumptions concerning mortality, employee turnover and interest rates are used to determine the Group's defined benefit obligations for other long-term employee benefits. In the United States, retirees' healthcare costs are projected to rise between 4.50% and 5.59% per year, depending on the age of the beneficiary. A 1-point increase in this rate would lead to an increase of around €30 million in the related projected benefit obligation.

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, 2020**	**Dec. 31, 2019**
Pension obligations	1,822	1,824
Length-of-service awards	400	396
Post-employment healthcare benefits	278	287
TOTAL PROVISIONS FOR PENSIONS AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**2,500**	**2,507**
Healthcare benefits	24	26
Long-term disability benefits	11	12
Other long-term benefits	94	103
PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS	**2,629**	**2,648**

Provisions for all other long-term benefits total €129 million at December 31, 2020 (€141 million at December 31, 2019).

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

(in € millions)	**Dec. 31, 2020**	**Dec. 31, 2019**
Provisions for pensions and other post-employment benefit obligations – liabilities	2,500	2,507
Pension plan surpluses – assets	(334)	(288)
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**2,166**	**2,219**

5.3.3.2. Analysis of obligations

At December 31, 2020, 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)*	**14**	**17**	**20**	**13**	**17**	**17**
Defined benefit obligations - funded plans	616	1,459	5,518	2,987	965	11,545
Defined benefit obligations - unfunded plans	330	147		243	258	978
Fair value of plan assets	(228)	(482)	(5,810)	(2,885)	(965)	(10,370)
DEFICIT (SURPLUS)	**718**	**1,124**	**(292)**	**345**	**258**	**2,153**
Asset ceiling		6	2		5	13
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**718**	**1,130**	**(290)**	**345**	**263**	**2,166**

At December 31, 2019, pension obligations and provisions for other post-employment benefit obligations broke 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)*	**14**	**16**	**20**	**12**	**17**	**17**
Defined benefit obligations - funded plans	659	1,443	5,244	2,955	1,050	11,351
Defined benefit obligations - unfunded plans	314	144		250	176	884
Fair value of plan assets	(231)	(505)	(5,452)	(2,876)	(960)	(10,024)
DEFICIT (SURPLUS)	**742**	**1,082**	**(208)**	**329**	**266**	**2,211**
Asset ceiling			2		6	8
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**742**	**1,082**	**(206)**	**329**	**272**	**2,219**

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, 2019	**10,860**	**(8,677)**	**10**	**2,193**
Changes during the year				
Service cost	184			184
Interest cost/return on plan assets as per calculations	317	(266)		51
Employee contributions and plan administration costs		(2)		(2)
Past service cost				0
Plan curtailments/settlements	(51)	2		(49)
Pension contributions		(124)		(124)
Benefit payments	(535)	445		(90)
Actuarial gains and losses and asset ceiling	1,160	(1,078)	(2)	80
Translation adjustments	334	(335)		(1)
Changes in Group structure and reclassifications	(23)	12		(11)
Liabilities held for sale	(11)	(1)		(12)
TOTAL CHANGES	**1,375**	**(1,347)**	**(2)**	**26**
AT DECEMBER 31, 2019	**12,235**	**(10,024)**	**8**	**2,219**
Changes during the year				
Service cost	202			202
Interest cost/return on plan assets as per calculations	232	(204)		28
Employee contributions and plan administration costs		1		1
Past service cost	1			1
Plan curtailments/settlements	(5)	2		(3)
Pension contributions		(119)		(119)
Benefit payments	(550)	459		(91)
Actuarial gains and losses and asset ceiling	1,070	(1,086)	7	(9)
Translation adjustments	(613)	597	(2)	(18)
Changes in Group structure and reclassifications	(14)	2		(12)
Liabilities held for sale	(35)	2		(33)
TOTAL CHANGES	**288**	**(346)**	**5**	**(53)**
AT DECEMBER 31, 2020	**12,523**	**(10,370)**	**13**	**2,166**

5.3.3.4. Actuarial gains and losses

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

(in € millions)	**2020**	**2019**
Pension obligations	1,070	1,160
Fair value of plan assets	(1,086)	(1,078)
Asset ceiling	7	(2)
TOTAL CHANGES	**(9)**	**80**

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 2020 totaled €119 million (2019: €124 million).

A 0.5-point increase or decrease in the actual return on plan assets would have an impact of approximately €51 million on equity.

Plan assets mainly comprise:

	Dec. 31, 2020	Dec. 31, 2019
Equities	22%	22%
Bonds	56%	61%
Other	22%	17%

Contributions to pension plans for 2021 are estimated at around €65 million.

5.3.4. Defined contribution plans

Contributions to defined contribution plans are expensed as incurred.

Contributions to defined contribution plans for 2020 represented an estimated €628 million (2019: €653 million), including €412 million for government-sponsored basic pension schemes (2019: €428 million), €123 million for government-sponsored supplementary pension schemes, mainly in France (2019: €127 million), and €93 million for corporate-sponsored supplementary pension plans (2019: €98 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 2020, Saint-Gobain implemented a new PEG (*Plan Epargne Groupe*). The terms of the 2020 PEG are identical to the 2019 PEG and are described below.

In 2020, 6,099,996 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €23.03 (2019: 5,999,997 shares at an average price of €25.69), representing a share capital increase of €139 million (€153 million in 2019), net of transaction fees.

An amount of €3.7 million was expensed in respect of the plans in 2020, compared to a zero expense in 2019 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 2020 and 2019:

	2020	**2019**
Plan characteristics		
Date of Shareholders' Meeting	June 6, 2019 (17th Resolution)	June 7, 2018 (17th Resolution)
Date of the Chief Executive Officer's decision fixing the subscription price	June 15	March 18
Plan duration (in years)	5 or 10	5 or 10
Reference price (in €)	28.79	32.11
Subscription price (in €)	23.03	25.69
Discount (in %)	20.00%	20.00%
Total discount on the date of the Chief Executive Officer’s decision (in %) **(a)**	24.57%	22.02%
Employee investments (in € millions)	140.5	154.1
Total number of shares subscribed	6,099,996	5,999,997
Valuation assumptions (5-year maturity)		
Interest rate applicable to employees*	4.80%	4.85%
Risk-free interest rate	-0.45%	-0.17%
Repo rate	0.29%	0.48%
Lock-up discount (in %) **(b)**	21.77%	22.11%
Total cost to the Group (in %) **(a-b)**	2.80%	-0.09%

* A 0.5-point decline in borrowing costs for the employee would increase the expense as calculated in accordance with IFRS 2 by €2.2 million in 2020.

As the introduction of the new PEG was postponed compared to previous years due to the pandemic, the capital increase took place in August 2020.

5.4.2. Stock option plans

Until 2018, Compagnie de Saint-Gobain operated stock option plans for certain employees.

Under these plans, the Board of Directors granted 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, 2020, the 2012 plan offers subscription options, while the 2013, 2015 and 2016 plans offer purchase options. For plans launched in 2017 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.

Since 2009, a performance condition has applied for all grantees in plans.

As in 2019, no stock options were awarded in 2020.

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

	€4 par value shares	Average exercise price (in €)
OPTIONS OUTSTANDING AT DECEMBER 31, 2018	**1,848,007**	**38.78**
Options granted	0	0
Options exercised	(310,204)	36.33
Options forfeited	(480,281)	37.40
OPTIONS OUTSTANDING AT DECEMBER 31, 2019	**1,057,522**	**40.12**
Options granted	0	0
Options exercised	0	0
Options forfeited*	(212,998)	40.43
OPTIONS OUTSTANDING AT DECEMBER 31, 2020	**844,524**	**40.04**

* Including 206,498 options granted under the 2016 stock option plan that lapsed because the performance conditions were not met, and 6,500 options relating to rights under said plan that were withdrawn.

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.

Under IFRS 2, the expense attributable to the amortization of stock options granted under previous plans totaled €0.7 million in 2020 (€1 million in 2019).

The table below summarizes information about stock options outstanding at December 31, 2020, 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**
2011	31.22		11			0	Subscription
2012	27.71	19,633	23			19,633	Subscription
2013	38.80	120,347	35			120,347	Purchase
2014	34.13		47			0	Purchase
2015	39.47	62,542	59			62,542	Purchase
2016	40.43	67,002	71			67,002	Purchase
2017			83	49.38	284,500	284,500	Subscription or purchase*
2018			95	32.24	290,500	290,500	Subscription or purchase*
TOTAL		**269,524**			**575,000**	**844,524**	

* 2017 and 2018 plans: see above.

At December 31, 2020, 269,524 stock options were exercisable (at an average exercise price of €38.55) and 575,000 options (with an average exercise price of €40.72) had not yet vested.

5.4.3. Performance shares and performance unit grants

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.

In the exceptional circumstances caused by the Covid-19 pandemic and in light of the structure of the long-term compensation plans (performance condition appreciated over a three-year period and importance of the operating income through the ROCE criterion), the decrease in the Group's operating income in 2020 due to the magnitude of the Covid-19 pandemic would have had a major impact on the long-term compensation plans implemented in 2017, 2018 and 2019. Furthermore, the beneficiaries concerned (almost 2,200 Group employees) have seen a sharp decrease in other components of their compensation tied to earnings figures (in particular the operating income) or due to solidarity measures.

As permitted by the AFEP-MEDEF Code in exceptional circumstances, and pursuant to the plans which grant the Board of Directors powers to adjust targets in the event of such exceptional circumstances justifying so, the Board recognized the need to offset – at least partially – the significant impact of this unprecedented global event of an exceptional scale in order to ensure:

- the motivation and retention of the beneficiaries of the affected plans; and
- that the interests of the beneficiaries and those of shareholders remain aligned (since the ROCE criterion cannot be met and has no further effect),

which are the key goals of the plans.
The Board of Directors has also taken into account the fact that on average over the past five years, Saint-Gobain has been in the lower quartile of CAC 40 companies in terms of its effective burn rate, i.e., the number of

performance shares that vest after applying performance conditions (source: Willis Towers Watson study). The Board chose only to partially offset the impacts of the pandemic for its performance share plans – which concern over 2,000 employees – and not for its stock option plans for 2017, 2018 or 2019, which are nonetheless also severely impacted.

Acting on a proposal of the Nomination and Remuneration Committee, and in order to maintain a contingency with respect to the achievement of the ROCE criterion over full-year 2020, the Board of Directors of Compagnie de Saint-Gobain, at its meeting on September 24, 2020, decided to partially offset the impact of the Covid-19 pandemic on operating income for 2020 by excluding the impact recognized in the first half of the year 2020 only. The Board therefore maintained the challenging aspect and seriousness of the ROCE criterion by allowing the uncertainties of the second half of the year 2020 to remain.
Subject to the above, it should be noted that no changes were made to the affected plans (2017, 2018, and 2019 plans).

5.4.3.1. Performance share plans

At December 31, 2020, there were four outstanding performance share plans, approved by the Board of Directors in 2017, 2018 and 2019 and on November 26, 2020. A total of 1,420 shares remain to be delivered under the 2016 plan in connection with ongoing succession processes, which were launched before the plan was settled on November 24, 2020.

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 2017 plan, and the fourth day after the end of the vesting period for the 2018, 2019 and 2020 plans.

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

	Number of rights
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2018	**4,176,989**
Performance share rights granted in November 2019	1,251,770
Shares issued/delivered	(341,150)
Lapsed and canceled rights	(159,740)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2019	**4,927,869**
Performance share rights granted in November 2020	1,268,295
Shares issued/delivered	(733,024)
Lapsed and canceled rights*	(497,306)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2020	**4,965,834**

* Rights granted under the 2016 plan including 423,316 rights that lapsed because the performance condition had only been partly met, and 73,990 rights that were withdrawn.

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 2020 for these plans amounted to €27.6 million (2019: €27 million).

The following table shows the expected dates when shares under the five performance share plans outstanding at December 31, 2020 will be delivered (except in the case of early release following the grantee's death or disability, along with the service and performance conditions remaining to be fulfilled):

Grant date	Number of rights at December 31, 2020*	Delivery date	Type of shares
November 24, 2016	1,420	2021	existing
November 23, 2017	1,225,530	November 23, 2021	existing
November 22, 2018	1,218,819	November 25, 2022	existing
November 21, 2019	1,251,770	November 24, 2023	existing
November 26, 2020	1,268,295	November 29, 2024	existing
TOTAL	**4,965,834**		

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

5.4.3.2. 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 Saint-Gobain's share price.

No long-term compensation plan in the form of performance units was set up in 2020.
As the last plan expired in 2019, no expenses in respect of such plans were recognized in 2020 (€5 million in 2019).

NOTE 6 INTANGIBLE ASSETS, PROPERTY, PLANT AND EQUIPMENT, AND RIGHT-OF-USE ASSETS

6.1. Goodwill

When an entity is acquired by the Group, its identifiable assets and assumed liabilities are recognized at their fair value. IFRS allows a 12-month period after the acquisition date ("measurement period") to identify the assets and liabilities of the acquired entity that were not recognized in the initial accounting for the combination, and to retroactively modify the amounts initially allocated.

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 non-controlling interests in the acquiree – 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 2020 and 2019 are detailed below:

(in € millions)	**Dec. 31, 2020**	**Dec. 31, 2019**
At January 1		
Gross value	12,495	12,396
Accumulated impairment	(2,466)	(2,406)
NET VALUE	**10,029**	**9,990**
Changes during the year		
Impairment	(201)	(104)
Translation adjustments and restatement for hyperinflation	(484)	138
Changes in Group structure	719	5
Assets held for sale	(35)	0
TOTAL CHANGES	**(1)**	**39**
At December 31		
Gross value	12,229	12,495
Accumulated impairment	(2,201)	(2,466)
NET VALUE	**10,028**	**10,029**

In 2020, changes in Group structure mainly reflect first-time consolidations following the acquisition of Continental Building Products (see note 3.2) for €637 million and of MS Techniques and Transluminal. They also result from acquisitions carried out at the end of 2019 (consolidated in 2020), in particular High Tech Metal Seals (HTMS) and Sonex. Impairment losses amount to €201 million, relating mainly to the United Kingdom Distribution business and assets held for sale (see note 6.5 on impairment reviews). Currency translation adjustments primarily reflect the impacts of fluctuations in the US dollar, pound sterling, Brazilian real, Norwegian krone, Thai baht and South African rand.

In 2019, changes in Group structure related mainly to newly consolidated companies and deconsolidated divested companies, and concern all segments. Impairment essentially concerned assets sold in the year. The 2019 translation adjustments and restatements for hyperinflation primarily reflected the impacts of fluctuations in the pound sterling, US dollar, Thai baht, Argentine peso, Norwegian krone and Swedish krona.

6.2. Other intangible assets

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

Certain retail or manufacturing brands acquired 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.

Customer relationships are amortized over the attrition period used to valuate these assets.

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 2020 and 2019 are analyzed below:

(in € millions)	**Brands**	**Intellectual property and customer relationships**	**Software**	**Other**	**Total intangible assets**
At January 1, 2019					
Gross value	2,807	0	1,170	680	4,657
Accumulated amortization and impairment	(831)	0	(896)	(404)	(2,131)
NET VALUE	**1,976**	**0**	**274**	**276**	**2,526**
Changes during the year					
Acquisitions			47	115	162
Disposals			(2)	(12)	(14)
Translation adjustments and restatement for hyperinflation	47	1	3	3	54
Amortization and impairment	(13)	(9)	(104)	(30)	(156)
Transfers			172	(172)	0
Changes in Group structure and other	23	80	4	32	139
Assets held for sale	0	0	(1)	(1)	(2)
TOTAL CHANGES	**57**	**72**	**119**	**(65)**	**183**
At December 31, 2019					
Gross value	2,876	86	1,365	636	4,963
Accumulated amortization and impairment	(843)	(14)	(972)	(425)	(2,254)
NET VALUE	**2,033**	**72**	**393**	**211**	**2,709**
Changes during the year					
Acquisitions			34	80	114
Disposals			(1)	(2)	(3)
Translation adjustments and restatement for hyperinflation	(51)	(46)	(11)	(8)	(116)
Amortization and impairment[(1)]	(458)	(42)	(125)	(21)	(646)
Transfers			81	(81)	0
Changes in Group structure and other	3	458	5	(4)	462
Assets held for sale	(7)	0	(8)	0	(15)
TOTAL CHANGES	**(513)**	**370**	**(25)**	**(36)**	**(204)**
At December 31, 2020					
Gross value	2,062	496	1,323	536	4,417
Accumulated amortization and impairment	(542)	(54)	(955)	(361)	(1,912)
NET VALUE	**1,520**	**442**	**368**	**175**	**2,505**

(1) In 2020, “Amortization and impairment” includes amortization charged against intangible assets within the scope of purchase price accounting, representing €46 million in the year.

The breakdown of brands, intellectual property and customer relationships by segment is provided in the segment information tables in note 4 “Information concerning the Group’s operating activities”.

In 2020, changes in Group structure relate mainly to customer relationships acquired as a result of the Continental Building Products acquisition for €422 million. Impairment losses were recognized for a total of €465 million (see note 6.5 “Impairment review”).

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. They are included within operating items on the line corresponding to the nature of the asset.

Changes in property, plant and equipment in 2020 and 2019 are analyzed below:

(in € millions)	Land and quarries	Buildings	Machinery and equipment	Assets under construction	Total property, plant and equipment
At January 1, 2019					
Gross value	2,458	8,294	19,651	1,421	31,824
Accumulated depreciation and impairment	(729)	(5,108)	(14,688)	(46)	(20,571)
NET VALUE	**1,729**	**3,186**	**4,963**	**1,375**	**11,253**
Changes during the year					
Acquisitions	16	70	303	1,267	1,656
Disposals	(29)	(26)	(31)	(5)	(91)
Translation adjustments and restatement for hyperinflation	22	42	58	16	138
Depreciation and impairment	(80)	(269)	(907)	(9)	(1,265)
Transfers		239	914	(1,153)	0
Changes in Group structure and other	54	(2)	(108)	(5)	(61)
Assets held for sale	54	(28)	30	21	77
TOTAL CHANGES	**37**	**26**	**259**	**132**	**454**
At December 31, 2019					
Gross value	2,485	8,444	20,031	1,552	32,512
Accumulated depreciation and impairment	(719)	(5,232)	(14,809)	(45)	(20,805)
NET VALUE	**1,766**	**3,212**	**5,222**	**1,507**	**11,707**
Changes during the year					
Acquisitions	13	47	216	846	1,122
Disposals	(61)	(28)	(30)	(5)	(124)
Translation adjustments and restatement for hyperinflation	(70)	(201)	(330)	(91)	(692)
Depreciation and impairment	(42)	(261)	(879)	(5)	(1,187)
Transfers		266	723	(989)	0
Changes in Group structure and other	46	83	118	31	278
Assets held for sale	(11)	(15)	(6)	0	(32)
TOTAL CHANGES	**(125)**	**(109)**	**(188)**	**(213)**	**(635)**
At December 31, 2020					
Gross value	2,293	7,925	19,169	1,312	30,699
Accumulated depreciation and impairment	(652)	(4,822)	(14,135)	(18)	(19,627)
NET VALUE	**1,641**	**3,103**	**5,034**	**1,294**	**11,072**

In 2020, changes in Group structure relate mainly to the first-time consolidation of Continental Building Products. Translation adjustments and restatements for hyperinflation primarily reflect the impacts of fluctuations in the Brazilian real, US dollar, Mexican peso, Indian rupee, pound sterling, Polish zloty, Russian ruble and Argentine peso.

In 2019, changes in Group structure related to newly consolidated companies and deconsolidated divested companies, and concern all segments. Impairment was essentially recognized on assets sold in the year. The 2019 translation adjustments and restatements for hyperinflation primarily reflected the impacts of fluctuations in the pound sterling, US dollar, Argentine peso, Mexican peso and Russian ruble.

6.4. Right-of-use assets linked to leases

The Saint-Gobain Group has chosen to apply IFRS 16 using the full retrospective method at January 1, 2019 (i.e., with effect from January 1, 2018) and has restated all of its leases that were identified ahead of first-time application of the standard. Entities' historical lease contracts were restated with effect from the date on which the entities were first consolidated by the Group.

The following recognition exemptions proposed by IFRS 16 have been used by the Group:

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

- Property leases

The lease term corresponds to the non-cancelable period of the lease, plus any renewal (or termination) options that the Group is reasonably certain to exercise (or not to exercise). The Group determined whether or not lease renewal (or termination) options were reasonably certain to be exercised based on the location of, and any improvements inseparable from, the leased asset. The lease term at inception for “3/6/9-year” commercial leases in France is generally nine years. The Group did not identify any material leases with similar characteristics in other countries.

At December 31, 2019 and with retroactive effect from January 1, 2018, Saint-Gobain took account of the IFRIC’s November 2019 agenda decision in reviewing the terms of its automatically renewable leases, considering the importance of the underlying assets to its operations.

The discount rate used to calculate the lease liability is the incremental borrowing rate. This rate is applied at the commencement of the lease or at the date of the decision to renew the lease. The Group calculated the rate applicable to each lease contract on the basis of its duration, which reflects the payment profile of the lease liability.

The useful life of non-movable leasehold improvements cannot exceed the useful life of the right-of-use assets to which they relate.

- Leases other than property leases

The main leases identified correspond to leases of vehicles, machinery and production equipment.

The lease capitalization period (lease term) represents the non-cancelable period of the lease. Where leases provide for a renewal (or termination) option, the Group determined whether or not that option was reasonably certain to be exercised based on the ease with which the leased asset could be replaced and its criticality.

The discount rate used to determine the lease liability is calculated using the same approach as for property leases.

The implicit interest rate of the lease is used as the discount rate only in the case of non-property lease contracts and only if the legal documentation of the contract stipulates it explicitly.

Although leases can generally incorporate indexation clauses, lease liabilities are measured based solely on indexes known at the end of the reporting period.

In 2020, right-of-use assets under leases relate mainly to land and buildings for €2,367 million and to machinery and equipment for €535 million.

Lease payments made under low-value and/or short-term leases, along with variable lease payments or lease payments falling outside the scope of IFRS 16, totaled €108 million in 2020 (€115 million in 2019).

The table below presents right-of-use assets for lease contracts by category:

(in € millions)	**Land and buildings**	**Machinery and equipment**	**Total**
At January 1, 2019			
Gross value	5,389	1,153	6,542
Accumulated depreciation and impairment	(3,149)	(590)	(3,739)
NET VALUE	**2,240**	**563**	**2,803**
Changes during the year			
New leases	718	242	960
Lease modifications	9	1	10
Disposals	(56)	(14)	(70)
Translation adjustments and restatement for hyperinflation	21	8	29
Depreciation and impairment	(491)	(227)	(718)
Assets held for sale	(3)	(1)	(4)
Changes in Group structure and other	(41)	(15)	(56)
TOTAL CHANGES	**157**	**(6)**	**151**
At December 31, 2019			
Gross value	5,786	1,118	6,904
Accumulated depreciation and impairment	(3,389)	(561)	(3,950)
NET VALUE	**2,397**	**557**	**2,954**
Changes during the year			
New leases	589	244	833
Lease modifications	49	0	49
Disposals	(63)	(14)	(77)
Translation adjustments and restatement for hyperinflation	(67)	(19)	(86)
Depreciation and impairment	(485)	(220)	(705)
Changes in Group structure and other	0	0	0
Assets held for sale	(53)	(13)	(66)
TOTAL CHANGES	**(30)**	**(22)**	**(52)**
At December 31, 2020			
Gross value	5,549	1,070	6,619
Accumulated depreciation and impairment	(3,182)	(535)	(3,717)
NET VALUE	**2,367**	**535**	**2,902**

6.5. Impairment review

6.5.1. Impairment of property, plant and equipment, intangible assets, goodwill and right-of-use assets

Property, plant and equipment, right-of-use assets, goodwill and other intangible assets are tested for impairment on a regular basis and at least annually for the December 31 closing. 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, amortizable intangible assets and right-of-use 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 unamortized intangible assets (including brands with indefinite useful lives), an impairment test is performed at least annually based on financial forecasts. Goodwill is reviewed systematically and exhaustively at the level of each cash-generating unit (CGU).

In 2020, the Group had 27 CGUs compared to 28 in 2019, following Lapeyre's classification within assets and liabilities held for sale (see note 3.3). Note that SGD The Netherlands does not represent a separate CGU.

The assets and liabilities held for sale are carried at the lower of their fair value less costs to sell and their net 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 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 beyond the three-year forecast period 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 (between 1.5% and 2% barring exceptional cases). The average cost of capital remained unchanged in 2020, at 6.85%. 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 2020 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.

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.

The first half of 2020 was markedly affected by Covid-19, prompting a sharp downturn in trading between March and the end of May. However, the extent of the downturn was different for each CGU. In Europe, which represents more than two-thirds of the Group's sales, trading bottomed out in April before rallying gradually but firmly as from mid-May.

In these unprecedented circumstances, the Group analyzed impairment at June 30 based on qualitative inputs (i.e., the feasibility and long-term viability of each CGU's business model – potentially involving a downward revision of normative business and profitability inputs – as well as the potential magnitude and duration of the crisis triggered by Covid-19) and quantitative inputs (analysis of existing headroom at December 31, 2019 and the known sensitivity of each CGU to a change in the discount rate, perpetuity growth rate and profitability rate). Based on this analysis, it distinguished between:

- CGUs impacted in the short term by the Covid-19 crisis, but essentially in line with wider economic trends, and whose medium- to long-term outlook appears to be unaffected;
- CGUs which were already considered as "sensitive" at December 31, 2019. These CGUs were tested for impairment at end-June.

The sustained pace of business in the second half of 2020 and the recovery for most of the Group's CGUs validated the Group's decision as of June 30 not to consider the Covid-19 pandemic in itself as evidence of impairment.
In this respect, the projections used for the impairment tests for 2021 consider a return to close to normal trading levels.
At December 31, 2020, a 0.5-point increase in the discount rate for all CGUs would have led to approximately €22 million in additional impairment of non-current assets, concerning mainly the United Kingdom Distribution business,
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 €6 million, also mainly affecting the Distribution business in the United Kingdom.
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 €149 million, primarily relating to entities in the Pipe business and to a lesser extent, Flat Glass entities in Southern Europe. A 0.5-point decrease in the rate for Distribution activities would have generated additional impairment of around €167 million for the United Kingdom Distribution business.

Owing to the Covid-19 pandemic, the Group decided to perform an additional one-off sensitivity analysis, incorporating broader criteria, i.e.:

- 0.75-point increase or decrease in the discount rate applied to cash flows;
- a 1.5-point decrease in the operating income rate for Industrial activities and a 1-point decrease for Distribution activities.

The following table presents the results of the sensitivity analysis for the various CGUs at December 31, 2020:

	Impact of changes in the						
	discount rate		growth rate	operating income rate			
(in € millions)	0.5-point increase	0.75-point increase	0.5-point decrease	1-point decrease Industry CGUs	1.5-point decrease Industry CGUs	0.5-point decrease Distribution CGUs	1.0-point decrease Distribution CGUs
High Performance Solutions							
Northern Europe	(13)	(38)	(3)			(163)	(369)
Southern Europe – ME & Africa	(9)	(22)	(3)	(123)	(254)		
Americas		(5)		(13)	(29)	(4)	(23)
Asia-Pacific		(2)		(13)	(22)		
TOTAL	**(22)**	**(67)**	**(6)**	**(149)**	**(305)**	**(167)**	**(392)**

The breakdown of asset impairment by region for 2020 and 2019 is provided in the segment information tables in note 4 "Information concerning the Group's operating activities".
Goodwill and brands allocated to sensitive CGUs amounted to €72 million and mainly concerned Southern Europe and the Americas.

6.5.3. Impairment recognized in the year

In 2020 the Group reviewed its impairment tests in light of the current situation and the outlook for certain businesses and countries based on the CGU analyses described above.

As a result of the impairment test carried out on the Distribution United Kingdom CGU at June 30, 2020, the Group recognized an impairment loss of €581 million against the CGU's intangible assets in its financial statements, in addition to the €750 million write-down already taken in 2018. The impairment reflects several factors which adversely affect the CGU's short- to medium-term outlook. These include increased competition exacerbated by stronger pressure on margins and profitability, in turn amplified by the impact of the Covid-19 crisis on the Group's first-half 2020 results. Despite an upturn in trading volumes in the second half of the year, the outlook for this business remains cautious owing to Brexit-related uncertainties. The assumptions used at June 30 remained relevant at December 31, 2020.

The Group confirms the medium-term recovery and profitability outlook for its three Pipe CGUs. The CGUs remain sensitive to a change in the discount rate, perpetuity growth rate and profitability rate to the same extent as at December 31, 2019.

The value of assets held for sale was adjusted in the context of their announced sale (see note 3.3), which led to the recognition of an impairment loss for an amount of €235 million, including €34 million relating to goodwill.

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 2020 and 2019 can be analyzed as follows:

(in € millions)	**2020**	**2019**
At January 1		
Group share in:		
Associates	182	185
Joint ventures	236	207
TOTAL	**418**	**392**
Goodwill	19	20
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	**437**	**412**
Changes during the year		
Group share in net income of associates	11	11
Group share in net income of joint ventures	4	13
Dividends paid	(14)	(16)
Translation adjustments and restatement for hyperinflation	(33)	(2)
Acquisitions and capital increases	55	32
Changes in Group structure, transfers and other variations	2	(13)
TOTAL CHANGES	**25**	**25**
At December 31		
Group share in:		
Associates	185	182
Joint ventures	246	236
TOTAL	**431**	**418**
Goodwill	31	19
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	**462**	**437**

Investments in non-core business equity-accounted companies represented €57 million at December 31, 2020 (€44 million at end-2019).

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

	2020			2019		
(in € millions)	**Associates**	**Joint ventures**	**Total**	**Associates**	**Joint ventures**	**Total**
Sales	813	633	1,446	802	647	1,449
Net income	52	8	60	24	29	53
Non-current assets	469	430	899	535	420	955
Current assets	526	262	788	498	292	790
Non-current liabilities	811	596	1,407	763	610	1,373
Current liabilities	184	96	280	270	102	372
Shareholders' equity	607	520	1,127	631	499	1,130

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, 2020**	**Dec. 31, 2019**
Financial receivables	5	4
Inventories	2	0
Short-term receivables	11	10
Cash and cash equivalents	0	0
Provisions for asset impairment	0	0
Short-term debt	6	3
Cash advances	0	0

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

(in € millions)	**2020**	**2019**
Purchases	54	11
Sales	36	36

The increase in purchases from equity-accounted companies results from the inclusion of Continental Building Products entities in the Group's reporting scope.

7.3. Other non-current assets

Changes in other non-current assets in 2020 and 2019 are analyzed below:

(in € millions)	Equity investments and other	Loans, deposits and surety	Pension plan surpluses	Total
At January 1, 2019				
Gross value	1,742	625	193	2,560
Provisions for impairment	(28)	(5)		(33)
NET VALUE	**1,714**	**620**	**193**	**2,527**
Changes during the year				
Increases (decreases)	72	(58)	83	97
Provisions for impairment	1	(2)		(1)
Translation adjustments and restatement for hyperinflation	0	2	12	14
Transfers and other movements	0	2		2
Changes in Group structure	0	1		1
Change in fair value	871	0		871
TOTAL CHANGES	**944**	**(55)**	**95**	**984**
At December 31, 2019				
Gross value	2,685	574	288	3,547
Provisions for impairment	(27)	(9)		(36)
NET VALUE	**2,658**	**565**	**288**	**3,511**
Changes during the year				
Increases (decreases)	(2,376)	(97)	61	(2,412)
Provisions for impairment	0	(1)		(1)
Translation adjustments and restatement for hyperinflation	(6)	(22)	(15)	(43)
Transfers and other movements	0	2		2
Changes in Group structure	(49)	0		(49)
Change in fair value	(157)	0		(157)
Assets held for sale	0	(6)		(6)
TOTAL CHANGES	**(2,588)**	**(124)**	**46**	**(2,666)**
At December 31, 2020				
Gross value	92	446	334	872
Provisions for impairment	(22)	(5)		(27)
NET VALUE	**70**	**441**	**334**	**845**

Changes in the fair value of equity investments in both 2020 and 2019 relate mainly to Sika shares.
The decrease in other non-current assets in 2020 chiefly results from the sale of Sika shares (see note 3.2, “Changes in Group structure”).

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 provisions for other liabilities and investment-related liabilities
At January 1, 2019									
Current portion	127	28	95	19	102	73	444	11	455
Non-current portion	437	125	28	84	92	106	872	162	1,034
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**564**	**153**	**123**	**103**	**194**	**179**	**1,316**	**173**	**1,489**
Changes during the year									
Additions	128	20	85	31	63	70	397		397
Reversals	(8)	(6)	(18)	(10)	(21)	(18)	(81)		(81)
Utilizations	(122)	(9)	(112)	(21)	(37)	(44)	(345)		(345)
Changes in Group structure	0	(7)	18	(1)	(3)	(10)	(3)		(3)
Translation adjustments and reclassifications	11	7	4	(1)	6	(16)	11	3	14
Liabilities held for sale	0	0	(2)	0	(1)	1	(2)		(2)
TOTAL CHANGES	**9**	**5**	**(25)**	**(2)**	**7**	**(17)**	**(23)**	**3**	**(20)**
At December 31, 2019									
Current portion	56	32	54	18	106	65	331	12	343
Non-current portion	517	126	44	83	95	97	962	164	1,126
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**573**	**158**	**98**	**101**	**201**	**162**	**1,293**	**176**	**1,469**
Changes during the year									
Additions	45	20	114	28	84	61	352		352
Reversals	(1)	(6)	(9)	(10)	(13)	(22)	(61)		(61)
Utilizations	(48)	(10)	(72)	(19)	(45)	(44)	(238)		(238)
Changes in Group structure	(500)		(1)			419	(82)	0	(82)
Translation adjustments and reclassifications	(3)	(2)		(5)	(4)	(52)	(66)	(37)	(103)
Liabilities held for sale			(1)	(2)	(8)	0	(11)		(11)
TOTAL CHANGES	**(507)**	**2**	**31**	**(8)**	**14**	**362**	**(106)**	**(37)**	**(143)**
At December 31, 2020									
Current portion	32	32	74	22	108	82	350	11	361
Non-current portion	34	128	55	71	107	442	837	128	965
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**66**	**160**	**129**	**93**	**215**	**524**	**1,187**	**139**	**1,326**

8.1.1. Provisions for claims and litigation

The decrease in provisions for claims and litigation at December 31, 2020 primarily reflects the deconsolidation of DBMP LLC, which carried on its books the legacy asbestos-related claims against the former CertainTeed

Corporation. The offsetting entry for this decrease is a rise in provisions for other risks, which mainly results from the financing commitments undertaken by CertainTeed LLC in favor of DBMP LLC (see notes 8.1.6 and 8.2.2.2 discussing asbestos-related liabilities in the United States).

Provisions for claims and litigation essentially covered PFOA-related proceedings and asbestos lawsuits filed against the Group in the United States. 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 €129 million at December 31, 2020 (December 31, 2019: €98 million), including net additions of €105 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 contingencies in the context of a specific claim.

8.1.6. Provisions for other contingencies

At December 31, 2020, provisions for other contingencies amount to €524 million (December 31, 2019: €162 million) and mainly concern the United States (€411 million), France (€38 million) and Brazil (€32 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 2020, changes in investment-related liabilities primarily concerned minority shareholder puts.

8.2 Contingent liabilities and litigation

8.2.1 Antitrust law and related proceedings

8.2.1.1 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 28.8 million. Sanitas Troesch appealed this decision on May 2, 2016 and continues to firmly refute the claims made. The hearing took place before the Federal Administrative Court on January 21, 2020 and the date on which the Federal Administrative Court will issue its decision is not yet known. However, a provision for claims and litigation was recognized at December 31, 2015 in an amount equivalent to the fine (unchanged at December 31, 2020).

8.2.1.2 Investigation by the French Competition Authority in the building insulation products industry

On July 28, 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 rejected the allegations in their response to the second statement of objections filed in January 2019.

A new report was sent by the Authority at the end of 2019, which gave rise to comments in response from Saint-Gobain Isover and Compagnie de Saint-Gobain on February 11, 2020.

The hearing before the Competition Authority was held on October 6, 2020. By decision dated January 14, 2021, the French Competition Authority considered that the alleged anti-competitive practices were not established and dismissed all the objections notified.
The period opened for lodging an appeal is pending as of the closing date of these financial statements.

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, procedure which remains stayed as of the closing date of these financial statements.

8.2.2 Asbestos-related litigation

Current legal actions related to asbestos are described below.

8.2.2.1 Asbestos-related litigation in France

- Inexcusable fault lawsuits

In France, seven further individual lawsuits were filed in 2020 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, 2020, a total of 837 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, 2020, 800 of these 837 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 €6.2 million as of December 31, 2020 (compared to €5 million as of December 31, 2019).

Concerning the 37 lawsuits outstanding against Everite and Saint-Gobain PAM as of December 31, 2020, the procedures relating to the merits of all the cases were at different stages, with five in the process of being investigated by the French Social Security authorities and 32 pending before the Civil Courts (*Tribunaux judiciaires*) or Appeal Courts.

In addition, as of December 31, 2020, 258 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, 2020, 224 lawsuits had been completed. In 141 of these cases, the employer was held liable for “inexcusable fault”.

At the same date, compensation paid by these companies totaled approximately €8.7 million as of December 31, 2020 (compared to €8 million as of December 31, 2019).

As regards the 34 suits outstanding as of December 31, 2020, five cases were still being investigated by the French Social Security authorities, 28 were being tried – including 22 pending before the Civil Courts (*Tribunaux judiciaires*), five before the Appeal Courts and one before the *Cour de cassation*. Lastly, one action has been cancelled but the plaintiff may request its restoration at any time within a two-year period following its cancellation.

- Anxiety claims

Eight of the Group’s French 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, 2020, a total of 824 lawsuits 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 824 suits, 721 have been definitely completed, representing a total amount of compensation of €7.6 million as of December 31, 2020 (as at December 31, 2019). The remaining 103 lawsuits are pending before the Amiens Appeal Court.

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.

The provision related to asbestos-related litigation in France amounted to around €5.5 million as of December 31, 2020 (compared to €4.1 million as of December 31, 2019).

8.2.2.2 Situation in the United States

- Action taken to achieve equitable and permanent resolution of the former CertainTeed Corporation's legacy asbestos liabilities in the United States

DBMP LLC, an affiliate of CertainTeed LLC based in North Carolina, that holds the legacy asbestos liabilities of the former CertainTeed Corporation, filed, on January 23, 2020, a voluntary petition for relief under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Western District of North Carolina in Charlotte. The purpose of the filing is to achieve a certain, final and equitable resolution of all current and future claims arising from asbestos-containing products manufactured and sold by the former CertainTeed Corporation.

DBMP LLC intends to seek court authority to establish a trust under Section 524(g) of the U.S. Bankruptcy Code – a specific provision that is applicable to companies that face substantial numbers of asbestos-related claims – to achieve a fair and equitable resolution of its asbestos-related liabilities. Upon establishment of the trust, current and future plaintiffs with qualifying claims will be able to receive faster payment of their claims without the delay, stress and uncertainty of litigation in the tort system; at the same time, the creation and funding of such a trust will permanently and finally resolve DBMP LLC's asbestos liability.

During the course of this bankruptcy process, which is expected to take approximately 3 to 8 years, all asbestos litigation will be stayed and all related costs suspended, providing DBMP LLC with the time and protection to negotiate an agreement to be approved on behalf of all claimants and by the court.

This action was taken as a result of the increasing risks presented in the US tort system. Despite the passage of time, the aging of the population and lessening opportunity for claimants to assert legitimate claims of exposure to the asbestos-containing products of the former CertainTeed Corporation, naming practices in the tort system continued to result in a steady volume of claims against DBMP LLC, with no foreseeable end in sight. In addition, there has been, in general, an escalation of settlement demands and verdicts in the tort system.

- Impact on the Group's financial statements

Following the commencement of the proceeding under Chapter 11 of the U.S. Bankruptcy Code on January 23, 2020, the assets and liabilities of DBMP LLC and its wholly-owned subsidiary Millwork & Panel LLC, and in particular the provision for asbestos-related litigation in the United States, are no longer consolidated in the Group's financial statements.

Nonetheless, because of a funding agreement between CertainTeed LLC and DBMP LLC by which CertainTeed LLC has agreed to fund the costs of the Chapter 11 case and, ultimately, the 524(g) trust, in both cases solely to the extent DBMP LLC is unable to do so in full, the Group recorded in its consolidated financial statements a debt against DBMP LLC amounting to USD 432 million as of December 31, 2020.

The Group's consolidated income for 2020 is not impacted by the ongoing Chapter 11 proceeding described above.

As a result of this bankruptcy proceeding, all legal costs and indemnity payments related to DBMP LLC's asbestos tort claims have been suspended, and no further charges in relation to such claims have been taken in 2020 (USD 99 million, corresponding to €88 million, in 2019).

8.2.2.3 Situation in Brazil

In Brazil, former employees of Brasilit, that once manufactured fiber cement containing asbestos, 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. A first instance decision was rendered in connection with the first suit in July 2020, rejecting the claims of the plaintiffs. The latter have nevertheless appealed the decision. The suit related to Recife is still at an early stage and there is no court decision issued so far.

A third class action was initiated against Brasilit in 2019 in Capivari (State of São Paulo) by the Labor prosecutor asking for health insurance, as well as collective moral damages, in favor of employees, former employees and their respective families, as well as subcontractors who were exposed to asbestos. A first instance decision was rendered in September 2020 partly in favor of the plaintiffs. In particular, collective moral damages were granted to the plaintiffs, for an amount reduced to BRL 5 million (€0.8 million). Brasilit has appealed the decision.

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.

8.2.3 Environmental disputes

- PFOA matters in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of U.S. Environmental Protection Agency (EPA) health advisories or state maximum contaminant levels for drinking water 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 some PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in all three communities, installed carbon filtration systems on the municipal water supply in Hoosick Falls and funded 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 2019 with respect to two different areas, 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 or certified 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, 2020, the provision recorded by the Company in respect of this matter amounts to €31.2 million.

8.2.4 Other contingent liabilities

- 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 June 14, 2017, a Public Inquiry is underway, which is considering, 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. The Inquiry is conducting its work in two phases: its phase 1 report was published on 30 October 2019 and phase 2 commenced in January 2020 and is expected to continue into 2022. 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. Civil proceedings in connection with Grenfell Tower brought against Celotex Limited and/or Saint-Gobain Construction Products UK Limited (which respectively held the Celotex business until or after 31 December 2015) and a number of other defendants -who are also core participants in the Public Inquiry- have been issued and have been, or are expected to be, stayed prior to the service of full pleadings, in view of the ongoing Public Inquiry. No figure has yet been put on the quantum claimed.

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 and Celotex Limited and Saint-Gobain Construction Products UK are currently unable to make a reliable estimate of their potential liability in this respect.

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, or in the context of the enforcement of seller's warranties granted by the Group to the buyers of divested businesses (see note 4.5.2). 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. 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 constituted by bond issues which generally are issued under the Medium Term Notes program. The Group also uses lease financing, perpetual bonds, participating securities, a long-term securitization program and bank borrowings.

Short-term debt is composed of borrowings under Negotiable European Commercial Paper (NEU CP), and occasionally Euro Commercial Paper and US Commercial Paper, but also includes receivables securitization programs and bank financing. The Group also has factoring programs. 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 April 30, 2014 and Baa2 with a stable outlook by Moody's since June 2, 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 counterparty 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 risks

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 or engage in the CO_2 emissions market, 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.

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, 2020 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	27	5
Interest rate decrease of 50 basis points	(27)	(5)

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 on their behalf, 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, 2020, 97% of the Group's foreign exchange exposure was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2020:

(in millions of euro equivalent)	**Long**	**Short**
EUR	3	3
USD	4	23
Other currencies	0	2
TOTAL	**7**	**28**

The table below gives an analysis, as of December 31, 2020, 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 *(in millions of euro equivalent)*	**Impact on pre-tax income**
EUR	(0.1)
USD	(1.9)
Other currencies	(0.1)
TOTAL	**(2.1)**

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2020 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 income (expense)

Net financial income (expense) includes borrowing and other financing costs, income from cash and cash equivalents, interest on lease liabilities, interest cost for pensions and other post-employment benefit plans net of the return on plan assets, and other financial income and expense.

Net financial income (expense) in 2020 and 2019 includes:

(in € millions)	**2020**	**2019**
Borrowing costs, gross	(274)	(300)
Income from cash and cash equivalents	6	27
BORROWING COSTS, NET, EXCLUDING LEASE LIABILITIES	**(268)**	**(273)**
Interest on lease liabilities	(58)	(71)
TOTAL BORROWING COSTS, NET	**(326)**	**(344)**
Interest cost – pension and other post-employment benefit obligations	(234)	(321)
Return on plan assets	204	266
INTEREST COST – PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS, NET	**(30)**	**(55)**
Other financial expense	(105)	(109)
Other financial income	42	40
OTHER FINANCIAL INCOME AND EXPENSE	**(63)**	**(69)**
NET FINANCIAL INCOME (EXPENSE)	**(419)**	**(468)**

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 securitization and all other types of long-term financial liabilities, including 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

Besides the current portion of long-term debt described above, short-term debt includes financing programs such as commercial paper, short-term securitization, bank overdrafts and other short-term financial liabilities including 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. Lease liabilities

Lease liabilities represent obligations to make lease payments in accordance with IFRS 16.

9.3.1.4. 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, 2020**	**Dec. 31, 2019**
Bond issues	9,469	9,505
Perpetual bonds and participating securities	203	203
Long-term securitization	280	350
Other long-term financial liabilities	227	228
NON-CURRENT PORTION OF LONG-TERM DEBT	**10,179**	**10,286**
Bond issues	1,500	1,480
Long-term securitization	220	150
Other long-term financial liabilities	126	121
CURRENT PORTION OF LONG-TERM DEBT	**1,846**	**1,751**
Short-term financing programs (NEU CP, US CP, Euro CP)	0	0
Short-term securitization	144	0
Bank overdrafts and other short-term financial liabilities	357	224
SHORT-TERM DEBT	**501**	**224**
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES	**12,526**	**12,261**
Lease liabilities	3,098	3,217
TOTAL GROSS DEBT	**15,624**	**15,478**
Cash at banks	(1,559)	(2,052)
Mutual funds and other marketable securities	(6,884)	(2,935)
CASH AND CASH EQUIVALENTS	**(8,443)**	**(4,987)**
TOTAL NET DEBT	**7,181**	**10,491**

Changes in the Group's long-term debt (excluding lease liabilities) can be analyzed as follows:

(in € millions)	Dec. 31, 2019	Cash impact		No cash impact			Dec. 31, 2020
		Increases	Decreases	Changes in Group structure	Translation adjustments	Other	
Non-current portion of long-term debt	10,286	1,606	(292)	239	(102)	(1,559)	10,179
Current portion of long-term debt	1,751	15	(1,494)	5	(2)	1,572	1,846
TOTAL LONG-TERM DEBT	**12,037**	**1,621**	**(1,786)**	**244**	**(104)**	**13**	**12,025**

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), excluding lease liabilities, managed by Compagnie de Saint-Gobain amounts to €12.2 billion at December 31, 2020 (for an accounting value of €11.2 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 equal to the amount repayable.

9.3.2. Gross debt repayment schedule

The schedule of the Group's total gross debt as of December 31, 2020 is as follows:

(in € millions)	Currency	Within 1 year	1 to 5 years	Beyond 5 years	Total
Bond issues	EUR	1,500	4,192	4,668	10,360
	GBP		333	276	609
Perpetual bonds and participating securities	EUR			203	203
Long-term securitization	EUR	220	280		500
Other long-term financial liabilities	All currencies	8	58	169	235
Accrued interest on long-term debt	All currencies	118			118
TOTAL LONG-TERM DEBT		**1,846**	**4,863**	**5,316**	**12,025**
SHORT-TERM DEBT	All currencies	**501**	**0**	**0**	**501**
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES		**2,347**	**4,863**	**5,316**	**12,526**
Lease liabilities	All currencies	656	1,595	847	3,098
TOTAL GROSS DEBT		**3,003**	**6,458**	**6,163**	**15,624**

At December 31, 2020, future interest payments on gross long-term debt (excluding lease liabilities) managed by Compagnie de Saint-Gobain (short- and long-term) 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 debt	223	598	558	1,379

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

9.3.3. Bonds

On April 3, 2020, Compagnie de Saint-Gobain issued:
- €750 million worth of 1.75% fixed-rate bonds, maturing on April 3, 2023;
- €750 million worth of 2.375% bonds, maturing on October 4, 2027.

Compagnie de Saint-Gobain redeemed:
- €1,000 million worth of 0% bonds on March 27, 2020 mature;
- two floating-rate 3-month Euribor +0.23% private placements on June 25, 2020 mature, amounting to €180 million and €300 million, respectively.

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 are outstanding at December 31, 2020, 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 2020 was €3.18.

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, 2020, 606,883 securities are 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 bond in 2020 was €0.71.

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

A certain number of these participating securities have been bought back over the years. At December 31, 2020, 77,516 securities are 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 2020 was €60.60, paid in two installments (€27.25 and €33.35).

These participating securities are not redeemable and the interest paid on them is reported under financial 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, 2020, the state of these programs is as follows:

(in € millions)	**Authorized drawings**	**Authorized limits at Dec. 31, 2020**	**Balance outstanding at Dec. 31, 2020**	**Balance outstanding at Dec. 31, 2019**
Medium Term Notes	1 to 30 years	15,000	11,149	11,129
NEU CP	up to 12 months	4,000	0	0
US Commercial Paper	up to 12 months	815 *	0	0
Euro Commercial Paper	up to 12 months	815 *	0	0

* Equivalent of US$1,000 million based on the exchange rate at December 31, 2020.

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, maturing in December 2024, after the exercise of the two one-year rollover options;
- a second €1.5 billion syndicated line of credit also maturing in December 2024 after the exercise of the two one-year rollover options.

Based on the Group's current credit rating for long-term debt, the two facilities are not subject to any covenants. Neither of these two lines of credit was drawn down at December 31, 2020.

Another short-term line of credit was arranged on March 22, 2020 for an initial amount of €2.5 billion, maturing in March 2021. This line was canceled on September 16, 2020.

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 French program, covering an amount of up to €500 million, represented €500 million at both December 31, 2020 and December 31, 2019.
Based on observed seasonal fluctuations in receivables included in the program and on the contract's features, €280 million of this amount is classified as long term and the remaining balance as current.

The US program was set up on July 30, 2020 for a maximum amount of USD 400 million. Its value amounts to €144 million at December 31, 2020.

9.3.9. Collateral

At December 31, 2020, €1 million of Group debt is secured by various non-current assets (real estate and securities).

9.3.10. Factoring

The Group has set up several trade receivables factoring programs. Based on an analysis of the risks and disadvantages as defined by IFRS 9, the Group has derecognized virtually all of the receivables sold under these programs. A total of €368 million factored receivables were derecognized at December 31, 2020, compared to €471 million at December 31, 2019.

9.3.11. Interest rate benchmark reform

The Group analyzed the impact of the reform of interbank offered rates (IBOR) on its financial instruments. No significant impact was identified for the instruments used. On November 19, 2020, the Shareholders' Meeting ratified an amendment to the 1984 participating securities' issuance contract. Pursuant to this amendment, the interest on these securities will now be calculated by reference to six-month Euribor and no more to six-month EUR Libor.

9.4. Financial instruments

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

- Fair value hedges

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

- 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.

- 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.

- Fair value of financial instruments

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

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

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

(in € millions)	Fair value			Nominal amount by maturity				
	Derivatives recorded in assets	**Derivatives recorded in liabilities**	**Dec. 31, 2020**	**Dec. 31, 2019**	**Within 1 year**	**1 to 5 years**	**Beyond 5 years**	**Dec. 31, 2020**
FAIR VALUE HEDGES	**0**	**0**	0	**0**	**0**	**0**	**0**	0
Cash flow hedges								
Currency	3	(2)	1	0	367	1	0	368
Interest rate	0	(92)	(92)	(78)	0	95	358	453
Energy and commodities	0	0	0	(4)	10	1	0	11
Other risks: equities	0	0	0	(2)	3	33	0	36
CASH FLOW HEDGES – TOTAL	**3**	**(94)**	(91)	**(84)**	**380**	**130**	**358**	868
Derivatives not qualifying for hedge accounting mainly contracted by Compagnie de Saint-Gobain								
Currency	96	(100)	(4)	0	5,474	1	0	5,475
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	**96**	**(100)**	(4)	**0**	**5,474**	**1**	**0**	5,475
TOTAL	**99**	**(194)**	(95)	**(84)**	**5,854**	**131**	**358**	6,343

9.4.1. Currency instruments

- Currency swaps

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

- Forward foreign exchange contracts and currency options

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

9.4.2. Interest rate instruments

- Interest rate swaps

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

- Cross-currency swaps

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

9.4.3. Energy and commodities

- 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

- 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, 2020, credit value adjustments were not material.

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

At December 31, 2020, the IFRS cash flow hedge reserve carried in equity has a debit balance of €54 million, consisting mainly of:

- a debit balance of €28 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 €27 million corresponding to changes in the fair value of interest rate hedges classified as cash flow hedges;
- a credit balance of €1 million corresponding to changes in fair value of currency derivatives qualified as cash flow hedges.

The ineffective portion of cash flow hedge 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" represents a loss of €4 million at December 31, 2020 (nil at December 31, 2019).

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, 2020, no embedded derivatives deemed to be material at Group level was identified.

9.4.9. Group debt structure (excluding lease liabilities)

The weighted average interest rate on total gross debt under IFRS and after hedging (interest rate swaps and cross-currency swaps) was 2.0% at December 31, 2020, compared with 1.8% at December 31, 2019.

The average internal rate of return on the Group's main component of long-term debt before hedging (bonds) was 2.4% in 2020 compared to 2.1% in 2019.

The table below presents the breakdown by interest rate (fixed or variable) of the Group's gross debt at December 31, 2020, taking into account interest rate and cross-currency swaps.

(in € millions)	Gross debt, excluding lease liabilities		
	Variable rate	**Fixed rate**	**Total**
EUR	1,540	9,936	11,476
Other currencies	511	309	820
TOTAL	**2,051**	**10,245**	**12,296**
(in %)	17%	83%	100%
Accrued interest and other			230
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES			**12,526**

9.5. Financial assets and liabilities

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

At December 31, 2020

		Financial instruments				Financial instruments at fair value			
(in € millions)	**Notes**	**Fair value through profit or loss**	**Fair value through the statement of recognized income and expense**	**Amortized cost**	**Total financial instruments**	**Level 1 inputs**	**Level 2 inputs**	**Level 3 inputs**	**Total financial instruments measured at fair value**
Trade and other accounts receivable				5,768	**5,768**				**0**
Loans, deposits and surety	(7)			441	**441**				**0**
Equity investments and other	(7)		70		**70**			70	**70**
Derivatives recorded in assets		96	3		**99**		99		**99**
Cash and cash equivalents		6,884		1,559	**8,443**	6,884			**6,884**
TOTAL FINANCIAL ASSETS		**6,980**	**73**	**7,768**	**14,821**	**6,884**	**99**	**70**	**7,053**
Trade and other accounts payable				(9,723)	**(9,723)**				**0**
Long- and short-term debt				(12,418)	**(12,418)**				**0**
Long- and short-term lease liabilities				(3,098)	**(3,098)**				**0**
Derivatives recorded in liabilities		(100)	(94)		**(194)**		(194)		**(194)**
TOTAL FINANCIAL LIABILITIES		**(100)**	**(94)**	**(25,239)**	**(25,433)**	**0**	**(194)**	**0**	**(194)**
FINANCIAL ASSETS AND LIABILITIES - NET		**6,880**	**(21)**	**(17,471)**	**(10,612)**	**6,884**	**(95)**	**70**	**6,859**

At December 31, 2019

		Financial instruments				Financial instruments at fair value			
(in € millions)	**Notes**	**Fair value through profit or loss**	**Fair value through the statement of recognized income and expense**	**Amortized cost**	**Total financial instruments**	**Level 1 inputs**	**Level 2 inputs**	**Level 3 inputs**	**Total financial instruments measured at fair value**
Trade and other accounts receivable				6,419	**6,419**				**0**
Loans, deposits and surety	(7)			565	**565**				**0**
Equity investments and other	(7)		2,658		**2,658**	2,554		104	**2,658**
Derivatives recorded in assets		5	2		**7**		7		**7**
Cash and cash equivalents		2,935		2,052	**4,987**	2,935			**2,935**
TOTAL FINANCIAL ASSETS		**2,940**	**2,660**	**9,036**	**14,636**	**5,489**	**7**	**104**	**5,600**
Trade and other accounts payable				(9,995)	**(9,995)**				**0**
Long- and short-term debt				(12,183)	**(12,183)**				**0**
Long- and short-term lease liabilities				(3,217)	**(3,217)**				**0**
Derivatives recorded in liabilities		(5)	(86)		**(91)**		(91)		**(91)**
TOTAL FINANCIAL LIABILITIES		**(5)**	**(86)**	**(25,395)**	**(25,486)**	**0**	**(91)**	**0**	**(91)**
FINANCIAL ASSETS AND LIABILITIES - NET		**2,935**	**2,574**	**(16,359)**	**(10,850)**	**5,489**	**(84)**	**104**	**5,509**

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

At December 31, 2020, the number of shares comprising the capital stock of Compagnie de Saint-Gobain was 532,683,713 shares with a par value of €4 (544,683,451 shares at December 31, 2019).

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, 2020, 2,650,208 shares were held in treasury (December 31, 2019: 2,595,723 shares). In 2020, the Group acquired 20,733,422 shares (2019: 9,777,969 shares) directly on the market and 2,578,937 shares were sold (2019: 1,676,229 shares). Lastly, 18,100,000 shares were canceled in 2020 and 8,211,754 shares in 2019.

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. Number of shares

	Number of shares	
	Issued	Outstanding
NUMBER OF SHARES AT DECEMBER 31, 2018	**546,585,004**	**543,879,267**
Group Savings Plan	5,999,997	5,999,997
Stock subscription option plans	310,204	310,204
Shares purchased		(9,777,969)
Shares sold		1,676,229
Shares canceled	(8,211,754)	
NUMBER OF SHARES AT DECEMBER 31, 2019	**544,683,451**	**542,087,728**
Group Savings Plan	6,099,996	6,099,996
Stock subscription option plans	266	266
Shares purchased		(20,733,422)
Shares sold		2,578,937
Shares canceled	(18,100,000)	
NUMBER OF SHARES AT DECEMBER 31, 2020	**532,683,713**	**530,033,505**

10.1.6. Dividends

The Annual Shareholders' Meeting of June 4, 2020 approved the decision not to pay a dividend in respect of 2020.

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:

	2020	2019
Group share of net income *(in € millions)*	456	1,406
Weighted average number of shares in issue	536,452,195	542,079,771
BASIC EARNINGS PER SHARE, GROUP SHARE *(in €)*	0.85	2.59

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:

	2020	2019
Group share of net income *(in € millions)*	456	1,406
Weighted average number of shares assuming full dilution	539,325,415	545,159,839
DILUTED EARNINGS PER SHARE, GROUP SHARE *(in €)*	0.85	2.58

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 2,386 and 2,870,834 shares, respectively, at December 31, 2020.

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)	2020	2019
CURRENT TAXES	**(519)**	**(601)**
France	(67)	(83)
Outside France	(452)	(518)
DEFERRED TAXES	**(7)**	**(30)**
France	(72)	(32)
Outside France	65	2
TOTAL INCOME TAX EXPENSE	**(526)**	**(631)**

Theoretical tax expense was reconciled with current tax expense using a tax rate of 32.02% in 2020 and 34.43% 2019, and can be analyzed as follows:

(in € millions)	2020	2019
Net income	489	1,454
Less:		
Share in net income of equity-accounted companies	15	24
Income taxes	(526)	(631)
PRE-TAX INCOME OF CONSOLIDATED COMPANIES	**1,000**	**2,061**
French tax rate	32.02%	34.43%
Theoretical tax expense at French tax rate	(320)	(709)
Impact of different tax rates	73	219
Asset impairment, capital gains and losses on asset disposals	(129)	(117)
Deferred tax assets not recognized and provisions for deferred tax assets	(75)	(30)
Liability method	(27)	24
Research tax credit and value-added contribution for businesses (CVAE)	(16)	(16)
Costs related to dividends	(54)	(2)
Other taxes and changes in provisions	22	0
TOTAL INCOME TAX EXPENSE	**(526)**	**(631)**

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, Norway, the Czech Republic, the United Kingdom, China, Sweden and Switzerland.

11.2. Deferred tax

Deferred tax assets and liabilities 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 assets and liabilities break down as follows:

(in € millions)	**Net deferred tax asset (liability)**
NET VALUE AT JANUARY 1, 2019	**411**
Deferred tax (expense) benefit	(30)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	27
Liability method on actuarial gains and losses	5
Translation adjustments and restatement for hyperinflation	(15)
Assets and liabilities held for sale	(1)
Changes in Group structure and other	(12)
NET VALUE AT DECEMBER 31, 2019	**385**
Deferred tax (expense) benefit	(7)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	4
Liability method on actuarial gains and losses	16
Translation adjustments and restatement for hyperinflation	(1)
Assets and liabilities held for sale	(3)
Changes in Group structure and other	(89)
NET VALUE AT DECEMBER 31, 2020	**305**

Changes in Group structure relate mainly to the first-time consolidation of Continental Building Products.

The table below shows the main deferred tax components:

(in € millions)	Dec. 31, 2020	Dec. 31, 2019
Pensions	465	474
Brands, customer relationships and intellectual property	(432)	(411)
Depreciation and amortization, accelerated capital allowances and tax-driven provisions	(644)	(689)
Tax loss carry-forwards	440	546
Other	476	465
NET DEFERRED TAX	**305**	**385**
Of which:		
Deferred tax assets	665	833
Deferred tax liabilities	(360)	(448)

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 €665 million were recognized at December 31, 2020 (€833 million at December 31, 2019), primarily in France (€157 million), the United States (€64 million), Germany (€188 million) and Italy (€59 million). Deferred tax liabilities of €360 million were recognized at December 31, 2020 (€448 million at December 31, 2019), including €136 million in the United Kingdom, €49 million in Switzerland, €38 million in India, and €38 million in Denmark. Deferred tax liabilities in other countries were not material.

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 plans 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 €440 million at December 31, 2020 and €546 million at December 31, 2019. 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, 2020, deferred tax assets whose recovery is not considered probable totaled €374 million (December 31, 2019: €412 million) and a provision had been accrued for the full amount. Unrecognized deferred tax assets chiefly relate to France, China, Germany, Spain and the United States.
The additional reduction in deferred tax assets on tax loss carryforwards represented €60 million at December 31, 2020, and primarily related to France.

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 2020 and 2019 are detailed in the “Additional information and cross-reference tables” section of the Universal 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.

High Performance Solutions	Country	Consolidation method	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%
Freudenberger Autoglas GmbH, München*	Germany	Full consolidation	99.99%
Freeglass GmbH & Co. KG, Schwaikheim*	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%
Saint-Gobain Autover Deutschland GmbH, Kerpen*	Germany	Full consolidation	99.99%
Saint-Gobain Innovative Materials Belgium	Belgium	Full consolidation	99.98%
Saint-Gobain Do Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canada, Inc.	Canada	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	99.99%
SG Hanglas Sekurit (Shanghaï) Co., Ltd	China	Full consolidation	99.62%
Hankuk Sekurit Limited	South Korea	Full consolidation	99.24%
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%
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%
Saint-Gobain Sekurit France	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 Mexico	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 Innovative Materials Polska Sp Zoo	Poland	Full consolidation	99.94%
Saint-Gobain Adfors CZ S.R.O.	Czech Republic	Full consolidation	100.00%
Saint-Gobain Sekurit CZ, Spol S.R.O	Czech Republic	Full consolidation	99.99%

Northern Europe	Country	Consolidation method	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 Deggendorf mbH, Deggendorf*	Germany	Full consolidation	99.99%
Vetrotech Saint-Gobain Kinon GmbH, Aachen*	Germany	Full consolidation	99.99%
Saint-Gobain Glassolutions Objekt-Center GmbH, Radeburg*	Germany	Full consolidation	99.99%
Kaimann GmbH	Germany	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 Weber GmbH	Germany	Full consolidation	100.00%
Saint-Gobain PAM Deutschland GmbH	Germany	Full consolidation	100.00%
Saint-Gobain Denmark A/S	Denmark	Full consolidation	99.97%
Saint-Gobain Distribution Denmark	Denmark	Full consolidation	100.00%
Saint-Gobain Finland OY	Finland	Full consolidation	100.00%
Dahl Suomi OY	Finland	Full consolidation	100.00%
Saint-Gobain Construction Products (Ireland) Limited	Ireland	Full consolidation	100.00%
Glava As	Norway	Full consolidation	100.00%
Saint-Gobain Byggevarer AS	Norway	Full consolidation	100.00%
Brødrene Dahl As (Norway)	Norway	Full consolidation	100.00%
Optimera As	Norway	Full consolidation	100.00%
Saint-Gobain Polska Sp Zoo	Poland	Full consolidation	99.96%
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 Romania Srl	Romania	Full consolidation	100.00%
Saint-Gobain Glass Romania Srl	Romania	Full consolidation	100.00%
Saint-Gobain Glass (United Kingdom) Limited	United Kingdom	Full consolidation	100.00%
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Building Distribution 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%
Dahl Sverige AB	Sweden	Full consolidation	100.00%
Vetrotech Saint-Gobain International	Switzerland	Full consolidation	100.00%
Saint-Gobain Weber AG	Switzerland	Full consolidation	100.00%
Sanitas Troesch Ag	Switzerland	Full consolidation	100.00%

Southern Europe – ME & Africa	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Construction Products South Africa (Pty) Ltd	South Africa	Full consolidation	100.00%
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%
Saint-Gobain Placo Iberica	Spain	Full consolidation	99.83%
Saint-Gobain Idaplac, S.L.	Spain	Full consolidation	99.83%
Saint-Gobain Distribucion Construccion, 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%
Eurofloat	France	Full consolidation	100.00%
Placoplatre SA	France	Full consolidation	99.80%
Saint-Gobain Isover	France	Full consolidation	100.00%
Saint-Gobain Weber	France	Full consolidation	100.00%
Saint-Gobain PAM	France	Full consolidation	100.00%
Distribution Sanitaire Chauffage	France	Full consolidation	100.00%
Lapeyre	France	Full consolidation	100.00%
Saint-Gobain Distribution Bâtiment France	France	Full consolidation	100.00%
Saint-Gobain Glass Italia S.p.a	Italy	Full consolidation	100.00%
Saint-Gobain Italia S.p.a	Italy	Full consolidation	100.00%
Saint-Gobain Construction Products Nederland BV	Netherlands	Full consolidation	100.00%
Saint-Gobain Distribution The Netherlands B.V	Netherlands	Full consolidation	100.00%
Izocam Ticaret VE Sanayi A.S.	Turkey	Full consolidation	50.00%

Asia-Pacific	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Pipelines Co., Ltd	China	Full consolidation	100.00%
Saint-Gobain India Private Limited	India	Full consolidation	99.03%
Mag-Isover K.K.	Japan	Full consolidation	99.98%
Saint-Gobain Vietnam Ltd	Vietnam	Full consolidation	100.00%

Americas	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Argentina S.A	Argentina	Full consolidation	100.00%
Cebrace Cristal Plano Ltda	Brazil	Full consolidation	50.00%
Saint-Gobain Do Brasil Productos Industriais e Para Construçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canalizaçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Distribuiçao Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Mexico	Mexico	Full consolidation	99.83%
CertainTeed Canada, Inc.	Canada	Full consolidation	100.00%
Certain Teed LLC	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%
Continental Building Products Operating Company, LLC	United States	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).