

SUSTAINABLE FINANCE

Financial and non-financial
overview of corporate carbon
reporting

AUTORITÉ
DES MARCHÉS FINANCIERS



INTRODUCTION

□ Introduction

This report follows on from the four reports on corporate social, societal and environmental responsibility previously published by the Autorité des Marchés Financiers (AMF) since 2010. The primary goal is to assist issuers facing changing regulations and growing expectations from their stakeholders regarding the quality of non-financial information and the integration of sustainability issues.

The most recent AMF report was published at the end of 2019 and included an analysis of non-financial statements (NFS) published by a sample of 24 listed companies.¹ This was followed by a 2020 report on the implementation of the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD) prepared by French companies in the financial sector,² as well as work carried out in conjunction with the Autorité de Contrôle Prudentiel et de Résolution (ACPR) on monitoring the climate commitments made by French financial institutions.³ In October 2021, the AMF Climate and Sustainable Finance Commission also published an initial report on companies and carbon neutrality.⁴

Continuing this work, the AMF's 2021 report on corporate extra-financial reporting focuses on climate issues, without addressing other environmental, social or governance challenges. The work carried out is also part of the individual reviews conducted by the AMF, defined in particular by the European Common Enforcement Priorities.⁵ These priorities are defined annually by the European Securities and Markets Authority (ESMA), and have prioritised climate issues since 2019.

The work should also be considered in the context of the **efforts currently underway on the future European sustainability reporting standard** prepared by the European Financial Reporting Advisory Group (EFRAG) at the European Commission's request.

□ Objective of the report

By providing an **overview** based on a sample of companies and by presenting **good practices**, the report aims to raise awareness among companies regarding certain climate-related issues in their reporting.

While financial market participants must comply with a growing number of reporting requirements imposed by the Sustainable Finance Disclosures Regulation (or SFDR)⁶ and strengthen their management of financial risks related to global warming, the report highlights the **progress still required** in terms of the availability, robustness and comparison of information published by companies with regard to the integration of climate issues. It also highlights the need to step up efforts to prepare for a strengthened regulatory framework (future European Corporate Sustainability Reporting Directive – CSRD) and meet the growing expectations of stakeholders.

¹ AMF, *Report on the social, societal and environmental responsibility of listed companies*, November 2019.

² AMF, *TCFD Climate Reporting in the Financial Sector: Study of reporting practices of 10 French institutions using the "Task force on climate-related financial disclosures"*, December 2020.

³ ACPR-AMF, *Joint report on climate-related commitments of French financial institutions*, December 2020 and ACPR-AMF *Sectoral policies and fossil fuel exposure of French financial market participants*, October 2021.

⁴ AMF, Climate and Sustainable Finance Commission, *Companies and carbon neutrality: initial conclusions and issues identified*, October 2019. <https://www.amf-france.org/en/news-publications/publications/reports-research-and-analysis/companies-and-carbon-neutrality-initial-conclusions-and-issues-identified>

⁵ ESMA, *European Common Enforcement Priorities*, Nov. 2021. https://www.esma.europa.eu/sites/default/files/library/esma32-63-1186_public_statement_on_the_european_common_enforcement_priorities_2021.pdf

⁶ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. In particular, the SFDR requires financial market players to disclose the GHG emissions of companies in which an investment has been made, categorised under Scope 1 and Scope 2 (from 1 July 2022) and Scope 3 (from 1 July 2022). Article 29 of the French Energy and Climate Act dated 8 November 2019 (LEC) supplements the European scheme and defines the additional reporting requirements.

The report does not analyse all of the climate-related information published by the companies in the sample and does not address all of the related issues. It focuses on three specific areas:

- firstly, due to their growing importance – for example in building “climate” indices or calculating company ESG scores – **quantitative climate metrics**, and in particular the information provided by companies in their non-financial statements on greenhouse gas (GHG) emissions,
- secondly, information published by companies on **carbon neutrality commitments** they may have made,
- thirdly, the **accounting impacts** and climate-related information presented in companies’ financial statements.

□ Methodology

The sample comprises **19 French issuers in the SBF 120 index** (including nine issuers in the CAC40) belonging to ten sectors that generate particularly high levels of greenhouse gas⁷ (GHG) emissions. Chapter 2, which focuses on carbon neutrality, discusses 13 of the 19 issuers having provided information on this subject. Finally, for the accounting impacts analysed in Chapter 3, four companies were added to the sample to gain a clearer picture of practices in an area still under-developed in financial statements.⁸ The analyses are **based exclusively on a review of the information published by the companies**.

The regulatory framework and existing standards are recalled throughout the report, as well as the voluntary frameworks companies may use. In particular, 15 of the 19 issuers included in the sample are TCFD signatories.⁹ The 2017 recommendations of the TCFD were integrated into the European Commission’s guidelines on non-financial information¹⁰ in June 2019, and were used to conduct the analysis presented in Chapter 1.

Frameworks with varying degrees of standardisation and maturity are referenced, depending on the scenarios and topics addressed. The report highlights the regulatory principles and requirements that companies must comply with for financial and non-financial reporting on climate issues, as well as good practices identified in the sample. It also recalls some of the Authority’s recommendations published for the 2021 financial statements.¹¹

⁷ Airlines, automotive, construction, energy, food, utilities. See Annex 1 for the list of companies included in the sample and the sectors represented according to GICS (Global Industrial Classification Standard).

⁸ See Annex. At the end of November 2021, other companies set carbon neutrality targets, bringing the total to 15 out of 19 for Chapter 2, and 17 out of 23 for Chapter 3.

⁹ See list in the Annex. We also remind readers that in December 2020, the 40 largest French companies listed in the CAC 40 index declared their support for the TCFD recommendations. Of the 23 companies studied in Chapter 3, 19 are also TCFD signatories.

¹⁰ European Commission, *Communication: Guidelines on non-financial reporting: Supplement on reporting climate-related information (2019/C 209/01)*, June 2019, [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019XC0620\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019XC0620(01)&from=EN)

¹¹ AMF, *AMF Recommendation DOC-2021-06*, 29 October 2021. The recommendations, which are consistent with ESMA’s European priorities, address the impact of the pandemic and the integration of environmental risks.

SUMMARY AND KEY MESSAGES

The work carried out focused on a sample of major listed companies in sectors significantly contributing to climate change, most of which have made commitments to carbon neutrality. While improvements have been noted, together with a number of good practices, the general observation is that there is still a way to go to improve the comparability, long-term monitoring and transparency of information provided to the market and stakeholders. Furthermore, few companies are already providing information soon to be required by the European regulatory framework, or already examined by investors. This is the case for both physical data (related to energy efficiency, for example) and financial data.

The report aims to encourage companies, especially smaller ones, to prepare for the new transparency requirements and ensure consistency across all of their climate-related communications. For many companies, these issues are already or will soon be at the heart of dialogue with investors, who are themselves subject to new transparency requirements. They also call for some tough decisions, amid an uncertain regulatory context (particularly with regard to the outcome of the “Fit for 55” package of legislative proposals). However, the overall direction has been set, and an increasing number of companies have set out to rethink their industrial processes and/or business models. Organising the collection and publication of information must therefore support and even assist companies’ development, rapidly involving the various financial, accounting, industrial and marketing departments, as well as companies’ governance bodies.

Key messages:

- **GHG emission data scope:** Greenhouse gas emissions data has become a key element of companies’ non-financial reporting. Further progress is still expected in terms of the organisational (subsidiaries) and operational scopes to be taken into account, as well as supporting information and the methodology used (GHG Protocol, ISO standard); companies are also encouraged to publish detailed information (by scope, and by main emissions items and, where relevant, by region and business activity). When certain Scope 3 items (emissions related to the use of products sold, in particular) are excluded from the calculations, companies must provide reasons for the exclusion, which must not call into question the relevance of the information published.
- **Targets:** Whether as part of transition plans, in line with commitments to reduce corporate greenhouse gas emissions, or in keeping with carbon neutrality approaches, companies should be prepared to publish short- and medium-term GHG emission reduction targets for all three scopes, both in absolute terms and in intensity. Similarly, targets relating to consumption or energy mix and energy efficiency will also be expected.
- **Physical risks:** The report also highlights the sample’s lack of data on the physical risks associated with global warming, whether resulting from changes in average temperatures or precipitation patterns, or from an increase in the frequency and severity of extreme weather events, and which could have an impact on the value of a company’s assets or on its business model. This is also an area that should get companies on board.
- **Carbon neutrality:** As stated in the recent Climate and Sustainable Finance Commission report, the initial carbon neutrality commitments made by a growing number of companies may be an efficient means of encouraging companies to take action. Companies should refer to emerging frameworks that define precautions to take to ensure a robust approach, as well as their contribution to the collective aim of carbon neutrality and reducing greenhouse gas emissions.
- **Offsetting:** The subject of offsetting is a particular point for attention, both in terms of the contribution of offsetting to the carbon neutrality strategy, as well as the kinds of offsetting projects envisaged by the company.
- **Communication and continuous monitoring of commitments:** Finally, while carbon neutrality objectives only involve part of the company’s organisational (particularly geographical) or operational scope, the company must pay particular attention to its communications. As companies refine their strategies, they will also be able to disclose the related action plans, financial impacts, and continuous monitoring of the progress made.

- **Consequences for the financial statements:** Companies still include very little information on the impacts of climate change in their financial statements, which may reflect the relatively short time horizon used for forward-looking information to be provided in the financial statements. Nevertheless, as the financial risks and impacts become clearer, companies will have to ensure greater consistency between the information contained in the financial statements and other communications (e.g.: consistency between identified risk factors, the useful lives retained, impairment indicators and tests, or the assessment of the financial impacts of decarbonisation plans). As part of the planned reform of the European carbon market, the treatment of greenhouse gas emissions allowances must be the subject of greater transparency when they represent significant issues for companies.

ILLUSTRATIVE FIGURES

- Nine out of 19 companies provide GHG emissions data for their entire consolidated financial scope. Of the ten remaining companies, six provide a clear justification for the divergences.
- All 19 companies in the sample publish information on the three GHG emissions scopes, however some continue to exclude certain Scope 3 items without providing reasons, even when these items are significant.
- Nine of the 19 companies publish a breakdown of direct GHG emissions (Scope 1) by geographical zone or region, and eight for Scope 2.
- 14 of the 19 companies have set GHG emissions reduction targets and four companies publish energy efficiency targets.
- Eight out of 19 companies state that they have requested due diligence for Scope 3, as part of the assurance review.
- Ten of the 13 companies having made a carbon neutrality commitment have set targets in absolute value terms. For half of them, these targets cover the three scopes. The role offsetting plays in efforts to achieve carbon neutrality is often impossible to assess.
- Four of the 23 companies in the sample state that they have taken climate change into account in their judgements and estimates when preparing their financial statements.
- 14 of the 23 companies note the existence of a material risk of impairment in connection with the climate, by means of a dedicated risk factor. Two issuers estimate this risk, however without it being reflected in the financial statements. Three of the 23 issuers recognise an impairment charge on tangible fixed assets due to climate considerations.
- Seven of the 23 companies state that they have taken climate change into account in the assumptions used as part of impairment testing, however generally on a limited scope.
- Four out of 23 companies specify whether the impacts of global warming have been reflected in discount rates or financial flows.
- In their financial statements, none of the issuers state the financial impacts of the decarbonisation targets, for example.

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1. ANALYSIS OF PUBLISHED CARBON DATA AND OTHER KEY PERFORMANCE INDICATORS

As a reminder, Article R. 225-105 of the French Commercial Code lists the various components of the non-financial statement (NFS): It covers four themes: first, the presentation of the company's business model; secondly, the description of the main business risks and the risks generated by its business relationships, products or services, where relevant; thirdly, the description of policies and due diligence procedures reasonably implemented in order to prevent, identify and mitigate the above-mentioned risks; and lastly, the outcome of these policies, including the **key performance indicators ("KPIs")**.

This first chapter focuses on the quantitative indicators used by the companies in the sample in their 2020 non-financial statements, or, where applicable, in their "climate reports", when referred to in the NFS. The study is based on the climate supplement to the European Commission's guidelines published in June 2019, and in particular section 3.5. on "Key Performance Indicators". These guidelines are more detailed than the French Commercial Code and contain more concrete indications on reporting procedures.

Box 1: Key performance indicators (KPIs) recommended by the European Commission's guidelines

Published in June 2019, the guidelines on climate-related information are a guide for meeting the requirements of the Non-Financial Reporting Directive (NFRD), Directive 2014/95/EU. They include the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD) and take into account the European taxonomy for sustainable activities¹². They guide companies on information to be provided both on the impacts of their business on the climate, and on the impacts of climate change on their business (double materiality principle). The aim is also to improve the comparability of information published by companies.

The key performance indicators identified are:

- **Greenhouse gas (GHG) emissions:** Direct GHG emissions; indirect GHG emissions from the generation of acquired and consumed electricity, steam, heat, or cooling; all other indirect GHG emissions that occur in the value chain of the reporting company; GHG absolute emissions target.
- **Energy:** Total energy consumption and/or production from renewable and non-renewable sources; Energy efficiency target; Renewable energy consumption and/or production target.
- **Physical climate risks:** Assets committed in regions likely to become more exposed to acute or chronic physical climate risks.
- **Green financing:** Climate-related green bond ratio and/or Climate-related green debt ratio.
- **Taxonomy:** Percent turnover from products or services associated with activities that meet the criteria for substantially contributing to mitigation of or adaptation to climate change, and/or percent investment (CapEx) and/or expenditures (OpEx) for assets or processes associated with activities that meet the criteria for substantially contributing to mitigation of or adaptation to climate change.

¹² [Regulation \(EU\) 2020/852](#) of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment.

Non-binding to date, these guidelines are expected to be in large part included in the future European sustainability reporting framework, as envisaged by the proposed CSRD.¹³ The prototype climate reporting standard currently being prepared by EFRAG already contains most of these elements, and goes even further.¹⁴ Since the publication of the European Commission’s guidelines, the metrics required by the TCFD have also been completed.¹⁵ In addition, the publication of certain metrics relating to the share of business activities contributing to the fight against climate change or to climate change adaptation, already provided for in the guidelines, will be made partially compulsory (with regard to the eligibility of activities) as of 1 January 2022, pursuant to Article 8 of the European Regulation on the taxonomy of sustainable activities.¹⁶

This chapter covers four themes: the scope of carbon data reporting disclosures, the forward-looking outlook on this data provided by companies, information provided to ensure the reliability of disclosures, and an overview of practices relating to the other key metrics recommended by the European Commission’s guidelines or by regulations, in addition to carbon emissions data. The analytical approach is based on the **completeness, reliability and comparability of the published data**.

1.1. SCOPE OF REPORTING

To measure greenhouse gas (GHG) emissions, the matter of scope is an essential part of a relevant emissions inventory. There are two dimensions to consider:

- The organisational scope: sites and subsidiaries of the organisation to be taken into account;
- The operational scope: sources of greenhouse gas emissions to be taken into account. The operational scope therefore corresponds to emissions categories and items related to activities within the organisational scope. The main international standards and methods define three emissions categories, namely Scopes 1, 2 and 3. Scope 1 includes direct greenhouse gas emissions from sources owned by the company, such as, for example, emissions from the vehicle fleet or emissions from industrial processes other than combustion. Scope 2 includes indirect greenhouse gas emissions related to the production of electricity, heat or steam consumed by the company. Scope 3 covers all other indirect greenhouse gas emissions in the company's value chain, including upstream and downstream emissions (purchasing, transport, use of products and services sold, waste management, end-of-life products, etc.).¹⁷

Regulatory requirements	Recommendations based on EC guidelines
<p>Scope of organisational reporting All companies in the financial consolidation scope <i>(Art. L.225-102-1 of the French Commercial Code, with reference to Art. L.233-16 of the French Commercial Code)</i> must be considered.</p>	<p>Scope of organisational reporting References to international standards (GHG Protocol or ISO 14064-1:2018): i) “share of capital” approach or ii) financial or operational “control” approach</p>

¹³ European Commission, *Proposal for a directive as regards corporate sustainability reporting*, April 2021, <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0189&from=EN>

¹⁴ See, *Basis for conclusions accompanying the ‘Climate standard prototype’ working paper presented by Cluster 2 to the EFRAG Project Task Force on European sustainability reporting standards* (PTF-ESRS), Sept. 2021, <https://www.efrag.org/News/Project-531/EFRAG---PTF-ESRS-Cluster-2-Climat-standard-prototype---Basis-for-Conclusions-working-paper>

¹⁵ TCFD, *Guidance on Metrics, Targets, and Transition Plans*, October 2021, https://assets.bbhub.io/company/sites/60/2021/07/2021-Metrics_Targets_Guidance-1.pdf

¹⁶ Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088. See also AMF, [Taxonomy Article 8: The AMF informs issuers about the phased application of reporting requirements](#), September 2021. The non-financial companies concerned are those listed on a regulated market, if their average employee headcount over the financial year exceeds 500, their total balance sheet is over €20 million or if they post turnover of more than €40 million.

¹⁷ See, for instance, ADEME: <https://www.bilans-ges.ademe.fr/docutheque/docs/GUIDE%20PLAN%20D'ACTION.pdf> (in French).

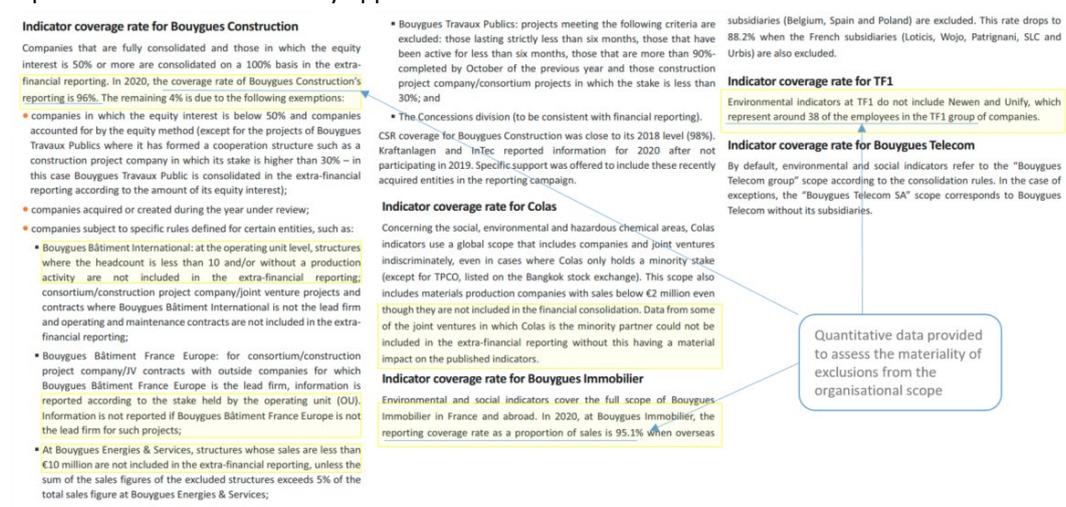
Regulatory requirements	Recommendations based on EC guidelines
<p>Scope of operational reporting (emissions scopes) <i>Under the key metrics listed in Art. R.225-105 of the French Commercial Code, where relevant to the main risks or policies applied:</i></p> <p>Significant sources of GHG emissions generated by the company's operations, in particular by the use of the goods and services it produces (Scopes 1, 2 and 3).</p> <p><i>Amendment to Art. L.225-102-1 of the French Commercial Code by Article 138 of the Climate Act¹⁸.</i></p> <p>For financial years beginning on or after 1 July 2022, the NFS must include information on direct and indirect GHG emissions related to transport activities both upstream and downstream of the company's operations. Both of these Scope 3 emission sources must be published.</p>	<p>Scope of operational reporting (emissions scopes) Direct and indirect GHG emissions (Scopes 1, 2 and 3). Calculations must be in line with the GHG Protocol methodology or the ISO 14064-1:2018 standard and, where appropriate, with the Commission Recommendation 2013/179 for common methods on measuring GHG performance following a lifecycle approach (Organisation Environmental Footprint and Product Environmental Footprint).</p> <p><i>Further guidance:</i> Scope 3 should account for emissions from activities that occur "downstream" and "upstream" of the company's own operations. Companies should not exclude any activity that would compromise the relevance of the reported Scope 3 GHG emissions inventory.</p>

The French regulatory framework therefore retains the notion of "significant emission sources" to account for the company's impacts on climate change. Nevertheless, the entire consolidation scope and all direct and indirect emissions sources must be taken into account to complete the materiality analysis and define the relevant emission sources.

□ Organisational scope

With regard to the organisational scope, only nine of the 19 companies in the sample (47%) provide GHG emissions data for the entire consolidation scope, meeting the requirement to provide information on the company's significant emission sources, as required by the French Commercial Code. For the 10 companies that only report information for part of this scope, six companies provide explanations and justify the scope applied; however, the reasons provided by four companies do not clearly explain the exact range of the scope used, or how the exclusions applied do not skew the inventory.

Example 1: Scope of organisational reporting: identification of discrepancies with the consolidated scope and explanations of the materiality approach used



Source: Bouygues, 2020 URD, p. 73.

¹⁸ French Law No. 2021-1104 of 22 August 2021 on combating climate change and strengthening resilience.

Example 2: Clarification on the scope used to calculate emissions

4.2.3.3.1 Climate performance - Emissions reporting

To provide transparency and advice to its customers, Veolia has been reporting on and publishing greenhouse gas emissions, based on the GHG Protocol, for the scope of activities under the Group's operational control, regardless of the percentage consolidation in the financial statements (see Section 4.8 below, Methodology).

Source: Veolia, 2020 URD, p. 212.

Given the various consolidation methods permitted by international frameworks based on the concept of materiality, such as the GHG Protocol, the non-financial reporting scope applied by the company occasionally differs from the financial consolidation scope. The GHG Protocol, the main benchmark used for reporting GHG emissions, therefore offers the option to consolidate data according to three methods: in proportion to the entity's ownership, or through the prism of "control", which may be financial or operational. The treatment of joint ventures (JVs) in particular may vary, depending on the consolidation methods provided by the IFRS or GHG Protocol.

Some companies adopt a combined method, by referring to the financial consolidation scope (excluding selected entities, often depending on their materiality) and adding an operational control approach (i.e. financial consolidation scope, plus some non-fully consolidated JVs).

Example 3: Clarification on the methodology used to define the operational scope in relation to the GHG Protocol

Reporting on environmental and climate change-related indicators covers all activities, sites and industrial assets in which TOTAL SE, or one of the companies it controls exclusively, is the operator, i.e., it either operates or contractually manages the operations ("operated domain"). Compared to the scope of financial consolidation, this corresponds to fully consolidated companies, with some exceptions⁽⁹⁾. The Group subsidiaries that are not fully consolidated because they are not material from a financial standpoint are consolidated in the reporting on environmental indicators.

Methodological approach: operational control

Greenhouse gas (GHG) emissions "based on the Group's equity interest" are also published for the "equity interest domain." This scope, which is different from the "operated domain," includes all the assets in which the consolidated subsidiaries have a financial interest or rights to production. This scope includes the entire statutory scope of the consolidated non-financial performance statement and the emissions of subsidiaries consolidated by equity method or not consolidated because not material from a financial standpoint.

The list of environmental and climate change-related indicators on which an entity must report is drawn up on the basis of the materiality thresholds (refer to the section entitled "Consolidation method").

Source: Total, 2020 URD, p. 273.

Example 4: Clarification on the treatment of joint-ventures and acquisitions in CSR reporting

Indicator coverage rate for Bouygues Construction

Companies that are fully consolidated and those in which the equity interest is 50% or more are consolidated on a 100% basis in the extra-financial reporting. In 2020, the coverage rate of Bouygues Construction's reporting is 96%. The remaining 4% is due to the following exemptions:

- companies in which the equity interest is below 50% and companies accounted for by the equity method (except for the projects of Bouygues Travaux Publics where it has formed a cooperation structure such as a construction project company in which its stake is higher than 30% – in this case Bouygues Travaux Public is consolidated in the extra-financial reporting according to the amount of its equity interest);
- companies acquired or created during the year under review;
- companies subject to specific rules defined for certain entities, such as:

Exclusions represent 4% of the reporting scope. JVs below 50% and equity affiliates are excluded, except for one JV included on a proportional basis.

The reporting scope includes companies acquired over one year ago.

Source: Bouygues, 2020 URD, p. 73.

Finally, there is also the question of how long it takes to integrate a newly acquired entity into the organisational scope. In most cases, methodology notes specify how these changes in the consolidation scope are accounted for. Practices vary widely, however, with the integration of new entities extending up to three or four years.

Key points for compliance with regulatory provisions:

- Companies must state and justify all exclusions from the financial consolidation scope, in particular by substantiating their non-material nature with regard to the calculation of significant sources of greenhouse gas emissions.
- When the consolidation method used is different to the financial consolidation scope and refers to other methods allowed by international standards (GHG Protocol or ISO standard), the company must explain how this decision encourages more relevant reporting and must justify the resulting discrepancies.

Good practices based on European Commission guidelines, or observed:

- Companies should adopt the most relevant organisational scope possible to meet the needs of users of this information. As such, the treatment of non-fully consolidated joint ventures should be specific to the company’s operations, and reasons must be provided.
- Companies should integrate newly acquired companies as soon as possible.

Operational scope and published information on the three emission scopes

With regard to the operational scope, all 19 companies in the sample publish information on the three emissions scopes, either separately or as an aggregate. This is an improvement on the analysis conducted in 2019¹⁹, particularly with regard to Scope 3. This progress can also be observed internationally²⁰. However, most of the companies in the sample only publish information on selected Scope 3 emission sources, without systematically providing the necessary explanations to justify the emission sources retained (with reference to the 15 emission sources set out in the GHG Protocol, in particular). For the Scope 3 emissions source relating to the use of goods and services sold, nine issuers do not report this item separately, and only one company provides a detailed explanation on the reasons for this exclusion (not relevant in terms of the business model). Finally, three companies in the sample do not distinguish between Scope 1 and 2 emissions, publishing only aggregated data instead.

Example 5: Indication of the non-material nature of exclusions applied to calculate Scopes 1 and 2 GHG emissions

Scope of reporting <i>(for the purpose of measuring greenhouse gas emissions)</i>	Inventory (millions of tonnes of CO ₂)	Year	Group sources covered by the inventory	Comments
SCOPE 1 Emissions from specific point or mobile sources that are owned or controlled by the Company.	1.01 ⁽¹⁾	2020	CO ₂ emissions from boiler houses at production plants and R&D facilities	Michelin controls the assets at which energy is used, thus generating CO ₂ emissions. Emissions excluded from inventory data account for less than 5% of Scope 1 and Scope 2 greenhouse gas emissions.
SCOPE 2 Emissions from the generation of purchased electricity, heating, cooling and steam consumed by the Company	1.46 ⁽¹⁾	2020	CO ₂ emissions from the generation of purchased electricity and steam consumed at production plants and R&D facilities	The change in emissions volumes in 2020 compared with the 2010 baseline is presented below (see <i>Scope 1 and Scope 2 CO₂ Emissions</i>). GRI 305-1: Direct (Scope 1) GHG emissions GRI 305-2: Direct (Scope 2) GHG emissions

Source: Michelin, 2020 URD, p. 102.

¹⁹ In AMF’s 2019 report, of the 24 companies in the sample, 21 (88%) describe their GHG emissions for all three scopes.

²⁰ See TCFD: *81% of respondents in the Task Force’s consultation on metrics, targets, and transition plans said they currently disclose Scope 1 and Scope 2 GHG emissions, with another 54% disclosing Scope 3 GHG emissions. Task Force analysis of 2,500 organizations within the MSCI All Country World Index (ACWI Index) found that from 2017–2019, organizations disclosing Scope 1 GHG emissions grew from 43% to 52%; organizations disclosing Scope 2 GHG emissions grew from 42% to 51%; and organizations disclosing Scope 3 GHG emissions grew from 28% to 34%.*

Example 6: Statement of reasons for the exclusion of certain sources when calculating Scope 3 emissions

To calculate Scope 3 emissions for 2019, the recommendations published by Greenhouse Gas Protocol (GHG Protocol) in its Technical Guidance for Calculating Scope 3 Emissions (version 1.0) were followed. Of the 15 categories of emissions identified by GHG Protocol, 11 were considered to be relevant to the Group (four downstream categories were excluded: downstream transportation and distribution, processing of sold products, downstream leased assets, and franchises). For some business activities, additional categories were excluded from reporting due to their lack of relevance to the business activity being assessed. For example, VINCI Construction did not take into account the downstream emissions of built infrastructures that do not directly consume energy, and Eurovia did not measure downstream emissions. Where appropriate, some business lines applied other, more detailed industry-specific standards. This was the case for VINCI Airports, which followed the recommendations of the Airport Carbon Accreditation; VINCI Immobilier, which applied the standard to be introduced with the new French environmental regulation for new constructions, RE2020, and VINCI Autoroutes, which used the tools provided by the Association of French Motorway Companies (Asfa).

Source: Vinci, 2020 URD, p. 271.

Example 7: Presentation of Scope 3 emissions with regard to the fifteen emissions sources set out in the GHG Protocol

Emissions scopes	2019 emissions (tCO ₂ e) without FCE et SAS	2019 emissions (tCO ₂ e) with FCE et SAS	2020 emissions (tCO ₂ e)	Level of uncertainty
SCOPES 1&2				
Scope 1 direct emissions	130 000	146 000	117 000	low
Scope 2 indirect emissions	614 000	766 000	662 000	low
SCOPE 3 UPSTREAM				
Purchased goods and services	4 780 000	5 940 000	4 770 000	medium
Capital goods	358 000	396 000	255 000	high
Fuel & energy related activities	207 000	205 000	168 000	low
Upstream transport and distribution	418 000	840 000	769 000	medium
Wastes generated	168 000	222 000	173 000	medium
Business travel	44 000	49 000	25 000	medium
Employee commuting	178 000	187 000	174 000	medium
Upstream leased assets	43 000	52 000	52 000	medium
SCOPE 3 DOWNSTREAM				
Downstream transport and distribution	155 000	398 000	359 000	medium
Processing of sold products	55 000	84 000	55 000	high
Usage of sold products	16 000 000	21 900 000	17 200 000	medium
Products end of life	275 000	220 000	225 000	medium
Downstream leased assets	0	0	0	
Franchises	0	0	0	
Investments	33 000	33 000	31 000	medium
	23 458 000	31 438 000	25 035 000	MEDIUM

Identification of the 15 emissions sources defined by the GHG Protocol

Source: Faurecia, 2020 URD, p. 337.

Finally, for Scopes 1 and 2, the reason for the use of estimates and the percentage of the results they represent are not always well defined.

Recommendations based on EC guidelines

Further guidance:

For Scope 1: disclose 100% of GHG emissions. If a company cannot collect reliable data for a proportion of its Scope 1 emissions, it should make a reasonable estimate. In this case, the company must state: 1) the % of Scope 1 emissions for which reliable data has been collected and the % of emissions that have been estimated; 2) the reasons for the estimate; and 3) the methodology used to estimate the proportion of emissions.

For Scope 2: If necessary, companies should state whether there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 2 GHG emissions within their selected reporting scope for which GHG emissions could not be collected or estimated, and the reasons for this.

Example 8: Statement of use of estimates

For the HSE part: all "quantitative" indicators are approved on November 30, then extrapolated over 12 months (water, energy, plastic, paint & solvent consumption; VOC & GHG emissions; waste, etc.).

HSE indicators on energy consumption, plastics and composites, VOC emissions, CO₂ emissions, water discharges, waste, Top Safety visits, first-aid treatments, and the correlated ratios were corrected for 2018 and/or 2019 following the detection of minor errors, concerning 11 sites.

Emission factors used to calculate CO₂ emissions resulting from electricity consumption are those of ADEME for France and the IEA (International Energy Agency) for all other countries; data for 2019.

Source: Plastic Omnium, 2020 URD, p. 175.

Key points for compliance with regulatory provisions:

- Companies should apply an operational scope that enables reporting on all significant GHG emission sources generated by the company’s operations. It is particularly important not to limit the report to Scope 1 and 2 emissions only, and to include Scope 3 emissions,²¹ including emissions related to the use of goods and services produced, where material.
- Specific attention must be paid to the explanations provided, both for any estimates carried out (Scope 1) and for the reasons for selecting certain Scope 2 and Scope 3 emissions sources, and in particular the difficulties in collecting or estimating relevant data.

Good practices based on European Commission guidelines, or observed:

- The presentation of GHG emissions should be broken down between direct emissions (Scope 1) and indirect emissions (Scope 2 and Scope 3).
- For Scope 3, in order to ensure that the materiality analysis covers all emissions sources in this Scope, a good practice identified within the sample involves referring to the 15 emissions sources defined by the GHG Protocol, and presenting a breakdown of the main Scope 3 emissions categories.²²

Presentation of carbon data by business and geographical location

Only half of the companies in the sample (9 out of 19) publish a breakdown of Scope 1 GHG emissions by region and/or by business or subsidiary, as recommended by the European Commission’s guidelines and the TCFD reporting framework. Eight of the companies do this for Scope 2.

Recommendations based on EC guidelines
Further guidance: Where applicable, for Scopes 1 and 2, provide a breakdown of GHG emissions by country or region (including the European Union), by business activity and by subsidiary.

Example 9: Breakdown of emissions calculation by business

Bouygues group greenhouse gas emissions

Scope activity or region	Bouygues Construction	Bouygues Immobilier	Colas	TF1	Bouygues Telecom	2020 Group total
	Global	France (exc. Subsidiaries)	Global	France	France	
Coverage as a percentage of sales	100%	88%	100%	85%	100%	94.6%
Scope 1	1.3%	n.m.	10.4%	n.m.	n.m.	11.8%
Scope 2	0.8%	n.m.	0.9%	n.m.	0.2%	1.9%
Scope 3a	13.6%	3.5%	63.7%	1.4%	4.2%	86.3%
Total Scope 1 to 3a	15.7%	3.5%	75%	1.4%	4.4%	100%
Total Scope 1 to 3a (Mt CO ₂ eq.)	2.5	0.5	12.0	0.2	0.7	15.9
Scope 3b (Mt CO ₂ eq.)	6.0	0.6	n.c.	n.c.	0.1	n.c.

n.m. = non-meaningful; indicates all figures below 0.05% or 0.05.
n.c. = not calculated; indicates any item that is not yet calculated.

Source: Bouygues, 2020 URD, p. 104.

SUEZ emissions in 2020 (in tCO₂-eq)

	2018	2019	2020		
	Scope 1 & 2	Scope 1 & 2	Scope 1	Scope 2	Total
Waste	6,526,252	6,649,366	6,202,401	194,778	6,397,179
Water	2,421,716	2,705,700	148,793	2,616,325	2,765,118
Industry ^(a)	90,003	113,606	33,406	45,789	79,195
Total	9,037,371	9,468,672	6,384,600	2,856,892	9,241,492

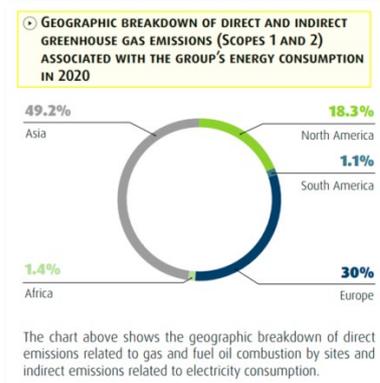
(a) The industrial business line includes all water production and wastewater treatment activities for industrial companies, as well as the production of equipment and chemical products.

²¹ Note that there is also the matter of updating Scope 3 data. The EFRAG Climate Cluster, in the working paper published in September 2021 (*op. cit.*), states (BC 293) that the annual disclosure of Scope 3 significant categories’ estimates could be based on a detailed assessment prepared every three years, to take into account the difficulties in collecting external data (except in the case of major change).

²² See EFRAG (*op. cit.*), BC 296: Undertakings should present the split of GHG emissions by Scope 1, 2 and significant categories of Scope 3 in a diagram.

Source: Suez, 2020 URD, p. 77.

Example 10: Breakdown of emissions calculation by geographical region



Source: Valeo, 2020 URD, p. 171.

Good practices based on European Commission guidelines or observed:

- To increase the relevance and usefulness of information for users, companies should publish information on the breakdown of their direct GHG emissions (Scope 1) and indirect GHG emissions (Scope 2) by geographical region and by business activity, and in particular those that operate in multiple countries or areas of activity. This information is particularly useful for assessing transition risks in relation to future regulatory changes, for example.

1.2. OUTLOOK: EMISSIONS REDUCTION TARGETS

For many companies, combating global warming and its effects will involve a dramatic shift in their industrial processes, and even their business model. As such, they will have to provide information to the market not only on their historical and current carbon footprint, but also on any planned changes and the targets they set. This will be particularly important for companies that have set themselves carbon neutrality objectives in the medium to long term (see Chapter 2 on the subject).

Regulatory requirements	Recommendations based on EC guidelines
<p>Absolute GHG emissions target Presentation of medium- and long-term reduction targets set voluntarily to reduce GHG emissions (<i>Art. R.225-105 of the French Commercial Code</i>)</p> <p><i>Amendment to Art. L.225-102-1 of the French Commercial Code by Article 138 of the Climate Act.</i></p> <p>For financial years beginning on or after 1 July 2022, the NFS must include information on direct and indirect GHG emissions related to transport activities both upstream and downstream of the company's operations, as well as an action plan to reduce these emissions, in particular by making use of rail and waterway transport, biofuels with a positive energy and carbon footprint, and electromobility.</p>	<p>Absolute GHG emissions target Absolute GHG emissions target in tCO₂e or % reduction compared to the baseline year Further guidance: describe whether the targets relate to Scope 1, 2 and/or 3 GHG emissions (either in full or in part) and include a horizon for 2025 or 2030 (to be reviewed every five years) and discuss the results. Companies should, where appropriate, consider disclosing GHG emissions targets by country or region (including the EU), by business activity, and by subsidiary.</p>
<p>Reference to the "Paris Agreement" Not specified</p>	<p>Reference to the "Paris Agreement" Describe how company targets relate to national and international targets, and to the Paris Agreement in particular, and consider setting a target for 2050 to align with the Paris Agreement.</p>

14 of the companies surveyed (75%) have already set emissions reduction targets, of which only half (7) have set targets for all three scopes (targets in absolute value). It is generally not specified whether the objectives are to be understood at current or constant scope. 16 companies²³ state that their targets or trajectories are compatible with the Paris Agreement, and where relevant with external validation (for 12 of them that require validation by the Science Based Targets initiative – see Box 2 below on the SBTi).

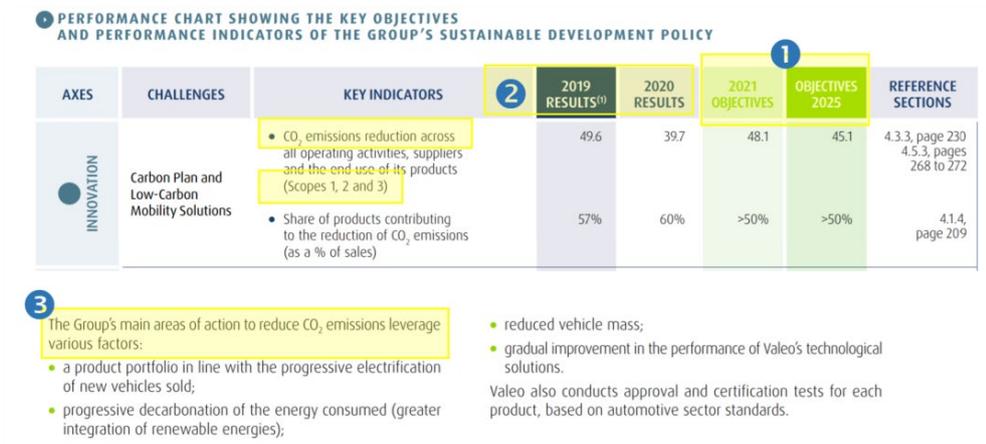
Key points for compliance with regulatory provisions:

- Present the medium- and long-term reduction targets set voluntarily to reduce GHG emissions.

Good practices:

- Publish gross GHG emission reduction targets for the three scopes (if significant) in absolute terms and in intensity with both short and medium term goals (e.g. 2025 and 2030), expressed as a reduction percentage compared to the baseline year.
- Clarify the scope (current/constant) and reference period.
- Review these targets every five years at least.
- Specify how these targets relate to the targets of the Paris Agreement and/or those defined by the European Union (or France, as appropriate) in accordance with the European Commission’s guidelines.
- For companies that disclose their targets in line with the Paris Agreement, opt for validation of targets according to a recognised benchmark.
- To improve transparency, provide a summary of the targets set and the changes in emissions in relation to these targets, and explain the various forms of action envisaged.
- Where appropriate, disclose GHG emissions targets by country or region (including the European Union), by business activity and by subsidiary.

Example 11: Presentation of defined targets



●: Summary of GHG emissions reduction targets in absolute value, ②: Reminder of past results, ③: Main forms of action.

Source: Valeo, 2020 URD, p. 39 and p. 230.

²³ The 14 companies mentioned above as well as two companies reporting only targets based on intensity.

Example 12: Definition of targets in line with the Paris Agreement, according to a recognised public methodology

The Group contributes fully to the carbon neutral approach of sites under its operational responsibility. This approach is based around four complementary lines of action:

Line no. 1: Reduce the Group's GHG emissions based on measuring and reporting scope 1, 2 and 3 GHG emissions (see Section 4.2.3.3.1 below). Veolia's responsibility is divided between:

- its own assets, such as the investment plan to eliminate coal in Europe by 2030, estimated at €1.2 billion;

- activities and services for which the Group exercises operational control where decisions (choice of energy mix, investments) are shared with its customers or supported by them;

- and in the value chain, depending on the Group's sphere of influence.

In 2019, Veolia committed to a 22% reduction in its greenhouse gas emissions (scopes 1 and 2) over 15 years, that is by 2034, compared with the operational scope of the 2018 baseline year⁽¹⁾. This objective is compatible with Paris Agreement ambitions (below 2DS trajectory) and was validated by the Science Based Targets⁽²⁾ initiative.

Progress towards the Science Based Targets approved target

	2019	2020	2023 interim objective	SBT approved 2034 objective
Reduction in GHG emissions / 2018 SBT reference scope (%)	+0.5%	-0.4%	-3%	-22%

Group GHG emissions in the SBT scope were expected to increase slightly until 2020 and then decrease. They decreased in 2020 thanks to an improved methane capture rate at landfill sites in the United Kingdom and Hong Kong.

To achieve the objective of a 22% reduction in emissions by 2034, a thermal coal substitution policy and a new methane capture target have been set in the 2020-2023 Environmental Plan.

Source: Veolia, 2020 URD, p. 107.

1.3. RELIABILITY OF REPORTING

Three areas contributing to the integrity of the reported information were assessed: the information provided on the methodology used to calculate carbon data, the publication of comparative data over time, and third-party verifications.

Regulatory requirements	Recommendations based on EC guidelines
<p>Methodology Not specified for the NFS</p>	<p>Methodology Calculate GHG emissions in line with the GHG Protocol methodology or the ISO 14064-1 standard</p>
<p>Comparative data N-1 Compulsory presentation of data for the financial year-ended and, where applicable, the previous financial year (N-1) for comparison (Art. R.225-105-1 of the French Commercial Code)</p>	<p>Comparative data N-1 N/A</p>
<p>Third-party assurance Obligation for the NFS to be verified by an independent third-party body (ITB): reasoned opinion on the accuracy of the information provided (results, KPIs, social information) (Art. R.225-105-2 of the French Commercial Code)</p>	<p>Third-party assurance Indicate the third-party verification/assurance status that applies to the reported Scope 1, Scope 2 and Scope 3 GHG emissions.</p>

- Details provided on the methodology used to calculate carbon data and monitor it over time

14 companies clearly state the methodology used (mostly the GHG Protocol), which is generally monitored over time (however, as noted above, the methodology is not always applied in full). Only 12 companies systematically publish data for the previous year (N-1). The absence of N-1 data (seven companies) is mainly due to the implementation of Scope 3 reporting. It is also noted that 11 companies modify the historical data; for six of them, no reasons are provided for this change.

Example 13: Presentation of the main methodological choices and their consequences

B. Carbon footprint

The purpose of determining Renault's carbon footprint is to measure and propel the reduction of greenhouse gas emissions in Groupe Renault. The following methodologies have accordingly been chosen:

- the carbon footprint is compared to the number of vehicles sold;
- in the event of sales or acquisitions, the reference value (2010) is corrected to take into account or subtract the site's emissions at that date in order to measure changes in the Group's carbon footprint in relation to 2010 on a comparable scope of activity;
- if there is an update to the model in the GaBi tool used to calculate the greenhouse gas emissions associated with the materials and parts purchased (see above), the 2010 reference value is recalculated with the new database in order to measure the changes to the indicator on a comparable basis. This happened in 2015 and 2018. In addition, to factor in the environmental performance of suppliers between model updates in the GaBi tool, a carbon performance factor of -2% per year is applied;
- the carbon footprint is calculated for a constant scope of emissions. When the scope is amended, the 2010 benchmark value is recalculated. In 2017, the calculation scope was extended to include: RRG, vehicles bought from and sold to partners, filling of air conditioning systems (for premises and vehicles), vehicle and engine testing and indirect emissions linked to purchased thermal energy. In 2018 two foundries were integrated into the scope without recalculating the 2010 benchmark value, this being a capacity extension rather than an integration of a pre-existing entity. In 2020, vehicle air conditioning maintenance was taken into account, with a recalculation of the 2010 reference value. The conversion factors between certification cycles were also updated.

Source: Renault, 2020 URD, p. 238.

Example 14: Data presented over multiple years, compared with the baseline year

Indicators related to climate change ^(a)					
GHG emissions					
		2020	2019	2018	2015
SCOPE 1 OPERATED					
Direct GHG emissions all operated sites	Mt CO ₂ e	36 (38)*	41	40	42
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO ₂ e	21 (22)*	24	24	22
BREAKDOWN BY SEGMENT					
Upstream hydrocarbons activities ^(b)	Mt CO ₂ e	16	18	18	19
Integrated Gas, Renewables & Power, excluding upstream gas operations	Mt CO ₂ e	3	3	2	-
Refining & Chemicals ^(c)	Mt CO ₂ e	17	20	21	22
Marketing & Services ^(d)	Mt CO ₂ e	<1	<1	<1	<1
BREAKDOWN BY GHG TYPE					
CO ₂	Mt CO ₂ e	34	39	38	39
CH ₄	Mt CO ₂ e	2	2	2	2
N ₂ O	Mt CO ₂ e	<1	<1	<1	<1
SCOPE 2 OPERATED^(e)					
Indirect emissions from energy use at operated sites	Mt CO ₂ e	3 (3)*	4	4	4
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO ₂ e	2 (2)*	2	2	2
SCOPES 1 & 2 FROM OPERATED OIL & GAS FACILITIES^{(f)-(h)-(i)-(j)}	Mt CO ₂ e	35.8 (39)*	41.5	42	46
SCOPE 1 EQUITY SHARE					
Direct GHG emissions based on equity share	Mt CO ₂ e	52	55	54	50
SCOPE 3^(k)					
Other indirect GHG emissions related to the use by customers of energy products sold for end use	Mt CO ₂ e	350 (400)*	410	400	410
Of which Europe: EU 27 + Norway + United Kingdom + Switzerland	Mt CO ₂ e	190 (215)*	232	231	256

Source: Total, 2020 URD, p. 255.

Example 15: Description of the method used for taking changes in scope into account, to limit N-1 restatements

Changes in scope of consolidation

Workforce indicators are calculated on the basis of the consolidated scope of the Group as of December 31, 2020. This workforce data is presented on the basis of the operational business segments identified in the 2020 Consolidated Financial Statements.

For environmental and climate change-related indicators, acquisitions are recognized as of the acquisition date whenever possible, or otherwise January 1 of the current year or as of the following year. A few subsidiaries acquired in 2020 will be included in the reporting published in 2022 on fiscal year 2021⁽⁶⁾. Any facility sold before December 31 is excluded from the Group's reporting scope for the current year.

Regarding safety indicators, acquisitions are recognized in the same year as soon as possible or on January 1 of the following year, with a few exceptions⁽⁶⁾. A few subsidiaries acquired in 2020 will be included in the reporting published in 2022 on fiscal year 2021⁽⁶⁾. All facilities sold are recognized up to the date of the sale.

Regarding societal indicators, subsidiaries of E&P, R&C and M&S segments are recognized as soon as possible and within no more than 36 months of the acquisition.

Source: Total, 2020 URD, p. 273.

Example 16: Restatement of data (N or N-1) to enable a comparison in case of a change in scope

Changes in the reporting scope:

As explained above, the 2019 reference year has been recalculated in order to include the FCE and SAS entities in the Group's reporting scope. To harmonize financial reporting and environmental reporting, only activities / products whose turnover is recognized under IFRS15 led to greenhouse gas emissions estimates.

Thus, the emissions linked to the chemical reactions that take place inside the catalytic converter, and which represent nearly 22 MtCO₂e in 2020 in relation to sales made by Faurecia according to estimates made internally, are not included in the carbon footprint of the group. In fact, under IFRS 15, Faurecia acts as an agent in the supply of catalytic converter components, responsible for chemical reactions, to OEMs. OEMs choose the technical specifications of the part and the supplier.

Furthermore, Faurecia does not have the right to set the prices and conditions of sale of the part, nor is it responsible for the technical performance of the part. Finally, the Group has no inventory risk (by contract or de facto). In particular, in

Greenhouse gas emissions on scopes 1, 2 and 3

	Year ended December 31	
	2019	2020
in ktCO ₂ e ^(a)		
Scope 1	722	668
Scope 2 ^(b)	588	479
Scope 3	25,869	24,974
Total Scopes 1, 2 and 3	27,179	26,122
Emissions intensity ratio scopes 1,2 and 3		
in grams of CO ₂ e/kg of product sold	740.1	755.9
Reduction in intensity on a like-for-like basis since 2015	24.8%	24.5%

(a) Greenhouse Gas scope, see Methodology Note.
(b) Market-based.

LIKE-FOR-LIKE CHANGES IN SCOPE (CONSTANT SCOPE)

Danone measures changes in environmental indicators and in greenhouse gas emissions on a like-for-like basis, i.e. at constant consolidation scope and constant methodology. The 2020 data has

been restated using the same consolidation scope and constant methodology as that of 2019.

Source: Danone, 2020 URD, p. 161 and p. 194.

Source: Faurecia, 2020 URD, p. 335-345.

It should also be noted that one issuer excludes one industrial site from the calculation of its emissions, despite it being a source of significant GHG emissions, on the grounds that it is subject to greenhouse gas emissions quotas. Although the company is transparent about this choice, this is not compliant with international emissions reporting standards. Seven companies also report GHG emissions in gross terms, however more than half of the sample (10) do not explicitly state the basis of presentation (gross or net).

Key points for compliance with regulatory provisions:

- Present comparable data on the previous financial year to understand the evolution over time.

Good practices:

- Apply the methodologies recommended in the European Commission's guidelines (GHG Protocol or ISO 14064-1 standard), in particular for comparison purposes.
- Provide the information required to understand the main methodological choices made to calculate GHG emissions and ensure such choices are maintained over time. In particular, it should be noted that in accordance with existing methodologies, there is no "netting" of data against offsetting actions, and that gross data is published.

- Explain any changes to N-1 data. Recalculate the N-1 value in the event of a significant change in scope or change in method (for example, calculation of Scope 2 via a market based approach vs. localisation based approach)²⁴ for comparison purposes.

□ Level of assurance provided

As part of the moderate assurance review of the NFS conducted by independent third-party bodies (ITB),²⁵ the ITB report states that specific due diligence was carried out on the key indicators of the NFS, including GHG emissions. Of the companies in the sample, while all reports mention specific due diligence on emissions scopes, only eight refer to due diligence for Scope 3. Furthermore, seven companies requested reasonable assurance on Scope 1 and/or Scope 2 indicators, and one issuer in the sample requested reasonable assurance on a limited scope of Scope 3.

Good practices:

- The specific due diligence referred to in the ITB’s report as part of a review with a moderate level of assurance should cover all key indicators related to significant GHG emissions, including Scope 3 where relevant.
- Companies should seek reasonable assurance on the most significant emission sources to increase the robustness of the data.

Example 17: Reasonable assurance on Scope 1 and moderate assurance on Scopes 2 and 3

Verified greenhouse gas emissions	Tons of CO ₂ equivalent verified	Level of assurance and representation of the selected sample (%)
100% of the direct scope 1 greenhouse gas emissions presented in the Statement in part 3.1.1.2.2 Summary of the 2020 GHG assessment	28 MtCO ₂ eq	Reasonable 72%
100% of the indirect scope 2 greenhouse gas emissions presented in the Statement in part 3.1.1.2.2 Summary of the 2020 GHG assessment	0.3 MtCO ₂ eq	Limited 67%
100% of the indirect scope 3 greenhouse gas emissions presented in the Statement in part 3.1.1.2.2 Summary of the 2020 GHG assessment	107 MtCO ₂ eq	Limited 22%

Source: EDF, 2020 URD, p. 227.

Example 18: Reasonable assurance of Scopes 1 and 2 emissions

Indicator title	ENGIE 2020	ENGIE 2019	ENGIE 2018
Total direct GHG emissions – Scope 1 □	38,589,016 t CO ₂ eq.	46,188,978 t CO ₂ eq.	57,205,670 t CO ₂ eq.
of which emissions from energy production	36,396,271 t CO ₂ eq.	43,724,817 t CO ₂ eq.	54,696,246 t CO ₂ eq.
of which CH ₄ emissions	1,516,355 t CO ₂ eq.	1,726,874 t CO ₂ eq.	1,830,192 t CO ₂ eq.
GHG emissions per business unit – energy generation	212.5 kg CO ₂ eq./MWheq.	220.0 kg CO ₂ eq./MWheq.	284.1 kg CO ₂ eq./MWheq.
GHG emissions per business unit – gas storage	0.8 kg CO ₂ eq./MWheq.	0.9 kg CO ₂ eq./MWheq.	0.9 kg CO ₂ eq./MWheq.
GHG emissions per business unit – gas transportation (excluding via LNG tanker)	0.8 kg CO ₂ eq./MWheq.	1.0 kg CO ₂ eq./MWheq.	1.1 kg CO ₂ eq./MWheq.
GHG emissions per business unit – LNG terminals	0.9 kg CO ₂ eq./MWheq.	0.8 kg CO ₂ eq./MWheq.	1.8 kg CO ₂ eq./MWheq.
GHG emissions per business unit – gas distribution	3.2 kg CO ₂ eq./MWheq.	3.4 kg CO ₂ eq./MWheq.	3.2 kg CO ₂ eq./MWheq.
□ Verified by the Statutory Auditors with “reasonable” assurance for 2020			

²⁴ The market-based approach reflects emissions from energy sources selected by the company, including the purchase of electricity from renewable sources. The location-based approach reflects the average emissions of the country concerned, based on the local energy mix. The GHG Protocol requires both calculations where such data is available.

²⁵ As a reminder, *moderate* assurance is the “standard” level of review performed by the ITB and is required in France. The issuer may also request reasonable assurance from the ITB on a selection of KPIs.

Indicator title	ENGIE 2020	ENGIE 2019	ENGIE 2018
Indirect emissions related to energy ("Scope 2")	2,330,625 t CO₂ eq.	2,534,464 t CO₂ eq.	2,912,586 t CO₂ eq.
Indirect emissions related to power consumption*	1,215,892 t CO ₂ eq.	1,454,795 t CO ₂ eq.	1,853,696 t CO ₂ eq.
Indirect emissions related to the consumption of steam, heating or cooling*	1,114,733 t CO ₂ eq.	1,079,669 t CO ₂ eq.	1,058,890 t CO ₂ eq.
Other indirect GHG emissions ("Scope 3")	134,001,032 t CO₂ eq.	133,601,446 t CO₂ eq.	139,222,319 t CO₂ eq.
Upstream fuel chain (energy-related emissions not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories)	19,684,560 t CO ₂ eq.	20,467,749 t CO ₂ eq.	21,889,235 t CO ₂ eq.
Investments (GHG emissions from power plants consolidated under the equity method)	31,105,244 t CO ₂ eq.	31,127,157 t CO ₂ eq.	30,869,952 t CO ₂ eq.
Use of products sold (fuel sales to third parties)	61,496,829 t CO ₂ eq.	60,882,185 t CO ₂ eq.	61,968,404 t CO ₂ eq.
Purchased products and services	18,572,190 t CO ₂ eq.	17,762,429 t CO ₂ eq.	21,670,364 t CO ₂ eq.
Capital equipment	3,142,210 t CO ₂ eq.	3,361,926 t CO ₂ eq.	2,824,365 t CO ₂ eq.

* The electricity and thermal energy consumption used to calculate this data is subject to verification by the Statutory Auditors with "reasonable" assurance for the financial year 2020 (see Section 3.11)

Source: Engie, 2020 URD, p. 100-101.

Example 19: Reasonable assurance on the three Scopes (with a limited scope for Scope 3)

CO₂ emissions (Scopes 1, 2 and 3 downstream) of VINCI Concessions companies, customers and end users

(in tonnes of CO ₂ equivalent)	VINCI Autoroutes		VINCI Airports	
	2020	2019 ^(*)	2020	2019
ISO Scope 1 and 2 emissions	24,663 <input checked="" type="checkbox"/>	27,639 <input checked="" type="checkbox"/>	127,472	158,283
User/third-party emissions (Scope 3)	11,308,416 <input checked="" type="checkbox"/>	12,665,533 <input checked="" type="checkbox"/>	2,588,246 ^(**)	2,156,244 ^(***)

(*) Emissions for the environmental reporting period, i.e. from 1 October in year Y-1 to 30 September in year Y. User emissions uniquely generated by fuel combustion of vehicles on motorways.
(**) Year Y-1 emissions taken into account in the Airport Carbon Accreditation (ACA) of year Y. Emissions covering all downstream Scope 3 emissions of the ACA scope required by the GHG Protocol, for the entire consolidated scope.
(***) Year Y-1 emissions taken into account in the Airport Carbon Accreditation (ACA) of year Y. Emissions covering only the LTO cycle, with the exception of the ANA airports, London Gatwick Airport and Lyon-Saint Exupéry Airport, for which all downstream Scope 3 emissions of the ACA scope are included.
 Data checked to a level of reasonable assurance.

Source: Vinci, 2020 URD, p. 230.

1.4. OTHER INFORMATION RECOMMENDED BY THE GUIDELINES OR PROVIDED BY DECREE

The European Commission's guidelines also encourage companies to publish other metrics related to energy consumption and the percentage of "green" financing. The implementing decree provides for certain information on the sustainable use of resources, where relevant to the company's main risks or policies. It should also be noted that the European SFDR Regulation requires financial market participants to report, as part of the disclosure of the "principal adverse impacts" of their investments, the share of non-renewable energy consumption and non-renewable energy production of the investee companies and, for sectors with a high climate impact, the intensity of energy consumption.

Regulatory requirements	Recommendations based on EC guidelines
Energy Under the KPIs listed in Art. R.225-105 of the French Commercial Code, if deemed relevant: <ul style="list-style-type: none"> • Energy consumption • Energy efficiency • Use of renewable energies 	Energy <ul style="list-style-type: none"> • Total energy consumption and/or production from renewable and non-renewable sources (distinguish the two), in MWh • Energy efficiency target, %
Assets affected by physical climate risks N/A	Assets affected by physical climate risks Assets committed in regions likely to become more exposed to acute or chronic physical climate risks, % In addition, disclose the sources or methodology used to identify regions more exposed to physical climate-related risks.

Regulatory requirements	Recommendations based on EC guidelines
Green Finance N/A	Green Finance Climate-related green bond ratio and/or Climate-related green debt ratio “Green” bonds and debt instruments are those issued according to a potential EU Green Bond Standard ²⁶ , if and when such a standard is approved, or according to any other broadly recognised green bond framework, such as the Green Bond Principles or Green Loan Principles. Companies should specify the green bond framework applied. <i>Further guidance:</i> Future objectives in relation to these metrics.

Energy

Only 12 companies in the sample present information on the consumption (and/or production for energy companies) of renewable and non-renewable energy, without providing details on the various renewable energy sources they use. Similarly, only four companies in the sample publish energy efficiency targets.

Example 20: Targets relating to the proportion of renewable energy

Lastly, as part of the RE100 initiative, Danone has pledged to shift to 100% renewable electricity by 2030, with an interim target of 50% by 2020 (see section *Outcomes*).

Source: Danone, 2020 URD, p. 159.

The proportion of renewable energy in the Group's energy consumption will increase from 5.5% in 2019 to 80% by 2030, with a threshold of 50% by 2025. A number of sites are already piloting renewable energy alternatives, including three Group sites in Chennai (India), where 90% of consumption is wind-powered, and sites in Sanand (India) and Bad Rodach (Germany), which use their own solar energy facilities to produce 30% and 20% of the energy they consume, respectively.

Source: Valeo, 2020 URD, p. 207.

Physical climate risks

No issuer supplies information on the ratio of assets affected by physical risks, with the exception of one company (Renault), which provides a non-exhaustive list of industrial sites exposed and to what extent (flooding, hurricanes, hailstorms, etc.), however no quantitative information is disclosed. One issuer identifies a physical risk (extreme weather events) liable to impact the operation of its network, a risk the company believes is mitigated through the balanced distribution of its network on different continents.

Green Finance

No issuer discloses the ratio of “green” debt to its total outstanding debt. However, certain issuers indicate the absolute amount of their green debt issues, or provide qualitative information on the subject.

²⁶ On 6 July 2021, the European Commission published a proposal for a regulation of the European Parliament and of the Council on European Green Bonds, in order to create a voluntary European standard: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0391&from=EN>

Key points for compliance with regulatory provisions:

- Companies must publish the metrics relating to energy consumption and management required by Article R.225-105 of the French Commercial Code, where relevant (energy consumption, energy efficiency and use of renewable energies)

Good practices:

- Companies should publicly disclose energy efficiency targets, to be set alongside emissions reduction targets.
- Companies must prepare to expand public information on their assets exposed to physical climate risks, as already provided for in the European Commission's guidelines and the TCFD recommendations, and as should be required by future European and international climate reporting standards.

1.5. TAXONOMY

The European Commission's supplement to the guidelines for climate reporting provided for the application of the Taxonomy Regulation (Regulation (EU) 2020/852) and in particular Article 8 relating to non-financial undertakings' reporting of the percent of turnover, percent of investment and/or expenditure relating to activities or assets that meet the criteria for "substantially contributing" to the mitigation of climate change or the adaptation thereto.

None of the issuers in the sample anticipated this regulatory obligation²⁷. However, one issuer (Suez) conducted the eligibility exercise on its turnover and referred to an ad hoc communication on this subject in its NFS. One issuer (EDF) also provided initial information in the notes to its financial statements on its eligible investments, based on the draft technical criteria published by the Technical Expert Group (TEG) in 2020 (see Chapter 3 below). As a reminder, reporting obligations resulting from the Taxonomy regulation for non-financial companies will come into force progressively as of January 1, 2022, with the publication of the share of revenues, Capex and Opex associated with their "eligible" activities. Companies will then have to disclose, as of January 1, 2023, the share of these 3 indicators associated with activities "aligned" with the European Taxonomy²⁸.

Key points for compliance with regulatory provisions:

- See AMF publication dated 22 September 2021 on the main provisions relating to the phased application of reporting requirements introduced by the Taxonomy Regulation.

2. CORPORATE CARBON NEUTRALITY COMMITMENTS

A growing number of companies now make reference to carbon neutrality. This is part of a broader drive to get investors, society and other external stakeholders involved in favour of the climate. This has been fuelled by the increase in the number of high-profile reports, such as those published by the IPCC, the International Energy

²⁷ Note that the draft Delegated Act defining the technical criteria for assessing the substantial contribution of activities to the first two environmental (climate) objectives of the Taxonomy, as well as for assessing compliance with the "DNSH" principles, was published in April 2021 and formally adopted in June 2021. It was published in the Official Journal of the European Union (OJEU) on 9 December 2021 (Delegated Regulation 2021/2139). In addition, the draft "Article 8" Delegated Act defining the reporting obligations of financial and non-financial undertakings under Article 8 of the Regulation and specifying the modalities for calculating the Taxonomy indicators, was adopted in July 2021, and published in the OJEU on December 10, 2021 (Delegated Regulation 2021/2178).

²⁸ A gradual entry into force is also planned for financial companies, with the publication of specific indicators, notably for eligibility in 2022 and 2023, and for alignment indicators from 2024.

Agency, the United Nations Environment Programme, the United Nations Framework Convention on Climate Change, etc.²⁹ highlighting the need for rapid action.

Taking into account the alignment of economic players with the targets of the Paris Agreement is the subject of draft regulations³⁰ and a range of voluntary work undertaken by companies and investors as part of coalitions, or under the aegis of international initiatives. Increasing engagement on this issue³¹ may reflect greater awareness of the need for involvement from the business world. However, the objectives set have been criticised, at times rightly so, with respect to the level of ambition, the resources deployed, lack of action in the short term and the risks of “greenwashing”. However, compliance with the Paris Agreement means achieving carbon neutrality by the middle of the 21st century, a goal that can only be achieved with the private sector’s full engagement.

Box 2: The “Net Zero” standard of the Science-Based Targets initiative

The Science-based targets initiative, a partnership between the CDP, the United Nations Global Compact, the World Resources Institute (WRI) and the World Wildlife Fund (WWF), have developed methodological frameworks to help set GHG emission reduction targets based on quantitative technical criteria that stem from scientific works. Companies can submit their targets for “validation”, which certifies that the company’s targets comply with SBTi’s methodological frameworks (however do not assess the associated action plans). Three levels of ambition have been defined: “2°C”, “Well below 2°C” and “1.5°C”, SBTi having announced however that as of July 2022, it will only consider targets compatible with a 1.5°C trajectory³².

In October 2021, SBTi published a voluntary standard for defining carbon neutrality targets. It qualifies the levels of short-term (5-10 years) and long-term targets(2040 for the energy sector, 2050 at the latest for other sectors), compatible with the concept of carbon neutrality. The framework is based on four main requirements: **focus on rapid and significant emission reductions, set short- and long-term targets, don't declare “net zero” until long-term targets have been met, go beyond the value chain**. When short-term objectives are achieved earlier than expected, new milestones must be set. Four actions are used: emissions reduction, negative emissions, project financing that avoids or sequesters emissions, and development of emissions avoidance projects in the value chain.

The SBTi states that most companies will need to reduce their gross emissions by at least 90% to help achieve global carbon neutrality. Negative emissions technologies should only be used for emissions that cannot be reduced. The types of targets and related thresholds are:

- Absolute decrease in the short term: 4.2% annual decrease in emissions for Scopes 1 and 2 and 2.5% for Scope 3;
- Common Scopes 1 and 2 intensity: all companies in a sector converge towards a common emissions intensity by 2050 (2040 for the electricity sector) according to the Sectoral Decarbonation Approach (SDA). This method adjusts a company’s target based on its current emissions level, target year and expected increase in production;
- Scope 2: Renewable energy supply: at least 85% by 2025 and 100% by 2030;
- Scope 3: reduction in intensity per physical unit (e.g. tCO₂e per unit produced) or economic unit (e.g. tCO₂e per million euros of turnover). For short-term intensity targets, the minimum reduction is 7% per year, 97% for long-term targets;
- For Scope 3, in the short term only: target a percentage of customers and/or suppliers having set SBTi targets;
- Base year: 2015 or after. Scope 2 in the target’s baseline year can be calculated using a location-based or market-based approach (annual reporting must be prepared using both methods, see above).

²⁹ See for example, IPCC, Part I of the Sixth Assessment Report, IEA, *Net Zero by 2050*, UNEP, *Emissions Gap Report*, Production Gap Report, UNFCCC Nationally Determined Contributions Synthesis Report.

³⁰ Article 19 *bis* of the European Commission’s proposed CSRD. The United Kingdom has also announced that the publication of a [transition plan](#) in line with the United Kingdom’s Net Zero plan will be made mandatory for listed companies.

³¹ According to the [Net Zero Tracker](#), more than 600 of the 2,000 largest companies have made carbon neutrality commitments.

³² Assumptions: 50% probability of complying with a 2050 carbon budget of 500 Gt CO₂e, with low/intermediate use of carbon dioxide removal technologies.

Companies are called upon to take action throughout and outside of their value chain. As such, short-term targets should cover 95% of Scopes 1 and 2 and 67% of Scope 3 (where Scope 3 accounts for 40% or more of total GHG emissions). For certain sectors (e.g. sale and distribution of hydrocarbons), specific Scope 3 sources must be explicitly included. Long-term targets must cover 95% of Scopes 1 and 2 and 90% of Scope 3.

Source: SBTi, *Net Zero Corporate Standard*, October 2021, <https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf>

Of the 19 companies in the sample, 13 have made carbon neutrality commitments on various time horizons and perimeters. These commitments have been made mostly in 2020 or 2021. The analyses offer an initial assessment of corporate communication on carbon neutrality and highlight a number of good practices, particularly in terms of transparency and enhancing the accountability of companies with regard to their stated strategies. This work echoes recent efforts in France (ADEME, Net Zero Initiative) and abroad (new “Net Zero” framework published by the Science Based Targets Initiative) to clarify and strengthen companies’ carbon neutrality efforts. For an overview and definitions of the main terms relating to carbon neutrality, please see the AMF Climate and Sustainable Finance Commission report dated October 2021 (*op. cit.*).

Four themes are addressed: the transparency of the commitments made, the level of ambition and comparability from one company to another, the presentation of the various pillars of the approaches, and operational implementation via action plans.

2.1. TRANSPARENCY OF COMMITMENTS MADE

Terminology and definitions

The various terms relating to carbon neutrality are generally used indiscriminately by companies, however do not all reflect the same reality. The objective also involves complex concepts (sequestration, negative emissions, avoided emissions, offsetting, etc.), which are used differently by companies. However, only half of the sample offered precise definitions for the terms used. The terms “carbon neutral” and “carbon neutrality” are used by all companies in the sample. Some then specify whether they address all GHGs, or CO₂ only. Almost half of the sample also make reference to “net zero emissions”, and some refer to “CO₂ neutrality”.

In most cases, companies define at least two stages in their carbon neutrality approach: i) reducing emissions and ii) offsetting residual emissions. Only a few companies underscore the role of sequestration and/or avoided emissions.

With regard to reduction efforts, the 2050 gross emissions reduction target is not specified by any company in the sample. It is generally stated that reductions are carried out “to the maximum extent” or that “residual emissions” will be offset, without any real indication of what the company considers the residual emissions threshold to be, the maximum level of reduction to be achieved, or the criteria applied (climate imperative as defined by existing scientific knowledge, technological constraints, economic impacts, etc).

Offsetting generally goes undefined, or is poorly defined. It includes “negative emissions projects”, “Positive CO₂ impact projects” and “positive carbon solutions”, terms that are used interchangeably. While the first option refers specifically to the financing of CO₂ sequestration projects, the last two may indiscriminately refer to long-term CO₂ sequestration via the capture of CO₂ directly from the air, the storage of CO₂ via carbon capture and storage (CCS) technologies, or avoided emissions, which are three distinct concepts.

Example 21: Clarification on carbon offsetting and the criteria applied by the company

- (1) Carbon offsetting consists of financing a project enabling avoidance or sequestration of greenhouse gas emissions by purchasing carbon credits. The underlying principle of carbon offsetting is that the impacts of one tonne of carbon emitted in one place can be neutralised via sequestration (i.e. long-term storage outside the atmosphere) or reduction of another tonne of carbon elsewhere. Carbon offsetting is covered by different international certifications (Gold standard, Verra, UNFCCC Clean Development Mechanism) or domestic certification schemes (Bas Carbone (i.e. Low carbon) in France, Woodland Carbon Code in the United Kingdom) that all meet strict measurability, verifiability, permanence and additionality rules - i.e. only projects both designed for carbon offsetting from day 1 and funded by generated carbon credits are eligible.

Source: EDF, 2020 URD, p. 138.

For a company, carbon neutrality is achieved by reducing carbon emissions from the production and use of its products to as close to zero as possible and then offsetting any residual emissions. The concept of carbon neutrality means that in some cases Michelin may use carbon offsets or carbon capture solutions.

Source: Michelin, 2020 URD, p. 207.

Emissions reduction targets in absolute value

A number of important factors must be taken into account in the analysis of targets.

■ Absolute value vs. intensity

An absolute reduction target by a specific date is expressed in terms of volume in tCO₂e, or as a percentage decrease in GHG emissions between two dates. An intensity target corresponds to the volume of GHGs emitted in relation to a business metric: quantity of GHGs emitted per unit of products sold, per euro of turnover, per kWh produced, per kilometre travelled, etc.

Of the 13 companies in the sample, 10 set absolute reduction targets (tCO₂e or percentage emissions reduction). For half of the companies (5), these targets cover all three scopes, however Scope 3 is only fully covered by one company. Three companies set absolute targets only for Scopes 1 and 2, and two companies only for Scope 3.

Where intensity targets have been set, it is impossible to assess whether a reduction in intensity ultimately translates into a reduction in absolute emissions.

With regard to Scope 3, only EDF explicitly states that it addresses all 15 items defined by the GHG Protocol in its reduction target (i.e. a targeted reduction of -28% in the company's Scope 3 emissions between 2019 and 2030). The other companies set targets on three items on average out of these 15 items, and in several cases the main Scope 3 item(s) are not addressed. On average, 53% of companies' *measured* Scope 3 emissions are covered by the targets (see Chapter 1 on the various scopes adopted by companies), with significant disparities (from 3.7% of the company's measured Scope 3 emissions to 100%). Here again, the relevance of Scope 3 measured by the company has a major impact on the breadth of the targets' scope. In particular, six companies include the emissions source "use of sold products". In half of the cases, these are intensity targets, and/or set for a limited geographical scope (Europe). In two other cases, it cannot be determined whether this item is included in the targets.

In the rest of the chapter, unless stated otherwise, "objectives" or "target" shall refer to absolute emission reduction targets.

■ Net vs. gross

The GHG reporting frameworks prohibit any emissions "netting". This means that avoided, sequestered, stored or "offset" emissions cannot be used to reduce the company's GHG emissions figures. These actions must be the subject of a separate publication.

The situation is more mixed when companies disclose their greenhouse gas emission reduction targets. At least eight companies present "netted" objectives, but via different practices:

- In four cases, the stated objectives include a simplified form of netting, authorised by the SBTi in the context of GHG emission reduction targets.³³ These scenarios are specified on the SBTi website, but not necessarily in the NFS, with only Michelin indicating this in a footnote;
- Total states that the target is to achieve a reduction in *net* emissions, specifying that the calculation takes into account natural carbon sinks;
- In another case, the company only provides an intensity target, understood through the use of “market-based measures”, referring to voluntary and regulatory carbon credits and avoided emissions. The concept of “market-based measures” (*mesures de marché*) is defined under the methodology note in the issuer’s NFS.
- Finally, in another case, netting is suggested with a target of almost zero emissions on Scopes 1 and 2 by 2025.

The notion of netting is also referred to in various publicly-available documents (NFS, investor presentations, integrated report, press release), for example: “*avoidance makes it possible to reduce*”, “*our solutions [which themselves contribute to the reduction of CO₂ emissions] offset the CO₂ emissions associated with their production*”.

■ CO₂ vs. GHG

In approximately half of the cases, all GHGs are covered by the notion of “carbon neutrality” in the communications of the companies in the sample. In a quarter of cases, only CO₂ is addressed, and the remaining companies do not specify this clearly. In one case, the calculations alternatively suggest that the approach relates to CO₂ only or, on the other hand, all GHGs. Of the companies that focus their approach on CO₂, only Saint Gobain provides reasons for excluding other GHGs (they are not material for the company).

Example 22: Explicit statement of GHGs covered and reasons for any exclusions

4.1.7 Objectives and performance measurement

Saint-Gobain has set objectives and implemented a set of indicators to monitor its climate change performance.

The carbon-related targets are detailed in the “Carbon 2030” roadmap. It should be noted that the Group’s impact on greenhouse gases is limited to the carbon impact, given that the emissions of greenhouse gases other than CO₂ are not significant.

Source: Saint Gobain, 2020 URD, p. 102.

3.1.1.1 Group commitments

3.1.1.1.1 Achieving carbon neutrality by 2050

The EDF group was one of the first businesses, way back in 2018, to set itself the goal of contributing to achieving carbon neutrality by 2050. This commitment was reinforced and set out in greater detail in March 2020. In practical terms, this involves reducing the Group’s direct greenhouse gas emissions to zero or near-zero by 2050, reducing indirect emissions as much as possible in accordance with national policies and, finally, setting up negative emissions projects to offset the Group’s residual emissions over the same period. This goal covers greenhouse gas emissions within all Group scopes and for all Group activities in all geographical regions.

Source: EDF, 2020 URD, p. 133. The regions and GHGs covered by the targets are explicitly identified and cover the company’s activities in a comprehensive manner.

■ Definition of intermediate targets

Modelling a GHG emissions reduction trajectory is a complex exercise, and on which limited information is provided by companies in their non-financial statements. As a result, no company commits to such a trajectory or to a total volume of GHGs in the medium term. Objectives are therefore generally structured as follows: commitment to carbon neutrality by 2050, without specifying the reduction target in absolute terms, broken down into 1 or 2 intermediate milestones (2030 and, where applicable, before 2030). In another case, the earliest deadline targeted is 2030, however the *absolute* reduction commitment (see above) excludes the company’s main emission sources,

³³ SBTi only allows CO₂ removals to be included in its targets when bioenergy is used (e.g. biomass combustion). The natural removal of CO₂ through biomass can be subtracted from emissions relating to its combustion. However, the guideline recommends making a distinction between two options (emissions vs. removals): see sections C10 and R4 of [SBTi Criteria and Recommendations](#) (V5, October 2021). However, the amount of negative emissions taken into account cannot exceed emissions from the combustion of bioenergy.

2.2. LEVELS OF AMBITION, SCIENCE-BASED TARGETS AND COMPARABILITY BETWEEN COMPANIES

The companies do not quantify the emissions reduction level they consider compatible with a carbon neutrality objective, however do define intermediate targets. Of the 13 companies in the sample, nine companies had their reduction targets validated by the SBTi. However, ambition levels are varied: around half correspond to the SBTi “2°C” level, and the other half to a “Well below 2°C” level, even 1.5°C. As SBTi announced in July 2021 that the “2°C” and “Well below 2°C” levels will no longer be accepted from July 2022 (see Box 2), companies that already have targets validated at these levels will have to revise them by 2025 at the latest.

Comparing companies remains difficult, however, and is biased due to differences between the baseline years and the intermediate dates selected, or the objectives set (breadth of scope, changes in scope, presentation of gross and net figures), and sometimes due to inaccuracies in the information provided or a lack of information. As such, for some companies, values for the baseline years referenced cannot be calculated.

In particular, the scope applied is an important factor in determining whether targets have been achieved. As an example, the emissions reduction over five years for Scopes 1 and 2 as reported by one company on a like-for-like basis is 1.6 times greater than the same value recalculated on a current basis.³⁴ Three companies specify the scope adopted, however via different approaches: one company defines a target at current scope, another at constant scope, and for the third, the reduction target appears to be defined on the basis of the organisational scope in the baseline year, from which disposals are deducted, without specifying how acquisitions are accounted for. This company also tracks a target for emissions avoided on a current basis, proportional to sales. Assuming that the company’s business volumes increase over the coming years, here again the target will be easier to achieve. It should also be noted that the emission factors used in the calculations will change over time. Some companies therefore recalculate the baseline, and the actual figures for a given year change according to the most recent versions available.

Finally, a small number of companies (3) have also set different and more ambitious targets (intensity or absolute value) for their European operations by 2030 and/or 2050, a reflection of the impact of European environmental regulations (in the transport sector, for example), which encourages companies to raise their ambitions. One company (EDF) explicitly states that “all geographical regions are concerned”.

Despite the methodological limits on comparisons, the recalculation of companies’ 2030 objectives³⁵ as an annual reduction percentage gives the following results:

Table 1: Summary of emissions reduction targets in absolute value for the different Scopes

Scopes 1+2 (n=8)*					
	All	SBTi	Not SBTi	Netting**	Without netting
n =	8	6	2	5	3
Average	-4.2%	-4.4%	-3.8%	-3.1%	-6.1%
Min	-1.5%	-1.5%	-3.4%	-1.5%	-2.3%
Max	-11.8%	-11.9%	-4.2%	-5.2%	-11.8%

Scope 3 (n=7)*					
	All	SBTi	Not SBTi	Netting**	Without netting
n =	7	6	1	6	1
Average	-2.6%	-2.6%	-2.4%	-2.5%	-3.2%
Min	-1.3%	-1.3%		-1.3%	
Max	-5.5%	-5.5%		-5.5%	

Source: AMF based on the NFS of companies in the sample. * In certain cases a baseline could not be calculated, and the companies were therefore not included in this table. ** The objectives described in section 2.1 are counted as “netted” objectives.

³⁴ Source: AMF calculations.

³⁵ In one case, the target year is 2034. The annual reduction percentages were calculated as follows:
 $\% \text{ of annual reduction} = (1 - \% \text{ of total reduction over the period})^{(\text{target year} - \text{baseline year})} - 1.$

The annual emissions reduction rates for Scopes 1 and 2 therefore vary greatly from one company to another, ranging from -1.5% to -11.8%. The difference is narrower in Scope 3, between -1.3% and -5.5%. On average, companies whose targets have been validated by SBTi set more ambitious targets than other companies. Somewhat counter-intuitively, targets set on a net basis are lower than those set on a gross basis. Finally, it is worth noting that in a small number of cases, the targets set are close to or below the level already achieved. For example, short-term targets were identified as lower than the achievements of the last years. In cases where the objective is achieved before its term or when it is set at a level close to the company's current performance, explanations could be provided to justify such an objective. In another case, a 2030 Scope 1 reduction target had already been 76% achieved in 2019. This may reflect that the highest impact actions were implemented quickly, with more significant effort required for the latter part of the journey, or it may be the result of a relatively easy goal to achieve.

2.3. DRIVERS FOR ACHIEVING CARBON NEUTRALITY

□ Reduction, sequestration, avoidance and offsetting

Just over half of the companies in the sample (7 out of 13) prioritise the different phases of their carbon neutrality strategy. **Priority is given to reducing GHG emissions**, as required by numerous standards. The role offsetting plays in efforts to achieve carbon neutrality by 2050 is impossible to assess. In one case, most of the action plan for the company's carbon neutrality strategy involves offsetting, combining both voluntary offsetting and regulatory quotas, while the acquisition of regulatory allowances is not an action contributing to a carbon neutrality approach.

Few companies set quantified targets for carbon sinks or avoided emissions. Total is one such company, which sets quantified targets for the development of natural carbon sinks in terms of euros allocated and tonnes of CO₂ sequestered. An annual investment budget for carbon capture and storage technologies is also provided. Veolia also defines a quantitative target for avoided emissions.

Example 24: Quantitative targets set for natural carbon sinks and avoided emissions

2.1.7.2 Natural carbon sinks

Carbon sinks based on natural solutions are an effective means of capturing CO₂. In June 2019, the Group created a new entity, Total Nature Based Solutions (NBS), that is dedicated to investing in those solutions. The mission of NBS is to fund, develop and manage activities that capture carbon naturally (reforestation, regenerative agriculture, etc.) and to help to protect ecosystems that already store large volumes of carbon emissions.

Agriculture that is attuned to cycles for resource regeneration will offer social, economic and environmental benefits for local communities. TOTAL plans to invest an average of \$100 million per year between 2020 and 2030. This significant investment should allow the sustainable use of those value chains. TOTAL's target is to reach sustainable capacity of sequestration of at least 5 Mt CO₂ annually by 2030. In March 2021, TOTAL and Forêt Ressources Management have signed a partnership agreement with the Republic of the Congo to plant a 40,000-hectare forest on the Batéké Plateaux. The new forest will create a carbon sink that will sequester more than 10 million tons of CO₂ over 20 years.

- ← Reference to co-benefits
- ← Explanation of the budget (approx. 0.7% of the Group's 2020 gross investments)
- ← Quantitative target for sequestration of CO₂

Source: Total, 2020 URD, p. 55.

Aspect	Objective	SDG ⁽¹⁾	Indicator - definition	2019 Baseline	Results 2020	2023 Target								
Environmental performance	Combating climate change		<ul style="list-style-type: none"> • Reduction in GHG emissions: progress with the investment plan to eliminate coal in Europe by 2030 	Not applicable	8.1% of total achieved investment	30% of investment to be achieved ⁽²⁾								
			<ul style="list-style-type: none"> • Avoided emissions: annual contribution to avoided GHG emissions (assessed with regard to a reference scenario). 	12 million metric tons of CO ₂ eq	12.8 million metric tons of CO ₂ eq	15 million metric tons of CO ₂ eq								
<p>Line no. 2: develop solutions to help its customers to avoid emissions, through the generalization of the circular economy and the recovery of unavoidable energy.</p> <p>Emissions avoided by Veolia customers, tied to the 2020-2023 strategic plan</p> <table border="1"> <thead> <tr> <th></th> <th>2019</th> <th>2020</th> <th>2023 objective</th> </tr> </thead> <tbody> <tr> <td>Avoided emissions* (in millions of metric tons of CO₂ eq.) (current scope)</td> <td>12.1</td> <td>12.8</td> <td>15</td> </tr> </tbody> </table> <p>* Emissions avoided by the Group's businesses under the 2020-2023 strategic plan are not calculated in the same way as for the 2015-2020 sustainable development commitment, following changes to the methodology and notably the integration of preliminary guidance on accounting for avoided emissions for the waste and recycling sector (EIT Climate KIC - January 2020) and the emissions avoided by the Energy business (cogeneration and production of renewable and alternative energies).</p>								2019	2020	2023 objective	Avoided emissions* (in millions of metric tons of CO ₂ eq.) (current scope)	12.1	12.8	15
	2019	2020	2023 objective											
Avoided emissions* (in millions of metric tons of CO ₂ eq.) (current scope)	12.1	12.8	15											

Source: Veolia, 2020 URD, p.6 and p.208

While companies do not systematically set targets for carbon sinks or avoided emissions, some of those in the analysis have begun to publish information on avoided emissions calculated over the past year, or examples of sequestration projects, as a potential first step towards setting targets. Companies that are further along in this process explain their position on sequestration and avoidance, sometimes indicating why they prefer one over the other as part of their carbon neutrality strategy.

Avoided emissions generally entail partial quantifications for one or a few specific projects, but there is currently no group-wide reporting for all avoided emissions. Some companies seek to quantify avoided emissions by product by developing specific methodologies, occasionally with the help of specialised service providers or through partnerships with research organisations. Most of the companies that publish avoided emissions figures³⁶ provide information for the baseline. While often limited in terms of detail, these figures nevertheless reflect specific work on the subject, which should be developed further. A number of other companies are also beginning to disclose avoided emissions from a qualitative standpoint, for example by explaining how the use of their products helps their customers avoid emissions. There is no quantified annual reporting on the development of carbon sinks.

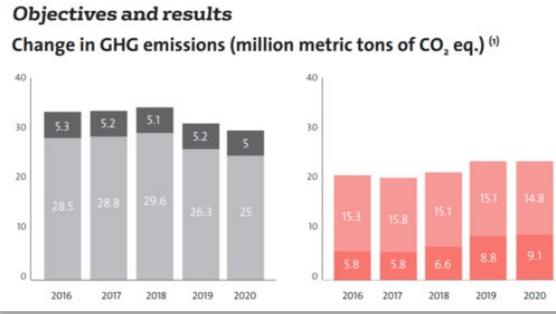
³⁶ Possibly (EDF) in connection with the issuance of a "green" bond. For RES capacity development projects, the calculation is based on the difference between the financed energy mix vs. the average energy mix of the country where the project is located.

Example 25: Presentation of avoided emissions

Total emissions reduced and avoided since 2015

	2015	2016	2017	2018	2019	2020	2020 objective
Total emissions reduced ⁽¹⁾ since 2015 (million metric tons of CO ₂ eq.)	16.9	32	48	63.1	78.2	93.0	100
Total emissions avoided ⁽²⁾ since 2015 (million metric tons of CO ₂ eq.)	6.2	12	17.9	24.4	33.2	42.3	50

(1) Since 2016, Veolia has aligned its scope 2 calculation for Energy activities with the GHG protocol. The calculation reference scenario for emissions reduced was modified downwards.
 (2) In 2019, Veolia updated the avoided emission factors associated with the GHG Protocol tool for the waste recovery sector, relating to the "Protocol for the quantification of greenhouse gases emissions from waste management activities - v5 - October 2013".



Source: Veolia, 2020 URD, p.214 and 215 Avoided emissions are reported separately from emissions reduction, and are monitored over time in line with the setting of targets.

Finally, the use of voluntary carbon credits to support reduction, sequestration and avoided emissions actions is generally poorly described in the non-financial statements analysed. These carbon credits represent financing for carbon sinks or avoidance projects outside the value chain. Rather than defining a systematic approach on this subject, companies illustrate their offsetting practices by describing a few isolated examples. However, some issuers (EDF, Michelin) provide precise details on the underlying principles for offsetting measures and the different forms they take. In particular, EDF specifies the measurability, verifiability, permanence and additionality criteria applied, as well as the certification standards required by the company for its offsetting actions. Some companies reference the labels or certifications used to guarantee the quality of the projects concerned. Three companies refer to carbon avoidance credits, however provide few details (for example on the method used to calculate avoided emissions). Finally, we noted one company’s reforestation initiative, giving rise to *ex ante* credits (i.e. sale of credits before the equivalent CO₂ has been stored by planted trees), without being able to determine whether all or part of these *ex ante* credits have been acquired by the company.

Example 26: Presentation of types of offsetting projects considered

The EDF group is focusing on the use of “negative emissions” projects to offset its residual emissions by 2050, compared to “avoided emissions” projects. This can include technological solutions, such as Bio-Energy with CO₂ Capture and Storage (BECCS), or natural solutions, such as carbon sequestration in forests and soil.

Source: EDF, 2020 URD, p. 138.

Offsetting emissions
 Danone pledges to offset remaining greenhouse gas emissions while implementing solutions intended to improve the quality of life of the most vulnerable communities. Accordingly, Danone takes part in reforestation programs and schemes to restore natural ecosystems, notably through the Carbon Livelihoods Fund, of which Danone is a partner Company. The aim of compartments 1 and 2 of the Livelihoods Carbon Fund is to sequester or avoid 20 million metric tons of CO₂ emissions over 20 years through a dozen projects in Asia, Africa and Latin America.

Source: Danone, 2020 URD, p. 160.

4.1.4.1 f) Investing in socially responsible carbon credits

Since 2014, Michelin has invested in the Livelihoods Carbon Fund, which supports reforestation, agroforestry and low-carbon cookstove projects on three continents. Conducted in collaboration with local NGOs, its projects help to reduce GHG emissions, while improving quality of life in local communities and offering investors a return in the form of carbon credits with high environmental and social value. In 2017, Michelin also invested in the new Livelihoods 2 carbon fund.

In all, the Group's total stake in the two funds currently stands at €4.8 million.

In 2020, three projects generated 51,541 carbon credits for the Group, corresponding to 51,541 tonnes of avoided CO₂. The first concerns a mangrove restoration program in Senegal, where tree replantings have helped to revitalize farmland and restore marine biodiversity now that the mangroves act as a

protective barrier against salt water. The other two projects are installing several tens of thousands of energy-efficient cookstoves in village homes in Kenya and Burkina Faso (where the project is being carried out exclusively with women). The stoves eliminate both toxic smoke and the time-consuming task of collecting wood, while cutting GHG emissions in half.

Due to the health crisis, two scheduled audits could not be performed in 2020, postponing the allocation of the related credits until 2021.

Statement of co-benefits

Transparency on planned controls not carried out

- Total amount of carbon credits purchased [2014-2020]
- Amount of sequestration and avoidance credits (not distinguished) generated during the year

Source: Michelin, 2020 URD, p. 207.

□ Employee engagement and involving the entire value chain

Several companies highlight how a carbon neutrality strategy encourages employee engagement. Some companies state that they train and encourage their employees to get involved. EDF is one such company (roll-out of the “Climate Fresco” initiative amongst Group employees, implementation of a “carbon neutrality passport” linked to the company’s profit-sharing agreement).

With regard to actions undertaken upstream of their value chains, some companies highlight efforts made with suppliers. Some point out that achieving their 2030 objectives will logically require them to change their supplies. The most advanced among them show evidence of considerable work and go further by explaining how they dialogue with suppliers and encourage them to take action. For example, Valeo sets quantitative GHG emissions reduction targets for suppliers, in line with its own GHG targets. Of the companies in the sample, Michelin and Saint-Gobain have developed the best practices in this regard. Their two approaches are based on more detailed knowledge of the carbon impact of the goods sold by suppliers for a significant portion of their purchases, and by formally including the carbon impact within their procurement policy. Delisting carbon-intensive suppliers that have not adopted a reduction strategy is also planned. Both companies also work with suppliers to ensure that they set reduction targets validated by SBTi, and Michelin publishes a quantitative commitment on the percentage of purchases with suppliers who have set such targets (see below).

Example 27: Supplier engagement, inclusion in the specifications and targets



Purchased goods and services: Science-Based Targets for emissions reduction

In 2020, the Science Based Targets initiative (SBTi) validated the Group's environmental targets, which include a target relating to purchased goods and services, i.e., that suppliers representing 70% of GHG emissions from purchased goods and services (Scope 3, category 1) will have set science-based reduction targets by 2024⁽¹⁾.

At the end of 2020, suppliers representing 13% of category 1 emissions reported in the CDP questionnaire exercise that they had set science-based targets or targets already validated by the SBTi.

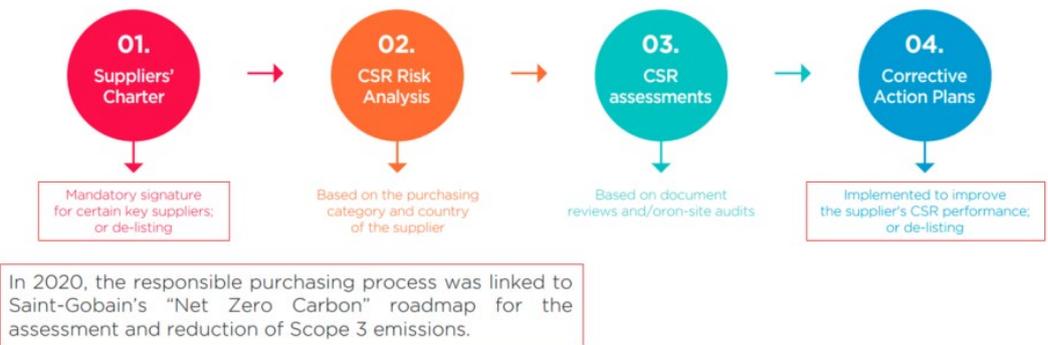
Dedicated levers for the environment

Greenhouse gas emissions (GHG)

The Group has taken a proactive approach to determining which purchasing categories and suppliers represent the largest sources of GHG emissions. These suppliers are encouraged to initiate, step up or accelerate their commitment to reducing their GHG emissions.

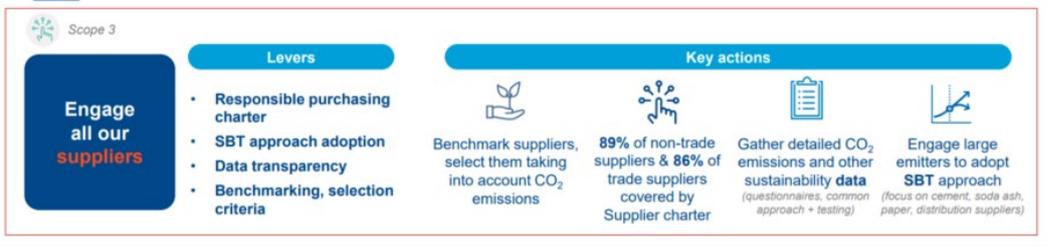
Source: Michelin, 2020 URD, p. 167

The program includes four major steps set out in the Group's vigilance plan:



Sources: Saint Gobain, 2020 URD, p. 71 and presentation of the carbon neutrality roadmap.

SUPPLIERS & LOGISTICS: TACKLE EMISSIONS IN SUPPLIERS & TRANSPORT



Valeo has also set the same CO₂ emissions objectives for its suppliers. The use of materials with low carbon intensity will be increased, and monitoring of CO₂ emissions will be included in design specifications by suppliers.

Source: Valeo, 2020 URD, p. 209.

Downstream of the company's value chain, mainly the use of sold products, practices vary widely from one company to another. The subject is not systematically addressed (on this point: see above on the setting of targets, as well as Chapter 1 on annual reporting). When it is, difficulties concerning the various kinds of action to be deployed to influence customers' decisions are strongly emphasised, with some companies stating that it is impossible to implement vigorous actions in this regard. Companies that mention the downstream aspect may also highlight the contribution of their products in decarbonising their customers' businesses (Michelin, EDF, Valeo), in some cases specifying revenue targets linked to low-carbon product ranges.³⁷

Good practices observed:

- In keeping with the main benchmarks, as part of a carbon neutrality approach, companies should aim to reduce their emissions in absolute terms above all.
- To help stakeholders understand the strategy and the action undertaken, companies should clearly present the overall, systematic approach, without too many examples to avoid generating confusion. The terms used and methodological choices must be explained (e.g. for the calculation of avoided emissions, when considered).
- Specific attention should be paid to the role of offsetting and to the criteria defined to select offset projects.
- Companies are encouraged to assess the action undertaken throughout their value chain, in particular with their suppliers upstream (through dialogue or more incentive-based actions), and downstream where possible.

³⁷ The EFRAG Climate Cluster working document (*op. cit.*, BC 38) considers the inclusion of an estimate of the five-year change in the share of turnover from Taxonomy-aligned activities in comparison to Taxonomy-eligible activities.

2.4. OPERATIONAL IMPLEMENTATION

□ Granularity of action plans

Information provided on the operational implementation of carbon neutrality strategies varies significantly from one company to another. In certain cases this is due to recent commitments, but not necessarily.

Most companies have categorised their actions under main pillars (energy, upstream (suppliers), downstream (products), etc.) with the occasional brief example. Past achievements are described in more detail. Examples of actions planned in the short term may be described more precisely. The most detailed plans relate to energy efficiency and “green” energy³⁸ supply, as well as initiatives taken to make the use of products less emissive.

The operational implementation of these plans is rarely disclosed. Only the most advanced companies outline action plans at business unit or production site level, although it can be difficult to determine the materiality of the actions described or the sites concerned. Conversely, only a few companies make a link between the planned actions and significant Scope 3 sources. In total, nine companies out of 13 indicate that they have a short-term action plan. Others provide less information (or, for example, focus disproportionately on offsetting actions), and one company does not provide any details on the planned actions, stating however that the roadmap will be published in 2021. In a few cases, a lot of detail is provided for actions concerning a very small part of the company’s GHG emissions. As such, the information provided by the carbon neutrality strategy does not always focus on the most structural issues for reducing emissions.

Furthermore, information is often lacking regarding the future of the most emissions-intensive business units or products (with the exception of a few companies in the sample, specifically in the automotive sector), investments in highly emissive assets, and to what extent they are compatible with the declared GHG emissions reduction rate. For example, the notion of “locked-in emissions”³⁹, essential for assessing the consistency of current decisions with stated long-term objectives, is not addressed in the action or investment plans.

Conversely, Engie details its plan to withdraw from coal-fired capacity (5% of the group’s electricity production in 2020). The company presents a clear trajectory over time, favouring the closure or transformation of coal-fired power plants over simple divestment (however, an option adopted in 2 out of 10 cases, when Engie is not the sole decision-maker). Veolia also provides a budget estimate for its exit from coal by 2030 within the European scope.

Example 28: Detailed operational implementation at production site level

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

The actions implemented include optimizing energy use in response to needs (usage to power engines, lighting or the use of compressed gas) and the recovery of energy from our manufacturing processes.

Source: Saint Gobain, 2020 URD, p. 100.

³⁸ The reduction of Scope 2 emissions made possible by RES is measured using the “market based” approach for Scope 2. This takes into account the emission factor of suppliers or supply contracts, as opposed to the “location-based” method, which looks at the average emission factor of the network. See above.

³⁹ Emissions generated by the operation of long-life assets (infrastructure, production equipment) over their entire useful life. For example, see the [calculations](#) by the International Energy Agency (IEA).

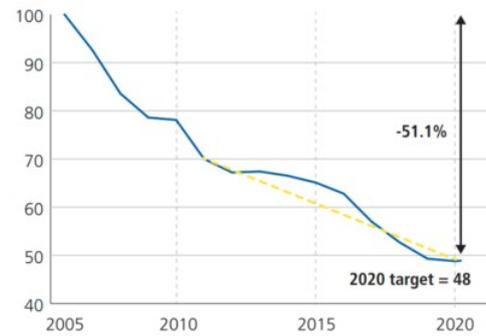
4.1.4.3 b) Reducing the environmental footprint of the production plants

Since 2005, Michelin has measured the key impacts from its manufacturing operations in terms of energy consumption, water withdrawals, CO₂ emissions, volatile organic compound (VOC) emissions, amount of waste generated and amount of waste landfilled (i.e., not recovered or reused).

Improvements are planned, driven and tracked at every level, from the shopfloor to the boardroom, through an indicator comprising these six variables, known as the Michelin Environmental Footprint (MEF). The MEF is included in the Group's balanced scorecard and is one of the eight strategic indicators that every plant must track to measure its operational excellence.

To fulfill the ambition of "setting the industry standard for responsible manufacturing," the target set in early 2016 for 2020 was to reduce the MEF by 30% compared with 2010 and by 50% compared with 2005, while using 25% less energy over the first period and 38% over the second.

Improvement in the Michelin Environmental Footprint (MEF) Indicator



Effective from 2021, the following changes will be carried out.

Firstly, the Michelin Environmental Footprint – MEF – will be replaced by the i-MEP (Industrial-Michelin Environmental Performance). Since 2005, Michelin has measured and disclosed the main impacts of its industrial activities based on the MEF indicator. This indicator now needs to be updated to reflect the extensive progress made and the emergence of new environmental challenges since its launch.

The new i-MEP indicator will track the environmental impact of the Group's manufacturing operations over the next ten years.

Source: Michelin, 2020 URD, p. 216 and p. 107.

2020 Achievements

After two years of preparation, the roadmap for improving energy efficiency to achieve net-zero carbon emissions in 2050 has now been integrated into the production plants' five-year strategic plans. The technical solutions and related capital expenditure budgets have been included in their 2021 improvement plans. Among the 11 selected technical solutions, the first to be deployed will improve the energy efficiency of the curing process, with the introduction of ten best practices in existing facilities ("Reduce" lever) and electrification of the new curing presses ("Avoid" lever). In the European plants, following on from the Ladoux, Montceau-les-Mines and Gravanches facilities in France, heat pumps are steadily being installed to take over a growing share of building heating needs ("Recycle" lever). Nearly 30 projects are under consideration to upgrade boilers and utilities to improve their energy efficiency and increase the proportion of electricity and heat generated from renewable sources¹⁾. To support this very ambitious roadmap, the Energy competency network will be expanded with the creation of an Energy Expert position for Europe and a separate two-year post dedicated to leading the Energy Efficiency Roadmap deployment program.

All together, the energy efficiency improvement program was supported by €12.35 million in capital expenditure in 2020.

Tangible impact at plants/factories →

Internal expertise →

Dedicated budget →

2030 Roadmap

In 2020, the technical levers to be activated over the next decade and their related capital expenditure programs were identified. Examples include (i) electrifying processes; (ii) improving performance and control of tire curing equipment (insulating press open/close) and motor drives; (iii) increasing the efficiency of utilities (steam, compressed air and cooling production); and (iv) installing new heat pumps. Together, these projects are expected to improve energy efficiency by 37% in 2030 compared to 2010, or by 24% compared to 2019.

Future priorities for action ↑

Translation into quantitative targets ↑

Source: Michelin, 2020 URD, p. 219.

Example 29: Detailed action plan



Source: Engie, "Putting Strategy into Action" presentation, p. 16.

The measures implemented to reduce and prevent GHG emissions, for each business line, are as follows:

Business line/ Type of measure	Measures implemented
ENERGY Reduction of GHG emissions	<ul style="list-style-type: none"> Proper use of energy transformation facilities (energy efficiency) resulting in less fuel consumed for the same energy output; use of renewable and recovered energy instead of fossil fuels whenever possible (biomass, geothermal, solar, wind, etc.); optimum supply of energy services (integrated energy management) encouraging a more rational use of energy by consumers; combined production of heat and electricity (CHP).
WASTE Reduction of GHG emissions GHG emissions avoided	<ul style="list-style-type: none"> Collection and treatment of biogas from landfill sites; on-site consumption of heat and electricity produced from waste incineration and biogas recovery; other actions enabling the reduction of fuel and energy consumption. Sale of energy produced from waste incineration and biogas recovery at landfill sites and from anaerobic digesters; recovery through direct use of biogas produced at landfill sites and from anaerobic digesters; recycling of raw materials contained in waste; production of alternative fuels from waste.
WATER Reduction of GHG emissions GHG emissions avoided	<ul style="list-style-type: none"> On-site consumption of heat and electricity produced from renewable sources (biogas from sludge digestion, recovering potential water energy using hydraulic micro-turbines, heat pumps, etc.); optimization of energy consumption by the facilities. Sale of energy produced using renewable energy sources (biogas from sludge digestion, recovering the potential energy of water by using hydraulic micro-turbines, heat pumps, etc.).

Source: Veolia, 2020 URD, p.214. Brief presentation of short-term action plans developed for the first two pillars of the carbon neutrality strategy: "Emissions reduction" and "Avoided emissions"

Resources deployed

At times, the correlation with the company's overall strategy and financial elements is rather tenuous (see next chapter). Some companies state an investment amount (CapEx) associated with the carbon neutrality strategy, but it is difficult to draw a link with the commitments made and, in particular, to determine the appropriateness of such expenditure and investments. Four of the 13 companies in the sample provide no figures whatsoever, and four refer to investment budgets – the allocation of which is unclear, and which may primarily relate to actions not part of the carbon neutrality approach. Others provide a general breakdown or estimates for just some of the actions undertaken or planned.

Good practices observed:

- To help stakeholders more accurately assess the scope of the commitments made and the financial consequences for companies, companies should provide estimates of the investment plans required to upgrade production equipment or meet other targets.

Box 3: Use of an internal carbon price

Nine out of the 13 companies analysed state that they make use of an internal carbon price, information mainly derived from the CDP Climate Change questionnaires, and not from non-financial statements. Five indicate a value (in 2019, between 24 euros and 450 euros per ton of CO₂ for certain supplies), and four companies indicate a range. Two companies provide an estimate for 2030 and 2040. Three companies have different internal carbon prices (depending on the geographical region, or on the item to which it is applied (emissions from industrial facilities, procurement emissions, emissions from R&D projects)).

Companies generally indicate that this price is “taken into account in investments”, however it is hard to assess the effective impact of the internal price. For example, some state that the “carbon cost” is provided for information purposes only and, as such, does not systematically form part of the decision-making process. It mainly reflects the estimated changes in the carbon price on regulatory trading markets to which companies are subject, mainly the EU Emissions Trading System (ETS).

As a reminder, the TCFD asks signatory companies to provide information on this subject (see also EFRAG climate standard prototype).

Managing uncertainty and monitoring the strategy

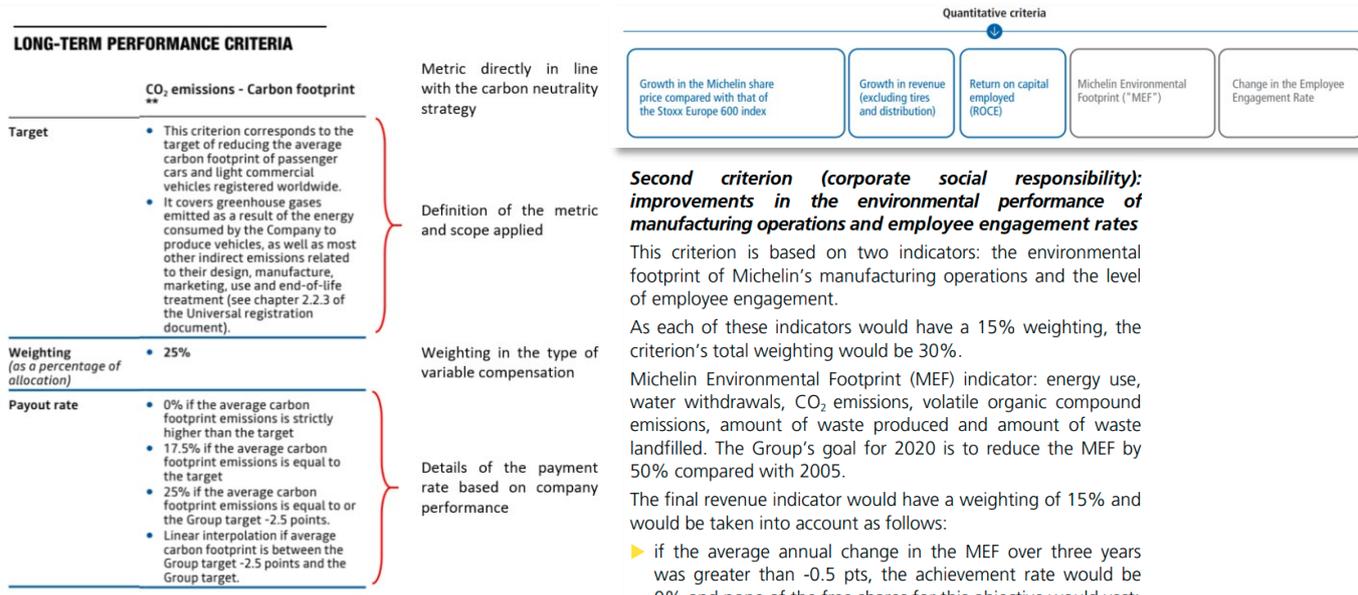
With regard to uncertainties associated with the strategy’s roll-out, one company points out that its plan relies on the development of GHG emissions reduction technologies that do not yet exist: *“Achieving the 40% reduction target by 2030 also requires further technological advancements, for which the pace of operational development is still uncertain”*. Most companies have to contend with this dependence on external factors (mainly the trend towards decarbonisation of uses), but don’t necessarily acknowledge it as explicitly as this.

At this stage, few companies provide information to assess how the strategy is being monitored. In a few cases, information is provided on the difficulties encountered or reasons why a target was not met (Michelin, EDF) and less than half of the sample states whether the level of GHG emissions reduction for the year is in keeping with, behind or ahead of the trajectory towards the medium-term target. One reason for this is the fact that carbon neutrality strategies are based on intermediate milestones, and not on a reduction trajectory. Furthermore, it is noted that around half of the companies present this information under the “Remuneration” section. Information provided on the allocation of executives’ variable remuneration confirm the use of criteria that often cover only part of the carbon neutrality strategy (one metric, in almost all cases). If targets have not been met on time, it is not specified what corrective actions and any additional resources the company will deploy to ensure that its targets are met.

Link with variable remuneration

Almost all companies in the sample include a variable remuneration condition linked to a reduction in emissions, or a condition directly relating to an objective in the carbon neutrality strategy. This concerns annual variable compensation (nine companies) or multi-year variable compensation (eight companies) of company executives. In addition to Chairs and Managing Directors (or CEOs), who are mentioned in all cases, a few companies mention such criteria in the variable compensation of other employee categories. These employees are generally senior managers or high-potential employees, ranging from 450 to around 2,300 beneficiaries. In several cases, a “Climate” criterion is included within other ESG or CSR criteria, without being able to determine the specific weighting of the climate condition. Across the sample, the climate criterion varies between 5% and 25% of the relevant variable compensation. In a few cases, the score obtained on the CDP Climate Change questionnaire is used as a criterion for allocating variable compensation. In one case, the metric applied concerns compliance with European Union environmental sectoral rules imposing a CO₂ emission intensity threshold that must not be exceeded.

Example 30: Explanation of the Climate metric and weighting, with comments on performance.



Source: Renault, 2020 URD, p. 325.

Source: Michelin, 2020 URD, p. 114: summary of the different factors and breakdown of criteria relating to emissions and energy consumption reductions (two components of the MEF).

Performance in respect of the Corporate Social Responsibility criterion is calculated as follows:

Reduction of the Group's CO ₂ emissions between 2019 and 2023 ^{(1) (2)}	Percentage of shares initially granted, contingent on the percentage reduction in CO ₂ emissions (i.e. 10% of the grant), vested
Greater than 3.7%	All
Between 2.8% and 3.7%	Linear interpolation
Below 2.8%	None

(1) The results will be assessed based on iso-production.

(2) The Group set the objective of reducing Group CO₂ emissions by at least 20% by 2025 compared with the level measured for the year 2010 (see Chapter 4, Section 2.1).

Source: Saint Gobain, URD, p. 209: direct link with GHG emissions.

3.1.3.5.1 Compensation linked to combating climate change

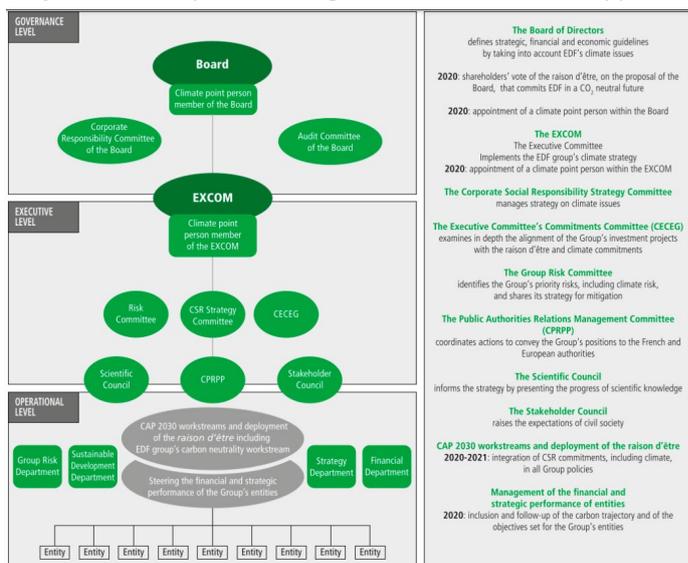
In terms of employee compensation, the 2020 profit-sharing agreement signed by EDF's management and its social partners includes, in addition to business and health & safety criteria, one climate-based criterion. The 2020 profit-sharing reference value was maintained at the same level as in the previous agreement, i.e. €2,150 for the average salary with 100% of criteria met. The climate-based criterion features a goal of 60% of EDF SA employees having achieved at least the "environmentally-aware" level of the "carbon neutrality passport" that they were advised to apply for by the end of 2020 (see section 3.1.3.5.2 "Innovation and collective intelligence"). Further negotiations will begin in 2021 to draw up the 2021-2023 three-yearly profit-sharing agreement.

One incentive condition is based on the score obtained in the "carbon neutrality passport", which tests knowledge about climate change and anthropogenic emissions. This is in addition to awareness initiatives and training activities (see "Climate Fresk").

Source: EDF, 2020 URD, p. 146.

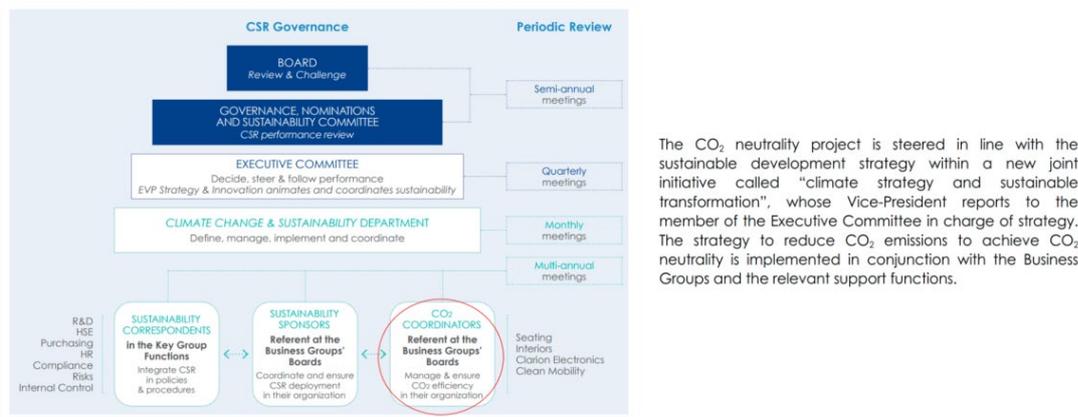
The involvement of corporate governance in implementing and monitoring the climate strategy is very unevenly reported. Only two companies (EDF and Faurecia) detail the governance in place across the entire group, from the Board of Directors to business units or production sites, as well as the roles and responsibilities at each level of the carbon neutrality strategy and its implementation. Several companies provide general information on the creation of dedicated committees, or indicate that members of the Executive Committee monitor the strategy's implementation, however without specifying the targeted actions or how steering works. Finally, the remaining companies in the sample do not specify the role of governance in the carbon strategy.

Example 31: Description of the governance mechanism applied



- **The Executive Committee's Commitments Committee** features the Group Senior Executive Vice-Presidents and is a specialist EXCOM body. It examines the alignment of the Group's strategic projects with its *raison d'être* and climate commitments in depth. The investment projects brought before the Group's decision-making bodies that are likely to cause significant direct or indirect greenhouse gas emissions include a verification of their consistency with the Group's carbon-free trajectory and with the energy transition dynamic in the countries in question. For the first time in 2020, 2030 carbon trajectories were set for all the Group's entities, objectives were set for each entity and will be monitored as part of the process to manage the Group's financial and strategic performance (see section 2.1.2.4 "Reliability of financial information – internal accounting and financial control/Organisation of financial risk management");

Source: EDF, 2020 URD, p. 140: description of the governance mechanism by presenting the roles and responsibilities of each of the bodies listed, including the role of the Board of Directors and its various committees (illustrated with the Executive Committee's special committee on climate commitments).



Source: Faurecia, 2020 URD, p. 294.

3. REVIEW OF ACCOUNTING IMPACTS

This final chapter includes an analysis of disclosures made in the financial statements of companies in the sample. As stated above, the **recommendations of ESMA and the AMF** on the approval of 2021 financial statements specifically focus on integrating the impacts of climate change into financial statements. These recommendations are set out below, with examples.

With regard to the applicable framework, **IFRS** does not specifically address the accounting impacts of climate change, however the current general IFRS provisions IFRS apply. However, in November 2020 the IASB published an information document entitled “*Effects of climate-related matters on financial statements*”,⁴⁰ which identifies and illustrates, standard by standard, some of the potential impacts and disclosures to be made in financial statements in relation to climate change. This document aims to help companies identify the potential impacts and risks to take into account when preparing their financial statements. Given that this is a new and evolving subject, the overview provided here is a starting point, and further reflection is expected. As a reminder, the following recommendations are taken from the AMF recommendations for 2021 financial statements.

□ Sample overview

This chapter uses the same sample as Chapter I and II, plus four new companies (Legrand, Schneider Electric, Holcim and Air Liquide) in order to analyse a broader range of practices, for a **total sample of 23 issuers**. The sample includes issuers operating in sectors that emit high levels of GHG, as well as issuers committed to carbon neutrality and compliance with the Paris Agreement; as such, the entire sample is likely to be materially affected by the impacts of climate change.

Three overlapping observations emerge across the sample: four companies indicate that they have **taken climate change into account in their judgements and estimates**, and one company states that the impacts of climate change are **material**. Three of these issuers presented an **ad hoc note** on climate change. As such, these five issuers are committed to providing as comprehensive a view as possible of the current and future impacts of climate change on their financial statements. This initial effort is a starting point and, in light of the increasing effects of climate change and readers’ growing interest in this issue, this is useful information to provide.

⁴⁰ <https://www.ifrs.org/content/dam/ifrs/supporting-implementation/documents/effects-of-climate-related-matters-on-financial-statements.pdf>

Example 32: Assessment of the materiality of climate change

In addition, the Group considers that climate risks are material, even though their quantified impact on the consolidated financial statements of the Group is not material. The Group takes into account

Source: Air Liquide, URD, p. 216.

Furthermore, with regard to **statutory auditors' reports** on the consolidated financial statements of the issuers in the sample, in four cases, climate change was the subject of a key audit point for a specific aspect (e.g. impairment tests, valuation of asset impairment).

Recommendation:

- To make financial statements easier to read and understand, the AMF recommends that companies present all the financial information contained in the financial statements and relating to climate risks and impacts in a specific note, or that they link the various notes in the financial statements relating to this subject.

The rest of the chapter addresses three topics: the consideration of climate change in impairment testing and asset valuation, consistency between financial statements and information provided outside the financial statements, and accounting for CO₂ allowances.

3.1. VALUATION OF COMPANY ASSETS: ANALYSIS OF PRACTICES TO ACCOUNT FOR THE EFFECTS OF CLIMATE CHANGE

A key step in analysing the existing or potential impacts of these risks on the financial statements is identifying and assessing the company's exposure to the physical impacts of climate change, both in terms of risks (physical or transitional) and opportunities.

In the financial statements, these risks are liable to indicate impairment, and may result in the impairment of assets, including tangible fixed assets (property, plant and equipment), as a result of impairment testing. In accordance with IAS 36.12(b), a significant change in the technological, economic or legal environment having a negative effect on the entity in the foreseeable future is an indication of impairment that must be taken into account. For example, in some cases, external information on climate change and commitments made by issuers under the Paris Agreement could be considered indicators of impairment. IAS 16.51 and IAS 38.104 also require a review of an asset's useful life and residual value if expectations differ from previous estimates.

□ Useful life and value in use of tangible fixed assets (PP&E)

14 out of 23 issuers mention the existence of a material risk of impairment due to climate change as part of a **dedicated risk factor**, sometimes also specifically mentioning this in the NFS.

Two issuers state and **quantify the risk of asset impairment** in the short and medium terms in their risk factors. In neither case do the financial statements indicate whether and how this risk has been taken into account in the financial statements, and it is not identified as an impairment indicator.

The amounts of property, plant and equipment are significant across the entire sample.

Two issuers indicate that they have analysed whether the **useful lives of property, plant and equipment** should be revised due to climate change or local regulations to combat global warming. Following these analyses, no decrease in useful lives was recognised.

Useful lives of assets

Useful lives of assets may be affected by the climate-related matters because of obsolescence and legal restrictions. The change in useful lives will have a direct impact on the amount of depreciation or amortisation recognized each year. Management's review of useful lives has taken into consideration the impacts of the Group's 2030 targets under the "Business Ambition for 1.5°C".

Source: Holcim, URD, p. 174.

impact in its financial statements. In particular, climate risks are taken into account when carrying out closing procedures, in particular the analysis of the useful lives of property, plant and equipment used for calculation of depreciation and amortization, the review of the estimates and assumptions concerning assets' impairment tests, and the risk assessment to determine the amount of provisions for contingencies and losses.

Source: Air Liquide, URD, p. 261.

Furthermore, three other issuers indicate that they have **recognised an impairment charge on property, plant and equipment**, mainly due to their incompatibility with the Group's climate commitments. They include:

- Engie: The Group indicates that an impairment charge was recorded on thermal or gas assets in the amount of €441 million in the Middle East and South America;
- EDF: The Group indicates that most of the thermal assets controlled by it have been subject to significant impairment charges in recent years.
- Total: Asset impairments relate to the Canadian oil sand assets for \$6,988 million.

Example 32: Impairment charges on property, plant and equipment

For impairment calculations, the Group has decided to take into account only proven reserves on these two assets – unlike general practice which considers so-called proven and probable reserves. This leads to an additional exceptional asset impairment of \$(5,460) million in operating income and \$(5,474) million in net income, Group share.

In addition, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Group has reviewed its oil assets that can be qualified as *stranded*, meaning with reserves beyond 20 years and high production costs, whose overall reserves may therefore not be produced by 2050. The only projects identified in this category are the Canadian oil sands projects of Fort Hills and Surmont.

Source: Total, 2020 URD, p. 230.

Other impairment losses recognized by the Group mainly concerned:

- an investment in a gas production asset in Algeria (€123 million);
- thermal power generation assets in the Middle East (€115 million);
- other thermal and renewable power generation assets in Mexico (€70 million), North America (€69 million) and Brazil (€64 million).

Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price forecasts resulting from the Group's reference scenario for 2024-2040. The forecasts that feature in the reference scenario were approved by the Executive Committee in December 2020. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO₂ and electricity on each market;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand

equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO₂ prices are in line with the 2050 climate neutrality objectives set by the European Commission as part of the "European Green Deal" presented in December 2019. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO₂ prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

Source: Engie, 2020 URD, p. 259 and p. 267.

The level of information provided by most of the issuers is not sufficient to provide an understanding of the analyses performed by companies to determine whether climate change impacts are indicators of impairment and have an impact on the value or useful life of the company's tangible assets. However, some issuers identified these risks in their risk factor sections or NFS.

Recommendation:

- The AMF encourages issuers to ensure consistency between climate risks for tangible assets (PP&E) identified in the NFS and risk factors and the financial statements, and, where applicable, in the key audit points set out in the statutory auditors' report. If such risk factors have been identified, the AMF recommends analysing whether the useful life should be revised, and assessing whether there are any indications of impairment in relation to climate change or commitments made that would require impairment testing of non-financial fixed assets (in addition to the annual impairment tests required at CGUs or groups of CGUs that recognise goodwill and intangible assets with indefinite useful lives).

□ Other assets

The assessment of climate change impacts is liable to have implications for assets other than tangible and intangible assets. In the sample, only Holcim states the potential risks for the recoverable value of inventories and deferred tax assets; no impairment charge was recognised in this respect, however.

Example 33: Other potential impacts identified

Inventory valuation

The climate-related matters may affect the value of inventories as they may become obsolete as a result of decline selling prices or increase of costs. In application of IAS 2, the cost of inventories that are not recoverable must be written down to their net realisable value.

Source: Holcim, URD, p. 175.

Taxes

The impact of climate-related matters could result in higher costs and reduced revenues affecting the future taxable profits on which the recognition of deferred tax assets are based. Business plans used for the recognition of deferred tax assets have been aligned with the ones used in the impairment process taken into account climate-related impacts.

□ Impairment tests on tangible (property, plant and equipment) and intangible assets

In addition to assessing the potential impacts of climate change on the useful lives of assets, it is also important to consider whether and to what extent these impacts are likely to affect impairment testing, even in the absence of signs of impairment. Factors that may affect the company's short- or long-term performance include changes in climate conditions, short- or long-term impacts on growth due to consumer behaviour, a change in the appeal of products sold, additional costs due to local regulations, and capital expenditure for technological transitions.

In the sample, our analysis distinguishes between issuers that have made a public commitment to carbon neutrality and issuers that have not yet made such a commitment.

With regard to the 15 issuers in the sample in Chapter 3 *having made carbon neutrality commitments*, seven expressly state that they have included the impacts of compliance with the Paris Agreement in the assumptions used as part of impairment testing (Renault, Total, EDF, Engie, Veolia, Air Liquide and Holcim). However, minimal information is provided on how these elements have been taken into account and on their impacts. For the eight others, no information is provided to show if and how the carbon neutrality commitments impact the business plans and the financial assumptions used for impairment tests on tangible (property, plant and equipment) and intangible assets.

Example 34: Consideration of objectives set by States under the Paris Agreement

Automotive (excluding AVTOVAZ) segment

The recoverable value used for the purpose of impairment tests for the Automotive (excluding AVTOVAZ) segment is the value in use, determined under the discounted future cash flow method on the basis of the following assumptions:

	December 31, 2020	December 31, 2019
Growth rate to infinity	1.2%	1.7%
After-tax discount rate	9.2%	8.5%

The assumptions used for impairment testing at December 31, 2020 are derived from the medium-term plan for the period 2021-2025 presented in January 2021. They include volume assumptions based on unfavourable market trends, mostly caused by the COVID-19 pandemic, with the return to pre-pandemic volume levels expected in 2024-2025 for the European market, and 2021 for the other Regions of the world where the Group has operations.

The growth rate to infinity used in the tests at December 31, 2020 includes the impacts of commitments made by the States that are signatories to the Paris Agreement on climate change.

Source: Renault, 2020 URD, p. 374.

Climate issues are taken into account in valuing long-term assets through impairment testing. The long-term scenarios used for electricity prices in countries where the Group does business are consistent with the trajectories of European decarbonisation targets, particularly as set in the Paris climate agreement (see note 10.8).

Source: EDF, 2020 URD, p. 409.

account necessary measures to achieve a temperature rise of less than 2°C compared to pre-industrial levels, and the energy-related goals set in the "2030 Agenda for Sustainable Development" adopted in 2015 by the UN members. The Group therefore establishes its long-term price trajectory in line with the IEA's SDS scenario, which is compatible with the Paris Agreement, and foresees oil prices converging towards \$50₂₀₂₀ per barrel by 2040.

Source: Total, 2020 URD, p. 332.

Assumptions have been adjusted at Group level or for a particular group of cash generating units (Veolia). As such, Engie indicates that the European Commission's 2050 carbon neutrality targets should be taken into account when

determining changes in the carbon price. Holcim states that it has prepared cash flow projections in line with the Group's 2030 targets and current European climate regulations; Veolia mentions the Poland cash-generating unit's sensitivity to the cost of implementing a programme to decarbonise its production assets; and finally, Air Liquide reports that climate change and the associated risks are taken into account in test assumptions (as well as asset useful lives and provisions)

Example 35: Impact of implementing the decarbonisation programme on value

As of December 31, 2020, the recoverable amount of the Poland CGU remains higher than its net carrying amount. The cash-generating unit nonetheless continues to be monitored with regard to its dependence on the realization of several operating assumptions, such as commercial wins, tariff rises and the implementation of its production asset decarbonization program.

Source: Veolia, 2020 URD, p. 382.

None of the other companies in the sample indicated that they had taken their GHG emissions exposure or reduction commitments into account (excluding carbon neutrality or Paris Agreement compliance commitments) in their impairment testing assumptions.

□ Conclusion

The analysis of the sample brings several findings to light. Firstly, of the seven companies that state that they have taken climate change into account in their impairment test assumptions, five do so on a limited scope. They specify the country or countries concerned, the specific sector, or an ad hoc regulation. It is therefore unclear whether the company has taken into account the only impacts related to specific local regulations, or all impacts expected by the company resulting from its carbon neutrality objectives.

A small number of companies (four, i.e. 17%) specify whether climate change impacts have been reflected in discount rates or cash flows (three for cash flows and one for discount rates). However, none of the issuers defines the analysis performed or how they are taken into account (i.e. changes in cash flows over the term of the business plan or perpetual growth rate, as well as the proportions in which cash flows are revised and the sources on which the new forecasts are based. Finally, none of the companies in the sample changed any of the key assumptions used in the sensitivity tests (physical impacts of a rise in temperatures, price of CO₂, impact of consumer behaviour on long-term growth, etc.).

Recommendations:

- When conducting impairment tests, the AMF recommends that companies ensure that the key assumptions take risks and impacts related to climate change and their commitments in this area into account, and that they provide a substantiated, clear and transparent level of information on how all expected impacts (short, medium and long term) have been assessed and reflected in the impairment tests. This valuation work involves a significant amount of judgement and assumptions, which should be disclosed in the financial statements. Readers may also find a statement of the external sources taken into account to determine the key long-term assumptions useful.
- The AMF encourages companies to consider whether sensitivity tests should be adapted to reflect climate risk (e.g. sensitivity to new variables, such as a delay in the timing of the defined climate strategy, changes to variations in key assumptions deemed reasonably possible).
- For all companies, and even when no climate commitments have been made, the AMF recommends that the financial statements include judgements and major sources of uncertainty, so that the assumptions used to prepare the financial statements are consistent with the information presented in other communications (NFS, management report, etc.). In some cases, it may be necessary to explain why certain seemingly significant aspects do not have a material effect on the financial statements (e.g. if it appears

that the company's commitments to the transition to a low-carbon economy do not have a material impact). The work undertaken and the level of information will be adapted according to the scope of the subject for the company, which depends on its business and geographical location (areas or sectors more or less exposed to climate change, local regulations).

3.2. NFS AND FINANCIAL STATEMENTS: ANALYSIS OF CONSISTENCY AND CONTINUITY OF COMMITMENTS MADE IN THE COMPANY'S VARIOUS COMMUNICATIONS

□ Consistency of transition risk information

The analysis of the report in Chapter II revealed a significant number of commitments by issuers, however there is still room for improvement in terms of transparency on the scope and implementation of these commitments. As part of its annual recommendations, the AMF recommends paying close attention to the consistency and link between information presented in the financial statements, in other communications (i.e. management report, non-financial statement and risk factors) and, where applicable, in the key audit points set out in the statutory auditors' report. This section looks at whether (and to what extent) the commitments published by the sample of issuers have been included in their financial statements.

At this stage, no precise, material information has been provided in the financial statements on the various commitments made, the expenses involved, and any potential financial impacts. For example, one company's risk mapping highlights a considerable number of transition risks with a high probability of materialisation, and a "moderate" to "high" financial impact on margins. However, the 2020 consolidated financial statements of this issuer don't provide for an assessment of how these risks may impact the Group's performance over different time horizons. It is possible that issuers are currently in the process of defining their transition trajectories, and that disclosures in the financial statements will be added gradually over the coming years.

Furthermore, a number of issuers provide overall information on various elements in their financial statements, including dedicated climate change notes (EDF, Total and Holcim in particular) that contain a number of significant impacts during the year. Providing this kind of information is an interesting approach. However, the scope of these impacts is merely historical, and none of the issuers in the sample provide information on forward-looking impacts, such as financial risks. One issuer (EDF) includes information on the proportion of the Group's gross operating investments that are in line with its low-carbon objectives, and those that might be aligned with the European taxonomy for sustainable activities according to criteria known to date.

Example 37: Alignment with European taxonomy for sustainable activities

20.4.1 Sustainable investments

In 2020 the Group continued its programme of gross operating investments, which amounted to €16.5 billion gross and included €16 billion of gross investments in intangible assets and property, plant and equipment (see notes 4 and 10.7) and €0.5 billion of gross financial investments.

As part of its work on the European taxonomy for sustainable activities, the Group has estimated its rate of gross operating investments validated as green by the European Union. Under the chosen methodology these investments do not include gross financial investments or "corporate" investments such as renewal of IT equipment or vehicle fleets.

In 2020, close to 94% of the Group's investments met its low-carbon objectives: 51% of investments concerned the nuclear sector, and 43% were compliant with the European taxonomy for sustainable activities (by a method currently based on the Technical Expert Group report of March 2020) notably including production of renewable energies (e.g. hydropower, wind and solar power), networks, and energy services. These figures are likely to be revised in the light of changes in "Taxonomy" regulations, particularly when the delegated acts are published in 2021. The low-carbon investment strategy is also reflected in the objective of converting some of the Group's coal or oil-fired units to low-carbon generation methods.

Source: EDF, 2020 URD, p. 409.

□ Other information

Other items for which transition-related information may be relevant include the analysis of environmental provisions and contingent liabilities and “green” financing.

■ Environmental provisions and contingent liabilities

Environmental risks may give rise to the recognition of provisions or disclosure of contingent liabilities (environmental disputes, additional taxes pursuant to regulatory requirements, onerous contracts, etc.). In the sample studied, provisions for environmental risks always relate to contractual or statutory obligations (mainly restoration).

In terms of contingent liabilities relating to environmental risks, none of the issuers in the sample disclosed climate risks, including the (fourteen) companies that considered climate change impacts a risk factor in their Universal Registration Document. The risk factors presented relate to risks specific to companies’ business activities, and reflect a broad range of expectations in terms of the impacts of climate change on issuers’ performance. Two companies, Renault and Holcim, mention the existence of contingent liabilities under environmental regulations in general.

Provisions and contingent liabilities

The climate-related matters may affect the level of provisions recognized such as site restoration provision and litigation provision as a result of the levies imposed by the governments for failure to meet climate-related targets or new regulations, requirements to remediate environmental damages on LafargeHolcim’s sites or due to existing obligations now being considered probable. Some contracts may become onerous as result of climate-related changes which would potentially decrease the Group’s revenue or increase its operating costs.

Source: Holcim, 2020 URD, p. 174.

Group companies are also subject to the applicable regulations regarding pollution, notably of soil and ground water. These regulations vary depending on the country of location. Some of the associated environmental liabilities are potential and will only be recognized in the accounts if the activity is discontinued or the site closed. It is also sometimes difficult to determine the amount of the obligation reliably. Provisions are only established for liabilities that correspond to a legal or constructive obligation at the closing date, and can be estimated with reasonable reliability.

Source: Renault, 2020 URD, p. 410.

■ “Green” financing

“Green” financing as described by the companies in the sample includes a range of instruments (loans to finance environmental projects, structured financial instruments with cash flows indexed to an environmental index, or loans with interest rates that vary according to ESG criteria). Four issuers provide qualitative and/or quantitative information on “green” or sustainability-linked bonds they have issued. Finally, in the sample, one issuer references credit lines in line with ESG criteria.

Recommendation:

- In the case of financing through the issuance of or investment in “green” financial products, the AMF recommends that both lenders and borrowers disclose the characteristics of these products and the associated accounting treatment, when considered material.

□ Conclusion

Plans to support the transition to a low-carbon economy (including an expected increase in the cost of greenhouse gas emissions or plans for a potentially rapid exit from fossil fuels in certain regions) may have an impact on a company’s performance. At this stage, information provided by the sample on the climate transition is limited. None of the issuers indicated in their financial statements any financial consequences, such as the expenditure required to ensure compliance with the objectives of the Paris Agreement, or to achieve carbon neutrality on its specific scale. This may be due to the fact that most issuers have only just begun translating these commitments into operational action plans.

Recommendation:

- The AMF encourages companies to monitor regulatory changes and assess the expected or potential impacts of their transition plans on their business models, recognising and mentioning these impacts in their financial statements, where relevant. In order to identify the potential impacts and information to be included in their financial statements, companies can analyse each individual undertaking to determine whether it has a potential impact on their financial statements (a commitment to reduce the carbon footprint of products or services, or a commitment to exclusively use renewable energies, for example, must be valued and explained in the notes, if the resulting costs are material.)

3.3. ACCOUNTING FOR CARBON QUOTAS AND ENERGY SAVING CERTIFICATES: ACCOUNTING METHODS AND DISCLOSURES

IFRS does not specifically address accounting for greenhouse gas emissions quotas (allowances), energy-saving certificates (ESCs)⁴¹, and generally emissions rights related to emissions plans for pollutants and other carbon credits used as part of voluntary offsetting mechanisms, which gives rise to potentially diverse accounting treatments. The French national accounting standards body (ANC), however, has published a regulation on the accounting of greenhouse gas emissions quotas and related units,⁴² which can be applied under IFRS pending clarification of the accounting treatment. In the absence of a specific standard, it is worth analysing the comparability of information provided by a sample of the biggest quota holders and GHG emitters.

□ Findings on the quantitative and qualitative information provided

Nine issuers out of 23 (39%) disclose in their financial statements the accounting classification of CO₂ allowances held. These include:

- Classification under intangible assets: Michelin, Air France KLM, Imerys, Holcim
- Classification under inventories: Veolia, Air Liquide, Total, Engie
- Mixed model, with rights held for regulatory compliance classified as fixed assets, and rights held for trading classified as inventory: EDF

Only EDF expressly states that it trades in CO₂ emissions allowances.

Accounting for CO₂ allowances is likely to impact a number of items in the financial statements, both in the income statement (in the case of the purchase and sale of allowances, or provisions in the event of shortfall) and in the balance sheet (in terms of the volume of rights held on the balance sheet date). Cash flows may also be significantly impacted in the event of sales or purchases.

In the absence of any defined standard, the amount of information provided on these impacts is varied, with each issuer in the sample providing some or all of this information unevenly. The analysis also shows that it is difficult to reconcile emissions volumes disclosed in the NFS with emissions movements having impacted the company's totals, based on the information provided.

⁴¹ Energy saving certificates, (*certificats d'économies d'énergie*, known as CEE), were set up by the French government in 2006 to finance the energy transition. This system obliges energy suppliers to encourage consumers (households, local authorities or professionals) to look for energy savings with targets to be met for given periods.

⁴² ANC, Regulation 2014-03 dated 5 June 2014, https://www.anc.gouv.fr/files/live/sites/anc/files/contributed/ANC/1_Normes_fran%c3%a7aises/Reglements/2014/Reglt2014-03/Reglt%202014-03_Plan%20comptable%20general.pdf

Six issuers out of 23 provide information on one or more items in the income statement. The main information provided includes:

- Allocations to provisions for excessive emissions (Michelin, EDF, Imerys);
- The change in the value of allowances held due to a change in the price per ton (Veolia);
- Income and expenses from the trading of allowances on the futures market (Holcim, Air France KLM).

Six issuers provide information on one or more items in the balance sheet. These include:

- The balance of rights held (under inventories or fixed assets) at closing, in euros (Michelin, Veolia, EDF, Engie) and in tons (Michelin and Veolia)
- The amount of rights acquired during the period and rights granted free of charge (Michelin).

Two issuers referred to their sensitivity to the carbon allowance mechanism and the carbon price as a risk factor, however did not perform a sensitivity test on their aggregates. In contrast, one issuer indicates sensitivity of its performance aggregates to a variation in the price per ton of CO₂, despite this not being a risk factor for the Group.

<i>In millions of euros</i>	Changes in price	Dec. 31, 2020		Dec. 31, 2019	
		Pre-tax impact on income	Pre-tax impact on equity	Pre-tax impact on income	Pre-tax impact on equity
Oil-based products	+USD 10/bbl	119	266	40	234
Natural gas	+€3/MWh	379	537	225	471
Electricity	+€5/MWh	(90)	(39)	82	(47)
Coal	+USD 10/ton	-	1	(2)	-
Greenhouse gas emission rights	+€2/ton	(116)	1	(89)	19
EUR/USD	+10%	37	-	(25)	(99)
EUR/GBP	+10%	(6)	7	33	-

Source: Engie, 2020 URD, p. 290.

Furthermore, four issuers (EDF, Air France, Engie and Total) have hedged against variations in the price per ton of CO₂. In this case, the notional amount hedged and the change in fair value in the case of a CO₂ price hedge are provided.

14 issuers in the sample do not provide any information in this respect (qualitative or quantitative). A comparison is difficult due to only partial information being provided, however some of the information provided is useful where significant to the issuer.

- Further examples of information presented in the financial statements of companies in the sample

Finally, some companies provide information on the acquisition or allocation of new emissions rights; where the rights acquired or allocated are significant within a Group, information on the associated cash flows may be appropriate.

Example 36: Emissions rights, information on changes during the year

Gross carrying amounts at December 31, 2019	2,448	4,097	6,545
Translation adjustments	(242)	(201)	(443)
Additions (including new emission rights: €19 million)	-	200	200
Disposals	-	(55)	(55)
Change in scope of consolidation	19	-	19
Transfers and other	-	(23)	(23)
Gross carrying amounts at December 31, 2020	2,225	4,018	6,243

Source: Michelin, 2020 URD, p. 323.

Details of non-cash transactions:		
▶ New leases (note 14)	211	217
▶ New carbon emission rights granted	12	9

Source: Michelin, 2020 URD, p. 360.

Greenhouse gases

The increase in greenhouse gases in the atmosphere led certain States and the international community to introduce regulatory measures to limit this trend. Under European regulations, the actual emissions position is determined each year and the corresponding rights surrendered. The Group then purchases or sells emission rights, depending on whether actual emissions are greater or lesser than emission rights allocated.

In the absence of specific IFRS provisions, the Group has adopted the "net liability approach," which involves the recognition of a liability at the period end if actual emissions exceed allowances held, in accordance with IAS 37.

Allowances are managed as a production cost and, in this respect, are recognized in inventories at:

- nil value, when they are received free of charge;
- acquisition cost, if purchased for valuable consideration on the market;
- inventories consumptions are accounted according to its weighted average cost.

Transactions in these allowances performed on the forward market are generally recognized outside the application scope of IFRS 9 ("own use" exemption), except for certain specific transactions related to the hedging of electricity production activities.

The position in 2020 is as follows:

Volume (in thousands of metric tons)	As of January 1, 2020	Changes in consolidation scope	Granted	Purchased/Sold/Canceled	Used	As of December 31, 2020
TOTAL	484	-1	1,355	5,977	-7,246	569

The inventory of 569 thousand metric tons is equivalent to approximately €18.4 million as of December 31, 2020, including 2020 returned emissions allowances.

In 2020, the Group received the last free allocations under phase III (2013-2020) of the Emissions Trading Scheme which has now ended. This system will continue during phase IV (2021 to 2030) with a continued steady decrease in free allocations. However, the final amounts allocated by the European authorities have not yet been published.

Source: Veolia, 2020 URD, p. 409.

Two issuers mention renewable energy certificates (RECs) or green certificates, one of which indicates that it recognises these certificates under inventories, and the other under intangible fixed assets. One issuer discloses the impact of the provision for the obligation to surrender allowances. Finally, with regard to energy saving certificates (ESCs), three issuers provide information with varying levels of detail, and essentially as narrative reporting.

□ Conclusion

The lack of any regulatory framework for accounting and reporting CO₂ allowances gives rise to a wide range of practices. In a sample of the biggest emitters and carbon allowance holders, this disparity makes it difficult to compare the information disclosed.

At this stage, the amounts at play are non-material in the vast majority of cases. However, in light of an expected gradual reduction in allocated allowances and the corresponding increase in the price of carbon, as well as the absence of any regulatory framework, the materiality of these issues is likely to increase.

Recommendation:

- When emission rights relating to pollutant emissions plans are significant for the company – including greenhouse gas emission rights and energy saving certificates – the AMF recommends specifying the amounts at play, the accounting treatment applied, and the associated impact on the financial statements.

3.4. CONCLUSION ON THE INTEGRATION OF CLIMATE ISSUES WITHIN THE FINANCIAL STATEMENTS

The AMF is aware that discussions and assessments of the impact of climate change on issuers' business models and financial statements have only just begun, however the issue is becoming increasingly important.

The limited amount of information currently available is also potentially due to the fact that the impacts of climate change on issuers' financial performance will be observed over a period that currently exceeds business plans and forward-looking information used in financial statements. Nevertheless, the above findings point to areas for improvement for most of the companies reviewed, both in terms of considering the main impacts of climate change on the financial statements, and consistency between the information presented in the financial statements and the company's other communications. The quality of the information provided is therefore expected to improve in coming years, as user expectations increase, as regulatory requirements tighten, and as companies continue to work and reflect on the issue.

Recommendation:

- The AMF encourages companies to involve all divisions and departments concerned, their governance bodies (Board of Directors, Audit Committee) and statutory auditors in this work, which will continue over the coming years, in particular due to regulatory changes.

4. CONCLUSION AND NEXT STEPS

This report focuses on a sample of large companies that are particularly scrutinized for their impact on global warming and their potential exposure to the risks associated with a transition to a low-carbon economy. Most of these companies are signatories of the Taskforce on financial-related climate disclosures (TCFD).

The state of play shows that progress in terms of reporting is still necessary, particularly with regard to the quantitative indicators published by companies. Furthermore, while the carbon neutrality initiatives initiated by a large majority of the companies in the sample illustrate the momentum that these companies have initiated, the information provided will need to be further strengthened to enable an understanding of the scope of the commitments made and to monitor their implementation. Finally, little information is yet integrated into the financial statements, also highlighting the road ahead to better connect financial and non-financial information. From a practical point of view, there is also the question of the overall coherence and articulation of the various communication media (non-financial statements, TCFD and climate reports, financial statements, press releases, etc.) used by companies to communicate their strategy and actions with regard to climate change.

As for the regulatory framework, the draft directive on sustainability reporting published by the European Commission in the spring of 2021 (CSRD) provides for the new transparency standards to come into force on 1 January 2023, with the first reporting in 2024 for large companies. However, companies will be encouraged to provide certain key information and data before this date, in particular to meet the reporting requirements of investors subject to the European SFDR regulation, but also for their information needs for risk management or the consideration of ESG factors in investment strategies, or in the context of shareholder dialogue.

Work is also progressing at the international level, with the creation by the IFRS Foundation of the International Sustainability Standards Board (ISSB). This future international standard, focused on financial materiality and less ambitious than the European framework based on double materiality, should serve as a common international basis for corporate sustainability reporting. On the climate part, this future standard, expected for June 2022, will integrate, like the European standard, the recommendations and guidelines of the TCFD, but should define more precise standards, in particular to allow a better comparability of the information published by companies.

There are therefore many structuring projects for corporates, while this data, whether made public by the companies themselves or estimated by data providers or ESG rating agencies, plays an increasingly important role in the capital markets. The objective of this report is thus to continue to raise awareness among companies, regardless of their size or sector of activity.

ANNEX 1: COMPANIES INCLUDED IN ANALYSES

Sectors	Companies	Chapter 1	Chapter 2	Chapter 3
Airlines	Air France KLM SA*#	X	X	X
Auto components	Michelin SCA*#	X	X	X
	Compagnie Plastic Omnium SE*#	X	X	X
	Faurecia SE*#	X	X	X
	Valeo SA*	X	X	X
Automotive	Renault SA*#	X	X	X
	Trigano SA	X		X
Building products	Compagnie de Saint Gobain SA*#	X	X	X
Chemicals	Air Liquide *#			X
Construction and engineering	Bouygues SA #	X		X
	Eiffage SA #	X		X
	Vinci SA *#	X	X	X
Construction materials	Imerys SA	X		X
	Holcim #			X
Electrical equipment	Legrand SA *#			X
	Schneider Electric SE *#			X
Electric utilities	Électricité de France SA*#	X	X	X
Food Products	Danone SA*#	X	X	X
Multi-Utilities	Engie SA*#	X	X	X
	Suez SA #	X		X
	Veolia Environnement SA*#	X	X	X
Oil, Gas and Consumable Fuels	Gaztransport et Technigaz SA* (GTT)	X		X
	Total SE*#	X	X	X
Total		19	13	23

* Companies having made carbon neutrality commitments (see Chapter 2).

Companies are TCFD signatories.

The classification used here is based on GICS (Global Industrial Classification Standard).

NB: At the end of November 2021, GTT, Legrand, Schneider Electric SE and Air Liquide had also set carbon neutrality targets, however were not included in the analyses completed for Chapter 2.

ANNEX 2: ABBREVIATIONS AND ACRONYMS

ACPR	Autorité de contrôle prudentiel et de résolution [French Prudential Supervisory Authority]
AMF	French Financial Markets Authority
ANC	Autorité des normes comptables [French national accounting standards body]
EC	European Commission
ESC	Energy-saving certificates
CO ₂	Carbon dioxide
CSRD	<i>Corporate Sustainability Reporting Directive</i>
URD	Universal Registration Document
NFS	Non-financial statement
EFRAG	<i>European Financial Reporting Advisory Group</i>
ESMA	<i>European Securities Markets Authority</i>
ETS	<i>Emission Trading Scheme</i>
GHG	<i>Greenhouse gas</i>
GICS	<i>Global Industrial Classification Standard</i>
IASB	<i>International Accounting Standards Board</i>
IFRS	<i>International Financial Reporting Standards</i>
ISSB	<i>International Sustainability Standards Board</i>
JV	<i>Joint-venture</i>
KPIs	<i>Key performance indicators</i>
LEC	Energy and Climate Act
NFRD	<i>Non-financial reporting directive</i>
ITB	Independent third-party body
PTF-ESRS	<i>EFRAG Project Task Force on European sustainability reporting standards</i>
SBTi	<i>Science Based Targets initiative</i>
SDA	<i>Sectoral Decarbonization Approach</i>
SFDR	<i>Sustainable finance disclosures regulation</i>
TCFD	<i>Taskforce on climate-related financial disclosures</i>
CGU	Cash generating unit

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About the Finance ClimAct

The Finance ClimAct project contributes to the implementation of France's National Low Carbon Strategy and the European Union's Sustainable Finance Action Plan. It aims to develop new tools, methods and knowledge enabling (1) retail investors to integrate environmental targets into their investment choices, and (2) financial institutions and their supervisors to integrate climate issues into their decision-making processes and align financial flows with energy/climate objectives.

The consortium, coordinated by ADEME, also includes the French Ministry for the Ecological Transition, the Autorité des Marchés Financiers (AMF), the Autorité de Contrôle Prudentiel et de Résolution (ACPR), 2° Investing Initiative, Institute for Climate Economics, Finance for Tomorrow and GreenFlex.

Finance ClimAct is an unprecedented programme with a total budget of €18 million and funding of €10 million from the European Commission.

Term: 2019-2024

□ About the AMF

The AMF is an independent public authority responsible for ensuring that savings invested in financial products are protected, providing investors with adequate information and supervising the orderly operation of markets. Visit our website at www.amf-france.org





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17, place de la Bourse – 75082 Paris Cedex 02 – France
Tel.: +33 (0)1 53 45 60 00
www.amf-france.org