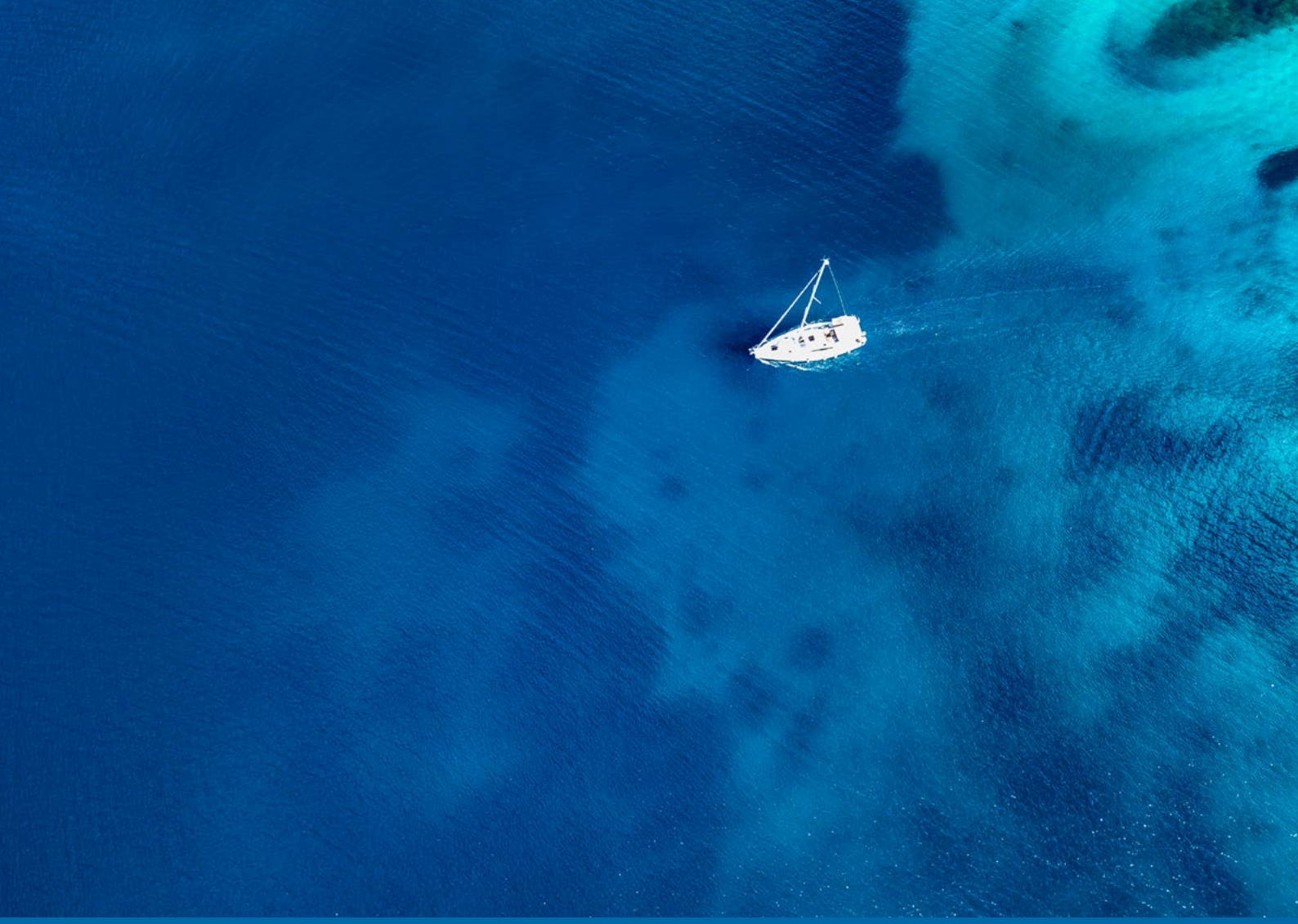


Financial reporting of European companies on climate issues

Findings from 2021 financial statements

mazars

Contents

Editorial

This study shows a significant enhancement of information given in the notes on climate issues in 2021 accounts compared to previous years, making 2021 a turning point on this subject.

This study also reveals the diversity of the climate risks, opportunities and commitments mentioned depending on industries and issuers, as well as an improvement in the approach used to explain the impact of the issues on the performance and assets of issuers, in line with the expectations expressed by the users of the financial statements and the recommendations made by the standard setters and regulators.

As information is essentially qualitative not quantitative, the study aims at identifying practices, analysing similarities and trends, and illustrating the range of presentation approaches to presenting the information. Although the information is becoming richer and more detailed, practical questions arise related to how standards in disclosure of climate issues should be applied, e.g. how should long-term risks be addressed? How binding are the targets or commitments mentioned in the financial statements? How should materiality of information be assessed? This study also aims at contributing to the debates on these questions.

In the first part, we examine how entities have communicated on climate issues in their financial statements. In the second part, we detail the financial statements' positions that are impacted by these issues, as well as give examples of information provided in the notes by some issuers.

Executive Summary

Contents

An acceleration of interest in climate issues in the accounts

In our sample of approximately 80 French and European companies (excluding financial institutions), more than four out of five issuers mention climate issues (risks, commitments and, to a lesser extent, opportunities) in their accounts.
For half of them, this information is newly provided in 2021. The auditors are now also paying more attention to these issues, with specific references in a quarter of the audit reports.

The main risks identified relate to the transition

The climate risks identified mainly concern transition risks, i.e. the risks for a company to adapt to changes (technological, regulatory, etc.) triggered by climate change. The physical risks and opportunities related to climate change are more rarely mentioned. Two out of five issuers give details of climate risks, while the others either do not mention them or consider them not material without giving details. Assessing the materiality of these risks is, however, complex over the long term.

Commitments to reduce carbon footprint

One third of issuers expressed a commitment to reducing their carbon footprint.
These commitments are very diverse, both in their formulation and in their scope. Their accounting impact is mainly reflected in the cash flow projection assumptions underlying the recoverability assessment of non-financial assets and through disclosures in the notes to the financial statements. The latter reveal the complexity of assessing the binding nature and/or materiality of these commitments.

Notes in the appendix as an "accounting effect" *per se*

The accounting impacts of climate change issues are wide-ranging. Although few have a material impact on the measurement of assets and liabilities, they are nevertheless often subject to detailed disclosures in the notes. The disclosures mainly concern the valuation of non-financial assets and investments, the accounting treatment of carbon schemes, and the accounting for sustainable finance. Environmental issues other than climate change (biodiversity, water, pollution, etc.) are also sometimes mentioned in the financial statements. They may give rise to provisions (generally for pollution clean-up) which are not disclosed in detail. As for social and governance issues, they are rarely mentioned in the financial statements, except sometimes as a criterion for share-based payments.

Climate issues

01

1. Climate issues

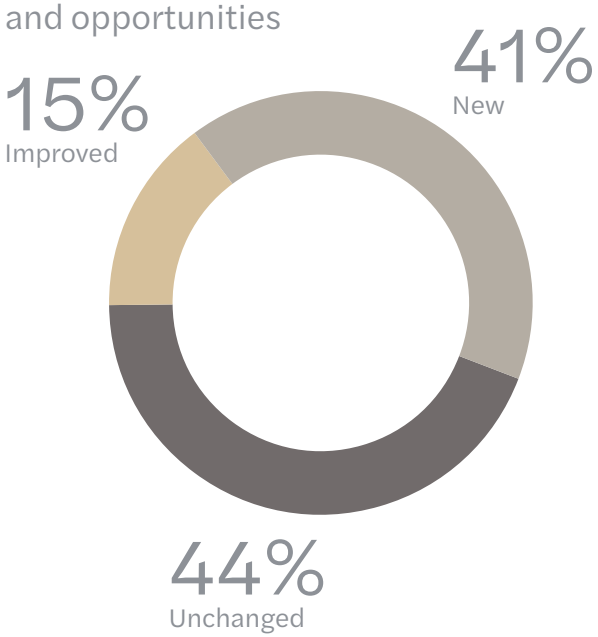
1.1 Presentation of climate issues

Climate issues

By climate "issues", we refer to the risks and opportunities related to climate change on the one hand, and the commitments made by the entity to reduce its impact on climate change or to adapt to it on the other. These issues relate mainly to the reduction by the company of its "carbon footprint" and more generally to the reduction of greenhouse gas (GHG) emissions, for which the tonne of carbon dioxide equivalent is used as a reference unit. In this document, "GHG emissions" and "carbon footprint" will therefore generally be considered synonymous.

1.1.1 Evolution of the information provided

Information on climate risks and opportunities

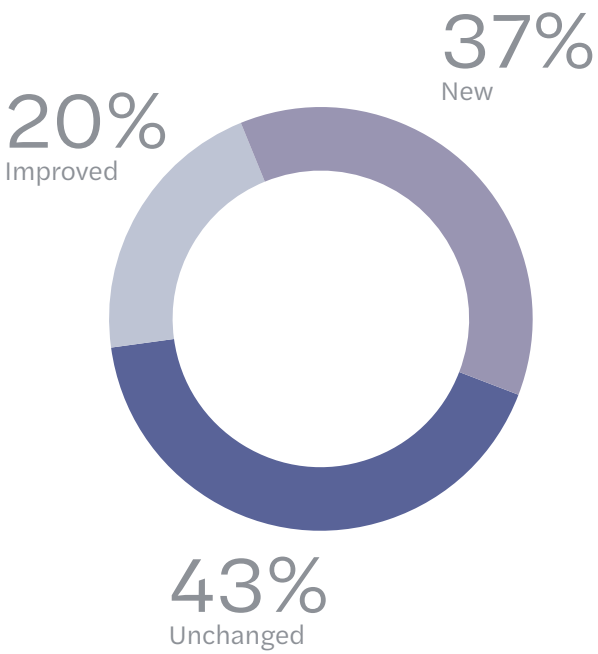


Two out of five issuers (i.e. 32 entities) have disclosed information on climate risks and opportunities in their 2021 financial statements for the first time.

15% (12 entities) have enhanced the information that was provided in the 2020 financial statements, for example by specifying the description of climate risks/opportunities.

Just under half (35 entities) of the issuers provided the same level of detail compared to 2020. For a third of them, the information provided previously was already developed in view of the importance of climate risks about their activities. For the others, in line with the 2020 financial statements, no information was provided in 2021.

Information on climate commitments



More than a third of issuers (29 entities) have provided information on climate commitments in their 2021 financial statements for the first time.

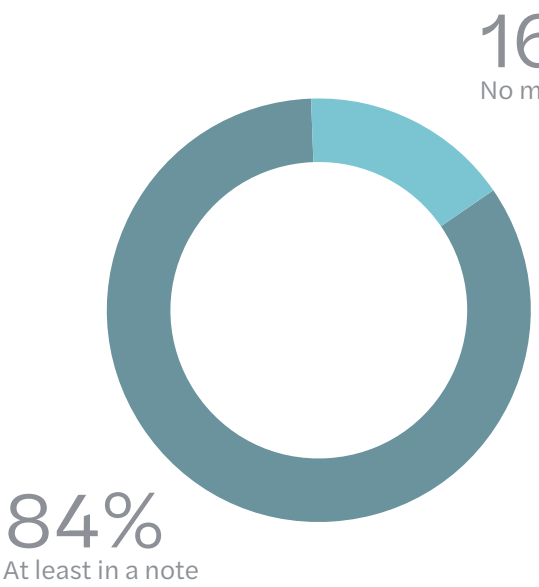
One out of five issuers (16 entities) has enhanced the information previously disclosed by adding, for example, as part of its disclosure of significant judgements and estimates, the consideration of the issuer's decarbonisation strategy resulting from the commitments made.

Approximately two out of five entities (34 entities) provided the same level of detail compared to 2020. For one third of them, information on commitments made was already provided in 2020; for the others, no mention of commitments was made.

1. Climate issues

1.1 Presentation of climate issues

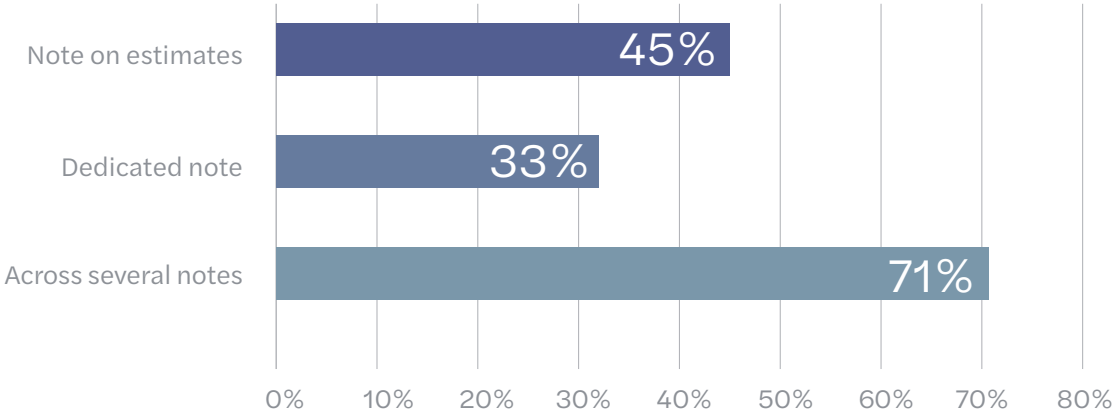
1.1.2 Presentation in the notes



Just over four out of five issuers mention climate issues (risks or commitments) in their accounts.

Among the issuers that provide information in the notes under this heading:

- almost half present it in the note on accounting estimates;
- a third present this information in a dedicated note instead;
- seven out of ten issuers disclose this information across several notes to the financial statements.



Example: Enel (Consolidated financial statements 2021, note 5)

Enel presents, in a very comprehensive note, the link between the climate issues specific to its business and the Accounting impact summarised in a summary referring to the detailed notes.

5. Climate change disclosures

The move towards "net zero" is under way worldwide and the processes of decarbonization and electrification of the global economy are crucial to avoiding the serious consequences of an increase in temperatures of over 1.5 °C.
With this outlook, the Group has set its strategic guidelines as follows:

- allocate capital to support a decarbonized electricity supply;
- enable the electrification of customers' energy demand;
- leverage the creation of value along the value chain;
- bring forward achievement of the sustainable "net-zero" goals to 2040.

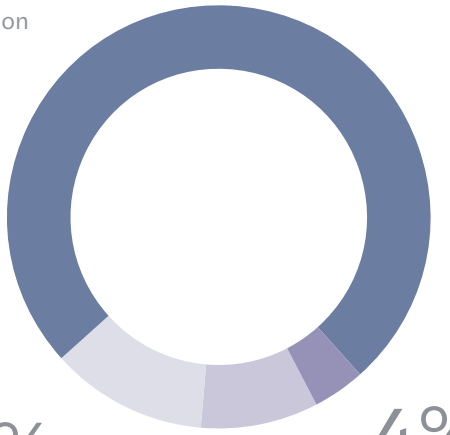
The Group has considered the risks related to climate change and the commitments established under the Paris Agreement in the preparation of these consolidated financial statements at December 31, 2021, which appropriately reflect the effects of achieving the carbon neutrality objectives on assets, liabilities, and profit and loss, highlighting its significant and foreseeable impacts as required under the Conceptual Framework of the IFRS.
In this regard, in accordance with the provisions of the document published by the IFRS Foundation on November 20, 2020,[23] the Group provides explicit information in the notes to these consolidated financial statements regarding how climate change is reflected in our accounts.
For a more effective and comprehensive communication concerning climate change disclosures prepared as part of the notes to these consolidated financial statements, we have mapped this disclosure as shown below, providing references to the various sections where issues associated with climate change are addressed.

Topic	Note	Content
Estimates and judgments concerning climate change	Note 2.1 "Use of estimates and management judgment"	• Reference to management's use of estimates and judgments with regard to climate change (taking account of their materiality within financial reporting). • Focus on estimating expected cash flows from specific assets/CGUs (section: "Impairment of non-financial assets"). • Focus of the effects of the Group's commitments under the Paris Agreement and their impact on the estimation of the useful life of the assets involved (section "Determining the useful life of non-financial assets").
Sustainable investment	Note 18 "Property, plant and equipment" Note 22 "Intangible assets"	• Focus on assets involved in renewable generation, infrastructure connected with the development of the grid and investment in expanding the e-Mobility, e-City, e-Industries, and e-Home businesses. • Focus on the development of intellectual property for achieving strategic objectives such as decarbonization, electrification and the development of platform models.
Measurement of non-financial assets	Note 11.e "Depreciation, amortization and other impairment losses" Note 18 "Property, plant and equipment" Note 23 "Goodwill"	• Focus on the effects related to the commitments of the Group in line with the Paris Agreement with regard to the measurement of non-financial assets, with particular regard to the residual useful life of certain assets and impairment testing.
Provisions	Note 39 "Provisions for risks and charges"	• Focus on the impact of climate change on provisions for risks and charges connected with generation plants, including those for decommissioning and restoration of sites, and provisions for restructuring plans linked to the energy transition (which include decarbonization and digitization).
Sustainable finance	Note 46.3 "Borrowings" Note 57 "Events after the reporting period"	Focus on: • issues of sustainability-linked bonds connected with the achievement of sustainability objectives in line with the SDGs issued by the UN; • green bonds used to finance specific sustainable Group projects and initiatives; • sustainable loans connected with the achievement of Sustainable Development Goals (SDGs).
Share-based payments	Note 51 "Share-based payments"	• Description of long-term incentive plans anchored to achievement of specific climate-related targets.
Environmental compliance	Note 11.f "Other operating costs"	• Description of the costs connected with environmental compliance obligations under national and international regulations (in particular those concerning CO_2 emission allowances, green certificates and energy efficiency certificates).
	Note 39 "Provisions for risks and charges"	• Description of costs generated by not having sufficient environmental certificates to meet environmental compliance regulations.
	Note 2.2 "Significant accounting policies"	• Description of accounting treatment of environmental certificates (sections: "Environmental certificates" and "Inventories").

1. Climate issues

1.1 Presentation of climate issues

1.1.3 Reference in the Key Audit Matter



The attention paid by auditors is also worth mentioning, with the audit reports on a quarter of companies in the study now referring to climate issues, with some even identifying climate issues as a key audit matter.

Several audit reports (13%) make explicit reference to climate issues being taken into account in the valuation of non-financial assets and, more specifically, in impairment testing. Some audit reports (7%) mention the consideration of climate risk as a cross-cutting issue in the audit, in a specific paragraph outside the key audit matters (KAM).

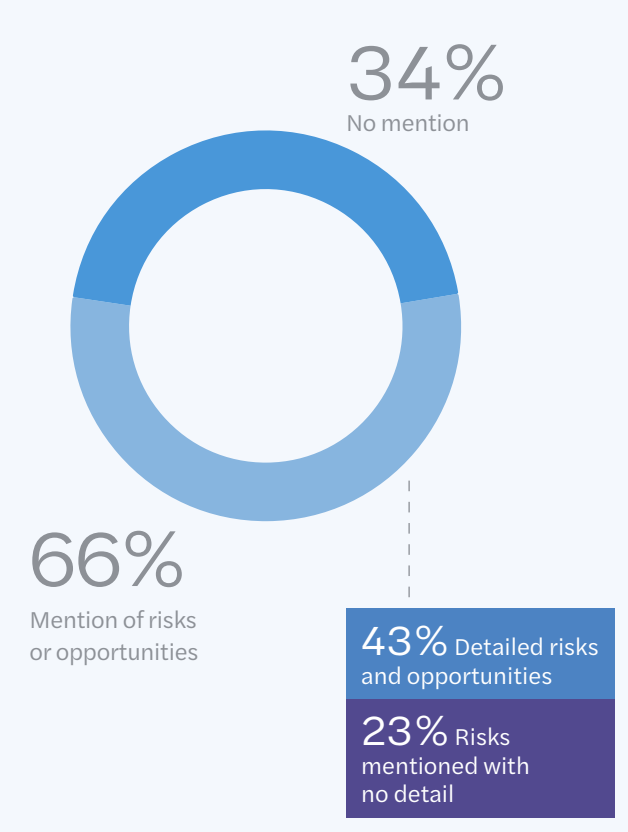
Three audit reports (4%) explicitly refer to climate issues as a key audit matter. The related issuers are in the energy industry and this reference was already present in 2020 for two of the three issuers concerned.

1. Climate issues
1.2 Climate change risks and opportunities

The *Task Force on Climate Related Financial Disclosures* (TCFD) distinguishes between two main types of climate risks:

- transition risks, linked to the entity's ability to adapt to changes in the legal framework, technologies or market expectations;
- physical risks, induced by an increased frequency or severity of extreme natural phenomena, or by long-term changes in ecosystems.

1.2.1 Mentions of climate risks and opportunities in the notes



Two out of five issuers identify and detail climate risks and opportunities

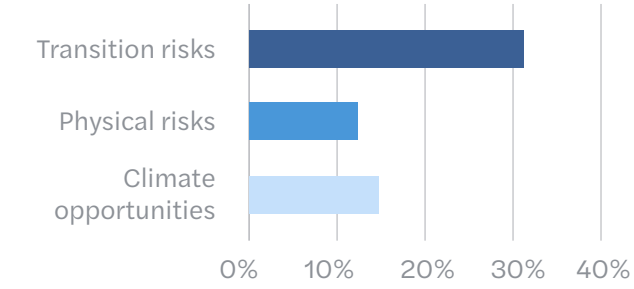
They present:

- mainly transition risks;
- more rarely (and more succinctly) physical risks;
- some opportunities, resulting from the competitive advantage that adaptation to climate risks could bring, e.g. low-carbon mobility, ability to recycle materials, growth of certain construction/reconstruction markets, etc.

In the financial statements, this information often illustrates the entity's approach to concluding that these risks do not have a material impact (thus providing a more entity-specific or at least industry-specific illustration).

Where the risk relates to assumptions used in impairment testing (such as the current state or expected changes in regulations impacting the entity's cost structure), this disclosure alerts the user of the financial statements to the changing nature of those estimates and assumptions.

Risks and opportunities when detailed*



*Several types possible

1.2.2 Risk typology

Of the 34 issuers (43%) that identified and detailed a risk, 31 identified at least one transition risk and 13 identified at least one physical risk.

Transition risks

Of the 31 entities that identified at least one transition risk, 19 (or one in four issuers) described it in a way that was specific to their business, citing only the risk of regulatory changes:

- primarily, regulations binding GHG emissions (including the EU *Emission Trading* Scheme, or ETS). Consistent with the scope of existing regulations, these entities fall within the energy (7 entities), heavy industry (6 entities) and automotive (2 entities) sectors;
- sometimes sector-specific regulations:
  - automotive: regulations concerning air pollution or fuel efficiency,
  - airline: regulations that may slow down the growth of air traffic,
  - service: regulations that may limit access to city centres, and thus the company's distribution activities.

Physical risks

Of the 13 entities that have identified a physical risk, 5 (or less than one in ten) provide specific, albeit limited, information on physical risks.
They mention in particular:

- infrastructure risks and the insurability of these risks in the future;
- the operational management of these risks;
- the impact of potential damage on the supply chain.

1. Climate issues

1.2 Climate change risks and opportunities

Accounting considerations

The time horizon of the financial statements (including that of the projections used to measure assets and liabilities) remains far below the time scale of the climate issues. Except in the case of regulatory changes anticipated in a defined time horizon (transition risks), it is difficult to capture the risks related to climate change in financial statements that are retrospective due to their pervasive nature and in turn difficult to quantify their effects.

Therefore, for most companies, the impact of a climate-related risk may not be known for many years to come, with no impact on the company's current assets. Such risks may also lead issuers to incur costs or make investments that may not be material enough to warrant disclosure.

This may explain why many issuers believe that they have only limited exposure to the consequences of climate change, and that at this stage, i.e. in the short term, their estimate of these impacts is not significant.

1.2.3 Examples

Examples of transition risks

Example: VINCI (Consolidated financial statements 2021, note A. 3)

VINCI cites the main regulations specific to its industry to illustrate its exposure to transition risks.

The main risks identified relate to physical risks, including flooding and typhoons, and transition risks associated with regulatory changes, such as France's 2012 thermal regulation and 2020 environmental regulation, the Energy Performance of Buildings Regulations in the United Kingdom, Germany's Buildings Energy Act, and more generally the revision of the European Union's Energy Performance of Buildings Directive (EPBD).

Example: ArcelorMittal (Consolidated financial statements 2021, note 5.3)

ArcelorMittal presents the EU Emissions Trading Scheme as its main source of exposure to the risk of regulatory change in the note on impairment testing. At the end of this note, it recalls the inherently uncertain nature of the assumptions made in this area.

ArcelorMittal's most substantial climate-related policy risk is the EU Emissions Trading scheme ("'ETS"), which applies to all its European plants. The risk concerns the Company's primary steelmaking plants which are exposed to this regulation and yet unprotected against competition from imported steel. [...] Due to economic developments, uncertainties over the pace of transition to low-emission technologies, political and environmental actions that will be taken to meet the carbon reduction goals, regulatory changes and emissions activity arising from climate-related matters, the Company's assumptions used in the recoverable amount calculations, such as capital expenditure, carbon emission costs and other assumptions are inherently uncertain and may ultimately differ from actual amounts.

Example: Deutsche Post (Consolidated financial statements 2021, note 8)

Deutsche Post is considering the potential impacts of future regulations on the transport sector that may interfere with its business.

It is possible that climate change will give rise to uncertainties and risks for the net assets, financial position and results of operations of the Group. Increased restrictions imposed by law to combat climate change are expected in the coming years, including limits on air transport or access to city centres. In certain cases this may also affect our existing business models and our ability to operate optimally.

Examples of physical risks

Example: Orange (Consolidated financial statements 2021, note 2.5.3)

Orange mentions the risks to its infrastructure and the problem of insuring these risks in the future.

Natural disasters as well as other accidental events related to climate change, such as fires, could lead to significant destruction of the Orange Group's facilities, resulting in both service interruptions and high repair costs. The frequency and intensity of weather events related to climate change (e.g., floods, storms, heat waves) continue to increase, which could aggravate disasters and increase related damage. In the medium term, rising sea levels could affect sites and facilities located near the coast more often. While coverage of claims by insurers could decrease further, the damage caused by major disasters could result in significant costs to Orange, some of which could be at the expense of the Orange Group and thus affect its financial situation and prospects.

Example: Teleperformance (Consolidated financial statements 2021, note 1.4)

Teleperformance mentions the geographical diversity of its locations as a factor of vulnerability, but also of protection (due to the possibility of shifting the activity to other sites).

On the other hand, the presence of the Group in over 88 countries results in a greater exposure to environmental risks and a higher probability of extreme meteorological phenomena incurring the loss or stoppage of a site. In mitigation of these risks, business back-up plans have been prepared at sites and, more generally, the geographical spread of the Group's activities permits the implementation of emergency measures at other sites or even in other countries whenever practicable (see section 2.2.6 Climate change strategy of 2021 Universal Registration Document). Such risks can therefore be reduced and their occurrence would have only a limited impact on the Group's performance.

Example: Shell (Consolidated financial statements 2021, note 4)

Shell is analysing the risks to its infrastructure and how to make it more resilient.

Physical risks

Mitigation of physical risks, whether or not related to climate change, are considered and embedded in the design and construction of assets and the associated costs are included in the initial recognition of assets in the Consolidated Balance Sheet. Over the past few years Shell has conducted studies aimed at expanding the understanding of physical risks. Shell continues to develop its understanding of all relevant aspects of climate resilience. Analyses have been performed addressing a range of typical climate change features for a select group of assets and it was concluded that currently any adaptation costs for those selected assets is not expected to be significant. Shell recognises the need to deepen and widen these analyses for a more comprehensive climate resilience assessment. Shell continues to monitor this and plans to conduct further analysis on other assets as well as assess long-term physical impacts. [...]
Acute risks, such as flooding and droughts, wildfires and more severe tropical storms, could potentially impact our operations and supply chains. The frequency of these hazards and impacts is expected to increase in certain high-risk locations. [...]
The physical risks are assessed at an asset level. Metocean (meteorology and oceanography) engineering experts assess and monitor the physical risks and logistical activities for certain of our assets. These studies aim to ensure our operations are safe and that our facilities can be accessed safely under extreme conditions.

Example: VINCI (Consolidated financial statements 2021, note A. 3)

VINCI indicates that it partially covers its risks through insurance (without providing further details on its insurance policies); however, this information is linked to the assumptions used in the projected cash flows used in estimating margins on completion of customer contracts.

Physical risks are usually covered by property/casualty insurance policies or taken into account in estimates of margins on completion. In general, when a loss occurs, the negative impact (the part of the risk that is not covered) is taken into account in margins on completion for construction contracts, or recognised in expenses for the period in question. Certain physical risks may also result in opportunities or an increase in business levels, since some subsidiaries specialise in site clean-up work and/or repairs to damaged infrastructure following major climate-related events such as hurricanes, storms and floods.

Example of an opportunity

Example: Alstom (Consolidated financial statements 2021-2022, Note 2.6)

Alstom communicates on the opportunities that can arise from the climate transition.

When preparing the Consolidated Financial Statements, the Group analyzed the potential impacts of climate change. Thanks to the activities managed, the Group is actively engaged in the climate transition which generates new opportunities of business development for the Group.

Notion of global carbon neutrality

According to the Paris Agreement, in order to limit global warming (preferably to 1.5°C), it is necessary to achieve carbon neutrality by the second half of the 21st century (i.e. 2050).

Carbon neutrality aims to balance any residual GHG emissions from human activity with equivalent amounts of anthropogenic CO_2 sequestration. To achieve carbon neutrality, two levers are therefore necessary: (i) reducing GHG emissions and (ii) capturing more CO_2 through natural carbon sinks or artificial carbon sequestration techniques.

The EU has included this neutrality objective in its "Green Deal" and has also adopted the "Fit for 55" project, which sets an intermediate target of 55% reduction (compared to 1990) by 2030. This project also provides for mechanisms to take account of GHGs imported at Europe's borders.

Can the notion of neutrality be applied on a smaller scale?

According to ADEME[1], carbon neutrality can only be applied at a global or state level coordinated through the Paris Agreement, and not at any other lower level, e.g. sub-national territory, organisation (companies, associations, local authorities, etc.), product or service. It therefore encourages organisations to express the means by which they contribute to the global objective of neutrality, rather than announcing neutrality objectives at the level of a company or a product.

However, every contribution, beyond that of individual states, is essential and would best be reflected in a carbon neutrality "approach" which includes :

- the implementation of a climate strategy consistent with the Paris Agreement;
- contributions to the financing of third-party carbon reduction and capturing projects (more commonly known as 'carbon offset');
- the participation of the company, through its activity, in the upstream decarbonisation of its suppliers and downstream decarbonisation of its customers, through the adoption of low-carbon consumption patterns.

The notion of "carbon offset" in the former Kyoto Protocol mechanism has evolved. Now, according to the Science-based Targets Initiative (SBTi)[2], carbon offset (for instance through carbon credits) does not contribute to a company's reduction efforts, but is an option to supplement them beyond its targets.

France has regulated[3] companies' communication on carbon offset and carbon neutrality.

1. https://librairie.ademe.fr/changement-climatique-et-energie/5941-ademe-position-paper-carbon-neutrality.html
2. https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf
3. https://www.legifrance.gouv.fr/loda/article_lc/JORFARTI000043956989/ and https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000045570611

1.3.1 Mention of ESG commitments

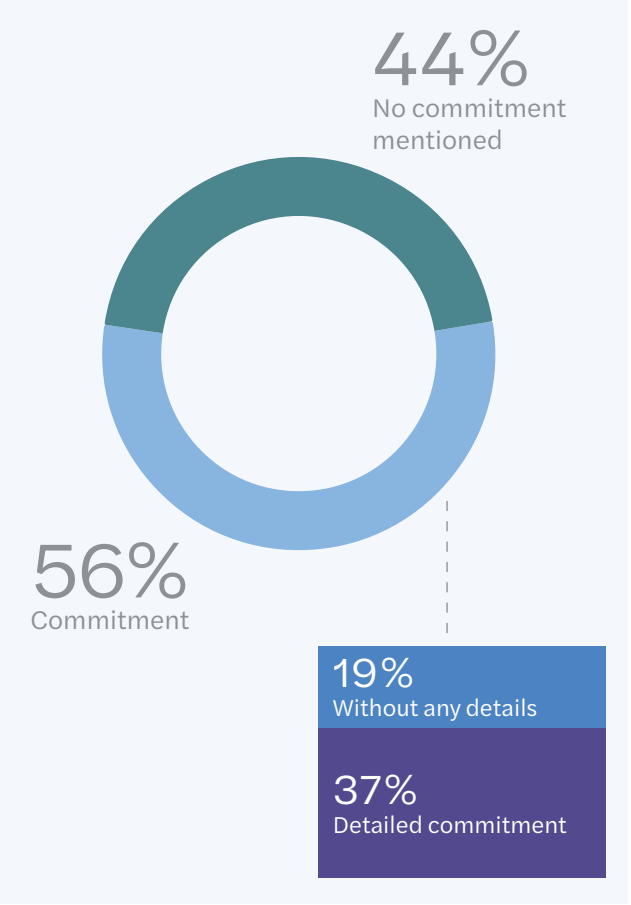
One in three issuers disclose their commitments in the financial statements

A small majority of the issuers in our sample (44 entities) mention sustainability commitments.

Of these, one third (15 entities) refer to environmental, social and governance (ESG) or *sustainability* objectives, without giving details. They indicate, for example, that they have taken into account the group's environmental commitments in their accounting estimates, or that certain financing or share-based compensation transactions are subject to ESG or sustainability targets, but without detailing the specifics of those targets.

Among those 29 entities who detail their commitments:

- nine out of ten (25 entities) present quantified targets for reducing their carbon footprint and most (19 entities) disclose a target date for achieving carbon neutrality: 2025 (4 entities), 2030 (3 entities), 2040 (3 entities) and 2050 (9 entities);
- a very large majority of issuers (24 entities) describe their "ambitions" or "objectives" and/or detail their strategy or path, sometimes making commitments as to means, but without committing to a result.



The commitments made by countries and the European Union following the 2015 Paris Agreement aim to limit global warming to well below 2°C, preferably 1.5°C, compared to pre-industrial levels and therefore, in practice, to carbon neutrality by 2050 ("Green deal", "Fit for 55" plan aiming to reduce net GHG emissions by 55% by 2030 compared to 1990).

These commitments lead to:

- the publication of regulations creating obligations for companies (e.g. industry-specific carbon schemes),
- reflections on future regulations that generate a transition risk.

Disclosures of commitments by companies is intended to demonstrate their compliance with existing regulations or their ability to adapt to future regulations. Some issuers also present voluntary commitments that go beyond these regulations. These commitments, which are set out in the context of a strategy or objectives, aim in particular to prevent or mitigate climate risks, or even to seize new opportunities.

1.3.2 Accounting impact of climate commitments

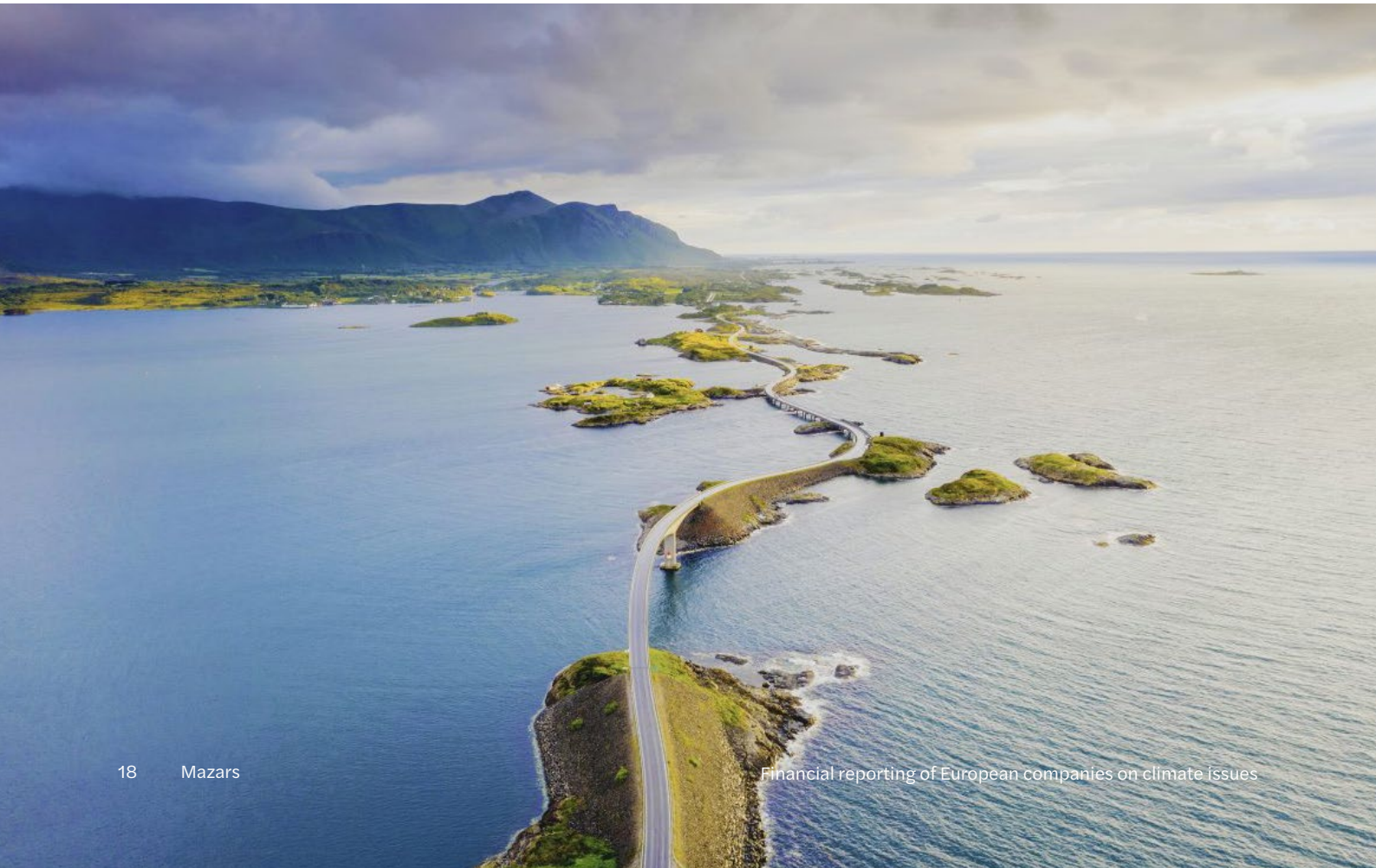
The climate commitments may give rise to **information in the notes** on the financial impacts of the decisions taken to achieve the stated objectives such as expenditures /investments planned or already carried out. This information generally refers to intermediate objectives or milestones, and a trajectory towards the ultimate objective of carbon neutrality by 2050. The scope of the information provided varies greatly:

- some communications involve the issuer's activities or geographical areas in different ways;
- objectives can be defined in absolute or relative terms;
- some commitments go beyond the issuer's emissions to also cover part of the value chain upstream or downstream (i.e. scope 3 emissions) as well as their own activity (scope 1 and 2 emissions).

In addition, climate commitments (governmental and/or individual targets) may have been **considered in the cash flow projections** for valuation purposes of:

- a possible change in business model;
- existing fixed assets, for example, when carrying out impairment tests;
- liabilities, for example, in the case of indexed financing;
- expenses, for example, in the case of share-based compensation.

Finally, commitments could reveal the existence of a **constructive obligation** under IAS 37.10, for example, commitments to clean up pollution beyond regulatory requirements. Although there are indications that such obligations would be provided for if they were to arise, none of the issuers in our sample explicitly mentions the existence of such obligations.



Accounting considerations

The published financial information on climate commitments shows:

- a large diversity of information published, both in terms of the level of detail and the time horizon used;
- the ambiguity of certain terms, such as the notions of "carbon offset" or "carbon neutrality" and the way it can be scientifically defined at the level of a company, legally expressed in the financial communication, and accounted for in the notes. Recent proposals for clarification have been made by the United Nations' High-Level Expert Group On The Net Zero Emissions Commitments Of Non-State Entities[1] and the Science-based Targets Initiative (SBTi) or at a regional level, in France by the ADEME and the French law;
- the difficulty in assessing the extent to which the commitments and objectives set by the issuer are binding on it. Some use the strong term "commitment" but on means rather than results, or on distant horizons, vague perimeters or too narrow to be meaningful at present. On the other hand, those that mention "only" ambitions or objectives sometimes commit their managers to specific, short-term targets, that may be very significant or even structural in the long term, when they impact the business model. For example, information on investments made or decided on a voluntary basis might prove more useful than a less material but binding obligation.
- The extent of the "accounting impacts" caused by climate issues, which are not limited to the recognition and measurement of assets and liabilities such as provisions, impairments, useful lives of PPE, or the consequential effect on sensitivity analyses disclosed. Rather, it also impacts disclosure on commitments, which is a key piece of information (i) in response to the climate risks to which the issuer is exposed and (ii) for understanding the current and future accounting impacts. Therefore, the information may be useful, even if it is not material at the time. The "relevant" and therefore necessary nature of these disclosures in the notes is assessed in particular in the light of IAS 1.7, which defines them as "reasonably likely to influence the economic decisions made by users".

1. https://www.aefinfo.fr/rebond/documentdam/524640

1.3.3 Examples

Examples of carbon footprint reduction commitments

Example: CRH (Consolidated financial statements 2021 Accounting policies)

CRH sets a relative emissions reduction target (intensity target), as it relates to the tonne of cement. The group reports that the SBTi has approved the setting of its targets.

Climate Change and Carbon Reduction Targets

In August 2021, the Group announced that its carbon emissions reduction target of 520kg of CO_2 per tonne of cementitious material was being brought forward from 2030 to 2025. Climate change risks including the impact of achieving this target have been considered and assessed in the preparation of the Consolidated Financial Statements for the year ended 31 December 2021. The table below provides details of where further information has been provided in these Consolidated Financial Statements.

Climate Change and 2025 Carbon Reduction Target References	Pages
Impairment testing of goodwill and property, plant and equipment	150 and 175
Provisions for liabilities	147
Inventories	152
Retirement Benefit Obligations	198

In early 2022, the Group adopted a new target of a 25% reduction in CO_2 emissions (Scope 1 and Scope 2) by 2030 compared to 2020 levels. The Science Based Targets initiative (SBTi) has approved our science-based emissions reduction target. The Group's assessment is that the impact of the adoption of this target will be consistent with the impact of the 2025 targets on the estimates, judgements and assumptions set out in the relevant disclosures referenced above.

1. Climate issues
1.3 Climate change commitments

Example: Carrefour (Consolidated financial statements 2021, note 1.3)

Carrefour presents a series of commitments specific to its industry and activity. The group has set numerical targets for its own business (scope 1 and 2) which are part of a strategy broken down into intermediate targets over time and geographically.

With regard to climate change, the Group has set itself the goal of becoming carbon neutral by 2040. Its action plan aims to reduce the CO_2 emissions produced by its operations at source as much as possible through several initiatives:

- use of 100% renewable electricity by 2030, with priority given to on-site production for self-consumption or grid feeding, followed by the future adoption of power purchase agreements. In view of this, the Group has begun to equip hypermarkets with photovoltaic systems (seven in France, two in Poland and one in Belgium to date)
- a 27.5% reduction in energy consumption by 2030 compared to 2019. The Group is seeking to improve energy efficiency through five priority action and technology recommendations for its stores: renovation of commercial cooling systems to consume less energy, doors for refrigeration units, use of electronic speed controllers, use of divisional meters and low consumption LED lighting
- a reduction in emissions from refrigerant use. Carrefour is committed to phasing out HFC refrigeration units and phasing in systems using natural refrigerants (CO_2), which have much lower emission levels, by 2030 in Europe and 2040 in other geographies. Each country has drawn up a roadmap for the renewal of its store base.

Example: Enel (Consolidated financial statements 2021, note 23)

Enel refers to its business model to indicate the extent to which it must adapt to climate change and related commitments.

Enel presents the detailed milestones of its GHG reduction strategy. The Group claims a validation of its targets by the SBTi.

Given this external environment, the Enel Group implements a business model that is in line with the highest ambition of the Paris Agreement and so is consistent with an increase in average global temperatures of 1.5 °C by 2100. Enel has set a long-term objective of reaching zero direct emissions (Scope 1) with fully renewable power generation and zero emissions connected with the retail sale of energy (Scope 3). [...]

Time horizon		Greenhouse gas (GHG) reduction target
Short term	2024	• Direct emissions of Scope 1 greenhouse gases to 140 gCO_{2eq} / kWh (-36% compared with 2021)
Medium term	2030	• Direct emissions of Scope 1 greenhouse gases to 82 gCO_{2eq} / kWh (-80% compared with 2017, consistent with the 1.5 °C path as certified by the SBTi) • 55% reduction in indirect Scope 3 emissions associated with gas • Consumption by end users compared with 2017
Long term	2040	• Full decarbonization of energy mix

Example: Eni (Consolidated financial statements 2021, note 28)

Eni mentions among its commitments a commitment to purchase carbon certificates from a reforestation programme until 2038.

Other commitments include the agreements entered into for forestry initiatives, implemented within the low carbon strategy defined by the Company, concerning the commitments for the purchase, until 2038, of carbon credits produced and certified according to international standards by subjects specialized in forest conservation programs.

Example: Rio Tinto (Consolidated Financial Statements 2021, note 1)

Rio Tinto mentions commitments to invest to meet its scope 1 and 2 emissions reduction targets and indicates that it has set a notional price per tonne of CO_2 to assess its future investments.

We are committed to align our future capital expenditure with our 2025 and 2030 Scope 1 and 2 emissions reduction targets. As noted above, we conclude that our targets are aligned with efforts to limit warming to 1.5°C and the stretch goal of the Paris Agreement. To deliver our climate targets, the Group expects to make incremental capital investment of US$7.5 billion over the period to 2030 (approximately US$1.5 billion over the period 2022 to 2024). We also expect our incremental operating expenditure to support the Climate Action Plan to be in the order of US$200 million per year, including research and development initiatives. For internal approval purposes, a notional carbon price of US$75/t CO_2e is now used to drive improvements in energy efficiency across our assets, help to identify new abatement projects as well as incentivise and accelerate the delivery of capital investment in abatement projects and operational improvements. The US$75/t CO_2e price is derived from our analysis of carbon mitigation options across our assets (summarised in our Marginal Abatement Cost Curve) – it is unrelated to the prices in our scenarios.

Example: Unibail-Rodamco-Westfield (Consolidated financial statements 2021, note 2.3)

Unibail-Rodamco-Westfield has set targets (not quantified here) that also cover indirect GHG emissions (scope 3) specific to its industry.

The Group has set ambitious Green House Gas (GHG) emission reduction targets as part of Better Places 2030, addressing its entire value chain including the wide scope of indirect carbon emissions resulting from construction works, transportation of visitors and employees, and energy consumption of tenants, committing to reduce significantly its global GHG emissions.

Example: Shell (Consolidated financial statements 2021, note 4)

Shell has set various scope 3 emissions reduction targets:

- downstream with a relative objective;
- and upstream with an absolute objective.

4 – CLIMATE CHANGE AND ENERGY TRANSITION

In 2021, Shell launched its Powering Progress strategy to accelerate the transition of its business to net-zero emissions, including targets to reduce the carbon intensity of energy products sold (Scope 1, 2 and 3 emissions) by 6-8% by 2023, 20% by 2030, 45% by 2035, and 100% by 2050, in step with society. In October 2021, Shell announced a new target to halve the absolute emissions from its operations and the energy it buys to run them by 2030, compared with 2016 levels on a net basis. This additional target will help Shell to step up the pace of change to become a net-zero emissions energy business.

Non-carbon footprint examples

Example: (Consolidated financial statements 2021, note 33.1.4)

Kering has set itself objectives to promote a circular economy and to preserve natural resources.

The implementation of the Group's 2025 sustainability strategy – particularly measures relating to the supply chain, production and transportation, along with initiatives to promote a circular economy and to preserve natural resources – will affect some of the Group's operational performance indicators to some extent. In particular, the strategy could result in an increase in raw materials and production costs, higher expenditure on research and development, certification and training costs and changes in the useful lives and residual values of certain assets. However, those impacts are not currently material for the Group.

Example: L'Oréal (Consolidated financial statements 2021, note 13.1b)

L'Oréal affirms a strong environmental commitment (carbon, circular economy, water consumption) throughout its value chain and presents examples specific to its activity.

For many years, L'Oréal has shown a strong commitment to environmental, social and societal responsibility. L'Oréal placed sustainability at the heart of its strategy, with the launch in 2013 of the Sharing Beauty With All programme with 2020 targets focused on sustainable production, sustainable innovation, sustainable consumption and shared growth. In June 2020, L'Oréal initiated the second phase of its commitments to sustainable development, under the umbrella of the L'Oréal for the Future programme, with a new set of particularly ambitious and concrete targets for 2030, in order to cover all the impacts associated with its value chain: its production and distribution sites as well as its supply chains and the impacts associated with the use of products by consumers.
For example:

- the Group undertakes to reach carbon neutrality for all Group sites by 2025, by improving energy efficiency and using 100% renewable energy;
- by 2030, 100% of ingredients in formulas and biobased packaging materials will be traceable and come from sustainable sources. None of them will contribute to deforestation;
- by 2030, 100% of the plastics used in packaging will be from either recycled or biobased sources;
- by 2030, L'Oréal undertakes to innovate to enable its consumers to reduce by 25%, on average and per finished product, the water consumption and greenhouse gas emissions linked to the use of its products, compared to 2016. The above commitments do not jeopardise the value of the Group's assets or the useful lives of our non-financial assets. In particular: ▪ our ongoing efforts to bring our products in line with consumer demand as part of L'Oréal for the Future are included in the Group's short-term strategic plans used in impairment tests on intangible assets with an indefinite useful life;
- to date, the adaptation of our plants and product formulas has not led us to identify any risk of our production lines becoming obsolete or experiencing a reduction in their value in use.

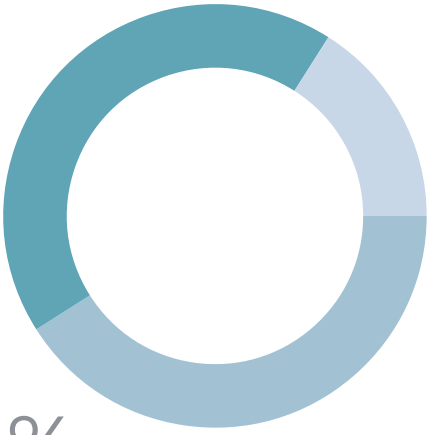
Accounting impact of climate issues

02

Multiple impacts, generally not material on accounting balances, but subject to increasingly detailed disclosure.

41%
No significant impact despite the mention of climate issues

16%
No climate impacts or issues



43%
Detailed impact in the accounts

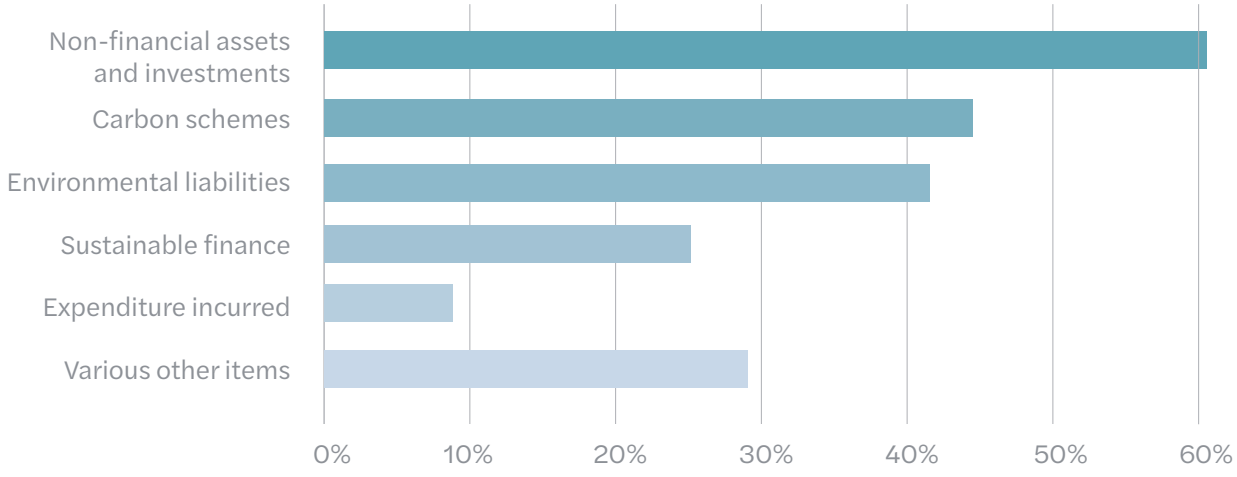
Four out of five issuers mention having taken climate issues into account in their financial statements. Half of them conclude that there is no material impact and provide no further details.

When impacts are detailed in the notes, climate issues are described in the context of a strategy or a transition plan (e.g. electrification of equipment, innovation towards low-carbon transport) or, more radically, a change in business model, for example energy companies developing non-fossil fuel forms of energy, or other industries changing their sources of supply towards a more circular economy.

These decisions have an accounting impact on various items in the primary financial statements, which we have grouped into four parts:

1. Valuation of non-financial assets and investments ;
2. Carbon schemes ;
3. Sustainable finance ;
4. Other impacts (provisions, share-based payments, expenses, etc.).

Items affected by climate issues



2. Accounting impact of climate issues
2.2 Valuation of non-financial assets

2.2.1 Type of information provided

Two types of information are provided on the link between climate issues and the valuation of non-financial assets:

1. Information (more than half of the sample, 55%) the purpose of which is to confirm that climate issues have been taken into account and, implicitly or explicitly (in the latter case, generally without detailed justification), that there is no significant accounting impact. When such information is provided, it confirms that climate issues have been taken into account:

- in IAS 36 impairment tests for non-financial assets (or, more generally, their valuation): more than nine times out of ten,
- in assessing useful lives (or, more generally, in drawing up depreciation plans): more than six times out of ten,
- more rarely, in the valuation of capitalised development costs, property, plant and equipment or deferred tax assets.

2. An explanation of the accounting for certain items in the primary financial statements (two issuers out of seven, 28%)

This mainly includes issuers from the energy or industrial sectors, with specific information provided on:

- the useful life of depreciable assets (7 entities),
- investments made or committed (16 entities),
- key assumptions on the value in use for IAS 36 impairment testing (11 entities),
- sensitivity analyses for IAS 36 impairment testing (8 entities).

2.2.2 Useful life of fixed assets

Some issuers provide disclosure in the notes to explain or describe the impact of a known or possible reduction in the useful life of non-financial assets. These impacts may take the form of:

- asset **impairments** related to the sudden reduction in the useful life of oil and coal-fired power plants,
- an increase in the **depreciation** charge as a result of a reduction in the units of production or the useful life, for example steel production equipment,
- a reference to **uncertainties** about a shortening of the useful life.

Examples of depreciation

Example: ENGIE (Consolidated financial statements 2021, note 10.1.1)

Impairments are related to the early termination of operations of assets based on the use of fossil fuels.

Net impairment losses recognized as of December 31, 2021 amounted to € 1,028 million and relate mainly to [...] assets affected by the Group's announced exit from coal, in 2021, for thermal power generation assets in Brazil (€228 million).

Example: TotalEnergies (Consolidated financial statements 2021, note 3D)

TotalEnergies identifies stranded assets, i.e. assets that are worthless because they are incompatible with a low-carbon economy.

In addition, in 2020, in line with its new Climate Ambition announced on May 5, 2020, which aims at carbon neutrality, the Company had reviewed its oil assets that could 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 were the Canadian oil sands projects of Fort Hills and Surmont.

Examples of accelerated depreciation

Example: ArcelorMittal (Consolidated financial statements 2021, note 5.2)

An increased annual depreciation charge was recognised by ArcelorMittal following the revision of the depreciation schedule for some assets, as certain production processes had to be replaced in advance by others in order to optimise the consumption of raw materials and energy (and therefore, ultimately, GHG emissions).

The residual values and useful lives of property, plant and equipment are reviewed at each reporting date and adjusted if expectations differ from previous estimates. Depreciation methods applied to property, plant and equipment are reviewed at each reporting date and changed if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset. In the context of the 2021 annual review of useful lives and considering the expected date of retirement of certain assets in particular blast furnaces, basic oxygen furnaces, sinter plants and coke plants following the implementation of the Company's decarbonization strategy involving the construction of DRI - EAF facilities, the Company decreased estimates of residual useful lives of such items of property, plant and equipment for its flat carbon operations in the EU and in Canada. Accordingly, depreciation charge increased by 76 in the fourth quarter of 2021 and is expected to increase by 277, 168, 168, 142, 124, 28 and 26 for the years ended December 31, 2022, 2023, 2024, 2025, 2026, 2027 and 2028, respectively.

Example: Shell (2021 Consolidated Financial Statements, note 4)

Shell states that its upstream assets (production and exploration) are being depreciated at the rate of consumption of fossil reserves, of which only 3% should remain in 2030. In the downstream, refineries are depreciated on a straight-line basis over 20 years. However, their current residual value should be fully amortised by the end of the energy transition.

Impact on remaining life of assets

The energy transition and the pace at which it progresses may impact the remaining life of assets. Integrated Gas and Upstream assets are generally depreciated using a unit-of-production methodology where depreciation depends on production of Securities and Exchange Commission (SEC) proved reserves (see Note 2). Based on production plans of existing assets, some 29%, 3% and 0% of SEC proved reserves as at December 31, 2021, would currently be left by 2030, 2040 and 2050, respectively. An analysis of Integrated Gas and Upstream production assets of $118 billion as at December 31, 2021, based on planned reserves depletion shows that these assets would be significantly further depreciated under the unit-of-production method by 2030 and fully depreciated by 2050, providing a further perspective on the risk of stranded assets carried in the Consolidated Balance Sheet as at December 31, 2021. For refineries in Oil Products, depreciation of assets is on a straight-line basis over the life of the assets over a period of 20 years (see Note 2). Over the course of the energy transition, the current carrying amount of refineries will be fully depreciated, offset by anticipated investments in assets that are expected to be resilient in the energy transition as described above.

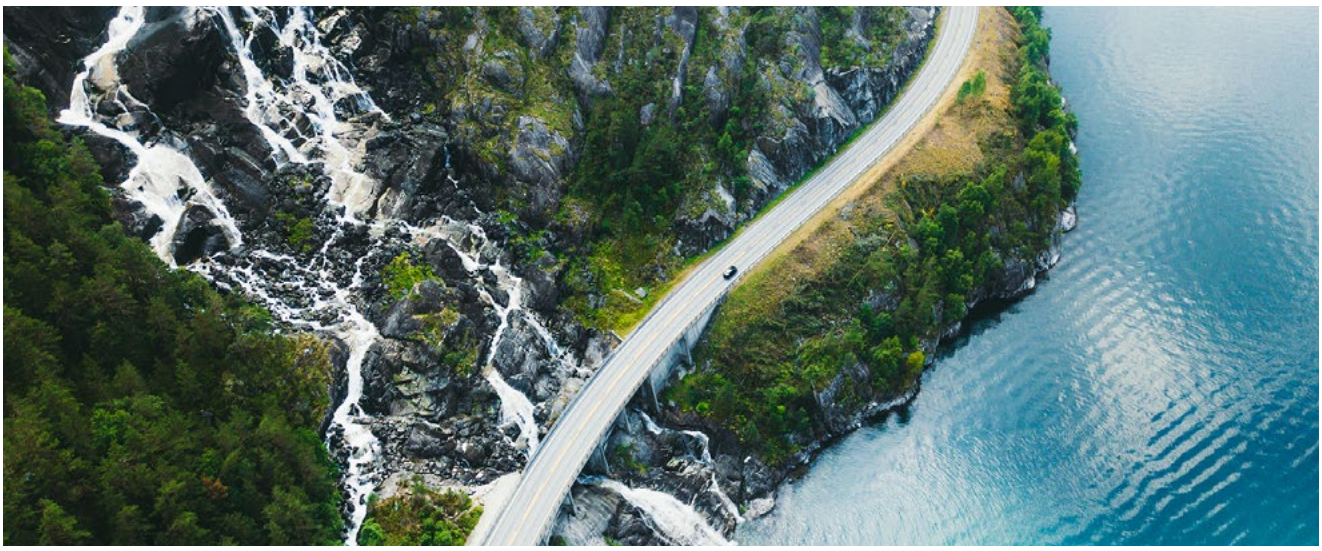
Example: Rio Tinto (2021 Consolidated Financial Statements, note 14)

Rio Tinto links its GHG emission reduction ambitions for 2030 and 2050 to the average useful life of its fossil fuel power plants.
The group mentions the possibility of accelerated depreciation of these assets, if alternatives to fossil fuels are found before the end of their useful life.

Useful economic lives of power generation assets

The group has committed to reducing scope 1 and 2 carbon emissions by 50% relative to our 2018 baseline by 2030 and achieving net zero emissions across our operations by 2050. Transitioning electricity from principally fossil fuel based power generating assets to principally renewables is critical to achieving that goal. The carrying value of power generating assets is set out in the table below.
The weighted average remaining useful economic life of plant and equipment for fossil fuel based power generating assets is 14 years (2020: 16 years). Given the technical limitations of intermittent renewable energy generation and energy storage systems, and our need for reliable baseload electricity, we expect our current generation assets will be required as an integral part of the total portfolio of generation assets for the foreseeable future. We are investing in research and development and evaluating new market options that can overcome these technical challenges. Should pathways for eliminating fossil fuel power generating assets be identified we may need to accelerate depreciation.

	2021		2020	
Net book value	Land and buildings US$m	Plant and equipment US$m	Land and buildings US$m	Plant and equipment US$m
Fossil fuels	26	952	28	1,048
Renewables	195	1,541	202	1,588



2. Accounting impact of climate issues
2.2 Valuation of non-financial assets

Example of uncertainties

Example: National Grid (2021 Consolidated Financial Statements, note 13.c)

National Grid assumes that its rate-regulated US gas distribution network has a useful life beyond 2050. However, given the technological and regulatory uncertainties about the role of gas in the energy transition, it is considering several horizons for shortening that life and the resulting impacts on depreciation expense.

(c) Gas asset lives

The role that gas networks play in the pathway to achieving the greenhouse gas emissions reductions targets set in the jurisdictions in which we operate is currently uncertain. However, we believe the gas assets which we own and operate today will continue to have a crucial role in maintaining security, reliability and affordability of energy beyond 2050, although the scale and purpose for which the networks will be used is dependent on technological developments and policy choices of governments and regulators.

With respect to our US gas distribution assets, asset lives are assessed as part of detailed depreciation studies completed as part of each separate rate proceeding. Depreciation studies consider the physical condition of assets and the expected operational life of an asset. We believe these assessments are our best estimate of the UEL of our gas network assets in the US.

The weighted average remaining UEL for our US gas distribution fixed asset base is circa 58 years, however a sizeable proportion of our assets are assumed to have UELs which extend beyond 2080. We continue to believe the lives identified by rate proceedings are the best estimate of the assets' UELs, although we continue to keep this assumption under review as we learn more about possible future pathways towards net zero. Whilst the targets, goals and ambitions have now been formalised in legislation in the states in which we operate, there is widespread recognition that work needs to be done to define the possible future decarbonisation pathways. We continue to actively engage and support our regulators to enable the clean energy transition in a safe, reliable and affordable way.

Asset depreciation lives feed directly into our US regulatory recovery mechanisms, such that any shortening of asset lives and regulatory recovery periods as agreed with regulators should be recoverable through future rates, subject to agreement, over future periods, as part of wider considerations around ensuring the continuing affordability of gas in our service territories.

Given the uncertainty described relating to the UELs of our gas assets, below we provide a sensitivity on the depreciation charge for our New York and New England segments were a shorter UEL presumed:

	Increase in depreciation expense for the year ended 31 March 2022		Increase in depreciation expense for the year ended 31 March 2021[1]	
	New York £m	New England £m	New York £m	New England £m
UELs limited to 2050	140	40	125	35
UELs limited to 2060	67	15	57	13
UELs limited to 2070	31	1	26	2

2.2.3 Investments and investment commitments

To illustrate their actions in response to the climate issues, many groups detail investments:

- made during the year. Disclosing them in the notes reflects the materiality (as defined in IAS 1) or relevance that the issuer attaches to these investments.
- that the issuer is committed to perform often beyond what is strictly required by the standards (IAS 16.74(c)).

Example: EssilorLuxottica (Consolidated Financial Statements 2021, Basis of preparation of financial statements)

EssilorLuxottica details and recontextualises the investments made during the year in connection with the group's sustainability strategy (low-carbon, circular economy).

Due to the nature of the Group's activities, the current Group's exposure to the consequences of climate change is deemed to be limited. Nonetheless, in July 2021, the Company announced its new approach to sustainability, titled Eyes on the Planet, which was built around, among the others, the following pillars.

- Eyes on Carbon: EssilorLuxottica is working toward achieving carbon neutrality across its direct operations (scope 1 & 2 emissions) by 2025, starting in Europe by 2023. During the course of 2021, the Company invested in renewable electricity, such as solar and biomass heating systems, photovoltaic installations as well as in philanthropic initiatives (such us the major forest restoration project of 30 hectares in the foothills of the Dolomites near one of the Company's main production plant in Agordo, Italy).
- Eyes on Circularity: EssilorLuxottica is reassessing its production cycle, including a shift from fossil-based materials to bio-based materials, which produce fewer emissions, biodegrade, and are easier to recycle. This is reflected in the Company's investment in Mazzucchelli 1849 S.p.A. (see Note 12 – Investments in associates) to develop and produce a highly sustainable type of acetate as well as Arnette and Costa's new sustainable collections.

The deployment of these initiatives is reflected into the Group's accounts in the form of operating expenses and investments accounted for during the course of the year and it has been taken into account, when necessary, in the estimations used by management in the preparation of these consolidated financial statements, in particular in the 2022 budget and the medium-term projections used to perform 2021 annual impairment tests (see Note 10.1 – Impairment tests).

2. Accounting impact of climate issues
2.2 Valuation of non-financial assets

Example: Iberdrola (Consolidated financial statements 2021, note 6)

Iberdrola states that it is firmly committed to a low-carbon economy, mentions targets over time and by region, assesses the past and future investments needed, and describes the specific technical solutions envisaged.

Iberdrola embarked upon a profound transformation more than 20 years ago, when it pledged its support for a sustainable, safe and competitive energy model that would enable it to fight climate change. This has been the main driver of its profitable growth strategy, which has led it to invest more than EUR 100 billion over the last two decades with the ultimate aim of achieving a decarbonised energy model. The Group is now in an excellent position from which to continue to anticipate and manage the risks and harness the opportunities that this energy transition offers thanks to its leadership in renewable energies, smart grids and storage, as well as its firm commitment to digitalisation.
The Iberdrola Group is firmly committed to leading the transition towards a zero-emission future, having set itself the goal of becoming a carbon neutral company in Europe by 2030 and of doing so worldwide by 2050. The Iberdrola Group envisions total investment of EUR 75 billion over the 2020-2025 horizon, which will double to EUR 150 billion by 2030, by which time renewable and storage capacity will have tripled and network assets doubled. In tandem, the Iberdrola Group will continue to innovate to drive the deployment and implementation of decarbonisation solutions, such as green hydrogen, smart products and heat pumps.

2.2.4 Impairment testing IAS 36

Key value in use assumptions

The accounting impact of climate issues are discussed in the disclosures on key assumptions, such as:

- long-term projection scenarios for electricity, hydrocarbon and CO_2 prices for energy and mining companies. If it is not possible to incorporate such a risk into the cash-flows, this uncertainty can be taken into account through an additional risk premium in the discount rate as recommended by IAS 36.55(b);
- the cash outflows required to reduce or offset GHG emissions.

Accounting considerations

The way in which climate issues are considered in projected cash flows may raise some accounting issues:

- Under IAS 36.38, projections reflect reasonable and documented assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset. Should a price of CO_2 or an energy transition cost be taken into account before it is actually required by regulation, in order to reflect limitations already endorsed by international or national targets (GHG emission allowances, taxes targeting GHG emissions, or other forms of obligations such as those conditional on the continuity of a business)?
- How to distinguish between investments that (i) enable the asset to adapt to climate change so that it can continue to be operated as it is (IAS 36.44) and (ii) those that improve or enhance its performance? The latter are expressly excluded from value in use under IAS 36.33(b), although the IASB is considering the removal of this prohibition. However, without taking such investments into account, the time horizon would probably be capped. Conversely, when an entity projects cash flows over an infinite time horizon, how can it justify that climate issues have been appropriately reflected in the terminal value and growth rate used?

Example: ArcelorMittal (Consolidated financial statements 2021, note 5.3)

ArcelorMittal includes in its future cash flow assumptions (i) the decarbonisation investments required to operate existing assets and (ii) the acquisition of carbon allowances.

In addition, the Company considered the legal obligation of carbon neutrality by 2050 effective within the EU and in Canada following adoption of the Climate Law and the Net Zero Emission Accountability Act, respectively. Accordingly, with respect to its flat steel operations in the EU and in Canada, ArcelorMittal concluded that future decarbonization capital expenditures, which correspond essentially to the construction of DRI-EAF facilities, are necessary to maintain the level of economic benefits expected to arise from the assets in their current condition and should therefore be included in the Company's assumptions for future cash flows of the recoverable amount of the respective GCGUs and CGUs. Additionally, the Company's assumptions for future cash flows include an estimate for costs that the Company expects to incur to acquire emission allowances, which primarily impacts the flat steel operations in the EU and in Canada.

Example: Michelin (Consolidated financial statements 2021, note 2.6)

Michelin is planning investments to eliminate the use of coal in its production.

The Group has decided to stop using coal as an energy source by 2030. This decision has not had a material impact on the values attributed to the underlying plant and equipment. The number of sites still using coal is limited and the assets concerned are largely depreciated. The cost of replacing these assets is estimated at around €70 million. An electrification program concerning the presses used to vulcanize tires has been launched to optimize the Group's energy use. The sums to be invested in the program over the next five years are estimated at €80 million. Beyond that, the speed of press electrification will depend on the first phase's impact on energy performance.
This capital expenditure has been taken into account in the cash flow forecasts used for assets impairment tests.

Example: Danone (Consolidated financial statements 2021, note 10.3)

Danone mentions the effect of its climate change initiative on its business plans.

For the purposes of impairment testing as of December 31, 2021, the Group has projected in its business plans the effects on its various businesses of the following items, according to its best estimate based on (i) the information available at that date with respect to external items, and (ii) the initiatives and projects that will be implemented by the Group as planned at that same date:

- operational costs and capital expenditure related to the Plan for the transformation of its operations over the duration of the business plan. The latter includes initiatives to fight against climate change, in particular as part of its packaging circularity objectives, including:
- use of recycled PET (rPET) for the Waters Reporting Entity to be 50% worldwide and 100% in Europe by 2025;
- use of polystyrene in its packaging to be eliminated by 2025 worldwide and by 2024 in Europe.

Example: Saint-Gobain (Consolidated financial statements 2021, note 7.5.2)

Saint-Gobain takes into account annual flows of €100 million to meet its carbon emissions commitment.

The assumptions used in the asset impairment tests take into account the actions envisaged in connection with the Group's commitment to reduce by 2030 its scope 1 and 2 net carbon emissions by 33% compared to 2017 in order to limit its impact on the environment and contribute to the decarbonization of its markets, in particular an annual amount of €100 million in capital expenditure and research and development expenditure set aside to further its environmental strategy to reduce CO_2 emissions.

Example: Eni (2021 Consolidated Financial Statements 2021, note 1)

Eni has taken into account its CO_2 emission targets in the calculation of its cash flows, through the purchase of CO_2 quotas (ETS) or through investment in forestry projects.

For impairment test purposes, cash outflows expected to be incurred to guarantee compliance with laws and regulations regarding CO_2 emissions (e.g. Emission Trading Scheme) or on a voluntary basis (e.g. cash outflows related to forestry certificates acquired or produced consistent with the Company's decarbonization strategy - hereinafter also forestry) are taken into account.

In particular, in estimating value in use, the cash outflows for forestry projects[20] are included, consistent with the targets of the decarbonization strategy, within the expected operating cash outflows; in this regard, considering that the forestry projects can be developed in countries where Eni does not carry out operating activities and given the difficulty to allocate such cash outflows, on a reasonable and consistent basis, to CGUs of the relevant operating segment, the related discounted cash outflows are treated as a reduction of the headroom of the E&P operating segment.

Example: ArcelorMittal (Consolidated financial statements 2021, note 5.3)

Where, due to the absence of regulations on GHG emissions in certain countries, the investments required to change production processes have not yet been implemented and cannot be considered in the projected cash flows for the calculation of the value in use, ArcelorMittal takes into account an additional risk premium in the discount rate (without giving the amount).

The Company acknowledged that GCGUs and CGUs applying the blast furnace basic oxygen furnace "BF- BOF" route in other jurisdictions than the EU and Canada will apply decarbonization at a different pace. They may also not yet be subject to a legal obligation of carbon neutrality, which would not allow to include future decarbonization capital expenditures in their value in use calculations. Accordingly, the Company increased risk premiums included in their discount rates until they are able to accelerate their decarbonization strategy to meet the 2050 carbon neutrality objective and a legal obligation arises in the relevant jurisdiction.

Sensitivity analyses

Some issuers provide sensitivity analysis on climate change related indicators. Sensitivity may, for example, relate to:

- prices of electricity, CO_2 , hydrocarbons, or a combination of several of these variables in relation to different decarbonisation scenarios up to 2050,
- the projected cash-flow period: rather than extrapolating cash flows to infinity, some issuers have performed a stress test by limiting the projected time horizon.

Example: Eni (2021 *Consolidated Financial Statements*, note 15)

Eni presents the associated gas, oil and CO_2 prices for the different scenarios considered.

Considering the level of judgment in the estimation process of the VIUs of Oil & Gas assets, management has prepared a stress-test analysis utilizing alternative decarbonization scenario as adopted by the IEA in its SDS WEO '21 and net zero emissions 2050 (NZE 2050) scenarios. The sensitivity tests to the IEA SDS and NZE 2050 scenario consider energy commodity pricing assumptions different from those adopted by the management and the utilization of a cost for carbon emissions across all geographic areas where Eni operates its oil & gas activities based on the prices reported in the following table:

	Value in use of the O&G CGUs Headroom vs. Carrying amounts		Assumption at 2050 in real terms USD 2020		
	Tax-deductible CO_2 charges	Non tax-deductible CO_2 charges	Brent price	European gas price	Cost of CO_2
Eni's scenario	~90%	-	46 $/bbl	6.2 $/mmBTU	CO_2 costs projections in the EU/ ETS + projections of forestry costs
IEA SDS WEO 2021 scenario	76%	75%	50 $/bbl	4.5 $/mmBTU	200-95 per tonne of CO 2 *
EA NZE 2050 scenario	35%	32%	24 $/bbl	3.6 $/mmBTU	250-55 per tonne of CO 2 *

(*) Prices relating to advanced/emerging economies.

Example: Michelin (Consolidated financial statements 2021, note 2.6)

Michelin indicates that it has performed sensitivity tests on cash flows by limiting their horizon.

The long-term consequences of climate risk on future cash flows are difficult to predict. They could include, for example, the interruption of operations at plants exposed to natural disaster risks or price increases designed to pass on green taxes decided by governments to encourage the energy transition. They are taken into account in the analyses resulting from the Group's risk mapping. For CGUs or groups of CGUs to which goodwill is allocated, a simulated impairment test has been performed based on an extremely pessimistic scenario. The simulation consisted of determining projected future cash flows over a period of just twenty years and setting the projected growth rate to zero beyond the fifth year. On this basis, an impairment loss of approximately €180 million would be recognized.

2.3.1 Specific measures for major emitters

Greenhouse gas emission allowance system

A quarter of the entities in the sample are concerned by the European ETS[1] (Emission Trading Scheme), which has just entered its fourth phase (2021-2030).

Similar schemes exist in other parts of the world including Canada, South Africa, Switzerland, the UK and South Korea. China has also officially launched a country-wide emissions trading scheme in 2021, focusing initially on electricity producers.

Accounting method applied

For the accounting of CO_2 allowances acquired for the sole purpose of covering the entity's industrial needs, managed as a commodity, and in the absence of details in the IFRS framework, most entities apply the "net liability approach" whereby:

- allowances held are measured at cost and presented as inventory. Allowances allocated free of charge are recorded as zero value assets and therefore have an impact on the average inventory value;
- At the balance sheet date, in the event of insufficient allowances to cover greenhouse gas emissions, the group recognises a provision, measured at the best estimate of the outflow of resources required to extinguish the obligation.

Other issuers apply an accounting treatment previously required by the now withdrawn IFRIC 3:

- Allowances are presented as intangible assets at cost when purchased. They are measured at market value as deemed cost on the day of the transaction when granted free of charge, with the other side of the entry accounted for as a deferred government grant income in scope of IAS 20;
- a provision (and hence expense) for the obligation to deliver allowances is recognised as the entity produces emissions at the market value of the allowances needed to settle it, with the deferred government grant released as income to the extent the obligation will be settled through the redemption of those allowances

Allowance derivatives are generally not treated under IFRS 9 by virtue of the "*own-use*" exception in IFRS 9.2.4.

1. https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_fr 2022Mazars39

Examples of the net liability approach

Example: Veolia Environnement (Consolidated financial statements 2021, note 9.3.1.3)

Veolia presents the regulatory challenges of GHGs in the different regions of the world, the accounting treatment used, and the evolution of its CO_2 inventories.

Regulatory constraints and management policy

As a combustion plant operator, the Group is exposed to the risks inherent to the Emissions Trading Scheme (EU ETS) introduced by the European Union in 2005. Phase 4 (2021-2030) has just commenced, reducing available allowances (free allowance grants) under the EU Emissions Trading Scheme on a straight-line basis by 2.2% annually. 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, under the hedging policy described above. In addition, China also officially launched a country-wide Emissions Trading Scheme in 2021, focusing initially on electricity producers. The impacts are not material at this stage for the Group.

Accounting treatment adopted by the Group

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.

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. See also Note 6.3.1.

The position in **2021** is as follows:

Volume (in thousands of metric tons)	As of January 1, 2021 re-presented	Changes in consolidation scope	Attributions	Granted Purchased/ Sold/ Canceled	Consommations	Used As of December 31, 2021
TOTAL	569	-36	4 290	7 010	-11 556	277

The inventory of 277 thousand metric tons is equivalent to approximately €22.1 million as of December 31, 2021, based on a spot price of €80 per metric ton.

Example: Air Liquide (Consolidated financial statements 2021, note 32)

Air Liquide explains how regulations are becoming more stringent for some of its activities.

The ETS (Emission Trading Scheme) European Directive which established a quota system for greenhouse gas emissions in the European Union has entered in its Phase IV, covering the period 2021-2030, with in particular an increase in the reduction factor. The overall quantity of allowances will decrease at an increased annual rate, resulting in an overall reduction of emissions from the sectors under the EU ETS of 61% by 2030 compared to 2005.

With phase III, the Group is required to obtain CO_2 quotas for the portion of emissions from hydrogen production sites not covered by free allocations, as well as for all emissions from cogeneration sites. As the Group manages CO_2 quotas solely to cover its industrial needs, they are classified as a commodity and managed as such. The quotas are therefore valued at acquisition cost and presented in inventories.

The Group recognizes a provision when the year-end quotas covering greenhouse gas emissions are insufficient, based on the best estimate of the outflow of resources required to settle the obligation.

2. Accounting impact of climate issues
2.3 Carbon schemes

Examples ex-IFRIC 3

Example: AB InBev (Consolidated financial statements 2021, note 26)

AB INBEV presents its IFRIC 3 method of accounting for CO_2 quotas, which is also applicable to its Korean operations.

AB InBev is subject to the greenhouse gas emission allowance trading scheme in force in the European Union and a similar scheme in South Korea. Acquired emission allowances are recognized at cost as intangible assets. To the extent that it is expected that the number of allowances needed to settle the CO_2 emissions exceeds the number of emission allowances owned, a provision is recognized. Such provision is measured at the estimated amount of the expenditure required to settle the obligation.

Example: Michelin (Consolidated financial statements 2021, note 3.15.1)

Michelin also presents the mechanism of the government grant for rights granted free of charge.

The Group participates in the European Union's Emissions Trading System. The emission allowances received or purchased are recognized as an intangible asset at their price on the transaction date. For emission allowances that are received rather than purchased, a government grant is recognized in liabilities for the same amount. The cost and liability corresponding to actual emissions and the income corresponding to the use of the government grant are accounted for using the price on the grant date.

2.3.2 Specific schemes for energy suppliers

Energy suppliers - Renewable energy certificates (green certificates)

A Renewable Energy Certificate (REC), a guarantee of renewable origin, or a "green certificate" is an electronic document that proves that a certain amount of electricity is of renewable origin. It is issued to an energy company when it produces electricity from renewable energy sources. In Europe, guarantees of origin have been standardised, but each Member State chooses its way to manage them according to two different models:

- France, for example, has opted for the attribution of specific purchase conditions (purchase obligation, guaranteed price) to the producer of energy from renewable sources in return for transferring the ownership of the certificate.
- Other countries, including the UK (Renewable Obligation Certificates) and Belgium ("Green Certificates") have introduced a system of separable, tradable renewable energy certificates to be returned to the state by the energy supplier.

In the absence of an IFRS standard or interpretation on accounting for the second mechanism of certificates to be surrendered or exchanged, energy companies use a specific variety of different accounting treatments:

- most apply one of the methods as is applicable to CO_2 quotas (see Section 2.2 above),
- others set an accounting policy choice either based on the way they acquire certificates: created through their own production or purchased for trading; or based on the way they derecognise such certificates: sale, return or expiry.

Accounting considerations

Tradable Renewable Origin Certificates can be sold together with green energy as part of a long-term *power purchase agreement* (PPA) or separately from it via, for example, a *virtual power purchase agreement* (VPPA). The development of these contracts makes the need for a common rule for accounting for certificates more pressing. These subjects are still rarely addressed in the notes of the energy companies.

It should also be noted that, in a customer's accounts, long-term supply contracts raise other questions, including whether or not the customer should recognise an asset and a liability for a lease embedded in the supply contract.

Energy suppliers - Energy saving certificates (white certificates)

Energy saving certificates (ESCs) can be issued to an energy supplier when it promotes or subsidises energy savings by consumers, or when it finances state-approved programs.

In the absence of an IFRS standard dealing with ESCs, issuers generally apply the same treatment as for their REC's or CO_2 quotas.

Examples of the treatment of certificates as carbon allowances

Example: Enel (Consolidated financial statements 2021, note 2.2)

Enel recognises the certificates in inventory and applies the net liability approach.

Environmental certificates

Some Group companies are affected by national regulations governing green certificates and energy efficiency certificates (so-called "white certificates"), as well as the EU Emissions Trading System. Green certificates accrued in proportion to electricity generated by renewable energy plants and energy efficiency certificates accrued in proportion to energy savings achieved that have been certified by the competent authority are treated as non-monetary government grants related to income and are recognized at fair value, under other operating profit, with recognition of an asset under other non-financial assets, if the certificates are not yet credited to the ownership account, or under inventories, if the certificates have already been credited
to that account. At the time the certificates are credited to the ownership account, they are reclassified from other assets to inventories.
Revenue from the sale of such certificates is recognized under revenue from contracts with customers, with a corresponding decrease in inventories. For the purposes of accounting for charges arising from regulatory requirements concerning green certificates, energy efficiency certificates and CO_2 emissions allowances, the Group uses the "net liability approach". Under this accounting policy, environmental certificates received free of charge and those self-produced as a result of Group's operations that will be used for compliance purposes are recognized at nominal value (nil). In addition, charges incurred for obtaining (in the market or in some other transaction for consideration) any missing certificates to fulfil compliance requirements for the reporting period are recognized through profit or loss on an accruals basis under other operating costs, as they represent "system charges" consequent to compliance with a regulatory requirement.

Example: ENGIE (Consolidated financial statements 2021, note 25)

ENGIE presents a unique treatment in inventory and provides for a provision in case of insufficiency compared to a restitution obligation in certain jurisdictions.

Greenhouse gas emission rights, energy saving certificates and green certificates

In the absence of specific IFRS standards or IFRIC interpretations on accounting for greenhouse gas emission allowances, energy saving certificates and green certificates, the Group has decided to recognize certificates in inventories at their acquisition or production cost. At the reporting date, a liability is recognized if the certificates held by the Group are insufficient to meet the obligation to return certificates to the French government. When not covered by the certificates held in inventories, the liability is measured at the market value or based on the price of any future contracts that have been entered into, when applicable.

2. Accounting impact of climate issues
2.3 Carbon schemes

Examples of specific treatments for certificates

Example: Iberdrola (Consolidated financial statements 2021, note 3.h et 37)

Iberdrola states that it applies the same treatment to CERs as to carbon allowances.

Emission allowances and renewable energy certificates

Emission allowances and renewable energy certificates are measured at acquisition cost, calculated using the weighted average cost method, or net realisable value, if the latter is lower.
No adjustments to the value of emission allowances and renewable energy certificates that are part of the production process are made if it is expected that the finished products into which they will be incorporated will be sold at above cost.
Emission allowances and renewable energy certificates acquired for the purpose of benefiting through fluctuations in their market price are measured at fair value with a credit or debit to the consolidated Income statements.

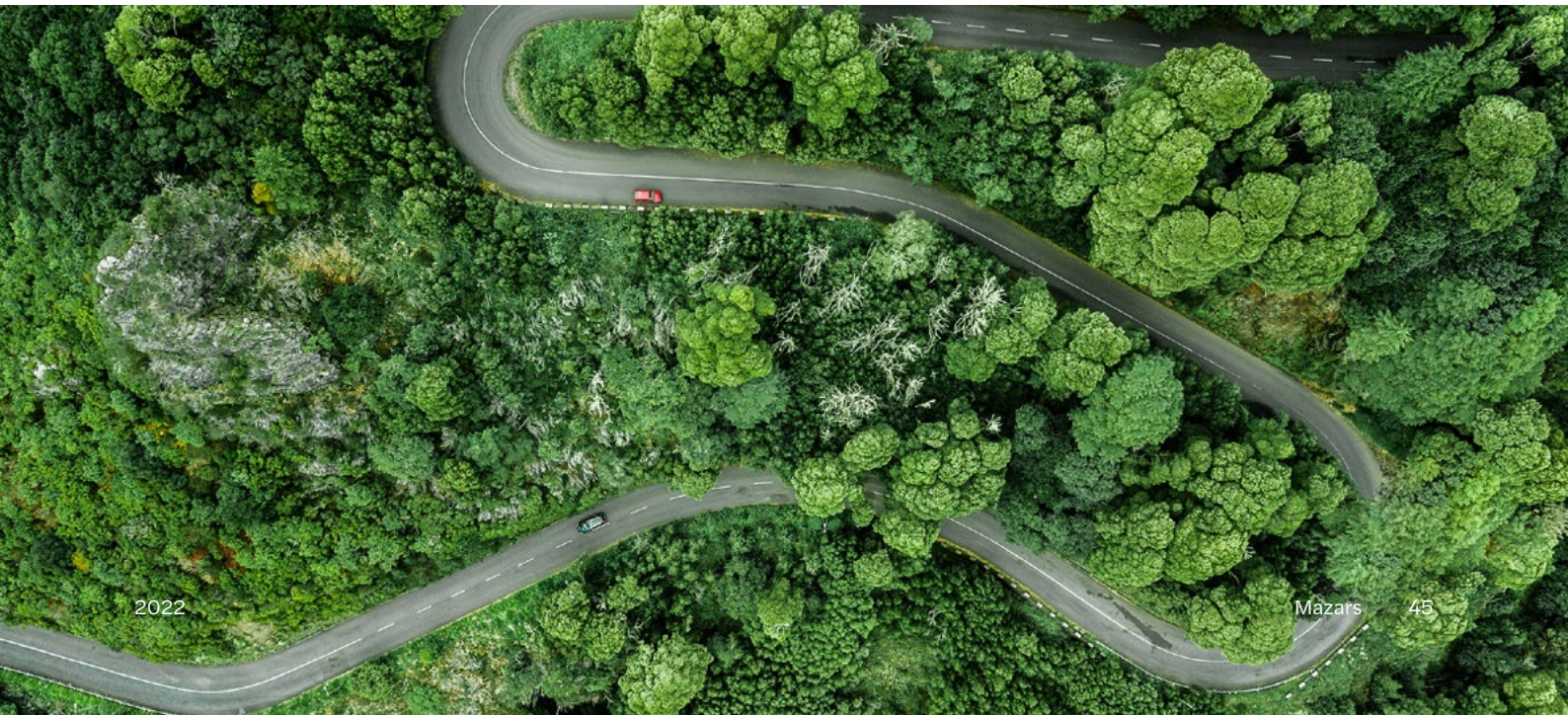
Emission allowances and renewable energy certificates are derecognised from the consolidated Statement of financial position when they are sold to third parties, have been delivered or expire. When the allowances are delivered, they are derecognised with a charge to the provision made when the CO_2 emissions were produced. [...]

– Sale of renewables obligation certificates

In the sale of renewables obligation certificates from the Renewables business associated with supplied energy (joint sale of energy and green certificates), income for the sale is recognised at the time the energy is delivered. When the sale of said certificates takes place separately from the energy produced, the income is recognised at the time the certificate is delivered to the customer.

– Incentives for renewable business

The amount of the turnover of the renewable energy segment corresponding to the different geographical areas in which the Group operates includes the incentives received according to the applicable legislation in each country, taking into account that the amount of these incentives is granted individually based on the units of products sold and that they are received recurrently.



Example: TotalEnergies (Consolidated financial statements 2021, note 5.4.1)

TotalEnergies accounts for ESC in inventory at the lower of cost or market value.

Energy savings certificates

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates (ESC), the following principles are applied:
- If the obligations linked to the sales of energy are greater than the number of ESC's held then a liability is recorded. These liabilities are valued based on the price of the last transactions;
- In the event that the number of ESC's held exceeds the obligation at the balance sheet date this is accounted for as inventory. Otherwise a valuation allowance is recorded;
- ESC inventories are valued at weighted-average cost (acquisition cost for those ESC's acquired or cost incurred for those ESC's generated internally).
- If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded.

2. Accounting impact of climate issues
2.3 Carbon schemes

2.3.3 Car manufacturer specific schemes - CAFE (*Corporate Average Fuel Economy*)

Most major car markets (such as EU, US and China) have regulations in place to improve average fuel consumption. While not all of these schemes explicitly target GHG emissions, reducing fuel consumption is a factor in reducing CO_2 emissions. The European regulation explicitly includes CO_2 emission thresholds.

The EU and US schemes impose penalties for exceeding these thresholds, while China does not impose a monetary penalty but makes it a condition of marketing.

In their accounting for regulatory emission penalties, three of the five car manufacturers in our sample mention a penalty risk or recognise a provision if the conditions of IAS 37 are met.

Example: Renault (Consolidated financial statements 2021, note 28)

Renault relies on the pooling of certificates within an alliance of manufacturers to limit its risk of non-compliance.

In 2020 and 2021, the three members of the Alliance - Renault, Nissan and Mitsubishi Motors Corp. – signed agreements to pool their CAFE (Corporate Average Fuel Economy) targets for the European Union and the United Kingdom. The potential noncompliance penalties payable to the authorities concerned are determined at the level of the group formed by the Alliance's three automakers. Renault did not recognize any provision in connection with this matter at December 31, 2021 or 2020.

Renault Group confirmed in a press release of January 4, 2021 that it had achieved its CAFE targets for passenger vehicles and light commercial vehicles in 2020, subject to validation by the European Commission in the following months. The validation process was still ongoing at the date of publication of these financial statements.

Renault also confirmed in a press release of January 17, 2022 that it had achieved its CAFE targets for passenger vehicles and light commercial vehicles in 2021 (these results are due to be consolidated and officialised by the European Commission in the next few months).

A provision of €11 million was recognized for CAFE penalties payable for 2021 in South Korea, raising the total provision for the years 2019 to 2021 to €35 million.

Example: Volkswagen (Consolidated financial statements 2021, note 30)

Volkswagen mentions the acquisition of emission rights from other manufacturers in the assessment of the provision.

Miscellaneous provisions relate to a wide range of identifiable specific risks, price risks and uncertain obligations, which are measured in the amount of the expected settlement value. Depending the jurisdiction concerned, they also include risk provisions for any non-compliance with legal emissions limits. Their measurement takes into account, among other things, the respective sales volume and the legally defined fee or the cost of acquiring emission rights from other manufacturers. Advantage has been taken of synergies between individual brands of the Volkswagen Group by establishing emission pools where possible.

Example: Stellantis (Consolidated financial statements 2021, Note 21)

Stellantis mentions an emerging penalty risk from the CAFE regulation and also indicates its two possibilities to mitigate this.

[...] we may need to accrue additional amounts due to increased CAFE penalties and additional amounts we may owe under certain agreements for the purchase of regulatory emissions credits. Although the specific timing of any outflow is uncertain, the amounts that we may accrue could be up to €455 million for vehicle shipments for the period prior to the merger and up to €227 million for vehicle shipments after the merger, depending on, among other things, our ability to implement future product actions or other actions to modify the utilization of credits.

2.4.1 A wide variety of sustainable finance mechanisms

The term sustainable or green finance covers a multitude of situations, the main categories being:

- financing whose return is adjusted according to whether or not certain ESG criteria are met, or financing devoted to projects recognised as meeting climate objectives,
- investments in funds or projects that address climate issues.

The use of financing whose cost is linked to ESG indicators (sustainability linked)

Of the entities surveyed, just under a quarter report using financing with a mechanism for adjusting the credit line upwards or downwards according to one or more ESG indicators. This financing is mainly in the form of credit lines, loans or bonds.

The criteria are generally environmental (CO_2 emissions in relation to the carbon neutrality trajectory, biodiversity, reduction of food waste, water consumption, development of the circular economy) and sometimes other ESG criteria such as social commitment or the eradication of a disease for a pharmaceutical group.

The threshold for triggering these mechanisms, their accounting treatment and their possible impact on the result are not always explained.

Dedicated funding for certain projects

Some issuers mention obtaining specific funding for the development of new technologies in response to climate issues.

The "green" character of the project financed by the green bond can be certified by rating agencies.

Placements and investments

Some issuers place or invest in certain financial assets that support a sustainability approach:

- investing cash in labelled funds, such as SRI (socially responsible investment) money market funds;
- "impact investment" in some funds;
- equity investments in environmentally innovative companies;
- investments in sustainable assets for the purpose of funding IAS 19 liabilities.

2.4.2 Examples

Examples of sustainability linked

Example: Legrand (Consolidated financial statements 2021, note 4.6)

Legrand communicates on its first bond issue with an increased coupon if the CO_2 emission targets are not met.

In October 2021, the Group carried out its first sustainability-linked bond issue indexed to its carbon neutrality metrics. The 0.375% ten-year bonds were issued for a total amount of €600 million and will be redeemable at maturity on October 6, 2031.

The issue is indexed to the Group's carbon trajectory by applying a potential additional coupon of 0.50% over the only last year in which the bond reaches maturity, in the event that the related objectives are not achieved

Example: Schneider (Consolidated financial statements 2021, note 22.3)

Schneider goes into detail about the ESG criteria used and presents the financial consequences of not meeting the ESG targets.

he initial conversion and/or exchange ratio of the Bonds is one share per Bond with a nominal value set at EUR 176.44. According to Sustainability-Linked Financing Framework, if the average sustainability performance score (calculated as the arithmetic average of the scores of the three key performance indicators) does not reach a certain level by December 31, 2025, the Group will pay an amount equal to 0.50% of the face value. The three key performance indicators from the 11 new Schneider Sustainability Impact (SSI) 2021-2025 indicators are the following:

- Les trois indicateurs clés de performance issus des 11 nouveaux indicateurs Schneider Sustainability Impact (SSI) 2021-2025 sont les suivants :
- Climate: Deliver 800 megatons of saved and avoided CO_2 emissions to our customers;
- Equality: Increase gender diversity, from hiring to front-line managers and leadership teams (50/40/30);
- Generation: Train 1 million underprivileged people in energy management.

The detailed rating methodology and approach are presented in the Group's Sustainability-Linked Financing Framework.

For all those transactions, issue premium and issue costs are amortized per the effective interest rate method.

Example: Ahold Delhaize (Consolidated financial statements 2021, note 22)

Ahold Delhaize presents its bond with a partially indexed coupon on the reduction of food waste

On March 11, 2021, Ahold Delhaize announced it successfully priced its inaugural Sustainability-Linked Bond, amounting to €600 million with a term of nine years, maturing on March 18, 2030. The bond pays an annual coupon of 0.375% and was issued at a price of 99.63% of the nominal value. The bond settled on March 18, 2021, and is listed on Euronext Amsterdam. The proceeds were used for the refinancing of debt maturities and general corporate purposes. The bond is linked to Ahold Delhaize achieving two Sustainability Performance Targets (SPTs) by 2025:

- SPT 1: Reduction of scope 1 and 2 $CO_{2\text{-}e}$ emissions by 29% from a 2018 baseline

- SPT 2: Reduction of food waste by 32% from a 2016 baseline

The sustainability-linked feature will result in a coupon adjustment if Ahold Delhaize's performance does not achieve one or both of the stated SPTs. The sustainability performance reference date is December 28, 2025. Any adjustment to the rate of interest, if applicable, shall take effect and accrue from the interest payment date immediately following December 28, 2025 (i.e., prospectively).

Example: Iberdrola (Consolidated financial statements 2021, note 6.b)

Iberdrola indicates that the environmental objectives of green finance are also a way to optimise and diversify its financing. The group presents itself as a pioneer in green finance: bond issues, bank loans.

The Iberdrola Group is also firmly committed to ESG (Environmental, Social and Governance) financing and is one of the most prominent and pioneering business group worldwide in this regard. Indeed, respect for the environment is one of the cornerstones of its sustainable business model and growth strategy. The objective here is threefold: (i) to align its financial strategy with its purpose, values and investment strategy; (ii) to optimise the cost of its debt; and (iii) to diversify its sources of financing, making sustainability both an end and a means to achieve the financial strength it pursues and for which it is widely known.

The Iberdrola Group practises this commitment to ESG financing throughout the different geographies in which it operates and in the different instruments and formats it uses to obtain financing. It therefore relies on green financing to raise funds which it then channels into investments that help to achieve a positive environmental impact; transactions aimed at managing and optimising its liquidity and whose cost is linked to the achievement of strategic environmental, social or governance objectives; and other financial contracts arranged in connection with the circular economy.

Green financing arrangements

In the capital markets, the Iberdrola Group is once again the world's leading corporate group when it comes to green bonds issued. At the end of 2021, Iberdrola had a total of 15 green bonds issued by the Corporation outstanding, for a total EUR 11,994 million. Meanwhile, the Iberdrola Group, through subsidiary company Avangrid and several of its subsidiaries, has various green bonds outstanding in the US market for a combined total of USD 2,725 million. Neoenergia and its subsidiaries also have outstanding green operations in the capital markets, for a combined amount of BRL 3.56 billion.

In the banking market, in 2017 Iberdrola obtained the first green loan to be underwritten by an energy company, which has since been followed by other green operations. In 2018, Iberdrola México, a wholly owned subsidiary of Iberdrola, signed the first green corporate loan to be arranged in Latin America, worth USD 400 million.

The Iberdrola Group obtained its first green loan with a development bank in May 2019 and since then it has arranged further corporate green loans with development banks for assets under construction, notably: i) with multilateral entity the European Investment Bank (EIB); and ii) with the Instituto de Crédito Oficial (ICO), a Spanish public bank, for a total of EUR 2,201 million. In addition, Neoenergia had various financing agreements in effect with the EIB for a total of EUR 457 million at the end of 2021.

In 2021 Avangrid increased its green financing to USD 637 million under the tax equity investment approach. [...]

Example: Iberdrola (Consolidated financial statements 2021, note 6.b)

Iberdrola mentions financing with environmental objectives related to water consumption and the development of the circular economy.

Financing linked to the achievement of sustainability objectives

The Iberdrola Group has also entered into other financing contracts with the ESG label. Under these arrangements, the funds cannot simply be channelled into investments that are expected to generate a positive environmental impact, but rather into investments that also feature a sustainability component in order to satisfy the preferences of the socially responsible investor community.

At year-end 2021, the Iberdrola Group had various credit facilities —at both the Corporation and Avangrid— whose borrowing cost was linked to the achievement of sustainable objectives, for a combined total of EUR 12,586 million. On 15 April 2021, Iberdrola updated its framework programme for the issuance of short-term notes in the Euromarket (ECP) by raising the maximum outstanding limit to EUR 5 billion (from the previous level of EUR 3 billion) and incorporating the sustainable seal linked to the achievement of three objectives under its ESG strategy.

The Iberdrola Group has formalised the first loan in the European energy sector linked to the reduction of water consumption. The loan is worth EUR 250 million and has been arranged with Intesa Sanpaolo. It also includes an incentive linked to the achievement of circular economy targets. ESG financing arranged by the Iberdrola Group in 2021 totalled EUR 13,532 million, including EUR 5,000 million under the Euromarket Commercial Paper (ECP) framework programme, which has been updated by introducing the sustainable component and increasing the maximum outstanding limit from the previous level of EUR 3,000 million. The breakdown by product is as follows:

Millions of euros	Note	Green financing	Sustainable financing	Total
Perpetual subordinated bonds	21	2,750	—	2,750
Bank borrowings, bonds and other marketable securities	28			—
Debentures and bonds		860	—	860
Promissory notes		—	5,000	5,000
Bank loans and credit facilities		—	3,824	3,824
Development and multilateral banking		806	—	806
Equity instruments having the substance of a financial liability	23	292	—	292
Total		**4,708**	**8,824**	**13,532**

2. Accounting impact of climate issues
2.4 Sustainable finance

Examples of dedicated funding and investment

Example: Mowi (Consolidated financial statements 2021, note 11)

Mowi has chosen to have the quality of its green bond certified by an independent organisation, Cicero

EUR 200 MILLION GREEN BOND

In January 2020, Mowi issued the first green bond in the seafood sector, with a principal amount of EUR 200 million. The bond issue carries a coupon of three-month EURIBOR (floored at 0%) plus 1.60% p.a., payable quarterly, and the sole financial covenant is an equity ratio of minimum 30%. The green bond is unsecured and is repayable in January 2025 with no interim instalments. The proceeds from the green bond issue has been used to finance or refinance green projects as further defined by Mowi's green bond framework, which received a medium green shading from CICERO. The bond is listed on the Oslo Stock Exchange and in Euronext ESG Bonds section with ISIN: NO 0010874050.

Example: Safran (Consolidated financial statements 2021, note 2)

Safran is developing new propulsion systems for low-carbon air transport with the help of a loan from the BPI.

On March 4, 2021, Safran signed a €500 million loan agreement with the European Investment Bank (EIB) to finance research into propulsion systems for future aircraft. The project, mainly carried out in France, will primarily focus on the next generation of medium-haul aircraft.

The loan marks a major step forward in Safran's roadmap towards achieving carbon-free air transport by 2050. It remained undrawn at December 31, 2021. Its characteristics are described in Note 33, "Management of market risks and derivatives".

Example: Nestlé (Consolidated financial statements 2021, note 10)

Nestlé includes an environmental aspect in the management of investments covering its IAS 19 commitments.

The overall investment policy and strategy for the Group's funded defined benefit plans is guided by the objective of achieving an investment return which, together with the contributions paid, is sufficient to maintain reasonable control over the various funding risks of the plans. As those risks evolve with the development of capital markets and asset management activities, the Group addresses the assessment and control process of the major investment pension risks. In order to protect the Group's defined benefit plans funding ratio and to mitigate the financial risks, protective measures on the investment strategies are in force, considering sustainability, social and climate factors. To the extent possible, the risks are shared equally amongst the different stakeholders.

Example: L'Oréal (Consolidated financial statements 2021, note 13.2)

L'Oréal invests the majority of its cash in SICAVs labelled "Socially Responsible Investment". The group measures investments in sustainable development activities at fair value through equity.

b) Short-term investment

The Group's available cash is mainly invested in SRI SICAV money-market funds. Investment in these types of SICAV accounted for 70% of all short-term investment in 2021.

c) Long-term investment

The Group recorded a total of €139 million in non-current financial assets related to sustainable development activities, measured at fair value through equity (see note 9.3).

- at the end of 2021, investment in the Circular Innovation Fund amounting to €50 million. L'Oréal is one of the main contributors to this impact investing fund, whose investment thesis is focused on the circular economy, structured around seven verticals including new packaging materials and solutions from the bioeconomy and the circular economy, green technology and waste and recycling collection services;
- in 2020, the creation of a fund for Nature Regeneration to financially support projects to restore natural marine, forest and agricultural ecosystems. This dedicated €50 million fund had already invested in three projects at the end of 2021 (creation of a Blue Carbon Facility, a reforestation project in Colombia and a pan-European project to reintroduce biodiversity);
- investment in start-ups (€39 million in total), including the Swiss environmental technology firm Gjosa, which developed innovative water saving solutions, the French biotech company Global Bioenergies, which developed a process to convert plant-based resources, and the green chemistry start-up Carbios, which developed enzymatic processes for plastic biodegradation and biorecycling.

2.5.1 Provisions for dismantling and remediation

More than a third of issuers mention legal or regulatory obligations for site or pollution remediation. While some issuers mention possible constructive obligations (IAS 37.10) none of them acknowledge their existence explicitly.

While the estimated amounts of the provision are generally given, the nature of the pollution and the work to be carried out, as well as the sensitivity of the provision to key assumptions, are generally less detailed.

The amounts recorded and the information given on these provisions generally existed before the development of communication on climate issues.

However, the shortening of the useful life of certain assets now leads some entities to recognise provisions for dismantling, decommissioning and clean-up costs, which, in accordance with industry practice, they previously did not recognise because the time horizon was too long and uncertain.

In addition, technological developments and experience of initial dismantling and clean-up work may lead to significant reassessments.

Example: Shell (Consolidated financial statements 2021, note 4)

Shell stated that the practice had been not to recognise provisions for decommissioning indefinite life facilities, but this perspective has changed for some shorter life facilities, leading to some provisions being provided for from 2020.

In Oil Products, it was industry practice not to recognise decommissioning and restoration provisions associated with manufacturing facilities in Oil Products and Chemicals. This was on the basis that these assets were considered to have indefinite lives, so it was considered remote that an outflow of economic benefits would be required. In 2020, Shell considered the changed macroeconomic fundamentals, together with Shell's plans to rationalise the Group's manufacturing portfolio. Shell also reconsidered whether it remained appropriate not to recognise decommissioning and restoration provisions for manufacturing facilities. In 2020, provisions of $899 million were recognised for certain shorter-lived manufacturing facilities (see Notes 19 and 26). The remaining five energy and chemicals parks are considered longer-lived facilities that are expected to be resilient in the energy transition, and decommissioning would generally be more than 50 years away.

2. Accounting impact of climate issues
2.5 Other effects of climate issues on the accounts

Example: Philips (Consolidated financial statements 2021, note 20)

Based on its experience, Philips has halved the time it takes to restore certain sites.

Based on the progressive insight with respect to site remediation experience, technological progress and risk-based clean-up strategies, the estimated remaining duration of remediation activities for environmental liabilities for infinite environmental sites was revised in 2021 from 60 years to 30 years. The resulting release was EUR 55 million of which EUR 33 million is recorded in continuing operations and EUR 22 million in discontinued operations.

Example: Enel (Consolidated financial statements 2021, note 39)

Enel indicates that it has recorded additional provisions on some of its assets following the adoption of its energy transition plan.

Site retirement, removal and restoration provision represents the present value of the estimated cost for the retirement and removal of non-nuclear plants where there is a legal or constructive obligation to do so. The provision mainly regarded the Endesa Group and Enel Produzione. The change in the provision in 2021 was mainly linked to the redetermination of the future retirement costs of certain plants in Iberia and Italy and an increase in provisions for retirement costs resulting from the Group's decision to promote the termination of generation from coal-fired power plants and reconvert plans as part of the energy transition.

2.5.2 ESG objectives integrated into the share-based compensation criteria

In our sample, one out of five issuers (16 entities) indicated that they have factored ESG objectives into their share-based compensation criteria (free share grants, stock options).

These criteria are generally multiple, referring to internal company objectives (e.g. "CSR roadmap"), without these objectives or their possible impact being actually explained.

Example: VINCI (Consolidated financial statements 2021, note 30.1)

VINCI details the importance of and methods for assessing ESG criteria, some of which are externally rated.

> These performance shares will not vest until a three-year period has elapsed, subject to beneficiaries being employed by the Group until the end of the vesting period and to the fulfilment of the following performance conditions: [...] Environmental, social and governance criteria (25% weighting) comprising:
>
> a) an external environmental criterion (15%) measured by the Climate Change score received each year by VINCI from CDP Worldwide in respect of the 2021, 2022 and 2023 financial years;
>
> b) a safety criterion (5%) measuring the Group's safety performance, based on the frequency rate of workplace accidents with at least 24 hours of lost time per million hours worked for VINCI employees worldwide;
>
> c) a criterion relating to increasing female representation (5%) measuring the increase in the percentage of women hired or promoted to management positions across the Group's whole scope. In 2020, that percentage was 25.30%. The aim is to increase it to 28.33% by the end of 2023.

2.5.3 Expenditure on ESG issues

There is little disclosure of ESG-related expenses other than investments.

However, some issuers mention R&D costs related to research projects for future low-carbon products.

Others, usually in the energy sector, present the cost of carbon footprint reduction schemes.

Example: Saint-Gobain (Consolidated financial statements 2021, note 3.2)

Saint-Gobain mentions the annual R&D costs dedicated to climate issues.

In 2021, the Group set aside €55 million in capital expenditure and €44 million in research and development expenditure to further its environmental CO_2 emissions reduction strategy.

Example: LVMH (Consolidated financial statements 2021, Note 1.4)

MH details the expenses related to the transformation programme of its value chains.

The Group's current exposure to the consequences of climate change is limited. As such, at this stage, the impact of climate change on the financial statements is not material.

As part of the LIFE 360 program, which puts the Group's environmental strategy into practice, LVMH has launched a plan to transform its value chains.

The implementation of this program is reflected in LVMH's financial statements in the form of operating investments, research and development expenses and corporate philanthropy expenses. In addition, profit from recurring operations will be affected by changes in raw material prices; production, transport and distribution costs; and costs related to the end-of-life phase of its products.

The short-term effects have been incorporated into the Group's strategic plans, which form the basis for conducting impairment tests on intangible assets with indefinite useful lives (see Note 5). The long-term effects of these changes are not quantifiable at this stage.

Example: Shell (Consolidated financial statements 2021, note 31)

Shell summarises the effect on its profit and loss account of all the quota and certificate purchase programmes in addition to the incentives to invest in a low-carbon economy (green finance, accelerated fossil fuel asset retirement, etc.).

31 – EMISSION SCHEMES AND RELATED ENVIRONMENTAL PROGRAMMES

Emission trading and related schemes

Generally, emission trading schemes (ETS) are mandated governmental schemes to control emission levels and enhance clean energy transition, allowing for the trading of emission certificates. In most ETS, governments set an emission cap for one or more sectors. Generally, entities in scope of the scheme are allowed to buy emission certificates to cover shortages or sell surplus emission certificates. In certain countries emissions are priced through a carbon tax. For Shell, the most significant carbon pricing mechanisms are established in Europe, North America, and Singapore.

Biofuel programmes

Biofuel programmes are mandated schemes that set binding national targets on the share of renewables in fuel consumption or measures on reducing GHG emissions by fuel suppliers. Biofuels are blended with existing fuels such as gasoline and diesel to reduce net emissions. The share of biofuel in the total sales mix of fuel is used to comply with regulatory requirements. This can be achieved by the blending of biofuels in refineries and/or distribution depots (self-blending), through import of biofuels (for jurisdictions that grant biofuels certificates at the point of import) or by the purchasing of certificates from third parties (for jurisdictions that have a tradable biofuel certificates mechanism). Biofuel programmes include also regulatory requirements to pay a levy for the combustion of fossil fuels, based on CO_2 emitted – mainly represented by the German Fuel Emissions Trading Act (BEHG) applying since January 1, 2021.

Renewable power programmes

Renewable power programmes create a financial incentive to consume power that is sourced from renewable origins or require that a minimum percentage of power sold meets the green definition of the relevant standard. These regulations are typically accompanied by schemes supporting investments in the renewable technology. Renewable power programmes generally use certificates to monitor compliance, where renewable power certificates are granted for each MWh of energy generated that meets the predefined renewable criteria. Shell's compliance obligation under renewable power programmes comes primarily from energy supply and results from regulations applying in Europe, North America and Australia.

Cost of emission schemes and related environmental programmes recognised in the Consolidated Statement of Income

		$ million
	2021	2020
ETS and related schemes	331	150
Biofuels [A]	2,609 [B]	1,137
Renewable power	455	364
Total	3,395	1,651

[A] Emission certificates that were allocated free of charge at an equivalent fair value at grant date.
[B] Includes the liability under the German Fuel Emissions Trading Act (BEHG) applying since January 1, 2021.

Example: EDF (Consolidated financial statements 2021, note 20.5)

EDF is one of the few issuers to detail the expenses incurred in favour of the environment, in particular its R&D expenses devoted to decarbonisation and the energy transition.

20.5 Expenses for protection of the environment and climate

The Group is continuing its commitments to address environmental issues, for example through the following actions.

20.5.1 Research and development (R&D)

Given the goal of carbon neutrality by 2050, and the fact that electricity is a major lever in action to decarbonise the French economy, R&D has a crucial role to play in the electricity, climate, digital and societal transition. In 2021, the EDF group's total R&D budget amounted to €661 million, 99% of EDF's R&D budget is dedicated to achieving the net zero goal, and the energy system transition. The R&D budget is particularly channelled into research into energy efficiency, uses of electricity as a substitute for fossil fuel-based energies, renewable energies and their insertion into the grid, energy storage and production, carbon-free hydrogen and its applications for decarbonising the economy, sustainable cities, the local impacts of climate change and other environmental issues such as biodiversity, water quality, and the mitigation of all forms of pollution. Research concerning electricity storage, enhancement of energy performance diagnosis methods, improvement of techniques for urban heating and cooling networks, platforms for sharing studies relevant to the ecological transition, and increasing safety at nuclear power plants is supported by public subsidies, notably from the European Union. Accounting principles and methods for R&D are presented in note 10.2.

20.5.2 Other expenses for protection of the environment and climate

Accounting principles and methods

Other expenses for protection of the environment and climate are identifiable expenses incurred to prevent, reduce or repair damage that has been or may be caused by the Group as a result of its activities. These expenses are treated as follows:

- they are capitalised if they are incurred to prevent or reduce future damage or protect resources (e.g. expenses for structures to facilitate the passage of migrating fish, effluent treatment installations, etc.);
- they are booked as environmental liabilities and increases to provisions for environmental risks if they correspond to an obligation that exists at the year-end and it is probable or certain at the reporting date that they will lead to an outflow of resources;
- they are recognised as expenses if they are operating expenses for the units in charge of environmental concerns, environmental supervision, environmental duties and taxes, processing of liquid and gas effluents and non-radioactive waste, or research unrelated to an investment.

All of the Group's functions, employees, activities and projects are mobilised to fulfil EDF's objective of being an environmentally responsible company. Some of the actions concerned are presented below.

Example: EDF (Consolidated financial statements 2021, note 20.5) (continued)

Action for biodiversity

The EDF group has been committed to action for biodiversity since 2006 with a dedicated policy, and today its biodiversity ambitions are reflected in formal commitments made through two initiatives, "Entreprises engagées pour la nature" (Committed companies for nature) and "Act4nature international". These voluntary commitments cover some twenty actions to reduce contributions to major pressure points on biodiversity (as identified by IPBES, the biodiversity equivalent of the IPCC), recreate biodiversity-friendly spaces and conditions, further improve and share knowledge, strengthen biodiversity governance and raise employee awareness.

In addition to these commitments, between 2013 and 2021, the Group undertook more than 55 operations (through EDF hydro and its hydropower activities) to facilitate fish migration at ecologically sensitive sites in mainland France ("list 2" sites for the purposes of the national law on water and aquatic environments), installing fish passes and fish ladders and removing river weirs.

Action for employees and vehicle fleet electrification

Consistent with its ambitions for the environment and the climate, the Group works to raise awareness among its employees and educate them about environmental and sustainable development issues. In 2021 its "Environment and sustainable development" training offering comprising courses on environmental management, standards and regulations, and environmental analysis, provided 3,593 employees with 24,683 hours of training.

In addition, the rollout at Group level of the "Climate Collage" collaborative workshop, led in person or online by volunteer employees after internal training, gave 22,000 employees greater awareness of the issues of climate disruption.

As the first French Group to sign the EV100 initiative, EDF made a commitment to have a fully-electric light vehicle fleet by 2030. By the end of 2021 the worldwide fleet numbered close to 45,000 light vehicles (especially in Europe) and more than 17.3% were already electric (over 7,750 electric vehicles, an increase of more than 2,100 from 2020). Joining the EV100 initiative is also an encouragement for Group employees to control their energy consumption and reduce their carbon footprint, as it gives them access to competitive offers from car suppliers and offers for recharging services sold by EDF group subsidiaries. For 2021, the vehicle fleet electrification indicator accounts for 20% of EDF SA's profit-sharing criteria and 10% of Enedis' profit-sharing criteria for their respective fleets.

2.5.4 Some issuers mention other impacts of ESG issues

Other climate impacts reported in the accounts include:

- the creation of intangible assets from development costs related to climate issues,
- guarantees for the safety of installations classified for the protection of the environment (ICPE) and for environmental risks arising from off-balance sheet commitments,
- increased volatility of assets covering the IAS 19 provision, caused by climate change,
- a cap on deferred tax assets recognised as, in some businesses, long-term flows (beyond 10 years) are now more risky.

Example: Albioma (Consolidated financial statements 2021, note 35)

Albioma presents the guarantees given in relation to the safety of installations classified for environmental protection (ICPE) and for environmental risks in the off-balance sheet commitments.

In thousands of euros	31/12/2021	31/12/2020
Guarantees given to suppliers	7 415	15 852
Fixed leases	-	-
Guarantees concerning ensuring the safety of the Classified Installations for Environmental Protection (ICPE)	81	83
Commitments given relating to operating activities	**7 495**	**15 935**
Guarantees on environmental risks	2 853	2 826
Sundry guarantees	696	1 433
Commitments given relating to financing activities	**3 549**	**4 259**
Liabilities guarantees	-	-
Commitments given relating to changes in the consolidation scope	**-**	**-**
Total off-balance sheet commitments given	**11 044**	**20 194**

Example: CRH (Consolidated financial statements 2021, note 28)

CRH is considering the impact of climate change on the actuarial assumptions used in the calculation of its IAS 19 liabilities.

Asset volatility: Under IAS 19 *Employee Benefits* , the assets of the Group's defined benefit pension schemes are reported at fair value (using bid prices, where relevant). The majority of the schemes' assets comprise equities, bonds and property, all of which may fluctuate significantly in value from period to period including from fluctuations arising in respect of climate change and associated risks and uncertainties. Given that liabilities are discounted to present value based on bond yields and that bond prices are inversely related to yields, an increase in the liability discount rate (which would reduce liabilities) would reduce bond values, though not necessarily by an equal magnitude.

Example: Shell (Consolidated financial statements 2021, note 4)

Shell, in assessing its deferred tax assets, takes into account an increased risk factor on projected cash flows beyond 10 years in its oil business due to the energy transition.

Deferred tax assets

In general, it is expected that sufficient deferred tax liabilities and forecasted taxable profits within the planning period of 10 years are available for recovery of the deferred tax assets recognised at December 31, 2021. Integrated Gas and Upstream deferred tax assets recognised are expected to be recovered within the period of production of each asset. For deferred tax assets of $711 million as at December 31, 2021, mainly related to Brazil, Malaysia and Australia, this period extends beyond 10 years. Deferred tax assets in Oil Products to be recovered in more than 10 years are limited to $854 million as at December 31, 2021, and mainly relate to retail operations in Germany and France. In the light of the potential impact of the accelerated energy transition in Oil Products, cash flows in Oil Products beyond 10 years (for a maximum of an additional 10 years) were further risked to determine recoverability of deferred tax assets beyond 10 years (see Note 17).

Example: Volkswagen (Consolidated financial statements 2021, effects of climate change)

Volkswagen capitalises certain development costs related to the sectoral effects of climate change, in particular electric mobility, as intangible assets.

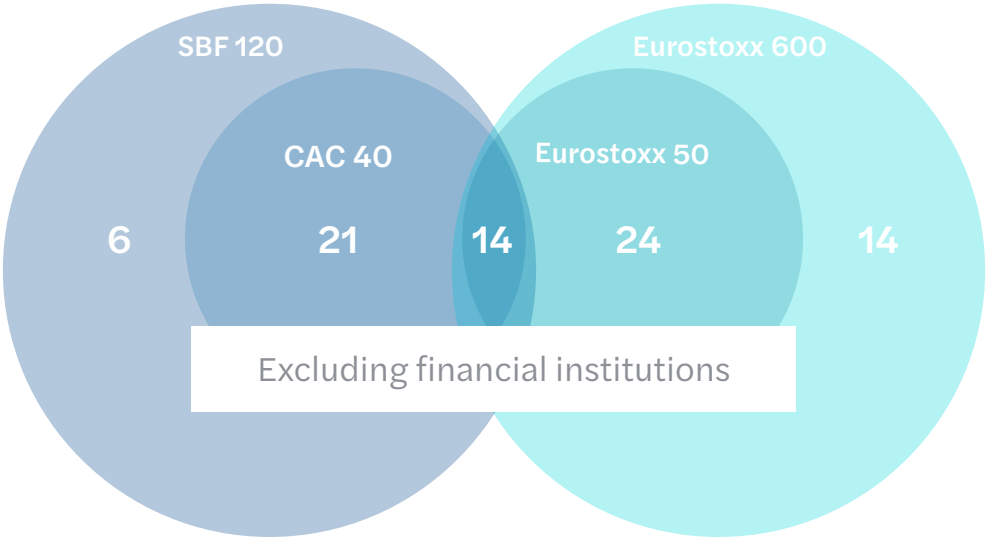
The increase in development costs in the areas of e-mobility and digitalization have, however, led to a corresponding increase in internally generated intangible assets.

Appendix

03

A European study

This study covers 79 entities belonging to the CAC 40, the SBF 120, the EUROSTOXX 50 or the EUROSTOXX 600 (excluding the banking and insurance sectors). The majority of these entities have an annual closing date of 31 December.



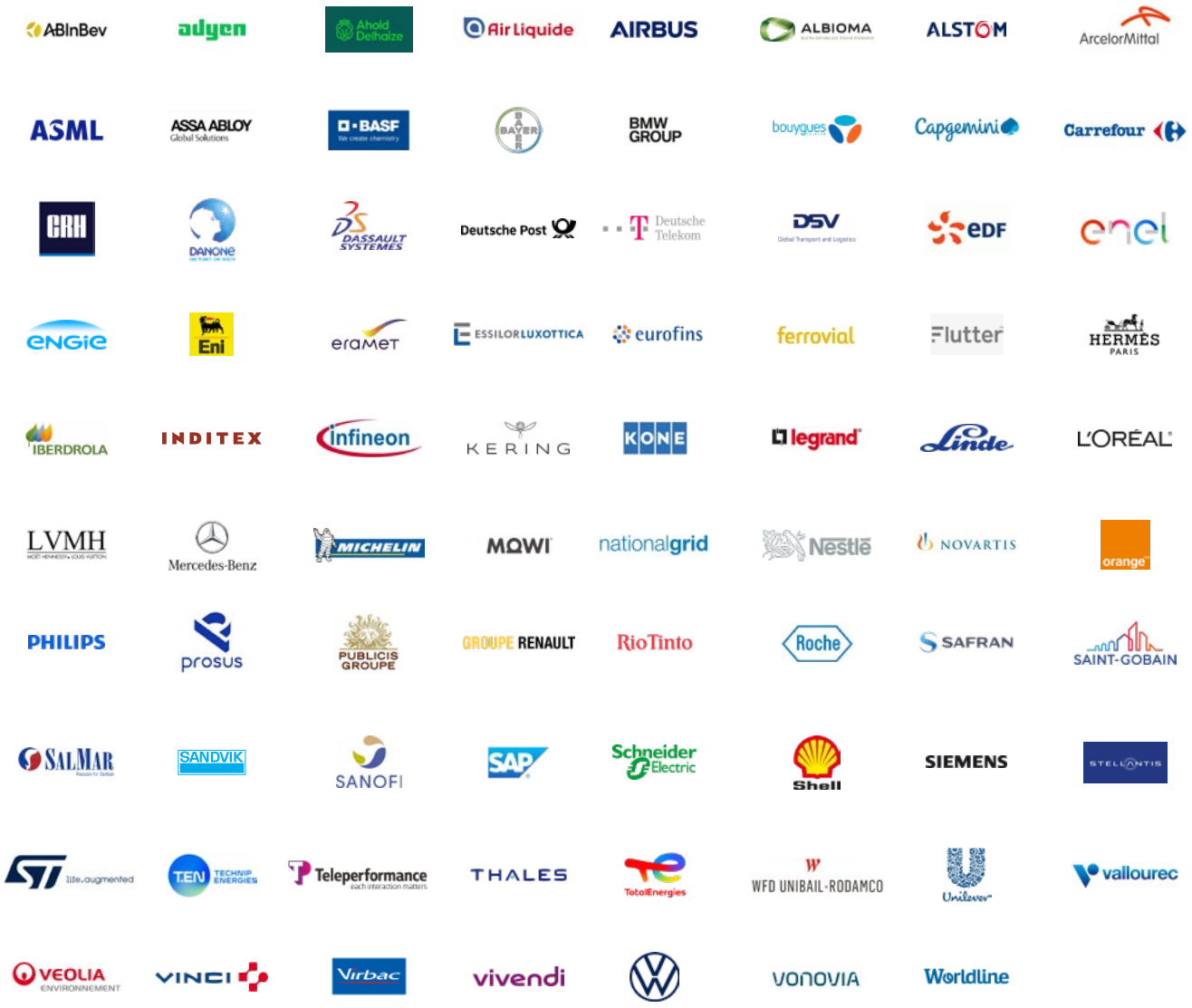
Purpose and scope of the study

This study looks at how the main French and European listed companies have communicated on climate issues in their financial statements as at 31 December 2021 and, for some, as at 31 March 2022. Extra-financial information and its connectivity with the financial statements are therefore not addressed.

Methodology

The scope of the CAC 40 and the EUROSTOXX 50 was extended to include a few other entities in the industrial and service sectors (energy, transport, heavy industry, etc.) that we felt were particularly concerned by climate issues, and therefore likely to provide more specific illustrations. On the other hand, we excluded from the study financial institutions whose circumstances, notably as investors, would probably deserve a separate study. Our sample does not claim to be either exhaustive or perfectly representative of France or Europe.

Appendix
List of companies in the panel



Appendix
List of companies in the panel

Country	Indexes	Entity
BE	ESTX 50, ESTX 600	AB InBev
NL	ESTX 50, ESTX 600	Adyen
NL	ESTX 50, ESTX 600	Ahold Delhaize
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Air Liquide
NL	CAC 40, SBF 120, ESTX 50, ESTX 600	Airbus
FR	SBF 120	Albioma
FR	CAC 40, SBF 120, ESTX 600	Alstom
LU	CAC 40, SBF 120, ESTX 600	ArcelorMittal
NL	ESTX 50, ESTX 600	ASML
SE	ESTX 600	Assa Abloy
DE	ESTX 50, ESTX 600	BASF
DE	ESTX 50, ESTX 600	Bayer
DE	ESTX 50, ESTX 600	BMW
FR	CAC 40, SBF 120, ESTX 600	Bouygues
FR	CAC 40, SBF 120, ESTX 600	Capgemini
FR	CAC 40, SBF 120, ESTX 600	Carrefour
IE	ESTX 50, ESTX 600	CRH
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Danone
FR	CAC 40, SBF 120, ESTX 600	Dassault Systèmes
DE	ESTX 50, ESTX 600	Deutsche Post
DE	ESTX 50, ESTX 600	Deutsche Telekom
DK	ESTX 600	DSV
FR	SBF 120, ESTX 600	EDF
IT	ESTX 50, ESTX 600	Enel
FR	CAC 40, SBF 120, ESTX 600	ENGIE
IT	ESTX 50, ESTX 600	Eni
FR	SBF 120	Eramet

Appendix
List of companies in the panel

Country	Indexes	Entity
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	EssilorLuxottica
FR	CAC 40, SBF 120, ESTX 600	Eurofins Scientific
ES	ESTX 600	Ferrovial
IE	ESTX 50, ESTX 600	Flutter Entertainment
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Hermès
ES	ESTX 50, ESTX 600	Iberdrola
ES	ESTX 50, ESTX 600	Inditex
DE	ESTX 50, ESTX 600	Infineon Technologies
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Kering
FI	ESTX 50, ESTX 600	KONE
FR	CAC 40, SBF 120, ESTX 600	Legrand
IE	ESTX 50, ESTX 600	Linde
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	L'Oréal
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	LVMH
DE	ESTX 600	Mercedes-Benz Group
FR	CAC 40, SBF 120	Michelin
NO	ESTX 600	Mowi
GB	ESTX 600	National Grid
CH	ESTX 600	Nestlé
CH	ESTX 600	Novartis
FR	CAC 40, SBF 120, ESTX 600	Orange
NL	ESTX 50, ESTX 600	Philips
NL	ESTX 50, ESTX 600	Prosus
FR	CAC 40, SBF 120, ESTX 600	Publicis
FR	CAC 40, SBF 120, ESTX 600	Renault
GB	ESTX 600	Rio Tinto

Appendix
List of companies in the panel

Country	Indexes	Entity
CH	ESTX 600	Roche
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Safran
FR	CAC 40, SBF 120, ESTX 600	Saint-Gobain
NO	ESTX 600	SalMar
SE	ESTX 600	Sandvik
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Sanofi
DE	ESTX 50, ESTX 600	SAP
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	Schneider Electric
GB	ESTX 600	Shell
DE	ESTX 50, ESTX 600	Siemens
NL	CAC 40, SBF 120, ESTX 50, ESTX 600	Stellantis
NL	CAC 40, SBF 120, ESTX 600	STMicroelectronics
NL	SBF 120	Technip Energies
FR	CAC 40, SBF 120, ESTX 600	Teleperformance
FR	CAC 40, SBF 120, ESTX 600	Thales
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	TotalEnergies
FR	CAC 40, SBF 120, ESTX 600	Unibail-Rodamco-Westfield
GB	ESTX 600	Unilever
FR	SBF 120	Vallourec
FR	CAC 40, SBF 120, ESTX 600	Veolia Environnement
FR	CAC 40, SBF 120, ESTX 50, ESTX 600	VINCI
FR	SBF 120	Virbac
FR	CAC 40, SBF 120, ESTX 600	Vivendi
DE	ESTX 50, ESTX 600	Volkswagen
DE	ESTX 50, ESTX 600	Vonovia
FR	CAC 40, SBF 120, ESTX 600	Worldline

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