EU TECHNICAL EXPERT GROUP ON
SUSTAINABLE FINANCE

Report on Climate-related Disclosures

JANUARY 2019

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1. INTRODUCTION

1.1. Background

In March 2018, the European Commission published its Action Plan on Financing Sustainable Growth (Action Plan), which sets out a comprehensive strategy to further connect finance with sustainability.[1]

In Action 9.2 of the Action Plan, the European Commission committed to revise the non-binding guidelines (NBGs)[2] of the Non-Financial Reporting Directive (NFRD)[3] governing disclosure of environmental, social, and governance-related information. Specifically, Action 9.2 states that the Commission will update the NBGs to *"provide further guidance to companies on how to disclose climate-related information, in line with the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) and the climate-related metrics developed under the new classification system."* The Commission is expected to publish its updated guidelines in June 2019.

In June 2018, the European Commission set up a technical expert group on sustainable finance (TEG) to assist in four key areas of the Action Plan through the development of the following: 1) a unified classification system for sustainable economic activities, 2) an EU green bond standard, 3) benchmarks for low-carbon investment strategies, and 4) guidance to improve corporate disclosure of climate-related information.

The TEG began work in July 2018 and has a one-year mandate, which it carries out through formal plenaries and sub group meetings for each work stream.[4] The TEG has 35 members that come from civil society, academia, business, and the finance sector and includes additional members and observers from EU and international public bodies.[5]

This report is the TEG's final report on climate-related disclosures. In drafting this report, the TEG has sought the views of stakeholders through a number of outreach activities, including an open stakeholder meeting convened by the European Commission on 18 October 2018 and meetings with banks (6 November 2018) and listed companies (12 November 2018). The TEG invites stakeholders to send comments on this report via the dedicated webpage[6] by Friday,

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[1] European Commission, "Action Plan: Financing Sustainable Growth," 8 March 2018 available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN. The Action Plan was a response to the Final Report of the High-Level Expert Group on Sustainable Finance established by the Commission in December 2016. The Final Report, published in January 2018, is available at https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf.

[2] European Commission, Guidelines on non-financial reporting https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017XC0705(01)&from=EN.

[3] Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

[4] European Commission's Sustainable Finance webpage https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en#overview.

[5] Ibid.

[6] [https://ec.europa.eu/eusurvey/runner/teg-report-climate-related-disclosures]

1 February 2019. The TEG will report back to the services of the European Commission on the comments received, but will not produce a revised version of this report.

The European Commission will decide the content of the updated guidelines and the extent to which they reflect the ideas contained in this report. The TEG understands that the services of the European Commission intend to consult stakeholders on the update of the guidelines before their planned adoption in June 2019.

1.2. Call to Action

In a year marked by climate events that have caused billions of euros in damage in the European Union (EU) alone, the need to limit global warming and to address the harmful effects of climate change has never been more apparent. The 2015 Paris Agreement on climate change, the United Nations Sustainable Development Goals (SDGs), the October 2018 Intergovernmental Panel on Climate Change (IPCC) Special Report,[7] and many other policy measures urge accelerated climate action by all actors in the global economy – including business and financial institutions. Reducing greenhouse gas (GHG) emissions by transitioning to a low-carbon and climate-resilient economy is critical to limiting global warming and building a sustainable economic system, as outlined in the European Commission's "Strategic long-term vision for a prosperous, modern, competitive and climate neutral economy."[8] However, as a result of this transition, a wide range of carbon-intensive assets may become "stranded" (i.e., unusable),[9] so it will be important to support the sectors and industries most affected to change their operating models in line with the long-term vision.

Current levels of investment are not sufficient to support a climate-resilient economic system and to fight climate change and resource depletion. More private capital flows need to be oriented towards sustainable investments to close the yearly €180-billion gap of additional investments needed to meet the EU's energy and climate 2030 targets.[10] In addition, further investments will be needed to achieve climate neutrality by 2050.

1.3. The Role and Benefits of Climate-related Disclosure

Climate-related information is a critical contributor to efficiently directing capital to investments that drive solutions for climate change mitigation and adaptation.[11] Providers of capital require

[7] http://www.ipcc.ch/report/sr15/.

[8] European Commission, "A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy", 28 November 2018 available at https://ec.europa.eu/clima/policies/strategies/2050_en.

[9] European Systemic Risk Board Advisory Scientific Committee Report No 6, 2016 available at https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf.

[10] European Commission, "Sustainable finance: Making the financial sector a powerful actor in fighting climate change," 24 May 2018, available at http://europa.eu/rapid/press-release_IP-18-3729_en.htm.

[11] When referred to environmental objectives in this paper, these objectives are defined as in the proposed Regulation including (1) climate change mitigation; (2) climate change adaptation; (3) sustainable use and protection of water and marine resources; (4) transition to a circular economy, waste prevention and recycling; (5) pollution prevention and control; (6) protection of healthy ecosystems.

information on the risks and opportunities companies face due to climate change, and how they contribute to or help mitigate impacts on climate change, to make well-informed financial decisions.

Companies that report climate-related information can directly benefit from providing quality disclosure to their stakeholders. The disclosure process can lead to increased awareness and understanding of climate-related risks[12] and opportunities within the company, better risk management, and more informed strategic planning. Good climate-related disclosure that reflects strong governance and strategy on issues related to climate change can contribute to securing a lower cost of capital and a more diverse investor base. Table 1 describes potential benefits of climate-related disclosure for three types of companies: listed companies,[13] banks, and insurance undertakings, consistent with companies covered by the Non-Financial Reporting Directive. In addition, increased confidence in climate-related disclosures can bolster green financial products and foster innovation in sustainable investment strategies in the broader financial eco-system.

Table 1 – Potential Benefits of Climate-Related Disclosure	
Listed Companies	▪ Better understanding of the exposure of a company's operations to physical and transition risks related to climate change ▪ Inclusion in actively managed investment portfolios and in sustainability-focused indices, used for passive investment strategies ▪ Climate-related disclosures used to improve credit ratings for bond issuance and credit worthiness assessment for bank loans ▪ Reduced friction in investor engagement and shareholder action and voting
Banks	▪ Better understanding of loan portfolios' exposure to climate-related risks ▪ Better risk evaluation for the calculation of capital charges ▪ More informed investment and lending decisions (including asset management) ▪ Improved attractiveness to climate-aware clients ▪ Evidence of expertise in climate-related transactions, leading further to climate-related business opportunities ▪ Evidence of risk control for financial regulators (stress testing)
Insurance Undertakings	▪ Better understanding and management of climate-exposure of underwriting portfolio ▪ Better understanding and management of climate-related risks and opportunities of the investment portfolio ▪ Evidence of risk control for prudential regulators (stress testing) and control over amount of technical provisions that could be affected by climate-related risk

[12] Risk is defined here as "the effect of uncertain future events on an organization or on the outcomes and impacts the organization achieves." (Adapted from CFA Institute.)

[13] Defined as "entities governed by the law of a Member State whose transferable securities are admitted to trading on a regulated market of any Member State" as part of the definition of Public Interest Entity (Accounting Directive 2013/34/EU).

1.4. The Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD)

Recognising the need for increased transparency in the market around climate-related issues, the G20's Financial Stability Board[14] established the Task Force on Climate-related Financial Disclosures (TCFD) in December 2015 to develop recommendations for more efficient and effective climate-related disclosures. In June 2017, the TCFD issued its recommendations to encourage both financial institutions and non-financial companies[15] to disclose information on climate-related risks and opportunities. Widespread adoption of the TCFD recommendations will ensure that "the effects of climate change become routinely considered in business and investment decisions. Adoption of these recommendations will also help companies better demonstrate responsibility and foresight in their consideration of climate issues. That will lead to smarter, more efficient allocation of capital, and help smooth the transition to a more sustainable, low-carbon and climate-resilient economy."[16]

1.5. Companies in Scope

The NFRD applies to large Public Interest Entities (PIE) – listed companies,[17] banks, insurance undertakings, and other entities identified by member states – with more than 500 employees. In total, approximately 7.400 companies are subject to the NFRD, as some Member States have dropped the employee threshold from 500 to 250 employees.[18] In-scope banks and insurance companies that perform investing and asset management activities[19] should include the impact of those activities in their reporting.

The TCFD recommends all companies with public debt or equity as well as all other organizations, especially asset managers and asset owners, implement its recommendations[20] in their mainstream (i.e., public) annual financial filings.[21]

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[14] The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system to promote international financial stability. For more information, please visit http://www.fsb.org/about/#mandate.

[15] Issuers of listed shares and bonds, as the companies covered by the Non-Financial Reporting Directive.

[16] Recommendations of the Task Force on Climate-related Financial Disclosures, June 2017.

[17] Issuers of listed securities, shares or bonds, or both.

[18] The Commission developed this figure based on estimates provided by different national and international sources, including some Member State representatives in the Accounting Regulatory Committee.

[19] Asset managers and asset owners can be considered in NFRD's scope only if listed or as part of a listed group.

[20] The TCFD acknowledges that "reporting by asset managers and asset owners to their clients and beneficiaries, respectively, generally occurs outside mainstream financial filings. For purposes of adopting the Task Force's recommendations, asset managers and asset owners should use their existing channels of financial reporting to their clients and beneficiaries where relevant and feasible."

[21] TCFD encourages organizations where climate-related issues could be financially material in the future to begin disclosing climate-related financial information outside financial filings to facilitate the incorporation of such information into financial filings once climate-related issues are determined to be relevant. (TCFD recommendations, June 2017, p. IV: https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf).

1.6. Objectives of This Report

In accordance with Action 9.2 of the Commission's Action Plan, this report proposes climate-related disclosures to assist the European Commission in its revision of the current Non-Binding Guidelines or NBGs.[22, 23]

The guidance proposed in this report intends to assist companies[24] in developing high quality climate-related disclosures that comply with the NFRD and address the recommendations of the TCFD. The NFRD is the legal starting point and foundation for adopting the TCFD recommendations as input to the EU policy framework. Specific disclosures and guidance are described under each element of the NFRD requirements, including metrics for all in-scope companies, for non-financial companies, and for banks and insurance companies. The proposed guidance included in this report:

1. reference the TCFD recommendations;
2. are supported by standards that companies can turn to for further guidance;
3. address gaps in current reporting practice;
4. enable comparability across jurisdictions;
5. align with the EU's decarbonisation efforts; and
6. streamline reporting.

The disclosures proposed in this report are intended to be within the remit of the reporting requirements of the NFRD.

The recommended disclosures included are differentiated based on the level of exposure of reporting companies with respect to climate-related risks and opportunities (see page 16). Three types of disclosures have been defined, from strongly expected from all reporting companies to only expected from reporting companies most exposed to climate-related risks and opportunities and/or with a higher impact on the climate.

These three types are indicated using the phrases "should / should disclose," "should consider / should consider disclosing," and "may consider / may consider disclosing," as follows:

- **Type 1 disclosures** – those that companies should disclose (high expectation that all reporting companies disclose them)
- **Type 2 disclosures** – those that companies should consider disclosing (expected of companies with significant exposure to climate-related risks and opportunities)
- **Type 3 disclosures** – those that companies may consider disclosing (additional or innovative disclosures that provide more enhanced information)

[22] This report was drafted under the assumption that the NBGs are and will remain voluntary and that the NFRD will not be revised under the mandate of the current Commission.

[23] European Commission, "Action Plan: Financing Sustainable Growth," 8 March 2018 available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN.

[24] This report uses the term 'company', for ease of reading, when referring to the reporting entity, be it a single undertaking or a group through its parent company.

2. Disclosures under the Directive: Principles and Rationale for Non-Financial Reporting

This section describes key principles and rationale underpinning the proposed guidelines for reporting climate-related information and considers how these principles are covered by the NFRD and the TCFD.

2.1. Reporting Audience

Reporting under the NFRD is intended "to meet the needs of investors and other stakeholders as well as the need to provide consumers with easy access to information on the impact of businesses on society" whereas the TCFD's target audience is investors, lenders, and insurance underwriters. These proposed guidelines focus on information needed by the providers of financial capital, but also address the information needs of other stakeholders.

2.2. Journey of Continuous Improvement in Reporting

It is important to recognize that quality non-financial reporting requires continuous change and improvement. Companies that are subject to NFRD reporting requirements may vary in their risk profiles and capabilities to address climate-related issues and, therefore, may find different levels of specificity in reporting guidance to be useful. These proposed guidelines identify detailed, yet flexible disclosure elements such as a specific set of climate-related disclosures that are primarily based on the TCFD recommendations and other existing reporting frameworks to increase consistency, traceability and decision usefulness of climate-related reporting. While companies are required to comply with the NFRD as soon as they meet the relevant scoping requirements, each company must ultimately determine which disclosures are most relevant to its stakeholders. Other detailed guidance that is available in various jurisdictions, such as the standards referenced in the NFRD and the NBGs, may also be helpful for providing climate-related disclosures. Companies are encouraged to disclose information in accordance with globally accepted reporting standards and frameworks[25] to maximize comparability for their stakeholders.

Comparability and consistency of climate-related information across different reporting periods is also important to enable stakeholders to analyse trend information. Companies should ensure their reporting practices take these aspects properly into account and provide additional disclosures on any changes that have occurred in the climate-related disclosures from one reporting period to another.

Lastly, whichever framework and disclosure format is adopted, it is important that companies provide disclosures in a way that ensures connectivity of the different elements required by the NFRD, thus helping the information user to navigate through the non-financial statement via a set of coherent climate-related disclosures provided by the company.

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[25] An example of a globally accepted standard is the GHG Protocol for GHG emissions reporting, also embedded in standards and frameworks such as the GRI Standards, CDP, SASB, and others.

2.3. Reporting Climate-Related Impacts

Companies face a variety of climate-related risks and opportunities, and they can also impact climate change in many ways. The TCFD recommendations focus on how the physical effects of climate change and the anticipated transition to a low-carbon and climate-resilient economy impact companies. The NFRD has introduced a new element to be taken into account when assessing the relevance of non-financial information by referring to information '*to the extent necessary for an understanding of the impact*[26] *of (the company's) activity.'*[27] Companies are required to disclose relevant[28] information on the consequences of climate change for a company's business complemented with information on the impact of the company on climate change. The two concepts are interlinked, and these proposed guidelines address both approaches. These proposed guidelines draw from the TCFD recommendations to assist companies in reporting information on their climate-related risks and opportunities.

It is highly likely that the impact of a company on climate change captures issues that have a financial impact on the company in the medium to long term. This concept is depicted in Figure 1, which shows how a company's business model and strategy has direct implications for potential contributions the company has towards climate policy targets as well as potential negative impacts on climate change mitigation and adaptation, in particular, and other environmental objectives. Companies should provide, at a minimum, the disclosures and key performance indicators (KPIs) reported below in relation to significant[29] climate-related matters over which the company has control[30] and/or significant influence and that are necessary for an understanding of the company's development, performance, position and impact of its activities.

As a general principle, when selecting the relevant information to report as part of a multi-stakeholder process, companies should strive to provide concise, but complete coverage.

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[26] 'Impact' refers to the effect an organization has on the economy, the environment, and/or society, which in turn can indicate its contribution (positive or negative) to sustainable development and in the mid / long term can have a financial impact on the company. Various methodologies can be used to assess the significance of impacts. In general, 'significant impacts' are those that are a subject of established concern for expert communities, or that have been identified using established tools, such as impact assessment methodologies or life cycle assessments. Impacts that are considered important enough to require active management or engagement by the organization are likely to be considered significant. (Source: GRI Standards)

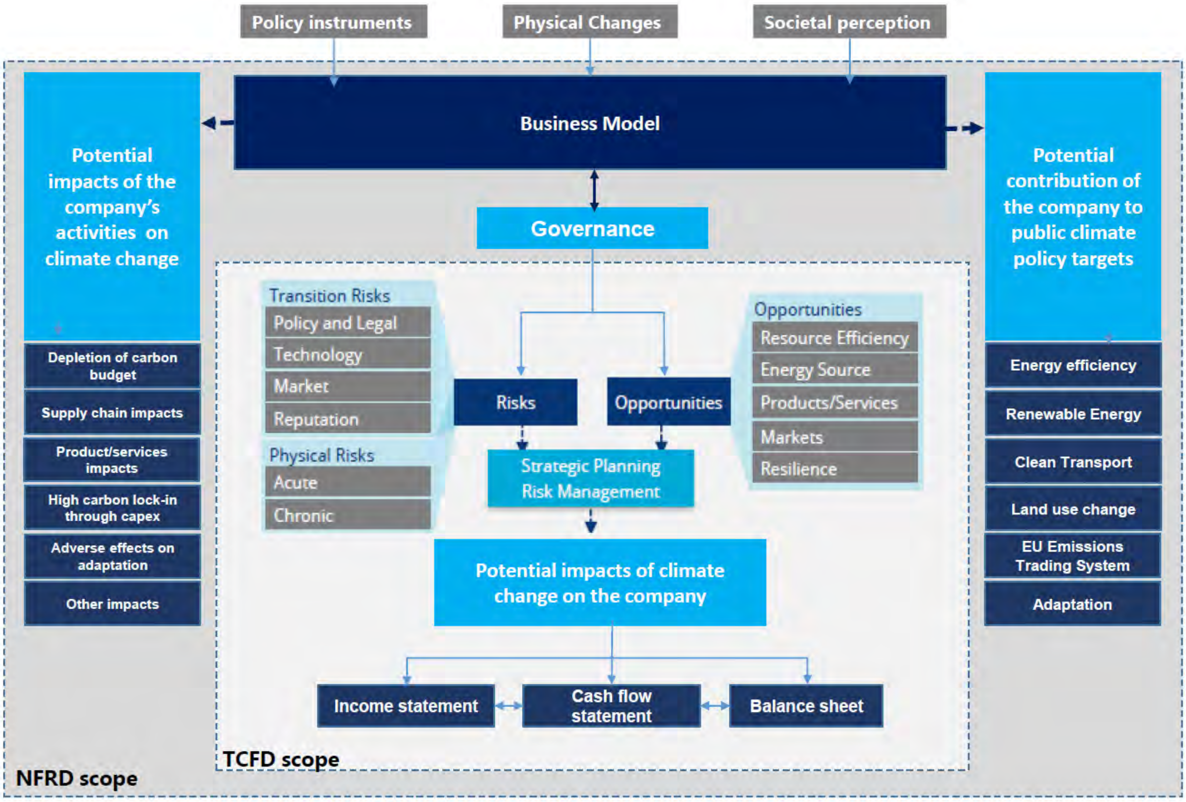
[27] European Commission, Guidelines on non-financial reporting available at https://eur-lex.europa.eu/legal-content/EN/TXT/ PDF/?uri=CELEX:52017XC0705(01)&from=EN.

[28] In this proposed guidance, we refrain from using the term material / materiality as it has different definitions depending on the jurisdictions in which it is applied. The proposed guidelines operate in the context defined by the NFRD.

[29] Significant climate-related issues are those 'that are a subject of established concern for expert communities, or that have been identified using established tools, such as impact assessment methodologies or life cycle assessments. Issues that are considered important enough to require active management or engagement by the organization are likely to be considered significant. (Source: adapted from the GRI Standards)

[30] Climate-related risks and opportunities that fall under the financial or operational control of the reporting company through its own activities or as a result of its business relationships with other entities. (Source: adapted from the GRI Standards)

Figure 1 – Linking Climate Change Impacts and the Company's Business Model[31]



2.4. Financial and Non-Financial Disclosures

Although the NFRD's focus is on "non-financial" information, the NFRD states that "the non-financial statement (…) shall also, where appropriate, include references to, and additional explanations of, amounts reported in the annual financial statements." This provision allows companies to include financial information in the scope of the non-financial statement. The NFRD also requires companies to disclose "principal risks" in the non-financial statement, which may include the potential financial consequences of climate change. In comparison, a primary objective of the TCFD recommendations is to solicit information on climate-related financial impact.

2.5. Forward-Looking Information: Linking Climate Disclosures to the EU Climate Policy Targets.

Decision-useful disclosures address both historical information on development, performance, position, and impact of a company's activity relating to climate-related matters and forward-looking information on the company's view of climate-related risks and opportunities over the short, medium and long term. As the TCFD recommendations aim to solicit forward-looking

[31] Figure 1 is partially based on content from page 8 of the Recommendations of the Task Force on Climate-related Financial Disclosures, June 2017.

information on financial impacts related to climate change, incorporating concepts from the TCFD's recommended disclosures into NFRD reporting puts additional emphasis on forward-looking information. Such forward-looking disclosure should take into consideration the evidence provided by the October 2018 IPCC Special Report[32] on the fast pace of climate change as a result of global warming, which can result in accelerated regulatory action and, therefore, greater transition risks, as well as in accelerated escalation of physical risks. Disclosure of the company's past performance against climate goals should be complemented by short-term and long-term targets and align with the lifecycles of the company's main assets and products. In addition, such targets could align with the cycles set for the revision of public climate policy targets.

Hence, these proposed guidelines recommend disclosure of KPIs that are linked to national and international climate-related policies. International agreements, such as the Paris Agreement, and European public policies such as the "Strategic long-term vision for a prosperous, modern, competitive and climate neutral economy" (EU 2050 long-term strategy) adopted in November 2018, the Renewable Energy Directive, the Energy Efficiency Directive, the EU Emission Trading Scheme and the Clean Transport Package, including the associated NDC (Nationally Determined Contribution) and the EU Adaptation Strategy, all support the EU Climate commitments under the Paris Agreement.

Better disclosure of KPIs that align with public policy goals (e.g., data on energy consumption in connection with EU energy efficiency targets or adaptation strategies) will help stakeholders understand companies' contributions to national and international decarbonisation strategies and their ability to ensure business continuity with increasing occurrence of climate-related extreme events.

2.6. Strategic Resilience and Scenario Analysis

The TCFD also recommends companies disclose the resilience of their strategies. As mentioned, NFRD asks for information that is "necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, […] anti-corruption and bribery matters." Scenario analysis is a tool that can be applied to help understand the potential implications of climate change and the resilience of companies to those implications ("strategic resilience"). Scenario analysis is a well-established method for developing input to strategic plans in order to enhance plan flexibility or resiliency to a range of future states. The use of scenario analysis and pathways for assessing climate-related risks and opportunities and their potential business implications, however, is relatively recent in most industries. In addition, the application of scenario analysis varies by industry, especially in terms of timeframes used (short, medium, and long term) and assumptions made. Given the importance of forward-looking assessments of climate-related risk, scenario analysis is an important and useful tool for a company to use, both for understanding strategic implications of climate-related risks and opportunities and for informing stakeholders about how the company is positioning itself in light of these risks and opportunities. It also can provide

[32] http://www.ipcc.ch/report/sr15/.

useful forward-looking information to providers of financial capital. Should a company's senior management use climate-related scenario analysis to inform internal strategic planning and decision-making, this in itself provides useful insight into management's thinking.

2.7. Capturing Climate-related Opportunities

The NFRD does not make explicit reference to opportunities but climate-related opportunities, such as those associated with "business relationships, products or services"[33] with a climate mitigation or adaptation utility or investments in the development of solutions for moving toward a low-carbon and climate-resilient economy, can be considered risk mitigation measures. The TCFD encourages disclosure of both climate-related risks and opportunities. As mandated in Action 9.2 of the EU Action Plan, the proposed disclosures in this report relating to the forthcoming taxonomy correspond to disclosures about climate related opportunities. These disclosures might also address the information needs for the low/positive carbon benchmark. The related investments may also offer potential for green financing.

3. Alignment of NFRD and TCFD

A mapping of the TCFD's recommended disclosures to the elements of the NFRD was created to inform the proposed climate-related reporting guidelines. The structure of the NFRD, which is made up of five elements (see Table 2), has been used to analyse how the TCFD's recommended disclosures support, specify, and streamline the implementation of the NFRD for a better understanding of a company's development, performance, position, and impact of its activities concerning climate-related issues.

Table 2 – NFRD Elements and TCFD Recommendations

NFRD Elements (Broader Sustainability Approach)	TCFD Recommendations (Specific Climate Change Approach)
a) Business model **b)** Policies and due diligence processes **c)** Outcomes **d)** Principal risks and their management **e)** Key performance indicators (KPIs)	**a)** Governance **b)** Strategy **c)** Risk management **d)** Metrics and targets

The NFRD requires companies to "include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters, including:

a) a brief description of the undertaking's **business model**;

[33] NFRD art 1.1 (d)

b) a description of the **policies** pursued by the undertaking in relation to those matters, including due diligence processes implemented;

c) the **outcome** of those policies;

d) the **principal risks** related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks;

e) non-financial **key performance indicators** relevant to the particular business."

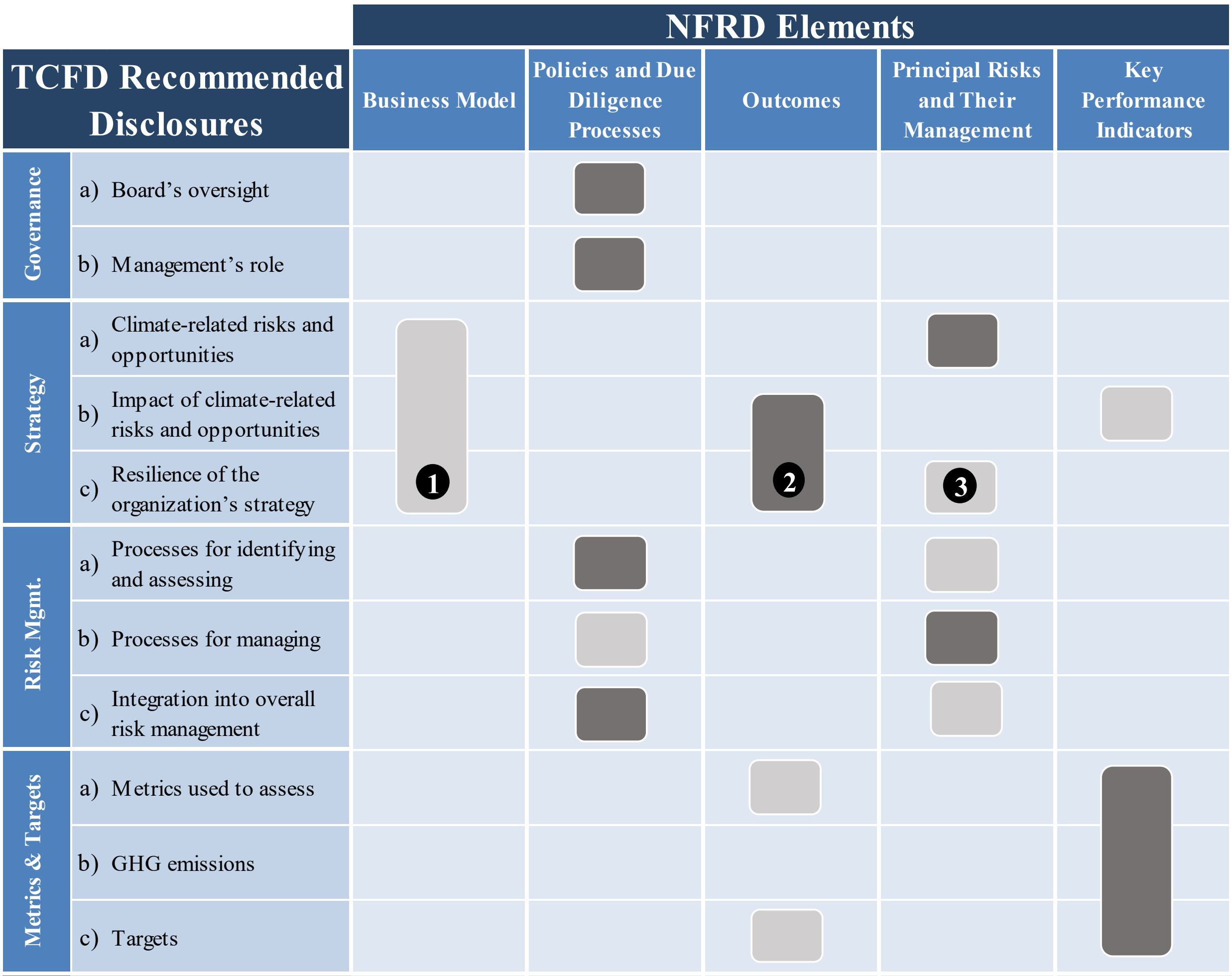
Additionally, a "comply or explain" provision applies: "Where the undertaking does not pursue policies in relation to one or more of those matters, the non-financial statement shall provide a clear and reasoned explanation for not doing so."

The TCFD recommendations are structured around four thematic areas that represent core elements of how companies operate: **governance, strategy, risk management, and metrics and targets**. The TCFD's four overarching recommendations (see Table 2) are supported by eleven recommended disclosures that build out the framework with information that helps stakeholders understand how companies assess their climate-related risks and opportunities.

Companies should determine the form and content of their reporting based on many factors, including their specific business model and approach to managing climate-related risks and opportunities. To facilitate TCFD-aligned disclosure, a suggested mapping of the TCFD's eleven recommended disclosures to the five elements of the NFRD is shown in Figure 2. The guidance provided in the following sections of this report primarily reflect the mapping coloured in dark grey in Figure 2. However, the mapping shows additional options in light grey, and yet others may be relevant depending on the company-specific situation as well as its maturity in climate-related reporting.

With respect to the TCFD's recommended disclosure on strategic resilience under different climate-related scenarios, the mapping identifies three relevant NFRD elements. Further explanation of reporting on strategic resilience and scenario analysis is provided in Section 2.6 *Strategic Resilience and Scenario Analysis* and Section 4.1 *Business Model* of this report.

Figure 2 – Mapping of TCFD Recommended Disclosures and NFRD Requirements



Three NFRD Elements relate to TCFD Strategy c) on strategic resilience, taking climate-related scenarios into account

1. Companies may refer to scenarios as part of "business model" if they inform its strategy related to environment and climate
2. Companies may refer to scenarios as part of "outcomes" if they provide material information and inform management decisions
3. Companies may refer to scenarios as part of "risk management" if they are considered risk management tools that reflect climate-related risks and opportunities

4. PROPOSED DISCLOSURES

The proposed disclosures described in this report address Action 9.2 of the Commission's Action Plan to assist the Commission in its revision of the NBGs of the NFRD. They provide practical guidance for companies subject to the NFRD requirements, including banks and insurance undertakings, on including decision-useful climate-related information in NFRD reporting and outline current best practice in non-financial reporting.

This section of the report focusses on the type and quality of climate-related disclosures that can be decision-useful for a company's stakeholders, addressing both the company's impacts on climate change and the potential financial impacts of physical climate-related risks and the transition to a low-carbon and climate-resilient economy on the company. Building on the principle-based foundation of the NBGs, these proposed guidelines are based on certain disclosures on which a strong consensus has been reached among standard setters, while leaving companies free to go further.

For each of the five NFRD elements, the guidelines describe: 1) rationale and context addressing the importance of reporting the suggested information, 2) references to relevant TCFD recommended disclosures, and 3) specific proposed disclosures companies are encouraged to provide in their reporting. Section 4.5 *Key Performance Indicators* includes climate-related metrics and KPIs for all companies, non-financial companies, and banks and insurance undertakings (see Section 5).

The recommended disclosures included in this guidance are mainly differentiated based on the companies' exposure to climate change. There are three types of disclosures, which are signposted throughout the guidance by the use of the phrases "should / should disclose," "should consider / should consider disclosing" and "may consider / may consider disclosing," as follows:

- Type 1 disclosures – those that companies **should disclose** (high expectation that all reporting companies disclose them)
- Type 2 disclosures – those that companies **should consider disclosing** (expected of companies with significant exposure to climate-related risks and opportunities)
- Type 3 disclosures – those that companies **may consider disclosing** (additional or innovative disclosures that provide more enhanced information)

The "general disclosures" (Type 1) refer to information that companies *should disclose*. At a minimum, a company is expected to report certain disclosures, irrespective of the companies' own assessment. Additionally, companies should report a set of climate-related information according to the five NFRD disclosures elements as required by the NFRD, except if – based on the company's own assessment carried out autonomously and/ or in consultation with stakeholders – this information is regarded as unnecessary for an understanding of the company's development, performance, position and of its activities relating to climate change matters.

The "supplementary disclosures" (Type 2) refer to information that companies *should consider* reporting on and depend on the company's own assessment of impacts of climate change on its business and of its activity on climate change, carried out autonomously and in consultation with stakeholders. They also depend on the company's exposure to climate-related risks and opportunities as well as maturity vis-à-vis climate change and allow for further development of climate knowledge in the future.

An overview of general and supplementary disclosures is provided in Table 3.

Table 3 – Overview of Recommended Disclosures	
General disclosures (Type 1)	
Irrespective of the companies' own assessment carried out autonomously and/or in consultation with stakeholders, companies should disclose:	
• their governance processes addressing climate-related risk and opportunities, • how climate change is incorporated into their strategy and risk management processes, and • their Scope 1 and Scope 2 GHG emissions.	
Based on the company's own assessment carried out autonomously and/or in consultation with stakeholders, companies should disclose:	
Business Model	• Significance of climate-related issues for the business model and impact on strategy.
Policies and Due Diligence Processes	• Board's oversight of climate- related risks, opportunities and impacts (TCFD Governance a)). • Management role in assessing and managing climate-related risks, opportunities and impacts (TCFD Governance b)). • Systems and processes in place for identifying, assessing climate-related risks and impacts and how they are integrated into their overall risk management (TCFD Risk Management c)).
Outcomes	• GHG emissions and related targets. • Impact of the company's activities on climate change and natural capital dependencies also including those related to water consumption, deforestation, biodiversity loss, pollution, land use, etc., where relevant. • Insights on impact of climate-related risks and opportunities on the strategy, financial planning as well as mitigation and adaptation actions.
Principal Risks and Their Management	• Climate-related risks and opportunities identified over the short, medium, and long term (TCFD Strategy a)). • Processes for managing climate-related risks (TCFD Risk Management b)). • Impacts of the company on climate change mitigation and/or adaptation.
Key Performance Indicators	• Scope 1, Scope 2, and Scope 3 GHG emissions. • GHG emissions targets. • Sectoral and company-specific KPIs.
Supplementary disclosures (Type 2)	
Based on the company's own assessment carried out autonomously and in consultation with stakeholders, companies should consider disclosing:	
Business Model	• Business segments' financially material exposure to climate-related risks, opportunities. • Impact of the company's activity on the climate change and potential mitigation or adaptation strategies. • Resilience of the company's strategy to climate-related risks and opportunities.
Policies and Due Diligence Processes	• Roles of the various (board) committees and management level positions in charge of climate-related topics. • Existing and emerging regulatory requirements related to climate change as well as other relevant factors (TCFD Strategy a)). • Processes for assessing the potential size and scope climate-related risks and impacts. (TCFD Risk Management a)). • Definitions of risk terminology or references to existing risk classification frameworks.
Outcomes	• The development of GHG emissions over time vis a vis targets (TCFD Metrics and Targets b) and c)). • Provide information on the process of target setting and performance reporting against the targets Further insights on how the company adapts its business model to climate related risks, opportunities and impacts over time and references to targets (TCFD Strategy b)). • Relationship between the company's financial position and its impact on climate change • Any dependency to climate-related risks and opportunities that affects the company's financial position (TCFD Strategy b)). • Any dependency of financial KPIs to climate-related impact of companies' activities on climate change over the short, medium and long term. • Its assessment of the resilience of its strategy under different climate-related scenarios (TCFD Strategy c)).
Principal Risks and Their Management	• Processes for prioritizing climate-related risks. • Risk and opportunity maps including climate-related issues. • Use of risk mitigation techniques such as insurance contracts, reinsurance treaties, insurance linked securities. • Relevance filter for classifying climate-related risks and opportunities. • Current climate-related high-risk and high-opportunity potentials across the value chain. • Linkages between major climate-related risks and opportunities with financial and non-financial KPIs.
Key Performance Indicators	• Energy consumption or production from renewable and non-renewable sources. • GHG emissions breakdown. • Energy efficiency target. • Renewable energy target.

4.1. Business Model

The NFRD requires companies to disclose "a brief description of the undertaking's business model."

Stakeholders may be interested in understanding the company's view of how climate change might affect its business model, and how its activities might affect climate change, over the short, medium and long term. The company is expected to describe climate-related risks and opportunities that could arise from its business model and how they impact its strategy. The risks and opportunities are likely to depend on the type of activity of the company (sector specific), its geographic locations and on the positioning of the company in its transition to a low-carbon and climate-resilient economy (company specific). Companies in scope may need to consider whether, as a consequence of climate change, other risks such as those arising from technological obsolescence or from the potentially abrupt need to shift from a carbon-intensive to a low-carbon technology, may have a particular impact on their business model.[34]

Companies that do not appropriately consider their business model in light of climate change may both cause negative effects on the environment and experience negative impacts on their business such as on the profit and loss statement, debt financing, future regulatory burden, and "license to operate" in terms of reputational costs. For example, the consequences of climate change could negatively impact a company's expected return on capital or cost of capital over the medium or long term rather than the usual short-term horizon of financial planning. On the other hand, identifying new climate-related opportunities (see Figure 1) may strengthen the business model and earnings outlook of a company. Providers of capital are increasingly aware of climate-related issues and may give preference to companies with climate resilient strategies or to those that invest in low-carbon products and services.

Disclosures on business model may also describe potential positive and negative consequences of climate change and the resilience of the company's strategy under various scenarios of global warming and over different time horizons.

Table 4 – TCFD Recommended Disclosures Aligned with Business Model	
None	*Note: The TCFD did not explicitly address disclosure of information related to the organization's overall business model and strategy as it assumed this information would be included in financial filings.*

The TCFD did not explicitly address disclosure of information related to the organization's overall business model. Therefore, no TCFD recommended disclosures are directly mapped to the business model element of the NFRD (Table 4). However, in assessing business model impacts, companies may want to consult the TCFD guidance on the main climate-related risks and opportunities (transition and physical) that could affect companies' businesses, strategy, and financial planning (shown in Figure 1).

[34] European Securities and Markets Authority (ESMA) 2018 European Common Enforcement Priorities.

Box 1 – Disclosure on Business Model

General Disclosure (Type 1)
The company *should* describe its business model in a way that clearly relates its activities to climate change. In describing the effects of climate-related issues on their business model, companies *should* include consistent and historical disclosures of the following aspects:

- Describe the significance of climate-related issues for the business model and how strategies might change to address such potential risks (including transition risks and physical risks) and opportunities.

Supplementary Disclosure (Type 2)
The company *should consider* including consistent and historical disclosures of the following aspects:

- Describe business segments' financially material exposure to climate-related risks and opportunities.
- Describe the impact of the company's activity on the climate change and potential mitigation or adaptation strategies.
- Describe the resilience of the company's strategy to climate-related risks and opportunities, taking into consideration the transition to a lower-carbon economy consistent with a 2°C or below scenario. Other scenarios with higher global warming forecasts might better fit to consider the physical risks the company may face in the future. Climate-related scenarios used by the company should be described in qualitative and/or quantitative terms.[35]

Other Disclosure (Type 3)
Taking note of the TCFD guidance, companies may consider disclosing on the overall risks, opportunities and impacts related to climate change in the context of their business model. If relevant, companies should explain how they have adapted their strategy to be more resilient under different climate-related scenarios. They should, if relevant, explain how they have adopted more sustainable strategy related to their impact on climate change.

4.2. Policies and Due Diligence Processes

The NFRD requires companies to provide "a description of the policies pursued by the company in relation to those non-financial matters, including due diligence processes implemented."

Governance and control systems are key to stakeholders' understanding of the robustness of a company's approach to climate-related issues. Information on the involvement of board members and top management, in particular their respective responsibilities in relation to climate change, informs stakeholders on the level of the company's awareness of climate-related issues. For this purpose, the company may want to describe the role(s) with responsibility for managing climate change aspects, for instance a risk management team or a specific department, and

[35] To appropriately incorporate the potential effects of climate change into their planning processes, companies should consider how climate-related risks and opportunities may evolve and their potential business implications under different conditions. One way to assess such implications is through the use of scenario analysis.

A company may consider disclosing how climate change may accelerate its transition to a lower carbon-intensive business, for example with regard to whether its portfolio of products and services, project financing activity, or asset portfolio can be considered environmentally friendly or carbon neutral.

It is recommended that companies use well-established reference scenarios, such as those made publicly available by the IPCC or by the IEA. At least one of the scenarios used should be aligned with a 2°C or lower temperature increase. For more information, see https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Technical-Supplement-062917.pdf.

explain the rationale for the approach. Companies, particularly in the energy and utility sectors, may consider disclosing their climate competency and creating a structure for board oversight of sustainability matters. Stakeholders may be interested in knowing whether the company has policies describing its commitment towards climate mitigation and adaptation, the resilience of its strategy under different climate change scenarios, and any committees or referral and escalation processes for handling climate-related issues. It may also be relevant to describe the way those policies are framed and used when managing climate risks, opportunities and impacts.

Disclosure of due diligence processes provides information on a company's ability to manage its business to minimize climate-related risk, limit negative impact on the climate and, where relevant, produce positive externalities for the environment.

Processes addressing climate-related topics may be separate from other operational processes or they may be fully integrated into the company's risk management framework. The structure may depend on whether the company believes climate-related issues to be financially material as well as on the level of awareness of the company's internal control processes around such issues. The company may want to explain its approach to managing climate-related issues and the rationale for choosing that approach.

The company is expected to describe its systems and processes for assessing and managing the impact of its activities on the climate change over the short, medium, and long term. For example, a company may have an impact on climate change through its GHG emissions, energy usage, waste generation, water consumption or land use, either directly or indirectly through its value chain. Impacts can be positive or negative. The company may want to demonstrate how its systems and processes ensure that possible negative effects (e.g. with regard to the profit and loss statement) are properly managed.

Table 5 – TCFD Recommended Disclosures Aligned with Policies and Due Diligence Processes		
Governance	a)	The board's oversight of climate-related risks and opportunities.
Governance	b)	Management's role in assessing and managing climate-related risks and opportunities.
Risk Management	a)	Processes for identifying and assessing climate-related risks.
Risk Management	c)	How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

The TCFD recommended disclosures in Table 5 are well-suited to support the NFRD's reporting requirements related to Policies and Due Diligence Processes.

Box 2 – Disclosure on Policies and Due Diligence Processes

General Disclosure (Type 1)

The company *should* explain its processes and controls with regard to climate-related risks and opportunities and mention whether it has developed robust processes and control systems to monitor climate-related issues. In describing the effects of climate-related issues on company policies and due diligence processes, companies should include consistent and historical disclosures of the following aspects:

- Describe the role of the board in overseeing climate-related risks, opportunities and impacts.
- Describe the role of the top management in assessing and managing climate-related risks, opportunities and impacts.
- Describe the degree of climate competency that exists at board and top management level.
- Describe systems and processes in place for identifying and assessing climate-related risks and impacts, and how they are integrated into their overall risk management. An important aspect of this description is how the company determines the relative significance of climate-related risks in relation to other risks.

Supplementary Disclosure (Type 2)

The company *should consider* including consistent and historical disclosures of the following aspects:

- Explain the roles of the various (board) committees and management level positions in charge of climate-related topics.
- Describe whether existing and emerging regulatory requirements related to climate change (e.g., limits on emissions) as well as other relevant factors are considered.
- Describe processes for assessing the potential size and scope of identified climate-related risks and impacts.
- Provide definitions of risk terminology used or references to existing risk classification frameworks used.

As the majority of most companies' emissions occur outside their direct operations, companies *should consider* describing how they engage with their value chain on climate-related issues, also to avoid double counting. This qualitative disclosure enables companies to demonstrate they align with best practice in engaging with upstream and downstream partners to reduce negative impacts on the climate.

Other Disclosures (Type 3)

A company *may consider* the roles and responsibilities of the various governance bodies involved in addressing climate risks by describing its climate-related strategy. It can explain how climate-related risks and opportunities are included when making operational decisions, such as investment decisions, or when assessing financially material risks to its assets and liabilities.

4.3. Outcomes

The NFRD requires companies to disclose “the outcome of the company’s policies.”

Disclosure of policy outcomes helps providers of capital, as primary users of non-financial statements, and other stakeholders monitor and assess a company’s development, position, performance and impact as a result of its policies.

Stakeholders may be interested in how a company demonstrates the consistency of its strategy, actions, and decisions related to climate change in assessing its performance through target setting and performance reporting against the targets. Shareholders and other providers of financial capital are often primarily interested in the financial impacts of climate change on the company; other stakeholders, such as state actors, consumers, and civil society, are interested in information on the impact of a company's business on climate change. Quantitative aspects, such as KPIs supporting the analyses are covered in Section 4.5 *Key Performance Indicators* and Section 5 *Sector Specific Guidance: Banks and Insurance Undertakings* of this report.

The company may want to provide detailed information on how it demonstrates the resilience of its strategy as it relates to climate change and on the outcome of its policies related to climate change. The former set of information focuses more on financial materiality analysis (according to standards of financial filings), the latter set of information focuses more on a broader assessment by referring to information to the extent necessary for an understanding of the impact of (the company's) activity, including relevant information on the impact of the reporting entity on its external environment.

Table 6 – TCFD Recommended Disclosures Aligned with Outcomes		
Strategy	b)	Impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
Strategy	c)	Resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

The TCFD's recommended disclosures shown in Table 6 are well-suited to support the NFRD's reporting requirements related to outcomes.

Box 3 – Disclosure on Outcomes

General Disclosure (Type 1)

In describing the outcomes of its policies related to climate change, the company *should* include consistent and historical disclosures of the following aspects:

- GHG emissions and related targets.
- Impact of the company's activities on climate change and natural capital dependencies also including those related to water consumption, deforestation, biodiversity loss, pollution, land use, etc., where relevant.

Insights on impact of climate-related risks and opportunities on the strategy, financial planning as well as mitigation and adaptation actions to adapt the company's operations and activities in response to climate change.

Supplementary Disclosure (Type 2)

The company *should consider* include consistent and historical disclosures of the following aspects:

- The development of GHG emissions over time vis a vis targets (TCFD Metrics and Targets b) and c)) how they impact its strategy, and how they relate to national and international targets. Quantitative assessment of the three GHG emissions scopes is addressed in Section 4.5 of this report.
- Provide information on the process of target setting and performance reporting against the targets
- Provide further insights to its stakeholders on how the company handles
  - the impact of climate-related risks and opportunities on the company's business and
  - the impact of the company's activities on climate change in comparison to its Targets and developments over time, such as mitigating effects of policies.

Box 3 – Disclosure on Outcomes

- Describe the relationship between the company's financial position and its impact on climate change.
- The interrelatedness and dependencies between climate-related risks and opportunities and other factors that affect the company's financial position.
- The interrelatedness and dependencies between financial KPIs and the climate-related impact of companies' activities on climate change over the short, medium and long term.
- The connectivity of financial and non-financial information that affect the company's strategy (with regard to its portfolio of products and services, project financing activity, or asset portfolio) as well as have an impact on climate change.

Other Disclosures (Type 3)
The company *may* also *consider* describing how its strategy (including products and services, project financing activity, or asset portfolio) is impacted by climate change. The description should be informed by the company's assessment of specific climate-related issues and as part of a broader assessment that includes the most relevant climate impacts on the company's strategy. The company should describe the climate-related topics used in its financial and climate-related assessment and explain potential adaptation and mitigation decisions taken for addressing climate change. Decisions may be based on the company's assessment of the resilience of its strategy under different climate-related scenarios (see Section 2.6 *Strategic Resilience and Scenario Analysis*. for more information).[36] The company may disclose its performance against its targets, including the targets related to the company's impact on climate change.

4.4. Principal Risks and Their Management

The NFRD requires companies to disclose "the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks."

When a company has assessed specific climate-related risks (including transition risks and / or physical risks) and opportunities, it is important that stakeholders understand what those specific risks and opportunities are and how the company manages them. Stakeholders may be seeking information on the company's ability to manage its business if certain uncertainties materialise. Stakeholders may also want information on the company's impact on the climate, especially providers of financial capital interested in environmentally conscious companies.

The company may consider describing the type of analyses performed to assess climate-related risks, opportunities, and impacts and how these issues are managed on a regular basis, including the frequency of reviews and analyses underpinning management decisions. The company may consider providing some information about the techniques used to mitigate the risks such as insurance contracts, reinsurance treaties, or insurance linked securities. Stakeholders may be

[36] For further information on how to conduct a scenario analysis to assess the strategic resilience of a company, see TCFD's Technical Supplement "The Use of Scenario Analysis in Disclosure of Climate-related Risks and Opportunities", see : https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Technical-Supplement-062917.pdf.

interested in how the organisation sets climate risks limits and monitors its climate-related risks and opportunities against those limits, including any triggers used to escalate issues to management attention. The company may want to describe its scenario analyses if they are part of its risk management framework.

Table 7 – TCFD Recommended Disclosures Aligned with Principal Risks and Their Management		
Strategy	a)	Climate-related risks and opportunities the organization has identified over the short, medium, and long term.
Risk Management	b)	Processes for managing climate-related risks.

The TCFD's recommended disclosures in Table 7 are well-suited to support the NFRD's reporting requirements related to Principal Risks and Their Management.

Box 4 – Disclosure on Principal Risks and Their Management

General Disclosure (Type 1)
In describing climate-related risks and associated risk management practices, companies *should* include consistent and historical disclosures of the following aspects:

- Describe the climate-related risks the organization has identified over the short, medium, and long term. The definition of short, medium and long term will depend on the company's business model and the life cycle of its assets and liabilities.
- Describe processes for managing climate-related risks (if applicable how they make decisions to mitigate, transfer, accept, or control those risks).

Supplementary Disclosure (Type 2)
Companies *should consider* disclosing the following:

- Processes for prioritizing climate-related risks, including how their assessments are made within their companies.
    - Risk and opportunity maps including climate-related issues.
    - Relevance filter for classifying climate-related risks and opportunities.
- Current climate-related high-risk and high-opportunity potentials across the value chain.
- Linkages between major climate-related risks and opportunities with financial and non-financial KPIs.
- Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue, or expenditure

Other Disclosures (Type 3)
The company *may* also *consider* disclosing any significant assumptions that have been used to assess climate-related risks. When relevant, it should also disclose how scenarios have been selected in relation to its business model, and how scenarios are used internally for risk management actions such as mitigation, transfer or adaptation (see Section *2.6. Strategic Resilience and Scenario Analysis* for more information on scenario analysis).

Physical climate-related risks and opportunities

Compared to metrics addressing carbon transition risks, metrics and disclosures addressing physical climate risks are less mainstreamed. To appropriately incorporate the potential effects of physical climate impacts in risk management processes, companies may also consider including additional disclosures on physical climate risks as recommended in the Advancing TCFD Guidance on Physical Climate Risks and Opportunities,[37] including:

- Locations that are critical to value chains, including operations, suppliers and markets.
- Financial impacts of extreme weather events, including metric on days of business interruptions and associated costs, cost of repairs, fixed-asset impairment, value chain disruptions and lost revenues.
- How the company's performance is affected by weather variability, in particular for companies sensitive to variability in temperature and precipitation.
- Financial opportunities associated with managing existing physical climate risks, anticipating emerging climate risks and exploiting future market shifts driven by climate change.
- Using a taxonomy of physical climate hazards, potentially consistent with the Taxonomy for climate change adaptation activities.

4.5. Key Performance Indicators

The NFRD requires companies to disclose "non-financial key performance indicators relevant to the particular business." Companies should use KPIs to support their other climate-related disclosures, such as those related to outcomes or principal risks and their management, and to connect qualitative disclosures with quantitative information.[38]

As climate-related risks and opportunities are relevant for companies across all sectors, all companies should disclose - at a minimum - general, broadly recognized climate-related KPIs on current GHG emissions and GHG emissions targets as described in Table 9 (see p. 28).[39] Companies should consider reporting certain supplementary KPIs as described in Table 10 (see p. 29) to provide stakeholders with important additional information on the general KPIs.

In addition to general and supplementary KPIs, all companies—including banks and insurance undertakings—should disclose sectoral or company-specific KPIs relevant to their particular business and circumstances. This will help stakeholders better understand a company's specific development, position, performance and impact within its industry and support comparability.

For non-financial companies, such disclosures should include KPIs related to the company's products or services that contribute substantially to climate change mitigation or adaptation as well as KPIs related to green financing activities, if applicable. For banks and insurance undertakings, KPIs should relate to their core business activities, including lending, insurance underwriting, and asset management (see Section 5.5 *Sectoral and Company-specific KPIs: Banks and Insurance Undertakings* for further details).

[37] https://s3.eu-west-2.amazonaws.com/ebrd-gceca/EBRD-GCECA_draft_final_report_full_2.pdf.

[38] In this report, the term "key performance indicator" or "KPI" is used to refer to metrics and targets used by companies in their internal management processes.

[39] Banks and insurance undertakings should refer to Section 5.5 for further guidance around GHG emissions reporting.

The TCFD's recommended disclosures shown in Table 8 are well suited to support the NFRD's reporting requirements related to key performance indicators. In addition, the TCFD provides supplemental guidance with some sector-specific metrics and targets.[40]

Table 8 – TCFD Recommended Disclosures Aligned with Key Performance Indicators		
Metrics & Targets	a)	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
Metrics & Targets	b)	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
Metrics & Targets	c)	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

4.5.1. General (type 1) and Supplementary (type 2) KPIs

Regarding the disclosure of general and supplementary KPIs as described below, it is important to note that companies should calculate their GHG emissions in line with the GHG Protocol methodology[41] or the ISO 14064-1:2006 standard[42] to allow for aggregation and comparability across companies and jurisdictions. To give further confidence in the accuracy of the reported data, companies should indicate the third-party verification/assurance status that applies to their reported emissions. GHG emissions and associated KPIs should be provided for historical periods to allow for trend analysis. In addition, where not apparent, companies should provide a description of the methodologies used to calculate or estimate the KPIs.

[40] TCFD (2017): Implementing the Recommendations of the Task-Force on Climate-related Financial Disclosures, https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf.

[41] World Resources Institute and World Business Council for Sustainable Development (2004): The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), and its supplement The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard, https://ghgprotocol.org/standards.

[42] International Organization for Standardization (2006): Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals; https://www.iso.org/obp/ui/#iso:std:iso:14064:-1:en.

Table 9 – General Key Performance Indicators (Type 1)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**Alignment with Other Reporting Frameworks**	**EU Policy Reference**
GHG Emissions	Scope 1: Direct GHG emissions	Metric tons CO_2e[43]	270.900 tCO_2e	Reporting emissions is best practice and a pre-requisite to understanding and reducing negative climate-related impacts. This KPI ensures companies are accurately measuring their carbon footprints from direct emissions.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 305; CDSB Framework	2030 climate & energy framework; EU emissions trading system (ETS)
	Further guidance: - Companies should disclose 100% of their Scope 1 GHG emissions. This will help to improve the quality of other companies' GHG emissions reporting. If a company cannot collect reliable data for a proportion of its Scope 1 GHG emissions, it should make a reasonable estimate for that proportion in order to arrive at a figure for 100%. In that case, the company should also disclose (1) the % of emissions for which reliable data have been collected and the % of emissions that have been estimated, (2) the reasons why reliable data could not be collected for a proportion of the emissions and (3) the methodology used to estimate the proportion of emissions for which reliable data could not be collected. - Companies should indicate the third-party verification/assurance status that applies to their reported Scope 1 GHG emissions.					
	Scope 2: Electricity indirect GHG emissions	Metric tons CO_2e	632.400 tCO_2e	Reporting emissions is best practice and a pre-requisite to understanding and reducing negative environmental impacts. This KPI ensure companies are measuring emissions from purchased or acquired electricity, steam, heat, and cooling.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 305; CDSB Framework	2030 climate & energy framework
	Further guidance: - If necessary, companies should explain whether there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 2 GHG emissions within their selected reporting boundary for which GHG emissions could not be calculated or estimated. - Companies should indicate the third-party verification/assurance status that applies to their reported Scope 2 GHG emissions.					
	Scope 3: Other indirect GHG emissions	Metric tons CO_2e	4.383.000 tCO_2e	For most companies, the majority of emissions occur indirectly from value chain activities. This KPI helps to gauge the thoroughness of companies' accounting processes and to understand how companies are analysing their emissions footprints.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 305, CDSB Framework	2030 climate & energy framework
	Further guidance: - Companies should not exclude any activity that would compromise the relevance of the reported Scope 3 GHG emissions inventory. The GHG Protocol GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard provides a list of criteria for determining relevance. Companies should explain any excluded categories in their Scope 3 GHG emissions disclosure.					

[43] A carbon dioxide equivalent or CO2 equivalent (CO2e) is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

Table 9 – General Key Performance Indicators (Type 1)

Theme	KPI	Unit of Measure	Example	Rationale	Alignment with Other Reporting Frameworks	EU Policy Reference
GHG Emissions Target	GHG emissions target	**Absolute target**: Metric tons CO_2e achieved or % reduction, from base year Or, **Intensity target**: Metric tons CO_2e per business metric or % reduction of intensity metric, from base year	1.500.000 tCO_2e by 2025 from 2018 base year 350 tCO_2e per EUR 1 million turnover by 2025 from 2018 base year	Target setting provides direction and structure to environmental strategy. This KPI helps to understand companies' commitments to reducing emissions and whether the company has a goal towards which it is harmonizing and focusing emissions-related efforts.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 103-2 and 305; CDSB Framework	2030 climate & energy framework;
	Explanations: An absolute emissions reduction target describes a reduction in actual emissions in a future year when compared to a base year. An intensity target describes a future reduction in emissions that have been normalized to a business metric when compared to the same normalized business metric emissions in a base year. **Further guidance**: - Companies should describe whether their target(s) relate(s) to their Scope 1, Scope 2 and/or Scope 3 GHG emissions either in full or in part. - In the case of an intensity target, companies should disclose the estimated change in absolute emissions for each scope (%) as a result of the intensity target. - Companies should set targets for 2025 or 2030 and review them every five years. They may also consider setting a target for 2050 to align with the Paris agreement. - If applicable, companies should explain why they don't have a GHG emissions target.					

Table 10 – Supplementary Key Performance Indicators (Type 2)

Theme	KPI	Unit of Measure	Example	Rationale	Alignment with Other Reporting Frameworks	EU Policy Reference
Energy	Total energy consumption and / or production (excluding feedstocks) from renewable and non-renewable sources	MWh	292.221 MWh consumed from renewable sources; 1.623.453 MWh consumed from non-renewable sources	Given the importance of energy consumption in emissions accounting, this KPI provides transparency to data users on the consumption and/or production of energy by the company. It provides the opportunity for companies to disclose their total energy consumption and/or production and distinguish renewable and non-renewable forms of energy.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 302; CDSB Framework	2030 climate & energy framework; Energy Efficiency Directive
	Explanations: Fuels consumed as feedstocks are fuels that are not combusted for energy purposes. Renewable sources of energy can be naturally replenished on a human timescale, such as wind, solar, hydro, geothermal, biomass, etc. This definition excludes all fossil fuels (coal, oil, natural gas) and nuclear fuels. Waste energy should not be included if it is derived from fossil fuels.					

Table 10 – Supplementary Key Performance Indicators (Type 2)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**Alignment with Other Reporting Frameworks**	**EU Policy Reference**
GHG emissions accounting	Breakdown of Scope 1 GHG emissions by country or region, including the EU	Metric tons CO_2e	France: 42.260 tCO_2e EU: 54,180 tCO_2e Asia-Pacific: 216.720 tCO2e	By breaking down emissions to country or regional level, information can be made available to policy makers to help guide the development of effective emissions-related legislation. The information also helps data users better understand potential transition risks the company may be facing.	CDP Climate Change Questionnaire, GRI 305	2030 climate & energy framework; EU emissions trading system (ETS)
	Breakdown of Scope 2 GHG emissions by country or region, including the EU	Metric tons CO_2e	France: 98.654 tCO_2e EU: 126,480 tCO_2e Asia-Pacific: 505.920 tCO_2e	By breaking down emissions to country or regional level, information can be made available to policy makers to help guide the development of effective emissions-related legislation. The information also helps data users better understand potential transition risks the company may be facing.	CDP Climate Change Questionnaire, GRI 305	2030 climate & energy framework
GHG emissions-related targets	Energy efficiency target	Percentage	6.5 % increase by 2025 from 2018 base year for product, output or activity.	This KPI helps data users understand the companies' ambition to use energy more productively, which can reduce its energy costs and lower GHG emissions. It provides further background as to how the company aims to achieve its emissions reduction targets.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 103, 302-3 and 302-4	2030 climate & energy framework; Energy Efficiency Directive
	Renewable energy consumption and/or production target.	Percentage	13% increase by 2025 from 2018 base year	By transitioning electricity production and/or consumption to renewable sources, companies can play a crucial role in driving the creation of a thriving market for renewable energy generation. This KPI helps to understand companies' commitments in this regard.	TCFD Metrics and Targets, CDP Climate Change Questionnaire, GRI 103 and 302-1	2030 climate & energy framework; Renewable Energy Directive
Physical climate risks	Assets committed in regions exposed to increased risks of extreme weather events.	Percentage	15% of book value of exposed real assets	Extreme weather events can result in interruptions to or limitations on production capacity or early curtailment of operating facilities. The value of assets in areas exposed to increased weather informs the potential implications for asset valuation.	TCFD Metrics and Targets, SASB: IF0101-06	EU Adaptation Strategy

4.5.2. Sectoral and Company-specific KPIs: Non-financial Companies

In addition to the KPIs described in section *4.5.1. General and Supplementary KPIs,* non-financial companies should disclose sectoral and company-specific climate-related KPIs in line with their strategy and risk management processes. This is not only relevant for companies engaged in economic activities with a high impact on GHG emissions, energy or water usage, or commodity-driven deforestation, but also for those companies whose business models are dependent on access to natural resources threatened by climate change. These companies are more likely to be impacted financially than others due to their exposure to certain transition and physical risks associated with their value chains, operations, and products.

Companies from sectors including but not limited to energy, transportation, materials, real estate, and agriculture should refer to the TCFD's supplemental guidance for non-financial groups and other climate-related reporting frameworks[44] to ensure comparability of reported KPIs across sectors and companies. They *should* disclose broadly recognized, industry-specific KPIs regarding the following:

1) **GHG emissions efficiency ratios**,
2) **Other climate-related issues** relevant to their business or sector, and
3) **Other climate-related targets**, such as those related to water and energy usage, sustainable production and/or consumption of forest risk commodities, revenues from low-carbon products etc., in line with anticipated regulatory requirements, market constraints, or other goals.

In describing their targets, companies should include whether the target is absolute or intensity based, the time frame and scope over which the target applies, and the base year from which progress is measured. Companies may consider disclosing KPIs used to assess progress against targets. In addition, where not apparent, companies should provide a description of the methodologies used to calculate or estimate the KPIs.

Products and services

Attracting private capital to the activities with the greatest impact on climate mitigation and/or adaptation is a key objective of the EU to ensure a smooth transition to a low-carbon and climate-resilient economy. Many companies already contribute to climate change mitigation or adaptation through their products and services. These companies should consider disclosing quantitative

[44] Other climate and sustainability related reporting standards and frameworks providing industry-specific KPIs on climate-related issues include the CDP Climate Change, Water Security and Forests Questionnaires, the GRI 305: Emissions 2016 and GRI 302: Energy 2016 standards or the SASB industry standards.

information (e.g. turnover) pertaining to their products or services that support the transition to a low-carbon and climate-resilient economy.

Once the proposed EU Taxonomy on environmentally sustainable economic activities[45] is fully established and further disclosure guidance has been developed, companies should disclose the KPIs shown in the Table 11 according to the Taxonomy where relevant and applicable. These KPIs provide useful information to investors who are interested in companies whose products and services contribute substantially to mitigation of or adaptation to climate change whilst not significantly harming any other of the EU's environmental objectives (i.e. sustainable use and protection of water and marine resources; transition to a circular economy, waste prevention and recycling; pollution prevention and control; protection of healthy ecosystems).

Table 11 – Products and Services Key Performance Indicators		
General Key Performance Indicators (Type 1)		
KPI	**Unit of Measure**	**Example**
Percent turnover in the reporting year from products or services associated with Taxonomy activities.	Percentage	12.5% from product X in the reporting year
And / Or,		
Percent investment (CapEx) and/or expenditures (OpEx) in the reporting year for assets or processes that support products or services associated with Taxonomy activities.	Percentage	8% (CapEx) in product X in the reporting year

In the future, the taxonomy will be extended to cover economic activities that substantially contribute to the other four environmental objectives.

[45] European Commission (2018): Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the establishment of a framework to facilitate sustainable investment.

Green financing

A growing number of companies have become active in the market for green bonds or green debt to raise capital for new and existing projects with climate benefits. These companies *should consider* disclosing their green bond or green debt ratios (see Table 12). The green bond ratio is an example of a metric that helps companies communicate how their low-carbon transition plan is supported by debt financing activities. A related metric – the green debt ratio – is defined more broadly and includes not only listed and unlisted bonds, but also other debt instruments such as loans as they become more widely available. Companies are also encouraged to use the same impact reporting metrics in their green financing as in their overall impact reporting when relevant.

Providing historical information on and future projections of these KPIs may further support companies' disclosures of their low-carbon transition plans.

Table 12 – Green Financing Key Performance Indicators		
Supplementary Key Performance Indicators (Type 2)		
KPI	**Units of Measure**	**Alignment with other standards**
Green Bond Ratio: Total amount of green bonds outstanding divided by the total amount of bonds outstanding at the end of the reporting period. **Or,** **Green Debt Ratio:** Total amount of green bonds and/or other green debt instruments outstanding divided by total amount of debt outstanding.	%	EU Taxonomy ISO/CD 14030-1 Green bonds -- Environmental performance of nominated projects and assets (DRAFT)
The total amount of green bonds or green debt should only include bonds and debt instruments issued according to the ***EU Green Bond Standard***, or any other broadly recognized green bond framework. Companies should specify the green bond framework applied.		
For bond issuers that have issued bonds that are not listed instruments (e.g., as private placements), the breakdown of listed and unlisted should be disclosed. The amount of total debt should include all bonds (e.g., plain vanilla bonds). Future targets and forward-looking data may also be provided. The green debt ratio shall include any other debt instrument, listed or unlisted.		

Other disclosures

In addition to the disclosures listed above, companies *may consider* disclosing additional KPIs that fit their business model and efforts related to climate change mitigation / adaptation and are also aligned with key EU policies such as the Circular Economy Package, the Renewable Energy Directive, the Energy Efficiency Directive, the EU Emission Trading Scheme or the Clean

Transport Package.[46] Examples of these could be revenues from product or services applying to the circular economy model, R&D expenditures in circular economy production, internal carbon prices applied to business planning, financial savings from reduced energy consumption, avoided emissions from off-setting schemes, or references to science-based emissions reduction targets.

5. SECTOR SPECIFIC GUIDANCE: BANKS AND INSURANCE UNDERTAKINGS

This section provides additional guidance for banks and insurance undertakings (financial institutions or institutions) on the NFRD elements for business model, policies and due diligence processes, outcomes, and principal risks and their management.

5.1. Business Model

In their business model description, financial institutions should include a breakdown of the different business activities and geographic zones in which they operate and include relevant information on climate-related risks and opportunities. As business models, and metrics, change over time, financial institutions should aim for consistency in terms of categories of information disclosed and include historical reference.

In addition, financial institutions *should consider* disclosing the following:

- How the business model is exposed to climate-related risks, including transitional, physical and where relevant reputational risks, and how the institution can benefit from climate-related opportunities.
- Internal business processes or operations in which climate-related information is part of the decision process – linked with policies and due diligence section of the report.
- Investment, lending and insurance underwriting portfolios that target climate-related issues and whether the institution gives preference to counterparties with climate resilient strategies.

5.2. Policies and Due Diligence

Governance and board oversight

Financial institutions *should consider* describing the board's oversight and management's role in assessing and managing climate-related risks, opportunities, and impacts (referring mainly to indirect climate impacts of the financial product and services provided). In particular, financial institutions should describe the risk governance structure for the climate-related risks, including responsibilities throughout the financial institution, the breakdown of responsibilities between the

[46] For more details, see https://ec.europa.eu/clima/policies/strategies/2050_en.

management body, the business lines and the risk management function, and the organisational and internal control procedures.

Climate policies with public commitments and due diligence processes

Financial institutions *should consider* disclosing a concise risk statement, for example as part of general risk reporting or separately, approved by the management body. The risk statement should describe the risk appetite and how climate-related risks and opportunities associated with the business model determine and interact with the overall risk profile of the financial institution and with the regulatory capital requirement. For instance, banks could describe how the climate-related risks interact with the bank's risk tolerance approved by the management body.

Financial institutions *should consider* disclosing climate-related incentives in risk and commercial teams.

Financial institutions *should* disclose their policies and targets on climate-related risks and investment opportunities in order to facilitate the transition to a low-carbon and climate-resilient economy. They may describe their lending, investment, and insurance underwriting policies and targets to promote and incentivise direct green investments, and how they intend to help their counterparties in their transition. They should also describe how they try to increase the awareness of their counterparties of the relevance of the topic as part of their lending, investment, and insurance underwriting procedures.

Further, institutions *should* describe how climate change is addressed in due diligence processes to ensure execution of the policies in line with business strategy and goals. In particular, financial institutions *may consider* describing:

- How they integrate the assessment of climate-related risks and opportunities of their prospective investment opportunities (including lending opportunities) and insurance underwriting opportunities in their decision-making procedures and policies (including lending and underwriting policies and procedures).
- How they embed sustainable finance considerations in suitability assessments in order to understand customers' preferences and awareness regarding climate-related risks and opportunities.

In addition, financial institutions engaged in insurance and reinsurance underwriting *should* disclose:

- A description of how the potential impacts from climate change influence policyholder, ceding company, reinsurer,; and
- A description of whether specific climate-related products or competencies are under development, such as insurance of green infrastructure, specialty climate-related risk advisory services, liability climate-related policy and climate-related client engagement.

5.3. Outcomes

Institutions *should* provide qualitative information on the level of implementation of their investment, lending, and insurance underwriting policies regarding climate-related risks and opportunities and quantitative information on the compliance with the associated targets – see also section *3.3 Outcomes*.

5.4. Principal Risks and Their Management

Financial institutions *should* describe how their processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management function and framework.

Lending and investment activities

Financial institutions engaged in lending activities *should* report their incorporation of ESG factors, with a focus on climate, and whether those factors influence the financial risk position or create an impact on credit analysis. Increasing transparency of a financial institution's approach to and integration of ESG factors in credit analysis will help stakeholders evaluate the institution's performance and results.

Financial institutions should define and explain financial materiality thresholds for climate related risks. They should also calculate or explain their definition of "(highly) exposed to risk" in relation to climate risks. If institutions are highly exposed to climate risks, then the following disclosures should be made if appropriate:

Financial institutions *should* disclose the classification of climate-related risks to which the institution is or may be exposed, including a classification of carbon-related assets and investments, and describe the tolerance limits, approved by the management body, to climate-related risks. The classification could include the type of climate-related risks (transitional or physical) and the type of business activity, expressed in terms of the (lending) portfolio**.** They may also disclose mitigating actions, such as, hedging strategies and policies put in place to reduce climate-related risks. Finally, financial institutions *should* disclose the current and potential impact of climate-related risks on their credit and market risk exposures. They also *should consider* disclosing any climate-related operational risk losses, including those linked to reputational risk where relevant and feasible.

In additional, financial institutions *may consider* disclosing:

- Changes in loan estimates under different climate-related scenarios, including:
    - The potential impact of transition risk on their credit risk exposures, including the creditworthiness of their counterparties and the value of collateral, considering also the mitigating measures arranged by the financial institution.

    - The potential impact of physical risk on their credit risk exposures, including the creditworthiness of their counterparties and the value of collateral, considering also the mitigating measures arranged by the financial institution.
    - Amount of collateral supporting the financial institution's lending by energy classification, according to the energy performance certificate. Based on this, financial institutions *may consider* disclosing:
        - Amount of collateral highly exposed to climate-related risks, according to the classification disclosed by the financial institution, compared to the total amount of collateral, and the impact of the scenarios on their value.
        - Amount of green collateral compared, according to the classification disclosed by the financial institution, to the total amount of collateral and the impact of the scenarios on their value.
- Impact on the value of the trading book exposures under different climate-related scenarios, where financial institutions should assess:
    - The impact of transition risk on their trading portfolio
    - The impact of physical risk on their trading portfolio

Insurance underwriting

Emerging climate-related risks pose threats, in particular, for financial institutions engaged in insurance underwriting, as they act simultaneously as investors and underwriters. However, they also present business opportunities as demand for weather hedging is growing. Increasing transparency of a financial institution's approach to and integration of ESG factors in underwriting analysis will help stakeholders evaluate the institution's performance and results.

Financial institutions *should* disclose the classification of climate-related risks to which they are or may be exposed, including a classification of carbon-related liabilities and investments, and describe the tolerance limits, approved by the management body, to climate-related risks. The classification could include the type of climate risks (transitional or physical) and the type of business activity, expressed in terms of the written premium for the liabilities and share of the investment portfolio for the investments. They should also disclose mitigating actions, such as reinsurance treaties or insurance-linked securities or hedging strategies put in place by the institution to reduce climate-related risks. Finally, financial institutions *should* disclose the current and potential impact of climate-related risks on their underwriting and counterparty and market risk exposures.

Financial institutions, especially insurance undertakings, *should* disclose how climate-related risks are addressed in their risk management and in the actuarial function and the processes in place to establish, implement, and maintain appropriate mechanisms and activities regarding current and future impacts of new and emerging climate-related risks.

Insurance undertakings and other financial institutions *may consider* disclosing:

- Changes in technical provisions (as in Directive 2009/138/EC) under different climate-related scenarios, including the potential impact of transition and climate-related risks on future claims.
- Impact on the value of the investment portfolio under different scenarios, including the impact of transition and physical risks.
- The potential impact of their counterparty, including reinsurance counterparty, and the effect of changes in mitigation techniques.
- Climate-related concentration risk across their balance-sheet (both asset and liability side).
- How climate-related risks could affect their present and future regulatory capital requirements and, for instance how they are integrated in their Own Risk and Solvency Assessments (ORSAs), under Pillar 2 of Directive 2009/138/EC ("Solvency II").
- Aggregated risk exposure to weather-related catastrophes of their property business (i.e., annual aggregated expected losses from weather-related catastrophes) by relevant jurisdiction.
- The use of stress testing and climate-related scenario planning related to a long-term risk associated with high uncertainty regarding the timing, scope, and severity of potential climate impacts. They *may consider* disclosing a description of the climate-related scenarios used, including the critical input parameters, assumptions and considerations, and analytical choices. In addition to a 2°C scenario, insurance undertakings with substantial exposure to weather related perils should consider using a greater than 2°C scenario to account for physical effects of climate change.
- Opportunities related to climate change as weather hedging while technological advances bring better risk modelling techniques and improved data quality to assess the underlying risk.

Table 13 – Examples of Climate Risks across Insurance Operations and Activities[47]
• Underwriting Risk: Losses due to high impact natural catastrophes around the world, leading to increasing weather-related insurance claims. • Market Risk: Financial institutions' capacity to write insurance business may be constrained by increasing physical risks to assets. • Strategic Risk: Losses resulting from an inappropriate strategy relating to climate objectives, risks associated with poor management of future plans, or failure to respond to changing industry landscape. • Investment Risk: Financial institutions' capacity to pay future claims may be significantly affected if climate-related risks significantly disrupt capital markets. • Operational Risk: Physical climate impacts may affect insurer's own assets. • Reputational Risk: In recent years, insurance underwriting or investment in sectors perceived as contributing to climate change has emerged as a civil society issue.

[47] International Association of Insurance Supervisors 2018

Asset Management Activities

Climate change creates risks and opportunities to investment portfolios in different areas from physical or technological risks to social risks. The impact of these factors depends on the trajectory of the pathway toward a low-carbon world and the risk management procedures in place.

Financial institutions *should consider* disclosing:

- How climate-related risks and opportunities have been factored into the portfolio-level investment strategy, for example per asset class, or policy– either per mandate and portfolio or aggregated, whichever is the most relevant.
- The approach used to assess the resilience and alignment of the investment strategy taking into consideration different climate-related scenarios such as the Paris Agreement.
- Climate-related KPIs such as carbon footprint or carbon intensities of their portfolios and their evolution.
- Description of overall climate change strategy and internal governance in place.
- Stewardship activities related to their climate strategy such as engagements with companies, outcomes, and proxy voting (e.g. resolutions filed or supported).
- Investments in environmentally sustainable activities, wherever possible, following the EU taxonomy.

Financial institutions *may consider* the process in place to integrate climate-related issues into monitoring and ensure their climate-related performance is aligned with the climate strategy of the asset owner.

5.5. Sectoral and Company-specific KPIs: Banks and Insurance Undertakings

By providing funding for climate change mitigation and adaptation activities, the financial sector has a vital role to play in the transition to a low-carbon and climate-resilient economy. Banks and insurance undertakings are exposed to climate-related risks and impact through their financial intermediary activities, including lending, investing, insurance underwriting, and asset management. In terms of opportunities, they may well benefit from the development of new financial products and services that support the transition to a low-carbon and climate-resilient economy.

In addition to the KPIs described in section *4.5.1. General and Supplementary KPIs,* banks and insurance undertakings should disclose sectoral and company-specific climate-related KPIs in line with their strategy and risk management processes.

Financial institutions may also exacerbate climate-related risks if their investments and insurance underwriting policies support economic activities with a high impact on GHG emissions, energy or water usage, and deforestation. Conversely, they can promote the transition to a green economy and increase awareness of the transition by integrating an evaluation of the potential impact on climate change of their prospective investments, loans, and insurance contracts into their policies and procedures.

Financial institution should refer to the TCFD's supplemental guidance on metrics and targets for the financial sector and other relevant climate-related reporting frameworks. Using climate-related metrics and targets may improve transparency and trust in banks and insurance undertakings' risk management practices, and disclosing positive climate-related information could affect their market valuation and unlock opportunities.

General Key Performance Indicators Approach for Banks and Insurance Undertakings

In disclosing KPIs related to GHG emissions, banks and insurance undertakings should focus on Scope 3 GHG emissions, despite the well-known challenges associated with it. Scope 1 and Scope 2 GHG emissions (direct emissions and indirect emissions from the generation of purchased energy) are likely to be small when compared to other indirect emissions (Scope 3).

Figure 3 – General Key Performance Approach for Financial Sector

Carbon Exposure

a) Scope 1 and Scope 2 GHG Emissions (see General KPIs)
b) Scope 3 GHG Emissions Guidelines

Scope of Activities

- **Lending***
- **Financing for projects**
- **Mortgages and Consumer loans**
- **Insurance underwriting***
- **Asset management***

Approaches for Carbon Exposure Measurement

	GHG Accounting	Sector specific Energy or Carbon Metrics	Low impact/High impact activities (Recommended)
Fundamental	GHG Accounting Approaches Cross-sector portfolio-level assessment of investees' exposure to GHG emissions such as financed emissions – absolute emissions (Scope 1+2)	Sector-specific physical unit metrics expressed in absolute units (e.g., C02., kWh generated) or intensity units/output (e.g. CO2/car, kWh/ ft2)	Investments in the banking and trading book by industry of counterparty Taxonomies distinguishing between activities and technologies that are climate solutions ("green") and carbon intensive activities, and activities highly exposed to climate physical risks. (e.g. Volume of exposures highly exposed to transition risk compared to total exposures
Advanced	*Report accounting Scope 1+2+3 emissions of the corporate counterparties*	*Report using carbon footprints of outputs in an specific sector*	*Report using low carbon benchmarks and positive carbon benchmarks*

Includes Scope 3 GHG emissions associated with the reporting company's investments in the reporting year, not already included in Scope 1 or Scope 2. This category is applicable to investors (i.e., companies that make an investment with the objective of making a profit) and companies that provide financial services.
* For these activities please also see the KPIs for financial intermediary activities

Banks and insurance undertakings should disclose GHG emissions in accordance with the GHG Protocol including Category 15 Investments and/or, if deemed more relevant, in accordance with ISO 14064-1:2006, as mentioned in section *4.5.1. General and Supplementary KPIs*. Banks and insurance undertakings should disclose the frameworks used, and the choice of frameworks should be guided by robust reporting principles such as completeness and comparability as well as stakeholder expectations.

Banks and insurance undertakings should also report Scope 1 and Scope 2 GHG emissions, and on a best efforts basis the full Scope 3 emissions, from their corporate counterparties, for all their lending and investment portfolios and other financial intermediary activities. To some extent, reporting the full Scope 3 for counterparties (and not only counterparties' Scope 1 and 2), goes somewhat beyond the Category 15 in the GHG Protocol but could be encompassed based in financial materiality and impact, with reference to impact of a company in the NFRD. While acknowledging the lack of available robust methodologies with market consensus, innovations and reporting in this field are encouraged.

Financial Intermediary Activities

Consistent with the approach used by the TCFD in developing supplemental guidance for the financial sector, the KPIs for banks and insurance undertakings described below are organized around the core financial intermediation activities of these companies. The core financial intermediation activities are lending, investing, insurance underwriting, and asset management.

Banks and insurance undertakings *should* disclose the KPIs in the TCFD. An additional set of optional KPIs that further specify the TCFD recommendations have been proposed for inspiration and further development. Therefore, banks and insurance undertakings *should consider* disclosing KPIs in Table 15 and *may consider* disclosing the KPIs in Table 16 if they engage in lending activities. If they engage in insurance underwriting activities, banks and insurance undertakings *should* consider disclosing the KPIs in Table 17 and *may consider* disclosing the KPIs in Table 18. In addition, if they engage in asset management, banks and insurance undertakings *should* consider disclosing the KPIs in Table 19. This information is also summarized in the table below (Table 14).

Table 14 – Financial Intermediary Activities

	KPIs	
	(should consider disclosing – Type 2)	*(may consider disclosing – Type 3)*
Lending and Investment Activities	Table 15	Table 16
Insurance Underwriting	Table 17	Table 18
Asset Management	Table 19	N/A

Table 15 – Lending and Investment Activities: Key Performance Indicators (Type 2)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
Exposure to climate-change risk and opportunities	Does internal stress testing (assessment of current exposures) also consider climate-related risks and opportunities? (Physical risk, impact on the banking book and on the trading book)	Y/N	Yes, stress testing includes physical risks and impacts on both the banking book and the trading book	Demonstrate maturity of risk management practices with respect to climate change	The proposed KPIs are to some extent and for some elements originating from the TCFD Recommendations and the SASB and GRI Standards but are not intended as 1:1 references. Instead more innovation and standardisation are needed in this field. The purpose with the proposed KPIs is to stimulate further development and alignment.	EU Low Carbon Economy Roadmap
	Does scenario analysis (assessment of future exposures) also consider climate-related risks and opportunities? (Transition risk, impact on the banking book and on the trading book)	Y/N	Yes, scenario analysis includes climate-related risks and opportunities and transition risk impact on both the banking book and the trading book	Demonstrate maturity of strategic planning with respect to climate change		
	Volume of exposures in the banking and trading book by sector of counterparty.	Reporting currency % of the total risk exposure	1.250 MEUR accounting for 17% of total investments	Show the concentration of exposures towards high-carbon and low-carbon sectors		
	Credit risk exposures and volumes of collateral by geography/country of location of the activity or collateral, with an indication of those countries/geographies highly exposed to physical risk	Reporting currency	750 MEUR	Show the concentration of exposures and collateral in countries and geographies highly exposed to physical risks.		
	Volume of exposures highly exposed to transition risk compared to total exposures	% of the total risk exposure	43% of lending portfolio and 39% of assets under management	Show the level of exposure of the bank towards transition risk		
	Volume of exposures highly exposed to physical risk compared to total exposures.	% of the total risk exposure	26% of lending portfolio and 14% of assets under management	Show the level of exposure of the bank towards transition risk		
	Volume of exposures in the banking and in the trading book funding sustainable economic activities contributing substantially to climate mitigation and/or adaptation (absolute figures and compared to total exposures)	Reporting currency % of the total risk exposure	650 MEUR accounting for 12% of lending portfolio	Show the concentrations of green investments and their resilience to climate change		

Table 15 – Lending and Investment Activities: Key Performance Indicators (Type 2)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
	Total amount of the portfolio invested in green bond certified according to EU GBS[48] (at year-end) divided by (a 5-year rolling average of) total amount of holdings in fixed income portfolios.	Percentage and total amount in - Reporting currency	Green bonds compared to vanilla bonds underwritten or emitted	This metric demonstrates commitment to green finance and the investor's strategy and transition path towards alignment with a well below 2°C scenario. It allows green bond issuers to convey a positive message and narrative about the company's debt investment strategy. It helps demonstrate track-record and forward-looking data can underpin the investor's transition strategy with a robust key-performance metric. The proposed draft version of ISO 14030 (October 2018) on green bonds already requires reporting on this metric.	This metric could provide a robust key-performance metric for the future EU eco-label on green financial products.[49]	
	The amounts per industry, and/or sector of counterparty, as defined in financial filings. Specify definitions used. Report high-level sector exposure based on the Statistical classification of economic activities in the European Community (NACE) – one-digit codes. In particular, report exposure to high-carbon intensive sectors - A, B, C, D, E, F, H. The entity should disclose its exposure to at least the 10 largest industries by monetary amount of exposure, or to industries representing at least 2 percent of the overall portfolio monetary exposure.					

[48] European Green Bond Standard, currently being developed by the European Technical Expert Group (TEG)

[49] European eco-label currently being developed by the European Commission with support from the EC's Joint Research Centre (JRC)

Table 16 – Lending and Investment Activities: Key Performance Indicators (Type 3)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
Exposure to climate-change risk and opportunities	Volumes of real estate collaterals highly exposed to transition risk compared to total volumes of collaterals,	% of the total volume of collaterals.	32% of total collaterals.	Show the exposure of bank's collaterals towards transition risk.	EU Taxonomy	There are high level broad linkages to the 2030 climate & energy framework
Exposure to climate-change risk and opportunities	Volumes of real estate collaterals highly exposed to Physical risk, compared to total volumes of collaterals.	% of the total volume of collaterals.	18% of collaterals.	Show the exposure of bank's collaterals towards physical risk.	EU Taxonomy	There are high level broad linkages to the 2030 climate & energy framework
Exposure to climate-change risk and opportunities	Volumes of "green" collaterals, compared to total volumes of collaterals.	% of the total volume of collaterals.	12% of collaterals.	Show the volume of green collaterals, e.g. with lower carbon exposure	EU Taxonomy	There are high level broad linkages to the 2030 climate & energy framework
Exposure to climate-change risk and opportunities	Targets associated with climate-related exposure financing and lending opportunities.	Reporting currency	Target in terms of exposures by 2025 toward climate change mitigating sectors, funding of energy efficiency and low carbon technology or the low carbon EU green taxonomy. Metric: Degree of compliance with the targets at each reporting date.	Demonstrate ability to capture opportunities deriving from the transition to a low-carbon and climate-resilient economy, as a growing segment of the economy.	EU Taxonomy	There are high level broad linkages to the 2030 climate & energy framework

Table 17 – Insurance Underwriting: Key Performance Indicators (Type 2)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
Exposure to climate-change risk and opportunities - Underwriting	Breakdown of corporate underwriting exposure by lines of business to economic sub-sectors* (non-life property / general liability /transport insurance / credit insurance / non-proportional reinsurance /)	Reporting currency	Amount and % of net premiums written and of technical provisions as in Directive 2009/138/EC deriving from each of the main sub-sectors that make up the insurance undertaking current clientele	Demonstrate awareness of current economic exposure and concentration (if any) in industries that are impacted by climate change in varying degrees	EU Taxonomy SASB Directive 2009/138/EC (Solvency II)	2030 climate & energy framework
	Changes of technical provisions by lines of business in case of materialisation of high physical risks	Reporting currency	Amount and % of technical provisions that would change in the event of a natural catastrophe	Demonstrate the capacity of the insurance undertaking to absorb physical risk	Directive 2009/138/EC (Solvency II)	EU Adaptation Strategy
	Targets associated with climate-related exposure of underwriting activity (non-life / reinsurance)	Reporting currency	Planned exposure to climate change mitigation sectors by 2025 in terms of net premiums written related to energy efficiency and low carbon technology	Demonstrate ability to capture opportunities deriving from the transition to a low-carbon and climate-resilient economy, as a growing segment of the economy.	EU Taxonomy SASB	2030 climate & energy framework
	% of products incorporating climate-related risks into the underwriting process for individual contracts (Non-life / reinsurance)	0-100%	Products could be related to a specific type of risk or to a segment of the clientele with particular exposure to climate risks	Demonstrate product portfolio resilience to climate change	SASB	2030 climate & energy framework
	Does internal stress testing (assessment of current exposures) also consider climate-related risks and opportunities? (Life / non-life / reinsurance)	Y/N	The company tests its resilience in the face of extreme weather events affecting its underwriting portfolio, and says that this is its practice in its disclosures	Demonstrate maturity of risk management practices with respect to climate change	EIOPA Solvency II	2030 climate & energy framework
	Does scenario analysis (assessment of future exposures) also consider climate-related risks and opportunities? (Life / non-life / reinsurance)	Y/N	The company runs a scenario analysis based on the IEA SDS scenario to understand how its underwriting exposure to business sectors will change in 20 years' time, and says that this is its practice in its disclosures	Demonstrate maturity of strategic planning with respect to climate change	EIOPA	2030 climate & energy framework
	Report high-level sector exposure based on the Statistical classification of economic activities in the European Community (NACE) – one-digit codes. In particular, report exposure to high-carbon intensive sectors - A, B, C, D, E, F, H. The entity should disclose its exposure to at least the 10 largest industries by monetary amount of exposure, or to industries representing at least 2 percent of the overall monetary exposure.					

Table 18 – Insurance Underwriting: Key Performance Indicators (Type 3)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
	Number and value of climate-related underwriting products offered (Non-life / reinsurance)	Reporting currency Number	The company has developed a specific offering for geographic areas particularly exposed to extreme weather events, and discloses quantitative information around the uptake of the product	Demonstrate ability to capture opportunities deriving from climate change mitigation and adaptation	N/A	2030 climate & energy framework EU Adaptation Strategy
	Calculated Probable Maximum Loss (PML) of insured products from weather-related natural catastrophes caused by climate change (Life / non-life / reinsurance)	Reporting currency	A company discloses its Net Probable Maximum Loss1 by peril and region Based on Occurrence Exceedance Probability (OEP) in billion EUR. Perils include hurricanes, floods, wildfires and droughts	Demonstrate risk management maturity and business resilience to adverse conditions	SASB, AODP ASTM	2030 climate & energy framework EU Adaptation Strategy
	Total amount of monetary losses attributable to insurance payouts from (1) modelled natural catastrophes and (2) non-modelled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance)	Reporting currency	A company discloses the key results of its cat modelling	Demonstrate risk management maturity and business resilience to adverse conditions	SASB, GRI 201-2	2030 climate & energy framework
	% of life products incorporating climate-considerations in the modelling of biometric risks (Life)	0-100%	The company is calculating how climate change is changing biometric risks in areas particularly affected by climate change, and is incorporating these considerations in a range of products	Demonstrate product portfolio resilience to climate change	-	2030 climate & energy framework EU Adaptation Strategy

Table 19 –Investment Management (as owners or managers of assets): Key Performance Indicators (Type 2)						
Theme	**KPI**	**Unit of Measure**	**Example**	**Rationale**	**External Framework**	**EU Policy reference**
Exposure to climate-change risk and opportunities - Asset Management	Breakdown of assets under management by business sectors across asset classes (equity / bonds / infrastructure / real estate / structured products / MBS /derivatives)	Reporting currency	A bank reports at an aggregate level how its equity portfolio is broken down by industry using the GICS sectors.	Demonstrate awareness of current economic exposure and concentration (if any) in industries that are impacted by climate change in varying degrees	EU Taxonomy EIOPA SASB FN-IN-410a. GRI 201 -2	2030 climate & energy framework
	Report high-level sector exposure based on the Statistical classification of economic activities in the European Community (NACE) – one-digit codes. In particular, report exposure to high-carbon intensive sectors - A, B, C, D, E, F, H. The reporting company should disclose its exposure to at least the 10 largest industries by monetary amount of exposure, or to industries representing at least 2 percent of the overall portfolio monetary exposure.					
Exposure to climate-change risk and opportunities - Asset Management	Targets associated with climate-related exposure of assets under management across asset classes (equity / bonds / infrastructure / real estate / structured products / MBS /derivatives)	Reporting currency	A bank sets how it aims to rebalance the sector exposure of its equity portfolio in 10 years' time.	Demonstrate ability to capture opportunities deriving from the transition to a low-carbon and climate-resilient economy, as a growing segment of the economy	EU Taxonomy SASB	2030 climate & energy framework
	Weighted average carbon intensity, where data are available or can be reasonably estimated, for each product or investment strategy.	tCO_2e/ million revenues in reporting currency	A bank reports the carbon intensity of its equity portfolio in terms of tCO_2e per EUR MM using third-party carbon data.	Show awareness of the exposure of investment portfolio to sectors affected to varying degrees by climate-related risks and opportunities	TCFD Annex, p. 43	2030 climate & energy framework
	In addition to the weighted average carbon intensity, reporting companies may provide other metrics they believe are useful for decision making along with a description of the methodology used. This can include carbon footprinting normalized by invested value (see TCFD annex p. 43).					
	Total amount of the fixed income portfolio invested in green bond certified according to EU GBS[50] or any other broadly recognized green bond framework (at year-end) divided by (a 5-year rolling average of) total amount of holdings in fixed income portfolios	Percentage and total amount in reporting currency	An insurance undertaking reports that it is invested in green bonds worth €200 MM, which represents 5.2% of its fixed income portfolio.	This metric demonstrates commitment to green finance and the reporting company investment strategy and transition path towards alignment with a well below 2°C scenario.	The proposed draft version of ISO 14030 (October 2018) on green bonds already requires reporting on this metric	2030 climate & Energy framework EU adaptation strategy

[50] European Green Bond Standard, currently being developed by the European Technical Expert Group (TEG)

Table 19 –Investment Management (as owners or managers of assets): Key Performance Indicators (Type 2)	
	Report high-level sector exposure based on the Statistical classification of economic activities in the European Community (NACE) – one-digit codes. In particular, report exposure to high-carbon intensive sectors - A, B, C, D, E, F, H. The entity should disclose its exposure to at least the 10 largest industries by monetary amount of exposure, or to industries representing at least 2 percent of the overall portfolio monetary exposure.

List of Technical Expert Group Members

The people and organisations marked in **bold** are members of the TEG's subgroup on climate-related disclosures.

Name	Organization
Members selected further to the call for applications	
AIG Europe	Dawn SLEVIN
Allianz Global Investors	Steffen HOERTER
Bloomberg	**Curtis RAVENEL**
BNP Paribas asset management	Helena VIÑES FIESTAS
Borsa Italiana	**Sara LOVISOLO**
Carbone 4	Jean-Yves WILMOTTE
Cassa Depositi e Prestiti S.p.A.	Pierfrancesco LATINI
CDP (Carbon Disclosure Project)	**Nico FETTES**
Climate Bond Initiative	Sean KIDNEY
Climate KIC	Sandrine DIXSON-DECLEVE
EACB	Tanguy CLAQUIN
EFFAS	**José Luis BLASCO (rapporteur of TEG subgroup on climate-related disclosures)**
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Directly invited members	
European Banking Authority	**Pilar Gutiérrez**, Piers Haben, Mira Lamriben, Slavka Eley
European Central Bank	Sofia Melo, Fabio Tamburrini
European Insurance and Occupational Pensions Authority	Camille Graciani, Lázaro Cuesta Barberá
European Investment Bank	Eila Kreivi, Aldo Romani, Nancy Saich, Peter Anderson, Dominika Rosolowska, Jean-Luc Filippini
European Securities Market Authority	**Alessandro D'Eri**, Roxana Damianov Michele Mazzoni, Eduardo-Javier Moral-Prieto, Chantal Sourlas
European Environmental Agency	Andreas Barkman, Stefan Speck
Directly invited observers	
European Bank for Reconstruction and Development	**Carel Cronenberg**
Organisation for Economic Cooperation and Development	Simon Buckle
Network for Greening the Financial System/Banque de France	Emmanuel Buttin
United Nations Environmental Programme Finance Initiative	Elodie Feller

* Member is appointed in a personal capacity.

** Member is appointed as a representative of a common interest shared by stakeholders.

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List of Abbreviations

EBRD	European Bank for Reconstruction and Development
EC	European Commission
ETS	Emissions Trading System
EU	European Union
HLEG	High-level Expert Group on Sustainable Finance
IPCC	Intergovernmental Panel on Climate Change
JRC	Joint Research Centre
KPI	Key Performance Indicator
NBGs	Non-Binding Guidelines
NFRD	Non-Financial Reporting Directive
PIE	Public Interest Entities
SDGs	Sustainable Development Goals
TCFD	Task Force on Climate-related Financial Disclosure
TEG	Technical Expert Group on Sustainable Finance