[Draft] European Sustainability Reporting Standard E1
Climate change

DISCLAIMER

This working paper is an Appendix to and must be read in conjunction with the related document '*PTF-ESRS Batch 1 working papers – Cover note and next steps*', which establishes the general context, the status of this working paper and the subsequent due process steps to be followed.

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[Draft] European Sustainability Reporting Standard E1 Climate change

Objective

1 The objective of this [draft] standard is to specify Disclosure Requirements which will enable users of the sustainability reporting to understand:

(a) the impact of the undertaking on climate change and its past, current, and future mitigation efforts in line with the Paris Agreement and limiting global warming to 1.5°C;

(b) the plans and capacity of the undertaking to adapt its business model(s) and operations in line with the transition to a sustainable economy and to contribute to limiting global warming to 1.5°C;

(c) the nature, type and extent of the climate-related risks and opportunities to which the undertaking is exposed; and

(d) the effects of climate-related risks and opportunities on the undertaking's existing assets and liabilities and ability to generate future cash-flows and therefore to create enterprise value in the short, medium and long term.

2 This standard derives from the (draft) CSRD stating that the sustainability reporting standards shall specify information to disclose about climate change mitigation and climate change adaptation.

3 This standard covers Disclosure Requirements developed primarily from the perspective and for the reporting purpose of non-financial undertakings[1]. However financial undertakings shall apply this standard in relation to their own operations and value chain, it being understood that they are in addition subject to specific regulatory and other sector-specific Disclosure Requirements as their main impacts, risks and opportunities are indirect via their portfolio of financial products and services.

4 This standard covers Disclosure Requirements related to "Climate change mitigation" and "Climate change adaptation" and covers "Energy" matters.

5 "Climate change mitigation" relates to the undertaking's endeavours to the general process of holding the increase in the global average temperature to well below 2 °C and pursuing efforts to limit it to 1,5 °C above pre-industrial levels, as laid down in the Paris Agreement. This standard covers Disclosure Requirements related to the seven Greenhouse Gases (GHG) carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). It also covers Disclosure Requirements on how the undertaking addresses its GHG emissions as well as the transition risks associated with them. Other impacts on climate change (e.g., from land use changes, black carbon, tropospheric ozone etc.), are not yet explicitly addressed by this standard.

6 "Climate change adaptation" relates to the undertaking's process of adjustment to actual and expected climate change. This standard covers Disclosure Requirements regarding climate-related hazards that can lead to physical climate risks for the undertaking and adaptation solutions that can reduce these risks. It also covers transition risks arising from the adaptation needs to climate-related hazards.

7 "Energy" covers all types of energy production and consumption.

[1] A non-financial undertaking means an undertaking that is subject to the disclosure obligations laid down in Articles 19a and 29a of Directive 2013/34/EU and is not a financial undertaking, i.e. an asset manager, a credit institution as defined in Article 4(1), point (1), of Regulation (EU) No 575/2013 of the European Parliament and of the Council22, an investment firm as defined in Article 4(1), point (2), of Regulation (EU) No 575/2013, an insurance undertaking as defined in Article 13, point (1), of Directive 2009/138/EC of the European Parliament and of the Council23, or a reinsurance undertaking as defined in Article 13, point (4) of Directive 2009/138/EC [Disclosures Delegated Act of the (EU) 2020/852 Regulation, commonly referred to as the Taxonomy Regulation

8 Additional performance measures deemed relevant for the future enhancement of the climate standard are presented as part of the Basis for conclusions although they have not been prioritised for this standard. They relate to energy intensity, use of green hydrogen, breakdowns of GHG emissions and breakdowns of GHG intensity.

9 Should the undertaking wish to provide information on these matters on a voluntary basis, it may consider best practices and preliminary orientations presented in the Basis for conclusions.

Interactions with other ESRS

10 Ozone-depleting substances (ODS), nitrogen oxides (NO_X) and sulfur oxides (SO_X), among other significant air emissions, are connected to climate change, but are covered under the reporting requirements on Pollution (ESRS E2). Fair transition is covered under the social ESRS. In particular, unemployment linked to the decommissioning of stranded assets (e.g. shut down of production of power plants) is covered under the reporting requirements on workforce.

11 The contents of this standard on Strategy and business model, Governance and organisation and Impacts, risks and opportunities, as well as Policies, targets, action plans and resources shall be read in conjunction respectively with cross-cutting standards ESRS 2, ESRS 3, ESRS 4 and cross-cutting reference standard ESRS 5.

12 This standard covers sector-agnostic Disclosure Requirements. Sector-specific Disclosure Requirements are developed separately and in accordance with the classification following ESRS SEC 1.

Disclosure Requirements

Strategy and business model, governance and organisation, Impacts, risks and opportunities

13 The Disclosure Requirements regarding climate change and (i) Strategy and business model, (ii) Governance and organisation, and (iii) Impacts, risks and opportunities are defined below.

14 The specific climate-related Disclosure Requirements hereafter (Disclosure Requirements 1 to 6) shall be read as complementary to the relevant cross-cutting standards (ESRS 2, ESRS 3 and ESRS 4) and they are to be reported upon by the undertaking under the related cross-cutting standards. The information to be covered by Disclosure Requirements 1 to 6 are those that due to their importance to the undertaking are prioritised and monitored directly by the undertaking's highest governing bodies.

15 With regards to the climate-related Disclosure Requirements in ESRS 2 Strategy and business model, this topical standard includes two specific Disclosure Requirements. Disclosure Requirement 1 covers the information to be provided on the 1.5 °C transition plan of the undertaking and Disclosure Requirement 2 covers the information to be provided on the resilience of the strategy and business model to principal climate-related transition and physical risks.

16 With regards to the climate-related Disclosure Requirements in ESRS 3 Governance and organisation, this topical standard includes two specific Disclosure Requirements. Disclosure Requirement 3 covers the information to be provided on climate-related targets and performance indicators in relation to compensation schemes and Disclosure Requirement 4 covers the information to be provided on internal carbon pricing schemes.

17 With regards to the climate-related Disclosure Requirements in ESRS 4 on Impacts, risks and opportunities, this topical standard includes two specific Disclosure Requirements. Disclosure Requirement 5 covers the information to be provided on the processes to identify

material climate-related impacts, risks and opportunities and Disclosure Requirement 6 covers the information to be provided on material climate-related impacts, risks and opportunities.

Specific climate-related disclosures for the implementation of ESRS 2 Strategy and business model

[Disclosure Requirement 1] – Transition plan in line with the Paris Agreement

18 **The undertaking shall disclose its plans to ensure that its business model and strategy are compatible with the transition to a climate-neutral economy and with limiting global warming to 1.5 °C in line with the Paris Agreement.**

19 The principle to be followed under this Disclosure Requirement is to provide an understanding of the transition plan of the undertaking and its compatibility with limiting global warming to 1.5°C in accordance with the Disclosure Requirements 7 and 8 under ESRS 2.

20 The disclosure required by paragraph 18 shall include:

(a) by reference to the short medium- and long-term targets to reduce GHG emissions in own operations and along the value chain (Disclosure Requirement 8), an explanation of their alignment with limiting global warming to 1.5°C;

(b) by reference to GHG reduction targets (Disclosure Requirement 8) and the climate change mitigation action plan (Disclosure Requirement 9), an explanation of the decarbonisation levers identified and key actions planned, including the adoption of new technologies;

(c) by reference to the information provided under Disclosure Requirement 10, an explanation of the financial resources supporting the implementation of the transition plan;

(d) the locked-in GHG emissions from key assets and products, including a discussion about if and how these can jeopardise the achievement of GHG emission reduction targets and drive transition risk, and the plans to manage GHG- and energy-intensive assets and products;

(e) an explanation of the role of aligning its economic activities with the provisions of Delegated Act (EU) 2021/2139 for its transition to a climate-neutral economy, including the plans for future Taxonomy-alignment;

(f) an explanation of how the transition plan is embedded in and aligned with its overall business strategy;

(g) an explanation of the progress made in implementing the transition plan.

[Disclosure Requirement 2] - Resilience of the strategy and business model to principal climate-related transition and physical risks

21 **The undertaking shall disclose information on the resilience of the strategy and business model(s) of the undertaking to principal climate-related transition and physical risks.**

22 The principle to be followed under this Disclosure Requirement is to provide an understanding of whether the undertaking's strategy and business model(s) can withstand principal climate-related risks over time and under different plausible future states. It shall be disclosed in accordance with the Disclosure Requirement 8 under ESRS 2.

23 The disclosure required by paragraph 21 shall include the following information:

(a) the scope of the resilience analysis, particularly the activities – in own operations and the value chain – and related principal transition and physical climate-related risks covered;

(b) how the resilience analysis has been conducted, including:

  (i) whether it has been conducted by comparing a diverse range of climate-related scenarios;

  (ii) which climate scenarios were used for the assessment and why, along with the sources of the scenarios and critical assumptions made;

  (iii) the time horizons over which the analysis has been conducted;

(c) the results of the resilience analysis.

Specific climate-related disclosures for the implementation of ESRS 3 Governance and organisation

[Disclosure Requirement 3] – Climate-related targets and performance indicators in relation to compensation schemes

24 **The undertaking shall disclose whether and how it integrates climate-related targets and performance indicators in compensation schemes.**

25 The principle to be followed under this Disclosure Requirement is to provide an understanding of how the undertaking's compensation schemes involve climate-related performance indicators and incentivise the achievement of climate-related targets. It shall be disclosed in accordance with the Disclosure Requirement 4 under ESRS 3.

26 The disclosure required by paragraph 24 shall include:

(a) a description of whether and how climate-related performance indicators are incorporated into the undertaking's remuneration practices;

(b) the link with the achievement of GHG emission reductions.

[Disclosure Requirement 4] – Internal carbon pricing schemes

27 **The undertaking shall disclose whether and how the internal carbon pricing schemes applied support its climate-related decision making.**

28 The principle to be followed under this Disclosure Requirement is to provide an understanding of whether and how internal carbon pricing schemes incentivise the reduction of an undertaking's GHG emissions and support the assessment, anticipation and management of climate-related transition risks and opportunities. It shall be disclosed in accordance with ESRS 3.

29 The disclosure required by paragraph 27 shall include the following information:

(a) a description of whether and how the undertaking applies internal carbon pricing schemes, including the type of internal carbon pricing scheme such as:

  (i) shadow prices for CapEx or R&D investment decision making;

  (ii) internal carbon fee or fund affecting the internal results of the business units or operating segments (internal transfer from high emitting entities to fund low carbon projects that may be more costly);

  (iii) other schemes;

(b) the specific scope of application of the carbon pricing scheme (activities, geographies, entities, etc.);

(c) the carbon prices applied according to the type of scheme and critical assumptions;

(d) the approximate current year GHG emission volumes covered by these schemes.

Specific climate-related disclosures for the implementation of ESRS 4 Impacts, risks and opportunities

[Disclosure Requirement 5] – Processes to identify material climate-related impacts, risks and opportunities

30 **The undertaking shall disclose its processes to identify and assess its:**

(a) **climate-related impacts;**

(b) **climate-related physical risks and opportunities;**

(c) **climate-related transition risks and opportunities.**

31 The disclosure required by paragraph 30 shall include a description of the processes to identify those impacts, risks and opportunities that due to their importance for the undertaking are prioritised and monitored directly by the undertaking's highest governing bodies. It shall be disclosed in accordance with ESRS 4, Disclosure Requirement 1.

[Disclosure Requirement 6] – Material climate-related impacts, risks and opportunities

32 **The undertaking shall disclose a description of its:**

(a) **climate-related impacts;**

(b) **climate-related physical risks and opportunities;**

(c) **climate-related transition risks and opportunities.**

33 The principle to be followed under this Disclosure Requirement is to provide an understanding of the climate-related impacts, risks and opportunities that due to their importance to the undertaking are prioritised and monitored directly by the undertaking's highest governing bodies. It shall be disclosed in accordance with ESRS 4, Disclosure Requirement 2.

34 The disclosure required by paragraph 32 shall rely on the outcome of the processes to identify and assess climate-related impacts, risks and opportunities (Disclosure Requirement 5).

Policies, targets, action plans and resources

35 The Disclosure Requirements developed hereafter refer to ESRS 5 Definitions for policies, targets, action plans and resources.

[Disclosure Requirement 7] – Policies implemented to manage climate change mitigation and adaptation

36 **The undertaking shall disclose separately its policy for climate change mitigation and its policy for climate change adaptation.**

37 The principle to be followed under this Disclosure Requirement is to provide an understanding of the undertaking's ability (i) to mitigate its negative impacts and maximise its positive impact on climate change throughout the value chain and (ii) to monitor and manage its physical and transition risks and opportunities.

38 The disclosure required by paragraph 36 shall include:

(a) a summarised description of the policy, including its general objectives;

(b) a description of the scope of the undertaking's policy, including own operations, value chain activities and other business relationships;

(c) a description of the allocation of responsibilities, including oversight, for the implementation of the policy across all relevant operational levels;

(d) a description of third-party standards of conduct, if any, that the undertaking commits to respect through the implementation of the policy such as the recommendations of the Task Force on climate-related financial disclosures (TCFD) or the Science-based Targets Initiative (SBTi); and

(e) a description of the considerations given to the interests of stakeholders in setting the policy.

[Disclosure Requirement 8] – Measurable targets for climate change mitigation and adaptation

39 **The undertaking shall disclose its adopted climate-related targets.**

40 The principle to be followed under this Disclosure Requirement is to provide an understanding of the GHG emission reductions that the undertaking intends to achieve in the future and their effectiveness in ensuring compatibility with limiting global warming to 1.5 °C. In addition, it may include other climate-related targets the undertaking has adopted, such as climate change adaptation targets to provide an understanding of how the undertaking manages physical risks resulting from climate change and reduces its vulnerability to these risks.

41 The disclosure required by paragraph 39 shall include:

(a) an explanation of what each target intends to achieve (e.g., GHG emission reduction, net zero, physical or transition risk mitigation, increase of CapEx or others) and how it is embedded in the undertaking's climate-related policies;

(b) the scope of the target and the explanation of any limitations as to organisational and geographical boundaries or activities;

(c) the baseline value and base year against which progress is measured;

(d) the timeframe to achieve the target and the target values to be achieved, including any milestones or interim targets;

(e) the methodologies and significant assumptions used to define targets, including where applicable, the underlying scenarios and alignment with science-based methodologies;

(f) any changes in targets or underlying methodologies and assumptions adopted within the defined time horizon together with an explanation of the rationale for those changes and their effect on comparability;

(g) the overall progress towards the defined target, including information on whether the progress is in line with what had been initially planned, and an analysis of trends or significant changes in performance of the undertaking towards achieving the target; and

(h) whether the target is absolute or intensity-based and in which unit it is measured.

42 The disclosure required by paragraph 41 shall include the undertaking's GHG emissions reduction targets for Scope 1, 2, and 3 and in addition:

(a) an explanation of the expected contributions from different decarbonisation levers to the achievement of the target (e.g., electrification and deployment of renewable energy; energy or resource efficiency; reduced lifecycle emissions of products);

(b) a presentation of the information over the target period preferably in five years rolling periods and at least including target values for the years 2030 and 2050;

(c) a presentation of the information over the target period with reference to a 1.5°C climate scenario or, if not available, with reference to the -55% EU GHG emissions reduction target in 2030. It may be presented as a graphical pathway or trajectory.

43 If the undertaking has not adopted targets meeting the criteria included in paragraphs 41 and 42, it shall disclose:

(a) if and when such targets will be adopted; or

(b) reasons why there is no plan to adopt such targets;

(c) how progress is measured without specific climate-related targets and;

(d) the progress made in terms of climate change mitigation and adaptation.

[Disclosure Requirement 9] – Climate change mitigation and adaptation action plans

44 **The undertaking shall disclose its climate change mitigation and adaption action plans.**

45 The principle to be followed under this Disclosure Requirement is to provide transparency on the key actions taken and planned to achieve climate-related targets and to manage GHG emissions, transition and physical risks and opportunities, supporting the understanding of achieved performance improvements and the credibility of the undertaking's strategy and business model.

46 The disclosure required by paragraph 44 shall include:

(a) the list of key actions taken in the reporting year and planned for the future, covering own operations and the value chain;

(b) the period during which each key action is intended to be implemented;

(c) the expected outcomes of each key action and their contribution to achieving climate targets (for the climate change mitigation plan, the achieved or expected GHG emission reductions of each key action);

(d) an explanation of changes in the action plan and any further explanation deemed useful to understand key actions.

[Disclosure Requirement 10] – Resources allocated to climate change mitigation and adaptation actions plans

47 **The undertaking shall disclose financial and other resources allocated to climate change mitigation and adaptation action plans.**

48 The principle to be followed under this Disclosure Requirement is to provide an understanding of the seriousness of actions taken and planned in order to achieve climate-related targets and to manage GHG emissions, transition and physical risks and opportunities, particularly where the implementation of the action plan requires substantial capital expenditures and/or other resources.

49 The disclosure required by paragraph 47 shall include:

a) the resources needed in order to implement the action plans;

b) a reconciliation of the monetary amounts disclosed with the most relevant amount presented in the financial statements.

Performance measurement

[Disclosure Requirement 11] – Energy consumption & mix

50 **The undertaking shall provide information on its energy consumption.**

51 The principle to be followed under this Disclosure Requirement is to provide an understanding of:

(a) the undertaking's energy consumption to allow a monitoring of the reduction of absolute energy consumption and improvement in energy efficiency; and

(b) the increase of the share of renewable energy in the overall energy mix to succeed in the transition to a climate neutral European Union.

52 This Disclosure Requirement supports the information needs of financial market participants subject to the Sustainable Finance Disclosure Regulation (EU) 2019/2088 (SFDR).

53 The disclosure required by paragraph 50 shall include the total energy consumption in MWh as follows:

(a) total energy consumption from non-renewable sources, broken down by:

(i) fuel consumption from coal and coal products;

(ii) fuel consumption from crude oil and petroleum products;

(iii) fuel consumption from natural gas;

(iv) fuel consumption from other non-renewable sources;

(v) consumption from nuclear products;

(vi) consumption of purchased or acquired electricity, heat, steam, and cooling from non-renewable sources;

(b) total energy consumption from renewable sources, broken down by:

(i) fuel consumption for renewable sources (including biomass, biogas, non-fossil fuel waste, hydrogen from renewable sources, etc.);

(ii) consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources;

(iii) consumption of self-generated non-fuel renewable energy.

[Disclosure Requirement 12] – Energy intensity

54 **The undertaking shall provide information on the energy consumption associated with activities in high climate impact sectors per net turnover.**

55 The principle to be followed under this Disclosure Requirement is to support the information needs of financial market participants subject to the SFDR.

56 The disclosure required by paragraph 54 shall provide the information in MWh/Monetary unit.

57 The undertaking shall disclose a reconciliation of the net turnover reference to the most relevant amount presented in the financial statements.

[Disclosure Requirement 13] – Scope 1 GHG emissions

58 **The undertaking shall disclose its gross Scope 1 GHG emissions in metric tons of CO_2 equivalent.**

59 The principle to be followed under this Disclosure Requirement is to provide an understanding of the direct impacts of the undertaking on climate change and the part of its GHG emissions that are regulated under emission trading schemes. This information is also a prerequisite to understand the undertaking's climate-related transition risks.

60 The Disclosure Requirements on GHG emissions also serve the purpose of allowing financial institutions to fulfil their reporting obligations under the SFDR.

61 The disclosure required by paragraph 58 shall include:

(a) the gross Scope 1 GHG emissions in metric tons of CO_2 equivalent; and

(b) the share of Scope 1 GHG emissions under regulated emission trading schemes (%).

[Disclosure Requirement 14] – Scope 2 GHG emissions

62 **The undertaking shall disclose its indirect energy Scope 2 GHG emissions in metric tons of CO_2 equivalent.**

63 The principle to be followed under this Disclosure Requirement is to provide an understanding of the impacts on climate change caused by the undertaking's consumed energy whether externally acquired or purchased.

64 The disclosure required by paragraph 62 shall include:

(a) its gross location-based Scope 2 GHG emissions in metric tons of CO_2 equivalent; and

(b) its gross market-based Scope 2 GHG emissions in metric tons of CO_2 equivalent.

[Disclosure Requirement 15] – Scope 3 GHG emissions

65 **The undertaking shall disclose its gross indirect Scope 3 GHG emissions in metric tons of CO_2 equivalent.**

66 The principle to be followed under this Disclosure Requirement is to provide an understanding of the GHG emissions that occur in the undertaking's value chain. For many undertakings, Scope 3 GHG emissions are the main components of the GHG inventory and an important driver of their transition risks.

67 The disclosure required by paragraph 65 shall include GHG emissions from significant Scope 3 categories and presented as a breakdown by GHG emissions from: (i) upstream purchasing, (ii) downstream sold products, (iii) goods transportation, (iv) travels and (v) financial investments.

[Disclosure Requirement 16] – Total GHG emissions

68 **The undertaking shall disclose its total GHG emissions in metric tons of CO_2 equivalent.**

69 The principle to be followed under this Disclosure Requirement is to provide an overall understanding of the undertaking's GHG emissions and whether they occur from own operations or the value chain. The disclosure is a prerequisite for measuring progress towards reducing GHG emissions in accordance with the undertaking's climate-related targets and the EU policy goals as well as for the assessment of the undertaking's transition risks.

70 The disclosure required by paragraph 68 shall be the sum of Scope 1 GHG emissions under Disclosure Requirement 13, Scope 2 GHG emissions under Disclosure Requirement 14 and Scope 3 GHG emissions under Disclosure Requirement 15 and be presented in terms of location-based and market-based approaches.

[Optional Disclosure Requirement 17] – GHG removals

71 **The undertaking may disclose GHG removals from its own operations as well as in the value chain in metric tons of CO_2 equivalent.**

72 The principle to be followed under this optional Disclosure Requirement is to allow the undertaking to disclose in a comparable manner its actions taken to permanently remove or support the removal of GHG from the atmosphere. If permanently stored, removals of GHG emissions from the atmosphere are an important means of combatting climate change. The undertaking shall therefore provide transparency on whether and to what extent it removes GHG from the atmosphere.

73 If the undertaking discloses the information according to paragraph 71, it shall include a description of whether removals are nature-based, geological or hybrid; it shall also provide technological details of the removals, calculation assumptions, methodologies and frameworks applied.

[Optional Disclosure Requirement 18] – Financing GHG mitigation projects outside of the undertaking's value chain

74 **The undertaking may disclose the financing of GHG mitigation projects outside its value chain.**

75 The principle to be followed under this optional Disclosure Requirement is to provide an understanding of the extent and quality of the funding of projects that avoid, reduce or remove GHG emissions outside the undertaking's value chain (also commonly referred to as carbon offsets), as carbon offsets purchased from or sold to the voluntary market are a frequent manner of complementing actions to reduce GHG emissions.

76 If the undertaking discloses the information according to paragraph 74, it shall include:

(a) the total purchased carbon offsets in metric tons of CO_2 equivalent if any;

(b) the total sold carbon offsets in metric tons of CO_2 equivalent if any;

(c) a description of the quality criteria applied and the standards that the carbon offsets fulfil.

[Optional Disclosure Requirement 19] – Avoided GHG emissions from products and services

77 **The undertaking may disclose its estimated total avoided GHG emissions from its products and services in metric tons of CO_2 equivalent.**

78 The principle to be followed under this optional Disclosure Requirement is to to provide transparency on the methodologies used and assumptions made by undertakings when estimating and communicating about the GHG impacts of their products and services in comparison to other products and services or in comparison to a situation where their products and services would not exist, considering that there is currently no generally accepted framework for accounting and reporting on such avoided emissions.

79 If the undertaking discloses the information according to paragraph 77, it shall provide details on:

(a) the assumptions made;

(b) data sources used and methodologies applied to estimate the comparative impacts (baseline and reference products for assessing additionality); and

(c) identified trade-offs with other (non-GHG) environmental impacts.

[Disclosure Requirement 20] – GHG intensity

80 **The undertaking shall disclose its total GHG emissions per net turnover.**

81 The principle to be followed under this Disclosure Requirement is to support the information needs of financial market participants subject to the SFDR.

82 The disclosure required by paragraph 82 shall provide the GHG emissions in metric tons of CO_2 equivalent per turnover, in monetary units.

83 The undertaking shall disclose a reconciliation of the net turnover reference to the most relevant amount presented in the financial statements.

[Taxonomy Disclosure Requirements] - Taxonomy Regulation for climate change mitigation and climate change adaptation

84 The undertaking shall disclose information required by Article 8 of the Regulation (EU) 2020/852 (Taxonomy Regulation) in conjunction with Annex I and Annex II of Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 and with the Commission Delegated

Regulation (EU) 2021/2178 of 6 July 2021, both supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council.

85 The Taxonomy Regulation in its Article 8(2) requires undertakings to disclose information on the proportion of the turnover, capital expenditure (‘CapEx’) and operating expenditure (‘OpEx’) associated with economic activities that qualify as environmentally sustainable, and in particular under the objectives of ‘climate change mitigation’ and ‘climate change adaptation’.

86 The information to be disclosed under the climate-related provisions of the Taxonomy regulation is complementary to the information disclosed under the provisions of this standard. The undertaking may elect to locate the climate-related Taxonomy Disclosure Requirements as a Disclosure Requirement additional to the ones mandated by this standard. If the undertaking is not electing to do so, it should disclose the location of the Taxonomy Disclosure Requirements by an appropriate cross-reference.

[Disclosure Requirement 21] – Financial exposure to physical risks

87 **The undertaking shall disclose its financial exposure to physical risks.**

88 The principle to be followed under this Disclosure Requirement is to provide an understanding of how principal climate-related physical risks may affect the undertaking’s financial position and performance over the short, medium and long term, considering that those potential future financial effects of climate-related physical risks may not meet at the reporting date the recognition criteria set for financial statements.

89 The disclosure required by paragraph 87 shall provide information on how its principal climate-related physical risks (Disclosure Requirement 6) may affect its future performance, position and development in terms of:

(a) amounts (monetary unit) of assets exposed to physical risks;

(b) share (%) of turnover from its business activities exposed to physical risks.

90 The undertaking shall disclose a reconciliation of these assets and share of turnover to the most relevant amounts presented in the financial statements.

[Disclosure Requirement 22] – Financial exposure to transition risks

91 **The undertaking shall disclose its financial exposure to transition risks.**

92 The principle to be followed under this Disclosure Requirement is to provide an understanding of how principal climate-related transition risks may affect the undertaking’s financial position and performance over the short, medium and long term, considering that those potential future financial effects of climate-related transition risks may not meet at the reporting date the recognition criteria set for financial statements.

93 The disclosure required by paragraph 91 shall provide information on how its principal climate-related transition risks may affect its:

(a) future financial position in terms of:

(i) assets (monetary unit) exposed to transition risks over the short, medium, and long-term;

(ii) liabilities (monetary unit) that may have to be recognised over the short, medium, and long-term;

(b) future financial performance in terms of share (%) of turnover from its business activities exposed to transition risks.

94 The undertaking shall disclose a reconciliation of these assets and turnover to the most relevant amount presented in the financial statements.

[Optional Disclosure Requirement 23] – Financial opportunities related to climate change mitigation or adaptation other than the Taxonomy Regulation

95 **The undertaking may disclose its financial opportunities that relate to climate change mitigation or adaptation and that complement the Taxonomy Regulation related ones.**

96 The principle to be followed under this Disclosure Requirement is to provide information allowing for an overall understanding of the financial opportunities related to climate change mitigation and climate change adaptation, complementing the information requested under the Taxonomy Regulation.

97 If the undertaking discloses the information according to paragraph 95, it shall include an assessment of the market size for low carbon products and services or adaptation solution over the short-, medium-, and long-term, explaining how these are defined, how financial amounts are estimated and which critical assumptions are made.

Application provisions

98 In order to ease the first-time application of this standard, the application of the following aspects of the four Disclosure Requirements listed below may be deferred by one year:

(a) Disclosure Requirement 2 on Resilience of the strategy and the business model: the undertaking may elect not to disclose the assessment demonstrating how the undertaking's financial performance supports the resilience of its strategy and business model over the short, medium and long term as required under paragraph AG8. (b);

(a) Disclosure Requirement 15 on Scope 3 GHG emissions: the undertaking may elect not to apply this Disclosure Requirement;

(b) Disclosure Requirement 16 on Total GHG emissions: based on the provisions for Disclosure Requirement 15, the undertaking may elect to exclude Scope 3 GHG emissions from the total GHG emissions;

(c) Disclosure Requirement 21 on Financial exposure to physical risks, the undertaking may elect not to apply this Disclosure Requirement with regards to:

(i) its share of turnover from its business activities exposed to physical risks required under paragraph 89 (b);

(ii) its value chain.

(d) Disclosure Requirement 22 on Financial exposure to transition risks: the undertaking may elect not to apply this Disclosure Requirement with regards to:

(i) Its future financial performance in terms of share of turnover from its business activities exposed to transition risks under paragraph 93 (b);

(ii) its value chain.

99 The undertaking shall indicate if the deferral option is retained or if it complies fully with the above-mentioned Disclosure Requirements.

Appendix A: Defined terms

This appendix is integral part of the [draft] ESRS.

(Anthropogenic) Removals	(Anthropogenic) Removals refer to the withdrawal of GHGs from the atmosphere as a result of deliberate human activities. These include enhancing biological sinks of CO_2 and using chemical engineering to achieve long-term removal and storage. Carbon capture and storage (CCS) from industrial and energy-related sources, which alone does not remove CO_2 in the atmosphere, can reduce atmospheric CO_2 if it is combined with bioenergy production (BECCS). See also Anthropogenic emissions, Bioenergy with carbon dioxide capture and storage (BECCS) and Carbon dioxide capture and storage (CCS). (IPCC, 2018: Annex I: Glossary)
1.5°C climate target	A 1.5° climate target is a specific objective related to GHG emissions reduction using reduction pathways at a global and sectoral level that are aligned with the remaining budget to limit global warming to 1.5ºC with a 50% probability which is about 500 GT of CO_2 (IPCC, 2021).
Attributional approach	Attributional approach estimates the difference in total life cycle GHG emissions between an undertaking's product and some alternative product that provides an equivalent function. (WRI 2018)
Avoided emissions	Avoided emissions are understood as estimated GHG reductions of an undertaking's products in comparison to other products that fulfil an equivalent function or to a situation where the product does not exist. (Note: the notion of "products" includes services)
Base year	Base year is a historical datum against which a measurement is tracked over time. (GRI 305:2016)
Biomass	Biomass is the biodegradable fraction of products, waste, and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin. (Art. 2 (24) Directive (EU) 2018/2001)
Boundaries of Scope 3 categories	Boundaries of Scope 3 categories are the activities over the value chain that should be accounted for in each Scope 3 category, in particular in the 'Purchased goods and services' and 'Use of product sold' categories; the GHG Protocol Scope 3 standard has defined minimum boundaries by Scope 3 category; Scope 3 boundaries will require developments in future sector-specific standards to improve the comparability.

Business activities exposed to climate-related physical risks	Business activities exposed to climate-related physical risks refer to potential future increases or decreases in revenues and costs i.e., financial performance, for example due to business interruptions, increased supply prices, etc. resulting in potential margins erosions.
Carbon dioxide (CO_2) equivalent	Carbon dioxide (CO_2) equivalent is the universal unit of measurement to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis. (GHG Protocol Scope 2 Guidance Glossary)
Climate change adaptation	Climate change adaptation means the process of adjustment to actual and expected climate change and its impacts. (based on the Regulation (EU) 2020/852)
Climate change mitigation	Climate change mitigation means the process of holding the increase in the global average temperature to well below 2 °C and pursuing efforts to limit it to 1,5 °C above pre-industrial levels, as laid down in the Paris Agreement. (based on the Regulation (EU) 2020/852)
Climate change mitigation Taxonomy-aligned economic activity	Climate Change Mitigation Taxonomy-aligned economic activity is an economic activity that complies with the requirements laid down in Art. 3 Regulation (EU) 2020/852 related to climate change mitigation in conjunction with the provisions of the Commission Delegated Regulation (EU) 2021/2139 (Climate Delegated Act). (ased on Art 1 (2) Commission Delegated Regulation (EU) 2021/2178 supplementing Art. 8 of Regulation (EU) 2020/852)
Climate hazards	Climate hazards refer to the potential occurrence of a natural or human-induced climate-related physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources.
Climate-related physical risk	Climate-related physical risks are risks that arise from the physical effects of climate change. They typically include acute physical risks, which arise from particular events, especially weather-related events such as storms, floods, fires or heatwaves, and chronic physical risks, which arise from longer-term changes in the climate, such as temperature changes, rising sea levels, reduced water availability, biodiversity loss and changes in land and soil productivity. (adapted from Commission Communication C(2019) 4490 final)
Climate-related transition risk	Climate-related transition risks are risks that arise from the transition to a low-carbon and climate-resilient economy. They typically include policy risks, legal risks, technology risks, market risks and reputational risks.

	(adapted from Commission Communication C(2019) 4490 final).
Climate scenario	A climate scenario allows an entity to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.
Climate target	A climate target is a specific objective related to GHG emissions reduction containing a target (absolute GHG emissions value and intensity terms), a perimeter (activities and scopes), a target years and a baseline year's emissions.
Consequential approach	Consequential approach estimates the sum of all system-wide changes in GHG emissions or removals occurring because of the product. (WRI 2018)
Cost rate	Cost rate is the factor used to convert non-monetary impacts like tonnes, hectares, m^3 etc. into monetary units. Cost rates should be based on monetary valuation studies, need to be science-based and the methods used to obtain them transparent. Guidance on these methods can be obtained, e.g., from the EU-LIFE-project TRANSPARENT (see recital (38) of the draft CSRD).
Direct GHG emissions (Scope 1)	Direct GHG emissions (Scope 1) are those originating from sources owned or controlled by the undertaking. (adapted from GHG Protocol Corporate Standard)
Energy Attribute Certificate (EAC)	Energy Attribute Certificates (EAC) are a category of contractual instruments that represents certain information (or attributes) about the energy generated. This category includes instruments which may go by several different names, including certificates, tags, credits, or generator declarations [GHG Protocol Scope 2 Guidance]. Most recognized ones are Guarantee of Origin from renewable sources in Europe, Renewable Energy Certificate (REC) in North America or international REC in the rest of the world (iREC).
Financial exposure to climate-related physical risks	Financial exposure to climate-related physical risks refers to the point-in-time estimated proportion in amount or extent of a company's financial position or performance exposed to climate-related hazards.
Financial exposure to climate-related transition risks	Financial exposure to climate-related transition risk refers to the point-in-time estimated proportion in amount or extent of a company's financial position or performance exposed to transition risks.
Global warming potential (GWP)	Global warming potential (GWP) is a factor describing the radiative forcing impact (degree of harm to the atmosphere) of (GWP) one unit of a given GHG relative to one unit of CO_2. [GHG Protocol Scope 2 Guidance Glossary]

Greenhouse Gases (GHG)	Greenhouse Gases (GHG) are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. This property causes the greenhouse effect. Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary GHGs in the Earth's atmosphere. Moreover, there are a number of entirely human-made GHGs in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Beside CO_2, N_2O and CH_4, the Kyoto Protocol deals with the GHGs sulphur hexafluoride (SF_6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). (IPCC, 2018: Annex I: Glossary)
High climate impact sectors	High climate impact sectors are those listed in NACE Sections A to H and Section L. (Draft Regulatory Technical Standards with regards to the content and presentation of disclosures pursuant to Article 8(4), 9(6) and 11(5) of Regulation (EU) 2019/2088)
Indirect GHG emissions (Scope 3)	Indirect GHG emissions are a consequence of the operations of the undertaking but occur at sources owned or controlled by another company. This includes Scope 2 and Scope 3 GHG emissions. (adapted from GHG Protocol Corporate Standard)
Internal carbon price	Internal carbon price is a price used by entities to assess the financial implications of changes to investment, production, and consumption patterns, as well as potential technological progress and future emissions abatement costs. (adapted from IFRS Climate Prototype)
Internal carbon pricing scheme	Internal carbon pricing scheme is an organizational arrangement that allows an undertaking to apply carbon prices in strategic and operational decision making. There are two types of internal carbon pricing schemes commonly used by undertakings. The first type is a shadow price, which is a theoretical cost or notional amount that the undertaking does not charge but that can be used in assessing the economic implications or trade-offs for such things as risk impacts, new investments, net present value of projects, and the cost-benefit of various initiatives. The second type is an internal tax or fee, which is a carbon price charged to a business activity, product line, or other operating segment based on its GHG emissions. (adapted from IFRS Climate Prototype)
Key assets	Key assets are owned or controlled, existing or planned assets (such as stationary or mobile installations, facilities, and equipment) that are significant direct and energy indirect GHG emission sources

Location-based method	Location-based method quantifies Scope 2 GHG emissions based on average energy generation emission factors for defined locations, including local, subnational, or national boundaries. (GHG Protocol Scope 2 Guidance Glossary)
Market-based method	Market-based method quantifies Scope 2 GHG emissions based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with instruments, or unbundled instruments on their own. (GHG Protocol Scope 2 Guidance Glossary)
Monetised GHG emission	Monetised GHG emission means the multiplication of a unit of CO_2eq emission by a pre-defined cost rate.
Monetised impact	Monetised impact refers to the monetary value of an environmental or social impact, caused by or contributed to the undertaking.
Net turnover	Net turnover means the amounts derived from the sale of products and the provision of services after deducting sales rebates and value added tax and other taxes directly linked to turnover. (Art. 2 (5) Directive 2013/34/EU).
Net zero target	A net zero target is a specific GHG emissions reduction target using pathways at the global and sectoral level that are aligned with the remaining global budget to limit global warming to 1.5ºC and achieve net-zero GHG emissions by 2050 and applying those to an undertaking.
Non-renewable energy	Non-renewable energy is the energy which cannot be identified as deriving from renewable sources. [Draft Regulatory Technical Standards with regard to the content and presentation of disclosures pursuant to Article 8(4), 9(6) and 11(5) of Regulation (EU)] Fossil fuels such as oil, natural gas, and coal are examples of non-renewable resources.
Offsets	Carbon offsets are reductions in emissions of carbon dioxide or other greenhouse gases made in order to compensate for an emission made elsewhere.
Operating segments	Operating segments are defined as component of an entity that engages in business activities from which it may earn revenues and incur expenses (IFRS 8)
Physical risks	Risks to the company that arise from the physical effects of climate change. They include acute physical risks and chronic physical risks. (EU Guidelines on reporting climate-related information)
Product operating lifetime	Product operating lifetime is the time interval from when a product is sold to when it is planned to be decommissioned. The product operating lifetime can be an estimation.

Purchased or acquired energy	'Purchased or acquired' is used when the undertaking has received the energy from a third party.
Recognised quality standards for carbon offsets	Recognised quality standards for carbon offsets are those that are verifiable by independent third parties, make requirements and project reports publicly available and at a minimum ensure additionality, permanence, avoidance of double counting and rules for calculation, monitoring, and verification of the project's GHG emissions.
Renewable energy	Renewable energy is the energy taken from sources that are inexhaustible. As such, renewable energy covers wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogas. (Art. 2 (1) Directive (EU) 2018/2001)
Renewable hydrogen	Renewable hydrogen is hydrogen produced through the electrolysis of water (in an electrolyser, powered by electricity), and with the electricity stemming from renewable sources. (EU Hydrogen Strategy COM (2020)301 final)
Scenario analysis	A scenario analysis is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty.
Scope 2 GHG emissions	Scope 2 GHG emissions are indirect emissions from the generation of purchased or acquired electricity, steam, heat, or cooling consumed by the undertaking. (adapted from GHG Protocol Scope 2 Guidance Glossary)
Scope 3 category	Scope 3 category is one of the 15 types of Scope 3 emissions identified by the GHG Protocol Corporate Standard and detailed by the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard [adapted from GHG Protocol Scope 3 Accounting and Reporting Standard Glossary]; these 15 categories should be grouped for purpose of simplified presentation as follows: a) upstream purchasing, b) downstream sold products, c) goods transportation, d) travels and e) financial investments: (a) Upstream purchasing includes the GHG protocol categories "purchased goods and services", "capital goods", "fuel- and energy-related activities (not included in scope 1 or scope 2)", "upstream leased assets" and "waste generated in operations"; (b) Downstream sold products comprises "processing of sold products", "use of sold products", "End-of-life treatment of sold products", "Downstream leased assets", "Franchises"; (c) Goods transportation comprises "upstream transportation and distribution" and "downstream transportation and distribution"; (d) Travels comprises business travels and employee commuting;

	(e) Financial investments reflects the respective GHG Protocol category.
Scope 3 GHG emissions	Scope 3 GHG emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. [GHG Protocol Scope 3 Accounting and Reporting Standard Glossary]; Scope 3 GHG emissions are considered as estimated emissions in comparison with Scope 1 & 2 as their calculation is based on a combination of methods and primary and secondary data ranging from precise figures (supplier-specific or sites-specific methods) to extrapolated figures (average-data or spend-based methods) (derived from GHG Protocol Scope 3 Calculation Guidance)
Transition risks	Risks to the company that arise from the transition to a low-carbon and climate-resilient economy. They include Policy risks, Legal risks, Technology risks, Market risks and Reputational risks. (EU Guidelines on reporting climate-related information)
Undertakings carbon budget	Undertakings carbon budget is the cumulative amount of GHG emissions expressed in tons of CO_2eq available over a defined period of time (e.g., until 2030 and or 2050) to achieve the 1.5°C climate mitigation target; of the undertaking.

Appendix B: Application Guidance

The provisions of this appendix shall be applied in conjunction with the [draft] Disclosure Requirements defined in paragraphs 1 to 97.

This appendix describes how to apply the Disclosure Requirements, has the same authority as the Disclosure Requirements and is an integral part of the proposed [draft] ESRS E1 Climate change.

Strategy and business model, governance and organisation, Impacts, risks and opportunities

Additional climate-related disclosures for the implementation of ESRS 2 Strategy and business model

[Disclosure Requirement 1] – Transition plan in line with the Paris Agreement

AG2. When disclosing its transition plan, the undertaking is expected to provide a high-level explanation on how it will adjust its strategy and business model to ensure compatibility with the transition to a climate-neutral economy and with limiting of global warming to 1.5°C in line with the Paris Agreement. The undertaking shall, where applicable, refer to and contextualise information presented under other disclosures requirements of this [draft] standard.

AG3. When disclosing the information required under paragraph 20 (d), the undertaking shall include:

(a) the cumulative locked-in GHG emissions associated with key assets from the reporting year until 2030 and 2050 in tCO_2eq, calculated as the sum of estimated Scope 1 and 2 GHG emissions of active and planned key assets over their operating lifetime;

(b) the cumulative locked-in GHG emissions associated with the direct use-phase GHG emissions of sold products in tCO_2eq, calculated as the sales volume of products in the reporting year multiplied by the estimated direct use-phase GHG emissions of over their expected lifetime;

(c) assumptions made for the calculation of the locked-in GHG emissions from key assets and products;

(d) an explanation on if and how the locked-in GHG emission can jeopardise the achievement of GHG emission reduction targets and drive transition risk; if available, a comparison of the locked-in emissions against the undertaking's GHG emission budget derived from a science-based target;

(e) an explanation of the plans to manage, i.e. to transform, decommission or phase-out, GHG- and energy-intensive assets and products.

AG4. When disclosing the information required under paragraph 20 (e), the undertaking shall make a reference to the information disclosed with regards to Art. 8 of the Taxonomy Regulation by explaining how the alignment of its economic activities with the provisions of the Delegated Act (EU) 2021/2139 supports its transition to a climate-neutral economy and net-zero CO_2 emissions.

AG5. When disclosing the information required under paragraph 20 (f), the undertaking shall explain how its strategy for quantitative and qualitative business development interacts with the achievability of its transition plan and GHG emission reduction targets.

AG6. The undertaking may support the presentation of the information as appropriate by summarising graphs or tables e.g. as a roadmap made towards net-zero CO_2 emissions or by comparing its locked-in emissions to a carbon budget derived from its GHG reduction targets.

[Disclosure Requirement 2] - Resilience of the strategy and business model to principal climate-related transition and physical risks

AG7. When disclosing the information required under paragraph 23 (a), the undertaking shall explain the scope of the analysis, including but not limited to:

(a) if the analysis relates to the whole undertaking or part of it, such as specific business models, subsidiaries, business units or sites, and, if applicable, which own operations it has excluded and why;

(b) which up- and downstream activities in the value chain it has covered in the analysis or why value chain considerations where excluded.

(c) by reference to Disclosure Requirement 5, which principal climate-related risks and opportunities (transition and physical) are covered by the resilience analysis and, if applicable, which principal climate-related risks and opportunities it has excluded and why.

AG8. When disclosing the information required under paragraph 23 (b), the undertaking may directly reference the information disclosed under paragraph 30 (b) and (c) in conjunction with AG 19, if the climate scenarios considered for the analysis of the resilience are the same as those considered to identify and assess its principal climate-related transition and physical risks.

AG9. When disclosing the information required under paragraph 23 (c), the undertaking shall explain the results of the analysis to determine the resilience of its strategy and business models, including but not limited to:

(a) implications of the scenarios considered for the undertaking's strategy (e.g. demand shifts) and operational changes that may be required (e.g., changes to energy sources, technology deployment, feedstocks or raw materials, reskilling of workforce or, in case of physical climate-related risks the reallocation, decommissioning, repairment or update of assets);

(b) by reference to Disclosure Requirement 21 and 22, an assessment demonstrating how the undertaking's financial position and financial performance supports the resilience of its strategy and business model over the short, medium and long term.

Additional climate-related disclosures for the implementation of ESRS 3 Governance and organisation

[Disclosure Requirement 3] – Climate-related targets and performance indicators in relation to compensation schemes

AG10. Nil.

[Disclosure Requirement 4] –Internal carbon pricing schemes

AG11. The information required by paragraph 29 may be presented by using the following table:

Internal carbon pricing	Volume at stake (tCO_2eq)	Prices applied (€/tCO_2eq)	Perimeter description
CapEx shadow price			
R&D investment shadow price			

Internal carbon fee/fund (internal fee transfer from high emitting entities to low carbon projects)			
Carbon prices assumptions			
Other			

Additional climate-related disclosures for the implementation of ESRS 4 Impacts, risks and opportunities

[Disclosure Requirement 5] – Processes to identify material climate-related impacts, risks and opportunities

AG12. When disclosing the information required under paragraph 30 (a), the undertaking shall describe its processes and applied methodologies to identify its impacts on climate including:

(a) the methodologies to screen its activities in order to identify its actual and potential GHG emission sources in its own activities and along the value chain;

(b) how it has calculated its GHG emissions by reference to Disclosure Requirements 13 to 16 on GHG emissions;

(c) how it has assessed the materiality of the actual and potential impacts on climate change based on severity (scale, scope, remediability) and likelihood criteria and whether these impacts have been prioritised and monitored by the undertaking's highest governing bodies due to their importance to the undertaking.

AG13. When disclosing the information required under paragraph 30 (b), the undertaking shall explain whether and how it has identified its principal physical climate risks including:

(a) the methodologies to screen the activities to identify which physical climate risks from the list of the classification of climate-related hazards (see table below), and based at least on a worst-case climate scenario analysis, may impact the assets and activities in its own operations and in the value chain during their expected lifetime;

(b) where the activity is identified as being impacted by one or more of the physical climate hazards listed, a vulnerability assessment of the undertaking's activities shall be conducted to assess the materiality of the negative physical impacts on the financial position and performance of the undertaking;

(c) the description of adaptation solutions that can reduce the identified physical climate risks, as referred to under Disclosure Requirements 7 to 10 related to the implementation of adaptation policies, action plans and resources.

Table X: Taxonomy Regulation classification of climate-related hazards

	Temperature-related	Wind-related	Water-related	Solid mass-related
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion

	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust, and sandstorms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	

AG14. The screening of activities required in paragraph AG12. (a) shall cover a description of whether and how it has:

(a) analysed the potential climate-related hazards using different climate scenarios and at least a worst-case scenario, notably based on IPCC scenario RCP 8.5 over a period consistent with the expected lifetime of the activities and assets and with which geographic area grid precision;

(b) covered own operations and the value chain (own assets, suppliers and potentially clients' activities) and mapped their geographical locations with potential climate-related hazards to identify critical assets and activities which may be exposed to physical climate hazards;

(c) mapped the geographical location of owned assets and of supply chains towards geographical representation of the worst-case scenario to identify activities and assets' locations at risk;

(d) analysed hazards through their likelihood, magnitude, and duration.

AG15. When explaining the assessment of the undertaking's vulnerability to physical risks mentioned in AG12. (b), the undertaking shall describe whether and how it has listed its assets and activities and assessed the likelihood, magnitude and duration of events (e.g. disruptions, scarcity of water, climate-sensitive materials, geographic concentration of suppliers/ cluster tendency, increased cost of supplies due to scarcity, weather sensitivity of production and operation process, physical damage to assets, loss of revenue due to failed delivery or service disruption; etc.) according to own methodologies depending on the undertaking's industry and organisation specific climate-related risk management as the maturity of these methodologies is still limited.

AG16. The undertaking may use the table below to present the information required.

TCFD categorisation of climate-related physical risks	**Description of the undertaking's processes to assess the materiality of climate-related physical risks** E.g.; use of climate-related scenario; mapping of the geographical location of business activities; analysis of the	**Description of the undertaking's material climate-related physical risks**

	likelihood, magnitude and duration of hazards	
Acute		
Increased severity of extreme weather events such as cyclones and floods		
Chronic		
Changes in precipitation patterns		
Extreme variability in weather		
Rising mean temperatures		
Rising sea level		

AG17. When disclosing the information required under paragraph 30 (c), the undertaking shall describe whether and how it has:

(a) screened transition risk events (see table below) informed by climate-related scenario analysis consistent with the Paris Agreement, for example based on scenarios of the International Energy Agency (Net zero Emissions by 2050, Sustainable Development Scenario, etc.);

(b) mapped the activities through the lens of transition risk events taking into consideration their likelihood, magnitude and duration according to selected scenario analyses and by using most material events (e.g. increased pricing of GHG emissions, regulation of existing products and services, exposure to litigation; substitution of existing products and services with lower emissions options, unsuccessful investment in new technologies, costs to transition to lower emissions technology, increased cost of raw materials; shifts in consumer preferences);

(c) assessed the materiality of the actual and potential climate-related transition risks on the financial position and performance of the undertaking based on severity (scale, scope, remediability) and likelihood criteria and whether these impacts have been prioritised and are monitored directly by the undertaking's highest governing bodies due to their importance to the undertaking.

AG18. The undertaking may use the table below to present the information required.

TCFD categorisation of climate-related transition risks	Description of the undertaking's processes to assess the materiality of climate-related transition risks E.g.; use of climate-related scenario; screening of the harmful activities to climate change mitigation; analysis of the	Description of the undertaking's material climate-related transition risks

	likelihood, magnitude and duration of transition risk events	
Policy and legal		
Increased pricing of GHG emissions		
Enhanced emissions-reporting obligations		
Mandates on and regulation of existing products and services		
Exposure to litigation		
Technology		
Substitution of existing products and services with lower emissions options		
Unsuccessful investment in new technologies		
Costs to transition to lower emissions technology		
Market		
Changing customer behavior		
Uncertainty in market signals		
Increased cost of raw materials		
Reputation		
Shifts in consumer preferences		
Stigmatization of sector		
Increased stakeholder concern		
Negative stakeholder feedback		

AG19. When disclosing the information required under paragraph 30 (b) and (c), the undertaking shall explain how it has used climate-related scenario analysis to inform the identification and assessment of its principal physical and transition risks over the short, medium- and long-term, including:

(a) which scenarios were used and the sources of the scenarios;

(b) narrative, time horizon, and endpoints used with a discussion of why it believes the range of scenarios used covers its plausible risks and uncertainties;

(c) the key forces and drivers taken into consideration in each scenario and why they are relevant to the undertaking, such as policy assumptions, macroeconomic trends, energy usage and mix, and technology assumptions;

(d) key inputs and constraints of the scenarios, including their level of detail (e.g. whether the analysis of physical climate-related risks is based on geospatial coordinates specific to the undertaking's locations or national- or regional-level broad data).

AG20. Regarding the use of climate-related scenario analysis for the identification of transition risks, the undertaking shall in particular explain whether and how:

(a) it has at least considered a 1.5°C and 2°C scenario;

(b) the analysis is compatible with the time horizons of national, EU or and international climate goals, including at least the years 2030 and 2050.

AG21. Regarding the use of climate-related scenario analysis for the identification of physical risks, the undertaking shall in particular explain whether and how:

(a) it has considered scenarios consistent with increased projected physical impacts from climate change, such as IPCC scenario RCP 8.5 or relevant regional scenarios;

(b) the analysis relates to its capital planning and investment horizons and the useful life of its key assets.

AG22. The undertaking may consider the TCFD Technical Supplement on "The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities" (2017). Non-financial undertakings may consider in addition the TCFD "Guidance on Scenario Analysis for Non-Financial Companies" (2020).

Disclosure Requirement 6] – Material climate-related impacts, risks and opportunities

AG23. When disclosing the information required under paragraph 32 (a), the undertaking shall, by reference to Disclosure Requirements 7 to 10 of this Standard, explain the significant GHG emission sources in its own operations and its value chain and, if any, include further significant non-GHG emission climate impacts, such as emissions of black carbon or tropospheric ozone or land use changes.

AG24. When disclosing the information required under paragraph 32 (b), the undertaking shall disclose the result of the assessment of its climate-related physical risks and vulnerability and consider the Taxonomy DNSH adaptation criteria and TCFD risk categorisation.

AG25. When disclosing the information required under paragraph 32 (c), the undertaking shall disclose the result of the assessment of its climate-related transition risks and consider the Taxonomy DNSH mitigation criteria and TCFD risk categorisation.

Policies, targets, action plans and resources

AG26. The Disclosure Requirements developed hereafter refer to ESRS 5 Definitions for policies, targets, action plans and resources.

[Disclosure Requirement 7] – Policies implemented to manage climate change mitigation and climate change adaptation

AG27. Policies related to climate change mitigation and adaptation shall be disclosed separately as their goals, people involved, actions and resources needed to implement them are different. The disclosure of the undertaking's climate change mitigation policy relates to the reduction of GHG emissions through different decarbonisation levers and specific actions (investments in electrification, energy efficiency, renewable energy deployment or low-carbon product development). The undertaking's policies for climate change adaptation relate to managing the undertaking's climate-related physical and transition risks and vulnerability.

[Disclosure Requirement 8] – Measurable targets for climate change mitigation and adaptation

<u>Calculation rules and principles</u>

AG28. When disclosing information under paragraph 41, the undertaking shall disclose all climate-related targets it has adopted that are material to understand its plans to reduce climate-related impacts, in particular its Scope 1, 2 and 3 GHG emissions, its overall transition plan and its plans to address principal climate-related transition and physical risks and opportunities.

AG29. The requirements in paragraph 41 items (a) to (h) apply to all climate-related targets an undertaking discloses. Additional requirements for the disclosure of GHG emission reduction targets are specified in paragraphs 42 respectively. If the undertaking has not yet adopted or does not intend to adopt climate-related targets and GHG reduction targets in particular, it shall follow the requirements under paragraph 43.

AG30. When disclosing the information required under paragraph 41 (a), the undertaking shall specify for each target, the type, what it intends to achieve and how it is embedded in the undertakings climate change mitigation policy, climate change adaptation policy or other policies (e.g. remuneration policies, investment policies, supply chain policies etc.). The undertaking shall explain how the targets are related to other information disclosed under this standard.

AG31. When disclosing the information required under paragraph 41 (b), the undertaking shall in particular explain the boundaries of the target, i.e. whether it relates to the whole undertaking or specific subsidiaries, sites, countries or activities and whether it is limited to own operations or also including (parts of) the value chain. When disclosing GHG emissions reduction targets, the undertaking shall explain how they ensure consistency with the GHG inventory boundaries for its disclosed Scope 1, 2 and 3 GHG emissions under Disclosure Requirements 13-16. If the GHG emission reduction target is not consistent with the GHG inventory, the undertaking shall disclose the percentage of the GHG emissions (Scope 1, 2, 3 and total) covered by the target.

AG32. When disclosing the information required under paragraph 41 (c), the undertaking shall briefly explain how it has ensured that the baseline value, against which the progress towards the target is measured, is representative in terms of activities covered or influences from external factors (e.g. temperature anomalies in a certain year influencing the amount of energy consumption and related GHG emissions), for example by the use of concepts such as normalisation. The undertaking may disclose a base year that is derived from a three-year average if this increases representativeness and allows a more faithful representation.

AG33. To improve comparability, when setting new targets, the undertaking shall select a recent base year preceding the first reporting year of the new target period by a maximum of 3 years. For example, for 2030 as the target year and a target period between 2025 and 2030, the base year shall be selected between 2022 and 2025.

AG34. The baseline value and year shall not be changed unless significant scope changes occur. In such case, the undertaking shall explain how the new baseline value affects the target, its achievement and presentation of progress over time. From 2025, the undertaking may update its base year in relation to the target years in five-year rolling periods. For instance, for the target year 2030 the base year would be 2025; in 2030 the new target year would 2035 and achievement is measured against the baseline value from 2030 etc.

AG35. When disclosing the information required under paragraph 41 (d) the undertaking shall include:

(a) whether the target is short, medium or long term, where short-term relates to 1-5 years from the reporting year, medium-term to 5-10 years and long-term to >10 years, but no later than 2050;

(b) the target and milestone years and the respective end or interim target values to be achieved;

(c) an explanation how the targets relate to national, EU or international climate change mitigation or adaptation policy targets, if applicable;

AG36. When disclosing the information required under paragraph 41 (e) the undertaking shall explain how it has developed the target, including a brief description of critical assumptions and applied methodologies. For GHG emission reduction targets, in particular, the undertaking shall disclose:

(a) whether the target is science-based and the applied approach (e.g. sectoral decarbonisation or absolute contraction);

(b) whether the undertaking has used a diverse range of climate scenarios, at least including a 1.5°C and a 2°C scenario, to determine the target;

(c) which scenarios were used (name, reference date, provider) and critical assumptions made;

(d) critical assumptions relating to its future activities (e.g. sales volumes, customer preference and demand, regulatory factors) and new technologies and how these may increase or decrease potential GHG emissions.

AG37. When disclosing the information required under paragraph 41 (f) the undertaking shall specify what changes were made and why they were made (e.g., due to a recalculation of the base year inventory, an update to the emissions scenario, a significant perimeter change, etc.).

AG38. When compiling the information required under paragraph 41 (g) for GHG emissions reduction targets, the undertaking shall not count removals, carbon offsets or avoided emissions as means to achieve these targets.

AG39. When disclosing the information required under paragraph 42 (a), the undertaking shall explain:

(a) by reference to its climate change mitigation action plan, the decarbonisation levers and planned and foreseeable key actions it expects to significantly contribute to the achievement of its short-, medium and long-term GHG emission reduction targets (Scope 1, 2 and 3);

(b) whether it plans to adopt new technologies and the role of these to achieve its GHG emission reduction targets and net-zero CO_2 emissions;

(c) the progress made over time;

(d) whether and how it has considered a diverse range of climate scenarios, at least including a 1.5°C and 2°C scenario, in order to detect relevant environmental-, societal-, technology-, market- and policy-related developments and determine its decarbonisation levers.

AG40. When disclosing the information required under paragraph 42 (b), the undertaking shall include the target and interim targets for its Scope 1, 2 and 3 GHG emissions in absolute value and, if deemed meaningful, in intensity value. Guidance on intensity targets will be available from sector-specific ESRS. The undertaking shall disclose targets for every five years from 2025 onwards but shall at least disclose values for 2030 and 2050.

AG41. To foster comparability and acknowledge past progress made, the undertaking may disclose past GHG emission reductions. In doing so, the undertaking shall ensure that the information is consistent with the requirements of this standard and explain possible methodological differences, among others regarding baseline GHG emissions and perimeter of activities covered.

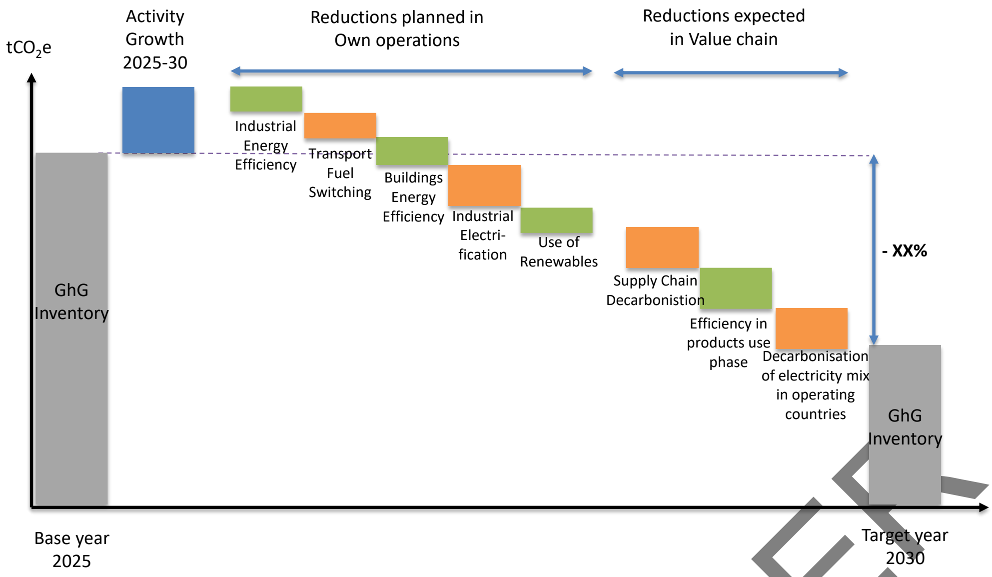
AG42. When disclosing a net zero target, the undertaking shall specify the methodology and frameworks applied, to which scopes the target applies and how the residual GHG emissions are intended to be neutralised, e.g. by permanent removal and storage of carbon.

AG43. When disclosing a net zero target the undertaking shall consider the Science-based target initiative (SBTi) corporate net-zero standard (version 1.0, October 2021).

AG44. GHG emissions reduction targets may be presented as a table showing the different decarbonisation levers, such as the following:

	Base year total emissions	Target value and contribution of decarbonisation levers (% and tCO_2eq)		
		2025	2030	Up to 2050
GHG emissions reduction targets pathway (Scope 1, 2 & 3)				
Decarbonisation lever example: Industrial Energy Efficiency	n/a			
Decarbonisation lever example: Building Energy Efficiency	n/a			
Decarbonisation lever example: Fuel Switching	n/a			
Decarbonisation lever example: Electrification	n/a			
Decarbonisation lever example: Use of renewable energy	n/a			
Decarbonisation lever example: CCU and CCS technologies	n/a			

AG45. GHG emissions reduction targets may be presented as a graphical pathway or trajectory over time, including the contribution of different decarbonisation levers to target achievement.



Connectivity with financial reporting

AG46. When disclosing the information required under paragraph AG28., the undertaking shall include a statement of consistency illustrating how the scenarios and critical assumptions made for the financial statements and the sustainability statements are consistent.

AG47. The statement of consistency required under paragraph AG45. shall include a reference to the relevant paragraphs of the financial statements. When the assumptions are not consistent, the statement of consistency shall state that fact and explain the reason.

[Disclosure Requirements 9 & 10] – Climate change mitigation and adaptation action plans & resources

AG48. Key actions undertaken to implement a climate change mitigation or adaptation policy shall be disclosed in single or separated action plan(s). The action plan has a retrospective component, including key actions accomplished during the reporting period, and a forward-looking component, including key actions planned in the short-, medium- and long-term.

AG49. Information on resources needed and allocated may be disclosed at the level of the entire action plan or by key action taken or planned.

AG50. The information on resources allocation shall be presented in the form of a table and be broken down between capital expenditures and operating expenditures, and across the relevant time horizons, at minimum for the current reporting year resources, and the planned allocation of resources over specific time horizons.

AG51. Where the action plan requires significant capital expenditures the undertaking shall report such information, in particular if it implies the adoption of new technologies, R&D, refurbishment or replacement of key assets (e.g., to address locked-in emissions as part of its transition plan). The undertaking shall at least make a reference to the disclosure of its CapEx plan for taxonomy alignment. Where the ability to implement the action plan does not depend on specific capital expenditures, the undertaking shall provide explanatory information instead.

AG52. The amounts of capital expenditure shall be consistent with the Taxonomy Regulation related key performance indicator and the CapEx plan. The undertaking may structure its action plan to accommodate the CapEx plan for taxonomy alignment. In case of differences between capital and operating expenditure disclosed under this standard and the EU taxonomy, the undertaking shall provide an explanation.

AG53. If the undertaking has not yet defined specific actions because it is in a process of devising a policy, the process and its current implementation status shall be reported instead.

Performance measurement

[Disclosure Requirement 11] – Energy consumption & mix

AG54. The transition to a climate-neutral European Union necessitates urgent action to increase energy efficiency and reduce absolute energy consumption in buildings, transport and industrial processes, among others, as well as to increase the share of renewable energy in the overall energy mix.

Calculation rules

AG55. When compiling the information required under paragraph 53, the undertaking shall:

(a) only report energy consumed from processes owned or controlled by the undertaking applying the same perimeter as for reporting on GHG emissions Scope 1 and 2;

(b) provide the required information for the reporting year;

(c) exclude feedstocks and fuels that are not combusted for energy purposes. The Undertaking that consumes fuel as feedstocks can disclose information on this consumption separate from the required disclosures;

(d) ensure all quantitative energy-related information is reported in Mega-Watt-hours (MWh) in Lower Heating Value or net calorific value. If raw data is available in energy units other than MWh, such as Giga-Joules (GJ) or British Thermal Units (Btu), in volume units, such as cubic feet or gallons, or in mass units, such as kilograms (kg) or pounds (lb), it shall be converted to MWh using suitable conversion factors (see for example the Annex II of the Fifth Assessment report of IPCC). Conversion factors for fuels shall be made transparent and applied in a consistent manner.

(e) ensure all quantitative energy-related information is reported as final energy consumption, referring to the amount of energy the undertaking actually consumes using for example the table in Annex IV of the EU Directive 2012/27 on energy efficiency.

(f) avoid double counting of fuel consumption when disclosing self-generated energy consumption. If the undertaking generates electricity from a non-renewable or renewable fuel source and then consumes the generated electricity, the energy consumption shall be counted only once under fuel consumption;

(g) not offset energy consumption even if onsite generated energy is sold to and used by a third party;

(h) not count energy that is sourced from within the organisational boundary under "purchased or acquired" energy;

(i) account for steam, heat or cooling received as 'waste energy' from a third party's industrial processes under "purchased or acquired" energy;

(j) account for renewable hydrogen as a renewable fuel. Hydrogen that is not completely derived from renewable sources shall be included under "fuel consumption from other non-renewable sources".

(k) adopt a conservative approach when splitting the electricity, steam, heat or cooling between renewable and non-renewable sources based on the approach to calculate market-based Scope 2 emissions. The undertaking shall only consider these energy consumptions as deriving from renewable sources if the origin of the purchased energy is clearly defined in the contractual arrangements with its suppliers (renewable PPA, standardised green electricity tariff, market instruments like Guarantee of Origin from renewable sources in Europe or similar instruments like Renewable Energy Certificates in the US and Canada, etc.).

AG56. The Disclosure Requirement shall be presented following the table below.

Energy consumption and mix	Comparative	Year N
Fuel consumption from coal and coal products (MWh) (1)		
Fuel consumption from crude oil and petroleum products (MWh) (2)		
Fuel consumption from natural gas (MWh) (3)		
Fuel consumption from other non-renewable sources (MWh) (4)		
Consumption from nuclear products (MWh) (5)		
Consumption of purchased or acquired electricity, heat, steam, and cooling from non-renewable sources (MWh) (6)		
Total non-renewable energy consumption (MWh) (7) **(calculated as sum of lines 1 to 6)**		
Share of non-renewable sources in total energy consumption (%)		
Fuel consumption for renewable sources (including biomass, biogas, non-fossil fuel waste, renewable hydrogen, etc.) (MWh) (8)		
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh) (9)		
The consumption of self-generated non-fuel renewable energy (MWh) (10)		
Total renewable energy consumption (MWh) (11) **(calculated as sum of lines 8 to 10)**		
Share of renewable sources in total energy consumption (%)		
Total energy consumption (MWh) **(calculated as sum of lines 7 and 11)**		

AG57. The total energy consumption broken down between renewable and non-renewable energy consumption can be graphically presented in the sustainability statement, showing developments over time (e.g., in a bar chart).

AG58. If the undertaking has set energy reduction or energy efficiency targets that relate to its total energy consumption or total renewable energy consumption, it may include them in the graphical presentation of the total energy consumption.

[Disclosure Requirement 12] – Energy intensity per revenue

Calculation rules

AG59. When compiling the information required under paragraph 54, the undertaking shall:

(a) calculate the energy intensity ratio by the following formula: $\frac{\text{Total energy consumption from activities in high climate impact sectors (MWh)}}{\text{Net turnover from activities in high climate impact sectors (Monetary unit)}}$;

(b) express the total energy consumption in MWh and the net turnover in monetary unit (e.g., million Euros);

(c) include in the numerator and denominator only the fraction of the total final energy consumption and net turnover that can be associated with activities in high climate impact sectors;

(d) calculate the total energy consumption in line with Disclosure Requirement 11;

(e) calculate the net turnover in line with the accounting principles applicable for financial statements.

AG60. The quantitative information shall be presented in the following table.

Energy intensity per revenue	Comparative	N	% N / N-1
Total energy consumption from activities in high climate impact sectors per net turnover from activities in high climate impact sectors (MWh/Monetary unit)			

Connectivity with financial reporting

AG61. For the net turnover, the reconciliation to the most relevant amount presented in the financial statements shall be structured as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement.

(b) If the net turnover cannot be directly cross-referenced to a line item in the financial statement, the undertaking shall provide a quantitative reconciliation table between the net turnover per this ESRS E1 and the financial statements. The undertaking may use the table for reconciliation shown below:

Turnover from activities in high climate impact sectors (Disclosure Requirement 12 “Energy intensity”)	
Turnover (other)	
Total turnover (Financial statements)	

[Disclosure Requirements 13, 14, 15 & 16] – GHG emissions

Calculation rules

AG62. When compiling the information for reporting of GHG emissions according to Disclosure Requirements 13, 14, 15 and 16 the undertaking shall:

(a) consider the principles, requirements and guidance provided by the GHG Protocol Corporate Standard (version 2004) and GRI 305 (version 2016);

(b) [disclose and consistently apply the chosen consolidation approach; whether equity share, financial control, or operational control and any further assumption and sources taken to determine its GHG emissions] [use the operational control consolidation approach] [use the financial control consolidation approach];

(c) include emissions of CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3;

(d) use the most recent GWP values published by the IPCC based on a 100-year time horizon to calculate CO_2 equivalent emissions of non-CO_2 gases;

(e) report on the methodologies and emissions factors used to calculate or measure GHG emissions, providing a reference or link to any calculation tools used.

AG63. When compiling the information required under paragraph 61 (a) for gross Scope 1 GHG emissions, the undertaking shall:

(a) calculate or measure GHG emissions from stationary combustion, mobile combustion, process emissions and fugitive emissions;

(b) use suitable activity data that, amongst others, include the non-renewable fuel consumption;

(c) use suitable and consistent emission factors;

(d) disclose biogenic emissions of CO_2 from the combustion or biodegradation of biomass separately from the Scope 1 GHG emissions. Include emissions of other types of GHG (such as CH_4 and N_2O), and emissions of CO_2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass) in Scope 1;

(e) exclude any purchased, sold or transferred GHG emission offsets or allowances.

AG64. When compiling the information required under paragraph 61 (b) for the share of Scope 1 GHG emissions under regulated emission trading schemes, the undertaking shall:

(a) consider GHG emissions from installations it operates and that are subject to regulated European Emission Trading Scheme (EU-ETS), national ETS and non-EU ETS, if applicable;

(b) do not include other emissions than those of CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3;

(c) ensure consistency with the chosen consolidation approach;

(d) ensure the same accounting period for gross Scope 1 GHG emissions and GHG emissions regulated under EU and national ETS;

(e) calculate the share by using the following formula:

$$\frac{\text{GHG emissions from EU ETS installations } (\text{t } CO_2\text{eq}) + \text{GHG emissions from national ETS installations } (\text{t } CO_2\text{eq})}{\text{Scope 1 GHG emissions } (\text{t } CO_2\text{eq})}$$

AG65. When compiling the information required under paragraph 64 for gross Scope 2 GHG emissions, the undertaking shall:

(a) consider the principles and provisions of the GHG Protocol Scope 2 Guidance (version 2015);

(b) include purchased or acquired electricity, steam, heat, and cooling;

(c) avoid double counting with GHG emissions reported under Scope 1 or 3;

(d) apply the location-based and market-based method to calculate Scope 2 GHG emissions;

(e) disclose biogenic emissions of CO_2 from the combustion or biodegradation of biomass separately from the Scope 2 GHG emissions, include emissions of other types of GHG (such as CH_4 and N_2O), and emissions of CO_2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass) in Scope 2;

(f) exclude any purchased, sold or transferred GHG emission offsets or allowances from the calculation of Scope 2 GHG emissions;

(g) adhere to the rules as set out in chapter 7.1 of the GHG Protocol Scope 2 Guidance (version 2015) and disclose the required information accordingly.

AG66. When compiling the information required under paragraph 67 for gross Scope 3 GHG emissions, the undertaking shall:

(a) consider the principles and provisions of the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011);

(b) if it is a financial institution, consider the GHG Accounting and Reporting Standard for the Financial Industry from the Partnership for Carbon Accounting Financial (PCAF);

(c) screen its total Scope 3 GHG emissions based on the 15 Scope 3 categories identified by the GHG Protocol Corporate and Scope 3 Standards using appropriate estimates;

(d) identify its significant Scope 3 categories based on their estimated GHG emissions following the criteria provided by GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011, p. 63) or ISO 14064-1:2018 Annex H.3;

(e) calculate or estimate GHG emissions in significant Scope 3 categories;

(f) at least update the Scope 3 inventory every three years and in case of major changes (Explanatory note: Scope 3 GHG emissions need to be disclosed every year, but a full inventory update is only expected every three years unless major changes occur);

(g) disclose the percentage of emissions calculated using primary data obtained from suppliers or other value chain partners;

(h) disclose for each significant Scope 3 GHG emissions category: the boundaries considered, the calculation methods for estimating the GHG emissions as well as if and which calculation tools were applied.

(i) avoid double counting with GHG emissions reported under Scope 1 or 2;

(j) disclose a list of Scope 3 categories included in and excluded from the inventory;

(k) disclose a justification for excluded Scope 3 categories;

(l) disclose biogenic emissions of CO_2 from the combustion or biodegradation of biomass that occur in its value chain separately from the gross Scope 3 GHG emissions, include emissions of other types of GHG (such as CH_4 and N_2O), and emissions of CO_2 that occur in the life cycle of biomass other than from combustion or biodegradation (such as GHG emissions from processing or transporting biomass) in scope 3;

(m) exclude any purchased, sold or transferred GHG emission offsets or allowances from the calculation of Scope 3 GHG emissions.

AG67. When compiling the information required under paragraph 70 for the total GHG emissions, the undertaking shall:

(a) apply the following formulas to calculate the total GHG emissions:

$$\text{Total GHG emissions}_{location-based}\ (\text{t CO}_2\text{eq}) = \text{Gross Scope 1} + \text{Gross Scope 2}_{location-based} + \text{Gross Scope 3}$$

$$\text{Total GHG emissions}_{market-based}\ (\text{t CO}_2\text{eq}) = \text{Gross Scope 1} + \text{Gross Scope 2}_{market-based} + \text{Gross Scope 3}$$

(b) disclose total GHG emissions under the location-based method for Scope 2 GHG emissions and under the market-based method

AG68. The quantitative information shall be presented according to the table below.

	Retrospective	Milestones and target years

	Base year	Comparative	N	% N / N-1	2025	2030	Annual % target / Base year
Scope 1 emissions							
Gross Scope 1 GHG emissions (tCO_2eq)							
Share of Scope 1 GHG emissions under regulated emission trading schemes (%)							
Scope 2 GHG emissions							
Gross location-based Scope 2 GHG emissions (tCO_2eq)							
Gross market-based Scope 2 GHG emissions (tCO_2eq)							
Scope 3 GHG emissions							
Total Gross indirect (Scope 3) GHG emissions (tCO_2eq)							
Upstream purchasing							
Downstream sold products							
Goods transportation							
Travels							
Financial investments							
Total GHG emissions							
Total GHG emissions (location-based) (tCO_2eq)							
Total GHG emissions (market-based) (tCO_2eq)							

AG69. The Scope 3 GHG emissions shall be presented by significant overarching Scope 3 categories as shown in the above table to highlight the major sources of emissions in the value chain.

AG70. The total GHG emissions shall be disclosed broken down by major countries (to highlight potential transition risks; Scope 3 GHG emissions can be excluded if data is not readily available). The number of countries used in the breakdown shall rely on the amount of the undertaking's emissions in these countries in order to provide a faithful overview of where the emissions of the undertaking occur.

AG71. The total GHG emissions shall be disclosed broken down by Operating Segments the undertaking is active in. Scope 3 GHG emissions may be excluded if data is not readily available.

AG72. The total GHG emissions, broken down by Scope 1, 2 and 3 GHG emissions, can be graphically presented in the sustainability statement (e.g., as a bar or pie chart) showing the split of GHG emissions over the value chain (Upstream, Own operations, Transport, Downstream).

[Optional Disclosure Requirement 17] – GHG removals

AG73. In addition to their GHG inventories, undertakings may provide transparency on how and to which extent they enhance natural sinks or apply technical solutions to remove GHGs from the atmosphere. While generally agreed concepts and methodologies for accounting of GHG removals are still missing, this Standard allows an undertaking to disclose efforts to remove GHGs from the atmosphere in its own operations and its value chain.

Calculation rules

AG74. When compiling the information required under paragraphs 71 and 73, the undertaking shall:

(a) consider, as far as applicable, the GHG Protocol Corporate Standard (version 2004), Product Standard (version 2011), Agriculture Guidance (version 2014), Land use, land use change, and forestry Guidance for GHG project accounting (version 2006);

(b) apply consensus methods on accounting for GHG removals as soon as they are available;

(c) consider removals from operations that it owns or controls and/or removals in its value chain; removals from own operations and from the value chain shall be disclosed separately;

(d) in case different types of GHG removals exist, add them up to derive the total GHG removals in metric tons of CO_2 or CO_2 equivalent;

(e) if applicable, explain the role of removals for its climate mitigation policy;

(f) describe the nature of all removals included in the disclosure, especially the GHGs concerned, if the removals are nature-based, geological or hybrid and how long-term storage is ensured;

(g) describe the assumptions made, methodologies and frameworks applied for calculation of the amount of GHG removals.

AG75. The quantitative information shall be presented by using the following table.

Removals	Comparative	N	% N / N-1
Total GHG removals from own operations (tCO_2eq)			
Total GHG removals from value chain (tCO_2eq)			

[Optional Disclosure Requirement 18] – Financing GHG mitigation projects outside of the undertaking's value chain

AG76. Financing GHG reduction projects outside the undertaking's value chain, that fulfil high quality standards, can be a useful means to mitigate climate change. Consequently, this Standard allows to disclose, separately from the GHG inventory, if, and to which extent and with regard to which quality criteria and standards, carbon offsets were purchased or sold by the undertaking during the reporting period.

Calculation rules

AG77. When compiling the information required under paragraphs 74 and 76, the undertaking shall:

(a) only report carbon offsets purchased from or sold to the voluntary market that are verified against the requirements of recognised national or international quality standards;

(b) disclose the list of projects financed to acquire carbon offsets, including the quality criteria and standard they fulfil, their category (agriculture, industrial processes, energy efficiency and fuel switching, forestry and land use, transportation, household devices, renewables, waste disposal, etc.), location and the current year generated volume by project.

(c) disclose the list of projects implemented or planned to sell carbon offsets, including the quality criteria and standards they fulfil;

(d) if applicable, explain the role of carbon offsets for its climate mitigation policy;

(e) not include carbon offsets in the GHG inventory to settle its total GHG emissions;

(f) not disclose carbon offsets as a means to reach GHG reduction targets.

AG78. The information shall be presented by using the following table.

Financing GHG mitigation projects outside of an undertaking's value chain	Comparative	N	% N / N-1
Total purchased carbon offsets emissions (tCO_2eq)			
Total sold carbon offsets (tCO_2eq)			

AG79. For purchased carbon offsets emissions, a table may be presented detailing the list of projects including their:

(a) category;

(b) country;

(c) quality standards;

(d) current year generated volume.

[Optional Disclosure Requirement 19] – Avoided GHG emissions from products and services

AG80. Accounting for an undertaking's Scope 1, 2 and 3 GHG emissions and for avoided emissions from products based on comparative assessments are complementary but fundamentally different concepts. This Standard requires undertakings to foremost disclose Scope 1, 2, and 3 emissions and related reduction targets. Comparative assessments shall neither take precedence over nor detract an undertaking in this regard. Comparative impacts shall not be used to adjust Scope 1, 2, and 3 emissions or claim GHG reduction target achievement. Given the persisting methodological challenges on accounting and reporting on avoided emissions, this Standard insists that undertakings rigorously disclose information on methodologies used and assumptions made.

<u>Calculation rules</u>

AG81. When compiling the information required under paragraphs 77 and 79, the undertaking shall:

(a) in the absence of generally accepted accounting methodologies, consider the recommendations from the World Resource Institute Working Paper "Estimating and reporting the comparative emissions impacts of products" (WRI 2018);

(b) use the following formulas to calculate avoided GHG emissions:

(i) when using the attributional approach:

$$Avoided\ GHG\ emissions_{attributional} = life\ cycle\ emissions\ of\ reference\ product - life\ cycle\ emissions\ of\ assessed\ product$$

whereas total avoided GHG emissions are the sum of all products assessed,

(ii) when using the consequential approach:

$$Avoided\ GHG\ emissions_{consequential} = emissions\ in\ baseline\ scenario - emissions\ in\ policy\ scenario$$

whereas total avoided GHG emissions are the sum of all products assessed;

(c) disclose as part of the description of applied methodologies:

(i) the percentage of the product(s), on which avoided emissions are disclosed, in terms of the undertaking's total product portfolio;

(ii) whether attributional or consequential approaches have been used for the assessment;

(iii) when using the attributional approach, the assessed and reference products, why they were selected, the life cycle GHG emissions of each, which life cycle GHG emissions have been omitted, if at all;

(iv) when using the consequential approach, the baseline and policy scenarios, why they were selected, the GHG emissions of each, which GHG emissions have been omitted if at all;

(v) if attribution to different entities in the undertaking's value chain is attempted, the attribution method and ratio;

(vi) a quantitative estimate or qualitative description of the uncertainty of the results, as well as the range of results from sensitivity analyses for key parameters and assumptions.

(vii) explain why GHG reductions are additional, i.e., why they would not have occurred in the absence of the product sales to customers and demonstrate that the reference products (attributional approach) or the baseline (consequential method) are above the average market performance and exceed EU and Member states' regulatory requirements.

(d) if applicable, explain the role of avoided GHG emission for its climate mitigation policy.

AG82. The quantitative information shall be presented by using the following table.

Avoided GHG emissions from products and services	Comparative	N	% N / N-1
Estimated total avoided GHG emissions from products (tCO_2eq)			

[Disclosure Requirement 20] – GHG intensity per revenue

Calculation Rules

AG83. When disclosing the information required under paragraph 82, the undertaking shall:

(a) calculate the GHG intensity ratio by the following formula:

$$\frac{Total\ GHG\ emissions\ (t\ CO_2eq)}{Net\ turnover\ \ (Monetary\ unit)};$$

(b) express the total GHG emissions tCO_2eq and the net turnover in monetary unit (e.g., million Euros);

(c) include in the denominator its overall net turnover;

(d) calculate the total GHG emissions as per Disclosure Requirement 16;

(e) calculate the net turnover in line with the provisions for financial statements.

AG84. The quantitative information shall be presented by using the following table.

GHG intensity per revenue	Comparative	N	% N / N-1
Total GHG emissions per net turnover (tCO_2eq/Monetary unit)			

<u>Connectivity with financial reporting</u>

AG85. For the net turnover, the reconciliation to the most relevant amount presented in the financial statements shall be structured as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement.

(b) If the net turnover can't be directly cross-referenced to a line item in the financial statement, the undertaking shall provide a quantitative reconciliation table between [the turnover as required in the Disclosure Requirement 20 "GHG intensity"] and the financial statements. The undertaking may use the format of the table for reconciliation shown below:

Turnover (Disclosure Requirement 20 on 'GHG intensity')	
Turnover (other)	
Total turnover (Financial statements)	

[Disclosure Requirement 21] – Financial exposure to physical risks

AG86. Principal climate-related physical risks as described under Disclosure Requirement 6 may affect the financial position (owned assets) and performance (potential future increase/decrease in revenues and costs due to business interruptions, increased supply prices, etc. resulting in potential margins erosions) of the undertaking. The purpose of this Disclosure Requirement is to provide transparency on the estimated potential financial effects of these physical risks.

<u>Calculation rules</u>

AG87. When disclosing the information required under paragraph 89 (a) and (b), the undertaking shall explain whether and how it has conducted a vulnerability assessment of the assets and activities to determine effects on future financial performance and position. The process to be followed by the undertaking shall:

(a) start from the outcome of the physical risk identification and assessment process described in Disclosure Requirement 5. The detailed vulnerability assessment calculation rules and methodology may be based on free definitions as they depend on the undertaking's industry and organisation specific climate-related risk management. On the contrary, the description of the methodologies and definitions used by the undertaking, including at least the scope of application, the methodology assumptions and limitations and the critical parameters used, shall be disclosed both for the net assets and the share of turnover from business activities exposed to physical risks;

(b) assess the amount (monetary unit) of assets exposed to physical risks as a range of net assets value, resulting from the sum of owned assets considered at risk following the vulnerability assessment;

(c) assess the share of business activities exposed to physical risks as a list of business activities, possibly by operating segment, with their percentage of total revenues, the vulnerability factors (location, hazards, events) and when possible the magnitude of the potential financial effects in terms of margin erosion over the short-, medium- and long-term.

AG88. The disclosures shall not include amounts that are already accounted for in the financial statements.

AG89. The amount (monetary unit) of assets exposed to physical risks may be presented as a range of net assets value.

AG90. The undertaking may use the following table.

Physical risks	Potential financial impact	N	Estimated range in future years	Comment s Eg: related business activities; vulnerability factor (location, hazards, events)
Acute - Increased severity of extreme weather events such as cyclones and floods **Chronic** - Changes in precipitation patterns - and extreme variability in weather - patterns - Rising mean temperatures - Rising sea level	Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)			
	Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)			
	Write-offs and early retirement of existing assets (e.g., damage to property and assets in “high-risk” locations)			
	Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)			
	Increased capital costs (e.g., damage to facilities)			
	Reduced revenues from lower sales/output			
	Increased insurance premiums and potential for reduced availability of insurance on assets in “high-risk” locations			

Connectivity with financial reporting

AG91. For the net assets, the reconciliation to the most relevant amount presented in the financial statements shall be structured as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement.

(b) If it can't be directly cross-referenced to a line item in the financial statement, the undertaking may provide a quantitative reconciliation table between [the net current assets value as required in 'Financial exposure to physical risks' and financial statements. The undertaking may use the format of the table for reconciliation shown below:

Net current assets value used to calculate the current assets exposed to physical risks ('Financial exposure to physical risks')	
Net current assets value (other)	
Net current assets value (Financial statements)	

AG92. For the financial datapoints (current year) related to the share of revenues from business activities exposed to physical risks, the undertaking shall include a reference to the related line item in the financial statement as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement.

(b) If it cannot be directly cross-referenced to a line item in the financial statement, the undertaking may provide a quantitative reconciliation table between [the financial datapoints related to the share of business activities exposed to physical risks as required in 'Financial exposure to physical risks' and financial statements. The undertaking may use the format of the table for reconciliation shown below:

Turnover / OpEx / R&D / investments / write off / impairments (current year) related to 'share of business activities exposed to physical risks', ('Financial exposure to physical risks')	
Turnover / OpEx / R&D/ investments / write off / impairments (current year) (other)	
Turnover / OpEx / R&D / investments / write off / impairments (current year) (Financial statements)	

AG93. The undertaking shall include a statement of consistency illustrating the consistency of data and of assumptions made in sustainability reporting to assess the financial exposure to physical risks with the corresponding data and assumptions used for the financial statements (e.g. impairment of assets, useful life of assets, estimates and provisions).

AG94. A reference to the relevant paragraphs of the financial statements shall be included in the statement of consistency. If the assumptions are not consistent, the statement of consistency should state that fact and explain the reason. (e.g., the full financial implications of climate-related risks are still under assessment or are not deemed material).

AG95. The undertaking may consider areas such as climate-related indicators of impairment of assets, impacts of climate-related matters on useful life of assets, assessment of provisions to reflect new environmental laws and climate-related commitments by the entity, etc.

[Disclosure Requirement 22] – Financial exposure to transition risks

AG96. Currently no commonly agreed methodology exists to assess or measure how climate-related transition risks and opportunities may affect the future financial position and performance of the undertaking, the disclosure required by paragraph 91 remains largely based on the exercise of judgement. In this context, the undertaking shall disclose an estimation of the potential effects of its principal transition risks in relation to (i) the potential future financial position in terms of assets and liabilities and (ii) the potential future financial performance in terms of revenues and costs and explain the methodologies applied and critical assumptions made.

Calculation rules

AG97. When disclosing the information required under paragraph 93 (a) (i) concerning the potential future effects on assets, the undertaking shall at least include an estimation of the amount of potentially stranded assets (in monetary unit). Stranded assets are understood as currently owned or operated assets of the undertaking with significant locked-in GHG emissions over their operating lifetime. The amount may be expressed as a range of net asset value based on different transition scenarios, including a 1.5°C and 2°C scenario.

AG98. When disclosing the information required under paragraph 93 (a) (ii) related to the potential future effects on liabilities:

(a) undertakings that operate installations regulated under an emission trading scheme shall include a range of potential future financial liabilities originating from these schemes;

(b) undertakings subject to the EU ETS, in particular, shall disclose the potential future liabilities of the allocation plan over the period 2021-2030, including the number of quotas to be purchased yearly on the market (gap between estimated future emissions under various transition scenarios and free allocations that are known for the period 2021-2030) and the estimated yearly cost per ton to be purchased;

(c) the undertaking may also include its monetised gross Scope 1, 2 and total GHG emissions (in monetary unit) calculated as follows:

(i) monetised Scope 1 and 2 GHG emissions in the reporting year by the following formula:

$$(gross\ Scope\ 1\ GHG\ emissions\ (t\ CO_2eq) + gross\ Scope\ 2\ GHG\ emission\ (t\ CO_2eq)) \times GHG\ emission\ cost\ rate\ (\frac{€}{t\ CO_2eq})$$

(ii) monetised total GHG emissions in the reporting year by the following formula:

$$Total\ GHG\ emissions\ (t\ CO_2eq) \times GHG\ emission\ cost\ rate\ (\frac{€}{t\ CO_2eq}$$

(iii) by use of a lower, middle and upper cost rate for GHG emissions (e.g. market carbon price and different estimates for the societal costs of carbon) and reasons for selecting them.

AG99. Other approaches and methodologies may be applied to assess how climate-related risks may affect the future financial position of the undertaking. In any case, the disclosure of financial exposure shall be completed by a description of the methodologies and definitions used by the undertaking, including at least, the scope of application, the methodology assumptions and limitations, the scenario analyses that were conducted and the critical parameters used.

AG100. When disclosing the information required under paragraph 93 (b) concerning the potential future financial performance, the undertaking shall include a description of how it may be affected by climate-related transition risks in terms of the turnover related to its business activities. Even if no detailed calculation rules are generally agreed-upon, there is a market convergence on existing methodologies to consider the following steps:

(a) screening of the activities to identify on the one side significantly harmful activities with regards to climate change mitigation that are unable by nature to transition and on the other side those considered as significantly harmful to climate change mitigation but that have options available to transition to a future low carbon climate-resilient economy. This screening shall be science based and would typically be linked with the technical screening criteria of the Taxonomy Regulation;

(b) mapping of the activities through the lens of transition risk events taking into consideration their likelihood, magnitude and duration according to selected scenario analyses. This mapping shall be carried out by using the following events (not comprehensive) list: increased external carbon pricing due to policy changes; increased costs due to regulation or substitution of existing products and services (shifting energy use toward lower emission sources, adopting energy-efficiency solutions, etc.) ; loss of revenues due to technological innovation such as renewable energy, battery storage, energy efficiency, and carbon capture and storage ; increase of operating costs due to a shift of market demand for certain commodities, product or services ; loss due to litigation, loss of revenue due to shift in customer preferences or change in community perception of the company, etc.

AG101. The business activities exposed to transition risks resulting in margin erosion shall be disclosed as an estimated share of revenues from business activities (or operating segment) and shall be completed by a description of the methodologies and definitions used by the undertaking, including at least the scope of application, the methodology assumptions and limitations, if and how scenario analyses were applied and critical parameters used.

AG102. The undertaking may use the table below to present the information required under paragraph 93 (b):

Transition risks	Potential financial impact	N	Estimated range in future years	Comment
Policy and legal				
- Increased pricing of GHG emissions - Enhanced emissions-reporting obligations - Mandates on and regulation of existing products and services - Exposure to litigation	Increased operating costs (e.g., higher compliance costs, increased insurance premiums)			
	Write-offs, asset impairment, and early retirement of existing assets due to policy changes			
	Increased costs and/or reduced demand for products and services resulting from fines and judgments			
Technology				
- Substitution of existing products and services with lower emissions options - Unsuccessful investment in new technologies - Costs to transition to lower emissions technology	Write-offs and early retirement of existing assets			
	Reduced demand for products and services			
	R&D expenditures in new and alternative technologies			
	Capital investments in technology development			
	Costs to adopt/deploy new practices and processes			
Market				

- Changing customer behaviour - Uncertainty in market signals - Increased cost of raw materials	Reduced demand for goods and services due to shift in consumer preferences			
	Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment)			
	Abrupt and unexpected shifts in energy costs			
	Change in revenue mix and sources, resulting in decreased revenues			
	Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)			
Reputation				
- Shifts in consumer preferences - Stigmatization of sector - Increased stakeholder concern or - negative stakeholder feedback	Reduced revenue from decreased demand for goods/services			
	Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)			
	Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention)			
	Reduction in capital availability			

Connectivity with financial reporting

AG103. For the net stranded assets, the reconciliation to the most relevant amount presented in the financial statements shall be structured as follows:

(a) The undertaking should include a cross-reference to the related line item in the financial statement.

(b) If it can't be directly cross-referenced to a line item in the financial statement, the undertaking should provide a quantitative reconciliation table between [the net current assets value as required in 'Financial exposure to transition risks' and financial statements. The undertaking may use the format of the table for reconciliation shown below:

Net current assets value used to calculate the current assets exposed to transition risks ('Financial exposure to transition risks')	
Net current assets value (other)	
Net current assets value (Financial statements)	

AG104. For the liabilities, the undertaking shall make a reference to the description of the emission trading schemes in the financial statements.

AG105. If such reference cannot be made, under circumstances where financial statements are silent on emission trading schemes, the reconciliation to the most relevant amount presented in the financial statements shall be structured as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement.

(b) If the financial information cannot be directly cross-referenced to a line item in the financial statement, the undertaking shall provide a quantitative reconciliation table between the information related to the emission trading schemes and the financial statements. The undertaking may use the format of the table for reconciliation shown below:

Liabilities related to the regulatory emission trading schemes (‘Financial exposure to transition risks’)	
Liabilities related to the regulatory emission trading schemes (other)	
Liabilities related to the regulatory emission trading schemes (Financial statements)	

AG106. For the financial datapoints (current year) related to the share of revenues from business activities exposed to transition risks, the undertaking shall include a reference to the related line item in the financial statement as follows:

(a) The undertaking shall include a cross-reference to the related line item in the financial statement;

(b) If it can’t be directly cross-referenced to a line item in the financial statement, the undertaking may provide a quantitative reconciliation table between [the financial datapoints related to the share of business activities exposed to physical risks as required in Disclosure Requirement 22 “Financial exposure to transition risks”] and the financial statements.

(c) The undertaking may use the format of the table for reconciliation shown below:

Turnover / OpEx / R&D/ investments / write off / impairments (current year) related to “share of business activities exposed to physical risks”, (“Financial exposure to transition risks”)	
Turnover / OpEx / R&D/ investments / write off / impairments (current year) (other)	
Turnover / OpEx / R&D / investments / write off / impairments (current year) (Financial statements)	

AG107. The undertaking shall include a statement of consistency illustrating the consistency of data and of assumptions made in sustainability reporting to assess the financial exposure to physical risks with the corresponding data and assumptions used for the financial statements (e.g. impairment of assets, useful life of assets, estimates and provisions).

AG108. A reference to the relevant paragraphs of the financial statements shall be included in the statement of consistency. If the assumptions are not consistent, the statement of consistency shall state that fact and explain the reason. (e.g., the full financial implications of climate-related risks are still under assessment or are not deemed material).

AG109. The undertaking may consider areas such as climate-related indicators of impairment of assets, impacts of climate-related matters on useful life of assets, assessment of provisions to reflect new environmental laws and climate-related commitments by the entity, etc.

[Optional Disclosure Requirement 23] – Financial opportunities other than the Taxonomy regulation relating to climate change mitigation and adaptation

AG110. The information disclosed under paragraph 95 related to the market size for low carbon products and services or adaptation solutions over the short-, medium-, and long-term shall be linked with the information disclosed under the provisions of the Taxonomy Regulation.

Appendix C: Digitisation guidance

This appendix is an integral part of ESRS E1 on Climate change mitigation and climate change adaptation. It describes the instructions for the digital tagging.

To be further developed.