

[DISCLAIMER]

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Additional disclaimer for SR TEG public agenda papers 25 October 2022

This paper is a draft [Draft] standard prepared by the EFRAG Secretariat for approval of SR TEG and, once approved, it forms the advice that according to EFRAG Due Process SR TEG delivers to SRB as recommended content of the [Draft] final standards to be delivered to the European Commission in November 2022.

This draft reflects the tentative decisions of the SRT in the meetings from June to October 2022 (and reflects the content of the Agenda Papers prepared for those meetings). It has been developed starting from the ESRS Exposure Draft of April 2022, taking into account:

- the revised CSRD text released at the end of June;
- alignment with EDs IFRS S1, S2 and GRI standards as required by the new CSRS whenever possible;
- feedback received from the public consultation.

This draft is an intermediate version of the [Draft] standard and quality checks are still in progress that will result in editorial changes and further presentation/language streamlining. This includes editorial and presentation review, consistency of language across the standards, update of the references to paragraphs/chapters/sessions within the standard and across all the standards, alignment of definitions and glossary across all standards, possible changes of terminology due to recent IFRS decisions. The items in yellow are also subject to change (reflecting the ongoing quality check or pending other external confirmations). In ESRS 2 items in grey mark the datapoints that have been added for alignment with IFRS S1.

Changes are also possible in the next steps of SRB deliberation and approval, including changes other than editorial.

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Objective

1. The objective of this [draft] Standard is to specify disclosure requirements which will enable users of the sustainability statements to understand:
 - (a) how the undertaking affects pollution of air (both indoor and outdoor), water and soil, in terms of positive and negative material actual or potential impacts;
 - (b) any actions taken, and the result of such actions, to prevent, mitigate or remediate actual or potential impacts;
 - (c) the plans and capacity of the undertaking to adapt its strategy, business model(s) and operations in line with the transition to a sustainable economy concurring with the needs for prevention, control and elimination of pollution, thereby creating a toxic-free environment with zero pollution also in support of the EU Action Plan “Towards a Zero Pollution for Air, Water and Soil”;
 - (d) the nature, type and extent of the undertaking’s material risks and opportunities related to the undertaking’s pollution-related impacts and dependencies, as well as from the prevention, control, elimination or reduction of pollution (including from regulations) and how the undertaking manages them; and
 - (e) the effects of risks and opportunities, related to the undertaking’s pollution-related impacts and dependencies, on the undertaking’s development, performance and position over the short, medium and long term and therefore on its ability to create enterprise value.
2. This Standard derives from the [draft] CSRD stating that the sustainability reporting standards shall specify the information that undertakings are to disclose about environmental factors, including information about “pollution”.
3. This Standard sets out disclosure requirements related to pollution of air (, water, soil, substances of concern, including most harmful substances.
4. Pollution of air covers information related to the undertaking’s emissions into air (both indoor and outdoor), and prevention, control and reduction of such emissions and thus pollution.
5. Pollution of water covers information related to the undertaking’s emissions to water, and prevention, control and reduction of such emissions and thus pollution.
6. Pollution of soil covers information related to the undertaking’s emissions into soil - independent on whether that introduction occurs at the production site of an undertaking or outside or through the use of the undertaking’s products and/or services, and prevention, control and reduction of such emissions and thus pollution.
7. “Substance of concern“ covers information related to the undertaking’s production, use and/or distribution and commercialisation of substances of concern, including most harmful substances. Such disclosure requirements aim at providing to the users an understanding of the potential or actual impact from their use and/or distribution and commercialisation in a context of possible restrictions towards their use and/or distribution and commercialisation.

Interactions with other ESRS

8. Pollution is closely connected to other environmental sub-topics such as climate change, water and marine resources, biodiversity and circular economy. Thus, to provide a comprehensive overview of what could be material to pollution, relevant disclosure requirements can also be found in other ESRS, and are referenced in this Standard:

- (a) the seven following greenhouse gases are connected to pollution but are covered under the Disclosure Requirements of ESRS E1 Climate change: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃);
 - (b) water consumption, water use, water recycling and storage are addressed in ESRS E3 Water and marine resources, while the pollution of water is addressed by this [draft] Standard;
 - (c) the possible impact from pollution on Biodiversity is addressed in ESRS E4 Biodiversity and ecosystems. Aspects of waste, its reduction and avoidance are addressed in ESRS E5 Resource use and circular economy.
9. This [draft] Standard covers an environmental sub-topic, however as people benefit from biodiversity and ecosystems, the undertaking' impacts on biodiversity and ecosystems affect communities. Material negative impacts on affected communities from pollution-related impacts attributable to the undertaking are covered in ESRS S3 Affected communities.
10. The content of this [draft] 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 ESRS 1 General Principles and ESRS 2 General requirements.
11. This [draft] Standard covers sector-agnostic disclosure requirements. Sector-specific disclosure requirements are developed separately.

Disclosure Requirements

General, Strategy, Governance and Materiality assessment

12. The provisions of this [draft] Standard shall be read in conjunction with and reported alongside the Disclosure Requirements of ESRS 2.
13. ۰

Disclosure Requirement IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities

14. The undertaking shall describe the process to identify material impacts, risks and opportunities and in particular:
 - (a) the methodologies and tools used to screen its site locations and business activities in order to identify its actual and potential pollution physical and transition risks in its own operations and value chain;
 - (b) the interconnection between risks and opportunities arising from impacts and dependencies;
 - (c) the process for conducting consultations and in particular with affected communities.

Policies, targets, action plans and resources

Disclosure Requirement E2-1 – Policies related to pollution

15. **The undertaking shall disclose its policies implemented to manage its material impacts, risks and opportunities related to pollution prevention and control.**
16. The objective of this Disclosure Requirement is to provide an understanding of the extent to which the undertaking has policies that address the identification, assessment, management and/or remediation of material pollution-related impacts, risks and opportunities.
17. The summarised description of the policies shall contain the information required in ESRS 2 Guideline IRO-DG1 on policies adopted to manage material sustainability matters.
18. In the summary the undertaking shall indicate whether and how its policies address the following areas where material on its own operations and along the upstream and downstream value chain:
 - (a) mitigating negative impacts related to pollution of air, water and soil including prevention and control in its own operations;
 - (b) minimising, substituting and phasing out substances of concern, in particular for non-essential societal use and in consumer products;
 - (c) avoiding incidents and emergency situations, and if and when occurred, controlling and limiting their impact on the environment and/or society¹.

Disclosure Requirement E2-2 – Targets related to pollution

19. **The undertaking shall disclose the pollution-related targets it has adopted.**
20. The objective of this Disclosure Requirement is to provide an understanding of the targets the undertaking has adopted to support its pollution-related policies and address its material pollution-related impacts, risks and opportunities.
21. The description of targets shall contain the information requirements defined in ESRS 2, MT-DG 1 on targets, progress and tracking effectiveness.
22. The disclosure required by paragraph 19 shall indicate whether and how its targets relate to the prevention and control of:
- (a) air pollutants and respective loads;
 - (b) emissions to water and respective specific loads;
 - (c) pollution to soil and respective specific loads; and
 - (d) substances of concern and most harmful substances.
23. In addition to ESRS 2, MT-DG 1, the undertaking shall specify whether (local) ecological thresholds (e.g. the biosphere integrity, stratospheric ozone-depletion, atmospheric aerosol loading, soil depletion, ocean acidification²) and organisation-specific allocations were taken into consideration when setting targets. If so, the undertaking shall specify:
- (a) the ecological threshold identified and whether the threshold is organisation specific;
 - (b) the methodology used to identify the threshold; and
 - (c) how responsibility for respecting these thresholds is allocated to the organisational level.
24. The undertaking shall specify as part of the contextual information, whether the targets it has adopted and presented are mandatory (based on legislation, including future legislation) or voluntary.

Disclosure Requirement E2-3 – Pollution action plans and resources

25. **The undertaking shall disclose its pollution-related action plans and the resources allocated to their implementation.**
26. The objective of this Disclosure Requirement is to provide an understanding of the key actions taken and planned to achieve the pollution-related policy's objectives and targets.
27. The description of the pollution-related action plans and resources shall follow the principles defined in ESRS 2, IRO-DG2 Action plans and resources in relation to policies and targets.
28. In addition to ESRS 2, IRO-DG2, the undertaking shall specify to which layer in mitigation hierarchy below an action plan and resources can be allocated to:
- (a) avoid pollution including any phase out of materials/compounds that have a material negative impact (prevention of pollution at source);
 - (b) reduce pollution (minimisation), including any phase-out of materials or compounds and by meeting enforcement requirements such as BAT requirements or the address of Do-No-Significant-Harm criteria for pollution prevention and control according to the EU Taxonomy Regulation and its Delegated Acts ;

- (c) restore, regenerate and transform ecosystems where pollution occurred (control of the impacts both from regular activities and incidents).

Performance measurement

Disclosure Requirement E2-4 – Pollution of air, water and soil

29. **The undertaking shall disclose the pollutants that are generated or used during production processes or that are procured, and that leave its facilities as emissions, as products, or as part of products or services.**
30. The objective of this Disclosure Requirement is to provide an understanding of the emissions that the undertaking generates in the air, water and soil in its own operations.
31. The undertaking shall provide on the reporting period the following separate disclosures on its own operations: .:
- (a) tonnes of emissions of air pollutants generated by the undertaking³;
 - (b) tonnes of emissions to water generated by the undertaking⁴;
 - (c) tonnes of emissions of inorganic pollutants generated by the undertaking⁵;
 - (d) tonnes of emissions of ozone-depleting substances generated by the undertaking⁶;
 - (e) tonnes or kilogrammes of microplastics generated by the undertaking.
32. The undertaking shall put its disclosure into context and describe :
- (f) the changes over time,
 - (g) the measurement methodologies; and
 - (h) the processes to collect data for pollution-related accounting and reporting, including the type of data needed and the information sources.
33. Where an inferior methodology compared to direct measurement of emissions is chosen to quantify emissions, the reasons for choosing this inferior methodology shall be outlined by the undertaking. If estimations are used, the undertaking shall indicate the standard, sectoral study or sources, which are the basis used in estimating its emissions, as well as the possible degree of uncertainty and the range of estimates reflecting the measurement uncertainty.

³ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an additional principal adverse impact as set out by indicator #7 in Table 2 of Annex 1 of the related Delegated Regulation with regard to disclosure rules on sustainable investments.

⁴ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting a principal adverse impact as set out by indicator #2 in Table 1 of Annex 1 of the related Delegated Regulation with regard to disclosure rules on sustainable investments.

⁵ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an additional principal adverse impact as set out by indicator #1 in Table 2 of Annex 1 of the related Delegated Regulation with regard to disclosure rules on sustainable investments.

⁶ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an additional principal adverse impact as set out by indicator #3 in Table 2 of Annex 1 of the related Delegated Regulation with regard to disclosure rules on sustainable investments.

Disclosure Requirement E2-5 – Substances of concern and most harmful substances

34. **The undertaking shall disclose information on the production, use, distribution, commercialisation and import/export of substances of concern and most harmful substances on their own, in mixtures or in articles.**
35. The objective of this Disclosure Requirement is to provide an understanding of the impact of the undertaking on health and the environment through substances of concern and most harmful substances on their own, as well as an understanding of the undertaking's risks and opportunities, including exposure towards those substances and risks arising from changes in regulations.
36. The disclosure required by paragraph 34 shall include the total amounts of substances that are generated or used during the production or that are procured, and that leave its facilities as emissions, as products, or as part of products or services split into main classes of substances.
37. The undertaking shall present separately the information related to most harmful substances.
38. In order for the information to be complete, substances in own operations and procured shall be included (e.g. embedded in ingredients, semi-finished products, or the final product).

Disclosure Requirement E2-6 – Potential financial effects from pollution-related impacts, risks and opportunities

39. **The undertaking shall disclose its potential financial effects of risks and opportunities arising from pollution-related impacts and dependencies.**
40. The objective of this Disclosure Requirement is to provide an understanding on:
- (a) potential negative financial effects due to risks arising from pollution-related impacts and dependencies is to provide an understanding of how these risks may affect the undertaking's financial performance and position over the short-, medium-, and long-term.
 - (b) potential positive financial effects due to opportunities arising from pollution-related material impacts is to allow an understanding of how the undertaking may financially benefit from material pollution-related opportunities.
41. The disclosure shall include:
- (a) a quantification of the potential financial effects in monetary terms, or where impracticable qualitative information;
 - (b) a description of the effects considered, the impacts and dependencies to which they relate and the time horizon in which they are likely to materialise;
 - (c) the critical assumptions used in the estimate, as well as the sources and level of uncertainty attached to those assumptions.
42. In the context of this Disclosure Requirement, potential financial effects shall include financial effects that do not meet the recognition threshold for inclusion in the financial statement line items and notes to the financial statements.

Pollution specificities

43. The information provided under paragraph 41(a) shall include:

- (a) the share of net revenue made with products and services that are or that contain substances of concern and most harmful substances;
 - (b) the operational and capital expenditures occurred in the reporting period in conjunction with major incidents and deposits;
 - (c) the provisions for environmental protection and remediation costs, e.g. for rehabilitating contaminated sites, recultivating landfills, removal of environmental contamination at existing production or storage sites and similar measures.
44. When the information is provided in the undertaking's financial statements, a clear reference shall be included in the sustainability statements.
45. The information provided under paragraph 41(c) shall include contextual information including a description of material incidents and deposits whereby pollution had negative effects on the environment and/or on the undertaking's financial performance with short, medium and long term effects on the enterprise value. Incidents may include for instance interruptions of production, whether arising from the supply chain and/or from own operations, as a result of pollution occurred, or of pollution prevention and control measures.
46. For the first three years of application of this ESRS, to comply with this Disclosure Requirement the undertaking may provide qualitative information only.

Appendix A: Defined terms

This Appendix is an integral part of the [draft] ESRS E2 Pollution.

Air pollutants	Direct emissions of sulphur dioxides (SO ₂), nitrogen oxides (NO _x), non-methane volatile organic compounds (NMVOC), and fine particulate matter (PM _{2,5}) as defined in Article 3, points (5) to (8), of Directive (EU) 2016/2284 of the European Parliament and of the Council(15), ammonia (NH ₃) as referred to in that Directive and heavy metals (HM) as referred to in Annex I to that Directive.
Article	An article is defined as an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition. (REACH Regulation Article 3 (3))
Best Available Techniques (BAT)	According to Article 3 point 10 of Directive 2010/75/EU “Best Available Techniques (BAT)” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole: <ul style="list-style-type: none"> i. “techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned; ii. “available techniques” means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator; and iii. “best” means most effective in achieving a high general level of protection of the environment as a whole.
BAT Conclusions	A document containing the parts of a BAT reference document laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures. ⁷
BAT-AEL	‘Best Available Technique-Associated Emission Level and means the range of emission levels obtained under normal operating conditions using a best available technique or a combination of best available techniques, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions., i.e. the emission level that is associated with a BAT. ⁸
BAT-AEPL	Best Available Technique-Associated Environmental Performance Level. For each individual BAT, a BAT-AEPL can be indicated. A BAT-AEPL is an environmental performance levels associated with the best available techniques’. It means the range of emission levels obtained under normal operating conditions using a best available technique or a combination of

⁷ Source: Industrial Emissions Directive (IED), Article 3

⁸ Source: https://www.elni.org/fileadmin/elni/dokumente/elni_forum/2010/van_den_abeele_-_Polders_IED-BAT-AEL.pdf

	best available techniques, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions. ⁹
BREF or EU Best available techniques reference documents	A document, drawn up for defined activities and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best available techniques as well as BAT conclusions and any emerging techniques. ¹⁰
Deposit	An amount of a substance that has accumulated in the environment, either in water or in soil, and either as a consequence of regular activities or from incidents or from disposals of undertakings, independent on whether that accumulation occurs at the production site of an undertaking or outside.
Emission	The direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources [...] into air, water or soil. ¹¹
Emissions to water	'Direct emissions of priority substances, as defined by Annex I to Directive 2013/39/EU, that replaces Annex X of the Directive 2000/60/EC of the European Parliament and of the Council(6), and direct emissions of nitrates, phosphates and pesticides (plant protection products and biocides).
Indirect impact	See the definition of "impact". "Indirect" (also referred to as secondary or induced impact) means happening in addition to an intended result or not being connected in a simple and/or direct way.
Inorganic pollutants	Inorganic pollutants means emissions within or lower than the emission levels associated with the best available techniques (BAT-AEL) as defined in Article 3, point (13) of Directive 2010/75/EU of the European Parliament and of the Council ¹⁴ , for the Large Volume Inorganic Chemicals- Solids and Others industry;
Most harmful substances	Subset of substances of concern defined according to the list provided in the Chemicals Strategy for Sustainability ¹² : <ol style="list-style-type: none"> i. carcinogenic, mutagenic or reprotoxic substances (CMRs); ii. persistent, bioaccumulative and toxic substances (PBTs); iii. very persistent and very bioaccumulative substances (vPvBs); iv. endocrine disrupting substances (EDs); v. immunotoxicants; vi. neurotoxicants, respiratory sensitisers; vii. substances having specific organ toxicity (STOT) with chronic effects; viii. persistent, mobile and toxic substances (PMTs); and ix. very persistent and very mobile substances (vPvMs).
Ozone-depleting substances	Substances listed in the Montreal Protocol on Substances that Deplete the Ozone Layer ¹³ .
Pollutant	A substance, vibration, heat, noise, light or other contaminant present in air, water or soil which may be harmful to human health and/or the environment, which may result in damage to material property, or which may impair or interfere with amenities and other legitimate uses of the

⁹ Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012D0119&from=EN>

¹⁰ Source: Industrial Emissions Directive (IED), Article 3

¹¹ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (integrated pollution prevention and control), at Article 3(4)

¹² Source: Platform on Sustainable Finance: Technical Working Group, report with recommendations on technical screening criteria for the four remaining environmental objectives of the EU Taxonomy, March 30, 2022

¹³ <https://ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>

	environment. ¹⁴ For a definition of “pollution” and “pollutants”, see Article 2 points (10) and (12) of the Taxonomy Regulation (EU) 2020/852.
Pollution	The direct or indirect introduction, as a result of human activity, of pollutants into air, water or soil which may be harmful to human health and/or the environment, which may result in damage to material property, or which may impair or interfere with amenities and other legitimate uses of the environment ¹⁵ .
Pollution of soil	The introduction into soil - independent of whether that introduction occurs at the production site of an undertaking or outside or through the use of the undertaking’s products and/or services - as a result of human activity, of substances, vibrations, heat or noise which may be harmful to human health or the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment ¹⁶ . Soil pollutants include inorganic pollutants, persistent organic pollutants (POPs), pesticides, nitrogen and phosphorus compounds, etc. as listed in paragraph AG15.
Soil	The top layer of the Earth’s crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms. ¹⁷
Specific loads	Mass of pollutant released per mass of product manufactured. Specific loads allow for the comparison of the environmental performance of installations irrespective of their different production volumes and are not influenced by mixing or dilution. ¹⁸
Substances of concern	Covers: <ul style="list-style-type: none"> i. substances having a chronic effect for human health or the environment (Candidate list in REACH and Annex VI to the CLP Regulation); ii. those which hamper recycling for safe and high quality secondary raw materials; and iii. the most harmful substances as listed in the Chemicals Strategy for Sustainability.¹⁹

¹⁴ REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, at Article 2(10)

¹⁵ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (integrated pollution prevention and control), at Article 3(2).

¹⁶ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (integrated pollution prevention and control), at Article 3(2)

¹⁷ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on Industrial Emissions (integrated pollution prevention and control), at Article 3(21).

¹⁸ COMMISSION IMPLEMENTING DECISION of 10 February 2012 laying down rules concerning guidance on the collection of data and on the drawing up of BAT reference documents and on their quality, assurance referred to in Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions, page 36.

Appendix B: Application Requirement

This Appendix is an integral part of the proposed [draft] ESRS E2 Pollution. It describes the application of the requirements set for in paragraphs 1–46 and has the same authority as the other parts of the [draft] ESRS Standard.

General, Strategy, Governance and Materiality assessment

- AR 1. Disclosure Requirement IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities When Conducting a materiality assessment on environmental subtopics, the undertaking shall consider the four phases below, also known as the LEAP approach, proposed by the Taskforce on Nature-Related Financial Disclosures²⁰:
- (a) locate where in the own operations and along the value chain happen the interface with nature;
 - (b) evaluate the pollution-related dependencies and impacts;
 - (c) assess the material risks and opportunities;
 - (d) prepare and report the results of the materiality assessment.
- AR 2. The materiality assessment for ESRS E2 corresponds to the first three phases of this LEAP approach, the fourth phase addresses the outcome of the process. Further guidance and materials about this approach can be found in TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework.
- AR 3. The process to assess the materiality of impacts, dependencies, risks and opportunities shall consider the provisions in ESRS 2 Disclosure Requirement IRO 1, and IRO 2.
- AR 4. The sub-topics covered by the materiality assessment under ESRS E2 shall include:
- (a) the contribution to direct impact drivers on pollution, including non-GHG air pollutants, soil pollutants, water pollutants (waste is covered in ESRS E5);
 - (b) dependencies on ecosystem services related to specific substances described in this standard.
- AR 5. Under paragraph AR1 AR 1(a), the undertaking shall consider first **locating** including:
- (a) the site locations of direct assets and operations and related upstream and downstream activities across the value chain;
 - (b) the site locations where emissions of water, soil and air pollutants occur;
 - (c) the sectors or business units related to those emissions or with the production, use, distribution, commercialisation and import/export of substances of concern and most harmful substances on their own, in mixtures or in articles.

Under paragraph AR1 b the undertaking shall then consider **evaluating** impacts and dependencies for each material site or sector/business unit including by assessing the severity and likelihood of the impacts on the environment and human health.

AG 7. Based on the results of Phase 1 and 2, the undertaking shall finally consider **assessing** material risks and opportunities:

- (a) identifying transition risks and opportunities in its own operations and its upstream and downstream value chain by the categories of²¹:
 - (i) policy and legal: e.g. introduction of regulation, exposure to sanctions and litigation (e.g. negligence towards ecosystems), enhanced reporting obligations;
 - (ii) technology: e.g. substitution of products or services with a lower impact, transition to other not harmful substances;
 - (iii) market: e.g. shifting supply, demand and financing, volatility or increased costs of some substances;
 - (iv) reputation: e.g. changing societal, customer or community perceptions as a result of an organisation's role in pollution prevention and control;
- (b) identifying physical risks, e.g.. access to clean water, acid rain, or other pollution incidents that are likely to lead to or that have led to pollution with subsequent effects on the environment and society;
- (c) identifying opportunities related to pollution prevention and control categorized by^{22,23}:
 - (i) resource efficiency: decrease quantities of substances used or improve efficiency of production process to minimise impacts;
 - (ii) markets: e.g., diversification of business activities;
 - (iii) financing: e.g., access to green funds, bonds or loans;
 - (iv) resilience: e.g., diversification of substances used and control of emissions through innovation or technology; and
 - (v) reputation: positive stakeholder relations as a result of a proactive stance on managing risks.

AR 9. In order to assess materiality, the undertaking may consider the Commission Recommendation (EU) 2021/2279 of 15th December 2021 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations.

AR 10. When providing information on the outcome of its materiality assessment, the undertaking shall consider:

- (a) a list of site locations where pollution is a material issue for the undertaking's operations and its value chain;
- (b) a list of business activities associated to pollution material impacts, risks and opportunities.

²¹ Source: TNFD, 2022, p.37

²² Source: TNFD, 2022, p.37

²³ Source: CDSB Biodiversity Application Guidance 2021

Policies, targets, action plans and resources

Disclosure Requirement E2-1 – Policies related to pollution

- AR 11. The policies described under this Disclosure Requirement may be integrated in broader environmental or sustainability policies covering different subtopics.
- AR 12. The description of the policies shall include information on the pollutant(s) or substance(s) covered.
- AR 13. When disclosing information under paragraph 17, the undertaking may include contextual information on the relations between its policies implemented and how they may contribute to the EU Action Plan “Towards a Zero Pollution for Air, Water and Soil” with for instance elements on:
- (a) how it is or may be affected by the targets and measures of the EU Action Plan and the revision of existing directives (e.g., the Industrial Emissions Directive);
 - (b) how it intends to reduce its pollution footprint to contribute to these targets.

Disclosure Requirement E2-2 – Targets related to pollution

- AR 14. When determining (local) ecological thresholds to set targets, the undertaking may refer to the guidance provided by the Science-Based Targets Initiative for Nature (SBTN) or any other guidance with a scientifically acknowledged methodology that allows to set science-based targets by identifying ecological thresholds and, if applicable, organisation-specific allocations.
- AR 15. The undertaking shall provide contextual information along the targets. It may specify whether the target addresses shortcomings related to the Do No Significant Harm (DNSH) criteria for Pollution Prevention and Control while assessing the Substantial Contribution to one of the other environmental objectives of Regulation.
- AR 16. Where relevant to support the policies it has adopted, the undertaking may provide information on the policies that have been implemented at the level of the site location.
- AR 17. The targets may cover own operations and/or the value chain.

Disclosure Requirement E2-3 – Pollution action plans and resources

- AR 18. Where an action plan extends to upstream or downstream value chain engagements, the undertaking shall provide information on the typology of actions reflecting these engagements.
- AR 19. When considering resources, examples of operational expenditures could be investments in research and development to innovate and develop safe and sustainable alternatives to the use of substances of concern or to decrease emissions in a production process.
- AR 20. Where relevant to achieve its pollution-related policy objectives and targets, the undertaking may provide information on the action plans that have been implemented at the level of the site location.

Performance measurement

Disclosure Requirement E2-4 – Pollution of air, water and soil

List of pollutants to be considered

AR 21. When providing information under paragraph 31, the undertaking shall follow the below definitions, also reminded in Appendix A:

AR 22. Air pollutants means direct emissions of:

- i. sulphur dioxides (SO₂)
- ii. nitrogen oxides (NO_x)
- iii. non-methane volatile organic compounds (NMVOC), and
- iv. fine particulate matter (PM_{2,5}) as defined in Article 3, points (5) to (8), of Directive (EU) 2016/2284 of the European Parliament and of the Council²⁴;
- v. ammonia (NH₃) as referred to in that Directive; and
- vi. heavy metals (HM) as referred to in Annex I to that Directive.

AR 23. Emissions to water means direct emissions of:

- i. nitrates, phosphates and pesticides (plant protection products and biocides)
- i. priority substances as defined in Article 2(30) of Directive 2000/60/EC of the European Parliament and of the Council²⁵.

AR 24. Inorganic emissions are defined as emissions within or lower than the emission levels associated with the best available techniques (BAT-AEL) as defined in Article 3, point (13) of Directive 2010/75/EU of the European Parliament and of the Council, for the Large Volume Inorganic Chemicals- Solids and Others industry.

AR 25. Ozone depletion substances means substances listed in the Montreal Protocol on Substances that Deplete the Ozone Layer.

AR 26. The volume of pollutants shall be presented in tonnes or kilogrammes.

Contextual information

AR 27. The information required under this Disclosure Requirement is provided at group level. However, the undertaking may elect to disclose additional breakdown including information at site level or a breakdown of its emissions by type of source, by sector or by geographical area.

AR 28. When providing contextual information on the emissions, the undertaking may consider:

- (a) the local air quality indices (AQI) for the area where the undertaking's pollution to air occurs;

- (b) the degree of urbanisation (DEGURBA)²⁶ for the area where pollution to air occurs; and
 - (c) the undertaking's percentage of the total emissions of pollutants to water and soil occurring in areas of high-water stress [as defined in ESRS E3, Appendix A];
- AR 29. The information provided under this Disclosure Requirement may refer to information the undertaking is already required to report under other existing legislation (i.e. IED, E-PRTR...). If entities choose to incorporate the information by reference, they shall follow the provisions in ESRS 1.
- AR 30. Where the undertaking's activities are subject to the Industrial Emission Directive (IED) and relevant Best Available Techniques Reference Documents (BREFs), irrespective on whether the activity takes place within the European Union or not, the undertaking may disclose the following additional information:
- (a) a list of installations operated by the undertaking that fall under the IED and EU BAT Conclusions;
 - (b) a list of any non-compliance incidents or enforcement actions necessary to ensure compliance in case of breaches of permit conditions;
 - (c) the actual performance, as specified in the EU-BAT conclusions for industrial installations, and comparison of the undertaking's environmental performance against 'emission levels associated with the best available techniques' (the (BAT-AEL) as described in EU-BAT conclusions;
 - (d) the actual performance of the undertaking against 'environmental performance levels associated with the best available techniques' (BAT-AEPLs) provided that they are applicable to the sector and installation; and
 - (e) a list of any compliance schedules or derogations granted by competent authorities according to Art. 15(4) IED that are associated with the implementation of BAT-AELs.

Methodologies

- AR 31. When providing information on pollutants, the undertaking shall consider approaches for quantification in the following order of priority:
- (a) direct measurement of emissions, effluents or other pollution through the use of recognised continuous monitoring systems (e.g. AMS Automated Measuring Systems);
 - (b) periodic measurements;
 - (c) calculation based on site-specific data;
 - (d) calculation based on published pollution factors; and
 - (e) estimation.
- AR 32. Regarding the disclosure of methodologies required by paragraph 32, the undertaking shall consider:

²⁶ [https://ec.europa.eu/eurostat/web/degree-of-urbanisation/background#:~:text=The%20Degree%20of%20urbanisation%20\(DEGURBA,based%20on%202020%20Census%20results](https://ec.europa.eu/eurostat/web/degree-of-urbanisation/background#:~:text=The%20Degree%20of%20urbanisation%20(DEGURBA,based%20on%202020%20Census%20results)

- (a) whether its monitoring is carried out in accordance with EU BREF Standards²⁷ or another relevant reference benchmark; and
- (b) whether and how the calibration tests of the AMS were undertaken and the verification of periodic measurement by independent labs were ensured.

Disclosure Requirement E2-5 – Substances of concern and most harmful substances

List of substances to be considered

AR 33. When providing information under paragraph 36, the undertaking shall follow the below definitions, also reminded in Appendix A.

AR 34. Substances of concern are defined as:

- (a) substances having a chronic effect for human health or the environment (Candidate list in REACH and Annex VI to the CLP Regulation);
- (b) those which hamper recycling for safe and high quality secondary raw materials; and
- (c) the most harmful substances as listed in the Chemicals Strategy for Sustainability.

AR 35. Most harmful substances are a subset of substances of concern and are those listed in the Chemicals Strategy for Sustainability:

- (a) carcinogenic, mutagenic or reprotoxic substances (CMRs);
- (b) persistent, bioaccumulative and toxic substances (PBTs);
- (c) very persistent and very bioaccumulative substances (vPvBs);
- (d) endocrine disrupting substances (EDs);
- (e) immunotoxicants;
- (f) neurotoxicants, respiratory sensitisers;
- (g) substances having specific organ toxicity (STOT) with chronic effects;
- (h) persistent, mobile and toxic substances (PMTs); and
- (i) very persistent and very mobile substances (vPvMs).

AR 36. In order for the information to be complete, substances in own operations and procured shall be included (e.g. embedded in ingredients, semi-finished products, or the final product).

AR 37. The volume of pollutants shall be presented in tonnes or kilogrammes.

²⁷ EU Best Available Techniques reference documents (BREFs) are a series of reference documents covering, as far as is practicable, the industrial activities listed in Annex 1 to the EU's IPPC Directive. They provide descriptions of a range of industrial processes and for example, their respective operating conditions and emission rates. Member States are required to take these documents into account when determining best available techniques generally or in specific cases under the Directive.

Contextual information

AR 38. The information provided under this Disclosure Requirement may refer to information the undertaking is already required to report under other existing legislation (i.e. IED, E-PRTR...). If entities choose to incorporate the information by reference, they shall follow the provisions in ESRS 1.

Disclosure Requirement E2-6 – Potential financial effects from pollution-related impacts, risks and opportunities

AR 39. The operational and capital expenditures related to incidents and deposits may include for instance:

- (a) cost for eliminating and remediating the respective pollution of air, water and soil including environmental protection;
- (b) damage compensation costs including payment of fines and penalties imposed by regulators or government authorities.

AR 40. The undertaking may include an assessment of products and services at risk over the short-, medium-, and long-term, explaining how these are defined, how financial amounts are estimated, and which critical assumptions are

AR 41. The quantification of the potential financial effects in monetary terms under paragraph **Error! Reference source not found.** may be a figure or a range of figures.



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