

DRAFT EUROPEAN SUSTAINABILITY REPORTING STANDARDS

ESRS E2 Pollution



November 2022

DISCLAIMER

[Draft] ESRS E2 *Pollution* is set out in paragraphs 1–39 and Appendices A: *Defined terms* and B: *Application requirements*. Appendices A and B have the same authority as the main body of the [draft] Standard. Each Disclosure Requirement is stated in a bold paragraph that illustrates the objective of the disclosures. The [draft] Standard also uses terms defined in other [draft] ESRS and should be read in the context of its objective.

Table of content

Objective	4
Interaction with other ESRS	4
Disclosure Requirements	5
ESRS 2 General disclosures	5
Disclosure Requirement related to [draft] ESRS 2 IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities	5
Impact, risk and opportunity management	5
Disclosure Requirement E2-1 – Policies related to pollution	5
Disclosure Requirement E2-2 – Actions and resources related to pollution	6
Metrics and targets	6
Disclosure Requirement E2-3 – Targets related to pollution	6
Disclosure Requirement E2-4 – Pollution of air, water and soil	7
Disclosure Requirement E2-5 – Substances of concern and substances of very high concern	8
Disclosure Requirement E2-6 – Potential financial effects from pollution-related impacts, risks and opportunities	8
Appendix A: Defined terms	10
Appendix B: Application Requirements	13
ESRS 2 General disclosures	13
Disclosure Requirement related to [draft] ESRS 2 IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities	13
Impact, risk and opportunity management	14
Disclosure Requirement E2-1 – Policies related to pollution	14
Disclosure Requirement E2-2 – Actions and resources related to pollution	15
Metrics and targets	15
Disclosure Requirement E2-3 – Targets related to pollution	15
Disclosure Requirement E2-4 – Pollution of air, water and soil	15
Disclosure Requirement E2-5 – Substances of concern and substances of very high concern	17
Disclosure Requirement E2-6 – Potential financial effects from pollution-related impacts, risks and opportunities	17

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, water and soil, in terms of material positive and negative actual or potential impacts;
 - (b) any actions taken, and the result of such actions, to prevent or mitigate actual or potential material negative impacts;
 - (c) the plans and capacity of the undertaking to adapt its strategy and business model(s) in line with the transition to a sustainable economy concurring with the needs for prevention, control and elimination of pollution. This is to create 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 the prevention, control, elimination or reduction of pollution (including from regulations) and how the undertaking manages this; and
 - (e) the financial effects on the undertaking over the short-, medium- and long-term time horizons of material risks and opportunities arising from the undertaking’s pollution-related impacts and dependencies.
2. This [draft] Standard sets out Disclosure Requirements related to the following sustainability matters: pollution of air, water, soil, substances of concern, including substances of very high concern.
3. The sustainability matter “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.
4. The sustainability matter “pollution of water” covers information related to the undertaking’s emissions to water, and prevention, control and reduction of such emissions and thereby pollution.
5. The sustainability matter “pollution of soil” covers information related to the undertaking’s emissions into soil and the prevention, control and reduction of such emissions and thereby pollution.
6. The sustainability matter “substances of concern” cover information related to the undertaking’s production, use and/or distribution and commercialisation of substances of concern, including substances of very high concern. Such Disclosure Requirements aim at providing users with an understanding of actual or potential impacts from their use and/or distribution and commercialisation in a context of possible restrictions towards their use and/or distribution and commercialisation.

Interaction with other ESRS

7. The topic of 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 are covered in other environmental [draft] Standards as follows:
 - (a) [draft] ESRS E1 *Climate change* which addresses the following seven greenhouse gases connected to air pollution: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).
 - (b) [draft] ESRS E3 *Water and marine resources* which addresses water consumption, in particular in areas at water risk, water recycling and storage. This also includes the responsible management of marine resources, including the nature and quantity of marine resources-related commodities (such as gravels, deep-sea

minerals, seafood) used by the undertaking. This [draft] Standard covers the negative impacts, in terms of pollution of water and marine resources, including microplastics, generated by such activities.

- (c) [draft] ESRS E4 *Biodiversity and ecosystems* which addresses ecosystems and species. Pollution as a direct impact driver on biodiversity loss is addressed by this [draft] Standard.
 - (d) [draft] ESRS E5 *Resource use and circular economy* which addresses, in particular, the transition away from extraction of non-renewable resources and the implementation of practices that prevent waste generation, including pollution generated by waste.
8. This [draft] Standard covers an environmental topic, however the undertaking's impacts on the environment may also affect communities. Material negative impacts on affected communities from pollution-related impacts attributable to the undertaking are covered in [draft] ESRS S3 *Affected communities*. This [draft] Standard should be read in conjunction with [draft] ESRS 1 *General requirements* and [draft] ESRS 2 *General disclosures*.

Disclosure Requirements

ESRS 2 General disclosures

9. The requirements of this section should be read in conjunction with and reported alongside the disclosures required by [draft] ESRS 2 chapter 4 *Impact, risk and opportunity management*.

Impact, risk and opportunity management

Disclosure Requirement related to [draft] ESRS 2 IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities

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

Impact, risk and opportunity management

Disclosure Requirement E2-1 – Policies related to pollution

11. **The undertaking shall disclose its policies implemented to manage its material impacts, risks and opportunities related to pollution prevention and control.**
12. The objective of this Disclosure Requirement is to enable 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.
13. The summarised description of the policies shall contain the information required in [draft] ESRS 2 DC-P *Policies adopted to manage material sustainability matters*.

14. The undertaking shall indicate, in the summary, whether and how its policies address the following, where material, on its own operations and throughout the upstream and downstream value chain:
 - (a) mitigating negative impacts related to pollution of air, water and soil including prevention and control;
 - (b) minimising and substituting substances of concern and phasing out substances of very high concern, in particular for non-essential societal use and in consumer products; and
 - (c) avoiding incidents and emergency situations, and if and when they occur, controlling and limiting their impact on the environment and/or civil society.

Disclosure Requirement E2-2 – Actions and resources related to pollution

15. **The undertaking shall disclose its pollution-related actions and the resources allocated to their implementation.**
16. The objective of this Disclosure Requirement is to enable an understanding of the key actions taken and planned to achieve the pollution-related policy objectives and targets.
17. The description of the pollution-related action plans and resources shall follow the principles defined in [draft] ESRS 2 DC-A *Actions and resources in relation to material sustainability matters*.
18. In addition to [draft] ESRS 2 DC-A, the undertaking shall specify to which layer in the mitigation hierarchy below, an action and resources can be allocated to:
 - (a) avoid pollution including any phase out of materials or compounds that have a material negative impact (prevention of pollution at source);
 - (b) reduce pollution, including any phase-out of materials or compounds and by meeting enforcement requirements such as Best Available Techniques (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 (minimisation of pollution); and
 - (c) restore, regenerate and transform ecosystems where pollution has occurred (control of the impacts both from regular activities and incidents).

Metrics and targets

Disclosure Requirement E2-3 – 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 enable an understanding of the targets the undertaking has adopted to support its pollution-related policies and to address its material pollution-related impacts, risks and opportunities.
21. The description of targets shall contain the information requirements defined in [draft] ESRS 2 DC-T *Tracking effectiveness of policies and actions through targets*.
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 specific loads;
 - (b) emissions to water and respective specific loads;
 - (c) pollution to soil and respective specific loads; and
 - (d) substances of concern and substances of very high concern.
23. In addition to [draft] ESRS 2 DC-T, the undertaking shall specify whether (local) ecological thresholds (e.g., the biosphere integrity, stratospheric ozone-depletion, atmospheric

aerosol loading, soil depletion, ocean acidification) and entity-specific allocations were taken into consideration when setting targets. If so, the undertaking shall specify:

- (a) the ecological thresholds identified, and the methodology used to identify such thresholds;
 - (b) whether or not the thresholds are entity-specific and if so, how they were determined; and
 - (c) how responsibility for respecting identified ecological thresholds is allocated in the undertaking.
24. The undertaking shall specify as part of the contextual information, whether the targets that it has adopted and presented are mandatory (based on legislation) or voluntary and if and how such legal requirements were taken into account when considering ecological thresholds.

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

25. **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.**
26. 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.
27. The undertaking shall provide the following separate disclosures on its own operations for the reporting period:
- (a) emissions of air pollutants generated by the undertaking¹;
 - (b) emissions to water generated by the undertaking²;
 - (c) emissions of inorganic pollutants generated by the undertaking³;
 - (d) emissions of ozone-depleting substances generated by the undertaking⁴;
 - (e) microplastics generated or used by the undertaking.
28. The undertaking shall put its disclosure into context and describe:
- (a) the changes over time,
 - (b) the measurement methodologies; and
 - (c) the process(es) to collect data for pollution-related accounting and reporting, including the type of data needed and the information sources.
29. When 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 the undertaking uses estimates, it shall disclose the standard, sectoral study or sources which form the basis of its estimates, as well as the possible degree of uncertainty and the range of estimates reflecting the measurement uncertainty.

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

² This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an indicator related to principal adverse impacts as set out by indicator #8 in Table 1 of Annex 1 of the related Delegated Regulation with regard to disclosure rules on sustainable investments (respectively “Emissions to water”).

³ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an additional indicator related to principal adverse impacts 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 (respectively “Emissions of inorganic pollutants”).

⁴ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 as reflecting an additional indicator related to principal adverse impacts 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 (respectively “Emissions of ozone-depleting substances”).

Disclosure Requirement E2-5 – Substances of concern and substances of very high concern

30. **The undertaking shall disclose information on the production, use, distribution, commercialisation and import/export of substances of concern and substances of very high concern on their own, in mixtures or in articles.**
31. The objective of this Disclosure Requirement is to enable an understanding of the impact of the undertaking on health and the environment through substances of concern and substances of very high concern on their own. It is also to enable an understanding of the undertaking's material risks and opportunities, including exposure towards those substances and risks arising from changes in regulations.
32. The disclosure required by paragraph 30 shall include the total amounts of substances of concern 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 hazard classes of substances of concern.
33. The undertaking shall present separately information related to substances of very high concern.

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

34. **The undertaking shall disclose its potential financial effects of material risks and opportunities arising from pollution-related impacts.**
35. The objective of this Disclosure Requirement is to provide an understanding of:
 - (a) potential financial effects due to material risks arising from pollution-related impacts and how these risks have a material influence (or are likely to have a material influence) on the undertaking's cash flows, performance, position, development, cost of capital or access to finance over the short-, medium- and long-term time horizons; and
 - (b) potential financial effects due to material pollution-related opportunities and how the undertaking may financially benefit from material pollution-related opportunities.
36. The disclosure shall include:
 - (a) a quantification of the potential financial effects in monetary terms, or where impracticable, qualitative information. For financial effects arising from opportunities, a quantification is not required if it would result in disclosure that does not meet the qualitative characteristics of information (see [draft] ESRS 1 Appendix C *Qualitative characteristics of information*);
 - (b) a description of the effects considered, the related impacts and the time horizons in which they are likely to materialise; and
 - (c) the critical assumptions used in the estimate, as well as the sources and level of uncertainty attached to those assumptions.
37. In the context of this Disclosure Requirement, potential financial effects include financial effects that do not meet the recognition criteria for inclusion in the financial statement line items and notes to the financial statements.
38. The information provided under paragraph 36(a) shall include:
 - (a) the share of net revenue made with products and services that are or that contain substances of concern and substances of very high concern separately;
 - (b) the operating 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.

39. The information provided under paragraph 36(c) shall include contextual information including a description of material incidents and deposits whereby pollution had negative effects on the environment and/or had or is expected to have negative effects on the undertaking's financial cash flows, financial position or financial performance with short-, medium- and long-term time horizons.

Appendix A: Defined terms

This Appendix is an integral part of the [draft] ESRS E2 and has the same authority as the other parts of the [draft] Standard.

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 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. ⁵
BAT-AEL	“Best Available Technique-Associated Emission Level” 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.
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 best available techniques, as described in BAT conclusions, expressed

⁵ Source: Industrial Emissions Directive (IED), Article 3

	as an average over a given period of time, under specified reference conditions. ⁶
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 determining the best available techniques as well as BAT conclusions and any emerging techniques. ⁷
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 of whether that accumulation occurs at the production site of an undertaking or outside.
Ecological (or socio-ecological) threshold (or breakpoint)	The point at which a relatively small change in external conditions causes a rapid change in an ecosystem. When an ecological threshold has been passed, the ecosystem may no longer be able to return to its state by means of its inherent resilience.
Emission	The direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources [...] into air, water or soil. ⁸
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, and direct emissions of nitrates, phosphates and pesticides (plant protection products and biocides).
Inorganic pollutants	Inorganic pollutants mean 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.
Installation	A stationary technical unit within which one or more activities are carried out which could have an effect on emissions and pollution.
Ozone-depleting substances	Substances listed in the Montreal Protocol on Substances that Deplete the Ozone Layer.
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 environment. ⁹
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. ¹⁰
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

⁶ Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012D0119&from=EN>

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

⁸ 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)

⁹ 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)

¹⁰ 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).

	human health or the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment ¹¹ . Soil pollutants include inorganic pollutants, persistent organic pollutants (POPs), pesticides, nitrogen and phosphorus compounds, etc.
Site	Means a single location, in which, if there is more than one manufacturer of (a) substance(s), certain infrastructure and facilities are shared ¹² .
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. ¹³
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. ¹⁴
Substances of concern	Substances of concern means a substance that: <ul style="list-style-type: none"> a. meets the criteria laid down in Article 57 and is identified in accordance with Article 59(1) of Regulation (EC) No 1907/2006; b. is classified in Part 3 of Annex VI to Regulation (EC) in one of the following hazard classes or hazard categories: <ul style="list-style-type: none"> – No 1272/2008 – carcinogenicity categories 1 and 2, – germ cell mutagenicity categories 1 and 2, – reproductive toxicity categories 1 and 2, [to be added in the course of the legislative procedure once Regulation (EC) No 1272/2008 contains these hazard classes: Persistent, Bioaccumulative, Toxic (PBTs), very Persistent very Bioaccumulative (vPvBs); Persistent, Mobile and Toxic (PMT), very Persistent very Mobile (vPvM); Endocrine disruption], – respiratory sensitisation category 1, – skin sensitisation category 1, – chronic hazard to the aquatic environment categories 1 to 4, – hazardous to the ozone layer, – specific target organ toxicity – repeated exposure categories 1 and 2, – specific target organ toxicity – single exposure categories 1 and 2; or c. any other substance that are set out in applicable EU legislation¹⁵.
Substances of Very High Concern (SVHCs)	Substances that meet the criteria laid down in Article 57 of Regulation (EC) 1907/2006 (REACH) and were identified in accordance with Article 59(1) of that Regulation.

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(2)

¹² REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) at Article 3 (16)

¹³ 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).

¹⁴ 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.

¹⁵ In that regard, legislation in the wake of the EU Chemicals Strategy for Sustainability will be of particular importance.

Appendix B: Application Requirements

This Appendix is an integral part of the proposed [draft] ESRS E2. It supports the application of the requirements set for in paragraphs 1– 39 and has the same authority as the other parts of the [draft] Standard.

ESRS 2 General disclosures

Impact, risk and opportunity management

Disclosure Requirement related to [draft] ESRS 2 IRO-1 – Description of the processes to identify and assess material pollution-related impacts, risks and opportunities

- AR 1. 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 Disclosures:
- (a) locate where in the own operations and along the value chain the interface with nature takes place;
 - (b) evaluate the pollution-related dependencies and impacts;
 - (c) assess the material risks and opportunities; and
 - (d) prepare and report the results of the materiality assessment.
- AR 2. The materiality assessment for [draft] 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 [draft] ESRS 2 IRO-1 *Description of the processes to identify and assess material impacts, risks and opportunities*, and IRO-2 *Disclosure Requirements in ESRS covered by the undertaking's sustainability statements*.
- AR 4. The sub-topics covered by the materiality assessment under [draft] 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 [draft] ESRS E5);
 - (b) dependencies on ecosystem services related to specific substances described in this [draft] Standard.
- AR 5. Under paragraph AR 1(a), the undertaking shall first consider location 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; and
 - (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 substances of very high concern on their own, in mixtures or in articles.
- AR 6. Under paragraph AR 1(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 impacts on the environment and human health.
- AR 7. Based on the results of Phase 1 and 2, the undertaking shall finally consider assessing material risks and opportunities by:

- (a) identifying transition risks and opportunities in its own operations and its upstream and downstream value chain by the categories of¹⁶:
 - 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; and
 - 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 categorised by^{17,18}:
 - 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 8. 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 9. 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; and
- (b) a list of business activities associated to pollution material impacts, risks and opportunities.

Impact, risk and opportunity management

Disclosure Requirement E2-1 – Policies related to pollution

- AR 10. The policies described under this Disclosure Requirement may be integrated in broader environmental or sustainability policies covering different subtopics.
- AR 11. The description of the policies shall include information on the pollutant(s) or substance(s) covered.
- AR 12. When disclosing information under paragraph 11, 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:

¹⁶ Source: TNFD, 2022, p.37

¹⁷ Source: TNFD, 2022, p.37

¹⁸ Source: CDSB Biodiversity Application Guidance 2021

- (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 – Actions and resources related to pollution

- AR 13. Where actions extend to upstream or downstream value chain engagements, the undertaking shall provide information on the types of actions reflecting these engagements.
- AR 14. 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 15. 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.

Metrics and targets

Disclosure Requirement E2-3 – Targets related to pollution

- AR 16. When determining (local) ecological thresholds to set targets, the undertaking may refer to the guidance provided by TNFD on the use of the methods by the Science-Based Targets Initiative for Nature (SBTN), the relevant work outlined in the Sustainable Development Performance Indicator (SDPI) online platform, or any other guidance with a scientifically acknowledged methodology that allows setting of science-based targets by identifying ecological thresholds and, if applicable, entity-specific allocations.
- AR 17. When providing contextual information on targets, the undertaking 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 18. 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 19. The targets may cover the undertaking's own operations and/or the value chain.

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

List of pollutants to be considered

- AR 20. When providing information under paragraph 27, the undertaking shall follow the below definitions, with those in Appendix A:
- AR 21. Air pollutants means direct emissions of:
 - (a) sulphur dioxides (SO₂)
 - (b) nitrogen oxides (NO_x)
 - (c) non-methane volatile organic compounds (NMVOC), and
 - (d) 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;
 - (e) ammonia (NH₃) as referred to in that Directive; and
 - (f) heavy metals (HM) as referred to in Annex I to that Directive.
- AR 22. Emissions to water means direct emissions of:

- (a) priority substances as defined 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; and
 - (b) nitrates, phosphates and pesticides (plant protection products and biocides).
- AR 23. Inorganic pollutants 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 24. Ozone-depleting substances means substances listed in the Montreal Protocol on Substances that Deplete the Ozone Layer.
- AR 25. The information to be provided on microplastics under paragraph 27(e) shall include microplastics that have been 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. Microplastics may be unintentionally produced when larger pieces of plastics like car tyres or synthetic textiles wear and tear or may be deliberately manufactured and added to products for specific purposes (e.g., exfoliating beads in facial or body scrubs).
- 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 air pollution occurs;
 - (b) the degree of urbanisation (DEGURBA)¹⁹ for the area where air pollution 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 [draft] ESRS E3 Appendix A *Defined terms*);
- 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, etc.).
- 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;

¹⁹ [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)

- (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 28, the undertaking shall consider:
- (a) whether its monitoring is carried out in accordance with EU BREF Standards²⁰ 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 substances of very high concern

List of substances to be considered

- AR 33. When providing information under paragraph 30, the undertaking shall follow the definitions from Appendix A of this [draft] Standard.
- AR 34. In order for the information to be complete, substances in the undertaking's own operations and those procured shall be included (e.g., embedded in ingredients, semi-finished products, or the final product).
- AR 35. The volume of pollutants shall be presented in tonnes or kilogrammes.

Contextual information

- AR 36. 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 the undertaking incorporates the information by reference, it shall follow the provisions in [draft] ESRS 1.

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

- AR 37. The operating and capital expenditures related to incidents and deposits may include for instance:

²⁰ 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.

- (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 38. Incidents may include for instance interruptions of production, whether arising from the supply chain and/or from own operations, which resulted in pollution.
- AR 39. The undertaking may include an assessment of its related products and services at risk over the short-, medium- and long-term time horizons, explaining how these are defined, how financial amounts are estimated, and which critical assumptions are made.
- AR 40. The quantification of the potential material financial effects in monetary terms under paragraph 36(a) may be a single amount or a range.



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