

EXPOSURE DRAFT

ESRS E2 Pollution

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PTF-ESRS

Project Task Force on European sustainability reporting standards

 **EFRAG**

DISCLAIMER

This Exposure Draft has to be read in conjunction with the cover note for ESRS public consultation. It has been prepared under the sole responsibility of the EFRAG PTF-ESRS and is submitted to public consultation by EFRAG SRB to inform the upcoming standard-setting steps. It therefore does not reflect the EFRAG SRB's position at this stage, nor the position of the European Union or European Commission DG Financial Stability, Financial Services and Capital Markets Union (DG FISMA), nor the position of organisations with which the EFRAG PTF-ESRS has cooperated. The final version of the [draft] Standard will be produced by the EFRAG SRB starting from this Exposure Draft, taking into consideration the outcome of the public consultation and the requirements of the final CSRD.

[Draft] ESRS E2 Pollution is set out in paragraphs 1–52 and Appendices A: Defined terms and B: Application Guidance. All the paragraphs, including those in Appendices A and B, have equal authority. Each Disclosure Requirement objective is stated in a bold paragraph, followed by a paragraph that illustrates the principle to be followed in the preparation of the respective disclosures. The [draft] Standard also uses also terms defined in other [draft] ESRS and should be read in the context of its objective.

Table of content

| | |
|--|-----------|
| Objective | 4 |
| Interactions with other ESRS | 5 |
| Disclosure Requirements | 6 |
| General, Strategy, Governance and Materiality assessment | 6 |
| Policies, targets, action plans and resources | 6 |
| Disclosure Requirement E2-1 – Policies implemented to prevent and control pollution | 6 |
| Disclosure Requirement E2-2 – Measurable targets for pollution | 7 |
| Disclosure Requirement E2-3 – Pollution action plans and resources | 8 |
| Performance measurement | 9 |
| Disclosure Requirement E2-4 – Pollution of air, water and soil | 9 |
| Disclosure Requirement E2-5 – Substances of concern and most harmful substances | 10 |
| Taxonomy Regulation for pollution prevention and control including enabling activities | 11 |
| Disclosure Requirement E2-6 – Pollution-related incidents and deposit impacts and risks, and financial exposure to the undertaking | 11 |
| Disclosure Requirement E2-7 – Financial effects from pollution-related impacts, risks and opportunities | 12 |
| Appendix A: Defined terms | 13 |
| Appendix B: Application Guidance | 17 |
| General, Strategy, Governance and Materiality assessment | 17 |
| Pollution-related specific application guidance on ESRS 2 Disclosure Requirement SBM 4 Business model and strategy, paragraph 47 (d) on the resilience of the strategy and business model | 17 |
| Pollution-related specific application guidance on ESRS 2 Disclosure Requirements IRO 1 and IRO 2 on materiality assessment | 17 |
| Policies, targets, action plans and resources | 18 |
| Disclosure Requirement E2-2 – Measurable targets for pollution | 18 |
| Disclosure Requirement E2-3 – Pollution action plans and resources | 19 |
| Performance measurement | 19 |
| Disclosure Requirement E2-4 – Pollution of air, water and soil | 19 |
| Disclosure Requirement E2-5 – Substances of concern and most harmful substances | 22 |
| Disclosure Requirement E2-6 – Pollution-related incidents and deposits impacts and risks, and financial exposure to the undertaking | 22 |

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 (including groundwater) and soil, living organisms and food resources (referred to in this [draft] Standard as “pollution”), 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 (both indoor and outdoor), water (including groundwater), soil, substances of concerns, most harmful substances and enabling activities in support of prevention, control and elimination of pollution.
4. Pollution of air covers disclosure requirements 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 disclosure requirements related to the undertaking’s emissions into water (including groundwater), and prevention, control and reduction of such emissions and thus pollution.
6. Pollution of soil covers disclosure requirements 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 disclosure requirements related to the undertaking’s production, use and/or distribution and commercialisation of both substances of concern and 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. In particular, “substances of concern” are intended to include substances having a chronic effect for human health or the environment or substances which hamper recycling for safe and high quality secondary raw materials; “most harmful substances” are intended to cover substances

as listed in the EU Chemicals Strategy for Sustainability¹ (see Appendix A: Defined terms).

8. “Enabling activities” cover disclosure requirements related to the undertaking’s products and services that enable undertakings or individuals along the value chain, to prevent, control and eliminate pollution. Such Disclosure Requirements refer to the Platform on Sustainable Finance’s report with recommendations on technical screening criteria for the four remaining environmental objectives of the EU Taxonomy Regulation including the environmental objective of pollution prevention and control² (see Appendix A: Defined terms).

Interactions with other ESRS

9. 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).
10. Specific implications from pollution on water related aspects, including water consumption, water use, water discharge, etc. are addressed in ESRS E3 Water and marine resources, while the measurement of pollution to water, caused by discharges of pollutants from undertakings, is addressed through this [draft] Standard. 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.
11. Elements regarding pollution in a context that refers to, but is not limited to human rights, the workforce, “just transition”, etc. are covered under the respective social Standards from ESRS S1 Own workforce, ESRS S2 Workers in the value chain, ESRS 3 Affected communities and ESRS S4 Consumers and end-users.
12. 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, strategy, governance, and materiality assessment.
13. This [draft] Standard covers sector-agnostic disclosure requirements. Sector-specific disclosure requirements are developed separately and in accordance with the classification following ESRS SEC 1³ Sector classification.

¹ The EU’s chemicals strategy for sustainability towards a toxic-free environment: https://ec.europa.eu/environment/strategy/chemicals-strategy_fr

² 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 and its Annex

³ To be issued at a later stage

Disclosure Requirements

General, Strategy, Governance and Materiality assessment

14. The provisions of this [draft] Standard shall be read in conjunction with and reported alongside the Disclosure Requirements of ESRS 2.
15. This [draft] Standard provides specific pollution-related application guidance in Appendix B to describe and illustrate what are the pollution-related specificities that should be considered by the undertaking when disclosing information under ESRS 2 with regards to:
 - (a) the resilience of the strategy and business model to pollution-related risks, including transition and physical risks, referring to ESRS 2 Disclosure Requirement SBM 4; and
 - (b) the process to identify material pollution-related impacts, risks and opportunities and the outcome of this process, referring to ESRS 2 Disclosure Requirements IRO 1 and IRO 2.
16. This topical Standard does not include additional pollution-specific disclosure requirements.

Policies, targets, action plans and resources

Disclosure Requirement E2-1 – Policies implemented to prevent and control pollution

17. **The undertaking shall disclose its policies related to pollution prevention and control.**
18. The principle to be followed under 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.
19. The description of the pollution prevention and control policies shall follow the principles defined in ESRS 1 Disclosure Principle 1 On policies adopted to manage material sustainability matters. If the undertaking does not disclose the information required by paragraph 17, because it does not believe it has material impacts, risks or opportunities in relation to pollution or it has not adopted a policy and/or objectives as outlined in ESRS 1 General Principles, it shall disclose this to be the case, shall provide reasons for not having adopted a policy or objectives, and may report a timeframe in which it aims to have such policy or objectives in place.
20. The undertaking shall in particular provide a description of the policies implemented in order to:
 - (a) mitigate its negative impacts and maximise its positive impacts related to pollution prevention and control in its own operations and throughout the upstream and downstream value chain;
 - (b) avoid incidents and emergency situations, and if and when occurred to control and limit their impact on the environment and/or society, in line with the Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances;
 - (c) take account of actual and possible upcoming regulations; and

- (d) where relevant, expand its enabling activities, and/or enhance their effectiveness, to enable other undertakings to prevent, control and eliminate pollution.
21. For each policy, the undertaking shall disclose:
- (a) which sub-subtopic(s) it covers:
- i. pollution of air;
 - ii. pollution of water;
 - iii. pollution of soil;
 - iv. substances of concern;
 - v. enabling activities; or
 - vi. other;
- (b) which objective it pursues among the following:
- i. prevention of pollution at the source;
 - ii. minimisation and control of pollution;
 - iii. avoidance, and if occurred, control of the impact of incidents;
 - iv. remediation of pollution of both from regular activities and from incidents;
or
 - v. other.

Disclosure Requirement E2-2 – Measurable targets for pollution

22. **The undertaking shall describe the pollution-related targets it has adopted.**
23. The principle to be followed under 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 related impacts, risks and opportunities.
24. The description of the pollution prevention and control targets shall follow the principles defined in ESRS 1 Disclosure Principle 2 On targets, progress and tracking effectiveness.
25. The undertaking shall provide information on how the targets support the strategy of the undertaking in support of the EU Action Plan “Towards a Zero Pollution for Air, Water and Soil” on the reduction and substitution of production and use of substances of concern and most harmful substances.
26. For its material pollution-related impacts, risks and opportunities, the undertaking shall disclose its targets set related to:
- (a) pollution to air in terms of total volume of emitted pollutants as per the classes defined in paragraph AG15 and respective specific loads in a defined time period;
 - (b) pollution to water in terms of total volume of emitted pollutants as per the classes defined in paragraph AG15 and respective specific loads in a defined time period;
and

- (c) pollution to soil in terms of total volume of emitted pollutants as per the classes defined in paragraph AG15 and respective specific loads in a defined time period;
 - (d) substances of concern in terms of:
 - i. total amounts generated and/or used by the undertaking split into main classes of substances as per Appendix A: Defined terms;
 - ii. absolute turnover and share of total turnover of the undertaking realised with products and services that are or that contain substances of concern; and
 - iii. absolute raw material cost and share of total raw material cost of the undertaking when substances of concern are procured to produce other products and services.
 - (e) most harmful substances in terms of:
 - i. total amounts generated and/or used by the undertaking split into main classes of substances per Appendix A: Defined terms;
 - ii. absolute turnover and share of total turnover of the undertaking realised with products and services that are or that contain most harmful substances; and
 - iii. absolute raw material cost and share of total raw material cost of the undertaking when most harmful substances are procured to produce other products and services.
27. The disclosure required in paragraph 22 shall also include:
- (a) whether targets are mandatory (based on legislation, including future legislation) or voluntary;
 - (b) a clarification on which emissions data and information the undertaking is required to report under the Industrial Emissions Directive (IED)⁴ and the BAT frameworks (BREFs; BAT Conclusions)⁵;
 - (c) a presentation in 5-year periods including a set date in 2030, detailing the scope covered in terms of total volume and/or specific loads. The undertaking shall choose a representative baseline of the undertaking's typical profile. The baseline shall be chosen within the 3 years preceding the date of setting the first targets. The baseline may also be an average of these three years if this allows a more faithful representation and if this is specified; and
 - (d) where relevant, the geographical scope of the target: a description of the geographies covered by the target and, where appropriate, an explanation of why geographies identified as relevant were not included.

Disclosure Requirement E2-3 – Pollution action plans and resources

28. **The undertaking shall disclose its pollution-related action plans and the resources allocated to their implementation.**

⁴ DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

⁵ 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

29. The principle to be followed under this Disclosure Requirement is to provide an understanding of the types of process, initiative or engagement through which the undertaking works to prevent, mitigate and remedy material pollution-related impacts, or seeks to achieve positive impacts, or to manage pollution-related risks and opportunities, including transparency on the key actions taken and planned in order to achieve its pollution-related policy objectives and targets.
30. The description of the pollution-related action plans and resources shall follow the principles defined in ESRS 1 Disclosure Principle 3 On actions, action plans and resources in relation to policies and targets. In particular, the undertaking shall include the related allocation of resources established and communicated in financial terms.
31. The disclosure required by paragraph 28 shall include for each key action plan or action:
 - (a) a description of whether the reported key actions are planned or implemented to achieve compliance with environmental legislation, including:
 - i. addressing failures to comply with Do-No-Significant-Harm criteria for pollution prevention and control according to the EU Taxonomy Regulation and its Delegated Acts;
 - ii. meeting BAT requirements in the future; and
 - iii. any phase out of materials/compounds that have a material negative impact.
 - (b) a list of the stakeholders involved in the actions or action plan and how they are involved, and/or a list of stakeholders impacted negatively or positively by the actions or action plan and how they are impacted. An explanation whether the action is intended to be a one-time initiative or a systematic practice;
 - (c) the outcome of its assessment whether key actions may induce significant sustainability impacts, related to other environmental topics beyond pollution and/or related to social topics;
 - (d) a description of whether the action is individual or collective: for a collective action, the undertaking shall explain its role and contribution; and
 - (e) a description of whether the success of the action depends on similar or supporting actions by other undertakings, and to what degree.

Performance measurement

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

32. **The undertaking shall disclose the list of 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.**
33. The principle to be followed under this Disclosure Requirement is to provide an understanding of the emissions that the undertaking generates in the air, water and soil.
34. The pollutants to be disclosed by the undertaking shall comprise those listed in Annex II of the E-PRTR Regulation⁶ to be grouped in accordance with paragraph AG 15 if the undertaking meets or exceeds the threshold for releases stipulated in Annex II of

⁶ REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register

the E-PRTR Regulation within the reporting period. This threshold shall be assessed at the level of the undertaking, and not individually for each facility.

35. The disclosure required by paragraph 32 shall include emissions to air, emissions as effluents or other entries to water and pollutants to soil resulting from its operations, products and services all along the value chain and product life-cycle.
36. For the pollutants to air, water or soil, the undertaking shall disclose:
 - (a) the total amount of emissions in a defined period, using standard measures such as tons, kilograms, cubic meters,;
 - (b) the specific loads of emissions put in relation to production outputs (e.g. activity level, production volumes);
 - (c) where defined, the targets as described under ESRS E2 Disclosure Requirement 2 above; and
 - (d) where relevant, the land or water affected (in km²).
37. The undertaking shall put its disclosure into context with:
 - (a) the local air quality indices (AQI) for the area where the undertaking's pollution to air occurs;
 - (b) the degree of urbanisation (DEGURBA)⁷ 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 the ESRS E3, Appendix A].
38. 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 shall disclose:
 - (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;
 - (c) the actual performance, as specified in the BAT BREF/BAT conclusions for installations, of the undertaking against the BAT-AEL conclusions.;
 - (d) the actual performance of the undertaking against BAT-AEPLs as applicable to the sector and installation; and
 - (e) a list of any compliance schedules or derogations associated with the implementation of BAT-AEL.

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

39. **The undertaking shall disclose specific information on the substances of concern and most harmful substances 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.**

⁷ [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)

40. The principle to be followed under this Disclosure Requirement is to provide an understanding of the impact of the undertaking on health and the environment related to the undertaking's production, use, distribution and commercialisation of substances of concern and most harmful substances, as well as an understanding of the undertaking's risks and opportunities, including exposure towards those substances of concern and risks arising from changes in regulations.
41. The disclosure required by paragraph 39 shall present separately the information related to (i) substances of concern and (ii) most harmful substances:
 - (a) total amounts generated and/or used by the undertaking split into main classes of substances as per the definitions of "substance of concern" and "most harmful substances" in Appendix A: Defined terms;
 - (b) net turnover and share of total net turnover of the undertaking made with products and services that are or that contain the above-mentioned substances; and
 - (c) absolute raw material cost and share of total raw material cost of the undertaking that relate to the procurement of the above-mentioned substances to produce other products and services.

Taxonomy Regulation for pollution prevention and control including enabling activities

42. The undertaking shall disclose information required by Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation) in conjunction with the Commission Delegated Regulation (EU) 2021/2178 and in conjunction with upcoming technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to pollution prevention and control.
43. Article 8(2) of Regulation (EU) 2020/852 requires undertakings subject to the [Corporate Sustainability Reporting Directive] to disclose information on the proportion of the net turnover, capital expenditure ('CapEx') and operating expenditure ('OpEx') or on their green asset ratio associated with economic activities that qualify as environmentally sustainable.
44. The information to be disclosed under the upcoming pollution-related provisions of Regulation (EU) 2020/852 shall be complementary to the information provided under the provisions of this [draft] Standard.

Disclosure Requirement E2-6 – Pollution-related incidents and deposit impacts and risks, and financial exposure to the undertaking

45. **The undertaking shall disclose the impact of and its financial exposure to pollution-related incidents and deposits.**
46. The principle to be followed under this Disclosure Requirement is to provide an understanding of how principal pollution-related incidents and deposits may affect the environment and society and/or the undertaking's development, performance and position over the short-, medium- and long-term. This includes the consideration that those potential future financial effects may not meet the recognition criteria set for financial statements at the reporting date.
47. The disclosure required by paragraph 45 shall include a description of major incidents and deposits, based on double-materiality assessments, whereby pollution had negative effects on the environment and/or on the undertaking's financial performance in the past reporting year, e.g. through interruptions of production and/or in supply chain as a result of pollution, or through pollution prevention and control measures.

48. The undertaking shall disclose its operational and capital expenditures occurred in the reporting period in conjunction with these major incidents and deposits.
49. If not already disclosed as part of the undertaking's financial statements, the undertaking shall disclose its 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. When the information is provided in the undertaking's financial statements, a clear reference shall be included in the sustainability statements.

Disclosure Requirement E2-7 – Potential financial effects from pollution-related impacts, risks and opportunities

50. **The undertaking shall disclose the potential financial effects of the risks and opportunities arising from pollution-related impacts and dependencies.**
51. The principle to be followed under this Disclosure Requirement is to an understanding of the potential effects of risks and opportunities, arising from 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. This includes those related to pollution prevention and control, considering that those potential future financial effects may not meet at the reporting date the recognition criteria set for financial statements. Such information is complementary to the information requested under the Taxonomy Regulation, particularly related to enabling activities that enable other undertakings to prevent, control and eliminate pollution.
52. The undertaking may include an assessment of the market size of related 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 made.

Appendix A: Defined terms

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

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| 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. ⁸ |
| 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. ⁹ |
| BAT-AEPL | Best Available Technique-Associated Environmental Performance Level. For each individual BAT, a BAT-AEPL can be indicated. Such environmental performance levels can be expressed as an emission level (BAT-AEL), a consumption level, or a different kind of performance level. ¹⁰ |
| 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. ¹¹ |
| 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 |

⁸ Source: Industrial Emissions Directive (IED), Article 3

⁹ Source: https://www.elni.org/fileadmin/elni/dokumente/elni_forum/2010/van_den_abeele_-_Polders_IED-BAT-AEL.pdf

¹⁰ Source: <https://emis.vito.be/en/publications/bat-conclusions#:~:text=For%20each%20individual%20BAT%2C%20an,different%20kind%20of%20performance%20level>

¹¹ Source: Industrial Emissions Directive (IED), Article 3

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| | 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. ¹² |
| Enabling activities | An economic activity is “Enabling” if it directly enables other activities to make a substantial contribution to one or more of the EU Taxonomy’s environmental objectives, provided that it: <ul style="list-style-type: none"> i. does not lead to a lock-in of assets that undermine long-term environmental goals, considering the economic lifetime of those assets; and ii. has a substantial positive environmental impact, on the basis of life-cycle considerations. An enabling activity qualifies as “contributing substantially” to one or more of the environmental objectives set out in Article 9 of the EU Taxonomy Regulation.¹³ |
| 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 | 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 | As listed in the Chemicals Strategy for Sustainability ¹⁴ are: <ul 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 ¹⁵ . |
| 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. ¹⁶ For a definition of “pollution” and “pollutants”, see Article 2 points (10) and (12) of the Taxonomy Regulation (EU) 2020/852. |

¹² 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)

¹³ 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 16

¹⁴ 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

¹⁵ <https://ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>

¹⁶ 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)

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| 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. For a definition of “pollution” and “pollutants”, see Article 2 points (10) and (12) of the Taxonomy Regulation (EU) 2020/852. |
| Pollution of air | The introduction into air - both indoor and outdoor -, 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. ¹⁷ Air pollutants include nitrogen oxides (NOx), sulphur oxides (SOx), particulate matter (PM), volatile organic compounds (VOCs), heavy metals, etc. as listed in paragraph AG15. |
| 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. ¹⁸ Soil pollutants include inorganic pollutants, persistent organic pollutants (POPs), pesticides, nitrogen and phosphorus compounds, etc. as listed in paragraph AG15. |
| Pollution of water | The introduction into water - including groundwater and including leachate -, as a result of human activity, of substances, vibrations, heat or noise which may be harmful to human health or the environment, which result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment. ¹⁹ Water pollutants include synthetic organic and inorganic compounds, pathogens, heavy metals, micro plastics, 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. ²⁰ |
| 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. ²¹ |
| 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); and |

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(2)

¹⁸ 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)

¹⁹ 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)

²⁰ 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)

²¹ 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

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| | ii. those which hamper recycling for safe and high quality secondary raw materials; and the most harmful substances as listed in the Chemicals Strategy for Sustainability. |
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Appendix B: Application Guidance

The provisions of this appendix shall be applied in conjunction with the [draft] disclosure requirements defined in paragraphs 1 to 52.

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 E2 Pollution.

General, Strategy, Governance and Materiality assessment

Pollution-related specific application guidance on ESRS 2 Disclosure Requirement SBM 4, paragraph 47 (d) on the resilience of the strategy and business model

- AG 1. The description of the resilience of the undertaking's strategy and business model(s) shall cover all material impacts, risks and opportunities identified and shall include:
- (a) the resilience of the strategy and business model(s) to risks related to pollution and to pollution prevention and control measures and regulations; and
 - (b) a description of opportunities arising from pollution prevention and control measures and regulations, and/or from enabling activities.
- AG 2. When assessing its strategy to mitigate negative impacts arising from, and risks to, its business model(s), the undertaking shall include the value chain and identify:
- (a) both actual and future impacts, risks and opportunities; and
 - (b) where in the value chain pollution-related impacts, risks and opportunities are concentrated.
- AG 3. When disclosing information required by paragraph AG1, the undertaking shall provide an understanding of its strategy for and contribution to the EU Action Plan "Towards a Zero Pollution for Air, Water and Soil" and in particular:
- (a) the extent to which it is or may be affected by the targets and measures of the EU Action Plan "Towards a Zero Pollution for Air, Water and Soil", including the revision of existing directives (e.g., the Industrial Emissions Directive);
 - (b) how it intends to reduce its pollution footprint to contribute to the targets of the EU Action Plan "Towards a Zero Pollution for Air, Water and Soil"; and
 - (c) thus, how the EU Action Plan does or might impact the undertaking's strategy and business model.
- AG 4. When disclosing information under paragraph AG1, the undertaking shall provide an understanding, where relevant, of how it might be impacted by, and contribute to, the intention of the EU that "substances of concern are minimised and substituted as far as possible and phasing out the most harmful ones for non-essential societal use, in particular in consumer products"²².

Pollution-related specific application guidance on ESRS 2 Disclosure Requirements IRO 1 and IRO 2 on materiality assessment

- AG 5. The description of the processes to identify and assess material sustainability impacts, risks and opportunities shall include:

²² Source: COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, Chemicals Strategy for Sustainability, Towards a Toxic-Free Environment, Brussels, 14.10.2020

- (a) all sub-subtopics covered in this [draft] Standard: pollution to air, pollution to water, pollution to soil and the production, distribution, commercialisation and use of substances of concern including most harmful substances and enabling activities in support of prevention, control and elimination of pollution;
 - (b) environmental and human health impacts related to pollution and pollution prevention and control measures and regulations, including accidental impacts; and
 - (c) risks and opportunities related to pollution and to pollution prevention and control measures and regulations.
- AG 6. When disclosing the information required under paragraph AG5(a), the undertaking shall explain how it conducts its due diligence process including how it:
- (a) screens its activities and plans in order to identify actual and potential future impacts in own operations and along the value chain;
 - (b) assesses the materiality of the actual and potential impacts based on severity (scale, scope, remediability), likelihood or other criteria;
 - (c) covers all sub-subtopics: pollution to air, pollution to water, pollution to soil and the production, distribution, commercialisation and use of substances of concern including most harmful substances;
 - (d) assesses the resilience of the strategy and business model(s) to risks related to pollution and to pollution prevention and control measures and regulations; and
 - (e) assesses opportunities arising from pollution prevention and control measures and regulations, and/or enabling activities.
- AG 7. The undertaking shall also describe, how it has applied 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.
- AG 8. The undertaking shall disclose the outcome of its processes to identify and assess pollution-related impacts, risks and opportunities, i.e. disclose separately:
- (a) pollution impacts, risks and opportunities related to regular activities (e.g. emissions to air and water that regularly originate from a production process and need to be controlled); and
 - (b) incidents or emergency situations that are likely to lead to pollution and the issue of domino effects, or that have led to pollution with subsequent effects on the environment and society.

Policies, targets, action plans and resources

Disclosure Requirement E2-2 – Measurable targets for pollution

- AG 9. When disclosing targets under Disclosure Requirement E2-2, the undertaking shall clarify when a 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 (EU) 2020/852.
- AG 10. Where those targets are subject to EU BREFs or other voluntary benchmarks (incl. EMAS), the disclosure shall be provided in a format that enables:
- (a) benchmark and progress measures against the relevant pollution prevention regulation or standard; and

- (b) assessment of the level of compliance with the strict performance benchmarks or the less strict performance benchmarks of the relevant pollution prevention regulation or standard.

Disclosure Requirement E2-3 – Pollution action plans and resources

- AG 11. The undertaking shall specify when an action meets enforcement requirements or future compliance needs, such as meeting BAT requirements in the future, or any phase out of materials/compounds that could have a material impact.
- AG 12. 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, including:
 - (a) onboarding and compliance;
 - (b) incentivising for improved pollution prevention and control, including stewardship;
 - (c) innovation;
 - (d) assessment of supplier performance against the undertaking's own pollution prevention and control commitments;
 - (e) selection processes against the undertaking's own pollution prevention and control commitments; and
 - (f) training and collaboration.

Performance measurement

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

- AG 13. The information provided under this Disclosure Requirement shall refer, if relevant, to information the undertaking may already be required to report under existing legislation (i.e. IED, E-PRTR...).
- AG 14. The undertaking shall describe its measurement processes for collecting data for pollution related accounting and reporting, the type of data needed, the information sources typically connected to desired objectives, outcomes or outputs.
- AG 15. The pollutants shall be grouped as follows:
 - (a) the air pollutants to be disclosed according to ESRS E2 Disclosure Requirement 4 according to the indicators used to establish priority activities from the Platform on Sustainable Finance's report on the four remaining environmental objectives from March 2022, page 102:
 - i. SO_x (sulphur oxides);
 - ii. NO_x (nitrogen oxides);
 - iii. CO (carbon monoxide);
 - iv. PM (particulate matter);
 - v. Heavy metals;
 - vi. POPs (persistent organic pollutants);
 - vii. VOCs (volatile organic compounds);

- viii. ODS (ozone depleting substances);
 - ix. NH₃ (ammonia);
 - x. other (hazardous) chemicals regulated by REACH and CLP and their compounds (e.g. SVHC, chlorine, fluorine, bromine, iodine, asbestos, cyanides, other CMRs, PBTs, EDCs); and
 - xi. other physical pollutants (heat, noise, light, radiation, odour).
- (b) the water pollutants to be disclosed according to ESRS E2 Disclosure Requirement 4 according to the indicators used to establish priority activities from the Platform on Sustainable Finance's report on the four remaining environmental objectives from March 2022, page 102:
- i. oxygen demanding pollutants and nutrients (bio-degradable organic compounds in suspended, colloidal, or dissolved form);
 - ii. synthetic organic compounds (pesticides, detergents, food additives, pharmaceuticals, insecticides, paints, fibres, PCBs, solvents, PAHs, and VOCs,);
 - iii. oil;
 - iv. pathogens (viruses, bacteria);
 - v. inorganic pollutants (heavy metals, mineral acids, inorganic salts, other metals, complexes of metals with organic compounds, cyanides, sulphates, etc.);
 - vi. microplastics and plastic particles; and
 - vii. other physical pollutants (heat, radiation, light, noise/vibration, suspended solids and sediments).
- (c) The soil pollutants to be disclosed according to ESRS E2 Disclosure Requirement 4 according to the indicators used to establish priority activities from the Platform on Sustainable Finance's report on the four remaining environmental objectives from March 2022, page 102:
- i. inorganic pollutants;
 - ii. organic compounds, including POPs, pesticides, pharmaceuticals and antibiotics;
 - iii. nitrogen and phosphorous compounds; and
 - iv. other (physical) pollutants (vibrations, micro plastics and plastic particles).

AG 16. In order to meet financial market participants needs, the undertaking shall ensure that it discloses separately, if not already addressed through the disclosure according to paragraph AG15:

- (a) the total amount of inorganic emissions in tons²³;

²³ 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 regards to disclosure rules on sustainable investments.

- (b) the total volume of air pollutants in tons²⁴ according to the following definition:
- i. direct emissions of sulphur dioxides (SO₂), 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 Council²⁵;
 - ii. ammonia (NH₃) as referred to in that Directive; and
 - iii. heavy metals (HM) as referred to in Annex I to that Directive.
- (c) the total volume of ozone-depleting substances in tons²⁶.

AG 17. For each one of the group of pollutants, the undertaking shall disclose the source of pollution factors used, as well as standards, methodologies, assumptions, and/or calculation tools used.

AG 18. When preparing the information on pollutant performance measures, the undertaking shall apply the following approaches for quantification of its pollution-related performance measures, 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.

AG 19. The undertaking shall specify:

- (a) whether its monitoring is carried out in accordance with EU BREF Standards 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.

AG 20. 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.

AG 21. The undertaking may provide a breakdown of its emissions by type of source, by economic activity and/or by geographic areas. Where an undertaking reports segment data in its financial statements, the use of the same segments for pollution disclosures is encouraged.

²⁴ 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 #2 in Table 2 of Annex 1 of the related Delegated Regulation with regards to disclosure rules on sustainable investments.

²⁵ Available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L.2016.344.01.0001.01.ENG>

²⁶ 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 regards to disclosure rules on sustainable investments.

AG 22. For each group of pollutants, for which disclosures are required, total amounts and specific load disclosures may be presented in a tabular format. Each row may include current and (where applicable) comparative values, alongside associated base line values, targets and target dates where set, and the respective calculation methodology of the pollutants as proposed in the example below:

| Pollutant | Pollution to air, water or soil | Measure type | Actual reported value | Unit | Reporting Year N | Reporting Comparative | Base line | Base line year | Target | Target Date | Calculation methodology |
|----------------------|---------------------------------|----------------------------------|-----------------------|---------------------|------------------|-----------------------|-----------|----------------|--------|-------------|-------------------------|
| SOx (sulphur oxides) | Air | Emissions loads or concentration | | tons, kg, mg, mg/m3 | | | | | | | |

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

AG 23. For substances of concern and most harmful substances, the undertaking shall disclose the substances as grouped in the lists defined in Appendix A: Defined terms in the following tabular format:

| KPIs | Reporting Comparative | Absolute net turnover 202x of products and services, Reporting Year N | Comparative | Share in % of total net turnover 202x of the reporting undertaking, Reporting Year N | Reporting Comparative | Base line | Base line year | Target net turnover 202x of products and services | Target Share in % of total Turnover 202x of the reporting undertaking |
|----------------------------------|-----------------------|---|-------------|--|-----------------------|-----------|----------------|---|---|
| Group of substances of concern | | Monetary amount | | % | | | | Monetary amount | % |
| Group of most harmful substances | | Monetary amount | | % | | | | Monetary amount | % |

Disclosure Requirement E2-6 – Pollution-related incidents and deposits impacts and risks, and financial exposure to the undertaking

AG 24. When disclosing information related to incidents and deposits under ESRS E2 Disclosure Requirement 6, the undertaking shall include:

- (a) a description of all the cases of occurred incidents, clarifying the material environmental and societal impacts, based on a materiality assessment;
- (b) monetary costs incurred as a consequence of these incidents, for example but not limited to:
 - iv. cost for eliminating and remediating the respective pollution of air, water and soil;
 - v. damage compensation costs; and

- vi. payment of fines and penalties imposed by regulators or government authorities.

AG 25. When disclosing its provisions for environmental protection and remediation costs, the undertaking shall disclose, preferably in tabular format:

- (a) the provisions at the end of the reporting year;
- (b) the provisions at the end of the year preceding the reporting year;
- (c) the additions to provisions;
- (d) the utilisation of provisions;
- (e) the releases of provisions; and
- (f) other changes to provisions.



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