

This paper has been prepared by the EFRAG Secretariat for discussion at a public meeting of EFRAG SR TEG. The paper forms part of an early stage of the development of a potential EFRAG position. Consequently, the paper does not represent the official views of EFRAG or any individual member of the EFRAG SRB or EFRAG SR TEG. The paper is made available to enable the SRT members to follow the discussions in the meeting. Given that the first sector-specific working paper is Mining, Quarrying and Coal, the purpose of this paper is twofold. On the one hand, to have the first discussion on the architecture and approach on sector-specific working papers and, on the other, to discuss the technical content for Mining, Quarrying and Coal.

**WORKING PAPER IN PREPARATION OF
DRAFT EUROPEAN SUSTAINABILITY REPORTING STANDARDS
ESRS Mining, Quarrying and Coal
FOR SR TEG DISCUSSION**

DISCLAIMER

The working paper Mining is set out in paragraphs X-X 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. This working paper also uses terms defined in other [draft] ESRS and shall be read in the context of its objective.

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Objective

1. The objective of this [draft] ESRS is to specify disclosure requirements applicable to all undertakings within the Mining, Quarrying and Coal Sector that are additional to the sector-agnostic ESRS disclosures. They address impacts, risks and opportunities not covered, or not sufficiently covered, by sector-agnostic Disclosure Requirements and have to be applied in conjunction with them.
2. In addition, this [draft] ESRS also specifies Mining, Quarrying and Coal sector specific application requirements to existing sector-agnostic disclosure requirements, which should be taken in consideration by the undertaking in the preparation of their sustainability disclosures.
3. Disclosure Requirements in this [draft] ESRS will enable users of the sustainability statements to understand the undertaking's material impacts, as well as related material risks and opportunities arising with regard to a list of sustainability matters that are material for the undertakings in the Mining, Quarrying and Coal Sector.
4. This [draft] Standard requires undertakings in the sector to disclose:
 - (a) the material actual or potential, positive or negative impacts in relation the environmental, social and governance matters material for the Mining, Quarrying and Coal Sector;
 - (b) any actions taken, and the result of such actions, to prevent or mitigate actual or potential material negative impacts;
 - (c) the nature, type and extent of the undertaking's material risks and opportunities related to its impacts and dependencies in relation to the list of matters that are material for the Mining, Quarrying and Coal Sector (as identified in appendix C of this [draft] ESRS), and how the undertaking manages them; and
 - (d) the financial effects on the undertaking over the short-, medium- and long-term time horizons of material risks and opportunities.

Interaction with other ESRS

5. This Mining, Quarrying and Coal sector [draft] ESRS identifies a list of matters that shall be considered material for any undertaking operating in the Mining, Quarrying and Coal sector, irrespective of the outcome of their materiality assessment. The undertaking within the scope of application of this [draft] ESRS shall consider, for the purposes of paragraph 31 of ESRS 1 General Requirements, that the sustainability matters listed in the table in paragraph 17 below are material. The undertaking shall apply paragraphs 33 to 39 of ESRS 1 to define the information to be included in its sustainability statements in relation to each of these matters.
6. An undertaking is within the scope of application of this [draft] ESRS when it discloses Mining, Quarrying and/or Coal as a significant sector according to paragraph 38 (b) and/or (c) of ESRS 2 General Disclosures, using the criteria in AR 12 of ESRS 2 to define a significant sector.
7. [draft] ESRS SEC 1 *Sector classification* defines the aggregation of activities (NACE codes) into sectors for the purposes of applying sector ESRS. The list of NACE codes that are considered as pertaining to the Mining, Quarrying and Coal sector are listed in Appendix D to this [draft] ESRS, consistent with SEC 1.
8. This Mining, Quarrying and Coal sector [draft] ESRS also stipulates sector specific Disclosure Requirements applicable for undertakings in the Mining sector and includes two types of requirements:
 - (a) requirements that provide sector-specifications in relation to sector agnostic Disclosure Requirements in order to either (i) complement with additional datapoints – presented in the main body of this [draft] Standard as sector-agnostic related Disclosure Requirement – or (ii) support the application of Disclosure Requirements – presented

in the Application Requirements of this [draft] Standard and therefore to be disclosed if the related Disclosure Requirement from sector-agnostic disclosure is material;

- (b) sector-specific Disclosure Requirements to be reported additionally to the Disclosure Requirements in the sector-agnostic standards – presented in the main body of this standard and when applicable accompanied by Application Requirements in Appendix B of this standard. These Disclosure Requirements are separately numbered.
- 9. Undertakings in the Mining, Quarrying and coal sector shall apply the [draft] cross cutting and [draft] topical ESRS requirements in addition to requirements of this Standard to both its own operations and, where relevant, to reporting on material impacts, risks and opportunities in the undertaking's value chain.
- 10. Undertakings in the sector shall assess all sustainability matters relevant for them for materiality and subject to that materiality assessment, apply all disclosures related to material sustainability matters, not only the disclosure requirements mentioned in a subchapter such as Coal operations or Quarrying.
- 11. When preparing its sustainability statements, the undertaking shall group the disclosures by cross-cutting reporting area and, where applicable, by sustainability matter according to the provisions set out in [draft] ESRS 1 paragraph 117. Disclosures stemming from the [draft] Mining, Quarrying and Coal ESRS shall be presented alongside the disclosures required by the corresponding sector-agnostic ESRS.

Sector description and sustainability matters

Sector Description: Mining and quarrying

- 12. The Mining sector includes the extraction of metals and minerals. It encompasses extraction activities in relation to, amongst others: aluminium, antimony, asbestos, baryte, bauxite, bentonite, copper, cobalt, diatomite, feldspar, fluorspar, gold, graphite gypsum, iron, kaolin, lead, lithium, magnesite, manganese, molybdenum, nickel, peat, perlite, platinum, potash, salt, silver, sulphur, titanium, talc, tantalum, thorium, tungsten, uranium, vanadium, and zinc.
- 13. It also addresses quarrying activities in relation to hard rock, natural sand, gravel, sandstone, limestone, clay, chalk, slate, and gemstones.
- 14. Extraction can be achieved by different methods such as underground or surface mining, well operation, seabed mining, salars' exploitation, geothermal mining etc.
- 15. This sector also includes supplementary activities aimed at preparing the crude materials for marketing, for example, crushing, grinding, cleaning, washing, drying, sorting, sintering of ores, dredging of alluvial deposits, rock crushing or the use of salt marshes.
- 16. Quarrying activities include quarrying, rough trimming and sawing of large building stones, breaking and crushing of ornamental and building stones, the extraction and dredging of (industrial) sand, mining of natural phosphates and natural potassium salts, peat digging and preparation of peat to improve quality or facilitate transport or storage. It also includes mining and quarrying of various minerals and materials. Finally, support services such as exploration services, draining and pumping services or test drilling are also included in this [draft] sector standard.

Sustainability Matters: Mining and Quarrying Sector

- 17. This [draft] ESRS sets out Disclosure Requirements related to the sustainability matters considered material to the Mining sector, listed in the table below. A Detailed descriptions of them is included in Appendix C.

Environmental	Social	Governance
E1: Climate change adaption (*)	S1: Working time and work-life balance (*)	G1: Corporate culture (*)
E1: Energy (*)	S1: Health and Safety (*)	G1: Corruption and bribery (*)
E2: Pollution of Air (*)	S1: Adequate wages and secure employment (*)	G1: Anti-competitive behaviour
E2: Pollution of Water (*)	S1: Freedom of association and collective bargaining (*)	G1: Political engagement and lobbying activities (*)
E2: Pollution of Soil (*)	S1: Gender equality and equal pay for work of equal value (*)	G1: Management of relationships including payment practices (*)
E2: Pollution of living organisms and food resources (*)	S1: Training and skills development (*)	G1: Cyber security
E2: Substances of concern (*)	S1: Measures against violence and harassment in the workplace (*)	
E2: Industrial hazards	S1: Diversity (*)	
E3: Water withdrawals (*)	S1/S2: Child labour (*)	
E3: Water consumption (*)	S1/S2: Forced labour (*)	
E3: Water use (*)	S1/S2: Adequate housing, including water and sanitation (*)	
E3: Water discharges in water bodies and in the oceans (*)	S1/S2: Privacy (*)	
E3: Habitat degradation and intensity of pressure on marine resources (*)	S3: Infrastructure, including adequate housing, adequate food, water and sanitation and power(electricity) (*)	
E4: Direct impact drivers on biodiversity loss (*)	S3: Land-related impacts (*)	
E4: Impacts on the state of species (*)	S3: Security-related impacts (*)	
E4: Impacts on the extent and condition of ecosystems (*)	S3: Freedom of expression and freedom of assembly (*)	
E4: Impacts and dependencies on ecosystem services (*)	S3: Impacts on human rights defenders (*)	
E5: Resources inflows, including resource use (*)	S3: Particular rights of indigenous communities. Including; Free, prior and informed consent; self-	

	determination; and cultural rights (*)	
E5: Waste (*)	S4: Access to quality information (*)	
(*) Sustainability matter covered by Disclosure Requirements in the topical sector-agnostic ESRS (see ESRS 1 Appendix B table in paragraph AR 12.)		

Disclosure Requirements and specifications

Areas of potential information gathering at operational site level [TO BE DISCUSSED]	
Spills	Pollution of air, water and soil
Restoration plans for biodiversity	Tailings
Closure and rehabilitation	Metrics for material impacts in biodiversity
Financial provisions for transition	Location near high-biodiversity areas
Relation with indigenous peoples	Impact of price and demand
Payments to governments	Affected communities

Disclosure Requirement related to ESRS 2 – SBM 1 Market position, strategy, business model(s) and value chain

18. **The undertaking shall provide a breakdown of its turnover by NACE codes and by production data by countries in compliance with the Extractives Industry Transparency Initiative (“EITI”) quality assurance mechanism.**
19. Undertakings in the Mining and Quarrying sector shall provide a breakdown of its production data per NACE-code activity where it is active for the following NACE-code activities:
 - (a) B.07 – Mining of metal ores
 - (b) B.08 – Other mining and quarrying
 - (c) B.09 – Mining support activities
20. The undertaking shall disclose the breakdown of its production into the following categories of countries, according to their compliance with the EITI quality assurance standards as per its scale:
 - (a) Countries with a very high progress in complying;
 - (b) Countries with a high to satisfactory progress in complying;
 - (c) Countries with a moderate to meaningful progress in complying;
 - (d) Countries with a fairly low to inadequate progress in complying;
 - (e) Countries with low to no progress in complying;
 - (f) Other countries.
21. The objective of this Disclosure Requirement is to enable an understanding of the undertakings’ footprint in terms of activities, regulations and alignment with EBA Pillar III framework.

22. The EITI categories of quality assurance are used to disclose alignment with how the principles are being implemented locally. The category “other” refers to countries for which the assessment is suspended or to countries for which the compliance has yet to be assessed.

Disclosure Requirement MIN 1 - List of operational sites

23. **The undertaking shall disclose a list of its operational sites [TO BE DISCUSSED] where the undertaking either:**
- (a) owns more than 20% of the operation**
 - (b) more than 5% of it’s total production comes from the operational site**
 - (c) the undertaking has significant influence over an operational site**
 - (d) or all of the above.**
24. The objective of this Disclosure Requirement is to enable an understanding of the undertakings’ footprint in terms of activities and regulatory impact.
25. When identifying an operational site [TO BE DISCUSSED] the undertaking shall include:
- (a) mines and the surface area disturbed by a mining operation, including but not limited to; the surface area from which the nonferrous metallic minerals or refuse or both have been removed, the surface area covered by refuse, all lands disturbed by the construction or improvement of haulage ways, pipelines and pipeline corridors, and any surface areas in which structures, equipment, materials, and any other elements used in the mining operation are situated.[definition to be discussed];
 - (b) quarries [definition pending feedback from quarries companies];
 - (c) tailing dams; and
 - (d) infrastructure and office buildings relating to the operations.
26. The undertaking shall specify the status of the operational site [TO BE DISCUSSED], and specify:
- (a) whether the site is active;
 - (b) whether the site has a closure and rehabilitation plans in place;
 - (c) whether the site is undergoing closure activities.
 - (d) whether the site has been closed; or
 - (e) whether the site has been rehabilitated.
27. The undertaking shall also disclose the operational site [TO BE DISCUSSED] impacts arising from social and environmental matters. This includes the following disclosures:
- (a) whether the site is located in or near to a protected areas or a key-biodiversity area,
 - (b) whether the undertaking causes or contributes to material impacts on the local community, specifically, in relation to :
 - i. indigenous peoples;
 - ii. land rights;
 - iii. infrastructure, including housing, food, water and sanitation, and power;
 - iv. pollution;
 - v. toxic waste storage or disposal;

- (c) whether the operational site [TO BE DISCUSSED] is located in near conflict affected or high-risk areas;
 - (d) whether involuntary resettlements have been caused or contributed to by the undertaking have taken place near the site; and
 - (e) a description of the minerals that are produced for each of the mine sites [TO BE DISCUSSED].
28. The undertaking shall also disclose whether it has emergency preparedness and response plans in place.

ESRS E1-related requirements

Disclosure requirement MIN 2- E1– Sensitivity analysis

29. **The undertaking shall disclose a sensitivity analysis of its reserves.**
30. The objective of this Disclosure Requirement is to provide insight on how future price changes may influence the status of its reserves.
31. The undertaking shall disclose a sensitivity analysis of reserves to determine how several future scenarios may affect its determination of whether the reserves are proven or probable.

Disclosure requirement MIN 3-E1 – Impact of price and demand – closure and rehabilitation costs

32. **The undertaking shall discuss how projections for price and demand and the path of air quality and climate regulation influence the entity’s capital expenditure (CAPEX) strategy.**
33. In addition, the undertaking shall disclose, per operational site [TO BE DISCUSSED], the financial provisions available and ultimately necessary, for closure and rehabilitation of the operational sites.
34. The objective of this Disclosure Requirement is to identify the financial effects from future ore prices and the costs necessary for closure and rehabilitation on the ability of the undertaking to complete its transition trajectory.

Disclosure Requirement MIN 4 -E2- Tailings facilities and impoundments and compliance with GISTM

35. **The undertaking shall disclose the list of its tailings facilities, the list of its tailing impoundments classified according to their hazard potential, and the types of tailings disposal methods used.**
36. **The undertaking shall also disclose whether and how it complies with the Global Industry Standard on Tailings Management (GISTM).**
37. The objective of this Disclosure Requirement is to understand how the undertaking manages its tailings facilities and to provide an estimate of how hazardous the undertakings tailing impoundments may be, disclosing the most recent risk assessments relating to these facilities support the assessment of the risk of future tailings failures, and to understand if the undertaking is following the Industry Standard with respect to the treatment of tailings.
38. The undertaking shall describe actions taken to:
- (a) manage impacts from tailings facilities, including during closure and post-closure and;
 - (b) prevent catastrophic failures of tailings facilities.

39. In addition, the undertaking shall provide:
- (a) a description of the tailing facilities in place for each operational site [TO BE DISCUSSED], including legacy ones;
 - (b) the list of the tailing impoundments classified according to their hazard potential.
 - (c) types of tailings disposal methods used by the undertaking.
40. The disclosure shall include, for each operational site [TO BE DISCUSSED], including legacy ones, the tailings facilities in place, their name, location, and ownership status. The undertaking shall include:
- (a) a description of the tailing's facility.
 - (b) whether the facility is active, inactive, or closed.
 - (c) the date and main findings of the most recent risk assessment; and
 - (d) the dates of the most recent and next independent technical reviews.
 - (e) report the maximum permitted storage capacity and the total weight of tailings stored in metric tonnes
 - (f) report the date and main findings of the most recent independent technical
 - (g) review, and the date of the next review
41. The undertaking shall disclose how it takes into account long-term liabilities.
42. The undertaking shall provide information about its waste-management process in case of deep-sea, river, lake and ocean tailings disposal and shall:
- (a) disclose the total amount of tailings waste and of mineral processing waste generated during the reporting period;
 - (b) report on the waste-management process followed and additional challenges faced considering the activities that take place underwater, if it engages on sea mining activities, coastal or deep sea, including the disposal of waste into the marine systems or other activities mentioned in ESRS E3 AR.12 (in the case of deep-sea mining this is often known as Deep-Sea Tailings Disposal (DSTD)).
43. The undertaking shall disclose whether it complies with the GISTM and, if so, provide the most recent information disclosed in line with GISTM Principle 15.
44. If the undertaking doesn't comply with GISTM yet, it shall provide a date for when it will start complying with GISTM.

Disclosure Requirement related to [draft] ESRS E4-5 – Impact metrics related to biodiversity and ecosystems change

45. **The undertaking shall report metrics related to material impacts resulting in biodiversity and ecosystem change, following ESRS E4-5, per each operational site [TO BE DISCUSSED] located in or near, or that has material impacts on, protected areas, high biodiversity areas, sites with protected conservation status, or sites with endangered species habitats.**
46. The objective of this Disclosure Requirement is to provide an overview of the undertaking's operational sites [TO BE DISCUSSED] situated in or near protected areas, high-biodiversity areas, sites with protected conservation status, or sites with endangered species habitats, and to provide information on impacts on biodiversity arising from its operational sites [TO BE DISCUSSED] located in or near these areas.

47. The undertaking shall include an exhaustive list of operational sites [TO BE DISCUSSED] owned, leased, managed in or near, or that have material impacts on, protected areas, key biodiversity areas, sites with protected conservation status, or sites with endangered species habitats and include per each operational site [TO BE DISCUSSED]:
- (a) a description of the material impacts on biodiversity its exploration has or has had, thereby specifying the impacts to the affected habitats and ecosystems;
 - (b) the total number of IUCN Red list species and national conservation list species with habitats in areas affected by the operations of the organisation and this by level of extinction risk;
 - (c) the approach used, for each of these operational sites [TO BE DISCUSSED], to ensure respect for conservation status or endangered species habitat;
 - (d) the percentage of proved and probable reserves in or near sites with protected conservation status or endangered species habitat.
48. **The undertaking shall disclose the percentage and grade (in percentage metal content) of proved reserves that are located in or near high-risk areas.**
- (a) The undertaking shall use the definition in Appendix A for classifying reserves as proved and/or probable.
 - (a) The percentage of proved/probable reserves shall be calculated as the amount of proved/probable reserves located in or near areas of high risk divided by the total amount of proved/probable reserves
 - (b) The undertaking shall provide a breakdown of the calculations by grade (in percentage metal content) of proved/probable reserves
 - (c) The undertaking shall, where relevant, provide a breakdown of calculations by mineral or business unit where minerals or business units include, for example: aluminium, copper, zinc, iron ore, platinum group metals, and diamonds.
 - (d) The undertaking shall follow the Combined Reserves International Reporting Standards Committee (CRIRSCO) guidance for classifying ore reserves and mineral resources, including the use of a "competent person" to compile information.
49. The undertaking shall also explain their process of identifying the sites with protected conservation status or endangered species habitat in a way that is easy to understand and replicate.
50. Reserves are considered to be in areas of protected conservation status if they are located within:
- (a) International Union for Conservation of Nature (IUCN) Protected Areas (categories I-VI)
 - (b) Ramsar Wetlands of International Importance
 - (c) UNESCO World Heritage Sites
 - (d) Biosphere Reserves recognized within the framework of UNESCO's Man and the Biosphere (MAB) Programme
 - (e) Natura 2000 sites
 - (f) Sites that meet the IUCN's definition of a protected area: "A protected area is a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values"

- (g) These sites may be listed in the World Database of Protected Areas (WDPA) and mapped on Protected Planet
51. Reserves are considered to be in endangered species habitat if they are in or near areas where IUCN Red List of Threatened Species that are classified as Critically Endangered (CR) or Endangered (EN) are extant.
52. A species is considered extant in an area if it is a resident, present during breeding or non-breeding season, or if it makes use of the area for passage.
53. For the purposes of disclosure, " passage" is defined as all areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.
54. The undertaking may separately identify reserves in areas with additional ecological, biodiversity, or conservation designations such as those listed by the A-Z Guide of Areas of Biodiversity Importance prepared by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC).
55. The undertaking may discuss reserves that are located in protected areas or endangered species habitat, but present low risk to biodiversity or ecosystem services; the undertaking may provide similar discussion for reserves located in areas with no official designation of high biodiversity value but that present high biodiversity or ecosystem services risks.

ESRS S1 Own workforce -related requirements

Datapoints related to [draft] ESRS S1-11 Social Protection

56. When disclosing the coverage of its own workers by social protection against loss of income due to major life events according to [draft] ESRS S1-11, the undertaking shall disclose the access of its own workers to non-occupational medical and healthcare services.
57. The objective of this Disclosure Requirement is to enable an understanding of the undertaking's employees coverage of non-occupational medical and healthcare services.
58. As per paragraph 56, the undertaking shall disclose,:
- (a) how the undertaking facilitates workers' access to non-occupational medical and healthcare services as well as the scope of access;
 - (b) a description of voluntary health promotion services and programs offered to workers to address major non-work-related health risks, including the specific health risks addressed, and how the organisation facilitates workers' access to these services and programs.

The information required by paragraph 58 (a) and (b) above shall be broken down by employees and non-employees workers, where applicable.

Disclosure Requirement MIN 5 -S1- Percentage of security personnel receiving training in undertakings' human rights policies

The undertaking shall disclose the percentage of security personnel that has received training in the undertaking's human rights policies.

59. The objective of this Disclosure Requirement is to understand to which extent security providers are aware of the undertaking's human rights policies.
60. The undertaking shall disclose the percentage of security personnel (within own workforce and workers in the value chain) that has received training in the undertaking's human rights policies and other security procedures.

61. In addition, the undertaking shall state if the data disclosed to fulfill the requirements set forth in paragraph 61 above has been internally audited and /or audited or certified by an external party. to
62. Based on earlier experience the undertaking shall/may further provide information on the number of expected incidents in this area per operational site [TO BE DISCUSSED].

ESRS S3 Affected communities -related requirements

63. Disclosure Requirement MIN-6-S3 – Resettlement **The undertaking shall disclose, [for each operational site/for key operational sites – TO BE DISCUSSED] whether it has caused or contributed to voluntary or involuntary resettlement, including its policies and actions, and the damages that have resulted from related incidents. .**
64. The objective of this Disclosure Requirement is to enable an understanding of the negative impacts that arise from voluntary or involuntary resettlement caused or contributed to by the undertaking on affected communities.
65. The undertaking shall disclose:
 - (a) whether it has caused or contributed to voluntary or involuntary resettlement or where such a resettlement is ongoing; in this case the undertaking shall disclose the operational site [TO BE DISCUSSED] involved. It shall also describe measures taken to ensure that livelihoods and human rights have been preserved and valuation methods used and how legitimate tenure rights holders have been involved in determining valuation. This includes the policies or commitments to providing remediation to local communities or individuals subject to involuntary resettlement, and the process for establishing compensation for loss of assets or other assistance to improve or restore standards of living or livelihoods.
 - (b) whether there have been incidents as described in Disclosure Requirement MIN 5- E2 that have had a negative impact on the local community. The undertaking shall disclose the damages that have resulted from the incident, and shall include:
 - i. deaths
 - ii. other impacts on the health and wellbeing of local communities, including both physical and psychological impacts; and
 - iii. damage to infrastructure (including housing, water and sanitation, roads, public facilities and power)

Disclosure Requirement MIN 7 – S3– Proved and probable reserves

66. **The undertaking shall disclose percentage of proved and probable reserves**
67. The objective of this Disclosure Requirement is to enable an understanding of how many operational sites are situated in conflict areas and how the undertaking is ensuring respect for human rights by security providers, as well as to provide an overview of the undertakings' extraction sites located in areas mentioned in paragraph 85.
68. The undertaking shall disclose the percentage of proved and probable reserves broken down by reserves:
 - (a) in conflict affected or high-risk areas
 - (b) in or near indigenous land

Disclosure Requirement MIN 8 -S3 – Human rights defenders

69. **The undertaking shall disclose how it deals with human rights defenders and the number of cases the undertaking and/or its suppliers are involved in.**
70. The objective of this Disclosure Requirement is to understand how the undertaking integrates respect for interaction with human rights defenders and the causes they strive for in the undertakings' policies as well as how these policies are rolled out throughout the undertaking. The objective incorporates also reporting on the number of cases of incidents with human rights defenders the undertaking and/or its suppliers are involved in.
71. The undertaking shall describe for each of its operational sites [TO BE DISCUSSED] the policy it applies in dealing with human rights defenders.
72. In addition, the undertaking shall provide the number of cases of attacks on human rights defenders where the undertaking and/or one of its suppliers are named and which steps it has taken to address such cases. Such information shall include anonymised gender and ethnicity breakdowns of human rights defenders, and how many have filed complaints through the undertaking's grievance mechanisms and their eventual resolution [To be discussed].

ESRS G1- related requirements

Datapoints related to [draft] ESRS G1-5 Business conduct

73. **The undertaking shall disclose differences between it's main position and it's stated policies; differences between these positions and the associations and committees it supports as well as the actions it takes to ensure clear, transparent and substantiated communication.**
74. The objective to this Disclosure Requirement is to understand how the undertaking works at promoting its views in politics, how it attempts to influence politics, and undertakings stance on climate change and understand how this effects its political engagement.
75. The other objective of this Disclosure requirement is to understand how the undertaking works to prevent the spread of false and ommissive information.
76. When disclosing in accordance ESRS G1 paragraph 29 the undertaking shall disclose:
- (a) any differences between the main positions identified in ESRS G1 29 (c) and its stated policies, goals, or other public positions; as well as
 - (b) any differences between the undertaking's stated policies, goals, or other public positions on significant issues related to climate change, and the positions of the representative associations or committees it supports as mentioned in ESRS G1 29 (b).
 - (c) what proportion (%) of communication spendings is dedicated to influencing political opinion with regard to its material impacts, risks and opportunities identified in its materiality assessment in accordance with [draft] ESRS 2.
77. The undertaking shall also explain how its corporate communication aligns with globally established targets related to climate neutrality or nature positive economy and how it ensures that its sustainability communication is clear, transparent, substantiated and specific. If this communication relates to climate change, or pollution, or water and marine resources, or biodiversity and ecosystems, or resource use and circular economy the undertaking shall explain how it ensures consistency with the undertaking's disclosures under [draft] ESRS E1 Climate Change or [draft] ESRS E2 Pollution or [draft] ESRS E3 Water and Marine Resources or [draft] ESRS E4 Biodiversity and Ecosystems or [draft] ESRS E5 Resource use and Circular Economy respectively.

78. The undertaking shall disclose the number of opened cases before courts or other competent authorities within the reporting year that concern misleading commercial practices or public communication related to sustainability as well as the number of cases that were closed during the reporting year and if they ended with the undertaking being fined or found in breach.

Datapointpoints related to ESRS G1-2 – Management of relationship with suppliers

79. **When disclosing in accordance to ESRS G1-2 the undertaking shall disclose the outcome of its assessment of its suppliers for social and environmental criteria.**
80. The objective of this Disclosure Requirement is to understand the degree of actual and potential negative social impacts in the supply chain of the undertaking and to understand to which extent the undertaking uses social criteria in selecting its suppliers.
81. The undertaking shall disclose:
- (a) Information regarding actual adverse impacts and significant risks of adverse impacts that the undertaking has identified through its materiality assessment;
 - (b) Information regarding measures the undertaking has implemented or plan to implement to cease significant actual and potential negative impacts on fundamental human rights and decent working conditions in the supply chain.
 - (c) Information regarding measures the undertaking has implemented or plan to implement after identifying significant actual and potential negative impacts on the environment in the supply chain.
 - (d) The percentage of suppliers identified as having significant actual and potential negative impacts with which improvements were agreed upon as a result of the assessment; and
 - (e) The percentage of suppliers identified as having significant actual and potential negative impacts with which relationships were terminated as a result of assessment and why.

Disclosure Requirement MIN- 9 - G1 Contract transparency

82. **The undertaking shall disclose its approach to contract transparency.**
83. The objective of this Disclosure Requirement is to understand the openness of the undertaking about its contracts and licences concluded.
84. In order to comply with paragraph 83, the undertaking shall disclose:
- (a) whether its contracts and licenses are made publicly available and, if so, where they are published; and/or
 - (b) if its contracts or licenses are not publicly available, the reason for this and actions taken to make them public in the future.

Disclosure Requirement MIN- 10-G1 – State-aid and competition law

85. **The undertaking shall provide information on any publicly announced notifications, preliminary investigations, investigations or proceedings concerning possible anti-competitive agreements, abuse of dominance, concentrations or state aid it is facing during the reporting period.**
86. The disclosure required by paragraph 85 shall include the following information:

- (a) publicly announced notifications, preliminary investigations, investigations, proceedings or commitments and remedies where the undertaking (or its subsidiaries) was named as a participant by a competent authority;
- (b) main outcome of legal proceedings against the undertaking concluded during the reporting period, including sanctions, fines, commitments and remedies;
- (c) the fee or payment for the sales to government organizations (or third parties acting on the government's behalf);
- (d) all payments to governments relating to mining extraction, trade and transport from all concerned / affected countries, in accordance with jurisdictional legislation. Undertakings shall disclose all relevant payments in line with the principals outlined in the Extractive Industry Transparency Initiatives (EITI).

Disclosure Requirement MIN - 11 -G1 – List of beneficial owners [To be discussed]

- 87. **The undertaking shall disclose its activities to ensure ethical beneficial owners of business partners, including joint ventures and suppliers.**
- 88. The objective of this Disclosure Requirement is to understand the undertaking's policy regarding beneficial owners and how these are identified and managed by the undertaking.
- 89. The undertaking shall disclose:
 - (a) its beneficial owners, who possess 25% ownership and / or are based in one of the 20 lowest ranked countries according to the most recent Transparency International Corruption Perceptions Index;
 - (b) policies and screening processes regarding PEPs and beneficial owners of business partners, including joint ventures and suppliers.

Disclosure Requirement MIN-12-G1 – Number of data breaches, policies and practices relating to cybersecurity

- 90. **The undertaking shall disclose its policies and practices related to cybersecurity threats or attacks and the nature and number of breaches related to data breaches.**
 - (a)
- 91. The objective this Disclosure Requirement is to provide an overview of the number of data breaches and who is impacted by those data breaches and to gain an understanding of the undertaking's policies regarding cybersecurity and management of risks.
- 92. To comply with paragraph 91, the undertaking shall disclose:
 - (a) the number of data breaches;
 - (b) the percentage involving classified or restricted information;
 - (c) the number of operational sites where data breached have been identified; and
 - (d) how the potential for future cyber security breaches is being prevented.
- 93. The undertaking shall also describe its policies and practices relating to cybersecurity threats or attacks.
- 94. The undertaking shall also describe its approach to security management for existing operations, projects planned or underway and new locations for business activities, including assessment of threats, vulnerabilities and risks.

Disclosure Requirement MIN-13 – G1 Policies and investments relating to closure and post closure

95. **The undertaking shall disclose the total undiscounted monetary value of material financial provisions made by the undertaking for the closure and rehabilitation of mines and provide a breakdown of this total by operational site [TO BE DISCUSSED].**
96. The objective is to enable an understanding of the undertaking's financial investments related to closure and post-closure of operational sites.
97. The undertaking shall disclose the following:
- (a) environmental post-closure monitoring and aftercare for operational sites;
 - (b) socioeconomic post-closure monitoring and aftercare for operational sites;
 - (c) financial provisions made to ensure a just transition; and
 - (d) if the mine site has been sold to a third party.
98. The undertaking shall also disclose methodology used to calculate the undiscounted financial provisions for closure and rehabilitation.

Disclosure Requirement MIN-14 – G1 Anti-competitive behaviour events

99. **The undertaking shall provide information on any publicly announced investigation into or litigation concerning possible anti-competitive behaviour it is facing during the reporting period.**
100. The objective is to provide transparency on publicly announced investigations into or litigation concerning possible anti-competitive behaviour of the undertaking that are ongoing during the reporting period.
101. The disclosure required by paragraph 100 shall include the following information:
- (a) investigations into and decisions relating to violations of anti-trust and monopoly legislation where the undertaking (or its subsidiaries) was named as a participant by a competent authority;
 - (b) the number of new, on-going or finalised legal action during the reporting period regarding anti-competitive behaviour; and
 - (c) the outcome of these legal proceedings against the undertaking.

Additional Disclosure Requirements for the Coal Operations sector

Sector Description: Coal operations Sector

102. The Coal Operations sector includes the extraction of solid mineral fuels through underground or open-cast mining and includes operations (e.g., grading, cleaning, compressing and other steps necessary for transportation etc.) leading to a marketable product.
103. The Coal Operations sector includes undertakings that mine coal and other similar materials and those that manufacture coal products. Mining activity covers both underground and surface mining, and thermal and metallurgical coal. It also includes manufacturing of coke oven products.

Relevant Sustainability Matters: Coal Operations Sector

104. This [draft] Standard sets out Disclosure Requirements related to the sustainability matters relevant to the Mining sector included in Appendix C. Detailed descriptions of relevant sustainability matters are also included in Appendix C.

Disclosure Requirements: Coal Operations Sector**ESRS E1 related requirements****Disclosure Requirement related to E1-2 – Policies related to climate change mitigation and adaptation**

105. **The undertaking shall disclose its policies related to the management and abatement of methane emissions.**
106. The objective of this Disclosure Requirement is to ensure that when disclosing on policies related to Climate Change and GHG emissions, the undertaking makes explicit reference to methane.
107. The disclosure required by paragraph [previous] shall contain the information on the policies implemented by the undertaking to manage and abate methane emissions considering the disclosure content required in ESRS 2 DC-P – Policies adopted to manage material sustainability matters).
108. In the absence of methane emissions management policies, the undertaking shall explain why such policies are not in place.

Disclosure Requirement related to E1-3 – Actions and resources in relation to climate change policies

109. **The undertaking shall disclose its actions and resources to manage and abate methane emissions.**
110. The objective of this Disclosure Requirement is to ensure that when disclosing on actions related to Climate Change and GHG emissions, the undertaking makes explicit reference to methane.
111. The undertaking shall disclose:
- (a) the methods used to monitor and quantify methane emissions, namely the use of Leak Detection & Repair (LDAR) surveys as well as:
 - i. the frequency of the monitoring;
 - ii. the different methane monitoring technologies, e.g. remote sensing techniques or estimation methods.
 - (b) the frequency of the LDAR surveys;
 - i. the actions taken to address the methane leakages found as a result of the regular monitoring surveys;
 - ii. the effectiveness of the actions taken;
 - iii. the geographical location of any significant flaring or venting emissions;
 - iv. the % of routine and non-routine flaring and cases of flaring;
 - v. Indicate areas for operational improvements;

- vi. discuss the overall performance of the methane emissions management policy and actions, by source and activity in terms of total absolute emissions and emission intensities.

Disclosure Requirement related to E1-4 – Targets related to climate change mitigation and adaptation

112. **The undertaking shall disclose methane emissions reduction targets that it has adopted.**
113. The objective of this Disclosure Requirement is to ensure that when disclosing on targets related to Climate Change and GHG emissions, the undertaking makes explicit reference to methane.

ESRS E2 related requirements

Disclosure requirement related to ESRS E2-4 – Impact of coal dust

114. **The undertaking shall disclose the list of actions taken to prevent or mitigate potential negative impacts on local communities and workers from emissions of coal dust, as well as actions take to improve coal quality.**
115. The objective of this disclosure requirement is to provide an overview, per operational site, [TO BE DISCUSSED] of how the undertaking prevents or mitigates impacts generated by coal dust in relation to health issues and impact on eco-systems.

ESRS G1 related requirements

Disclosure requirement related to ESRS G1-1 Corporate culture and business conduct policies

116. **The undertaking shall disclose whether and to which extent its processes comply with the International Organisation for Standardisation (ISO) standards and how these have been accredited, audited or found conform to the ISOC standards through conformity assessment procedures. The undertaking shall also disclose the time of the last conformation or audit procedure of compliance with the ISO standards.**
117. The objective of this Disclosure Requirement is to provide information on the extent to which the undertaking has integrated compliance with the ISO standards in its processes.

Disclosure requirement related to ESRS E1-6 – Gross scopes 1, 2, 3 and total GHG emissions

118. **Undertakings in the Coal operations sector shall in addition to DR E1.6 provide a breakdown of their Scope 1, 2 and 3 GHG per NACE code activity they are active in and this for the following NACE-activities:**
 - (a) **B.05 - Mining of coal and lignite**
 - (b) **C.19.10 - Manufacture of coke oven products**
119. Disclosure requirement E1-6 requires undertakings to disclose the GHG intensity based on net revenue. In addition, undertakings shall apply another breakdown of their GHG intensity. Undertakings shall disclose the:

- (a) average tonnes of CO₂ equivalent, and
 - (b) average share of high carbon technologies
 - (c) per:
 - i. tonne of output; and
 - ii. NACE code activity they are active in and this for the following NACE-activities:
 - 1. B.05 - Mining of coal and lignite
 - 2. C19.10 Manufacture of coke oven products
120. The objective of this disclosure requirement is to ensure alignment with EBA pillar 3.

Appendix A: Defined Terms

Active conflict/ conflict affected or high-risk areas	Areas in a state of armed conflict or fragile post-conflict as well as areas witnessing weak or non-existent governance and security, such as failed states, and widespread and systematic violations of international law, including human rights abuses
Biosphere Reserves recognised within the framework of UNESCO's Man and the Biosphere (MAB) Programme	Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Biosphere Reserves are designated under the intergovernmental MAB Programme by the Director-General of UNESCO following the decisions of the MAB International Coordinating Council (MAB ICC). Their status is internationally recognized.
Community development program	A plan that details actions to minimise, mitigate or compensate for adverse social and/or economic impacts, and/or to identify opportunities or actions to enhance positive impacts of a project on the community.
Critical incident	An event that may adversely affect the undertaking and requires an immediate response. It is likely to cause significant personal illness or injury, substantial impact to operations and commercial prospects, a degradation of reputation, or lead to an impact on the wider community.
Cyber security	Cyber security relates to the practice of protecting electronic data, computer systems, servers, networks, mobile devices, tablet devices etc. from malicious criminal attacks, theft of sensitive data, and damage to IT systems.
Energy recovery	The use of combustible waste as a means to generate energy through direct incineration with or without other waste but with recovery of the heat.
Government relations	Government" refers to any national, regional or local authority of a Member State or of a third country. It includes a department, agency or undertaking controlled by that authority (Chapter 10, Report on Payments to Governments, 2013). Government relations is the process of influencing public and government policy at all levels previously outlined.
High-risk area	High-risk areas are those where there is a high risk of conflict or of widespread or serious abuses as defined in paragraph 1 of Annex II of the OECD Guidance. Such areas are often characterized by political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure, widespread violence, and violations of national or international law.
Human rights defender	"Human rights defender" is a term used to describe people who, individually or with others, act to promote or protect human rights in a peaceful manner. Human rights defenders are identified by what they do and it is through a description of their actions and of some of the contexts in which they work.
Local community	Local communities are defined as persons or groups of persons living and/or working in any areas that are economically, socially or environmentally impacted (positively or negatively) by an

	organization's operations. The local community can range from persons living adjacent to an organization's operations, to those living at a distance who are still likely to be impacted by these operations.
Operational site	Any location where an integral part of the mining business is performed.
Politically Exposed Persons (PEP)	The Financial Action Task Force defines a PEP as an individual entrusted with a prominent public function.
Probable coal/ore reserves	Reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced.
Recycled and remanufactured materials	Waste materials that have been reprocessed or treated by means of production or manufacturing process and made into a final product or made into a component for incorporation into a product.
Reserves	Part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.
Spills	Spills are accidental release of hazardous substances such as chemicals, oils, fuels and other substances. They can affect water, soil and air quality as well as biodiversity and human health.
Significant spills	Spill that is included in the organization's financial statements, for example due to resulting liabilities, or is recorded as a spill by the organization.
Substances of very high concern	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.
Tailings	<p>A by-product of mining, consisting of the processed rock or soil left over from the separation of the commodities of value from the rock or soil within which they occur.</p> <p>Poor management or design of tailings facilities can lead to leaks or collapses, with serious impacts on local communities, livelihoods, infrastructure, and the environment. Failures can result from inadequate water management, overtopping, foundation or drainage failure, erosion, and earthquakes. Impacts become more severe when tailings contain high levels of bioavailable metals or hazardous chemicals.</p>
Waste	Any substance or object which the holder discards or intends or is required to discard.

Appendix B: Application Requirements

This Appendix is an integral part of the proposed [draft] ESRS Mining, Quarrying and Coal. It supports the application of the requirements set for in paragraphs X to X and has the same authority as the other parts of the [draft] Standard.

Application Requirement MIN-1– List of operational sites [TO BE DISCUSSED]

AR 1. When disclosing on MIN 1 the undertaking may use a table to list the mine sites. See example:

	Operational site A	Operational site B	Operational site C	Operational site D etc.
Mines and surface areas				
Quarries				
Tailings dams				
Infrastructure				
Active /closure & rehabilitation plans / closure activities / closed / rehabilitated				
Social matters (i.e. local community, indigenous communities, land rights etc.)				
Environmental matters (i.e. biodiversity, pollution, toxic waste etc.)				

AR 2. When identifying the operational site [TO BE DISCUSSED]the undertaking shall also specify what it considers to be local for that particular site. It is expected that this will be assessed at a more granular level then national. When doing this the undertaking shall consider:

- (a) Stakeholders
- (b) Geographical location
- (c) Positive and negative social impacts
- (d) Labour market

AR 3. The undertaking shall consider the percentage and grade (in percentage metal content) of proved reserves that are located in or near high-risk areas.

- (a) The undertaking shall use the definition in Appendix A for classifying reserves as proved and/or probable.
- (b) The percentage of proved/probable reserves shall be calculated as the amount of proved/probable reserves located in or near areas of high risk divided by the total amount of proved/probable reserves

- (c) The undertaking shall provide a breakdown of the calculations by grade (in percentage metal content) of proved/probable reserves
 - (d) The undertaking shall, where relevant, provide a breakdown of calculations by mineral or business unit where minerals or business units include, for example: aluminium, copper, zinc, iron ore, platinum group metals, and diamonds.
 - (e) The undertaking shall follow the Combined Reserves International Reporting Standards Committee (CRIRSCO) guidance for classifying ore reserves and mineral resources, including the use of a "competent person" to compile information.
- AR 4. The undertaking shall also disclose/ consider disclosing their process of identifying the high-risk areas in a way that is easy to understand and replicate.
- (a) In or near areas of conflict
- AR 5. Reserves shall be considered to be in or near an area of active conflict if they are located in the same country as the active conflict.
- AR 6. If the undertaking can demonstrate that a conflict is contained to a region, state, or designated area that is not proximate to its reserves, then it may exclude these from the scope of disclosure. If reserves are located in a country, region, or state adjacent to an active conflict and/ or can be reasonably expected to be operationally impacted by the conflict, then these reserves shall be included in the scope of disclosure.
- (a) In or near indigenous land
- AR 7. Indigenous lands are considered those occupied by indigenous people which are defined in ESRS S3 as: "indigenous peoples are generally identified as 1) tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; 2) peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.
- (a) In countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index
- AR 8. The undertaking shall use the most current version of Transparency International's Corruption Perception Index to identify the 20 lowest ranking countries.
- AR 9. The 20 lowest numerical ranks shall be used to generate the scope of countries. Due to the fact that multiple countries share many ranks, the scope may include more than 20 countries.
- AR 10. The undertaking shall also disclose/ consider disclosing operations that are located in countries with low rankings in the index but present low business ethics risks. As well as operations located in countries that do not have one of the 20 lowest rankings in the index, but which present unique or high business ethics risks.

ESRS 2-related requirements

Application Requirement related to ESRS 2- GOV4 Statement on sustainability due diligence

- AR 11. When disclosing a mapping of the information provided in its sustainability statements about the sustainability due diligence process, the undertaking whose activities relate to :
- (a) the Supplement on Tin, Tantalum and Tungsten;

- (b) the Supplement on Gold;
 - (c) other areas specified in the conflict minerals regulation
- AR 12. The undertaking shall also map the core elements from the OECD due diligence guidance for responsible Supply Chains of Minerals from Conflict-Affected and High-Risk areas in addition to the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises mentioned in the agnostic disclosure.
- AR 13. The undertaking shall include procurement in its mapping as well as and environmental factors. This may be presented in a table in a similar form to the table presented below.

Core elements	Paragraphs in the sustainability matters
OECD Due diligence guidance for Responsible Supply chains of Minerals from Conflict-Affected and High-Risk areas	
Establish strong company management system	
Identify and assess risk in the supply chain	
Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain	
Report on supply chain due diligence	

Application Requirement related to ESRS 2 – SBM 2 Interests and views of stakeholders

When disclosing how the undertaking engages with its stakeholders in compliance with ESRS 2 SBM-2, the undertaking shall describe how it incorporates the OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractives Sector, and in particular how it engages with affected stakeholders. Furthermore the undertaking must disclose the following: (a) the approach to identifying stakeholders within local communities;

(b) a description of the vulnerable groups that the organisation has identified within local communities by mine site

Application Requirement related to ESRS 2 – SBM 3 Material impacts, risks and opportunities with their interaction with strategy and business model(s)

- AR 14. When disclosing the undertaking's impacts on its own workforce and the local community, it shall consider, where applicable, the undertaking's policies, actions and targets to help own workers and non-employee workers manage the adverse impacts arising from the closure of its operational site(s).
- AR 15. The undertaking shall consider the labour transition plans in place to help workers manage the transition to a post-closure phase of operations (e.g., redeployment, assistance with redeployment, resettlement, and redundancy payments, training and skills programmes).
- AR 16. The undertaking shall also consider the collaborative efforts, projects and programs that are set up to manage the socio-economic impact of closure and restoration programs and disclose these.
- AR 17. The undertaking shall also consider how it engages with worker and other stakeholders in informing the closure plans, as well as notice periods regarding closure.

ESRS E1 -related requirements
Application Requirement related to [draft] ESRS E1-1 - Transition plan for climate change mitigation

- AR 18. When disclosing information on DR E1-1[16(d)] on potential locked-in GHG emissions from the undertaking's assets and products, undertakings shall consider this to be the emissions potential of proven (P1) and probable (P2) reserves of their coal, peat, natural phosphates and natural potassium assets and shall calculate this potential considering the recommendations in (Russel, 2016)¹.
- AR 19. Undertakings shall consider a breakdown of locked-in emissions according to the following table:

Reserves	Proved	Probable	Total
Developed producing reserves	[MtCO ₂]	[MtCO ₂]	[MtCO ₂]
Developed non-producing reserves	[MtCO ₂]	[MtCO ₂]	[MtCO ₂]
Undeveloped reserves	[MtCO ₂]	[MtCO ₂]	[MtCO ₂]

Application Requirement related to [draft] ESRS E1-6 – Gross scopes 1, 2, 3 and total GHG emissions

- AR 20. When disclosing its scope 3 GHG emissions, the undertaking shall consider as a minimum the following datapoints:
- Waste generated in operations
 - Processing of sold products
 - Use of sold products
 - Downstream transportation and distribution

Application Requirement DR related to [draft] MIN 2 -E1 – Sensitivity analysis

- AR 21. The undertaking shall analyse the sensitivity of its current proven and probable reserves using the price trajectories published by the International Energy Agency (IEA) in its World Energy Outlook (WEO) publication, including:
- Current Policies Scenario, which assumes no changes in policies from the mid-point of the year of publication of the WEO.
 - New Policies Scenario, which assumes that broad policy commitments and plans that have been announced by countries-including national pledges to reduce greenhouse gas emissions and plans to phase out fossil energy subsidies-occur, even if the measures to implement these commitments have yet to be identified or announced. This broadly serves as the IEA baseline scenario.
 - Sustainable Development Scenario, which assumes an energy pathway occurs that is consistent with the goal of limiting the global increase in temperature to 1.5°C by limiting concentration of greenhouse gases in the atmosphere.

AR 22. The undertaking shall consider the WEO scenarios as a normative reference, thus any updates to the WEO made year-on-year shall be considered updates to this guidance.

AR 23. The undertaking may summarise its findings in the following table format:

Price case	Proven reserves		Probable reserves	
	Product (measure) A	Product (measure) B	Product (measure) A	Product (measure) B
Current policies scenario (base)				
New policies scenario				
Sustainable development scenario				

AR 24. The undertaking may disclose the sensitivity of its reserve levels in other price and demand scenarios in addition to those described above, particularly if these scenarios differ depending on the type of coal reserves, regulatory environment in the countries or regions where mining occurs, end-use of the entity's products, or other factors.

AR 25. For additional sensitivity analyses, the undertaking should consider disclosing the following, per the Task Force on Climate Related Financial Disclosures (TCFD) Recommendations Report Figure 8 as well as the Implementing the Recommendations of the TCFD Report, Section E:

- (a) The alternative scenarios used, including other 2°C or lower scenarios.
- (b) Critical input parameters, assumptions, and analytical choices for the climate-related scenarios used, particularly as they relate to key areas such as policy assumptions, energy deployment pathways, technology pathways, and related timing assumptions.
- (c) Time frames used for scenarios, including short-, medium-, and long-term milestones (e.g., how organizations consider timing of potential future implications under the scenarios used).

Application Requirement related to MIN 3 – E1 - closure and rehabilitation costs

AR 26. In providing the Disclosure requirement related to ESRS E1-9 on closure and rehabilitation costs, the undertaking shall the costs necessary to address:

- (a) Adverse impacts of closure of the operational site [TO BE DISCUSSED] on own workers, non-employee workers and their communities (DR related to ESRS2 -SBM 3)
- (b) Restoration of material impacts to biodiversity and ecosystems around the closed operational site [TO BE DISCUSSED] (DR related to ESRS E4-2); and
- (c) Adverse impacts of closure of the operational site [TO BE DISCUSSED] on affected communities (DR related to ESRS S3-3)

ESRS E2-related requirements
Application Requirement related to [draft] ESRS E2-2 - Actions and resources related to pollution

- AR 27. The undertaking shall consider its actions to prevent or mitigate negative impacts from acid rock drainage.
- AR 28. The undertaking shall consider which actions it has implemented or planned to prevent or mitigate negative impacts from acid mine drainage including which mine sites acid mine drainage is:[TO BE DISCUSSED]
- (a) predicted to occur;
 - (b) has not been actively mitigated, and
 - (c) is not under treatment or remediation.
- AR 29. Acid Rock Drainage (ARD) is predicted to occur if, based on computer simulations, chemical evaluations, and/ or acid-base accounting, it is biochemically likely that ARD could form at the mine site. ARD is considered to be actively mitigated if the entity is preventing the formation of ARD through methods that include but are not limited to: storing or covering sulphite-bearing minerals to prevent oxidation, flood prevention and mine sealing, mixing of acid buffering materials with acid-producing materials, or chemical treatment of sulfidic wastes (e.g., organic chemicals designed to kill sulphide-oxidising bacteria).
- AR 30. Minerals or business units may include, for example: aluminium, copper, zinc, iron ore, precious metals, or diamonds. ARD may also be referred to as acid-generating seepage or acid mine drainage.
- AR 31. ARD is considered under treatment or remediation, if the acidic water discharged from the mine area is captured and undergoes a wastewater treatment process (active or passive).
- AR 32. Mining activities can reduce water availability for local communities and other sectors that rely on water. They can have impacts on the quality of surface water, groundwater, and seawater, which can translate into long-term impacts on ecosystems and biodiversity, cause health and development problems for humans, and impair food security.
- AR 33. Water is used in mining activities for cooling and cutting; dust suppression during mining and hauling; washing to improve ore quality; re-vegetation of surface mines; and long-distance ore slurry transportation. The amount of water needed for activities depends on whether mining occurs on the surface or underground and on operational efficiency.
- AR 34. The amount of water withdrawn also varies according to an undertaking's ability to substitute the use of freshwater, the quality of water required, reservoir characteristics, and recycling infrastructure.
- AR 35. A mining undertaking's impacts on water also depend on the quantity of local water resources. A large proportion of the world's ore resources are found in areas that are arid or experience water stress (which are regions where the percentage of total water withdrawn is high (40-80%) or extremely high (greater than 80%) in the World Resources Institute's (WRI) Water Risk Atlas tool Aqueduct). In such areas, the sector's activities are likely to increase competition for water. This may exacerbate tensions between, as well as within, sectors or local communities. Droughts, floods, and other extreme weather events due to climate change will likely pose more frequent challenges to water availability and quality in the future.
- AR 36. Mining activities' impacts on water quality can be due to leaching from tailings, failure of tailings facilities, and acid mine drainage containing acidic water and heavy metals. Certain mining methods can involve substantive vegetation clearance and land-use changes, leading to erosion and sediment flows, which together with alterations in water flows can affect water

quality and aquatic and terrestrial habitats. Underground operations might also disrupt or contaminate aquifers.

- AR 37. Transportation accidents and related ore spills can contaminate waterways and wetlands with harmful materials, such as arsenic, lead, mercury, and sulphur compounds.

Application Requirement related to [draft] ESRS E2-4 - Pollution of air, water and soil

- AR 38. The undertaking shall consider disclosing pollutants mentioned in [draft] ESRS E2-4 Pollution of air, water and soil by operational site level. [TO BE DISCUSSED]

- AR 39. The undertaking shall disclose, per operational site, the volume of pollutants and significant emissions over the last 12-month period as well as in total for the entire duration of the operational site. The Disclosure Requirement is to be fulfilled at operational site level [TO BE DISCUSSED]. The undertaking shall report the following information:

- (a) Significant emissions, in kilograms or multiples, of the pollutants mentioned in [draft] ESRS E2-4;
- (b) Source of the emission factors used;
- (c) Standards, methodologies, assumptions, and/or calculation tools used.

- AR 40. The undertaking shall also consider the approach of selecting the different standards and methodologies used to calculate the significant emissions.

- AR 41. When compiling the information specified in DR related to E2-4 Pollution of air, water and soil, the undertaking shall select one of the following approaches for calculating significant air emissions:

- (a) Direct measurement of emissions (such as online analysers).
- (b) Calculation based on site-specific data.
- (c) Calculation based on published emission factors.
- (d) Estimation. If estimations are used due to a lack of default figures, the undertaking shall indicate the basis on which figures were estimated.

- AR 42. The most relevant pollutants for Mining are:

- (a) Hydrogen cyanide;
- (b) PM 10 & PM 2.5;
- (c) Carbon Monoxide;
- (d) Ground Level ozone;
- (e) Hydrogen sulphide;
- (f) Any other pollutants considered relevant by the undertaking.

Application Requirement related to [draft] ESRS E2-2, E2-3 and E2-6 – Significant spills and other critical incidents

- AR 43. The undertaking shall consider the number of critical incidents in the reporting period, including their impacts, as well as the number, volume and impact of recorded significant spills.

- AR 44. The undertaking shall disclose the total number of critical incidents in the reporting period and their impacts, by type of pollutant involved. The undertaking shall rely on the pollutants listed in ESRS E2, AR 21 till AR26 as well as the definitions of substances of concern and

substances of very high concern defined in Appendix A to ESRS 2 Pollution. In one incident multiple pollutants can be involved. The disclosure shall include:

- (a) a description of the incident,
 - (b) how the undertaking defines a ‘critical’ incident and a description of the impact.
- AR 45. The undertaking shall disclose the total number and total volume of recorded significant spills. For each spill, [TO BE DISCUSSED] the undertaking shall disclose:
- (a) location of spill,
 - (b) volume of spill,
 - (c) material of spill, categorised by: oil spills (soil or water surfaces), fuel spills (soil or water surfaces), spills of waste (soil or water surfaces), spills of chemicals (mostly soil or water surfaces), and other.
 - (d) a description of the impacts of each spill,
 - (e) how the undertaking defines a ‘significant’ spill.
- AR 46. The undertaking shall report on spills that occurred during the reporting period as well as spills from previous reporting periods that have not been entirely cleaned-up.
- AR 47. The undertaking shall report on actions taken to remediate the impacts of spills.
- AR 48. The undertaking shall clarify whether financial effects or broader impact effects were sought after.

Application Requirement MIN 3 -E2- Tailings facilities and impoundments and compliance with GISTM

- AR 49. Hazard potential shall be determined by a third party. The three different hazard potential classifications are:
- (a) High hazard potential
 - (b) Significant hazard potential
 - (c) Low hazard potential
- AR 50. High hazard potential impoundments are dams, regardless of their condition or size, whose failure will probably cause loss of life. These facilities are generally located in populated areas or where dwellings are found in the flood plain, and failure can reasonably be expected to cause loss of life, serious damage to homes, industrial and commercial buildings, and damage to important utilities, highways, or railroads.
- AR 51. Significant hazard potential impoundments are dams, regardless of their condition or size, whose failure would result in no probable loss of life but would disrupt important utilities or cause significant economic loss or significant environmental damage. These facilities are generally located in predominantly rural areas, but could be in populated areas with significant infrastructure, where failure could damage isolated homes, main highways, and minor railroads, or disrupt the use of service of public utilities.
- AR 52. Low hazard potential impoundments are dams whose failure would not be expected to cause loss of life, disrupt important utilities, or cause significant economic loss or significant environmental damage. These facilities are usually located in rural or agricultural areas where losses are limited principally to the owner’s property or where failure would cause only slight damage to farm buildings, forest and agricultural land, and minor roads.
- AR 53. The scope of this disclosure includes only dams that either: (1) Equal or exceed 7.5 meters in height and can or do store a volume of more than 18.500 cubic meters, or (2) Exceed 1.8 meter in height and can or do store 61.500 or more cubic meters.

- AR 54. Hazard potential classification depends solely on the consequences of failure of the dam and not on the condition of the dam. Hazard potential classification can change over time.
- AR 55. Relative to paragraph 42, the amount of tailing waste produced to be reported as follows:
- (a) the amount of total tailings waste shall be calculated in metric tons;
 - (b) the scope includes tailings waste generated from mining activities
 - (c) the scope of the disclosure excludes waste rock and overburden.

ESRS E3-related requirements

Application Requirement related to [draft] ESRS E3-4 – Water consumption

- AR 56. The undertaking shall consider disclosing information on its water consumption performance according to [draft] ESRS E3-4, per operational site [TO BE DISCUSSED].
- AR 57. The objective of this Disclosure Requirement is to provide insight in the volume of water consumption performance per each operational site of the undertaking.

ESRS E4-related requirements

Application Requirement related to [draft] ESRS E4-3 – Actions and resources related to biodiversity and ecosystems

- AR 58. The undertaking shall disclose if a Restoration Plan exists for each of its operational sites [TO BE DISCUSSED]. If this is not the case, the undertaking shall disclose the list of sites for which there is no Restoration plan.
- AR 59. The undertaking shall consider disclosing restoration plans for operational sites. [TO BE DISCUSSED]
- AR 60. Restoration plans should address the following objectives:
- (a) the long-term stability and sustainability of the landforms, soils and hydrology of the site;
 - (b) the partial or full repair of ecosystem capacity to provide habitats for biota and services for people;
 - (c) the prevention of pollution of the surrounding environment.
- AR 61. In the description of its Restoration Plans, the undertaking shall include:
- (a) A baseline assessment of the local environment pre-mine, which shall include
 - i. The affected ecosystems types;
 - ii. The affected ecosystem size in hectares;
 - iii. The affected ecosystem initial condition;
 - iv. The affected species names;
 - v. The affected species extinction risk;
 - vi. A list of the significant ecosystem services and beneficiaries that will be affected by the undertaking's operations;
 - vii. An explanation of how the ecosystem services and beneficiaries will be affected;

- viii. Standards, methodologies, assumptions use to make this assessment.
 - (b) A description of the risks for biodiversity and ecosystems;
 - (c) A description of real impacts on biodiversity and ecosystems:
 - i. Report the size in hectares and the type of natural ecosystem converted since the cut off date or reference date;
 - ii. Report the current state of the ecosystem;
 - iii. Report the current state of species.
 - iv. Standards, methodologies, assumptions use to make this assessment.
 - (d) A description of the goal of the restoration plan (converting the area to a safe and stable condition, restoring the area to pre-mining conditions as closely as possible, near-natural restored ecosystem, reinstating ecosystem functionality or land productivity, etc.)
 - (e) A description of restoration activities and their implementation;
 - (f) Monitoring performance of the restoration activities;
 - (g) Results of the restoration activities.
 - (h) Additional actions to offset negative impacts and transformative actions, including additional conservation actions by the undertaking.
- AR 62. To ensure long-term quality of the Restoration process, the undertaking shall:
- (a) Describe their legacy policy on restoration;
 - (b) Describe the quality of the Restoration Plan in relation to local communities;
 - (c) Consider Long-term liabilities, describing the continuation of the Restoration Plan if the area is sold or leaves the undertaking's possession.
- AR 63. Different mining methods present distinct risks for biodiversity. Open-pit mines generate more severe impacts than underground mines due to the progressive deepening and widening of the mining site, increasing affected areas over time. Impacts on biodiversity can result from:
- (a) residual impacts after all other measures have been applied.
 - (b) land clearance for pits, access routes, and expansion into new areas;
 - (c) habitat fragmentation from access roads and other linear infrastructure;
 - (d) ground subsidence from underground mines;
 - (e) disruption of surface water, wetland, and groundwater ecosystems; and
 - (f) effluent discharges, groundwater, or surface water contamination from acid mine drainage, tailings ponds, or overburden piles.

Application Requirement related to [draft] ESRS E4-2 - Policies related to biodiversity and ecosystems

- AR 64. The policies implemented to manage material impacts, risks and opportunities related to biodiversity and ecosystems, disclosed according to ESRS E4-2, shall be detailed for each operational site [TO BE DISCUSSED].
- AR 65. The undertaking shall describe policies and commitments to achieving no net loss or net gain to biodiversity on operational sites [TO BE DISCUSSED]; and report whether these commitments apply to existing and future operations.

ESRS E5 -related requirements***Application Requirement related to [draft] ESRS E5-5 - Resource use and circular economy***

AR 66. When disclosing about its waste according to Disclosure Requirement E5-5, the undertaking shall consider the different categories of waste according to the European Waste Catalogue (Directive 2006/21 of 15 March 2006 on the management of waste from extractive industries).

<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32006D0532>

ESRS S1 -related requirements***Application Requirement [draft]-S1-13 Training and skills development***

AR 67. When disclosing the training and development indicators defined in [draft] ESRS S1-13, the undertaking shall disclose the following information:

- (a) its general approach and processes to ensure the quality of the training services related to work-related hazards, hazardous activities, or hazardous situations which contribute to the identification and elimination of hazards and minimisation of risks for its employees; and
- (b) the average hours of training related to the health, safety and emergency preparedness of employees, with respect to occupational risks or hazards to which employees are reasonably likely to be exposed; such information shall be broken down by permanent employees, temporary employees and non-guaranteed hours employees.

Application Requirement [draft]- S1-14 Health and Safety indicators

AR 68. When reporting on ESRS S1-14, the undertaking shall disclose the following datapoints for own workforce and non-employee workers:

- (a) a descriptionsubstances of very high concern that workers are exposed to in its operations;
- (b) a description of other dangerous factors in the physical work environment, including:
 - i. noise and vibrations;
 - ii. ergonomic risk factors;
 - iii. psycho-social organizational work environment; or
 - iv. thermal strain and stress (including heat rash, heat fatigue, heat cramps, heat syncope, heat exhaustion and heat stroke); and
- (c) a description of the occupational health services functions that contribute to the identification and elimination of hazards and minimisation of risks and an explanation
- (d) the number of work-related fatalities, work-related injuries and cases of work-related ill health as a result of working with chemicals (including but not limited to silica, methane, asbestos, and diesel); and
- (e) how the undertaking ensures the quality of these services and facilitates workers' access to them;

- AR 69. When describing the scope of access to non-occupational medical and healthcare services provided, the undertaking shall consider the types of service to which access is facilitated as well as the split between own workforce and non-employee workers.
- AR 70. If the undertaking does not facilitate own workforce workers' access to non-occupational medical and healthcare services because it operates in a country where the population already has access to high-quality and accessible services (e.g., through financial or other support), the undertaking can state this in its reported information.
- AR 71. If the undertaking does not facilitate access to non-occupational medical and healthcare services for workers who are not employees because the employer of those workers facilitates their access to these services, the undertaking can state this in its reported information.
- AR 72. Disclosure Requirement S1-14 covers services and programs aimed at addressing major non work-related health risks among own workers, including both physical and mental health-related risks. Examples of these risks include smoking, drug and alcohol abuse, physical inactivity, unhealthy diets, HIV, and psychosocial factors.
- AR 73. Voluntary health promotion programs and services may include:
- (a) smoking cessation programs
 - (b) dietary advice
 - (c) offering of healthy food in the canteen
 - (d) stress-reducing programs
 - (e) provision of a gym or
 - (f) fitness programs.
- AR 74. A program or service is voluntary when it does not set mandatory personal targets, and if incentives are provided, these are not associated with the undertaking's decisions regarding employment or engagement of workers.
- AR 75. In addition, voluntary health promotion services and programs complement but cannot be a substitute for occupational health and safety services, programs and systems that prevent harm and protect workers from work-related injuries and ill health. Voluntary health promotion and occupational health and safety may be managed jointly by the undertaking, as part of an overall approach to ensuring the health and safety of workers.
- AR 76. When describing how it facilitates workers' access to voluntary health promotion services and programs, the undertaking shall consider whether it allows workers to make use of these during paid working hours. The undertaking can also report if these services and programs are available for family members of workers.

Application Requirement -S1- Percentage of security personnel receiving training in undertakings' human rights policies

- AR 77. The undertaking shall consider disclosing the following information:
- (a) the content of the trainings offered (eg. differentiate between trainings related to security issues and trainings on human rights policies);
 - (b) which due diligence steps are taught in dealing with human rights defenders;
 - (c) which remedial actions are taught to the security personnel
- AR 78. The undertaking shall consider whether training is aligned with the Voluntary Principles on Security and Human Rights. Human rights training for security personnel aims at ensuring that force is used only when necessary, and shall clarify the proportional type of force that can be deployed to different types of threats. Training that addresses the protection of vulnerable

and marginalised groups, especially women, children and indigenous populations may be disclosed.

ESRS S2 Workers in the value chain -related requirements

Application requirement for ESRS S2-4 Taking action on material impacts on value chain workers, and approaches to mitigating material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions

- AR 79. When the undertaking is disclosing its approaches to taking action on child labour and forced labour in accordance with paragraph 32-34 of ESRS S2 the undertaking shall consider its suppliers in its assessment of the workers in the value chain.
- AR 80. The undertaking shall also consider disclosing the following information in so far that this has not been disclosed in ESRS S2-4:
- (a) actions intended to contribute to the effective abolition of child labour;
 - (b) actions to contribute to the elimination of all forms of forced or compulsory labour;
 - (c) actions to support rights to exercise freedom of association and collective bargaining.

ESRS S3 -related requirements

Application Requirement related to [draft] ESRS S3-3 Processes to remediate negative impacts and channels for affected communities to raise concerns – Closure and post closure

- AR 81. When disclosing its processes to remediate negative impacts following [draft] ESRS S3-3, the undertaking shall disclose how it engages with local communities and other relevant stakeholders on its closure and post-closure planning and implementation, including post-mining land-use, to limit the actual and potential adverse impacts (e.g. unemployment, people moving out affecting the liveability of remaining supporting activities such as local shops, schools);

Application Requirement related to ESRS S3-2 – Processes for engaging with affected communities about impacts

- AR 82. When describing its processes for engaging with affected communities and their representatives about actual and potential material impacts on them, following ESRS S3-2, the undertaking shall describe its due diligence practices and procedures with respect to indigenous rights of communities in which it operates or intends to operate. In particular the undertaking shall consider the following:
- (a) Upholding ILO Convention No. 169;
 - (b) Use of free, prior, and informed consent (or consultation) processes;
 - (c) The establishment of project grievance mechanisms;
 - (d) The establishment of formal community agreements;
- AR 83. The disclosure shall consider due diligence processes employed during all stages of project development (i. e. prior, during, and post).
- AR 84. The disclosure shall also consider governance mechanisms the company puts in place to ensure that its policies and practices are adhered to throughout all levels of the undertaking.

AR 85. The disclosure shall include how practices apply to business partners, such as contractors, sub-contractors, suppliers, and joint venture partners. Where practices do not apply to business partners, the undertaking may discuss factors that prevent the application of such practices.

Application Requirements related to [draft] ESRS S3-2 Processes for engaging with affected communities about impacts -Closure and post-closure

AR 86. The description of how an undertaking engages with local communities shall also consider an explanation on how the land will be used ex post the closure of the operational site. Where applicable, the undertaking shall develop such post-closure plans in consultation with local communities.

AR 87. At the end of their commercial use, operational sites such as mines and other facilities are expected to be decommissioned or closed by the undertaking in an orderly way. Closure activities can include:

- (a) Stabilisation of open-pit or underground workings, such as landfilling to prevent subsidence;
- (b) Removal or conversion of infrastructure;
- (c) Rehabilitation of waste rock stockpiles and tailings facilities to control erosion and land degradation;
- (d) Management of waste, surface water and groundwater quality issues resulting from abandoned mine drainage, waste rock and leaching's from tailings; and
- (e) Post-closure environmental and socio-economic monitoring.

AR 88. The closure of operational sites and restoring the biodiversity are often summarised in the undertaking's internal papers and memorandums. Affected regions require a lot of preparation. As the operational life of operational sites is expected to last for several decades a regularly updated restoration plan is essential. For this reason, the undertaking may update its closure and restoration plan annually and such disclosure shall be considered by the undertaking.

AR 89. Closure and restoration are costly activities. For each operational site [TO BE DISCUSSED] the undertaking may annually demonstrate whether its financial provisions are sufficient to cover the expected costs, considering amongst others future price inflation.

AR 90. The disappearance of an operational site can have profound impacts on the socio-economic environment of local communities (unemployment, people moving out affecting the liveability of remaining supporting activities such as local shops, schools, ...). In its disclosures the undertaking shall also disclose any collaborative efforts, projects and programs that are set up to manage the socio-economic impact of closure and restoration plans.

AR 91. Besides the financial provision reported in its financial statements, the undertaking may also disclose the non-financial provisions that are available to deal with the socio-economic transition of the local community to an environment where they are no longer dependent on the exploitation of the operational site. (including collaborative efforts, projects and programs).

AR 92. The socio-economic environment of local communities (unemployment, people moving out affecting the liveability of remaining supporting activities such as local shops, schools, and more) can be affected by the closure of an operational site(s).

Application Requirement related to [draft] S3–4 Taking action on material impacts, and approaches to mitigating material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions and approaches

- AR 93. The undertaking shall disclose [for each operational site/for the key operational sites – TO BE DISCUSSED]:
- (a) the percentage of senior management that are recruited from the local community;
 - (b) the percentage of workers hired from the local community;
 - (c) the percentage of the procurement budget spent on suppliers local to that operation;
 - i. the undertaking shall highlight the integration of businesses owned by women, or other minority groups within their local value chains.
 - (d) the extent of development of significant infrastructure investments (e.g. transport links, utilities) and services (e.g. community social facilities, health, and welfare centres) supported;
 - i. this includes whether a community needs assessment was conducted to determine the need for infrastructure and other services, and describe the results.
 - (e) details on the range of education and skills programmes that they deploy outside their workforce, including but not limited to:
 - i. Number of education and skills programmes supported (including early childhood development (ECD), bursaries and scholarships provided across all education levels, provision of primary, secondary and tertiary education support (including after school programmes or online support) and adult learning programmes)
 - ii. Total investment on education and skills programme(s) (outside of workforce) split by programme area.
 - iii. Total number of beneficiaries of education and skills programmes (disaggregated per gender and ethnicity to the extent practicable based on the local operating context and what is legally permissible)
 - (f) approach to providing employment, procurement and training opportunities to local communities
- AR 94. If material, the undertaking shall also disclose [for each operational site/for the key operational sites – TO BE DISCUSSED]:
- (a) its interactions with indigenous peoples, including but not limited to means of communication, language used, frequency;
 - (b) where applicable, the co-ownership programs developed for indigenous peoples and local communities. This shall include equity shares acquired by communities and their value;
 - (c) the most recent examples of involvement in the process of seeking free, prior, and informed consent from indigenous peoples to any of the undertakings' activities, and whether an agreement has been reached and if it is publicly available.

When disclosing on paragraph AR 93 the undertaking shall consider the presence of the mining sector in proximity to indigenous communities can present economic opportunities and benefits for indigenous peoples through employment, training, and community development programs as well as co-ownership programs. However, it can also disrupt indigenous peoples' cultural, spiritual, and economic ties to their lands or natural environments, compromise their rights and well-being, and cause displacement. It can

have further impacts on the availability of and access to water, which is a key concern for many indigenous communities.

- AR 95. The collective and individual rights of indigenous peoples are recognised in authoritative international instruments. Indigenous peoples also often have a special legal status in national legislation and can be customary or legal owners of lands to which undertakings in the mining sector are granted use rights by governments. Before initiating development or other activities that could have impacts on lands or resources that indigenous peoples use or own, the undertaking shall disclose whether it has sought they hav free, prior, and informed consent (FPIC) from indigenous peoples, as per the United Nations Declaration on the Rights of Indigenous Peoples and allows indigenous peoples to give or withhold consent to a project that may affect them or their territories and to negotiate project conditions.
- AR 96. Application Requirement MIN-6 S3 – ResettlementLand and resource rights of local communities and indigenous peoples are a key issue as often mining operations require relocation (voluntary or involuntary) of said groups.
- AR 97. The undertaking shall disclose the approach taken in recognising the legitimate tenure rights holders when acquiring, leasing or making other arrangements to use, or restrict the use of, land as well as to providing remediation following involuntary resettlement either through monetary or asset compensation.
- AR 98. The undertaking shall consider describing how it assesses whether its approach is in line with the best available standard. [To be discussed]

Application Requirements MIN 8 -S3 – human rights defenders

- AR 99. In order to establish the list of incidents the undertaking shall consider official sources such as policy reports or other reports issued by governmental organisations. The undertaking shall not consider unofficial reports such as social media sources.

ESRS G1 -related requirements

Application Requirement to ESRS G1-2 – Management of relationship with suppliers

- AR 100. Compared to employees, workers employed by suppliers commonly have less favourable employment conditions, lower remuneration, less training, higher accident rates, and less job security. They often lack social protection and access to grievance mechanisms. Workers beyond the first tiers of business relationships in undertaking’s supply chain may also be subject to low standards for working conditions, exposing undertakings in the mining sector to human rights violations through their business relationships.
- AR 101. Employment terms can vary between local workers, migrant workers, and contractors. Remuneration for these groups of workers may be unequal, and benefits, such as bonuses, housing allowances, and private insurance plans, may only be offered to expatriate employees. Lack of relevant skills, knowledge, or accessible training programs can also restrict local communities from accessing employment opportunities created by the mining sector.

Application Requirement MIN- 10-G1 – State aid and competition law

- AR 102. When reporting in accordance to paragraph 86 the undertaking shall include:
- (a) volumes and types of minerals purchased,
 - (b) full names of the buying undertaking(s) and the recipient of the payment,
 - (c) payments made for the purchase.

AR 103. When reporting in accordance to paragraph 86 the undertaking shall include the following revenue streams in the breakdown:

- (a) The host government’s production entitlement;
- (b) National state-owned company production;
- (c) Royalties;
- (d) Dividends;
- (e) Bonuses (e.g., signature, discovery, and production bonuses);
- (f) License fees, rental fees, entry fees; and other considerations for licenses or concessions;
- (g) Any other significant payments and material benefits to government.

AR 104. The undertaking shall also report the value of any thresholds that have been applied and any other contextual information necessary to understand how the project-level payments to governments reported have been compiled. When reporting in accordance to paragraph 86 shall include:

- (a) tax relief and tax credits;
- (b) subsidies.
- (c) funds received through the Just Transition Mechanism of the EU;
- (d) investment grants, research and development grants, and other relevant types of grants;
- (e) awards;
- (f) royalty holidays;
- (g) financial assistance from Export Credit Agencies (ECAs);
- (h) financial incentives;
- (i) other financial benefits received or receivable from any government for any operation.

AR 105. In accordance with Chapter 10 of the Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, the undertaking shall provide payment data on a country-by-country level.

Data points related to [draft] ESRS S1-Appendix B.1 – Application Requirements for ESRS 2 related disclosures

AR 106. When disclosing the requirements in ESRS S1 Own workforce for ESRS 2 related disclosure the undertaking shall disclose the following datapoints:

Social and human rights matters	Non-exhaustive list of factors to consider in Materiality Assessment
Secure employment	% of posted workers in own workforce
Working time	% of workers regularly working multi-day away-from-home assignments % of workers regularly working evening shifts % of workers regularly working night shifts

	% of workers regularly working on Saturdays and/or Sundays
Adequate wages	Allowances for housing for away-from-home assignments
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of workers affected by work stoppages

Data points related to [draft] ESRS S1-Appendix B.2 - Application Requirements for ESRS S1-1 Policies related to own workforce

AR 107. When disclosing the requirements in ESRS S1 Own workforce for policies related to the own workforce the undertaking shall disclose the following datapoints:

Social and human rights matters	Examples of policies
Secure employment	Policies on the use of posted workers
Working time	Policies on advance notice of scheduling, multi-day away-from-home assignments, and evening, night and weekend work
Adequate wages	Policies for housing allowances
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of workers affected by work stoppages

Data points related to [draft] ESRS S1-Appendix B.3 – Application Requirements for ESRS S1-4 Taking action on material impacts on own workforce, and approaches to mitigating material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions

AR 108. When disclosing the requirements in ESRS S1 Own workforce for actions related material impacts on own workforce the undertaking shall disclose the following datapoints:

Social and human rights matters	Examples of actions
Secure employment	Reducing the % of posted workers
Working time	Increase regular schedules Increasing advance notice of scheduling

	Reducing multi-day away-from-home assignments, and evening, night and weekend work
Adequate wages	Increasing housing allowances
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of workers affected by work stoppages

Data points related to [draft] ESRS S1-Appendix B.4 – Application Requirements for ESRS S1-5 Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities

AR 109. When disclosing the requirements in ESRS S1 Own workforce for targets related to managing material negative impacts the undertaking shall disclose the following datapoints:

Social and human rights matters	Examples of targets
Secure employment	Smaller % of posted workers
Working time	Increased % of workers with regular schedules Increased advance notice of scheduling Lower % of multi-day away-from-home assignments, and evening, night and weekend work
Adequate wages	Adequate housing allowances
Freedom of association/ collective bargaining including the rate of workers covered by collective agreements	% of workers affected by work stoppages

Appendix C: Sustainability Matters Mining, Quarrying and Coal

This Appendix presents a description of the sustainability matters that are material for undertakings in the Mining, Quarrying and Coal sector. It has the same authority of the main body of the standard and of Appendix B.

Sustainability Matters: Descriptions

E1: Climate change adaptation

Mining and quarrying

Mining and metals production is often energy-intensive, with a significant proportion of energy consumption in the sector accounted for by purchased electricity. While fuel combustion on-site contributes to the sector's direct (Scope 1) GHG emissions, electricity purchases from the grid can result in indirect, Scope 2 emissions. The energy intensity of operations may increase with decreasing grades of deposits and increasing depth and scale of mining operations. The choice between on-site versus grid-sourced electricity, and use of alternative energy, can play an important role in influencing both the costs and reliability of energy supply. Affordable and easily accessible energy is an important competitive factor in a commodity market driven by global competition and purchased fuels and electricity can account for a significant proportion of total production costs. The way in which an undertaking manages its overall energy efficiency and intensity, its reliance on different types of energy, and its ability to access alternative sources of energy, can therefore be a material factor.

Coal

Coal operations generate significant amounts of CO₂ emissions and have the highest intensity per energy unit out of all fossil fuels. This topic covers how a company in this sector adapts to risks derived from climate change and its contributions to society to handle these impacts. Due to the high intensity of CO₂ emissions, this topic sheds a light on the transition the company is undergoing towards becoming low carbon. This would include the different alternatives they may have to contemplate to reduce emissions while developing coal activities and what effect these changes may have on the company's employees and the communities in which coal activities take place.

E1: Energy

Mining and quarrying

Mining operations are energy-intensive and generate significant direct greenhouse gas (GHG) or CO₂e emissions, including carbon dioxide from fuel use during mining, ore processing, and smelting activities. It will also depend on the method used, open pit or underground mining, excavation type, depth of the mine and volumes of fugitive methane released. Underground mining is found to result in more GHG or CO₂e emissions. The extent and type of GHG emissions can vary depending on the metal mined and processed. Regulatory efforts to reduce GHG emissions in response to the risks posed by climate change may result in additional regulatory compliance costs and risks for metals and mining undertakings due to climate change mitigation policies. Operational efficiencies can be achieved through the cost-effective reduction of GHG emissions. Such efficiencies can mitigate the potential financial impact of increased fuel costs from regulations that seek to limit-or put a price on-GHG emissions.

Coal

Coal operations are energy intensive and generate significant direct greenhouse gas (GHG) or CO₂e emissions, including carbon dioxide from fuel use and methane released from coal beds during mining

and post-mining activities. This topic covers direct and energy indirect GHG or CO₂e emissions (Scope 1 and Scope 2) related to an undertaking's activities, as well as other indirect GHG emissions (Scope 3) related to the end use of an undertaking's products. The importance of CO₂e emissions will depend on the method used, open pit or underground mining, excavation type, depth of the mine and volumes of fugitive methane released. Underground mining is found to result in more GHG or CO₂e emissions than open pit mining. Regulatory efforts to reduce GHG emissions in response to the risks posed by climate change may result in higher operating and capital expenditures based on the magnitude of their direct emissions. Operational efficiencies can be achieved through the cost-effective reduction of GHG or CO₂e emissions. Such efficiencies can mitigate the potential financial impact of increased fuel costs from regulations that seek to limit - or put a price on - GHG or CO₂e emissions.

E2: Pollution of Air

Mining and quarrying

Non-greenhouse gas (GHG) air emissions from the Metals & Mining sector include hazardous air pollutants, criteria air pollutants, and Volatile Organic Compounds (VOCs) from smelting and refining activities. These can have significant, localized human health and environmental impacts. Depending on the metal, uncaptured sulphur dioxide, lead, mercury, cadmium, and arsenic are among the chief pollutants, along with particulate matter. Depending on the type of mining, i.e. open pit mining or underground mining the pollution of air differs. Underground mining is found to result in more GHG emissions than open pit mining.

Financial impacts resulting from air emissions will vary depending on the specific location of operations and the applicable air emissions regulations. Active management of the issue-through technological and process improvements-could allow undertakings to limit the impacts of increasingly stringent air quality regulations globally. Undertakings could also benefit from operational efficiencies that could lead to a lower cost structure over time.

Coal

Coal operations have an impact on the quality of air. Coal operations are emission intensive. Coal operations result in the emission of different gases during the entire operational process, from the drilling, refining, and transporting, to the transportation and waste management. This topic covers the emissions of Sulphur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), heavy metals, persistent organic pollutants (POPs), volatile organic compounds (VOCs), ozone depleting substances (ODS), ammonia (NH₃), and other (hazardous) chemicals regulated by REACH and CLP and their compounds, several types of dust particles as well as other physical pollutants. These emissions are particular to the coal operations. This topic would additionally cover the efforts from undertakings to reduce the emissions of the above-mentioned gases and the impact these have on ecosystems, the health and safety of employees and local communities, as well as the economic and social effect these may have on society.

Depending on the type of mining, i.e. open pit mining or underground mining the pollution of air differs. Underground mining is found to result in more GHGeq emissions than open pit mining.

E2: Pollution of Water

Mining and quarrying

Mining and metals production can impact both the availability and the quality of local water resources. Metals and mining undertakings face operational, regulatory, and reputational risks due to water scarcity, costs of water acquisition, regulations on effluents or amount of water used, and competition

with local communities and other sectors for limited water resources. Impacts associated with water management may include higher costs, liabilities, and lost revenues due to curtailment or suspension of operations. The severity of these risks can vary depending on the region's water availability and the regulatory environment. Undertakings in the sector may deploy new technologies to manage risks related to water risk, including desalination, water recirculation, and innovative waste-disposal solutions. Reducing water use and contamination can create operational efficiencies for undertakings and lower their operating costs.

Coal

Coal operations have an impact on both the quality and quantity of local water resources. Coal operations are water intensive. The use of water in coal washing to remove sulphur, in cooling drilling equipment, and in transporting coal in slurry pipelines can impact resources. The severity of these risks can vary depending on the region's water availability and the regulatory environment. Reducing water use and contamination could also create operational efficiencies for undertakings and lower their operating costs. Wastewater treatment and discharge is often regulated by national or local agencies. Violating limits on selenium, sulphate, and dissolved solids could affect coal operations undertakings through significant penalties, compliance costs, delays in production, or higher costs related to mine closure.

E2: Pollution of Soil

Mining and quarrying

Mining activities are one of the most important anthropic causes of soil degradation and pollution in the world, according to scientific research. Mine soils in post-mining locations have great spatial variability in their properties (e.g., pH, particle size distributions, PTEs content), and are largely dependent on the characteristics of the ore that was processed and on the materials which were deposited at the site and can persist over time. Violating limits of pollutants allowed could affect operations of the undertakings through significant penalties, compliance costs, delays in production, or higher costs related to mine closure.

Coal

Coal activities are one of the anthropic causes of soil degradation and pollution, resulting in the erosion and sterility of soil, this is due to the construction of roads and routes as well as the clearance of land for coal operations. Violating limits of pollutants allowed could affect operations of the undertakings through significant penalties, compliance costs, delays in production, or higher costs related to mine closure.

E2: Substances of concern

Mining

Mining operations can have extensive impact on the environment. For this reason, undertakings shall disclose and take into account multiple factors when designing a mine. These factors shall include whether the mine could be designed to be underground rather than open-pit, what happens after its life, the productivity of it and the time of year it is productive. Further to this, in mining processes certain substances are used that can have an impact on the environment and human health. This covers impacts from carcinogenic, mutagenic or reprotoxic substances (CMRs), persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances (vPvBs); endocrine disrupting substances (EDs); immunotoxicants; neurotoxicants, respiratory sensitisers; substances having specific organ toxicity (STOT) with chronic effects; persistent, mobile and toxic substances (PMTs) and very persistent and very mobile substances (vPvMs); as well as other substances having

a chronic effect on human health or the environment (emphasizing on mercury) and substances hampering recycling for safe and high quality secondary raw materials.

Coal

Coal operations and the use of certain substances have an impact on the environment and human health. This topic covers impacts from carcinogenic, mutagenic or reprotoxic substances (CMRs), persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances (vPvBs); endocrine disrupting substances (EDs); immunotoxicants; neurotoxicants, respiratory sensitisers; substances having specific organ toxicity (STOT) with chronic effects; persistent, mobile and toxic substances (PMTs) and very persistent and very mobile substances (vPvMs); as well as other substances having a chronic effect on human health or the environment (emphasizing on mercury) and substances hampering recycling for safe and high quality secondary raw materials (specially focusing on synthetic graphite). Mercury release during coal burning operations can have a detrimental effect mainly on marine ecosystems, thus on human health. The production of synthetic graphite can be obtained from coal char, which could be a substitute material of graphite.

The coal industry presents several hazards which companies must prevent and address. Some examples include: ground or strata failure, fires or (methane) explosions, inundation or inrush of any substance, and others. It is therefore critical that risk management plans are put in place, along with related remedial actions for workers, communities, and the environment. Appropriate tailings management plays an important role in deminimising the risk for industrial hazards occurring. Underground mining can suffer from dust explosions, inundation, mining corridor collapses or others. Open pit mining can suffer from landslides, water inbursts, machinery failures and others. Other causes for industrial hazards relate to tailings management. Failures can result from inadequate water management, overtopping, foundation or drainage failure, erosion, and earthquakes.

E2: Industrial hazards

The coal and mining industry presents several hazards which companies must prevent and address. Some examples include: ground or strata failure, fires or explosions, inundation or inrush of any substance (including from mine tailings dam failures), and others. Underground mining can suffer from dust explosions, inundation, mining corridor collapses or others. Open pit mining can suffer from landslides, water inbursts, machinery failures and others. Other causes for industrial hazards relate to tailings management. Failures can result from inadequate water management, overtopping, foundation or drainage failure, erosion, and earthquakes. It is therefore critical that risk management plans are put in place (amongst others for tailing dams, to avoid ruptures or spillovers), along with related remedial actions for workers, communities and the environment. Appropriate tailings management plays an important role in deminimising the risk for industrial hazards occurring.

E2: Pollution of living organisms and food resources

Common coal, mining and mineral processing activities that contribute to noise pollution include overburden removal, drilling and blasting, excavating, crushing, loading and unloading, vehicular traffic, and the use of generators. Noise generated by mining operations is often of higher intensity than natural noise, and mining operations can occur throughout the night. Noise pollution can have a direct and lasting impact on workers, nearby communities and biodiversity.

E3: Water use

Mining and quarrying

Mining operations, depending on their geographical and geological location, must manage water consumption, flood risks, water quality and other issues. Environmental factors and climate contribute to the complexity of developing a mine water management system. In dry climates, an undertaking may need to focus more on conservation, collecting, storing, and reusing contact water from the tailing's storage facility, seepage, open pit, and/or underground mine. For wet the greatest challenge is rather managing flood events and eliminating the risks of spilling, erosion, and infrastructure failure. Undertakings in cold climate regions must consider the large quantity of water generated from snow melt and ice thaw and manage the impacts of permafrost on drainage facilities. Each mine site requires a tailored and holistic solution. Risks related to water use and management are also linked to the social license to operate and wider community well-being, ensuring availability and good quality of water to nearby communities.

Coal

Coal operations, depending on their geographical and geological location, must manage water consumption, flood risks, water quality and other issues. Environmental factors and climate contribute to the complexity of developing a water management system which is mainly necessary to heat water to create a steam and generate electricity. In dry climates, an undertaking may need to focus more on conservation, collecting, storing, and reusing contact water. For wet the greatest challenge is rather managing flood events and eliminating the risks of spilling, erosion, and infrastructure failure. Undertakings in cold climate regions must consider the large quantity of water generated from snow melt and ice thaw and manage the impacts of permafrost on drainage facilities. Risks related to water use and management are also linked to the social license to operate and wider community well-being, ensuring availability and good quality of water to nearby communities.

E3: Habitat degradation and intensity of pressure on marine resources

Coal and Mining activity produces large volumes of waste, formed by the non-processed rock from overburden or access tunnels and shafts, and by the processed tailings. Traditionally, tailings are stored in land dams, but the lack of land availability, potential risk of dam failure, geological instability, and topography in coastal areas in certain countries makes consideration of disposal of tailings into marine systems, a process usually known as Deep-Sea Tailings Disposal. DSTD can have lasting impacts on biodiversity, ocean ecosystems as well as on fishing communities.

Other impacts that mining can have is around waste disposal in costal ecosystems, which must be carefully managed. Finally, some undertakings are currently exploring deep-sea bed mining however it is worth noting that no agreement by the International Seabed authority has yet been reached on this, and whether it is deemed a safe practice.

E4: Impacts on the extent and condition of ecosystems

The development, operation, closure, and remediation of mines can have a range of impacts on biodiversity, such as alterations of landscape, vegetation removal, and impacts to wildlife habitats. Acid rock drainage is a particularly significant risk: it is highly acidic water, rich in heavy metals, formed when surface and shallow subsurface water come into contact with mining overburden. Acid rock drainage can have harmful effects on humans, animals, and plants. Similarly tailings management will play an important role. Biodiversity impacts of mining operations can affect the valuation of reserves and create operational risks. The environmental characteristics of the land where reserves are located could increase extraction costs due to increasing interest in the protection of ecosystems. Undertakings could also face regulatory or reputational barriers to accessing reserves in ecologically sensitive areas. This may include new protection status afforded to areas where reserves are located. Metals and mining

undertakings face regulatory risks related to reclamation after a mine is decommissioned, per applicable regulatory requirements to restore mined property according to a prior, approved reclamation plan. Material costs may arise from removing or covering refuse piles, meeting water treatment obligations, and dismantling infrastructure at the end of life. Furthermore, ongoing mining operations are subject to laws protecting endangered species. Undertakings that have an effective environmental management plan for different stages of the project lifecycle may minimize their compliance costs and legal liabilities, face less resistance in developing new mines, and avoid difficulties in obtaining permits, accessing reserves, and facing delays in project completion.

E4: Direct impact drivers of biodiversity loss

Mining and quarrying

Mining operations make substantial impacts on the earth and nature around them. Operation not only pollute and contribute to climate change, it is a direct exploitation of the land and changes the use of the land. This has a severe impact on biodiversity in the area of mining operations.

Coal

Impact drivers of biodiversity loss and degradation and remedial action for impacts on biodiversity and eco-systems

Coal operations can have a range of impacts on biodiversity. Surface mining and mountaintop removal can alter the landscape, removing vegetation and wildlife habitats. Acid mine drainage is particularly significant: it is highly acidic water, rich in heavy metals, formed when surface and shallow subsurface water comes into contact with coal mining overburden, and can have harmful effects on humans, animals, and plants. Similarly tailings management will play an important role. Biodiversity impacts of coal operations can affect the valuation of reserves and create operational risks. The environmental characteristics of the land where reserves are located could increase extraction costs as a result of increasing awareness and protection of ecosystems. undertakings could also face regulatory or reputational barriers to accessing reserves in ecologically sensitive areas, such as the designation of areas where reserves are located as protected areas. Coal operations undertakings face regulatory risks related to reclamation after a mine is decommissioned, per applicable regulatory requirements to restore mined property according to a prior, approved reclamation plan. Material costs may arise from removing or covering refuse piles, fulfilling water treatment obligations, and dismantling infrastructure at the end of life. Furthermore, ongoing coal operations are subject to laws protecting endangered species. Undertakings that have an effective environmental management plan for different stages of the project lifecycle may minimise their compliance costs and legal liabilities, face less resistance in developing new mines, avert delays in project completion, and avoid difficulties in obtaining permits and accessing reserves.

E5: Resources inflows, including resource use

Mining and quarrying

Mining operators are increasingly supporting applications and facilitating efforts towards recovery and re-use of minerals. This includes choices made by product designers and engineers (e.g., material and process technology selection) which can ultimately have significant influence on a product's overall environmental impact. Resource productivity, conserving energy and water, and preventing environmental health and safety risks improves the financial performance of mining operations and helps secure their continued license to operate.

Coal

Depletion of non-renewable resources and regeneration of renewable resources and ecosystems.

Estimates suggest that coal undertakings may be unable to extract a significant proportion of their coal reserves if greenhouse gas (GHG) emissions are to be controlled to limit global temperature increases to two degrees Celsius per the Paris Agreement. Stewardship of capital resources while taking into account medium-to long-term trends, particularly related to climate change mitigation actions, is critical in order to prevent asset impairment and maintain profitability and creditworthiness. Globally, regulations and policies are and may continue to be put into place to limit GHG emissions from coal-fired power plants - the customers of coal undertakings - thus lowering the demand for, and subsequently the prices of, coal. Coal demand is also being affected by regulations governing other harmful air emissions that apply to coal-fired power plants. An expansion of GHG-mitigation regulations may increase the magnitude of potential financial impacts in the medium to long term. Along with improved competitiveness of alternative energy technologies, this poses a long-term risk for the reserves and capital expenditures of coal operations undertakings.

E5: Waste

Mining and quarrying

The Mining sector generates large volumes of mineral processing and smelting wastes, including slags and tailings, some of which may be hazardous or chemically reactive. Impoundments for tailings can cover large areas of land. This can present a significant threat if the impoundments burst, collapse, or leak, leading to the loss of life or damage to property and ecosystems. Mineral waste is also often stored in-pit, using abandoned open pit surface mines. Such storage can create the potential for groundwater contamination and could affect the stability of active mines in the area. Some mining activities can take place in coastal or deep sea ecosystems, which can result in pollution of marine ecosystems if the waste processing is not accordingly managed. Undertakings that reduce and recycle waste streams while implementing policies to manage risks related to the integrity of tailings facilities may enjoy lower regulatory and litigation risks, remediation liabilities, and costs. Additionally, tailings can contain hazardous chemical residues from extraction and processing operations. Undertakings' ability to manage the sourcing, transport, use, and disposal of mineral processing waste and by-products can reduce associated risks.

Coal

Handling of solid rock and clay waste, process refuse, and liquid coal waste containing hazardous substances like mercury, arsenic, and cadmium poses operational and regulatory challenges for coal operations undertakings. Coal slurry or tailings ponds can present a significant threat if the impoundments burst, collapse, or leak, leading to destruction of lives, property, and ecosystems, with associated financial impacts that may include regulatory penalties, compensation payments, and remediation or compliance obligations. Permitting of coal mining operations may be affected, lowering an undertaking's revenue or requiring additional expenditures prior to approval. undertakings' ability to lower the number and size of tailings ponds and ensure the structural integrity of impoundments can help minimize such impacts.

S1: Working time and work-life balance

Coal and mining operations are often located outside of city centre and in areas where people don't live. As a result workers are often on mine sites for long periods of time and can be flown in and out of the mine site. This may result in an unbalanced work-life and extensive amounts of working time without time for family, recreation and leisure.

S1: Health and safety

Coal and Mining operations can be both strenuous and dangerous and can therefore lead to a high risk of injuries at the workplace; thus, this sustainability matter covers the undertakings policies regarding health and safety, critical incident risk management, as well as workforce health, wellbeing, and safety. Due to the high risk of mines this topic also covers security arrangements, asset integrity and critical incident management. Moreover, considering the recent covid-19 pandemic, the sustainability matter also covers pandemic preparedness and the undertakings response within its value chain.

S1: Adequate wages and secure employment

Coal and Mining undertakings often acquire workers through procurement and suppliers which increases the risk of low wages and unsecure employment practices. This is particularly material for the mining sector given the amount of artisanal and small-scale mining within the industry who, due to their small scale, don't have the governance structure and protection in place to ensure their worker's rights.

Secure employment is also particularly material for the mining industry as the closure of mine sites can lead to mass unemployment for the local community.

S1: Freedom of association and collective bargaining

The Coal and Mining sector has traditionally had a strong presence of trade unions and collective agreements, however, there is a risk that these rights are not enforced in locations where these are not guaranteed by national legislation, especially when the workers are employed through a supplier. This sustainability matter includes not only the undertakings work to ensure freedom of association for its workers, but also its actions to ensure this for the local community.

S1: Training and skills development

Coal and Mining operations can be both technically difficult and dangerous and it is therefore imperative that the workers are properly trained and have the skills and capabilities to handle the security risks that working in the mine entails.

Mines may be placed in the middle or close to active conflict, they may also be the subject of controversy which leads to the necessity of security personnel. This sustainability matter includes training of security personnel in human rights and humanitarian law.

S1: Measures against violence and harassment in the workplace

Due to the Coal and Mining industry being a male dominated industry there is a risk for sexual harassment and other gender-related violence in the workplace. It is important that undertakings have a clear policy on these aspects and proper reporting mechanisms that properly deal with cases when they are presented.

S1: Diversity, including gender equality and equal pay for work of equal value

The coal and mining industry has traditionally been a male-dominated industry, with few women in the workforce. Ensuring workforce inclusion, diversity, and that women and other minorities have equal opportunities is therefore an important aspect of sustainability within the mining industry.

S1/S2: Child labour

Coal and Mining operations commonly involve many business relationships from a wide range of suppliers and are often in countries where human and workers' rights may have poor enforcement rates. This includes in particular artisanal and small-scale mining suppliers. There is therefore a higher risk for child labour in their operations and supply chain. This sustainability matter therefore includes the undertaking's efforts to tackle these risks, the organization's supply chain management and whether it ensures that it is ethical, sustainable, and ensures protection of all their suppliers' rights.

S1/S2: Forced labour

Coal and Mining operations commonly involve many business relationships from a wide range of suppliers and are often in countries where human and workers' rights may have poor enforcement rates. This includes in particular artisanal and small-scale mining suppliers. There is therefore a higher risk for forced labour in their operations and supply chain. This sustainability matter therefore includes the undertaking's efforts to tackle these risks, the organization's supply chain management and whether it ensures that it is ethical, sustainable, and ensures protection of all their suppliers' rights.

S1/S2: Adequate housing, including water and sanitation

Coal and Mining operations are often located in remote locations and as a result workers are often flown in for weeks at a time. While working the mining company provides accommodation and this sustainability matters pertains to the quality of living standards in these accommodations, including access to water and sanitation.

S1/S2: Privacy

When working on mine sites and living in provided accommodation the employee has little control over it's privacy. This sustainability matter therefor includes how the undertaking is ensuring the workers right to privacy, both from a physical perspective and a digital perspective.

S3: Infrastructure. Including adequate housing, adequate food, water and sanitation and power.

Coal and Mining operations are interlinked with the location and communities in which these take place. This affects the employment and economic performance in the area, as well as potentially exposing the local community hazardous substances if operations are not handled with the proper care. Due to impact on the local communities, this sustainability matter includes, but is not limited to; the living infrastructures of the local communities; its economic impacts; the communities access to adequate food, the operations land-related impacts, their impact on families, children, and community as a whole; smell, light, noise, and vibration pollution; and their access to water and sanitation.

S3: Land-related impacts

Coal and Mining is a land-intensive sector, whose impacts can materialize when land is acquired to develop a project, but also when environmental pollution, ongoing deforestation, access restrictions among others, further impede the capacity of indigenous and local communities to access, cultivate lands or benefit from forests. Those have the potential to infringe on communities' right to livelihood.

S3: Security-related impacts

Coal and Mining operations can be located in or near areas of active conflict, or could be a source of local conflict. They therefore can have an impact on the security and potential conflicts in the area.

There has also been a history of sex-work in and around mining operations and the mining industry therefore has a high risk of sexual exploitation of women and children in the communities where it operates. This sustainability matter therefore also includes the risks of sexual violence and human trafficking in the affected community.

S3: Freedom of expression and freedom of assembly

Due to the presence of coal and mining operations in countries where the enforcement of human rights may be low, there is a higher risk for violations of the civil and political rights among the undertakings employees and local communities. This sustainability matter includes, but is not limited to, freedom of expression and freedom of assembly.

S3: Impacts on human rights and environmental defenders

Research shows that the mining industry is one of the most dangerous sector for Human Rights and environmental defenders with several hundred attacks globally in addition to continuous threats and abuse. Ensuring the rights and protection of Human Rights Defenders is therefore of the utmost importance in the mining industry.

S3: Particular rights of indigenous communities. Including; Free, prior and informed consent; self-determination; and cultural rights

Coal and Mining operations often take place in locations that are in close proximity to indigenous communities, and consequently have an impact on these communities due to its economic influence and the environmental consequences from these operations. Examples can be found in disputes and conflicts over land ownerships and absence of good faith in consultation; and also with the potential influx of workers from other areas can result in discrimination toward indigenous peoples regarding access to jobs and opportunities that can further undermine social cohesion, well-being and safety or the increased exposure of indigenous women to risks of prostitution, forced labour or violence. This sustainability matter would therefore cover if there has been a free, prior, and informed consent of indigenous people and the practice the undertaking has in place to ensure his. It also includes whether land-use rights, the right to self-determination as well as cultural right has been respected and indigenous communities access to water is guaranteed.

S4: Access to quality information

Undertakings in the coal and mining sector are often at the start of most value chains as they produce substances that often become a part of everyday products. It is therefore important that they provide detailed and accurate information that covers many sustainability matters where much information is relevant not only for end users, but for the communities and civil societies they are a part of. Thus, this topic covers access to information regarding the organization and the operations, but also privacy and data protection for employees and customers. In addition to this, freedom of expression is also covered in this topic as is it essential for this to be guaranteed in order for transparent communication and information to be disclosed.

ESRS 2: Sustainability governance, management and reporting

In recent years sustainability management and sustainability reporting has become an increasing great part of corporate reporting and undertaking's everyday management. Subsequently that leads to a greater need for internal resources and governance structures to be in place to help manage the increasing requirements. The undertaking's governance structure and strategy to maintain this aspect

of their operations is important as it is the underlying factor that will lead to achieving their sustainability goals.

ESRS 2: Risk management and internal control processes

Such tools shall be used in the mining and extractive industry to prevent and / or mitigate significant incidents from occurring. (Risk management is viewed as the process of identifying these possible significant incidents to the undertaking and implementing processes to reduce and / or eliminate material impacts.

G1: Corporate culture (Code of conduct and ethics)

Ensuring that undertakings have a code of conduct and ethics that outlines the how the undertaking and it's employees are expected to conduct themselves give security and guidance in their everyday work. Coal and Mining operations are often in locations all over the world, including areas considered to be Conflict-Affected and High-Risk Areas (CAHRAs) in which the enforcement of Human Rights is less likely to take place. It is therefore important that undertakings within the Coal and Mining sector have a clearly stated code of conduct to ensure that the rights of employees and members of local communities are protected by the organization with no regard to the location of the operations

G1: Corruption and bribery

Due to the nature of mining operations, along with other extractive industries, the Coal and Mining sector has a high risk for corruption and bribery events as their value chains are often complex and are set in Conflict-Affected and High-Risk Areas (CAHRAs). As a result Human Rights, as well as compliance to the legislative and procedural requirements in mining operations, is often neglected. This may lead to an undertaking taking advantage of the uncertainty in their favour, which consequently damages the environment and has a negative impact on the well-being of employees and local communities. This sustainability matter does not only include the efforts carried by an organization to guarantee that these actions are not happening within it, the tools used to prevent this from occurring. It also covers the consequences of a breach of policy, potential reprimands for breaches and the whistle blowing systems and protections the undertaking has in place.

G1: Anti-competitive behaviour

Coal and Mining operations, along with other extractive industries, operate in locations considered to be CAHRAs, where the enforcement of anti-competitive practices is less likely to occur. As a result undertakings in the industry may take advantage of the lack of enforcement to engage in anti-competitive behaviour in violation of regulation. This sustainability matter includes the regulation enforced in the area in which an organization operates and whether or not there are risks of monopolies and heavy influence by governments in these matters.

G1: Political engagement and lobbying activities

Coal and Mining operations, along with other extractive industries, are often important sectors within a countries industry and therefore have wide ranging impacts on the communities and countries they operate within. This leads to them often times engaging in politics and lobbying activities to ensure that legislation and political decisions are in their favour. To ensure transparency and create legitimacy the undertaking shall disclose it's political stances and lobbying activities, especially within the area of sustainability management and reporting.

When operating in CAHRAs, where the democratic safeguards are not necessarily as strong, political engagement and lobbying activities can lead to legislation that are more in the interest of the undertaking rather than interest of that community. Only when both the interests of the undertaking and the interests of the local community are upheld can there be an effective and value creating operation.

G1: Management of relationships (including payment practices)

Many sustainability-related issues are complex and thus require collaboration between different stakeholders. Managing relationships with governments, business partners, suppliers and stakeholders is therefore of vital importance for undertakings in the mining industry.

Stakeholder engagement can prevent, monitor, and help mitigate any environmental or social risks. For this reason, stakeholder engagement shall be integrated into project planning and regular business operations through sharing of decision-making power with interested and affected parties and it shall be driven by stakeholders through ongoing consultation and follow-through. As per OECD guidelines on stakeholder engagement in the extractive industries, stakeholder engagement strategies shall prioritise engagement with most severely affected stakeholders, rather than most influential stakeholders. This includes, but is not limited to, artisanal and small-scale miners and civil society organizations.

Undertakings must also ensure that all taxes, fees, and royalties related to mineral extraction, trade and export from conflict-affected and high-risk areas are paid to governments and, in accordance with the company's position in the supply chain, we commit to disclose such payments in accordance with the principles set forth under the Extractive Industry Transparency Initiative (EITI). When disclosing data in relation to a specific project, companies are able to also provide more granular information on the government revenues collected from each individual extractive project.

Clarity and transparency regarding payments to governments from entities in the mining industry sector will contribute to a more efficient management of public funds and corruption. Such payments may be the origin of revenue for local communities and other regions, which may have increased demand for public spending. Project-level payment data is therefore relevant information to local communities, governments, and investors alike. It enables companies to demonstrate the economic contribution they are making in relation to specific projects, and the communities they affect. Where applicable, companies shall disclose the profit-sharing system in place with the local community.

G1: Cyber security

The managing of operational sites within the mining, quarrying and coal sector is important for geopolitical reasons as well as sustainability reasons. The consequences of data breaches and other types of cyber security risks could potentially lead to major incidents and spills that could have detrimental impacts on the local environment and community.

Appendix D: NACE Codes Mining, Quarrying and Coal

B.07.10	Mining of iron ores
B.07.21	Mining of uranium and thorium ores
B.07.29	Mining of other non-ferrous metal ores
B.08.11	Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate
B.08.12	Operation of gravel and sand pits
B.08.91	Mining of chemical and fertiliser minerals
B.08.92	Extraction of peat
B.08.93	Extraction of salt
B.08.99	Other mining and quarrying n.e.c.
B.09.90	Support activities for other mining and quarrying
B.05.10	Mining of hard coal
B.05.20	Mining of lignite
C.19.10	Manufacture of coke oven products