

## Vergleichsversion ESRS E5 (Resource use and circular economy)

### Hinweis

Die durch die [Richtlinie \(EU\) 2022/2464](#) (Corporate Sustainability Reporting Directive, CSRD) geänderte [Richtlinie 2013/34/EU](#) (Bilanzrichtlinie, BilanzRI) verpflichtet bestimmte EU-Unternehmen und EU-Tochterunternehmen oder EU-Niederlassungen von Drittstaatenunternehmen, die EU-Standards zur Nachhaltigkeitsberichterstattung (European Sustainability Reporting Standards, ESRS) anzuwenden. Die ESRS werden als delegierte Rechtsakte durch die Europäische Kommission erlassen (Artikel 29b, 29c und 40b BilanzRI). Mit der fachlichen Ausarbeitung der ESRS ist die European Financial Reporting Advisory Group (EFRAG) beauftragt worden, welche im November 2022 den ersten Satz der [ESRS-Entwürfe](#) (Set 1) als fachliche Stellungnahme gem. Artikel 49 Abs. 3b BilanzRI an die Europäische Kommission übermittelt hat. Die Europäische Kommission hat am 9. Juni 2023 eine einmonatige [Konsultation](#) zum Set 1 begonnen. Die Konsultation umfasst einen Entwurf für einen delegierten Rechtsakt, welcher aus einer Delegierten Verordnung mit zwei Anhängen besteht. Anhang I enthält 12 ESRS-Entwürfe, die sich von den von EFRAG ausgearbeiteten ESRS-Entwürfen unterscheiden.

Die Geschäftsstelle des DRSC stellt in mehreren Paketen Vergleichsdokumente zwischen den ESRS-Entwürfen der EFRAG und den ESRS-Konsultationsentwürfen der Europäischen Kommission zur Verfügung. Dieses Vergleichsdokument wurde von der Geschäftsstelle des DRSC erstellt. Es dient der Unterstützung bei der Erfassung und Beurteilung der von der Europäischen Kommission vorgenommenen Änderungen. Es erhebt keinen Anspruch auf Vollständigkeit oder Richtigkeit, insbesondere wurde auf den Vergleich von Grafiken und Tabellen verzichtet. Im Zuge der Erstellung der Vergleichsversion wurden formale Aspekte überarbeitet, um die Aussagekraft der angezeigten Änderungen zu erhöhen. Dieses Dokument ersetzt keine eigene umfassende Durchsicht des Lesers.

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## Objective

1. The objective of this Standard is to specify Disclosure Requirements which will enable users of the sustainability ~~statements~~statement to understand:
  - a) how the undertaking affects resource use, including resource efficiency, avoiding the depletion of ~~non-renewable~~ resources and the ~~regenerative production~~sustainable sourcing and use of renewable resources (referred to in this Standard as “resource use and circular economy”) in terms of material positive and negative actual or potential impacts;
  - b) any actions taken, and the result of such actions, to prevent or mitigate actual or potential ~~material~~ negative impacts arising from resource use ~~and circular economy~~, including its measures to help decoupling its economic growth from the use of materials, and to address risks and opportunities;
  - c) the plans and capacity of the undertaking to adapt its strategy and business model ~~(s)~~ in line with circular economy principles including but not limited to minimising waste, maintaining the value of products, materials and other resources at their highest value and enhancing their efficient use in production and consumption;
  - d) the nature, type and extent of the undertaking’s material risks and opportunities related to the undertaking’s impacts and dependencies, arising from resource use and circular economy, and how the undertaking manages them; and
  - e) the financial effects on the undertaking over the short-, medium- and long-term time horizons of material risks and opportunities arising from the undertaking’s impacts and dependencies on resource use and circular economy.
2. This Standard sets out Disclosure Requirements related to “resource use” and “circular economy” and in particular on:
  - a) resource inflows including the circularity of material resource inflows, considering renewable and non-renewable resources; and
  - b) resource outflows including information on products and materials; and
  - c) waste.
3. Circular economy means an economic system whereby in which the value of products, materials and other resources in the economy is maintained for as long as possible, enhancing their efficient use in production and consumption, thereby reducing the environmental impact of their use, minimising waste and the release of hazardous substances at all stages of their life cycle, including through the application of the waste hierarchy. The goal is to maximise and maintain the value of the technical and biological resources, products and materials by creating a system that allows for renewability, long life durability, optimal use or re-use, refurbishment, remanufacturing, recycling and biodegradation nutrient cycling.
4. This Standard ~~also~~ builds on existing relevant EU legislative frameworks and policies ~~which are referred to in this Standard including~~ the EU Green Deal, Regulation (EU) 2019/2088 (SFDR), Regulation (EU) 2020/852 (the EU Taxonomy), EU Circular Economy Action Plan, the Waste Framework directive and the EU industrial strategy.
5. To evaluate the transition from a “business as usual”, meaning an economy in which finite resources are extracted to make products that are used and then thrown away (“take-make-waste”), to a circular economic system, this Standard relies on the identification of the physical flows of resources, materials and products ~~physical flows~~ used and generated by the undertaking through Disclosure Requirement E5-4 Resource inflows and Disclosure Requirement E5-5 Resource outflows.

### Interactions with other ESRS

6. ~~The topic resource~~Resource use ~~and circular economy is closely connected to a major driver of~~ other environmental ~~matters~~impacts such as climate change, pollution, water and marine resources and biodiversity. A circular economy is a system that tends towards ~~a sustainable~~ use of resources in extraction, processing, production and consumption and management of waste. Such system brings multiple environmental benefits, in particular, the reduction of material and energy consumption and emissions into the air (greenhouse gas emissions or other pollution), the limitation of water withdrawals and discharges and the regeneration of nature limiting the impact on biodiversity.
7. ~~Thus, to~~To provide a comprehensive overview of which ~~aspects of~~ other environmental matters could be material to resource use and circular economy, relevant disclosure requirements are covered in other environmental ESRS as follows:
  - a) -ESRS E1 Climate change, which addresses, in particular, GHG emissions and energy resources (energy consumption);
  - b) -ESRS E2 Pollution, which addresses, in particular, emissions to water, air and soil as well as substances of concern;
  - c) -ESRS E3 Water and marine resources, which addresses, in particular, water resource (water consumption) and marine resources; and
  - d) -ESRS E4 Biodiversity and ecosystems, which addresses, in particular, ecosystems and species and raw materials.
8. ~~This Standard covers an environmental topic, however as people benefit from nature, the~~The undertaking's impacts ~~on nature~~related to resource use and circular economy, in particular impacts related to waste, can affect people and communities. Material negative impacts on affected communities from resource use and circular economy ~~related impacts~~ attributable to the undertaking are covered in ESRS S3 Affected communities. The efficient and circular use of resources also benefits competitiveness and economic wellbeing
9. This Standard should be read in conjunction with ESRS 1 General requirements and ESRS 2 General disclosures.

## **Disclosure Requirements**

### **ESRS 2 General disclosures**

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

## Impact, risk and opportunity management

### Disclosure Requirement related to ESRS 2 IRO-1 – Description of the processes to identify and assess material resource use and circular economy-related impacts, risks and opportunities

11. The undertaking shall describe the process to identify material impacts, risks and opportunities related to resource use and circular economy, in particular regarding resource inflows, resource outflows and waste, and shall provide information on:
- a) the methodologies, assumptions and tools used to screen its assets and activities in order to identify its actual and potential impacts, risks and opportunities in its own operations and value chain;
  - b) the interconnection between risks and opportunities arising from impacts and dependencies;
  - c) the process for conducting consultations ~~and~~, in particular, with affected communities.

## Impact, risk and opportunity management

### Disclosure Requirement E5-1 – Policies related to resource use and circular economy

12. The undertaking shall ~~disclosed~~describe its policies ~~implemented to manage~~address the management of its material impacts, risks and opportunities related to resource use and circular economy.
13. The objective of this Disclosure Requirement is to enable an understanding of the extent to which the undertaking has policies that address the identification, assessment, management and/or remediation of its material impacts, risks and opportunities related to resource use and circular economy.
14. The ~~summarised description of the policy~~disclosure required by paragraph 12 shall contain the information ~~required on the policies the undertaking has in place to manage its material impacts, risks and opportunities related to resource use and circular economy in accordance with~~ ESRS 2 ~~DC~~MDR-P Policies adopted to manage material sustainability matters.
15. In the summary, the undertaking shall indicate whether and how its policies address the following matters where material:
  - a) transitioning away from ~~extraction of virgin non-renewable~~use of virgin resources, including relative increases in use of secondary (recycled) resources;
  - b) ~~securing~~sustainable sourcing and ~~contributing to the regenerative production~~use of renewable resources ~~and the regeneration of ecosystems they are part of.~~
16. Policies shall address material impacts, risks and opportunities in its own operations and along the upstream and downstream value chain.

**Disclosure Requirement E5-2 – Actions and resources related to resource use and circular economy**

17. The undertaking shall disclose its resource use and circular economy actions and the resources allocated to their implementation.
18. The objective of this Disclosure Requirement is to enable an understanding of the key actions taken and planned to achieve the resource use and circular economy-related policy objectives and targets.
19. The description of the resource use and circular economy-related ~~action~~actions and resources allocated shall follow the principles defined in ESRS 2 DCMDR-A Actions and resources in relation to material sustainability matters.
20. In addition to ESRS 2 DCMDR-A, the undertaking ~~shall~~may specify whether and how an action and resources cover:
  - ~~a) any of the layers of the waste hierarchy as defined in Appendix A of this Standard;~~
  - ~~a) more detailed higher levels of resource efficiency in use of technical and biological materials and water, particularly in relation to critical raw materials and rare earths as listed in the Raw Materials Information System;~~
  - ~~b) higher rates of use of secondary raw materials (recyclates);~~
  - ~~b)c) application of circular economy strategy throughout the value chain of the design, leading to increased product: Refuse, Rethink, Reduce, durability and optimization of use, and higher rates of: Reuse, Repair, Refurbish/Refurbishing, Remanufacture and Repurpose), Recycle/Repurposing and Recycling.~~
  - ~~d) The disclosure shall also include a description of the actions, including circularity measures, application of circular business practices such as (i) value retention actions (maintenance, repair, refurbishing, remanufacturing, component harvesting, upgrading and reverse logistics, closed loop systems, second-hand retailing), (ii) value maximisation actions (product-service systems, collaborative and sharing economy business models), (iii) end-of-life actions (recycling, upcycling, extended producer responsibility), and (iv) systems efficiency actions (industrial symbiosis);~~
  - ~~e) actions taken to prevent waste generation in the undertaking's upstream and downstream value chain and to manage material impacts arising from waste generated~~
  - ~~24.f) Optimisation of waste management in line with the waste hierarchy.~~



## Metrics and targets

### Disclosure Requirement E5-3 – Targets related to resource use and circular economy

~~22-21~~. The undertaking shall disclose the resource use and circular economy-related targets it has ~~adopted~~set.

~~23-22~~. The objective of this Disclosure Requirement is to enable an understanding of the targets the undertaking has adopted to support its resource use and circular economy policy and to address its material impacts, risks and opportunities.

~~24-23~~. The description of the targets shall contain the information requirements defined in ESRS 2 ~~DCMDR~~-T Tracking effectiveness of policies and actions through targets.

~~25-24~~. The disclosure required by paragraph ~~2221~~ shall indicate whether and how ~~the undertaking's~~ targets relate to resource inflows and resource outflows, including waste and products and materials, ~~(including in production, use phase and at end of functional life)~~ and, more specifically to:

- a) the increase of circular product design (including for instance ~~product design~~ design for durability, dismantling, reparability, recyclability etc);
- b) the increase of circular material use rate;
- ~~c) the minimisation of virgin non-renewable raw material;~~
- ~~e) sustainable sourcing and use (in line with possibly targets for virgin nonrenewable raw material and targets for virgin renewable raw material;~~
- d) the ~~reversal of the depletion of the stock~~ cascading principle of renewable resources;
- e) the waste management, including preparation for proper treatment; and
- f) other ~~targets~~ matters related to resource use or circular economy.

~~26-25~~. The undertaking shall specify to which layer of the waste hierarchy the target relates.

~~27-26~~. In addition to ESRS 2 ~~DCMDR~~-T, the undertaking ~~shall~~ may specify whether ~~(local)~~ ecological thresholds and entity-specific allocations were taken into consideration when setting targets. If so, the undertaking ~~should~~ may specify:

- a) the ecological thresholds identified, and the methodology used to identify such thresholds;
- b) whether or not the thresholds are entity-specific and if so, how they were determined; and
- c) how responsibility for respecting identified ecological thresholds is allocated in the undertaking.

~~28-27~~. The undertaking shall specify as part of the contextual information, whether the targets it has ~~adopted~~ set and presented are mandatory (based on legislation) or voluntary ~~and if and how such legal requirements were taken into account when considering ecological thresholds~~.

#### Disclosure Requirement E5-4 – Resource inflows

- ~~29.28.~~ The undertaking shall disclose information on its ~~material~~ resource inflows related to its material impacts, risks and opportunities.
- ~~30.29.~~ The objective of this Disclosure Requirement is to enable an understanding of the resource use in the ~~course of the~~ undertaking's own operations and value chain.
- ~~31.30.~~ The disclosure required by paragraph ~~29.28~~ shall include a description of its resource inflows where material inflows: products (including packaging) and materials, (specifying critical raw materials and rare earths), water and property, plant and equipment used in the undertaking's own operations and along the value chain.
- ~~32.31.~~ ~~For undertakings for which~~ When an undertaking assesses that resource inflows are a material and those active in one of "key products value chain", as defined in sustainability matter, it shall disclose the EU Circular Economy action plan, following information about the undertaking shall include materials used to manufacture the undertaking's products and services during the reporting period, in tonnes or ~~kilo~~, at the reporting period kilograms:
- the overall total weight of products and technical and biological materials used during the reporting period;
  - ~~the weight in both absolute value and the~~ percentage of renewable input biological materials ~~from regenerative sources (and biofuels used for non-energy purposes)~~ used to manufacture the undertaking's products and services (including packaging); that is sustainably sourced, with the information on the certification scheme used and on the application of the cascading principle; and
  - the weight in both absolute value and percentage, of non-virgin reused or recycled components, intermediary products and materials ~~(non-virgin)~~ used to manufacture the undertaking's products and services (including packaging).
- ~~33.32.~~ The undertaking shall provide information on the methodologies used to calculate the data. It shall specify whether the data is sourced from direct measurement or estimations, and disclose the key assumptions used.

#### Disclosure Requirement E5-5 – Resource outflows

~~34.33.~~ The undertaking shall disclose information on its ~~material~~ resource outflows, including waste, related to its material impacts, risks and opportunities.

~~34.~~ The objective of this Disclosure Requirement is to provide an understanding of:

~~35.~~ ~~The objective of this Disclosure Requirements is to provide an understanding of:~~

- a) how the undertaking contributes to the circular economy by i) designing products and materials in line with circular economy principles and ii) increasing or maximising the extent to which products, materials and waste processing are recirculated in practice after first use; and
- b) the undertaking's waste reduction and waste management strategy ~~and~~, the extent to which the undertaking knows how its pre-consumer waste is managed in its own activities.

## Products and materials

~~36:35.~~ The undertaking shall provide a description of the key products and materials that come out of the undertaking's production process and that are designed along circular principles, including durability, reusability, repairability, disassembly, remanufacturing, refurbishment, recycling, recirculation by the biological cycle, or ~~other~~ optimisation of the use of the ~~resource~~ product or material through other circular business models.

~~37:36.~~ The undertaking ~~Undertakings~~ for which outflows are material ~~and those active in one of "key products value chain" as defined in the EU Circular Economy action plan,~~ shall provide information at the reporting period ~~and~~ disclose:

~~a) the total weight (tonnes) and percentage of materials that come out of the undertaking's products and services production process (including packaging) that have been designed along circular principles:~~

~~i. The expected durability;~~

~~ii. reusability;~~

~~iii. repairability;~~

~~iv. disassembly;~~

~~v. remanufacturing or refurbishment;~~

~~vi. recycling;~~

~~vii. recirculation of the products placed on the market by the biological cycle;~~

~~viii.a) other potential optimisation of undertaking, in relation to the industry average for each product and material use; and group;~~

~~b) the weight and percentage of products and materials that come out of the undertaking including packaging that, even if they do not meet the requirement required by paragraph 35(a), are designed to enhance/enable circular economy for customers further down the value chain.~~

~~b) The reparability products, using an established rating system, where possible;~~

~~c) The rates of recycled content in products and their packaging.~~

## Waste

~~38-37~~. The undertaking shall disclose the following information on its total amount of waste ~~or from~~ its own operations ~~at the reporting period~~, in tonnes or kilogrammes:

- a) the total amount of waste generated;
- b) ~~for each type of hazardous and non-hazardous waste~~, the amount by weight diverted from disposal by recovery operation type and the total amount summing all three types, with a breakdown between hazardous waste and non-hazardous waste. The recovery operation types to be reported on are:
  - i. preparation for reuse;
  - ii. recycling; and
  - iii. other recovery operations;
- c) ~~for each type of hazardous and non-hazardous waste~~, the amount by weight directed to disposal by waste treatment type and the total amount summing all three types, with a breakdown between hazardous waste and nonhazardous waste. The waste treatment types to be disclosed are:
  - i. incineration;
  - ii. ~~landfilling~~landfill; and
  - iii. other disposal operations;
- d) the total amount and percentage of non-recycled waste.

~~39-38~~. When disclosing the composition of the waste, the undertaking shall specify:

- a) the waste streams, relevant to its sector or activities (e.g., tailings for the undertaking in the mining sector, electronic waste for the undertaking in the consumer electronics sector, or food waste for the undertaking in the agriculture or in the hospitality sector); and
- b) the materials that are present in the waste (e.g., biomass, metals, non-metallic minerals, plastics, textiles, critical raw materials and rare earths).

~~40-39~~. The undertaking shall also disclose the total amount of hazardous waste and radioactive waste generated by the undertaking, where radioactive waste is defined in Article 3(7) of Council Directive 2011/70/Euratom.

~~41-40~~. The undertaking shall provide contextual information on the methodologies used to calculate the data and in particular the criteria and assumptions used to determine and classify products designed along circular principles under paragraph ~~37(a)-35~~. It shall specify whether the data is sourced from direct measurement or estimations; and disclose the key assumptions used.

**Disclosure Requirement E5-6 – ~~Potential~~Anticipated financial effects from material resource use and circular economy-related impacts, risks and opportunities**

~~42.41.~~ The undertaking shall disclose ~~its potential~~the anticipated financial effects of material risks and opportunities arising from resource use and circular economy-related impacts.

~~43.1. The objective of this Disclosure Requirement is to provide an understanding of:~~

~~42. potential~~The information required by paragraph 41 is in addition the information on current financial effects on the entity's financial position, financial performance and cash flows for the reporting period required under ESRS 2 SBM-3 para 48 (d). The objective of this Disclosure Requirement is to provide an understanding of:  
period required under ESRS 2 SBM-3 para 48 (d). The objective of this Disclosure Requirement is to provide an understanding of:

- a) anticipated financial effects due to material risks arising from material resource use and circular economy-related impacts and dependencies and how these risks ~~may have~~have or could reasonably be expected to have a material influence ~~(or are likely to have a material influence)~~ ~~on~~ the undertaking's ~~cash flows, performance, position, development, cost of capital or access to finance over the short, medium and long-term time horizons; and~~financial
- b) ~~potential~~anticipated financial effects due to material opportunities ~~arising from~~related to resource use and circular economy ~~related material impacts and how the undertaking may financially benefit from material resource use and circular economy-related opportunities.~~

~~44.43.~~ The disclosure shall include:

- a) a quantification of the ~~potential~~anticipated financial effects in monetary terms before considering resource use and circular economy-related actions, or where ~~impracticable~~not possible with undue cost or effort, qualitative information. For financial effects arising from material opportunities, a quantification is not required if it would result in disclosure that does not meet the qualitative characteristics of information (see ESRS 1 Appendix C Qualitative characteristics of information);
- b) a description of the effects considered, the impacts and dependencies to which they relate and the time horizons in which they are likely to materialise;
- c) the critical assumptions used into quantify the ~~estimate~~anticipated financial effects, as well as the sources and level of uncertainty ~~attached to~~of those assumptions.

~~45. In the context of this Disclosure Requirement, potential financial effects include financial effects that do not meet the recognition criteria for inclusion in the financial statement line items and notes to the financial statements.~~



**Appendix ~~BA~~A: Application Requirements**

This appendix is an integral part of the ESRS E5. It supports the application of the disclosure requirements set ~~for~~out in ~~paragraphs 1–45~~this standard and has the same authority as the other parts of the ~~Standard~~standard.

## ESRS 2 General disclosures

### Impact, risk and opportunity management

#### Disclosure requirement related to ESRS 2 IRO-1 – Description of the processes to identify and assess material resource use and circular economy-related impacts, risks and opportunities

- AR 1. When conducting a materiality assessment on environmental subtopics, the undertaking shall assess the materiality of resource use and circular economy in its own operations and its value chain, and may consider the four phases below, also known as the LEAP approach, ~~proposed by the Taskforce on Nature-Related Financial Disclosures:~~
- Phase 1: locate where in the undertaking's own operations and along the value chain ~~happen~~ the interface with nature ~~are the priority location~~ takes place;
  - Phase 2: evaluate the ~~resource use and circular economy-related~~ dependencies and impacts;
  - Phase 3: assess the material risks and opportunities;
  - Phase 4: prepare and report the results of the materiality assessment.
- AR 2. ~~The~~ With regard to ESRS E5, phases 1 and 2 rely mainly on the materiality ~~assessment for ESRS E5 corresponds to the first three assessments conducted under ESRS E1 (including energy consumption), ESRS E2 (pollution), ESRS E3 (marine resources, water consumption) and ESRS E4 (biodiversity, ecosystems, raw materials). Indeed, circular economy eventually aims at reducing the environmental impact of the use of products, materials and other resources, minimizing waste and the release of hazardous substances and hence at reducing impacts on nature. This application requirement focuses mainly on the third~~ phases of this LEAP approach, while the fourth phase addresses the outcome of the process. ~~Further guidance and materials about this approach can be found in TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework.~~
- AR 3. The process to assess the materiality of impacts, dependencies, risks and opportunities shall consider the provisions in ESRS 2 IRO-1 Description of the processes to identify and assess material impacts, risks and opportunities and IRO-2 Disclosure Requirements in ESRS covered by the undertaking's sustainability ~~statements~~ statement.
- AR 4. The sub-topics related to resource use and circular economy covered by the materiality assessment ~~under this Standard~~ include:
- resource inflows including the contribution to direct impact drivers (Resource circularity of material resource inflows, considering resource use other than water use or raw optimisation, intensity of materials (considered respectively under ESRS E3 and ESRS E4); products and renewable and nonrenewable resources;
  - dependencies on ecosystem resource outflows related to products and services; and
- ~~AR 5. Under paragraph AR 1(a), the undertaking shall consider first locating where there are areas at risks for inflows, but also for outflows and in particular circular economy strategies and waste treatment in its own operations and along the value chain.~~
- ~~c) Under paragraph AR 1(b) the undertaking shall then waste, including hazardous waste and non-hazardous waste management.~~
- ~~AR 5. In Phase 2, the undertaking shall consider evaluating impacts and dependencies. When disclosing information under paragraph AR 4 of inflows, outflows and waste based on the outcome of Phases 1 and 2 in other environmental standards and evaluating on their own the outflows and waste and their pressure on nature.~~
- ~~AR 6. In Phase 3, the undertaking may rely on primary, secondary or modelled data collection or other relevant approaches to assess material impacts, dependencies, risks and opportunities.~~
- ~~AR 7. AR 6. Based on the results of Phase 1 and 2, the undertaking shall finally shall~~ consider assessing under paragraph AR 1(b)i. the material risks and opportunities by:
- identifying transition risks and opportunities in its own operations and its ~~upstream and downstream~~ value chain ~~by the category~~, including the risk of staying in a business-as-usual scenario:
    - ~~policy~~ policy and legal, e.g., bans on the extraction and use of non-renewable resources; regulations on waste treatment;
    - ~~technology~~;
    - ~~, e.g., introduction on the market~~;
    - ~~reputation (of new technologies to replace existing use of raw products and materials);~~



~~iii. market, e.g., shifting supply, demand and financing;~~

~~iv. reputation, e.g. changing societal, customer behaviors and perceptions.~~

- b) identifying physical risks including depletion of stock and use of virgin and ~~nonvirgin~~non-virgin renewable resources, ~~decrease of virgin~~ and ~~non-virgin~~ renewable resources;
- c) identifying opportunities categorised by:
- i. resource efficiency: e.g., transition to more efficient services and processes requiring less resources, eco-design for longevity, repair, reuse, recycle, ~~byproducts~~by-products, take-back systems, decoupling activity from extraction of materials, intensifying circular material use, creation of a system that allows for dematerialization (e.g., digitisation, improving utilization rates, weight reduction); practices to ensure products and materials are collected, sorted, and reused, repaired, refurbished, remanufactured;
  - ii. markets: e.g., ~~development of demand for~~ less resource-intensive products and services, ~~diversification of business activities, and~~ new business consumption models such as product-~~asaas-~~ a-service, pay-per-use, sharing, leasing);~~;~~
  - iii. financing: e.g., access to green funds, bonds or loans;
  - iv. resilience: e.g., diversification of resources and business activities (e.g., start a new business unit ~~on ecosystem regeneration to recycle new materials~~), investing in green infrastructures, adopting recycling and circularity mechanisms that reduce the dependencies, capability of the undertaking to safeguard future stocks and flows of resources; and
  - v. reputation.

~~AR 8. When assessing material impacts, risks and opportunities, the undertaking shall consider the sub-subtopics of resource use and circular economy:~~

- ~~a) resource inflows as regards to the circularity of material resource inflows, considering separately renewable and non-renewable resources;~~
- ~~b) resource outflows including products and materials and waste taking into account the waste hierarchy;~~
- ~~c) resource use optimisation as regards the intensity of materials and products use;~~
- ~~d) the creation of circular systems including cross value chain initiatives; and~~
- ~~e) waste management (hazardous and non-hazardous wastes) while specifying the potential negative or beneficial other environmental impacts (climate change, water, pollution, biodiversity).~~

~~AR 9.~~ AR 7. The undertaking may consider the following methodologies to assess its impacts, risks and opportunities on its own operations and along its value chain: product including information provided by the EU Recommendation 2021/2279 on the use of the Environmental Footprint methods to measure and/or communicate the life cycle environmental performance of products and organizations (Annex I – Product Environmental Footprint; Annex III – Organisation Environmental Footprint (PEF, OEF),) and Material Flow Analysis (MFA), Life Cycle Assessment) from the European Environment Agency.

~~AR 10.~~ AR 8. When providing information on the outcome of the materiality assessment, the undertaking shall consider:

- a) a list of business units associated to resource use and circular economy material impacts, risks and opportunities in the context of the products and services of the undertaking and the waste it generates;
- b) a list and prioritisation of the material resources used by the undertaking;
- c) the material impacts and risks of staying in business as usual;
- d) the material opportunities related to a circular economy;
- e) the material impacts and risks of a transition to a circular economy; and
- f) the stages of the value chain where resource use, risks and negative impacts are concentrated.

## Impact, risk and opportunity management

### Disclosure Requirement E5-1 – Policies related to resource use and circular economy

~~AR 11~~AR 9. The policies described under this Disclosure Requirement may be integrated in broader environmental or sustainability policies covering different subtopics.

~~AR 12~~AR 10. When providing information on its policies, the undertaking shall consider whether and how its policies address:

- a) the waste hierarchy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g., energy recovery; and (e) disposal. In this context, the waste treatment cannot be considered as a recovery;
- b) the prioritisation of ~~strategies to avoid~~the avoidance or ~~minimise~~minimisation waste (~~Refuse, Rethink, Reduce,~~ Re-use, Repair, Refurbish, Remanufacture and Repurpose) over waste treatment ~~strategies~~ (Recycling). The concepts of ~~eco-design~~ecodesign, waste as a resource or ~~postconsumer~~post- consumer waste (at the end of a consumer-product lifecycle), should also be taken ~~in~~into consideration.

~~AR 13~~AR 11. When defining its policies, the undertaking may consider the Paper on “Categorisation system for the circular economy”, which describes circular design and production models, circular use models, circular value recovery models and circular support along the principles of the nine circular economy “R” strategies or principles: refuse, rethink, reduce, re-use, repair, refurbish, remanufacture, repurpose and recycle.

**Disclosure Requirement E5-2 – Actions and resources in relation to resource use and circular economy**

~~AR 14~~AR 12. When providing information under paragraph 17 and considering that resources are shared and that circular economy strategies may require collective actions, the undertaking may specify the actions taken to engage with its upstream and downstream value chain and/or its local ~~ecosystem~~network on the development of collaborations or initiatives increasing the circularity of products and materials.

~~AR 15~~AR 13. In particular, the undertaking may specify the following:

- a) how it contributes to circular economy, including for instance smart waste collection systems;
- b) the other stakeholders involved in the collective actions: competitors, suppliers, retailers, customers, other business partners, local communities and authorities, government agencies;
- c) a description of the organisation of the ~~project~~collaboration or initiative, including the specific contribution of the undertaking and the roles of the different stakeholders in the project: ~~sponsors and other participants~~.

~~AR 16~~AR 14. The actions may cover the undertaking's own operations and/or the value chain.

## Metrics and targets

### Disclosure Requirement E5-3 - Targets related to resource use and circular economy

~~AR 17.~~ AR 15. ~~When determining (local)-If the undertaking refers to~~ ecological thresholds to set targets, ~~the undertaking-it~~ may refer to the guidance provided by the Science-Based Targets Initiative for Nature (SBTN) ~~in its interim guidance (Initial Guidance for Business, September 2020),~~ or any other guidance with a scientifically acknowledged methodology that allows to set science-based targets by identifying ecological thresholds and, if applicable, organisation-specific allocations. Ecological thresholds can be local, national and/or global.

~~AR 18.~~ AR 16. When providing information on targets, the undertaking shall prioritise targets in absolute value.

~~AR 19.~~ AR 17. ~~The increased circular material use rate~~ When providing information targets according to be provided under paragraph 25(b) is to be understood as additional, i.e., based on 24, ~~the development of secondary material sources or~~ undertaking shall consider the production phase, the use phase, and the end of functional life of circular products for example and materials.

~~AR 20.~~ AR 18. When providing information on targets related to virgin renewable raw material under paragraph ~~2524~~ (c), the undertaking shall consider how those targets may impact biodiversity loss, also in light of ESRS E4.

~~AR 21.~~ AR 19. The undertaking may disclose other targets under paragraph ~~2524~~ (f) including in relation to sustainable sourcing. If so, the undertaking shall explain the definition of sustainable sourcing it has adopted and how it relates to the objective set out in paragraph 23.

~~AR 22.~~ AR 20. The targets may cover the undertaking's own operations and/or the value chain.

#### Disclosure Requirement E5-4 - Resource inflows

~~AR 23-AR 21.~~ ~~Resource inflows indicators refer to all products and materials used for production and packaging of products and services including materials (raw, associated process materials, and semi-manufactured goods or parts), products, packaging, plant property and equipment.~~ ~~Resource inflows~~ may cover the following categories: IT equipment, textiles, furniture, buildings, heavy machinery, mid-weight machinery, light machinery, heavy transport, mid-weight transport, light transport and warehousing equipment. ~~With regard to materials, resource inflow indicators include raw materials, associated process materials, and semi-manufactured goods or parts.~~

~~AR 24.~~ The list of “key products value chain” as defined in the EU Circular Economy mentioned in paragraph 32 is the following:

- ~~a) electronics and ICT;~~
- ~~b) batteries and vehicles;~~
- ~~c) packaging;~~
- ~~d) plastics;~~
- ~~e) textiles;~~
- ~~f) construction and buildings; and~~
- ~~g) food, water and nutrients.~~

~~AR 25-AR 22.~~ When the undertaking is subject to paragraph ~~3231~~, it may also provide transparency on the materials that are sourced from by-products/waste stream (e.g., offcuts of a material that has not previously been in a product).

~~AR 26-AR 23.~~ The denominator of the percentage indicator required under paragraphs ~~3231~~(b) and ~~3231~~(c) is the overall total weight of materials used during the reporting period.

~~AR 27-AR 24.~~ The reported usage data are to reflect the material in its original state, and not to be presented with further data manipulation, such as reporting it as “dry weight”.

~~AR 28-AR 25.~~ In cases where ~~there is an overlap between categories of~~ reused, recycled, ~~renewable categories overlap~~, the undertaking shall specify how double counting was avoided and ~~the~~ choices that were made.

## Disclosure Requirement E5-5 - Resource outflows

~~AR 29-AR 26.~~ Products and materials information to be provided under paragraph ~~36 refer~~35 refers to all materials and products that come out of the undertaking's production process and that a company puts on the market (including packaging).

~~AR 30-AR 27.~~ When compiling the ~~percentage indicator~~rate, the undertaking shall use as denominator the overall total weight of materials used during the reporting period.

~~AR 31. Products and services referred to in paragraph 37(b) may cover for instance:~~

- ~~a) prevention of waste and pollution by customers (e.g., smart waste collection system);~~
- ~~b) increase of the longevity of other products further down in the value chain;~~
- ~~c) increase recycling yield (quantity and quality) of products further down in the value chain (e.g., materials that separate adhesives from cardboard);~~
- ~~d) decrease the level of post-consumer waste.~~

~~AR 32-AR 28.~~ The undertaking may ~~also provide information on~~disclose its products and materials that are actually recirculated in practice through strategies described under paragraphs 37(a)i to 37(a)viii~~engagement in product end-of-life waste management, for example through extended producer responsibility schemes or take-back schemes.~~

~~AR 33-AR 29.~~ Type of waste is to be understood as hazardous waste or non-hazardous waste ~~for instance~~. Some specific waste, such as radioactive waste, may also be presented as a separate type.

~~AR 34-AR 30.~~ When considering the waste streams relevant to its sectors or activities, the undertaking may consider the list of waste descriptions from the European Waste Catalogue.

~~AR 35-AR 31.~~ Examples of other types of recovery operations under paragraph ~~3837~~37(b)iii may be found in Annex II of the Waste framework directive.

~~AR 36-AR 32.~~ Examples of other types of disposal operations under paragraph ~~3837~~37(c)iii may be found in Annex I of the Waste framework directive (dumping, open burning, or deep well injection for example).

~~AR 37-AR 33.~~ When providing contextual information under paragraph ~~4140~~ the undertaking may:

- a) explain the reasons for high weights of waste directed to disposal (e.g., local regulations that prohibit ~~landfilling~~landfill of specific types of waste);
- b) describe sector practices, sector standards, or external regulations that mandate a specific disposal operation; and
- c) specify whether the data has been modelled or sourced from direct measurements, such as waste transfer notes from contracted waste collectors.

**Disclosure Requirement E5-6 – ~~Potential~~Anticipated financial effects from material resource use and circular economy-related impacts, risks and opportunities**

~~AR 38.~~AR 34. When providing information under paragraph ~~4342~~(b), the undertaking may illustrate and describe ~~the business model~~how it intends to strengthen value retention.

~~AR 39.~~AR 35. The undertaking may include an assessment of its related products and services at risk over the short-, medium- and long-term time horizons, explaining how these are defined, how financial amounts are estimated, and which critical assumptions are made.

~~AR 40.~~AR 36. The quantification of the ~~potential material~~anticipated financial effects in monetary terms under paragraph ~~4443~~(a) may be a range.