

Factsheet on CSRD and ESRS E4: EU disclosure requirements on biodiversity and ecosystems

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Context CSRD

The **Corporate Sustainability Reporting Directive (CSRD)** aims to make companies report transparently on sustainability. It introduces binding reporting standards and places **sustainability reporting on an equal footing with financial reporting**. The CSRD thus expands the scope and reporting obligations of the previously existing directive on non-financial reporting (NFRD¹) to include fully comprehensive **sustainability reporting standards**, so-called "European Sustainability Reporting Standards" (ESRS). Another new important feature is that there is a comprehensive reporting standard on biodiversity and ecosystems (ESRS E4).

The CSRD is currently being transposed into national law; the sustainability standards themselves have been adopted by the Commission as delegated acts in July 2023. They are to be applied uniformly in all member states. **Sector-specific standards** are still being developed².

For the companies concerned, this means that they will have to expand their sustainability reporting, in some cases even considerably. Some of the new aspects:

- **Cross-sectoral, sector-specific and company-specific** standards are defined. In the areas of environment (E), social affairs (S) and corporate governance (G), the contents to be reported are specified with indicators and key figures.
- The principle of "**double materiality**": Both **impact materiality** (*inside-out perspective*) and **financial materiality** (*outside-in perspective*) are analysed. A sustainability aspect is considered material if it is significant either from the perspective of the *impacts* and/or from the *financial* perspective. In relation to biodiversity, it is therefore necessary to describe both the impacts the company has on biodiversity and the extent to which it is (financially) dependent on biodiversity.

Review and sanctions

As part of the business reporting, the sustainability report is subject to audit. Initially, the sustainability information is to be audited with *limited assurance*. An extension to a mandatory audit with *reasonable assurance* is possible.³

According to the Commission's specifications in the directive, significant sanctions are to be expected, but these are still being defined by the individual Member States. In Germany, non-compliance is currently subject to fines of up to the highest of the following amounts: ten million euros or 5% of the company's total annual turnover or twice the profits made or losses avoided as a result of the infringement.

Which companies are affected?⁴

- From 2025: Companies already reporting under the NFRD are required to report for 2024.
- From 2026: All large companies (with more than 250 employees) must report for the year 2025.
- From 2027: Small and medium-sized enterprises (with 10 to 249 employees) that are listed on the stock exchange must report for 2026.

¹ NFRD = a legal framework that previously required only certain large public interest entities to report on their sustainability performance since 2018.

² Several sectors are to be covered by sector-specific standards in the form of delegated acts. The following sectors are under discussion: Mining, quarrying and coal, oil and gas (midstream and downstream), oil and gas (upstream and services), road transport, agriculture, farming and fisheries. In addition, according to the planning, standards on the sectors of motor vehicles (manufacturing), textiles, food and beverages, and energy are to be adopted as delegated acts (see 2024 Commission Work Programme and EFRAG for Updates).

³ [DNK 2023](#)

⁴ Balance sheet total/net sales characteristics, see i.e.: [DNK 2023](#)

- From 2029: Non-European companies with an annual turnover of more than €150 million in the EU and either a large or listed subsidiary in the EU or a significant establishment in the EU (with a turnover of €40 million) will have to report for 2028.

Micro-enterprises and SMEs that are not listed on the stock exchange are initially not affected by the disclosure requirements. However, it is expected that large companies will request biodiversity information from their suppliers. Simplified reporting requirements for SMEs are also currently being developed as guidance and are expected in 2024.

In addition, there are so-called "**phase-ins**" for the reporting obligations on biodiversity: All companies can omit **financial** information on biodiversity (E4-6) in the **first year** in which they are obliged to report. Companies with **fewer than 750 employees** can even omit reporting on the biodiversity standard in the **first two years**. **However, it is advisable to prepare and respond to the requirements as early as possible.**

What is biodiversity?



ESRS E4 defines biodiversity as "*variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.*"

In other words, biodiversity is:

- the **diversity of species** as well as within a species (e.g. plants, animals, fungi, microorganisms...)
- the **genetic diversity** within individual species as well as the diversity of all organisms in a habitat
- the **diversity of biotopes and ecosystems** as well as ecosystem functions (e.g. pollination, water filtration...)

ESRS E4 - Reporting standard on Biodiversity and Ecosystems

In the first section the reporting standard on biodiversity and ecosystems (ESRS E4) describes general disclosures that the company has to make. In Annex A it gives more detailed explanations including templates on **how** the disclosures (can) be made. The content of the standard is divided into:

- strategy,
- how the company manages its impacts, risks and opportunities related to biodiversity,
- metrics and targets

Preceding these steps is a materiality analysis, which is described in ESRS 1, and which ESRS E4 expands to include additional aspects.

The standard is complemented by other environmental standards on climate change (ESRS E1), pollution (ESRS E2), water/marine resources (ESRS E3) and circular economy (ESRS E5). In addition, the standard must be complemented by the aspects from ESRS S3, i.e. reporting on possible negative impacts on affected communities. The standard must also always be read together with the general reporting requirements/disclosure requirements (ESRS 1, ESRS 2).

Aim of the standard

Readers of a company's sustainability report should understand:

- What influence does the company have on biodiversity? How does it contribute to biodiversity loss?
- What measures does it take to prevent, mitigate or reduce significant negative impacts on biodiversity?

- How does the company adapt its business model, strategies and plans to planetary boundaries and to international and EU biodiversity policies?
- What risks, dependencies and opportunities exist, what exactly do they look like and how does the company deal with them?
- What are the financial implications of impacts on biodiversity and dependencies on nature?

The contents of the standard

The contents mentioned here are to be seen and applied in connection with the general requirements, e.g. on strategy or materiality analysis. For simplification, the contents mentioned here only refer to ESRS E4. The contents of the standard are presented in brief. For better comprehensibility, they have been strongly condensed and interpreted or newly summarised from our point of view.⁵ The contents of this factsheet do not constitute legal advice.

1. Double materiality assessment

ESRS E4	Biodiversity and ecosystems	<ul style="list-style-type: none"> • Direct impact drivers of biodiversity loss 	<ul style="list-style-type: none"> • Climate Change • Land-use change, fresh water-use change and sea-use change • Direct exploitation • Invasive alien species • Pollution • Others
		<ul style="list-style-type: none"> • Impacts on the state of species 	Examples: <ul style="list-style-type: none"> • Species population size • Species global extinction risk
		<ul style="list-style-type: none"> • Impacts on the extent and condition of ecosystems 	Examples: <ul style="list-style-type: none"> • Land degradation • Desertification • Soil sealing
		<ul style="list-style-type: none"> • Impacts and dependencies on ecosystem services 	

Companies should analyse their business model and processes for biodiversity impacts, dependencies and risks and describe the analysis procedures - both with regard to their **own operations and the upstream and downstream supply chains**. The standard refers to the analysis of the **direct causes of biodiversity loss**⁶ (see Annex 1 graphic, as well as image p. 4), but also the **impacts on species and ecosystems**. What is important in the materiality assessment is that it must be explained **how** the company arrives at its analysis, i.e. which methodology it uses (and which parameters) and how it assesses risks. ESRS E4

Annex 1: Sustainability aspects to be considered in the materiality assessment

recommends the first three [steps of a methodology](#) developed [by the Taskforce on Nature-related Financial Disclosures TNFD, called "LEAP"](#). We give some examples of content here (not exhaustive!):

Localisation (Phase 1)	Assessment of actual or potential impacts and dependencies (phase 2)	Assessment of the main risks and opportunities (phase 3)
This step identifies current and future company-owned facilities / operations or raw materials and associated upstream and downstream value chains , and describes the current state of the biodiversity and ecosystems with which they interact.	Business processes that have actual or potential impacts and dependencies on biodiversity and ecosystems (at own sites, as well as in upstream and downstream supply chains) are described and assessed (including specification of assessment criteria). The dependencies on biodiversity and ecosystem services are also described and assessed.	In this step, physical risks as well as transition risks , the own contribution to systemic risks and opportunities are described.

In addition, it must be shown whether the company consults affected communities on the use of biological resources, and if so, in what form.

The reader should also understand **how** the company considers the **relevant impacts, risks and opportunities** identified in the materiality analysis **in its strategy and business model**. As a minimum, the company must provide a list of its sites, including identification of activities that negatively impact areas of biodiversity in need of

⁵ Further information on the structure of the standard can be found in a profile prepared by adelphi on the website <https://csrd-support.de/standard-zu-biodiversitaet-und-oekosystemen>.

⁶ Ecosystem/habitat destruction, overexploitation, climate change, pollution, invasive species.

protection, identification of protected areas, breakdown of impacts and dependencies, state of the existing ecosystem. In addition, material negative impacts related to land degradation, desertification, soil sealing and impacts on endangered species (including in supply chains) must be presented.

2. Resilience of the business model



The causes or "drivers" of biodiversity loss
Photos © Pixabay

The company must also indicate how **resilient its business model** is positioned, especially with regard to legislation and international and national biodiversity conservation targets. The reader should understand how the company organises its business model with regard to larger policy goals for biodiversity protection and how it takes these into account.

A transition plan is no longer mandatory, **but recommended**. It can show how the business model and corporate strategy contribute to compliance with planetary boundaries (related to biosphere and land) and the objectives of international biodiversity agreements and the EU

Biodiversity Strategy⁷. Forward-looking companies use a transition or action plan to adapt to future changes in a timely manner and secure competitive advantages.

3. Strategies for managing impacts, risks and opportunities

What does ESRS E4 mean by "protected areas" and "risk-prone areas"?

"Risk-prone areas" are defined in the standard as: areas with threatened species according to the IUCN Red List of Threatened Species, or with a national list of threatened species, or officially recognize

d protected areas, Natura 2000 areas (EU Birds and FFH Directive) and "Key Biodiversity Areas.

The reader should understand what **strategies** the company has chosen to **identify, assess and manage** significant impacts, risks and opportunities related to biodiversity and ecosystems. In particular, companies should explain how they strategically address the causes of biodiversity loss (both at their own site and in the value chain), e.g. in the purchase of products. Information on strategies to protect biodiversity at and around their own sites, in the area of land use or agriculture, oceans/seas, combating deforestation is expected.

4. Targets for managing impacts, risks and opportunities

Clearly defined targets should disclose how the company **implements** its strategy **as effectively as possible** with regard to impacts, dependencies and risks related to biodiversity. Among

other things, in addition to the general provisions, the following should be described:

- whether ecological thresholds (science-based) are applied and how they were determined;
- whether the targets contribute to the Kunming-Montreal Agreement, the EU Biodiversity Strategy and other policies;
- how the targets fit with the results of the materiality assessments (own sites and supply chains);
- whether compensatory measures are implemented;
- how the objectives can be classified according to the mitigation hierarchy.

⁷ See also WWF UK publication on Transition Plans ([WWF UK 2023](#)).

5. Actions and resources to implement biodiversity and ecosystem strategies and targets

The company describes the most important actions to implement the **mitigation hierarchy**⁸ and how they are financially backed. This should help the reader understand whether the company prioritises avoiding negative impacts before reducing impacts, restoring nature or simply compensating negative impacts of its activities.

If the company finances compensation measures, these should be described. It should also be reported how local and indigenous knowledge and nature-based solutions are incorporated into biodiversity and ecosystem-related measures.

6. Metrics to capture significant impacts

The ESRS E4 stipulates that companies should document their impacts on biodiversity with comprehensible **indicators**. At best, this makes negative impacts more comprehensible, measurable and comparable. It is particularly important to justify why and how certain indicators were selected. In particular, key figures on **sites in or near protected areas**, on which the company has a negative impact, e.g. including number and area in hectares, are obligatory. However, the company must also provide relevant metrics for **material land use, freshwater and/or marine use changes**.

7. Potential financial impacts of biodiversity and ecosystem-related impacts, risks and opportunities

The calculation in monetary terms is intended to help the reader understand the financial risks posed by the company's impacts and dependencies on biodiversity. This information can be omitted in the first reporting year.

Tips for getting started

- The [English translation of the ESRS E4](#) can be downloaded from the website of the EU Commission.
- adelphi has prepared the ESRS E4 and the other reporting standards (including information on materiality analysis) in detail on the [CSR-D-Support.de](#) website – in German.
- Existing reporting standards and environmental management standards such as GRI and EMAS (here: [EMAS guide on biodiversity for download](#)) can provide orientation and initial internal company data. The [GRI standard on biodiversity \(GRI 304\)](#) is also currently being revised and should fit ESRS E4.
- A [guide from Science-based Targets for Nature \(SBTN\)](#) shows which steps to biodiversity management one should follow.
- Mapping of suppliers is already relevant due to several Supply Chain Acts in different countries and is worthwhile in any case to obtain biodiversity information from your suppliers.
- Methods such as the [Biodiversity Check](#) offer an entry-level assessment along the relevant company areas and help to formulate biodiversity action plans.
- [TNFD-LEAP](#) is mentioned as a methodology for materiality analysis in ESRS E4 and forms an entry point to a structured risk assessment.
- A wide range of tools are currently being developed for materiality analysis in relation to biodiversity:
 - The [WWF Biodiversity Risk Filter](#) can provide an initial insight into the impacts of industries and also an assessment of the biodiversity risk of raw material suppliers free of charge.
 - [ENCORE](#) provides a first overview of impacts and dependencies on and of biodiversity, related to different sectors, free of charge and is particularly helpful for large product ranges.
- Free databases on protected areas (e.g. [Protectedplanet.net](#)) and development plans provide information on business locations and biodiversity.
- A discussion with biodiversity experts (e.g. from nature conservation organisations) is a good starting point!

⁸ Avoidance, reduction, restoration, transformation/compensation (depending on the model)

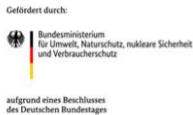
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