

Schwerpunkte E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität

Einordnung, praktische Tipps und Best Practices

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Informationen zur Tanso Akademie

Dauer

45 Minuten Input (aufgezeichnet) + 15 min Q&A.

Aufzeichnung

Die Akademie wird aufgezeichnet. Die Aufzeichnung und Folien sind im Nachgang für unsere Kunden verfügbar.

FAQ

Nutzen Sie die FAQ-Funktion, um Ihre Fragen zu stellen.

Feedback

Wir freuen uns über Ihr Feedback – bitte nehmen Sie an der Umfrage in der Follow-Up E-Mail teil.

Überblick über die Tanso Akademie

Themen

CSRD Berichterstattung: Grundlagen & ESRS 2

E1: Klimawandel

S1: Arbeitskräfte des Unternehmens

G1: Geschäftsführung
E5: Kreislaufwirtschaft

E2: Umweltverschmutzung
E3: Wasser- & Meeresressourcen
E4: Biologische Vielfalt und Ökosysteme

S2: Arbeitskräfte der Wertschöpfungskette
S3: Betroffene Gemeinschaften
S4: Verbraucher und Endnutzer

VSME

Termine

30.04.2025



07.05.2025



14.05.2025



21.05.2025



11.06.2025

25.06.2025

02.07.2025

Immer um 10:30

Unsere Zielsetzung mit der Tanso Akademie

Was sie sein soll

- ☒ ein Überblick darüber, was in jedem Standard steckt
- ☒ eine Zusammenstellung hilfreicher Tipps & Tricks bei der Beantwortung der ESRS-Datenpunkte
- ☒ eine Hilfestellung, die Euch Zeit sparen soll und die Ihr jederzeit erneut schauen könnt
- ☒ eine Orientierungshilfe wie andere Unternehmen die Datenpunkte beantworten

Was sie nicht sein soll

- ☒ eine Alternative zu einem Kick-off bzw. initialen Briefing aller Personen, die am Bericht mitarbeiten
- ☒ eine reine Zusammenfassung aller Datenpunkte und Angabepflichten
- ☒ ein Step-by-step Guide zur Umsetzung jedes einzelnen Datenpunkts



Unsere Tipps für Teilnehmende:

1. Schaut Euch die erste Hälfte der 1. Sitzung an, um einen allgemeinen Überblick über die CSRD zu bekommen
2. Nutzt die time stamps in den Videos (nach Angabepflichten), wenn Ihr bei der Beantwortung der einzelnen Datenpunkte seid
3. Habt parallel die Präsentation offen, um an die Beispiele "ranzoomen" und Euch Notizen machen zu können
4. Guckt Euch die Q&As an, um die schriftliche Antwort auf Fragen und Links zu den hilfreichen Unterlagen zu finden

Unsere Zielsetzung mit der Tanso Akademie

Aufzeichnungen

CSRD Grundlagen & ESRS 2

Inhalte:

- Wie hängen die CSRD und der ESRS zusammen?
- Wie sind die ESRS aufgebaut?
- Was ist das Zielbild und Endergebnis der CSRD?
- Was gibt es für unterschiedliche Arten von Datenpunkten?
- Was steckt hinter den Datenpunkten in ESRS 2?

Material:

- [Folien](#)
- [FAQ](#)

Zur Aufzeichnung

Schwerpunkt: E1

Inhalte:

- Aufbau des Standards E1
- Welche Informationen müssen Sie in E1 berichten?
- Was sind Beispiele und Hilfsmaterialien für eine Erarbeitung der E1 Datenpunkte?

Material:

- [Folien](#)
- [FAQ](#)

Zur Aufzeichnung

Schwerpunkt: S1

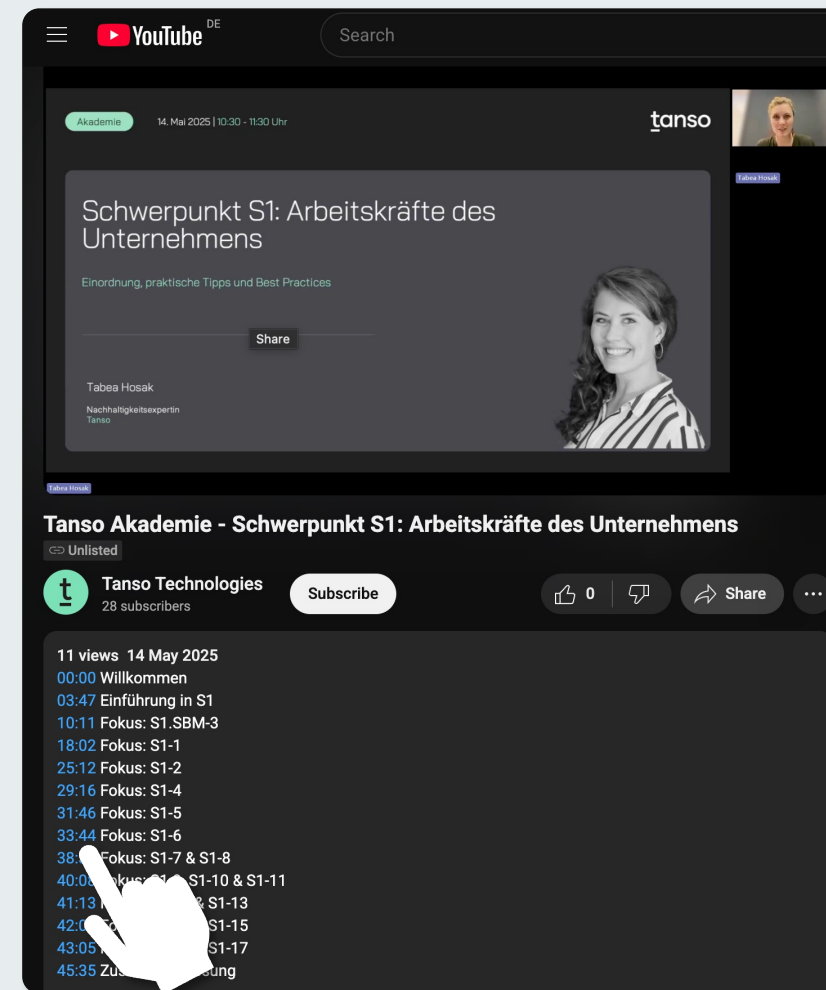
Inhalte:

- Aufbau des Standards S1
- Welche Informationen müssen Sie in S1 berichten?
- Was sind Beispiele und Hilfsmaterialien für eine Erarbeitung der S1 Datenpunkte?

Material:

- [Folien](#)
- [FAQ](#)

Zur Aufzeichnung



Inhalte dieser Folge

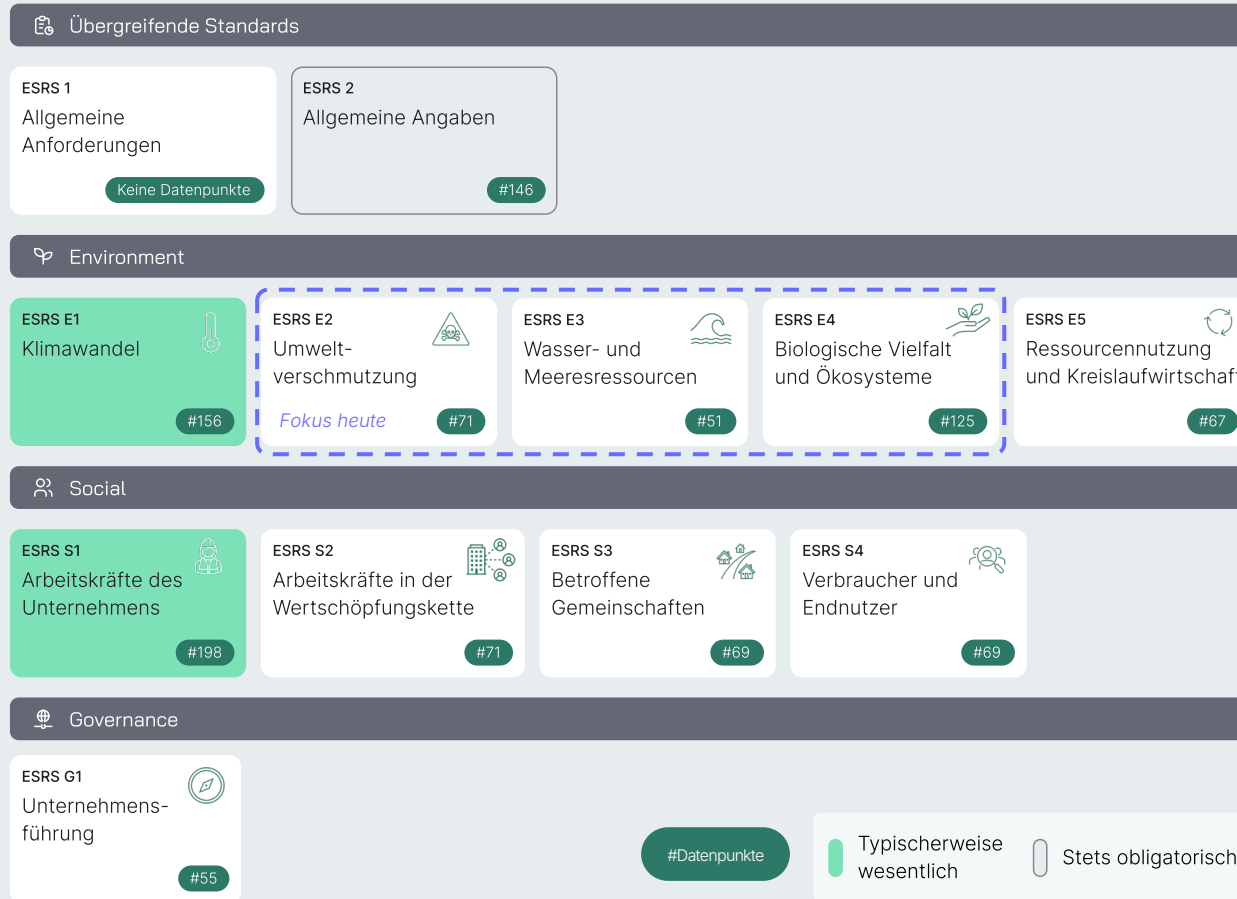
- 1 Einführung in E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität
- 2 Fokus: Datenpunkte des E2 - Umweltverschmutzung
- 3 Fokus: Datenpunkte des E3 - Wasser
- 4 Fokus: Datenpunkte des E4 - Biodiversität
- 5 Zusammenfassung & Ausblick
- 6 Fragen & Antworten

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Die ESRS verpflichten in zwei allgemeinen und **zehn thematischen Standards** zur Offenlegung von fast **1.200 Datenpunkten**

Recap Session #1



Die Europäischen Nachhaltigkeitsberichterstattungsstandards (ESRS)

- Entwickelt von **EFRAG** (European Financial Reporting Advisory Group), einer gemeinnützigen Organisation mit ExpertInnen für Finanz- und Nachhaltigkeitsberichterstattung
- Legen die konkreten **Offenlegungspflichten** der CSRD fest
- Bestehen aus **2 allgemeinen** und **10 themenspezifischen** Standards
- ESRS 2 ist verpflichtend für alle Unternehmen. Alle anderen Standards hängen von der **Doppelten Wesentlichkeitsanalyse (DWA)** ab
- Insgesamt enthalten die ESRS 1178 Berichtspflichten (Datenpunkte)
- Besonders relevant für Industrieunternehmen: ESRS E1 (Klima) und S1 (eigene Mitarbeitende)

(Unter-)Unterthemen aus der Doppelten Wesentlichkeitsanalyse

E2: Umweltverschmutzung

- ☑ Luftverschmutzung
- ☑ Wasserverschmutzung
- ☑ Bodenverschmutzung
- ☑ Verschmutzung von lebenden Organismen und Nahrungsressourcen
- ☑ Besorgniserregende Stoffe
- ☑ Besonders besorgniserregende Stoffe
- ☑ Mikroplastik

E3: Wasser- und Meeresressourcen

Wasser:

- ☑ Wasserverbrauch
- ☑ Wasserentnahme
- ☑ Ableitung von Wasser

Meeresressourcen:

- ☑ Ableitung von Wasser in Ozeane
- ☑ Gewinnung und Nutzung von Meeresressourcen

E4: Biologische Vielfalt und Ökosysteme

Direkte Ursachen des Biodiversitätsverlusts:

- ☑ Klimawandel
- ☑ Landnutzungsänderungen, Süßwasser- und Meeresnutzungsänderungen
- ☑ Direkte Nutzung
- ☑ Invasive gebietsfremde Arten
- ☑ Umweltverschmutzung
- ☑ Sonstige

Auswirkungen auf den Umfang und den Zustand von Ökosystemen:

- ☑ Landdegradation
- ☑ Wüstenbildung
- ☑ Bodenversiegelung

Auswirkungen auf den Artenzustand:

- ☑ Populationsgröße von Arten
- ☑ Globales Ausrottungsrisiko von Arten

Auswirkungen und Abhängigkeiten von Ökosystemdienstleistungen
(keine Unter-Unter-Themen)

Inhalte dieser Folge

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Aufbau ESRS E2: Umweltverschmutzung



= ab dem ersten Jahr berichtspflichtig

Datenpunkte sind in sogenannte Angabepflichten (DRs¹) gegliedert

ID	ESRS	DR	Paragraph	Related AR	Name	Data Type	Conditional or alternative DP	May [V]
E2.IRO-1_01	E2	E2.IRO-1	11 a	AR 1- AR 8	Information about the process to identify actual and potential pollution-related impacts, risks and opportunities	narrative		
E2.IRO-1_02	E2	E2.IRO-1	11 b		Disclosure of whether and how consultations have been conducted (pollution)	narrative		
E2.IRO-1_03	E2	E2.IRO-1	AR 9		Disclosure of results of materiality assessment (pollution)	narrative		
E2.MDR-1_01-06	E2	E2	15	AR 10	Policies to manage its material impacts, risks and opportunities related to pollution (see ESRS 2 MDR-1)	narrative		
E2-1_01	E2	E2-1	15 a	AR 11	Disclosure of whether and how policy addresses mitigating negative impacts related to pollution of air, water and soil	narrative		
E2-1_02	E2	E2-1	15 b	AR 11	Disclosure of whether and how policy addresses substituting and minimising use of substances of concern and phasing	narrative		
E2-1_03	E2	E2-1	15 c		Disclosure of whether and how policy addresses avoiding incidents and emergency situations, and if and when they occur	narrative		
E2-1_04	E2	E2-1	AR 12		Disclosure of contextual information on relations between policies implemented and how policies contribute to EU Action	narrative		V
E2.MDR-2_07-08	E2	E2-2	16		Disclosures to be reported in case the undertaking has not adopted policies			
E2.MDR-4_01-12	E2	E2-2	16		Actions and resources in relation to pollution (see ESRS 2 MDR-4)			
E2-2_01	E2	E2-2	19		Layer in mitigation hierarchy to which action can be allocated to (pollution)	semi-narrative		V
E2-2_02	E2	E2-2	AR 13		Action related to pollution extends to upstream/downstream value chain engagements	semi-narrative		
E2-2_03	E2	E2-2	19	AR 14	Layer in mitigation hierarchy to which resources can be allocated to (pollution)	semi-narrative		V
E2-2_04	E2	E2-2	AR 15		Information about action plans that have been implemented at site-level (pollution)	narrative	Conditional	V
E2.MDR-4_13-14	E2	E2-2	16		Disclosures to be reported in the undertaking has not adopted actions			
E2.MDR-1_01-11	E2	E2-3	23	AR 16	Tracking effectiveness of policies and actions through targets (see ESRS 2 MDR-1)			
E2-3_01	E2	E2-3	23 a		Disclosure of whether and how target relates to prevention and control of air pollutants and respective specific loads	narrative		
E2-3_02	E2	E2-3	23 b		Disclosure of whether and how target relates to prevention and control of emissions to water and respective specific loads	narrative		
E2-3_03	E2	E2-3	23 c		Disclosure of whether and how target relates to prevention and control of pollution to soil and respective specific loads	narrative		
E2-3_04	E2	E2-3	23 d		Disclosure of whether and how target relates to prevention and control of substances of concern and substances of very	narrative		
E2-3_05	E2	E2-3	24	AR 16	Ecological thresholds and entity-specific allocations were taken into consideration when setting pollution-related target	semi-narrative		V
E2-3_06	E2	E2-3	24 a	AR 16	Disclosure of ecological thresholds identified and methodology used to identify ecological thresholds (pollution)	narrative	Conditional	V
E2-3_07	E2	E2-3	24 b	AR 16	Disclosure of how ecological entity-specific thresholds were determined (pollution)	narrative	Conditional	V
E2-3_08	E2	E2-3	24 c	AR 16	Disclosure of how responsibility for respecting identified ecological thresholds is allocated (pollution)	narrative	Conditional	V
E2-3_09	E2	E2-3	25		Pollution-related target is mandatory (required by legislation)/voluntary	semi-narrative		
E2-3_10	E2	E2-3	AR 17		Pollution-related target addresses shortcomings related to Substantial Contribution criteria for Pollution Prevention and	semi-narrative		V
E2-3_11	E2	E2-3	AR 18		Information about targets that have been implemented at site-level (pollution)	narrative	Conditional	V
E2.MDR-1_14-19	E2	E2-3	23		Disclosures to be reported if the undertaking has not adopted targets			
E2-4_01	E2	E2-4	28 a	AR 21 - 22	Pollution of air, water and soil (multiple dimensions: at site level or, by type of source, by sector or by geographical area)	Table		
E2-4_02	E2	E2-4	28 a	AR 21 - 22	Emissions to air by pollutant	Table/mass		
E2-4_03	E2	E2-4	28 a	AR 21 - 22	Emissions to water by pollutant [+ by sectors/Geographical Area/Type of source/site location]	Table/mass		
E2-4_04	E2	E2-4	28 a	AR 21 - 22	Emissions to soil by pollutant [+ by sectors/Geographical Area/Type of source/site location]	Table/mass		
E2-4_05	E2	E2-4	28 b	AR 20	Microplastics generated and used	mass	Alternative	

1) Disclosure Requirements | 2) nicht markierte Angabepflichten fallen unter die Übergangsregelung für alle Unternehmen und sind im 1. verpflichtenden Jahr nicht berichtspflichtig

E2.IRO-1) IRO-Ermittlung & E2-1) Konzepte

E2.IRO-1) Auswirkungen, Chancen und Risiken (IROs) & E2-1) Konzepte, inkl. MDR-P (P = Policies)

E2.IRO-1: Verfahren zur Ermittlung der IROs

- ✓ E2.IRO-1_01: Prüfung der eigenen Aktivitäten sowie die Wertschöpfungskette auf wesentliche IROs, einschließlich Methoden & Annahmen
- ✓ E2.IRO-1_02: Durchgeführte Konsultationen (inkl. betroffene Gemeinschaften)
- ✓ E2.IRO-1_03: Ergebnisse der Doppelten Wesentlichkeitsanalyse

E2-1: Konzepte Umweltverschmutzung

- ✓ E2-1_01: Konzept zur Vermeidung von Umweltverschmutzung (Luft, Wasser & Boden)
- ✓ E2-1_02: Konzept zum Ersatz und Reduktion von SoC & Ausstieg von SVHC
- ✓ E2-1_03: Konzept zur Vermeidung von Vor- und Notfällen und Schadenbegrenzung

E2-1_04 (v): Bezug zu EU-Aktionsplan „Towards Zero Pollution for Air, Water and Soil“

E2.MDR-P: Mindestangaben zu Konzepten

- ✓ E2.MDR-P_01/ 02: Beschreibung der wesentlichen Inhalte / Umfang der Konzepte
- ✓ E2.MDR-P_03: Höchste Verantwortung für Umsetzung der Konzepte
- E2.MDR-P_04: Einhaltung von Drittanbieter-Standards oder -Initiativen durch Konzepte
- E2.MDR-P_05: Berücksichtigung der Interessen wichtiger Stakeholder in Konzepten
- E2.MDR-P_06: Bereitstellung der Konzepte für betroffene Stakeholder & Mitwirkende
- E2.MDR-P_07 / 08 (v): Gründe für Nichtvorliegen / Zeitrahmen bis Einführung

07 & 08 in EFRAG Update ergänzt (Dez 24)

Quelle: Kemira Annual Report 2024, S. 91, 92, 115-116 & 155

✓ = im Beispielbericht markiert

kemira

MATERIAL IMPACTS, RISKS AND OPPORTUNITIES

Stakeholder Engagement

E2 Pollution

Policy & Procurement

FAQ ID 1060

Konsultation betroffener Gemeinschaften (E2.IRO-1_02)

Besorgniserregende Stoffe = Substances of concern (SoC)

Besonders besorgniserregende Stoffe = Substances of high concern (SVHC)

EU-Aktionsplan „Schadstofffreiheit von Luft, Wasser und Boden“ (Link)

- Ziel: Umweltverschmutzung bis 2050 auf ein Niveau zu senken, das nicht mehr als schädlich für Gesundheit und Ökosysteme gilt.
- Maßnahmen (e.g., EUO 7-Normen) und Ziele (e.g., 50% weniger Plastikmüll im Meer)

E2-2) Maßnahmen im Zusammenhang mit Umweltverschmutzung

E2-2) Maßnahmen, inkl. MDR-A (A = Actions)

E2-2: Maßnahmen Umweltverschmutzung

- ✓ E2-2_01 (v): Einordnung der Maßnahme in Minderungshierarchie
- ✓ E2-2_02: Maßnahme betrifft gesamte Wertschöpfungskette
- E2-2_03 (v): Ressourceneinsatz entlang der Minderungshierarchie
- E2-2_04 (v): Informationen zu standortbezogene Maßnahmenpläne

E2.MDR-A: Mindestangaben zu Maßnahmen

- ✓ E2.MDR-A_01/02/03: Zentrale Maßnahme / Anwendungsbereich / Zeithorizont
- E2.MDR-A_04: Beschreibung & Ergebnisse zur Unterstützung Betroffener (Auswirkungen)
- E2.MDR-A_05: Informationen zum Fortschritt von Maßnahmen aus früheren Berichten
- E2.MDR-A_06 / 07: Art der Ressourcen / Bezug zu Beträgen in Finanzberichten
- E2.MDR-A_08 (v): Finanzielle Ressourcen nach Zeithorizont und Ressourcenart
- E2.MDR-A_09/10 & 11/12: Aktuelle & zukünftige dem Aktionsplan zugewiesene CapEx / OpEx
- E2.MDR-A_13 / 14: Gründe für fehlende Maßnahmen / ggf. Zeitplan bis zur Einführung

13 & 14 in EFRAG Update ergänzt (Dez 24)

ACTIONS RELATED TO POLLUTION

02 02 01

Actions to prevent environmental incidents in our own operations

Kemira's certified Integrated Management System includes the development of global and site level standards and procedures to comply with permit and regulatory requirements associated with pollution. Kemira continuously improves performance to mitigate negative impacts related to pollution to air, water and soil, including preventative actions. For the minimum requirements to prevent environmental incidents Kemira has spill prevention, process safety and maintenance standards. All incidents resulting in impacts to air, water and soil and the related documentation, on incident investigations for example, are reported in Kemira's incident reporting system. Kemira's management systems are audited both internally and externally to evaluate conformance against the latest ISO 9001, ISO 14001 and ISO 45001 standards.

Kemira's sites develop local procedures to implement actions required by their permits and the underlying regulations. All Kemira sites have environmental permits and pollution control technology compliant with Best Available Techniques (BAT) requirements. This includes scrubbers and baghouses for air emissions, and onsite wastewater treatment or connection to third-party wastewater treatment, to comply with applicable environmental requirements. In addition to management system audits, Kemira has a third-party legal compliance audit program. Third-party EHS legal compliance audits are conducted annually, by a sampling of sites. Verification of EHS legal compliance is also provided annually by all sites, as part of the environmental performance data collection and reporting processes. Kemira's robust management system requires all sites and auditors to report spills as well as non-compliance cases to Kemira's EHSQ function, using the internal incident reporting tool.

For emergency situations, Kemira applies precautionary principles and has different mechanisms, processes and procedures to identify, prevent and mitigate negative impacts. Mitigation measures include emergency response and crisis management processes which are first response activities, in case of incidents and accidents but also in case of business interruptions. To ensure continuous improvements, we conduct a root cause analysis to identify both improvements and corrective actions. Kemira has an Emergency Planning and Preparedness standard which establishes sufficient emergency response capability to protect personnel, equipment and the community during emergencies. The primary focus of the emergency response is the safe containment of an incident and the minimization of effects upon employees and the surrounding community.

In addition to the Integrated Management System and EHS legal compliance auditing programs and several site level technical improvements, Kemira launched a Global Safety Training Program for all shop floor supervisors in 2023. The objective of the program is to improve safety culture at the manufacturing sites on shop floor level, from EHSQ Managers to supervisors and from supervisors to employees. Shift supervisors at all manufacturing sites were trained by the end of 2023. The program focuses on all safety topics including spill prevention and environmental compliance. In 2024 Kemira also continued the Transportation Safety enhancement program in EMEA that aims to improve the daily safety of Kemira's transportation operations through enhanced processes and aligned roles and responsibilities across the organization. The focus is on shipment document compliance, delivery operations and manufacturing site operations, including spill prevention concerning the carriers. The program was started in 2023 and it is expected to continue until mid 2025.

Actions to manage environmental liabilities

Kemira has environmental liabilities related to former activities. Financial environmental provisions for the costs of remediation work have been made in cases where it has been possible to measure Kemira's liability for soil, groundwater or sediment contamination and any post-treatment or post-monitoring obligations. More detailed information on these environmental provisions can be found in the Financial statement note 4.6 Provisions. Kemira has a process to manage and to review the status of environmental liabilities. The status of environmental projects and associated provisions is reviewed quarterly by the EHSQ and Finance & Accounting functions. Kemira has ongoing remediation projects to manage environmental liabilities. In cases of mergers and acquisitions, the assessment of potential liabilities is always carried out in accordance with Kemira's Environmental Due Diligence process.

The 2024 key actions to manage environmental liabilities included continuation of a soil and landfill remediation project at a former manufacturing site located in Vaasa, Finland. Soil remediation started in 2022. The site was historically contaminated with heavy metals and pesticides. In addition to the project in Vaasa, Kemira also conducted some smaller scale remediation projects in 2024.

Actions to manage pollution to air, water and soil in upstream value chain

For actions to manage pollution to air, water and soil in the upstream value chain see actions disclosed in the E5 Resource Use and Circular Economy section.

Actions to manage substances of concern and very high concern

Kemira actively monitors its portfolio, including raw materials, intermediates and process chemicals for substances of concern and substances of very high concern, in accordance with our priority substance management process. We prepare management plans for these priority substances aimed at defining the specific risks associated with each substance, examining options for managing these specific risks and formulating action plans for preferred options. These options to mitigate risks may include, for example, substitution, phase-out or limiting exposure. Possible mitigation actions could include delivering more sustainable products by replacing substances of concern when selecting raw materials for product development with Research and Development.

Quelle: Kemira Annual Report 2024, S. 116-117

= im Beispielbericht markiert

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E2-4: ●
Luft-, Wasser-,
& Bodenver-
schmutzung

-

METRICS RELATED TO POLLUTION

POLLUTION TO AIR, WATER AND SOIL

Kemira collects data centrally and annually on emissions of air pollutants and effluent from all manufacturing sites. The total emissions and amounts of each pollutant emitted to air and water were in accordance with ESRs E2-4. In 2024, Kemira had no significant emissions to soil.

Emissions to air, water and land by pollutant, tonnes	2024	2023
Ammonia (to air)	8.7	12.5
Non-methane volatile organic compounds (to air) *	581.9	569.4

* Cutting oil emission at a site located in the UK where cutting oil is classified as volatile organic compound.

The emissions to air from own operations are estimated based on direct measurements, published emission factors, mass balance or engineering calculations. Measurement methodologies, for example if based on continuous measurements or campaigns, vary between manufacturing sites. The environmental permits of all sites where emissions exceed the thresholds stated in the European Pollutant Release and Transfer Register (E-PRTR) regulation Annex II allow emission of these substances. The emissions reported in the tables represent the consolidated amount from all Kemira sites where the threshold is exceeded.

BVT = Beste verfügbare Techniken

- Effizientesten / fortschrittlichsten Vermeidungstechniken (-Verringerung) von Emissionen und der Auswirkungen auf die Umwelt
- Enthalten in BVT-Schlussfolgerungen und BVT-Merkblättern
- Verbindliche BVT-Emissionswerte
- „Abweichungen nur unter bestimmten Voraussetzungen“ (siehe Art. 15(4) IED)

Mehr Infos auf der [Seite des Bundes Umweltamtes](#)

IED = Industrieemissionsrichtlinie 2010/75

E2-4) Deep Dive: Schadstoffe und Schwellenwerte

Welche Emissionen müssen berichtet werden?

Alle in Anhang II [Verordnung \(EG\) Nr. 166/2006](#) aufgelisteten Schadstoffe:

Anhang II Schadstoffe				Schwellenwerte			
Nr.	CAS-Nummer	Schadstoff	Schwellenwert für die Freisetzung (t/Jahr)	Schwellenwert für die Freisetzung (t/Jahr)	Schwellenwert für die Freisetzung (t/Jahr)	Schwellenwert für die Freisetzung (t/Jahr)	Schwellenwert für die Freisetzung (t/Jahr)
1	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
2	430-04	Kohlendioxid (CO ₂)	100 000	100 000	100 000	100 000	100 000
3	130-04	Kohlendioxid (CO ₂)	100 000	100 000	100 000	100 000	100 000
4	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
5	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
6	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
7	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
8	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
9	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
10	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
11	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
12	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
13	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
14	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
15	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
16	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
17	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
18	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
19	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
20	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
21	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
22	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
23	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
24	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
25	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
26	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
27	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
28	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
29	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
30	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
31	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
32	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
33	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
34	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
35	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
36	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
37	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
38	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
39	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
40	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
41	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
42	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
43	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
44	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
45	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
46	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
47	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
48	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
49	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
50	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
51	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
52	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
53	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
54	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
55	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
56	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
57	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
58	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
59	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
60	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
61	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
62	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
63	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
64	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
65	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
66	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
67	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
68	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
69	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
70	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
71	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
72	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
73	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
74	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
75	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
76	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
77	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
78	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
79	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
80	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
81	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
82	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
83	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
84	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
85	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
86	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
87	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
88	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
89	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
90	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
91	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
92	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
93	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
94	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
95	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
96	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
97	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
98	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
99	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000
100	7440-4	Ammoniak (NH ₃)	100 000	100 000	100 000	100 000	100 000

- Treibhausgasemissionen, die unter ESRS E1 (Klimawandel) berichtet werden sind ausgeschlossen:
- Kohlendioxid (CO₂)
 - Methan (CH₄)
 - Distickstoffoxid (N₂O)
 - Fluorkohlenwasserstoffe (FKW / HFKW)
 - Perfluorierte Kohlenwasserstoffe (PFC)
 - Schwefelhexafluorid (SF₆)
 - Stickstofftrifluorid (NF₃)

Was muss beachtet werden?

Die Mengenangabe muss konsolidiert für jeden Schadstoff erfolgen. Das heißt:

- Es werden alle Emissionen aus den Anlagen berücksichtigt, über die das Unternehmen finanzielle Kontrolle oder betriebliche Kontrolle hat
- Es werden nur Anlagen berücksichtigt, bei denen die Schwellenwerte für die Freisetzung gemäß Anhang II Verordnung (EG) Nr. 166/2006 überschritten werden
 - z.B. der Schwellenwert für die Freisetzung von Feinstaub (PM₁₀) in die Luft liegt bei 50.000 kg/Jahr

E2-5) (Besonders) besorgniserregende Stoffe & E2-6) finanzielle Effekte

E2-5) (Besonders) besorgniserregende Stoffe & E2-6) Erwartete finanzielle Effekte

E2-5: **Besorgnis-
erregende und
besonders
besorgnis-
erregende
Stoffe**

- ✓ E2-5_01: Gesamtmenge der eingesetzten/erzeugten/beschafften SoC, nach Gefahrenklasse
- E2-5_02: Gesamtmenge der eingesetzten/erzeugten/beschafften SoC
- ✓ E2-5_03: Gesamtmenge SoC als Emission, in Produkten oder Dienstleistungen
- ✓ E2-5_04: Menge der SoC als Emissionen, nach Gefahrenklassen
- ✓ E2-5_05 / 06 / 07: Menge der SoC in Produkten / Produktbestandteilen / Dienstleistungen, nach Gefahrenklassen
- ✓ E2-5_08: Gesamtmenge der eingesetzten/erzeugten/beschafften SVHC, nach Gefahrenklassen
- ✓ E2-5_09: Gesamtmenge SVHC als Emission, in Produkten oder Dienstleistungen
- E2-5_10: Menge der SVHC als Emissionen, nach Gefahrenklasse
- ✓ E2-5_11 / 12 / 13: Menge der SVHC in Produkten / Produktbestandteilen / Dienstleistungen, nach Gefahrenklasse

E2-6: **Erwartete
finanzielle
Effekte durch
wesentliche
Risiken und
Chancen**

- E2-6_01: Quantitative Angaben zu erwarteten finanziellen Auswirkungen
- E2-6_02 / 03: Prozentanteil Nettoumsatz mit Produkten und Dienstleistungen, die SoC bzw. SVHC enthalten
- ✓ E2-6_04 / 05: OpEx / CapEx bei schwer-wiegenden Umweltverschmutzungsvorfällen
- E2-6_06: Rückstellungen für Umweltschutz- und Sanierungskosten
- E2-6_07: Qualitative Angaben zu erwarteten finanziellen Auswirkungen
- E2-6_08: Betrachteten Auswirkungen, Folgeeffekte und Zeitrahmen
- E2-6_09: Annahmen zur Quantifizierung finanzieller Auswirkungen, inkl. Unsicherheiten
- E2-6_10: Verursachte Umweltverschmutzungen mit finanziellen Auswirkungen
- E2-6_11 (v): Bewertung betroffener Produkte/Dienstleistungen

Alle E2-6 (exkl. E2-6_05 & 05) Angaben müssen erst ab dem 2. bzw. 3. Jahr berichtet werden

Quelle: Kemira Annual Report 2024, S. 118

✓ = im Beispielbericht markiert

SUBSTANCES OF CONCERN AND SUBSTANCES OF VERY HIGH CONCERN

Volumes of substances of concern and substances of very high concern in raw materials, intermediates or Kemira products are calculated based on the material compositions interlinked to sourcing, production and sales data maintained in Kemira's system. Kemira does not centrally collect data on amounts of substances of concern and very high concern that leave facilities as emissions. Collection of the data is planned within the next two years.

	2024
Substances of very high concern, tonnes	
Total amount of SVHC that are generated or used during production or that are procured	13,945
Carcinogenic (Article 57a)	11,411
Persistent, Bioaccumulative and Toxic (Article 57b)	8
Toxic for reproduction (Article 57c)	1,959
Endocrine disrupting properties (Article 57d - environment)	21
Respiratory sensitising properties (Article 57f) - human health	546
Total amount of SVHC that leave facilities as emission, as products, or as part of products or services	3,526
Total amount of SVHC that leave facilities as part of products	739
Carcinogenic (Article 57a)	666
Endocrine disrupting properties (Article 57d) - environment	2
Respiratory sensitising properties (Article 57f) - human health	71
Total amount of SVHC that leave facilities as products	2,787
Carcinogenic (Article 57a)	2,469
Respiratory sensitising properties (Article 57f) - human health	318

Substances of concern, tonnes

Total amount of substances of concern that are generated or used during production or that are procured

	2024
Total amount of substances of concern that are generated or used during production or that are procured	214,052
Carcinogenicity categories 1 and 2	61,100
Germ cell mutagenicity categories 1 and 2	2,201
Reproductive toxicity categories 1 and 2	5,524
Respiratory sensitisation category 1	11,713
Skin sensitisation category 1	125,715
Chronic hazards to the aquatic environment categories 1 to 4	1,788
Specific target organ toxicity, repeated exposure categories 1 and 2	5,200
Specific target organ toxicity, single exposure categories 1 and 2	611
Total amount of substances of concern that leave facilities as emission, as products, or as part of products or services	74,814
Total amount of substances of concern that leave facilities as part of products	20,730
Carcinogenicity categories 1 and 2	304
Reproductive toxicity categories 1 and 2	971
Skin sensitisation category 1	13,890
Chronic hazards to the aquatic environment categories 1 to 4	671
Specific target organ toxicity, repeated exposure categories 1 and 2	4,859
Specific target organ toxicity, single exposure categories 1 and 2	35
Total amount of substances of concern that leave facilities as products	54,084
Germ cell mutagenicity categories 1 and 2	1,155
Reproductive toxicity categories 1 and 2	1,655
Skin sensitisation category 1	50,911
Specific target organ toxicity, repeated exposure categories 1 and 2	363

The Group's reporting principles

Kemira's data on pollution to air, water and soil in own operations is limited to manufacturing sites with environmental permits. The following Kemira operations are excluded:

- Kemira's R&D centers located in Atlanta, USA; Shanghai, China; and Espoo, Finland.
- Sites that have limited emissions to air, water and soil and no environmental permits and are not required to report emissions of air, water and soil to authorities.
- Kemira's corporate headquarters in Helsinki, Finland and other corporate offices, sales offices and warehouses, if different from the sites' locations.
- Sites that have limited emissions to air, water and soil and no environmental permits and are not required to report emissions of air, water and soil to authorities.
- Tolling and contract manufacturers:
 - In 2024, less than 1% of Kemira sales volumes (in terms of quantity) came from tolling plants and contract manufacturers. On this basis pollution to air, water and soil at toll and contract manufacturers is assumed to be limited and not material.

Kemira has no significant operational expenditures (OpEx) or capital expenditures (CapEx) as defined in ESRS to report related to implementations of the actions.

Measurements of the metrics are not validated by an external body other than Ernst & Young Oy through assurance.

FAQ ID 472

Was ist der Schwellenwert für eine schwerwiegende Umweltverschmutzung (E2-6)?

Kein fester Schwellenwert – Einstufung erfolgt über DWA. Entscheidend ist, ob Umwelt- oder finanzielle Auswirkungen wesentlich sind.

Orientierung für die Einstufung:

- Materieller Einfluss auf Umwelt oder Finanzen (kurz-, mittel-, langfristig)
- Hohe Betriebskosten oder Investitionen in Reaktion auf ein Ereignis
- Ereignis erfüllt die Definition eines „schwerwiegenden Unfalls“ nach:
 - Seveso-III-Richtlinie: große Emission, Explosion, Brand mit ernsthafter Gefahr für Umwelt oder Gesundheit
 - Industrieemissionsrichtlinie (IED): Ereignis mit erheblicher Umweltwirkung, ggf. auch grenzüberschreitend

E2-5) Deep Dive: (Besonders) besorgniserregende Stoffe

Besorgniserregende Stoffe (SoC)¹

SoC ist die Oberkategorie und umfasst:

- 1. Stoffe mit gefährlichen Eigenschaften (z.B. krebserregend) gemäß [Verordnung \(EG\) Nr. 1272/2008](#) (Globally Harmonised System - CLP) Anhang VI
- 2. Stoffe, die Wiederverwendung / Recycling behindern (laut Ökodesign, sobald verfügbar)
- 3. SVHC nach [Verordnung \(EG\) 1907/2006](#) (REACH) Art. 57 & 58

Besonders besorgniserregende Stoffe (SVHC)¹

SVHC sind eine Teilmenge der SoC und streng geregelt nach REACH, z.B Stoffe die:

- Krebserregend, erbgutschädigend, fortpflanzungsgefährdend (CMR-Stoffe),
- Persistent, bioakkumulierend, toxisch (PBT/vPvB),
- Hormonell wirksam (endokrine Disruptoren) sind.

Eine Liste aller SVHC: [REACH SVHC Candidate List](#) von ECHA (European Chemical Agency)

Wesentlichkeitseinschätzung

Bei der Einschätzung der Wesentlichkeit von SoC und SVHC können Unternehmen u.a. folgendes beachten:

- Menge des Stoffs (s. Grenzwerte)
- Finanzielle Relevanz (d.h.: Könnte der SVHC auf der Verbotsliste der EU landen?)

Definition SoC & SVHC in ESRS Annex II

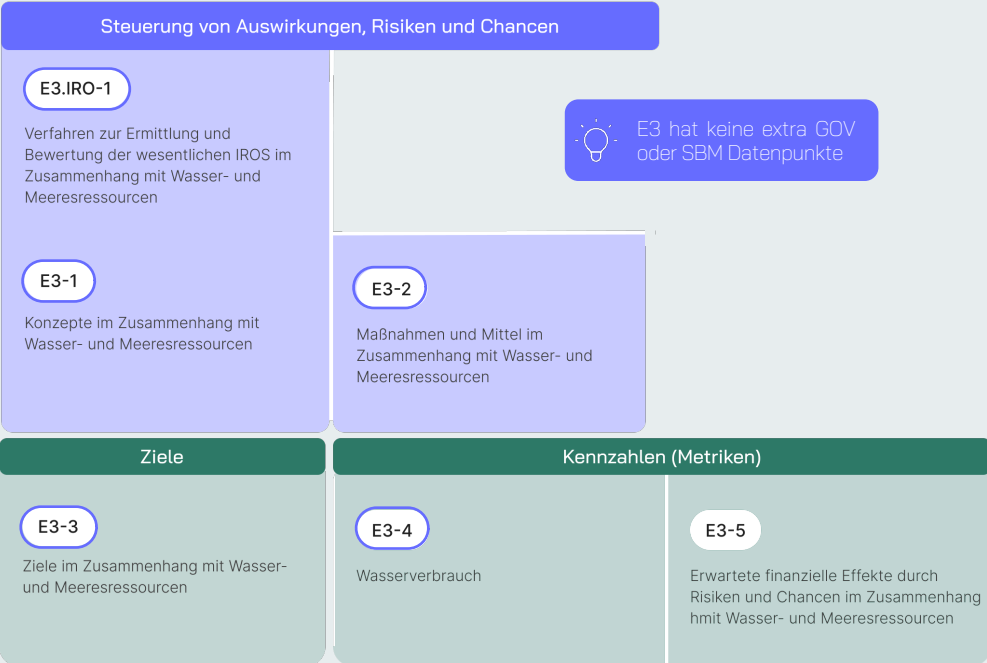
Besorgniserregende Stoffe	Stoffe, die
	i. die in Artikel 57 festgelegten Kriterien erfüllen und gemäß Artikel 59 Absatz 1 der Verordnung (EG) Nr. 1907/2006 des Europäischen Parlaments und des Rates ⁽¹⁵⁾ ermittelt wurden, ii. in Anhang VI Teil 3 der Verordnung (EG) Nr. 1272/2008 des Europäischen Parlaments und des Rates ⁽¹⁶⁾ in eine der folgenden Gefahrenklassen oder Gefahrenkategorien eingestuft ist: — Karzinogenität der Kategorien 1 und 2, — Keimzell-Mutagenität der Kategorien 1 und 2, — Reproduktionstoxizität der Kategorien 1 und 2, — endokrine Disruption mit Wirkung auf die menschliche Gesundheit, — endokrine Disruption mit Wirkung auf die Umwelt, — persistente, mobile und toxische Eigenschaften oder sehr persistente, sehr mobile Eigenschaften, — persistente, bioakkumulierbare und toxische Eigenschaften oder sehr persistente und sehr bioakkumulierbare Eigenschaften, — Sensibilisierung der Atemwege der Kategorie 1, — Sensibilisierung der Haut der Kategorie 1, — chronisch gewässergefährdend der Kategorien 1 bis 4, — die Ozonschicht schädigend, — spezifisch zielorgantoxisch (wiederholte Exposition) der Kategorien 1 und 2, — spezifisch zielorgantoxisch (einmalige Exposition) der Kategorien 1 und 2 oder iii. negative Auswirkungen auf die Wiederverwendung und das Recycling von Materialien in dem Produkt, in dem es vorhanden ist, im Sinne der einschlägigen produktspezifischen Ökodesign-Anforderungen der Union.
Besonders besorgniserregende Stoffe (Substances of Very High Concern, SVHC)	Stoffe, die die Kriterien des Artikels 57 der Verordnung (EG) Nr. 1907/2006 (REACH) erfüllen und gemäß Artikel 59 Absatz 1 der genannten Verordnung ermittelt wurden.

1) Besorgniserregende Stoffe = Substances of concern (SoC); Besonders besorgniserregende Stoffe = Substances of high concern (SVHC)

Inhalte dieser Folge

- 1 Einführung in E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität
- 2 Fokus: Datenpunkte des E2 - Umweltverschmutzung
- 3 Fokus: Datenpunkte des E3 - Wasser
- 4 Fokus: Datenpunkte des E4 - Biodiversität
- 5 Zusammenfassung & Ausblick
- 6 Fragen & Antworten

Aufbau ESRS E3: Wasser- und Meeresressourcen



E3.IRO-1) IRO-Ermittlung & E3-1) Konzepte

E3.IRO-1) Auswirkungen, Chancen und Risiken (IROs) & E3-1) Konzepte, inkl. MDR-P (P = Policies)

E3.IRO-1: Verfahren zur IRO-Ermittlung

- ✓ E3.IRO-1.01: Prüfung Vermögenswerte und Aktivitäten hinsichtlich wasserbezogener IROs, inkl. Methoden, Annahmen und Instrumenten
- ✓ E3.IRO-1.02: Stakeholder-Konsultationen zu Wasserfragen

E3-1: Konzepte Wasser

- ✓ E3-1.01 / 02: Konzept zum Wassermanagement / zur Nutzung und Beschaffung von Wasser- und Meeresressourcen im eigenen Betrieb
- ✓ E3-1.03: Konzept zur Wasseraufbereitung (z. B. Abwasser)
- ✓ E3-1.04: Konzept zur Vermeidung und Minderung von Wasserverschmutzung
- E3-1.05: Konzept zur Produkt- & Servicegestaltung im Hinblick auf Wasser & Meeresress.
- E3-1.06: Konzept zur Wasserverbrauchsreduktion in wassergefährdeten Gebieten
- E3-1.07: Begründung für ein fehlendes Konzepts in Gebieten mit hohem Wasserstress
- E3-1.08 (v): Zeitplan für die Einführung in Regionen mit hohem Wasserstress
- E3-1.09: Eingeführte Konzepte oder Praktiken für nachhaltige Ozeane und Meere
- E3-1.10 (v): Beitrag von Konzept zur ökologischen/chemischen Wasserqualität
- E3-1.11 (v): Minimierung von Auswirkungen und Risiken, Schutz von Ökosystemleistungen und Verbesserung Ressourceneffizienz
- E3-1.12 (v): Vermeidung negativer Auswirkungen auf betroffene Gemeinschaften

E3.MDR-P: Mindest- angaben zu Konzepten

- ✓ E3.MDR-P_01/02/03: Beschreibung der wesentlichen Inhalte & Umfang der Konzepte / höchste Verantwortung für Umsetzung der Konzepte
- ✓ E3.MDR-P_04: Einhaltung von Drittanbieter-Standards oder -Initiativen durch Konzepte
- E3.MDR-P_05: Berücksichtigung der Interessen wichtiger Stakeholder in Konzepten
- E3.MDR-P_06: Bereitstellung der Konzepte für betroffene Stakeholder & Mitwirkende
- E3.MDR-P_07 / 08 (v): Gründe für Nichtvorliegen / Zeitrahmen bis Einführung

07 & 08 in EFRAG Update ergänzt (Dez 24)

Quelle: Stora Enso Annual Report 2024, S. 77 & 101

✓ = im Beispielbericht markiert

The E3RS requirements addressing material impacts, risks, and opportunities are listed in E3RS 2-36. In addition to the E3RS disclosure requirements, Stora Enso has prepared entity-specific disclosures on biodiversity. These disclosures include data on biodiversity impact indicators and forest certification.

Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)

Methodologies and assumptions

At the beginning of 2024, Stora Enso conducted a double materiality assessment in compliance with the new Corporate Sustainability Reporting Directive (CSRD) requirements. The main objectives of the assessment were to identify sustainability topics that have a significant impact on the Group's business performance, risks, and opportunities and to identify the highest sustainability topics that have significant impacts on people and the environment (impact materiality), and determine the materiality of the information to be reported.

01 The process followed to the requirements outlined in the European Commission Delegated Regulation 2023/772 on European Sustainability Reporting Standards for conducting a double materiality assessment, bearing in mind the context of Stora Enso's activities, business relationships, and operating context. It identified key stakeholders across the entire value chain, both upstream and downstream. As a part of the process, culture was recognised as a direct stakeholder.

After establishing an overview of the value chain and stakeholders, the next step involved identifying the actual and potential impact, risks, and opportunities related to biodiversity. The assessment covered Stora Enso's own operations and the impacts it is, or may be, considered with through its value chain. On the long list of impacts, risks, and opportunities were established based on scientific research and stakeholder input. Two compared with the full scope of European Sustainability Reporting Standards environmental, social, and governance matters to ensure the inclusion of relevant topics. After completing the list, the topics were assessed and ranked. Since the Corporate Sustainability Reporting Directive does not provide guidance on testing the materiality of the process was designed to be a first step in identifying materiality.

Due to an environmental incident in Hakkio, Finland (described in E3RS 6.4), Stora Enso conducted a new double materiality assessment to review and adjust the materiality of relevant topics accordingly. The double materiality assessment was conducted in parallel to the Strategic Risk Management (SRM) process to ensure that the Sustainability Statement and risk reporting remain fully aligned.

02 The assessment methodologies varied based on topics, but included, for example, interviews, workshops, and data analysis. As part of the assessment, Stora Enso conducted a broad representation of key internal and external stakeholders were engaged in discussions and interviews to ensure that the assessment covered all relevant impacts, risks, and opportunities. The stakeholders represented both those affected by the Group's operations and users of the Group's products and services, as well as other stakeholder groups such as nature (stakeholders), public authorities, and non-governmental organisations (NGOs). The focus of the engagement was on open interviews to gain deeper insight into the actual and potential impacts, risks, and opportunities related to Stora Enso's business, operations, and value chain. The outcome of the engagement was consistent with Stora Enso's strategy and business model. Moreover, the Group's Leadership Team and the Board's Sustainability Ethics Committee discussed the double materiality assessment process and its outcomes to provide clear views on Stora Enso's material impacts.

01 The underlying assumptions related to the latest scientific research, according to which climate change and biodiversity loss are accelerating. Climate change was also considered one of the underlying drivers of biodiversity risks.

Assessment of impacts, risks, and opportunities

Stora Enso's assessment of impacts, risks, and opportunities followed the process described below:

Impact materiality

Environment

To achieve an objective view on possible, the identification of environmental impacts began with a review of scientific research, followed by an assessment of the relevance and materiality for Stora Enso, with input from the Group's subject matter experts.

The process for identifying climate-related impacts focused on the Group's own operations, which were considered to be more exposed to climate change than its joint ventures. The joint ventures and the focus was on the Group's own operations in terms of biodiversity. However, also located within the Group's own forest land in the upstream value chain were included since Stora Enso and its upstream value chain are responsible for new material extraction. The downstream value chain was not considered relevant for the assessment. For resource use and security, the assessment covered impacts related to the Group's own resource use and security, which were also considered to be a significant source of resource inputs, outputs and waste (wood raw materials, waste, products produced, and end of life of products).

The overall process was complemented by additional steps to identify and assess specific environmental matters.

Climate-related impacts

The analysis of climate-related impacts on climate change through the Group's own operations (Scope 1 and 2) and value chain (Scope 3) emissions as disclosed in E3RS 6.4. Screening was conducted for all production sites and material value chain emission categories. Stora Enso did not utilize other drivers for climate-related impacts in the scenario analysis. Although the Group recognises the Stockholm Resilience Centre's Planetary Boundaries framework and related tipping points in its sustainability work, in addition to actual impacts, Stora Enso has not estimated its potential impacts based on production forecasts. Stora Enso is located in E3RS 6.4.

Water-related impacts

The analysis of water-related impacts was based on the full Aqueduct Water Risk Atlas, which is used to annually assess water-related risks at production sites, providing information on water scarcity, stress, flooding, and water quality. According to the list, four of the Group's production sites are located in areas with high water risk. Stora Enso's Longterm strategy in Belgium, Wijn and Ocken managed units in China and India in India. The assessment is conducted for Stora Enso's materials and does not cover the upstream or downstream value chain.

Biodiversity and ecosystems

The assessment considered biodiversity loss-related systemic risks to security and stability through biodiversity. Such as the Longterm 2024 report and the Group's Review 2024. Additionally, the assessment assessed the new species used for re-planting and significant incidents that negatively impact biodiversity. The impacts were identified through long-term surveillance of the ecological status of the sites and these sets of biodiversity indicators.

Some of Stora Enso's industrial units are located near biodiversity-sensitive areas, such as Natura 2000, but these sites do not actively contribute to the deterioration of natural habitats due to short environmental permitting processes. The biodiversity-related impacts and risks connected to industrial units are described in E3RS 6.2 and E3RS 6.3. Whenever a new industrial unit is established or production capacities are increased, Stora Enso ensures that the project plan undergoes an environmental impact assessment including a thorough evaluation of biodiversity-sensitive areas. The assessment is also conducted to assess all sites located by applying the B&E assessment tool to create an overview of key biodiversity areas located in or near the industrial operations. Stora Enso's impacts on biodiversity-sensitive areas are described in E3RS 6.4.

01 Environmental Guidelines

The guidelines address topics related to environmental management and circularity, energy and climate change, pollution, water, forests, plantations, and land use. The guidelines require that all of Stora Enso's production units implement and maintain a third-party certified environmental management system. Third-party certified management systems (ISO 14001 and ISO 50001) help improve environmental performance and energy efficiency. In relation to energy and climate change, the guidelines address both the negative and positive impacts outlined in the Policy for Energy and Climate Change.

02 The scope of the guidelines covers Stora Enso's own operations. The Chief Sustainability Officer and Head of Sustainability for each division are accountable for their implementation.

03

FAQ ID 556

Was bedeutet Wasseraufbereitung?

Wasseraufbereitung umfasst physikalische, chemische und biologische Verfahren, um Wasser für die Wiederverwendung oder eine umweltverträgliche Rückführung aufzubereiten

Ziel: Beitrag zur nachhaltigen Wassernutzung durch:

- Wiederverwendung (Re-Use) von Abwasser
- Reduktion von Entnahmen aus natürlichen Wasserquellen (z. B. Grundwasser, Flüsse),
- Verbesserung der Abwasserqualität

E3-1 verlangt, dass Unternehmen darlegen, ob und wie ihre Konzepte Wasseraufbereitung als Maßnahme zur Förderung einer nachhaltigeren Wasserbeschaffung berücksichtigen

E3-2) Maßnahmen im Zusammenhang mit Wasser- und Meeresressourcen

E3-2) Maßnahmen, inkl. MDR-A (A = Actions)

E3-2: Maßnahmen Wasser- und Meeresressour.

- E3-2_01 (v): Einordnung der Maßnahme in Minderungshierarchie
- E3-2_02 (v): Spezifischen kollektive Initiativen für Wasser- und Meeresressourcen
- E3-2_03: Maßnahmen und eingesetzten Ressourcen in wassergefährdeten Gebieten

E3.MDR-A: Mindestangaben zu Maßnahmen

- E3.MDR-A_01/02/03: Zentrale Maßnahme/Anwendungsbereich/geplanter Zeithorizont
- E3.MDR-A_04: Beschreibung und Ergebnisse zur Unterstützung Betroffener (Auswirkungen)
- E3.MDR-A_05: Informationen zum Fortschritt von Maßnahmen aus früheren Berichten
- E3.MDR-A_06 / 07: Art der Ressourcen & Bezug zu Beträgen in Finanzberichten
- E3.MDR-A_08 (v): Finanzielle Ressourcen nach Zeithorizont und Ressourcenart
- E3.MDR-A_09/10 & 11/12: Aktuelle & zukünftige dem Aktionsplan zugewiesene CapEx / OpEx
- E3.MDR-A_13 / 14: Gründe für fehlende Maßnahmen & ggf. Zeitplan bis zur Einführung

13 & 14 in EFRAG Update ergänzt (Dez 24)

Actions and resources related to water and marine resources (E3-2)

Stora Enso's four key long-term actions to improve water use efficiency and to mitigate potential negative impact in areas of water scarcity are described below. The actions contribute to the objectives of the Environmental Guidelines on protecting the environment.

- 02 Site-specific investments in technology and equipment are done on an annual basis to enhance water efficiency. The amount varies between the years; in 2024, the Group's energy and water efficiency fund supported water-related investments of approximately EUR 2 million at four production sites. These investments are estimated to reduce the Group's water discharges by 2 million cubic meters and total costs by approximately EUR 2 million annually. In the Financial Statements, these investments are included in the note 41 Intangible assets, property, plant and equipment and right-of-use assets. This action supports the targets for reducing specific process water discharges and decreasing the trend for total water withdrawal as described in ESRS E3-3.
- 04 Action is taken locally to manage the potential impact related to productions units that are located in areas with water stress. WRI Aqueduct Water Risk Atlas is used to assess water-related risks at production sites, providing information on water scarcity, stress, flooding, and water quality. Examples of initiatives from year 2024 to address water stress include:
 - 03 Beihai mill in China implemented several initiatives to enhance water efficiency. For example, the mill began reusing power plant drainage waters in other parts of the production. As a result of these measures, both specific total water withdrawal and specific process water discharges have decreased compared to the previous year.
 - At the Langerbrugge mill in Belgium, water discharges were reduced by approximately 5% compared to the previous three years mainly by recovering full blow down of scrubbers.
- 03 Continuous efforts are taken at the production sites to optimise water use by utilising only freshwater from surface, ground, and municipal sources. After use, the process water is cleaned at treatment plants before being returned to the local ecosystem. As an outcome, almost 95% of water is recycled back into the environment, while only around 5% of water is consumed in production processes. This action helps to mitigate the impact generated by both water consumption and withdrawal.
- 04 To mitigate the risk of environmental incidents or exceeding permit limits related to water effluents, Stora Enso monitors water usage and discharges into water bodies in accordance with the limits established by environmental permit processes. For detailed actions, see section ESRS E2-2.

During 2024, EUR 10 million of grants have been repaid back to authorities in Belgium. This repayment stemmed from a 2019 legionella-related incident, classified as an environmental infringement. The case was resolved in court in 2024. For further details, see Financial Statements, note 48.

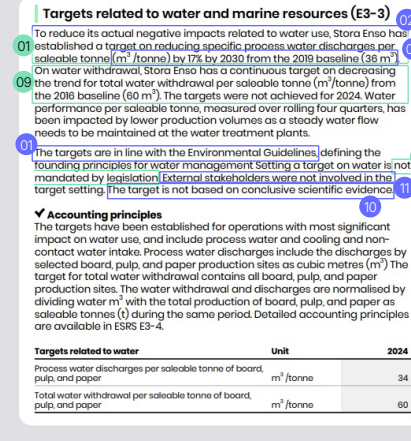
Identifikation von wassergefährdeten Gebieten via WRI Aqueduct Water Risk Atlas:

1. Ruft die Seite Aqueduct Water Risk Atlas auf
2. Gebt die Adresse oder die Koordinaten Eures Standorts in das Suchfeld ein
3. Aktiviert den Layer „Water Stress“ im Bereich „Indicators“
4. Ein Standort gilt als „high water-stress“, wenn der angezeigte Wert über 40 % liegt
5. Ihr könnt die Ergebnisse als Bericht oder Karte exportieren

- ### E3-3: Ziele Wasser- und Meeresressourcen

- E3.MDR-T: Mindestangaben zu Ziele

✓ = im Beispielbericht markiert



General Information

Environmental reporting

Social reporting

Appendix

Metrics and targets

HENKELS has established an ambition 'Towards healthy watersheds and nature' that is underpinned by three goals, and targets which address the material impacts, risks and opportunities related to water. The goals and targets guide our key actions and activities within our 'Activities and resources' section.

The following table outlines HENKELS' goals, targets and water to meet our ambitions as well as metrics to track progress on our goals and targets.

RoUW ambition	RoUW goal	Target	Time horizon target	Metric	Progress	
					2024	2025
Towards healthy watersheds and nature	Reduce average water usage to 2.6 Mm³ in water-stressed areas by 2030	Reduce average water usage to 2.6 Mm³ in water-stressed areas	2030	Average water usage in water stressed areas (RoUW beverage production)	3.0	3.0
	Reduce average water usage to 2.9 Mm³ worldwide by 2030	Reduce average water usage to 2.9 Mm³ worldwide	2030	Average water usage in water stressed areas (RoUW beverage production)	3.1	3.2
	Fully balance water usage in used in products in water-stressed areas by 2030	Reach 100% water balancing in water stressed areas	2030	% of sites with 100% water balancing	29%	28%
				% of sites with 100% water balancing		

Towards healthy watersheds and nature

By improving the water efficiency globally and in water stressed areas, we will increase our resilience against water unavailability and business disruptions. By minimizing water usage, we decrease the volume of water we have to treat and discharge into freshwater sources, particularly rivers. Facing water scarcity or environmental stress, we can also minimize water use and recycling to limit the need for increased water withdrawals in water stressed sites. In addition, our use of fully balanced water use and in products in water stressed areas. This means that we will return to the local watershed every drop of water that goes into our product.

Our global target for water usage was 3.0 Mm³ (RoUW beverage production) in water stressed areas and 3.1 Mm³ (RoUW beverage production) across all our brands, achieving an 11% reduction versus 2018 baseline. This reduction when adjusted for acquisitions and divestitures. We expanded our water efficiency cooperation programme in collaboration with sharing and best practices. The programme is also active in the emerging markets of Africa and South America and is delivering results, such as in Italy and Brazil where water use is down by 13% and 9%, respectively. We share best practice from the programme on our global platform enabling production sites to learn, and implement them across the company. Advanced technologies and water treatment optimisation are also delivering results across many sites, including in Mexico and Ethiopia. In Myanmar, a shift in water treatment saved around 1.0 Mm³ and in Cambodia, adoption of water withdrawal delivered a 0.4 Mm³ reduction in water use.

In 2024, 29% of sites in water stressed areas were fully balanced. As the number of sites in France increases, it is harder to achieve our goals and we are challenged to think creatively and to partner with diverse stakeholders to identify projects and drive effective solutions. Following water use and management in India and France, we increased the number of water stressed sites from 32 in 2023 to 33 in 2024. Of these 33, 30 have started water balancing projects and 27% are fully water balanced.

Methodologies and significant assumptions used to define the targets

In our target setting we established both internal and external fairness. For water usage, internal considerations include our performance during the baseline year (3.15 Mm³ in 2018). Feasibility of improvements given technological advancements and current environmental capacity, project timelines and forecasted business goals. Externally, we considered current performance and industry targets for similar territories, using as a reference Sustainable Development Goal 6, sustainability frameworks and guidance from the BBF and the GUD Water Platform for water balancing the volumes registered through our initiatives or calculated using VUBWA methodology.

HENKELS water goals are voluntary, not mandatory (requiring legislation).

14 & 15 in EFRAG Update ergänzt (Dez 24)

E3-4) Wasserverbrauch & E3-5) Erwartete finanzielle Effekte

E3-4) Wasserverbrauch & E3-5) Erwartete finanzielle Effekte

E3-4: Wasserverbrauch

- ✓ E3-4_01: Gesamtwasserverbrauch
- ✓ E3-4_02: Wasserverbrauch in wassergefährdeten Regionen inkl. hohem Wasserstress
- ✓ E3-4_03: Gesamtmenge recyceltes und wiederverwendetes Wasser
- ✓ E3-4_04: Gesamtspeichermenge Wasser
- E3-4_05: Veränderungen im Wasserspeicherbestand
- ✓ E3-4_06: Kontextuelle Informationen zum Wasserverbrauch
- E3-4_07: Anteil der Werte aus Messung, Stichprobe, Extrapolation oder Schätzung
- ✓ E3-4_08: Wasserintensitätskennzahl
- E3-4_09 (v): Wasserverbrauch nach Sektor/Segment [Tabelle]
- E3-4_10 (v): Zusätzliche Wasserintensitätskennzahl
- E3-4_11 (v): Gesamtmenge Wasserentnahme
- E3-4_12 (v): Gesamte Wasserabflüsse

E3-5: Erwartete finanzielle Effekte

- E3-5_01: Quantitative Angaben zu erwarteten finanziellen Auswirkungen wesentlicher Risiken und Chancen im Zusammenhang mit Wasser- und Meeresressourcen
- E3-5_02: Qualitative Angaben erwarteter finanzieller Auswirkungen
- E3-5_03: Berücksichtigte Effekte und Folgeauswirkungen
- E3-5_04: Zentrale Annahmen bei der Schätzung finanzieller Auswirkungen
- E3-5_05 (v): Betroffene Produkte & Dienstleistungen mit Risiken durch Wasser- o. Meeresres.
- E3-5_06 (v): Erläuterung zu Zeithorizonten, Schätzung finanzieller Beträge & Annahmen

Quelle: Stora Enso Annual Report 2024, S.102 ; Heineken Annual Report 2024, S. 283

= im Beispielbericht markiert

Water consumption (E3-4)

Production of board, pulp, and paper requires substantial amounts of water, accounting for over 90% of the Group's total water withdrawal. These units predominantly draw process and cooling water from surface water sources, with 98% of the total water withdrawal derived from surface water in 2024. Approximately 2% is sourced from municipal or groundwater supplies. According to the WRI Aqueduct Water Risk Atlas tool, five of the Group's production units operate in regions with High Baseline Water Stress: Beihai in China, Langerbrugge in Belgium, Wujin and Qianan corrugated units in China, and Łódź in Poland. During 2024, these units withdrew 15.7 million m³ of water, which is 4% of the Group's total water withdrawal. The process water discharges of these units were 12.7 million m³, which is 6% of the Group's total process water discharges. Stora Enso does not store water within its production sites.

✓ **Accounting principles**
Aligned with the Financial Statements, the water related metrics include the Group's joint operations according to the ownership share (50%). The Group continuously improves the accuracy of water reporting and consolidation of data. The data is reported by each mill to the Group's environmental reporting system.

Total water withdrawal includes process water and cooling and non-contact water intakes by all industrial units as cubic metres (m³). Total water discharges include the discharges of all industrial units as cubic metres (m³). In 2022, the Group implemented a standardised procedure to report water at board, pulp, and paper units, where cooling and process water flows are measured in different positions at the units. Due to this, the calculated figures do not always correspond to the measured figures of total water withdrawal. The share of the measure obtained from direct measurement is estimated to be approximately 56%.

The reported water consumption includes estimated water in products, residuals, and waste, as well as volumes of evaporated water to air from process water cooling towers, from wastewater treatment plants, and from cooling towers for non-contact water at the Group's mills. Sawmills, corrugated production units, and offices are included in the consumption figures based on estimates. The calculation of water consumption builds on the Confederation of European Paper Industries' (CEPI) method of describing water use and consumption, and the Swedish Environmental Research Institute's (IVU) report on Water Profile for the Swedish forest industry. It is estimated that approximately 25% of the total volume of water consumption is obtained through direct measurement.

The total water recycled and reused is reported based on the amounts of reused cooling and non-contact water.

Water intensity ratio is calculated as the Group's total water consumption in m³ per million EUR of the Group's total sales as reported in the Financial Statements.

Metrics related to water	Unit	2024
Total water withdrawals	million m³	491
Total water discharges	million m³	379
Total water consumption	million m³	19.6
Total water consumption in areas at water risk, including areas of high-water stress	million m³	1.6
Total water recycled and reused	million m³	18.6
Water intensity ratio	m³/million EUR	2.169

FAQ ID 676

Kann ein Unternehmen unterschiedliche Wasserkennzahlen je nach Stufe der Wertschöpfungskette berichten?

→ Ja, Unternehmen dürfen unterschiedliche Kennzahlen für denselben Nachhaltigkeitsaspekt in verschiedenen Stufen der Wertschöpfungskette angeben. Dies muss begründet werden und auf DWA basieren.

ESRS E3	ESRS 2 IRO-1	Description of the processes to identify and assess material water and marine resources-related impacts, risks and opportunities	Understanding our material impacts, risks and opportunities	
E3-1		Policies related to water and marine resources	Policies	184
E3-2		Actions and resources related to water and marine resources	Actions and resources	185-186
E3-3		Targets related to water and marine resources	Metrics and targets	185
E3-4		Water consumption	Water consumption	187
E3-5		Anticipated financial effects from material water and marine resources-related risks and opportunities		

Phased-in option applied for E3-5 (anticipated financial effects) in line with ESRS 1 Appendix C: List of phased-in Disclosure Requirements.

E3-5_01 muss erst ab dem 4. Jahr berichtet werden, E3-5_02-06 ab dem 2. Jahr

Inhalte dieser Folge

- 1 Einführung in E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität
- 2 Fokus: Datenpunkte des E2 - Umweltverschmutzung
- 3 Fokus: Datenpunkte des E3 - Wasser
- 4 Fokus: Datenpunkte des E4 - Biodiversität
- 5 Zusammenfassung & Ausblick
- 6 Fragen & Antworten

Aufbau ESRS E4: Biologische Vielfalt und Ökosysteme (Biodiversität)



- #### E4-1: Übergangsplan & Berücksichtigung von Biodiversität in Strategie und Geschäftsmodell

Quelle: Stora Enso Annual Report 2024, S. 103-104

E4-2) IRO-Ermittlung

E4.IRO-1) Auswirkungen, Chancen und Risiken (IROs)

- ✓

E4.IRO-1_01: Identifizierung und Bewertung von Auswirkungen auf Biodiversität und Ökosysteme an eigenen Standorten und in der Wertschöpfungskette
- ✓

E4.IRO-1_02: Identifizierung und Bewertung der Abhängigkeit von Biodiversität, Ökosystemen und deren Leistungen
- ✓

E4.IRO-1_03: Identifizierung und Bewertung Biodiversitätsrisiken (physisch/Übergang)
- ✓

E4.IRO-1_04: Berücksichtigung systemischer Risiken von Biodiversität/Ökosysteme
- E4.IRO-1_05: Dialog mit lokalen Gemeinschaften
- E4.IRO-1_06: Negative Auswirkungen auf betroffene Gemeinschaften durch bestimmte Standorte, Rohstoffgewinnung oder –Beschaffung
- ✓

E4.IRO-1_07: Berücksichtigung Gemeinschaften in der Wesentlichkeitsanalyse
- E4.IRO-1_08: Vermeidung negative Auswirkungen auf prioritäre Ökosystemleistungen für betroffene Gemeinschaften
- E4.IRO-1_09 (v): Minderungspläne für unvermeidbare negative Auswirkungen
- E4.IRO-1_10 (v): Prüfung Geschäftsmodell mit Biodiversitäts- und Ökosystem-Szenarien auf Basis verschiedener Entwicklungspfade
- E4.IRO-1_11 (v): Gründe für die Wahl der berücksichtigten Szenarien
- E4.IRO-1_12 (v): Potenzielle Anpassung der Szenarien an neue Bedingungen/Trends
- E4.IRO-1_13 (v): Szenarien basierend auf Vorgaben internationaler Abkommen und wissenschaftlichem Konsens
- ✓

E4.IRO-1_14: Standorte in oder nahe biodiversitätssensibler Gebiete
- ✓

E4.IRO-1_15: Negative Auswirkungen der Tätigkeiten auf biodiversitätssensible Gebiete
- ✓

E4.IRO-1_16: Entschluss, dass Biodiversitäts-Minderungsmaßnahmen erforderlich sind

Quelle: Stora Enso Annual Report 2024, S. 77 und 103

✓ = im Beispielbericht markiert

14

The Group's own forests and upstream harvesting sites may be near or located in biodiversity-sensitive areas. Despite strict rules in harvesting operations, there have been incidents causing negative impacts to these habitats and their species. In 2024, a significant local negative impact was caused to an endangered species and its habitat near one of Stora Enso's harvesting sites in Finland. See further details in ESRS E4-4.

15

16

Stora Enso acknowledges the necessity of implementing measures to mitigate any negative effects on biodiversity. These are part of the Group's ways of working and are further described in ESRS E4-3.

05

07

For biodiversity-related impacts, Stora Enso did not conduct consultations with affected communities on sustainability assessments of shared biological resources and ecosystems, since the engagement is otherwise done on a regular basis. The Group's engagement with affected communities is further described in ESRS S3. The engagement is also carried out in situations where a site, raw material production or sourcing activity is likely to have an adverse impact on biodiversity and ecosystems.

07

Description	Impact, risk, or opportunity	Time horizon	Location in the value chain	Related sub-topic or sub-sub-topic
Sustainable forest management maintains forest health and vitality. Active biodiversity management and conservation in forest operations, such as spotfelling, optimising the volume of deadwood and protection of key habitats, contribute to positive biodiversity impact.	Actual positive impact	Short, medium, and long term	Upstream value chain, Own operations, joint operations	Direct exploitation
Negative impacts to biodiversity, such as damage to key habitats or species, can result from non-compliance forest management and harvesting practices or events.	Actual and potential negative impact	Short, medium, and long term	Upstream value chain, Own operations	Direct exploitation
Environmental non-compliance cases in forestry (wood supply) operations occurred during the year.	Actual negative impact	Short	Upstream value chain, Own operations	Direct exploitation; Endangered species and their habitat
Dependency on wood as raw material, which makes Stora Enso vulnerable to wood price fluctuations. The rising market demand for wood has led to increased prices in recent years. There is also a potential risk of new policies and regulations related to forestry and biodiversity that could limit harvesting levels in EU forests. This could result in wood price increases and potential supply limitations, which may adversely affect the competitiveness of products.	Risk	Short, medium, and long term	Upstream value chain, Own operations	Impacts and dependencies on ecosystem services
Biodiversity loss can reduce the value of Stora Enso's forest assets and decrease forests' resiliency to external calamities. Biodiversity loss can impact the acceptability of wood as raw material.	Risk	Medium and long term	Own operations, joint operations	Impacts and dependencies on ecosystem services
Risk of non-compliance related to harvesting, such as damage to ecologically sensitive areas or non-compliance with regulations. Incidents may damage Stora Enso's reputation and brand, which may result in a loss of investor and customer confidence leading to higher cost of capital and decreased revenues. Incidents may also lead to fines and other financial liabilities.	Risk	Short, medium, and long term	Upstream value chain, Own operations	Direct exploitation
Owning forests provides Stora Enso with strategic advantages, including securing a reliable and consistent wood supply, reducing reliance on external suppliers, promoting environmental stewardship through sustainable forestry practices, preserving and actively managing biodiversity, and contributing to carbon sequestration efforts.	Opportunity	Short, medium, and long term	Own operations, joint operations	Impacts and dependencies on ecosystem services
New technology enables effective collection and processing of biodiversity data. Stora Enso combines science, technology and data to develop models to optimise biodiversity management and conservation in the Group's forests and wood supply.	Opportunity	Short, medium, and long term	Upstream value chain, Own operations, joint operations	Impacts and dependencies on ecosystem services; Endangered species and their habitat

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E4-2) Konzepte im Zusammenhang mit Biodiversität

E4-2) Konzepte, inkl. MDR-P (P = Policies)

E4-2: Konzepte Biologische Vielfalt und Ökosysteme

- ✓ E4-2_01: Bezug zu E4 AR 4
- ✓ E4-2_02: Abdeckung von Auswirkungen auf Biodiversität und Ökosysteme
- ✓ E4-2_03: Abdeckung von Abhängigkeiten, physischen & Übergangsrisiken/-chancen
- ✓ E4-2_04: Unterstützung der Rückverfolgbarkeit entlang der Lieferkette
- ✓ E4-2_05: Nutzung von biodiversitätsschonend bewirtschafteten Ökosystemen
- ✓ E4-2_06: Abdeckung sozialer Auswirkungen von biodiversitätsbezogenen Effekten
- E4-2_07 (v): Regelung von Produktion, Beschaffung oder Verbrauch von Rohstoffen
- E4-2_08 (v): Ausschluss von biodiversitätsschädlichen Lieferanten
- E4-2_09 (v): Bezug zu anerkannten Standards/Drittzertifizierungen
- E4-2_10 (v): Berücksichtigung von Rohstoffen aus nachhaltigen Ökosystemen
- E4-2_11 (v): Konzept ermöglicht das Erreichen der Ziele a) bis d)
- E4-2_12 (v): Wissenschaftlich fundierter, realistischer & umsetzbarer Drittstandard
- E4-2_13 (v): Stakeholder-Beteiligung bei der Ermittlung
- E4-2_14 (v): Schrittweise Umsetzung mit messbaren Zielen im Drittstandard
- E4-2_15 (v) / 16 (v): Standardzertifizierung durch Dritte (z.B. ISO) / ISEAL-konform
- ✓ E4-2_17: Schutzkonzept für Standorte in/nahe Schutzgebieten (biodiversitätssensible Regionen)
- ✓ E4-2_18 / 19: Einführung nachhaltiger Land- o. Agrarpraktiken / Meeresnutzung
- E4-2_20: Einführung Entwaldungsrichtlinien

E4.MDR-P: Mindestangaben zu Konzepten

- ✓ E4.MDR-P_01/02/03: Beschreibung der wesentlichen Inhalte & Umfang der Konzepte / höchste Verantwortung für Umsetzung der Konzepte
- E4.MDR-P_04: Einhaltung von Drittanbieter-Standards oder -Initiativen durch Konzepte
- E4.MDR-P_05: Berücksichtigung der Interessen wichtiger Stakeholder in Konzepten
- E4.MDR-P_06: Bereitstellung der Konzepte für betroffene Stakeholder & Mitwirkende
- E4.MDR-P_07 / 08 (v): Gründe für Nichtvorliegen / Zeitrahmen bis Einführung

07 & 08 in EFRAG Update ergänzt (Dez 24)

✓ = im Beispielbericht markiert

Quelle: Stora Enso Annual Report 2024, S. 104

Policies related to biodiversity and ecosystems (E4-2)

The minimum requirement is that all policies and guidelines be reviewed at least once every two years. Each policy owner shall ensure that the documents under their responsibility are reviewed and updated within the defined time frame.

Wood and Fibre Sourcing, and Land Management Policy

Stora Enso's Wood and Fibre Sourcing, and Land Management Policy outlines the approach to responsible sourcing of wood and fiber from sustainably managed forests and tree plantations. The policy addresses

sustainable forest and land management practices, which safeguard the health and ecological functions of ecosystems and help conserve biodiversity, soil, and water resources. The policy also addresses the prevention of negative impacts and potential risks to biodiversity that may arise from unsustainable forest management and harvesting practices or levels. The Environmental Guidelines introduced in ESRS E1-2 further elaborate on the policy objectives. The key contents of the policy include:

- 01 utilising wood in an efficient way to ensure high added value from the resources;
 - promoting sustainable forest and land management practices with forest owners;
 - monitoring the condition of forests and results of management activities, and using, for example, forest certifications to promote and verify sustainable forest management;
 - utilising traceability systems to ensure that all the wood and fiber used in own operations originates from legal sources;
 - designing and managing tree plantations as part of local land use and contributing to sustainable livelihoods;
 - recognising the unique economic and cultural rights of indigenous peoples.
- In addition, the policy forbids procurement of wood and fiber which:
- has been illegally harvested;
 - logged in protected areas or areas currently undergoing official processes of designation for protection, unless the logging is clearly in line with national conservation regulations;
 - harvested in forests where High Conservation Values are threatened by logging;
 - sourced from areas undergoing conversion from forest or other wooded ecosystems to plantations or non-forest uses, unless such conversion is justified on grounds of net social and environmental gain; or
 - harvested in violation of traditional rights or civil rights.

02 The scope of the policy cover the Group's own operations and upstream value chain, and EVP Forest division is accountable for implementation of the policy. The policy does not specifically relate to material dependencies, or physical and transition risks or opportunities.

Supplier Code of Conduct

The Supplier Code of Conduct sets the minimum requirements on suppliers with the obligation to protect the environment, among other topics. It specifically obliges the supplier to understand the connections that its business may have on impacts on biodiversity and, as relevant, act to safeguard biodiversity. The policy addresses the negative impacts and

risks, which may result from unsustainable forest management practices. The Supplier Code of Conduct is required to be signed as part of the pre-qualification process. See ESRS E1 for further details on the policy.

18 Biodiversity and ecosystem protection is included in Stora Enso Wood and Fibre Sourcing, and Land Management Policy. Stora Enso has not adopted policies specifically to sustainable sea practices.



ESRS ESRS AR 4

AR 4. Die **Wesentlichkeitsanalyse** gemäß ESRS E4 umfasst

- a) den Beitrag zu den unmittelbaren **Einflussfaktoren** auf den **Verlust an biologischer Vielfalt** (1)
 - i. Klimawandel,
 - ii. **Landnutzungsänderungen** (z. B. Denaturierung von Böden), **Süßwasser-** und **Meeresnutzungsänderungen**,
 - iii. direkte Nutzung,
 - iv. **invasive gebietsfremde Arten**,
 - v. **Umweltverschmutzung** und
 - vi. sonstige.
- b) die **Auswirkungen** auf den Zustand von Arten (d. h. Populationsgröße, Risiko des weltweiten Aussterbens von Arten),
- c) **Auswirkungen** auf die Ausdehnung und den Zustand von **Ökosystemen**, unter anderem durch **Landdegradation**, **Wüstenbildung** und **Bodenversiegelung** und
- d) Auswirkungen auf und **Abhängigkeiten** von **Ökosystemdienstleistungen**.

FAQ ID 1025

Was sind „unmittelbare Einflussfaktoren auf den Verlust biologischer Vielfalt“?

- Direkte, eindeutig identifizierte Ursachen für Rückgang oder Schädigungen von Biodiversität und Ökosystemen
-> physische/verhaltensverändernde Auswirkung
- Wichtig: Art des Einflusses auf die Natur ist entscheidend – nicht, wo in der Lieferkette er entsteht

E4-3) Maßnahmen im Zusammenhang mit Biodiversität

E4-3) Maßnahmen, inkl. MDR-A (A = Actions)

E4-3: ●
Maßnahmen
biologische
Vielfalt und
Ökosysteme

E4.MDR-A: ●
Mindest-
angaben zu
Maßnahmen

- E4-3_01 (v): Anwendung der Minderungshierarchie bei Maßnahmen
- ✓ E4-3_02: Kompensationsmaßnahmen als Bestandteil des Maßnahmenplans
- E4-3_03: Offset-Ziel (Kompensationsziel) und Leistungskennzahlen
- E4-3_04: Finanzielle Auswirkungen (direkt/indirekt) der Biodiversitätskompensation
- E4-3_05 (v): Bezug der Maßnahmenkosten (CapEx/OpEx) zu Finanzbericht
- E4-3_06 (v): Zuordnung von CapEx/OpEx zu KPIs gemäß EU-Verordnung 2021/2178
- E4-3_07 (v): Bezug zu Investitionsplan (CapEx) gemäß EU-Verordnung 2021/2178
- E4-3_08: Beschreibung der eingesetzten Biodiversitätskompensationen
- E4-3_09: Einbindung lokales/indigenes Wissen & naturbasierte Lösungen
- E4-3_10 (v): Wesentliche Stakeholder, deren Beteiligung & deren Betroffenheit
- E4-3_11 (v): Notwendigkeit angemessener Konsultationen & Respekt vor Entscheidungen betroffener Gemeinschaften
- E4-3_12 (v): Signifikante negative Nachhaltigkeitswirkungen durch Maßnahmen
- E4-3_13 (v): Einzelmaßnahme oder Regelpraxis
- E4-3_14 (v) / 15 (v): Eigenverantwortliche Umsetzung ohne Partner / Kollektive Maßnahme mit anderen Akteuren
- E4-3_16 (v): Zusätzliche Angaben zu Projekt, Förderern & beteiligten Parteien
- ✓ E4.MDR-A_01/02 / 03: Zentrale Maßnahme / Anwendungsbereich / Zeithorizont
- E4.MDR-A_04: Beschreibung und Ergebnisse zur Unterstützung Betroffener
- E4.MDR-A_05: Informationen zum Fortschritt von Maßnahmen aus früheren Berichten
- E4.MDR-A_06 / 07: Art der Ressourcen & Bezug zu Beträgen in Finanzberichten
- E4.MDR-A_08 (v): Finanzielle Ressourcen nach Zeithorizont und Ressourcenart
- E4.MDR-A_09/10 & 11/12: Aktuelle & zukünftige dem AP zugewiesene CapEx / OpEx
- E4.MDR-A_13 / 14: Gründe für fehlende Maßnahmen / ggf. Zeitplan bis zur Einführung

Quelle: Stora Enso Annual Report 2024, S. 104-105

✓ = im Beispielbericht markiert

Actions and resources related to biodiversity and ecosystems (E4-3)

Science and technology to model current and future impacts

The following two actions contribute towards the objectives of the Wood and Fibre Sourcing, and Land Management Policy. The actions relate to the opportunities enabled by new technology for optimised biodiversity management and conservation, and enhancing positive biodiversity impact. The actions support the achievement of the net positive target on biodiversity as described in ESRS E4-4.

1) Creation of a science-based framework to validate the net positive impact on biodiversity in the Nordic forests. Leveraging science, technology and data, the framework will enable forecasting of biodiversity impacts and thus allows operations to be adapted towards the net positive target. The backbone of the science-based framework is built on digital forest data. In early 2024, Stora Enso signed a partnership with the International Union for Conservation of Nature (IUCN) to gain external expert insights for further development of the framework. Scope of the framework encompasses the Group's own operations and managed forests in the Nordics (upstream value chain). The framework is being developed through the collaboration and expected to be finalised within the coming years.

2) The development of advanced technologies supports the goal of enabling a more integrated approach to managing biodiversity and wood production in forest landscapes. Precision forestry programme utilises Artificial Intelligence to create a highly accurate digital twin of the forest, integrating multiple data layers into a digital platform. This data can be used to model forest management actions in a certain area and predict their potential impact on rare species. The scope of the action covers the Group's own and managed forests, and is expected to continue medium to long term.

Biodiversity and sustainable forestry

Stora Enso strives to actively enhance biodiversity as an integral part of sustainable forest management. The following three actions contribute to the Group's net positive target on biodiversity, and the objectives of the Wood and Fibre Sourcing, and Land Management Policy.

1) Biodiversity action programme, implemented in 2022 for the Group's own forest in Sweden, aims to employ management measures to enhance biodiversity throughout the forest's life cycle. Some aspects of this programme have also been extended to private suppliers' forests in the Nordics. The monitoring of these activities is currently under development, and so far, primarily demonstrated through a set of science-based biodiversity indicators to holistically monitor different aspects of biodiversity (see ESRS E4-5). Additionally, Stora Enso collaborates with private forest owners in Finland, Sweden, and the Baltics to support them in biodiversity and forest management, utilising insights also from the forest owners.

2) In the Northern forests, Stora Enso is dedicated to long-term forest management that adheres to the principles of sustainable forest management. In retention forestry (even-aged forestry), the most common method in the North, thinning occurs in middle-aged forests to promote growth of vital trees for a healthy forest. Final harvesting involves clear-felling while retaining biodiversity features such as living trees in groups and buffer zones, and conserving and producing deadwood. The forest is regenerated by planting seedlings adapted to the site. The species and structural diversity of the forests are enhanced through natural regeneration during the rotation cycle. Some examples of the action carried out in the Northern forests during 2024 included:

- Restoring wetlands in the Group's own forest in Sweden, and in Finland in collaboration with Tornator to improve the conditions for various species. In the long run, wetlands will turn into carbon sinks. In the Group's own forest in Sweden, approximately 20 hectares of wetland was restored during 2024.
- Restoring sunny slope environments in Finland, an area that is more exposed to sunlight and consequently creates a unique habitat, in collaboration with Tornator, to enhance the conditions for species that thrive in these areas.
- Approximately 39 million tree seedlings planted or delivered for planting in the Nordics.

3) In 2023, new biodiversity indicators were introduced for Stora Enso's joint operations in South America's plantation areas to demonstrate the link between biodiversity management actions and their outcomes, ensuring that purposeful biodiversity measures are implemented with monitorable results. The implementation is expected to continue in the coming years.

Forest certification and deforestation-free practices

Stora Enso takes continuous actions to respond to the objectives of the Wood and Fibre Sourcing and Land Management Policy and the Supplier Code of Conduct on sustainable sourcing of wood and sustainable forest management practices. Continuous forest regeneration measures are

complemented by the following three actions to address the risk related to non-compliance in harvesting operations.

1) Stora Enso has implemented forest certifications and third-party traceability systems to know the origin of the wood and to ensure that it comes from sustainable sources. These include the Forest Stewardship Council's (FSC) Chain of Custody/Controlled Wood scheme, the Chain of Custody/Due Diligence System of the Programme for the Endorsement of Forest Certification (PEFC), and the ISO 14001 environmental management system. The action continues on long-term and encompasses all wood sourcing operations (own operations and upstream value chain). It contributes to the target on forest certification coverage described in ESRS E4-4.

2) Stora Enso does not establish tree plantations in natural forests, protected areas, or water-sensitive locations, and only uses land with low biodiversity values, such as former pastureland. The action continues on long-term and encompasses plantations in South America.

3) In 2024, the Group's 50% owned joint operation, Montes del Plata in Uruguay, received the FSC Ecosystem Services recognition (FSC-C086978) acknowledging the performance of companies that take action on the restoration and conservation of forest ecosystem services. Veracel, the 50% owned joint operation in Brazil, was the first company in Brazil with planted forest to receive this recognition in 2020 (FSC-C07892).

For engagement with affected communities, see ESRS S3.

Resources to manage biodiversity and forest management

Forests are a locally available strategic resource. At the end of 2024, Stora Enso's forest assets, including leased land, were valued at EUR 9.9 billion, spanning 21 million hectares globally. Stora Enso meets 36% of its wood raw material needs from its own sources and long-term agreements. The Group's forests assets contribute to carbon sequestration (described in ESRS E-7), biodiversity conservation, and the mitigation of financial risks related to wood dependency and availability. For more information on Stora Enso's forest assets and related valuation, see Financial Statements, note 4.2 Forest Assets.

In addition to owning forests, Stora Enso's current resources (and those anticipated for the future) to manage biodiversity and forest management include operative costs related to personnel in the biodiversity programmes and forest management, operating tree nurseries, forest certification fees, and the development of precision forestry.

During the year, Stora Enso supported restoration activities related to an environmental incident in Hukkajoki, Finland, by approximately 150,000 euros. The incident is being investigated as a serious nature conservation crime and further described in ESRS E4-4. Additionally, following the incident, Stora Enso has entered into negotiations with Metsähallitus Parks & Wildlife Finland concerning long-term cooperation aimed at protecting and restoring the habitat of freshwater mussels in river water systems in Finland.

In 2024, the Group's Forest management and Conservation forestry - related EU taxonomy-eligible apex was EUR 25 million and capex EUR 9 million. Description of taxonomy-eligible activities is provided in the section on EU Taxonomy.

Stora Enso has not used biodiversity offsets in its action plans.

13 & 14 in EFRAG Update ergänzt (Dez 24)

- ✓ E4.MDR-T_01: Beziehung zu Konzept/Strategie
- ✓ E4.MDR-T_02 / 03: Ziel (messbar)/ Art des Ziels
- ✓ E4.MDR-T_04/05/06/07: Anwendungsbereichs / Ausgangswert / Basisjahr / Zeitraum
- E4.MDR-T_08: Angabe von Meilensteinen oder Zwischenzielen
- E4.MDR-T_09 / 10: Verwendete Methoden und Annahmen / wissenschaftliche Basis
- E4.MDR-T_11: Stakeholder-Einbeziehung bei Zielsetzung (ob und wie)
- E4.MDR-T_12 / 13: Zieländerungen / Leistung im Verhältnis zum offengelegten Ziel
- E4.MDR-T_14 / 15 (v): Zeitrahmen bis Zielsetzung / Begründung für fehlende Ziele
- E4.MDR-T_16: Wirksamkeit in Bezug auf wesentliche Nachhaltigkeitsthemen
- E4.MDR-T_17: Prozesse zur Überwachung der Wirksamkeit v. Maßnahmen/Konzepten
- E4.MDR-T_18 / 19: Ambitionsniveau & Indikatoren / Basisjahr zur Fortschrittsbewertung

✓ = im Beispielbericht markiert

[illegible]

E4-5) Kennzahlen für Auswirkungen im Zusammenhang mit Biodiversität

E4-5) Kennzahlen für Auswirkungen im Zusammenhang mit Biodiversität

FAQ ID 1115 & 1172
E4-5_01 & 02) Nur wenn tatsächliche negative Auswirkungen festgestellt wurden, zu berichten

- ✓

E4-5_01 / 02: Anzahl Standorte / Flächengröße in bzw. nahe Schutz- o. Biodiversitätsgebieten mit negativen Auswirkungen
- E4-5_03 (v): Landnutzung basierend auf LCA
- ✓

E4-5_04: Relevante Indikatoren (Land-, Süßwasser-, Meeresnutzungsänderung)
- E4-5_05 (v): Zeitliche Veränderung der Bodenbedeckung
- E4-5_06 (v): Veränderungen im Zeitverlauf im Management des Ökosystems
- E4-5_07 (v): Veränderung der räumlichen Landschaftsstruktur
- E4-5_08 (v): Veränderung der strukturellen Konnektivität von Ökosystemen
- E4-5_09 (v): Funktionale Konnektivität
- E4-5_10/11 (v): Gesamtnutzung der Landfläche / Gesamtfläche versiegelter Boden
- E4-5_12/13 (v) : Naturnahe Fläche am Standort / außerhalb des Standorts
- E4-5_14 (v): Steuerung invasiver Arten und deren Risiken
- E4-5_15/16 (v): Anzahl invasiver gebietsfremder Arten / von diesen bedeckte Fläche
- E4-5_17 (v): Als relevant erachtete Artenindikatoren (Kennzahlen Populationszustand)
- E4-5_18 (v): Verweis auf ESRS E1, E2, E3 & E5 mit Bezug auf verwendete Kennzahl
- E4-5_19 (v): Populationsgröße, Verbreitungsgebiet (Vorkommen) und Aussterberisiko
- E4-5_20 (v): Veränderung der Individuenzahl in bestimmtem Gebiet
- E4-5_21 (v): Angaben zu Arten mit globalem Aussterberisiko
- E4-5_22 (v): Bedrohungsstatus der Arten und mögliche Einflussfaktoren
- E4-5_23 (v): Änderungen im Lebensraum bedrohter Arten (Indikator für Aussterberisiko)
- E4-5_24 (v): Flächenabdeckung von Ökosystemen
- E4-5_25 (v): Qualität der Ökosysteme vs. vorbestimmten Referenzzustand
- E4-5_26 (v): Artenvielfalt im jeweiligen Ökosystem
- E4-5_27 (v): Struktureller Komponenten des Zustands von Ökosystemen

E4-5: Kennzahlen für Auswirkungen im Zusammenhang mit biologischer Vielfalt und Ökosysteme

Quelle: Stora Enso Annual Report 2024, S. 107-108

✓ = im Beispielbericht markiert

Impact metrics related to biodiversity and ecosystems change (E4-5)
Stora Enso has selected three types of indicators to measure biodiversity based on their value for forest biodiversity according to science:
• Biodiversity impact indicators monitor harvesting operations in the Northern forests as reported in ESRS E4-4.
• Long-term biodiversity indicators follow developments in response to the biodiversity action programme in the Group's own forest in Sweden.
• Biodiversity indicators for tree plantations monitor developments in South American plantations, where biodiversity is protected and restored in dedicated set-aside areas. These metrics are not disclosed as part of Stora Enso's Sustainability Statement due to the lack of direct operational control. Stora Enso exercises its ownership share to negotiate on the required actions to advance positive impacts.

Metrics related to forest	Unit	2024
Total amount of wood delivered to Stora Enso's sales	million m ³	29.0
% of their party certified wood of total wood supply	%	89%
% of wood from own sources as long-term supply agreements	%	36%
% of wood from managed semi-natural forests in Europe	%	83%
% of wood from tree plantations	%	17%

The estimated annual forest growth and total standing stock are counted for productive forest areas. Million m³ refers to million forest cubic meters. The annual forest growth figures are based on estimates, whereas the annual harvesting is based on actual data. Total standing stock and the related accounting principles are disclosed in the Financial Statements, note 4.2 Forest assets, section Valuation and standing stock of forest assets.

Annual forest growth and harvesting and total standing stock	Unit	2024
Estimated annual forest growth	million m ³ fo	18.9
Stora Enso's own forests, Sweden		0.9
Tornator (ats)		1.5
Guargel		1.2
Montes del Plata (SOL)		2.6
Venezol (SOL)		2.3

Annual harvesting	million m ³ fo	2024
Stora Enso's own forests, Sweden		16.5
Tornator (ats)		1.4
Guargel		1.1
Montes del Plata (SOL)		2.4
Venezol (SOL)		1.6

Total standing stock	million m ³ fo	2024
Stora Enso's own forests, Sweden		10.7
Tornator (ats)		33.8
Guargel		4.2
Montes del Plata (SOL)		9.0
Venezol (SOL)		6.8

Accounting principles
As wood is Stora Enso's most important raw material, information on company-owned forest resources (type, standing stock, growth, harvesting, and certification) is essential for contextualizing the biodiversity impacts of the operations. Aligned with the Financial Statements, the figures include the wood procurement of the joint operations according to the ownership share (50%).
Wood procurement includes total amounts of wood (roundwood and chips) procured for delivery to Stora Enso's units (million m³, solid under bark). The reporting on third-party certified wood as a percentage of total supply is based on actual deliveries to the mills. Internal deliveries between the mills have been eliminated.

Forests, plantations and lands as of 31 December 2024
Accounting principles
To provide information on the extent of ecosystems, Stora Enso has prepared an entry-specific disclosure on the hectares of the material forest lands. Figures for land areas, and their forest certification coverage, include Stora Enso's own and leased forest assets. The figures measure area coverage, rather than condition of ecosystems. For more information, see Financial Statements, note 4.2 Forest assets.
Aligned with the Financial Statements, the joint operations and the equity-accounted investment in Tornator, Finland, are consolidated based on Stora Enso's ownership stakes in these companies.

Unit	Area	Certification coverage	Details of forest landscapes and protected areas
Owned lands			
Swedish forest holdings	140,000 ha, of which 100,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Montes del Plata (SOL)	22,000 ha, of which 10,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Venezol (SOL)	10,000 ha, of which 5,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Leased lands			
Tornator (ats)	20,000 ha, of which 10,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Guargel	10,000 ha, of which 5,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Montes del Plata (SOL)	10,000 ha, of which 5,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.
Venezol (SOL)	10,000 ha, of which 5,000 ha production forest	100% certified for FSC®	Protected areas total 14,000 ha and consist of production or non-production forest, which has been set aside for special protection for the implementation of requirements.

FAQ ID 802
Was gilt als biodiversitätssensibles Gebiet?
• Natura 2000-Gebiete (EU-weites Schutzgebietsnetz)
• UNESCO-Welterbestätten
• Key Biodiversity Areas (KBAs, weltweite bedeutende Biodiversitätsgebiete)
• Weitere geschützte Gebiete nach Anhang II, Anhang D der EU-Taxonomie Verordnung 2021/2139
Wichtig: Ein Eintrag in nur einer dieser Kategorien reicht aus, um das Gebiet als biodiversitätssensibel im Sinne der ESRS zu klassifizieren. Es müssen nicht alle Kategorien gleichzeitig zutreffen.

FAQ ID 953
Müssen für alle wesentlichen Auswirkungen auf Biodiversität Kennzahlen berichtet werden?
→ Nein. Verpflichtende Kennzahlen (wenn wesentlich):
• E4-5_01 & 02 (bei negativen Auswirkungen)
• E4-5_04

FAQ ID 1172
Was ist „nahe“? → Abhängig von der Art der Wirkung, z.B.
• Emissionen: können über große Entfernungen wirken (z. B. über Luft oder Wasser)
• Lebensraumfragmentierung: Flächen zwischen Schutzgebieten können deren Verbindung stören
• Landnutzungsänderung: neue Nutzungen können angrenzende Ökosysteme beeinträchtigen, selbst ohne direkte Grenze

E4-6) Erwartete finanzielle Effekte

E4-6) Erwartete finanzielle Effekte durch wesentliche Risiken und Chancen

E4-6: Erwartete finanzielle Effekte durch wesentliche Risiken und Chancen

- E4-6_01: Quantitative Angaben zu erwarteten finanziellen Auswirkungen
- E4-6_02: Qualitative Angaben zu erwarteten finanziellen Auswirkungen
- E4-6_03: Beschreibung der berücksichtigten Effekte, relevanten Auswirkungen und Abhängigkeiten
- E4-6_04: Zentraler Annahmen zur Berechnung finanzieller Auswirkungen
- E4-6_05 (v): Gefährdete Produkte und Dienstleistungen (kurz-, mittel-, langfristig)
- E4-6_06 (v): Schätzung finanzieller Beträge & zugrundeliegender Annahmen

Alle E4-6 Angaben müssen erst ab dem 2. Jahr berichten werden (1 Jahr phase-in)

Disclosure Requirement	Description	Section/ report	Page/ relevance
Entity-specific data points	Renewable energy capacity	SUS	93
Entity-specific data points	Renewable energy production and sales	SUS	94
Entity-specific data points	Greenhouse gas (GHG) emissions intensity	SUS	97
Entity-specific data points	Avoided Greenhouse gas (GHG) emissions	SUS	99
E4 Biodiversity and ecosystems			
E4.SBM-3	Material impacts, risks and opportunities and their interaction with strategy and business model	SUS	101-103
E4.IRO-1	Description of processes to identify and assess material biodiversity and ecosystem-related impacts, risks and opportunities	SUS	104
E4-1	Transition plan and consideration of biodiversity and ecosystems in strategy and business model	SUS	Partially stated, 102-103
E4-2	Policies related to biodiversity and ecosystems	SUS	104
E4-3	Actions and resources related to biodiversity and ecosystems	SUS	104-105
E4-4	Targets related to biodiversity and ecosystems	SUS	106
E4-6	Impact metrics related to biodiversity and ecosystems change	SUS	103
E4-6	Anticipated financial effects from biodiversity and ecosystem-related risks and opportunities	n.a.	Phase-in
ES Resource use and circular economy			
ES.IRO-1	Description of the processes to identify and assess material resource use and circular economy-related impacts, risks and opportunities	SUS	107
ES-1	Policies related to resource use and circular economy	SUS	108
ES-2	Actions and resources related to resource use and circular economy	SUS	108



Scandinavian Energy Industry

Deklariert als phase-in

Quelle: European Energy Annual Report 2024, S. 75

✓ = im Beispielbericht markiert

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- 1 Einführung in E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität
- 2 Fokus: Datenpunkte des E2 - Umweltverschmutzung
- 3 Fokus: Datenpunkte des E3 - Wasser
- 4 Fokus: Datenpunkte des E4 - Biodiversität
- 5 [Zusammenfassung & Ausblick](#)
- 6 Fragen & Antworten

Zusammenfassung und hilfreiche Ressourcen

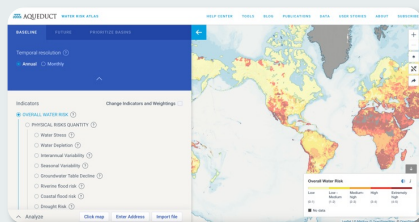
Phase-in

- Der Standard E4 ist für Unternehmen ≤ 750 Mitarbeiter in den ersten zwei Jahren nicht berichtspflichtig (sprich ab dem 3. Jahr berichtspflichtig)
- Die finanziellen Angabepflichten (E2-6, E3-5 und E4-6) sind für größere Unternehmen erst ab dem 2. Jahr berichtspflichtig; die quantitativen Datenpunkte für alle Unternehmen erst ab dem 4. Berichtsjahr

Hilfreiche Ressourcen

Die [offiziellen FAQ der EFRAG](#) beantworten viele gängige Fragen zu den Datenpunkten in E2-E4

[WIR Aqueduct Water Risk Atlas](#)



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Ausblick und nächste Schritte

Themen

Termine

CSRD Berichterstattung: Grundlagen & ESRS 2

30.04.2025



E1: Klimawandel

07.05.2025



S1: Arbeitskräfte des Unternehmens

14.05.2025



G1: Geschäftsführung
E5: Kreislaufwirtschaft

21.05.2025



E2: Umweltverschmutzung
E3: Wasser- & Meeresressourcen
E4: Biologische Vielfalt und Ökosysteme

11.06.2025



S2: Arbeitskräfte der Wertschöpfungskette
S3: Betroffene Gemeinschaften
S4: Verbraucher und Endnutzer

25.06.2025

VSME

02.07.2025

Immer um 10:30

Nächste Schritte für Euch

Phase-in Datenpunkte

- Schaut euch die phase-in Datenpunkte in E2-4 an und schaut welche davon ihr ggf. bereits jetzt berichten wollt (insb. als Unternehmen ≤ 750 Mitarbeiter)
- Exkludiert alle anderen Datenpunkte aus Eurem Bericht

Einheitliche Definitionen

- Stellt sicher, dass alle eure Standorte und Tochterunternehmen die relevanten Kennzahlen einheitlich erheben, insbesondere Mengen von (besonders) besorgniserregenden Stoffen
- Bei Unterschieden beschreibt diese konkret und überlegt, inwieweit ihr die Kennzahlen sinnvoll konsolidieren könnt

Inhalte dieser Folge

- 1 Einführung in E2: Umweltverschmutzung, E3: Wasser & E4: Biodiversität
- 2 Fokus: Datenpunkte des E2 - Umweltverschmutzung
- 3 Fokus: Datenpunkte des E3 - Wasser
- 4 Fokus: Datenpunkte des E4 - Biodiversität
- 5 Zusammenfassung & Ausblick
- 6 Fragen & Antworten

Ihre Fragen



The image features three concentric circles centered on a dark gray background. The circles are thin and light gray, creating a subtle frame around the central text.

tanso