

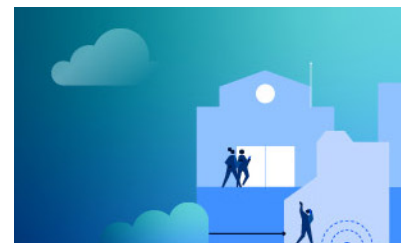
Nokia 2024 Sustainability Statement



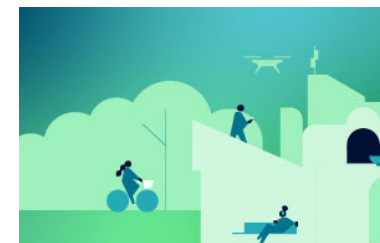
NOKIA

Sustainability Statement

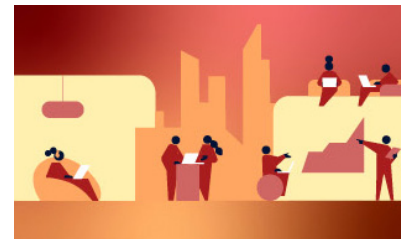
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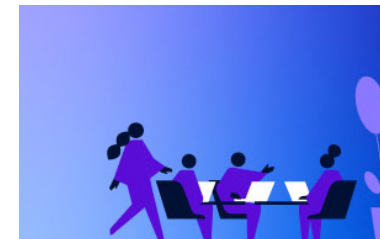
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Nokia's Sustainability Statement 2024 prepared in accordance with the applicable laws and regulations has been published as part of [Nokia's Annual Report for 2024](#) and is included under the Board review section. This document is an excerpt from Nokia's Annual Report and is published for convenience only. This document contains cross references to Nokia's Board review and the financial statements 2024 and it should be read in conjunction therewith, including, but not limited to, the risk factors included under the Board review. Nokia does not undertake any obligation to publicly update or revise this document, whether as a result of new information, future events or otherwise.

Introduction to 2024 Sustainability Statement

Introduction

Our approach to sustainability is built on our company's purpose – to create technology that helps the world act together. Sustainability is integral to our technology vision 2030, technology strategy as well as Nokia's business group product and operational strategies.

This Sustainability Statement is prepared for the first time in accordance with the provisions of the newly applicable EU Corporate Sustainability Reporting Directive and with the requirements of the European Sustainability Reporting Standards. The Statement reflects Nokia's sustainability performance, impacts, risks and opportunities across environmental, social and governance dimensions. It is building upon Nokia's long-standing sustainability report, People & Planet, as well as on its renewed assessment of sustainability matters conducted through impact analysis and stakeholder engagement.

Through this Sustainability Statement, Nokia attempts to demonstrate its commitment to transparent and responsible sustainability reporting, while also showcasing its strategic approach to managing sustainability impacts.

Nokia acknowledges its role in global sustainability challenges and opportunities, including climate change mitigation and adaptation, social equity and responsible business practices.

The 2024 Sustainability Statement covers Nokia's operations across all geographical locations and includes relevant information about our material value chain impacts, focusing on sustainability topics most relevant to Nokia's business model and operational context while ensuring compliance with mandatory disclosure requirements.

Nokia welcomes feedback from stakeholders as it continues to improve and evolve its sustainability reporting practices. The current document fulfills a dual purpose: ensuring compliance with applicable reporting requirements, as well as drive sustainability performance improvements and stakeholder engagement across the entire organization in a strategic manner.

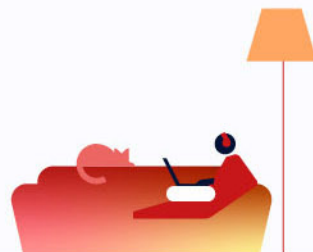
By conducting this assessment of sustainability topics in accordance with the CSRD's double materiality perspective, Nokia has identified areas requiring focused attention and reporting under

Climate change (E1),
Resource use and circular
economy (E5),

Own workforce (S1),
Workers in the value chain (S2),
Affected communities (S3),
Consumers and end-users (S4),

Business
conduct (G1)

These material topics are interconnected and fundamentally interdependent, requiring an integrated approach to sustainability management and reporting, which ultimately reflects on Nokia's overall sustainability journey and ensures a comprehensive coverage of its performance and impacts.



General information

General information

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Basis for preparation

General basis for preparation of the Sustainability Statement

For the reporting year 2024, Nokia is preparing the Sustainability Statement for the first time in accordance with the requirements of the Corporate Sustainability Reporting Directive 2022/2464/EU of the European Parliament and of the Council (hereinafter “CSRD”) and requirements of the Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 (hereafter the “Delegated Regulation”) as regards the European Sustainability Reporting Standards (hereafter “ESRS”). When referring to the various ESRS, the numbering in the Delegated Regulation is used. Finland transposed these requirements into national law on 21 December 2023, and they are in effect for the financial year 2024. These requirements are applicable to Nokia by virtue of Art. 3 and Art. 19a of Directive 2013/34/EU (the “Accounting Directive”), as modified by the CSRD. The content of the Sustainability Statement is prepared based on the double materiality assessment conducted by Nokia in accordance with the CSRD and the ESRS, which helped determine the material sustainability topics, and the related disclosures and information included in the Statement.

The Sustainability Statement was prepared on a consolidated basis. The reporting scope for own operations is the same as for the consolidated financial statements. All statements on strategies, policies, actions, metrics and targets refer to Nokia. The Sustainability Statement takes into account certain relevant segments of Nokia’s value chain where impacts, risks and opportunities are likely to arise from Nokia’s sustainability perspective, and provides information on upstream and downstream activities in accordance with ESRS 1 General Requirements, as applicable.

The statement indicates how Nokia’s operations take into account and affect Nokia’s stakeholders, their concerns and interests. The intended audience of this Sustainability Statement are Nokia’s various stakeholders, primarily its investors.

The Sustainability Statement does not include the digital XBRL sustainability tags in accordance with Chapter 7, Section 22, Subsection 1, Paragraph 2 of the Accounting Act, as it has not been possible to comply with this provision due to the absence of the ESEF regulation or other European Union legislation.

The Sustainability Statement was subject to external limited assurance in accordance with ISAE 3000 (Revised). The Assurance report on the Sustainability Statement can be found on page 289 of [Nokia in 2024 Annual Report](#). The assurance provider’s opinion does not cover the comparative information that has been presented in the Sustainability Statement.

Discontinued operations

Nokia announced that it had entered into a put option to sell Alcatel Submarine Networks on 27 June 2024. The sale was completed on 31 December 2024. Beginning from the second quarter of 2024, the Submarine Networks business, which was previously reported as part of Nokia’s Network Infrastructure operating segment, is presented as a discontinued operation in this report.

As a result, the metrics for continuing operations and discontinued operations are disclosed separately herein, in the applicable topical standards.

General information continued

Disclosures in relation to specific circumstances

Time horizons

The reporting period for the Sustainability Statement is consistent with the financial statements.

Nokia is adopting short-term, medium-term and long-term time horizons as of the end of the reporting period and as defined by ESRS.

Sources of estimation and outcome uncertainty

Due to the extent of Nokia's value chain and the geographical spread of its operations, some of the quantitative metrics and monetary amounts included in this Sustainability Statement have a higher level of measurement uncertainty. Therefore, when quantitative metrics and monetary amounts cannot be measured or collected directly from its systems, Nokia has made use of assumptions and estimates with the purpose of enabling users to understand the most significant information, without undermining its usefulness or quality. Such estimates and underlying assumptions are believed to be reasonable under the circumstances. Processes and internal controls are implemented at various levels of the organization with the view of minimizing uncertainties and maintain transparency. However, there is still some degree of uncertainty and some inherent limitations in making accurate information available, especially information related to some specific resource use and circular economy metrics such as waste. Nokia is implementing and developing internal process to improve accuracy, primary-source data where possible and to close reporting gaps.

Where estimations were used or where outcome uncertainties related to the metrics disclosed in the statement exist, this information is disclosed along with the respective metrics within each topical chapter in the section 'Reporting principles', to provide context for and support understanding of our disclosures. Information on value chain and other estimations can be found in the sections '[Climate change \(ESRS E1\)](#)' and '[Resource use and circular economy \(ESRS E5\)](#)'.

Forward-looking statements

Certain statements contained in this Sustainability Statement constitute "forward-looking statements." Such statements are based on management's best assumptions and beliefs in light of the information currently available to it and are subject to a number of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from such statements. These statements are only predictions based upon our current expectations and views of future events and developments and are subject to risks and uncertainties that are difficult to predict because they relate to events and depend on circumstances that will occur in the future. Risks and uncertainties that could affect these statements include but are not limited to the risk factors specified under the '[Risk factors](#)' section under Nokia's Board review 2024.

Changes in the preparation or presentation of sustainability information and reporting errors in prior periods

For the first year of reporting under ESRS, Nokia is not disclosing comparative information for all metrics, nor changes in preparation or presentation of the Sustainability Statement or reporting errors in respect of the previous period. Where metrics have been reported previously, comparative information is presented. Nokia is also presenting comparative information in respect of the base year for amounts reported in the current period when reporting the developments and progress toward a target.

Any changes in quantitative data from prior periods, as disclosed in Nokia's previous People & Planet voluntary sustainability reports, are presented in the relevant section of a topical standard where the respective metric is discussed. However, for newly introduced metrics, Nokia has opted to use the transitional provisions for the first reporting year, in accordance with ESRS 1, and is not presenting comparative information.

Content index

List of disclosure Requirements in ESRS covered in the Sustainability Statement and list of data points that derive from other EU legislation are included in the [Appendix to the Sustainability Statement](#).

Use of phase-in transitional provisions in accordance with ESRS 1

This being Nokia's first year of reporting, Nokia has adopted the phase-in transitional provisions as outlined in ESRS 1 General Requirements. Consequently, the following specific metrics have been omitted from the first-year disclosures and will be reported in the subsequent periods in accordance with the applicable requirements:

ESRS section reference	Disclosures omitted from the first year
ESRS 2, SBM-1, Para 40(b)	Breakdown of total revenue by significant ESRS sectors
ESRS 2, SBM-1, Para 40(c)	List of additional significant ESRS sectors beyond the ones reflected under Para 40(b)
ESRS 2, SBM-3, Para 48(e)	Material impacts, risks and opportunities and their interaction with strategy and business model
ESRS E1, Disclosure Requirement E1-9, Para 64-70	Anticipated financial effects from material physical and transition risks and potential climate-related opportunities
ESRS E5, Disclosure Requirement E5-6, Para 41-43	Anticipated financial effects from resource use and circular economy-related impacts, risks and opportunities
ESRS S1, Disclosure Requirement S1-11, Para 72-76	Social protection
ESRS S1, Disclosure Requirement S1-15, Para 93	Work-life balance metrics



General information continued

Governance

Roles of Nokia's administrative, management and supervisory bodies regarding sustainability matters

Composition and diversity of the members of the administrative, management and supervisory bodies

Of the 10 members of the Board, 40% are female and 60% are male. The Board members represent six different nationalities. The current members of the Board are all non-executive and there are no employee or other worker representatives on the Board of Directors. For the term that began at the Annual General Meeting 2024, 100% of Board members were determined to be independent of the Company and its significant shareholders.

The Corporate Governance and Nomination Committee of the Board aims to continually renew the Board to ensure an efficient Board of international professionals with a diverse mix of skills, experience and other personal qualities in line with the diversity principles established by the Board. A diverse Board promotes good corporate governance and the ability to support and challenge the company's operative management. The Board's diversity is seen as a dynamic, evolving concept that aligns with business goals and future needs, rather than a static requirement. Diversity is considered from a number of aspects, including skills, experience, tenure, age, nationality, ethnicity, cultural and educational backgrounds, gender and other individual qualities, all aimed at driving continuous improvement and development.

The Group Leadership Team ("GLT") is chaired by the President and CEO. On 31 December 2024, the GLT consisted of 11 members, including the President and CEO, representing six different nationalities, with 18% of the GLT members being female and 82% being male. All except the President and CEO are employees. There is no other worker representation in the GLT.

The following table shows the primary experience of the current and proposed Board members relevant to Nokia's sectors, products and geographic locations of business.

Experience and skills of the Board members

	Business Exec. role with P&L responsibility	External boardroom roles/ Governance	Finance and accounting	Legal/Public policy/ Compliance	Communications service provider market segment	Enterprise market segment	Technology	Cybersecurity	Environmental/ Social issues
Current Board members									
Sari Baldauf	✓	✓		✓	✓		✓		✓
Søren Skou	✓	✓		✓		✓			✓
Timo Ahopelto	✓	✓				✓	✓	✓	
Elizabeth Crain	✓	✓	✓	✓					
Thomas Dannenfeldt		✓	✓		✓	✓	✓		
Lisa Hook	✓	✓		✓	✓	✓	✓	✓	
Mike McNamara	✓	✓				✓	✓	✓	
Thomas Saueressig	✓	✓			✓	✓	✓	✓	✓
Carla Smits-Nusteling		✓	✓	✓	✓				
Kai Öistämö	✓	✓			✓		✓	✓	✓
Proposed new Board members									
Pernille Erenbjerg	✓	✓	✓		✓		✓	✓	✓
Timo Ihamuotila	✓	✓	✓				✓		

General information continued

Oversight of environmental, social and governance activities and practices

Under our Corporate Governance Guidelines, the Board evaluates Nokia's environmental and social activities and governance practices, related risks and target setting as well as their implementation and effectiveness across the Company. In 2024, the Board reviewed the sustainability strategy and re-examined the sustainability targets related to material impacts, risks and opportunities following the double materiality assessment, as well as the progress toward the targets, the evolving ESG requirements and expectations, investor feedback, Nokia's approach to related disclosures, and Nokia's net-zero commitment and roadmap. Additionally in 2024, the Board approved the targets related to climate change in the long-term incentive plan, approved the targets on health and safety and diversity included in the short-term incentive plan, and monitored them and other ESG targets.

The Committees of the Board of Directors have been delegated the responsibility of providing oversight and monitoring several environmental and social developments and activities in accordance with their respective area of responsibilities.

The **Audit Committee** reviews sustainability disclosures annually, as well as the information on the use of conflict minerals in Nokia's products presented in the annual reports and the related regulatory filings. During 2024, the Audit Committee's responsibilities included the continued implementation planning of new climate- and other sustainability reporting requirements, including the double materiality assessment, preparing the proposal for election of the auditor carrying out the assurance of the sustainability reporting, and oversight of the ethics and compliance program.

The **Personnel Committee** oversees human capital management, including personnel policies and practices related to Nokia's culture, physical safety, employee well-being, diversity, recruiting, development and retention. In 2024, the Personnel Committee focused, among other things, on a people risk review, including physical safety and succession planning. The Committee has recommended to the Board to include carbon emission reduction in the metrics of the long-term incentive plan as well as diversity and health and safety as metrics in the short-term incentive plan.

The **Corporate Governance and Nomination Committee** assesses and advises the Board on ESG-related activities and practices, aiming to enhance the governance structure supporting them.

The **Technology Committee** and the **Strategy Committee** review how the Company's ESG strategy embeds into the Company's technology strategy and roadmaps as well as into other strategic initiatives.

The **Group Leadership Team** regularly addresses sustainability matters in its meetings. It examines the sustainability-related impacts, risks and opportunities of Nokia's business decisions and projects. It prepares the company's ESG-related strategy, targets and operational frameworks. This enables the accountability and empowerment of each business group while maintaining appropriate strategic and operative oversight. In 2024, overall responsibility for ESG within the GLT was transferred from the Chief Corporate Affairs Officer to the Chief Legal Officer.

During 2024, the GLT was informed and updated on Nokia's sustainability-related initiatives and projects, including regulatory requirements of the EU and other jurisdictions, stakeholder engagement programs, donations and social programs and Nokia's ESG automation and digitalization program.

Nokia's governance processes, controls and procedures allow for the monitoring, management and oversight of sustainability matters by the Board, its Committees and the GLT. Dedicated processes and procedures have been established by the Sustainability function, the Finance ESG controlling function and the ESG legal function. These processes and procedures are applied to the management of sustainability impacts, risks and opportunities by the dedicated roles established within each business group and function.

This allows the Board and the GLT to make informed decisions regarding Nokia's sustainability strategy, including the goals, the company's roadmap and the steps to achieve the related objectives.

General information continued

Nokia's sustainability governance framework

Nokia Board of Directors

- Approves ESG strategy and evaluates ESG practices, related risks and target setting as well as their implementation and effectiveness.
- Specific sustainability topics are reviewed by Board Committees based on their responsibilities, including, among others, ESG reporting, materiality assessment, ethics and compliance, privacy, culture, human capital management and embedding sustainability in our technologies.

Personnel Committee

- ESG incentive targets
- Human capital management

Audit Committee

- Sustainability reporting
- ESG related risks and opportunities
- Ethics and compliance
- Cybersecurity and privacy

Corporate Governance & Nomination Committee

- Corporate governance
- Sustainability related corporate governance trends

Technology Committee and Strategy Committee

- Review how the Company's ESG strategy embeds into the Company's technology strategy and roadmaps as well as into other strategic initiatives

Group Leadership Team

- Reviews and approves implementation of and changes to sustainability-related policies, management and operational frameworks, strategy, targets and performance and annual sustainability report.
- Conducts sustainability review and provides feedback a minimum of two times per year and as topic-specific areas require.
- CEO, CFO and business group presidents review additional sustainability topics a minimum of two times per year as part of Nokia business reviews.

Sustainability Council

- Steers the alignment of sustainability strategy, priorities, and the implementation of sustainability activities across Nokia
- Contributes to the sustainability strategy and materiality assessment, and reviews sustainability targets and performance
- Provides additional insight to sustainability-related risks and opportunities

Members

Senior leaders from all business groups, People, Finance, Strategy and Technology and Legal, Compliance and Sustainability

Donations and Sponsorships Committee

- Sets principles for allocation of corporate donations and investments for universities and communities
- Approves funds for donation allocation and reviews major sponsorships
- Assesses the impact of all donation programs

Members

Chief Financial Officer, Chief Legal Officer, Chief People Officer, Chief Compliance Officer, VP Technology Leadership, VP Sustainability, Head of Corporate Social Impact

Human Rights Due Diligence Council

- Governs high-level alignment on Nokia's Human Rights Policy and implementing procedures
- Steers decisions on Nokia businesses from a human rights point of view
- Ensures alignment between all business groups and functions and that appropriate mitigations are put in place

Members

Chief Legal Officer, Chief Geopolitical and Government Affairs Officer, Chief Communications Officer, Chief Compliance Officer, VP Technology Leadership, VP Sustainability, other senior leaders per need. Head of Human Rights, and Legal Counsel

Multidisciplinary sustainability team (Legal, Compliance & Sustainability, Finance)

Drive the implementation of the ESG strategy and actions needed to achieve targets at the operational level. Support employees with training and guidance, fostering ethical decision-making and choices that are consistent with our values, policies, and laws. Subject matter experts contribute fact-based input to the different functions and business groups. Ensure corporate sustainability reporting is in line with requirements and regulations. Promote an open reporting culture and oversee robust and impartial concern reporting, investigation and remediation processes.

General information continued

Skills and expertise to oversee sustainability matters

ESG topics are brought to the attention of the Board of Directors, the GLT and various committees on a regular basis through several channels, by members of the Sustainability team and subject matter experts, as well as the representatives of each business group and functions who are members of the Sustainability Council.

Trainings by external experts are also organized with the view of enabling the Board members and the GLT to evaluate Nokia's sustainability strategy, including its goals, roadmap and efforts and to assess the materiality of sustainability topics relevant to Nokia.

Several sustainability topics were included in the yearly mandatory trainings and learning courses developed by in-house experts. These topics include net-zero; responsible business and sustainable sourcing; sustainability finance frameworks; responsible artificial intelligence; sustainability as part of Nokia's Technology Vision 2030; greenhouse gas emissions; sustainability reporting and the double materiality assessment; security and privacy; business ethics; and information security. Specialized teams were made available on a company-wide scale ensuring that all employees, including the GLT members, have access to sustainability knowledge resources and are learning about sustainability matters.

Key experts and executives participated in the double materiality assessment. During the interviews conducted in the framework provided by the double materiality assessment, an external partner specializing in sustainability reporting provided information that allowed Nokia's executives to understand the fundamental concepts of impact and financial materiality and their effect on a company's business and strategy. The executives involved in the double materiality assessment had the opportunity to validate and provide their views on material environmental, social, and governance topics and related impacts, risks, and opportunities. This experience offered the executives valuable learning opportunities not only on material sustainability topics but also on the rapidly evolving landscape of regulatory reporting requirements.

Informing and supporting the administrative, management and supervisory bodies in their oversight of impacts, risks and opportunities

Several councils and committees are set up to inform the administrative, management and supervisory bodies in their oversight of ESG impacts, risks and opportunities.

The Sustainability Council, the Donations and Sponsorships Committee and the Human Rights Due Diligence Council steer, align and ensure the implementation of ESG strategies, targets and frameworks. They provide relevant information to the Group Leadership Team and the Board of Directors and its Committees, supporting them in their oversight of impacts, risks and opportunities.

The ESG Financial Reporting Steering Committee informs the Audit Committee of the Board of the impacts, risks and opportunities identified through the double materiality assessment and of the contents of the Sustainability Statement.

Sustainability related key risks and opportunities are embedded within Nokia's Enterprise Risk Management framework and within that context are reviewed, minimum annually, with the GLT and the Board.

This approach allows the GLT, the Board, and the Committees of the Board to gain valuable insight into sustainability topics relevant to Nokia, and to evaluate Nokia's long-term strategic business plan from the added perspective of sustainability.

ESG topics are brought to the attention of the Board of Directors, the GLT and various committees on a regular basis through several channels, by members of the Sustainability team and subject matter experts, as well as the representatives of each business group and functions who are members of the Sustainability Council.

General information continued

Integration of sustainability-related performance in incentive schemes

Nokia operates short-term and long-term incentive plans for all employees, including the Group Leadership Team (GLT), as well as the President and CEO. Performance measures are set yearly to align with Nokia's business strategy and priorities, including financial, operational and sustainability targets. Nokia's 2024 incentive plans prioritized both financial performance and sustainability goals.

Long-term incentives (LTI), awarded in shares, typically vest after three years based on achieving performance conditions aligned with Nokia's long-term strategy. The performance share awards for all participants include a 10% weighting on carbon emission reduction targets (scope 1, 2, and 3) over a three-year performance period. These carbon emission reduction targets are aligned with Nokia's net-zero roadmap and incentivize the commitment toward the 2030 goal of a 50% reduction in carbon emissions, demonstrating Nokia's commitment to long-term emissions reduction and active approach in addressing climate change.

The 2024 Short-term Incentive Plan (STI) includes metrics and targets for health and safety as well as gender diversity as an incentive mechanism for fulfilling Nokia's ESG commitments. The short-term incentives for the President and CEO and the GLT members include a 10% weighting for the health & safety metric (lost time injury frequency rate with a fatality modifier for deaths within Nokia's control) and a 10% weighting on female percentage in global external hiring.

In total, the proportion of variable remuneration subject to sustainability-related targets is 20% for the President and CEO and the GLT members in their short-term incentives and 10% in their performance-based long-term incentives.

Key characteristics of the incentive schemes

Delivering the next year's step in the strategic plan – STI

Comparable operating profit 60% ⁽¹⁾	Cash release 20%
Continued focus on profitability	Achieve a strong cash position
Health & safety 10% – lost time injury frequency rate (with a fatality modifier)	Women in leadership 5% Women in workforce 5%
Deliver on our focus on the continued health and safety of our employees	Deliver on our commitment to become a more diverse employer

Delivering sustainable value – LTI

50% relative TSR, 40% cumulative reported EPS (adjusted for impairments and M&A), 10% carbon emission reduction (scope 1, 2 and 3)

A more rounded and balanced approach reflecting performance over the long term in growing the business and in delivering shareholder value whilst working towards our 2030 goal of 50% carbon emission reduction

Nokia's Remuneration Policy, which governs the remuneration of the Board of Directors and the President and CEO, was last updated in 2024. The Remuneration Policy has been aligned with Nokia's business strategy and helps ensure that executive compensation reflects contributions to sustainability targets and thus also long-term shareholder value creation.

The conditions of the short- and long-term incentives are prepared and approved by the Personnel Committee of the Board of Directors, while the Board of Directors approves all the Company's share-based incentives as well as the President and CEO's compensation, including the share-based incentive schemes.

(1) Non-IFRS measure. For the definition and reconciliation of non-IFRS measures to the most directly comparable IFRS measure, refer to the "[Alternative performance measures](#)" section.



General information continued

Statement on due diligence

Specific due diligence processes applied in relation to environment, human rights and responsible sourcing are described below.

Environmental due diligence

Nokia is committed to sound environmental management and to minimizing its environmental impact throughout the product lifecycle. This commitment is integrated into all business operations, with continuous improvement targets and programs in place. Nokia also implements Environmental Management System along with quality and health and safety management systems to ensure compliance with relevant environmental requirements.

Human rights due diligence

Nokia is committed to the human rights principles and values laid out in the International Bill of Human Rights (consisting of the Universal Declaration of Human Rights and its related covenants), the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the OECD's Guidelines for Multinational Enterprises, and the United Nations' Guiding Principles on Business and Human Rights.

Nokia's Human Rights Due Diligence (HRDD) process targets the potential misuse of the technology it provides. It is a pre-emptive process applied before any sale is made and is used to identify the most likely risk level to human rights through potential misuse of our technology. The process examines a country's long-term commitment to upholding human rights, the intended use of the technology in question and the customer type, to identify said risks early in the process and trigger the required HRDD investigation and senior-level approval/denial review where needed.

For country risk ratings, we use an external assessment provider. The HRDD process triggers are a mandatory part of the sales approval process. Training, results tracking, the communication of findings, checkpoints and triggers for the process are reviewed and, where needed, improved by the Head of Human Rights on an ongoing basis.

Responsible sourcing due diligence

Nokia actively engages with its suppliers to promote responsible sourcing practices in key sustainability areas, including environmental issues, health and safety, labor rights,

and ethical behavior. The company's responsible sourcing program focuses on supplier due diligence, climate action, circularity, and responsible minerals sourcing. For these purposes of assessing and further developing corporate social responsibility behavior and standards across its industry sector supply chain, Nokia collaborates with the Responsible Business Alliance (RBA) and the Joint Alliance for CSR (JAC), comprising some of the world's largest telecom operators. Additional details are provided under the section '[Workers in the value chain \(ESRS S2\)](#)'.

The following table provides a mapping of the core elements of Nokia's due diligence for impacts on people and the environment and their location in this Sustainability Statement, in addition to the information disclosed in this section.

Core elements of due diligence	Paragraphs in the Sustainability Statement
Embedding due diligence in Nokia's governance, strategy, and business model	<p>General information Informing and supporting the administrative, management and supervisory bodies in their oversight of impacts, risks and opportunities, page 8</p> <p>Integration of sustainability-related performance in incentive schemes, page 9</p> <p>Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model, page 18</p>
Engaging with affected stakeholders	<p>General information Interests and views of stakeholders, page 15</p> <p>Description of the process to identify and assess material impacts, risks and opportunities, page 24</p> <p>Own workforce (ESRS S1) Processes for engaging with own workforce and workers' representatives about impacts, page 65</p> <p>Processes to remediate negative impacts and channels for own workforce to raise concerns, page 65</p> <p>Workers in the value chain (ESRS S2) Processes for engaging with value chain workers about impacts, page 72</p> <p>Affected communities (ESRS S3) Processes for engaging with affected communities about impacts, page 79</p> <p>Processes and channels for affected communities to raise concerns, page 79</p> <p>Consumers and end-user (ESRS S4) Processes for engaging with consumers and end-users about impacts, page 83</p> <p>Processes and channels for consumers and end-users to raise concerns, page 83</p>

Core elements of due diligence	Paragraphs in the Sustainability Statement
Identifying and assessing adverse impacts	<p>General information Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model, page 18</p> <p>Description of the process to identify and assess material impacts, risks and opportunities, page 24</p> <p>Climate change (ESRS E1) Material impacts, risks and opportunities related to climate change mitigation and energy, page 26</p> <p>Climate scenario and resilience assessment, page 27</p> <p>Resource use and circular economy (ESRS E5) Material impacts, risks and opportunities related to resource use and circular economy, page 44</p> <p>Workers in the value chain (ESRS S2) Material impacts, risks and opportunities related to workers in the value chain, page 71</p>
Taking actions to address adverse impacts	<p>Climate change (ESRS E1) Transition plan and actions in related to climate change policies, page 29</p> <p>Targets and progress in targets, page 34</p> <p>Resource use and circular economy (ESRS E5) Actions, page 47</p> <p>Targets and progress in targets, page 47</p> <p>Workers in the value chain (ESRS S2) Processes to remediate negative impacts and channels for value chain workers to raise concerns, page 72</p> <p>Actions, page 73</p> <p>Targets and progress in targets, page 74</p>
Tracking the effectiveness of these efforts	<p>Climate change (ESRS E1) Targets and progress in targets, page 34</p> <p>Disclosure tables, page 38</p> <p>Resource use and circular economy (ESRS E5) Targets and progress in targets, page 47</p> <p>Disclosure tables, page 49</p> <p>Workers in the value chain (ESRS S2) Targets and progress in targets, page 74</p> <p>Disclosure tables, page 76</p>

General information continued

Risk management and internal controls over sustainability reporting

Internal control procedures in relation to the sustainability reporting process

Nokia conducts its business globally, being exposed to geopolitical, social and regulatory developments, including those affecting environmental, social and governance (ESG) topics.

Management is responsible for establishing and maintaining adequate internal controls over Nokia's sustainability reporting. Nokia's internal controls on sustainability reporting are aimed to provide reasonable assurance to management and the Board on the reliability of sustainability reporting, as well as the preparation and fair representation of information and facts in the published Sustainability Statement. The internal control processes consist of various controls designed around the applicable ESRS and monitored through internal audit.

Management conducts a yearly assessment of Nokia's internal controls over sustainability reporting in accordance with the Committee of Sponsoring Organizations Framework (the 'COSO Framework', 2013).

Further, management has also:

- assessed the design of the controls in place aimed at mitigating the sustainability reporting risks;
- tested operating effectiveness of all key controls; and
- evaluated all noted deficiencies in internal controls over sustainability reporting in the interim and as of year-end.

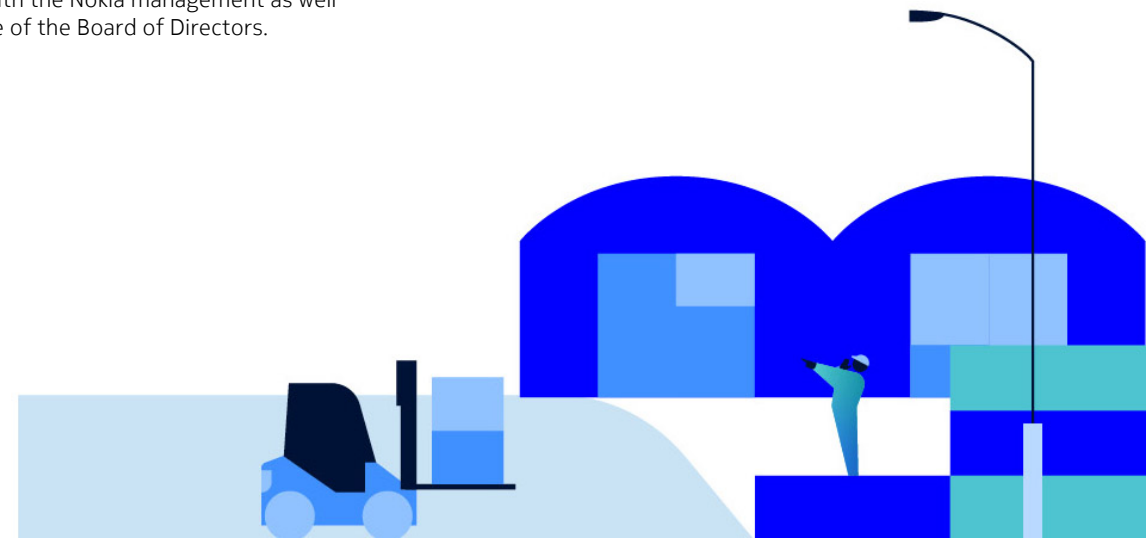
In 2024, Nokia has reported on the progress and assessments to management and to the Audit Committee of the Board on a quarterly basis.

Nokia's sustainability reporting and the corresponding internal controls framework are maturing, to reach the same level of maturity as the company's financial reporting and financial internal controls framework. Regulations and guidelines are evolving continuously. Nokia is monitoring regulatory developments in sustainability reporting and their applicability to its business portfolio, which might impact the interpretations of sustainability reporting requirements and internal controls framework, and result in further changes in subsequent years.

Organization of the internal audit function

Nokia's internal audit function examines and evaluates the adequacy and effectiveness of its internal controls system. The internal audit function reports to the Audit Committee of the Board. The head of the internal audit function has direct access to the Audit Committee, without the involvement of management. The internal audit staffing levels and annual budget are approved by the Audit Committee. All authority of the internal audit function is derived from the Board. Annually, a risk-based internal audit plan is developed that takes into account key business risks, emerging risks, external factors and input from management. This plan is approved by the Audit Committee. Audits are completed across business groups and functions. The results of each audit are reported to management identifying issues, financial impact (if any) and corrective actions to be carried out. Quarterly, the internal audit function communicates the progress of the internal audit plan, including the results of the closed audits, to the Audit Committee. Any changes to the risk environment impacting the internal audit plan are presented to the Audit Committee for review and approval on a quarterly basis. Internal audit also works closely with Internal Controls and with Ethics and Compliance to review any financial and compliance concerns brought to light from various channels and, where relevant, works with Enterprise Risk Management to ensure that priority risk areas are reviewed through audits.

In 2024, the sustainability reporting process, the internal controls design, controls performance and audit trail were in the scope of internal audit reviews and testing. The outcome of the audits has been shared with the Nokia management as well as the Nokia Audit Committee of the Board of Directors.



General information continued

Strategy

Key elements of Nokia's general strategy relevant to sustainability matters

Nokia's approach to sustainability is built on its purpose: 'To create technology that helps the world act together'. Sustainability is a key pillar of Nokia's corporate strategy, underscoring its ambition to develop Environmental, Social and Governance activities into a competitive advantage. It is also integral to Nokia's Technology Vision 2030.

Recognizing the increasing importance of sustainability for all stakeholders, including customers, investors, regulators, partners, communities and employees, Nokia aims to become the 'trusted provider' in the industry and create long-term value.

Nokia takes a two-pronged approach to sustainability: to maximize Nokia's positive impact (handprint) and to minimize its negative impact (footprint).

In line with Nokia's sustainability approach, the company follows these key principles when setting sustainability-related goals:

- Continually improving product energy efficiency
- Driving circularity to reduce waste
- Building sustainable operations and supply chains
- Decarbonizing other industries and society
- Enabling the transition of the energy sector
- Providing the critical networks for life
- Connecting the unconnected through building digital skills
- De-risking the potential misuse of technology
- Deploying ethical and responsible business practices

Addressing Nokia's footprint

Nokia aims to deliver its customers products and solutions that are as energy- and material-efficient as possible. The use phase of Nokia's products by its customers accounted for 95% of its total greenhouse gas (GHG) emissions in 2024.

Thus, Nokia's efforts in GHG emissions reduction concentrate on reducing the power consumption of the products across Nokia's portfolio to improve energy efficiency, and have the greatest direct impact on its carbon footprint. This is done through energy efficiency solutions in silicon, hardware, software products and services. Nokia works with its customers to optimize the energy used across their networks, not just looking at the individual network elements. Nokia is also adopting AI/ML-based optimization and automation to further reduce energy use and therefore GHG emissions.

A defining challenge for the industry remains the industry-related growth in energy use. The increasing growth in emissions in the ICT industry springs from an increasing demand 24/7 for data and the energy required to handle that data. This means that data traffic growth needs to be decoupled from the related growth in energy use and thus the resulting increase in emissions.

Nokia embeds energy efficiency thinking into the entire product development process from design and manufacturing to circularity, striving to build a sustainable value chain.

Nokia further aims to reduce its climate change impact through smart supply chain logistics planning, collaboration with suppliers and practicing circular economy principles to reduce material use and land impact through Design for Environment, equipment life extension, modularity, upgradability, reconfigurability for flexible architectures, recycled content and recyclability.

Enhancing Nokia's handprint

Digitalization can empower industrial enterprises and other customers to accelerate their journey towards Industry 4.0 by increasing productivity and efficiency, helping to reduce energy and other resource consumption and minimize waste. This approach not only helps achieve commercial goals but also provides for long-term sustainability.

In 2024, to further support sustainability, Nokia introduced the Private Wireless Sustainability Calculator. This tool helps enterprises quantify the impact of private wireless networks on their operations to help identify where they can reduce their environmental footprint and improve worker safety. The calculator identifies opportunities for sustainability gains through digitalization, providing insights to enhance business operations, including improved equipment life cycles, reduced transportation downtime and fuel consumption and improved worker health and safety.

Nokia helps to bridge the digital divide by connecting the underserved through products and solutions across Nokia's business divisions. For example, IP Networks delivers end-to-end routing solutions to connect mobility users globally and allow schools, businesses, and homes to economically and efficiently connect in the global economy. Optical Networks delivered multiple projects in Africa to backhaul new subsea cables and introduced a new class of extended temperature range (ETR) solutions to provide high-speed connectivity in outdoor plant environments. Fixed Networks offers PON Fiber-to-the-Home for homes, businesses and communities; Gigabit Connect for multi-dwelling units (MDUs); and 5G Fixed Wireless Access solutions to connect as many people as possible, expand broadband access across underserved communities and participate in funding initiatives like the Broadband Equity Access and Deployment Program (BEAD) in the United States.

General information continued

Sustainability strategy

Nokia's sustainability strategy aims to enhance the positive impact of the company, taking into consideration risks and opportunities in several important focus areas. The strategy is implemented through the business groups and central functions. Nokia's focus areas with material impacts, risks and opportunities are: (i) Environment (climate and circularity), (ii) Bridging the digital divide, and (iii) Responsible business.

Under **Environment**, we emphasize two areas: climate and resource use and circular economy. Nokia addresses its own environmental footprint by focusing on GHG emission reduction across scope 1, 2 and 3 emissions and efficient resource use and waste minimization across the value chain. Please refer to sections '[Climate change \(ESRS E1\)](#)' and '[Resource use and circular economy \(ESRS E5\)](#)'.

In **Bridging the digital divide**, Nokia uses its broad product portfolio across terrestrial and non-terrestrial communication networks to connect the unconnected and underserved and invest in partnerships to support digital skills building. Refer to the sections '[Affected communities \(ESRS S3\)](#)' and '[Consumers and end-users \(ESRS S4\)](#)'.

In terms of **Responsible business**, Nokia works to ensure that its business practices are aligned with its ethical and responsible values both internally, as well as in Nokia's value chain. Its approach to responsible business is covered in the topical environmental, social and governance sections of this Sustainability Statement.

Business model and value chain

Nokia collaborates closely with customers and suppliers to engage on systemic issues related to the environment, mitigating the misuse of technology (and advocating for responsible AI principles), ethics, human rights, and working conditions. This includes addressing topics such as responsible sourcing of minerals, climate, circularity and labor rights in the lower tiers of its value chain as well as understanding the sustainability expectations of stakeholders and working towards accommodating them, complemented by supplier development, learning, and industry collaboration.

Nokia's business groups

Nokia embeds sustainability into the product and operational strategies of its four business groups: (i) Network Infrastructure, (ii) Mobile Networks, (iii) Cloud and Network Services and (iv) Nokia Technologies.

Network Infrastructure delivers fixed access, IP routing and optical transport for business-critical and mission-critical applications for communication service providers, enterprises and webscale customers.

Mobile Networks creates products and services covering all 3GPP mobile technology generations. Its portfolio includes products for radio access networks and microwave radio links for transport networks, solutions for network management, and network planning, optimization, deployment and technical support services. Customers include Communication Service Providers, industrial enterprises, governments and the defense sector.

Cloud and Network Services serves a diverse customer base, including communication service providers, enterprises, hyperscale customers, digital developers, and partners. CNS invests in technologies that are critical to our customers' growth: 5G core, secure autonomous networks, private wireless and industrial edge, and network APIs. These solutions, increasingly available in a SaaS model, help customers capture the unfolding opportunities of digitalization, AI, and cloud.

Nokia Technologies is responsible for managing Nokia's patent portfolio and monetizing Nokia's intellectual property, including patents and technologies.

In 2024, Nokia delivered net sales of EUR 19 220 million and invested EUR 4 512 million in research and development. The four business groups comprise operating and reportable segments for financial reporting purposes. For further information about Nokia's operating and reportable segments, as well as their accounting policies, see the Financial Statements section, specifically note 2.2. '[Segment Information](#)'.

During 2024, Nokia employed 78 434 employees (average, excluding discontinued operations). Detailed information on the headcount of employees by country/region is available in the section Own workforce (ESRS S1), '[Disclosure tables](#)'.

Supply chain

In 2024, Nokia conducted business with around 9 300 suppliers in over 100 countries. 80% of Nokia's total supplier spend was distributed across around 400 suppliers.

Nokia's suppliers fall into six broad categories:

- Final assembly suppliers
- Hardware suppliers for product materials (such as standard components, optical components, semiconductors and electromechanics)
- Market services suppliers who support the provision of services to our customers such as in installation, construction and managed services
- Software
- Cloud Services
- Indirect sourcing suppliers for everyday goods and services needed to run Nokia's business such as consulting, legal and marketing.

Nokia's hardware suppliers are mainly based in Asia and its services suppliers are based around the world. In 2024, in addition to its own factories in Finland and India, Nokia's electronics manufacturing services final assembly suppliers included Flex, Foxconn, Jabil, Sanmina, Fabrinet and Karel supplier sites in Canada, China, Hungary, India, Italy, Malaysia, Mexico, Romania, Thailand, Turkey, the US and Vietnam. A list of Nokia's largest strategic original design manufacturers, original equipment manufacturers and component suppliers is published on our website to further increase stakeholder transparency.

General information continued

Value chain mapping

During the double materiality assessment exercise conducted in late 2023, Nokia outlined the key components of its value chain, which are presented in the following picture.

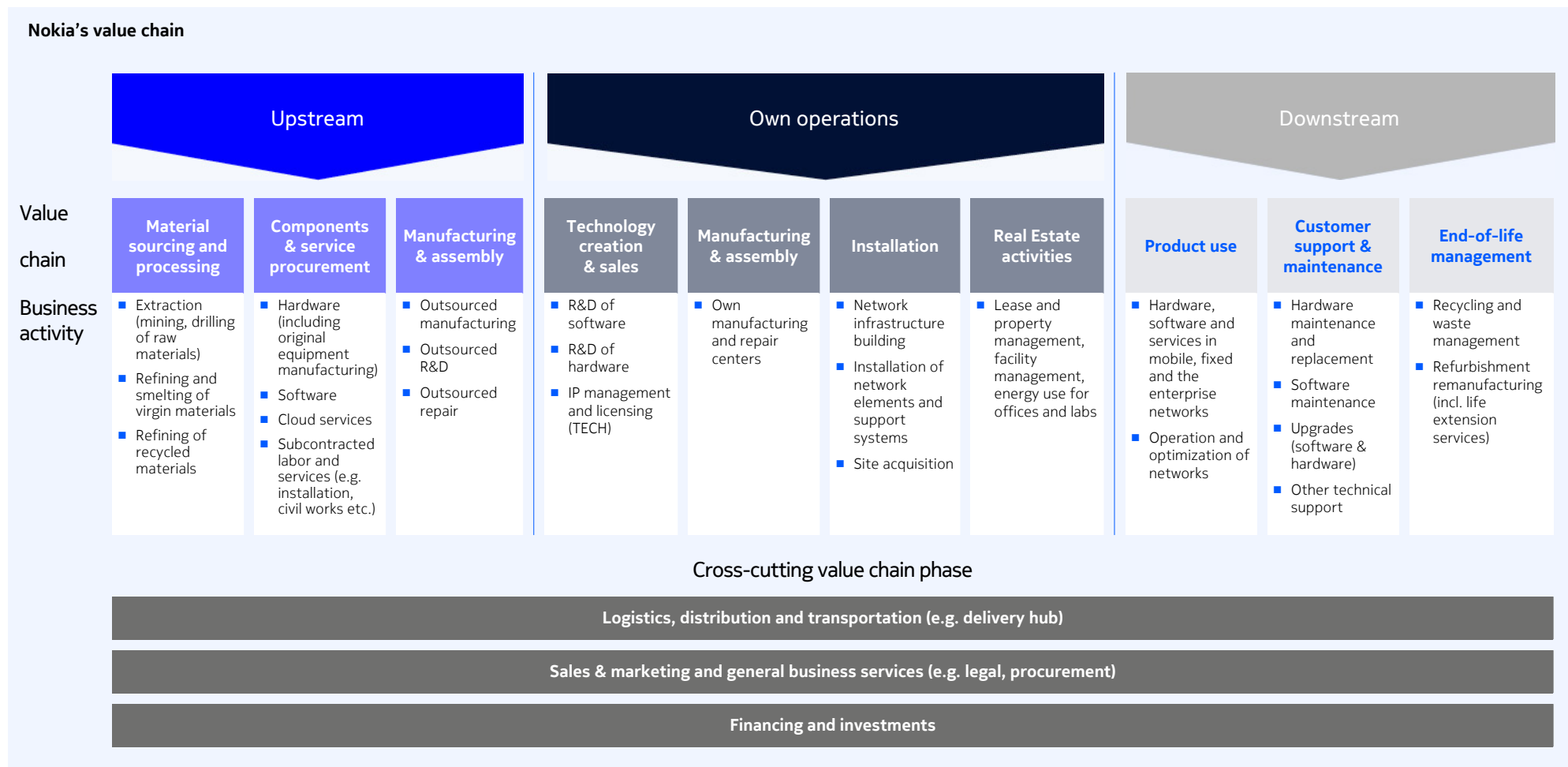
Nokia’s value chain considers all Nokia business groups, key business functions, resources and relationships distributed upstream, through its own operations and downstream.

Upstream has three main phases: (i) material sourcing and processing, (ii) components and service procurement and (iii) manufacturing and assembly. Nokia engages directly or via industry with various suppliers, from raw materials extractors to outsourced manufacturers and repairers of recycled materials.

Nokia’s own operations comprise four main phases: (i) technology creation and sales, (ii) manufacturing and assembly, (iii) installation, and (iv) Real Estate activities. The main business actors involved in Nokia’s own operations are Nokia’s own employees.

Downstream has three main business phases: (i) product use, (ii) customer support and maintenance, and (iii) end-of-life management.

There are also cross-cutting activities that support Nokia’s operations along the full value chain. These include activities like logistics, distribution and transportation of materials and ready products, general business services, and financing and investments.



General information continued

Interests and views of stakeholders

Nokia adopts a collaborative and consultative approach towards its key stakeholders, by displaying responsiveness and consideration to those stakeholders' views and interests in its decision making related to the company's strategy and business model. This approach was also followed for the purposes of conducting the double materiality assessment, the results of which are taken into account in various business and strategic decisions, especially when affecting the interests of these key stakeholders. The table below includes a summary of Nokia Group's key stakeholders, and of how themes important to them are considered in the company's strategy and business model:

Key stakeholder group	Stakeholder engagement and its purpose	Communication channels	Topics important to stakeholders	Impact on business model and strategy – our approach
Customers	Nokia interacts and engages with its customers on a frequent basis through various mechanisms and multiple channels to address issues and concerns, present proposals, identify solutions, and evaluate, mitigate or remedy impacts. Cooperation mechanisms are set up to enable Nokia to tackle environmental and social challenges together with its customers, and to look at ways in which technology can enable positive changes.	Sales personnel are dedicated to specific customers. Direct engagement through various channels and at targeted customer and industry events allows for frequent opportunities to inform and collect feedback and to collaborate on sustainability-related initiatives. Customers also participate in Executive Review Meetings with Nokia leadership team members. ESG customer advisory councils are established in Europe, Asia and India, and the Middle East and Africa, allowing for open discussions on sustainability topics. Industry association such as the Global System for Mobile Communications Association (GSMA) and Joint Alliance for CSR (JAC) also provide channels of collaboration and feedback.	Connectivity and digitalization, GHG emission reduction, energy and materials efficiency, climate actions, circular products and services, recycled materials, life cycle assessment, value chain, responsible operations, inclusion and diversity, human rights, public safety and health, data security, privacy and responsible AI.	Customer feedback through all of the channels is taken back to responsible teams in the business groups. Through sustainability focused meetings, customer requirements are taken into strategy and even business models, for example, the use of circular products and services or the set up of joint programs to bridge the digital divide and other ESG related topics.
Own workers	Nokia deploys a variety of means to engage with its workers, both through statutory mechanisms as well as voluntary initiatives that enable and stimulate workers to be informed and consulted, and to react to management decisions, plans, ideas, strategies and approaches, on a frequent basis and without fear of retaliation.	A variety of channels are used to engage with employees: the company intranet, SharePoint, focused surveys, company email, town halls and meetings, training curriculum and community of interest, regular manager-employee dialogue in addition to the available grievance mechanisms allowing for various reporting channels. Workers' representatives are informed and/or consulted during regular meetings with established bodies such as workers' councils, prevention committees, and other statutory consultative bodies.	New People Agenda, Nokia essentials, well-being, health and safety, future ways of working and flexibility policies, inclusion and diversity, leadership development, technical career development and ethical business practices, training and skill building.	A broad and deep training offering for employees, including mandatory ESG and ethics and compliance training helps Nokia's teams support customer and other stakeholder requirements. Sustainability is the responsibility of all employees and enablement helps employees understand how sustainability fits into their role.
Investors	We have regular discussions with our shareholders and the investor community on ESG topics including our approach, policies, targets, customer and technology opportunities	The annual ESG roadshow brings together our top shareholders for in-depth discussions with Nokia experts from HR, IR, Legal, and Sustainability, as well as, in some cases, Board members. This platform serves as a forum for gathering investor perspectives. Beyond the roadshow, we maintain engagement with investors throughout the year through face-to-face meetings and Teams meetings. We also leverage digital channels and participate in industry questionnaires and ratings like Sustainalytics, MSCI and CDP to facilitate communication and information sharing.	ESG targets and achievements, net-zero strategy and roadmap, Sustainable Supply chain, Human Rights, Health & Safety, AI governance, EU regulations including CSRD and CS3D.	Investor feedback helps validate our strategic focus areas, value creation opportunities, and also bring in outside views on changing strategic topics.

General information continued

Key stakeholder group	Stakeholder engagement and its purpose	Communication channels	Topics important to stakeholders	Impact on business model and strategy – our approach
Suppliers and partners	We work with suppliers to drive transparency, sustainability and good ethical business practices in our long and often complex supply chain and to ensure that their interests and views regarding our sustainability matters are incorporated into our strategy and business model.	Direct supplier management channels, supplier face to face or online meetings and dedicated events. Industry supply chain organization, such as the Responsible Business Alliance (RBA). Partner management dedicated teams in Nokia. Although there have been multiple forms of engagement, no direct engagement with the workforce of Nokia's suppliers' and partners was undertaken specifically on the double materiality assessment.	Inclusion and diversity, preventing modern slavery, ethical recruitment practices, responsible minerals sourcing, climate change, circular materials and health and safety.	Better understanding through training and capacity building that improves product energy or material efficiency, innovations which can positively impact and change product designs and sustainability outcomes. Collaboration on specific technology areas or business models e.g. circularity.
Industry sector	Nokia contributes its experience and expertise by engaging and leading in discussions with organizations developing best practices for the industry and advising policymakers across the regions where Nokia operates. These included contributing experience and support to multiple streams of the ITUs Green Digital Action program and the first ever Digital Day at COP29 climate conference in Baku, Azerbaijan. We contributed expertise to standardization work for the industry including understanding the measurement of the environmental impact of AI. We also work with the mobile industry's association on both environmental and social issues in our industry, covering topics such as energy efficiency, health and safety and digital inclusion.	Engagement with industry sector organisations and representatives is organised based on Nokia Business owners and the key topics covered by certain organisations. There are dedicated stakeholder owners for key organisations and dependent on the topic Nokia subject matter experts are also engaged eg Nokia ESG standards lead for International Telecommunication Union (ITU) standards programs. The purpose of our engagement with industry sector representatives is to ensure we share best practices with industry peers, learn from others and achieve desired outcomes in strategic, policy and technology related to sustainability work across the industry.	Measurement methodology standards for 5G radio and circularity standards for telecommunications products and networks in European Telecommunications Standards Institute (ETSI) and ITU Telecommunication Standardization Sector (ITU-T). Responsible use of AI standards in ISO, European Committee for Standardization (CEN)/ European Committee for Electrotechnical Standardization (CENELEC) and various national committees. Energy-saving features in 3GPP.	Value chain needs, challenges and opportunities are often viewed at the industry level in the sector organizations. This allows scale and scope for best practice and innovation across the industry. For example, through such bodies we see a greater need for value chain sustainability related data collection, transparency and delivery to customers which influences the sustainability digitalization strategy and plans. This is expected to increase automation and efficiency in delivery on customer and other stakeholder data requirements.
Academia	We collaborate with leading academic institutions on projects that are innovative and have a high impact on our Environmental, Social and Governance (ESG) strategy while also enabling us to strengthen our relationship with top universities in Europe, North America and Asia as we work to solve ESG challenges together.	Channels include Nokia Strategy & Technology and Business Group led research and standardization programs and Nokia University Donations program. We also participate in training, internships and PhD programs, and innovation events and recruit top talent from these institutions.	Under university donation program projects covered ESG pillars. Environmental projects focus on Sustainable and Energy Efficient Computing, and Climate Intelligence and Environmental Stewardship. Social projects center around Digital Inclusion and Accessibility and governance focus is on AI Ethics and Governance and Explainable AI (XAI). Examples of projects with university collaborations include: Sustain 6G, 6G Power, 6G ANNA, Biodiversity footprint assessment research with Jyväskylä University.	<ul style="list-style-type: none"> ■ Building Stronger Academic Collaborations with New Partners ■ Developing more energy-efficient, secure and environmentally friendly solutions and technologies ■ Collaborations could eventually impact Nokia's product development, design and material choices

General information continued

Key stakeholder group	Stakeholder engagement and its purpose	Communication channels	Topics important to stakeholders	Impact on business model and strategy – our approach
Affected communities and civil society	<p>We engage through relevant NGOs, non-profit or community organizations (e.g. UN Women and UNICEF). We work with NGOs to support programs which have a long-term impact and create a sustainable future platform in the target communities. Nokia's committee members participate in key social and human rights organizations (e.g. Europe and Asia steering committee for Business for Societal Impact and board membership of Global Network Initiative (GNI)).</p> <p>Nokia engages with cities and communities to drive digitalization and smart sustainable development.</p>	<p>NGOs, non-profit or community organizations serve as a primary communication channel, leveraging their expertise and direct connections with the affected communities at the grassroots level. For more details, see section 'Affected communities (ESRS S3)'.</p>	<p>Freedom of expression, potential misuse of technology, positive impact of technology on communities, digital skills building, gender topics, environmental protection and biodiversity</p>	<p>Engagement with affected communities and civil society directly contributes to Nokia build and design of its social programs based on the real needs on the ground from the initial planning to the final follow up and impact outcomes. Engagement helps in the development of the program strategy to better respond to the most salient challenges of the communities, their needs and opinions.</p>
Regulatory authorities and standard-setting organizations	<p>We contribute to policy debates fostering a connected society and the adoption of new technologies around the world.</p>	<p>Engaging in dialogue and participation in public consultations by Nokia itself, as well as through industry associations and sustainability-related standardization bodies. Participation in, and assuming leadership roles (chair/vice chair/issue lead) in relevant working groups of industry and trade associations (e.g. DigitalEurope, RBA, European Telecommunications Network Operators' Association (ETNO), Telecommunications Industry Association (TIA), Bitkom and others).</p>	<p>Digital and broadband policies, regulation of emerging technologies (AI), ESG topics, policies that encourage broadband rollout and adoption and the digital transformation of society and industry (incl. spectrum for broadband); policies for trusted and reliable international connectivity, for the security of digital infrastructures, for policy frameworks unlocking innovation (including 6G roadmaps), for the most effective regulations for sustainability (topics such as the regulation of forced labor, or due diligence in supply chains).</p>	<p>Nokia delivers factual advice to help shape effective policies, and then takes necessary steps to meet policy objectives, and fulfill all legal obligations. This may involve adaption of current practice or implementation of new internal processes.</p>

The views and interests of Nokia's stakeholders (including its employees, suppliers, partners and investors) which are expressed through and during the various engagement opportunities with those parties are brought to the attention of, and taken into account by the relevant administrative, management, and supervisory bodies of the company, as well as to the attention of relevant functions and units. This allows for those views and interests to be taken into account both at the stage of formulating Nokia's strategy and setting up its business model and when issues that may affect stakeholders are considered, if deemed relevant to one or more aspects of the company's strategy or business model. The governance model used by many of Nokia's functions and business groups allows for regular reporting to the Group Leadership Team and the Board of Directors and its Committees on matters raised by, or concerning, the company's stakeholders, enabling the company's decision makers to calibrate Nokia's strategy and business model to address significant material impacts on stakeholders.

General information continued

Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model

Material impacts, risks and opportunities

Based on Nokia's double materiality assessment, Climate Change, Resource Use and Circular Economy, and Social and Governance topics were identified as material. The assessment identified seven material topics, which encompass 14 material sub-topics. Nokia's material topics and their associated sub-topics and sub-sub-topics are detailed in the table below, providing a comprehensive view of Nokia's materiality landscape. In alignment with ESRS requirements, the assessment provides a summary of identified impacts, risks, and opportunities across each ESRS topic and their respective value chain locations. The findings indicate that impacts, risks and opportunities occur throughout all value chain phases, upstream, downstream, and cross-cutting, highlighting the interconnected nature of these topics within Nokia's operations and ecosystem. The process describing how the material impacts, risks and opportunities were identified is disclosed in the section [Impact, risk and opportunity management](#).

Material impacts, risks and opportunities identified in the double materiality assessment

	Material sub-topics/sub-sub-topics	Type of impact, risk or opportunity	Material impact, risk, or opportunity	Concentration of impact, risk and opportunity in the value chain
E1	Climate change mitigation	Positive impact 	Substantial contribution to climate change mitigation through development of energy and resource efficient products and technologies	Downstream
	Climate change mitigation	Negative impact 	Greenhouse gas emissions in Nokia's own operations and value chain causing adverse impact on climate	Own operations, Upstream and Downstream
	Energy	Negative impact 	Use of high carbon intensity energy sources in connection with usage of Nokia's products in the customer networks contributing to negative impact on climate	Downstream
	Climate change mitigation	Opportunity 	Nokia's solutions and new innovations in software, hardware and services enabling other industries to transition to a low carbon economy potentially driving revenue growth and open new revenue streams through new customer segments and markets	Downstream
E5	Resource inflows, including resource use	Positive impact 	Secondary use of Nokia's products and use of secondary materials in Nokia's products prevent generation of waste, contribute positively to material availability and land use	Upstream
	Resource inflows, including resource use	Negative impact 	High use of primary raw materials in our hardware components where mining and melting of virgin materials has significant negative environment impacts, including waste	Upstream
	Resource inflows, including resource use	Risk 	Nokia hardware products are dependent on various minerals and other virgin substances. If global consumption continues to grow, it may lead to material scarcity likely resulting into increased prices	Own Operations and Upstream
	Resource outflows related to products and services	Positive impact 	Applying circular design and business principles increase the recyclability of Nokia's products which further enables recycling of the products and the raw materials contained in them	Own operations, Upstream and Downstream
	Resource outflows related to products and services	Negative impact 	Nokia sells to its customers significant amount of hardware products which at the end of their lifecycle will become electronic waste, unless handled and recycled appropriately	Downstream
	Waste	Negative impact 	Nokia sells to its customers significant amount of hardware products which at the end of their lifecycle will become electronic waste, unless handled and recycled appropriately	Downstream
	Waste	Positive impact 	Reduction or prevention of waste generation in Nokia's own operations and value chain, including appropriate handling and recycling of our products contributes positively to material availability and land use	Own operations, Upstream and Downstream
S1	Working conditions: Secure employment	Positive impact 	Nokia's innovative approach to staff development and talent attraction has enabled it to act resiliently in the markets and renew itself in ways that positively impacts own workforce.	Own operations
	Working conditions: Secure employment	Risk 	Inability to attract, develop and retain a future-fit workforce with right skill set and in the right locations during business transformation	Own operations
	Working conditions: Working time	Positive impact 	Nokia has implemented and is maintaining programs and policies regarding flexible working arrangements	Own operations
	Working conditions: Work-Life Balance	Positive impact 	Nokia offers global paid family-related leave which often exceeds local regulations to align with defined internal best practices	Own operations

General information continued

	Material sub-topics/sub-sub-topics	Type of impact, risk or opportunity	Material impact, risk, or opportunity	Concentration of impact, risk and opportunity in the value chain	
S1	Working conditions: Adequate wages	Risk	⌚	Increases in wages or changes in the related practices/regulations resulting in increases in Nokia's personnel related costs	Own operations
	Equal treatment and opportunities for all: Gender equality and equal pay for work of equal value	Positive impact	⊕	Nokia has adopted gender equality and equal pay principles for own employees	Own operations
	Equal treatment and opportunities for all: Training and skills development of own workforce	Positive impact	⊕	Nokia offers extensive training and skills development opportunities to its own workforce regarding knowledge and competence development as an essential element of its business strategy, which allows employees to maintain and enhance their skills	Own operations
	Equal treatment and opportunities for all: Training and skills development of own workforce	Risk	⌚	Inability to attract, develop and retain a future-fit workforce with right skill set and in the right locations in the rapidly changing technological environment	Own operations
S2	Working conditions: Working time	Negative impact	⊖	Suppliers' employees in supplier manufacturing facilities or customer services sites may be exposed to excessive or non-voluntary overtime, continuous work without day off during peak manufacturing or projects with short execution time.	Upstream and downstream
	Working conditions: Adequate wages	Negative impact	⊖	Suppliers' employees in supplier manufacturing facilities or customer services sites may be exposed to receiving insufficient wages, deductions from their wages, not receiving correct full and final settlement when terminating employment or working under false apprenticeship schemes.	Upstream
	Working conditions: Health and Safety	Negative impact	⊖	Nokia business activities associated with installation of network equipment & support services, site acquisition & permitting may include health and safety threats related to working at height, road safety, electrical safety, underground assets, street works and working in high or extreme risk countries/regions.	Upstream and downstream
	Other work related rights: Forced labour	Negative impact	⊖	Suppliers' employees may be exposed to forced labor, including having work without valid employment contract, exposure to recruitment fees being collected as part of recruitment channels, casual labor entering our services supply chain, risks being particularly higher in deeper supply chain tiers, and in services supply chain where execution of lower skill profile last mile tasks may occur, especially in remote areas which are difficult to reach.	Upstream
S3	Communities' civil and political rights: Freedom of expression	Positive impact	⊕	Enabling freedom of expression through connectivity and providing social impact programs to help develop digital skills provide the means for communities to fully participate in today's digital society. This includes greater opportunity to share opinions, enjoy their civil rights such as voting, and access diverse information and public services more easily which further promotes informed decision-making.	Downstream
S4	Information-related impacts for consumers and/or end-users: Access to (quality) information	Positive impact	⊕	Nokia's technology enables connectivity and the resulting positive impact related to access to information, exchange of ideas and opportunity for economic development.	Downstream
	Information-related impacts for consumers and/or end-users: Freedom of expression	Positive impact	⊕	Enabling freedom of expression through connectivity allows consumers and end-users to share opinions, access diverse information and public services which further promotes informed decision-making.	Downstream
G1	Corporate culture	Risk	⌚	Breach of Nokia's Code of Conduct or the law in regard to compliance areas leading to negative financial or reputational consequences.	Own operations, Upstream and Downstream
	Corporate culture	Opportunity	↗	Nokia is distinguished as one of the World's Most Ethical Companies by Ethisphere. Nokia's strong ethical corporate culture provides a foundation to engage in business ethically and legally.	Own operations, Upstream and Downstream
	Corporate culture	Positive impact	⊕	Corporate culture prioritizing sustainability can lead to responsible and sustainable decision-making throughout the value chain.	Own operations
	Management of relationship with suppliers including payment practices	Opportunity	↗	Building trusted relationships and long-term partnerships with suppliers who share Nokia's culture of ethics and compliance.	Upstream
	Corruption and bribery: Prevention and detection of bribery	Opportunity	↗	Nokia is consistently recognized as one of the World's Most Ethical Companies by Ethisphere. Nokia's strong ethical corporate culture provides a foundation to engage in business ethically and legally.	Own operations, Upstream and Downstream

General information continued

Material Impacts on people and the environment

The outcome of the double materiality assessment provides an overview of Nokia's most important sustainability topics. Nokia's existing ESG focus areas already incorporate a degree of consideration for material impacts, risks, and opportunities.

As determined through the double materiality assessment, Nokia's business activities, operations and value chain have an impact on people and the environment. All material impacts have occurred or are expected to occur on a short-term and potentially continue over the medium- and long-term time horizon.

Nokia's existing policies, people strategy and values aim to increase employee satisfaction. By offering skill enhancement programs and training, employees' capabilities and knowledge are increased.

Energy use, GHG emissions, resource use and waste related to our customers' networks and products are actual negative impacts. Climate change mitigation measures such as product energy efficiency improvements, reduced power consumption of communication devices and solutions help increase Nokia's material positive impact on the environment and reduce the negative impacts. These kinds of measures are implemented as part of the R&D phase. Additionally, efforts to improve product recyclability rates and waste management practices are ongoing addressing both the identified positive and negative impacts.

Nokia contributes to decarbonizing other industries and society, enabling the transition of the energy sector by providing the critical networks for life and connecting the unconnected. The connectivity and technologies Nokia provides serve as a social good, supporting human rights by enabling freedom of expression, access to information, the exchange of ideas, and economic development.

The negative impacts on value chain workers are also taken into consideration, and we are working continuously to actively mitigate any negative impacts across our value chain, working with our suppliers to raise the standards in our ecosystem in key ESG areas. We have established supplier due diligence as one of the four pillars of our responsible sourcing strategy, complemented by supplier development and learning and industry collaboration as key enablers for success, as described under section '[Workers in the Value Chain \(ESRS S2\)](#)'.

Interaction with strategy and business model

These material impacts are taken into account in Nokia's ESG strategy and Nokia's business model. This can be exemplified by our product energy efficiency strategy, the selection of the materials we use, our strategy for circularity to reduce waste and packaging, supplier management, human rights and stakeholder relationships which require the implementation of specific actions to reduce the negative impacts.

The design, deployment, and maintenance of our products and services directly connect to both our positive and negative impacts, such as managing resource use and ensuring responsible supply chain practices.

Our responsible and ethical business practices and procedures support the minimization of negative impacts to our workforce and continuous audits and monitoring of our suppliers findings implementation support a more sustainable operation and supply chain.

Nokia's business strategy and ESG strategy undergo annual reviews. Over the past year, we have analyzed the current and anticipated effects of our material impacts, risks, and opportunities on our business model, value chain, strategy, and decision-making processes within our Enterprise Risk Management framework.

Our evaluation identified climate change mitigation, resource use and circular economy, working conditions of Nokia's workforce, including equal treatment and opportunities for all, and corporate culture under business conduct as the major influences to ESG strategy.

The escalating volume and complexity of ESG regulations will necessitate swift adoption of sustainable practices by suppliers and customers, particularly in the area of energy efficiency. This demand will drive us to further refine our climate, sourcing, and reporting strategies, intensify our R&D efforts, and cultivate even stronger customer engagement.

To address our material impacts and risks, we have implemented several strategic initiatives, such as defining a net-zero pathway and transition plans supporting the commitment to net-zero by 2040, including sustainability target setting, metrics and results as part of Nokia's sourcing and supply chain.

ESG targets

Nokia's ESG targets presented on the next page are determined based on Nokia's business requirements, sustainability strategy and material topics which are aligned with different internal groups and functions. When setting our targets we also take into account stakeholders' requirements and input gathered through interaction with Nokia's customers, suppliers, investors, non-governmental organizations and other stakeholders where relevant.

The ESG targets are distributed across short, medium and long term. All targets presented by Nokia are set voluntarily i.e. the targets are not mandated by legislation.

The 2024 results, progress against selected targets and more detailed information about these targets set are presented in the relevant section of a topical standard. Other metrics in relation to the material sustainability matters that are defined in the ESRS or on Nokia specific basis are presented in the relevant section of a topical standard.

General information continued

Our ESG targets

2024

Environmental

Reach **75%** reduction of our facilities' GHG emissions compared to 2019

Use **85%** renewable electricity in our own facilities

Social

A minimum of **28%** female hires in global external recruits

Zero fatal incidents for own workforce, suppliers and third-parties

Cohort of **60** senior leaders conduct safety tours to sites to increase monitoring visibility

96% of projects compliant with the strengthened requirements of our High-Risk Project Implementation Assessments (HRPIA) process

Reduction in Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR) for Nokia own workforce

Governance

Ethical Business Training (EBT) completed by **95%** of employees

2025

Environmental

Use **100%** renewable electricity in our own facilities (RE100)

GHG emission reduction of **80%** from scope 1 and scope 2 market-based emissions from a **2019 base year**

Social

Harness Nokia technology, capabilities and funds to improve the lives of **1 500 000** from a 2022 base year through social digitalization projects, digital skills building, and connecting the unconnected or underserved

96% of projects compliant with requirement of HRPIA process

Zero fatal incidents for own workforce, suppliers and third-parties

Reduce Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR) for Nokia own workforce and suppliers compared to previous year

Cohort of **80** senior leaders to conduct safety tours to sites

98% 3TG traceability and conflict free status to smelter level in our supply chain as well as conflict free status of the smelters. Extended due diligence and conflict free status of cobalt, mica, aluminum and copper

80% of suppliers achieve satisfactory sustainability score from supplier performance evaluation

Governance

Ethical Business Training (EBT), which includes ESG (Environmental, Social, Governance) training, completed by **95%** of employees

2030

Environmental

SBT Net-Zero⁽¹⁾

Overall Net-Zero target: Nokia commits to reach **net-zero** greenhouse gas emissions across the value chain by 2040

Near-term target⁽¹⁾: Nokia commits to reduce absolute scope 1, 2 and 3 GHG emissions by **50%** by 2030 from a 2019 base year

Our final assembly suppliers reach **zero** emissions from a 2019 base year

Our suppliers reduce GHG emissions by **50%** from a 2019 base year

Our logistics' GHG emissions reduced by **73%** from a 2019 base year

GHG emissions reduction of **90%** from scope 1 and scope 2 market-based emissions from a 2019 base year

95% circularity rate for waste from our offices, labs, own manufacturing, installation, product takeback and supply chain final assembly factories

Increase recycled content in mechanical part source materials:

- Cast aluminum used in mechanical parts: to **90%**
- Wrought aluminum, steel and copper alloys, as well as polycarbonate plastics used in mechanical parts: to **50%**

Packaging recyclability: Ensure all packaging is **100%** recyclable

Recycled material content: Cardboard and plastic packaging materials to contain at least **50%** recycled content

Plastics: Plastic packaging to be limited to no more than **10%** by weight of total primary packaging

Social

Helping our customers to connect the next **2 billion** measured by number of subscriptions in Nokia radio customers' networks from a 2021 base year

Nokia's Fiber-to-the-Home technology to connect **140 million** new subscribers from a 2023 base year

100% of suppliers delivering high risk activity to meet "H&S Recommended and Preferred supplier" status in our HSMA

Achieve share of women to a minimum of **25%** of total employees

Governance

Maintain **85%** favorability of employee/line manager engagement on the importance of ethics and compliance

2040

Environmental

Long-term target⁽¹⁾: Nokia commits to reduce absolute scope 1, 2 and 3 GHG emissions **90%** by 2040 from a 2019 base year

(1) The target includes scopes 1, 2 (market-based), 3.1, 3.2, 3.4, 3.6, 3.11. It excludes Submarine Networks discontinued operation.

General information continued

Current financial effects of the material risks and opportunities

Nokia has assessed the financial effects of the material risks and opportunities for the reporting year 2024.

In the double materiality assessment, we identified a material risk related to inability to attract, develop and retain a future-fit workforce with the right skill set and in the right locations as skilled employees remain critical in our business. We have not identified such material current financial effects directly contributed from the identified risk.

In relation to our own workforce, we also identified a material risk of increase in personnel expense due to increases in wages or changes in the related practices and regulations. Our compensation and benefits programs contribute to our business success by balancing market competitiveness and affordability based on a total compensation approach. The key elements of our compensation structures are annual base salary, incentive/bonus programs, recognition programs and equity-based long-term incentives. The personnel expenses per person increased during the financial year compared to the previous year (refer to the Financial statements, [Note 3.1. Summary of personnel expenses](#)).

We identified a material opportunity related to the transition to a low carbon economy and we consider energy efficiency to be one of the key factors in product competitiveness. Any current financial effects of product competitiveness are reflected in net sales as presented in the consolidated income statement.

Nokia hardware products are dependent on various minerals and other virgin substances. It is estimated that if the global consumption continues to grow, it may lead to material scarcity and an increase in prices of these materials. Potential financial effects of this risk are only expected in the long-term and no actual financial effects for the financial year identified.

Breach of our Code of Conduct or the law in regard to compliance areas could result in a material financial effect on Nokia's financial position, performance or cash flow. In 2024, no related material financial effects were accounted for.

As described in the section '[Basis for preparation](#)', Nokia is not yet disclosing the anticipated financial effects of the material risks and opportunities in this Sustainability Statement following the phase-in provision due to the first year reporting. The financial effects will be reported in the subsequent periods in accordance with the applicable requirements.

Resilience of Nokia's strategy and business model to address its impacts, risks and opportunities

Nokia's business strategy is enabled by the talent driving our innovation, research and development, and Nokia's innovative approach has enabled it to act resiliently and renew itself. Nokia has a consolidated global approach for business continuity and every function regularly maintains business continuity plans.

Nokia is continuously refining its approach to identify material impacts on people and the environment. As discussed in this Sustainability Statement, we recognize and aim to mitigate the potential risks and negative impacts associated with our business, while also aiming to drive opportunities and positive impacts within and beyond our business.



General information continued

Policies adopted to manage material sustainability matters

The following table outlines Nokia's global policies and their relationship to the material sustainability topics identified. It provides an overview of the key policies which address several interconnected sustainability matters, demonstrating how each policy aligns with and addresses the relevant sustainability matters. These policies are published on Nokia's website and are available for all stakeholders.

Nokia global policies and their relation to material topics

Nokia policies	Scope of the policy	Management body	Relation to material topics
Nokia Code of Conduct	<p>Nokia Code of Conduct is available in a web-based format in 20 languages. It enforces our values and expectations, and unites all Nokia employees behind a common vision.</p> <p>The Code of Conduct outlines standards for ethical behavior by Nokia employees and business partners. It sets out Nokia four key principles and 14 key risk areas.</p> <p>The Code of Conduct applies to directors, officers, and employees of Nokia, as well as employees of Nokia's wholly-owned affiliates and subsidiaries. The Code also applies to directors, officers, and employees of other business entities (such as joint ventures) in which Nokia owns a majority of the shares or exercises effective control.</p> <p>The Code of Conduct includes our basic principles of business conduct and high-level policy statements related to critical business topics. Policy documents further define, support, and explain specific policies. Standard Operating Procedures are created, where needed, to instruct employees on specific procedures to implement the policies. The full set of supporting policies and related procedures for the Code of Conduct's risk areas are available online to our employees and are included in annual mandatory training sessions.</p>	<p>Nokia Board of Directors adopts the Code of Conduct that applies to directors, executives, and employees of Nokia, as well as employees of Nokia's subsidiaries and affiliated companies (such as joint ventures) in which Nokia owns a majority of the shares or exercises effective control.</p> <p>Respective policy/subject matter experts are responsible for ensuring that our policies and procedures remain up to date and in accordance with applicable laws and regulations in all countries where we operate.</p>	Nokia Code of Conduct is applicable to all material topics identified (E1, E5, S1, S2, S3, S4, G1)
Environmental policy	The environmental policy is part of the general management process and environmental considerations are incorporated into relevant business planning, decision making, implementation and tracking activities. The key commitment outlined in the policy is to ensure sound environmental management. Nokia continuously seeks to prevent pollution and to reduce the environmental impacts of its products and services throughout their life cycle.	The environmental policy is approved by Nokia's CEO, while business functions ensure the needed competences, and plan and implement improvement programs with innovative and pragmatic solutions.	The environmental policy is applicable to material topics under E1 – Climate change and E5 – Resource use and circular economy
People framework	<p>Nokia's Global People Framework summarizes the core People principles applicable to everyone at Nokia – including directors, officers and employees, as well as all companies and controlled joint ventures that are part of the Nokia Group. It doesn't cover external temporary workers and sub-contractors.</p> <p>Within Nokia's governance model the People Framework is called a Policy, which governs all the People processes and practices. The approved regulation for implementing People processes and practices is called a Standard Operating Procedure (SOP). All People SOPs are global by definition and apply to all Businesses within Nokia.</p>	<p>SOPs are developed and maintained by the Chief People Organization. The Leader of the appropriate Portfolio for the given service, process or practice is the owner. Final approver is Nokia's Chief People Officer or delegates.</p> <p>All People SOP's and Guidelines are governed by and have to be in full alignment with the People Framework. In case of conflict the People Framework prevails.</p>	The People framework is applicable to material topics under S1 – Own workforce
Code of ethics	The Code of Ethics complements Nokia's Code of Conduct and sets out further expectations for Nokia's President and Chief Executive Officer, Chief Financial Officer, Deputy Chief Financial Officer and Corporate Controller (the "Officers").	The Code of ethics is adopted by the Nokia Board of Directors.	The Code of ethics is applicable to material topics in G1 – Business conduct: Corporate culture
Human rights policy	The policy addresses the impact of Nokia products and services on free expression, access to information, exchange of ideas, and economic development. Policies related to other human rights, for example rights related to fair labor practices, modern slavery and human trafficking, and environmental stewardship, are reflected in other Nokia policies.	The policy is adopted by the Nokia Board of Directors and approved by Nokia's CEO.	The Human Rights policy is applicable to material topics in S3 – Affected communities and S4 – Consumers and end-users

General information continued

Impact, risk and opportunity management

Description of the process to identify and assess material impacts, risks and opportunities

The purpose of the double materiality assessment is to identify and assess our sustainability-related impacts, risks and opportunities. The impacts, risks and opportunities that are deemed material define the information disclosed in this Sustainability Statement.

Nokia conducted the materiality assessment for both impact and financial materiality. Impact materiality examines how our activities affect people, the environment, and society – for example, how we contribute to climate change or social inequality. Financial materiality examines how sustainability matters impact our business, financial performance and position covering sustainability related financial risks and opportunities.

ESRS 1 requirements have been considered and followed in Nokia's double materiality assessment. The topics, sub-topics and sub-sub-topics as listed in the ESRS formed the basis of sustainability matters considered in the materiality assessment. Additionally, Nokia considered if there are any entity-specific topics that are not covered in the ESRS. No such entity-specific topics were identified.

During the double materiality assessment, Nokia engaged with over 70 internal and external stakeholders, following the guidelines for stakeholder engagement issued by European Financial Reporting Advisory Group (EFRAG), who authored the European Sustainability Reporting Standards. Nokia's cross-functional project team comprising internal stakeholders with expertise on sustainability, business, technology, legal, finance, employees, risk management and value chain were extensively involved. An external partner supported and guided Nokia throughout the assessment and project.

Key steps in the double materiality assessment

The assessment was conducted in four stages: value chain mapping, impact assessment, financial assessment, and material topics determination and validation.

Value chain mapping

Nokia developed an aligned overview of Nokia's value chain, which consists of its key activities and business relationships, the context in which these take place, and an understanding of its key affected stakeholders. Based on this information, Nokia mapped out the value chain, geographical locations and the potentially affected stakeholders across the different value chain activities. The outcome was validated with key internal stakeholders. The key components of our value chain are presented in the section [Strategy, Business model and value chain](#).

Impact assessment

Nokia assessed its actual or potential and positive or negative impacts on people and environment over the short-, medium- and long-term across its value chain. The nature of these impacts was then described and categorized according to relevant ESRS topics.

The identified impacts were scored based on the impact materiality scoring methodology. The impact score comprise two elements: severity and likelihood. Severity is further defined by scale, scope, and irremediability. For actual negative impacts, materiality was assessed based on the severity of the impact. For potential negative impacts, both severity and likelihood were considered. When scoring potential negative human rights impacts, severity took precedence over likelihood. For actual positive impacts, materiality was based on the scale and scope of the impact for actual impacts, and for potential positive impacts, scale, scope and likelihood were considered.

Nokia's subject matter experts identified, documented, scored, reviewed and validated the impacts. Information on Nokia's impacts was gathered from various sources including existing stakeholder engagement initiatives, research programs, due diligence processes and reporting. Impacts were identified on the defined value chain map level and linked to the relevant geographical area. The focus was on value chain areas where impacts are deemed likely to arise.

Furthermore, ten external stakeholders, including business partners, investors, and NGOs, were interviewed to understand their perspectives on material ESRS topics and validate findings. The external interviews were conducted by Nokia's partner company. The impacts, risks and opportunities identified by external stakeholders were considered in the impacts identification and cross-checked against Nokia's impact scoring. Any significant deviations were assessed, and adjustments made wherever needed.

Financial assessment

Nokia assessed its actual or potential financial implications, including risks and opportunities, over the short, medium and long term. Risks and opportunities were identified based on prior workshops, issues discovered in day-to-day operations and business interactions, desktop analysis, internal risk reporting, impact assessment, stakeholder interviews, and previous assessments, such as the climate-related scenario analysis conducted in line with Task Force on Climate Related Financial Disclosure framework (refer to '[Climate change \(ESRS E1\)](#)' section for further information). These assessments considered factors across the value chain that could impact Nokia's business and financial performance.

The identified risks and opportunities were further assessed, validated and scored by Nokia's subject matter experts. The requirement about inter-relation between impact and financial materiality was considered in the assessments and identified impacts, risks and opportunities were cross-referenced. Any differences between these two were validated to ensure completeness of the materiality assessment. The financial effects or risks arising from actions to address sustainability matters were also considered during the assessments. Each risk and opportunity was linked to the relevant geographical area, though many risks and opportunities are global or linked to several countries.

The identified risks and opportunities were scored based on the likelihood of occurrence and the estimated magnitude of potential financial effect.

General information continued

Material topics determination and validation

The identified impacts, risks and opportunities were scored from 0 to 4. In the material topics determination phase, Nokia assessed and defined the following materiality thresholds: 3.7 for impact materiality and 3.0 for financial materiality. Impacts, risks, and opportunities exceeding the thresholds are concluded to be material to Nokia and define the reporting scope of this Sustainability Statement.

Nokia leadership was interviewed and engaged in validating the findings and materiality of environmental, social and governance topics. The double materiality assessment process and final results were reviewed and approved by the Steering Committee established to steer ESG Financial Reporting program and CSRD reporting. The Audit Committee was informed about Nokia's double materiality assessment and results in line with Audit Committee's responsibility to oversee sustainability reporting under the new CSRD regulation.

Nokia assesses on an annual basis whether any such changes in its business model, operations, risk assessment or external circumstances have occurred which require update or reassessment of the double materiality assessment in whole or in part.

Additional topical considerations

Environment

Nokia's Environmental Management System, environmental data and climate-related scenario analysis conducted in line with the Task Force on Climate Related Financial Disclosure framework were utilized as a basis to identify, assess and score environmental related impacts, risks and opportunities. More information regarding climate and resource use and circular economy is provided in the sections '[Climate change \(ESRS E1\)](#)' and '[Resource use and circular economy \(ESRS E5\)](#)'.

When identifying actual or potential pollution (ESRS E2), water and marine resources (ESRS E3) and biodiversity (ESRS E4) impacts, risks and opportunities, Nokia assessed its own operations, upstream and downstream activities. This assessment covered, among others:

- Nokia's own facilities' other than GHG emission and water consumption data collected annually
- Substances used in Nokia's products and packaging
- Sector specific analysis on materiality and impacts of commodities on biodiversity

- Submarine Networks marine operations
- Protection of Nokia's forest areas in Finland

To the best of Nokia's knowledge at the time of the double materiality assessment, negative impacts were identified but none of the impacts, risks or opportunities met the materiality thresholds. Nokia's climate change mitigation and resource use minimization actions indirectly contribute to prevent changes in ecosystems.

Workers in the value chain (S2)

Nokia's impacts, risks and opportunities connected to workers in the value chain were identified on the basis of supplier assessments and audits that Nokia conducts each year, as well as on the basis of discussions in industry forums, through stakeholder inquiries and supplier workshops and webinars. Findings related to working time, wages, health and safety and forced labor risk were the most frequent findings in Nokia's supplier audits in 2024. The information gathered through this process was used for the identification and scoring of material impacts, risks and opportunities related to workers in Nokia's value chain. Please refer to section '[Workers in the value chain \(ESRS S2\)](#)' for further information.

Business conduct (G1)

For business conduct matters, Nokia's impacts, risks and opportunities are identified on the basis of ongoing reviews of risks presented both internally, including business go-to-market strategies, and externally, including regulatory changes. Nokia addresses these risks and opportunities, along with possible impacts, through a multi-pronged approach that includes Nokia's Code of Conduct; a corporate culture of integrity, which is supported by its comprehensive compliance training and communication programs; the annual mandatory "Ethical Business Training" course; effective controls; and well-defined processes. The topics within the mandatory training program are rotated every year to raise awareness on high-risk areas, emerging risks, and key topics. Nokia is continually improving its compliance controls and processes to ensure a robust and effective compliance program. Nokia's culture of integrity is further supported by its strong speak-up culture, empowering employees to raise concerns. Concerns are investigated by the appropriate resources, including the Ethics and Regulatory Compliance team's Investigations Group, which is responsible for the investigation of reported compliance concerns. Refer to '[Business conduct \(ESRS G1\)](#)' for further information.

Changes compared to the previous materiality assessment

The double materiality assessment was conducted for the first time in accordance with the new framework provided by the Corporate Sustainability Reporting Directive (CSRD) and the related European Sustainability Reporting Standards (ESRS). Applying the said standards and methodology as a framework for our reporting also means that certain topics and sub-topics included in previous sustainability reports which were aligned with Global Reporting Initiative (GRI) guidelines did not meet our materiality threshold. The application of the reporting threshold does not change our strategic approach to addressing these topics, which include biodiversity, pollution, security, and privacy matters. We anticipate future feedback from stakeholders, peer insights, regulatory developments, and further ESRS implementation guidance to alter the outcome of the double materiality assessment in the future.

Integration to Nokia's Enterprise Risk Management

Sustainability related risks and opportunities are embedded within our Enterprise Risk Management framework and risk taxonomy. Nokia Enterprise Risk Management's purpose is to ensure that a systematic risk and opportunity identification and analysis is embedded into financial planning, strategy creation and operative business management as well as in key decision making. The Enterprise Risk Management framework is aligned to the overall Nokia governance model, where Nokia's businesses are accountable for meeting approved plans and targets as agreed within Nokia. Key risks and opportunities are managed and monitored as part of business performance management.

Under the Nokia Enterprise Risk Management framework, Nokia considers event likelihoods, financial impacts and rate the effectiveness of our risk and opportunity response actions. The significance of individual risk factors is evaluated against six different dimensions - the degree of impact to people & environment, our compliance, reputation, financials, operations and strategy. Early on in the double materiality assessment process we ensured that the rating scales align with our ERM approach.

Furthermore, in the reporting period 2024, the Sustainability and Enterprise Risk Management teams aligned identified impacts, risks, and opportunities in the double materiality assessment with the ERM reporting.

Environmental information

Environmental information

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Climate change (ESRS E1)

Climate change has been a major topic for Nokia Group for more than a decade and as such we have worked consistently to develop and refine our approach to understanding and tackling the risks and opportunities that climate change presents to our business. Equipped with this knowledge, we have been able to make informed business decisions, set goals and targets, and focus on critical climate actions over the years. Our climate goals include increased energy efficiency in silicon, software, and systems, providing the networks and operational skills to scale smart energy solutions. We also intend to accelerate our efforts in energy efficiency in 5G-Advanced and 6G through early engagement in standardization and ecosystem development. Sustainability topics including climate are integral to our Technology Vision and Strategy 2030 and are reflected in how we operate and the business decisions we take. Research in Nokia Bell Labs also contributes towards these goals.

Material impacts, risks and opportunities related to climate change mitigation and energy

The materiality assessment reflected that climate change mitigation and energy are material sustainability sub-topics for Nokia. The following table describes the material impacts, risks and opportunities, as well as how we manage those impacts, risks and opportunities.

Sub-topic	Material impacts, risks and opportunities	Management
Climate change mitigation	Positive impact: Substantial contribution to climate change mitigation through development of energy and resource efficient products and technologies	With 95% of Nokia's total scope 1, 2 and 3 GHG emissions resulting from products in use, we invest significantly in research and development to continuously improve the energy efficiency of our products and develop new energy efficient solutions. As the volume of network traffic rises in a more connected and digitalized world, we work on separating this growth in traffic from an equivalent growth in energy consumption.
Climate change mitigation	Negative impact: Greenhouse gas emissions in Nokia's own operations and value chain causing adverse impact on climate	We manage and try to minimize this negative impact same way as we manage the above positive impact.
Energy	Negative impact: Use of high carbon intensity energy sources in connection with usage of our products in the customer networks contributing to negative impact on climate	We engage with stakeholders to push for grid decarbonization and aim to provide digitalization solutions to support renewables generation and grid transformation in the energy sector. We also work with our value chain on their journey to transitioning to renewable energy sources as countries decarbonize their electricity grids.
Climate change mitigation	Opportunity: Nokia's solutions and new innovations in software, hardware and services enabling other industries to transition to a low carbon economy potentially driving revenue growth and open new revenue streams through new customer segments and markets	We aim to proactively address changing customer preference through extensive research and innovation on energy efficient solutions. We provide low-latency connectivity, private wireless networks, new IP routing and optical solutions, sensors, and AI/ML as the basis of the decarbonization through digitalization proposition in our enterprise portfolio. We work with a growing range of enterprise partners to provide solutions which may enable other industries to transition to a low carbon economy and improve productivity. We collaborate with companies working on a variety of smart technologies, cloud-based technologies and automation.

Environmental information continued

Our approach to determining material impacts, risks and opportunities is described under the section '[General information](#)'.

Additionally, when identifying, assessing and scoring climate-related impacts, risks and opportunities, we utilized information and data from Nokia's Environmental Management System, climate-related scenario analysis and GHG emissions reporting.

For environmental topics Nokia has a ISO 14001 certified Environmental Management System in place to identify environmental aspects and impacts and related risks and opportunities, which are reviewed annually. This process covers all business activities. Environmental aspects are assessed based on their direct environmental impact, related applicable regulation, frequency and stakeholder interest. The aspects exceeding the threshold score set by the company will be considered as significant, and for them the management process, targets and responsible contributors are defined. The annual review process takes into account changes in the business scope, new products, geographies, regulation and stakeholder attitude. The identified environmental aspects where aligned with the impacts, risks and opportunities based on the double materiality assessment.

GHG emissions data (including the scopes 1, 2 and 3) was used as the basis for identifying Nokia's direct and indirect impacts on climate change, as well as when scoring scale and scope of the identified impacts.

Climate scenario and resilience assessment

The Task Force on Climate Related Financial Disclosure framework was used as the basis for the climate resilience analysis, as well as related risks, opportunities and scenario assessment completed in March 2024. The following short, medium, and long-term planning horizons in the context of climate change were applied:

- Short term: until 2026 (up to 3 years). This mirrors our financial planning horizon.
- Medium term: until 2030 which is the timeline we use in the context of strategic planning, and reflects the timeline of our current key science-based climate target (SBT) of 50% reduction in our total GHG emissions by 2030 (baselined to 2019).

- Long term: until 2050 which reflects the common ambition level for net-zero emissions across the value chain by no later than 2050, as envisaged in the Paris Agreement.

Physical risks

In the process of identifying and assessing climate change related physical risks, the SSP3-7.0 scenario was primarily used, being the likely worst-case scenario based on IPCC Sixth Assessment Report, considering the climate actions already taken to limit global warming. This scenario projects the global average temperatures to increase by 3.6°C above pre-industrial levels by the end of the century. Climate driven physical risks considered in the assessment include extreme heat, heavy rain and snow fall, floods, drought, wildfires, severe storms and tropical cyclones, sea level rise, water scarcity and air pollution.

The scoping for risk assessment and scenario building related to physical climate risks was based on relevant risk areas and value chain elements which could potentially expose Nokia to material risk. Our outdoor products and services were assessed to determine how sensitive those may be to physical climate change risks. We scoped our assessment to own operations in critical locations. In the supply chain assessment, we selected a sample of critical suppliers to study their external disclosures related to climate change and risks they have identified. Further, we explored the business implications of the identified risks and the risk response actions taken with respect to the relevant risks.

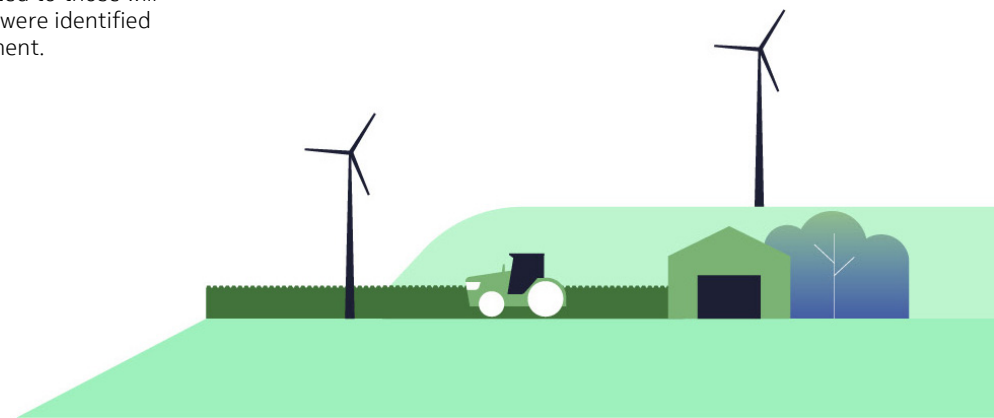
Our scenario analysis showed that our operations and assets are most exposed to extreme heat, heavy rain and pluvial flood. So far, we have not experienced material business disruptions from climate change-related physical risks. By 2050, the weather extremes will increase in frequency and intensity, but we have assessed that financial impacts related to those will remain modest and no physical climate risks were identified as material in the double materiality assessment.

Transition risks and opportunities

In the process of identifying and assessing climate change-related transition risks and opportunities, the SSP1-1.9 scenario was primarily used. This is the only scenario that meets the Paris Agreement's goal of keeping global warming to around 1.5°C above pre-industrial temperatures.

We scoped our assessment based on our GHG emissions footprint and key sectors (energy, transportation, building, industry/supply) impacting our operations or our carbon footprint with the assumption that these are the elements where transitional risks and opportunities may potentially lead to a material impact. The scoping and assumptions of our regulatory compliance landscape are based on the European Union's climate change actions and related regulations that are currently generally considered to be among the strictest and most forward-leaning climate and sustainability regulations in the world.

The assessment was done on a qualitative basis. In our assessment to identify key risks and opportunities, we have considered the shifts needed to limit warming to 1.5°C based on external evaluations and our own current understanding of the upcoming regulations impacting Nokia or Nokia's value chain. We also examined the worst-case SSP3-7.0 scenario, i.e. if any other potentially material risks or opportunities have been omitted using the lower emission scenarios.



Environmental information continued

Key assumptions used in the scenario assessment are the following:

- Digitalization of industries is a key enabler in the transition to a lower carbon economy
- Global electricity consumption increases with new technologies
- Energy grid development is modelled on IEA's World Energy Outlook 2023 in Net-Zero Roadmap
- Energy efficiency is an essential component to a low carbon path and ensuring adequacy of electricity
- The cost of carbon-intensive inputs, such as energy and raw materials increases.
- Customer specific-emission factors are taken into account in addition to the global energy grid development, in order to obtain more accurate data on emissions of the use of sold products; this approach is based on the assumption that our customers have set net-zero targets and are transitioning to renewable energy sources faster than the global grid is decarbonized.

We have conducted the assessment from four perspectives: shifts in technology, customer requirements, supply challenges or opportunities, and changes in rules and regulations potentially directly impacting Nokia's own operations and assets. Product energy efficiency and power consumption are the key product related aspects in the context of climate mitigation and can be both a risk and/or an opportunity depending on the competitive market position of our products.

In our assessment we concluded that energy efficiency is an essential component of the low carbon path regardless of the scenario chosen. Increased costs of carbon-intensive inputs, such as energy and raw materials are likely to drive companies to find savings and improvements in power consumption and operational efficiency. We consider this as an opportunity as digitalization and connectivity can support decarbonization and resource efficiency. We also believe that the continuing and potentially broader need for connectivity may open new customer segments and markets. Further, the energy efficiency of our products and new innovation in silicon, software, hardware and services may have a significant impact on our product competitiveness. Based on these considerations, we assessed climate change mitigation to develop an opportunity for Nokia which was deemed material in the double materiality assessment.

Additionally, we identified transition risks and opportunities which did not reach materiality threshold and were not deemed material in the double materiality assessment. Transition to a low carbon economy may increase the costs of energy and raw materials for our supply chain which could cause cost pressure for us and our customers. Additionally, corporate emissions reporting requirements, strengthened and expanded carbon pricing mechanisms, fragmentation of such frameworks, and increased likelihood of related compliance risks may all increase costs. Competitiveness of our products and solutions in the transition to lower carbon networks including product energy efficiency represents both a risk and opportunity to Nokia. Further, we identified transition opportunities related to increased availability of renewable energy and the development of adaptive capacity to respond to climate change.

In our climate scenario assessment, we also identified material availability, resource use and circular practices related risks and opportunities which are discussed in the '[Resource use and circular economy](#)' section.

Resilience

As we further develop a robust and sustainable supply chain that can best serve our customers, maintaining focus on resilience is critical. We continuously optimize our manufacturing, distribution and supplier network across the regions in which we operate to better serve our customers. We also leverage artificial intelligence and machine learning capabilities to better develop our supply chain and factory network. Our regional approach will not only enable us to deliver a more rapid response to our customers' needs, but also reduce transportation costs and carbon emissions.

As reflected in the material opportunity identified, we are confident that there is a need for connectivity and that our purpose and strategy remain intact regardless of the scenario pathway chosen. Nokia considers that information and communication technology and systems are essential to build resilience and to cope with climate change. Digitalization and enhanced connectivity can transform the way people communicate, work and live their daily lives. Our technology can enable industries and cities to digitalize and automate, driving efficiency and productivity gains while enabling potential reductions in emissions and the use of resources.

Policies

We have adopted policies to manage our material impacts, risks, and opportunities related to climate change mitigation and energy. Nokia tries to prevent environmental pollution along Nokia's value chain as it is outlined in its Environmental policy along with its Code of Conduct. Nokia is committed to reducing GHG emissions across the value chain in line with our GHG emissions reduction targets.

Nokia's Environmental policy is based on the principles of the ICC Business Charter for Sustainable Development, while environmental management and ongoing environmental performance are governed by the certified ISO 14001 Environmental Management System. This ensures a holistic and structured approach in managing Nokia's material sustainability matters. In 2024, Environmental Management Systems covered 54% of Nokia's sites and 90% of employees (excluding discontinued operations).

Environmental information continued

The implementation of the policy and its management system is the responsibility of each business function. The Environmental policy is publicly available and Nokia follows a proactive and open communication approach with relevant stakeholders. Refer to the section General information, '[Policies adopted to manage material sustainability matters](#)' for further information regarding the Nokia policies.

Product development and Design for Environment

The environmental goals and activities of Nokia are aimed at applying product life cycle thinking to minimize environmental impacts as early as possible in the product design and development process. This makes opportunities available to improve the environmental performance of the products including energy efficiency. Nokia's Design for Environment guideline addresses regulatory, customer and Nokia requirements for designers to use in striving to make Nokia products environmentally responsible, i.e., in line with our policies and goals for product stewardship and environmental sustainability.

This guideline development and update includes the Nokia Product Eco-Requirements Roadmap and results from product Life Cycle Assessments. Nokia employs Life Cycle Assessments as an important tool in evaluating potential environmental impacts of a product throughout its life cycle stages.

Supplier requirements

We expect our suppliers to adhere to our Third-Party Code of Conduct and we provide them with our supplier requirements, including the Responsible Business Alliance (RBA) Code of Conduct and Nokia specific sustainability requirements. Responsible Business Alliance Code of Conduct includes environmental related requirements, covering Environmental Permits and Reporting, Pollution Prevention and Resource Conservation, Hazardous Substances, Solid Waste, Air Emissions, Materials Restrictions, Water Management, as well as Energy Consumption and Greenhouse Gas Emissions.

On top of this industry standard, in the area of environment management, there are also several Nokia specific requirements toward our suppliers. We require our hardware suppliers for product materials and final assembly suppliers to have a documented Environmental Management System which shall satisfy the requirements of ISO14001 or other internationally recognized standards. We also require key suppliers to be ISO 14001 certified, which we track.

We also have implemented environmental requirements and guidelines for Nokia products, which describe all designs, products, parts, modules, components, and packaging materials. This document lists the most significant global environmental regulations and introduces the Nokia environmental requirements.

Suppliers are obliged contractually to consider environmental aspects in all phases of product development, using, for example, specific Design for Environment methods or checklists. Suppliers are contractually required to comply with Nokia product environmental requirements e.g., Nokia Substance List. Choices made during these product development phases must reduce or eliminate negative environmental impacts as much and wherever possible. As an example, all reasonable attempts shall be made to improve energy efficiency of the product and to promote recycling.

Transition plan and actions related to climate change policies

In 2023, Nokia investigated how to accelerate its net-zero ambition and defined the related transition plan and levers. Following this assessment in 2024, Nokia announced that it is committed to reducing its total global greenhouse gas emissions (GHG) to net zero across the value chain by 2040, accelerating its previous target by ten years, and putting it ahead of the Paris Agreement target of net-zero by 2050. Nokia is not excluded from EU Paris-aligned benchmarks.

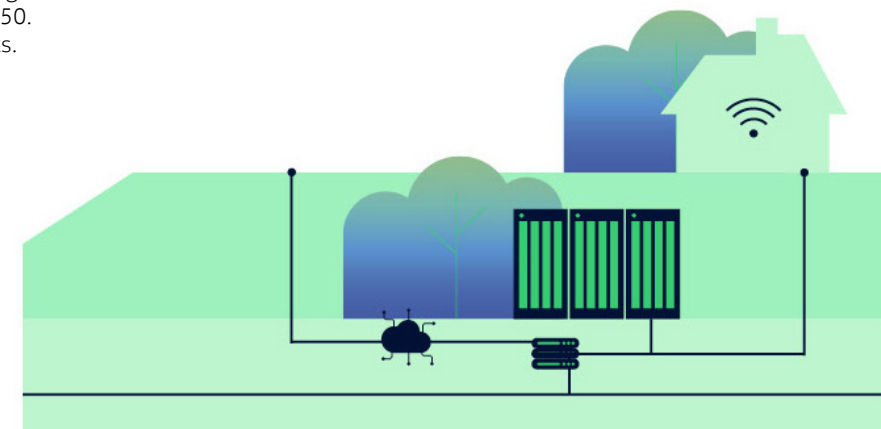
Nokia has defined a net-zero pathway that will help it reduce emissions across its value chain. Nokia's GHG emissions and the estimated decarbonization levers to achieve our 2030 and 2040 targets fall into three main categories. These categories are:

- Own operations including energy use in facilities and by fleet which contribute to scope 1 and 2 emissions
- Upstream activities including purchased goods and services, capital goods, logistics and business travel which contribute to scope 3 emissions category 1, 2, 4 and 6
- Downstream activities including use phase of our products and solutions which contribute to scope 3 emissions category 11

Additionally, electricity grid decarbonization has significant impact on reduction of our GHG emissions. The net-zero pathway also requires governance, monitoring and reporting actions.

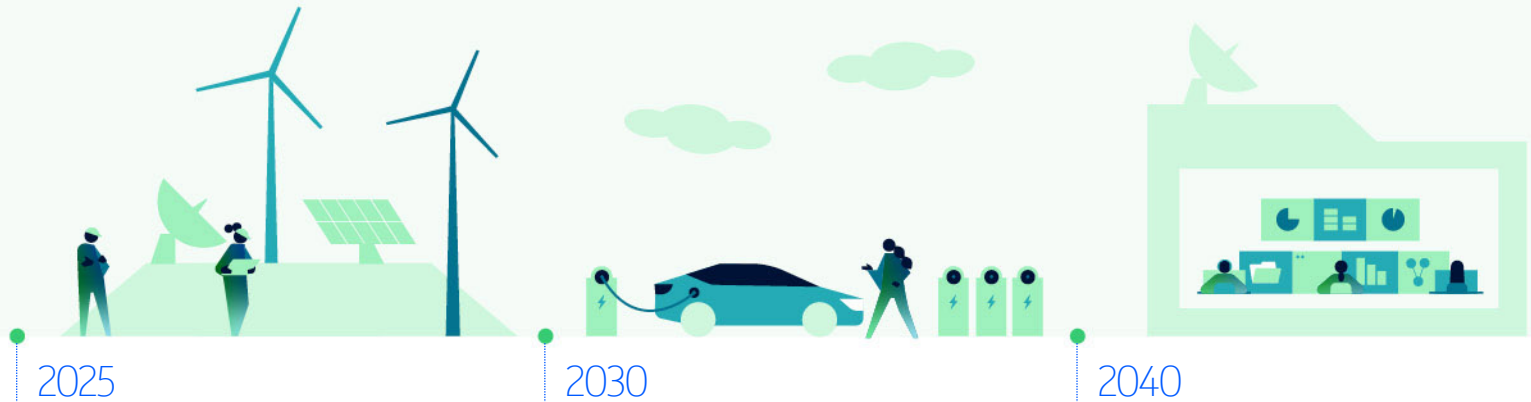
The commitment to net-zero was approved by the Nokia Group Leadership team and Board of Directors was informed about the commitment.

The net-zero target has been approved by Science Based Targets Initiative (SBTi) in January 2025.



Environmental information continued

The main decarbonization levers and examples of key actions planned in the net-zero pathway are described and illustrated below.



	2025	2030	2040
Decarbonization levers	Targets: RE100 (scope 2 facilities) 80% reduction scope 1-2	Targets: 90% reduction scope 1-2 SBT: 50% reduction scope 1-2-3	Targets: SBT Net-Zero by 2040 (scope 1-2-3)
Own operations: Facilities and fleet (scope 1-2)	100% renewable electricity (RE100)	100% electrification of car fleet	Neutralize residual emissions
Upstream: Embodied (scope 3, cat 1 and 2)	Engage key suppliers to plan and track decarbonization, circular products & services	100% decarbonization for final assembly suppliers, 50% for other key suppliers	Circular and low carbon materials product design
Upstream: Logistics and business air travel (scope 3, cat 4 and 6)	Optimizing transportation modes to minimize emissions	Bio-fuel blend agreements for logistics	Significant reduction in air freight emissions
Downstream: Product use phase (scope 3, cat 11)	Engage with customers to ensure wide uptake of renewables	Development of the product portfolio for energy efficiency gains	Develop decarbonized site energy solutions. Secure investments in long-term research and disruption
Electricity grid (scope 3, cat 1 and 11)	Climate dialogue with stakeholders	Value chain dialogue and customer specific factors. Grid decarbonization leading to GHG emission reductions ⁽¹⁾	Grid decarbonization leading to further GHG emission reductions ⁽²⁾
Governance, monitoring and reporting	Continuous reporting process development including further digitalization of the emissions data	Enter carbon market to purchase removals	Neutralize residual emissions

(1) Assumption: Grid decarbonization leading to 48% smaller emission factor compared to base year 2019 based on IEA WEO2023 – Announced Pledges Scenario.

(2) Assumption: Grid decarbonization leading to 82% smaller emission factor compared to base year 2019 based on IEA WEO2023 – Announced Pledges Scenario.

Environmental information continued

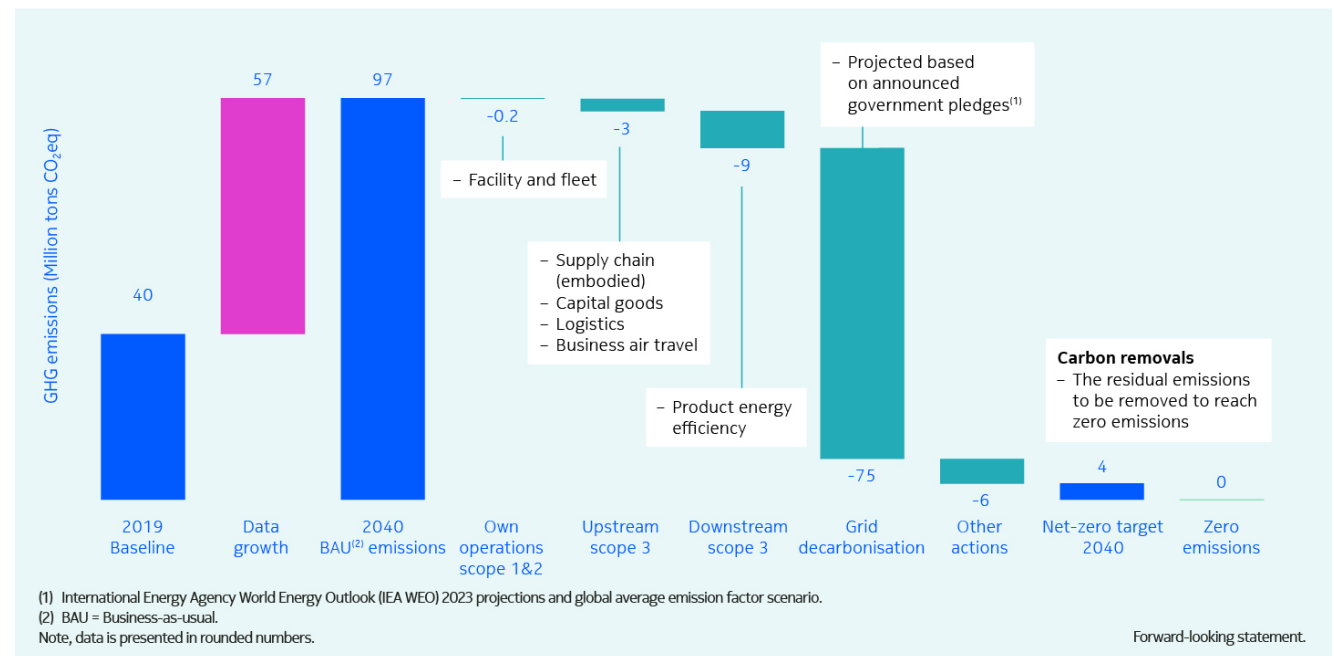
- **Own operations - Facilities and fleet (scope 1 and 2):** Nokia aims for complete decarbonization in our facilities and car fleet. Nokia is committed to using 100% renewable electricity in its own facilities by 2025. With our car fleet, we aim to reach the target for our own operations' emissions by continuing to introduce low-emission vehicles and transitioning to 100% electric vehicles by 2030.
- **Upstream - Embodied (scope 3, categories 1 and 2):** Nokia will focus on reducing the embodied emissions of its products, for example by offering circular products, adding recycled material content into new products and designing products that use less material while having increased throughput capacity and functionality. Nokia works with suppliers on their journey to decarbonizing their operations.
- **Upstream - Logistics and business air travel (scope 3, categories 4 and 6):** Nokia's action plans that will require further work include optimizing transportation modes and route planning, use of decarbonized fuels in logistics and reducing air freight.
- **Downstream - Product use phase (scope 3, category 11):** With 95% of emissions resulting from products in use in our customers' networks, our greatest efforts remain concentrated on product design and innovation to reduce the power consumption and improve energy efficiency of our products across Nokia's portfolio.
- **Electricity grid (scope 3, categories 1 and 11):** Nokia is engaging with stakeholders to push for grid decarbonization and provides digitalization solutions to support renewables generation and grid transformation in the energy sector. Nokia also works with its value chain on their journey to transitioning to renewable energy sources as countries decarbonize their electricity grids.

- **Governance, monitoring and reporting - Carbon removals:** Credible, permanent carbon removals and storage are expected to be required to neutralize residual emissions to reach net-zero. Nokia has been examining credible solutions for carbon removals to support long-term net-zero targets.
- **Other:** Nokia has not identified any locked-in GHG emissions from its key assets nor products. Locked-in GHG emissions are understood as estimates of future GHG emissions that are likely to be caused by an undertaking's key assets or products sold within their operating lifetime. As Nokia's products are electricity powered, the GHG emissions depend largely on the evolution of the energy system as a whole with no delays caused by Nokia's products.

Nokia Group's climate strategy, ambition and action plans address energy efficiency and circularity. Nokia's business groups and functions are incorporating the decarbonization levers and key action plans in their investment and strategy planning processes. The net-zero pathway is integrated into Nokia's overall product portfolio strategy, with the net-zero modeling targets aligned to these plans.

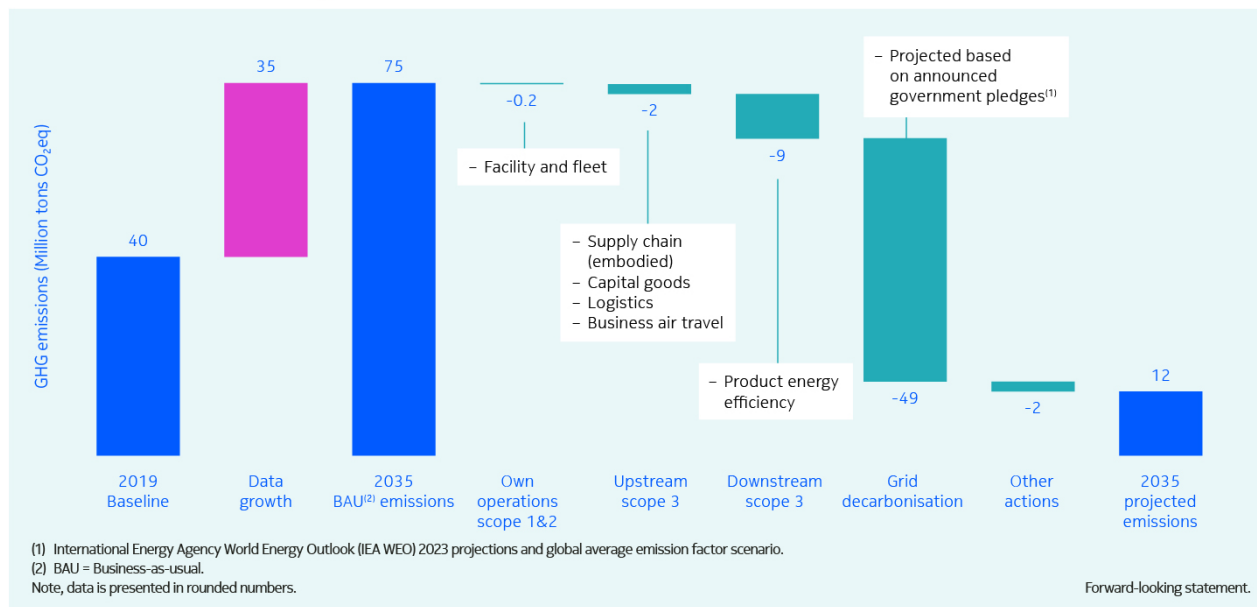
For the expected main decarbonization levers, which include the key actions planned, Nokia has estimated and modelled their quantitative contributions to achieve the GHG emission reduction targets, covering the target years 2030 and 2040 as well as interim year 2035 as required by ESRS.

GHG emissions modeling 2019-2040

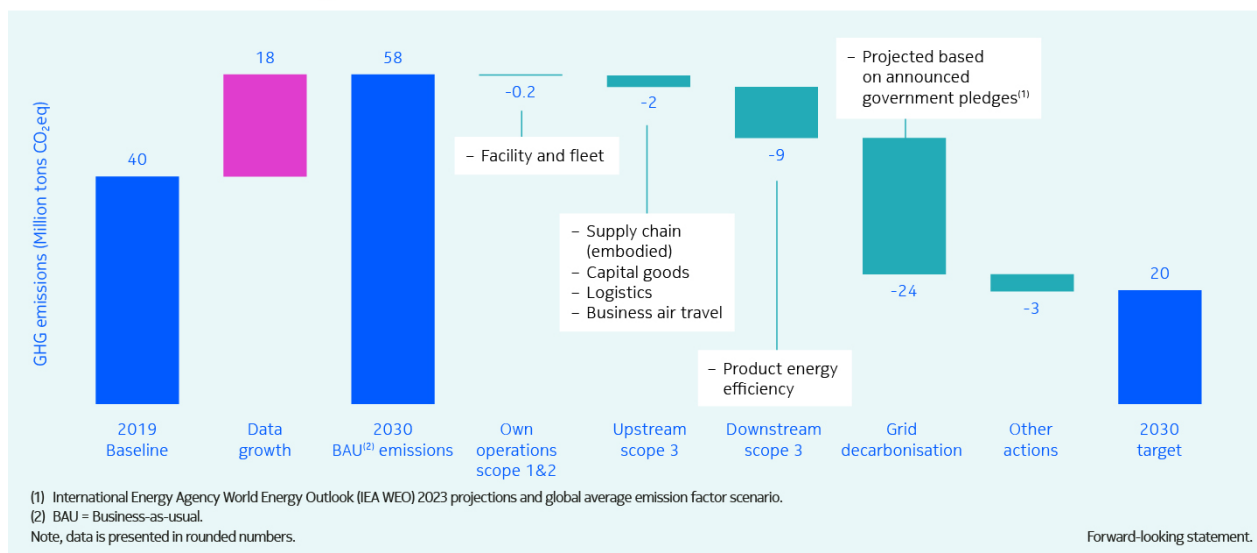


Environmental information continued

GHG emissions modeling 2019-2035



GHG emissions modeling 2019-2030



Impact of transition and action plans on financial planning

Nokia continues to invest in reducing GHG emissions in its own operations as described in the previous section. These investments are not considered financially material in terms of overall investment.

Most of Nokia’s emissions result from sold products when in use by our customers in relation to the energy use, and Nokia considers energy efficiency to be one of the key factors in product competitiveness. Hence, the energy efficiency of Nokia’s products and solutions continues to be one of the key areas in its technology development. In 2024, Nokia invested EUR 4 512 million in research and development (R&D). Energy efficiency is integrated into overall product development, and costs and investments to improve energy efficiency of the product portfolio are not tracked separately nor can be separated as these are an integral part of Nokia’s technology and R&D investments.

As stated earlier, Nokia is examining credible solutions for carbon removal to support long-term net-zero targets. The future financial impact of such solutions depends significantly on technology development, maturity of credible carbon removal markets and carbon pricing fluctuation between 2024 and 2040. Based on net-zero modeling, maximum GHG emission comprising of scope 1, 2 and 3 emissions to be compensated in 2040 is 4 million tCO₂eq. With the EU Emissions Trading Scheme (ETS) price EUR 72 per tCO₂eq as of 31 December 2024, this amount equals to EUR 288 million. Based on Nokia’s initial assessment, potential future investments in carbon removal units are recorded as intangible assets until utilized. Upon utilization of carbon credit units, the corresponding acquisition cost would be expensed and recorded as operating costs based on this initial assessment.

Many of the climate-related risk response actions are business-as-usual activities. We have not identified other climate-related operating expenses nor capital expenditures such as restructurings, write-downs or impairment of assets due to climate change which would potentially have a material impact on financial planning. We also do not foresee material risks related to access to capital.

Environmental information continued

In 2023, Nokia established a Sustainable Finance Framework that enables the issuance of sustainability-linked financing instruments and successfully completed an inaugural EUR 500 million sustainability-linked bond. The Sustainability Performance Target in the framework is based on Nokia's science-based target of a reduction of absolute GHG emissions across our value chain (scope 1, 2 and 3) measured in metric tons CO₂eq. The bond has a one-time redemption premium at maturity of EUR 4 million in case Nokia does not meet its commitment to reduce its greenhouse gas emissions across its value chain (scope 1, 2 and 3) by 50% between 2019 and 2030. In 2024, Nokia signed a EUR 250 million loan agreement with Nordic Investment Bank to co-finance Nokia's investments in 5G and 6G research and development. These R&D initiatives aim to enhance productivity and drive advances in next-generation mobile networks which are expected to improve the energy efficiency of next-generation products and reduce their weight, lowering the lifetime carbon footprint of its products.

As Nokia's taxonomy-eligible economic activities under the climate objectives 'Climate change mitigation' or 'Climate change adaptation' as defined by the EU taxonomy regulation are 0% of total revenue, Nokia's climate transition, action nor resource plans described in this section are not relevant to the economic activities and KPIs presented in the section '[Disclosure under the European Union Taxonomy Regulation](#)'.

Progress in implementing the transition plan and actions taken in 2024

Total GHG emissions were 26 011 608 tCO₂eq in 2024. This represents a reduction of 28% over the previous year and 36% reduction compared to the base year 2019. This was mainly driven by reduction in scope 3 category 11 use of sold products which GHG emissions decreased by 28% compared to 2023 and 30% compared to the base year 2019.

The key actions taken in 2024 are described below.

Own operations (scope 1 and 2)

Nokia continued to increase the share of total renewable electricity to reduce scope 2 market-based GHG emissions. Scope 1 and 2 emissions reduced by 27% compared to 2023 and 76% compared to the base year 2019.

Upstream: Embodied emissions (scope 3, cat 1 and 2)

Nokia works closely with suppliers to improve supplier maturity around emissions measurement, target setting, roadmaps and good practices. For final assembly suppliers Nokia is tracking their roadmap execution at business review meetings throughout the year as they have the target to reach zero emissions by 2030 for their scopes 1 and 2. Nokia is having regular engagements with its 600 larger suppliers, organized around the CDP Climate program cycle. In addition, close collaboration is pursued with Nokia's Joint Design Manufacturing suppliers as well as supplier categories with high emission intensity.

In 2024, 408 of Nokia's key suppliers responded to CDP's request to disclose their climate performance information, while 257 also provided emission reduction targets.

As a result of Nokia's supplier engagement, gradual reduction of Nokia's scope 3 category 1 emissions have been observed. In 2024, final assembly supplier emissions were reduced by further 15% compared to 2023 and by 56% from the baseline year 2019. The total supplier emissions (category 1) were reduced by 28% compared to 2023 and 77% compared to the base year 2019.

Downstream: Product use phase

Many of Nokia's customers are interested in reducing their power consumption and their emissions, and Nokia considers energy efficiency to be one of the key factors in product competitiveness. We also have customers who are interested in examining new business opportunities that spring from decarbonization. These developments create new business opportunities for us as a company and we are releasing and delivering new innovations that cater for that demand.



Environmental information continued

One of the key actions required for reducing GHG emissions during the product use phase is product energy efficiency improvements in product development. Key actions taken in 2024 include:

- Nokia continued to improve the energy efficiency of its products through incremental as well as generational hardware improvements;
- New energy efficiency software features have been released such as Extreme Deep Sleep mode which can help operators reduce energy consumption in zero-traffic conditions and MantaRay Anomaly detection which can identify specific radio sites to optimize energy consumption as well as Wavence Sleep modes which can lower the power consumption of the microwave radios; and
- New innovations, such as the virtual power plant can enable operators to use their existing back-up batteries and contribute to power reserve markets and the grid.

GHG emissions from scope 3 category 11 use of sold products decreased by 28% compared to 2023 and 30% compared to the base year 2019. Reduction from 2023 to 2024 was due to lower sales volumes, power consumption reduction and product mix. This reduction was offset by 1% increase in emissions due to the global emission factor, which reflects the decarbonization development of global electricity grid.

Targets and progress in targets

We have set short-, medium- and long-term climate targets in key areas. Short- and medium-term targets are put in place to track and show a pathway to the long-term goal. We track, measure and report transparently on these targets.

Nokia has set the net-zero target of 2040 to cover scope 1, 2 and 3 GHG emission categories. Those targets are for all Nokia business groups, covering various business activities, such as R&D, logistics, operations and suppliers. Our climate targets do not have any geographical exclusions.

The GHG emissions targets have been set to measure and track its progress against the net-zero target. The measured scope 1, 2 and scope 3 categories GHG emissions align with the key actions taken and planned. The waterfall charts modeled emissions show the targets for 2030 and 2040 and their decarbonization levers. For this modeling, the climate scenario of limiting global warming to 1.5°C has been considered.

The consistency and completeness of the near-term (2030) and long-term (2040) net-zero targets with our GHG inventory boundaries is ensured by meeting the SBTi requirements and having the targets validated by SBTi. The baseline will be updated when any changes in business, such as mergers and acquisitions, and improvements in the data coverage and calculation take place. This is done according to thresholds set by the SBTi and aligned with Nokia financial reporting consolidation principles.

RE100 Target

Nokia aims to use 100% renewable electricity in its own facilities by 2025. The target setting is based on the RE100 requirements. In 2024, 87% renewable electricity was used and the target is on track.

Science Based Target by 2030

In line with the Paris Agreement to limiting global warming to 1.5°C by 2030, Nokia has established emissions reduction targets according to this scenario. Nokia's Science Based 2030 Target (SBT 1.5) was approved by the SBTi in 2021 and includes the near-term target that Nokia commits to reducing its absolute scope 1, 2 and 3 GHG emissions 50% by 2030 from a 2019 base year. For the reporting year 2024, target coverage and GHG emissions boundaries are based on the scope approved by SBTi in 2021. The reporting year 2024 is the last year Nokia reports this 2021 approved SBT target. SBT Net-Zero target approved in 2025 is described in the following chapter.

Scope 1 and 2 includes scope 1&2 facilities, scope 1 car fleet, and scope 1 marine fleet. The SBT scope 3 includes the following to Nokia significant categories: category 1 – purchased goods and services, including final assembly suppliers with their scope 1 and 2, and marine fleet emissions of chartered vessels; category 4 – upstream transportation and distribution; and category 11 – use of sold products, covering the vast majority of Nokia's products.

In 2024, Nokia achieved a reduction of 28% in its GHG emissions covered by this target. The progress is on track.

Environmental information continued

Net-Zero target

Net-zero target was approved by SBTi in January 2025. This includes Nokia’s commitment to reach net-zero GHG emissions across the value chain by 2040.

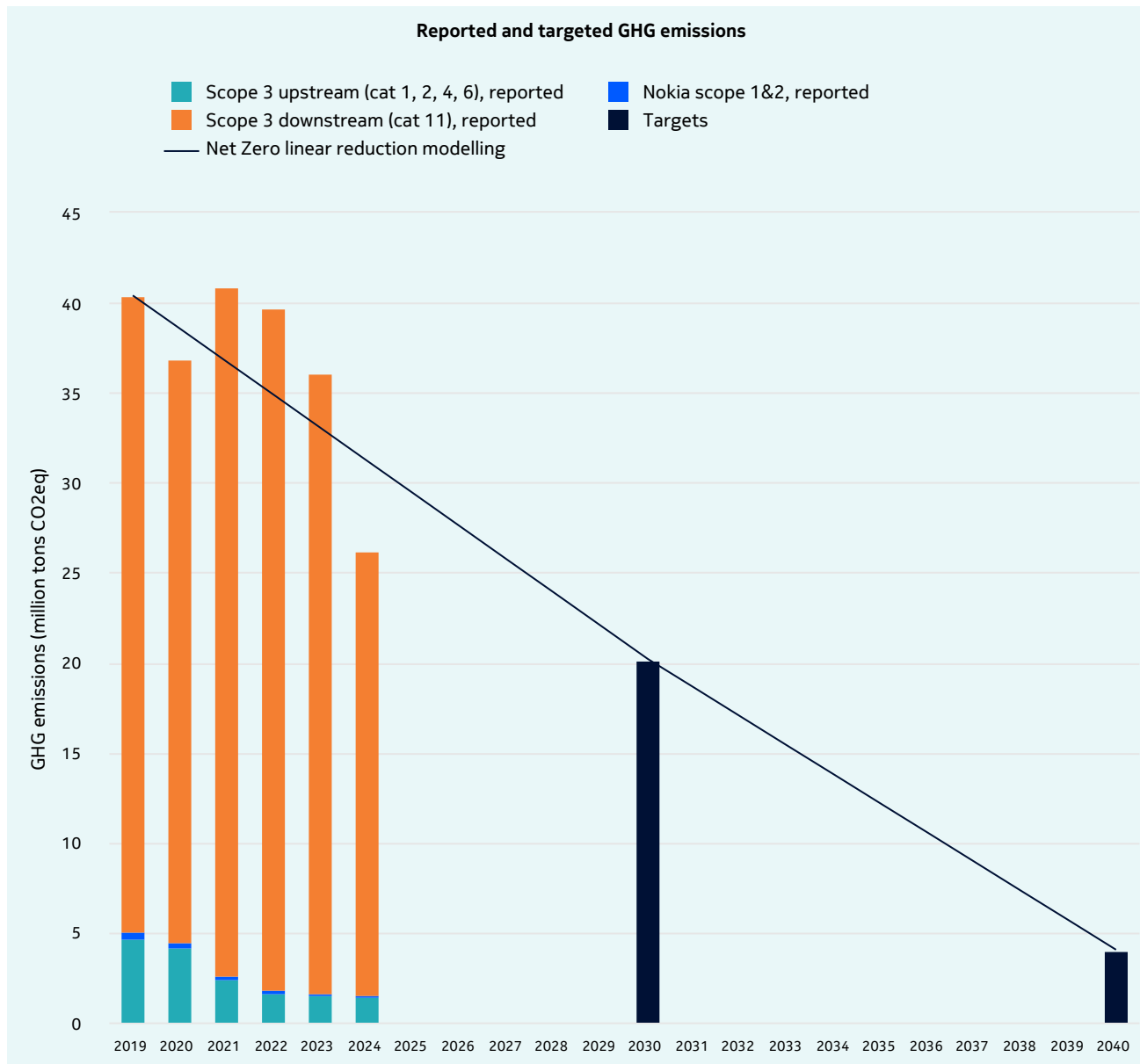
The long-term target is to reduce absolute scope 1, 2 and scope 3 GHG emissions 90% by 2040 from a 2019 base year. Scope 3 includes the following significant categories to Nokia: category 1 – purchased goods and services, category 2 – capital goods, category 4 – upstream transportation and distribution, category 6 – business travel and category 11 – use of sold products. As defined in the current corporate net-zero standards (SBTi) V1, after company has achieved its long-term target to cut emissions, it can use permanent carbon removal and storage to counterbalance residual emissions up to 10%.

The net-zero target also includes near-term target to reduce scope 1, 2 and scope 3 categories 1, 2, 4, 6 and 11 GHG emissions 50% by 2030 from a 2019 base year. The progress is on track.

Total GHG emissions reduced by 28% compared to 2023 and 36% compared to the base year 2019.

Additionally, Nokia has set the following interim and sub-targets (2025 targets):

- GHG emission reduction of 80% from scope 1 and scope 2 market-based emissions by 2025 from a 2019 base year
- GHG emissions reduction of 90% from scope 1 and scope 2 market-based emissions by 2030 from a 2019 base year
- Our final assembly suppliers reach zero emissions by 2030 from a 2019 base year
- Our suppliers (category 1) reduce GHG emissions by 50% by 2030 from a 2019 base year
- Our logistics' GHG emissions reduced by 73% by 2030 from a 2019 base year.



Environmental information continued

Our carbon footprint (scope 1, 2 and 3)

Emission Source	Metric tons CO2eq	% of total
Energy use in facilities and by fleet	90 498	0%
Use of sold products	24 736 044	95%
Purchased goods and services	962 134	4%
Upstream transportation and distribution	160 178	1%
Capital goods	33 207	0%
Business travel	29 547	0%
Total scope 1, 2 and 3 emissions	26 011 608	100%

Our scope 1 and 2 market-based emissions

Our scope 3 emissions

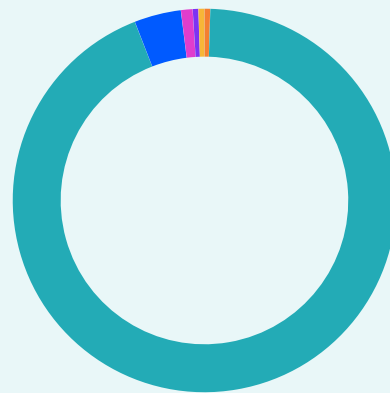
Emission Source	Metric tons CO2eq	% of total
Facilities, direct emissions	21 236	23%
Car Fleet	17 211	19%
Facilities, indirect emissions from purchased energy, market-based	52 051	58%
Total scope 1 and 2 emissions	90 498	100%

Our scope 1 emissions

Our scope 2 emissions

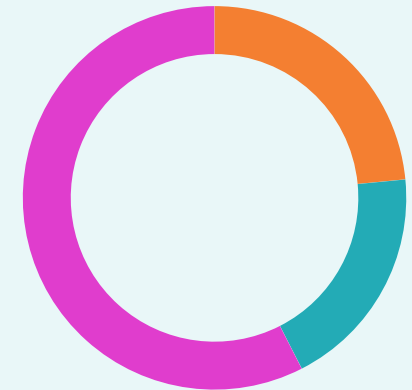
Our carbon footprint (scope 1, 2 and 3)

Energy use in facilities and by fleet	0%
Use of sold products	95%
Purchased goods and services	4%
Upstream transportation and distribution	1%
Capital goods	0%
Business travel	0%












Our carbon footprint (scope 1 and 2)

Facilities, direct emissions	23%
Car Fleet	19%
Facilities, indirect emissions from purchased energy, market-based	58%



Environmental information continued

Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
E1: Climate change					
2030/2040	2019	40 404 798	SBT Net-Zero ⁽¹⁾ : Overall Net-Zero target: Nokia commits to reach net-zero greenhouse gas emissions across the value chain by 2040. Near-term target: Nokia commits to reduce absolute scope 1, 2 and 3 GHG emissions 50% by 2030 from a 2019 base year. Long-term target: Nokia commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by 2040 from a 2019 base year.	Emissions covered by our SBT Net-Zero were 26 011 608 tons CO ₂ eq ⁽²⁾ , which is a 36% decrease from 2019. This progress is mainly driven by the decrease in emissions from use of sold products. Given our business and market conditions, we see that there may be possibility to be above trajectory again in coming years. The target and metric value excludes Submarine Networks discontinued operation.	On track 
2030	2019	35 455 551	SBT 1.5 ⁽³⁾ , reported last time for 2024: Reduce our greenhouse gas (GHG) emissions across our value chain (scope 1, 2 and 3) by 50% between 2019 and 2030.	Emissions covered by our SBT1.5 were 24 592 276 tons CO ₂ eq, which is a 31% decrease from 2019. This progress is mainly driven by the decrease in emissions from use of sold products. The target and presented metric value includes Submarine Networks discontinued operation in 2024 and base year.	On track 
2030	2019	74 996	Our final assembly suppliers reach zero emissions (part of scope 3 category 1) by 2030.	Our final assembly suppliers' emissions were 32 807 tons CO ₂ eq which is a 56% reduction from 2019.	On track 
2030	2019	4 225 716	Our suppliers reduce GHG emissions (scope 3 category 1) by 50% by 2030.	Our suppliers' emissions were 962 134 tons CO ₂ eq which is a 77% reduction from 2019. However, as this includes emissions data from hundreds of suppliers and the quality of allocated emissions data has been of concern, we are conscious that some of the reductions may be due to the quality of the data reported. The target and metric value excludes Submarine Networks discontinued operation.	On track 
2030	2019	303 630	Our logistics' GHG emissions (scope 3 category 4) reduced by 73% by 2030.	Our logistics' emissions were 160 178 tons CO ₂ eq which is a 47% decrease from 2019. The target and metric value excludes Submarine Networks discontinued operation.	On track 
2025	2019	444 500	GHG emission reduction of 65% from scope 1 and scope 2 market-based emissions, including 85% reduction of our facilities' GHG emissions by 2025 ⁽⁴⁾	GHG reduction of 63% from scope 1 and 2, including 78% reduction of our facilities' GHG emissions compared to 2019. The target and presented metric value includes Submarine Networks discontinued operation in 2024 and base year.	On track 
2024	2019	348 347	Reach 75% reduction of our facilities' GHG emissions (scope 1 and 2 market-based) by 2024.	In 2024, we achieved the target with 78% reduction of our facilities GHG emissions compared to 2019. This target and presented metric value includes Submarine Networks discontinued operation in 2024 and base year.	Achieved 
2025	2021	53%	Use 100% renewable electricity in our own facilities (RE100).	In 2024, 87% of electricity was renewable in our own facilities. The target and presented metric value includes Submarine Networks discontinued operation in 2024.	On track 
2024	2021	53%	Reach 85% renewable electricity in our own facilities.	In 2024, we have achieved the target with 87% of renewable electricity in our own facilities. This target and presented metric value includes Submarine Networks discontinued operation in 2024.	Achieved 

(1) The target includes scopes 1, 2 (market-based), 3.1, 3.2, 3.4, 3.6, 3.11. It excludes Submarine Networks discontinued operation.

(2) CO₂eq = carbon dioxide equivalents.

(3) In 2021 approved, 1.5 degrees Celsius aligned, SBT covers the following: Scope 1: emissions from our facilities, car fleet and marine fleet, own vessels. Scope 2: market-based emissions from purchased energy. Scope 3: 3.1 covering 6% of purchased goods and services with final assembly factories S1&2 in our supply chain, and marine fleet chartered vessels, 3.4 logistics, 3.11 covering 98% of the customer use of sold products.

(4) In 2025, the target is replaced with "GHG emission reduction of 80% from scope 1 and scope 2 market-based emissions" due to discontinued Submarine Networks operations.

Environmental information continued

Disclosure tables

Nokia continuing operations

As outlined in the section '[Basis for preparation](#)' within 'General Information', metrics are presented separately for Nokia continuing operations and discontinued operations comprising Submarine Networks. Disclosure tables presented in this section include continuing operations (Nokia Group excluding Submarine Networks) both for the reporting year 2024 and comparative period 2023 unless otherwise indicated. Key metrics for the discontinued operation for the reporting years 2024 and 2023 are disclosed separately below this section.

Energy consumption per source related to own operations

Energy consumption (MWh)	2024	2023
Total energy consumption from renewable sources	728 242	668 540
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources	727 802	Not reported
Consumption of self-generated non-fuel renewable energy	440	Not reported
Percentage of renewable sources in total energy consumption (%)	72%	65%
Total energy consumption from fossil and nuclear sources	276 964	365 507
Fuel consumption from crude oil and petroleum products	1 012	1 000
Fuel consumption from natural gas	111 954	106 134
Consumption of purchased or acquired electricity, heat, steam, or cooling from fossil and nuclear sources	163 998	258 373
Percentage of fossil sources in total energy consumption (%)	28%	35%
Total energy consumption related to own operations	1 005 206	1 034 047

The above table includes facilities and excludes energy consumption related to car fleet which is expected to amount to max 5% of the total energy consumption presented in the table.

Production of non-renewable energy and renewable energy

Energy production (MWh)	2024	2023
Non-renewable energy production	15 377	Not reported
Renewable energy production	440	Not reported
Total energy production	15 817	Not reported

Energy consumption in Nokia facilities and of the sold products

Energy consumption (MWh)	2024	2023
Energy consumption by type in Nokia facilities		
Electricity	817 049	848 913
Heating	24 993	28 000
Cooling	50 198	50 000
Fossil gas	111 954	106 134
Fossil oil	1 012	1 000
Biofuel	0	0
Facilities' energy consumption, total	1 005 206	1 034 047
Direct energy	112 966	107 134
Indirect energy	892 240	926 913
Facilities' energy consumption, total	1 005 206	1 034 047
Energy consumption outside of Nokia		
Energy consumption of the sold products	53 077 484	74 650 000

Environmental information continued

Gross scopes 1, 2, 3 and Total GHG emissions

Scope 1 GHG emissions (tCO ₂ eq)	2024	2023
Gross scope 1 GHG emissions (tCO₂eq)	38 447	39 331
GHGs from fuel combustion in facilities (stationary and mobile sources)	20 523	19 631
Hydro-Fluoro-Carbon (HFC) refrigerants in facilities	713	400
Car fleet	17 211	19 300
Scope 2 GHG emissions (tCO ₂ eq)	2024	2023
Gross location-based scope 2 GHG emissions (tCO₂eq)	313 865	320 659
Purchased electricity	299 370	305 959
Purchased cooling	8 833	8 400
Purchased heating	5 662	6 300
Gross market-based scope 2 GHG emissions (tCO₂eq)	52 051	83 924
Purchased electricity	39 267	70 924
Purchased cooling	8 833	8 400
Purchased heating	3 951	4 600
Significant scope 3 GHG emissions (tCO ₂ eq)	2024	2023
Total gross indirect (scope 3) GHG emissions (tCO₂eq)	25 921 110	35 917 018
1 Purchased goods and services	962 134	1 344 470
2 Capital goods	33 207	33 748
4 Upstream transportation and distribution	160 178	140 900
6 Business travel	29 547	29 327
11 Use of sold products - (with global average factor)	24 736 044	34 368 573
Total GHG emissions (tCO ₂ eq)	2024	2023
Total GHG emissions (location-based) (tCO ₂ eq)	26 273 422	36 277 008
Total GHG emissions (market-based) (tCO ₂ eq)	26 011 608	36 040 273
Nokia SBT 1.5 (tCO ₂ eq), including Submarine Networks	24 592 276	34 319 800

Additional information on gross scopes 1, 2 and 3 GHG emissions

Scope 2 GHG emissions (% tCO ₂ eq)	2024	2023
Percentage of contractual instruments used for the purchase of energy ⁽¹⁾	81%	Not reported
Biogenic emissions of CO ₂ from combustion or bio-degradation of biomass not included in scope 2 GHG emissions, tCO ₂ eq	2 357	Not reported
Scope 3 GHG emissions (%)	2024	2023
Percentage of GHG scope 3 calculated using primary data	97%	Not reported

(1) Percentage of contractual instruments includes Submarine Networks (discontinued operation).

Emissions intensity based on net revenue and car fleet kilometers

Emissions intensity	2024	2023
Total scope 1, 2 and 3 GHG emissions intensity, location-based (tCO ₂ eq per net sales EURm)	1 367	1 716
Total scope 1, 2 and 3 GHG emissions intensity, market-based (tCO ₂ eq per net sales EURm)	1 353	1 705
Total scope 1 and 2 GHG emissions intensity, market-based (tCO ₂ eq per net sales EURm)	5	6
Car fleet (gCO ₂ eq/vehicle-km)	82	91

The denominator in the calculation of the GHG emissions intensity metrics is net sales as presented in Nokia's consolidated income statement.

Environmental information continued

	Retrospective				Milestones and target years			
	2019 (base year)	2024	2023	YoY change %	2025	2030	2040	Change % Annual target / Base year
Scope 1 GHG emissions (tCO2eq)								
Scope 1 GHG emissions (tCO2eq)	50 047	38 447	39 331	(2)%	N/A	N/A	N/A	(23)%
Scope 2 GHG emissions (tCO2eq)								
Gross market-based scope 2 GHG emissions (tCO2eq)	325 177	52 051	83 924	(38)%	N/A	N/A	N/A	(84)%
Total market-based scope 1 and 2 GHG emissions (tCO2eq)	375 224	90 498	123 255	(27)%	75 045	37 522	N/A	(76)%
Significant scope 3 GHG emissions (tCO2eq)								
1 Purchased goods and services	4 225 716	962 134	1 344 470	(28)%	N/A	481 067	N/A	(77)%
2 Capital goods	123 650	33 207	33 748	(2)%	N/A	N/A	N/A	(73)%
4 Upstream transportation and distribution	303 630	160 178	140 900	14%	N/A	81 980	N/A	(47)%
6 Business traveling	70 648	29 547	29 327	1%	N/A	N/A	N/A	(58)%
11 Use of sold products	35 305 929	24 736 044	34 368 573	(28)%	N/A	N/A	N/A	(30)%
Total GHG emissions (tCO2eq)								
Total GHG emissions (market-based) (tCO2eq)	40 404 797	26 011 608	36 040 273	(28)%	N/A	20 202 399	4 040 480	(36)%

Environmental information continued

Discontinued operations

Energy consumption per source related to own operations

Energy consumption (MWh)	2024	2023
Total energy consumption from renewable sources	21 259	5 460
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources	21 163	Not reported
Consumption of self-generated non-fuel renewable energy	96	Not reported
Percentage of renewable sources in total energy consumption (%)	66%	18%
Total energy consumption from fossil and nuclear sources	11 126	25 493
Fuel consumption from crude oil and petroleum products	0	0
Fuel consumption from natural gas	10 733	10 866
Consumption of purchased or acquired electricity, heat, steam, or cooling from fossil and nuclear sources	392	14 627
Percentage of fossil sources in total energy consumption (%)	34%	82%
Total energy consumption related to own operations	32 385	30 953

The above table includes own facilities of Submarine Networks.

Energy consumption (MWh)	2024	2023
Energy consumption in Nokia fleet		
Marine fleet (Fossil oil use)	379 411	343 000
Marine fleet (Biofuel use)	0	4

Gross scopes 1, 2, 3 and Total GHG emissions

Scope 1 GHG emissions (tCO ₂ eq)	2024	2023
Gross scope 1 GHG emissions (tCO₂eq)	75 811	71 869
GHGs from fuel combustion in facilities (stationary and mobile sources)	1 945	1 969
Hydro-Fluoro-Carbon (HFC) refrigerants in facilities	0	0
Marine fleet	73 866	69 900
Scope 2 GHG emissions (tCO ₂ eq)	2024	2023
Gross location-based scope 2 GHG emissions (tCO₂eq)	1 827	1 741
Purchased electricity	1 827	1 741
Purchased cooling	0	0
Purchased heating	0	0
Gross market-based scope 2 GHG emissions (tCO₂eq)	196	876
Purchased electricity	196	876
Purchased cooling	0	0
Purchased heating	0	0
Significant scope 3 GHG emissions (tCO ₂ eq)	2024	2023
Total Gross indirect (scope 3) GHG emissions (tCO₂eq)	123 809	179 905
1 Purchased goods and services	102 721	112 956
2 Capital goods	5 670	6 349
6 Business travel	1 287	1 373
11 Use of sold products - (with global average factor)	14 131	59 227
Total GHG emissions (tCO ₂ eq)	2024	2023
Total GHG emissions (location-based) (tCO₂eq)	201 447	253 515
Total GHG emissions (market-based) (tCO₂eq)	199 816	252 650

Environmental information continued

Reporting principles for metrics

Nokia has an internal document, the Environmental data handbook, where the key data collection and reporting principles are defined, including for example, data boundaries, data collection methodologies, used tools, and emission factors. The key reporting methodologies and principles are explained in this section

Energy consumption

Energy data covers stationary and mobile sources' combustion of fuels and consumption of electricity, heat, and cooling in facility operations.

Energy consumption data is typically collected from facility-level responders, obtained from invoices or metered data. For facilities with no data availability, usage of 2024 data is estimated with data gap corrections or employing annual intensity factors based on kWh/m² (electricity and natural gas), as calculated from the reporting sites, thereby accounting for 100% (2023: 100%) of Nokia facilities. Subleased areas are not covered in the facility data.

GHG emissions

Our approach to measuring greenhouse gas emissions follows the Greenhouse Gas (GHG) Protocol developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). We use the following three standards:

- The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard;
- GHG Protocol, scope 2 guidance, An amendment to the GHG Protocol Corporate Standard; and
- Corporate value chain (scope 3), Accounting and reporting standard, Supplement to the GHG Protocol Corporate Accounting and Reporting Standard.

The GHG Protocol defines three scopes of CO₂eq emissions:

- Scope 1 – direct emissions, from sources owned or controlled by the company
- Scope 2 – indirect emissions, from the consumption of purchased electricity, heat, and/or steam (location-based and market-based)
- Scope 3 – indirect emissions, as a consequence of the activities of the company, but from sources not owned or controlled by the company.

Nokia reports the emissions as CO₂ equivalents (CO₂eq) as per GHG Protocol's guidance. CO₂eq is the universal unit of measurement to indicate the global warming potential (GWP) of the greenhouse gases in the Kyoto protocol, expressed in terms of the GWP of one unit of CO₂eq. Nokia uses International System of Units (SI) units in reporting and tons CO₂eq is equivalent to 1000 kg CO₂eq.

Nokia uses the operational control approach for setting organizational boundaries for our GHG emissions inventory. We use emission factors available in the beginning of the reporting year for scope 1, 2 and 3 calculations. Where we use emission factors developed by the International Energy Agency, OECD/IEA, the emission calculations have been prepared by Nokia and do not necessarily reflect the views of the International Energy Agency.

Scope 1 emissions

Direct CO₂eq emissions from Nokia facilities include GHG emissions resulting from the combustion of oil and gas within Nokia facilities, along with minor direct releases of GHGs associated with refrigerant leakage from facilities' cooling systems and firefighting equipment.

Direct CO₂eq emissions from Nokia's car fleet are tracked by obtaining information from country-specific leasing suppliers, which are consolidated into one system. Emissions calculation is based on actual driven mileage and official CO₂eq emission value per km of each car make and model. Applicable emission factors are sourced from car manufacturers. In the case that the distance traveled is not available from the leasing supplier, the budgeted annual mileage in the leasing contract is used for calculation. The coverage of primary emissions has been estimated to include 95% of the total emissions from Nokia's car fleet and the remaining 5% has been included as an estimate in the reported value.

Direct CO₂eq emissions from marine fleet (Submarine Networks discontinued operation) are calculated based on the fuel type and fuel usage of marine vessels. Submarine Networks maintains a listing of all owned marine fleet vessels with associated fuel consumption.

Scope 2 emissions

Indirect CO₂eq emissions include emissions from purchased electricity, heating, and cooling. As per GHG Protocol definitions, the location-based accounting method quantifies scope 2 GHG emissions based on average energy generation emission factors for defined locations, including local, subnational, or national boundaries. Location-based emission factors are obtained from EPA eGrid for the USA and for all the other countries we use IEA Emission factors developed by the International Energy Agency, OECD/IEA.

The market-based accounting method quantifies scope 2 GHG emissions based on the emissions emitted by the generators from which the reporter contractually purchases electricity bundled with instruments, or unbundled instruments on their own. In our case, applicable market-based residual emission factors are employed for sites located in Europe (obtained from the Association of Issuing Bodies (AIB)), the USA and Canada (obtained from Green-e). Those sites that purchase certified renewable electricity are assigned an emission factor of zero based on the quantity of green energy employed. If supplier-specific emission factors are not available, location-based emission factors are applied.

GHG emissions associated with purchased steam and heat are calculated employing the applicable EPA emission factor, which is based on the assumption that natural gas was used to fuel a boiler exhibiting an efficiency of 80%. GHG emissions associated with purchased chilled water and cooling are calculated employing the same country emissions factors as electricity, based on an assumed efficiency of 100%.

Emissions avoided due to the purchase of renewable energy are verified utilizing bundled and unbundled Energy Attribute Certificates.

Environmental information continued

Scope 3 emissions

For significant scope 3 categories, the calculation methodology for estimating emissions is described. For non-relevant scope 3 categories, an explanation of exclusion is provided. Significance of each category has been determined based on reporting threshold, relevance for Nokia business, externally published targets, and stakeholder interest. The estimated share of the excluded scope 3 categories is less than 2% of Nokia's total reported GHG emissions:

- Purchased goods and services (category 1): final assembly suppliers, and other suppliers. Data was recalculated for 2019-2023 due to reporting methodology change. Earlier Nokia reported supplier's scope 1&2 data, now with the new method we report supplier's scope 1, 2 and 3 upstream emissions. Final assembly supplier scope 1&2 data is collected directly from those suppliers. Other suppliers CO2eq emissions are reported based on data collected with CDP Climate Survey. The data collected from Nokia's suppliers covers 61% of supplier spend in 2024. For the remaining share, the emissions are extrapolated based on Nokia's total spend. 2024 disclosure is based on the latest CDP data representing suppliers' year 2023 emissions. We use a hybrid method, using emissions allocated for Nokia by the suppliers and also intensity based (GHG/€) allocation, where allocated emissions were not available, or allocation was not reliable based on different internal quality measures. To avoid double counting, the following data is excluded from this category: scope 1 (from car fleet and marine fleet), scope 3 category 4 (upstream transportation and distribution), and scope 3 category 6 (business air travel). We recognize that this emission category includes a lot of uncertainty, as suppliers have variable quality in their own reporting and in allocating emissions to Nokia. We have also recognized data gaps of ancillaries and survey marine fleet presented as discontinued operations.
- Capital goods (category 2): Data was recalculated for 2019-2023 due to reporting methodology change. Scope 3 category 1 and 2 are calculated together. Category 2 is separated from category 1 emissions and reported based on Property, plant and equipment (PPE) additions.
- Upstream transportation and distribution (category 4): Data includes emissions from inbound and outbound logistics paid by Nokia. Reporting is done in real weight, by using EPA's CO2eq emission factors or logistics supplier own factors.
- Business travel (category 6): emissions are reported for business air travel, which has the biggest impact out of all business travel modes. Travel information is obtained from our assigned Travel Agencies. Supplied data includes distance traveled, delineated by flight distance ranges and cabin class. Data from travel agencies is consolidated in a system which is used to calculate emissions from air travel. Emissions factors are obtained from EPA.
- Use of sold products (category 11): The calculation formula is following: Σ [total lifetime expected uses of products (hours) x number of products sold in reporting period x product power consumption (kW) x emission factor for electricity (kg CO2eq/kWh)]. Data covers hardware products. Product use time varies between 6 and 15 years, depending on the products. Energy use calculations are based on product group specific standards, for example, by ETSI, wherever standards have been published. Calculations are based on the assumption that all products are powered by grid electricity. We use the IEA's latest world average CO2eq emission factor available in the beginning of the reporting year. The share of energy consumption and GHG emissions from the products covered by this data is estimated to be over 98% of the total sold products in 2024. The remaining share has been included as an estimate in the reported value.
- Fuel and energy related activities not included in scope 1 and 2 (category 3): not presently being reported, because emissions evaluated to be non-material.
- Waste generated in operations (category 5): not reported as emissions are evaluated to be non-material.
- Employee commuting (category 7): not reported as emissions are evaluated to be non-material.
- Upstream leased assets (category 8): not presently being reported as leased vehicles and facilities are presently included in scope 1 and 2 emissions.
- Downstream transportation and distribution (category 9): not assessed, Nokia reports transportation paid by Nokia, see scope 3 category 4.
- Processing of sold products (category 10): not considered relevant because processing is not required for sold Nokia products.
- End-of-life treatment of sold products (category 12): not reported as emissions are evaluated to be non-material.
- Downstream leased assets (category 13): not reported as emissions are evaluated to be non-material.
- Franchises (category 14): not applicable, as Nokia does not have franchises.
- Investments (category 15): not reported as emissions are evaluated to be non-material.



Environmental information continued

Resource use and circular economy (ESRS E5)

Material impacts, risks and opportunities related to resource use and circular economy

The double materiality assessment showed that resource inflows, resource outflows and waste are material sub-topics for Nokia. The following table describes the material impacts, risks and opportunities as well as how they are managed by Nokia.

Sub-topic	Material impacts, risks and opportunities	Management
Resources inflows	Positive impact: Secondary use of Nokia's products and use of secondary materials in Nokia's products prevent generation of waste, contribute positively to material availability and land use.	Besides Nokia supplier requirements, business groups are looking for opportunities to reduce the dependency of virgin materials, continuously increase recycled content in our products and packaging as well as increase use of refurbished secondary products. Nokia has targets in place to increase recycled content in sourced mechanical materials with the highest use. In addition, Nokia has a packaging target to increase recycled content and recyclable materials in packaging.
Resources inflows	Negative impact: High use of primary raw materials in our hardware components where mining and melting of virgin materials has significant negative environment impacts, including waste.	We manage and try to minimize this negative impact the same way as we manage the above positive impact.
Resources inflows	Risk: Nokia hardware products are dependent on various minerals and other virgin substances. If global consumption continues to grow, it may lead to material scarcity likely resulting into increased prices.	We manage this risk the same way as we manage the above positive and negative impacts.
Resource outflows	Positive impact: Applying circular design and business principles increase the recyclability of Nokia's products which further enables recycling of the products and the raw materials contained in them.	Nokia has a Design for Environment program in place, which provides R&D teams with guidelines regarding the balances involved in the choice of materials when improving durability, dismantling, reparability, recyclability as well as product weight and supply risk. Reliability, product lifetime and serviceability are very much part of the technical requirements for each product. We aim to continue our Design for Environment program, particularly taking into consideration the evolution of product materials (incl. recycled metals and plastics) and their availability as well as materials efficiency improvements.
Resource outflows, Waste	Negative impact: Nokia sells to its customers a significant amount of hardware products which at the end of their lifecycle will become electronic waste, unless handled and recycled appropriately.	<p>Most of our products have a design life of between 10 and 15 years, with some of our products remaining in extended service for more than 20 years. We have environmentally beneficial circularity practices in place such as product takeback, refurbishment and recycling services.</p> <p>Nokia Circular Products and Services consists of four modules that can be customized to meet e2e customer requirements:</p> <ul style="list-style-type: none"> ■ Asset Recovery: Reacquiring (takeback/buyback) and handling customer dismantled surplus products including consultation, logistics and project management; ■ Circular Products and Parts: Selling circular products and parts to operators looking to expand their network using circular products; ■ Refurbishment Service: Extending hardware lifetime but also testing and validating of customer-owned dismantled product equipment for reuse in the network; and ■ Recycling Service: Maximizing material recycling and minimizing landfill, e-waste management.
Waste	Positive impact: Reduction or prevention of waste generation in Nokia's own operations and value chain, including appropriate handling and recycling of our products contributes positively to material availability and land use.	Nokia aims to improve waste management practices across the value chain. This includes minimization of waste creation and maximization of waste utilisation to reduce landfill. The progress is measured and tracked by circular metric to guide our operational circularity journey. In 2024, Nokia set new sustainability targets for packaging, recognizing it as an important area for reduce and prevent negative impacts on land use and biodiversity.

Environmental information continued

Nokia approach to determining material impacts, risks and opportunities is described under the [‘General information’](#) section. Additionally, when identifying, assessing and scoring impacts, risks and opportunities related to circular economy and resource use, Nokia uses information and data from its Environmental Management System and existing reporting.

For environmental topics Nokia has a ISO 14001 certified Environmental Management System in place to identify environmental aspects and impacts and related risks and opportunities, which are reviewed annually. This process covers all business activities. Environmental aspects are assessed based on their direct environmental impact, related regulation, frequency and stakeholder interest. Aspects scoring above the threshold set by Nokia are considered as significant, and for them the management process, targets and responsible contributors are defined. The annual review process takes into account changes in the business scope, new products, geographies, and regulatory and stakeholder development.

Data related to waste, waste circularity, material use and recycled content related data was used as the basis for identifying Nokia’s direct and indirect impacts on circular economy and resource use as well as when scoring the scale and scope of the identified impacts.

Out of Nokia’s four business groups, the business groups Mobile Networks and Network Infrastructure have the largest direct and indirect impact on the identified material positive and negative impacts as well as potential effect of the risk. Nokia’s main hardware products are telecommunication products which comprise technical components including minerals, metals and polymers. Product packaging materials include wood- and plastic-based materials.

Policies

Nokia looks at circularity from two perspectives. First, how Nokia can increase the usage of non-virgin materials in the creation of new products and packaging. Second, how it can ensure maximum waste circularity in its operational value chain.

Material efficiency, the optimized use of resources, and digitalization are key contributors to increasing circularity. Traditional ownership of goods is changing to access to services and to the use of digital platforms for a sharing economy, all of which can improve circularity. Nokia strategy to increase operational circularity follows the classic waste hierarchy. The first principle of the hierarchy is always the avoidance of waste, which Nokia does through digitalization, operational efficiency and product life extension. As Nokia cannot dematerialize everything, good waste management practices are important.

The Nokia’s Code of Conduct is the Company’s highest-level policy, which also covers its commitment to the environment in its own operations, supply chain and business relationships. The Code of Conduct and Environmental policies covering matters related to circular economy and resource use are part of the general management process, and environmental considerations are incorporated into relevant business planning, decision making, implementation and tracking activities. Through these policies, Nokia seeks to reduce the negative environmental impacts of its products and services throughout their life cycle. Nokia collaborates with its suppliers, customers, and other stakeholders with the aim of minimizing the potential negative environmental impacts as well as maximizing the potential of technology used for the good of the environment and society. Refer to the section General information, [‘Policies adopted to manage material sustainability matters’](#) for further information regarding the Nokia policies.

Product development and Design for Environment

The environmental goals and activities of Nokia are aimed at applying product life cycle thinking to minimize environmental impacts as early as possible in the product design and development process. This makes opportunities available for the designer to improve the environmental performance of the products. Nokia’s Design for Environment guideline addresses regulatory, customer and Nokia requirements for designers to use in striving to make Nokia products environmentally responsible.

In practice, Design for Environment uses design practices aiming to achieve:

- Minimized material and energy use;
- Maximized reuse and recycling;
- Minimized use of materials detrimental to the environment;
- Equipment designed to be easily or remotely maintainable or maintenance-free.

The development and update of these guidelines are based on the Nokia Product Eco-Requirements Roadmap and results from product Life Cycle Assessments. Nokia employs Life Cycle Assessments as an important tool in evaluating the potential environmental impacts of a product throughout the stages of its life cycle.

Packaging

In the area of packaging, Nokia has set new targets to increase recyclable packaging, increase recycled packaging material content and limit plastic packaging (see more details below in the section [‘Targets and progress’](#)).

Nokia has outlined the packaging requirements and standards recommended by Nokia, including Original Equipment Manufacturer (OEM) packaging and shipping to Nokia facilities or customers. The guidelines have dedicated environmental requirements, such as banned or not recommended/allowed materials, as well as wood packaging materials, and the reuse of packaging parts, covering the end-to-end process: inflows, outflows and waste minimization such as reuse and recycling.

Environmental information continued

There are two other relevant guidelines in addition to the ones discussed above. Nokia's Guideline to Reuse of Packaging Material is a significant cost-saving option that will also contribute to environmental impact, though this is more related to outflows and circularity. Factory inbound packaging guidelines include requirements for Nokia's suppliers regarding packaging materials utilized for inbound goods sent to Nokia manufacturing facilities.

Waste management

In the area of product hardware take-back inflows, Nokia business groups have Circular Operations teams to manage take-backs, with established practices and principles. Business groups will further develop procedures and practices to reinforce secondary reused and recycled materials and products.

Electronic Waste Management policies and guidelines outline Nokia's minimum environmental and, health and safety requirements for e-waste management to ensure that the appropriate regulatory requirements and best practices for e-waste management are in place to limit the impact on human health and the environment and avoid significant future liability, litigation and expenses.

In the guidelines of facilities waste management, the basis of the Environmental Management Systems in Real Estate (RE) and the requirements of ISO 14001 standard are described. The guidelines give an overview of how Nokia's Real Estate's activities and procedures are managed from an environmental perspective. Nokia has set minimum requirements for waste management within its facilities to meet its Real Estate targets. Waste is a significant environmental aspect for Nokia, particularly waste from its facilities, and these guidelines set out the responsibilities, requirements, available tools, training, and resources available to support the implementation of good waste management practices. These guidelines apply to all Nokia facilities including manufacturing, R&D, and offices globally and are designed to support the effective management of waste for all facilities.

In the area of network installation services, Nokia conducts environmental impact assessments upon contractual terms with customers.

Supplier requirements

Nokia expects its suppliers to adhere to its Third-Party Code of Conduct and provides them with its Supplier Requirements, including the Responsible Business Alliance's Code of Conduct and Nokia-specific sustainability requirements. The Responsible Business Alliance's Code of Conduct includes environment-related requirements, covering Environmental Permits and Reporting, Pollution Prevention and Resource Conservation, Hazardous Substances, Solid Waste, Air Emissions, Materials Restrictions, Water Management, as well as Energy Consumption and Greenhouse Gas Emissions.

On top of this industry standard, in the area of environmental management, there are also several Nokia-specific requirements toward Nokia's suppliers:

- **Environmental Management System**

Hardware suppliers for product materials and final assembly suppliers are required to have a documented Environmental Management System (EMS) ensuring the effective planning, operation and control of environmental aspects. The system shall satisfy the requirements of ISO14001 or other internationally recognized standards. Suppliers that provide materials that are embedded into Nokia products need to be certified by a third party as compliant with ISO14001.

- **Raw Material Content Data Management**

Supplier shall comply with material restrictions, set by applicable law and Nokia, and continuously maintain records of full raw material content data (materials, substances and compounds) of products supplied to Nokia or of materials used in implementing the services provided to Nokia. These records, including any updates, must be provided to Nokia in a format specified by Nokia.

- **Design for Environment requirements**

Suppliers shall consider environmental aspects in all phases of their product development, using, for example, specific Design for Environment methods or checklists. Suppliers must comply with Nokia product environmental requirements e.g., Nokia Substance List. Choices made during these product development phases must, whenever possible, reduce or eliminate negative environmental impacts. All reasonable attempts must be made to reduce or eliminate hazardous constituents from the product, to promote the efficient use of materials (i.e., to reduce waste), to improve the energy efficiency of the product and to promote recycling.

- **Recycled content**

Suppliers shall track their recycled/scrap origin materials contents and strive to reduce their use of virgin materials.

- **Waste management**

Suppliers shall record information about waste management (i.e., how much and where waste is reused, recycled, energy recovered, sent to landfill) and provide this information to Nokia on request.

Nokia also has environmental requirements and guidelines for Nokia products that apply to all designs, products, parts, modules, components and packaging materials. This document lists the most significant global environmental regulations and introduces Nokia's environmental requirements.

Environmental information continued

Actions

Products

Nokia has a Design for Environment program in place that provides guidelines for developers regarding the balances involved in the choice of materials when improving durability, dismantling, reparability and recyclability as well as product weight, supply risk and energy efficiency. In telecommunications the availability of service is mission critical. Reliability, product lifetime and serviceability are very much part of the technical requirements for each product. During 2024, Nokia continued its Design for Environment program, particularly taking into consideration the evolution of product materials (including recycled metals and plastics) and their availability, materials efficiency improvements, and product portfolio roadmaps.

During 2024, Nokia has studied how to increase product take-back volumes. It also further solidified its solutions portfolio to help operators ensure a sustainable and cost-efficient network evolution by maximizing the value of their aging, obsolete, or excess equipment and to strengthen their circular economy business approach. The goal is to add as much circularity into the supply chain as possible via refurbished products. This is in addition to typical repair services, which may also utilize some of these circular solutions.

Nokia has a portfolio offering a set of modules that can be customized and combined to fit specific customer needs as follows:

- **Asset Recovery** helping operators to eliminate surplus/excess units resulting from network modernization or swap
- **Circular Products and Parts** enabling customers to expand their network using circular/refurbished products
- **Refurbishment Service** enabling operators to extend the lifecycle of their network and products
- **Recycling service** helping operators manage e-waste and reduce landfill according to international standards and regulations

Engagement with suppliers

Nokia has various engagement programs with suppliers on the subject of the environment, and specifically on waste and recycled material contents. Its current due diligence involves on-site audits with the suppliers. These include Environmental Management System reviews and interactions as well as site tours. Nokia's supplier-related monitoring, assessment and auditing activities also include EcoVadis assessments. These are online assessments which include the evaluation of environment-related policies, procedures and controls.

Nokia also has focused improvement programs with suppliers, such as recycled material content to raise supplier awareness, and work on continuous improvement for increasing recycled origin aluminum, steel, copper and polymerics in Nokia products. With final assembly suppliers, Nokia is also working on increasing its waste circularity rate to 95%. The focus is to divert waste that would end up in landfill or incineration without energy recovery to waste that is reused, recycled or incinerated with energy recovery.

Packaging

In the area of packaging, business groups continue actions to increase the usage of recycled content in packaging materials where possible without negatively affecting the structural integrity and protection of the shipped products; at the same time ensuring that the materials used are recyclable and fostering circularity of the system. The business groups have researched sustainably sourced materials that could be leveraged to deploy (such as molded pulp and thermoformed plastics with high recycled material content) and continue to further eliminate materials with recyclability issues, such as polystyrene or polyurethane, while minimizing the use of single use plastics where possible. In the future, Nokia intends to maximize the recyclability of its packaging materials for optimized circularity.

Waste management

Tracking and reporting of Radio site installation waste has been further studied and developed to set a foundation to improve Radio site waste management. By better understanding regional and country waste management, Nokia can drive improvement by benchmarking the sites against the Nokia level of 95% waste circularity target. While there are still data gaps, the Network Infrastructure business group has increased coverage of the site installation waste reporting.

Through advances in packaging design and recyclability, as well as regional requirements and infrastructure along with existing contract terms related to sustainable waste management, site waste circularity rates are expected to continue to improve.

Targets and progress in targets

Scientific evidence confirms that implementing diverse environmental targets such as improving resource efficiency, increasing recycled content in products and packaging, promoting circularity and minimizing waste helps to protect and sustain healthy environment.

Currently, Nokia has three external targets to measure and track its progress against the identified material impacts and risks covering resource inflows and outflows.

Recycled content in products

Nokia has set a target to increase recycled content in sourced mechanical materials:

Target in 2030:

90%

Cast aluminum used in mechanical parts

Target in 2030:

50%

Wrought aluminum, steel and copper alloys, as well as polycarbonate plastics used in mechanical parts

These targets cover materials with the highest use but does not cover all materials used in Nokia's products.

In 2024, we reached recycled materials content levels of 38% cast aluminum, 15% wrought aluminum, 5% stainless steel, 2% low alloy steel, 4% copper alloys and 6% polycarbonate plastics. Nokia continues awareness raising and data collection on recycled materials.

Environmental information continued

Waste circularity

Nokia has set a target to increase waste circularity rate. The purpose is to improve waste management practices by maximizing waste utilization and minimizing disposal.

Target in 2030:

95%

Circularity rate including waste from Nokia's offices, labs, manufacturing, site installation, product takeback and final assembly suppliers.

Annual waste circularity outcome for 2024 was 81%. Nokia has recognized areas where high circularity rate has already been achieved and also areas requiring further action. There are still data gaps to be closed as described in the reporting principles.

Product packaging

Nokia has set new packaging targets which are measured from the reporting year 2025 onwards (base year 2024).

Target in 2030:

Ensure all packaging is

100%

recyclable

Target in 2030:

Cardboard and plastic packaging materials to contain at least

50%

recycled content



Target in 2030:

Plastic packaging to be limited to no more than

10%

by weight of total primary packaging

Progress against ESG targets in 2024

Target year	Base year	Base value ⁽¹⁾	Target	2024 results	Target status
E5: Resource use and circular economy					
2030	2022	89%	Waste circularity: 95% circularity rate for waste from our offices, labs, own manufacturing, installation, product takeback and supply chain final assembly factories by 2030.	Annual waste circularity outcome for 2024 was 81%.	On track 
2030	2023	43% cast aluminum 10% wrought aluminum 7% low alloy steel 13% stainless steel 3% on copper alloys	Product recycled content: Increase recycled content in mechanical part source materials: <ul style="list-style-type: none">■ Cast aluminum used in mechanical parts to 90%■ Wrought aluminum, steel and copper alloys, as well as polycarbonate plastics used in mechanical parts to 50%.	In 2024, we reached recycled materials content levels of 38% cast aluminum, 15% wrought aluminum, 5% stainless steel, 2% low alloy steel, 4% copper alloys and 6% polycarbonate plastics.	Not on track 

(1) Base values for the metrics are the reported values of the first year of reporting.

Environmental information continued

Disclosure tables

Nokia continuing operations

As outlined in the section '[Basis for preparation](#)' within 'General Information', metrics are presented separately for Nokia continuing operations and discontinued operations comprising Submarine Networks. Disclosure tables presented in this section include continuing operations (Nokia Group excluding Submarine Networks) both for the reporting year 2024 and comparative period 2023 unless otherwise indicated. Key metrics for the discontinued operation for the reporting years 2024 and 2023 are disclosed separately below this section.

Resource inflows, materials used to manufacture products and services

Materials used during the reporting period	2024	2023
Overall total weight of products and technical and biological materials used (metric tons)	60 560	Not reported
Recycled content in mechanical part source materials of products		
Cast aluminum	38%	43%
Wrought aluminum	15%	10%
Stainless Steel	5%	13%
Low alloy Steel	2%	7%
Copper alloys	4%	3%
Polycarbonate plastics	6%	Not reported
Recycled content in product packaging		
Recycled content in product packaging	32%	Not reported

Resource outflows, products and materials recyclability

Materials used during the reporting period	2024	2023
The rates of recyclable content in products	80%	Not reported
The rates of recyclable content in products packaging	96%	Not reported

Total waste from Nokia's own operations

TOTAL WASTE (metric tons)	2024	2023
Total waste diverted from disposal	6 367	6 635
Total waste diverted from disposal due to preparation for reuse	82	120
Total waste diverted from disposal due to recycling	5 588	5 814
Total waste diverted from disposal due to other recovery operations	697	701
Total waste directed to disposal	935	1 000
Total waste directed to disposal by incineration	0	0
Total waste directed to disposal by landfilling	935	1 000
Total waste directed to disposal by other disposal operations	0	0
TOTAL WASTE	7 302	7 635

Hazardous waste

HAZARDOUS WASTE (metric tons)	2024	2023
A. Hazardous waste diverted from disposal	2 192	1 315
Hazardous waste diverted from disposal due to preparation for reuse	13	20
Hazardous waste diverted from disposal due to recycling	2 135	1 200
Hazardous waste diverted from disposal due to other recovery operations	44	95
B. Hazardous waste directed to disposal	6	100
Hazardous waste directed to disposal by incineration	0	0
Hazardous waste directed to disposal by landfilling	6	100
Hazardous waste directed to disposal by other disposal operations	0	0
(A+B) TOTAL HAZARDOUS WASTE	2 198	1 415

Non-hazardous waste

NON-HAZARDOUS WASTE (metric tons)	2024	2023
A. Non-hazardous waste diverted from disposal	4 175	5 320
Non-hazardous waste diverted from disposal due to preparation for reuse	69	100
Non-hazardous waste diverted from disposal due to recycling	3 453	4 614
Non-hazardous waste diverted from disposal due to other recovery operations	653	606
B. Non-hazardous waste directed to disposal	929	900
Non-hazardous waste directed to disposal by incineration	0	0
Non-hazardous waste directed to disposal by landfilling	929	900
Non-hazardous waste directed to disposal by other disposal operations	0	0
(A+B) TOTAL NON-HAZARDOUS WASTE	5 104	6 220

Environmental information continued

Non-recycled and utilized waste

NON-RECYCLED WASTE (metric tons)	2024	2023
Non-recycled waste in tonnes or kg	935	1 000
Percentage of non-recycled waste (%)	13%	13%

UTILIZED WASTE (%)	2024	2023
Waste utilization rate (%)	87%	87%

Electronic waste

WASTE BY TYPES (metric tons)	2024	2023
Electronic waste from facilities	2 024	1 200
Other hazardous waste	173	215

EQUIPMENT RETURNED FROM CUSTOMERS (number, metric tons)	2024	2023
Reuse (no. of items)	46 378	49 300
Total equipment returned from customers (metric tons)		
Reuse	304	290
Recycle	682	2 610
Energy recovery	2	7
Landfill	0	6
Incineration without energy recovery	0	0
Total equipment returned from customers (metric tons)	988	2 913

Discontinued operations

The total waste from discontinued operations includes own facilities of Submarine Networks.

Total waste

TOTAL WASTE (metric tons)	2024	2023
Total waste diverted from disposal	2 475	5 485
Total waste diverted from disposal due to preparation for reuse	0	0
Total waste diverted from disposal due to recycling	2 293	4 086
Total waste diverted from disposal due to other recovery operations	182	1 399
Total waste directed to disposal	207	0
Total waste directed to disposal by incineration	0	0
Total waste directed to disposal by landfilling	207	0
Total waste directed to disposal by other disposal operations	0	0
TOTAL WASTE	2 682	5 485

Hazardous waste

HAZARDOUS WASTE (metric tons)	2024	2023
A. Hazardous waste diverted from disposal	0	105
Hazardous waste diverted from disposal due to preparation for reuse	0	0
Hazardous waste diverted from disposal due to recycling	0	0
Hazardous waste diverted from disposal due to other recovery operations	0	105
B. Hazardous waste directed to disposal	0	0
Hazardous waste directed to disposal by incineration	0	0
Hazardous waste directed to disposal by landfilling	0	0
Hazardous waste directed to disposal by other disposal operations	0	0
(A+B) TOTAL HAZARDOUS WASTE	0	105

Non-hazardous waste

NON-HAZARDOUS WASTE (metric tons)	2024	2023
A. Non-hazardous waste diverted from disposal	2 475	5 380
Non-hazardous waste diverted from disposal due to preparation for reuse	0	0
Non-hazardous waste diverted from disposal due to recycling	2 293	4 086
Non-hazardous waste diverted from disposal due to other recovery operations	182	1 294
B. Non-hazardous waste directed to disposal	207	0
Non-hazardous waste directed to disposal by incineration	0	0
Non-hazardous waste directed to disposal by landfilling	207	0
Non-hazardous waste directed to disposal by other disposal operations	0	0
(A+B) TOTAL NON-HAZARDOUS WASTE	2 682	5 380

Environmental information continued

Reporting principles for metrics

Nokia's internal Environmental Data Handbook defines the key data collection and reporting principles for this type of data. The key reporting methodologies and principles are explained in this section.

Resource inflows

Nokia's resource inflows include:

- Telecommunication products and components, as well as third-party equipment which comprise of minerals, metals and polymers
- Secondary hardware, e.g., take-back equipment from customers
- Product packaging, including wood- and plastic-based materials

Weight of products, materials and their packaging

The overall total weight of products, technical materials and biological materials is based on global inbound delivery volumes and weight of each product and related packaging as recorded in Nokia's systems. A product or material is considered as inflow when delivered to Nokia, following the accounting principles and Nokia Group reporting boundaries i.e., the point in time marking the 'goods received'. Only deliveries from external parties are included. Intercompany transfers between the distribution centers are excluded. Due to limitations in the weight data availability for materials and semi-finished goods delivered to Nokia's own manufacturing facilities, technical materials are reported as resource inflows once delivered to Nokia inventories as finished goods.

Weight of product take-back has been included in the metric which is calculated based on hardware units and weight per unit.

As this is the first year of reporting and tracking this metric, some uncertainties in the weight data accuracy exist. Nokia will continue developing its reporting process and improving system data quality.

Other resource inflows metrics

The ESRS E5 standard requires to disclose the percentage of biological materials that is sustainably sourced (E5 para 31b) and the weight in both absolute value of secondary reused or recycled components, secondary intermediary products and secondary materials used to manufacture products and services (E5 para 31c). Nokia is sustainably sourcing biological materials using the FSC-certified packaging materials, however the share of the sustainably sourced biological materials cannot be reliably estimated for the reporting year 2024. The share of recycled content in mechanical part source materials is presented for the selected materials with the highest use, see below '**Recycled content in mechanical part source materials**'. These metrics require value chain data from Nokia's suppliers which was not available in 2024. As no reasonable estimation methods were considered to be available, Nokia does not report the metrics, but is investigating and taking actions to develop data availability.

Recycled content in mechanical part source materials

Reported data covers the mechanical parts that are used/contained within our products. Any ancillaries, such as cables, kits, fasteners, and attachments that are external to our products, are out of scope.

Data is collected from Nokia's largest mechanics suppliers, who represent over 80% of relevant business spend of Mobile Networks and Network Infrastructure business groups. Data is reported once a year by suppliers for aluminum, steel and copper. Recycled materials content share is reported per metal for aluminum, steel, and copper and adjusted to the spend coverage of the respective suppliers. Similarly recycled polycarbonate plastics content is collected from suppliers.

Recycled content in product packaging

Recycled content in product packaging data is collected from the largest suppliers covering the majority of Mobile Networks business group and estimated for Nokia Group based on Mobile Networks' share of recycled content in product packaging.

Resource outflows

Nokia's key products are telecommunication network products, where the availability of service is mission critical.

Product durability

Circular principles such as reliability, product lifetime and serviceability are historically inherent to technical design requirements for each product. Redeploying products after

their initial use, as well as repairing and re-stocking as spares is standard practice for field replaceable units. The description of our key products comes out of Nokia's own product design and production process.

Regarding the expected durability of the products placed on the market, there is no industry average of each product group in the telecommunication industry. Nokia products are designed to meet customer expectations in terms of durability, when used under specified conditions, including maintenance and repair.

Product repairability

Regarding the repairability of products, there is no established rating system existing in Nokia. Virtually all Nokia products can be restored to their intended functionality by replacing field-replaceable parts or by subjecting the product (or its replaceable components) to specialized repair procedures.

Recyclable content in products and their packaging

The rates of recyclable content in products and their packaging has been calculated based on material composition of key products and packaging. The overall recyclability rate is presented separately for products and packaging, as the average of the recyclable content of products and packaging weighted by units delivered during the reporting year and unit weight of those products and their packaging.

Recyclability of each material used in products and packaging was assessed based on potential estimated recyclability rate of each material separately. Additionally, recyclability rate of PWB assemblies has been estimated based on the average metal content. The actual recycling rates are not considered in these estimates.

Steel	100%
Stainless steel	100%
Aluminum & alloys	100%
Copper & alloys	100%
Other metals	100%
Polymerics	70%
PWB assemblies	22%
Packaging paper-based	100%
Packaging plastics-based	90%
Packaging wood-based	100%

Environmental information continued

Waste

Total waste generated, own operations

Waste generated in own operations covers Nokia's own and leased offices, R&D and manufacturing facilities. Additionally, waste from own operations includes scrapped materials and related packaging from Nokia's main distribution centers (HUBs), Nokia product repair operations conducted by Nokia and external repair partners, as well as hardware product take-back.

Waste breakdown is presented by recovery operation or waste treatment types. Waste diverted from disposal includes waste that has either been reused, recycled, or the energy of which has been utilized. The composting of biowaste is recorded under "recycling". Waste directed to disposal has either been sent to a landfill, or incinerated without energy recovery. The actual waste treatment is always done according to local legal requirements.

Nokia also classifies waste by non-hazardous waste and hazardous waste. The definitions for what is reported under hazardous and non-hazardous waste have been set on a global level to simplify corporate reporting. For example, all discarded batteries and electric and electronic waste (WEEE) are reported globally under "hazardous waste", although only certain sub-categories of WEEE are defined as "hazardous" in national legislation applicable around the world. The following categories are categorized as "hazardous": batteries, lamps & bulbs, solvents, adhesives, paints & liquids, solder and WEEE. Hazardous waste also contains data from our Nokia product repair operations. Hazardous waste requires special handling procedures as prescribed, mandated, and/or regulated by the country in which the waste is being generated and/or the country to which it is being shipped for final disposition.

Data for waste consumption in Nokia's facilities is typically collected from facility-level responders, obtained from invoices or metered data. For facilities with no data availability, usage of data is estimated with data gap corrections or by employing annual intensity factors based on kg/m^2 , as calculated from the reporting sites, thereby accounting for 100% of Nokia facilities. Subleased areas are not covered in the facility data.

Reported weight diverted from disposal or directed to disposal from product take-back operations, Nokia's main distribution centers and product repair operation, is collected from the recyclers.

Waste generated at our facilities is handled directly by vendors, landlords of such facilities and local authorities. As described in the General information, [Basis for preparation](#) -section, processes and internal controls are implemented at various levels of the organization with the view of minimizing uncertainties and maintain transparency. However, there is still some degree of uncertainty and some inherent limitations in collecting accurate information, especially information related to waste. Where specific weights are not available, we employ estimation and extrapolation methods to ensure maximum coverage.

Currently, data for repackaging materials generated in the distribution centers is not collected, but Nokia is assessing and developing the data collection methodology and processes to further improve the actual data coverage. In order to cover known and unknown potential data gaps, as well as uncertainties in data quality, Nokia estimated a 5% potential data gap for Nokia continuing operations and included +5% group level adjustment addition to the waste data collected and estimated on the site-level. The estimated waste amount reflects the same proportion of hazardous and non-hazardous waste as well as a proportion of waste diverted from, and directed to disposal as the total waste prior to the adjustment.

Waste circularity rate (target)

The circularity rate target and metric include waste from Nokia's offices, labs, manufacturing, site installation, product take-back and final assembly suppliers waste allocated to Nokia. The circularity rate excludes Submarine Networks.

Equation for calculating circularity: $\text{Circularity} = \text{Utilization} / \text{All waste generated (utilization + waste disposal)}$ where:

- Waste utilization (circularity) covers are Reuse, Recycle and Energy and material recovery; and
- Waste disposal covers Landfill and Incineration without energy recovery.

In 2024, Mobile Networks business group's Radio site installation waste was studied to set a foundation to measure and improve Radio site waste. All Radio site installation quantities per region and country that are exclusively managed by Nokia are assimilated and benchmarked against model sites. Based on waste generated for each model site, Nokia calculates site waste per region.

During 2024, the data coverage of the metric was improved by developing methodology and partially including Network Infrastructure business group's site installation waste. This data is captured in collaboration with installation contractors as part of normal project documentation. The waste data is entered into a tool that also captures the waste treatment methods based on familiarity with local regulations and practices per material type. In 2024, site installation waste still excluded Network Infrastructure business group's Deployment Services installations which globally cover sites and orders of magnitude larger than the sites currently reported by the Network Infrastructure business group. The methodology and process of data collection are being developed with a plan to improve data coverage for future years.



Environmental information continued

Disclosure under the European Union Taxonomy Regulation

The EU Taxonomy Regulation was introduced to establish a common classification system for environmentally sustainable economic activities on the basis of defined objectives and technical screening criteria.

By clearly defining which activities can be considered sustainable within a certain sector, the EU Taxonomy seeks to incentivize and encourage businesses to launch new activities or to extend or upgrade existing ones so that they meet certain objectives of the European Green Deal. The environmental objectives listed by the regulation are:

1. Climate change mitigation
2. Climate change adaptation
3. Sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. Protection and restoration of biodiversity and ecosystems

As a company subject to the EU Taxonomy Regulation, including the related delegated acts and their annexes as amended, Nokia discloses the amount and share of its turnover (net sales) derived from, and capital expenditure and operating expenditure associated with, economic activities that are EU taxonomy-eligible or taxonomy-aligned.

Disclosure requirements for the financial year 2024

For the financial year 2024, Nokia reports financial indicators with respect to eligibility and alignment for the environmental objectives 1 through 6 listed above.

Nokia reports the share of its activities that are eligible and whether they are aligned with the EU Taxonomy. 'Eligible,' in this context, refers to economic activities that are recognized by the EU Taxonomy. Also, to claim 'alignment' with the current version of the EU Taxonomy, an economic activity needs to demonstrably comply with all three following requirements:

- a) It contributes substantially to at least one of the six environmental objectives.
- b) It does not significantly harm any of the other environmental objectives.
- c) It is carried out in compliance with certain social and governance minimum safeguards.

Nokia's business activities and the EU Taxonomy

The EU Taxonomy and its technical screening criteria have been evolving since they were first released during 2021. Not all sectors and economic activities have been recognized yet in the taxonomy and its screening criteria. The telecom sector is one of the sectors within which Nokia primarily operates and has not been specifically recognized in the EU Taxonomy sectors or economic activities. However, Nokia's economic activities are currently relevant to activities within objective 1 (climate change mitigation), objective 4 (the transition to a circular economy) and objective 5 (pollution prevention and control) of the EU Taxonomy regulation.

Nokia has a cross-organizational working group consisting of its business groups, technology, finance, sustainability and legal experts who work in assessing both eligibility and alignment of Nokia's economic activities. Guidance and review of EU Taxonomy reporting is provided by the established ESG Financial Reporting Steering Committee.

Nokia has conducted an analysis mapping its activities to the EU Taxonomy. From the activities included in the EU Taxonomy regulation, Nokia has identified the following taxonomy-eligible activities corresponding to turnover (net sales), capital expenditure or R&D operating expenditure, as relevant for Nokia:

Objective 1: Climate change mitigation

Economic activity	Description of Nokia's economic activities
6.5. Transport by motorbikes, passenger cars and light commercial vehicles	Purchase and leasing of electric and hybrid vehicles. Refer to the "Individually eligible capital expenditure (CapEx) and operating expenditure (OpEx)" section below for further information.
7.3. Installation, maintenance and repair of energy efficiency equipment	Individual renovation measures consisting of installation, maintenance or repair of energy efficiency equipment.
8.2. Data-driven solutions for GHG emissions reductions	Development or use of ICT solutions that are aimed at collecting, transmitting and storing data and at its modeling and use where those activities are predominantly aimed at the provision of data and analytics enabling GHG emission reductions. Under this activity, Nokia only consider data-driven solutions 'predominantly' designed or developed for GHG emission reduction which are designed and sold separately.
9.1. Close to market research, development and innovation	Research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the reduction, avoidance or removal of GHG emissions (RD&I) for which the ability to reduce, remove or avoid GHG emissions in the target economic activities has at least been demonstrated in a relevant environment, corresponding to at least Technology Readiness Level 6.

Environmental information continued

Objective 4: The transition to a circular economy

Economic activity	Description of Nokia's economic activities
1.2. Manufacture of electrical and electronic equipment	Manufacture (and sale), including subcontracted manufacture, of electrical and electronic equipment. This covers a major part of Nokia's hardware portfolio and embedded software.
4.1. Provision of IT/OT data-driven solutions	Manufacture (and sale), development, installation, deployment, maintenance, repair or professional services, including technical consulting for design or monitoring of software and information technology (IT) or operational technology (OT) systems built for the purpose of remote monitoring and predictive maintenance, design and engineering software supporting the eco-design of products, equipment, and infrastructure and lifecycle performance management software.
5.1. Repair, refurbishment and remanufacturing	Activities related to repair, refurbishment and remanufacturing of telecom equipment that has previously been used for its intended purpose.
5.2. Sale of spare parts	Sale of spare parts disclosed in this activity to the extent sold separately as spare parts and reported separately from the scope of activities covered under '1.2. Manufacture of electrical and electronic equipment.'
5.4. Sale of second-hand goods	Sale of second-hand goods that have previously been used for their intended purpose, possibly after repair, refurbishment or remanufacturing, and to the extent separately reported in Nokia's reporting system from the scope of activities covered under '1.2. Manufacture of electrical and electronic equipment'.

Objective 5: Pollution prevention and control

Economic activity	Description of Nokia's economic activities
2.4. Remediation of contaminated sites and area	Expenditure incurred in decontamination or remediation of contaminated sites and area

Based on Nokia's eligibility assessment, activity '1.2. Manufacture of electrical and electronic equipment' covers the majority of Nokia's economic activities since most of its hardware portfolio and embedded software are eligible within the description of the said activity. This activity includes own as well as subcontracted manufacturing as per the EU Taxonomy regulation.

Based on the above assessment of Nokia's business portfolio for 2024:

- Taxonomy-eligible turnover accounted for 57% (2023: 61%) of total turnover. This translates to EUR 11 010 million (2023: EUR 13 506 million) in taxonomy-eligible turnover.
- Taxonomy-eligible capital expenditure accounted for 38% (2023: 52%) of total capital expenditure. This translates to EUR 237 million (2023: EUR 502 million) in taxonomy-eligible capital expenditure.
- Taxonomy-eligible operating expenditure accounted for 66% (2023: 66%) of total operating expenditure. This translates to EUR 2 662 million (2023: EUR 2 525 million) in taxonomy-eligible operating expenditure.

Currently the telecommunications sector is not yet specifically addressed as such in the EU Taxonomy and, therefore, the positive impact (handprint) of connectivity and digitalization in relation to sustainability is not recognized here. Nokia's connectivity and digitalization solutions enable efficiencies in and the sustainable transformation of other industries, with an important role as an enabler of decarbonization. Nokia resolutely supports the ambitious environmental goals set by the EU and continues to advocate for future work on the EU Taxonomy to recognize the positive impact that connectivity and digitalization, including technologies such as 5G and other advanced communications technologies, may have on the six environmental objectives of the EU Taxonomy.

Individually eligible capital expenditure (CapEx) and operating expenditure (OpEx)

Nokia has considered CapEx and OpEx arising from certain individual investments that enable related activities to either improve energy efficiency, become low-carbon, or lead to greenhouse gas reductions, and that meet the description of the corresponding economic activity in the EU Taxonomy regulation.

Nokia identified individually eligible CapEx under activities '6.5. Transport by motorbikes, passenger cars and light commercial vehicles' and '7.3. Installation, maintenance and repair of energy efficiency equipment' (within objective 1). CapEx is reported as eligible under these activities to the extent that the identified assets enable the activities to become low-carbon or to lead to greenhouse gas reductions. Examples of such CapEx include equipments for energy efficiency of buildings on company premises e.g. the replacement of automation systems and electric as well as electric and hybrid vehicle leases.

Nokia has identified individually eligible OpEx in activities '9.1. Close to market research, development and innovation' (within objective 1) and '2.4. Remediation of contaminated sites and area' (within objective 5).

Refer to the section "[Nokia's business activities and the EU Taxonomy](#)" for a description of these activities.



Environmental information continued

Alignment assessment

Alignment assessment has been conducted for all the taxonomy-eligible activities under environmental objectives 1 through 6 as per the EU Taxonomy regulations. This includes assessment of 'Substantial contribution criteria' followed by assessment of 'Does Not Significantly Harm (DNSH) criteria' for activities which comply with substantial contribution criteria.

The wording and terminology used in the EU Taxonomy are still subject to some interpretation uncertainty, which could lead to changes in the reporting as and when clarified by the EU. Ultimately, there is a risk that the assessment presented as taxonomy-aligned would need to be concluded differently. In addition, the application of the EU Taxonomy to sites outside the EU leads to particular challenges due to the existence of local, possibly diverging, legislation.

Where uncertainty exists with regard to how to interpret or apply any criteria in an economic activity, the relevant activity is assessed as 'not Taxonomy-aligned activities'. In such cases, Nokia continues to monitor future developments and to update its approach as appropriate.

A. Substantial contribution criteria

As per the alignment assessment conducted for taxonomy-eligible activities, alignment criteria are met for the economic activity '5.1. Repair, refurbishment and remanufacturing' (within objective 4) and have been reported as 'Taxonomy-aligned'. All other activities are reported as 'not Taxonomy-aligned activities' in the disclosure tables given. The alignment assessment of key taxonomy-eligible activities carried out by Nokia is described below:

Objective 1:

6.5. Transport by motorbikes, passenger cars and light commercial vehicles: The substantial contribution criteria for this economic activity with respect to electric and hybrid vehicle leases are met for the specified thresholds and conditions.

DNSH criteria include conditions related to circularity, waste management, emission type approvals and external rolling noise requirements. Most of these criteria are beyond Nokia's control or access and hence Nokia considers this economic activity as 'not Taxonomy-aligned activities'.

Objective 4:

1.2. Manufacture of electrical and electronic equipment: This economic activity's substantial contribution criteria requires that those manufacturing electrical and electronic equipments need to comply with all the criteria/ conditions included within the following topics: Design for long lifetime, Design for repair and guarantee, Design for reuse and remanufacturing, Design for dismantling, Design for recallability, Proactive substitution of hazardous substances, Information to customers and Producer responsibility.

While Nokia complies with many of the sub-criteria stated therein, it is still not able to meet few required conditions mentioned therein due to lack of insufficient data. Hence, alignment cannot be reached for this economic activity and is classified as 'not Taxonomy-aligned activities'.

4.1. Provision of IT/OT data-driven solutions: This economic activity includes manufacture (and sale), development, installation, deployment, maintenance, repair or professional services, including technical consulting for design or monitoring of IT/OT data-driven solutions that provide the capabilities listed in the EU Taxonomy regulation for software specified therein.

Most of the criteria included in the said economic activity are very specific and require judgements. At this moment, Nokia considers these criteria as not met and hence this economic activity is classified as 'not Taxonomy-aligned activities'.

5.1. Repair, refurbishment and remanufacturing: This activity contributes to extending the lifetime of products by repairing, refurbishing or remanufacturing products that have already been used for their intended purpose by a customer. The criteria within this activity also requires implementation of a waste management plan and it being publicly available whereby product's materials, particularly critical raw materials, and components are reused, recycled or disposed of in accordance with applicable Union and national legislation.

Nokia's key products are telecommunication network products, where the availability of service is mission critical. Circular principles such as reliability, product lifetime and serviceability are historically inherent to technical design requirements for each product. Redeploying products after their initial use, as well as repairing and re-stocking as spares is standard practice for field replaceable units.

Nokia's business groups have repair facilities. The aim of business groups is to add as much circularity into the supply chain as possible via repair and refurbished products. For further information, refer section '[Waste management](#)' within Resource use and circular economy (ESRS E5).

Nokia's business groups have conducted a comprehensive assessment of above criteria within 5.1. economic activity and involved subject matter expert from repairing facilities for above conclusion. Basis information provided above and assessment conducted, it is concluded that this economic activity meets the 'Substantial contribution criteria' as per the EU Taxonomy regulation. Assessment of DNSH criteria for this economic activity is included in a subsequent section.

Environmental information continued

Objective 5:

2.4. Remediation of contaminated sites and area: Substantial contribution criteria for this activity require that the relevant contaminants are removed, controlled, contained or diminished using mechanical, chemical, biological or other methods so that the contaminated area no longer poses any significant risk of adversely affecting human health and the environment. The specific remediation and monitoring plan to be approved by the competent authority as per national legal requirements.

Complete information to assess all the criteria is not available with Nokia. This is due to the fact that most of these sites are outside the EU, which create a challenge to translate EU standards or regulations to a non-EU context. In the absence of such information, this economic activity is classified as 'not Taxonomy-aligned activities'.

B. Does Not Significantly Harm (DNSH)

The DNSH criteria assessment was conducted for the economic activity '5.1. Repair, refurbishment and remanufacturing' (within objective 4) basis substantial contribution criteria assessment carried out as above.

Nokia's assessment confirmed that it met DNSH criteria for the said economic activity. Below, Nokia sets out its interpretation and describes the analysis it has used to examine whether there was any significant harm to the other environmental objectives:

i. Climate change mitigation

As per EU Taxonomy regulations, where the economic activity involves on-site generation of heat/cool or co-generation including power, the direct greenhouse gas (GHG) emissions of the activity should be lower than the prescribed limits.

An evaluation has been conducted at the respective repairing facility and it had been concluded that the direct GHG emissions involving on-site generation of heat, cooling, or power are less than the prescribed limits.

ii. Climate change adaptation

There are general criteria specified within the EU taxonomy regulation for DNSH to climate change adaptation. These include performing a robust climate risk and vulnerability assessment, including implementing adaptation solutions, which minimizes the impact of material physical climate risks to the economic activity.

Nokia's climate-based DNSH assessment is based on the Shared Socioeconomic Pathway (SSP3-7.0) scenario for physical risks assessment, being the current likely worst-case scenario based on Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report considering the climate actions already taken to limit global warming. The assessment is described in the section '[Climate change \(E1\)](#)'.

iii. Sustainable use and protection of water and marine resources

Nokia evaluated its economic activities with respect to the Generic Criteria for DNSH to sustainable use and protection of water and marine resources looking at the three following criteria: preserving water quality, avoiding water stress, and an environmental compatibility assessment (Environmental Impact Assessment or comparable process).

Nokia based its analysis primarily on ISO 14001 certificates, information from site approvals and other external data sources related to sites with a high-risk exposure.

iv. Pollution prevention and control

The Generic Criteria for DNSH to Pollution prevention and control regarding use and presence of chemicals specify that the economic activity should not lead to the manufacture, placing on the market or use of certain specified substances. The repairing activity should further comply with the relevant rules and regulations on the restriction of the use of hazardous substances. Nokia assessed that its operating standards are aligned with the criteria mentioned above and minimize the use and presence of specified chemicals and use of hazardous substances.

Based on the above assessment on Taxonomy-alignment for 2024:

- Taxonomy-aligned turnover accounted for 3% (2023: 0%) of total turnover. This translates to EUR 552 million (2023: EUR 0 million) as 'Taxonomy-aligned' turnover.
- Taxonomy-aligned capital expenditure accounted for 0% (2023: 0%) of total capital expenditure. This translates to EUR 1 million (2023: EUR 0 million) as 'Taxonomy-aligned' capital expenditure.
- Taxonomy-aligned operating expenditure accounted for 0% (2023: 0%) of total operating expenditure. This translates to EUR 1 million (2023: EUR 0 million) as 'Taxonomy-aligned' operating expenditure.



Environmental information continued

Minimum Safeguards

The minimum safeguards consist of the OECD Guidelines for Multinational Enterprises (OECD Guidelines for MNE), the United Nations Guiding Principles on Business and Human Rights (UNGP), the Fundamental Conventions of the International Labour Organization (ILO) and the International Bill of Human Rights. Nokia applies these minimum safeguards throughout its business activities, processes and policies to ensure compliance and a proactive and constructive approach to risk identification and management in the following areas.

Area	Human rights	Corruption	Taxation	Fair competition
Measures and evidence	<p>1. Nokia has established an adequate human rights due diligence process as outlined in the UNGP and OECD Guidelines for MNE.</p> <p>2. No breaches of labor law or human rights have been found at Nokia. Nokia engages regularly with stakeholders and to the best of Nokia's knowledge, no cases or allegations were brought against Nokia by an OECD National Contact Point or by the Business & Human Right Centre within the last two years.</p>	<p>1. Nokia has anti-corruption processes in place.</p> <p>2. Nokia and its senior management, including the senior management of subsidiaries, have not finally been convicted in court on corruption.</p>	<p>1. Nokia treats tax governance and compliance as important elements of oversight, and there are adequate tax risk management strategies and process in place.</p> <p>2. Nokia and its subsidiaries have not been finally found violating of tax laws.</p>	<p>1. Nokia promotes employee awareness of the importance of compliance with all applicable competition laws and regulations.</p> <p>2. Nokia and its senior management, including the senior management of its subsidiaries, has not been finally convicted of violating competition laws.</p>

The above assessments confirm that Nokia meets the requirements of the minimum safeguards in the financial year.

Continuing and discontinued operations

As outlined in the section '[Basis for preparation](#)' within 'General information,' continuing operations KPI related to Turnover, CapEx and OpEx are disclosed within 2024 EU Taxonomy disclosure tables. Impact of restatement is not material for 2023 and as such 2023 numbers have not been restated.

Discontinued operations represent Submarine Networks. The discontinued operations KPI related to Turnover, CapEx and OpEx are excluded from below disclosure table to align with financial statements of Nokia.

Changes in disclosures compared with the previous financial year

The taxonomy-eligibility and alignment of Nokia's business portfolio was reviewed with respect to the economic activities released up till now with no significant change identified to Nokia's assessment compared to the previous financial year other than the above described disclosures related to discontinued operations.

Nokia will continue to monitor further regulatory developments in the EU Taxonomy regulation and their applicability to its business portfolio, which may result in further changes to disclosure in subsequent years.

Environmental information continued

Accounting policy for the taxonomy-related financial KPIs: Continuing Operations

Nokia's taxonomy-eligible and taxonomy-aligned turnover (net sales), capital expenditure and operating expenditure for 2024 are shown in the following tables

Proportion of turnover (net sales) from products or services associated with Taxonomy-aligned economic activities — disclosure covering year 2024

Economic activities	Code	Turnover	Proportion of Turnover, 2024	Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')						Taxonomy-aligned (A.1) or eligible (A.2) proportion of turnover, 2023	Category 'enabling activity'	Category 'transitional activity'	
				Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)	Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)				Minimum safeguards
		EURm	%	Y; N/EL	Y; N/EL	Y; N/EL	Y; N/EL	Y; N/EL	Y; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
5.1. Repair, refurbishment and remanufacturing	CE 5.1	552	3%	N	N	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	0%	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		552	3%	0%	0%	0%	0%	3%	0%	—	—	—	—	—	—	—	0%		
Of which Enabling		552	3%	0%	0%	0%	0%	3%	0%	—	—	—	—	—	—	—	0%	E	
Of which Transitional		—	0%	0%	—	—	—	—	—	—	—	—	—	—	—	—	0%		T
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
8.2. Data-driven solutions for GHG emissions reductions	CCM 8.2	1	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL	—	—	—	—	—	—	—	0%	—	—
1.2. Manufacture of electrical and electronic equipment	CE 1.2	10 076	52%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	58%	—	—
4.1. Provision of IT/OT data-driven solutions	CE 4.1	316	2%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	1%	—	—
5.1. Repair, refurbishment and remanufacturing	CE 5.1	—	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	2%	—	—
5.2. Sale of spare parts	CE 5.2	47	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	0%	—	—
5.4. Sale of second-hand goods	CE 5.4	18	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	0%	—	—
Turnover of Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		10 458	54%	0%	0%	0%	0%	54%	0%	—	—	—	—	—	—	—	61%	—	—
A. Turnover of Taxonomy-eligible activities (A.1+A.2)		11 010	57%	0%	0%	0%	0%	57%	0%	—	—	—	—	—	—	—	61%	—	—
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities (B)		8 210	43%																
Total (A+B)		19 220	100%																

Y - Yes, Taxonomy-eligible and Taxonomy-aligned activity with the relevant environmental objective; N - No, Taxonomy-eligible but not Taxonomy-aligned activity with the relevant environmental objective; EL - Taxonomy eligible activity for the relevant objective; N/EL - not eligible, Taxonomy non-eligible activity for the relevant environmental objective

Environmental information continued

Proportion of capital expenditure (CapEx) from products or services associated with Taxonomy-aligned economic activities - disclosure covering year 2024

Economic activities	Code	CapEx	Proportion of CapEx, 2024	Substantial contribution criteria					DNSH criteria ('Does Not Significantly Harm')							Taxonomy-aligned (A.1) or eligible (A.2) proportion of CapEx, 2023	Category 'enabling activity'	Category 'transitional activity'	
				Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)	Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)				Minimum safeguards
		EURm	0	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
5.1. Repair, refurbishment and remanufacturing	CE 5.1	1	0%	N	N	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	0%	E	
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		1	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—	—	0%		
Of which Enabling		1	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—	—	0%	E	
Of which Transitional		—	0%	0%	—	—	—	—	—	—	—	—	—	—	—	—	0%		T
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
6.5. Transport by motorbikes, passenger cars and light commercial vehicles	CCM 6.5	33	5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL	—	—	—	—	—	—	—	4%	—	—
7.3. Installation, maintenance and repair of energy efficiency equipment	CCM 7.3	1	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL	—	—	—	—	—	—	—	0%	—	—
1.2. Manufacture of electrical and electronic equipment	CE 1.2	199	32%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	47%	—	—
4.1. Provision of IT/OT data-driven solutions	CE 4.1	3	1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	0%	—	—
5.1. Repair, refurbishment and remanufacturing	CE 5.1	—	0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	1%	—	—
CapEx of Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		236	38%	5%	0%	0%	0%	33%	0%	—	—	—	—	—	—	—	52%	—	—
A. CapEx of Taxonomy-eligible activities (A.1+A.2)		237	38%	5%	0%	0%	0%	33%	0%	—	—	—	—	—	—	—	52%	—	—
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities (B)		391	62%																
Total (A+B)		628	100%																

Y - Yes, Taxonomy-eligible and Taxonomy-aligned activity with the relevant environmental objective; N - No, Taxonomy-eligible but not Taxonomy-aligned activity with the relevant environmental objective; EL - Taxonomy eligible activity for the relevant objective; N/EL - not eligible, Taxonomy non-eligible activity for the relevant environmental objective

Environmental information continued

Proportion of operating expenditure (OpEx) from products or services associated with Taxonomy-aligned economic activities - disclosure covering year 2024

Economic activities	Code	Proportion of OpEx, 2024		Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')						Taxonomy-aligned (A.1) or eligible (A.2) proportion of OpEx, 2023	Category 'enabling activity'	Category 'transitional activity'	
		OpEx EURm	%	Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)	Climate change mitigation (CCM)	Climate change adaptation (CCA)	Water (WTR)	Pollution (PPC)	Circular economy (CE)	Biodiversity (BIO)				Minimum safeguards
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
5.1. Repair, refurbishment and remanufacturing	CE 5.1	1	0%	N	N	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	0%	E	
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		1	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—	—	0%		
Of which Enabling		1	0%	0%	0%	0%	0%	0%	0%	—	—	—	—	—	—	—	0%	E	
Of which Transitional		—	0%	0%	—	—	—	—	—	—	—	—	—	—	—	—	0%		T
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
9.1. Close to market research, development and innovation	CCM 9.1	9	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL	—	—	—	—	—	—	—	0%	—	—
1.2. Manufacture of electrical and electronic equipment	CE 1.2	2 519	63%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	63%	—	—
4.1. Provision of IT/OT data-driven solutions	CE 4.1	126	3%	N/EL	N/EL	N/EL	N/EL	EL	N/EL	—	—	—	—	—	—	—	3%	—	—
2.4. Remediation of contaminated sites and area	PPC 2.4	7	0%	N/EL	N/EL	N/EL	EL	N/EL	N/EL	—	—	—	—	—	—	—	0%	—	—
OpEx of Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		2 661	66%	0%	0%	0%	0%	66%	0%	—	—	—	—	—	—	—	66%	—	—
A. OpEx of Taxonomy-eligible activities (A.1+A.2)		2 662	66%	0%	0%	0%	0%	66%	0%	—	—	—	—	—	—	—	66%	—	—
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities (B)		1 369	34%																
Total (A+B)		4 031	100%																

Y - Yes, Taxonomy-eligible and Taxonomy-aligned activity with the relevant environmental objective; N - No, Taxonomy-eligible but not Taxonomy-aligned activity with the relevant environmental objective; EL - Taxonomy eligible activity for the relevant objective; N/EL - not eligible, Taxonomy non-eligible activity for the relevant environmental objective

Environmental information continued

Taxonomy-related reporting obligations include a description of an ‘accounting policy,’ including calculation principles for the numerator and the denominator. This section explains how turnover (net sales), capital expenditure and operating expenditure were determined and allocated to the numerator; and the basis on which the turnover (net sales), capital expenditure and operating expenditure were calculated. Double counting has been avoided in the allocation in the numerator of turnover, capital expenditure and operating expenditure across economic activities.

Turnover (net sales)

Taxonomy-eligible turnover (net sales) in the numerator includes the aggregated amount of turnover (net sales) from products and services associated with Nokia’s taxonomy-eligible economic activities. The denominator is the total turnover (net sales) of Nokia as presented in the consolidated income statement.

Capital expenditure

Taxonomy-eligible CapEx includes CapEx associated with turnover (net sales) generating taxonomy-eligible economic activities as well as CapEx from activities that reduce GHG emissions but are not directly generating turnover (net sales).

The denominator is the total amount of additions to intangible assets, property, plant and equipment, and right-of-use assets during the financial year as presented in the consolidated financial statements. Additions are considered before depreciation and amortization for the relevant financial year. Total additions are presented in the notes to the consolidated financial statements in [note 4.1. Goodwill and intangible assets](#); [note 4.2. Property, plant and equipment](#); and [note 4.3. Leases](#).

Operating expenditure

In assessing its taxonomy-eligible operating expenses, Nokia includes in the numerator the direct research and development expenses related to the products and services associated with its taxonomy-eligible economic activities, excluding depreciation, amortization and impairment costs.

The denominator consists of research and development expenses as presented in the consolidated income statement, excluding depreciation, amortization and impairment costs. The definition of operating expenses in the EU Taxonomy also includes building renovation measures, short-term leases, maintenance and repair, and any other direct expenditures relating to the servicing of assets of property, plant and equipment.

As these expenses cannot be measured reliably, they are excluded from reported operating expenses unless the expenses are already included in the research and development expenses.

Standard templates for the disclosure referred to in Article 8(6) and (7) of the delegated regulation (EU) 2021/2178

S. No.	Nuclear and fossil gas related activities	Nokia's assessment (YES/NO)
Nuclear energy related activities		
1	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
Fossil gas related activities		
4	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
6	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO



Social information

Social information

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Own workforce (ESRS S1)

Material impacts, risks and opportunities related to Own Workforce

The materiality assessment resulted that working conditions, equal treatment and opportunities for all and training and skills development of own workforce are material sub-topics for Nokia. The assessment covered own workforce including both employees and non-employees. In the following table, the material impacts, risks and opportunities as well as how we manage those impacts, risks and opportunities are described.

Sub-topic	Material impacts, risks and opportunities	Management
Working conditions: Secure employment	<p>Impact (positive): Nokia's innovative approach to staff development and talent attraction has enabled it to act resiliently in the markets and renew itself in ways that positively impacts own workforce.</p> <p>Risk: Inability to attract, develop and retain a future-fit workforce with right skill set and in the right locations during business transformation</p>	<p>Nokia is investing in measures that target the development of future-fit talent at a company and business group level, focusing on critical skills, stretch assignments and exposure to different parts of the business through internal mobility initiatives.</p> <p>In instances when unavoidable business transformation negatively impacts own workforce, consequences are mitigated through measures such as reskilling, redeployment support and severance packages.</p>
Working conditions: Working time	<p>Impact (positive): Nokia has implemented and is maintaining programs and policies regarding flexible working arrangements</p>	<p>Nokia has a Flexible Working Standard Operating Procedure (SOP) in place which applies to all employees of the Nokia Group. Globally, Nokia supports employees' work-life balance with flexible working arrangements that allow remote/home-based working, provided the nature of their job role is such that they are not required to be on a particular site to be able to perform their duties. Flexible working enables employees to balance their work and family obligations in a way that meets their individual needs</p> <p>Nokia does not permit our people to work more than what is legally allowed in each jurisdiction. Regular working hours are defined in accordance with local laws.</p>
Working conditions: Work-Life Balance	<p>Impact (positive): Nokia offers global paid family-related leave which often exceeds local regulations to align with defined internal best practices</p>	<p>Nokia provides paid time off for holiday for all employees to be taken in each calendar year. In addition, other types of leave, such as maternity, paternity, parental, adoption, sick leave and bereavement, are considered important. Nokia's global approach is to consider all sabbatical requests for between 3 and 6 months (after 4 years' continuous employment) and 3 to 12 months (after 10 years' continuous employment) subject to meeting business needs and local regulations regarding sabbaticals.</p> <p>Nokia's Global Child Leave Policy has been incorporated as a minimum standard into all Nokia countries' leave of absence policies. It provides any Nokia employee who becomes a parent, regardless of gender, with at least three months' paid leave and the right to return to work up to one year following the date of birth or adoption. With this, Nokia wants to enhance parents' bonding with their children and to drive a societal and mindset shift in fathers' rights too.</p> <p>Nokia has a Flexible Working Standard Operating Procedure (SOP), which applies to all employees of the Nokia Group.</p>
Working conditions: Adequate wages	<p>Risk: Increases in wages or changes in the related practices / regulations resulting in increases in Nokia's personnel related costs</p>	<p>Our compensation and benefits programs contribute to our business success by balancing market competitiveness and affordability based on a total compensation approach. These are performance-driven (both on an individual and company basis), flexible and fair. The key elements of our compensation structures are annual base salary, incentive/bonus programs, recognition programs and equity-based long-term incentives.</p>

Social information continued

Sub-topic	Material impacts, risks and opportunities	Management
Equal treatment and opportunities for all: Gender equality and equal pay for work of equal value	Impact (positive): Nokia has adopted gender equality and equal pay principles for own employees	As we recognize how unique perspectives can build world class technology and drive our business forward when we work collaboratively, we actively foster diversity, equity and inclusiveness, creating a culture of trust and belonging. We aspire to be more representative at large, so that our teams reflect the communities we serve and the diverse world around us. Nokia annually analyzes the gender equality of our compensation practices and funds additional, focused salary increases to remediate unexplained gender pay gaps. Nokia consistently investigates our policies and practices to address decisions, customs and processes that might threaten a segment of our population unfairly. Nokia is committed to equal pay for work that is of equal value.
Equal treatment and opportunities for all: Training and skills development of own workforce	Impact (positive): Nokia offers extensive training and skills development opportunities to its own workforce regarding knowledge and competence development as an essential element of its business strategy, which allows employees to maintain and enhance their skills Risk: Inability to attract, develop and retain a future-fit workforce with right skill set and in the right locations in the rapidly changing technological environment	Based on the feedback provided, career and development opportunities are important to Nokia's employee and Nokia has further invested in internal career path tools and resources to enable employees to access viable and often personalized guidance on career growth choices. Nokia is investing in measures that target the development of its people at a company and business group level, focusing on critical skills, stretch assignments and exposure to different parts of the business through internal mobility initiatives. Nokia business groups are responsible for identifying future skills and capabilities needs in order to keep up with innovation, and evolving technology and business environments. Future-fit talent is a key enabler of Nokia's business strategy and is central to our approach to engaging, developing, and retaining our people. Nokia is reviewing its talent and performance management to align with Nokia's strategy, ensure the greatest visibility of our Nokia talent, and support the development of the necessary skills for success and growth.

Our approach to determining material impacts, risks and opportunities is described under the ['General information'](#) section.

Policies

Our people represent the essence of who we are as a company. At Nokia we aspire to have our people grow and develop continuously in a culture that is inclusive and diverse. In 2024, we strengthened our People Agenda as we continued to cultivate one high-performing Nokia centered around talent, leadership and culture, while following our essential principles ("Essentials") of being open, fearless and empowered.

Fair workplace and our policies

We uphold high standards of ethics and human rights in our own activities and aim to treat all our employees and other stakeholders in accordance with internationally recognized ethical and responsible business practices and relevant legislation.

Our Code of Conduct, our People Framework, our Human Rights Policy, and local employment laws, policies and practices are the basis for our labor conditions. We are committed to the principles laid out in the United Nations Universal Declaration of Human Rights, the United Nations Global Compact and the International Labor Organization's Declaration of Fundamental Principles and Rights at Work. We follow and, where possible, strive to exceed the standards set out by local labor laws and regulations. We publish information related to our employment policies and guidelines on our intranet. Refer to the section General information, ['Policies adopted to manage material sustainability matters'](#) for further information regarding the Nokia policies.

Our policies, Standard Operating Procedures (SOPs) and Code of Conduct apply to our employees and suppliers. Our policies cover zero tolerance for child and forced labor, freedom of association and collective bargaining, non-discrimination, humane treatment, working time, disciplinary practices, compensation, and occupational health and safety.

On the topic of discrimination, our People Framework specifically states that "No employee or candidate for employment will, therefore, receive less favorable treatment due to their race, religion, belief, color, nationality, ethnic origin, age, sex, sexual orientation, gender identity, characteristics or expression, marital status, connections with a national minority, disability, membership or non-membership of a trade union, or other protected classes".

Secure employment

Nokia ensures support for all aspects of 'social protection'. All Nokia employees are entitled to paid sickness absence. The duration and level of sickness pay varies by country and considers prevailing market practice and any mandatory provisions. All Nokia employees are eligible for additional financial payments in the event of involuntary termination of employment, and severance pay packages vary by country and reflect mandatory and local market practice. Nokia provides support in the event of work injury and acquired disability. Nokia has a global policy that provides a minimum of 90 days' paid leave and a further 9 months' unpaid leave for all new mothers and fathers; many Nokia countries have local policies that exceed this level of support for maternity absence. Nokia provides for family leave in line with local legislative requirements. All Nokia employees participate in arrangements that support them in building financial security for the future. The benefit plan design for retirement varies from county to country: in some countries provision is wholly via participation in State plans whilst in other countries it is a combination of Nokia and State plans.

Social information continued

Working time and work-life balance

We do not permit our people to work more than is legally allowed. We define regular working hours in accordance with local laws. In countries where employment of young workers is customary and allowed by local law, workers from 15 to 18 years old (or as specified by local legislation) are not permitted to carry out work that may be hazardous, unsafe or unhealthy or to work night shifts.

We provide guidance through our Worktime Standard Operating Procedure document and guarantee a minimum of one day off in every seven days in our production operations.

Globally, Nokia supports employees' work-life balance with flexible working arrangements that allow remote/home-based working, provided the nature of their job role is such that they are not required to be on a particular site to be able to perform their duties. Flexible working enables employees to balance their work and family obligations in a way that meets their individual needs. In addition, Nokia offers paid time off for various life events, such as marriage, funerals, house moves, and volunteering days.

Adequate wages

Our compensation and benefits programs contribute to our business success by balancing market competitiveness and affordability based on a total compensation approach. These are performance-driven (both on an individual and company basis), flexible and fair. The key elements of our compensation structures are annual base salary, incentive/bonus programs, recognition programs and equity-based long-term incentives.

All Nokia employees are paid an adequate wage, in line with applicable benchmarks. Pay practices are regularly reviewed to align pay with performance, experience, and the skills required for every position. We pay at least the minimum wage, comply with all legal requirements for wages and at a minimum provide any legally or contractually required benefits.

Nokia policy is that part-time or temporary employees have access to employee benefit plans.

Since 2019, we have analyzed the gender equality of our compensation practices and funded additional, focused salary increases to remediate unexplained gender pay gaps. We consistently investigate our policies and practices to address decisions, customs and processes that might threaten a segment of our population unfairly. While we do not disclose global salary ratios, we are committed to equal pay for work that is of equal value (skill, responsibility, etc.). This is applied without regard for an individual's personal characteristics such as gender, race, age, national origin, ethnicity, color, religion, sexual orientation, gender identity, gender characteristics or expression, disability, or entitlement to family leave.

Equal treatment and opportunities for all

We actively foster a culture of trust and belonging. We aspire to be more representative at large, so that our teams reflect the communities we serve and the diverse world around us.

As part of our People Agenda we have priorities that are focused on increasing diverse representation and embedding inclusion into our policies and employee experience.

Nokia is investing in hiring strategies that include attracting and sourcing diverse pipelines of candidates across roles and location, including a focus on women in early careers to improve our gender balance now and for future careers at Nokia.

Training and skills development

Nokia continually builds its culture and refreshes its talent management, performance management and career development activities.

Future-fit talent is a key enabler of our business strategy and is central to our approach to engaging, developing and retaining our people. We are reviewing our talent and performance management to align with Nokia's strategy, ensure the greatest visibility of our Nokia talent, and support the development of the necessary skills for success and growth.

Annual development reviews are available to all employees. Nokia people managers are encouraged to provide continuous feedback and hold quarterly discussions with employees. In 2024, employees and people managers were encouraged to focus on feedback giving and receiving.

Our people development focus has three main pillars:

1. Talent, which covers growth and talent development, succession planning, career moves and rotations, sustainable talent pipelines, and future-fit talent.
2. Leadership, which includes leadership principles, leadership development, a top leaders' community, and sponsorship and mentoring.
3. Culture, which includes creating a safe space, employee engagement, and accountable leaders.



Social information continued

Processes for engaging with own workforce and workers' representatives about impacts

Freedom of association and collective bargaining

We respect the right to collective bargaining and freedom of association. Collective bargaining agreements are local and, in most countries where we have collective bargaining agreements, employees who have chosen not to be members of a union are also covered by similar terms.

Employees can choose freely to join, not join or leave unions and associations and select their representatives based on local and international practices.

In countries and regions where works councils operate, we work collaboratively with them. We communicate regularly with employees directly as well as with their representatives in meetings such as at the level of European Works Councils (EWCs).

Employee representatives are entitled to participate in training that is necessary to carry out employee representative duties and to increase their knowledge of trade union rights and obligations. Additionally, employee representatives can use company infrastructure during the workday.

The responsibility for the engagement with own workforce and workers' representatives rests with Chief People Officer through the People Relations Team and Chief Legal Officer through the Labor and Employment Law Team.

Equal Opportunities

Investments have been made in internal career path tools and resources to enable employees to access viable and often personalized guidance on career growth choices. In addition, the Talent Acquisition team provides advice to employees throughout the internal vacancies and career application process.

Processes to remediate negative impacts and channels for own workforce to raise concerns

The processes and channels available to our workforce to raise concerns and have them addressed are described in the section 'Business Conduct (ESRS G1)', '[Reporting channels and investigations process](#)'.

Actions

Social protection measures

The business environment in which Nokia operates is highly competitive and occasionally requires cost reassessment, including that of the employee base. In those circumstances, Nokia prioritizes provision of support for impacted employees and the adoption of mitigating and social protection measures such as:

- Offering employees continued training opportunities to maintain and develop their skills and competencies to meet the anticipated changes in business, markets and the technology environment in which we operate.
- Supporting and encouraging redeployment activities for affected employees to find new job opportunities in the company, including retraining as necessary and as appropriate.
- Offering severance packages to exited employees that are often of greater value than what is required by local laws.

Nokia also offers career counseling and job search support outside the company.

Ethics and Non-discrimination initiatives implementation

We implement our policies to prevent, mitigate, and address discrimination through a combination of proactive measures, robust reporting mechanisms, and corrective actions. Prevention is achieved through ongoing awareness campaigns and mandatory training programs designed to educate employees on inclusive behaviors and the importance of diversity, ensuring that these principles are deeply embedded in our organizational culture.

To address potential violations, we have a well-established Ethics Helpline, supported by a strong speak-up culture. Employees are encouraged to report any concerns about

behaviors that may conflict with our values. Once a report is made, it is handled by our dedicated Ethics team, which assigns an investigator to thoroughly review the concern and determine appropriate outcomes.

Annual gender pay gap review

We also continued to drive improvements in gender diversity by monitoring pay equity. In 2024, Nokia implemented a second remediation round in December, ensuring any statistically significant unexplained pay gap was closed. We will continue to emphasize and apply mitigations to improve in gender diversity.

Competence development

Our competence development activities focus on leadership, business-critical, and technical skills for current and future needs. We offer learning solutions to our customers, partners, and employees. The average number of all internal learning hours was 19 hours per employee in 2024. To reinforce a culture of learning, we provide our employees with a tool called the Learning Index. The Learning Index enables employees to monitor their commitment to continuous learning and information sharing.

Leadership development

Our leadership principles are called LEAD (Lead with courage; Empower performance; Act with respect; and Deliver Nokia First). These are being launched to all people managers in early 2025 and will include behavioral indicators that back up each principle.

In 2024, we continued to support people managers with a specific training program, Leadership for Impact, through which 17 sessions with 312 participants were delivered in 2024. We also continued to invest in all levels of leaders through our online platforms including branded solutions from Harvard ManageMentor and Harvard Spark. This year 3545 employees used these two leadership training solutions. Additionally, our employees completed 16285 self-paced leadership online trainings and achieved 4410 badges.

Future Talent Growth

We provide growth opportunities for future talent that allow targeted development at the company level and business group level focusing on critical skills, stretch assignments, and exposure to different parts of the business through internal mobility initiatives. Business groups and functions have unit/function-specific initiatives in place to address their strategic talent needs.

Social information continued

Targets and progress in targets

Gender hiring and female own employees targets

In 2021, we set out two diversity targets to address the under-representation of women across Nokia's own employees and provide equal opportunities to improve our gender balance.

Our two targets in 2024 were:

28% minimum

(YTD) female hiring in external recruits in 2024

25%



female in overall Nokia's own employees by 2030

In 2024, we achieved the threshold for our gender hiring target of 28% through increased marketing, communication and talent attraction activities to make Nokia's employer brand stand out for diversity-friendly employment policies and to attract diverse talent. We also worked to improve our inclusive hiring practices to ensure we upskilled key stakeholders such as our talent acquisition team and hiring managers to adopt consistent actions that drive fair hiring practices.

For 2025, we continue with our target to achieve a share of women to a minimum of 25% of all employees by 2030.

The ratio of women in Nokia's own employees was 23% at the beginning of 2024 and remained the same at the end of 2024. We continue to work on development and retention for gender diversity. We track targets with key stakeholders in the business, people and talent acquisition teams.

Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
S1: Own workforce					
2030	2021	22%	Increase the share of women to a minimum of 25% of total employees.	The ratio of women was 23% at the beginning of 2024 and remained the same at the end of 2024. We continue to work on development and retention for gender diversity.	On track 
2024	2023	28%	Reach a minimum of 28% female hires in global external recruits.	28% of external recruits were women. We achieved the 2024 target via increased marketing, communication and talent attraction activities to make Nokia's employer brand stand out for diversity-friendly employment policies and attract diverse talent.	Achieved 

Social information continued

Disclosure tables

Nokia continuing operations

As outlined in the section '[Basis for preparation](#)' within 'General Information', metrics are presented separately for Nokia continuing operations and discontinued operations comprising Submarine Networks. Disclosure tables presented in this section include continuing operations (Nokia Group excluding Submarine Networks) both for the reporting year 2024 and comparative period 2023 unless otherwise indicated. Key metrics for the discontinued operation for the reporting years 2024 and 2023 are disclosed separately below this section.

Number of employees by contract type and gender, 2024

Employees by gender	Female	Male	Other category ⁽¹⁾	Total
Number of permanent employees	17 020	57 473	1 134	75 627
Number of temporary employees	877	1 929	1	2 807
Number of non-guaranteed hours employees	0	0	0	0
Number of employees	17 897	59 402	1 135	78 434

(1) Non-binary, third gender and/or not disclosed.

At the end of 2024, Nokia employed 75 633 people, with an average of 78 434 employees across the year.

Number of employees by contract type and country / region, 2024

Employees by country/region	Asia-Pacific	India	Europe (w/o Finland)	Finland	LAT	MEA	NAM	China	Total
Number of permanent employees	3 443	17 270	25 295	6 316	2 669	2 929	9 064	8 641	75 627
Number of temporary employees	78	514	1 423	400	80	41	223	48	2 807
Number of non-guaranteed hours employees	0	0	0	0	0	0	0	0	0
Number of employees	3 521	17 784	26 718	6 716	2 749	2 970	9 287	8 689	78 434

Employee turnover, 2024

Employee turnover in reporting period	2024	2023
Total number of employees left the company	8 934	6 543
Turnover rate, %	12%	8%

Number of non-employees, 2024

Number of non-employees	2024
Number of non-employees in own workforce	1 869

Employees at top management level, 2024

Employees at top management	Number	Share, %
Female	597	17%
Male	2 816	83%
Total	3 413	100%

Social information continued

Employees by age group, 2024

Employees by age	Number	Share, %
Under 30 years old	10 292	13%
30–50 years old	45 600	58%
Over 50 years old	21 451	27%
Unknown ⁽¹⁾	1 091	1%
Total	78 434	100%

(1) The age group of the remaining employees is unknown.

Employees skills development, 2024

Employee gender	Employees who participated in regular performance and career development reviews, %
Employee	95%
Female	23%
Male	72%

Training hours, 2024

Employee gender	Average number of training hours per employee
Employee	19
Female	17
Male	19
Other category ⁽¹⁾	16

(1) Non-binary, third gender and/or not disclosed.

Employee category breakdown, 2024

Employee category	Employees who participated in regular performance and career development reviews, %	Average number of training hours per employee
Employee	95%	19
People managers	8%	13
Individual contributors	87%	19

Gender pay gap and annual total remuneration, 2024

Remuneration metrics	2024
Gender pay gap between female and male employees, %	0.7%
Annual total remuneration ratio	50.71

Based on the adjusted pay analysis, female employees earn 0.7% less than male employees accounting for any applied controls.

Social information continued

Discontinued operations

Number of employees by contract type and gender, 2024

Employees by gender	Female	Male	Total 2024
Number of permanent employees	377	1 418	1 795
Number of temporary employees	44	125	169
Number of non-guaranteed hours employees	0	0	0
Number of employees	421	1 543	1 964

Number of employees by contract type and country / region, 2024

Employees by country/region	Asia-Pacific	Europe (w/o Finland)	LAT	NAM	Total 2024
Number of permanent employees	5	1 785	1	4	1 795
Number of temporary employees	0	169	0	0	169
Number of non-guaranteed hours employees	0	0	0	0	0
Number of employees	5	1 954	1	4	1 964

Employee turnover, 2024

Employee turnover in reporting period	2024
Total number of employees left the company	252
Turnover rate, %	13%

Employees at top management level, 2024

Employees at top management	Number	Share, %
Female	1	7%
Male	14	93%
Total	15	100%

Employees by age group, 2024

Employees by age	Number	Share, %
Under 30 years old	311	16%
30–50 years old	908	46%
Over 50 years old	745	38%
Total	1 964	100%

Social information continued

Reporting principles for Nokia own workforce metrics

Nokia's own workforce include both employees and non-employees. Non-employees are short-term external temporary resources sourced from external suppliers and engaged in employment activities under the direction of Nokia. This includes individuals performing the same work as Nokia employees, such as those filling in for absent employees or performing regular work at the same site as Nokia employees.

Submarine Networks is reported separately and is not considered part of Nokia's continuing operations.

Characteristics of Nokia employees

Number of employees by contract type and gender

Employee data presented for Nokia's continuing operations is reported in headcount and represents averages across the reporting period, from January 2024 until December 2024. This data aligns with information reported in the financial statements. Employee data presented for discontinued operation is reported in headcount and represents headcount at the end of the reporting period.

Employee counts are further categorized by gender: female, male, and other category. This includes permanent and temporary employees.

Permanent employees imply those which are employed on a permanent contract of employment and are on Nokia's payroll, in any jurisdiction.

Temporary employees imply those which are employed on contract of employment that are not permanent in nature and are on Nokia's payroll, including fixed term contracts and internships. This excludes contractors, consultants or any other independent workers that get paid by Nokia via invoice and not via payroll.

Number of employees by contract type and country/region

Employee numbers, including permanent and temporary employees, are distributed across three countries: India, Finland, and China, and key regions that represent the primary locations for Nokia's workforce.

Characteristics of non-employees in Nokia's own workforce

Non-employee metric is reported in headcount and disclosed as total average across the reporting period.

Diversity metrics

Employees at top management level

Nokia top management includes line managers and individual contributors who are senior directors and executives. Internally, this corresponds to job grade 13 and above.

Employees by age group

The total number of employees by age group for Nokia's continuing operations is reported in headcount and represents averages across the reporting period. The number of employees by age group for discontinued operation is reported in headcount and represents headcount at the end of the reporting period.

Female own employees target

Share of female in Nokia's overall own employees is reported as average number of own employees identified as female from January 2024 until December 2024 compared to the total number of employees. The reported metric excludes Submarine Networks discontinued operation.

Gender hiring target

Female hiring metric is calculated by dividing externally hired employees identified as female by total headcount of external recruits during the reporting period. The total external recruits include both regular employees and trainees. The reported metric excludes Submarine Networks discontinued operation.

Training and skills development metrics

Employees skills development

The percentage of employees participating in regular performance and career development reviews is based on 2023 review results. The estimated metric for 2024 is based on 2023 actuals due to the timing of the performance review process, which extends into the first quarter of the following year from the reporting period and the process formally concludes in the second quarter.

Training hours

The training and learning hours metrics include the average hours of training per employee, calculated by dividing the total learning hours by the number of learners (employees).

The employee base for this report include all Nokia employees and trainees, as measured by headcount at the end of reporting period December 2024.

Training types include external training. These training hours are self-reported by the employees. This category encompasses formal training as well as informal learning activities, such as reading books or attending seminars.

Remuneration metrics

Gender pay gap

To ensure gender pay equity, Nokia conducts biannual in-depth pay analyses. These analyses investigate whether there are statistically significant differences in pay distribution between male and female employees within groups of similar individuals.

To identify potential issues, employees are initially grouped based on geography and/or role type. Within each group, Nokia further controls for neutral, objective, and deliberate pay differentiators at Nokia, such as job grade and performance.

The adjusted pay gap measures the difference in compensation for employees performing work based on neutral, job related factors. The adjusted gap is the weighted average pay equity gap across groups, taking into account currently applied objective and gender-neutral controls and settings. The weighing is based on female employee headcount, meaning groups with larger female employee headcounts factor in more to the aggregate number than those with smaller female employee headcounts.

Nokia focuses on addressing systemic differences, not individual variations. The goal is to ensure there are no patterns of women being paid differently than men.

Annual total remuneration

Annual total remuneration ratio is calculated by dividing the CEO's total pay by the average employee salary.

Annual total remuneration encompasses all salary, benefits, equity, and bonuses paid. The CEO's bonus payout requires approval from both the Board of Directors and the Personnel Committee.

Nokia's average salary is calculated by dividing the total salaries paid by Nokia's average headcount during the reporting year.

Social information continued

Workers in the value chain (ESRS S2)

Nokia drives active engagement across its value chain, working with its suppliers to raise the standards in its ecosystem in key ESG areas including labor rights and Health and Safety. Supplier due-diligence is one of the four pillars of Nokia's responsible sourcing strategy complemented by supplier development and learning and industry collaboration as key enablers for success.

Nokia conducts business with around 9 300 suppliers in over 100 countries. For a description of Nokia's sourcing categories and countries that also reflects sectors where Nokia's value chain workers are employed, please refer to the section '[Business model and value chain](#)' in the section 'General information'.

Material impacts, risks and opportunities related to workers in the value chain

The double materiality assessment indicated that working conditions and other work-related rights for workers in the value chain are material sub-topics for Nokia. The following table describes the material impacts, risks and opportunities as well as how Nokia manages these.

Sub-topic	Material impacts, risks and opportunities	Management
Working conditions: Working time	Impact (negative): Suppliers' employees in supplier manufacturing facilities or customer services sites may be exposed to excessive or non-voluntary overtime, continuous work without day off during peak manufacturing or projects with short execution time.	Working hours related controls are part of our Supplier due-diligence, one of the building blocks under our responsible sourcing and supply chain strategy. Nokia endorses internationally agreed standards related to working hours cap and leave aiming to lead suppliers' employees to experience good work-life balance. Nokia conducts risk based due-diligence via online and onsite audits and corrective action management/supplier training.
Working conditions: Adequate wages	Impact (negative): Suppliers' employees in supplier manufacturing facilities or customer services sites may be exposed to receiving insufficient wages, deductions from their wages, not receiving correct full and final settlement when terminating employment or working under false apprenticeship schemes.	Wages and benefits subject is part of our Supplier due-diligence, one of the building blocks under our responsible sourcing and supply chain strategy. Nokia conducts risk based due-diligence via online and onsite audits and corrective action management/supplier training. Suppliers' employees shall receive wages and benefits in line with their contractual agreements and industry minimum standards, without unnecessary deductions and shall meet at least Living Wage minimum.
Working conditions: Health and Safety (H&S)	Impact (negative): Nokia business activities associated with installation of network equipment & support services, site acquisition & permitting may include health and safety threats related to working at height, road safety, electrical safety, underground assets, street works and working in high or extreme risk countries/regions.	Health and Safety is one of the building blocks of Responsible Business under our ESG strategy. Strategic focus areas include: Leadership & Behavior, Implementation of Global High-Risk Health & Safety Standards, Improving Existing Services, Continuity of Operations, Assurance & Governance, Global Health and Safety Risk & Opportunity Analysis. Health and Safety remains a key priority for Nokia. Group leadership representatives set the strategic direction and policies for Health and Safety at Nokia. They demonstrate their strong commitment to excellence in Health and Safety by participating in and leading various risk and opportunity reviews held throughout Nokia's global markets. Nokia has a broad range of programs targeting continuous improvement to address job-related Health and Safety risks when installing and maintaining equipment and providing services and solutions to Nokia's customers. Nokia delivers training, conducts analyses and assessments, and implements consequence management. Nokia's Health and Safety Management System is globally certified and based on the internationally recognized ISO 45001 standard. Coverage within the scope is comprehensive across all business groups, network services and installations, and customer operations and supporting corporate functions. In 2024, the Health and Safety management system covered 52% of Nokia's sites and 88% of employees (excluding discontinued operations). With Nokia's global Health and Safety Management System, audits and certifications, and having demonstrated continuous improvement year-over-year, Nokia is positioned as an effective leader in global Health and Safety management systems and programs worldwide. Nokia works proactively to minimize the potential and impact of work-related incidents. When accidents occur, they are thoroughly investigated, corrective actions are identified and these provide an opportunity to adapt safety programs and prevent future recurrence.
Other work related rights: Forced labour	Impact (negative): Suppliers' employees may be exposed to forced labor, including having work without valid employment contract, exposure to recruitment fees being collected as part of recruitment channels, casual labor entering our services supply chain, risks being particularly higher in deeper supply chain tiers, and in services supply chain where execution of lower skill profile last mile tasks may occur, especially in remote areas which are difficult to reach.	Forced labour prevention is part of our Supplier due-diligence, one of the building blocks under our responsible sourcing and supply chain strategy. We have robust due-diligence practices in place, including risk mapping, online and onsite audits, capacity building, remediation, consequence management, performance evaluation, stakeholder grievance. We also collaborate with customers and industry consortium on the same.

Social information continued

Identification and assessment of material impacts, risks and opportunities

Nokia's approach to determining material impacts, risks and opportunities is described under the ['General information'](#) section.

Specific impacts, risks and opportunities were identified on the basis of supplier assessments and audits that Nokia conducts each year, as well as industry forums, stakeholder inquiries and supplier workshops and webinars. Findings related to working time, wages, health and safety and forced labor risk were the most frequent findings in Nokia's supplier audits in 2024 (refer to the table under the section 'Actions' for examples of identified non-compliance and table under the section 'Disclosure Tables' for audit findings). The information gathered through this process was used for the identification of material impacts, risks and opportunities related to workers in Nokia's value chain.

Policies

The Nokia Code of Conduct is the company's highest-level policy which also covers Nokia's commitment to Human Rights in its own operations, supply chain and business relationships. Refer to the section General information, ['Policies adopted to manage material sustainability matters'](#) for further information regarding the Nokia policies.

Nokia expects its suppliers to adhere to the Nokia Third-Party Code of Conduct and provides them with Nokia Supplier Requirements, including the Responsible Business Alliance's (RBA) Code of Conduct and additional, Nokia-specific sustainability requirements.

Nokia labor-related requirements to Nokia's suppliers are based on international standards such as the Universal Declaration of Human Rights, the International Labor Organization Core Conventions and the Social Accountability SA8000 Standard. These requirements include working time, overtime, leaves, compensation and benefits as well as modern slavery risk and forced labor prevention and are covered under Nokia's Supplier Requirements, which include the requirements from the latest version of the Responsible Business Alliance's Code of Conduct as well as Nokia-specific supplier requirements on top of industry Code. An overview of Nokia's Supplier Requirements is published on Nokia's website and made available to all stakeholders.

These Supplier Requirements are cascaded down to suppliers as part of qualification and contracting, as well as supplier training and are expected to be cascaded down to the next tier of suppliers by Nokia's suppliers.

The Nokia Health, Safety and Labor Conditions Policy as well as Nokia's Life-Saving Rules cover all operations performed by everyone working on behalf of Nokia at Nokia's own or customer premises. Health and Safety requirements are also integrated into Nokia's contractual requirements with suppliers.

Nokia has developed global Health and Safety implementation standards to cover high-risk activities (working at height, road safety etc). These global standards are localized by competent country-based Health and Safety practitioners to include country- and customer-specific requirements. These standards are published on Nokia's external supplier portal and communicated by the relevant stakeholders locally and via supplier training.

Nokia has set stringent KPIs related to its in-house Supplier Health and Safety Maturity Assessment. This assessment helps to ensure that suppliers know Nokia's Health and Safety requirements and have the capabilities to deliver work safely on Nokia's behalf.

Processes for engaging with value chain workers about impacts

Nokia engages with value chain workers through on-site audits and inspections conducted to the suppliers. These include but are not limited to management system reviews and interaction, site tours, worker interviews, timesheet and holiday leave checks, remuneration checks, employment contract and file checks. When performing sampling for documentation reviews and worker interviews, vulnerable group representatives are included. On-site audits are conducted based on risk, prioritizing supplier sites in high-risk geographies as well as supplier commodities with high risk of labor rights infringements.

Nokia's supplier-related monitoring, assessment and auditing activities also include EcoVadis assessments. These are online assessments of supplier policies and procedures, which include evaluations of policies and controls relating to working time and leave, remuneration, recruitment and forced labor prevention. EcoVadis assessments are repeated every two to three years depending on the supplier score.

Interaction with supplier employees is also conducted via supplier training (on-site workshops and webinars).

Health and Safety worker consultations and interactions include Supplier Health and Safety Maturity Assessments; on-site sustainability audits (worker interviews); site monitoring and inspection programs; EcoVadis assessments; the implementation of Nokia's Life-Saving Rules (any worker has the right to refuse work); Nokia Senior Leader Safety Tours; Nokia's License to Work program; supplier competence development including Nokia's Safety Capability and Enablement Program; safety stand-down days; and joint on-site training events in collaboration with specialist companies.

Relevant Health and Safety risks are communicated to value chain workers via Health and Safety plans, Global Health and Safety High Risk Standards and local Health and Safety standard operating procedures (SOPs), safety alerts, and bulletins to communicate good practice and highlight potential risk-related issues. The Nokia Supplier Health and Safety portal is used to communicate processes, training and good practices. There is also a Health and Safety Reward and Recognition program that includes suppliers.

Operational responsibility for the engagement of workers in the value chain is with Head of the Sustainable Supply Chain for labor rights and Head of People Safety & Security for Health and Safety.

Processes to remediate negative impacts and channels for value chain workers to raise concerns

Findings from audits and assessments are addressed through corrective action / improvement plans that are communicated to the supplier. In the event of a health and safety incident or accident, an investigation process is triggered. The investigation focuses on the determination of the root cause and then corrective and preventative actions are mandated.

The implementation of such action plans, whether triggered by audits or investigations is monitored by local Health and Safety teams. Nokia has also developed a Health and Safety Consequence Management Process to transparently and fairly evaluate the causation of all health and safety incidents.

For incidents related to child and forced labor Nokia also has Child and Forced Labor Remediation Process.

Social information continued

The main channel for value chain workers to raise concerns related to their employer should be their employer grievance channels. Besides their own channels, concerns can also be raised through the Nokia Ethics Helpline as well as via worker interviews that are conducted as part of supplier audits and site inspections. Refer to the sections '[Reporting channels and investigations process](#)' and '[Protecting against retaliation](#)' within 'Business conduct (ESRS G1)' for more information on grievance channels and retaliation policies.

Actions

In 2024, Nokia conducted a total of 606 supplier audits and EcoVadis assessments. Supplier assessment coverage is reflected under the '[Disclosure tables](#)'. These included 101 in-depth corporate responsibility audits. There were 16 countries covered by these audits, such as China, India, Japan, Malaysia, Mexico, Singapore, Taiwan, Thailand, the Philippines, and Vietnam. The number of findings per category in these audits and examples of some findings and corrective actions taken are disclosed in the following table. As a result of the audits, 420 improvement recommendations were made, which were addressed through corrective action plans. Most of these recommendations aim to improve the working conditions for the value chain workers. All non-conformities identified were analyzed by Nokia's experts in the sustainable supply chain team, and corrective actions were included in Nokia's training materials as a mechanism for systematic improvement. Nokia aims to close these audit findings within six months of the audit completion date. In 2024, 38% of our corporate responsibility audit findings were closed within this time. Beyond in-depth audits, 469 online assessments with EcoVadis were also completed. In 2024, 84% of Nokia suppliers covered with valid EcoVadis assessment had a satisfactory score. All the suppliers with scores below expectations were addressed with improvement requests.

Learnings from findings and their remediation are shared at supplier workshops, webinars and training sessions as well as through public reporting.

Nokia is also collaborating with industry peers (e.g. through the Responsible Business Alliance) on new tools and learning materials.

Examples of identified non-compliance and actions taken:

Category	Non-compliance identified	Actions taken by supplier
Child and juvenile labor avoidance	There is an inadequate policy regarding Interns lacking required protection. For instance, the current intern policy doesn't state critical information like interns provided assignments that complement their course of study, maximum duration of apprenticeship which shouldn't be more than 6 months, no agency or intermediary hired for recruitment, hiring, arrangement, and management of interns and a prohibition of use of interns to fill a labor shortage.	Intern policy has been updated to include all such gaps and the updated policy communicated to interns.
Forced Labor: Employees pay medical check fees	New employees pay 40 RMB, or 2.1 % of a worker's base salary for their own health check as fee.	All employee files including employment agreements were reviewed. New format of contract template was developed with all important terms and conditions and completed with signatures. New HR person was assigned and Content Checklist was created for the employee file for required documents.
Health and safety	Approx 20% of the employees exposed to occupational hazards in the factory did not wear appropriate labor protection, e.g. workers in the CNC workshop were wearing ordinary disposable masks instead of dust masks	The supplier has reviewed the personal protective equipment (PPE) wearing guidebook that sets out the guidance and standards for wearing different types of PPE. The supplier also shared pictures of workers wearing PPE, that appears appropriate for the activities that they are performing.
Working hours	Excessive monthly overtime working hours were observed (46 to 54 hours per month) in different sampled months.	The supplier has set a limit to the overtime working hours. The monthly overtime hours meet legal requirement of 46 hours with a maximum of 38 hours in a month. Evidence has been shared. Training for control of working hours is provided to workers. The same working hour trend was also observed in the production area.
Remuneration and benefits	Salary from which the social benefit of Provident Fund is calculated is less than the Basic + Daily Allowance of the region, an amount from which such provident fund needs to be calculated.	Supplier has analysed the situation. Salary has been revised based on the latest salary structure for future compliance. The deficit amount in the preceding month has been paid to the provident fund department.

Social information continued

Targets and progress in targets

The targets reflect the due diligence programs that are addressing the policy areas including forced labor, health and safety, remuneration and working time.

Supply chain

Satisfactory sustainability score

Nokia has set the overall target of 80% of suppliers achieving a satisfactory sustainability score (based on aggregated weighted share) in supplier performance evaluations (based on corporate responsibility on-site audit programs, EcoVadis, CDP, and conflict minerals). This KPI includes all major due-diligence assessment results through performance score. Individually Nokia also publicly discloses the number of on-site and online sustainability audits; the number of audit findings related to working hours, remuneration, forced labor risk, health and safety etc and type of findings and remediation actions taken.

Progress on target: On track

78%

of suppliers received a satisfactory sustainability score in Nokia's assessment programs.

3TG traceability and conflict free status

98% 3TG traceability and conflict free status to smelter level in Nokia's supply chain as well as conflict free status of the smelters. Extended due diligence and conflict free status of cobalt, mica, aluminum and copper.

Progress on target: Not on track

87%

traceability to the smelter level in Nokia's supply chain as well as conflict-free status of the smelters.

Health and Safety

With regards to Health and Safety, there are a number of internal targets. These include targets associated with value chain workers. Focus areas and targets have been established for topics such as:

Incident frequency rate reduction

Progress on target: Achieved

Nokia own workforce LTIFR and TRIFR showed a reduction from 2023 (LTIFR as 0.085 from 0.089 in 2023 and TRIFR as 0.244 from 0.277 in 2023).

Zero critical or fatal incidents among own workforce, suppliers and third-parties

Progress on target: Not achieved

6

(six) work-related fatal incidents. This include 0 (zero) work-related fatal incidents involving Nokia own workforce, 5 (five) work-related fatal incidents involving contractors/subcontractors and 1 (one) work-related fatal incident involving a third-party.

Supplier Health and Safety maturity

100% "H&S Recommended or Preferred supplier" status by 2030.

Progress on target: On track

16%

of relevant suppliers met "H&S Recommended or Preferred supplier" status.

Projects compliant with the strengthened requirements of HRPIA process

96% of projects compliant with the strengthened requirements of Nokia's High-Risk Project Implementation Assessments (HRPIA) process

Progress on target: Achieved

97%

of High-risk projects were found to meet Nokia's minimum non-negotiable requirements.

Nokia Senior Leader Safety Tours

Creating a safer work environment starts with good leadership. Nokia leaders are in key position to strengthen the Health and Safety culture in Nokia. Conducting a Senior Leader Safety Tour is a targeted, direct and strategic way to engage with local teams and value chain workers in order to influence positive safety behaviors.

In 2024, Nokia targeted a cohort of 60 senior leaders to conduct safety tours of installation sites.

Progress on target: Achieved








87

tours led by cohorts of Nokia's top level 4 senior leaders during 2024. In total, Nokia conducted 241 Senior Leader Safety Tours during 2024.

The 2025 target value has been increased: a cohort of 80 senior leaders to conduct safety tours.

Social information continued

Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
S2: Workers in the value chain					
2030	2020 ⁽¹⁾	22%	100% of suppliers delivering high risk activity to meet “H&S Recommended or Preferred supplier” status in our Health & Safety maturity assessment.	16% of relevant suppliers met “H&S Recommended or Preferred supplier” status. To reach the 2030 Target, Nokia continues to work with our supplier base, engaging and promoting the supplier safety competences, offering safety training and setting supplier workshops in order to improve supplier Health and Safety awareness and capability.	On track 
2025	2020	95%	98% 3TG traceability and conflict free status to smelter level in our supply chain as well as conflict free status of the smelters. Extended due diligence and conflict free status of cobalt, mica, aluminum and copper.	As of 2024 we have achieved 87% traceability to the smelter level in our supply chain as well as conflict-free status of the smelters (6% basis points improvement from 2023). We have also extended and conducted due diligence for cobalt, mica, aluminum and copper. The work continues to close the remaining 11% gap to reach the target in 2025.	Not on track 
2025	2020	68%	80% of suppliers achieve satisfactory sustainability score (based on aggregated weighted share) from supplier performance evaluation (based on Corporate Responsibility onsite audit, EcoVadis, CDP, Conflict minerals).	78% of suppliers (covered by Supplier Performance Evaluation process on Sustainability), on average, received a satisfactory sustainability score in our assessment programs.	On track 
2024	2023	3	Zero fatal incidents for own workforce, suppliers and third-parties.	In 2024, there were 6 (six) work-related fatal incidents. These include 0 (zero) work-related fatal incidents involving Nokia own workforce, 5 (five) work-related fatal incidents involving contractors/subcontractors and 1 (one) work-related fatal incident involving a third-party.	Not achieved 
2024	2023	0	Cohort of 60 senior leaders conduct safety tours to sites to increase monitoring visibility.	In 2024, Nokia have conducted 87 tours led by cohorts of Nokia's top level 4 senior leaders.	Achieved 
2024	2023	98%	96% of projects compliant with the strengthened requirements of our High-Risk Project Implementation Assessments (HRPIA) process.	97% of High-risk projects were found to meet our minimum non-negotiable requirements.	Achieved 
2024	2023	LTIFR 0.089 TRIFR 0.277	Reduction in Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR) for Nokia own workforce.	Nokia measured 2 (two) own workforce safety related Incident Frequency Rates. In 2024, both LTIFR and TRIFR showed a reduction compared with 2023: Nokia own workforce LTIFR in 2024 end as 0.085 (2023 result was 0.089) Nokia own workforce TRIFR in 2024 end as 0.244 (2023 result was 0.277)	Achieved 

(1) The target has been in place already earlier but the year 2020 was the first year of reporting the target result externally.

Social information continued

Disclosure tables

The following table shows incident reporting related to Health and Safety topics. These include own workforce, contractors or subcontractors and third parties in line with targets.

Occupational health & safety	2024	2023
Near miss incidents reported (including contractors)	184	183
Lost-time injury incidents of own workforce	13	16
Work-related fatal incidents involving own workforce	0	0
Work-related fatal incidents involving contractors or subcontractors	5	1
Work-related fatal incidents involving third party	1	2
Work-related critical incidents involving own workforce	1	Not reported
Work-related critical incidents involving contractors or subcontractors	1	Not reported
Work-related critical incidents involving third party	2	Not reported
Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR) for Nokia own workforce and suppliers		
TRIFR: Nokia own workforce	0.244	0.277
TRIFR: Suppliers	0.655	Not reported
LTIFR: Nokia own workforce	0.085	0.089
LTIFR: Suppliers	0.401	Not reported
Safety tours executed and reported with senior leaders	87	144

Findings from Nokia in-depth corporate responsibility supplier audits

During 2024, 101 supplier corporate responsibility audits were conducted, resulting in the findings shown in the following table.

Category of findings	Instances of non-compliance	Number of potential risk areas identified	Total number of recommendations for improvement
Child and juvenile labor	1	1	2
Forced labor (contract agreement issues/fine/deduction, etc.)	22	1	23
Health and safety	146	12	158
Freedom of association and right to collective bargaining	3	1	4
Discrimination	3	2	5
Disciplinary practices	6	0	6
Working hours	97	2	99
Remuneration	35	2	37
Management systems	45	1	46
Environmental management system	36	4	40
Total	394	26	420

Supply chain management data

Nokia's supply chain due diligence includes different types of audits and assessments. The following tables provide an overview of their coverage, quantity and results.

Supplier coverage in Nokia's sustainability programs	2024	2023
Responsible Minerals Program	99%	99%
EcoVadis sustainability assessments	64%	62%
CDP Supply Chain Climate Change Program	62%	65%
CDP Supply Chain Water Security Program	52%	53%
Supplier audits and assessments		
Number of corporate responsibility on-site audits (focused on labor conditions and the environment) against Nokia's Supplier Requirements and SA8000 ⁽¹⁾	101	141
Closure percentage of non-conformities identified at corporate responsibility audits, within audit closure target time	38%	55%
Number of on-site system audits against Nokia's Supplier Requirements	36	48
Number of suppliers assessed on corporate responsibility on the EcoVadis sustainable supply management platform	469	446
Share of active suppliers rated "satisfactory" or above on their assessment of sustainability by EcoVadis	84%	81%
Health and safety		
Share of relevant suppliers delivering high-risk activities covered by Nokia's Health and Safety Maturity Assessment	98%	99%
Share of suppliers assessed by Nokia's Health and Safety Maturity Assessment process meeting 'H&S compliant supplier' status	98%	99%
Share of suppliers delivering high risk activity to meet "H&S Recommended or Preferred supplier" status in Nokia's Health and Safety Maturity Assessment	16%	18%
Percentage of projects compliant with the strengthened requirements of Nokia's High-Risk Project Implementation Assessments (HRPIA) process	97%	98%
Supplier performance evaluation		
Share of suppliers achieving a satisfactory sustainability score (based on aggregated weighted share) in supplier performance evaluations (based on corporate responsibility on-site audit programs, EcoVadis, CDP and conflict minerals)	78%	80%
Materials traceability		
Share of suppliers that have achieved Conflict Free status, %	87%	81%

(1) The 2024 number includes 14 corporate responsibility audits from 2023, but that were reported to Nokia during 2024.

Social information continued

Reporting principles for metrics

Occupational health & safety

Incident reporting

Incident reporting is compilation of occupational health and safety incidents occurred during 2024. These are investigated and tracked internally by Nokia People Safety and Security team.

Nokia has revised its fatality reporting criteria in 2023 to include third parties such as members of the public who are assessed as being impacted by an incident that is deemed within Nokia's control. This more closely aligns Nokia's reporting with some of its closest industry stakeholders and competitors.

Total Recordable Incident Frequency Rate (TRIFR) and Lost Time Incident Frequency Rate (LTIFR)

Incident Frequency Rate (IFR) is an established Health & Safety reporting practice in organisations, giving the numbers of incidents an organisation has, as a ratio against the numbers of hours worked in each reporting period, typically a month.

TRIFR is the number of fatalities, critical, lost time injuries, injuries requiring treatment by a medical professional (medical treatment), multiplying it by 1,000,000, and then dividing that single number by the total number of employee hours worked.

LTIFR is the number of lost time incidents (fatal, critical and lost time injury) resulting an employee's inability to work the next full workday, multiplying it by 1,000,000, and then dividing that single number by the total number of employee hours worked.

Safety tours executed and reported with senior leaders

A Senior Leader is a person accountable and in a key position with responsibility for the delivery of our business in a safe way, influencing positive safety behaviors of Nokia employees and of those working on Nokia's behalf. This person is empowered to strengthen the Health and Safety culture in Nokia and has the authority and control over resources to ensure the implementation of Nokia safety standards.

Findings from Nokia in-depth corporate responsibility supplier audits

Findings are summarized from corporate responsibility supplier audits carried out majorly by third party auditors either directly outsourced or via industry initiatives such as Responsible Business Alliance and The Joint Alliance for Corporate Social Responsibility (JAC).

Supply chain management data

Supplier coverage in Nokia's sustainability programs

The coverage represents percentage of relevant supplier spend covered by the respective programs of the overall Nokia's supplier spend.

Supplier audits and assessments

Data on audits and supplier assessments are maintained by Nokia's Sustainable Supply Chain team. The EcoVadis platform is utilized in metrics related to EcoVadis assessments and the CDP platform related to climate change management. Responsible Business Alliance's platform is utilized in onsite audits related metrics.

Closure percentage of non-conformities is the simple average of percentage closure of all audits findings. Such percentage is calculated by dividing closed findings with total findings identified in respective audits. These findings are for audits conducted during initial 6 months of 2024 and 12 months of 2023.

Health and safety

Share of relevant suppliers delivering high-risk activities:

This represents the coverage and the percentage is computed by dividing the number of high-risk active suppliers with a completed Supplier Maturity Assessment (SMA) with in next review date with the total number of high-risk active suppliers.

'H&S compliant supplier' status:

This implies suppliers with 3 or more completed SMA scoring and the percentage is computed by dividing the number of high-risk active suppliers (with a completed SMA scoring ≥ 3.00) by total number of high-risk active suppliers with a completed Supplier Maturity Assessment within next review date.

'H&S Recommended or Preferred supplier' status:

This implies suppliers with 4 or more completed SMA scoring and the percentage is computed by dividing the number of suppliers delivering high risk activity to meet "H&S Recommended or Preferred supplier" status in our Health and Safety Maturity Assessment by total suppliers.

Projects compliant with the strengthened requirements of HRPIA process:

This metrics represents all active high-risk projects with HRPIA fully completed and reviewed less than 1 years and are compliance with Nokia Non-Negotiables with overall HRPIA scoring ≥ 3.00 .

Supplier performance evaluation

This metric is computed based on the aggregated weighted share of supplier's performance evaluation from corporate responsibility audits, EcoVadis, CDP and conflict minerals assessments. The weights are assigned on the basis of suppliers coverage in these programs.

Share of suppliers that have achieved Conflict Free status

The indicator is based on two factors: (i) the supplier having completed smelter identification, and (ii) all smelters reported by the supplier being conflict-free, active in the process as per the industry's assurance program, or low risk for sourcing from conflict-affected or high-risk areas.

Conflict-free sourcing information is reported through the Responsible Minerals Initiative's Conflict Minerals Reporting Template (CMRT), consolidated to the Master Template and compared against Responsible Mineral Initiative's Responsible Minerals Assurance Process as well as internal risk assessment process results.

Social information continued

Affected communities (ESRS S3)

Material impacts, risks and opportunities related to affected communities

The double materiality assessment indicated that freedom of expression (communities' civil and political rights) is a material sub-topic for Nokia. The following table describes, the material impacts, risks and opportunities as well as how Nokia manages these.

Sub-topic	Material impacts, risks and opportunities	Management
Communities' civil and political rights: freedom of expression	Positive impact: Enabling freedom of expression through connectivity and providing social impact programs to help develop digital skills provide the means for communities to fully participate in today's digital society. This includes greater opportunity to share opinions, enjoy their civil rights such as voting, and access diverse information and public services more easily which further promotes informed decision-making.	Customer engagement process through sales teams and business groups. Donations and Sponsorship committee, direct management by ESG team in cooperation with NGO's or customers

Nokia's approach to determining material impacts, risks and opportunities is described under the [General information](#) section.

Nokia's double materiality assessment showed that for affected communities Nokia has a positive material impact. Nokia delivers digital connectivity solutions that provide a means for affected communities to freely express their thoughts, opinions and beliefs.

Nokia considers that connectivity and the technology it provides are a social good that can support human rights, and it acknowledges the responsibility that comes with this. Upholding human rights is a complex issue that covers not only the technology Nokia provides, but also its partners and suppliers and its own operations as well as the broader stakeholder landscape. Therefore, Nokia strives to continuously learn and improve, and believes that engaging with the broader stakeholder community is the best way forward.

The main communities affected by Nokia's operations and its value chain are the local residents around Nokia's own facilities including any Indigenous peoples, and communities potentially impacted by the build-out of the networks Nokia designs and manufactures. Other interested parties may include Non-governmental organizations. Affected communities could include communities along Nokia's value chain such as workers in Nokia's supply chain which is discussed under the section '[Workers in the value chain \(ESRS S2\)](#)'. In the context of double materiality assessment, no material risks or opportunities were identified for affected communities.

Through its networks and technology, Nokia has a positive impact on communities as an enabler of economic development, powering access to channels that allow the exchange of ideas and access to information and market opportunities, while also providing a means to uphold freedom of expression in these communities.

Engagement with affected communities and civil society directly contributes to Nokia build and design of its social programs based on the real needs on the ground from the initial planning to the final follow up and impact outcomes, as well as with the development of the program strategy to better respond to the most salient challenges of the communities, their needs and opinions.

Nokia's Social Impact Program works at a global, regional and local community level. Nokia experts may volunteer their time and skills as appropriate to provide technology training, often with Nokia's customers and partners in relation to a network rollout, to local communities or groups. This is part of ensuring future talent development in technology disciplines.

Nokia also supports donations-based social impact programs usually at local level with Non-Governmental Organizations. Programs under this approach aim for a direct impact by using technology to improve access to information, social services and civil rights as well as improve digital and entrepreneurial skills in targeted communities. This is exemplified by our recent program with UNICEF in Morocco. Social programs through technology can also provide an alternative way to develop new business opportunities.

Social information continued

Policies

Nokia has specific policies and procedural documents that are relevant to the key affected communities it may impact. These include Nokia's Code of Conduct (discussed in the section General information under '[Policies adopted to manage material sustainability matters](#)'), Human Rights Policy as well as Stakeholder Engagement Mode of Operation, which all underline Nokia's commitment to:

- providing products and services that expand opportunities to communicate and contribute directly to the exercise of such fundamental rights as free expression, privacy, access to information, exchange of ideas and economic development.
- ensuring freedom of expression or transgression of other human rights and through human rights due diligence.
- ensuring a systematic approach to how Nokia engages, directly or indirectly, with different stakeholder groups and seek their views and opinions in relation to specific Nokia impacts.

Indigenous peoples are mentioned in Nokia's Stakeholder Engagement Mode of Operation and respect for their rights are also covered by the general principles in the Nokia Code of Conduct.

Nokia's Human Rights Policy commitments are discussed in the General information -section under "[Policies adopted to manage material sustainability matters](#)" and "[Statement on due diligence](#)". As part of monitoring compliance with Nokia's Human Rights Policy, Nokia's Human Rights Due Diligence (HRDD) process is used to help ensure freedom of expression.

Processes for engaging with affected communities about impacts

Nokia is usually one or more steps removed from direct engagement with affected communities, but it aims to ensure that the views and needs of potentially affected communities are considered in its business decisions. Nokia achieves this through legitimate representatives and credible proxies such as Non-Governmental Organizations and multistakeholder groups.

Nokia engages through relevant Non-Governmental Organizations and other non-profit organizations with diverse communities, for example working with UN Women on gender topics. It collaborates with these organizations for their expertise and direct relationships with the affected communities at grassroots level such as our work with UNICEF and local Non-Governmental Organizations. Nokia also implements focused regional and country-driven programs using the expertise of both NGOs and other partners. It obtains guidance from NGOs for Nokia's social impact programs, which provides insights into the communities or regions Nokia should focus on in terms of digital skills.

Nokia's engagement with the Non-Governmental Organization starts from the development of the program and continues throughout the program via the their local office. The Vice President Sustainability and sustainability team in the Legal, Compliance and Sustainability function have the operational responsibility for ensuring this engagement with the Non-Governmental Organizations happens.

Traditionally, when Nokia's customer implements a new network, the customer (telecommunication operator) takes responsibility for related community and stakeholder engagement. The areas with lack of coverage are identified via the operator and used by the operator as part of network planning. The operator also takes into account the Indigenous Peoples land use rights where applicable.

Nokia's account teams in the business groups are accountable for customer sales and hold the operational responsibility for ensuring this engagement happens. Where there are Indigenous Peoples involved (e.g. networks for Native Americans) it is common practice to engage with the leaders of the Indigenous peoples either directly or through an operator depending on the sales model.

Assessing the effectiveness of Nokia's engagement with affected communities involves evaluating whether Nokia's efforts are leading to tangible positive outcomes for the communities involved. Nokia tracks and reports outcomes from social programs, based on data gathered from Non-Governmental Organizations, which are also externally checked and verified through Nokia's relationship with Business for Societal Impact.

Processes and channels for affected communities to raise concerns

The processes Nokia has in place as well as the channels available to raise concerns and have them addressed are described in the section 'Business Conduct (ESRS G1)', under '[Reporting channels and investigations process](#)'.

Actions

Nokia ensures that its donations and sponsorships are an integral part of its business strategy and reflect Nokia's commitment to the communities in which it operates. Nokia's donations support the Company's global citizenship by implementing programs that emphasize the positive use of digital technology and its benefits, such as access to information, and tools to exchange ideas and express oneself freely. Nokia has created the Nokia Donations Framework, which provides guidance for all Nokia donations and guidelines to ensure that donations are made in line with Nokia's purpose and values. Nokia Donations and Sponsorships Committee reviews whether donations have met the framework on an annual basis.

Nokia has implemented social impact programs over many years that focus on digital inclusion and brings connectivity to communities and businesses globally. These programs can be implemented in all regions in which Nokia operates and they particularly target the unconnected or underserved and where possible include digital skills and technology training. The programs generally last between 1 and 3 years.

Nokia's corporate social responsibility activities are structured into corporate, key regional and local programs. Our corporate-level programs are managed by the Legal & Compliance sustainability function in cooperation with Non-Governmental Organizations or other partners such as customers. Key regional and local programs have a designated person responsible for the program locally and supporting teams as needed.

Social information continued

In 2024, Nokia invested about EUR 6.5 million in communities around the world. In March 2024, Nokia and UNICEF finalized their 2,5-year program in Morocco. The objective of this social innovation and entrepreneurship program was to empower less advantaged young people (15–24 years), particularly girls, to become resilient and increasingly productive through self-employment and active engagement with their own communities. During the year, Nokia also closed their pilot program with UNICEF in Senegal. This program began in 2023 aiming to introduce digital education for students and teachers in public schools in selected parts of the country. Through hands-on coding activities, students were able to develop essential skills in digital literacy, coding and problem-solving. The trained educators can serve as digital champions, integrating digital skills and coding into their teaching, supporting colleagues and fostering a school-wide digital learning culture.

In 2024 Nokia also expanded its collaboration with UN Women empowering women through technology and skills in five regions. In addition, Nokia University Donations program collaborated with selected universities and academia to fund research into open, long-term, high-impact and disruptive discoveries solving environmental, social and governance (ESG) challenges with 6G, AI, sensing and quantum technologies.

Nokia continues to collaborate with Non-Governmental Organizations such as UNICEF Finland, UN Women and community-based local organizations to implement and run social impact initiatives, as well as industry bodies (e.g. Responsible Business Alliance) and customers who have direct relationships and engagement with the communities.

Targets and progress in targets

Nokia's target reflects its commitment to provide digital connectivity solutions and expand opportunities to communicate contributing directly to the exercise of such fundamental rights as free expression. The more Nokia connects people, the greater opportunities there are for freedom of expression. Further, Nokia has target to measure positive impact of its technology in enabling access to information, exchange of ideas and opportunity for economic development. This is discussed in section [Consumers and end users \(ESRS S4\)](#).

One of Nokia's key digital inclusion targets set at the end of 2021 is to "harness Nokia's technology, capabilities and funds to improve the lives of 1 500 000 people through social digitalization projects, digital skill building, and connecting the unconnected and underserved by 2025". These programs can be implemented in all regions in which Nokia operates.

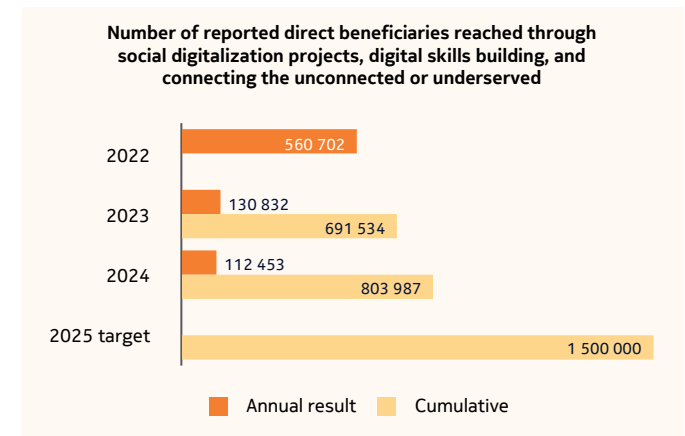
This target was set based on the ongoing and potential new digital inclusion projects and estimated beneficiaries at the beginning of the new projects. Lessons from ongoing projects in consultation with the partner Non-Governmental Organizations also contributed to the target setting. As Nokia engages with affected communities either through Non-Governmental Organizations and other non-profit organizations or customers (telecommunication operator) Nokia did not engage directly with affected communities when setting the target.

As a rule, the projects Nokia undertake are based on the needs identified by the key Non-Governmental Organizations and related to Nokia's technology capability as well as support resources on the ground. At the end of 2021 Nokia saw reduced program sizes and therefore the target was set lower than the previous one. The projects and therefore also the target need to be related to our business where we believe we can achieve the greatest social and/or environmental impact.

Progress in Nokia's social impact programs is measured by gathering data on an annual basis from the NGOs involved and internal owners. The data is then reviewed and verified by an external agency (Business for Societal Impact, B4SI) and Nokia reporting responsible persons using 4-eyes review. Non-Governmental Organizations have regular performance tracking in place with the stakeholders and the affected communities and this serves as an iterative process, providing information to improve and make possible adjustments to the program work.

During 2024 Nokia reached 112 453 reported direct beneficiaries. This is 14% less compared to 2023, and driven partly by fewer direct beneficiaries reported from programs in India, which is the most prominent country in terms of number of reported direct beneficiaries overall. Additionally, the ongoing corporate programs were focused on smaller groups of beneficiaries thus affecting global beneficiary numbers.

The current cumulative reported direct beneficiaries is 803 987. As a result, Nokia's target is not expected to be achieved by 2025.



Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
S3: Affected communities					
2025	2022	0	Harness Nokia technology, capabilities and funds to improve the lives of 1 500 000 through social digitalization projects, digital skills building, and connecting the unconnected or underserved by 2025.	Nokia reached 112 453 reported direct beneficiaries in 2024. Total cumulative number of reported direct beneficiaries of 803 987 by 2024.	Not on track →

Social information continued

Reporting principles for Nokia Community Investments metrics

Nokia's underlying approach to quantifying its community investments inputs is based on B4SI Framework, which forms a measurement standard that any for-profit corporate entity can apply to understand the impact their contributions make to society.

Total value of contributions (EUR million)

Calculated as sum of cash, time, and in kind contributions where:

- cash contribution is the gross monetary amount a company pays in support of a community organization/project;
- time contribution is the cost to the company of the paid working hours contributed by employees to a community organization or activity (e.g., employee volunteering, active participation in fundraising activities, longer-term secondments to community organizations);
- in-kind contributions are other non-cash resources to community activities and can include donations of the company's product or services or other corporate resources such as IT equipment, used furniture, meeting rooms or other spaces.

Number of reported direct beneficiaries

Total number of individual beneficiaries reached via Nokia's Community investment activities under key thematic pillars "Increasing digital inclusion that provides access to opportunity (education, health, employment)" and "Inclusion, equity & diversity" in Nokia's donation framework.



Social information continued

Consumers and end users (ESRS S4)

Material impacts, risks and opportunities related to consumers and end-users

The double materiality assessment indicated that access to quality information and freedom of expression (information-related impacts for consumers and/or end-users) are material sub-topics for Nokia. The following table describes the material impacts, risks and opportunities and how Nokia manages those impacts, risks and opportunities.

Sub-topic	Material impacts, risks and opportunities	Management
Information-related impacts for consumers and/or end-users: access to (quality) information	Positive impact: Nokia's technology enables connectivity and the resulting positive impact related to access to information, exchange of ideas and opportunity for economic development	Customer engagement process through sales teams and business groups. Donations and Sponsorship committee, direct management by ESG team in cooperation with NGO's or customers.
Information-related impacts for consumers and/or end-users: freedom of expression	Positive impact: Enabling freedom of expression through connectivity allows consumers and end-users to share opinions, access diverse information and public services which further promotes informed decision-making.	Human Rights Due Diligence (HRDD) process as a component of the sales process which encompasses various compliance topics. Oversight by the Nokia HRDD council with Global Leadership Team (GLT) members.

Nokia's approach to determining material impacts, risks and opportunities is described under the '[General information](#)' section.

In terms of positive impact, providing connectivity solutions, digital technology and digital skills programs affords individual consumers the opportunity, sometimes for the first time, to exercise their rights to access basic services, and better healthcare options, engage in social discourse and even explore the job market. Some examples of Nokia's connectivity solutions include:

- an optical, IP and fiber broadband network deployed in the Amazon rainforest connects the unconnected communities to multi-gigabit broadband access.
- Nokia's Rural Connect solution delivers high-speed internet to areas where it is difficult to deploy fiber infrastructure and enables service providers to offer affordable, high-speed broadband without the need for extensive on-the-ground infrastructure.

There are many positive outcomes of connectivity as described in section [Affected Communities \(ESRS S3\)](#).

Nokia sells its network infrastructure solutions to Communication Service Providers (CSPs i.e. telecommunication operators), cities and authorities and vertical industries/enterprises including mining, oil and gas, agriculture, manufacturing, logistics, and defense sectors. Those products are sold directly to CSP's and via system integrators or other third-party companies to enterprise market customers. Nokia does not sell its products directly to consumers.

Policies

Nokia's Code of Conduct (discussed in the section General information, under "[Policies adopted to manage material sustainability matters](#)") and Human Rights Policy show Nokia's commitment to ensuring the technology it delivers supports freedom of expression rather than hindering it. Nokia's robust Human Rights Due Diligence (HRDD) process further aims to minimize the risk of violation of freedom of expression to consumers and end users through the potential misuse of Nokia technology. Nokia's Human Rights Due Diligence (HRDD) process is a non-commercial cross-company investigative process. This process is pre-emptive and rigorous; it is used before any sale is done, while also attempting to ensure compliance with Nokia's Human Rights Policy.

Nokia's human rights policy commitments are discussed in the General information -section under "[Policies adopted to manage material sustainability matters](#)" and "[Statement on due diligence](#)".

Nokia Stakeholder Engagement Mode of Operation standard operating procedure provides employees with an understanding of the operational engagement work of Nokia in ESG. This includes detailing of roles and responsibilities, key stakeholders, cross-functional team involvement, reporting and trainings. In accordance with the Nokia policies, the Mode of Operation document is owned and maintained by the sustainability team in the Legal, Compliance and Sustainability function. The Mode of Operation document is only for internal use. Common areas or cross-functional activities with other units and business groups are listed in this document. The identified material positive impacts reflect Nokia's core business of connectivity, networks and digitalization.

Social information continued

Processes for engaging with consumers and end-users about impacts

Nokia's end users are communication service providers and enterprise customers, and therefore regular customer engagement processes apply. Nokia's account teams in business groups are accountable for customer sales and hold the operational responsibility for ensuring this engagement happens. Nokia does not have direct engagement with consumers as it rarely operates the networks, but rather enables the communication service provider to offer consumer and end-user services over the network equipment Nokia supplies to them.

When a customer implements a new network, the customer (telecommunication operator) takes responsibility for related community and stakeholder engagement. There may be rare exceptions to this, in particular in Asia, where Nokia has taken some responsibilities related to stakeholder engagement e.g., site certifications and keeping the local community informed. The operator identifies the areas with lack of coverage and uses this information as part of network planning. Nokia customer account teams work through the customers who have direct relationships to the communities and consumers.

Nokia collaborates with organizations, such as the Global Network Initiative, to help ensure the positive impact of technology on consumers. Nokia engages with other NGO's which is discussed in section [Affected Communities \(ESRS S3\)](#).

Processes and channels for consumers and end-users to raise concerns

The processes and the channels available to raise concerns and have them addressed are described in the section G1 Business Conduct, under '[Reporting channels and investigations process](#)'.

Actions

Nokia carries out Human Rights due diligence process to help ensure freedom of expression by limiting the potential for misuse of its products. Human rights due diligence actions are applied globally across Nokia and may impact customers, end users, consumers and Indigenous populations. This can lead to potential adjustments to products where needed. This supports the communication service provider in enabling freedom of expression for the end users and consumers who use their services.

For social programs Nokia implements connectivity and digital skill programs through NGOs and other partner organizations. These programs can be implemented in all seven regions where Nokia operates. Examples of Nokia's social programs are described in the section [Affected Communities \(ESRS S3\)](#) under '[Actions](#)'.

Targets and progress in targets

In line with its long-term goal, Nokia works with its customers to enable broadband-based digital services through Nokia's technology solutions over ever-more subscriptions, further bridging the digital divide and connecting the unconnected. Nokia also contributes to improving digital skills which, combined with greater connectivity, enable more inclusive access to healthcare, education and employment for individuals and provide the opportunity to participate in the digital economy for small businesses. As described in [Affected Communities \(ESRS S3\)](#) Nokia also has a target reflecting its commitment to providing digital connectivity solutions and expand opportunities to communicate thus contributing directly to the exercise of such fundamental rights as free expression.

To measure this impact Nokia has set a target "Helping our customers to connect the next 2 billion measured by the number of subscriptions in Nokia radio customers' networks by 2030" (base year 2021).

The target was set based on the successful achievement of Nokia's previous connectivity target. Nokia reports on the number of mobile broadband subscriptions as a more measurable and reliable number than connected people, as one subscription can connect more than one person. As this is a target based on mobile broadband subscriptions and operator subscriptions being reported through the GSMA (the mobile operators association), there was no engagement directly with consumers in setting this target.

Social information continued

The digital divide often means there is a lack of access to broadband internet (or various reasons such as availability and affordability). With Nokia's Fiber-to-the-Home technology (FTTH), Nokia helps operators connect even more people to broadband. Nokia has set a second target, related to its Fiber-to-the-Home technology, 'to connect 140 million new subscribers by 2030' (base year 2023). With this metric Nokia tracks how many Fiber-to-the-Home users worldwide are using a PON infrastructure delivered by Nokia for their broadband services.

In the process of setting this target Nokia estimated its potential contribution to connecting extra people to the internet using Fiber-to-the-Home technology based on market-leading industry analyst reports. Performance against the target is checked twice a year by tracking Nokia Fiber-to-the-Home connected end-users.

Nokia is on track with its progress to reach the target of 2 billion additional subscriptions. In 2024, the number of mobile broadband subscriptions in Nokia radio customers' networks increased by 349 million.

Growth in Fiber-to-the-Home users in 2024 beat analyst expectations and Nokia has connected 39 million fiber-to-the-home subscribers since the beginning of 2023. Nokia is well on track to connect 140 million Fiber-to-the-Home subscribers through its networks by 2030.

Reporting principles for metrics



Progress for the target: "Helping our customers to connect the next 2 billion measured by number of subscriptions in Nokia radio customers' networks by 2030" is tracked annually using data from the GSMA (GSM Association), a global association of mobile network operators. The target is on track, with an average yearly increase of over 223 million subscriptions. Calculation methodology for the metric:

- Yearly Mobile Networks mobile broadband connections growth = Difference of absolute number of Mobile Networks mobile broadband connections between two years.

Calculation methodology for metric: Nokia's Fiber-to-the-Home technology will connect 140 million new subscribers by 2030, helping break down the digital divide

- Growth of Nokia FTTH broadband connections = Sum of "Growth of connected FTTH users per year * "Nokia market share". Result incorporates both actual and forecast data from iDate market analyst report.

Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
S4: Consumers and end-users					
2030	2021	0	Helping our customers to connect the next 2 billion measured by number of subscriptions in Nokia radio customers' networks by 2030.	The number of mobile broadband subscriptions in Nokia radio customers' networks increased during 2024 by 349 million. Progress to reach the target of 2 billion additional subscriptions 2021-2024: 1 121 million	On track 
2030	2023	0	Nokia's Fiber-to-the-Home technology to connect 140 million new subscribers by 2030, helping break down the digital divide.	Nokia has connected 39 million Fiber-to-the-Home subscribers since the beginning of 2023.	On track 

Governance information

Business conduct (ESRS G1)

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Business conduct (ESRS G1)

Management of business conduct

Strong culture of integrity

Nokia is consistently recognized as one of the World's Most Ethical Companies by Ethisphere. Nokia has a strong culture of integrity, which is driven by the Nokia Code of Conduct, the essentials of being open, fearless, and empowered, high ethical standards, effective controls, and employee empowerment to raise concerns without fear of retaliation. Nokia's commitment to integrity applies to everyone in the company, regardless of function or level. Nokia expects its employees to follow laws, policies, and processes and to speak up about suspected misconduct. Nokia holds employees accountable for unethical behavior.

The Code of Conduct also has a section that outlines leader and manager expectations for cultivating Nokia's culture of integrity within their respective organizations. Many resources are available to educate managers about these responsibilities and to facilitate manager discussions with team members about compliance risks. Nokia measures the level of manager engagement via an annual survey.

Nokia's corporate culture of integrity is supported by its comprehensive compliance training program, including its annual mandatory "Ethical Business Training" course. The topics within the mandatory training program are rotated every year to raise awareness on high-risk areas, emerging risks, and hot topics.

Nokia's approach to creating a culture of integrity helps to ensure that employees do not engage in unlawful or unethical behavior, and mitigates risks related to anti-corruption, competition, bribery, fraud, money laundering, privacy and data protection, human rights and other high-risk areas. This is achieved by providing training and awareness materials and clarifying Nokia's expectation that employees follow the applicable laws, policies and processes. Employees who engage in unlawful or unethical behavior are disciplined, up to and including termination of employment.

Compliance Program governance

Nokia's strong culture of integrity is supported by its Ethics and Regulatory Compliance team, comprised of approximately 50 experienced compliance professionals, which is led by the Chief

Compliance Officer, who reports to the Chief Legal Officer. The Ethics and Regulatory Compliance team members hold an average of 18 years of compliance experience, with its members located in 19 countries and speaking a total of 21 languages. The Ethics and Regulatory Compliance team has functional experience in law, compliance, business, accounting, finance, audits, privacy, regulation, and other areas. The team includes several distinct functions, including regional and business-specific compliance leaders, a risk assessment function and a global team of dedicated investigators (independent from Nokia's business units to ensure utmost objectivity, discreteness and confidentiality). This organization is responsible for compliance concerns that are reported to Nokia. The organization also includes an Anti-Corruption Center of Excellence. The Anti-Corruption Center of Excellence is responsible for conducting due diligence of commercial third parties, customers, and high risk suppliers and oversees the due diligence of high-risk transactions. It is also responsible for Nokia's global Anti-Corruption Program, which includes policies and processes, controls, and training.

The Chief Compliance Officer has direct access to the Audit Committee of the Board, which provides oversight of Nokia's Compliance Program. The Chief Compliance Officer meets at least quarterly with the Audit Committee and as needed based on specific matters. The Chief Compliance Officer also meets at least annually with the full Board of Directors.

Fair competition and compliance with competition rules are an integral part of Nokia's way of doing business regardless of geography. Responsibility for compliance with competition laws rests with all Nokia employees, who are expected to know how competition laws may impact their work. Nokia's Fair Competition Policy covers competitive coordination and exchange of information, competition-restrictive agreements with customers or suppliers, abuse of dominance, and reporting channels. An intranet page dedicated to fair competition provides practical guidance, dos and don'ts on a series of topics through practical scenarios (e.g. industry initiatives, bidding consortiums, multiple bidding, information sharing, cooperation agreements, no-poach, denigration, exclusivity and resale price maintenance), links to related training videos, and an Ethics Helpline link for concern reporting.

There are various trainings available for employees; for example, training when attending trade conferences and industry events; targeted training for sales teams; and live training sessions with relevant audiences.



Governance information continued

Material impacts, risks and opportunities related to business conduct

The double materiality assessment indicated that corporate culture and the management of relationships with suppliers, including payment practices and corruption and the prevention and detection of corruption and bribery are material sub-topics for Nokia. Nokia's approach to determining material impacts, risks and opportunities is described under the '[General information](#)' section. The following table describes the material impacts, risks and opportunities and how Nokia manages these.

Sub-topic	Material impacts, risks and opportunities	Management
Corporate culture	<p>Impact (positive): Corporate culture prioritizing sustainability can lead to responsible and sustainable decision-making throughout the value chain.</p> <p>Opportunity: Nokia is consistently recognized as one of the World's Most Ethical Companies by Ethisphere. Nokia's strong ethical corporate culture provides a foundation to engage in business ethically and legally.</p> <p>Risk: Breach of Nokia's Code of Conduct or the law in regard to compliance areas leading to negative financial or reputational consequences.</p>	Nokia nurtures, promotes, and evaluates its compliance culture using varied mediums. It uses multiple feedback channels, discussions, and training to drive and enhance the culture of continuous improvement in Nokia's Compliance Program. Nokia gauges employee attitudes, perceptions, and experiences regarding the existing compliance culture using survey results and other collected inputs. These results are shared with relevant business/regional teams, managed through mitigation plans, and integrated into the annual risk assessment and communications process for the ongoing management of Nokia's ethical culture.
Management of relationship with suppliers including payment practices	<p>Opportunity: Building trusted relationships and long-term partnerships with suppliers who share Nokia's culture of ethics and compliance.</p>	Nokia builds and fosters long-term relationships with suppliers that deliver a high impact on Nokia's brand, portfolio and business performance. With a holistic management of its supplier relationships, Nokia aims to maximize the value of the collaboration.
Corruption and bribery: prevention and detection of bribery	<p>Opportunity: Nokia is consistently recognized as one of the World's Most Ethical Companies by Ethisphere. Nokia's strong ethical corporate culture provides a foundation to engage in business ethically and legally.</p>	<p>Nokia's robust Anti-Corruption Program is a key factor in helping to ensure compliance with global laws.</p> <p>The program consists of various elements, including:</p> <ul style="list-style-type: none"> ■ Nokia's Code of Conduct covering topics such as anti-corruption and bribery, dealing with government officials, improper payments, working with third parties, controllership, and speaking up (Nokia's whistleblower program). ■ The Nokia Third-Party Code of Conduct, which includes a section on anti-corruption, covers Nokia's expectations for operating with integrity and in compliance with all applicable laws. ■ Training specific to anti-corruption and bribery risks, which is included in Nokia's annual mandatory Ethical Business Training course and is required of all employees. ■ Targeted training on anti-corruption and bribery risks that is assigned to high-risk employee populations, such as employees involved in projects requiring site acquisition and customer-facing sales teams. ■ Various policies on Nokia's intranet site that support the Anti-Corruption Program, available to all employees.

Governance information continued

Nokia's strong culture of integrity helps it avoid unlawful behavior and unethical acts by its employees or by third parties with which Nokia does business. With respect to anti-corruption and bribery, the key risk is that a rogue employee or a third party with which Nokia does business (primarily high-risk suppliers or commercial third parties) engages in behavior that violates Nokia's anti-corruption policies and/or applicable laws or fails to comply with or circumvents one of Nokia's anti-corruption processes or control points. Potential violations of anti-corruption laws may result in investigations; and if a violation is substantiated, the results may include reputational damage, fines and forfeiture awards, and potential criminal action against individuals involved as well as against those who should have been aware that a violation was occurring. Nokia strives to stay abreast of geopolitical changes, business models and strategies that may increase the risk of corruption, such as planned expansion in a high-risk market or segment. As these are identified, the Compliance organization works closely with the business to develop risk mitigants proactively to minimize residual risk. These efforts may include targeted and focused training, the implementation of additional control points and processes, and increased review and monitoring.

Anti-corruption and bribery risks can exist in many aspects of our operations, including certain go-to-market sales models and in project delivery and execution. To effectively mitigate these risks, the Compliance organization has compliance professionals who partner closely with various parts of our business. Through this collaboration, the Compliance organization is able to proactively manage these changing risks by continually evolving the Anti-Corruption Compliance Framework and Program. Business activity presents risk with respect to the possibility of third parties engaging in violations of anti-corruption laws. The third parties with the highest risk include certain high-risk suppliers (those dealing in customs, site acquisition work, or other engagements with governmental agencies) and commercial third parties (distributors, resellers and indirect resellers). To mitigate this risk, Nokia provides training to those third parties with the highest risk and requires annual compliance acknowledgments as well as acknowledgment of Nokia's Third-Party Code of Conduct. These actions, as well as clear contractual provisions including compliance with laws, are designed to ensure that Nokia's third parties understand its expectations for compliant behavior. In addition, suppliers and commercial third parties must successfully complete a risk-based due diligence vetting process. This vetting process often results in approval with risk

mitigants, such as periodic review of transactions, additional contractual terms, or monitoring. Commercial third parties receive quarterly newsletters that include compliance sections to remind them of Nokia's expectations for compliant behavior.

Business conduct policies and corporate culture

Nokia's clear and readily accessible policies and standard operating procedures (SOPs) guide our employees on how to behave and mitigate the risk of unlawful or unethical behavior. These policies and SOPs are included in the '[General information](#)' section.

Employees and third parties that fail to behave ethically and lawfully are held accountable. A dedicated intranet page provides an overview of company level policies and SOPs. The available policies are aligned with all business groups and corporate functions and are disseminated to employees in several ways, including:

- Training programs, both online and live; online training typically includes quiz questions to test comprehension.
- The central repository on the company intranet, accessible by employees.
- Quarterly communications from the Chief Compliance Officer as well as compliance communications for specific regions and business groups.
- The Ethics and Regulatory Compliance intranet site and relevant policies provide examples of conduct and address the importance of compliance both for Nokia and the individual employee.

Nokia's policy framework begins with the Nokia Code of Conduct, which includes the company's basic principles of business conduct and high-level policy statements related to critical business topics. Policy documents further define, support and explain specific areas of focus. SOPs are created, where needed, to instruct employees on specific procedures to implement the policies. Finally, supplemental guidelines (e.g., country-specific guidance) or other training materials may be created for specific implementation of certain procedures. Respective policy/subject matter experts are responsible for ensuring that Nokia's policies and procedures remain up to date and in accordance with applicable laws and regulations in all countries where Nokia operates. The full set of supporting

policies and related procedures for the Code of Conduct's risk areas are available online to Nokia's employees.

Nokia's Code of Conduct is available in a web-based format in 20 languages. It enforces Nokia's values and expectations, outlines Nokia's 14 key compliance policy statements and unites all Nokia employees around a common vision. The Code serves as a guiding framework that provides clarity and consistency in decision making and defines the principles of ethical and compliant business practices that all employees and managers are expected to follow. Everyone in the company is required to review and acknowledge the Code annually as part of mandatory compliance training.

A separate Code of Ethics is in place for Nokia's President and CEO, Nokia's Chief Financial Officer, and Nokia's Corporate Controller. The purpose of the Code of Ethics is to reinforce ethical behavior, promote high standards of corporate governance, and highlight the additional responsibilities of these functions. It complements Nokia's Code of Conduct and Insider Trading Policy as well as other applicable company guidelines.

Nokia's Third-Party Code of Conduct requires Nokia's third-party business partners to follow similar ethical practices to those included in Nokia's Code of Conduct.

Nokia nurtures, promotes and evaluates its compliance culture using varied mediums. It uses multiple feedback channels, discussions and training courses to drive continuous improvement in Nokia's Compliance Program. Nokia gauges employee attitudes, perceptions, and experiences regarding the compliance culture using survey results and other collected inputs. These results are shared with relevant business/regional teams, managed through mitigation plans, and integrated into the annual risk assessment and communications process for ongoing management of Nokia's ethical culture.

Beyond a company-wide survey, Nokia also uses other means to gauge the effectiveness of our Compliance Program, including short pulse surveys on specific topics for more frequent feedback on the overall climate in the company as it relates to Nokia's essentials of open, fearless, and empowered. As an example, Nokia's 2024 mandatory Ethical Business Training course integrated anonymous questions related to fear of retaliation, usage of Nokia's Code of Conduct, reporting concerns, specific policies, and line manager engagement.

Governance information continued

The 2024 survey showed that 83% of employees report to a line manager who discusses ethics and compliance with their team.

Below are some of the resources, platforms and methods that Nokia uses to regularly reinforce its culture of doing business with integrity:

- Nokia Code of Conduct
- Line manager internal posts and news articles
- Social media posts from subject matter topical experts, Nokia's Chief Compliance Officer and other senior leaders
- Internal news articles with topic-related links and resources
- Awareness campaigns and resources (i.e. speaking up and anti-retaliation)
- Ombuds program, dedicated resources, and campaigns
- Dedicated web pages for Compliance Program elements with related resource documents and contacts
- Quarterly newsletter
- Animations, videos, posters, brochures
- Annual Integrity Day event: senior leader/GLT participation and web event, local events around the world, global-level and local messaging, compliance awards, compliance games

Refer to the '[General information](#)' section for all Compliance Program policies.

Reporting channels and investigations process

Nokia offers multiple channels to report compliance concerns, including reaching out to the Legal, Compliance and Sustainability function; Ombuds leaders; the People organization; a dedicated email address; and an Ethics Helpline, which is compliant with the EU Whistleblower Directive, that offers multiple options to report concerns, including an online portal and country-specific options. Nokia has internal and external web pages dedicated to concern reporting and whistleblowing resources. The internal reporting web page explains the reporting process and provides links and information about all the available reporting options. The Ethics Helpline allows for anonymous reporting and is open to employees and external stakeholders. Nokia aims to respond to and investigate all concerns promptly and establish remediation plans as needed.

In addition to the Nokia Ethics Helpline and/or consulting with the Legal, Compliance and Sustainability team, the People organization, or line managers, Nokia's Ombuds network is a critical element of Nokia's Compliance Program. Ombuds leaders sit outside of the Legal, Compliance and Sustainability team, and People organization and serve as confidential, neutral, supplemental resources for employees to raise compliance questions, concerns and requests for guidance. They expand the reach of Nokia's Compliance Program and provide another means to report suspected policy and law violations as well as assist in preventing, detecting, and addressing wrongdoing. Local Ombuds actively promote the program ensuring that employees are aware of the multiple channels available for reporting concerns and encouraging employees to voice their concerns without fear of retaliation. At the end of 2024, Nokia had 217 Ombuds leaders around the world, and 80 percent of Nokia's employees worked in locations with an on-site Ombuds leader. It is important to note that the full Ombuds network is available to support all employees globally and is not restricted to employees within their respective location and/or organization.

The Ethics and Regulatory Compliance Investigations Group is primarily responsible for managing the intake of all compliance concerns in the company across multiple channels, as well as case assignment, investigation, closure, and follow-up with respect to remediation and discipline. Nokia's team of dedicated investigators, which sits centrally within the Ethics and Regulatory Compliance function, is not attached to any particular business group or function and reports into Legal Compliance and Sustainability leadership. The investigator of any matter is fully independent of the chain of management of the alleged subject and the individual raising the concern.

In 2024, Nokia's Investigations Group received a total of 923 concerns, of which 384 were integrity concerns and investigated by the Investigations Group as suspected violations of Nokia's Code of Conduct. In 2024, the Investigations Group closed 397 investigations into alleged violations of Nokia's Code of Conduct, of which 165 were substantiated with cause found after investigation. Nokia implemented corrective actions including 12 dismissals and 30 written warnings. Beyond individual discipline, detailed root cause analysis was conducted for substantiated cases, and unsubstantiated cases as appropriate, to identify, implement and monitor remedial measures and improvements.

Nokia integrates its investigation process into its corporate culture by regularly communicating major findings and trends in a transparent fashion and raising awareness about the reporting process and the importance of speaking up. Regular read-outs about investigation statistics, key findings, and trends are provided to several internal groups, including regional/business group compliance leaders, who include investigations findings in the reporting for their respective jurisdictions and share this information with business leadership several times per year; Ombuds leaders, who share this type of information with employees in local awareness sessions; and senior management as well as the Board of Directors and external auditors. Global trends and anonymized real cases are shared with all employees in Nokia's internal quarterly company-wide Ethics and Regulatory Compliance newsletter ("Integrity Matters"), and annual investigation statistics by category as well as links to anonymized case examples are provided externally. Each quarter, the Chief Compliance Officer updates the Audit Committee regarding significant allegations and outcomes of investigations and once per year reports this information to the Board and the Group Leadership Team.

Protecting against retaliation

Nokia has always positioned itself as a company committed to combating and avoiding all forms of retaliation and maintaining a culture in which its employees and partners feel comfortable raising concerns about suspected violations of Nokia's Code of Conduct and policies, or applicable laws or regulations. Nokia will not tolerate any adverse treatment of an employee or partner (to the extent reasonably within Nokia's control for a non-employee) who raises a concern in good faith or provides evidence in support of such a concern. Any employee who retaliates or participates in retaliating against another employee for raising a compliance concern or for assisting in an investigation will be subject to strict discipline, up to and including termination of employment.

In a clear, widely-disseminated and readily-accessible manner, Nokia provides employees with many avenues to report concerns as well as resource documents and information on external reporting channels. This includes region- and location-specific external reporting options. Annual comprehensive campaigns (consisting of various training initiatives, media and communications) remind and train employees on reporting concerns, available resources, and Nokia's anti-retaliation policy. Managers are provided additional resources, including a checklist, for handling concern reporting. A dedicated internal

Governance information continued

web page on retaliation provides employees with valuable resource information and guidance, including employee and manager anti-retaliation guides.

Training

The Ethics and Regulatory Compliance organization maintains a three-year strategic approach and roadmap for training. Nokia's Ethical Business Training course is updated every year and required annually for all employees. It was one of the two mandatory, web-based training courses deployed in the mandatory 2024 curriculum, with the other module covering information security. The Ethical Business Training course included a review and acknowledgment of Nokia's Code of Conduct and the related 14 policy areas; a requirement to declare potential conflicts of interest; and short reviews of key topics including privacy, conflicts of interest, financial controls, trade compliance, external communications, and ESG. In 2024, 98% (target 95%) of Nokia's employees completed the Ethical Business Training module. New employees are assigned a new-hire training curriculum that includes the current annual mandatory training curriculum.

In 2024, Nokia also provided training (online and in-person) and communications on emerging risks along with important reminders about roles and responsibilities:

1. Just-in-time training videos to provide information at the time most needed, triggered by specific employee requests or actions (e.g., employees who obtain pre-approval to travel to a trade show or conference are required to take a three-minute training module on fair competition).
2. Risk-specific training and communications on privacy, anti-corruption, competition law, site permitting, and Nokia's indirect sales process.
3. Anti-retaliation awareness messaging and resources to heighten awareness of potential retaliatory behaviors and available support channels.
4. Two new animations about the Ombuds program.
5. A new micro-learning to emphasize the importance of bystander reporting.

These resources were supplemented by live training sessions delivered to target audiences on various compliance topics throughout the year.

Nokia opportunity: Anti-Corruption and Anti-Bribery Program

Nokia has a robust Anti-Corruption Program that focuses on identifying and mitigating compliance risks associated with third parties and multi-layer transactions as well as geopolitical events that may pose a risk under applicable laws, including anti-corruption.

Nokia's Global Anti-Corruption Program

Nokia's Code of Conduct

Covers the following topics:

- Dealing with Government Officials
- Improper Payments
- Working with Third Parties
- Controllership
- Speaking up (our whistleblowing program)

Third party code of conduct

- Includes Nokia's expectation relating to anti-corruption and bribery

Training specific to anti-corruption and bribery

- Included in Nokia's annual mandatory Ethical Business Training required of all employees
- Focused training on anti-corruption and bribery that is assigned to high-risk employee populations, such as training for employees involved in projects requiring site acquisition and customer-facing sales teams.

Policies supporting the anti-corruption program

Various policies are available to all employees on Nokia's intranet site, including the following:

- Anti-Corruption Policy
- Conflict of Interest Policy
- No PO/No Pay Policy
- Travel Policy
- Dealing with Government Officials contained in our Code of Conduct: See '[Code of Conduct](#)' in General information section
- Controllership contained in our Code of Conduct: See '[Code of Conduct](#)' in General information section
- Working With Third Parties contained in our Code of Conduct: See '[Code of Conduct](#)' in General information section
- Improper payments contained in our Code of Conduct: See '[Code of Conduct](#)' in General information section
- Corporate Hospitality and Gift SOP
- Global Donations, Other Contributions and Sponsorships SOP
- Third-Party Risk Management SOP
- Prohibition of Facilitation Payments SOP
- Site Acquisition Permitting and Site Access Fees SOP

Governance information continued

Nokia also has monitoring processes in place to identify possible process gaps, including: monitoring our customer relationship management and deal opportunity tool to ensure in scope commercial third parties have been screened by Nokia's Anti-Corruption Center of Excellence; monitoring expense reimbursement claims relating to hospitality to third parties to ensure that the gifts, travel and entertainment ('GTE') pre-approval process was followed; reviewing spend reports to ensure that any high-risk suppliers have been vetted at the appropriate due diligence level; conducting risk-based due diligence on all third parties to identify any red flags or risk before engaging in business with them, with a three-year re-screening required; and managing any concerns that are raised relating to improper payments through Nokia's whistleblower system, as described in the ['Reporting channels and investigations process'](#) section.

The groups of employees deemed to be highest risk with respect to Nokia's business include: sales and pre-sales employees, who have customer-facing roles and work to bring in sales opportunities; employees working with government officials (including those that seek permits and licenses from government agencies) as interactions with government officials bring higher risks; employees involved in site acquisition and site access permitting when delivering projects as this may involve interaction and/or payment to government officials; employees involved with customs clearance and logistics vendors as this may also involve payment to government officials; employees involved with tax advisors and related services as these involve payments and negotiations with government officials; the Government Affairs team and the Finance team as it has a key controllership role to ensure that our books and records are reflected accurately.

Training specific to anti-corruption and bribery is included in Nokia's annual, mandatory Ethical Business Training course and is required of 100% of Nokia employees: all administrative, management and supervisory bodies. Anti-corruption is highlighted in this course given the potential high-risk exposure and is rolled out not only to all employees but also to Nokia's Board of Directors. Nokia also has a separate standalone course that focuses on corruption risk and speak-up channels.

Refer to the ['General information'](#) section for more information on compliance policies.

All suspected breaches in procedures and standards of anti-corruption and anti-bribery are investigated. When an investigation concludes that there has been a violation of Nokia's policies, including Nokia's Anti-Corruption and Anti-Bribery policy, appropriate disciplinary action is taken. Such actions may include financial loss, termination, demotion or role change, a written warning, and/or mandatory training.

Nokia's Anti-Corruption Center of Excellence has a comprehensive, multifaceted, risk-based approach to help identify and mitigate risks to the company while empowering Nokia's business teams to sell Nokia products and services in responsible fashion around the globe.

Management of supplier relationships

Nokia's supply chain is a critical component of Nokia's own reputation and extended impact. Nokia works with both customers and suppliers to drive transparency, sustainability and good ethical business practices in Nokia's deep and often complex supply chain.

Nokia works with its suppliers to develop, innovate and build capability to enable a more sustainable and transparent ecosystem.

In 2024, Nokia conducted business with around 9 300 suppliers, and 80% of Nokia's total supplier spend was distributed across around 400 suppliers.

Nokia's supplier requirements

Nokia applies sustainability criteria for the qualification and selection of its suppliers and requires the fulfillment of sustainability obligations through its supplier contacts.

Nokia expects its suppliers to adhere to its Third-Party Code of Conduct and provides them with Nokia Supplier Requirements, including the Responsible Business Alliance's Code of Conduct and additional, Nokia-specific sustainability requirements. The requirements cover topics such as the environment, health and safety, security and privacy, risk management, labor and human rights management, and ethics and anti-corruption. They are communicated to Nokia's suppliers and integrated into Nokia's contractual requirements.

Nokia requires its Tier 1 suppliers (including Nokia's final assembly, materials and services suppliers) to apply and cascade the same requirements down to their own suppliers and to conduct due diligence (included within Nokia Supplier Requirements). Transparency and compliance requirements are firmly applied to all supplier relationships, and gifts or entertainment are neither given nor received beyond nominal value items. Nokia investigates and qualifies all suppliers, requiring them to comply with all applicable laws and regulations, and demonstrate that they share the values stated in the Nokia Code of Conduct. Requirements related to ethics and anti-corruption for Nokia's suppliers are detailed in the Nokia Third-Party Code of Conduct.

Monitoring, assessment and auditing

Nokia's key supplier-related monitoring, assessment and auditing activities include an on-site corporate responsibility audit program, EcoVadis sustainability assessments, Nokia's in-house Supplier Health and Safety Maturity Assessment, and the CDP Supply Chain Climate Change and Supply Chain Water Security assessments. For more information, see the section ['Workers in the value chain \(ESRS S2\)](#).

Governance information continued

Managing risk and opportunity in Nokia's supply chain

Nokia's internal analysis and enterprise risk management process help identify its potential supply chain risks. Nokia carries out more in-depth analyses to determine all supply chain risks via its dedicated Supplier Sustainability Risk Dashboard, where it looks at various sustainability risks, commodity risks and more, on a supplier location level. The outcomes are included in Nokia's category strategies, which it reviews annually with its purchasing category leads. Failing to meet established sustainability requirements will impact the future business perspective of the supplier.

Nokia prioritizes long-term relationships with suppliers who significantly impact its brand, portfolio, and business outcomes. By managing these partnerships with a comprehensive approach, Nokia aims to maximize the benefits of the collaboration.

Payment practices for suppliers

Nokia treats its business partners with respect and always endeavors to pay its suppliers' valid dues on time as per contractual obligations and country regulations. Suppliers need to follow defined guidelines for correct and timely invoice submission. E-invoicing is set up as a mandatory or preferred method of invoice receiving in all countries where it is legally allowed.

Nokia's standard payment terms are 90 days at the minimum, plus days for invoice receipt and for periodic payment cycle as per the respective supplier contracts. Those with payment term of 90 days or more encompass approximately 62% of the annual invoices by value in 2024.

For the balance 38% of the supplier invoices (including small and medium enterprises), payment terms are based on respective contractual negotiations and/or country legislation.

Actions

Actions taken to support Nokia's Compliance Program and culture:

1. Everyone in the company is required to review and acknowledge the Nokia Code of Conduct annually and disclose any conflicts of interest as part of annual mandatory Ethical Business compliance training. The topics within the mandatory training are rotated every year to spread awareness on high-risk areas, emerging risks, and hot topics. Anti-corruption is highlighted in the same course because it is a high-risk area, and Nokia also has a separate standalone course that focuses on corruption risk and speak-up channels. In addition to annual mandatory training, Nokia supplements training and awareness with numerous live and recorded training sessions delivered to smaller target audiences on various compliance topics throughout the year.
2. Nokia combats and avoids all forms of retaliation and is committed to maintaining a culture in which its employees feel comfortable raising concerns about suspected violations of the Code of Conduct, and related company policies or laws and regulations. Nokia will not tolerate any adverse employment action against an employee who raises a compliance concern or assists in an investigation in good faith.
3. Nokia offers multiple channels to report compliance concerns, including approaching the Legal, Compliance and Sustainability function, Ombuds leaders, the People organization, a dedicated email address, and an Ethics Helpline, which is compliant with the EU Whistleblower Directive, that offers multiple options to report concerns, including an online portal and country-specific options. Nokia has internal and external web pages dedicated to concern reporting and whistleblowing resources.
4. Nokia's Anti-Corruption Program focuses on identifying and mitigating compliance risks associated with third parties and multi-layer transactions as well as geopolitical events that may pose a risk under applicable laws, including anti-corruption. The Anti-Corruption Program includes various elements, such as training, monitoring, policies, and processes.
5. All suspected breaches in procedures and standards of anti-corruption and anti-bribery are investigated. When an investigation concludes that there has been a violation of Nokia's policies, including Nokia's Anti-Corruption and Anti-Bribery Policy, appropriate disciplinary action is taken. Such actions may include financial loss, termination, demotion or role change, written warnings, and/or mandatory training.
6. The Chief Compliance Officer presents separately and independently on the status and effectiveness of Nokia's Compliance Program to the full Board of Directors at least once per year, to the Audit Committee at least four times per year and to the Group Leadership Team at least once per year and as needed.
7. Nokia gauges employee attitudes, perceptions, and experiences regarding the compliance culture using survey results and other collected inputs. These results are shared with relevant stakeholders and managed through mitigation plans with an eye toward continuous improvement.



Governance information continued

Targets and progress in targets

Nokia establishes targets as one of the vehicles to drive and measure a robust Compliance Program. Nokia holds its leaders accountable for driving a strong culture of compliance within their organizations by promoting a strong culture of compliance, leading by example, and meeting (with the goal to exceed) established compliance targets.

Status of 2024 targets:

Ethical Business Training course

Target: Ethical Business Training course completed by

95%

of employees by 31 December 2024

Progress on target: Achieved

Ethical Business Training course completed by

98%

of employees as of 31 December 2024

Training specific to anti-corruption and bribery is included in the Ethical Business Training course.

Line manager engagement

Target: maintain

85%



favorability of employee/line manager engagement on ethics and compliance by the year 2030. This target covers Nokia's line managers and their direct reports.

Progress on target: On track

83%

for the year ended 31 December 2024.

Progress against ESG targets in 2024

Target year	Base year	Base value	Target	2024 results	Target status
G1: Governance					
2030	2016	85%	Maintain 85% favorability of employee/line manager engagement on the importance of ethics and compliance by the year 2030	83% of employees said that their Line Manager talked to the team about the importance of ethics and compliance	On track 
2024	2023	95%	Ethical Business Training (EBT) completed by 95% of employees.	98% of employees completed the Ethical Business Training	Achieved 

Governance information continued

Disclosure tables

Nokia continuing operations

As outlined in the section '[Basis for preparation](#)' within 'General Information', metrics are presented separately for Nokia continuing operations and discontinued operations comprising Submarine Networks. Disclosure tables presented in this section include continuing operations (Nokia Group excluding Submarine Networks) both for the reporting year 2024 and comparative period 2023 unless otherwise indicated. Key metrics for the discontinued operation for the reporting years 2024 and 2023 are disclosed separately below this section.

The table below details anti-corruption training topics and frequency. Anti-corruption is highlighted in Nokia's mandatory Ethical Business Training course which is deployed annually to all employees. In addition, separate standalone courses that focus on corruption risk are deployed per the frequency shown:

Nokia ethics and anti-corruption training:

Topic	Format	Target Audience	Frequency
Code of Conduct (part of Ethical Business Training course) Code overview and acknowledgment Conflict of interest disclosure	Online	All employees	Annually
Conflict of Interest	Online	All employees	Every 3-4 years
Anti-bribery/anti-corruption/improper payments (part of Ethical Business Training course)	Online	All employees incl functions at risk ⁽¹⁾	Annually
Anti-corruption training for third parties	Online	Third parties	Every 3 years
Anti-bribery/controllership – advanced	Online video	Role-based	As needed
Corporate hospitality 'Just-in-Time' video	Online video	Employee requests hospitality approval	At time of approval request
Gifts, travel, and entertainment	Online	All employees	As needed
Nokia Third-Party Code of Conduct	Micro-learning and video	Third parties	Every 2 years
Site acquisition and site permitting compliance	Online	Role based – sales and deployment	Every 3-4 years
Travel and expense approvals	Online	People managers	Every 3-4 years

(1) 'Functions at risk' means functions deemed to be at risk of corruption and bribery as a result of their tasks and responsibilities.

The training listed in the table are also deployed to the members of the administrative, management and supervisory bodies as required.

In 2024, Nokia's Investigations Group received a total of 923 concerns, of which 384 were integrity concerns and were investigated by the Investigations Group as suspected violations of Nokia's Code of Conduct. See the following table for 2024 and 2023 reported concerns by category.

Ethics and compliance data	2024	2023
Total number of concerns reported	923	1 047
Conflict of interest	41	54
Controllership	83	99
Dealing with government officials	4	1
Fair competition	11	4
Fair employment (all HR-related)	391	498
Guidance	112	108
Human rights	3	0
Improper payments	9	8
Insider trading	2	1
Intellectual property and confidential information	47	49
Privacy	22	27
Trade compliance	14	24
Well-being, health and safety and the environment	17	21
Working with third parties	82	71
Other	85	82
Number of investigations by the Ethics and Regulatory Compliance function	384	482
Number of allegations substantiated with 'cause found' after investigation	165	156
Number of employees given a written warning on grounds of violation of the Code of Conduct	30	37
Number of employees dismissed on grounds of violation of the Code of Conduct	12	22

The following table reflects the number of outstanding legal proceedings for late payments:

	2024	2023
Number of outstanding legal proceedings for late payments	0	0

Nokia is in the process of establishing a mechanism to measure the average time it takes for the company to pay an invoice from the date when the contractual or statutory term of payment starts to be calculated in line with the ESRS disclosure requirements.

Governance information continued

Discontinued operations

Ethics and compliance data	2024	2023
Total number of concerns reported	7	9
Conflict of interest	1	0
Controllership	0	1
Dealing with government officials	0	0
Fair competition	0	0
Fair employment (all HR-related)	6	7
Guidance	0	0
Human rights	0	0
Improper payments	0	0
Insider trading	0	0
Intellectual property and confidential information	0	0
Privacy	0	0
Trade compliance	0	0
Well-being, health and safety and the environment	0	0
Working with third parties	0	0
Other	0	1
Number of investigations by the Ethics and Regulatory Compliance function	4	1
Number of allegations substantiated with 'cause found' after investigation	2	3
Number of employees given a written warning on grounds of violation of the Code of Conduct	0	0
Number of employees dismissed on grounds of violation of the Code of Conduct	0	0
Share of employees who completed the annual training on ethical business practices	76%	86%

Governance information continued

Reporting principles for metrics

Ethics and compliance data

Number of concerns is based on actual numbers reported and there are no estimations included.

Line manager engagement

The line manager engagement percentage is determined by employees' affirmative responses to the 2024 Ethics and Compliance Survey question, 'My manager talks to the team about the importance of ethics and compliance'.

Ethical Business Training

The Ethical Business Training course is assigned to all Nokia employees. The final completion percentage is calculated by the number of mandatory training completions divided by the year end number of active employees.

Appendix to the Sustainability Statement

Appendix to the Sustainability Statement

Reference table

ESRS 2 - General information			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Basis for preparation	DR BP-1 – General basis for preparation of the sustainability statement	Basis for preparation ‘General basis for preparation of the Sustainability Statement’	3
Basis for preparation	DR BP-2 – Disclosures in relation to specific circumstances	Basis for preparation ‘Disclosures in relation to specific circumstances’	4
Governance	DR GOV-1 – The role of the administrative, management and supervisory bodies	Governance ‘Roles of Nokia’s administrative, management and supervisory bodies regarding sustainability matters’	5
Governance	DR GOV-2 – Information provided to and sustainability matters addressed by the undertaking’s administrative, management and supervisory bodies	Governance ‘Informing and supporting the administrative, management and supervisory bodies in their oversight of impacts, risks and opportunities’	8
Governance	DR GOV-3 – Integration of sustainability-related performance in incentive schemes	Governance ‘Integration of sustainability-related performance in incentive schemes’	9
Governance	DR GOV-4 – Statement on due diligence	Governance ‘Statement on due diligence’	10
Governance	DR GOV-5 – Risk management and internal controls over sustainability reporting	Governance ‘Risk management and internal controls over sustainability reporting’	11
Strategy	DR SBM-1 – Strategy, business model and value chain	Strategy ‘Key elements of Nokia’s general strategy relevant to sustainability matters’	12
		Strategy ‘Business model and value chain’	13
Strategy	DR SBM-2 – Interests and views of stakeholders	Strategy ‘Interests and views of stakeholders’	15
Strategy	DR SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Strategy ‘Material impacts, risks and opportunities and their interaction with Nokia’s strategy and business model’	18
Impact, risk and opportunity management	DR IRO-1 – Description of the process to identify and assess material impacts, risks and opportunities	Impact, risk and opportunity management ‘Description of the process to identify and assess material impacts, risks and opportunities’	24
Impact, risk and opportunity management	DR IRO-2 – Disclosure Requirements in ESRS covered by the undertaking’s sustainability statement	Appendix to the Sustainability Statement ‘Reference table’, ‘List of data points that derive from other EU legislation’	96, 103
Impact, risk and opportunity management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy ‘Policies adopted to manage material sustainability matters’.	23
		More information related to MDR-P are disclosed in topical sections:	
		Climate change (ESRS E1) ‘Policies’;	28
		Resource use and circular economy (ESRS E5) ‘Policies’;	45
		Own workforce (ESRS S1) ‘Policies’;	63
		Workers in the value chain (ESRS S2) ‘Policies’;	72
		Affected communities (ESRS S3) ‘Policies’;	79
Consumers and end-users (ESRS S4) ‘Policies’;	82		
Business conduct (ESRS G1) ‘Business conduct policies and corporate culture’	87		
Impact, risk and opportunity management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Information related to MDR-A are disclosed in topical sections:	
		Climate change (ESRS E1) ‘Transition plan and actions related to climate change policies’;	29
		Resource use and circular economy (ESRS E5) ‘Actions’;	47
		Own workforce (ESRS S1) ‘Actions’;	65
		Workers in the value chain (ESRS S2) ‘Actions’;	73
		Affected communities (ESRS S3) ‘Actions’;	79
		Consumers and end-users (ESRS S4) ‘Actions’;	83
Business conduct (ESRS G1) ‘Actions’	91		

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ESRS 2 - General information			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Information related to MDR-M are disclosed in topical sections:	
		Climate change (ESRS E1) 'Disclosure tables', 'Reporting principles for metrics';	38, 42
		Resource use and circular economy (ESRS E5) 'Disclosure tables', 'Reporting principles for metrics';	49, 51
		Own workforce (ESRS S1) 'Disclosure tables', 'Reporting principles for Nokia own workforce metrics';	67, 70
		Workers in the value chain (ESRS S2) 'Disclosure tables', 'Reporting principles for metrics';	76, 77
		Affected communities (ESRS S3) 'Targets and progress in targets', 'Reporting principles for Nokia Community Investments metrics';	80, 81
		Consumers and end-users (ESRS S4) 'Targets and progress in targets', 'Reporting principles for metrics';	83, 84
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Business conduct (ESRS G1) 'Disclosure tables', 'Reporting principles for metrics'	93, 95
		Strategy 'Our ESG targets'.	21
		More detailed information on MDR-T are disclosed in topical sections:	
		Climate change (ESRS E1) 'Targets and progress in targets';	34
		Resource use and circular economy (ESRS E5) 'Targets and progress in targets';	47
		Own workforce (ESRS S1) 'Targets and progress in targets';	66
		Workers in the value chain (ESRS S2) 'Targets and progress in targets';	74
Affected communities (ESRS S3) 'Targets and progress in targets';	80		
Consumers and end-users (ESRS S4) 'Targets and progress in targets';	83		
Business conduct (ESRS G1) 'Targets and progress in targets'	92		
ESRS E1 - Climate change			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Governance	ESRS 2 GOV-3 Integration of sustainability-related performance in incentive schemes	Governance 'Integration of sustainability-related performance in incentive schemes'	9
Strategy	DR E1-1 – Transition plan for climate change mitigation	Climate change (ESRS E1) 'Transition plan and actions related to climate change policies'	29
Strategy	DR related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Climate change (ESRS E1) 'Climate scenario and resilience assessment'	27
Impact, risk and opportunity management	DR related to ESRS 2 IRO-1 – Description of the processes to identify and assess material climate-related impacts, risks and opportunities	Climate change (ESRS E1) 'Climate scenario and resilience assessment'	27
Impact, risk and opportunity management	DR E1-2 – Policies related to climate change mitigation and adaptation	Climate change (ESRS E1) 'Policies'	28
Impact, risk and opportunity management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy 'Policies adopted to manage material sustainability matters';	23
		Climate change (ESRS E1) 'Policies'	28
Impact, risk and opportunity management	DR E1-3 – Actions and resources in relation to climate change policies	Climate change (ESRS E1) 'Transition plan and actions related to climate change policies'	29
Impact, risk and opportunity management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Climate change (ESRS E1) 'Transition plan and actions related to climate change policies',	29
		'Targets and progress in targets'	34
Metrics and targets	DR E1-4 – Targets related to climate change mitigation and adaptation	Climate change (ESRS E1) 'Targets and progress in targets',	34
		'Disclosure tables'	38
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Climate change (ESRS E1) 'Targets and progress in targets',	34
		'Disclosure tables',	38
		'Reporting principles for metrics'	42

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Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets'; Climate change (ESRS E1) 'Transition plan and actions related to climate change policies', 'Targets and progress in targets'	21 29 34
Metrics and targets	DR E1-5 – Energy consumption and mix	Climate change (ESRS E1) 'Disclosure tables'	38
Metrics and targets	DR E1-6 – Gross scopes 1, 2, 3 and Total GHG emissions	Climate change (ESRS E1) 'Disclosure tables'	38
Metrics and targets	DR E1-7 – GHG removals and GHG mitigation projects financed through carbon credits	Climate change (ESRS E1) 'Transition plan and actions related to climate change policies'	29
ESRS E5 - Resource use and circular economy			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Impact, risk and opportunity management	DR related to ESRS 2 IRO-1 – Description of the processes to identify and assess material resource use and circular economy-related impacts, risks and opportunities	Strategy 'Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model'; Impact, risk and opportunity management 'Description of the process to identify and assess material impacts, risks and opportunities'; Resource use and circular economy (ESRS E5) 'Material impacts, risks and opportunities related to resource use and circular economy'	18 24 44
Impact, risk and opportunity management	DR E5-1 – Policies related to resource use and circular economy	Resource use and circular economy (ESRS E5) 'Material impacts, risks and opportunities related to resource use and the circular economy', 'Policies'	44 45
Impact, risk and opportunity management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy 'Policies adopted to manage material sustainability matters'; Resource use and circular economy (ESRS E5) 'Policies'	23 45
Impact, risk and opportunity management	DR E5-2 – Actions and resources related to resource use and circular economy	Resource use and circular economy (ESRS E5) 'Material impacts, risks and opportunities related to resource use and circular economy', 'Policies', 'Actions'	44, 45, 47
Impact, risk and opportunity management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Resource use and circular economy (ESRS E5) 'Actions', 'Targets and progress in targets', 'Disclosure tables'	47, 47, 49
Metrics and targets	Disclosure Requirement E5-3 – Targets related to resource use and circular economy	Strategy 'Our ESG targets'; Resource use and circular economy (ESRS E5) 'Targets and progress in targets', 'Actions'	21 47, 47
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Resource use and circular economy (ESRS E5) 'Targets and progress in targets', 'Disclosure tables', 'Reporting principles for metrics'	47, 49, 51
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets'; Resource use and circular economy (ESRS E5) 'Targets and progress in targets', 'Reporting principles for metrics'	21 47 51
Metrics and targets	DR E5-4 – Resource inflows	Resource use and circular economy (ESRS E5) 'Disclosure tables', 'Reporting principles for metrics'	49, 51
Metrics and targets	DR E5-5 – Resource outflows	Resource use and circular economy (ESRS E5) 'Disclosure tables'	49
ESRS S1 - Own workforce			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Strategy	DR related to ESRS 2 SBM 2 - Interests and views of stakeholders	Strategy 'Interests and views of stakeholders'	15
Strategy	DR related to ESRS 2 SBM 3 - Material impacts, risks and opportunities and their interaction with strategy and business model	Strategy 'Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model'; Impact, risk and opportunity management 'Description of the process to identify and assess material impacts, risks and opportunities'; Own workforce (ESRS S1) 'Material impacts, risks and opportunities related to Own Workforce'	18 24 62
Impacts, risks and opportunities management	DR S1-1 – Policies related to own workforce	Own workforce (ESRS S1) 'Policies', 'Processes for engaging with own workforce and workers' representatives about impacts'; Business conduct (ESRS G1) 'Reporting channels and investigations process'	63 65 88

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Impacts, risks and opportunities management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy 'Policies adopted to manage material sustainability matters'; Own workforce (ESRS S1) 'Policies'	23 63
Impacts, risks and opportunities management	DR S1-2 – Processes for engaging with own workforce and workers' representatives about impacts	Own workforce (ESRS S1) 'Processes for engaging with own workforce and workers' representatives about impacts'	65
Impacts, risks and opportunities management	DR S1-3 – Processes to remediate negative impacts and channels for own workforce to raise concerns	Business conduct (ESRS G1) 'Reporting channels and investigations process'	88
Impacts, risks and opportunities management	DR S1-4 – Taking action on material impacts on own workforce, and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions	Own workforce (ESRS S1) 'Policies', 'Processes for engaging with own workforce and workers' representatives about impacts', 'Actions'	63 65 65
Impacts, risks and opportunities management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Own workforce (ESRS S1) 'Actions'	65
Impacts, risks and opportunities management	DR S1-5 – Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	Own workforce (ESRS S1) 'Targets and progress in targets'	66
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Own workforce (ESRS S1) 'Targets and progress in targets', 'Disclosure tables', 'Reporting principles for Nokia own workforce metrics'	66 67 70
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets'; Own workforce (ESRS S1) 'Targets and progress in targets', 'Reporting principles for Nokia own workforce metrics'	21 66 70
Metrics and targets	DR S1-6 – Characteristics of the undertaking's employees	Own workforce (ESRS S1) 'Disclosure tables' Table. Number of employees by contract type and gender, 2024; Table. Number of employees by contract type and country / region, 2024; Table. Employee turnover, 2024	67 67 67
Metrics and targets	DR S1-7 – Characteristics of non-employee workforce in the undertaking's own workforce	Own workforce (ESRS S1) 'Disclosure tables' Table. Number of non-employees, 2024	67
Metrics and targets	DR S1-9 – Diversity metrics	Own workforce (ESRS S1) 'Disclosure tables' Table. Employees at top management level, 2024; Table. Employees by age group, 2024	67 68
Metrics and targets	DR S1-10 – Adequate wages	Own workforce (ESRS S1) 'Adequate wages'	64
Metrics and targets	DR S1-13 – Training and skills development metrics	Own workforce (ESRS S1) 'Disclosure tables' Table. Employees skills development, 2024; Table. Training hours, 2024; Table. Employee category breakdown, 2024	68 68
Metrics and targets	DR S1-16 – Remuneration metrics (pay gap and total remuneration)	Own workforce (ESRS S1) 'Disclosure tables' Table. Gender pay gap and annual total remuneration, 2024	68
ESRS S2 - Workers in the value chain			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Strategy	DR related to ESRS 2 SBM-2 Interests and views of stakeholders	Strategy 'Interests and views of stakeholders'	15
Strategy	DR related to ESRS 2 SBM-3 Material impacts, risks and opportunities and their interaction with strategy and business model	Strategy 'Material impacts, risks and opportunities and their interaction with Nokia's strategy and business model'; Impact, risk and opportunity management 'Description of the process to identify and assess material impacts, risks and opportunities'; Workers in the value chain (ESRS S2) 'Material impacts, risks and opportunities related to workers in the value chain'	18 24 71
Impact, risk and opportunity management	DR S2-1 – Policies related to value chain workers	Workers in the value chain (ESRS S2) 'Policies'	72
Impact, risk and opportunity management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy 'Policies adopted to manage material sustainability matters'; Workers in the value chain (ESRS S2) 'Policies'	23 72

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Impact, risk and opportunity management	DR S2-2 – Processes for engaging with value chain workers about impacts	Workers in the value chain (ESRS S2) 'Processes for engaging with value chain workers about impacts'	72
Impact, risk and opportunity management	DR S2-3 – Processes to remediate negative impacts and channels for value chain workers to raise concerns	Workers in the value chain (ESRS S2) 'Processes to remediate negative impacts and channels for value chain workers to raise concerns'; Business conduct (ESRS G1) 'Reporting channels and investigations process'	72 88
Impact, risk and opportunity management	DR S2-4 – Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions	Workers in the value chain (ESRS S2) 'Processes to remediate negative impacts and channels for value chain workers to raise concerns', 'Actions'; Business conduct (ESRS G1) 'Reporting channels and investigations process'	72 73 88
Impact, risk and opportunity management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Workers in the value chain (ESRS S2) 'Actions'	73
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Workers in the value chain (ESRS S2) 'Disclosure tables', 'Reporting principles for metrics'	76, 77
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets'; Workers in the value chain (ESRS S2) 'Targets and progress in targets', 'Reporting principles for metrics'	21, 74, 77
Metrics and targets	DR S2-5 – Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	Workers in the value chain (ESRS S2) 'Targets and progress in targets', 'Processes for engaging with value chain workers about impacts'	74, 72
ESRS S3 – Affected communities			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Strategy	DR related to ESRS 2 SBM-2 – Interests and views of stakeholders	Strategy 'Interests and views of stakeholders'	15
Strategy	DR related to ESRS 2 SBM 3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Strategy 'Material impacts, risks and opportunities and their interaction with strategy and business model'; Impact, risk and opportunity management 'Description of the process to identify and assess material impacts, risks and opportunities'; Affected communities (ESRS S3) 'Material impacts, risks and opportunities related to affected communities'	18 24 78
Impacts, risks and opportunities management	DR S3-1 – Policies related to affected communities	Affected communities (ESRS S3) 'Policies'	79
Impacts, risks and opportunities management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy 'Policies adopted to manage material sustainability matters'; Affected communities (ESRS S3) 'Policies'	23 79
Impacts, risks and opportunities management	DR S3-2 – Processes for engaging with affected communities about impacts	Affected communities (ESRS S3) 'Processes for engaging with affected communities about impacts'	79
Impacts, risks and opportunities management	DR S3-3 – Processes to remediate negative impacts and channels for affected communities to raise concerns	Business conduct (ESRS G1) 'Reporting channels and investigations process'	88
Impacts, risks and opportunities management	DR S3-4 – Taking action on material impacts on affected communities, and approaches to managing material risks and pursuing material opportunities related to affected communities, and effectiveness of those actions	Affected communities (ESRS S3) 'Processes for engaging with affected communities about impacts', 'Actions', 'Targets and progress in targets'	79 79 80
Impacts, risks and opportunities management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Affected communities (ESRS S3) 'Actions', 'Targets and progress in targets'	79 80
Metrics and targets	DR S3-5 – Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	Affected communities (ESRS S3) 'Targets and progress in targets'	80
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Affected communities (ESRS S3) 'Targets and progress in targets', 'Reporting principles for Nokia Community Investments metrics'	80 81
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets'; Affected communities (ESRS S3) 'Targets and progress in targets', 'Reporting principles for Nokia Community Investments metrics'	21 80 81

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ESRS S4 - Consumers and end-users			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Strategy	DR related to ESRS 2 SBM-2 –Interests and views of stakeholders	Strategy ‘Interests and views of stakeholders’	15
Strategy	DR related to ESRS 2 SBM 3 - Material impacts, risks and opportunities and their interaction with strategy and business model	Strategy ‘Material impacts, risks and opportunities and their interaction with Nokia’s strategy and business model’; Impact, risk and opportunity management ‘Description of the process to identify and assess material impacts, risks and opportunities’; Consumers and end-users (ESRS S4) ‘Material impacts, risks and opportunities related to consumers and end-users’	18 24 82
Impacts, risks and opportunities management	DR S4-1 – Policies related to consumers and end-users	Consumers and end-users (ESRS S4) ‘Policies’	82
Impacts, risks and opportunities management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy ‘Policies adopted to manage material sustainability matters’; Consumers and end-users (ESRS S4) ‘Policies’	23 82
Impacts, risks and opportunities management	DR S4-2 – Processes for engaging with consumers and end-users about impacts	Consumers and end-users (ESRS S4) ‘Processes for engaging with consumers and end-users about impacts’	83
Impacts, risks and opportunities management	DR S4-3 – Processes to remediate negative impacts and channels for consumers and end-users to raise concerns	Business conduct (ESRS G1) ‘Reporting channels and investigations process’	88
Impacts, risks and opportunities management	DR S4-4 – Taking action on material impacts on consumers and end- users, and approaches to managing material risks and pursuing material opportunities related to consumers and end-users, and effectiveness of those actions	Consumers and end-users (ESRS S4) ‘Processes for engaging with consumers and end-users about impacts’, ‘Actions’, ‘Targets and progress in targets’	83, 83, 83
Impacts, risks and opportunities management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Consumers and end-users (ESRS S4) ‘Targets and progress in targets’	83
Metrics and targets	DR S4-5 – Targets related to managing material negative impacts,advancing positive impacts, and managing material risks and opportunities	Consumers and end-users (ESRS S4) ‘Targets and progress in targets’	83
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Consumers and end-users (ESRS S4) ‘Targets and progress in targets’, ‘Reporting principles for metrics’	83, 84
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy ‘Our ESG targets’; Consumers and end-users (ESRS S4) ‘Targets and progress in targets’, ‘Reporting principles for metrics’	21 83, 84
ESRS G1 - Business conduct			
Disclosure title	Name of the disclosure requirement	Reference to the Annual Report section	Page
Governance	DR related to ESRS 2 GOV-1 – The role of the administrative, management and supervisory bodies	Governance ‘Role of Nokia’s administrative, management and supervisory bodies regarding sustainability matters’	5
Impacts, risks and opportunities management	DR related to ESRS 2 IRO-1 – Description of the processes to identify and assess material impacts, risks and opportunities	Strategy ‘Material impacts, risks and opportunities and their interaction with Nokia’s strategy and business model’; Impact, risk and opportunity management ‘Description of the process to identify and assess material impacts, risks and opportunities’; Business conduct (ESRS G1) ‘Material impacts, risks and opportunities related to business conduct’	18 24 86
Impacts, risks and opportunities management	Policies MDR-P – Policies adopted to manage material sustainability matters	Strategy ‘Policies adopted to manage material sustainability matters’; Business conduct (ESRS G1) ‘Business conduct policies and corporate culture’	23 87
Impacts, risks and opportunities management	DR G1-1– Business conduct policies and corporate culture	Strategy ‘Policies adopted to manage material sustainability matters’; Business conduct (ESRS G1) ‘Business conduct policies and corporate culture’	23 87
Impacts, risks and opportunities management	DR G1-2 – Management of relationships with suppliers	Business conduct (ESRS G1) ‘Management of supplier relationships’	90

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Impacts, risks and opportunities management	DR G1-3 – Procedures to address corruption and bribery	Business conduct (ESRS G1) 'Material impacts, risks and opportunities related to business conduct',	86
		'Business conduct policies and corporate culture',	87
		'Reporting channels and investigations process',	88
		'Protecting Against Retaliation',	88
		'Training',	89
		'Nokia opportunity: Anti-Corruption and Anti-Bribery Program'	89
Impacts, risks and opportunities management	Actions MDR-A – Actions and resources in relation to material sustainability matters	Business conduct (ESRS G1) 'Actions',	91
		'Targets and progress in targets'	92
Metrics and targets	Metrics MDR-M – Metrics in relation to material sustainability matters	Business conduct (ESRS G1) 'Targets and progress in targets',	92
		'Disclosure tables',	93
		'Reporting principles for metrics'	95
Metrics and targets	Targets MDR-T – Tracking effectiveness of policies and actions through targets	Strategy 'Our ESG targets';	21
		Business conduct (ESRS G1) 'Targets and progress in targets',	92
		'Reporting principles for metrics'	95
Metrics and targets	DR G1-6 – Payment practices	Business conduct (ESRS G1) 'Management of supplier relationships',	90
		'Disclosure tables'	93

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List of data points that derive from other EU legislation

Section	Para	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference	Material (Yes/ No)	Reference to the Annual Report section	Page
ESRS 2, GOV-1 Board's Gender Diversity	21 (d)	X		X		Yes	Disclosed in 'Governance' section of General information	5
ESRS 2 GOV-1 Percentage of board members who are independent	21 (e)			X		Yes	Disclosed in 'Governance' section of General information	5
ESRS 2 GOV-4 Statement on due diligence	30	X				Yes	Disclosed in 'Governance' section of General information	5
ESRS 2 SBM-1 Involvement in activities related to fossil fuel activities	40 (d) i	X	X	X		No	Not applicable to Nokia	
ESRS 2 SBM-1 Involvement in activities related to chemical production	40 (d) ii	X		X		No	Not applicable to Nokia	
ESRS 2 SBM-1 Involvement in activities related to controversial weapons	40 (d) iii	X		X		No	Not applicable to Nokia	
ESRS 2 SBM-1 Involvement in activities related to cultivation and production of tobacco	40 (d) iv			X		No	Not applicable to Nokia	
ESRS E1-1 Transition plan to reach climate neutrality by 2050	14				X	Yes	Disclosed in 'Transition plan and actions in related to climate change policies' section of E1	29
ESRS E1-1 Undertakings excluded from Paris-aligned Benchmarks	16 (g)		X	X		Yes	Disclosed in 'Transition plan and actions in related to climate change policies' section of E1	29
ESRS E1-4 GHG emission reduction targets	34	X	X	X		Yes	Disclosed in 'Targets and progress in targets' section of E1	34
ESRS E1-5 Energy consumption from fossil sources disaggregated by sources (only high climate impact sectors)	38	X				No	Not applicable to Nokia	
ESRS E1-5 Energy consumption and mix	37	X				Yes	Disclosed in 'Disclosure tables' section of E1	38
ESRS E1-5 Energy intensity associated with activities in high climate impact sectors	40-43	X				No	Not applicable to Nokia	
ESRS E1-6 Gross scope 1, 2, 3 and Total GHG emissions	44	X	X	X		Yes	Disclosed in 'Disclosure tables' section of E1	38
ESRS E1-6 Gross GHG emissions intensity	53-55	X	X	X		Yes	Disclosed in 'Disclosure tables' section of E1	38
ESRS E1-7 GHG removals and carbon credits	56				X	No	Not applicable to Nokia	
ESRS E1-9 Exposure of the benchmark portfolio to climate-related physical risks	66			X		No	Nokia decided to apply phase-in option and not to disclose these metrics in 2024	
ESRS E1-9 Disaggregation of monetary amounts by acute and chronic physical risk	66 (a) and (c)		X			No	Nokia decided to apply phase-in option and not to disclose these metrics in 2024	
ESRS E1-9 Location of significant assets at material physical risk								
ESRS E1-9 Breakdown of the carrying value of its real estate assets by energy-efficiency classes	67 (c)		X			No	Nokia decided to apply phase-in option and not to disclose these metrics in 2024	
ESRS E1-9 Degree of exposure of the portfolio to climate-related opportunities	69			X		No	Nokia decided to apply phase-in option and not to disclose these metrics in 2024	
ESRS E2-4 Amount of each pollutant listed in Annex II of the E-PRTR Regulation (European Pollutant Release and Transfer Register) emitted to air, water and soil	28	X				No	Not applicable to Nokia	
ESRS E3-1 Water and marine resources	9	X				No	Not applicable to Nokia	
ESRS E3-1 Dedicated policy	13	X				No	Not applicable to Nokia	
ESRS E3-1 Sustainable oceans and seas	14	X				No	Not applicable to Nokia	
ESRS E3-4 Total water recycled and reused	28 (c)	X				No	Not applicable to Nokia	

Appendix to the Sustainability Statement continued

Section	Para	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference	Material (Yes/ No)	Reference to the Annual Report section	Page
ESRS E3-4 Total water consumption in m3 per net revenue on own operations	29	X				No	Not applicable to Nokia	
ESRS 2- IRO 1 – E4	16 (a) i	X				No	Not applicable to Nokia	
ESRS 2- IRO 1 – E4	16 (b)	X				No	Not applicable to Nokia	
ESRS 2- IRO 1 – E4	16 (c)	X				No	Not applicable to Nokia	
ESRS E4-2 Sustainable land / agriculture practices or policies	24 (b)	X				No	Not applicable to Nokia	
ESRS E4-2 Sustainable oceans / seas practices or policies	24 (c)	X				No	Not applicable to Nokia	
ESRS E4-2 Policies to address deforestation	24 (d)	X				No	Not applicable to Nokia	
ESRS E5-5 Non-recycled waste	37 (d)	X				No	Not applicable to Nokia	
ESRS E5-5 Hazardous waste and radioactive waste	39	X				No	Not applicable to Nokia	
ESRS 2- SBM3 – S1 Risk of incidents of forced labour	14 (f)	X				No	Not applicable to Nokia	
ESRS 2- SBM3 – S1 Risk of incidents of child labour	14 (g)	X				No	Not applicable to Nokia	
ESRS S1-1 Human rights policy commitments	20	X				Yes	Disclosed in 'Policies' section of S1 and 'Policies adopted to manage material sustainability matters' in General information	63, 23
ESRS S1-1 Due diligence policies on issues addressed by the fundamental International Labor Organization Conventions 1 to 8	21			X		No	Not applicable to Nokia	
ESRS S1-1 processes and measures for preventing trafficking in human beings	22	X				No	Not applicable to Nokia	
ESRS S1-1 workplace accident prevention policy or management system	23	X				Yes	Disclosed in 'Policies' section of S1	63
ESRS S1-3 grievance/complaints handling mechanisms	32 (c)	X				Yes	Disclosed in 'Processes to remediate negative impacts and channels for own workforce to raise concerns' section of S1	65
ESRS S1-14 Number of fatalities and number and rate of work-related accidents	88 (b) and (c)	X		X		No	Not applicable to Nokia	
ESRS S1-14 Number of days lost to injuries, accidents, fatalities or illness	88 (e)	X				No	Not applicable to Nokia	
ESRS S1-16 Unadjusted gender pay gap	97 (a)	X		X		Yes	Adjusted gender pay gap disclosed in 'Disclosure tables' section of S1	67
ESRS S1-16 Excessive CEO pay ratio	97 (b)	X				Yes	Disclosed in 'Disclosure tables' section of S1	67
ESRS S1-17 Incidents of discrimination	103 (a)	X				No	Not applicable to Nokia	
ESRS S1-17 Non-respect of UNGPs on Business and Human Rights and OECD	104 (a)	X		X		No	Not applicable to Nokia	
ESRS 2- SBM3 – S2 Significant risk of child labour or forced labour in the value chain	11 (b)	X				No	No such cases identified	
ESRS S2-1 Human rights policy commitments	17	X				Yes	Disclosed in 'Policies' section of S2	72
ESRS S2-1 Policies related to value chain workers	18	X				Yes	Disclosed in 'Policies' section of S2	72
ESRS S2-1 Non-respect of UNGPs on Business and Human Rights principles and OECD guidelines	19	X		X		Yes	Disclosed in 'Policies' section of S2	72
ESRS S2-1 Due diligence policies on issues addressed by the fundamental International Labor Organization Conventions 1 to 8	19			X		Yes	Disclosed in 'Policies' section of S2	72
ESRS S2-4 Human rights issues and incidents connected to its upstream and downstream value chain	36	X				Yes	Reported in table 'Examples of identified non-compliance and actions taken' within S2	73
ESRS S3-1 Human rights policy commitments	16	X				Yes	Disclosed in 'Policies' section of S2	72

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Section	Para	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference	Material (Yes/ No)	Reference to the Annual Report section	Page
ESRS S3-1 non-respect of UNGPs on Business and Human Rights, ILO principles or and OECD guidelines	17	X		X		No	No such cases identified	
ESRS S3-4 Human rights issues and incidents	36	X				No	Not applicable to Nokia	
ESRS S4-1 Policies related to consumers and end-users	16	X				Yes	Disclosed in 'Policies' section of S4	82
ESRS S4-1 Non-respect of UNGPs on Business and Human Rights and OECD guidelines	17	X		X		No	No such cases identified	
ESRS S4-4 Human rights issues and incidents	35	X				No	Not applicable to Nokia	
ESRS G1-1 United Nations Convention against Corruption	10 (b)	X				Yes	Disclosed in 'Business conduct policies and corporate culture' section of G1	87
ESRS G1-1 Protection of whistle- blowers	10 (d)	X				Yes	Disclosed in 'Business conduct policies and corporate culture' section of G1	87
ESRS G1-4 Fines for violation of anti-corruption and anti-bribery laws	24 (a)	X		X		No	Not applicable to Nokia	
ESRS G1-4 Standards of anti- corruption and anti- bribery	24 (b)	X				No	Not applicable to Nokia	

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