



# Annual Sustainability-Linked Bond Progress Report 2023

Nokia Group

25 July 2024

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# 1 Introduction

## **At Nokia, we create technology that helps the world act together.**

Through technology leadership, innovation, and trusted partnerships we deliver critical networks that can support environmental, social, and economic welfare.

With our customers we deliver solutions that help the world respond to climate change through the more efficient use and reuse of the world's resources, restore productivity growth by bringing digital to the physical industries it has not yet reached, and provide more inclusive access to opportunity – work, healthcare, education, and markets.

Our technology enables industries and cities to digitalize and automate, driving efficiency and productivity gains while enabling potential reductions in emissions and use of resources. It supports improved worker safety and more secure, inclusive, and safer communities.

Our approach to sustainability is built on our company's purpose – to create technology that helps the world act together. In 2023, we took another step in bringing our sustainability strategy and initiatives closer to our corporate strategy by announcing the ambition to develop Nokia's environmental, social and governance (ESG) initiatives into a competitive advantage. By making ESG the sixth pillar of our refreshed corporate strategy, we aim to accelerate our efforts in making it a competitive advantage for Nokia and therefore create long-term value for our customers and partners. Sustainability is integral to our 2030 technology vision and strategy, as well as the product and operational strategies of our business groups. All of these are underpinned by our unwavering focus on adhering to high standards of integrity and security that build trust and help create the capabilities needed for a more productive, responsible, sustainable and inclusive world.

## 1.1 Sustainable Finance Framework

Aligning financing to Nokia's sustainability performance signals a strong commitment to implement our sustainability agenda. A Sustainable Finance Framework (the "Framework") has been established in accordance with the recommendations of the Sustainability-Linked Bond Principles (SLBP), as administered by the International Capital Markets Association (ICMA) in June 2020 and Sustainability-Linked Loan Principles (SLLP), as most recently updated by the LMA/LSTA/APLMA in March 2022. This Framework provides a high-level approach to Nokia's Sustainability-Linked Financing Instruments that incentivize the achievement of pre-determined, relevant Sustainability Performance Targets (SPTs). Nokia may under this Framework issue Sustainability-Linked Bonds (SLB) and Sustainability-Linked Loans (SLL). This allows the alignment of our financing instruments with our broader sustainability targets and ambitions.

Sustainalytics has provided a Second Party Opinion on this Sustainable Finance Framework which has been made publicly available on Nokia's website alongside the Framework itself. Sustainalytics is of the opinion that the Nokia Sustainable Finance Framework aligns with the Sustainability-Linked Bond Principles (SLBP) 2020 and the Sustainability-Linked Loan Principles (SLLP) 2022.

This Sustainability-Linked Bond Progress Report is prepared in accordance with the Sustainable Finance Framework of February 2023 and Terms and Conditions of the outstanding EUR 500m 4.375% Senior Unsecured Sustainability-Linked Redemption Notes due August 2031. The report contains the status on the KPI and should be read in conjunction with Nokia's annual sustainability report, People and Planet 2023, published on 7 March 2024 and available at <https://www.nokia.com/about-us/sustainability/>.

## 2 Selected Key Performance Indicator (KPI)

The KPI that has been included for the purpose of the Sustainable Finance Framework is the reduction in greenhouse gas emissions, which is Nokia's main climate target and core, material and relevant to the success of our business and sector.

### **KPI 1:      Reduction of absolute greenhouse gas emissions across our value chain (Scope 1, 2 and 3)**

This KPI clearly ties into our strategy of maximizing our handprint whilst at the same time minimize our footprint by actively and continually managing that footprint. As the volume of traffic rises in a more connected, digitalized world, Nokia understands the responsibility we have to work to separate this growth in traffic from any equivalent growth in energy consumption. This KPI also captures Nokia's strive to reduce GHG emissions across our operations and facilities, and work with our supply chain to help drive greater energy and resource efficiency through the whole chain.

### 2.1. Calibration of Sustainability Performance Targets

Our science-based target (SBT) aligned with the 1.5°C global warming scenario was accepted by Science Based Targets initiative (SBTi) in 2021, with our logistics, final assembly suppliers and almost 100% of the current product portfolio now covered by the target. This ambitious SBT target is our Sustainability Performance Target (SPT) in this Sustainable Finance Framework.

We plan to achieve our SPT of 50% reduction in emissions by 2030 as we see greater impact as more energy efficient products and features of our portfolio are adopted over time and decarbonization of the electricity grid continues globally. We target to reach net

zero by 2050. In 2023 we planned and agreed on an accelerated target, which was announced in February 2024. With this announcement Nokia reiterated its existing near-term target to reduce its greenhouse gas emissions by 50 percent across its value chain (Scopes 1, 2 and 3), accelerates the decarbonization of its own operations (Scopes 1 and 2) as part of its near-term targets with complete decarbonization its car fleet and facilities, and explicitly sets a new long-term target to reach net zero by 2040 (Scopes 1, 2 and 3). To ensure its new long-term target aligns with climate science, Nokia has submitted its net-zero letter of commitment to the Science Based Targets initiative (SBTi).

| Nokia SBT 1.5°C (2019-2030)  | Unit                                | 2019<br>(baseline) | 2030<br>(target) |
|--|-------------------------------------|--------------------|------------------|
| Nokia's total reported emissions in scope of our SBT<br>(Rounded to the closest 1 000) | Metric<br>tons<br>CO <sub>2</sub> e | 34 961 000         | 17 480 000       |

The SBT covers the following activities:

- Scope 1: emissions from our facilities, car fleet and marine fleet, own vessels.
- Scope 2: market-based emissions from purchased energy.
- Scope 3: emissions from the customer use of sold products (covering almost 100% of our current portfolio) and emissions from logistics, final assembly factories in our supply chain, and marine fleet chartered vessels.

## 2.2. Emission calculation methodology

Our approach to measuring greenhouse gas emissions follows the Greenhouse Gas (GHG) Protocol ([www.ghgprotocol.org](http://www.ghgprotocol.org)) 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
- 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 CO<sub>2</sub>e 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.

## Greenhouse gases

We report the emissions as CO<sub>2</sub> equivalents (CO<sub>2</sub>e) as per GHG Protocol's guidance. CO<sub>2</sub>e 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 CO<sub>2</sub>e.

## Operational boundaries and emission calculation

We use 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. We follow the GHG Protocol recommendation to use IPCC 5th Assessment Report (AR5) GWP100 values. These values do not include climate-carbon feedback. Some emission factor data sources still use GWP100 values from AR4 as a data source of their emission factors. The expectation is that all data sources will start to use AR5 values in the coming years. 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.

## 2.3. Strategy to achieve the Sustainability Performance Target (SPT)

We address our own environmental footprint, focusing on both climate and circularity.

We strive to minimize our footprint across scope 1, 2 and 3 by actively and continually managing that footprint. As the volume of network traffic rises in a more connected, digitalized world, we must work to separate this growth in traffic from any equivalent growth in energy consumption.

In 2023, we collaborated with the Carbon Trust to investigate how to accelerate our net zero ambition and the related pathways and levers. In December 2023, the Nokia Group Leadership team approved the plan to fast-forward both our net zero target (Scope 1, 2 and 3) and our interim 2030 scope 1 and 2 targets. Nokia commits to net zero GHG emissions across the value chain by 2050. However, in February 2024 we announced to accelerate this target to reach net zero by 2040 (Scopes 1, 2 and 3).

This is further supported by our target to purchase 100% renewable electricity by 2025 across our facilities based on RE100 criteria (RE100 initiative is the global corporate renewable energy initiative bringing together hundreds of large and ambitious businesses committed to 100% renewable electricity).



To minimize our environmental footprint, we aim to be the leader in energy efficiency in silicon, software and systems. We intend to accelerate our ambition in energy efficiency in 5G-Advanced and 6G through early engagement in standardization and ecosystem development.

We are improving product circularity with more recycled content in new products and expanded circular product offerings to customers. We believe our technology will play an evermore significant role in helping other industries and society decarbonize.

We do not just set targets for our suppliers, we support them by working together to lower our upstream indirect emissions and to promote circular practices and innovation. We urged suppliers to align their climate targets with the SBTi and again rewarded climate-related innovations as part of our Supplier Diamond Awards program. We also focus on reducing the embodied emissions of our products, for example by offering circular products, adding recycled material content into new products and working with our suppliers on their journey to decarbonizing their energy sources.

We look at automatic configuration and AI/ML-based optimization of energy savings functionalities, intelligent software capabilities, technology innovations in our hardware evolution, and energy-efficient site solutions, all to minimize our carbon footprint. To illustrate our impact, the GHG emissions in 2023 from the customer use of sold products decreased by 9% compared to 2022.

### **Engaging our suppliers on climate**

Our target for our final assembly suppliers is part of our SBT climate target and requires that the final assembly suppliers achieve zero emissions by 2030 for the portion of their manufacturing allocated to Nokia. All final assembly suppliers have detailed roadmaps on a factory level, and we track their execution at business review meetings. We have also set a 50% reduction target by 2030 for other suppliers. In 2023, we extended our close collaboration on our 2030 roadmap with our Joint Design Manufacturing (JDM) suppliers as well as supplier categories with high emission intensity such as suppliers of integrated circuits, semi-discretes and printed wiring boards. We require our suppliers to have a documented Environmental Management System (EMS). We require key suppliers to be ISO 14001 certified, which we track. We encourage suppliers collaborating with Nokia to reduce the emissions of our products.

### **Product transportation and distribution**

In 2023, our scope 3 GHG emissions related to upstream transportation and the distribution of our products stood at around 140 900 tons CO<sub>2</sub>e, a decrease of 57% compared to 2022. This significant drop is partly due to our continuous efforts to reduce air transportation while increasing sea, road and multimodal modes (e.g. combining sea and air) and partly to the regionalization that moves activities closer to customers. As a result, in the last two years we have nearly halved our air transportation deliveries.

However, a considerable part of the reduction in transported volumes related to a decrease in our deliveries. As one of the emission reduction methods in our transportation activities, we have explored carbon insetting, which is similar to carbon offsetting except the activities that lead to carbon footprint reduction take place within the context of the value chain. In 2023, we continued applying our sustainable aviation fuel (SAF) carbon insetting model, which aims at a direct carbon mitigation of the transport system. This is one of the most sustainable ways to reduce carbon emissions in air freight, as it saves any additional energy consumption arising from compensation measures. We further engaged with our logistics partners on our requirements related to the offering of SAF and have expanded the collaboration on SAF to four logistics partners.

### 3 Reporting Selected Key Performance Indicator (KPI)

To provide investors and other stakeholders with adequate information about Nokia's implementation of its sustainability strategy in general, Nokia will provide relevant reporting on the progress made in respect of the KPI, and the achievement or not of the applicable SPT.

Such reporting will be made publicly available on an annual basis in a Sustainability-Linked Bond Progress Report (SLB Progress Report) and in any case for any date/period relevant for assessing the SPT performance leading to a potential adjustment of the financial and/or structural characteristics of securities issued hereunder. The SLB Progress Report will be published on Nokia's website no later than on the Reporting End Date after the end of the year under review.

Nokia's external auditors have performed limited assurance on Nokia's science-based target (SBT) emissions for the reporting period of 2023 presented in this SLB Progress Report, see page 10 for the assurance report.

#### 3.1. Scope of data

The sustainability data presented in this report comprises Nokia Group, including Mobile Networks, Network Infrastructure, Cloud and Network Services, Nokia Technologies, and Group Common and Other. This report covers the calendar year 2023 and, where available, trend data from the year 2019.

## 3.2 Performance of the KPI

Our current SBT is to reduce our total GHG emissions by 50% between 2019 and 2030 across our value chain (Scope 1, 2 and 3). Emissions covered by our science-based target (SBT) were 34 319 800 tons CO<sub>2</sub>e, which is a 9% decrease from 2022.

- Our scope 1 GHG emissions in 2023 increased by 7% to 111 100 tons CO<sub>2</sub>e driven by our marine fleet, compared to 2022.
- Our market-based scope 2 emissions reached 84 800 tons CO<sub>2</sub>e. This translates to a 37% reduction in our scope 2 emissions by the end of 2023, compared to 2022.
- In 2023, our scope 3 emissions included in SBT were 34 123 900 tons CO<sub>2</sub>e. This represents a reduction of 9% over the previous year.

Despite this decrease, Nokia's SBT-related emissions in 2023 are at the same level as the 2019 baseline year. The reported emissions for the baseline year were 34 960 700 tons CO<sub>2</sub>e. Nokia's 2030 SBT is not on track with a linear reduction trajectory. While we continue to accelerate innovations in product energy efficiency and supplier collaboration, the availability and take-up of renewable energy by Nokia's customers must rapidly increase to support the achievement of the interim target.

In 2023 Nokia's total CO<sub>2</sub>e emissions from scope 1, 2 and 3 were 35 409 500 tons CO<sub>2</sub>e. From this total amount, scope 1 emissions were 111 100 tons CO<sub>2</sub>e, scope 2 market-based emissions were 84 800 tons CO<sub>2</sub>e and scope 3 emissions totaled 35 213 600 tons CO<sub>2</sub>e. The scope of our SBT covers 34 319 800 tons CO<sub>2</sub>e, which is 97% of our total 2023 emissions.

## 4 References

- Nokia People & Planet 2023: [nokia\\_people\\_and\\_planet-2023.pdf](#)
- Nokia Sustainable Finance Framework dated February 2023: [nokia\\_sustainable\\_finance\\_framework.pdf](#)
- ICMA SLBP 2020: [Sustainability-Linked-Bond-Principles-June-2020-171120.pdf \(icmagroup.org\)](#)
- LMA/LSTA/APLMASLLP 2022: [Sustainability-Linked Loan Principles 31 March 2022.pdf \(lma.eu.com\)](#)
- Second-Party Opinion by Sustainalytics: [nokia\\_sustainable\\_finance\\_framework\\_second-party\\_opinion.pdf](#)
- Science Based Targets Initiative: [Understand the Methods for Science-based Climate Action - Science Based Targets - Science Based Targets Initiative](#)

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## Independent practitioner's assurance report

### To the Management of Nokia Corporation

We have been engaged by the management of Nokia Corporation (business identity code 0112038-9, hereinafter also "the Company" or "Nokia") to provide a limited assurance on Nokia's emissions covered by science-based target (SBT) for the reporting period of January 1, 2023 to December 31, 2023, total 34 319 800 tons CO<sub>2</sub>e, based on Nokia's reporting principles according to the requirements of the Greenhouse Gas Protocol (GHG). The assured information subject is presented on page 8 in the section "Performance of the KPI" of Nokia's Annual Sustainability-Linked Bond Progress Report 2023 (hereinafter "Selected sustainability information").

### Management's responsibility

The Management of the Company is responsible for the preparation of the Selected sustainability information in accordance with the Reporting criteria as set out in the Company's reporting principles and the GHG Protocol (hereinafter also "the Reporting criteria"). This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of the Selected sustainability information that are free from material misstatement, whether due to fraud or error, selecting and applying appropriate criteria and making estimates that are reasonable in the circumstances.

### Assurance provider's responsibility

Our responsibility is to express a limited assurance conclusion on the Selected sustainability information based on our engagement. We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information.

ISAE 3000 standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance whether any matters come to our attention that cause us to believe that the Selected sustainability information has not been prepared, in all material respects, in accordance with the Reporting criteria.

We did not perform any assurance procedures on the prospective information, such as targets, expectations and ambitions, disclosed in the Selected sustainability information. Consequently, we draw no conclusion on the prospective information. Our assurance report is made in accordance with the terms of our engagement with Nokia. We do not accept or assume responsibility to anyone other than Nokia for our work, for this assurance report, or for the conclusions we have reached.

Although we consider the effectiveness of internal controls when determining the nature and extent of our procedures, our assurance engagement is not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures related to data consolidation and calculation within IT systems. Our limited assurance engagement consists of inquiries of persons responsible for the preparation of the sustainability report and related information, and performing analytical and other procedures.

A limited assurance engagement with respect to responsibility related data involves performing procedures to obtain evidence about the Selected sustainability information. The procedures performed depend on the practitioner's judgment, but their nature is different from, and their extent is less than, a reasonable assurance engagement. They do not include detailed testing of source data or the operating effectiveness of processes and internal controls, and consequently they do not enable us to obtain the assurance necessary to become aware of all significant matters that might be identified in a reasonable assurance engagement.

Our procedures on this engagement included:

- Interviewing senior management of the Company;
- Conducting interviews with employees responsible for the collection and reporting of the Selected sustainability information and reviewing of the processes and systems for data gathering, including the aggregation of the data for the Selected sustainability information;
- Reviewing internal and external documentation to verify to what extent these documents and data support the information included in the Selected sustainability information and evaluating whether the information presented in the Selected sustainability information is in line with our overall knowledge of corporate sustainability at Nokia;
- Performing analytical review procedures and testing data on a sample basis to assess the reasonability of the presented Selected sustainability information;
- Conducting an interview relevant employees located at with Nokia's sites in Finland and India;
- Assessing that the Selected sustainability information has been prepared in accordance with the Reporting criteria.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### **Our independence, quality control, and competences**

We have complied with Deloitte's independence policies which address and, in certain cases, exceed the requirements of the Code of Ethics for professional accountants issued by the International Ethics Standards Board for Accountants. We have maintained our independence and objectivity throughout the year, and there were no events or prohibited services provided which could impair our independence and objectivity.

Deloitte Oy applies the International standard on Quality Management ISQM 1, which requires an audit firm to design, implement, and maintain a quality management system, including the policies or procedures for compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. This engagement was conducted by a multidisciplinary team including assurance and sustainability expertise with professional qualifications. Our team is experienced in providing sustainability reporting assurance.

### **Conclusion**

Based on the procedures we have performed, nothing has come to our attention that causes us to believe that Nokia's Selected sustainability information for the reporting period ended December 31, 2023, is not properly prepared, in all material respects, in accordance with the Reporting criteria.

Our assurance statement should be read in conjunction with the inherent limitations of accuracy and completeness for sustainability information.

Helsinki, 25 July, 2024

Deloitte Oy

Marika Nevalainen  
Authorized Public Accountant (KHT)