



Elisa ESG Disclosures

2022

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1 IMPLEMENTATION AND RELIABILITY OF MEASUREMENTS

Sustainability has been part of Elisa's strategy since 2009. Our strategic sustainability focus areas and key success indicators were updated in 2022. The calculations of ESG data in the Sustainability Report 2022 are prepared with reference to GRI (Global Reporting Initiative) standards, SASB (Sustainability Accounting Standards Board) framework, EU taxonomy regulation and TCFD (Task Force on Climate-related Financial Disclosures) indicators. With regards to environmental indicators, GHG (greenhouse gas) emission reduction calculations of Elisa are based on *ISO 14040: 2006* principles.

We take general principles of counting into account in its calculations. The boundaries of the disclosures are defined for the operations so that they best correspond to Elisa's business, products, and services. The calculation is carried out in such a way that the method is transparent and verifiable by a third party. All assumptions and steps in the calculation have been clearly reported. Data collection and reporting systems and the reliability of existing controls, as well as the method of calculation and data risks related to data collection have been thoroughly evaluated by a third party.

The independent assurance of ESG data calculations was in 2022 carried out by Ernst & Young Oy. This included assessment of requirements and objectives set for the calculations, and risks affecting correctness of the information. They also included reviews of reporting and data formation processes, as well as systems and data collection instructions. The objective was to ensure that policies, practices, and information systems enable sufficiently accurate and reliable calculations.

This "*Elisa ESG Disclosure*" document itself, is not assured by a third party.

1.1 Significant adjustments to previous accounting period

The *Sustainability Report* for 2022 reflects the key aspects of all Elisa business functions and its subsidiaries. We continue to develop the coverage of our report to include all the important aspects. Elisa continuously develops its measurements, which may imply occasional retrospective revisiting and updating of historical figures. As mentioned earlier, we updated our strategic sustainability focus areas, and the brief description of Elisa key success indicators is provided in this document.

We have recognised the most important economic, digital, social and environmental impacts of our operations, products and services, as well as other significant trends affecting the ICT-sector. We have updated our materiality analysis during 2022. Find more information on our materiality analysis and stakeholder dialogue is available through our [web pages](#).

In 2022, we have further developed our sustainability data management and reporting solution to further improve transparency and accountability. As a result of Elisa's growing international presence, we have increased the boundaries of our reporting to include newly acquired companies.

For 2022, social and digital disclosures the major changes were related to changes in the boundaries.

In regard to environmental indicators, we have updated GHG emission factors based on latest existing knowledge especially for Scope 3 emissions (see overview in chapter 4) and developed our data gathering and analysis further. This has provided us an opportunity to retroactively revisit GHG emission figures in Scope 3 categories 1 (Purchased Goods and Services), 2 (Capital Goods), 3

(Fuel- and Energy-related Activities Not included in Scope 1 or Scope 2) and 4 (Upstream transportation and distribution). We have also kept GHG emission factors in Scope 1 and Scope 2 up to date, according to sources provided by third parties.

We have already for several years reported energy efficiency data (see section 2.2), and as part of our climate neutrality continued to report our carbon compensation amounts. This is described further in section 2.3. We have chosen to compensate also selected historical GHG emissions along expanded boundaries from growing international business and inclusion of remote work.

During 2022, Elisa was in the process of validating its new climate targets with the SBTi. More information is available in the Elisa *Sustainability Report 2022*.

2 DIGITAL SUSTAINABILITY

Elisa collects and reports the digital data primarily with reference to the Sustainability Accounting Standards Board (SASB) framework and then the Global Reporting Initiative (GRI) Standards. Additionally, we are also reporting our performance through our own indicators.

2.1 Elisa's digital footprint

2.1.1 Cyber security index describing cyber security

We measure our performance in cyber security with an internal Cyber Security Index.

Cyber Security Index (unit is %) is a combination measurement based on four selected development areas. In 2022 these sub-metrics are:

1. Employee Phishing detection rate (phishing simulations conducted among Elisa employees)
2. Hosts with high severity vulnerabilities (older than 14 days) (tracking and fixing security vulnerabilities in our network)
3. Operational Risk Management efficiency (risk assessments performed)
4. Elisa Security Certification completion

Monthly value of cyber security index score is an average of selected sub-metrics results. When sub-metric realisation is over target it is counted as 100, below threshold it is counted as 0 and between threshold and target it is scaled between 0 and 100. Annual average is based on monthly %-figures.

2.1.2 Security Certificate Training

The training module from 2021 has been developed to include data protection and security trainings. Security certificate includes three courses: The Basics of Security, Data Protection, and Information Security. This security training certificate is required to be renewed annually.

In addition to disclosed Elisa Finland trainings, it will continue in other Elisa companies in 2023 and currently consists of data protection and security training courses targeted at specific roles.

2.1.3 Reducing the number of disturbances in mobile network

Safeguarding functioning society is utmost important for us. We ensure that all connections and services remain functional by means of active 24/7 monitoring, prediction and elimination of faults, and network modifications. Despite of the increase of traffic volumes, due to increased automation, preventive, and predictive actions, we are able to reduce the number of disturbances.

Reduction % of disturbances in mobile network through preventive actions is a key indicator for that in 2022. Indicator consists of the status of incident occurrence vs. target as well as status of proactive action target.

We as well categorise all disturbances and report serious incidents (severity rating A) for Finnish Transport and Communications Agency.

More about network disturbances in Finland (in Finnish): elisa.fi/hairiotiedotteet, elisa.fi/hairiokartta, elisa.fi/muutostiedotteet and elisa.fi/verkkoapuri

More about mobile coverage interruptions map in Estonia. <https://www.elisa.ee/et/levikatkestuste-kaart>.

2.2 Elisa's digital handprint

2.2.1 Cyber security exercises

In addition to internal cyber exercises, we organise external events and awareness activities, for example, with our corporate customers and other important stakeholders as part of our Digital Sustainability strategy.

Elisa organizes cyber exercises together with organisations that are part of Finland's critical infrastructure. The main purpose of the joint exercises is to share best practices and to improve knowledge and resilience in crisis situations. Actual exercise topics and scenarios are chosen together with the organisations based on the actual need, including cyber security simulations and security preparedness exercises.

2.2.2 Personal Data Inquiries

Customer's inquiries and/or requests to review, get, delete their personal data and information about data processing as well as objections.

This follows Elisa's data protection principles that personal data inquiries are customer's interest in their right to privacy and realization of their right to privacy.

Read more: [Elisa - Data Protection at Elisa](#)

3 SOCIAL SUSTAINABILITY

Elisa calculates and reports the social data with reference to the Global Reporting Initiative (GRI) Standards. Additionally, we are also reporting our performance through our own indicators.

3.1 Elisa's social footprint

3.1.1 Contribution to the Society

Contribution to the society measures Finland and Estonia's society's experience of Elisa's success in responsibility. This is a survey-based metrics where citizens are asked to evaluate whether Elisa acts responsibly in society. The performance is calculated as result of survey against annual target (26.8).

3.1.2 Employee engagement

We measure our performance as an employer through our twice-yearly employee engagement surveys. The result of the survey enables us to understand Elisians' experiences on different topics of the organisation and its functionalities in order to systematically developing our operations. Our ambitious, long-term goal is to be among the top employers internationally, benchmarked to be in the best 10% globally. The performance is calculated as percentage of employee survey result to annual target.

3.1.3 Women in supervisor position

To promote equality, we established an Elisa group-level target for the proportion of leadership positions that are filled by women in 2022. It is calculated as share of women in supervisor position (have subordinates) divided by all genders in supervisor position.

3.2 Elisa social handprint

3.2.1 Elisa's high-speed connection availability to all Finnish households

One of our key objectives is to improve the coverage of high-speed connectivity in Finland to enable everyone's possibility to participate in digitalizing society. Elisa's target is to have Elisa's high-speed connection (>100 Mbps) availability to all Finnish households.

4 ENVIRONMENTAL SUSTAINABILITY

4.1 Elisa's environmental footprint

Elisa's carbon footprint, that is, the amount of carbon dioxide equivalents (CO₂e) caused by the operations, is based on most recent annual statistics and actual data obtained. The calculation methodology is based on The *Greenhouse Gas Protocol* (GHG Protocol) developed by *World Resources Institute* and *World Business Council for Sustainable Development*. The underlying

principles of corporate financial calculations and reporting are used also for calculations and reporting of the GHG Protocol. These are about relevance, comprehensiveness, consistency, transparency, and accuracy.

4.1.1 New ways of working

The aftermath of COVID-19 pandemic continued to affect us all in 2022. During the exceptional circumstances, each team at Elisa decided for themselves on their optimal working model back in the autumn of 2021, and we continued this dialogue during 2022. The result from these recent commuting surveys therefore differs from 2021, as the company moved towards a hybrid working model.

The *Commuting Survey for 2022*, conducted by the *Elisa Corporate Responsibility Team*, involved employees from Elisa's offices in several countries. The total number of respondents was 1655, with a response rate of 30%. During the survey period (8-30 November 2022), employees in different countries where Elisa is active did on average 3.22 remote days per week (compared to 3.45 in 2021).

Elisa Ideal Work-related metrics, such as office space efficiency while employees are given recommendations of remote working, or amount of virtual conferencing, when there are no practical alternatives to arrange meetings between people, were not reported during the pandemic period, but have been reintroduced for 2022 reporting.

4.1.2 Reducing GHG emissions in Elisa's operations

Elisa is determined to continue realising its mission of *A Sustainable Future Through Digitalisation*. To minimise GHG emission in our day-to-day operations, we for example purchase renewable energy and continuously improve both our energy and material efficiency, as well as our ways of working.

a) GHG emission savings from Elisa Ideal Work

The *Elisa Ideal Work* model describes how Elisians are pioneers in an evolving work life. Each of us best knows our own work and related needs ourselves, and therefore can choose tools and workspaces that best support our ways of working. Our tools and spaces are increasingly in a digital environment and the workplace can also be outside an office. Mobile work solutions have a clear role also in climate action.

The objective of calculating the effect of Elisa Ideal Work is to verify how mobile work solutions reduce GHG emissions in Elisa's operations. Mobile work means accessibility of people, services, and data, regardless of time and place. We have reported GHG emissions reductions that arrive from our own use of remote working and virtual conferences solutions in our Sustainability Report 2022. The year 2022, saw the decline of COVID-19 pandemic cases which ended the official remote working recommendation in Elisa. During 2022, Elisa opted for hybrid working model where each team and department choose the way of working best suited for their work.

b) GHG emission reduction in the network

The purpose of the calculation is to monitor the GHG emission reductions resulting from continuous improvements that reduce electricity consumption in Elisa's network. Improvements come from optimisation of electricity saving features and continuous modernisations. 'Energy saving features' means software functionalities that enable more energy efficient data transmission and 'modernisations' means base station hardware changes to more energy efficient units or retirement of old equipment.

As related parameters over time are defined on a more granular level, we can increase the accuracy of our calculations. The actions are multiplied by the amount of electricity saving per action, which are based on electricity consumption models for the network. This results in total savings for a period. Electricity savings for the calculated period are multiplied by a coefficient of GHG emissions.

c) Energy efficiency of mobile data

The objective is to calculate energy consumption of the mobile network per package data volume (gigabyte) transmitted through the network, i.e., kWh/GB. The amount of mobile data transmitted in the mobile network is obtained from maintenance statistics.

d) Carbon-free energy as a means in climate action

The purpose is to monitor GHG emission savings resulting from purchases of carbon-free and renewable electricity. GHG emission reductions are calculated by multiplying the amount of carbon-free energy with a market-based energy emission factor. In 2022, we purchased *certificates of origin* for carbon-free electricity in Finland (270 GWh, renewable), Estonia (33.5 GWh, carbon-free) and other countries (0.256 GWh, renewable).

e) Carbon compensation

Elisa has worked on energy efficiency improvements for over a decade, and in 2002 we used only carbon-free electricity in Finland, Estonia, Sweden, UK, and Romania. We acquire only renewable district cooling in Finland and investigate additional forms of renewable energy. We use carbon credits to offset remaining direct (*Scope 1*) and indirect (*Scope 2*) GHG emissions, as well as waste, business travels, and commuting (*Scope 3*).

For a detailed description of our carbon offsetting principles, projects, and amounts (with links to retirement evidence), please refer to our [web page](#) describing Elisa's carbon compensation portfolio.

4.2 Elisa's carbon handprint

We assist Elisa's customers in reducing their GHG emissions by providing services that help them act effectively and in an environmentally friendly manner. We refer to this carbon emission reduction enablement for external stakeholders as Elisa's carbon handprint. We believe that Elisa can best

make a difference in the world by providing solutions for digitalisation, especially in the areas of energy and material efficiency. In 2022, we widened our efforts to identify and verify the customer enablement effects that Elisa can provide.

Virtual conferencing services by *Elisa Videra* allow our customers to reduce their amount of travel. Elisa and *Fonum* stores offer customers an efficient way to recycle and repair their devices, as well as new, environmentally friendly options when purchasing refurbished devices. With *Elisa Polystar* solutions, mobile network equipment of our operator customers will not remain switched on unnecessarily and waste electricity. *Elisa IndustrIQ* solutions allow our customers to improve energy and material efficiency in their factory operations.

4.2.1 Emission reductions from virtual conferencing

Elisa’s chosen video conference solutions are *Cloud Connect* by Elisa Videra and *Teams* by *Microsoft*. In virtual meetings and webinars organized by external stakeholders, employees might use also other forms of solutions, both for video conferencing and remote collaboration e.g., through online whiteboards. The strategy of Elisa Videra is to support all leading conferencing technologies, e.g., enabling interoperable gateways for customers using *Google Hangouts Meet* and enterprise *Zoom*. The largest GHG emission reduction impact from virtual meetings comes from replacing car travels.

4.2.2 Emission reductions through device circularity

As one of the largest mobile retailers in Finland, Elisa recognizes the vital role it plays in minimizing the carbon footprint of electronic devices. By promoting the reuse, refurbishment, and recycling of devices, the company aims to reduce the environmental impact of device production, which is responsible for the majority of its carbon footprint. Elisa and Fonum stores offer repair services and sell refurbished devices, providing customers with environmentally friendly alternative to purchasing new devices. Additionally, we responsibly recycle old phones together with our partners in a way that improves material efficiency and promotes circularity.

5 EMISSION FACTORS USED IN CALCULATIONS

Emission factors used in calculations are regularly updated by Elisa, using third party expertise. Key conversion, energy, and emission factors, including sources used, are disclosed in the below tables.

CONVERSION FACTORS
1 kWh = 0.0036 GJ

PRIMARY ENERGY FUEL AND GHG EMISSION FACTORS (Scope 1)**Source:**[Statistics Finland \(2022\)](#)

Fuel	Density	Net calorific value	GHG emission coefficient
Gasoline	0.745 t/m ³	41.6 GJ/t	65.5 t/TJ
Diesel	0.804 t/m ³	42.7 GJ/t	54.6 t/TJ
Burning oil	0.834 t/m ³	43.1 GJ/t	70.2 t/TJ
Biofuels	0.790 t/m ³	26.6 GJ/t	72.0 t/TJ

SECONDARY ENERGY AND GHG EMISSION FACTORS (Scope 2)**ELECTRICITY****Sources:**[Market-based factors: Finnish Energy Authority \(2020\)](#)[Location-based factors: Statistics Finland \(2020\)](#)[AIB \(2021\)](#)

Country	CO ₂ e (market-based)	CO ₂ e (location-based)
Finland	232.4 g/kWh	116.0 g/kWh
Estonia	636.6 g/kWh	616.1 g/kWh
Spain	295.83 g/kWh	153.3 g/kWh
Great Britain	351.2 g/kWh	222.3 g/kWh
Sweden	76.63 g/kWh	7.7 g/kWh
Norway	404.9 g/kWh	4.5 g/kWh

DISTRICT HEAT**Sources:**[Statistics Finland \(2020\)](#)[GOV.UK \(2022\)](#)

Country	CO ₂ e
Finland	141.0 g/kWh
Estonia	170.7 g/kWh
International avg.	170.7 g/kWh

DISTRICT COOLING**2022 onwards, all the district cooling used by Elisa is emission free.**

Provider	CO ₂ e
Helen (Helsinki)	0 g/kWh
Fortum (Helsinki)	0 g/kWh

ALL OTHER INDIRECT GHG EMISSION FACTORS (Scope 3)

PRODUCTS AND SERVICES, CAPITAL GOODS

Sources:

Anders S. G. Andrae & Otto Andersen Int J Life Cycle Assess (2010)

[Apple products' environmental reports \(2015-2021\)](#)

[Dell Product Carbon Footprints](#)

[HP Product Carbon Footprint](#)

[Lenovo Product Carbon Footprint \(PCF\)](#)

Supplier's own emission intensity

Finnish Environment Institute SYKE (2011), Julia 2030 project

TRANSPORTATION

Sources:

[Defra conv. factors \(2022\)](#)

[VR Group CO₂ emission intensity](#)

[LIPASTO \(2016\). Average car](#)

[LIPASTO \(2016\). Electric train](#)

[LIPASTO \(2016\). City bus](#)

[LIPASTO \(2016\). Passenger ship](#)