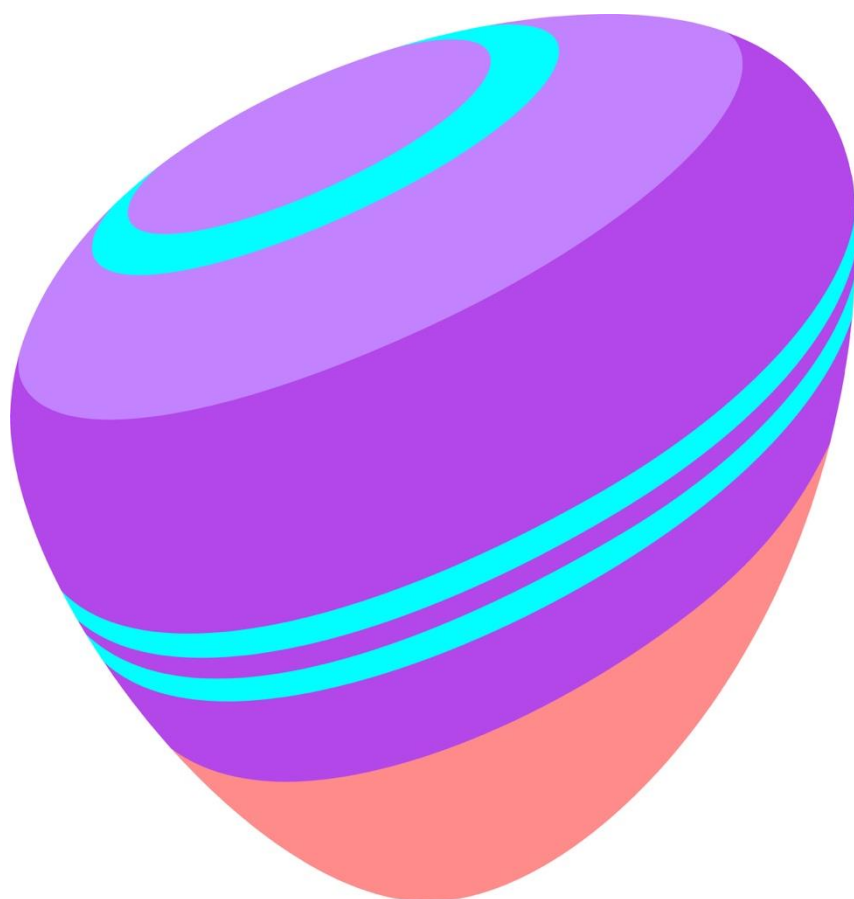


TELIA COMPANY

GREEN BOND FRAMEWORK



July 2019

Framework and Second Party Opinion available at
www.teliacompany.com/en/investors/debt-financing/

Telia Company Green Bond Framework

1. Introduction

1.1 Telia Company's sustainability approach

Telia Company, the leading provider of telecommunication services in the Nordics and Baltics, has a long-standing, strong commitment to sustainable business practices. As stated in Telia Company's Statement of Materiality and Significant Audiences, signed by the Board of Directors:

"It is Telia Company's firm belief that the best way of ensuring sustainable growth and profitability is integrating sustainable, responsible business practices into all parts of business and strategy, to create long-term shared value for the company, its stakeholders and society."

Strong sustainable business practices are seen by Telia Company, and increasingly by its shareholders, as essential for delivering on the Company's strategic ambitions of:

- Having the most loyal and satisfied customers in core markets
- Total shareholder return on par with the top relevant European peers
- Having the most engaged employees

As it stands, Telia Company has a strong overall ESG profile, exemplified by the long-standing "AAA" ESG rating assigned by MSCI and the "Gold supplier" rating in the global supplier evaluation platform EcoVadis, to name a few. These external recognitions highlight the Company's efforts in mitigating environmental, social and governance ("ESG") risks and positioning itself for business opportunities related to it.

Since the United Nations Sustainable Development Goals ("SDGs") were launched in September 2015 and the Paris Agreement on limiting climate change came into effect in November 2016, many of the world's countries and businesses have made ambitious commitments to reduce greenhouse gas ("GHG") emissions. The information and communications technology ("ICT") industry, encouraged by investors and other stakeholders, has focused sustainability efforts around the SDGs and has shown a willingness to address climate change and ESG risks in supply chains. This has been displayed through supporting initiatives such as the Science-Based Targets Initiative and Task Force on Climate-Related Financial Disclosures ("TCFD") recommendations. Telia Company is committed to, or a signatory of, several international frameworks related to responsible business, such as the UN Global Compact principles and the OECD Guidelines for Multinational Enterprises.

Digital impact – Telia Company's sustainability approach









The Company’s commitment to the SDGs was made clear in October 2018, when Telia Company’s CEO together with several other Nordic CEOs launched the “[Nordic CEOs For a Sustainable Future](#)” coalition. The CEOs have committed to aligning their business strategies with the SDGs and to exploring opportunities for collaboration. The initiative will facilitate experience exchange, shared learning and explore how the companies can best measure effects of their business activities and maximize impact of their efforts towards further contributing positively to society. The coalition also serves as a platform for the Nordic Prime Ministers to engage directly with the CEOs of leading Nordic companies on how to best drive the common agenda and strengthen the leadership of Nordic countries in sustainability.

1.2 Telia Company’s environmental impacts

1.2.1 Positive impacts

Digitalization is fundamentally changing most facets of life and is a key factor in positive societal development and sustainable economic growth, particularly in Telia Company’s Nordic and Baltic core markets. Many positive links between digitalization and reduced negative environmental impacts are clearly visible, with an increasing amount of research and empirical evidence to support claims.¹ Positive effects can be found in many areas considered as vital infrastructure, and are intertwined with economic and societal development. Some examples include:

Area	Application examples	SDG contribution	
Utilities	<ul style="list-style-type: none"> Smart electricity grids enabled by connected meters Connected water taps and heating/cooling sensors 		
Transportation and logistics	<ul style="list-style-type: none"> Digital vehicle fleet management with real-time information on fuel consumption Smart public transportation planning 		
De-materialization	<ul style="list-style-type: none"> Replacing physical goods with digital services Supporting the shift from asset ownership to “as-a-service” business models 		

The positive impacts are made possible through investments in world-class, energy-efficient mobile networks, fiber networks, data centers and deployment of new technology such as Narrowband Internet of Things (“NB-IoT”). Telia Company has for several years been in the process of decommissioning older, energy-intensive copper-based telephony networks with modern IP telephony and fiber networks. Realizing the fundamental importance of data as an asset for shared value creation, Telia Company also offers data analytics and crowd insights services that can be used in public transportation planning, for example.

1.2.2 Negative impacts

Telia Company’s operations generate a negative environmental footprint that must be responsibly managed and minimized. Energy consumption, hazardous and non-hazardous waste (particularly, electronic waste) and the Company’s overall GHG emissions have been identified as key environmental impacts. Most of the operational energy and waste footprint is connected to running, maintaining and expanding mobile and fiber networks, and data centers. Network equipment and consumer hardware generate both upstream and downstream impacts in production, transportation, use and end-of-life treatment.

¹ Commonly referenced or otherwise publicly available research is listed in Appendix 1.

To reduce negative environmental impacts, Telia Company has set ambitious goals regarding environmental responsibility to be reached by 2022². Progress on the goals is reported in Telia Company's Annual and Sustainability Report.

2022 environmental responsibility goals

Local companies ready for ISO 14001 management system certification

5 percent lower energy consumption per subscription equivalent³

5 percent lower CO₂e emissions per subscription equivalent

Implemented processes for buyback of mobile devices and reuse or resale of network equipment

Actively participate in research, public policy and debate on the positive environmental impacts of digitalization

In December 2018, the Company formally committed to develop Science-Based Targets ("SBTs"). The Company already reports comprehensively on scopes 1&2, and a scope 3 baseline calculation is expected to be concluded in the second half of 2019.

1.3 Daring environmental goals

At the Capital Markets Day in March 2019, Telia Company launched three daring environmental goals to be reached by 2030:

- **Zero CO₂ throughout the value chain** – Telia Company's total direct and indirect (scope 1-3) GHG emissions will be net zero thanks to a combination of reducing own (scope 1 and 2) emissions, working with suppliers to reduce value chain (scope 3) emissions, and through emissions reductions connected to products and services provided ("scope 4").
- **Zero waste, enabling a circular business model** – by applying the principles of reduce – reuse – recycle.
- **100% action among employees** – making the daring goals part of employee engagement and company culture, and enabling all employees to contribute.

² The goals listed here, which were approved in 2018, will be revised in 2019 for alignment with the Daring environmental goals laid out in section 1.3.

³ Energy and emissions intensity goals use 2018 as baseline.

2. Green Bond Framework

It is Telia Company's intention to fund investment needs associated with its environmental goals via Green Bonds. For that reason, Telia Company, in collaboration with investors and other stakeholders, developed this Green Bond Framework ("The Framework").

This Framework has been prepared in line with the four pillars of the 2018 Green Bond Principles ("GBP") administered by the International Capital Markets Association ("ICMA"). In addition, particular attention has been paid to the European Telecommunications Network Operators' ("ETNO") official response to the European Commission's call for industry feedback in its efforts of developing an EU taxonomy for sustainable activities.

Telia Company intends to allocate an amount equal to the net proceeds of any Green Bonds to projects which meet the eligibility criteria outlined in section 3 below. These projects may be financed in whole or in part by Telia Company and may be for new eligible projects or existing eligible projects financed two years preceding the issue date of the Green Bonds.

Telia Company follows the recommendation of the GBP and has two forms of external assurance – a Second Party Opinion on the Framework (received pre-issuance) and Verification Letter from an independent party (received annually post-issuance until full allocation of all Green Bond net proceeds).

3. Use of Proceeds

The following categories are classified as eligible green projects.

3.1 Renewable Energy

- Investments in the development, construction, maintenance and/or operation of facilities, equipment or systems that generate or transmit renewable energy (wind or solar)

3.2 Green Digital Solutions

- Research, development and deployment of systems, products and technology that increase energy efficiency and/or mitigate GHG emissions of Telia Company's customers and/or network users, such as:
 - 5G or other high-speed mobile networks
 - Internet of Things ("IoT") products and solutions
 - Data analytics products and solutions
 - Cloud products and solutions

3.3 Energy Efficiency

- Replacement and upgrade of network equipment and network technology for the purpose of increasing energy efficiency, such as:
 - Fiber and high-speed mobile networks to replace copper-based telephony networks
 - More energy-efficient network equipment or cooling solutions
- Consolidation and/or optimization of technical sites etc. for the purpose of increasing energy efficiency, reducing the need for fossil-fueled back-up power and/or reducing the overall physical network footprint

3.4 Green Buildings

- Development, acquisition, leasing and/or renovation of properties that have or will receive a design stage certification, post-construction certification and/or in-use certification in any of the following building certification schemes at the defined level or better:
 - BREEAM "Excellent"
 - LEED "Gold"
 - National and/or international standards of an equivalent scope and level

4. Process for project evaluation and selection

Projects to which the proceeds of the notes are intended to be allocated are evaluated and selected, based on compliance with the eligibility criteria set out above by a Green Bond Committee (“GBC”). The committee is comprised of representatives from Telia Company’s Treasury, Strategy, Technology and Sustainability teams and will meet at least annually to ensure the ongoing eligibility of selected Green Bond projects throughout the life of all Green Bonds.

5. Management of proceeds

An amount equal to the net proceeds from the sale of the notes will be allocated by the Treasury team to the financing/refinancing of existing and/or future projects that meet the above criteria for eligible green projects. So long as the notes remains outstanding, our internal records will show, at any time, an amount equal to the net proceeds from the issuance of those notes as allocated to eligible green projects. Pending the full allocation of the net proceeds of such notes to finance eligible green projects, an amount equal to the unallocated balance will be maintained in cash, cash equivalents and/or other short-term liquid instruments.

6. Reporting

Within one year from the date of issuance of the notes, and annually thereafter until an amount equal to the net proceeds of the notes has been allocated to eligible green projects, Telia Company will publish on a designated website, a report with information on the allocation of green bond net proceeds. The reporting will be based on Telia Company’s financing share of the total investment and will contain at least the following information:

- Allocation to each of the Use of Proceeds categories
- A list of eligible green projects with short descriptions and relevant case studies
- The remaining balance of unallocated proceeds (if any)
- Assertion by management that the net proceeds of the note are invested either in eligible green projects or temporarily held in cash, cash equivalents and/or other short-term liquid instruments. The assertion will be accompanied by a report from an independent party to provide an examination of a management assertion on the allocation reporting

6.1 Impact reporting

Telia Company acknowledges the GBP recommendations and stakeholder expectations regarding transparency and reporting on the environmental impacts of financed projects. Telia Company will, on a best effort basis, provide environmental impact reporting to support the allocation reporting described above. Also taking into account the link between digitalization and positive societal impact, Telia Company will, if and when deemed relevant and possible, also report on social impact.⁴ To the extent possible, impact reporting will also reference impacts on material SDGs.⁵

Impact reporting will contain a disclosure of asset level Key Performance Indicators (“KPIs”) and/or, when quantitative information is not available or considered sufficiently reliable, contextual information such as case studies that highlight environmental (and social) impacts. For projects that are not yet operational, Telia Company will strive to provide estimates of future performance and/or impact.

Appendix 2 contains a list of KPIs which Telia Company believes serves as meaningful guidance on impact reporting; however, the final reporting could differ from these proposed KPIs. Telia Company acknowledges that, at the point of issuing this framework, no company-specific impact reporting KPIs related to energy efficiency or GHG emissions abatement of customers related to section 3.2. above exist. Telia Company is engaged in various initiatives to develop such KPIs, paying specific attention to the applicability for the Nordic and Baltic regions.

⁴ Commonly referenced or otherwise publicly available research is listed in Appendix 1.

⁵ Telia Company is of the opinion that none of the specific quantitative targets connected to material SDGs are sufficiently relevant for direct reporting.

Appendix 1. Data sources and references

Mobile Carbon Impact GeSI & Carbon Trust, 2015

Key findings:

- The carbon emissions abatement enabled by mobile communications technology is approximately five times greater than the carbon emissions from mobile networks.
- International consumer research shows high levels of willingness for smartphone users to adopt behaviors that will result in reduced personal carbon emissions, enabled by functions or apps on their mobile devices. The greatest impact today is through connecting with family and friends using voice or video calls, replacing physical journeys.

Available at www.carbontrust.com/media/672238/mobile-carbon-impact-ctc856.pdf

SMARTer2030 GeSI & Accenture, 2015

Key findings:

- ICT can enable a 20% reduction of global CO₂e emissions by 2030, holding emissions at 2015 levels.
- ICT emissions as a percentage of global emissions will decrease over time.
- ICT offers significant environmental benefits in addition to reducing CO₂e emissions.

Available at <http://smarter2030.gesi.org>

The electricity consumption and operational carbon emissions of ICT network operators 2010-2015 Jens Malmodin, Ericsson & Dag Lundén, Telia Company, 2018

Key findings:

- Several other studies in the past predicted that the ICT sector, in particular the ICT networks, would increase its electricity consumption and operational carbon emissions in line with the growth in data traffic.
- The results show an approximately linear increase trend in annual electricity consumption and operational carbon emissions. The increase is mainly associated with the expansion of mobile networks. The data traffic increase is in magnitude many times higher compared to the electricity consumption and operational carbon emission increase and the impact per subscription is actually decreasing in most cases.
- The total annual operational electricity consumption of the ICT networks is estimated to 242 TWh for 2015 including both grid (215 TWh) and on-site generated electricity (27 TWh). The total corresponds to 1.15% of the total electricity grid supply. The total annual operational carbon emissions of the ICT networks are estimated to 169 Mtonnes CO₂e for 2015. This corresponds to 0.53% of the global carbon emissions related to energy (about 32 Gtonnes), or 0.34% of all carbon emissions (about 50 Gtonnes).

Available at <http://kth.diva-portal.org/smash/record.jsf?pid=diva2%3A1177210&dswid=3825>. See also www.teliacompany.com/en/news/news-articles/new-research-the-environmental-case-for-connectivity/.

**Accelerating Sustainable Growth
Telia Company & Deloitte, 2016**

Key findings:

- Applications of ICT improve process efficiency and resource utilization. This could reduce CO₂ emissions by 20%, equivalent to 8.8 million cars not being driven for a year. These applications could reduce emissions across key sectors:
 - Transport: Fewer journeys and less congestion could reduce CO₂ emissions by 6%.
 - Energy: Smart grids could reduce total CO₂ emissions by up to 3%.
 - Agriculture: Up to 3% of CO₂ emissions could be saved.
 - Domestic: Smart building and meters could reduce CO₂ emissions by 3%.
 - Industry and commercial: These applications could reduce CO₂ emissions by up to 4.5%.

Available at www.teliacompany.com/en/about-the-company/publications/accelerating-sustainable-growth2/

Appendix 2. Impact reporting KPIs

Baseline for all KPIs is 2018. Figures may be actual or estimated. For more detailed information on e.g. emission and energy conversion factors), see [Telia Company Sustainability Reporting Framework](#).

<i>Eligible green project categories</i>	<i>Potential KPIs</i>
Renewable Energy	Renewable energy generated (GWh)
	Installed generation capacity (MW)
	GHG emissions reduction (kton CO ₂ e)
	Electricity consumption from renewable sources (GWh and percentage of total consumption)
Green Digital Solutions	Energy abated through services (GWh)
	Improved energy intensity through services (unit as relevant)
	GHG emissions abated through services (kton CO ₂ e)
	Improved GHG emissions intensity through services (unit as relevant)
Energy Efficiency	Service-related KPIs such as number of smart meters
	Operational energy intensity (kWh/subscription equivalent ⁶ or other relevant unit)
	Energy savings (GWh)
Green Buildings	GHG emissions reductions from energy savings (kton CO ₂ e)
	Type and levels of certification of properties owned
	Energy savings (GWh)
	GHG emissions reduction (kton CO ₂ e)
	Energy footprint of properties (kWh/m ² or other relevant unit)
	Carbon footprint of properties (kg CO ₂ e/m ² or other relevant unit)

⁶ Subscription equivalent refers to a subscription (e.g. mobile, IPTV, PTSN) which has been adjusted to account for the energy intensity of delivering the product. Factors used are 0.5, 1 and 3. Subscription numbers used are from the operational data published as part of Telia Company's quarterly report and slightly adjusted for some subscription categories that are not specified in those published figures.