



Telecom companies focus on climate protection in their sustainability strategy and sustainable finance activities



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Climate protection is a central issue in the sustainability strategies of many companies, especially in the telecom industry. Future growth and the reduction of greenhouse gas emissions must be reconciled in order to remain successful in the long-term. Therefore, all major telecom companies have developed by now a detailed climate strategy and corresponding reduction targets for CO₂ emissions. These include not only the emissions caused within the company itself (Scope 1 & 2), but also those of the value chain from the supplier to the end customer (Scope 3). Numerous telecom companies have already linked the targeted decarbonisation with their financing activities by using sustainability-linked structures, which link interest costs to CO₂ reduction targets, or earmarked green bonds. The Corporate Sustainability Reporting Directive (CSRD) will refine and expand sustainability reporting. This makes differences in the development of the carbon footprint for individual companies more visible and simplifies linking climate protection with financing measures.

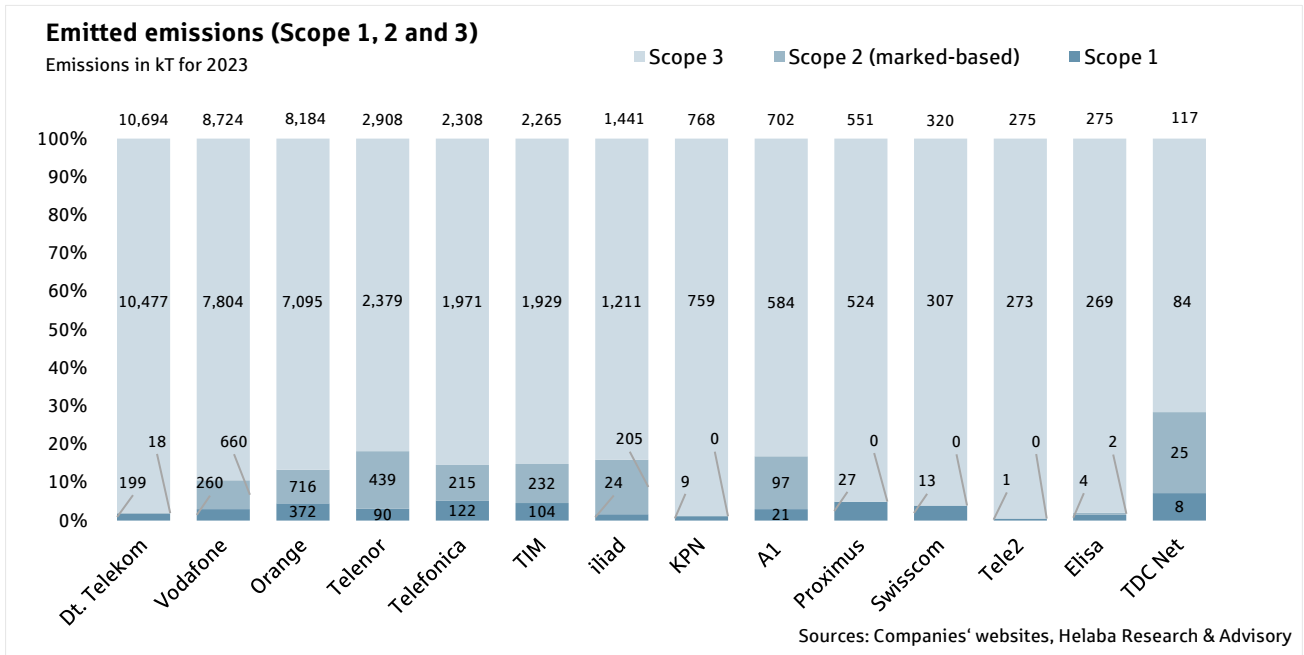
Greenhouse gas emissions at the centre of the sustainability strategies

The Corporate Social Responsibility Directive (CSRD) requires reporting companies to carry out a materiality analysis. By surveying relevant stakeholders such as customers, employees, suppliers, banks and investors, the most important interactions between the company, the environment and society become identified. Our analysis of sustainability reports from major European telecom companies shows that the topic of "climate protection" poses a central success factor for the industry. In this regard, companies find themselves in a field of tension. On the one hand, it is essential to rapidly reduce greenhouse gas emissions. On the other hand, growth opportunities fuelled by developments in the field of artificial intelligence and increasing digitalisation are linked to a further increase in data volume and energy consumption. Therefore, growth and emissions need to be decoupled from each other. Thanks to the [Greenhouse Gas Protocol](#), progress on this path can be tracked using an internationally recognised standard for calculating greenhouse gas emissions.

Indirect emissions are the main lever for reduction

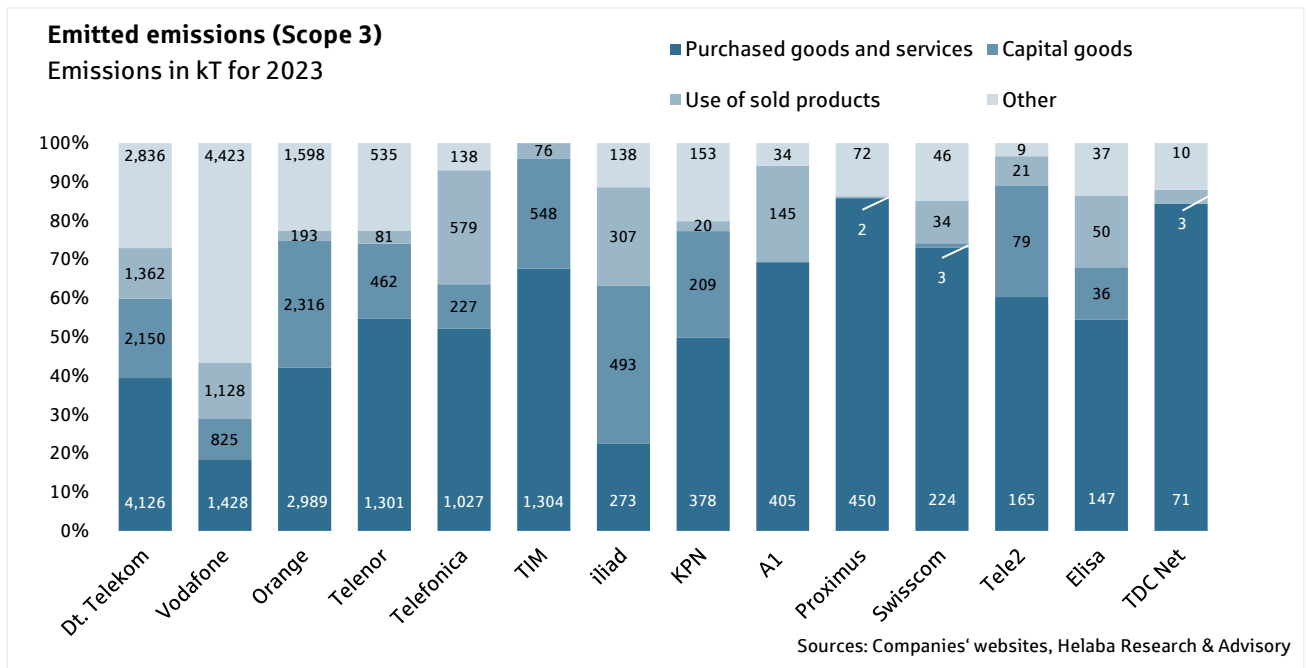
The Greenhouse Gas Protocol divides emissions into three categories: Scope 1 comprises the direct emissions from sources that are controlled by a company. These include, for example, the fuel consumption for vehicles, the consumption of fossil fuels for heating or refrigerants for cooling systems. For telecom companies, Scope 1 amounts to an average of around 3 % of total emissions. Scope 2 comprises the indirect emissions resulting from the production of purchased energy. This mainly relates to purchased electricity, particularly for fixed and mobile networks, data centres and buildings. It is possible to calculate Scope 2 using the location-based or market-based method. While with the location-based method the consumed electricity is assigned the average emissions intensity of the respective electricity grid, the market-based method calculates with contract-specific emissions factors provided by the electricity supplier. Most companies report Scope 2 according to both methods and therefore also provide information on the volume of emissions saved by intentionally purchasing climate-neutral electricity. Deutsche Telekom, for instance, reported a total of 3,979 kilotons of CO₂ for 2023 using the location-

based method. Since it has been sourcing its electricity exclusively from renewable sources since 2021, the market-based emissions were only 18 kilotons and attributable to indirect emissions from district heating. On average, Scope 2 (location-based) and Scope 2 (market-based) amount to around 19 % and 7 %, respectively.



With an average share of around 78 %, Scope 3 makes up the largest part of the industry's carbon footprint and includes all indirect emissions arising in the value chain. Due to the numerous activities in the value chain, the Greenhouse Gas Protocol divides Scope 3 into 15 categories. The most important categories are "Purchased goods and services", "Capital goods" and "Use of sold products".¹ While the first two are reported at times on an aggregated level and account for an average of around 76 % of total emissions, the share of the last category amounts to around 12 %. The category "Purchased goods and services" contains, for instance, emissions from procured WLAN routers and mobile phones which arose during their production processes. The purchase of mobile phone towers, buildings, vehicles or equipment for data centres, on the other hand, falls into the category "Capital goods". The category "Use of sold products" contains the emissions of products which arise during their use phase. These are generated by the end customer through the electricity consumption of WLAN routers, mobile phones, set-top boxes and other devices.

¹ The companies A1, Proximus and TDC Net do not report any volume for the category "Capital goods" since the respective amount is added to the category "Purchased goods and services".



Reduction pathways already reviewed by Science Based Targets initiative (SBTi)

All major European telecom companies have by now developed their own climate protection strategies and set corresponding targets for the reduction of emissions. In order to emphasize the credibility of these reduction paths and make the undertaken efforts transparent, most of them also joined the Science Based Targets initiative (SBTi), which independently reviews climate protection targets on a science-based basis for compliance with the 1.5°C target of the Paris Agreement. The short-term targets up to 2030 show that separate targets are often set for Scope 1 and 2 as well as for Scope 3 and that these mostly relate to a reduction in absolute CO₂ emissions. In some cases, targets are solely set on an aggregated level and contain Scope 1, 2 and 3.^{2,3}

Scope 1 & 2 Short-term targets						
Company	Date of publication	Base year	Target year	Reduction	Reduction p.a.	absolute / intensity
KPN	2024 Sep	2015	2030	84 %	5.6 %	absolute
Telenor	2024 Jun	2019	2030	64 %	5.8 %	absolute
Orange	2024 Jun	2021	2030	45 %	5.0 %	absolute
iliad	2024 Mar	2022	2030	60 %	7.5 %	absolute
Deutsche Telekom	2024 Feb	2020	2030	94 %	9.4 %	absolute
Swisscom	2024 Feb	2018	2030	80 %	6.7 %	absolute
Vodafone	2023 Oct	2020	2030	90 %	9.0 %	absolute
Elisa	2023 Mar	2021	2030	42 %	4.7 %	absolute
Proximus	2022 Sep	2020	2030	95 %	9.5 %	absolute
TDC Net	2022 Aug	2020	2028	60 %	7.5 %	absolute
Tele2	2022 Aug	2019	2025	90 %	15.0 %	absolute
Telefonica	2022 Aug	2015	2030	80 %	5.3 %	absolute
TIM	2022 Jun	2019	2030	75 %	6.8 %	absolute
A1	2020 Sep	2019	2030	50 %	4.5 %	absolute
Average				72.1 %	6.7 %	

Sources: Science Based Targets initiative, companies' websites, Helaba Research & Advisory

² The values shown in the table "Scope 1 & 2 | Short-term targets" for Elisa, TDC Net and Orange relate to Scope 1, 2 and 3, whereas the values shown for KPN relate to Scope 1.

³ The values shown in the table "Scope 3 | Short-term targets" for Elisa and TDC Net relate to Scope 1, 2 and 3.

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The target values for Scope 3 relate predominantly to the reduction of absolute emissions and rarely to emissions intensity (e.g. measured by the number of customers). However, the perimeter of Scope 3 is occasionally limited to the most important categories when setting targets. For example, Telecom Italia Mobile's (TIM) target is only based on the categories "Purchased goods and services", "Capital goods" and "Use of sold products".

Scope 3 Short-term targets							
Company	Date of publication	Base year	Target year	Reduction	Reduction p.a.	absolute / intensity	Restriction to certain categories
KPN	2024 Sep	2015	2033	75.6 %	4.2 %	absolute	No
Telenor	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Orange	2024 Jun	2021	2030	74 %	8.2 %	intensity	Yes
Iliad	2024 Mar	2022	2030	46 %	5.8 %	absolute	No
Deutsche Telekom	2024 Feb	2020	2030	47 %	4.7 %	absolute	No
Swisscom	2024 Feb	2018	2030	60 %	5.0 %	absolute	No
Vodafone	2023 Oct	2020	2030	50 %	5.0 %	absolute	No
Elisa	2023 Mar	2021	2030	42 %	4.7 %	absolute	No
Proximus	2022 Sep	2020	2030	60 %	6.0 %	absolute	No
TDC Net	2022 Aug	2020	2028	60 %	7.5 %	absolute	No
Tele2	2022 Aug	2019	2029	60 %	6.0 %	intensity	No
Telefonica	2022 Aug	2016	2030	56 %	4.0 %	absolute	No
TIM	2022 Jun	2019	2030	47 %	4.3 %	absolute	Yes
A1	2020 Sep	2019	2030	50 %	4.5 %	absolute	Yes
Average				56.0 %	5.0 %		

Sources: Science Based Targets, companies' websites, Helaba Research & Advisory

Measures for the reduction of Scope 1 and 2 are multifaceted

Telecom companies often take similar measures to reduce emissions. Regarding Scope 1, the focus is primarily on increasing the share of electric vehicles in the current fleet and modernising buildings by, for instance, electrifying the heating system through implementing heat pumps. The measures for Scope 2 generally pursue two approaches, both of which relate to a company's consumed electricity. The first approach aims at reducing electricity consumption by renewing and optimising existing networks and technical equipment. An important measure in this context is replacing copper cables with fibre optic cables. Companies are also optimising the power consumption of cooling systems in data centres by renewing their IT infrastructure in order to increase energy efficiency. In this regard, the power usage effectiveness (PUE) is used as a key performance indicator to measure progress. In addition, unused frequencies in fixed and mobile networks are put into standby mode as long as data traffic is at a low level. The second approach is based on the origin of the electricity purchased and focusses on buying electricity that is as emission-free as possible. In this context, power purchase agreements (PPAs) with providers that generate electricity from renewable energy sources, such as solar parks or wind turbines, and supply it directly to the company play an important role. In order to counter the current shortage of PPAs, guarantees of origin are often purchased for a certain amount of electricity, which prove the generation of a MWh of electricity from renewable sources. In contrast to PPAs, such guarantees of origin are not linked to the physical supply of electricity and can therefore be traded separately.

Suppliers are the focus for the reduction of Scope 3

Scope 3 relates to activities along the value chain, which is why the measures are implemented either upstream or downstream by the company. Telecom companies work together with suppliers to improve their manufacturing processes, logistics and procurement activities. For example, Wi-Fi routers are often equipped with recycled and recyclable components in order to increase life expectancy and reduce the use of materials. Suppliers are also incentivised to source renewable electricity and establish sustainable procurement processes. Another widespread measure is the membership of initiatives such as the Carbon Disclosure Project (CDP) or the Joint Alliance for Corporate Social Responsibility (JAC). Along the downstream value chain, telecom companies mainly focus on reducing the power consumption of Wi-Fi routers, mobile phones, set-top boxes and other devices at

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the end customer. To this end, appropriate technical adjustments are already being made during the manufacturing process. Customers also receive suitable apps that can be used to switch off end devices at set times or put them into standby mode.

Numerous telecom companies combine decarbonisation targets with financing activities

Several telecom companies have already linked their climate protection strategy with their financing activities. In this context, for example, the interest costs of sustainability-linked financings have been linked to the achievement of CO₂ reduction targets. In this regard, the SBTi target values were often used in order to emphasise their importance. These sustainability-linked financings appear predominantly in the credit sector and are rarely used in the bond sector where mainly earmarked structures are used. Regarding the bond sector, the use of proceeds is limited to projects having a clear environmental or climate benefit. In some cases, the proceeds are used to finance social projects in addition to environmental projects. The individual projects are divided into categories defined by the Green and Social Bond Principles of the International Capital Market Organisation (ICMA). If earmarked financings are limited exclusively to ecological projects, they are labelled "green". However, if social projects are also included, the classification changes to "Sustainability". The category "Energy efficiency" is regularly used in this context, including the replacement of copper cables with fibre optic cables and improvements in the energy efficiency of data centres. However, it is hardly possible to integrate the EU taxonomy into earmarked financings, as it has only covered a few activities in the telecom sector to date. It remains to be seen whether this will change in the future.

Sustainable financings of telecom companies in 2024					
Company	Date	Instrument	Volume (in millions)	Structure	Information
iliad	2024 Oct	Bond	500 EUR	Green	Categories i) Energy efficiency, ii) Circular economy, iii) Clean transportation, iv) Renewable energy
iliad	2024 Aug	Loan	3,000 EUR	Sustainability-Linked	KPIs i) CO ₂ (Scope 1 & 2), ii) CO ₂ (Scope 3)
Swisscom	2024 Aug	Bond	100 CHF	Green	Categories i) Energy efficiency, ii) Renewable energy, iii) Clean transportation
Telefonica	2024 Sep	Bond	200 EUR	Sustainability	Categories i) Energy efficiency, ii) Renewable energy, iii) Data-driven solutions, iv) Inclusive connectivity
KPN	2024 Jun	Bond	500 EUR	Green	Categories i) Energy efficiency, ii) Circular economy, iii) Clean transportation
TDC Net	2024 Apr	Bond	500 EUR	Sustainability-Linked	KPIs i) CO ₂ (Scope 1 & 2), ii) CO ₂ (Scope 3)
Elisa	2024 Apr	Loan	100 EUR	Sustainability-Linked	KPIs i) CO ₂ (Scope 1 & 2), ii) CO ₂ (Scope 3), iii) Digital inclusion
Telefonica	2024 Mar	Bond	1,100 EUR	Sustainability	Categories i) Energy efficiency, ii) Renewable energy, iii) Data-driven solutions, iv) Inclusive connectivity
Telus	2024 Feb	Bond	500 CAD	Sustainability-Linked	KPIs i) CO ₂ (Scope 1 & 2)
Vodafone	2024 Feb	Revolving credit facility	4,050 EUR	Sustainability-Linked	KPIs i) CO ₂ (Scope 1 & 2), ii) CO ₂ (Scope 3), (...)
Telefonica	2024 Jan	Bond	1,750 EUR	Sustainability	Categories i) Energy efficiency, ii) Renewable energy, iii) Data-driven solutions, iv) Inclusive connectivity

Sources: Bloomberg, companies' websites, Helaba Research & Advisory

Completed CSRD implementation should give new impetus to sustainable finance activities

Even if the transposition of the CSRD into national law in Germany is delayed due to the new elections in February 2025, all companies active on the capital market are currently in the hot phase of preparations.⁴ In addition to the collection and preparation of additional data points, existing reporting systems and processes are often reviewed and optimised during this process. This generally involves a great deal of effort for the companies, which ties up a massive amount of human resources, especially in the sustainability departments. As a result, these resources are currently not available for preparing financing transactions. However, this bottleneck should be resolved as soon as the companies concerned publish their sustainability reports in accordance with the CSRD for the first time. At the same time, information gaps will be closed by reporting homogeneous and high-quality data. Differences in ESG performance will therefore become more visible to investors and are also likely to have a greater impact on decision-making processes. For companies with above-average ESG performance in particular, sustainable financing is therefore an effective means of emphasising this performance. For example, sustainability-linked structures make it possible to better explain the level of ambition of reduction targets to banks or investors and, if the targets are achieved, to benefit from financial benefits. Earmarked financing such as green bonds, on the other hand, help to focus on forward-looking investments in climate protection and energy efficiency and to address investor groups with a corresponding focus. At the same time, the appetite among financial institutions for investments with the lowest possible carbon footprint is likely to increase, as they have to disclose the emissions they finance. As most telecom companies already have detailed decarbonisation strategies in place, this should further boost sustainable finance activities in the sector.



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⁴ [Information on the implementation measures of EU member states](#)