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Corporate Responsibility Report 2022

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About this report

Sustainability is a central component of the Telefónica Deutschland Group's business mindset and activities. This CR Report presents the key information regarding the Telefónica Deutschland Group's sustainability activities. It is aimed at the company's stakeholders such as the customers, employees, business partners, investors, policymakers, academia, non-governmental organisations (NGOs) and the interested public.

Reporting period and report boundary

This CR Report contains information pertaining to the Telefónica Deutschland Group and Telefónica Deutschland Holding AG. This CR Report covers the financial year from 1 January to 31 December 2022. The report also contains information regarding relevant sustainability activities that extend beyond this period into other financial years. All figures were, unless otherwise indicated, ascertained on 31 December 2022. The quantitative key figures given in the report principally relate to the Telefónica Deutschland Group in the financial year 2022. This includes all the companies wholly owned by Telefónica Germany GmbH & Co. OHG. Deviating key figures are marked accordingly.

The copy deadline for the CR Report was 30 March 2023. This report was published in April 2023 in German and English at www.telefonica.de/sustainability.

Comprehensive reporting in accordance with the GRI Standards and the UNGC principles

This sustainability report is prepared in accordance with the Global Reporting Initiative (GRI) Standards 2021 (see [ESG data and indices/ GRI content index](#)) and in line with the Sustainability Accounting Standards Board (SASB) frameworks (see [ESG data and indices/ SASB index](#)) and the specifications of the Task Force on Climate-related Financial Disclosures (TCFD) (see the "Energy and CO₂" chapter and the [ESG data and indices/ TCFD index](#)). The Telefónica Deutschland Group also reports on its human rights due diligence obligations in accordance with the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) in its [Separate Non-Financial Group Report](#).

and in this CR Report. Since 2020 the Telefónica Deutschland Group has additionally been reporting in accordance with the principles of the United Nations Global Compact (UNGC). The corresponding Communication on Progress will be published on the UNGC's online platform from 2023. In this way, the Telefónica Deutschland Group is making a commitment to the UNGC's Ten Principles and undertakes to realise these in the interests of governance for responsible corporate management. The Telefónica Deutschland Group also reports in accordance with the CDR Code of the Corporate Digital Responsibility Initiative as established by the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV). With the implementation of the Responsible Business Plan 2025 the Telefónica Deutschland Group is also actively supporting the attainment of the United Nations' Sustainable Development Goals (see [contribution to the SDGs](#)).

The report content was chosen on the basis of the principle of materiality and takes into account the stakeholders' crucial expectations, the impact of business activity and decisions relating to corporate strategy. The results of the 2020 materiality analysis were updated again in 2022 and serve as the basis for sustainability reporting.

The CR Report 2022 comprises the chapters "Principles of governance for responsible corporate management", "Customers and society", "Employees" and "Climate and the environment" that provide information on the sustainability strategy, measures, results, targets and challenges. The [document "ESG data and indices"](#) lists all the relevant key figures and an explanation is given as to how the Telefónica Deutschland Group continuously evaluates its sustainability performance. There is then a presentation of the frameworks the Telefónica Deutschland Group takes into account in the orientation of its sustainability strategy and in its reporting. The CR Report was audited by the external audit firm PricewaterhouseCoopers (PwC) in accordance with the ISAE 3000 (Revised) standard with limited assurance in line with the GRI criteria. The energy and CO₂ data and the calculations have also been verified by the Spanish standardisation and certification company AENOR INTERNACIONAL, S.A.U.



Report formats, reporting cycle and contact

The Telefónica Deutschland Group's CR Report is published annually. Readers with comments or questions can contact the Corporate Responsibility and Sustainability team at cr-de@telefonica.com.

The 2022 Separate Non-Financial Group Report was published on 1 March 2023 and is available at www.telefonica.de/nfs . The Telefónica Deutschland Group uses this Non-Financial Group Report to meet the regulatory information and reporting obligations as per Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereinafter the EU Taxonomy Regulation).

The 2022 Annual Report can be found at the following address: www.telefonica.de/annualreport .



Foreword

Dear Readers,

There were once again fundamental changes for politics, business and society last year – war in Europe, inflation and the energy crisis, supply bottlenecks and, on top of all this, the ever more present impacts of climate change and the challenges of digital transformation. As a telecommunications company, we are instrumental in promoting the sustainable digitalisation of the economy and society. Intelligent mobility solutions, smart energy supply grids and Internet of Things applications in industry are only possible thanks to digitalisation and can play a decisive part in advancing climate protection.

Strong telecommunications networks are a basic need for people just like electricity and heating. They get people talking, afford them access to information and enable freedom of expression. We aspire to offering as many people as possible access to a sustainable digital future to make day-to-day life better for everyone. With more than 44 million connections, we are the largest mobile operator in Germany based on customer numbers. We want to reduce the digital gap where people have no access for technical, social, economic or other reasons in order that everyone can benefit from the advantages of digitalisation. We already provide more than 80% of the German population with the modern 5G mobile communication standard and make digital high-tech communication available to everyone with fairly priced tariffs and large data packages.

We continue to grow in spite of the difficult economic environment. Our aim is to grow sustainably and offer our customers a green network. To do so, we want to reduce energy consumption per data volume by 87 % by 2025 compared with 2015. In 2022 we managed to make it to 81.4 %. We already cover our total electricity consumption entirely with green electricity. We are achieving an improved quality of electricity sourcing overall by concluding power purchase agreements (PPA) and with electricity we generate ourselves.

Our climate targets are ambitious too – we want to achieve net zero carbon emissions all along our value chain by 2040. To maintain our own carbon emissions at a level which is compatible with the 1.5-degree target, we are reducing emissions together with our suppliers and customers. We launched a three-year energy conservation programme in 2022 with the aim of consuming around 20% less energy from 2026 in comparison to 2021. We will be aided here among other things by AI-assisted standby technology for network components, extensive network modernisation and cloud-based infrastructure for data and systems.

We want to enable our customers to make sustainable purchasing decisions – since last year, we have been labelling business customer products and services that make a significant



“We are boosting digitalisation in Germany by rolling out 5G in more and more towns, cities and rural regions even more quickly. Our investments in a more powerful and green network will strengthen Germany as a digital hub in the long term and sustainably.”

Markus Haas, Chief Executive Officer (CEO)
Chair of the Management Board of Telefónica Deutschland Gruppe



“Protecting digital rights cannot be left to the regulatory authorities alone. Companies must assume responsibility for the impacts their actions have on society.”

Valentina Daiber, Chief Officer for Legal and Corporate Affairs
Member of the Management Board of Telefónica Deutschland Gruppe

contribution to reducing energy, carbon emissions and water consumption and to promoting the circular economy with the Eco Smart certification mark. More than half of our business customer products are already labelled in this way and this proportion is set to increase. With the Eco-Rating consumers can determine what impact the entire process of manufacturing, using and disposing of a smartphone has on the environment.

In addition to the opportunities offered by our sustainability management, we are focusing on minimising the potential risks that arise from our impacts on people and the environment. Management Board remuneration is tied to the achievement of concrete sustainability targets in the areas of the environment, diversity, society and customer responsibility. Our achievements are reflected in external assessments – we were able to maintain our good to very good ESG rating results at a stable level in 2022. In the Sustainalytics rating, we achieved the best ESG risk score of all the telecommunications companies in Germany and were also awarded the ESG Industry Top-Rated Badge for the second consecutive year. Our health management system is award-winning too – we were placed in the “Excellence” category of the Corporate Health Award for the fifth time.

We promoted human rights and sustainable supply chain management as important topics in cross-divisional projects in 2022. We brought guidelines and processes into line with the requirements of Germany’s new Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), applied new risk analysis methods and revised our whistle-blower system

for people affected and whistle-blowers throughout the value chain. Data protection and data security, freedom of expression and freedom of information in the digital world, equality and non-discrimination, decent labour conditions in a global economy and a clean and healthy environment are all rights for which our company assumes responsibility for their being upheld.

For us, social commitment is likewise inseparable from responsible action and is firmly embedded in our corporate culture. Our extensive aid activities for Ukraine were central here in 2022. Call centre employees supported the accommodation platform #UnterkunftUkraine, finding more than 1,000 beds for refugees. Other employees collected donations, which we then doubled. These consequently totalled 200,000 euros. To assist with rebuilding the destroyed telecommunications infrastructure, we provided Ukraine with an extensive package of modern network technology. In total, we supplied more than 3,500 network components worth millions of euros free of charge.

The challenges we all face are immense. We will continue to make a clear contribution here as a company – stand with us!

Markus Haas
Chief Executive Officer (CEO)
Chair of the Management Board of
Telefónica Deutschland Gruppe

Valentina Daiber
Chief Officer for Legal and Corporate Affairs
Member of the Management Board of
Telefónica Deutschland Gruppe

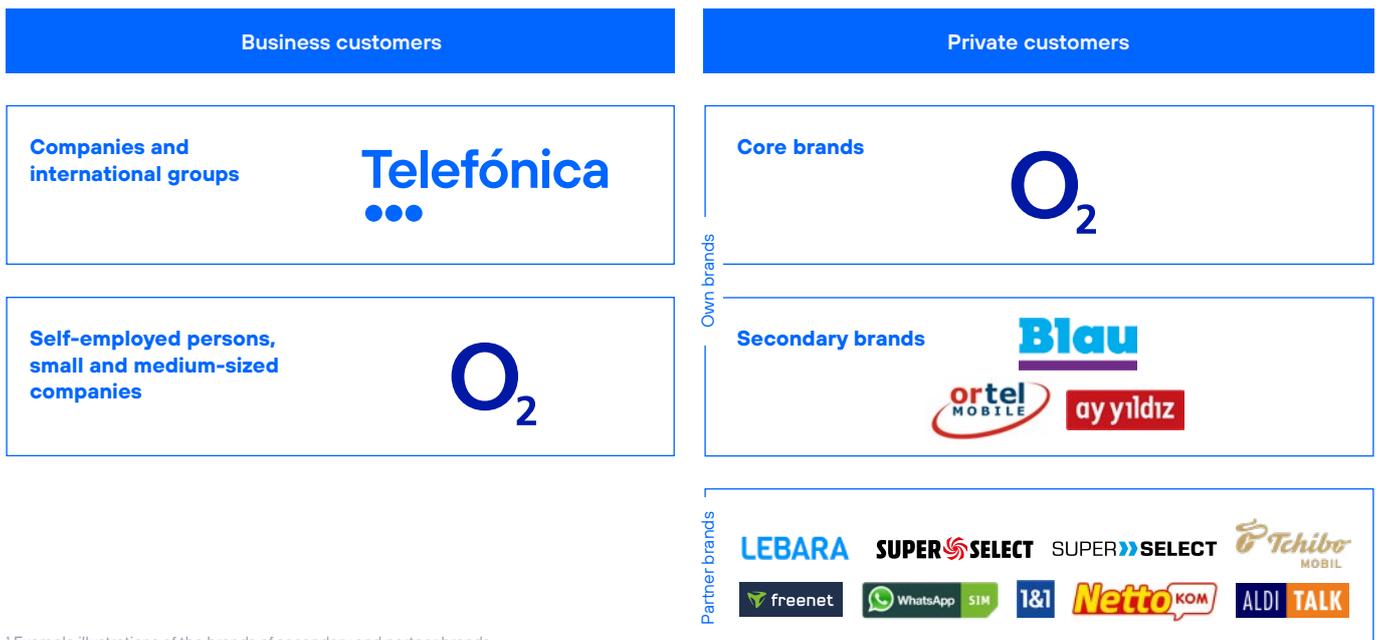
Portrait of the Telefónica Deutschland Group

The Telefónica Deutschland Group is one of Germany's three leading integrated network operators. It offers mobile and fixed services for private and business customers as well as innovative digital products and services. In addition, numerous wholesale partners purchase extensive mobile communications services of the Telefónica Deutschland Group. With a total of 44.3 million mobile connections as of 31 December 2022 the Telefónica Deutschland Group is a leading provider in this market. In 2022, at EUR 5,742 million, mobile services were the most important revenue stream for the Telefónica Deutschland Group (69.8% of the total volume). In this area, it offers private and business customers mobile, voice and data services both on a contractual basis (postpaid) and in the prepaid segment. The basis for this is the Telefónica Deutschland Group's mobile communications network. It offers nationwide fixed services to complement the mobile services. The fixed line network customer base amounted to approximately 2.3 million at the 2022 year end. The Telefónica Deutschland Group also uses a number of ways to sell a wide range of devices to the customers.

Multi-brand strategy to meet customer needs

A key success factor of the marketing and sales approach is the Telefónica Deutschland Group's multi-brand strategy. It offers private and business customers a wide range of high-quality mobile communications and fixed line products with the core brand O₂. It appeals to major international corporations with the Telefónica brand's products and services. The Telefónica Deutschland Group relies on complementary sales channels in order to serve the various customer needs in the best way possible. The sales landscape includes not only direct sales channels, including the Group's own shops, a countrywide network of independently operated franchise and premium partner shops, online sales and telesales, but also indirect sales channels, such as partnerships and cooperations with retailers via physical and online channels. With its secondary and partner brands and through its wholesale channels, the Telefónica Deutschland Group reaches further groups of customers, for example ethnic target groups in Germany. Further mobile communications brands are additionally offered by means of joint operations and strategic partnerships. These include, for example, Tchibo MOBIL and ALDI TALK in cooperation with MEDIONmobile. The multi-brand approach gives the company the opportunity to appeal to the whole spectrum of customers with tailored product offerings, sales and marketing.

Brands of the Telefónica Deutschland Group¹



¹ Example illustrations of the brands of secondary and partner brands



Current company structure

Telefónica Deutschland Holding AG is a stock corporation (AG) under German law which is based in Munich, Germany. Telefónica Deutschland Holding AG is the parent company of the Telefónica Deutschland Group. This is included in the consolidated financial statements of the top Group parent company, Telefónica, S.A., Madrid, Spain (Telefónica, S.A.; its Group: Telefónica, S.A. Group). The direct parent company of the Telefónica Deutschland Group is Telefónica Germany Holdings Limited, a wholly owned subsidiary of O₂ (Europe) Limited, Slough, UK (O₂ (Europe) Limited), and an indirect subsidiary of Telefónica, S.A.

Business strategy

Democratising access to a sustainable digital world

The Telefónica Deutschland Group aspires to offering as many people as possible access to a sustainable digital future to make day-to-day life better for everyone. With 44.3 million mobile connections, the company connects more people via mobile communications than any other provider in Germany.¹ Arithmetically speaking, one in two German citizens uses the O₂ mobile communications network. As an integrated telecommunications provider, the company offers private and business customers a variety of mobile communications and fixed line services as well as value-added services. The associated importance of this digital infrastructure goes hand in hand with a specific responsibility regarding sustainability and digital participation. The company has been taking a structured approach to environmental, climate and social issues for more than 20 years and has introduced numerous initiatives. In this way, the company wants to make its contribution to a sustainable economy and society.

The digital participation of all people is founded on high-performance telecommunication networks. The Telefónica Deutschland Group uses its own mobile communications network throughout Germany. The customers are provided with fixed line network access within the framework of cooperative partnerships. This enables the company to offer diverse and modern access to fast broadband connections throughout Germany and gives it a broad and geographically widespread portfolio in the nation. While the Telefónica Deutschland Group expands and operates its own 4G and 5G mobile communications network, it focuses on strong partnerships in the area of fixed line business. The customers can be offered DSL and, since November 2022, also

fibre-optic connections via the Deutsche Telekom infrastructure. In addition, partnerships with cable network operators such as the Vodafone Group and Tele Columbus expand the company's presence in the fixed line market and also open up further growth opportunities.

An efficient network and reliable IT

The company's business success is founded on an efficient network and reliable IT. While the Telefónica Deutschland Group expanded the capacity of its LTE network in 2022 and promoted LTE network expansion in rural areas in particular, the company continues to focus on expanding its 5G network. By the end of 2022 the Telefónica Deutschland Group was already providing more than 80% of the population with 5G. To make the most of its position in the German market for mobile telecommunications services and monetise additional growth opportunities, the company has introduced innovative digital products and value-added services in various areas such as communications services and financial services.

The Telefónica Deutschland Group is also developing new digital market segments such as the IoT for all of its customer groups. The Telefónica Deutschland Group is systematically advancing the company's digital transformation and the related process optimisation. Firstly, this makes interaction with the customers easier and more intuitive, for example because the customers can use automated self-care offerings or more quickly identify and buy the product they want. And secondly, the company is using digital transformation to reduce, simplify and automate processes. The Telefónica Deutschland Group is endeavouring to create a uniform customer experience overall at all contact points.

Consistent growth strategy for the future

The Telefónica Deutschland Group continued on its growth path in the financial year 2022 and achieved a sustained good operating and financial performance. The Telefónica Deutschland Group's operating and financial success is founded on the Investment for Growth three-year programme, which was successfully concluded at the end of the financial year 2022. The targets set in late 2019 were achieved and, in some cases, surpassed in spite of the pandemic, which has now lasted for three years, and the economic impacts of the war in Ukraine. The target of cumulative revenue growth of at least 5% over the three-year period can be compared with target achievement of more than 10%. In the context of its set investment framework, the Telefónica Deutschland Group surpassed its medium-term

¹ VATM market study, October 2022, pp. 25/26, 1.7 million M2M cards for O₂ Telefónica



5G expansion targets in 2022 with an investment ratio of 14.7 %. This development underscores the fact that, for investors, the Telefónica Deutschland Group represents an investment which remains robust even during macroeconomic crises and which exhibits above-average growth. The Telefónica Deutschland Group intends to continue on the current growth path in the future. For the financial year 2023 the company has set its sights on revenue growth and on a year-on-year increase in OIBDA¹ adjusted for special items in the low single-digit percentage range. This growth is to come both from the private customer and the business customer segment.

One element of the Investment for Growth strategy programme was the expansion of mobile communications business. The company has drawn level with its competitors in terms of mobile communications network quality thanks to increased investment in accelerated network expansion as well as in further development of the IT structures, which had already reached its peak in 2021. The Telefónica Deutschland Group will further expedite network expansion in 2023.

In the area of business customers too, the Telefónica Deutschland Group is aiming to achieve growth and to thereby increase its share of the market. The focus is on addressing small and medium-sized enterprises (SMEs) and small offices/home offices (SOHOs) via the core brand O₂ with a needs-based product portfolio.

In addition to closing grey and black spots in its mobile communications coverage, the Telefónica Deutschland Group is investing further in digitalising its network and, as such, in Germany's ability to compete as a place of business. In late 2022, for example, the company announced it would transfer its 5G backbone to the cloud in the future. With a software-based 5G cloud backbone, the company can install network updates even more quickly and provide private and business customers with new connectivity solutions.

There is also external recognition of the network's expansion. In the renowned network test conducted by the specialist magazine *connect*², the O₂ mobile communications network was rated "very good" for the third consecutive time. With an increase of 20 points, the O₂ network has achieved the biggest improvement in quality of all the German network operators. The Telefónica Deutschland Group has also already achieved a partial victory in the area of 5G – according to *connect*, the O₂ network has the largest share of "real 5G" in Germany.

The Telefónica Deutschland Group will simultaneously continue on its chosen path of digital transformation to achieve revenue increases and efficiency improvements. The Telefónica Deutschland Group is focusing here on sustainable growth and continues to advance its ESG strategy. The company is intensively pursuing the climate and environmental targets it has set. At the same time, social responsibility and digital inclusion are at the heart of its business activities.

Business strategy and sustainability strategy closely dovetailed

Sustainability is a key factor for the success of the business model and has been an integral part of the Telefónica Deutschland Group's DNA since 2005. The purpose of "We democratise access to a sustainable digital future to make day-to-day life better for everyone" is at the heart of the Telefónica Deutschland Group's actions. The Telefónica Deutschland Group wants to contribute to enabling Germany and the rest of Europe to play a leading role in the digitalisation of the economy and society. This includes assuming responsibility and bearing in mind the impact that all the business activities have on individuals, society and the environment. Systematic further development of the business model and the business processes is key to shaping a sustainably digital world responsibly. The company continuously updates its IT systems to offer the customers and employees the best possible seamless interaction and generally become more efficient. In an increasingly connected and ever faster world, the resultant tangible benefit for the customers is becoming more and more important. The company therefore integrates sustainability into its business processes by means of fixed structures with the aim of putting the company on a forward-looking footing. The Telefónica Deutschland Group actively manages its sustainability activities by means of the Responsible Business Plan 2025. Its clear commitment to sustainable business practice where its core business is concerned additionally contributes positively to the reputation of the Telefónica Deutschland Group and to minimising business risks, also helping to achieve the United Nations' Sustainable Development Goals (SDGs).

¹ OIBDA corresponds to operating income before depreciation and amortisation of intangible assets, property, plant and equipment and rights-of-use assets. On the basis of the OIBDA, the Telefónica Deutschland Group measures the profitability of our operating activities.

² Source: *connect* mobile communications network test, issue 1/2023: "very good" (894 points); overall, the rating "outstanding" was awarded once (952) and "very good" was awarded twice (915 and 894 points).



Responsible Business Plan 2025

Comprehensive sustainability strategy serves as a compass

The Telefónica Deutschland Group aims to use technological innovations to solve societal challenges and promote sustainable development. The company wants to use digitalisation for the benefit of people and strengthen the connections between them. At the same time, in the interests of governance for responsible corporate management, the Telefónica Deutschland Group keeps an eye on the impacts that all of its business activities have on people and the environment. This is to be guaranteed all along the value chain and at all the company levels. The Telefónica Deutschland Group is constantly developing its sustainability strategy in order to meet the changing expectations of its stakeholders, increasing external regulation and its own demands as a company that conducts itself responsibly. The sustainability strategy has been an integral part of the Telefónica Deutschland Group's corporate strategy since 2005. The company purposefully incorporates sustainability aspects into its business processes in order to remain future-proof. The Telefónica Deutschland Group reports on its business activities transparently and openly and incorporates the stakeholders' expectations and increasing regulatory requirements into the business processes all along the value chain. As such, the sustainability strategy and the Telefónica Deutschland Group's business strategy are closely interlinked.

The Responsible Business Plan 2025: key management tool

The Telefónica Deutschland Group's sustainability strategy is managed via the Responsible Business Plan (RBP) 2025 "Digital.Sustainable.Connected." and aims to achieve various sustainability targets. The RBP serves as the framework for the sustainability targets and activities of the departments and

company sites and creates a basis for expediting sustainable digitalisation further and efficiently steering sustainability management.

With the RBP 2025 the company wishes to continue to responsibly shape sustainable digitalisation and the transformation of the economy and society in the future. This objective is pursued with clearly defined ambitions in four fields of action. The honing of the strategic priorities as performed should heighten the focus and enhance the implementation effectiveness and efficiency.

- 1. Principles of governance for responsible corporate management:** our business as a digital company will be founded on the principles of governance for responsible corporate management that we rigorously and systematically apply to all our business processes.
- 2. Employees:** we will advance the digital working world as an attractive employer.
- 3. Customers and society:** we will offer high-quality products and services and will ensure digital inclusion for all with our modern network.
- 4. The environment and climate:** we will offer our customers a green network.

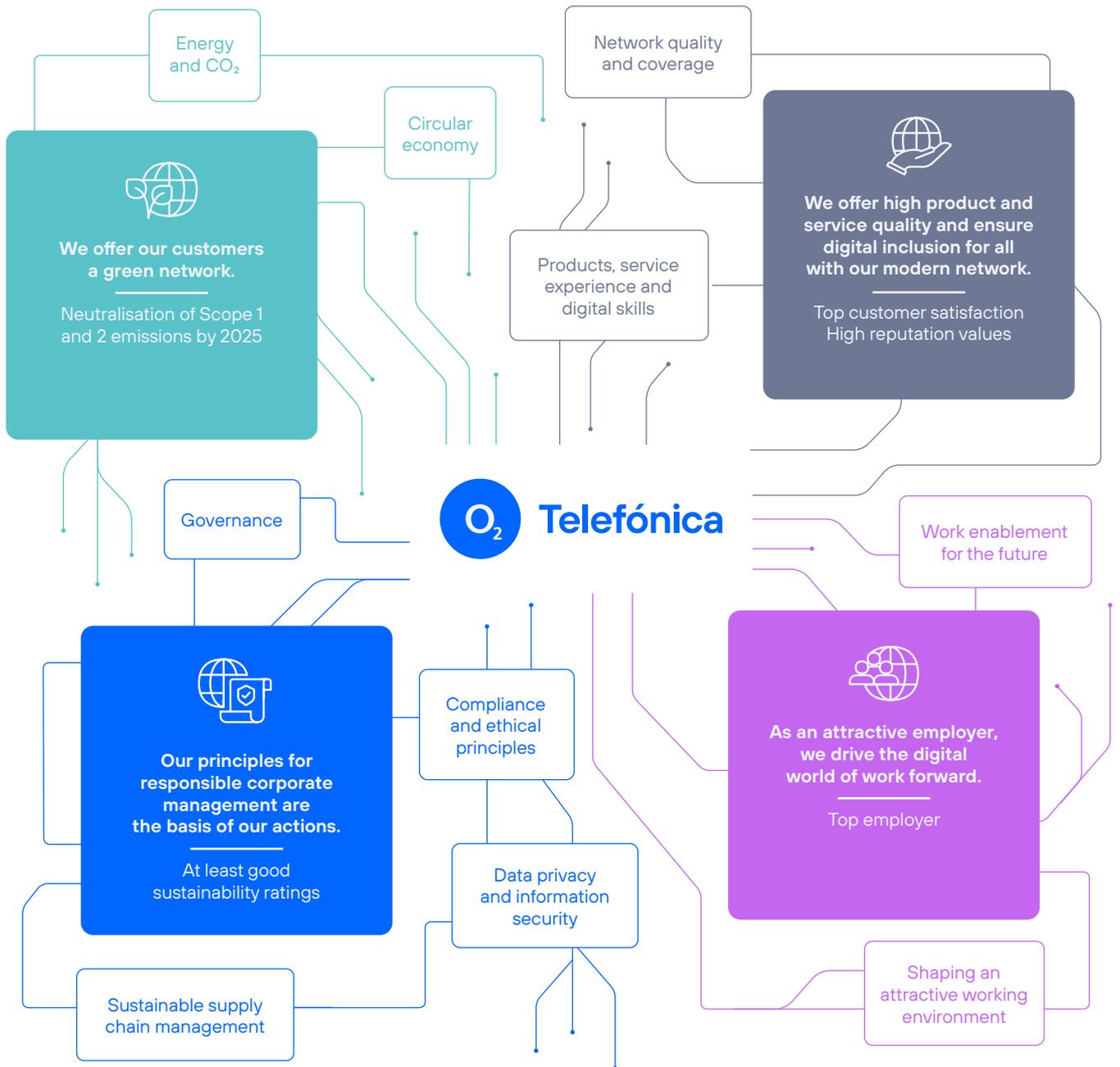
The company selected specific strategic priorities per field of action and these are reflected in defined measures and targets for the year. For example, Scope 1 and Scope 2 emissions are to be completely offset on the basis of concrete measures by 2025 in order for the target of net zero emissions by 2040 to be achieved, customer and employee satisfaction are to be further increased and safe participation in digital life is to be enabled for people. With the RBP 2025 the Telefónica Deutschland Group wishes to continue to responsibly shape sustainable digitalisation and the transformation of the economy and society in the future. The company gauges its progress at the level of the overarching fields of action on the basis of fixed non-financial key performance indicators. The status for the reporting year is as follows:

Four fields of action, four ambitions for 2025

	Main KPIs	Results for 2022 (compared to previous year)	2022 status
Applying principles of responsible corporate management	At least good sustainability (ESG) ratings	Good to very good results (stable)	
Driving the digital working world forward	Top employer (eNPS)	66.2 (+5.8 points)	
Offering high product and service quality and enabling digital inclusion	Top customer satisfaction (NPS) High reputation score (RepTrak)	Increase (+3 points) 69.7 out of 100 (+0.7 points)	
Offering a green network for customers	Offsetting of Scope 1 and 2 emissions by 2025	5,781 t CO ₂ (-97% compared to base year 2015)	

Responsible Business Plan 2025

Digital.Sustainable.Connected.





Identification of the material topics as per the GRI Standards

The RBP 2025 was developed on the basis of the materiality analysis conducted in 2020; here, a structured method was used to identify seven areas of action and 24 potentially material topics for the Telefónica Deutschland Group.

In the process, the impact of the business activities, the short-term business relevance to the Telefónica Deutschland Group and the stakeholder relevance were ascertained. For this, recourse was made to quantitative customer and employee surveys, qualitative expert interviews with customers, suppliers, NGO representatives, analysts, investors and association representatives, workshops with senior management and company-, market- and sector-specific studies.

An impact analysis was performed in 2022 in order to update the materiality analysis. The GRI Standards 2021 served as the basis for the impact analysis, placing the focus of the analysis on the company's considerable impacts on the economy, the environment and people, including its impacts on human rights. Based on this, the material topics upon which the Telefónica Deutschland Group has a significant influence were identified. In addition to the impact analysis, set evaluation aspects were used to determine the relevance to business of the topics. This resulted in the following material topics:

- Network quality and coverage
- Data protection and information security
- Compliance and integrity
- Energy and CO₂
- Human rights with a focus on social standards in the supply chain
- Product and service experience
- Access to digital technologies for all
- Various employee topics¹
- Governance for responsible corporate management
- Protection of children and young people
- Environmental standards in the supply chain
- Digital education and media skills
- Circular economy

These material topics remained virtually unchanged from the previous year. There was merely a change regarding "Digital sustainability innovations" and "Transparency and dialogue" due to honing of the topics. The content concerning "Digital sustainability innovations" was assigned to the topics "Product, service experience and digital skills" and "Network quality and coverage". "Transparency and dialogue" was deemed a meta topic as transparent dialogue with stakeholders features in all the material topics.

Determination of the material non-financial risks

The analysis of the business relevance of the identified non-financial topics was followed by an assessment of the risk scenarios in terms of their probability of occurrence and their potential to have a detrimental impact. In line with the criteria of established risk management, the Telefónica Deutschland Group performed a net assessment of the risks. A detailed description of the processes can be found in the "Report on Risks and Opportunities" chapter of the [2022 Combined Management Report](#)

Based on the probability of occurrence already determined, a conservative approach was adopted in which risks were considered with a probability of occurrence deemed to be "likely" or "highly likely". The potential for the risks to have a detrimental impact on the relevant aspects was determined on the basis of the criteria relating to the severity of the impacts on an aspect, the number of people actually or potentially affected and the possibility of restoring the original condition before the impact occurred. In this risk assessment, the Telefónica Deutschland Group identified the potential for a material risk pursuant to Section 289c HGB in the areas of customer matters and information security, which it is counteracting with comprehensive measures (see "Customers and society" and "Data protection and information security" chapters).

Regular reviews and integration of new requirements

The sustainability strategy is verified annually with regard to the relevant topics that were determined through the materiality analysis. This involves talks being held with all the departments involved in ESG and the latest developments being evaluated. Current industry activities and studies as well as talks with stakeholders are likewise evaluated. This allows for targeted responses to changes with regard to the impacts of the Telefónica Deutschland Group on people and the environment, the relevance for stakeholders and business operations. The results of this review are integrated into the strategy process.

¹ Diversity, equal opportunity and non-discrimination; employee health and safety; labour/management relations; training and professional development and lifelong learning



Principles of governance for responsible corporate management

Governance

“Sustainability is firmly enshrined in our divisions. We manage targets and measures through the Responsible Business Plan 2025.”

THE KEY FACTS:

-  ESG focus included in new training on Business Principles in order to help drive the company's sustainable transformation forward.
-  System of bonus remuneration for the Management Board for sustainable conduct refined further: as of 2022, the proportion of women in senior management positions has more weight (3 %) in the calculation of bonuses.
-  In 2022, continued to achieve good to very good results in the ESG ratings, which reflect the company's sustainability performance.

BASIC PRINCIPLE AND CHALLENGES

Governance for responsible corporate management secures sustainable value creation

“We democratise access to a sustainable digital future to make day-to-day life better for everyone.” This is the Telefónica Deutschland Group's business purpose and this therefore guides its actions. In the interests of governance for responsible corporate management, the company aims to keep an eye on the impacts that all of its business activities have on people and the environment. The goal is to guarantee this all along the value chain and at all the company levels. Technological innovations are to be used to solve societal challenges and promote sustainable development. Through governance for responsible corporate management, the Telefónica Deutschland Group wishes to contribute to making market economy mechanisms work and to boosting people's faith in businesses.

The Telefónica Deutschland Group's [Business Principles](#) serve as the foundation for its actions. They document its understanding of governance for responsible corporate management on the basis of ethical principles, corporate standards and behaviour patterns. These are derived from the three fundamental values of integrity, reliability and transparency and act as a binding code of conduct that sets benchmarks for our involvement in business life. The Telefónica Deutschland Group wishes to be a company which is trusted by its customers, employees, suppliers, shareholders and society as a whole. It is therefore the Group's primary aspiration to present the principles which govern its actions to its stakeholders clearly and unequivocally. To ensure that all the employees including the Management Board have a thorough understanding of these Business Principles, they are given regular, mandatory training on observing these principles.



The Telefónica Deutschland Group reports on its business activities transparently and openly and incorporates the feedback from its relevant interest groups into the development of its business processes all along the value chain. To be a fair and trustworthy partner for its stakeholders and find out more about their needs, the Telefónica Deutschland Group focuses on transparent communication and dialogue with the customers, employees, suppliers, policymakers and society. The company endeavours to form networks for digital progress and highlight the benefits of cooperation that is close and on a sustainable basis. It wishes to share its expertise and represent its interests in the political opinion forming process. Especially at times of crisis, close ties with policymakers and authorities are important, for example when it comes to protecting and expanding critical infrastructure. With its stakeholder management, the Telefónica Deutschland Group simultaneously pursues the goal of doing better at recognising the impact that its actions have so it can further develop its business model with a focus on the benefits for society.

Opportunities and challenges of digitalisation

The Telefónica Deutschland Group aspires to designing digital solutions in such a way that they serve people and society. The company considers itself a key driver of digitalisation and therefore sees itself as having a particular responsibility here. The concept of corporate digital responsibility (CDR) therefore has an important part to play in the Telefónica Deutschland Group's business conduct. It is a founding company of the [CDR Initiative](#) launched by Germany's former Federal Ministry of Justice and Consumer Protection in 2018 and now under the auspices of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

To further improve its sustainability performance, the Telefónica Deutschland Group regularly takes part in relevant ratings in the area of the environment, social and governance (ESG) and takes the corresponding criteria into account in the optimisation of its sustainability performance and in the related reporting. It sees this as offering huge potential for boosting its responsible conduct and the company's resilience as well as for achieving sustainable corporate financing because systematic orientation towards ESG criteria is increasingly becoming a prerequisite for access to the capital market. This means it is all the more important that it makes its contribution to sustainable business practice transparent and that it makes meaningful non-financial information available for investment decisions.

The Telefónica Deutschland Group also provides information transparently regarding the representation of its standpoints and interests in the political process. The responsible directorate Government Relations and Lobbying report to the Chief

Officer for Legal and Corporate Affairs. The obligations of companies to report to the German Bundestag were expanded with the introduction of the Lobbying Register in early 2022. Companies must now disclose the names of political stakeholders and their budget for political lobbying. The Telefónica Deutschland Group welcomes the transparency in the political decision-making process that this will result in and has an [entry](#) in the register. It reports openly on the positions it adopts in the BASECAMP, in its Telefónica blog, in the public affairs blog of the Telefónica BASECAMP, in the O₂ Telefónica TecTalk and in its social media channels. The company remains politically neutral and does not adopt a stance for or against any political party either directly or indirectly; donations to political parties are not permitted.

The reporting and due diligence obligations for companies are subject to ongoing changes, for example in relation to the European Union's Green Deal, the European Commission's draft of the new Corporate Sustainability Reporting Directive, and supply chain sustainability (cf. the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) and the EU's supply chain directive). The Telefónica Deutschland Group is preparing comprehensively for these new requirements.

After the war in Ukraine started, the Telefónica Deutschland Group established a cross-divisional observer group to coordinate social engagement for the people of Ukraine and continuously monitor the impacts of the political and economic developments on the company. The team regularly assesses the potential risks for business operations in a structured process. In response to the sanctions imposed on Russia and Belarus, the relevant processes and business partners were reviewed. As the Telefónica Deutschland Group is neither an importing nor an exporting company, the risk profile is low.

PROCESSES AND MANAGEMENT

Clear governance structures and requirements

The Management Board and Supervisory Board of Telefónica Deutschland Holding AG are committed to observing the principles of transparent [corporate governance](#) and regularly concern themselves with the requirements of the [German Corporate Governance Code \(GCGC\)](#). The Management Board runs the company on its own responsibility and in the interests of the company with the aim of achieving sustainable value creation. It is supervised in this and offered advice by the Supervisory Board. All measures and decisions of fundamental significance to the company are executed on the basis of close consultation between the Management Board and the Supervisory Board. The Management Board and Supervisory Board provide information on this in Telefónica Deutschland Holding AG's [Management Declaration](#).



Corporate responsibility/sustainability is an integral part of the Telefónica Deutschland Group's business mindset and activities. It attaches importance to transparent reporting regarding its sustainability performance. The Management Board approves the material non-financial topics for the Telefónica Deutschland Group every year and submits them to the Supervisory Board for its information. Due diligence obligations and the impacts on people, society and the environment are likewise part of this process. The most important stakeholders were involved in determination of the material topics by means of a materiality analysis. In particular, the Management Board receives an annual executive report regarding the company's human rights and environment-related due diligence obligations in the past financial year and the latest human rights developments in politics and society as well as within the company. The Management Board bears responsibility for human rights being upheld. The Human Rights Officer appointed in 2022 is responsible for monitoring human rights risk management, while the Human Rights and Environment Committee is responsible for implementation of the human rights strategy and for the complaints procedure in the event of violations of or reports concerning human rights and environmental aspects.

The company's own policies, standards and rules of procedure have a key role to play in sustainability management. The Telefónica Deutschland Group uses them to embed fundamental environmental, social and compliance-related standards within its processes, specify the requirements it has of its stakeholders and establish tools that facilitate voluntary commitment and control. In its [Declaration of Principles on Respecting Human Rights](#), the Telefónica Deutschland Group commits to upholding human rights, while its [Human Rights Policy](#) specifies the company's obligations in this regard (more information on this in the "[Human rights due diligence](#)" chapter).

The Telefónica Deutschland Group's [Business Principles](#) act as a binding code of conduct that sets ethical, environmental and social benchmarks for its involvement in the business world. The Business Principles were comprehensively revised in the year under review. The company's aim in doing so was to ensure that they continue to take into account the latest market and societal requirements. All the employees are given regular, mandatory training on the Business Principles. In the past three years up to the end of the 2022 reporting year, 84.3%¹ of the employees were given training on the Business Principles and human rights. Comparison with the three-year figure reported for 2021 (97.7%) shows that overall fewer staff took part in training. This comes against the backdrop of revised training being launched in December 2022, which led to many employees not completing the training until January 2023. After the code of conduct was revised, the training was also adapted, with the focus now placed

Governance

	Unit	2022	2021	2020
Employees and directors given training on the Business Principles and human rights ¹	%	84.3	97.7	95.8

¹Proportion based on number of employees of Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation includes the completed training units of the last three years. For 2022 this means 6,055 completed training units between 1 January 2020 and 31 December 2022.

on ESG topics in order that all staff can jointly take the company's sustainable transformation forward (see also the "[Compliance and ethical principles](#)" chapter).

Risk management as protection against negative impacts

All business activities involve risks which can adversely affect the process of setting and attaining targets. Risks which go unnoticed can jeopardise the company's successful development. To be able to respond appropriately to potential risks and to have informed risk assessments play a part in its decision-making, the Telefónica Deutschland Group uses an established risk management process. This is founded on the risk management strategy, the primary goal of which is to strive for business success, carefully weigh up the risks, reduce risks and, if necessary, take steps to counter them.

ESG topics are part of the Telefónica Deutschland Group's risk management process. Here, risks are considered from two perspectives: on the one hand the impact of risks on the Telefónica Deutschland Group (outside-in perspective) and, on the other, their impact on the environment and society (inside-out perspective). The outside-in risks are explained in the "Report on Risks and Opportunities" chapter in the [management report](#) and the inside-out risks can be found in the chapters entitled "Energy and CO₂" and "Human rights and social standards along the supply chain" in the [Separate Non-Financial Group Report 2022](#).

The Risk Management department trains the risk coordinators and division directors individually if needed. New Management Board members are likewise given training in dealing with risks, including in the context of ESG topics. All employees can complete voluntary risk management training on the company-wide training platform to develop awareness of risks and how to deal with them at the Telefónica Deutschland Group. The

¹Proportion based on number of employees of Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation includes the completed training units of the last three years. For 2022 this means 6,055 completed training units between 1 January 2020 and 31 December 2022.



risk coordinators discuss new regulatory requirements, the processes and the assessment methodology at an annual round table. Detailed information regarding the Telefónica Deutschland Group's risk management and risk reporting is provided in the [Annual Report 2022](#) 📖. In 2022 the company also prepared for external ISO certification of its business continuity management

system in accordance with ISO 22301:2019 in the following year. Business continuity coordinators and managers have been appointed in all the divisions. An internal preliminary assessment showed that the management system had been optimised for certification.

The most important guidelines and guiding principles for successful sustainability management

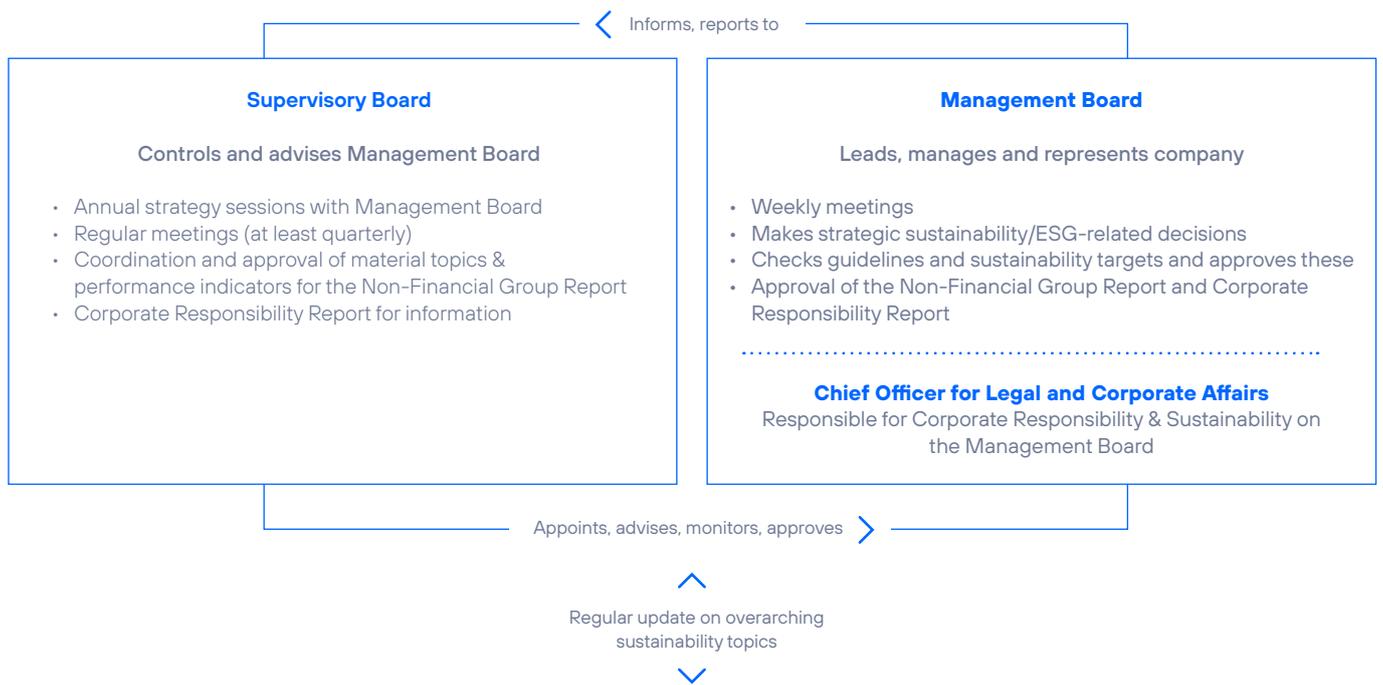
 <p>Governance for responsible corporate management</p> <ul style="list-style-type: none"> • Business Principles • Management Declaration • Declaration of Principles on Respecting Human Rights • Human Rights Policy • Corruption prevention guidelines • Guidelines on handling conflicts of interest, invitations, gifts and incentives • Whistle-blower Policy • Policy Compliance Organisation • Business continuity management guidelines • Company guidelines on corporate responsibility • Donation guidelines • Risk Management Policy • Guidelines for ethically responsible communication • Social Media Guidelines • Artificial Intelligence Principles • Whistle-blower procedure for human rights and environment-related risks or violations 	 <p>Sustainable supply chain management</p> <ul style="list-style-type: none"> • Supply Chain Sustainability Policy (incl. conflict minerals) • Low-carbon procurement guidelines • Purchasing guidelines • General Conditions for the Supply of Goods & Services • Supplier Management Instruction • Rules for the procurement of services and handling service providers 	 <p>Work environment</p> <ul style="list-style-type: none"> • Bonus arrangements in the remuneration of the Management Board and of the executives • Diversity & Inclusion Policy • Equality Policy • Health policy • Group standard occupational health and safety management • Risk assessment guidelines • Guidelines on occupational health care • Guidelines for occupational health and safety officers • Emergency organisation guidelines • Fire safety regulation guidelines • First aid guidelines
 <p>Environmental and energy management</p> <ul style="list-style-type: none"> • Environmental policy • Sustainable Energy Management Policy • Group-wide commitment to achieving net zero emissions 	 <p>Data protection and freedom of expression</p> <ul style="list-style-type: none"> • Group data protection standard incl. commitment and guidelines on handling data • Data protection contract guidelines • Data protection information obligation guidelines • Procedural instructions for data protection controls • Procedural instructions for data privacy incidents 	 <p>Information security</p> <ul style="list-style-type: none"> • Information security policy • Corporate Rule on Minimum Controls • Confidentiality levels • Guidelines on security incidents • Guidelines on physical safety • Cloud security policy



Steering of sustainability management at the Telefónica Deutschland Group

Corporate governance

Independent oversight of how risks posed to the company and its business are managed, founded on the German two-tiered board system
Transparent good corporate governance / annual effectiveness audit of Supervisory Board and its committees / sound business principles and compliance/risk management



Corporate Responsibility & Sustainability (CR&S) directorate as coordinating office

- Coordinates, monitors and reports interdepartmentally all sustainability activities, KPIs, targets and ESG ratings
- Develops the national sustainability strategy, develops its own or assists departments in the process of drafting and implementing guidelines
- Initiates and supervises social programmes with a strong societal impact





Responsible Business Plan governs sustainability management

The Telefónica Deutschland Group's sustainability strategy is approved by the Management Board. It is an integral part of the corporate strategy and is also based on the global sustainability strategy of the Telefónica, S.A. Group. The Telefónica Deutschland Group has established clear governance structures and processes in order to put the guiding principles and requirements into day-to-day practice. The Responsible Business Plan is the key tool when it comes to the Group's sustainability management. It serves as the framework for the sustainability targets and activities of the departments and company sites.

The Corporate Responsibility and Sustainability (CR&S) directorate is responsible for managing the sustainability activities of all the departments and company sites. It develops the sustainability strategy, monitors achievement of the CR goals and plans new measures together with the departments. The CR&S directorate also draws on the management systems embedded in the company, which are in accordance with the standards [ISO 50001](#) (energy management), [ISO 14001](#) (environmental management) and [ISO 9001](#) (quality management), for the purposes of goal formulation and a continuous improvement process.

The CR&S directorate is assigned to the Management Board division Legal and Corporate Affairs of Telefónica Deutschland Holding AG and reports directly to the Management Board member responsible for Legal and Corporate Affairs. The Supervisory Board is integrated into the creation of the Non-Financial Group Report for the fulfilment of the requirements pursuant to Section 315b in conjunction with Section 289c of the German Commercial Code (HGB). The Supervisory Board discusses the findings of the audit of the Non-Financial Group Report and the related performance indicators with the auditors and then passes a resolution following its own audit.

Bonus system offers incentives for sustainable conduct

The Telefónica Deutschland Group uses management bonuses as an incentive for the achievement of its company targets. Since 2019 it has intentionally linked bonus payments for the Management Board, executives and certain experts to the company's performance with regard to its sustainability targets. In addition to financial performance indicators, which have a weighting of 80%, there are therefore also non-financial criteria with a weighting of 20%. The latter include boosting customer satisfaction, strengthening the Group's reputation, reducing CO₂ emissions and increasing the proportion of women in management positions. The Telefónica Deutschland Group's

targets for 2022 are the same as the previous year's performance indicators; however, the NPS gap and the proportion of women in management positions have both been afforded slightly greater weightings. The NPS has a slightly lower weighting than in the previous year. Specifically, the following criteria are included:

- The Net Promoter Score (NPS) measures the customers' willingness to recommend their service provider. This makes up 5% of the bonus.
- The company's reduction in direct and indirect greenhouse gas emissions is calculated using the Greenhouse Gas Protocol. Scope 1 and 2 greenhouse gas emissions make up 5% of the bonus.
- The NPS gap measures the difference between the NPS of the Telefónica Deutschland Group and that of the top competitor. This accounts for 4% of the bonus.
- The RepTrak measures the company's reputation. It makes up 3% of the bonus.
- The proportion of women in top management positions (appointment to senior management) serves as the performance indicator for gender equality. It accounts for 3% of the bonus.

All the employees who are eligible for bonuses have the same targets, weightings and payout curves in relation to the Telefónica Deutschland Group's corporate goals. Information on the procedure for determining Management Board remuneration and disclosures regarding the remuneration of Telefónica Deutschland Group employees can be found in the [Remuneration Report](#).

Variable remuneration is linked to sustainability targets:





Stakeholders involved in a variety of ways

A decentralised approach is taken to stakeholder management within the Telefónica Deutschland Group. The departments are responsible for stakeholder engagement in their relevant areas of expertise. Various departments therefore hold regular discussions with the relevant stakeholders (see diagram on page 20). To explain the ESG strategy to investors and engage in dialogue with them, the Telefónica Deutschland Group once again organised an [ESG roadshow](#) involving Chair of the Supervisory Board Peter Löscher and CEO Markus Haas in London in 2022. Stakeholders in associations and NGOs as well as policymakers are selected on the basis of their relevance to the Telefónica Deutschland Group and are, for example, invited to participate in panel discussions. Their position/office is key here. The Telefónica Deutschland Group also maintains contact with the most important leading media and technology media with the aim of representing its positions in societal, business and technology-related debates.

The Business Principles oblige the Telefónica Deutschland Group to observe transparency vis-à-vis its stakeholders. They should be given clear, truthful and easily accessible information regarding the Telefónica Deutschland Group's strategy and activities and should be able to approach the Group with questions or suggestions at any time. The corporate responsibility inbox (cr-de@telefonica.com) and the social media channels, for example, are there for this purpose. Stakeholders can also approach the company representatives and engage in dialogue with them during the Group's own events, such as at the BASECAMP. The [Human Rights Policy](#) additionally governs

interactions with the stakeholders and the human rights inbox can be reached for dialogue about and information on human rights issues. The rules of procedure published in the year under review describe the complaints procedure for reporting violations or information via the human rights reporting channel or the ombudsperson (more information on this in the "[Human rights due diligence](#)" chapter).

To guarantee ethically responsible communication with stakeholders, the Management Board adopted [guidelines for ethically responsible communication](#) in early 2022. This stipulates action guidelines for the company and its employees regarding communication channels, advertising, events and content creation. Sustainability, the protection of young people and the responsible use of resources are likewise explicitly addressed in the context of corporate communications and advertising. Based on this policy, a practical guide featuring ethical guidelines for marketing communications was developed for the employees and communication partners.

The Telefónica Deutschland Group continuously evaluates its stakeholder engagement with, for example, the RepTrak. This metric gauges society's perception of the company's performance. In the year under review, the RepTrak was at 69.7 out of 100 points (2021: 69.0). There was no expectation of a large increase in 2022 due to the political and societal developments. The target for 2022 was achieved. Society is significantly more shaped by uncertainty and scepticism both in the business field and the social one. This is having an impact on companies' reputations. The RepTrak is a factor in determining the bonus payments made to executives.

Telefónica Deutschland's stakeholder management is founded on five pillars:

- 1. Cooperation:** the Telefónica Deutschland Group communicates with its stakeholders through projects and intensive dialogue and develops future-oriented solutions together.
- 2. Dialogue:** via various formats, the company maintains close contact with its stakeholders and engages in an open dialogue – both digitally and personally.
- 3. Consultation:** the Telefónica Deutschland Group actively integrates its stakeholders, for example through surveys on classifying the relevance of current topics and their opinion of the company.
- 4. Information:** the company uses numerous channels to inform its stakeholders with regard to current developments, news concerning its topics, and offerings and products.
- 5. Empowerment and engagement:** the Telefónica Deutschland Group engages in programmes and initiatives in close cooperation with a variety of organisations to further empower stakeholder groups in the digital world.



Telefónica Deutschland in regular dialogue with its stakeholders

Telefónica Deutschland Group

Local authorities



Cities, towns and municipalities are important partners for the Telefónica Deutschland Group regarding the expansion of the network infrastructure.

- Collaboration regarding selection of network/ antenna sites
- Education and information regarding mobile communications and health
- Joint pilot projects relating to infrastructure measures
- Participation in municipal council meetings
- Involvement in communication measures regarding mobile communications and 5G at the regional level

External initiatives



The Telefónica Deutschland Group collaborates with representatives of business, science and civil society on topics relevant to sustainability.

- Participation in Bavarian Environmental Pact and Munich Business Climate Pact
- Partnership with the Global Digital Women initiative
- Involvement in #SheTransformsIT and the Chefsache initiative for greater equality of opportunities for women in digitalisation
- Dialogue in the Joint Alliance for CSR (JAC) regarding our membership of the Telefónica, S.A. Group
- "Charta der Vielfalt" (Diversity Charter)

Customers



The Telefónica Deutschland Group is in constant contact with its customers and wishes to offer them guidance and assistance in a world which is becoming more and more complex.

- Shops, hotlines, chats, innovative formats such as the O₂ pop-up shop, short videos, social media, forums (O₂ Community), messaging (WhatsApp)
- O₂ my Service App
- Aura AI voice assistant
- Informationszentrum Mobilfunk (Information Centre for Mobile Communications (IZMF)) as a knowledge portal
- Measurement of customer satisfaction all along the customer journey

Employees



The Telefónica Deutschland Group sets great store by trusting cooperation and promotes social engagement among its employees.

- Employee surveys
- Works meetings
- Events with the Management Board such as Tower Talk with the active involvement of employees via chat function, Vorstand im Dialog (Management Board in Dialogue)
- Board roadshow "Check-in mit der Zukunft" (Check-in with the future)
- TelefónicaConnects internal community for women
- DigitalBrain: AI-based knowledge management tool with employees' questions and answers
- Comments function for employees for all intranet posts
- O₂ Telefónica Run
- Fortnightly Leaders 30 Minutes executive calls
- Monthly 30 Minutes @ Work all-hands meeting
- Volunteering Week and Corporate Volunteering Day
- FEEL GOOD – information, assistance and self-help regarding health matters
- Employee engagement for aid organisations (e.g. flood disaster, Aktion Deutschland Hilft (Germany's Relief Coalition) emergency aid for Ukraine)
- Target-group-specific newsletter formats for employees and managers
- Management offsites
- Division-specific meetings and offsites

Influencers from business, politics and science



The BASECAMP is both a digital platform with the BASECAMP blog and the Telefónica Deutschland Group's debating forum and event venue in central Berlin. Right in the heart of the government district, the Telefónica Deutschland Group discusses, inspires and polarises together with players from business, politics and media to advance debate on the topic of digitalisation. In addition, there is a holistic CEO and board positioning programme for the debate on digitalisation. This includes cooperation with publishers, media, institutes, associations and start-ups as well as a dedicated audio and video format, the O₂ Telefónica TecTalk and the debate format Data Debates with the *Der Tagesspiegel* newspaper.

Event series at the BASECAMP:

- Nachgefragt! Auf ein Wort mit... (Answers sought! A word with ...)
- Masterminds
- Data Debates
- UdL Digital Talk
- FishBowl
- Kitchen Talk
- BASECAMP themed week
- O₂ Telefónica TecTalk video and audio format

Political and administrative spheres, business and associations



The Telefónica Deutschland Group seeks dialogue with political and business players and is involved in the work of associations.

- Regular dialogue with policymakers and authorities at the national, regional and local authority levels regarding network regulation, security and data protection
- Membership of relevant associations such as Bitkom, BDI, VATM, eco and econsense
- Founding member of the German government's Corporate Digital Responsibility Initiative
- Communication with the judiciary as well as with security and data protection authorities in line with the statutory requirements
- Discussion rooms for the political sphere in Berlin and active exchange of opinions regarding digital policy in hybrid events held at the BASECAMP
- BASECAMP.digital public affairs blog and social media channels
- O₂ Telefónica TecTalk video and audio format
- Transparency report on, for example, information requests submitted by government agencies

Shareholders and investors



The goal is to communicate the company's strategy and business model to capital market players transparently and comprehensibly.

- Annual General Meeting
- Regular reporting on finances, ESG and the financial year
- Capital market stakeholder management
- Separate Non-Financial Group Report and CR Report

Suppliers and business partners



The Telefónica Deutschland Group maintains fair partnerships and ongoing dialogue with its suppliers in order to design the value chain to be more sustainable.

- Supplier website and reporting channels
- Ongoing dialogue based on assessment results
- Action plans for the improvement of high-risk suppliers
- Local audits
- Genuine feedback culture

NGOs



Non-governmental organisations and non-profit initiatives are important partners and idea providers for the implementation of programmes aimed at sustainable digitalisation.

Partnerships and knowledge sharing with ongoing dialogue:

- Digital Opportunities Foundation
- German Association for Voluntary Self-Regulation of Digital Media Service Providers
- German Children's Fund
- Cybermobbing-Hilfe (Cyberbullying Support)
- AfB social & green IT
- B.A.U.M.
- Global Compact Network Germany
- NABU
- UPJ
- Klicksafe
- Initiative D21



STRATEGIC PRIORITIES

Evaluating political and societal requirements

The CR&S directorate regularly maintains direct contact with the individual departments and also exchanges information within the context of internal steering bodies such as the CR&S Committee, the Energy Committee, the Data Protection Forum, the Health Forum and the Human Rights and Environment Committee. Here, the general strategies are discussed, potential risks are evaluated, progress is established and projects and measures are assessed. The results are reported to the Management Board. When it comes to overarching specialist and Group-wide issues relevant to corporate responsibility, the Telefónica Deutschland Group confers with the Telefónica, S.A. Group.

The Telefónica Deutschland Group's actions were guided in 2022 by clear ambitions to each of the areas of action and commitments of the Responsible Business Plan 2025 as the key tool when it came to sustainability management. These commitments can only be altered through a Management Board decision in justified exceptional cases. Concrete CR targets for the ambitions and commitments are established together with the departments annually and cleared by the Telefónica Deutschland Group Management Board, the highest management level. The targets are integrated into the management processes and are made quantifiable via meaningful key performance indicators (KPIs). The extent to which the CR targets have been attained is regularly reviewed together with the senior management of the departments involved. The target attainment level is also reviewed and tracked by the Management Board every six months.

ESG ratings and sustainable corporate financing

The Telefónica Deutschland Group actively manages its ESG performance via regular analysis, from which it then derives improvement measures in the areas of environmental and climate protection, social commitment and corporate governance. It also draws on sustainability ratings for this. The Telefónica Deutschland Group improved again in the key ratings of Sustainalytics, Morgan Stanley Capital International (MSCI), ISS ESG and S&P Global in the year under review and achieved good to very good assessments. In the Sustainalytics rating, the company achieved the best ESG risk score of all the telecommunications companies in Germany and was also awarded the ESG Industry Top-Rated Badge for the second consecutive year. Globally, the Telefónica Deutschland Group was ranked third out of 223 companies in this category, with a score of 12.7. Its inclusion once again in the Bloomberg Gender-Equality Index likewise reflects this positive development. In the EcoVadis assessment, the company was awarded a "very good"/Gold rating. This assessment rates a company's business activities in the areas of the environment, labour and human rights, ethics and sustainable procurement. With an overall score of 72 out of 100 points, the company counts among the top 4% of telecommunications companies assessed by EcoVadis.

In 2019 the Telefónica Deutschland Group took out a sustainability-linked loan in the amount of EUR 750 million with a term running until 2026. With this syndicated loan, the interest margin is tied to the development of a sustainability rating created by Sustainalytics every year, which the Telefónica Deutschland

Performance in ESG ratings and indices



Note: the graphic contains the most recent assessments by institutions from 2022 or later, but based on information from this year.



Group was able to improve in all of the ESG categories assessed once again in 2022 compared with the previous years. The company has been gaining positive experience with sustainable loans which are tied to energy efficiency targets since 2016 – loan agreements totalling EUR 900 million for the construction of energy-efficient mobile communications networks have been concluded with the European Investment Bank since then.

The Telefónica, S.A. Group was included in the Dow Jones Sustainability Index (DJSI) once again in the year under review, while CDP awarded it the top mark of A for the ninth consecutive year for its global leadership in climate protection. Telefónica, S.A. is one of just 14 telecommunications providers worldwide to feature on the A-list. CDP's annual disclosure and assessment process serves as a guide for 590 investors with assets under management totalling more than USD 110 trillion.

Social debate with top decision makers

In various event series, representatives of the Telefónica Deutschland Group engage in discussions with top decision makers from the fields of politics, business, science and society to bring together different perspectives regarding digitalisation and the future of digital life. Again in 2022 the dialogue partners included federal ministers and heads of associations, scientists, journalists and representatives of civil society (more on the guests in the [overview of speakers](#)).

The Telefónica Deutschland Group celebrated the tenth anniversary of its Berlin discussion venue, the BASECAMP, in the year under review. For a week in October, everything there revolved around the latest digitalisation topics. The [programme for the themed week](#) included discussions on the topics

of the future of work, cybersecurity, the correlation between digitalisation and sustainability, and the importance of artificial intelligence.

As an initiator and partner of the *Der Tagesspiegel* newspaper's [Data Debates](#), the Telefónica Deutschland Group regularly invites high-calibre guests from the worlds of politics, business, science and culture to the BASECAMP to debate the impacts of digitalisation on society. With the installed 5G indoor campus solution, the BASECAMP makes it possible for any interested politicians, business representatives, entrepreneurs and consumers to test and familiarise themselves with the new mobile communications technology in the real world. Dialogue regarding the material 5G topics is also promoted there, for example with the [FishBowl](#) event series launched in the year under review. One chair is always left empty in order that the community can participate directly in the discussions. In the [UdL Digital Talk](#) format (UdL stands for Unter den Linden), which has been running for many years, high-ranking politicians come together with opinion leaders to discuss topical issues relating to German and European digital policy.

In the audio and [video format O₂ Telefónica TecTalk](#), CEO of the Telefónica Deutschland Group Markus Haas regularly meets renowned representatives from the fields of politics, business and society to discuss with them how to shape and expedite digitalisation and sustainability on the basis of a strong network infrastructure.

More information regarding events on topics such as the shortage of skilled workers and diversity can be found in the ["Employees"](#) chapter.

2022 CR target status and 2023 CR targets

Topic/KPI

2023 target

Sustainability aspects should be further integrated into existing management systems, compliance with sustainability regulations is to be ensured and opportunities and potential are to be exploited.

Implementation of an extensive ESG transformation programme

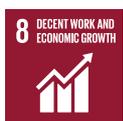
[Click here for ESG data and indices.](#)



The contribution of the Telefónica Deutschland Group to the Sustainable Development Goals (SDGs)

The 17 global goals for sustainable development (Sustainable Development Goals (SDGs)) were adopted by the United Nations in September 2015. In order to actively contribute to the SDGs, the Telefónica Deutschland Group conducted an SDG analysis in 2021

and updated it in 2022. The relevant SDGs and their sub-goals were identified for the Telefónica Deutschland Group and assigned to the Responsible Business Plan. How the company contributes to SDGs can be found in the commitments of the diagram below.



Principles of responsible corporate governance

We work with integrity in all the divisions and adhere to strict ethical principles for responsible business and promote sustainable procurement management and supplier management that include ethical, social and environmental criteria.





Compliance and ethical principles

"We act in accordance with all applicable laws, societal guidelines and values."

THE KEY FACTS:

-  The Telefónica Deutschland Group comprehensively revised its Business Principles in 2022 and introduced new mandatory training on these for its employees.
-  The company opposes all forms of corruption and reinforces this with a clear zero-tolerance commitment.
-  The whistle-blower reporting channel serves all internal and external stakeholders as an anonymous and secure channel via which to report violations of laws and regulations.

BASIC PRINCIPLE AND CHALLENGES

Legal compliance as the bedrock of our actions

Social and economic life are founded on integrity and legal conformity. Violations of rules and laws have negative economic, environmental and social impacts and can be detrimental to the upholding of human rights and equal opportunity. This can also lead to a loss of faith in the market economy. For the Telefónica Deutschland Group, compliance with the law is not only an indispensable basic prerequisite of its conduct. It also allows risks to be reduced and its business foundations to be preserved – something which would be seriously jeopardised if there is a failure to observe regulations and rules. These factors contribute to anti-corruption and conflicts of interest being identified as material non-financial topics for the company.

The Telefónica Deutschland Group is a company which customers, employees, suppliers, shareholders and society can trust. For relations founded on trust to be built up with all the stakeholders, all Telefónica employees must act with integrity, transparently and reliably at all times. Only then can they contribute to the company's good reputation.

Observing statutory requirements, international standards and internal guidelines is a matter of course for the Telefónica Deutschland Group. Its conduct is guided by its [Business Principles](#) . These were comprehensively revised in 2022 to ensure that the code of conduct continues to absolutely do justice to the latest market and societal requirements. The Business Principles are based among other things on the UN Universal Declaration of Human Rights, the core labour standards of the

International Labour Organization (ILO) and the principles of the UN Global Compact, which the Telefónica Deutschland Group declares its dedicated support for. The Business Principles are directed at the employees, suppliers, business partners and shareholders and the company as a whole. As a binding code of conduct, they set ethical, environmental and social standards for participation in the business world.

Conducting business in accordance with the principles of efficient, sustainable and transparent corporate governance is a fundamental requirement for the Telefónica Deutschland Group. It follows the guidelines of the German Corporate Governance Code (GCGC) for this purpose. The declaration of compliance with the GCGC specifications and the Management Declaration are published in the Annual Report and separately on the [company website](#) .

For the Telefónica Deutschland Group, this is about more than merely meeting statutory requirements. The Group aspires to continuing to develop and ensuring that it acts with integrity in the digital age. Digital transformation brings with it a number of legal challenges, but also offers creative scope, for example regarding the development of e-learning programmes that are the right fit for employees. The efficient embedding of the compliance management system (CMS) within the company and targeted compliance measures are contributing to risks in the area of corporate crime being proactively identified and effectively combated.



PROCESSES AND MANAGEMENT

Zero tolerance of corruption

Compliance management is of key importance to the Telefónica Deutschland Group. There is a particular focus on the subject of anti-corruption – this is because incidents of corruption can lead not only to severe financial damages, but also considerable damage to reputation. The Telefónica Deutschland Group condemns all forms of corruption and reinforces this with a clear zero-tolerance commitment in its Business Principles. Senior management staff are required to annually reconfirm recognition of this commitment and compliance with the [anti-corruption guidelines](#) 🚩. If bodies (such as the Management Board, or members thereof) see a potential conflict of interest, they disclose this to the Supervisory Board.

All employees are given regular instruction in anti-corruption and conflicts of interest as part of mandatory training on the Business Principles. The employees also have the opportunity to improve their knowledge regarding anti-corruption by means of voluntary intensive training.

Digitalisation is also causing companies' business processes to change. Compliance management systems (CMS) therefore have to be permanently reviewed and, if necessary, adapted in order to be able to proactively identify risks and effectively manage them. The Telefónica Deutschland Group seeks to preclude unfair practices such as corruption, corporate crime and fraud as best it can with preventive measures and, should it not manage this in isolated cases, to systematically uncover these practices and modify the measures if necessary.

Certification of the compliance management system

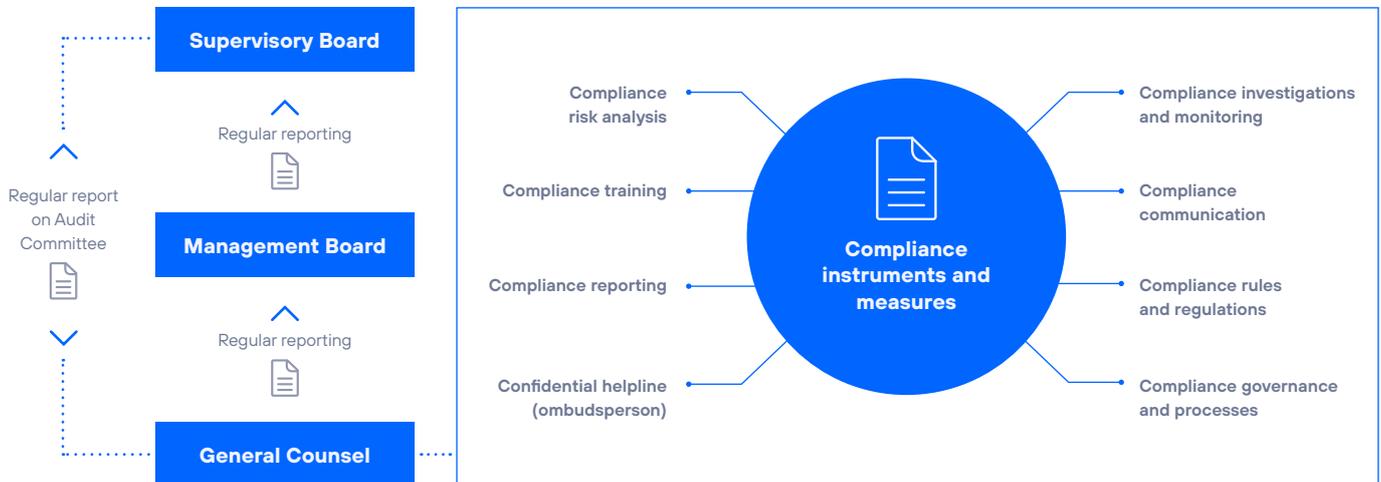
The Telefónica Deutschland Group's success is founded on its customers' trust. A key objective is therefore to maintain and continuously strengthen this trust. The Telefónica Deutschland Group absolutely wants to avoid financial disadvantages or damage to its reputation resulting from compliance violations. It has therefore had an integrated CMS since 2004 that guarantees its guidelines are kept to. The main emphases of the CMS include combating corruption and preventing unfair competition and conflicts of interest. Overall responsibility for this lies with the General Counsel, who reports to the Chief Officer for Legal and Corporate Affairs. The Management Board and Supervisory Board of the Telefónica Deutschland Group are regularly notified about compliance activities and the ongoing development of the CMS. BDO AG Wirtschaftsprüfungsgesellschaft audited and certified the anti-corruption subsection of the CMS in accordance with the IDW AsS 980 standard in 2021. This confirmed that the

Telefónica Deutschland Group's CMS features all the elements relevant to the detection of compliance violations and that these are implemented and regularly checked.

The Telefónica Deutschland Group has defined clear guidelines and specifications for the most important compliance aspects that affect daily business. In addition to the Business Principles, they include corruption prevention and competition law guidelines, guidelines on how to handle conflicts of interest, invitations, gifts and incentives, and the Human Rights Policy. Regulations relating to the procurement of services also apply, such as the procedural instructions for how to conduct business with service providers.

To guarantee the legally watertight and responsible handling of tip-offs, complaints and anonymous reports from stakeholders and third parties who are potentially affected, the Telefónica Deutschland Group defined a whistle-blower policy that formalised the process which had been practised for many years. The internal policy was revised in 2022 in order to integrate the requirements of Germany's new Act on Corporate Due Diligence Obligations in Supply Chains (LkSG). The [whistle-blower reporting channel](#) 🚩 (confidential helpline) is there for all employees, external staff, customers, suppliers, shareholders, partners and other stakeholders to use as an anonymous and secure channel via which to report violations of laws or regulations. The Telefónica Deutschland Group's whistle-blower policy explicitly stipulates that whistle-blowers may not suffer any negative consequences. The protection of whistle-blowers from being disadvantaged is guaranteed through the involvement of an external lawyer who serves as an ombudsperson. Information regarding human rights and environment-related risks, the violation of human rights or environment-related duties, corruption and other criminal acts such as fraud and embezzlement as well as violations of competition law can be reported to them in confidence. The [human rights inbox](#) 🚩 serves as another channel for whistle-blowers. Even though the reports made here are not anonymous, the whistle-blowers are nevertheless afforded extensive protection by the contractually agreed impartiality, autonomy and independence as well as confidentiality of those charged with handling the complaints procedure. This enables the Telefónica Deutschland Group to involve whistle-blowers in the procedure, thereby boosting the transparency of and people's faith in the procedure. All complaints are documented in order to review the grievance mechanism and derive improvements.

Compliance at the Telefónica Deutschland Group



STRATEGIC PRIORITIES

Involving stakeholders in prevention

Keeping the employees closely involved is essential to implementing the compliance measures. The Telefónica Deutschland Group achieves this through targeted communication as well as surveys and training. Business partners and suppliers are also subject to binding specifications. The company obliges its suppliers and sub-suppliers to comply with the [Supply Chain Sustainability Policy](#) 🏠, has published a [human rights policy](#) 🏠 with guidelines for the employees and is represented within industry associations. New suppliers must consent to the anti-corruption declaration as part of the registration process.

To permanently sensitise its employees to important compliance issues, the Telefónica Deutschland Group conducts, among other things, training online and at set intervals of between one and three years. There is mandatory participation in training on, for example, the Business Principles every three years, data protection annually, information security every two years and Germany’s General Act on Equal Treatment (AGG) every three years. The AGG promotes diversity and combats workplace discrimination. Executives at the top management level are also explicitly required to commit to complying with the Business Principles and anti-corruption guidelines and are given training on this. Human rights issues are addressed here too. Senior management employees are required to digitally confirm that they have reviewed the Business Principles annually. Up to the end of 2022 84.3% of all the employees had been given training

on the Business Principles in the past three years, equating to a total of 6,055 training hours.¹

Participation in training is managed by the human resources system Success Factors. All employees receive automatic reminder emails as soon as they are due for mandatory training. Upon completion of the training, an electronic certificate attesting to the employee’s successful participation is added to the system. The current level of training is reported to the Audit Committee, a Supervisory Board body, once per quarter. The Management Board likewise receives a quarterly report on the status of the conducting of mandatory compliance training, broken down by Management Board areas of responsibility. The Telefónica Deutschland Group continually reviews its training concept and adapts it to current developments and the actual needs. After the Business Principles were revised, the corresponding training for all employees was likewise adapted in 2022. There is now an even greater focus on environmental, social and governance (ESG) topics so that the Telefónica Deutschland Group can drive the company’s sustainable transformation forward together with its employees. Human rights and sustainable supply chain management, climate responsibility, the circular economy and the responsible use of digital technologies are just a few examples of topics included in the revised training. The employees were made aware of the changes via various internal communication channels.

Since 2021 the Telefónica Deutschland Group has been using a new e-learning programme it developed itself based on the risk assessment performed in 2020 on the topic of anti-corruption

¹ Proportion based on number of employees of the Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation includes the completed training units of the last three years. For 2022, this means 6,055 completed training units between 1 January 2020 and 31 December 2022.



and conflicts of interest. This allows the relevant employee groups to be even better sensitised to the topic. In addition to the legal basics, the training covers the types of corruption and conflicts of interest that the employees could encounter in their day-to-day work as well as how to identify and adequately respond to attempted bribery. Moreover, the learning content goes into greater detail with the help of practical examples.

Furthermore, there is ad hoc communication on topics relevant to corruption, for example emails and information on the intranet. If required, the Compliance department offers employees and bodies such as those of the employee representatives advice on all matters concerning ethical conduct and acting with integrity. The Telefónica Deutschland Group carries out ad hoc and process-accompanying examinations and consultations with regard to potential compliance risks. The Internal Audit department and external auditors continually review the CMS as well as the measures for preventing corruption.

Careful investigation of allegations

The Telefónica Deutschland Group regularly conducts risk assessments in the areas of corruption and conflicts of interest for Telefónica Germany GmbH & Co. OHG and all the subsidiaries; these were most recently done in 2020. All suspected cases of unfair practices such as corruption and the taking and giving of bribes that come to its attention are carefully examined. Any substantiated accusations are rigorously pursued and penalties are imposed accordingly. The integrated CMS helps detect cases of corruption throughout the company and prevent them to the fullest extent possible using suitable measures. Here, the company defines cases of corruption as any form of misuse of a professional position to obtain unauthorised tangible or intangible advantages.

Anti-corruption and conflicts of interest

	Unit	2022	2021	2020
Total number of cases of corruption ¹	Number	0	0	0

¹ Confirmed suspected cases that led to measures related to labour law or sanctions

The Telefónica Deutschland Group received no reports of suspected cases of corrupt conduct in the reporting year 2022. As a result, no labour law sanctions were imposed on any employees. Court cases relating to AGG violations are recorded by the Human Resources department; no incidents were reported to the department in the reporting year 2022. Likewise, no violations of the freedom of association or of collective bargaining came to the Group’s attention in the reporting year. The company did not make any donations to political parties in 2022.

During the reporting period, no proceedings were brought against the Telefónica Deutschland Group on the basis of anti-competitive behaviour, cartelisation or monopolisation. Four complaints were made regarding unfair competition violations which involved four objections being made to their advertising conduct. No complaints were lodged regarding environmental impacts. Additionally, no fines or non-monetary sanctions were imposed due to failure to comply with environmental protection laws and regulations. The company does not know how many sets of fine proceedings were under way in the reporting year on the basis of violating the ordinance on the procedure for providing proof as regards limiting exposure to electromagnetic fields. Administrative delays mean it is also currently not possible to estimate the volume and number of potential fines.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Total number of cases of corruption	Confirmed cases of corruption which resulted in labour law measures or sanctions	0	0	0
Business Principles training level	Proportion of employees and directors given training in the Business Principles and human rights	> 90%	84.3%	> 90%

[Click here for ESG data and indices.](#)



Data protection and information security

“We work to ensure customers retain sovereignty over their data and remain the masters of their digital lives.”

THE KEY FACTS:



Implementation of measures focusing on the rights and freedoms of those concerned related to the confidentiality of communications, the protection of personal data and the security of the information transported via the company's networks.



The Telefónica Deutschland Group further expanded its data protection guidance for employees and is bringing day-to-day data protection risks to people's attention via a new awareness campaign.



Zero Impact process model aimed at strengthening the telecommunication industry's resilience to cyberattacks successfully implemented.

BASIC PRINCIPLE AND CHALLENGES

Responsible digitalisation calls for data protection and information security that are rigorous

The security and protection of personal data are of crucial importance to the Telefónica Deutschland Group as the digital transformation will only be successful if people have faith in the company and in how it handles sensitive data. Data is generated and processed as part of the Telefónica Deutschland Group's core business. Every day, millions of customers place their trust in its mobile network and services. The company is aware of the responsibility that comes along with this – the Telefónica Deutschland Group sets especially great store by the rights and freedoms of persons concerned related to the confidentiality of communications, the protection of personal data and the security of the information transported via its networks. It wishes to ensure that people remain in control of their data.

The Telefónica Deutschland Group guarantees data protection and information security on the basis of the relevant laws and regulations as well as detailed internal requirements, some of which go above and beyond the legal requirements. In doing so, it pays particular attention to the protection of children and young people (more information on this in the [“Human rights due diligence”](#) chapter). It also makes a commitment in its [Business Principles](#) to data protection and observing information security and transparency. The Telefónica Deutschland Group treats personal and sensitive data confidentially and protects this data from any unauthorised access by third parties. In this context, the company has made a commitment to recognising the [CDR Code](#) of the Corporate Digital Responsibility (CDR)

Initiative. In its [CDR report on measures](#), the Telefónica Deutschland Group focuses on data handling.

The Telefónica Deutschland Group wishes to ensure that the data of its customers, employees, partners and investors is protected and is used in compliance with the data protection regulations throughout its processes and products. In this way, the company also protects itself: legal compliance in this area is essential for its reputation and for customer retention, both of which are crucial to business success. It also plays an important part in risk prevention as sanctions such as fines are then effectively avoided.

Current developments and challenges

The use of digital formats and the now preferred option of working from home have resulted in new data protection and information security challenges. In addition, major company-wide IT projects in which the infrastructure is rearranged and data is transferred to the cloud call for careful planning and consideration of the data protection and information security requirements.

When the war in Ukraine started, the Telefónica Deutschland Group reassessed the threat of cyberattacks and raised this risk's probability of occurrence. The number of attacks on the company and its infrastructure fluctuates, but is generally on the rise. To offer the company and its customers' data the best possible protection, the Telefónica Deutschland Group engages in intensive dialogue with government agencies and monitors the critical infrastructure to strengthen the resilience of its



networks. Should the network or the services offered become compromised due to cyberattacks, this could have negative economic impacts on business customers and personal impacts on private customers such as restricting their right to freedom of speech or their privacy. The Telefónica Deutschland Group runs its Cyber Defence Centre to prevent this.

In 2022 the Telefónica Deutschland Group again rigorously implemented the newest laws and regulations regarding data protection and information security. These included the tightening of the legal situation regarding the transfer of data to non-EU countries as a result of the Schrems II ruling, the amendment of Germany's Telecommunications Act (TKG) and the introduction of the Telecommunications Telemedia Data Protection Act (TTDSG) in late 2021, the Catalogue of Security Requirements 2.0 and other new guidance on legal issues relating to data protection and security in the digital world. The TTDSG encompasses the main data protection regulations for telecommunications and telemedia services for greater legal clarity regarding the protection of privacy in the digital world. The Telefónica Deutschland Group engaged in intensive dialogue with the competent authorities in the year under review to clarify practical questions regarding the application of this law. The company also addressed the standard contractual clauses for international data transfers as adopted by the European Commission in 2021. The new European Data Protection Board guidelines were published as recommendations in early 2022, containing rule examples in the event of data protection incidents and therefore serving as an important aid for the GDPR-compliant interpretation and evaluation of such incidents within the company.

PROCESSES AND MANAGEMENT

Clear rules and processes established

Clear rules and processes help to systematically meet the data protection requirements, guarantee information security and ensure that the relevant laws and regulations are complied with. This involves the Telefónica Deutschland Group regularly revising existing and adopting new guidelines if additional regulatory needs are identified and then implementing these in the company. The decisive frameworks include the Group's data protection standard, which forms the foundation of the data protection management system (DPMS) together with the guidelines concerning data protection. These clearly present the principles the company applies when handling data and in its communication with its customers and the public in an internal guidance document. The Group's data protection standard was revised in 2022 to accommodate the advanced implementation of the DPMS in operations and integrate the fully developed

standard data protection process with comprehensive responsibilities.

The internal guidelines concerning security (Global Security Policy) and rules for minimum security requirements (Minimum Security Controls) apply throughout the organisation. These are supplemented by a wealth of additional guidelines, standards and procedural instructions on various aspects of data protection and security. These include the guidelines for reporting data protection and information security incidents, the guidelines on data protection information obligations, the guidelines on data protection agreements, the checklist for the rights of data subjects in accordance with the General Data Protection Regulation (GDPR) regarding the processing of users'/customers' data, the Privacy Consulting Process (PCP), the guidelines on the use of social apps, and various procedural instructions. The approach taken to identifying and minimising information security risks is documented in the security concept in accordance with Section 166 of the Telecommunications Act (TKG). The company's privacy policy contains clear guidelines on the protection of personal data that often go above and beyond the statutory specifications. All the employees receive annual mandatory training on data protection. All employees are additionally obliged to observe data and telecommunications secrecy.

The Data Protection Officer and Chief Security Officer are responsible for the management and strategic focus of data protection and information security. They report directly to the Telefónica Deutschland Group's Management Board member responsible for Legal and Corporate Affairs. The full Management Board is thoroughly briefed on information security and data protection at least twice every quarter. In addition to the company's Security Committee, which meets regularly, and the Deep Dive Data Protection, reports on these areas are also regularly submitted to the Supervisory Board's Audit Committee; this was the case four times in the financial year 2022. The Chair of the Audit Committee reports to the Supervisory Board on the activities of the Audit Committee, while the Management Board member responsible for Legal and Corporate Affairs reports to the Supervisory Board on special topics.



Objectives: preventing violations and increasing security

Before data is processed, standardised checks are performed within the IT development and analysis processes as well as in other division-specific processes. The Telefónica Deutschland Group's objectives in the area of data protection and information security are:

- Continuously making the company more secure
- Ruling out the initiation of proceedings due to the violation of data protection regulations by achieving the best possible compliance with the data protection regulations
- Presenting data usage transparently
- Being able to react swiftly to major disruptions and dangerous situations that may occur, such as network failures, data misuse and bomb threats
- Localising areas of action pertaining to information security

The Telefónica Deutschland Group systematically establishes efficient structures and processes to prevent violations in the areas of data protection and information security. With the company-wide data protection management system (DPMS) and information security management system (ISMS), the company manages the processes that secure data protection standards, targets, responsibilities and training as well as regular checking of measures that have been implemented. The ISMS is based on the ISO 27001 standard, and the company will seek to acquire certification in 2023. Information security managers and data protection coordinators have additionally been established in the departments as fixed points of contact in order to improve management of the DPMS. In addition to the checks performed by Internal Audit, the departments' systems and processes are regularly subjected to internal security and data protection assessments.

The Telefónica Deutschland Group's Cyber Defence Centre (CDC) is staffed around the clock in order to reduce the company's cyber risks. The CDC is a central security centre that protects the company from cyberattacks and additionally takes up indications of risks from other relevant sources (e.g. the Internet) in order to initiate preventive action. Here, key events in the company's own networks and online are permanently analysed and evaluated. This helps to identify attacks and minimise their impacts with quick reactions. The Telefónica Deutschland Group also responds to the consequences of the ever-increasing threat of cybercrime with mitigating measures as part of its risk management for information security and data protection.

Handling data protection incidents

The Telefónica Deutschland Group handles all the data of customers, employees, shareholders, suppliers and other companies absolutely confidentially. If it uses service providers' data, it meticulously determines whether adequate data protection agreements and regulations have been concluded. If in doubt, the Data Protection Officer is involved.

The company works with business partners who accept its data protection rules in accordance with the guidelines on data protection agreements and the corresponding agreements. For example, suppliers must contractually commit to complying with the Telefónica Deutschland Group's [Supply Chain Sustainability Policy](#) as well as the requirements stipulated therein regarding the observance of national and international data protection standards. The company also conducts data protection and information security audits, among other things at its service providers' sites. Likewise, the Telefónica Deutschland Group has clear processes and regulations in place for involving subcontractors and sets corresponding requirements for contracts. The agreements with distribution partners were revised in 2022, with new obligations being introduced regarding self-regulation and the regulation of sub-distribution partners. Additionally, company processes are reviewed again and again by the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur) and the Federal Commissioner for Data Protection and Freedom of Information (BfDI) as the competent authorities.

The Telefónica Deutschland Group also has set rules in place for reporting data protection and security incidents; these are set out in the guidelines on security incidents and in the rules of procedure for data protection incidents and are communicated within the company. The [data protection hotline](#) serves customers and employees as a first, conveniently reached point of contact for the reporting of incidents. In the event of complaints, suppliers and their employees can also contact the company via the Telefónica Deutschland Group's supplier platform, via an [ombudsperson](#) or via the [human rights channel](#).

Employees are required to report data protection incidents or suspected cases to their superiors and to the company's Data Protection Officer. A reporting form is available online for this. In the event of a data protection incident, the Telefónica Deutschland Group must notify the data protection supervisory authorities immediately. A time limit of within 24 hours applies if the incident also relates to traffic data; otherwise the deadline is within 72 hours. Reports are made to the competent authorities



by the Data Protection Officer or their team. If it can be assumed that violation of the protection of personal data will also seriously compromise people in their rights or legitimate interests, these individuals must likewise be notified of the incident.

In the past business year, three sets of proceedings were initiated due to possible data protection violations and possible infringement of the legal provisions in this area. However, two sets of proceedings were resolved by way of settlement. The third case will be pursued in the coming business year. No penalties in the form of legally binding fines were imposed as a result of data protection violations or infringement of the legal provisions in this area.

26 reportable security breaches or incidents with regard to confidentiality, integrity and availability in connection with network and information security were identified in 2022. The incidents relate exclusively to the protection goal of availability and are attributable among other things to carrier or network element disruptions. No penalties in the form of fines were imposed on the basis of security violations or other incidents relating to network security.

Data protection and information security

	2022	2021	2020
Proceedings initiated due to data protection violations (Section 169 German Telecommunications Act (TKG)) ¹	1	0	3
Penalties in the form of fines as a result of data protection violations in the reporting year	0	0	0
Reportable security breaches or incidents relating to information and network security	26	16	25
Penalties in the form of fines paid in relation to security breaches or other network security incidents	0	0	0

¹ Proceedings initiated during the reporting period are to be understood as proceedings that are ongoing and have not been concluded. Three sets of proceedings from the 2020 financial year were still ongoing in the current reporting year. It is currently not foreseeable whether these will be concluded in the coming reporting year. Concluded procedures generally lead to a penalty, a fine or abandonment of the proceedings as a result of the authority's suspicion not being borne out. Fines are reported in the indicator "penalties in the form of fines as a result of data protection violations in the reporting year".

¹ Proportion based on number of employees of the Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation for data protection only includes the training completed in the reporting year 2022, as this training is mandatory every year.

² Proportion based on number of employees of the Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation for information security includes the training completed in the reporting years 2021 and 2022, as this training is mandatory every two years. For 2022 this means 6,658 completed training units between 1 January 2021 and 31 December 2022.

STRATEGIC PRIORITIES

Raising awareness and educating

The Telefónica Deutschland Group provides regular, targeted and comprehensible information about how it processes data. It bases its actions on the principles of self-determination, transparency, protecting personal data, and innovation as enshrined in its guidelines regarding data protection. The customers are provided with data protection information concerning their contracts upon concluding a contract and, upon request, at any time during the term of their contract. They can also obtain information on the company's data processing from the website.

The most important information tools the customers can access in a direct and targeted manner include the Telefónica Deutschland Group's [data protection website](#) and its brands' respective data protection websites. These explain in detail what types of data the Telefónica Deutschland Group processes, how it protects its customers' data and what they themselves can do to protect their data. Consumers can also exercise their rights in accordance with the GDPR there. Via the consent management section, they can give or revoke their consent to data processing for direct purposes at any time. This means they maintain control over their data.

The employees of the Telefónica Deutschland Group regularly undergo mandatory training in the area of data protection and information security, including with the support of external data protection and security experts. Data protection coordinators who serve as an interface between a department's staff and the data protection team are regularly given especially extensive training. In the 2022 reporting year, 85.6% of the employees¹ took part in mandatory annual data protection training; this equates to 6,145 hours of training. The biennial mandatory training on information security was completed by 92.7% of the employees² in the past two years, equating to 4,994 training hours. The Telefónica Deutschland Group intends to further increase this proportion.

The Group was able to offer the employees more in-person workshops again in the year under review, including a workshop for the data protection team in Nuremberg given by the Data Protection Officer and a workshop for all the departments' data protection coordinators. In this way, the company not only raised the employees' awareness regarding the processing of personal



data in day-to-day business, but also advanced the expansion and sharing of data protection expertise in the departments.

The Telefónica Deutschland Group launched a new company-wide data protection awareness campaign in 2022, with posters put up in heavily frequented areas in the regional offices to bring data protection risks in day-to-day work to people's attention. The company held a live hacking session in November in which the participants were familiarised with a number of hacking techniques and learned how people can protect themselves against these.

The data protection team published further recommendations for employees on the Data Protection Officer's internal website in the year under review to make handling data protection issues easier. These include incident management overviews and a tool which makes it easier to find the right contractual wording for the processing of personal data.

Data protection advice as a core responsibility

In accordance with the GDPR, the effective protection of personal data must already be adequately implemented when a process or application is conceived ("privacy by design") and configured ("privacy by default"). The Telefónica Deutschland Group assists its employees in observing and documenting all the measures required for data protection with its own tools and checklists. The GDPR additionally obliges all division heads to structure and manage their data protection measures in a risk-oriented way.

A new platform that serves as a centralised data protection management system simplifies the process of advising employees. For example, it enables them to work according to fixed workflows that make data protection advice more transparent and more efficient. The platform is being continuously expanded and is set to gradually replace other tools.

The Telefónica Deutschland Group further improved the intranet chatbot introduced in the previous year in 2022 in order that more and more questions can be answered straightforwardly. In addition, the database of questions and answers was fed into the bot made available company-wide via the Microsoft Teams collaboration platform, to provide the employees with the answers directly in their work context. For recurring requests, such as for the right contract templates for various constellations, that the bot is unable to answer due to a more complex decision-making logic, the company published a "contract finder" on the intranet which walks the staff through predefined questions to help them with day-to-day tasks.

Data collection and processing

The Telefónica Deutschland Group only uses its customers' data which specifically relates to their contractual relationship, and every instance of data analysis seeks to ease/improve execution of the contractual relationship with the customers. For example, the company collects customers' names, addresses and bank details as well as information regarding the products, services and tariffs used by the customers and other data needed for contract processing. Special types of personal data such as details regarding ethnic origin, political opinions or sexual orientation are not collected. Nor does the company buy personal data regarding its customers.

The Telefónica Deutschland Group collects and uses personal data in the context of the strict specifications of Germany's Telecommunications Act (TKG) and of the GDPR. This equally applies to traffic data generated when mobile phones use the mobile communications network for surfing or making calls. This data is used among other things for billing purposes and to remedy disruptions. It is erased at the latest after 90 or, in certain exceptional cases, 180 days. The company neither collects nor uses behaviour-based data that gives insight into people's vulnerabilities or dependencies or could enable inappropriate manipulation. Customers are provided with transparent information which explains that certain data is analysed for marketing purposes and is used for the placement of advertising. They may object to this data usage.

Using well-planned modelling and analysis design as well as corresponding quality assurance, the Telefónica Deutschland Group wishes to ensure that its algorithmic systems do not exclude anyone from its services without a legitimate rational reason. The employees are sensitised to the topic of discrimination by means of training, for example regarding Germany's General Act on Equal Treatment (AGG). This knowledge should assist them in identifying and tackling potential cases of discrimination in the modelling process.

The Telefónica Deutschland Group anonymises and aggregates data for analysis purposes, using it to calculate anonymised and extrapolated movement flows. The analysis results offer important insights which are relevant to companies in a variety of sectors as well as local authorities, public transport companies and society as a whole. The Telefónica Deutschland Group developed a three-stage anonymisation process – the Telefónica [Data Anonymization Platform \(DAP\)](#) – for this which strictly observes the data protection requirements. Its aim is to ensure that no inferences can be made about individuals when statistics are generated (examples of the benefits of anonymised movement flows are listed in the "[Network quality and coverage](#)" chapter).



Data protection and security standards further increased

The Telefónica Deutschland Group further optimised its information security management system and continued to enhance the risk management process in the year under review. It is also increasing its data protection standards with the ongoing training of the data protection coordinators in the departments.

To progressively optimise the standards for the protection of customer and employee data, the company continues to work on introducing new and revising existing security processes. Additional security and verification mechanisms were implemented in 2022 as part of the Close the Gap project, such as expansion of the text message TAN authentication process. Work on optimising authentication in the online ordering process is currently ongoing. There are also plans for the further pseudonymisation of personal data.

The Telefónica Deutschland Group is increasingly transferring data to the cloud, not only to increase failure safety and reduce operating costs, but also in particular to be able to promptly offer its customers tailored solutions. It engaged in intensive consultation with the regulatory authorities in the run-up to this, and a comprehensive security concept was submitted to the competent regulatory authority (Bundesnetzagentur).

In close cooperation with Deutsche Telekom and Vodafone, the Telefónica Deutschland Group realised a shared process model called Zero Impact to strengthen the telecommunications industry's resilience where cyberattacks are concerned. The focus of this joint initiative was on the network providers' operational security and on establishing a comparable and improved company security level. This involved core security competencies being identified and potential attack scenarios being developed. The project initiated within the Telefónica Deutschland Group was successfully concluded in 2022. The Telefónica Deutschland Group identified an array of measures with which to further increase security throughout the Group.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Penalties in the form of fines	Penalties in the form of fines as a result of data protection violations in the reporting year	0	0	0
Penalties or fines as a result of security incidents	Penalties or fines as a result of security incidents in the reporting year	0	0	0
High level of employee awareness regarding information security	Percentage of employees who successfully completed online training on information security	90%	92.7%	90%

[Click here for ESG data and indices.](#)



Sustainable supply chain management

“We take sustainability criteria into account in our purchasing processes and are dedicated to environmental, social and, above all, human rights standards throughout our supply chain.”

THE KEY FACTS:

-  The Telefónica Deutschland Group has adapted its Supply Chain Sustainability Policy and other policies to the requirements of the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG).
-  In the context of a new risk management system, all direct suppliers will be audited on the basis of ethical, social and environmental criteria.
-  A new whistle-blower procedure enables direct and indirect suppliers and their employees to report tip-offs or complaints.

BASIC PRINCIPLE AND CHALLENGES

Shaping purchasing responsibly

Protecting people and the environment is important to the Telefónica Deutschland Group in complex global supply chains too. It champions the observance of human rights all along its supply chain and promotes sustainable supply chain management that includes ethical, social and environmental criteria. In this way, the company intends to contribute to the upholding of human dignity, combat poverty and climate change, protect employee rights and create a safe work environment around the world.

The Telefónica Deutschland Group endeavours to do justice to the increasing expectations of its stakeholders as well as to the requirements pursuant to international frameworks regarding sustainable value creation. For the company, these include in particular the Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights, the United Nations Convention on the Rights of the Child, the Conventions of the International Labour Organization (ILO), the guidelines of the Organisation for Economic Co-operation and Development (OECD), the UN Global Compact, the SDGs and the ISO standards.

Making supplier relations sustainable enables the Telefónica Deutschland Group to reduce the risk of any regulations being violated. This is dependent upon there being maximum transparency, which the company wishes to achieve by analysing its supply chain structures and identifying country-specific and product-specific risks. In the course of its materiality

analysis, the Telefónica Deutschland Group ascertained that all along the value chain it ought to seize numerous opportunities with scope for influence in order to improve the social and environmental situation. It is committed to making the most of these opportunities on the basis of efficient and responsible supplier management. The topic of human rights is highly relevant to the Telefónica Deutschland Group and it recognises extensive impact potential within its own operations and those of its direct suppliers.

Stable and fair supply chains as the target

The Telefónica Deutschland Group sets great store by balanced and trusting relations with its suppliers, all of whom are jointly committed to offering the customers quality, innovation and satisfaction. The products and services the Telefónica Deutschland Group offers are the result of relations with business partners and suppliers which are beneficial for both sides.

The German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), which was passed and entered into force in Germany on 1 January 2023, increases the demands made on companies regarding compliance with human rights throughout the supply chain. The Telefónica Deutschland Group supports the legislation's objective of establishing stable and fair supply chains in which high human rights and environmental standards apply and actively worked to make the modifications needed within the organisation in relation to the new legislation in the year under review.



The COVID-19 pandemic continues to result in supply bottlenecks. The global semiconductor shortage, which is affecting all sectors including the telecommunications industry, was still making itself felt in 2022. While the impacts on mobile devices diminished in the second half of the reporting year, long delivery times remain for routers in particular. The shortage will also affect SIM card costs in 2023.

The Telefónica Deutschland Group is committed to sustainable procurement management and supplier management. This stance is based on its Business Principles and the principles of integrity, reliability and transparency. In this way, the company encourages its suppliers to observe not only quality standards regarding products and services, but also legal requirements as well as ethical, social, environmental and data protection standards throughout the supply chain. In addition, the Telefónica Deutschland Group sets great store by efficiency and innovation, supported by new technologies and a procurement process that has been digitalised to the fullest extent possible. It strives for long-term collaboration with its suppliers through fair partnerships. Promoting dialogue, including on critical topics, is a matter of particular importance here.

However, the Telefónica Deutschland Group only has limited scope for action in upstream supply chains. Furthermore, it is not a production company. The end devices used and the network infrastructure including the transmitter masts are not manufactured by the company. Additionally, the global market is very limited in the areas of smartphones and network equipment, and the suppliers active in these areas are difficult to substitute.

Telefónica, S.A. and the Telefónica Deutschland Group champion greater transparency and sustainability in the supply chain in international multi-stakeholder initiatives, for example with membership of the Responsible Minerals Initiative (RMI). Through Telefónica, S.A., the Telefónica Deutschland Group additionally belongs to the Joint Alliance for CSR (JAC)¹, which brings together the world's largest telecommunications companies. In addition to knowledge sharing, the JAC's primary

aim is to make carrying out supplier audits efficient and uniform at the global level for all of its member companies. The Telefónica Deutschland Group works closely with Telefónica, S.A. on current topics, involvement in the initiatives, supplier audits and supplier assessments. In the year under review Telefónica, S.A. and the Telefónica Deutschland Group switched from EcoVadis to the risk management platform IntegrityNext for supplier assessments and risk analyses in the upstream value chain.

PROCESSES AND MANAGEMENT

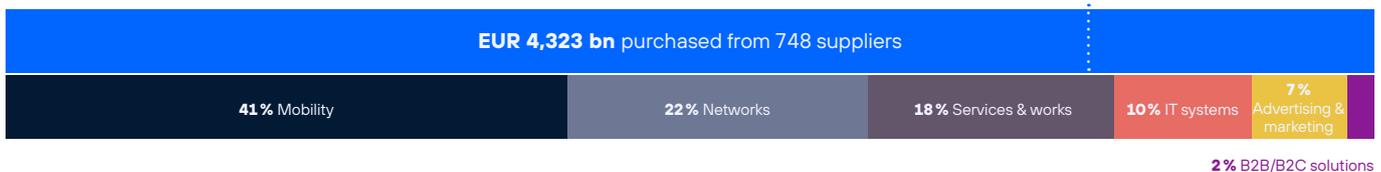
Clear responsibilities and requirements defined for suppliers

Telefónica Global Services GmbH (TGS), a subsidiary of Telefónica, S.A. and a contractual partner of the Telefónica Deutschland Group, manages the processes surrounding the purchase of goods and services, including the registration of new suppliers, while process authority lies with the global company Telefónica Compras Electrónicas (TCE). TCE is responsible for strategy, development and use of the e-commerce tools used in the procurement process. The majority of Telefónica Deutschland Group suppliers are listed in the global purchasing model (MCT), which sets out a standardised procurement process within Telefónica, S.A. This model is in accordance with the Telefónica Deutschland Group's Business Principles and is based on transparency, equal opportunity, objective decision-making and the sustainable management of its supply chain. A distinction is made between MCT procurement processes, these being handled by the Purchasing department, and non-MCT procurement processes and low-value purchase processes, which are effected without the involvement of Purchasing. Telefónica, S.A. has implemented a new digital purchasing system, including in Germany in January 2022, which, unlike its predecessor, is cloud-based and which continues to provide all the buyers with information regarding financial risks (Dun & Bradstreet), risks related to ethical conduct and corruption (Dow Jones Risk & Compliance), ESG risks (in particular human rights and environmental aspects) and reputation risks.

Impact of our business on society

Volume of purchases awarded, %/total

79% of which purchased from suppliers in Germany



¹The Joint Audit Cooperation has been transformed into a legal entity under the legal form of an international non-profit association under the new name Joint Alliance for CSR (JAC).



The Telefónica Deutschland Group works with the Group's national companies around the world and is in close contact with TGS and Telefónica, S.A. TGS coordinates its activities closely with the Telefónica Deutschland Group's Corporate Responsibility and Sustainability (CR&S), Compliance, Legal and Data Protection departments to achieve supply chain sustainability. TGS is also represented on the Human Rights and Environment Committee and, if needed, on the Energy Committee. TCE uses the centralised purchasing system to provide TGS buyers with ESG-relevant criteria regarding suppliers that pose a risk in the form of the EcoVadis score and, newly since the end of the reporting year, the IntegrityNext assessment. CR&S reports on sustainable supply chain management and risk management to the Chief Officer for Legal and Corporate Affairs.

The key guidelines and standards that serve the Telefónica Deutschland Group as principles of action for sustainable and responsible supply chain management include:

- The Supply Chain Sustainability Policy
- The purchasing guidelines
- The General Conditions for the Supply of Goods & Services
- The Human Rights Policy
- The anti-corruption guidelines
- The anti-discrimination policy
- The Equality Policy
- The Group's data protection standard
- The security policy
- The health policy including the manual on occupational health and safety management
- The environmental and energy policies
- The low-carbon procurement guidelines

Supplier code of conduct sets minimum standards

Sustainable supplier management is part of the Telefónica Deutschland Group's Responsible Business Plan 2025. There is a focus here in particular on topics related to the supply chain that have a big social and environmental impact. Collaboration with suppliers is founded on the [Supply Chain Sustainability Policy \(SCSP\)](#) , a supplier code of conduct which is complemented by the internal Supplier Management Instruction. This policy has its origins in the Telefónica Deutschland Group's [Business Principles](#) , the [Declaration of Principles on Respecting Human Rights](#)  and the [Human Rights Policy](#) , all of which constitute the reference framework for the company's relationship with its various stakeholders.

The SCSP applies to all purchases of products and services and refers to the entirety of Telefónica Deutschland's supply chain. It constitutes a component of the purchase contracts with effect

for direct as well as indirect suppliers. This means direct suppliers must likewise suitably establish within their supply chains the standards and due diligence obligations agreed herein and shall react to and bear responsibility without limitations for violations within their own supply chain of the minimum standards contained in this policy. The chart on page 39 gives a complete overview of the minimum requirements.

Any company that wishes to be considered as a Telefónica Deutschland Group supplier is obliged to observe the minimum requirements and the expectations with regard to human rights and the environment enshrined in the Telefónica Deutschland Group's framework and to address these appropriately throughout its own supply chain. Irrespective of the supplier's own obligations pursuant to the LkSG, this includes the appropriate observation of human rights and environmental due diligence obligations. The aim is to prevent and minimise human rights and environmental risks and bring to an end the violation of human rights and environmental obligations. Breaches of the aforementioned standards, obligations and prohibitions by a supplier or sub-supplier are also considered a breach of the relevant supply contract and, if the corresponding further prerequisites exist, give the Telefónica Deutschland Group the right to terminate its commercial relationship with the supplier.

In the SCSP, the Telefónica Deutschland Group undertakes to always act ethically and responsibly in its relations with suppliers. Among other things, this involves using mechanisms that ensure appropriate transparency in procurement management and, especially in negotiations with suppliers and in the decision-making process for the awarding of contracts, allowing suppliers to raise any questions that they may have. The Telefónica Deutschland Group must guarantee equal opportunity to all suppliers involved in a specific procurement process, basing the selection of suppliers, the awarding of contracts and other decisions on objective criteria.

It works with the suppliers to ensure compliance with the minimum requirements for responsible and sustainable conduct and supports continuous improvement. This includes encouraging suppliers to promote diversity in their sphere of action as the Telefónica Deutschland Group sees diversity as a clear competitive advantage that generates value for the company. The Telefónica Deutschland Group will offer its own employees and those of its direct suppliers training and professional development on all of these aspects of sustainable supply chain management from 2023. In its SCSP, the company requires suppliers to make such Telefónica Deutschland Group training possible for their employees.

Suppliers and their employees have the opportunity to submit questions or complaints to aid in observing the minimum



requirements for responsible and sustainable conduct. For this purpose, they can use the channel on the Telefónica Deutschland Group’s [supplier website](#) , the human rights inbox for human rights or environment-related complaints or tip-offs, or they can contact an independent lawyer who serves as an ombudsperson. Tip-offs can be submitted anonymously or with a person stating their name. All enquiries are handled confidentially and are carefully examined. Barrier-free access to the ombudsperson is afforded in written form in 21 languages. Suppliers are obliged to also notify their sub-suppliers of the Telefónica Deutschland Group’s reporting channels. More information on the reporting channels revised in 2022 can be found in the [“Compliance and ethical principles”](#) and [“Human rights due diligence”](#) chapters.

Should the supplier identify a violation of the obligations laid out in this policy within its own business or in the supply chain (including the supply chains of sub-suppliers), it must notify the Telefónica Deutschland Group as soon as possible. The supplier is obliged to adequately afford its own employees and those of its sub-suppliers barrier-free access to and use of the Telefónica Deutschland Group’s reporting channels. Detailed information regarding the Telefónica Deutschland Group’s whistle-blower procedure and contacts can be found on the website and in the rules of procedure at: www.telefonica.de/whistleblowing-procedure .

STRATEGIC PRIORITIES

Minimising risks and improving supplier performance

The Telefónica Deutschland Group’s supply chain management is based on a four-stage process which is designed to identify value creation risks, limit these together with the suppliers effectively and improve the suppliers’ performance in the area of corporate responsibility. The key sustainability risks in the supply chain of the international Telefónica Group relate to labour conditions, environmental impacts, and data protection and information security.

Step 1: implementation of the minimum requirements

All suppliers are required to make a contractual commitment to comply with the minimum requirements for responsible and sustainable conduct as laid down in the SCSP for each new order. This policy serves as the basis for collaboration with the suppliers and for overall supply chain management. Suppliers are required to accept the global SCSP during registration in the supplier registration portal and the local SCSP in the e-sourcing template. In addition to the requirements of the SCSP, there are the binding General Conditions for the Supply of Goods & Services, the anti-corruption declaration, the privacy policy and the terms and conditions of the supplier website.

The Telefónica Deutschland Group revised the environment annex, which is a mandatory contract component for the suppliers of certain product groups, in accordance with the requirements of the LkSG in 2022. With the new annex, suppliers give an assurance among other things that they will pay attention to low-energy operation during product development and will promote the circular economy when handling and disposing of waste.

The Telefónica Deutschland Group introduced the Supplier Risk and Compliance Dashboard in 2020 as a tool which provides employees in the Purchasing department and CR&S directorate with a clear overview of data and information on suppliers. The data can be evaluated with regard to the topics of labour conditions, health and safety, the environment, human rights, conflict minerals, privacy and data protection, customer promises and social affairs. The former EcoVadis scores and, soon, the IntegrityNext assessments for each supplier can likewise be accessed via this tool.

Furthermore, the Digital & Data Competence Center (DDC) has developed its own AI-based supplier monitoring system. This screens more than 150 million websites and over 20 social media platforms in over 180 languages in order to identify potential supply chain risks early on. Following a trial run involving 80 direct

Approach of the Telefónica Deutschland Group: sustainable management of the supply chain





suppliers in which environmental and social criteria were also taken into account, the Telefónica Deutschland Group gradually expanded this monitoring in 2022 and continues to do so in 2023 to encompass all the direct suppliers. The results that have been subject to a plausibility check are likewise incorporated into the Supplier Risk and Compliance Dashboard, where they can also be viewed.

To determine and define clear operational responsibilities all along the purchasing process (MCT), the processes and structures for implementing the SCSP requirements are being incorporated into the Telefónica Deutschland Group's purchasing guidelines. The purchasing guidelines are scheduled to be implemented in 2023. Their aim is to afford Purchasing greater responsibility for sustainability management in the supply chain. The guidelines specify aspects of sustainable supplier management. These include rules regarding application of the Supplier Management (SuMa) tool for the transparent evaluation of strategic suppliers and their performance in the area of sustainability. The performance determined in this way is systematically incorporated into the supplier assessments. Furthermore, the principles of the Telefónica Deutschland Group's responsible procurement and supplier management and the key sustainability requirements regarding ethical, social, ecological and data protection matters are enshrined in the purchasing guidelines.

At the end of the 2022 reporting year, 95.6% of the suppliers managed by Purchasing had accepted the anti-corruption declaration (2021: 100%).¹ 100% of the new suppliers have made a commitment to comply with the SCSP.² As such, the Telefónica Deutschland Group already takes sustainability criteria into account in the registration process and for the entire purchasing volume handled via the Telefónica purchasing model MCT. In the future, suppliers who are outside this purchasing process (non-MCT), for example in the area of low-value purchasing processes and cross-company transactions such as licences and donations, will also be required to accept the SCSP.

Step 2: identification of high-risk suppliers

Telefónica, S.A. performs a three-stage risk analysis of all the suppliers at the beginning of each year. This enables the Telefónica Deutschland Group to identify potential risk suppliers in its range based on sustainability aspects. The focus here is on the suppliers that are the most significant in terms of their potential risk level and the impacts on business based on their order volume. Risk analysis is based on three criteria.

- Firstly, the potential risk level of the products and services supplied is evaluated, taking into account the defined minimum requirements for sustainability aspects within

the supply chain. These include in particular labour conditions, health and safety, the environment, human rights (child/forced labour), minerals from conflict zones, privacy protection, data protection and customer promises.

- Secondly, the risk is weighted based on the origin of the service or product and of its components. In this analysis, the impacts of potential risks in the individual production countries in connection with the current pandemic are also taken into account.
- Thirdly, here, the risk of a possible impact on the Group's reputation is weighted. The assumption applied here is that the closer the ties between the service/product and Telefónica, S.A., the greater the impacts.

A distinction is drawn between suppliers with a low, medium and high risk. In 2022 55 out of 748 suppliers (2021: 59 out of 760) were identified as potentially high-risk suppliers.

Step 3: assessment of the high-risk suppliers' performance

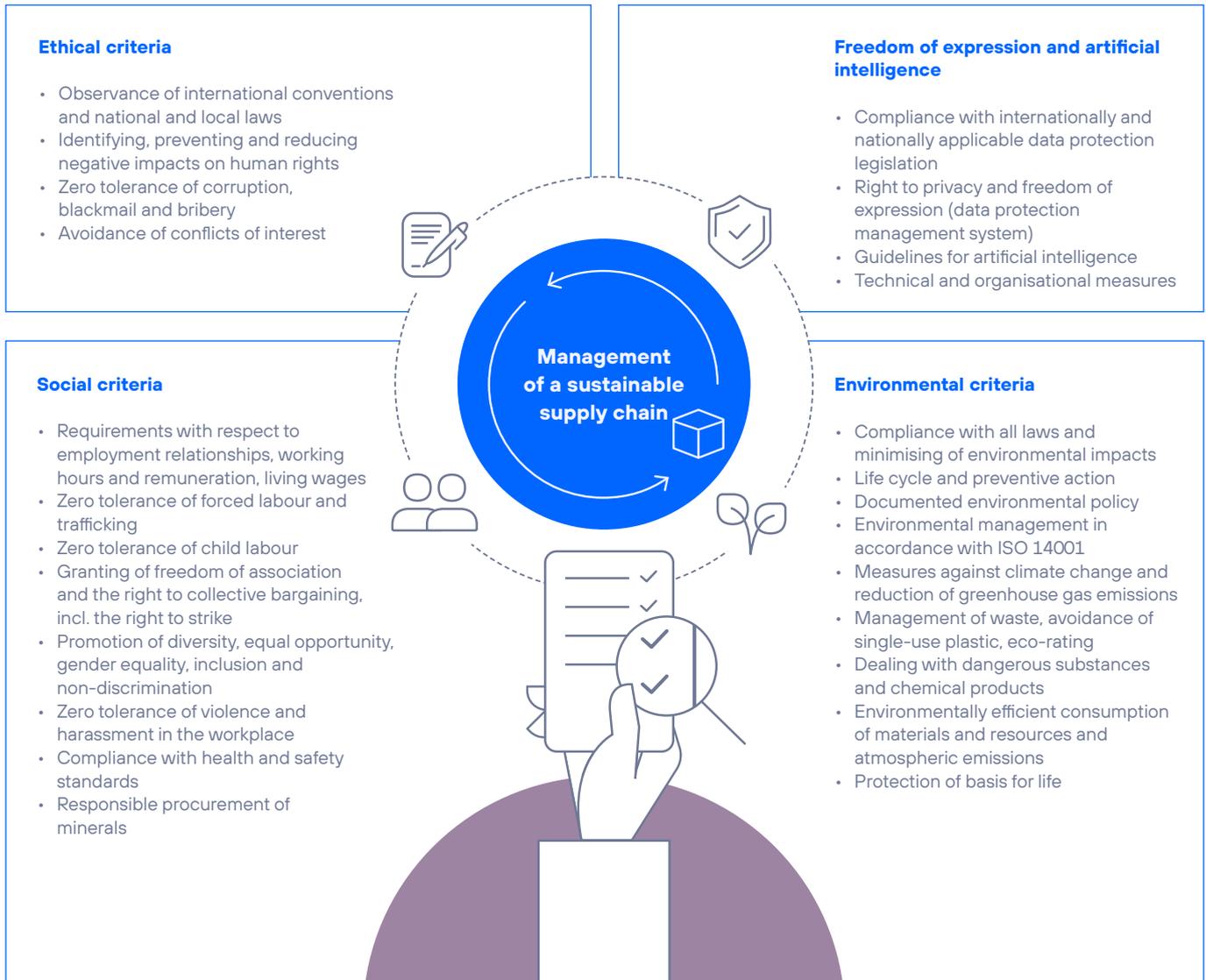
In the next step, the Telefónica Deutschland Group examines the possible risks of the suppliers identified in the initial analysis as potentially posing a risk. The buyers use the following tools:

- **EcoVadis:** the provider performs a 360-degree assessment of the most important risk suppliers on the basis of 21 sustainability criteria covering ethical, social and environmental aspects as well as supply chain management aspects, including conflict minerals. The EcoVadis supplier assessments are incorporated into the procurement platform which allows the buyers in the various countries to view information online.
- **IntegrityNext:** the platform enables the Telefónica Deutschland Group to perform standardised and automated auditing of its suppliers regarding sustainability (ESG) and compliance. The questionnaires for the suppliers cover topics including environmental protection, human rights, occupational health and safety, diversity, anti-corruption, supply chain responsibility, data protection, cybersecurity and conflict minerals. The suppliers can participate free of charge, allowing all the suppliers to be motivated to conduct self-assessments.
- **Dow Jones Risk & Compliance service:** the buyers review the supplier database using Factiva, a database created by Dow Jones Risk & Compliance. This screening is performed on a daily basis. Thanks to this tool, potential risks relating to ethical conduct and corruption can be identified and the existing processes for compliance with the anti-corruption guidelines can thus be strengthened.

¹ Concerns all new suppliers commissioned with work in the past two years

² All new suppliers are obliged as contractual partners to accept the Supply Chain Sustainability Policy.

Requirements for responsible and sustainable business that are defined in the Supply Chain Sustainability Policy



Reporting points for potentially affected people and whistle-blowers

Suppliers and their employees have the opportunity to observe the aforementioned minimum requirements for sustainable business by submitting questions or complaints; this can be done via our confidential channel on the [supplier website](#), through our [channel for human rights complaints](#), and by making contact with an independent lawyer anonymously who serves as an anti-corruption [ombudsperson](#).



If a supplier fails to achieve the standards agreed as audited by EcoVadis/IntegrityNext and the Dow Jones Risk & Compliance service or is unable to provide the information requested, the Telefónica Deutschland Group requires them to implement improvement plans on the basis of the contractual agreements concluded. Additionally, further business with the supplier can be suspended until evidence is provided of the correction demanded.

80% of the potentially high-risk suppliers identified in 2022 were assessed according to ESG criteria, either by EcoVadis or IntegrityNext. This gives the Telefónica Deutschland Group the opportunity to demand concrete improvement measures and to monitor their implementation.

From the financial year 2023 all the suppliers irrespective of their risk classification will be asked to participate in a 360-degree assessment founded on 15 ESG criteria on the IntegrityNext risk management platform. The Telefónica Deutschland Group is pursuing the target of 100% of the high-risk suppliers having an ESG assessment by 2023 and all suppliers having such an assessment by the end of 2025 – in both cases, taking into account the new requirements as stipulated in the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) as well as in the EU's proposed directive on corporate sustainability due diligence.

The company continued to assess suppliers via TGS's Supplier Management (SuMa) in the year under review, performing 45 assessments of 36 suppliers. The EcoVadis assessments and, from 2023, the IntegrityNext assessments are considered and evaluated in the SuMa process too.

There were no findings of incidences of considerable actual or potentially negative environmental impacts of individual suppliers in the year under review.

Step 4: audits of high-risk suppliers and measures

The assessment of the performance of high-risk suppliers is complemented by Telefónica, S.A.'s annual audit plan in order to determine if the critical aspects are being adhered to which were identified depending on the type of supplier, the service provided, the product and the risks of the individual regions or countries. The audits include improvement plans agreed upon with 100% of the suppliers that do not comply with one of the aspects that could have negative social or environmental impacts. Here, Telefónica, S.A. is backing a partnership with other information and communication technology (ICT) companies that are united in the JAC initiative. The JAC audits primarily cover production facilities in risk countries in Asia, Latin America and Eastern Europe. The Telefónica Deutschland Group works

closely with Telefónica, S.A. It can make audit suggestions, reviews improvement plans and engages in dialogue with suppliers.

98 on-site audits were conducted via the JAC in 2022 (59 of which on Group-wide suppliers of Telefónica, S.A.), resulting in 549 improvement measures being derived to remedy the risks identified in areas including discrimination, child labour, forced labour, freedom of association, working hours, wages and salaries, health and safety, the environment and ethics.

To strengthen human rights in the supply chain, the Telefónica Deutschland Group conducted a total of 184 on-site audits at selected suppliers' premises in 2022, for example in the areas of employee health and safety and also data protection. The risk analysis conducted in 2020 for the area of services and works showed that factors that foster risks such as opaque subcontractor structures and false self-employment apply in particular to service processes in the logistics and also customer service and call centre industries. The Telefónica Deutschland Group therefore audited two suppliers from these two industries in 2022 together with an international certification company. Both suppliers showed a high level of compliance of over 90%. Only a few improvement measures were identified in the areas of health and safety, working conditions and the environment and included in an action plan.

The Telefónica Deutschland Group also conducted 133 on-site audits of ten suppliers in the risk area of occupational health and safety in the year under review. Ten improvement plans were developed and implemented where non-compliance was ascertained. Eight audits, one of which on-site, were conducted in the area of data protection in 2022, with corresponding improvement plans being drawn up. There were also 48 on-site audits at O₂ partner shops in the year under review.

Particular responsibility in dealing with conflict minerals

The Telefónica Deutschland Group is especially keen to minimise the human rights risks in its supply chain that go hand in hand with the use of what are known as conflict minerals such as tin, tantalum, tungsten and gold, which are possibly mined under inhumane conditions and are sold potentially to fund armed conflicts in crisis regions. Here, the Telefónica Deutschland Group relies on the global activities of Telefónica, S.A., which also set the framework for its own actions. Although there are no direct business relations with smelting works or refineries in the upstream supply chain, the Group is continuously strengthening transparency of the origins and control of the use of these minerals throughout its value chain.



Telefónica, S.A.'s minerals policy is presented in the SCSP and is based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. All the suppliers are required to accept this policy and make a commitment to the responsible procurement of minerals. Every supplier that submits an offer to the Group must also meet minimum supply chain sustainability requirements as laid down in the General Conditions for the Supply of Goods & Services. These stipulate that suppliers must implement effective due diligence processes to guarantee the traceability of 3TG minerals (tin, tantalum, tungsten and gold) from conflict regions and to minimise the risk of human rights violations.

Risk suppliers are assessed regarding the implementation of guidelines and due diligence processes for conflict minerals and of risk reduction measures. Telefónica, S.A. additionally requires its main suppliers to complete the Conflict Minerals

Reporting Template of the Responsible Minerals Initiative (RMI). If risks are ascertained, corrective actions are planned and their implementation is monitored and, if necessary, checked by means of JAC audits. In the downstream supply chain, the Group cooperates with a smelting works located in Europe in the area of hardware recycling.

Telefónica, S.A. promotes transparency and sustainability in the supply chain as a member of the Responsible Minerals Initiative (RMI) and the Public-Private Alliance for Responsible Minerals Trade (PPA). The Telefónica Deutschland Group has been a member of econsense – Forum for Sustainable Development of German Business e. V. since the year under review and is involved in its human rights & value chain working group.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
100% of the potentially high-risk suppliers will be assessed on the basis of sustainability aspects (ESG criteria) by the end of 2023.	Number of potentially high-risk suppliers assessed on the EcoVadis/IntegrityNext platform on the basis of sustainability aspects in relation to the total number of suppliers classified as high-risk based on the Telefónica, S.A. methodology		80%	100% of the potentially high-risk suppliers

[Click here for ESG data and indices.](#) ↗



Human rights due diligence

THE KEY FACTS:

- 
 The Telefónica Deutschland Group is tightening the social criteria for its minimum requirements of responsible and sustainable conduct by suppliers.
- 
 Adaptation of policies and management processes to the requirements of the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG).
- 
 New whistle-blower procedure for human rights and environment-related risks or violations.

BASIC PRINCIPLE AND CHALLENGES

Upholding human rights and minimising risks

Upholding human rights is a key issue for business and society and is increasingly the focus of public debate. It is not only in global supply chains and production facilities of developing countries and emerging nations that there is a risk of violations and actual human rights infringements such as child or forced labour. Developed nations too are by no means immune to human rights risks, be it regarding discrimination or the violation of privacy or data protection. Guaranteeing decent work is also relevant in this context, with this including fair labour conditions on the basis of labour and social standards regarding, among other things, occupational safety and employee health, observing work hours and fair remuneration throughout the supply chain.

The Telefónica Deutschland Group advocates compliance with human rights and social standards within the company and all along its supply chain. In addition to its Business Principles and its Digital Manifesto, the Telefónica Deutschland Group also makes a commitment to the upholding of human rights in its [Declaration of Principles on Respecting Human Rights](#) 🏠. In the Declaration, the Group references, among other things, the guidelines of the Organisation for Economic Co-operation and Development (OECD), the Conventions of the International Labour Organization (ILO) regarding labour and social standards, the United Nations Universal Declaration of Human Rights, Guiding Principles on Business and Human Rights, and Global Compact, the United Nations Convention on the Rights of the Child and the United Nations Standards of Conduct for Business: Tackling Discrimination against LGBTI people. The Telefónica Deutschland Group respects the right of employees

to belong to a trade union organisation and stands up for equal opportunity and treating all people as equals irrespective of skin colour, nationality, ethnic origin, religion, gender or sexual orientation. The SDGs likewise explicitly target improvements in the human rights situation, and in particular SDG 8 Decent Work and Economic Growth is at the heart of our actions.

The Telefónica Deutschland Group rejects all forms of child or forced labour. It feels it has a particular obligation to children, young people and their protection. This applies to all of its business activities. It is guided here by UNICEF's Children's Rights and Business Principles and the children's rights conventions of the United Nations and the ILO.

The Telefónica Deutschland Group is especially keen to minimise the human rights risks in the supply chain that go hand in hand with the use of what are known as conflict minerals such as tin, tantalum, tungsten and gold, which are mined under inhumane conditions and are sold to fund armed conflicts in crisis regions. Here, the company relies on the global activities of Telefónica, S.A., which also set the framework for its own actions. All Telefónica, S.A. Group suppliers are required to accept the minerals policy as part of the [Supply Chain Sustainability Policy \(SCSP\)](#) 🏠, thereby making a commitment to the responsible procurement of minerals.

Like other companies in the industry, the Telefónica Deutschland Group receives requests for information from government authorities, law enforcement authorities or courts. For example, information is requested about the communications of customers or requests are made for access to certain websites to be blocked. In such cases, the Telefónica Deutschland Group strictly



adheres to internal procedures that guarantee compliance with the law as applicable while simultaneously protecting the data subjects' fundamental rights. The Group-wide commitment to the protection of privacy and the right to freedom of expression is laid out in the consolidated [Transparency Report](#) of the parent company Telefónica, S.A., in which the Telefónica Deutschland Group is also represented. In addition, for the third year in a row, the Telefónica, S.A. Group ranked first among the twelve global telecommunications companies in the categories of governance, data protection and freedom of expression assessed by [Ranking Digital Rights](#).

Human rights and social standards along the supply chain as a material topic

The Telefónica Deutschland Group is aware of the fact that there is the potential for human rights violations all along the value chain based on its business activities. The Telefónica Deutschland Group identified the topic of human rights and social standards along the supply chain as material in 2022. Data protection and data security, freedom of expression in the digital world, decent labour conditions in a global economy and a clean and healthy environment are just a few examples of rights which the Telefónica Deutschland Group plays a material part in their being upheld, both internally (employees) and externally (suppliers and customers). However, connectivity is also an important instrument for facilitating and promoting human rights, for example through access to information and the exchange of ideas. The Telefónica Deutschland Group sees this potential as an opportunity to develop products and services that promote economic and social development, e.g. through increased connectivity in rural and isolated areas. In this way, the company wishes to democratise access to a sustainable digital future to make day-to-day life better for everyone.

The Telefónica Deutschland Group firmly believes that assessing and managing the impacts of its activities on human rights is fundamentally important for the sustainability of its business. Identifying and monitoring sustainability risks in the supply chain and at its own sites is especially important to the Telefónica Deutschland Group in order for it to nip the emergence of legal liability and penalty mechanisms in the bud. Efficient compliance in the area of human rights additionally serves its reputation and its ability to compete.

Comprehensive preparations for the Act on Corporate Due Diligence Obligations in Supply Chains (LkSG)

From 2023 Telefónica Germany GmbH & Co. OHG and its subsidiaries will be obliged to comply with Germany's Act on

Corporate Due Diligence Obligations in Supply Chains (LkSG). The LkSG first and foremost establishes human rights due diligence obligations for companies. In other words, it governs companies' responsibility for the observance of human rights within the company and in their supply chains.

Comprehensive preparations and organisational adjustments in view of the LkSG were on the agenda in the reporting year. Existing processes were broadened, such as the risk management process for the company's own business activities and the direct supply chain, modification of the complaints procedure and revision of the Supply Chain Sustainability Policy, the code of conduct for Telefónica Deutschland Group suppliers (for more information, see the "Sustainable supply chain management" chapter).

In 2022 the European Commission presented a proposal for a directive on corporate sustainability due diligence that would oblige companies to protect human rights and the environment. The purpose of the directive is to promote sustainable and responsible conduct within companies and enshrine human rights and environmental considerations within business activities and corporate governance. The proposed supply chain regulation directive is more comprehensive than Germany's LkSG. The Telefónica Deutschland Group will focus intensively in 2023 on preparing for the new legislation.

PROCESSES AND MANAGEMENT

Management system for due diligence fulfilment

The Management Board of the Telefónica Deutschland Group bears responsibility for reviewing the performance and implementation of its human rights due diligence. The Director of Corporate Responsibility and Sustainability (CR&S), who was also appointed Human Rights Officer in the year under review, engages in ongoing dialogue with the Management Board. The CR&S directorate is responsible for managing the Human Rights and Environment Committee, conducting and overseeing human rights risk analyses and managing the complaints and whistle-blower procedure.

The Human Rights Committee, which the Telefónica Deutschland Group expanded to a Human Rights and Environment Committee in 2022, advances the topic throughout the divisions. By expanding the committee's areas of expertise and renaming it, the company is accommodating the requirements of the LkSG on the one hand and taking into account the fact that the UN General Assembly has recognised the right to a clean environment as a discrete human right on the other. The committee comprises representatives of the CR&S, Compliance, Legal and Capital Market Law, Data Protection



and Human Resources departments as well as a representative each of Telefónica, S.A. and the purchasing company Telefónica Global Services (TGS). The members, who are available to all the employees as central points of contact and advisors, including to the employees of affiliated companies, assume additional responsibilities based on their areas of activity. This includes the pooling of topic-specific expertise in the company and ensuring compliance with the LkSG.

The committee affords the Telefónica Deutschland Group swift agency when it comes to responding to or handling incidents regarding human rights or the environment that are reported via the human rights inbox or the ombudsperson or concerning any modifications needed in management approaches and policies. The CR&S directorate also guarantees the monitoring of human rights due diligence within the company such as, among other things, the functionality of the whistle-blower procedure. The Human Rights and Environment Committee regularly reports among others to the employee representatives and the Economic Committee.

The Telefónica Deutschland Group’s management system for the protection of human rights focuses on the process for due diligence fulfilment (human rights due diligence system) and is based on the UN Guiding Principles on Business and Human Rights. These Guiding Principles concretely describe the due

diligence approach as it relates to potential and actual impacts of business activities on human rights globally. The concept for a human rights due diligence system derived from this involves companies establishing procedures for determining their potential and actual negative impacts on people and taking action to prevent and avoid such impacts and, insofar as damage has already been caused, to end or remedy them. The process comprises five components:

1. Policy and Declaration of Principles
2. Risk and impact analyses
3. Preventive measures and incorporation into processes
4. Monitoring and reporting
5. Complaints and corrective actions

The due diligence process for human rights





Greater supplier obligations with respect to social criteria

The Telefónica Deutschland Group has been extending responsibility for upholding human rights to its suppliers and sub-suppliers as well for many years now. The minimum requirements made of suppliers and sub-suppliers regarding the observance of human rights are set out in the [Supply Chain Sustainability Policy \(SCSP\)](#) 🚩. This was extensively revised and expanded in the year under review to include the human rights and environment-related aspects of the LkSG. Suppliers must implement internal processes that adequately take into account the due diligence obligations governed by the LkSG. Other SCSP changes include the introduction of the ombudsperson and the human rights inbox as channels via which to submit human rights or environment-related complaints and obliging suppliers to provide barrier-free access to the Telefónica Deutschland Group's reporting channels.

The suppliers are required to digitally agree to the global SCSP in the course of the supplier registration process in order to be able to proceed with the commissioning process. To participate in an invitation to tender in Germany, suppliers must accept the new local SCSP. The following social criteria were modified and, in some cases, tightened during the revision of this policy:

- Requirements with respect to employment relationships, working hours and remuneration (in particular a living wage)
- Zero tolerance of violence and harassment
- Exclusion of forced labour and human trafficking including prohibition of the deployment of security forces
- Rejection of child and adolescent labour
- Granting of freedom of association and the right to collective bargaining, including the right to strike
- Promotion of diversity, inclusion and non-discrimination
- Compliance with health and safety standards
- Diligent care regarding the handling of conflict minerals
- Exclusion of forced eviction and land expropriation
- Protection of basis for life

In the fiscal year 2022, the Telefónica Deutschland Group started to introduce new evaluation methods for supplier assessments and to define the first key figures on human rights and social standards along the supply chain. The Telefónica Deutschland Group developed training for suppliers on the topic of sustainability and human rights in 2022, which it will offer its suppliers from the beginning of 2023.

The Telefónica Deutschland Group's purchasing guidelines, in which upholding human rights and environmental aspects plays a key part, were likewise revised in 2022. The new purchasing guidelines are to be implemented in 2023, with the Purchasing department being afforded greater responsibility regarding the development of procurement strategies and supplier assessments in the process. More information on this can be found in the ["Sustainable supply chain management"](#) chapter.

STRATEGIC PRIORITIES

Implementation of the human rights due diligence process

1. Policy: Human Rights Policy and Declaration of Principles

The Telefónica Deutschland Group is committed to its Declaration of Principles on Respecting Human Rights as signed by its Management Board and acknowledges its responsibility for its value chain. The Telefónica Deutschland Group's [Human Rights Policy](#) 🚩 specifies the company's obligations to uphold human rights and establishes the related general principles and guidelines. The Policy lays out in detail action guidelines for the key stakeholder groups, such as the customers, employees, society and business partners, and explains the work steps involved in the human rights due diligence process.

The Telefónica Deutschland Group worked on a manual for its human rights strategy in 2022, which will also be available in the company's rules portal in early 2023. The internal manual defines the human rights due diligence processes and structures that are needed to comply with the LkSG. It is designed to offer employees guidance and enable them to take action in relation to the concrete human rights aspects relevant to their respective departments and which need to be observed.

84.3%¹ of the employees were also given training in human rights issues over the past three years as part of mandatory training on the Business Principles. The training was thoroughly revised in 2022 to place a greater focus on environmental, social and governance (ESG) aspects (see ["Compliance and ethical principles"](#) chapter).

With other training developed in 2022, the Telefónica Deutschland Group wishes to ensure that its employees are familiar with, understand and correctly apply the LkSG, the human rights strategy and the related guidelines. This module will be available to everyone in the company-wide training portal Success Factors from early 2023 and will be actively allocated to especially relevant departments such as Purchasing, Legal,

¹ Proportion based on number of employees of the Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation includes the completed training units of the last three years. For 2022, this means 6,055 completed training units between 1 January 2020 and 31 December 2022.



Compliance and Risk Management via the training portal. The Declaration of Principles on Respecting Human Rights and the Human Rights Policy will be adapted on the basis of the results of the latest risk analyses in early 2023, bringing them into line with the LkSG and featuring new and expanded due diligence processes.

2. Risk and impact analyses: identifying human rights risks and areas of action

Regular risk analyses and impact assessments help the Telefónica Deutschland Group understand what impact its activities, business relations, products and services have on human rights and how it can adapt its internal strategies and processes to address the risks and opportunities identified. The Telefónica Deutschland Group performs a biannual analysis of human rights risks as part of its company-wide risk management process. Human rights risks are considered from two perspectives. There is the inside-out perspective, which relates to the human rights risks caused by the company's business activities. Then there is the outside-in perspective, which examines risks that can affect the business activities from outside.

The German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG), which enters into force in 2023, requires companies to establish an appropriate and effective risk management system for compliance with human rights due diligence, with the system being enshrined in all the essential business processes by means of appropriate measures. In 2022, the Telefónica Deutschland Group performed a risk analysis for its own business area and for the downstream value chain in accordance with the LkSG and the minimum safeguards of the EU Taxonomy Regulation. The majority of the risks were rated not relevant, with a very low or low risk. This tallied with the Telefónica Deutschland Group's expectations as a large number of measures have already been implemented to tackle risks in accordance with the LkSG and the minimum safeguards of the EU Taxonomy Regulation. The fact that the companies are based in Germany likewise means there is a low country risk in the Group's own business area.

Risk analysis identified a priority risk as per the LkSG. In the area of network provision, there is the medium risk of workplace accidents or work-related health risks. The Telefónica Deutschland Group is unable to completely exclude the risk of workplace accidents or work-related health risks in spite of the statutory requirements, the Health & Safety Policy and numerous measures implemented in this area such as training, regular audits and risk assessments. While this risk was assigned a low probability of occurrence, the impacts on the rights holders in the event of an accident due to their network provision activities could, however, be very serious in the worst-case scenario. The Telefónica Deutschland Group therefore arrived at a medium risk assessment overall. New measures will nevertheless be implemented. These include

the integration of human rights aspects into the Health & Safety Policy such as informing of the reporting channels for complaints and whistle-blowing regarding human rights and environmental aspects for employees at the network sites. Additionally, the possibility of having ISO 45001 certification (occupational health and safety management) carried out will be examined in 2023.

There is also a medium risk for the downstream value chain in that products and services developed and marketed by the Telefónica Deutschland Group might discriminate against people and cause unequal treatment in its direct customer contact. This risk relates to the downstream value chain and is therefore of relevance to the minimum safeguards of the EU Taxonomy Regulation, but not to the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) as the risk of discrimination in the Group's own business area was assessed as being low. This risk was likewise assigned a low probability of occurrence due to the large number of measures already implemented, including internal guidelines for ethically responsible communication, dialogue guidelines for customer service employees, training and an examination of real conversations with customers. However, discrimination can take a variety of forms and, in this case, also potentially affect a large number of people. This was therefore likewise assessed to be a medium risk. To address this risk, the Telefónica Deutschland Group adopted [guidelines for ethically responsible communication](#) , among other things. Awareness of these guidelines within the company is to be further increased in 2023.

The Telefónica Deutschland Group will specifically reference the two priority risks in its training and in the Declaration of Principles on Respecting Human Rights. There is already close communication with various departments regarding human rights topics, and this was intensified in the course of the annual internal risk assessments and due to the joint preparations for the LkSG. The relevant departments are therefore especially sensitised.

The LkSG stipulates that all suppliers must be reviewed regarding their performance in relation to human rights and certain environmental standards; this led the Telefónica Deutschland Group to apply a new strategy for the identification of risks. In late 2022, potentially high-risk suppliers were required to perform self-assessments using an external risk management platform. This tool provides the Telefónica Deutschland Group with a sustainability matrix that gives an initial insight into each direct supplier's critical areas. The area of social criteria includes the topics of human rights and labour law, occupational health and safety, and diversity, fairness and inclusion. In addition to evaluation of the results, information is supplemented through supplier monitoring, including in view of negative reports, in particular where these relate to compliance with statutory requirements and sustainability standards within the



Priority issues for the Telefónica, S.A. Group concerning human rights

Own operations	Products and services	Human resources	Ethics and governance	Supply chain (upstream/downstream) ³
<ul style="list-style-type: none"> • Labour conditions • Health and safety • Privacy • Data security • Digital inclusion • Property • Climate protection • Circular economy • Biodiversity • Water resources 	<ul style="list-style-type: none"> • Privacy • Data security • Responsible use of new technologies • Freedom of expression and information • Digital inclusion • Protection of minors • Climate protection • Circular economy 	<ul style="list-style-type: none"> • Labour conditions¹ • Diversity and non-discrimination² • Health and safety • Privacy • Data security 	<ul style="list-style-type: none"> • Fiscal responsibility • Competitive behaviour • Anti-corruption and bribery 	<ul style="list-style-type: none"> • Labour conditions⁴ • Health and safety • Diversity and non-discrimination • Privacy • Data security • Climate protection • Conflict minerals • Circular economy
<ul style="list-style-type: none"> • Own employees • Temporary workers and other external employees • Local communities 	<ul style="list-style-type: none"> • Minors/seniors • Women • Persons with disabilities • Further groups potentially facing discrimination 	<ul style="list-style-type: none"> • Own employees • Minors/seniors • Women • Persons with disabilities • Ethnic minorities • Further groups potentially facing discrimination 	<ul style="list-style-type: none"> • Society in general 	<ul style="list-style-type: none"> • Workers in the supply chain • Migrant workers • Minors/seniors • Women • Persons with disabilities • Ethnic minorities • Further groups potentially facing discrimination • Local and indigenous communities

¹ Including freedom of association, right to collective bargaining, right to fair remuneration and social security

² Including equal remuneration and freedom of thought, expression and religion

³ The upstream and downstream areas include relations with suppliers and subcontractors (upstream and downstream value chain). The downstream area also includes relations with customers, but also M&A activities and joint ventures.

⁴ Including prohibition of child and forced labour, human trafficking

■ Human rights issues identified ■ Impacted groups

past 12 months. In 2023, assessment is planned to be rolled out successively and comprehensively to all suppliers of the Telefónica Deutschland Group.

Since 2021 the Telefónica Deutschland Group has also been using its own AI-based supplier monitoring system for social, human rights and environmental sustainability aspects. More information on this can be found in the [“Sustainable supply chain management”](#) chapter.

Telefónica, S.A. additionally performs regular impact assessments at the global level and also did this in 2022. External experts from, for example, the organisations Business for Social Responsibility and Business and Human Rights are brought in here. With the aid of these assessments, the Group wants to understand the impact that its business activities, business relations and products and services have on human rights and determine the topics that are priorities for it and regarding which it will execute specific measures. These include, for instance, the network and artificial intelligence as well as human rights issues such as safe working conditions, children’s rights, privacy and freedom

of expression. The diagram above shows which human rights aspects and impacts and which affected groups overall are evaluated.

3. Preventive measures and incorporation into processes

The Telefónica Deutschland Group sees its commitment to upholding human rights and the performance of appropriate risk analyses as an ongoing process that has to be continuously adjusted and developed. The conclusions drawn from the risk analyses are incorporated into the company’s processes and measures are determined for the priority topics. The Telefónica Deutschland Group regularly reviews their effectiveness.

Its responsibility to respect human rights and its addressing of the risks related to its business activities and relations are a key part of the Telefónica Deutschland Group’s risk management system. The individual divisions incorporate fundamental potential risks regarding human rights or environmental aspects into their existing management processes and implement risk minimisation measures accordingly. The Telefónica Deutschland Group also monitors risks assessed as being low in order to be



able to implement preventive measures swiftly in the event that there is a change for the worse.

At the beginning of the year under review, the Telefónica Deutschland Group implemented [guidelines for ethically responsible communication](#) . As part of this, internal guidelines for ethically responsible communication were developed for all advertising, advertising materials and events; these are also binding for commissioned agencies.

The Telefónica Deutschland Group will continue to pursue the goals it set itself in its [Responsible Business Plan 2025](#) in the area of sustainable supply chain management. Firstly, close to 100% of high-risk suppliers must be able to present an external sustainability assessment (which includes human rights) in 2023. Secondly, the company wants to broaden the sphere of action of its Supply Chain Sustainability Policy (SCSP): the global SCSP has already been confirmed by 100%¹ of the new suppliers in 2022 processed via the Telefónica Deutschland Group's purchasing system. And the remaining suppliers who are processed outside of this purchasing model (around 22% of the purchasing volume), for example in the area of low-value purchasing processes and cross-company purchases such as licences, will be required to accept the SCSP by 2023.

To strengthen human rights in the supply chain, the Telefónica Deutschland Group conducted on-site audits at selected suppliers' premises in 2022, for example in the areas of employee health and safety and also data protection. More information on the results of these audits can be found in the ["Sustainable supply chain management"](#) chapter.

4. Monitoring and reporting

The Telefónica Deutschland Group continuously monitors the analysed impacts of its business activities on the topic of human rights. Human rights risks are recorded in its risk management system to this end, with the Human Rights Officer being responsible for monitoring them. The impact assessments are also updated by Telefónica, S.A. every four years and by the Telefónica Deutschland Group biannually regarding its own business operations.

The Telefónica Deutschland Group is additionally involved in multi-stakeholder initiatives such as the UN Global Compact and the Global Network Initiative (GNI) with the aim of accommodating the trends and expectations in the area of human rights relating to both its own industry and the countries in which Telefónica, S.A. is active. In Germany, the Telefónica Deutschland Group is active within the Global Compact Network Germany. In an annual report to the Management Board of the Telefónica Deutschland Group, the Human Rights and Environment Committee

provides information on the latest human rights developments in politics and society as well as within the company with a view to monitoring human rights risk management. It also reports transparently on human rights issues in its annual CR Report and makes information on this available via its [company website](#) .

Information on gender equality and how the gender pay gap is dealt with can be found in the ["Shaping an attractive working environment"](#) chapter of this report.

5. Complaints and corrective actions

Even with the measures implemented by the Telefónica Deutschland Group to protect human rights, risks or violations cannot be entirely ruled out. For stakeholders to be able to directly bring such (potential) faults to the attention of the Telefónica Deutschland Group, it makes a whistle-blower mechanism available to them. This comprises three reporting channels, which can be contacted in various ways in order to make the procedure as accessible as possible as well as confidential. The external reporting channel is overseen by a lawyer who assumes the role of an ombudsperson; the human rights inbox is managed by the competent internal CR&S directorate, together with the Human Rights Officer. There is then a third confidential channel incorporated into the Telefónica, S.A. supplier website. Neither the ombudsperson nor the Human Rights Officer is bound by instructions and they act independently.

The procedure is open to anyone wishing to submit a complaint or a report regarding human rights risks or violations which have occurred or could potentially occur in their own business area or in the Telefónica Deutschland Group's value chain. Whether or not the reporting person is themselves affected is irrelevant. Reports are discussed in detail with the reporting person and reviewed by the Human Rights and Environment Committee as well as the relevant departments. Ongoing communication is maintained with the reporting person in order to make the procedure as transparent and as inclusive as possible.

Should the procedure indeed show that there is a risk or that a violation has occurred, the Telefónica Deutschland Group's Human Rights and Environment Committee will introduce suitable preventive measures and/or remedial action to prevent, mitigate or terminate the risks or violations. The expectations of the person affected are incorporated into elaboration of the measures.

Protecting the reporting person from reprisals is a key concern for the Telefónica Deutschland Group. Everyone who is charged with handling the reports is therefore contractually obliged to observe confidentiality and impartiality as well as guarantee their independence and autonomy. The Telefónica Deutschland Group naturally also offers the option of submitting a complaint

¹ Concerns all new (MCT) suppliers commissioned with work in the year under review. As contractual partners, all new suppliers are obliged to accept the Supply Chain Sustainability Policy.



anonymously via the ombudsperson. Upon conclusion of the procedure, the reporting person is contacted to ensure that they did not suffer any discrimination or punishment as a result of the procedure.

The effectiveness of the procedure is regularly reviewed to ensure that it continues to fulfil its purpose and that it can be improved if necessary. Here, too, the opinions of the reporting person are incorporated; these are obtained in a questionnaire completed upon conclusion of the procedure. The procedure results are also incorporated into the modification of risk management and risk analysis.

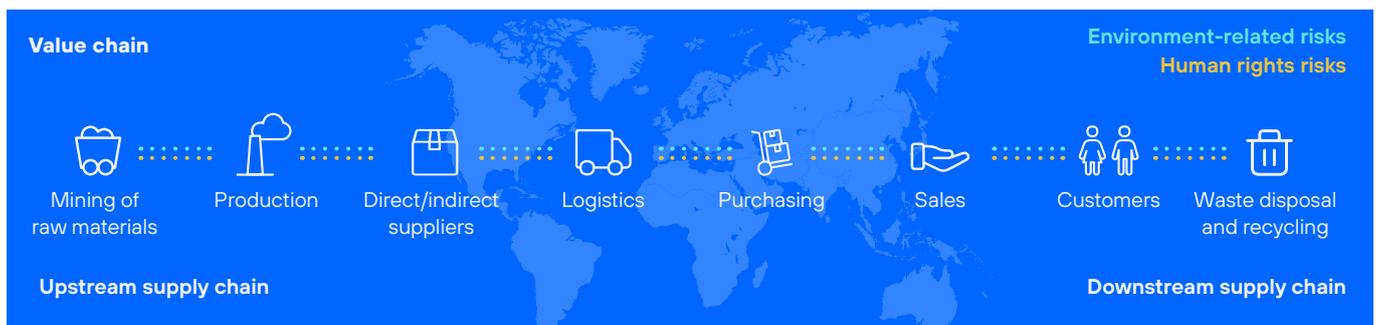
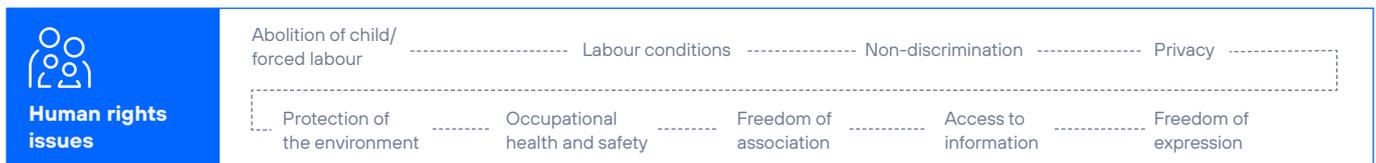
In line with the requirements as per the LkSG, the Telefónica Deutschland Group has produced rules of procedure in German, English, Spanish, French and Chinese that describe the various reporting channels and the whole process in detail for (potential) users. These rules of procedure can be found on the Telefónica Deutschland Group [website](#) with a link to a read-aloud function.

A simplified version of the process in chart form can also be found there as a way of overcoming further accessibility barriers.

A human rights complaint was submitted by a reporting person in 2022 relating to undercutting of the minimum wage. The Human Rights and Environment Committee addressed the case in detail, consulting both the reporting person and the supplier. Upon the Compliance and Internal Audit departments conducting investigations at the supplier and sub-supplier, the accusation could not be confirmed. The Telefónica Deutschland Group will take this case into account in its future risk analysis, thereby keeping an eye on this topic in particular.

Should the Telefónica Deutschland Group learn of human rights violations by means other than the reporting channels mentioned, it will develop and implement corrective actions and suitable concepts to minimise or terminate such shortcomings there too.

Human rights in the value chain





Upholding children's rights in the business activities

The Telefónica Deutschland Group has made a commitment to protecting in particular children and young people in all of its business activities. Its actions are guided first and foremost by UNICEF's Children's Rights and Business Principles. The company has defined the prohibition of child labour and the protection of minors as a human rights area of action. In its Human Rights Policy, child labour in its own business activities is excluded and all the suppliers are obliged to exclude child labour in the Telefónica Deutschland Group's supply chain.

To meet its target of strengthening children's rights and preventing child labour, the Telefónica Deutschland Group has published commitments on its [website](#)  that teach its employees and other stakeholders about its position. Children's rights and the protection of young people are also covered in the guidelines for ethically responsible communication and the internal marketing guidelines.

For many years now, the Telefónica Deutschland Group has been working to strengthen the media skills of children and young people and supporting parents with guides and pamphlets (more information on this in the "[Products, service experience and digital skills](#)" chapter). For over 15 years, the company has had an internal Youth Protection Officer, who is appointed in accordance with Section 7 (1) of Germany's Interstate Treaty on the Protection of Minors in the Media (JMStV) and reports directly to the Chief Officer for Legal and Corporate Affairs. The Youth Protection Officer provides the Telefónica Deutschland Group with advice and support to ensure that the products and applications meet the strict legal requirements. Via contractual provisions, the Telefónica Deutschland Group ensures that youth protection is also integrated into the product and offering design of its business partners. In its communications too, it makes sure not to disseminate any content that may harm children and young people or could exploit their easier manipulability (more information in the "[Products, service experience and digital skills](#)" chapter). In addition, the Telefónica Deutschland Group wishes to use its communication measures to continuously foster awareness of human rights and the rights of children and young people.



Customers and society

Products, service experience and digital skills

"We will offer our customers the best value for money and a service experience. We want to enable all people to benefit from the digital world and we want to promote their digital skills with special initiatives."

THE KEY FACTS:



The Telefónica Deutschland Group further optimised its excellent customer service with revised customer service guidelines and the AI assistance function Aura.



With an overall rating of 1.8 in the 2022 *connect* customer barometer, O₂ succeeded in moving up from third place in the previous year to first place, which O₂ shares with two other network operators.



The Telefónica Deutschland Group expanded its digital services relating to the Internet of Things and cloud-based networks for business customers, thereby supporting businesses and local authorities with digitalisation.



The Telefónica Deutschland Group promotes the development of digital skills and greater digital participation with social programmes for both the young and the old.

BASIC PRINCIPLE AND CHALLENGES

The focus is on the customer

Advancing digitalisation is changing all areas of our lives. The spheres of politics and business consider it their responsibility to shape this development advantageously for people. One core promise is that digitalisation will lead to further growth, general prosperity and social justice as well as sustainability. As a provider of digital telecommunications, the Telefónica Deutschland Group is at the heart of this development technologically and with the service it provides to its customers. It aspires to enabling everyone to participate in digital life in order that they can sustainably shape their futures.

The Telefónica Deutschland Group remains in a market environment which is dynamic yet rational and was able to record strong customer development in 2022. In this environment characterised by momentous technical change, the company faces the challenge of meeting technical and regulatory requirements, anticipating the customers' wishes as best it can

and offering them guidance and assistance in an increasingly complex product world. It aspires to seeing the world through the eyes of its customers and offering them an excellent service experience at all times that suits their habits and individual needs.

The Telefónica Deutschland Group confirmed the topic of customer relationships and the product and service experience as being a material sustainability topic in the course of this year's validation of the materiality analysis. The decisive factors were, on the one hand, the diverse impacts of its activities all along the value chain. The focus here is on facilitating broad and straightforward participation in digital life for the customers and promoting sustainable consumer behaviour on the basis of information, education and an appropriate product and service portfolio, from the purchasing of mobile phones through to recycling. On the other hand, a high level of customer satisfaction is one of the key success factors when it comes to the Telefónica Deutschland Group's core business and is something it continuously seeks to strengthen with its array of services.



In addition to sales and service quality, core aspects when it comes to the customers' satisfaction are in particular value-for-money innovative products and tariffs, transparent product labelling and a strong brand. The Telefónica Deutschland Group considers dealing with customers fairly and with respect to be self-evident. As well as the personal contact channels, the customers have a large number of self-service offerings at their disposal, meaning they are free to choose their preferred channel. The company wishes to further improve the online customer experience by continuing to expand its attractive and simple self-service offerings.

In this regard, offering the customers transparency at all times regarding how their data is used and allowing them to determine themselves how it is used are top priorities for the Telefónica Deutschland Group. It also sees it as its responsibility to protect people's health in relation to the use of mobile communications technology and to ensure there is responsible youth media protection.

Greater need for advice in the reporting year

With many customers working from home, there was additional need for advice once again in 2022, albeit not to the same extent as during the previous years' lockdowns. The Telefónica Deutschland Group also registered an increase in demand for customer service advice in early 2022 following the entry into force of the new Telecommunications Act (TKG) on 1 December 2021 as this involves stricter information obligations before a contract is concluded as well as new contract summary requirements. The company thoroughly prepared for this situation change in advance and was able to offer its customers service of the usual high quality.

The TKG has resulted in customers being able to terminate their contracts monthly once they have completed the minimum term. However, the Telefónica Deutschland Group was able to offset the slightly higher churn rates expected in the German market in 2022 as a result of this by acquiring new customers, among other things with special offers to mark the 20th anniversary of the O₂ brand, tariff innovations with higher speeds and the best possible service. Inflation and the energy crisis are resulting in uncertainty and in people being more restrained in their consumption. According to surveys, they want to spend less money on mobile phones, for example, whereas mobile communications are now considered a basic need.¹ Among business customers, too, potential new customers are being reticent about switching providers.

Responsibility for young media users

The Telefónica Deutschland Group wishes to enable young people to use digital media in a competent and safe manner and play a part in protecting them from problematic media content. Many children already use mobile devices and have Internet access. Without the appropriate safeguards, pornographic content and depictions of violence are only a few clicks away. The challenges regarding the protection of children and young people on the Internet include the fact that not all the services can be comprehensively monitored and the fact that the regulations do not keep pace with technical progress.

Complying with the key youth media protection requirements as dictated by the law in Germany is a top priority for the Telefónica Deutschland Group. The Telefónica Deutschland Group therefore sees its responsibility primarily as being to equip its products for children and young people with safety solutions such as the blocking of extra options. It also champions the [upholding of children's rights](#)  and youth protection by strengthening children's and young people's digital skills and teaching them about problematic online content and cyberbullying (see next section for more information). It helps parents adopt a responsible approach to their children's mobile freedom.

With its commitment to strengthening children's rights, the business minimises the potential negative impacts for young people and the risk of penalties possibly being imposed, at the same time strengthening its reputation and customer loyalty as prerequisites for its success. The company is not aware of any instances of the legal requirements regarding youth media protection being violated in 2022.

Promoting digital skills

As part of its Responsible Business Plan 2025 the Telefónica Deutschland Group is pursuing the goal of making people fit for the digital world. It wishes to help its customers with all the new developments and challenges relating to the use of digital services and digital products. This is to happen via the channels of voice, messaging, video chat and apps and the portal.

¹ Market Intelligence & Research 08/2022



The Telefónica Deutschland Group wishes to afford all population groups access to the information and communication opportunities which are available in the digital world irrespective of their age, origins, place of residence or income. This is dependent on their having knowledge of and skills in the use of technologies. The safety of digital services and the ability to be able to access communication services from anywhere are other essential factors. The Telefónica Deutschland Group wants to combat the digital divide within society with an efficient network which connects town and city dwellers just as well as people living in rural areas (more on this in the "[Network quality and coverage](#)" chapter).

The company is dismantling obstacles to access in various projects and with a variety of products and services. The measures are aimed primarily at young people and the elderly, who frequently do not have the technical prerequisites necessary to making the most of the opportunities offered by digitalisation.

The Telefónica Deutschland Group also raises awareness of the risks involved in using media content in its digital participation and skill-teaching programmes. These risks include not being able to recognise [fake news](#) and therefore being influenced by such news. The results of the [JIM Study 2022](#) show that fake news, extreme views, conspiracy theories and abuse are increasingly the norm online. Approximately half of the young people surveyed said they had experienced one or more of these phenomena in the past month. 34% of young people said they would no longer post their own opinion publicly for fear of negative reactions due to the increase in hate speech on TikTok, YouTube, etc.

The children and young people of today are the skilled workers of tomorrow. By promoting young people's digital skills, the Telefónica Deutschland Group is also investing in the ability of Germany to compete as a place of business. 45% of the teachers surveyed in a 2022 [study](#) said their school was not currently appropriately equipped to teach digital skills adequately. For this reason too, the Telefónica Deutschland Group equips schoolchildren with tablets and Internet access.

Mobile communications and health

In the case of electromagnetic fields generated by mobile phone antennas and mobile communications base stations, there is no evidence of any effects which are harmful to people's health if the statutory limits are adhered to (Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)). There is a very large number of scientific studies on the impact of electromagnetic fields in the frequency range used for mobile communications. These are

largely meaningful for the frequencies currently made available for 5G too – according to the studies, there is no confirmed evidence of health impacts caused by mobile communications within the applicable limits and when the requirements for mobile phones are met. The limits are stipulated in the regulation on electromagnetic fields (26th Ordinance Implementing the Federal Immission Control Act (26th BImSchV)). Germany's Federal Office for Radiation Protection (BfS) continuously reviews the protection effect of the limits and looks into indications of effects relevant to health below these limits with further research. One of the research focuses is new technological developments, including 5G.

The assessment that mobile communications are not harmful to health was also corroborated by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) in 2020. Following extensive research and dialogue processes, it issued updated guidelines that guarantee the protection of health in particular in relation to high-frequency electromagnetic fields, which also feature in the use of 5G, and the Telefónica Deutschland Group complies with these guidelines.

It is the Telefónica Deutschland Group's declared goal on the one hand to communicate the diverse opportunities for society and consumers offered by 5G while on the other appropriately taking into account the fact that people have a great many questions regarding mobile communications and health. The Telefónica Deutschland Group therefore makes [extensive information](#) available on this topic. However, this is a task that companies cannot perform on their own as the topic also touches on issues of independence and objectivity. The Telefónica Deutschland Group therefore in particular welcomes the German government's creation of the Competence Centre for Electromagnetic Fields within the BfS. The "Germany talks about 5G" communication measure and the Federal Gigabit Bureau likewise promote objectivity regarding the topic of mobile communications and health.

PROCESSES AND MANAGEMENT

Transparently assessing and boosting customer satisfaction

The Telefónica Deutschland Group aims to understand and anticipate its customers' needs and opinions. The company wishes to measure their level of satisfaction with its products and services as accurately as possible and continuously improve on this. The Chief Consumer Officer (CCO) and the Chief Partner and Wholesale Officer (CPWO) of Telefónica Deutschland Holding AG bear overall responsibility for the area of customer satisfaction. The CCO is responsible for private customer business with a clear focus on the customer experience, the



CPWO has responsibility for business with partners, and the Chief Executive Officer (CEO) is in charge of the B2B division. Central management of customer satisfaction and detailed analysis of this based on customer surveys are firmly embedded in the company with the Consumer Experience department within the Customer Marketing directorate.

The Telefónica Deutschland Group pursues target-group-specific product and service strategies, for example for people with a migrant background, older or younger people, the self-employed, SMEs or major enterprises. This targeted customer segmentation is achieved among other things thanks to the Telefónica Deutschland Group's successful partner strategy. Partner brands such as ALDI TALK, Tchibo MOBIL and NettoKOM allow for targeted market access in the discount segment, and brands such as AY YILDIZ, Ortel Mobile and Lebara do the same in the segment targeting ethnic groups. The business customer strategy focuses on growth in the core areas of mobile communications and the fixed line network as well as on further expansion of digital services relating to 5G, the Internet of Things (IoT), the cloud and security. The objective is accelerated growth in the area of business customers.

In the area of customer relations, the Telefónica Deutschland Group uses the Net Promoter Score (NPS) and the churn rate as performance indicators and key control parameters. The NPS provides insight into the customers' willingness to recommend brands. It therefore reflects the overall satisfaction of the customers with the brands as well as with their products and services. The Telefónica Deutschland Group ascertains the NPS at two levels: top-down and bottom-up. The top-down NPS is determined with the aid of an externally conducted telephone survey of the company's private customers for the brands O₂, Blau, Tchibo MOBIL and ALDI TALK as well as for competitors several times a year. It applies industry-wide standards and therefore allows for comparison with the competition. Market research is the responsibility of the Director of the Digital & Data Competence Center (DDC) within the Finance division. The Telefónica Deutschland Group uses the bottom-up NPS to assess customer satisfaction with the O₂ brand at all the contact points along the entire customer journey. It uses this direct feedback to derive concrete measures to further enhance the customer experience and also to determine whether previously implemented improvement measures meet the customers' requirements and are having an effect.

The Telefónica Deutschland Group registered a positive development in the NPS in 2022. Accordingly, customer churn rates in postpaid also remained at a low level due to sustained optimisation measures and quality improvements in the O₂ network, though as expected slightly above that of the previous year due to the introduction of the European Electronic

Communications Code (EECC). The churn rate for the O₂ brand was therefore 1.1% in 2022 (+0.2 percentage points year-on-year), while the implied annualised churn rate for the O₂ brand was 13.1% (2021: 11.1%).

Customer loyalty: churn rate of the O₂ brand

	Unit	2022	2021	2020
O ₂ consumer postpaid	%	1.1	0.9	1.1

Clear customer service guidelines

The Telefónica Deutschland Group has clear customer service guidelines that give the employees guidance in their customer contact and service. These guidelines were revised in 2022 to provide the employees with new input and further develop the excellent customer service. The focus of these six guidelines is the customers. The Telefónica Deutschland Group wishes to accompany and enhance their digital lives. The guidelines are given more precise form via the following measures: targeted initial training for all employees, dialogue guidelines for customer contact, a quality handbook, ongoing support via a standardised coaching process that includes the Internal Audit Score (IAS), quality assurance programmes and ongoing training measures, for example regarding complaints management and how to communicate in a customer contact situation. In addition, a young talent promotion scheme was launched in the year under review to further develop potential customer service executives.

The roles of the various contact channels are continuously reviewed, and targets and measures to boost customer satisfaction are derived. The Telefónica Deutschland Group intends to continue to ensure that its customers can reach the company using their preferred channel in the future, too.

Using feedback for improvements

In order to keep customer satisfaction high, the Telefónica Deutschland Group responds to incoming queries as quickly as possible and according to defined workflows. The feedback received from customers and employees is used in a continuous improvement process to optimise procedures and therefore the customer experience as well. With the customers' consent, the Telefónica Deutschland Group uses, among other things, automated speech analysis for incoming telephone calls in order to evaluate the reasons for the calls and the wishes of customers faster and to record them systematically. Employees can also directly make a record of improvement suggestions and customer wishes that arise in dialogue with the customers and



then pass these on and implement them as part of the continuous improvement process. Specially created, trained callback teams call the customers regarding their feedback if they request this. As well as resolving problems quickly, the focus is in particular on gaining a better understanding of the customers' needs and wishes. The Telefónica Deutschland Group offers a dedicated callback service online or via its app to prevent lengthy hotline waiting times. The complaints process is governed by a standard operating procedure.

Through speech analysis, examining the customers' feedback very carefully and regular employee feedback from the operating units, conspicuous fluctuations in contact reasons or voiced customer problems are reported and the Telefónica Deutschland Group uses these to derive concrete improvement measures. These are analysed and implemented as promptly as possible as part of the continuous improvement process. The chosen topics are respectively assigned to a person responsible and the progress made with them is tracked via regular documentation. The speech analysis is anonymised in order to comply with data privacy requirements.

The Telefónica Deutschland Group has set itself ambitious targets in the area of customer satisfaction: it aims to offer excellent customer service with a high level of customer satisfaction. It evaluates the status of its target attainment on the basis of internal performance indicators taken from direct customer surveys as well as from external evaluations such as the regular tests conducted by special-interest magazines. The Telefónica Deutschland Group is also continuously improving and expanding its digital offerings and aims to provide the customers with uncomplicated customer service around the clock and independent of location. The Telefónica Deutschland Group achieved its target of 80% of all instances of contact with O₂ and Blau being digital in the self-service area by the end of 2022.

Ethically responsible communications and marketing

The new [guidelines for ethically responsible communication](#) entered into force in early 2022. As a company which is not only committed to simplifying communications, but also generates cultural, sports, advertising, entertainment, educational and other content, the Telefónica Deutschland Group is dedicated to responsible, ethical and high-quality communications. The guidelines, which go above and beyond the legal requirements, are part of the brand guardianship process. This means compliance with the defined guiding principles has to be checked before events, corporate communication or marketing campaigns can go ahead. The obligations include honest and respectful communications, political neutrality and gender-inclusive language and focus in particular on youth protection

and sustainability. The Telefónica Deutschland Group realises the latter by, for example, transferring communication events to the digital arena or by increasingly eliminating printed communication materials.

Voluntary self-regulation of media protection for young people

For more than 15 years, the Telefónica Deutschland Group has had an internal Youth Protection Officer, who is appointed in accordance with Section 7 (1) of Germany's Interstate Treaty on the Protection of Minors in the Media (JMStV) and reports directly to the Chief Officer for Legal and Corporate Affairs. The Youth Protection Officer provides the company with advice and support to ensure that products and applications meet the strict legal requirements. The Telefónica Deutschland Group has also been committed to the voluntary self-regulation of mobile communications media protection for young people since 2007. The protection of children and young people online and the promotion of the responsible use of technology and offerings are additionally enshrined in the company's own [Human Rights Policy](#) as clear obligations. This is also taken into account in the design of tariffs for young mobile communications users and with regard to security solutions for protection against digital risks and content which is harmful to young people. Via contractual provisions, the Telefónica Deutschland Group furthermore ensures that youth protection is integrated into the product and offering design of its business partners.

To further promote youth media protection, the Telefónica Deutschland Group is involved in relevant interest groups such as the German Association for Voluntary Self-Regulation of Digital Media Service Providers (FSM). It is a member of the association's board and is committed to ensuring that practical media protection for the younger generation in Germany always takes into account new trends in children's and young people's user behaviour. The company has also been on the advisory board of klicksafe's Safer Internet Centre DE for several years and supports this initiative's media education work in Germany. The EU is supporting the Safer Internet Centres in 27 countries with the aim of promoting the media skills of children, parents and teachers, raising their awareness of the potential online risks and offering children and young people phone-based advice regarding online problems.

Targeted further development of the social programmes

The Telefónica Deutschland Group also supports the responsible use of digital media by children and young people with programmes and projects specially designed for this. The CR&S



directorates are responsible for these social programmes created by the company, manages their development and the processes together with cooperation partners and reports directly to the Chief Officer for Legal and Corporate Affairs of the Telefónica Deutschland Group. Digital inclusion is enshrined in the [Human Rights Policy](#) as part of the company's obligation to society.

To achieve its digital participation objectives, the Telefónica Deutschland Group regularly evaluates its nationwide measures and projects and develops them further in a targeted manner on the basis of scientific studies. The Telefónica BASECAMP serves as the central platform for societal dialogue regarding digital inclusion issues. The company evaluates feedback from the support projects and the related events and it records the participant numbers. The degree to which its guides and the website are used is also determined.

The Telefónica Deutschland Group wanted to reach around 2.5 million people using various measures in the context of its social programmes – just under 1 million people¹ were actually reached. In the year under review, the company did not achieve the media reach it attained in the previous years.

Consumer information on health protection

The SAR value was defined in order to measure and evaluate any effects mobile phones may have on people. This value reflects the maximum power absorbed by the body during mobile communications use. The EU has set an upper limit of 2 W/kg when making phone calls, in accordance with the EN 50361 standard. The SAR values of mobile phones are mostly considerably below these limits, as their transmissions are automatically regulated and reduced when necessary. Telefónica Deutschland Group customers can visit the shops or the company's website to find out the precise SAR value of their mobile phone as well as generally find information on the subject of safeguarding health.

STRATEGIC PRIORITIES

Excellent services for all customer groups

The Telefónica Deutschland Group also uses the bottom-up NPS to assess the customers' satisfaction with customer service. Concrete measures for optimising the customer experience can be derived from customer feedback. The measures implemented in the reporting year to further improve customer service and satisfaction included:

- Introduction of a Turkish service hotline
- Introduction of a hotline for hearing-impaired people
- Introduction of a new contact form on the O₂ website

Following the successful introduction of the One Care programme offering customers business service for O₂ Mobile and DSL from a single source, the Telefónica Deutschland Group was able to implement its One Tech programme in 2022. The employees were given extensive training in this and can now advise customers on technical matters relating to the mobile and fixed line networks. The customers therefore experience technical service from a single source.

Realising good ideas in the face of resistance and making visions a reality are also ideas conveyed by the new O₂ brand campaign, which presents a can-do attitude. The focus here is on authenticity, real life and the importance of digital connectivity.

O₂ is one of the most popular network operators in Germany, as illustrated by the [connect 2022 customer barometer](#). With an overall rating of 1.8, O₂ succeeded in moving up from third place in the previous year to first place, which O₂ shares with two other network operators. In the categories of customer service, brand, and service app, O₂ even shares the top spot with only one other service provider (more information on awards for the Telefónica Deutschland Group's customer service available on its [website](#)).

For the customers of its ethnic brands Ortel Mobile and AY YILDIZ – primarily people with a migrant background or tourists – the Telefónica Deutschland Group continues to expand the digital access channels and is making simplified payment methods available which can be accessed at any time. Since 2021, Ortel Mobile and AY YILDIZ customers have also had the option of topping up their phones by means of instant transfer, credit card and PayPal. Top-ups for customers of the Ortel Mobile brand were also incorporated into the Alipay portfolio. The Telefónica Deutschland Group achieved its target of increasing prepaid top-ups using this solution by at least 50% in the year under review. Specialist retailers and the operators of partner shops within the mobile communications industry favour AY YILDIZ and Ortel Mobile when it comes to ethnic mobile operators. This was the conclusion of the readers of the specialist sales magazine *Telecom Handel* once again in 2022 ([see next section for more information](#)).

¹ The calculation is based in part on projections. The figure for a reporting year is made up of the total number of website visitors, downloads of handouts and guides and visitors to live and online events, as well as podcast views and views of explanatory videos. The Telefónica Deutschland Group distinguishes between involved and reached persons. Involved persons are those whom the company has also trained or advised, among other things. Reached persons are also those who have merely informed themselves about its offerings, i.e. including the media reach. Since the company does not know whether these people were only aware of the learning opportunities or they actually used them, this distinction is made.



The Telefónica Deutschland Group now offers its business customers a personalised service concept. All business customers have designated customer service contacts. They are then offered tailored service and can therefore feel that they are in good hands. The Telefónica Deutschland Group continues to expand its portfolio of services for business customers. In 2022 it launched O₂ Switch as a new migration service, making it easier for new customers to switch from their existing service provider to O₂.

Promoting digital services

When planning measures to implement, the Telefónica Deutschland Group's focus is on improving the customer experience. That is why, in addition to optimising the quality of its customer service, it is also aiming to improve contact possibilities by pushing ahead with digital solutions based on a digital action plan. At the same time, it wants to inspire its customers to make self-determined use of digital technologies with its products and bases its communication measures on this. The Mein O₂

service portal allows for swift and intuitive access to self-service solutions. Thanks to the ongoing analysis of customer feedback and content optimisations, 98% of the customers were able to solve their issues directly online in the reporting year.

Artificial intelligence (AI) and dynamic execution on the basis of natural language understanding (NLU) make information access easier and reduce the number of click steps. The O₂ brand's AI assistance function Aura now greets customers in the O₂ website chat, in the WhatsApp service channel and, since 2022, also on the hotline. The Telefónica Deutschland Group therefore offers a consistent user experience across all the contact channels. The assistance function uses personalised data to autonomously resolve customers' issues or involve an employee to resolve them. The current fields of application include network fault checks, viewing invoice payment statuses and tariffs, enquiring about data volumes, topping up credit in the prepaid area and making use of multimedia services. The Telefónica Deutschland Group has a particular responsibility as a company when using AI and therefore follows [ethical principles](#) with which it wishes to place the focus on people's interests and boost their confidence in this

Ethics of artificial intelligence

The Telefónica Deutschland Group's ethical principles on using artificial intelligence make the people the focal point. All projects involving AI are assessed according to the following ethical principles:



Fair and accessible for all
It is important to the Telefónica Deutschland Group that all AI applications lead to fair results. In addition, all parts of society should have access to these digital opportunities.



AI is to serve society
The company will only overcome people's scepticism if the use of AI creates tangible advantages.



Rules for AI use
Not everything that is possible is also morally justified – there have to be limits on AI's use.



People first, AI second
People must remain the highest ethical authority.



Checking third parties
The Telefónica Deutschland Group reserves the right to review the legality, correctness and logic of data from third parties.



Transparency and data protection
The use of data has to be transparent and the data has to be protected.

As a member of the CDR Initiative, the Telefónica Deutschland Group has also made a commitment to the guiding principles and objectives of the [CDR Code](#).



technology. To this end, the Telefónica Deutschland Group has developed guidelines that lay out criteria on the basis of which all AI-related projects are evaluated. The company has also made a commitment to recognising the Corporate Digital Responsibility (CDR) Code. As such, it recognises nine guiding principles of digital responsibility with five CDR areas of action regarding which it has published its measures, among other things for the handling of data, in the [CDR report](#) . The Telefónica Deutschland Group also bases its actions in this area on Telefónica, S.A.'s [Digital Manifesto](#) .

With more than 730,000 registered members and over 4 million visitors a year, the O₂ Community is another important digital platform for O₂ customers. Within this dialogue channel, they can seek assistance from other customers as well as O₂ employees regarding their specific issues, communicate with each other, provide feedback on products and processes from the customers' perspective and themselves test O₂ products as well as devices and gadgets sold by O₂ for free. For O₂, interaction with the users represents a major opportunity to better understand customer needs and incorporate them directly into product improvements. To reach as many customers and interested parties as possible, the O₂ Community is incorporated into the www.o2online.de website and the Mein O₂ app, and there are also links to it from the O₂ social media channels. Based on the conversations conducted, the Telefónica Deutschland Group sees how much the users appreciate open, transparent and honest communication regarding current topics and problems.

Promoting sustainable purchasing decisions

O₂ provides information on products and services that helps customers consider the smartphones offered from a sustainability perspective, from the purchasing decision through to recycling. The Telefónica Deutschland Group has consolidated its environmentally friendly offerings under the mission statement of "Let's Keep the Planet Blue", from the sustainable Fairphone and a mobile communications network run entirely on green electricity to mobile phone recycling. With the mobile phone buyback programme launched in 2021, customers can sell used devices at their current residual value via the hotline and online channel or even with immediate settlement at any O₂ shop – irrespective of where they were originally bought. With the industry-wide Eco Rating, consumers can determine the impact on the environment of the entire process of manufacturing, using and disposing of a smartphone (more on our measures in the ["Circular economy"](#) chapter).

Since the year under review, O₂ customers have been able to apply to the Telefónica Deutschland Group for compensation of the greenhouse gas premium based on the climate-friendly

running of their electric cars. The company is the first mobile operator to offer this service. The cooperation partner is eQuota GmbH.

Telefónica, S.A. has introduced an Eco Smart certification mark to highlight products and services that make a significant contribution to reducing energy, CO₂ and water consumption and to promoting the circular economy. German business customers can use this certification mark to take sustainability criteria into account in their purchasing decisions as well – 57% of the Telefónica Deutschland Group's business customer products were awarded this label in 2022. The awarding of this certification mark is monitored by the certification company AENOR.

Strong offerings for private customers

Sustainable growth and excellent customer satisfaction are high priorities for the Telefónica Deutschland Group. To achieve these, it offers, among other things, innovative tariffs that are designed to make the customers' lives simpler, faster and better. On the 20th anniversary of the O₂ brand in 2022, the Telefónica Deutschland Group launched the O₂ Grow tariff, Germany's first tariff that grows. The customers are automatically awarded additional monthly data volume each year at no extra cost. All customers with a higher-end postpaid mobile communications tariff can use the 5G network at no extra charge. The Telefónica Deutschland Group 5G-enabled an array of additional O₂ tariffs for SMEs and the self-employed in 2022. With this new portfolio, it is specifically addressing the needs of small businesses. With the Mein O₂ app, customers can view relevant information such as data volumes or contractual conditions and purchase additional products if needed.

The Internet@Home area features O₂ my Home as a uniform tariff which applies equally to DSL, cable, fibre optics and the mobile-communications-based O₂ HomeSpot. Across all the sales channels, customers virtually automatically receive the appropriate Internet service for their home. In May 2022 the Telefónica Deutschland Group was able to offer more than 22 million cable households in Germany an O₂ my Home tariff with 1 Gbit/s for the first time thanks to the expansion of its cooperation with Vodafone and Tele Columbus. The company additionally expanded its high-speed offering in October 2022 with the launch of a new 500 Mbit/s tariff. And in November, the Telefónica Deutschland Group established one of the largest gigabit availabilities in Germany with O₂ my Home by connecting to Deutsche Telekom's fibre-optic network.

Since 2019 the Telefónica Deutschland Group has made it possible for its customers to watch live TV in HD quality at any



time and anywhere for an attractive price. By bundling the product O₂ TV with streaming services such as Netflix and WOW, it was able to expand the customers' TV experience with additional digital options. Its entertainment offering is rounded off by a gaming offering that affords customers access to an array of online platforms, including the Microsoft cloud gaming product. In addition to the entertainment-related offerings, the array of services that enhance customers' digital lives and make them easier is further augmented by O₂ Cloud and the updated O₂ Protect portfolio.

All the major providers of digital services now accept payment via mobile phone bill. Once again in 2022, the Telefónica Deutschland Group offered payment via mobile phone bill in certain non-digital content scenarios such as bike sharing via nextbike. With these options, too, security comes first. By participating in programmes such as the Clean Market Initiative, a joint quality offensive involving all mobile operators, the Telefónica Deutschland Group has made a commitment to meeting the highest possible consumer protection standards at all times.

Via what is known as the Telefónica Deutschland Group's SIM swap interface, providers of security solutions can determine when a SIM card has been activated or swapped and can therefore identify possible incidences of fraud. This service is used by, among others, banks, fintech enterprises, social networks and authorities to protect users from identity theft and financial losses. A service launched by the Telefónica Deutschland Group in 2022 as part of its Smart Digits portfolio offers additional security, enabling partners to compare the telephone number supplied by a customer with the actual telephone number of the mobile device.

Innovative solutions for business customers

In the B2B area, business customers can choose from a variety of tariff solutions that are secure, fair and reliable. The Telefónica Deutschland Group offers the self-employed and small businesses a complete product comprising high-data tariffs, top hardware, connectivity of a number of contracts and devices per contract, and comprehensive service. Since 2022 business customers have been able to hire rather than buy devices via O₂ Business Flex Device. This affords them additional financial leeway and allows them to always provide their employees with the latest devices.

In the year under review, the focus was placed on the expansion of digital services for business customers in the areas of the IoT and cloud-based networks – with the aim of accelerating growth in this customer segment. The two technologies narrowband IoT

(NB-IoT) and long-term evolution for machines (LTE-M) afford customers access to an array of IoT applications that require a greater range, better building penetration, lower energy consumption and operating costs which are as low as possible. Be it for metering applications (water, gas or electricity), sensor technology for waste management or building automation, these technologies are primarily used wherever radio modules are needed to transmit small data volumes regularly and over an extended period, often without an external power source. NB-IoT and LTE-M are based on 4G technology and there are plans for them to become part of the 5G standard in the future.

O₂ Business developed a digital connectivity and security solution based on SD-WAN technology for SMEs and key accounts that enables them to easily interconnect their sites and make their existing infrastructures secure for the digital age. Here, network management is handled by specialised software that, for example, brings the physical network connections used in a company network together within a single cloud-based network. By consolidating all the communication technologies within a single network, a company's IT is made more efficient and more stable while remaining flexible.

To strengthen the business customer line of business, the Telefónica Deutschland Group expanded the partnership entered into in 2021 with the Telefónica Tech Group, which specialises in digital products and services, to include the topics of the IoT and big data. The technology provider is a member of the international Telefónica, S.A. Group and already serves as the preferred partner for digital services and related wholesale products in the areas of cybersecurity and the cloud.

The IoT: quantum leap in device networking

5G is significantly expanding the scope of intelligent networking via the Internet of Things once again. This is what is known as "massive IoT", in other words: the networking of millions of devices. The Telefónica Deutschland Group once again saw high demand from SMEs in the area of the IoT in 2022 and is expecting further growth in this business field. Customers can use the two network standards narrowband (NB) IoT and LTE-M for automatic data transmission between objects and machines. These LTE subtechnologies, which operate on the same frequency, boast especially good building penetration. Consequently, smart meter gateways located in, for example, cellars can also be reached and can be run in an especially energy-saving way in sleep mode.

The Telefónica Deutschland Group is already supporting a large number of companies in the digitalisation of their business solutions in the IoT area. The impressive range includes mobility



and logistics companies, wearables manufacturers, producers of robots, energy utilities and energy transition start-ups. For example, Lanthan Safe Sky GmbH is putting its faith in a Telefónica Deutschland Group IoT solution for modification of the night-time signal lighting of up to 10,000 wind turbines. From 2023 this night identification may only be illuminated when an aeroplane or helicopter gets closer than four kilometres. With its IoT solution, the Telefónica Deutschland Group is reducing signal lighting on wind turbines by 98%. Its aim here is not only to contribute to minimising the negative impacts of permanent illumination on animals, but also to boost the acceptance of this sustainable form of energy generation in particular among the local residents.

With its top reliability and short response times, 5G will be an important support for highly sensitive, automated production processes such as robotics and will serve industry as a tremendous efficiency lever. 5G makes an entirely digital factory and fully connected (intra-)logistics processes possible. Commodities and goods can then be tracked without interruption and supply chains can be digitally documented. The Telefónica Deutschland Group helps companies turn their production facilities into smart factories and advance their digitalisation. The Telefónica Deutschland Group likewise applies the experience it has in planning and installing mobile communications networks to setting up 5G campus networks too. In a network of this kind, digital services can be securely interconnected according to a company's or an application's individual requirements. The Telefónica Deutschland Group has set up 5G campus networks of this kind among other things for Mercedes Benz Cars at its Factory 56, at a hospital site in Leipzig for the health care company Helios and for the Technical University of Munich (TUM).

Wayra: successful partnerships with start-ups

Wayra is the Telefónica Deutschland Group's open innovation hub that helps start-ups test and scale solutions and products. Each of the start-ups supported by Wayra has direct contact with a company department with the aim of their products being integrated into the existing systems and core business.

Wayra celebrated its tenth anniversary in the year under review. Minister-President of Bavaria Markus Söder congratulated the Munich innovation laboratory at an [event](#) 🚩. Wayra offers young entrepreneurs a unique innovation network spanning nine countries and direct access to the latest digital technologies such as 5G and edge computing. It also provides coaching, mentoring, advice, modern offices in the heart of Munich and funding. To date, more than 450 start-ups have developed high-tech solutions for end customers and industry together with Wayra.

The magazine [Capital](#) 🚩 again named Wayra the best innovation laboratory in Germany in 2022. Wayra once again impressed the jury with excellent scouting: 90% of all the start-ups with which Wayra has realised a pilot project are still active in the market or have successfully been sold.

The Telefónica Deutschland Group promoted 22 new start-ups in the areas of AI, fintech, the IoT, data analytics and sustainability through Wayra in 2022. According to the [German Startup Monitor](#) 🚩, 20.3% of those who founded a start-up in Germany in the year under review were female. While this proportion rose year-on-year (from 17.7%), further targeted promotion of women in start-ups is needed. Wayra therefore has the topic of diversity firmly enshrined in its strategy and has agreed appropriate KPIs for all of its employees. For example, the venture development managers are required to scout suitable female-managed start-ups and incorporate them into the programme, i.e. start-ups which are managed by women or which have at least one woman at the C-level of management. The start-ups managed by women which are supported by Wayra include, for example, Amelia, a mentoring programme for young female professionals.

Wayra's promotional activities are increasingly focusing on start-ups which are developing sustainable and climate-friendly 5G applications. The Telefónica Deutschland Group inaugurated [the 5G Tech Lab](#) 🚩 to this end in 2021. At a showroom in Munich, in the Wayra Office covering more than 1,000 square metres, start-ups which are developing sustainable innovations in the areas of 5G and the IoT can make use of the very latest technology infrastructure, collaborate with 5G experts and developers and present their ideas to companies in the Telefónica network. One of the start-ups presenting its solutions in the 5G Tech Lab is [Astrocast](#) 🚩. This Swiss company puts mini satellites into orbit to receive IoT data. With the right hardware and corresponding sensors, customers can collect information on location, temperature, moisture and similar parameters from anywhere in the world. This makes it possible to, for example, locate containers which have fallen off ships into the sea.

[MOTIONTAG](#) 🚩 is another Wayra start-up with a sustainable approach. This Potsdam-based company specialises in the analysis of anonymised mobility data and has developed self-learning software that allows travellers to buy the right ticket in an app without first having to deal with the issue of complicated tariff zones and ticket options. Machine learning technologies offer transport companies precise data regarding their customers' travel behaviour, enabling them to optimise their planning, staffing and use of materials, reduce their carbon emissions and identify traffic congestion early on.



The Berlin-based start-up The Climate Choice, which is supported by Wayra, likewise assists companies with decarbonisation. Its focus is the supply chain. The Telefónica Deutschland Group is also cooperating with The Climate Choice to analyse and ultimately reduce its own supply chain emissions (see the "Energy and CO₂" chapter for more information). Haltian  is another start-up whose solutions are used by the Telefónica Deutschland Group. In the pilot work spaces opened in the O₂ Tower in 2022 employees can consult screens to see which rooms are occupied and can, if they wish, mark their own workstation for the day so that their co-workers can find them more quickly. Haltian creates a digital twin of the rooms to this end and uses IoT sensors to record not only occupancy, but also the temperature and air quality.

From smart metering to the smart city

5G supports smart solutions in the energy industry's value chain. The energy generated is distributed to the users via smart grids, while smart meters continuously measure energy consumption and provide energy based precisely on the users' current needs. The Telefónica Deutschland Group not only realises the mobile communications connection of the smart meter gateways for meter-reading companies, but also simplifies SIM card administration with the Kite platform.

In the area of smart mobility too, 5G mobile communications or the new LTE-M mobile communications standard make solutions with increased energy efficiency possible, such as the operation of charging stations for electric vehicles. Entire industry sectors such as logistics as well as companies in all other industries can also benefit from the ability to digitalise their vehicle fleets and individual vehicles. With smart mobility, the Telefónica Deutschland Group offers its business customers analysis applications that enable them to improve driver safety, reduce fuel consumption and lower servicing costs. Telematics solutions such as Geotab enable smart fleet management from a single source. The telematics devices already feature IoT SIM cards provided by the Telefónica Deutschland Group ex-works. With a plug-and-play solution, vehicles are made smart in a matter of minutes and can log vehicle and engine data.

The Telefónica Deutschland Group wishes to play its part in the development of smart cities in which people can benefit from a sustainable quality of life. The smart city concept is based on the company as a telecommunications service provider having experience of how people use technologies and what the people living in a modern city expect. The Telefónica Deutschland Group makes this knowledge available to municipal decision makers subject to strict data protection compliance and develops the Group's products, open platforms and diverse digital

solutions with them. Since 2022 the Telefónica Deutschland Group has been making interactive solutions for a smart city, smart production and smart logistics tangible for its partners, customers and employees in an innovation experience area in the O₂ Tower.

Platform for secure identities on smartphones

Smartphones are increasingly being used as a means of personal identification. However, further steps are still needed for the achievement of a security level comparable with that of an ID card or other identification systems. Together with the federal printing company Bundesdruckerei as well as other companies and research institutions, the Telefónica Deutschland Group is therefore championing the creation of a security architecture for services with high protection requirements – the ONCE project will simplify processes of great day-to-day relevance with the aid of trustworthy secure digital identities. This concerns administrative procedures in the service portal of a local authority or a district, the conclusion of a contract with a car hire company or checking into a hotel. The ID systems are currently being put to the test in the Hesse region and in local authorities in North Rhine-Westphalia. The project is being funded by the Federal Ministry for Economic Affairs and Climate Action.

Tariffs and safety solutions for youth media protection

Having a mobile phone usually becomes important to children between the ages of eight and ten. As their independence grows, mobile availability becomes more and more of an issue, for example when they go on a school trip or in emergencies. It is important that a child's mobile phone tariff is age-appropriate. With its product design and information services, the Telefónica Deutschland Group helps parents to select child-friendly mobile phone usage and content.

For close and secure communication between parents and children, the Telefónica Deutschland Group offers O₂ Free Starter Flex as a suitable entry-level tariff. Not only does this provide mobile availability, it also gives parents peace of mind and cost control. For example, fee-based data packages and extra options are blocked from the outset. The basic tariff O₂ Free Starter Flex is tailored to children's usage behaviour. In addition to a flat rate for calls to all German mobile communications networks as well as to the fixed line network, it includes mobile data and EU roaming. This means children are able to contact their parents or important contacts at any time. The Telefónica Deutschland Group additionally launched a children's smartwatch in 2022, featuring a SIM card, GPS, pedometer and other useful functions.



In the case of O₂ partner offerings that feature direct access to media content, the Telefónica Deutschland Group opts for age verification solutions. With the safety solution O₂ Protect, customers and their children are afforded additional effective protection from digital risks. Parents can activate individual protection mechanisms via the content filter, web protection and program blocking functions. Customers can also secure their Android smartphones using O₂ Protect Mobile. The Telefónica Deutschland Group expanded its O₂ Protect portfolio in early 2022 and also offers the parental control function in the family version.

In addition, O₂ provides tips and information on child safety online on a special website. This includes the option of automatically blocking specific services such as data upgrades, data roaming and extra options. The Telefónica Deutschland Group provides parents with detailed instructions regarding third-party provider services, call options and premium phone numbers and brings their attention to any risks that still exist.

Parents and children can also find useful information about using the Internet and smartphones safely in the [Genial Digital guide](#) 📖. The Telefónica Deutschland Group published this magazine together with the German Children's Fund, the Freiwilligen Selbstkontrolle Multimedia-Diensteanbieter e. V. (FSM) and the association fragFINN in October 2022 as a further development of its previous Internet and mobile phone guides, to offer families even more safety in the area of surfing and the Internet. Children aged 8 to 11 can work through the magazine together with parents or teachers.

Taking a stand against cyberbullying

Cyberbullying has become a growing problem in society that affects young people in particular. According to a 2022 study by Bündnis gegen Cybermobbing (Alliance against cyberbullying), more than 1.8 million children and young people in Germany alone, for example, have been victims of online threats and abuse. This equates to 16.7% of children and young people aged between 8 and 21. Cyberbullying can lead to anxiety and sleep disorders or depression. What is especially alarming is that 15% of the children and young people affected have resorted to alcohol, tablets or drugs in the past out of despair, while 25% have expressed suicidal thoughts.

The Telefónica Deutschland Group tackles cyberbullying with its WAKE UP! initiative: in a six-part web series, schoolchildren, teachers and parents are taught about what forms cyberbullying

can take and learn how they can play a part in fair and respectful interaction online. An important element here is what are known as eduStories – digital teaching modules with a fun character via which schoolchildren are set tasks that they can solve with the aid of multimedia content. All the services and information, including further background information, to do with the topic of cyberbullying are pooled on the website [wakeup.jetzt](#) 📖 and can be accessed for free.

The Telefónica Deutschland Group also supports the online advice platform of the association [Cybermobbing-Hilfe e. V.](#) 📖 with donations. People seeking assistance are taken from the website to the advice platform at the click of a mouse. They then receive a personal response from peers with appropriate training within 24 hours at the latest. An evaluation of the online advice platform was presented on the occasion of its first anniversary. One of the findings was that the advice offered to children and young people needs to be as tailored as possible. The experience to date indicates that the advice platform of Cybermobbing-Hilfe e. V. is well received with its peer-to-peer approach.

The Telefónica Deutschland Group organised a series of workshops in schools and at the BASECAMP in the year under review to further strengthen young people's digital sovereignty and social cohesion. For example, a cyberbullying project day was held in an interactive hybrid format at the BASECAMP in February 2022 to mark Safer Internet Day. The winner of the WAKE UP! video competition was also announced here. Schoolchildren attending a workshop at the BASECAMP addressed the issue of cyberviolence directed at girls and young women. Together, they developed solution strategies for dealing with this.

Around 170,000 people were reached with the WAKE UP! programme in 2022.¹

Preparing schools for digitalisation

The Telefónica Deutschland Group wishes to play a part in boosting digitalisation in education with its products and services too. For example, O₂ Business is making quick access to the age of digital learning possible with a digital package for schools that is simple and efficient in equal measure. Depending on whether the school in question already has Wi-Fi and/or mobile devices, the packages contain Apple hardware, a mobile communications tariff with unlimited data usage, teaching apps and IT support. Default technical settings ensure that the Internet can only be used for the teaching apps and therefore solely for school-related purposes. In 2022 the foundations were

¹The calculation is based in part on projections. The figure for a reporting year is made up of the total number of website visitors, downloads of handouts and guides and visitors to live and online events, as well as podcast views and views of explanatory videos. The Telefónica Deutschland Group distinguishes between involved and reached persons. Involved persons are those whom the company has also trained or advised, among other things. The WAKE UP! programme involved 22,394 people in the reporting year. Reached persons are also those who have merely informed themselves about the business's offerings, i.e. including the media reach. Since the company does not know whether these people (2022: 170,000) were only aware of the learning opportunities or they actually used them, this distinction is made.



also laid for a cooperation with Cornelsen, one of the leading providers of educational media in the German-speaking world, to further develop the offering on the content side.

Children and young people from socially disadvantaged families are the focus of the [Haydeel](#) 🚩 social project, which the Telefónica Deutschland Group and the ethnic brand AY YILDIZ support together with donations in kind. The initiative affords schoolchildren with a migrant background among other things free access to tutoring.

Facilitating communication for migrants and refugees

For 15 years now, the Telefónica Deutschland Group's AY YILDIZ brand has been offering citizens with Turkish roots in Germany products for mobile communication and Internet usage in both Germany and Turkey. Ortel Mobile, a key prepaid service provider for people with a migrant background and likewise a member of the Telefónica Deutschland Group, has been operating in the market for just as long. With these two ethnic brands, the company affords people who have migrated to Germany easy access to mobile communication in Germany. The digital payment methods are being continuously expanded to this end. Customers can top up their credit using PayPal, a credit card, instant transfer and an innovative WhatsApp dialogue. The Telefónica Deutschland Group provides information on tariffs and contractual conditions by means of multilingual documents and via a service hotline in Turkish.

In particular people affected by war or state oppression experience how valuable unrestricted access to information and to telecommunications is. To offer Ukrainian refugees straightforward assistance, the Telefónica Deutschland Group made more than 100,000 SIM cards and 2,000 Wi-Fi routers available free of charge. The special conditions attached to these applied for six months from the day on which the users activated their SIM card. Up to 30 June 2022 customers could also make calls to Ukraine or send text messages there for free. Since 1 July 2022 Ukrainian refugees have been able to use an inexpensive prepaid tariff through Ortel comprising a flat rate for phone calls in all the German networks and 300 minutes free of charge per month for calls to Ukraine. Information on the personal engagement of Telefónica Deutschland Group employees can be found in the ["Shaping an attractive working environment"](#) chapter.

Promoting digital participation among senior citizens

Together with the Digital Opportunities Foundation, the Telefónica Deutschland Group has been championing greater digital participation among senior citizens for ten years. With the project ["Digital mobil im Alter"](#) 🚩 (Digitally mobile in old age), for example, the cooperation partners give elderly people the opportunity to spend eight weeks familiarising themselves with tablets and gaining online experience with the support of experts. The Telefónica Deutschland Group, the Digital Opportunities Foundation and the partners Emporia and Huawei designed a digital care package at the beginning of the coronavirus crisis which was specifically tailored to the needs of elderly people. This package was offered again in the year under review. Specially trained O₂ helpers are available over the phone to answer the questions of senior citizens and offer them advice on all topics relating to mobile phones and tablets. The partners loan smartphones and tablets featuring helpful pre-installed apps to old people's facilities and organisations. In 2022 end devices equipped with a SIM card were loaned to 565 senior citizens in Germany.¹

Through the project ["Digital mobil im Alter"](#) 🚩, senior citizens can not only learn how to use digital technologies more safely, but also communicate their thoughts, wishes and fears regarding digitalisation. 737,000 senior citizens were reached in 2022.² The focus in 2022 was on dialogue formats and interactive formats. On [Digital Day on 24 June 2022](#) 🚩 senior citizens were able to try out various technologies in a digital experience course at the BASECAMP. A dialogue event involving experts and senior citizens was held on the topic of artificial intelligence during the BASECAMP digitalisation themed week in October. Among other things, this addressed questions such as "How do computer systems learn?", "What can AI be useful for?" and "What are the risks?". In an intergenerational dialogue, senior citizens came together with schoolchildren to talk about disinformation and digital media. The event was the first joint activity of the two social programmes WAKE UP! and "Digital mobil im Alter".

The Digital Opportunities Foundation again organised virtual games rounds for senior citizens at Easter and Christmas in 2022. Those who played shared their knowledge, experience and ideas and also learned how to use videoconferencing software or were able to deepen their knowledge. Employees assisted with preparation and realisation as part of the Telefónica

¹ In 50 % of cases, the tablets are also used by people close to the borrower (life partners). These second users are included in the number of senior citizens.

² The calculation is based in part on projections. The figure for a reporting year is made up of the total number of website visitors, downloads of handouts and guides and visitors to live and online events, as well as podcast views and views of explanatory videos. The Telefónica Deutschland Group distinguishes between involved and reached persons. Involved persons are those whom the company has also trained or advised, among other things. The "Digital mobil im Alter" programme involved 71,000 people in the reporting year. Reached persons are also those who have merely informed themselves about the business's offerings, i.e. including the media reach. Since the company does not know whether these people (2022: 737,000) were only aware of the learning opportunities or they actually used them, this distinction is made.



Deutschland Group's corporate volunteering programme (more information on the programme in the "Shaping an attractive working environment" chapter). In September 2022 Telefónica Deutschland Group and Digital Opportunities Foundation employees went on a digital treasure hunt with a group of senior citizens in Munich using the Actionbound app.

Under the title "Digital(es) einfach erklärt" (Digital matters explained simply), the Telefónica Deutschland Group offers videos on its [website](#) that introduce users to utilising search engines, video platforms and the operating systems of mobile devices. With online "expeditions into the digital sphere", the company wishes to arouse the interest of the elderly in digital media and encourage users who already have experience to help beginners explore the digital world. Senior citizens can complete the expeditions on their own, in tandem with a digital-savvy participant or in larger learning groups.

With an information package entitled "Faktisch betrachtet – Fit gegen Fake News" (Factually speaking – fit for fake news), the Telefónica Deutschland Group provides a topic overview and a checklist for identifying disinformation. It also features explanatory videos, an online quiz and a series of video talks. The materials can, for example, be used by trainers conducting further training. The "Digitale Kompetenzen für ältere Menschen" (Digital skills for the older generation) guide provides key support in the development of teaching offerings for senior citizens.

Reducing barriers to digital communication

The Telefónica Deutschland Group endeavours to make access to information and contract contents as simple and as intuitive as possible so that everyone can contact the company easily and can quickly locate general information regarding products and services as well as their own contract details. To this end, the Telefónica Deutschland Group also offers videotelephony and the digital assistance function Aura. With its digital services at [o2online.de](#) it also affords digital beginners intuitive access to contractual matters and other information. A [guide for beginners](#) explains day-to-day digital features and technological developments to those who have previously focused on these only minimally, if at all.

The shop and hotline staff are trained to be able to assist customers with their questions regarding digital topics. In face-to-face conversations locally and via video chats, they again familiarised users of different ages with using digital technologies in 2022. The video-based advice options were used 2.9 million times in the year under review.

Hearing-impaired people can contact the Telefónica Deutschland Group using the O₂ service number +49 (0)89 666 630 074 provided by the Tess Relay-Dienste sign language interpreting service and are offered swift assistance regarding mobile communications, Internet and fixed line network matters. This ensures that calls placed by hearing-impaired people are prioritised and that they can reach specially trained agents. The Telefónica Deutschland Group allows hearing-impaired people to send unlimited text messages. In addition, hearing-impaired customers can use the text message emergency service to send the company a text message with the prefix 329 and the fax number of their emergency contact. A specialist service provider then forwards the message by fax. Visually impaired users can have certain website content read to them aloud.

O₂ also offers devices which, with important applications conveniently already installed, make the lives of senior citizens and people with disabilities easier, such as the Android smartphone emporiaSMART.3 and the flip phone emporiaTOUCHsmart. What all of the provider's models have in common is ease of use, a simple display, compatibility with hearing devices and an emergency call function.

In terms of tariffs too, the Telefónica Deutschland Group wants to expand the opportunities for senior citizens to use digitalisation simply and uncomplicatedly. Customers aged 60 and over are offered a permanent EUR 10 discount on the monthly basic fee for the current O₂ Free mobile communications tariffs. This price advantage makes it easier for this target group to opt for more data volume right from the start instead of a basic tariff. With its [Video4You](#) moving-image series, the Telefónica Deutschland Group inspires senior citizens and other customer groups to use digital media and explains things such as how to set up O₂ TV or activate a SIM card.



2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
O ₂ NPS	The top-down NPS assesses O ₂ customers' general willingness to recommend the company based on their overall experience with it (irrespective of whether or not there has been contact with the company). On a scale of 0–10. NPS = % of promoters – % of detractors.	Increase	Increase	Further increase in customer satisfaction (O ₂ NPS)
B2P NPS	The top-down NPS assesses the partner brand customers' general willingness to recommend the company based on their overall experience with it (irrespective of whether or not there has been contact with the Telefónica Deutschland Group). On a scale of 0–10. NPS = % of promoters – % of detractors.	Stable good NPS performance	Stable	Further increase in customer satisfaction (B2P NPS)
RepTrak	Reputation measurement: society's perception of the company's performance (scale: 1–100 points)	69.1	69.7	Stable reputation scores
Number of people involved in the Telefónica Deutschland Group's social programmes	Number of people involved in the Telefónica Deutschland Group's digital skills programmes	150,000	100,000	150,000

[Click here for ESG data and indices.](#)



Network quality and coverage

"We offer our customers a modern and high-performance network infrastructure and enable access to the digital world."

THE KEY FACTS:

-  The Telefónica Deutschland Group already achieved its 5G expansion target for 2022 in the summer, since when it has been providing 50% of the population with 5G. By the end of the year, this had increased to over 80%.
-  The company expanded its fibre-optic network cooperations, enabling customers to now surf at speeds of up to 1 Gbit/s.
-  With an expansion cooperation in rural areas, the Telefónica Deutschland Group is plugging telecommunication dead spots and is improving mobile communications in what are known as "grey spots".

BASIC PRINCIPLE AND CHALLENGES

Enabling access to digital technologies

The Telefónica Deutschland Group manages 44.3 million connections in the area of mobile communications alone, connecting many people in Germany. Its aim is to guarantee access to digital technologies ideally everywhere and at any time. From this aspiration, the Telefónica Deutschland Group in turn derives a particular social responsibility: the company wants to reduce the digital gap where people have no access for technical, social, economic or other reasons in order that ideally everyone can enjoy the advantages of digitalisation. The Telefónica Deutschland Group aims to make the new 5G mobile communications standard available to the mass market and play a part in affording everyone access to high-tech digital communications with attractive 5G tariffs and large data packages.

The network provides the foundation for the Telefónica Deutschland Group's business. The Group aims to continuously make the network more efficient and more sustainable in order to be able to reliably and responsibly transport data volumes, which are rapidly increasing due to digitalisation. Fast expansion of the 5G network will help it offer the customers a green mobile communications network in Germany by 2025. 5G transmission is significantly more energy-efficient than the preceding standards (4G and 3G),¹ meaning electricity consumption per transmitted byte can be reduced by up to 90%.

The added value offered by 5G to society as a whole thanks to the close networking of transport, towns, cities, the world

of work and everyday life will far exceed its individual use. 5G makes it possible for applications to now be realised in real time and for millions of devices to be connected with one another, which helps for example to increase road traffic safety or make household energy supply more efficient.

The Telefónica Deutschland Group is developing a network which will serve companies and users as the basis for realising digital business models and applications, for instance to make their production and logistics workflows more flexible. In particular in the case of applications in the area of Industry 4.0, 5G technology can result in faster logistics and reduced production process energy consumption thanks to real-time data transmission. The Telefónica Deutschland Group's 5G network will help companies in many industries reduce their carbon emissions and develop sustainable business models.

Network quality and coverage were confirmed as material sustainability topics in the course of this year's validation of the materiality analysis and in the course of risk management. Network quality and coverage have a direct influence on customer satisfaction and are therefore one of the key success factors in the Telefónica Deutschland Group's core business area. As part of the critical infrastructure, the company makes a key contribution to the functioning of the economy and society: a network outage would result in revenue losses for business customers, cripple communication between public authorities and vastly restrict the customers' lives. The emergency call system and medication deliveries are likewise dependent on functioning telecommunications.

¹ Source: "Energie- und Ressourceneffizienz digitaler Infrastrukturen: Ergebnisse des Forschungsprojektes "Green Cloud-Computing" (Energy and resource efficiency of digital infrastructures. Results of the Green Cloud-Computing research project) study commissioned by the German Environment Agency (UBA), September 2020



Providing information about mobile communications and network expansion

Protecting the health of customers, people living near operations and technicians is a top priority for the Telefónica Deutschland Group. This includes ensuring the mobile network base stations comply with the limits, which are checked by the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur). In addition, the Telefónica Deutschland Group makes certain the mobile phones it sells comply with electromagnetic limits. Information and advice on this subject are made available to the customers through the company channels. The Telefónica Deutschland Group made a commitment to the German government regarding this back in 2001. The fulfilment of these requirements is reviewed continuously through external expert assessments. For example, the German Institute of Urban Affairs (Difu) has been conducting regular surveys and studies in cities, towns and municipalities on the topic of mobile communications since 2002.

The implementation of extensive mobile communications provision as required by the policymakers and in particular the frequency requirements regarding expansion in rural areas call for by 2024 at the latest the technical modification of numerous mobile network sites and the construction of sites for 4G and 5G where gaps need to be plugged. These developments have triggered concerns articulated among the public and in the media about health risks caused by radio waves. The Telefónica Deutschland Group takes the need for information which this is an expression of very seriously and continues to work on providing the population with information in the best way possible. Adherence to the statutory requirements and limits is strictly monitored and checked by the relevant authorities.

The need for advice in rural municipalities is growing because new sites are increasingly being incorporated in the course of the Telefónica Deutschland Group's network expansion and many of these municipalities have no previous experience of mobile network systems and the related participation and approval procedures. A political trade-off is also presenting the Telefónica Deutschland Group with challenges here. On the one hand, it is required to incorporate new sites which are as widely accepted by the public as possible. On the other, the licensing requirements of the policymakers mean there are strict time frames for network expansion. The pandemic situation led to delays in the reporting period as municipalities were unable to substitute all the on-site appointments they needed to arrange with digital formats in the usual time.

Particular challenges in the year under review

The war in Ukraine further exacerbated the supply chain delays triggered by the pandemic. Due to the energy crisis, the steel supply situation has become especially tense. The Telefónica Deutschland Group is nevertheless able to manage the shortages together with its partners. The war also resulted in challenges for subcontractors, some of which draw on the services of Ukrainian installers. However, they were able to compensate for the shortages.

To assist with the rebuilding of destroyed telecommunications infrastructure in Ukraine, the Telefónica Deutschland Group donated 3,500 network components worth millions of euros, making it one of the first European service providers to respond to a request from Ukraine's telecommunications regulatory authority.

PROCESSES AND MANAGEMENT

Identifying and remedying network faults quickly

The Telefónica Deutschland Group's private and business customers trust in the reliability of the company and its services. They expect network failures to be rectified quickly. By monitoring the network elements comprehensively and continually investing in the network structure, the company aims to ensure that the negative impacts on its customers are kept to a minimum.

Network quality and coverage are the responsibility of the Chief Technology & Information Officer (CTIO). A specialised network department is responsible for efficiently monitoring and resolving problems in the mobile communications and fixed line network. It ensures that the impacts of work in the network are kept minimal for the customers, that customer complaints are analysed and that failures are remedied as quickly as possible. The individual specialist departments then optimise the internal processes, taking the technical framework conditions into account. With regard to its network elements, the Telefónica Deutschland Group aims to continuously raise the level of automation. It uses a variety of tools to generate comprehensive data by which to analyse and evaluate the quality of the network. This allows service restrictions or increased capacity demand at a mobile network site to be recognised sooner and action to be taken accordingly.



Investing in network expansion

The Investments for Growth programme is crucial to the expansion of the mobile communications network. Here, the Telefónica Deutschland Group is focusing on three pillars of growth that will build on the network quality equality already achieved:

- Increasing its share of the mobile communications market in rural areas while consolidating its strong position in towns and cities
- Intelligent pooling of mobile communications and fixed line network products as well as fixed-network substitute products (FMS) on the basis of a technology-agnostic approach
- Making the most of opportunities in the B2B market, in particular in the SME (small and medium-sized enterprises) segment

To continuously improve its customers' user experience, as part of its three-year investment programme from 2020 to 2022, the Telefónica Deutschland Group invested in particular in network expansion. Further investments in the network are planned for the next few years.

Strict adherence to statutory requirements and limits

The Telefónica Deutschland Group monitors adherence to statutory requirements and limits when its networks are implemented, maintained or adapted to new technologies, and this is checked and certified by the relevant authorities. To verify compliance with the limits, the company has implemented rules of procedure and has its own teams that continuously perform internal audits at the mobile network sites serviced by Telefónica Deutschland Group technicians and by service providers. Monitoring these is the responsibility of an internal department in the area of radio networks. As part of their supervisory and control function, the Telefónica Deutschland Group's occupational safety specialists monitor compliance with the existing rules and legal requirements, thereby contributing to the protection of the employees and the preservation of their health.

STRATEGIC PRIORITIES

Tapping new potential with 5G

The Telefónica Deutschland Group succeeded in significantly expanding its 5G network coverage in 2022. Expansion of the new mobile communications technology is focused on what is known as "pure 5G", which is transmitted via the most powerful 3.6 GHz frequency. More than 7,000 3.6-GHz antennas had been put into operation by the end of 2022. The company is

now putting around 56 of these 3.6-GHz antennas online every week. It is also using the 700 MHz frequency, which has larger reach, to develop rural areas more quickly. Use is additionally being made of dynamic spectrum sharing (DSS) technology, which enables 5G and LTE frequencies to be used in tandem. The customers benefit from significantly higher data rates and reduced data usage time lags. Since June 2022 the Telefónica Deutschland Group has been providing 50% of the population with 5G. It therefore achieved its 5G expansion target six months earlier than planned and had even succeeded in increasing its provision to more than 80% by the end of 2022. It wants to provide the whole of Germany with 5G by the end of 2025.

Since mid-2022 the Telefónica Deutschland Group has been able to make additional network capacities available at major events such as the Oktoberfest or in the event of weather-related emergencies with 60 new mobile network stations. The mobile 5G masts can also be used to bridge the gap if a region requires coverage until the completion of a new site.

5G coverage

	Unit	2022	2021	2020
Coverage of the total German population with 5G ¹	Rounded in %	80	30	N.a.

¹The selected population-based evaluation does not only include the household-based coverage calculation with fixed location reference as reported to Germany's Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur). It also includes commuter flows of the population, so that part of the population is counted at both their place of residence and at their place of work (maximum population). In this way, the Telefónica Deutschland Group takes into account that services are not only demanded stationary at the place of residence, but also while on the move. This value is the year-end value for 2022, which indicates the availability of the mobile service outside buildings (outdoors).

Trailblazer in technological innovations

5G makes very high demands on the mobile communications transport network that takes the users' mobile communications signals from the transmitter stations within the access network locally to the backbone. Previously, only fibre optics could provide the transport network speed that the customers need to enjoy all the benefits of 5G. At the same time, the Telefónica Deutschland Group is additionally connecting its 5G mobile network stations via high-capacity directional radio systems in locations where no fibre-optic infrastructure will be available in the foreseeable future. Due to a shift in the physical limitations of directional radio systems, their high degree of flexibility and the cost and time savings, the directional radio solution is helping the Group to achieve its goal of fast 5G network expansion.

Together with its technology partners, the Telefónica Deutschland Group has been using a multi-manufacturer



interface for software-defined networking (SDN) in its mobile communications network since the end of 2021. The interface is compatible with various directional radio systems, enabling changes to be made to the directional radio connections across all the manufacturers uniformly and essentially in real time. All the applications for network management and further automation therefore have a multi-manufacturer design. SDN and other software-based approaches assist the Telefónica Deutschland Group in reducing the complexity of its network architectures and in advancing its network expansion even more quickly and with greater quality thanks to a higher degree of automation.

The Telefónica Deutschland Group was the first German network operator to activate mini network cells with innovative open RAN (ORAN) technology in Munich in early 2022. The mini network cells provide reliable access to a high-performance network in places where an especially large number of people are out and about with their smartphones. In contrast to the developments until now of leading mobile communications technology manufacturers, ORAN has a modular set-up featuring the hardware and software of various producers. This means less fixed infrastructure will need replacing during future modernisations.

The Telefónica Deutschland Group is assuming the role of a technological trailblazer with its use of ORAN – it is the first German provider to operate ORAN base stations in its live network. The company is currently trialling the technology and gaining experience. This includes the Telefónica Deutschland Group using artificial intelligence with Nokia's RAN Intelligent Controller in the Hellersdorf district of Berlin since February 2022 to optimise its mobile communications network as well as identify and remedy problems, all in near real time.

In a comprehensive transformation process, the Telefónica Deutschland Group is making its network and IT systems more flexible and will transfer systems from the data centres to the cloud up to 2025. A detailed strategy was drawn up for this which takes into account all the technological advantages of cloud structures for the business. In training sessions, developers acquire additional skills for the creation of new architectures or the development and operation of new applications (more on the topic of professional development in the "Future employability" chapter).

Reducing black and grey spots

At the same time as expanding 5G, the Telefónica Deutschland Group is systematically improving its 4G/LTE network. A 4G network that continues to grow is important because approximately 94% of all mobile data flows via this network infrastructure and 4G will remain the backbone of the mobile

communications network in the years to come. The Telefónica Deutschland Group's expansion programme focuses not only on towns and cities, but also and above all on regions of Germany which have previously been undersupplied. In regions with insufficient capacity, it is replacing old sites with new platform sites with far greater capacity. It expanded some 7,000 sites in this way in 2022 to offer faster Internet, especially in rural regions.

The Telefónica Deutschland Group now supplies 99.9% of households with 4G/LTE. The company complies with the nationwide requirement stipulated by the German Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur) of 98% household coverage with a download speed of 100 Mbit/s in every federal state. The Bundesnetzagentur will review the reported results in the course of the year. Further information on the regulatory requirements can be found in the [Combined Management Report 2022](#) in the chapter "Business Development of Telefónica Deutschland Holding AG". The Telefónica Deutschland Group is also focusing on expanding coverage along important transport infrastructures such as motorways, federal highways and railway lines. It is gradually closing the remaining coverage gaps, ideally to enable customers to benefit from a fast network everywhere. For example, one of the largest "black spots" in Bavaria was closed in September 2022 with a new mobile communications mast near Augsburg.

The Telefónica Deutschland Group also wishes to close gaps through its two partnerships for the improved coverage of "grey spots" agreed together with Deutsche Telekom and Vodafone in 2021. They intend to jointly use network technology at several hundred carefully selected antenna sites in order to improve coverage in areas in which not all the providers can offer their customers mobile network access via 4G. In contrast to previous cooperations such as site sharing and the operators' agreement on the removal of black spots, with this approach, there is no need for a second set of separate wireless technology or additional antennas to be installed. The Telefónica Deutschland Group and Deutsche Telekom initiated live operations of their collaboration in September 2022 with mutual access each to 200 of the other provider's mobile network sites.

The fast network expansion is noticeable due to significantly improved network quality and therefore also a sharp increase in customers' data usage. This is primarily due to the increasing popularity of music and video streaming and the sharing of photos and videos via social media and messaging apps such as WhatsApp. In 2022 as a whole, the Telefónica Deutschland Group network transported 3.5 billion gigabytes of data volume in Germany's mobile communications networks. Data usage within the Telefónica Deutschland Group network therefore increased by 43% year-on-year.



Partnerships for a high-performance network

The Telefónica Deutschland Group offers its customers greater fixed line network coverage in Germany on the basis of future-proof broadband cooperation models and offers them a high-performance infrastructure mix of cable, fibre optics, 4G/5G and DSL. It is working with a number of telecommunications service providers and network operators including Vodafone, Tele Columbus and Deutsche Telekom. Thanks to an expanded cooperation with Vodafone, customers have been able to use surf speeds of up to 1 Gbit/s since April 2022. Previously, speed was limited to 300 Mbit/s. Through its cooperation with Deutsche Telekom, the Telefónica Deutschland Group has also been able to market fibre-optic products since late November 2022. It also offers O₂ my Home products via fibre optics provided for the O₂ brand by the company Unsere Grüne Glasfaser (UGG). UGG is a joint venture between the Telefónica, S.A. Group and Allianz SE. The Telefónica Deutschland Group holds a 10% stake in the company.

Close dialogue with local authorities and policymakers

The local authorities are above all important partners when telecommunications infrastructure is being set up or expanded. For example, the Telefónica Deutschland Group coordinates network expansion closely with the towns, cities and municipalities in which it intends to install technical facilities. As a result, it is meeting the requirements of the voluntary commitment made to the German government, the Federal Immission Control Act (BImSchG) and an agreement with the local authority associations to which the four German mobile communications companies have signed up. This agreement was brought into line with the current requirements in 2020 with the aim of guaranteeing the involvement of the local authorities in the creation of 5G networks and expansion of the network infrastructure too while also facilitating infrastructure expansion which is as swift and as conflict-free as possible. New

additions included the detailed rules regarding the expansion and joint use of the existing mobile network sites, dealing with site alternatives and recommendations regarding the use of municipal properties. The agreements reached between the mobile network operators, the German government and the local authority associations also offer the local authorities a broad array of effective dialogue and participation measures.

The Telefónica Deutschland Group again contributed its expertise at various information events held locally in 2022. For example, it supported the district tour of the initiative "Germany talks about 5G" in the Garmisch-Partenkirchen and Forchheim districts by making company representatives available as contacts concerning mobile network expansion. In 2022 the Baden-Württemberg Ministry of the Interior, Digitalisation and Local Government and the Federal Gigabit Bureau jointly launched a series of information events for local authorities in the federal state's regions, which the Telefónica Deutschland Group supports in the form of staffing with contacts as well as, in individual cases, with speakers. The Telefónica Deutschland Group was represented at the 2022 annual conference of the German-Swiss Association for Radiation Protection to discuss ways in which to improve communication between the experts and the general public.

Together with the mobile operators Deutsche Telekom, Vodafone and 1&1, the Telefónica Deutschland Group runs the information portal www.informationszentrum-mobilfunk.de . This information offering focuses on setting up and expanding mobile communications networks based on societal consensus as well as consumer issues and health protection. In the year under review, Informationszentrum Mobilfunk (Information Centre for Mobile Communications (IZMF)) expanded the landing page www.kommunalinfo-mobilfunk.de developed in 2021, which condenses the information from its general website which is material to local authorities. In addition, a new podcast series called *MobilfunkTalk* was launched.

Stages of creating a mobile communications base station¹



¹ Source: <https://www.informationszentrum-mobilfunk.de/mediathek/grafiken/schritte-beim-aufbau-einer-mobilfunk-basisstation>



Data analytics for the benefit of society

As a mobile operator with more than 48 million connections, the Telefónica Deutschland Group gains access to vast volumes of data in the course its network operations. This data – such as mobility data – is often exclusively available to it as a network operator. With the mobility insights line of business, the company supports research projects which seek to tap the innovation potential that data analytics offers to all areas of life and for the benefit of society, from climate-friendly mobility and health care to efficient energy management and private consumption.

The public transport company Berliner Verkehrsbetriebe (BVG), for example, draws on mobile communications data analytics with the assistance of the Telefónica Deutschland Group in order to plan and coordinate their bus and rail services better. The company receives anonymous analysis results regarding passengers getting on and off or changing between modes of transport as well as on transport links. These are based on anonymised and aggregated Telefónica Deutschland Group data and are made available to BVG in extrapolated form by the analytics partner Teralytics. In addition to BVG, Deutsche

Bahn continues to count among the customers of Teralytics. The project is supported by the Federal Ministry for Digital and Transport (BMDV) as part of its “Digitalisation of municipal transport systems” funding guidelines.

The relevance of mobility analysis based on mobile communications data was also borne out during evaluation of Germany’s 9-Euro-Ticket for local and regional public transport. Drawing on anonymised and aggregated mobile telecommunications data, the Federal Statistical Office was able to determine that there was a significant increase in rail travel in the first month following the ticket’s introduction. On average, rail travel was up 42 % nationwide in June 2022 compared with June 2019. In contrast, a moderate decline in road traffic was recorded.

To make it impossible for data from digital sources such as mobile communications to be associated with a specific person, the Telefónica Deutschland Group uses a three-stage anonymisation process (more information on this in the “[Data protection and information security](#)” chapter).

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Coverage of the total German population with 5G	The selected population-based evaluation does not only include the household-based coverage calculation with fixed location reference as reported to the Bundesnetzagentur. It also includes commuter flows of the population, so that part of the population is counted at both their place of residence and at their place of work (maximum population). In this way, the Telefónica Deutschland Group takes into account that services are not only demanded stationary at the place of residence, but also while on the move. This figure is the year-end figure representing the availability of mobile services outdoors.	50%	80%	2025: 99%

[Click here for ESG data and indices.](#)



Employees

Shaping an attractive working environment

"We rely on fairness, equal opportunity, diversity and working together as partners to jointly shape tomorrow's working world."

THE KEY FACTS:



Hybrid working is now well established in the Telefónica Deutschland Group.



The Telefónica Deutschland Group was included in the Bloomberg Gender-Equality Index (GEI) for the fourth consecutive time in 2023.



Employee satisfaction and the employees' identification with the company increased again in 2022.

BASIC PRINCIPLE AND CHALLENGES

Hybrid collaboration is the new standard

The Telefónica Deutschland Group wishes to establish an appreciative work environment in which all the employees can enhance their long-term employability, maintain their well-being and take advantage of the opportunities offered by digitalisation. The company is focusing more than ever on hybrid collaboration, flexibility and productivity in order to take the digital transformation forward – all while considering the individual employees' needs as well as the company's contribution to society. In this way, the Telefónica Deutschland Group wishes to strengthen its competitive position, safeguard its ability to innovate and rise to the challenges posed by the shortage of skilled workers.

As a company with around 7,500 employees, equal opportunity and gender diversity are key concerns for the Telefónica Deutschland Group. This applies not only to access to digitalisation, which it as a telecommunications company wishes to afford all people, but also to career opportunities that cater to individual lifestyles. The Telefónica Deutschland Group firmly believes that diversity makes the company more creative and more efficient because in times of accelerated change in particular, the interplay of different skills, viewpoints, experiences and backgrounds is

a key factor contributing to success and the Group's ability to compete. The Telefónica Deutschland Group wishes to play its part in creating a resilient society and economy with a work environment in which people are appreciated for their differences.

Since the onset of the pandemic, many Telefónica Deutschland Group employees have productively collaborated almost exclusively virtually. Personal meetings nevertheless remain important. Employees therefore collaborate within a hybrid working model. This "new normal" calls for a good balance being struck between business interests and the employees' needs and also for clear agreements. The organisation has already successively adapted its perspective from solely working from home to a hybrid working model in 2022.

The 5 Bold Moves serve as the Telefónica Deutschland Group's guidelines for the digital working world. One important objective of these five key initiatives is to boost employee engagement and loyalty by means of flexible work options. The aim is to make the most of the employees' potential across all the generations, genders and professional and personal backgrounds and enable staff to reconcile their various lifestyles with professional needs. (Details of the 5 Bold Moves can be found in the ["Strategic priorities"](#) section).



The Telefónica Deutschland Group aims to promote and tap the full potential of all its employees, across all generations and genders. This is becoming increasingly important, in particular in view of ongoing demographic change and the resultant shortage of skilled workers. It is therefore crucial that employees be encouraged to continue to pursue internal mobility and further development at all stages of life and all career levels.

The Telefónica Deutschland Group has enshrined endeavours to make women in management positions successful and to increase the proportion of women in top management in its corporate goals. One challenge in this context is recruiting enough female future managers to be able to increase the proportion of women in managerial positions as planned.

Employee engagement is a key factor in the success of the Telefónica Deutschland Group – and the potential of the approximately 7,500 employees to pull together in society to promote the responsible handling of digital transformation is just as big. With the involvement of the executives, the Telefónica Deutschland Group is therefore creating a work environment to which the employees can actively contribute with their achievements, their ideas and their social engagement, for example during a volunteering week on the topic of the environment.

The company sets great store by interactions founded on fairness, working together as partners and an inspiring motivating work climate. The Telefónica Deutschland Group wishes to remain an attractive employer for its employees as well as for external applicants in the future on the basis of appropriate measures and in ongoing dialogue with its staff.

PROCESSES AND MANAGEMENT

Regular feedback from the employees

The Chief Human Resources Officer (CHRO) has overarching responsibility for the area of staff matters. In addition, employee representatives at all the sites advocate for the employees' interests. Employee surveys are conducted regularly to assess the attractiveness of the work environment and the progress made with the core issues regarding company-wide digital transformation. This includes a short survey conducted throughout the year known as the Pulse Survey and the annual global Employee Experience Survey. Both types of survey are conducted online, anonymously and voluntarily among all employees of the Telefónica Deutschland Group. The values measured include the employee Net Promoter Score (eNPS), which is a sign of the likelihood of employees recommending the Telefónica Deutschland Group as an employer. It is therefore a key indicator of the Group's attractiveness as an employer. Scores are also calculated for agility, leadership skills and mobility.

The company achieved an eNPS of 66.2 in the employee survey conducted at the end of 2022 – higher than the score achieved in the 2021 year-end survey (60.4). Anything above zero means the majority of the employees are happy and would recommend their employer. The key drivers included the high degree of flexibility regarding working time and place of work. Other issues that contribute to the eNPS in particular are the employees' communal spirit, joint social engagement, and development and career opportunities.

Labour-management relations

	Unit	2022	2021	2020
Employee Net Promoter Score (eNPS)	Score	66.2	60.4	53.8
Response rate	%	79	77	77

Other results show that 94% of the employees feel they are part of a team in the Telefónica Deutschland Group's hybrid working world and that the core transformation topics such as management development, mobility within the company and the development of material future skills are successfully advanced. 93% of those surveyed identify with the Telefónica Deutschland Group's business purpose – they agree with the statement that what the Telefónica Deutschland Group does has a specific purpose and that society benefits from this. This figure increased slightly year-on-year (92%).

The response rate for the global survey was 79% in 2022, which surpassed the previous year's figure of 77%. Together with the Pulse Surveys conducted during the year, the global Employee Experience Survey plays a part in the Telefónica Deutschland Group regularly reviewing the progress it has made regarding its key HR strategy topics on the basis of data and then implementing targeted measures. The results are additionally made available to executives in a digital dashboard, where they can see the figures for their division.

With the help of its HR strategy, the Telefónica Deutschland Group manages its measures and processes and identifies focal issues. Its policies regarding human rights, equality and anti-discrimination contain principles and guidelines for handling its employees. The Business Principles additionally apply to all employees.

Strong representation of the employees' interests

Employee representatives at all the sites advocate for the employees' interests. Germany's Works Constitution Act (BetrVG) affords employee representatives far-reaching authority, thereby strengthening employees' rights. Disabled persons and workers with equivalent status are afforded special legal protection by Book IX of Germany's Social Code (SGB). Their interests



are safeguarded by disabled employee representatives within the company. The employee protection offered by Germany's works constitution legislation is in many respects considerably better than the protection offered in other European and non-European countries. Irrespective of representation pursuant to works constitution legislation, workers in Germany are entitled to unionise. Trade unions are also represented within Telefónica Deutschland Group operations and on the Supervisory Board of Telefónica Deutschland Holding AG. They co-determine the company's labour conditions. For this reason, there is no need for a specific policy to uphold freedom of association and collective bargaining within the Telefónica Deutschland Group.

Preventing discrimination

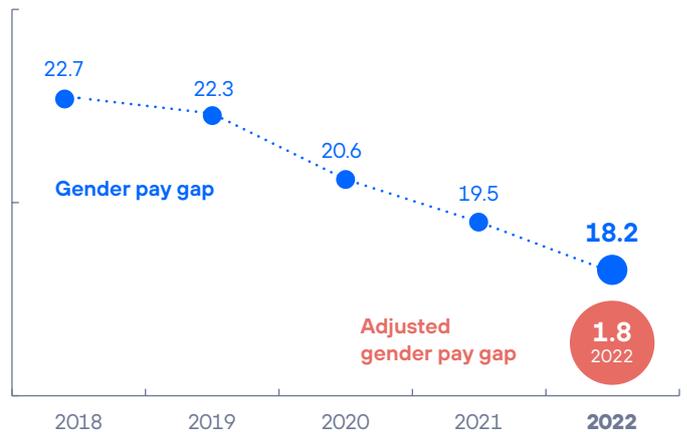
With the [Human Rights Policy](#) and [Anti-Discrimination Policy](#), the Telefónica Deutschland Group has made a commitment to fair, respectful and non-discriminatory treatment as the foundations of successful collaboration. The company has also underpinned this commitment by signing the Charta der Vielfalt (Diversity Charter). The Telefónica Deutschland Group's actions are furthermore guided by the United Nations' standards of conduct for tackling discrimination against LGBTQI people, to which it is a signatory (2021). It adopted its [Equality Policy](#) in 2022 which reaffirms the fact that the work environment should be free of harassment and discrimination and that there should be equal opportunity regarding employment, job classification and career development. Related to this is the attempt to increase the proportion of employees with disabilities in the company. A new director's role was created in the year under review which reports directly to the Chief Human Resources Officer and is responsible for the topics of diversity, inclusion, innovation and culture. The management team promotes diversity regarding knowledge, experience, gender, nationality and other aspects across all positions and hierarchical levels.

If the Business Principles are violated, for example in the form of bullying or harassment, employees can contact a confidential whistle-blower system with an independent ombudsperson or the human rights reporting channel. More on the whistle-blowing channel, employee training on treating each other ethically and the Business Principles can be found in the ["Compliance and ethical principles"](#) chapter. The online training provided regarding Germany's General Act on Equal Treatment (AGG) and focusing on diversity and inclusion is mandatory for all employees every three years. Up to the end of the reporting year, 91.2% of the employees had been given training on the AGG in the past three years, equating to a total of 4,913 training hours.¹

The Telefónica Deutschland Group had a gender pay gap of 18.2% in the year under review (2021: 19.5%). The company is committed to further reducing its gender pay gap and is liaising closely with the Management Board and the Supervisory Board in this regard. The uniform remuneration system at Telefónica Germany GmbH & Co. OHG is also to contribute to this, ensuring that positions and salaries are assessed objectively and treated equally. The Telefónica Deutschland Group analyses the gender pay gap, i.e. the difference in the average pay of men and women, in detail and has succeeded in reducing this pay gap in recent years. From 2018 to 2022 the gender pay gap fell by 4.5 percentage points. In addition, an estimation model is used to also calculate what is known as the adjusted gender pay gap, which is a measure of the difference in the remuneration of men and women in comparable positions and with comparable experience and which therefore serves the more targeted management of fair pay. There was an adjusted gender pay gap of 1.8% in the reporting year.

Gender pay gap

in %



Diversity, equal opportunity and non-discrimination

	Unit	2022	2021	2020
Women in senior management (incl. Management Board)	%	32.1	28.8	27.8
Confirmed incidents of discrimination and corrective actions taken	Number	0	0	0
Gender pay gap	%	18.2	19.5	20.6
Gender pay gap (adjusted) ¹	%	1.8	N.a.	N.a.

¹ The calculation of the gender pay gap (adjusted) is based on the employees of the Telefónica Deutschland Group who are either active or on paid leave (2022: 6,995).

¹ Proportion based on number of employees of the Telefónica Deutschland Group excluding employees on sabbatical, external consultants and temporary employees (staff count: 7,181; previous year: 7,030). The calculation includes the completed training units of the last three years. For 2022 this means 6,550 completed training units between 1. January 2020 and 31. December 2022.



STRATEGIC PRIORITIES

High degree of flexibility in day-to-day work

The Telefónica Deutschland Group defined its future ways of working with its 5 Bold Moves and embedded these step by step within the company, for example by means of specific information events, supplementary material and coaching for executives and employees. Over the course of 2022, the company was able to further establish its hybrid working model, in part because personal meetings were once again possible more frequently.

The five key initiatives help to accelerate the company's transformation into an organisation which is adaptable and which will continue to be efficient in the future and are therefore an important part of the company-wide HR strategy. The key initiatives encompass:

- Working anywhere – working wherever it is most productive
- Working anytime – maximum work time flexibility
- Outcome-based leadership – systematic focus on results
- Digital by default – virtual meetings as the new standard
- 70% less travel – significantly fewer internal business trips

With the increasingly digital way of working that comes with these initiatives, the Telefónica Deutschland Group is improving the reconcilability of different lifestyles with professional needs and is promoting inclusion with a view to offering new opportunities in terms of women in management positions. It endeavours to offer its employees as much flexibility as possible regarding their day-to-day work. For example, it offered them free IT equipment and discounted office furniture for working from home during the pandemic-related restrictions.

The Telefónica Deutschland Group also makes it possible for the employees to improve their personal environmental footprint with modern workplace design. By increasingly working from home and using videoconferences, they are contributing to a reduction in traffic volumes and the corresponding pollutant emissions.

To promote open communication within the company, various formats involving the Management Board and employees are in place. These include regular digital dialogue meetings with executives and a digital format which gives employees the opportunity to engage directly with the Chief Human Resources Officer (CHRO) and obtain information on changes which are relevant to them, ask questions and give feedback.

In 2022 the Management Board was able to visit all seven sites consecutively once again for the first time since the outbreak of the pandemic. The Management Board members engaged in dialogue with the employees in a "check-in with the future", answered questions and presented the key strategic initiatives for

the company's continuing journey. At each site, they presented a Warp Award – an employee award for forward-looking ideas.

Important milestones were reached in the negotiations with the employee representation bodies in 2022, in particular regarding the topics of mobile work and working time flexibilisation. The negotiating parties were able to agree on uniform and reliable rules for the Telefónica Deutschland Group's two largest sites, Munich and Düsseldorf. Agreements were also made at other sites/in other companies. Telefónica, S.A. and the European Works Council have agreed on the principles of availability when working from home ("right to disconnect"), and these naturally continue to apply.

In June 2022 the Group Works Council of the Telefónica Deutschland Group and employee representatives from other companies discussed the socio-ecological transformation process within the German economy at a meeting with Chancellor Olaf Scholz. The issues discussed included the safeguarding of jobs and the challenges companies face at a time of system upheaval.

Recognition of the Group's equal opportunity

The Telefónica Deutschland Group is actively involved in the Telefónica Group's Global Diversity Council and promotes diversity in a variety of ways: the Telefónica Deutschland Group's workforce includes people from 74 different countries, talented young individuals, older members of staff and, for a number of years now, two women on the Management Board. The Telefónica Deutschland Group has been recognised numerous times for its [commitment to equality and inclusion](#) 🏆. It was included in the highly regarded [Bloomberg Gender-Equality Index \(GEI\)](#) 🏆 for the fourth consecutive year in 2023.

The employees themselves appear to be very happy too – 94% of them (2021: 94%) stated in the company-wide survey conducted in late 2022 that they experienced pronounced equal opportunity at the Telefónica Deutschland Group. The flexibility of being able to decide themselves when and where they work in Germany makes it an attractive employer for employees at various stages of life. For the Telefónica Deutschland Group, equal opportunity also includes equal access to digital skills – this is an important element of participation in the working world. With the Digital Basics Learning Journey, for example, the employees are offered content that can be easily incorporated into their daily working lives. With this programme, the company gives all the employees the opportunity to learn important future skills irrespective of their training background, stage in life or work reality, thereby promoting equal opportunity (more information on this in the ["Future employability"](#) chapter).



Improved career prospects for women

Increasing the proportion of women in management positions is a key concern for the Telefónica Deutschland Group – the company surpassed its target of having 31% women in senior management positions by the end of 2022, achieving a level of 32.1%. The company has sharpened the previously set target that the share of women should grow to at least 33% by 2024 and is expected to be exceeded already by the end of 2023. With this target, the Telefónica Deutschland Group sets itself apart from the targets that generally apply in the German information and telecommunications industry. Since 2022 it has also given this non-financial target a greater weighting in the calculation of the Management Board’s variable remuneration – it now has a weighting of 3% compared to the previous weighting of 1% (more information on this in the “Governance” chapter).

The vibrant internal community TelefónicaConnects serves employees at the Telefónica Deutschland Group as a networking platform. As well as providing inspiration through regular specialist presentations by engaging personalities and role models, this initiative increases the overall visibility of women at the company. Over 340 employees were active in the network in 2022, playing their part in promoting gender diversity at the company.

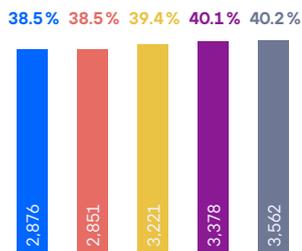
Within society, the Telefónica Deutschland Group is also actively involved in the Chefsache initiative which, with top-class support from the fields of business, science, media and politics, promotes equal opportunity for women and men. The company is also a member of the advisory board of the initiative #SheTransformsIT, which champions the increased presence of women in digitalisation.

Company-wide commitment

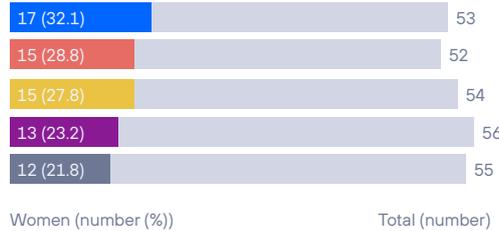
For the Telefónica Deutschland Group, social commitment is inseparable from responsible action and is firmly embedded in its corporate culture. Together with its partner Aktion Deutschland Hilft e. V. (Germany’s Relief Coalition), the Telefónica Deutschland Group called upon its employees to make donations in March and June 2022 for people in need due to the war in Ukraine. The company doubled the total sum donated. This resulted in donations totalling more than EUR 200,000 being made in the space of four months. Aktion Deutschland Hilft used the funds to equip reception centres located along the Ukrainian border. In Germany, International Volunteer Day on 1 July 2022 was likewise all about lending support to refugees from Ukraine. Volunteers got involved with creatively teaching children language skills, with online application coaching or with organising a summer party.

Diversity¹

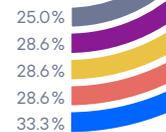
Women in the company as a whole Number and %



Senior management at reporting level 1 (incl. Management Board)



Women on the Management Board in %



Nationalities of employees Number

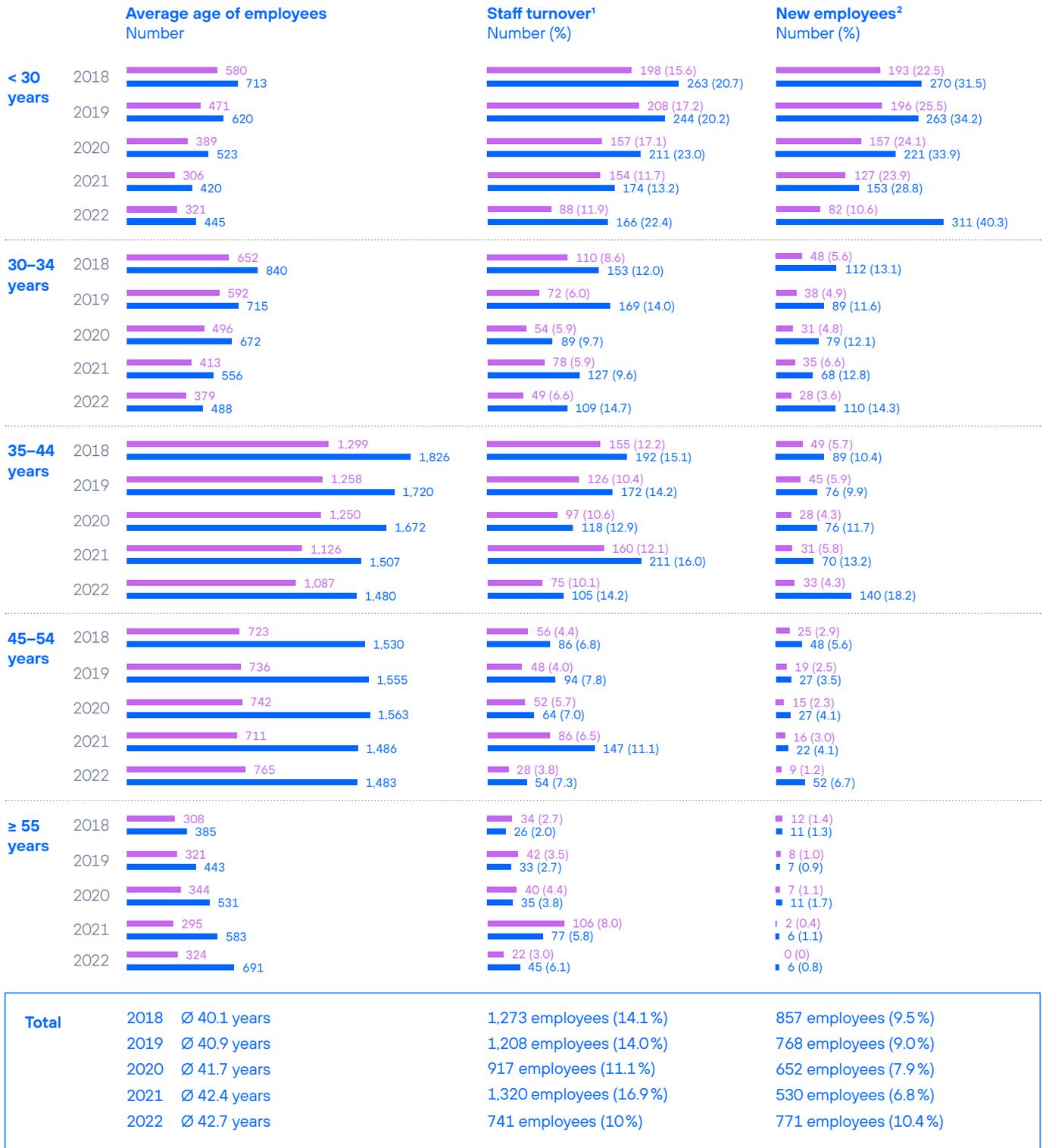


¹ Non-binary employees (< 10) are tracked for the company, but not publicly disclosed due to data protection reasons.



Employee key figures

Women Men



¹ The basis is the number of employees who left over the period from 31 December 2021 to 30 December 2022/mean PIP value at the five reporting dates 31 December 2021, 31 March 2022, 30 June 2022, 30 August 2022 and 31 December 2022.
² The basis is respectively the number of new entries over the period from 1 January to 31 December of the relevant financial year.



Employees at the Telefónica Deutschland Group call centres supported the accommodation platform #UnterkunftUkraine for several months, finding more than 1,000 beds for refugees.

Telefónica Deutschland Group employees also took a stand for local environmental protection in the year under review. The company-wide environment weeks ran from 16 May to 3 June 2022. Together with partner organisations, volunteers were able to participate in clean-up drives and biotope management or do some gardening together.

As a company-wide team event for a good cause, the O₂ Telefónica Run 2022 boosted a feeling of unity, employee loyalty and a shared sense of social responsibility. From 16 to 21 September more than 2,000 volunteers demonstrated dedication and a sporting spirit. They jointly ran, cycled and swam, in the process generating donations in the amount of EUR 50,000 for the food bank organisation Tafel Deutschland e. V., which supports two million people in Germany affected by poverty with recovered food.

The Telefónica Deutschland Group volunteers supported many people in difficult situations during Advent with three Christmas activities. This resulted in their donating around 1,145 kg of food to Tafel Deutschland e. V. The O₂ Telefónica volunteers helped organise and run an afternoon for senior citizens with the digital Christmas quiz organised together with the Digital Opportunities Foundation. The volunteers supported the Creative Therapy pilot project with an arts and crafts activity run by O₂ Telefónica, Fundación Telefónica and Caritas's integration advisory service. The project offers Ukrainian children a safe space in which they can develop a sense of stability. The arts and crafts led to the Caritas premises being festively decorated and put a smile on the children's faces.

There were a total of 3,086 instances of participation in volunteering activities in the year under review, in which not only salaried employees were able to participate, but also temporary employees, interns and other external employees through a number of charitable activities. 29.5%¹ of the salaried employees volunteered in 2022, meaning the target of 30% was almost achieved. Information on volunteering as part of the "Digital mobil im Alter" (Digitally mobile in old age) social programme can be found in the "Products, service experience and digital skills" chapter.

Extensive additional benefits

The Telefónica Deutschland Group is not bound by collective bargaining agreements. The company negotiates all arrangements regarding remuneration systems and labour conditions which are subject to co-determination regulations directly with its operating partners on the basis of trust to ensure that the specifics of the telecommunications industry and the needs of the employees can be taken into account.

The Telefónica Deutschland Group considers the comprehensive additional benefits it offers its employees to be an important component of its attractiveness as an employer. Depending on the Group company and the employee group, these include company pension subsidies, discounts on public transport, insurance policies, meal subsidies, a family service and employee credits for the company's products and services.

In the case of the following benefits, no distinction is made between full-time and part-time employees: Group accident insurance (incl. disability and invalidity coverage), health care, stock ownership, meal subsidies, use of company facilities such as the canteen and the sports programme, and employer's contributions to tax-deductible savings schemes. Permanent employees are entitled to a company pension. Personnel expenses came to EUR 622 million in the year under review (2021: EUR 585 million).

Benefits awarded in the same sum to part-time and full-time employees include the travel allowance and call credit for the company's services. Most fringe benefits are offered to part-time employees based on their pro rata level of employment or part-time salary. Regarding staff employed via temporary work agencies, the principle of equality as per Section 8 of the German Act on Temporary Agency Work (AÜG) applies.

A new global share savings plan was launched in the year under review, in which employees at all the Group companies could buy shares in Telefónica, S.A. on special terms. Called Plan100, the share savings plan marks the Group's 100th anniversary. More than 3,000 employees in Germany are participating. They choose the amount of their salaries they wish to invest in purchasing Telefónica, S.A. shares over a period of 12 months. For every share purchased in this way, they will be awarded another share for free at the end of the lock-up period in April 2024. All the participants will additionally receive a further 100 shares for free at the end of the plan's term.

¹The calculation for the reporting year 2022 only takes into account individual participants (2,180) who are included in the defined group of employees, i.e. does not include interns, temporary employees and external employees. The total number of instances of participation in 2022 is 3,086.



The Telefónica Deutschland Group offers all the employees a family service in cooperation with famPLUS. This includes assistance for working parents with organising qualified childcare. Backup support is another of the services, its aim being to mitigate emergencies in the event of the unforeseen absence of regular childcare. All salaried employees are entitled to up to five days of this per child and calendar year.

The Telefónica Deutschland Group held the annual children's days virtually again in 2022. Together with famPLUS, it offered its employees and their offspring the Silicon Valley Kids event

over three days in November, during which they were able to participate in a child-friendly online escape room, magic classes and a quiz.

The Telefónica Deutschland Group has been offering the Blue Bike bicycle leasing service since 2021. This allows employees to travel in an environmentally sound way on a leased bike while also doing something for their health. The company also developed a digital process that enables the bikes to be ordered with just a few clicks. The leasing service is treated as gross deferred compensation.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Women in senior management (incl. Management Board)	Percentage of women in management positions (incl. Management Board)	31%	32.1%	2024: 33%
Perceived balance of work and private life	Perceived balance of work and private life as measured in the employee survey, coupled with a positive influence on productivity	Over 80%	85%	Over 80%
Adjusted gender pay gap	The (adjusted) gender pay gap is calculated on the basis of the Telefónica Deutschland Group employees who are either in active employment or are on a paid sabbatical	—	1.8%	Approx. 2.5%

[Click here for ESG data and indices.](#)



Future employability

“We create a framework which enables all employees to utilise their diverse skills and further develop, thereby boosting their long-term employability with future-oriented skills. Our employees’ health and safety are of particular concern to us.”

THE KEY FACTS:



The Telefónica Deutschland Group further strengthened access to training and education in all stages of life, with a focus in particular on key future skills.



More than half of the vacancies advertised were filled internally – including thanks to the promotion of internal mobility.



The company was placed in the “Excellence” category of the Corporate Health Award for the fourth time.

BASIC PRINCIPLE

Developing skills and maintaining health

The Telefónica Deutschland Group wishes to offer its employees high-quality training and education opportunities across all generations, career levels, work realities and stages of life. In this way, it is pursuing the goal of adapting to digital transformation together with the workforce and enabling everyone to make use of the opportunities offered by digitalisation. The focus here is on developing and enhancing digital and data-centred skills and embedding internal mobility and agility in the company.

The Telefónica Deutschland Group is especially concerned with providing a safe work environment and maintaining and promoting the health of its employees, in particular in view of the ever-changing demands of the digital world. The company therefore engages in comprehensive health management to promote the health of its employees and prevent work-related illness and occupational accidents. In this way, the Telefónica Deutschland Group also wishes to make a key contribution, promote good health and well-being in society and maintain people’s employability.

With there currently being multiple overlapping crises with COVID-19, the war in Ukraine, inflation and the energy crisis, there is an increased risk of health problems and, in particular, psychological stress. The Telefónica Deutschland Group aims to identify these strains early on and effectively tackle them with health-promoting measures. Infections and illnesses related to the COVID-19 virus still pose a variety of health risks for the

employees. The risk of infection was minimised by implementing targeted measures to protect against infection, thereby reducing the risk of work-related ill health.

A large proportion of the workforce collaborated virtually from their respective homes again in the reporting year. The Telefónica Deutschland Group endeavours to promote the health of all the employees via comprehensive digital programmes. There was also a focus in 2022 on making in-person meetings possible in order to balance out the professional interaction deficits caused by the majority of people working from home.

With its different ways of working and hybrid working models, the digital working world presents not only employees, but also executives with new challenges. For everyone to be able to jointly actively shape transformation, the Telefónica Deutschland Group is making targeted investments in the ongoing managed further development of employees and executives, for example with regard to individual responsibility, a focus on results and team development. In this way, the Telefónica Deutschland Group wishes to safeguard the individual employees’ employability, invest in the company’s future viability and contribute to the competitiveness of the German economy.

Different work realities, for example in the corporate functions, in customer service and at the shops, call for carefully designed learning and further-training options in order to make the offerings accessible for all the employees equally. The digital formats put to the test in the two previous pandemic years such as interactive virtual live sessions were used again in 2022. It



was additionally once again possible to organise executive development meetings or team building and team development meetings as in-person meetings.

The Telefónica Deutschland Group is also pursuing the goal of acquiring highly qualified new employees. Using various initiatives, it seeks to inspire young talent in particular and promote their development. In this way, it secures qualified junior staff and strikes a good generational balance. Both of these together – the employees' professional development and the acquisition of new talent – will strengthen the workforce's employability and the organisation's future viability in the long term.

PROCESSES AND MANAGEMENT

Focus on the employees' needs

The employee survey, conducted for the first time in 2021 on the topic of further development at various stages in life, once again served as the basis for developing new further-training offerings in 2022. The survey showed that there is a high degree of general willingness within the workforce to develop further across all the generations and stages of life. But many employees also want more development opportunities that take their specific needs into account. The Telefónica Deutschland Group catered to this wish in 2022 by launching new programmes that aim to include employees of all work realities. These include basic training on data and artificial intelligence as well as e-training on digital basics – both within the context of the established Digital Basics learning opportunities.

Establishing a feedback and learning culture

The significance of training and education for the employees is enshrined in the [Business Principles](#) 🚩 ("Career development") and expanded on in the HR strategy. The employees spent an average of 16 hours on training and education in the year under review. This represented a slight year-on-year drop (2021: 17). This drop is attributable to the fact that the Telefónica Deutschland Group had a larger offering of Digital Basics modules when they were first launched in 2021.

According to the 2022 employee survey, 90% of the employees have an appraisal of their skill and knowledge development with their executive at least once a year, while 69% have such an appraisal at least once every six months. The Telefónica Deutschland Group intends to further increase these quotas with its new performance management programme: annual employee development meetings will be mandatory from 2023. The objective is to establish a growth- and solution-oriented feedback culture as a culture of learning which promotes further development and is motivational.

Training and education

	Unit	2022	2021	2020
Average hours of training and education per year per employee ¹	Number	16	17	11

¹The calculation for the reporting years 2021 and 2022 was made on the average employee basis of the respective reporting year (PIP 2021: 7,779; 2022: 7,390) of the Telefónica Deutschland Group including employees on sabbatical leave, but excluding external consultants and temporary staff.

Holistic health policy as the bedrock

The Telefónica Deutschland Group is building on its integrated occupational health and safety management system as derived from a holistic health policy with the following objectives:

- Preventing work accidents and work-related illness
- Promoting employee health through targeted measures
- Increasing work satisfaction and dedication
- Promoting constructive and respectful cooperation

The "Integrated occupational safety and health management manual", which applies to all the employees of the Telefónica Deutschland Group, serves as the basis here. This manual serves as the implementation framework for a holistic health policy and describes the responsibilities, processes and rules required for occupational health and safety management for all those involved in this area. The aim is to achieve the health policy targets set by the Management Board by means of a uniform, consistent and sustainable management system. The management system applies to all Telefónica Deutschland Group companies and their bodies, executives and employees. The management system and the manual are based on the DIN EN ISO 45001:2016 certification standard.

The Telefónica Deutschland Group is bound by the provisions of Germany's occupational health and safety legislation as well as other statutory prerequisites and the country's occupational insurance scheme requirements. Overall responsibility for implementation is borne by the Management Board or the management of the company in question together with the executives. The HR Digital, Data & Solutions directorate reports to the Management Board on the latest and relevant developments in the area of occupational health and safety.

To create and maintain safe and healthy workplaces, the company performs risk assessments for both physical and mental health as required by health and safety law and acts on the basis of nationally standardised guidelines. These assessments cover all accident and health risks related to the



workplace. Potential hazards are identified in the course of risk assessments and appropriate measures are then introduced. This above all serves to minimise the risk of accidents and preserve the health of the employees¹ in offices, in the shops and at the technical sites. Accident evaluation is the responsibility of each company's occupational health and safety committee. The company's register of hazardous substances is part of the ISO 14001 documentation and is examined and reviewed annually by an external body as part of the monitoring audit.

The Telefónica Deutschland Group also performs regular occupational health and safety audits such as reviewing the management systems in the course of recertification in accordance with the ISO 9001 [↗](#), 14001 [↗](#) and 50001 [↗](#) standards. In the external audit for participation in the Corporate Health Award, the Telefónica Deutschland Group was placed in the "Excellence" category for the fourth time. Regular training and instruction are conducted to further improve the employees' safety awareness. This includes web-based training on the topics of general occupational safety in the offices and shops, fire safety and work conducted at height as well as information events and courses to minimise psychological stress.

A half-yearly company-wide health forum whose attendance is made up of employer and employee representatives as well as other internal stakeholders is additionally held by Corporate Health Management. As a strategic body, it deals with the planning and management of health issues as well as implementation of the health policy throughout the Group. The proportion of the total workforce represented in occupational health and safety committees and bodies is 100%. The health forum also serves as a platform for sharing information and for inspiration and advice. Agreements with the social partners (employee representatives) are covered by formal written works agreements dealing with health and safety topics.

STRATEGIC PRIORITIES

Teaching digital skills and providing resilience training

The Telefónica Deutschland Group wishes to offer all employees the opportunity to grow personally and professionally. The Digital Basics Learning Journey launched in mid-2021 is an initiative developed with this in mind. It teaches the basics of and key terms relating to the most important technologies and trends of digital transformation in order to increase the workforce's digital fluency. In this way, the Telefónica Deutschland Group is enabling all the employees to participate in the digital transformation, seize opportunities and realise their full potential. The Telefónica Deutschland Group launched the Agile Learning Journey learning programme in 2022 with the aim of offering all

employees and executives uniform learning opportunities on the topic of agile ways of working. The programme comprises learning formats along three different paths – there are self-learning, deepening and expert formats. The latter path includes certified further development to become a scrum master or product owner. These should help the company achieve customer-oriented results, be better at responding to the changing market requirements and establish a culture of continuous improvement.

More than 3,500 employees have participated in the programme since it was introduced in 2021, learning the fundamentals in such topic areas as data, cloud computing, cybersecurity and data protection. In addition, the offering was expanded in 2022. Employees now have the opportunity to broaden their basic knowledge of data and artificial intelligence with the help of the StackFuel learning platform, a long-standing partner. To do justice to one of the programme's key aspirations – the inclusion of all employees – e-training was developed in the year under review for the target group of sales and call centre agents that can be better incorporated into their work reality in terms of format, duration and content. And finally, all the employees of the Telefónica Deutschland Group were offered two new live training sessions focusing in detail on macrotrends of significance to the company, namely the metaverse on the one hand and AI and automation on the other. In total, more than 1,500 employees were reached with these and other key upskilling learning opportunities (not including LinkedIn Learning).

As part of its BEYOND initiative, the Telefónica Deutschland Group uses a platform based on artificial intelligence to bring suitable development options within the company to the attention of the employees on the basis of their skill profiles. These may be, for example, vacancies, job rotations or project assignments. This encourages employees to be open to adopting different perspectives again and again and to grow with the new responsibilities that come about due to permanent role changes. In the year under review, more than 43% of the vacancies were filled internally and there were more than 50 job rotations. BEYOND therefore promotes employees' willingness to be internally mobile. The initiative also features longer-term "Learning Journeys" regarding selected, strategically relevant and future-oriented skills. New training was added to the Data Analytics & Science Learning Journey in 2022.

Strengthening executives and promoting up-and-coming talent

The leadership journeys are a way for the Telefónica Deutschland Group to make a targeted investment in its executives in order to

¹In addition to the measures pursuant to the register of hazardous substances, external workers who are not employees of the Telefónica Deutschland Group are also required to observe our instructions regarding the handling of hazardous substances.



strengthen them in their role as the drivers of change, efficiency and engagement and to make ongoing further development available to them too. Other supportive measures for executives in 2022 included individual coaching and team workshops together with professional trainers.

The Telefónica Deutschland Group additionally conducted development audits for the entire extended leadership team, i.e. the top 200 executives, together with an external institution in 2022. The aim of the development audits was to make objective feedback available, including with regard to the market, and lay out tailored development plans.

The Telefónica Digital Transformation Program, an initiative for young experienced talent launched in the previous year, was continued in 2022. It focuses on skills in the data, technology and commercial areas. These qualification profiles are of major strategic and interdivisional importance to the company. The young professionals' stations include project assignments and job rotations within various divisions as well as at the company's own Wayra start-up and innovation laboratory. They are mentored by someone at the Management Board or directorship level.

The offering for trainees and dual-studies students was continued. The Telefónica Deutschland Group recorded 22 new recruits in 2022. In addition, interns and working students are offered the opportunity to make a success of their subsequent career starts by giving them initial insights into the business environment. A trainee retention rate of 72.7% was achieved in 2022. Many trainees chose other options in spite of being offered a position at the company, some for example choosing to pursue a new challenge in a different industry. The Telefónica Deutschland Group continues to strive to increase its trainee retention rate.

Taking care of health

In view of ongoing infections with COVID-19, the Telefónica Deutschland Group attached particular importance to its duty of care regarding its employees' health in 2022 too and once again effected a variety of measures as part of its health management to deal with this challenge appropriately. The infection protection plans developed and continuously updated by the company remained in place.

With digital programmes, the Telefónica Deutschland Group provided its employees with a variety of offerings to get them moving, encourage them to eat healthily, break down stress and overloading, and increase their resilience. Once again in 2022, there was a focus in particular on the preservation of health

when working from home. The online offerings in the form of motivational speeches, Deep Dive Workshops, interviews with affected individuals and fitness specials were mostly recorded, meaning the employees could retrieve the content from anywhere and at any time via an online media library.

A new health app was used for the first time in the year under review as part of a pilot project. This app serves as the digital basis for needs-based and targeted offerings in the area of prevention-oriented health promotion and offers the employees an easy entry point into the Telefónica Deutschland Group's FEEL GOOD programme. The app was first used in the O₂ Telefónica Run + Challenge 2022 and the FEEL GOOD Nutrition Challenge. More than 30% of the workforce participated in the challenges.

As part of a health campaign launched in the previous year, the Telefónica Deutschland Group once again offered its executives innovative mental training in 2022 in order to enhance their mental health. In addition to this, the offering for executives was expanded to include training on mental health in the digital (hybrid) work environment. This looks at how executives can recognise when their employees are experiencing psychological difficulties and how to deal with such issues even if they do not work in the same physical place. The Telefónica Deutschland Group was able to further increase the reach of its health promotion offerings through the use of digital solutions. In terms of work-life balance, the assistance provided included virtual advice in the areas of life situation coaching, childcare and care for the elderly.

There was an absenteeism rate of 5.9% in the year under review. The increase in accidents in 2022 is attributable to the higher number of commuting accidents. This is due to the greater degree of mobility following changes to the coronavirus infection protection measures for companies which meant it was possible to once again work more in the office and less from home in 2022. There were consequently more employees travelling to work in the office than in 2021. However, the rate of lost days due to workplace accidents fell significantly.

Employee health and safety

	Unit	2022	2021	2020
Absenteeism rate ¹	%	5.9	4.9	5.9

¹ The absenteeism rate is calculated by dividing the number of sick days by the result of 250 target working days multiplied by the average of the total workforce (average PIP for 2022: 7,390).



2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Further training in the digital and data area	Percentage of employees who participated in further training in the digital and data area	–	66.8%	2025: 90%
Employee mobility: job rotations	Number of job rotations per year. Job rotation is a temporary change to another department or business unit that gives employees the opportunity to learn new things, expand their portfolio and develop their personal skills.	50	≥ 50	≥ 50

[Click here for ESG data and indices.](#) ↗



Climate and the environment

Energy and CO₂

"We use the options offered by digitalisation to reduce energy consumption and avoid carbon emissions."

THE KEY FACTS:



The Telefónica Deutschland Group is aiming to neutralise its Scope 1 and Scope 2 emissions by 2025.



All emissions are to be reduced to net zero by 2040, including Scope 3 emissions.



Power purchase agreements (PPA) are a core component of the company-wide climate strategy. They enable the company to invest directly in renewable energies as well as enhance the reliability of its energy supply planning.

BASIC PRINCIPLE AND CHALLENGES

Digitalisation as a climate protection opportunity

According to a Bitkom study,¹ digital technologies can reduce carbon emissions in Germany by a fifth as digitalisation accelerates, thereby helping to achieve the national climate targets. This is potential that needs to be exploited in particular in the areas of energy infrastructure, mobility, industry and agriculture. The telecommunications industry can play a key part in combating climate change and in the decarbonisation of the economy and in so doing help to make society's basis for life sustainable. For example, the energy sector cannot successfully manage the energy transition without digitalisation. Electricity grid operators and energy utilities are having to increasingly oversee decentralised renewable energy sources and manage current flows. Only when the electricity grids are connected to telecommunication services do they become smart grids that allow electricity generation and consumption to be managed efficiently.

However, the increase in the volume of data transmitted via the networks as part of this ongoing digitalisation requires additional electricity, which in turn influences the environment and climate. At around 98%, network technology accounted for the largest share of electricity consumption at the Telefónica Deutschland

Group in the reporting year. Telecommunications companies therefore need to make their networks and data centres more compatible with climate protection by boosting their energy efficiency. The Telefónica Deutschland Group has consequently established a three-year energy conservation programme with the aim of cutting its energy consumption by around 20% by the end of 2025 in comparison to 2021 by means of AI-assisted network standby technology, network modernisation and cloudification. Back in 2016 the mobile communications industry was the first sector in the world to commit to supporting the United Nations' Sustainable Development Goals (SDGs). In the UN's 2030 Agenda, goal number 13 focuses on climate change. The industry is therefore implementing a variety of measures to combat climate change and its impacts.

The Telefónica Deutschland Group's Spanish parent company has committed itself to joining the United Nations in combating climate change and has to this end formulated energy and climate targets for the years 2025, 2030 and 2040. These targets are based on the 1.5-degree scenario of the Paris Agreement and include Scope 1, 2 and 3 emissions: all emissions are to be reduced to net zero by 2040, including those in the Group's own value chain. Telefónica, S.A. is the first telecommunications company to have had its targets validated by the Science Based Targets initiative (SBTi). This means the targets of the Telefónica

¹ Bitkom study "Climate Impacts of Digitalization", March 2021



Deutschland Group have been validated and the Group's programmes and measures are contributing to the target of 1.5 degrees being achieved. Telefónica, S.A. is part of the Business Ambition for 1.5°C action alliance. The alliance members intend to use targeted measures and far-reaching changes to limit global warming to 1.5° C above the pre-industrial average.

Within the Telefónica, S.A. Group, handling climate change has already been integrated into the areas of corporate governance, strategy, risks and goals. Already, 82% of the electricity used by the Telefónica Group globally is green electricity, while for Germany it is already at 100%. The Telefónica, S.A. Group has set its sights on achieving net zero carbon emissions in the four main markets Spain, the UK, Germany and Brazil by 2040. The Telefónica, S.A. Group discloses its environmental and climate data annually in the [CDP report](#) and was awarded the top mark of A by the organisation for the ninth consecutive year in the year under review for its achievements here. Among other things, it assesses transparency regarding emission reductions and the lowering of climate risks.

The Telefónica Deutschland Group rates the topics of the environment and climate protection as being material to its sustainability strategy. It relies on a variety of elements to save energy and reduce greenhouse gas emissions: it invests in energy-efficient technology, uses renewable energies, promotes low-pollutant mobility and is increasingly offering its customers sustainable products and services. With the help of the Telefónica Deutschland Group's infrastructure and services, businesses and people can likewise realise their sustainable digital business models and thus conserve the environment.

Target of net zero emissions by 2040

The assumption of responsibility for the environment and the climate is a basic principle of the Telefónica Deutschland Group. It is at the very heart of its climate strategy, with which it aligns itself closely in the Group-wide commitment: the company wishes to reduce its emissions throughout the value chain in order to achieve a volume of greenhouse gas (GHG) emissions which is compatible with the 1.5-degree target. The target is to achieve net zero emissions by 2040, with the interim goal of neutralising its own emissions caused directly (Scope 1) and indirectly through electricity purchases (Scope 2), including emissions from its travel activities, by 2025 at the latest. The Telefónica Deutschland Group neutralises unavoidable emissions and invests in certified climate protection projects with high environmental and social standards. Further Scope 3 emissions are to be reduced by 39% by 2025 compared with 2016.

Neutralisation of Scope 1 and Scope 2 emissions

	Unit	2021	2022	2025 target
Carbon reduction ¹	%	97	97	95
Energy efficiency ²	%	78	81	87

¹ Scopes 1 and 2, base year 2015 (market-based method)

² Energy efficiency represents the change in energy intensity compared to the base year 2015. The energy intensity is calculated based on: total energy consumption (electricity and fuel consumption)/data volume per petabyte.

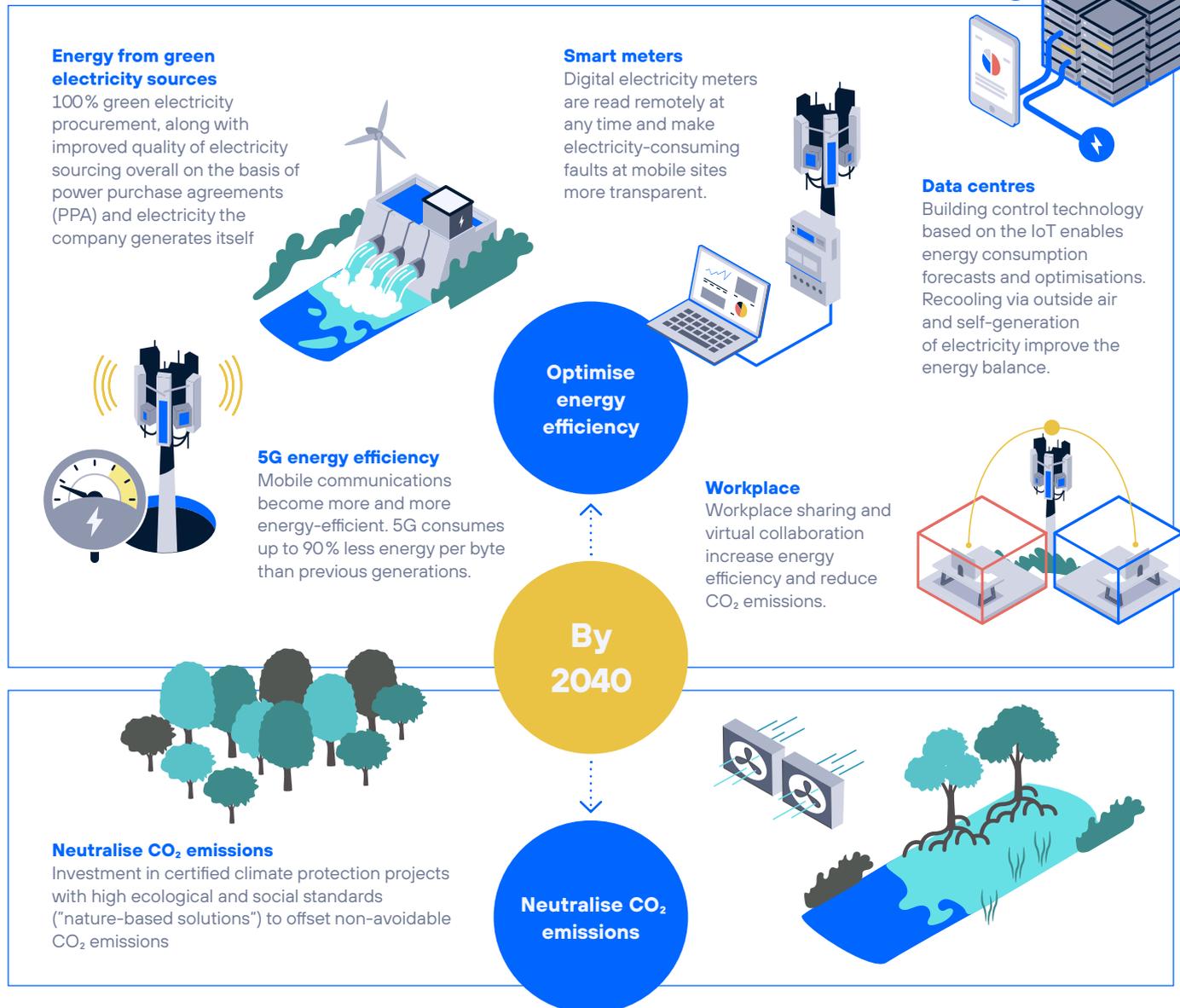
Scope 3 emissions, for example in the upstream supply chain, were evaluated in a coordinated manner throughout the Telefónica, S.A. Group and tackled and reduced via corresponding measures in the 2022 reporting year. Here, the Group is following the findings and recommendations of recognised international institutions such as the Intergovernmental Panel on Climate Change (IPCC) and the Science Based Targets initiative (SBTi), whose criteria the Telefónica Deutschland Group likewise drew on to develop its climate strategy.

To achieve the neutralisation of Scope 1 and Scope 2 emissions by 2025 at the latest, the Telefónica Deutschland Group is implementing the following concrete measures, which are determined annually and underpinned by interim goals:

- The Telefónica Deutschland Group will increase its network efficiency by reducing energy consumption per data volume (GWh/PB) by 87% by 2025 in comparison to 2015.
- Its total electricity consumption is already covered entirely by green electricity. It is seeking to improve the quality of electricity sourcing overall on the basis of power purchase agreements (PPA) and electricity it generates itself. By 2025, two-thirds of the anticipated electricity requirements are to be covered with the help of PPAs. Two large PPA deals for the direct procurement of wind power have already been concluded for 2025.
- The Telefónica Deutschland Group is using IoT-based building services in its data centres for consumption forecasts and energy footprint optimisations.
- The installation of digital smart meters at antenna sites is facilitating consumption analyses, forecasting and energy consumption optimisation on the basis of data evaluation.
- Promoting virtual work in the company reduces carbon emissions because the employees then commute to work less and have less business travel.
- Emissions which are unavoidable have been offset since 2021 through high-quality carbon reduction projects, preferably projects that remove carbon from the atmosphere.

Target: net zero emissions by 2040

A selection of the measures



Less and less electricity per byte

5G works more efficiently than the predecessor technologies. The Telefónica Deutschland Group is nevertheless expecting to see a significant increase in total energy consumption due to its network being expanded to include 5G, thus resulting in greater network coverage, data volumes and speed. This presents the company with major challenges, among other things in view of the sharp increase in energy prices in the year under review as a result of the war in Ukraine. The "energy consumption per data volume (GWh/PB)" performance indicator selected by the Telefónica

Deutschland Group allows it to optimally measure and document its progress in the area of energy efficiency. The company has set itself the goal of significantly increasing its network power efficiency with the very latest mobile communications standard and technical modernisations: in other words, of continuously reducing the electricity consumed per byte. In this way, the Telefónica Deutschland Group is striving to be a sustainability trailblazer in Germany's telecommunications industry. Here, it aspires to offer its customers a green network in the future.



Climate protection is relevant to business success

With this target, the Telefónica Deutschland Group wants not only to improve its environmental footprint, but also to do business sustainably and safeguard its ability to compete. By doing this, it hopes to achieve effective risk prevention, a strong reputation, profound brand perception, and high scores for the company in financial market ratings.

The Telefónica Deutschland Group recognises that climate change involves real risks for the company. These risks can be physical in nature on the one hand, such as risks for the mobile infrastructure due to more frequent extreme weather events, and be caused by regulation (transition risks) on the other. The Telefónica Deutschland Group is also aware that climate change engenders opportunities which should be tapped. The aim of standardised and transparent reporting on climate risks in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) is to reduce the risk of financial effects on the capital markets caused by climate change and to prepare businesses for the consequences of climate change. The next section takes a closer look at the climate risks and opportunities of relevance to the Telefónica Deutschland Group as per the TCFD recommendations.

PROCESSES AND MANAGEMENT

Management systems anchored in the company

In addition to the 2025 climate strategy, the binding company-wide [Environmental Policy](#) serves as the basis for all of the Telefónica Deutschland Group's activities and is further supported by the [Sustainable Energy Management Policy](#). Both of these are aimed at its business processes in the areas of the network, office spaces, mobility, responsible procurement and its product and services portfolio with the main emphasis on sustainable innovations. Its Environmental Policy is established in the environmental guidelines in accordance with ISO 14001. The policy particularly seeks to promote the identification of and compliance with all relevant laws, norms, standards and other binding obligations. The environmental management system serves to prevent and minimise any negative effects that the activities and infrastructures of the Telefónica Deutschland Group may have on the environment and to keep on improving environmental performance in general. The company has enshrined other requirements in the area of the climate and the environment in internal guidelines such as the sustainability-oriented purchasing guidelines (SCSP and the environment annex), the waste guidelines and the travel guidelines. The Telefónica Deutschland Group aims to achieve the goal of improving the company's performance, products and services from an environmental point of view primarily through systematic

performance evaluation on the basis of the targets defined in the Responsible Business Plan 2025.

The Telefónica Deutschland Group has also established its own [energy guidelines](#) in the company in accordance with ISO 50001. The first certification in accordance with this standard was performed by an external certification body in 2016. The guidelines are based on the Group's environmental management system and specify its principles in the area of energy. The Telefónica Deutschland Group's office sites have been certified in accordance with the environmental management standard [ISO 14001](#) and the [quality management standard ISO 9001](#) since 2004. The shops' environmental management is likewise based on the ISO 14001 standard. These processes are managed by internal energy and environmental management officers. Environmental issues and targets as well as all measures are subject to an annual management review prior to the external audit. In cooperation with the Quality Management Officer, the officers report on the management systems directly to the Chief Executive Officer. Climate and environmental strategies are developed in the relevant Management Board divisions Technology, Finance, and Legal and Corporate Affairs and are adopted collectively by the Management Board.

The company offers its employees online energy and environmental training. In the year under review, there were also workshops on low-carbon procurement for relevant departments, such as Purchasing and Technology. Here, the Group-wide purchasing guidelines for reduced-carbon procurement as revised by Telefonica, S.A. in 2022 were presented. The aim is product selection which takes into account not only the acquisition costs, but also the energy and carbon costs throughout the life cycle.

Processes to manage climate-related risks and opportunities

Climate-related risks are incorporated into the Telefónica Deutschland Group's risk management model and are therefore directly linked to the Group's strategic decisions. The Management Board is closely involved in development of the strategies to avert climate-related risks and for the resulting opportunities. For example, a steering committee chaired by the CEO regularly convenes to address the climate strategy, energy procurement, measures to reduce the company's carbon footprint as well as the transition and regulatory climate-related risks, and makes decisions in consultation with the key departments regarding the direction in which measures should be developed.

The Telefónica Deutschland Group's relevant departments report on their climate topics, including climate-related risks,



to the general risk management unit on a quarterly basis. The company thus integrates these risks and carries out a net assessment with regard to the potential risks arising from non-financial topics. Based on the probability of occurrence already determined, a conservative approach was adopted in which risks were considered with a probability of occurrence deemed to be "likely" or "highly likely".

The Management Board of the Telefónica Deutschland Group is notified of the results. Should new climate-related risks come to light or risk assessments change, these are analysed and appropriate measures are introduced if necessary. The company additionally reports to the Telefónica, S.A. Group regarding climate-related risks as part of Group-wide risk management.

To guarantee a comprehensive risk identification methodology, the Telefónica Deutschland Group assesses its risks both globally (top-down) and locally (bottom-up). The bottom-up approach is based on risk self-assessment, with the local managers being responsible for identifying the risks in their areas.

Climate-related risks are assessed on the basis of a holistic approach and are considered from four different perspectives: local risks (bottom-up), global risks (top-down), process risks and project risks. The risks are primarily assessed using the top-down approach, supplemented by assessments of specific sites (bottom-up). Global risks are defined as "basis risks" and are assessed and regularly reviewed by the global operating divisions (Compliance, Strategy, etc.). Climate change is one of the global basis risks and has the potential to influence the Telefónica Deutschland Group's infrastructures and divisions in the short, medium and long term. In addition to risks resulting from climate change itself, these also include transition risks relating to climate change regulations and/or insufficient resources.

The prioritised risks and their results are incorporated into long-term business decisions. The decisions regarding which risks are to be prioritised in general risk management are based on the financial impacts estimated in the risk assessment and their influence on operating efficiency, access to new markets, reputation, etc. As climate-related risks fall below the Telefónica Deutschland Group's threshold for significant risks, they are not reported in chapter 1.3 "Risk Management and Risk Reporting" of the [Annual Report](#) ↗.

Suitable measures and management solutions are developed both top-down and bottom-up. In the case of a bottom-up approach, the local managers are responsible for defining the specific reactions in their areas. They must present suitable plans for risk reduction as well as for avoiding and/or transferring these risks.

This strategy enables the Telefónica Deutschland Group to adapt to both physical and transition risks. It therefore most closely reflects the overarching objective of minimising risks and optimising opportunities.

STRATEGIC PRIORITIES

Evaluating the risks and opportunities related to climate change

Climate-related risks are assessed following the TCFD recommendations and taking into account two different climate scenarios. Risk assessment is expressed in quantitative form where possible. The potential impacts of the risks are measured in terms of cash flow from operating activities. The Telefónica Deutschland Group analysed the scenarios and assessed its resilience on the basis of two different IPCC scenarios. The TCFD considers it essential that standardised scenarios developed by independent institutions such as the IPCC be used. This makes it easier for investors to compare companies' climate resilience. To this end, the climate scenarios RCP 2.6 (temperature increase not exceeding the 2° C mark by the end of the century) and RCP 8.5 (temperature increase of 4° C by the end of the century) were analysed, taking into account time frames up to 2030, 2040 and 2050.

As recommended by the TCFD, the Telefónica Deutschland Group divides climate risks into the two categories transition risks and physical risks. Transition risks comprise changes in legislation, policy and the market. The transition risks include emission reductions, a carbon levy and changes in the price of energy. In addition, it is important that not only regulatory changes but also changes in the market situation be considered. These include changes in the supply and demand volumes for certain products or services.

The acute physical risks include extreme weather conditions such as floods, forest fires, drought and heatwaves. The consequences of these extreme weather conditions could lead to considerable challenges for the Telefónica Deutschland Group's infrastructure in the short and long term. The chronic physical risks include long-term climate changes, long-term changes in precipitation, a rise in the sea level and an increase in the average temperature. Adaptation to these circumstances is essential for the company to be able to continue to offer customers the usual products and services and this therefore constitutes an important part of its risk analysis.



As well as risks, the Telefónica Deutschland Group recognises opportunities both for its internal energy management and for the company's growth based on the sale of low-emission products and services. The Telefónica Deutschland Group wishes to enable its customers to reduce their ecological footprint with technologies such as the IoT, big data, cloud solutions and broadband connectivity.

The plan regarding renewable energies offers internal opportunities for the Group to use its own energy generation capacities and long-term power purchase agreements, as does the plan for energy efficiency, which focuses on network modernisation and the expansion of 4G and 5G. These measures should reduce the company's operating costs in the medium to long term – something which is all the more important considering the sharp increases in energy costs.

Improving energy efficiency and lowering carbon emissions

The Telefónica Deutschland Group is placing energy efficiency and carbon reduction at the heart of its climate strategy and wants to contribute in this way to the sustainable digitalisation of the economy and society. The Telefónica Deutschland Group is committed to the promotion of a low-carbon economy. It is continually improving its energy efficiency by switching to energy-saving components throughout the company. This enables it to make an active contribution to the reduction of greenhouse gas emissions. It is also focusing on natural resources being used efficiently and applies environmental criteria to its procurement processes in order to reduce its ecological footprint further.

Opportunities and risks of climate change

Climate change risks					
Transition				Physical	
 <p>Regulatory Increase in the price of certain products and services as a result of taxes or levies on sectors on which we are dependent (energy, transport, etc.)</p>	 <p>Technological Need for early withdrawal of assets linked to HVAC or for energy transition to clean energy</p>	 <p>Market Increased energy opex, for example, in countries dependent on hydropower</p>	 <p>Reputational More information on this subject from major stakeholders (investors, analysts, customers, etc.)</p>	 <p>Chronic Higher temperatures could entail greater cooling needs.</p>	 <p>Temporary More extreme weather events would increase the business continuity risks.</p>
<p>The physical risks have been analysed in detail by the Telefónica, S.A. Group in a climate vulnerability study.</p>					
Climate change opportunities					
 <p>Resource efficiency Through its Energy Efficiency Plan, the Telefónica Deutschland Group optimises its operating and network costs.</p>	 <p>Eco-smart products and services Connectivity and digitalisation solutions are key for decarbonising other sectors and will allow the company to access new business opportunities.</p>	 <p>Energy sources The Renewable Energy Plan enables the Telefónica Deutschland Group to reduce carbon emissions and the energy costs of the network.</p>	 <p>Resilience The adaptation strategy allows risks and opportunities to be incorporated into the company's strategy, influencing investment decisions, modernisation and network deployment.</p>		



Energy consumption per data volume totalled 0.08 GWh/PB in 2022. The Telefónica Deutschland Group was therefore able to reduce consumption by 81.40% in comparison to the reference year 2015. To maintain this level of ambition, the company raised its energy efficiency target for 2025 from 82% to 87% in the year under review. In a pilot project, the Telefónica Deutschland Group is currently testing the use of photovoltaic systems at selected antenna sites in order to make its own contribution to renewable energy generation. Multiple systems are now being trialled. The Telefónica Deutschland Group also sees huge potential in the area of data centre virtualisation as the efficiency of data centres is dependent among other things on their capacity utilisation and the possibilities of using the waste heat. There is a shift from Scope 2 to Scope 3 emissions in this area due to greater use of cloud services and the resultant switch to external providers. The company has set itself the goal of collaborating solely with cloud service providers that at least use green electricity or compensate for the resulting emissions in order to avoid increasing its emissions in this way. Migration to the cloud additionally offers advantages in terms of scalability and the resource-conserving use of computing capacity.

The company wishes to reduce its emissions throughout the value chain in order to achieve a volume of greenhouse gas (GHG) emissions which is compatible with the 1.5-degree target. The target is to achieve net zero emissions by 2040, with an interim goal of reducing Scope 1 and Scope 2 emissions by 2025. The Telefónica Deutschland Group caused 7,766 tonnes of carbon emissions in 2022 going by the market-based method (2021: 6,266 tonnes). In the year under review, Scope 1 emissions amounted to 5,520 tonnes of carbon equivalents. The Scope 1 emissions primarily come from two sources: the fuel consumption of the fleet and of the emergency standby power systems and fugitive emissions of the refrigerant gases used in the network air conditioning systems. The Telefónica Deutschland Group's Scope 2 emissions are primarily caused by the purchase of electricity and district heating, with 100% of the electricity being recognised as green electricity with 0 tonnes of carbon equivalents. Market-based emissions therefore amounted to 261 tonnes of carbon equivalents in 2022. Scope 3 emissions are likewise of key importance to the Telefónica Deutschland Group. It has therefore been reporting its Scope 3.6 emissions (business travel) for many years and includes these in its neutralisation strategy (more on this in the "Lowering emissions for company mobility" section). The direct and indirect carbon emission figures (Scopes 1, 2 and 3) can be found in the table of key figures. The other material Scope 3 emission categories are purchased goods and services, capital goods, fuel- and energy-related emissions, and use of the products sold. The target is to reduce Scope 3 emissions by 39% between the reference year 2016 and 2025. To come closer to achieving this target, the Telefónica Deutschland Group

uses The Climate Choice's software platform and records the climate-related data of around 700 suppliers. The potential to reduce carbon emissions is to be identified on the basis of this data. The qualitative and quantitative data collected in this way are to serve as the basis for a Scope 3 decarbonisation strategy for the Telefónica Deutschland Group.

Energy and CO₂: climate targets

	Unit	2022	2021	2020
Energy intensity: total energy consumption per data volume	GWh/PB	0.08	0.09	0.12
Proportion of total electricity consumption from green electricity ¹	%	100	100	96

¹ Green electricity comprises direct procurement and electricity procurement certified with guarantees of origin. Since 2020 the calculation has included green electricity related to network and IT infrastructure used together with other companies, in addition to the volume of green electricity sourced by the Telefónica Deutschland Group.

Energy and CO₂: energy consumption

In GWh	2022	2021	2020
Total energy consumption	799	755	736
Total electricity consumption ¹	775	732	710
of which by the network and data centres ²	757	711	686
of which by offices, shops, call centres	18	21	24
Total fuel consumption ³	24	23	26
Energy from green electricity sources ⁴	775	732	679

¹ The figure for electricity consumption equals the volumes actually billed per electricity consumption point and, in some cases, forecasts of the volumes consumed.

² Network electricity consumption equals the number of mobile telephony and fixed line sites multiplied by an average electricity consumption figure per site. This was determined on the basis of historical consumption data. In the future, the values actually measured by smart meters will replace the figures generated statistically here.

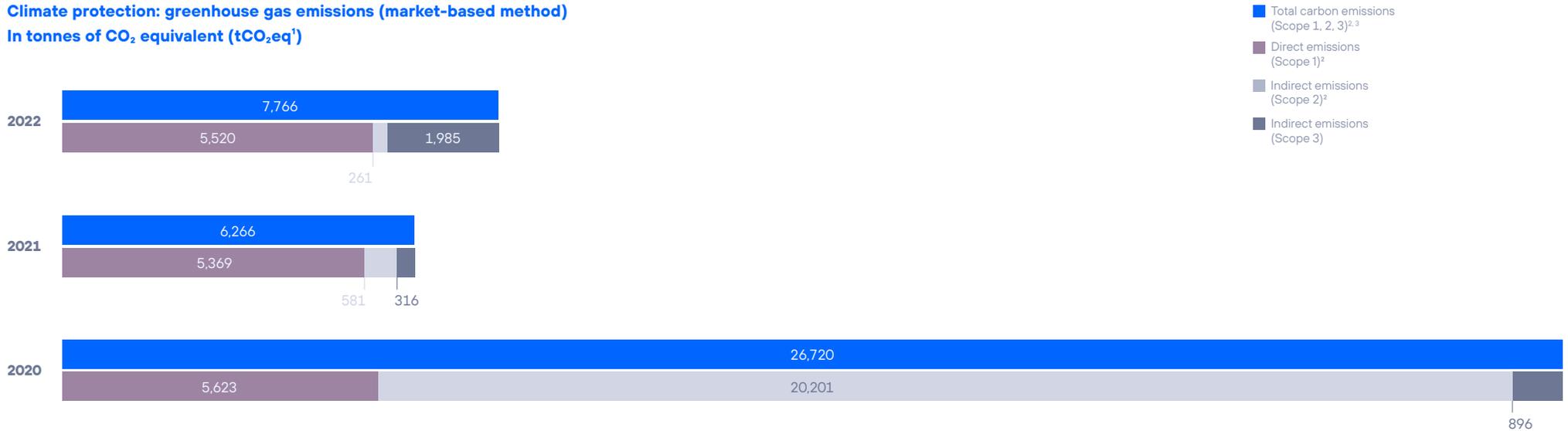
³ Fuel consumption (in the form of diesel, natural gas and district heating) comprises the units provided via a direct contract between a supplier and the Telefónica Deutschland Group. The calculation of fuel consumption is in accordance with Telefónica, S.A., consequently using the international conversion factors, and is verified by the Spanish standardisation and certification company AENOR INTERNACIONAL, S.A.U.

⁴ Green electricity comprises direct procurement and electricity procurement certified with guarantees of origin. Since 2020 the calculation has included green electricity related to network and IT infrastructure used together with other companies, in addition to the volume of green electricity sourced by the Telefónica Deutschland Group.

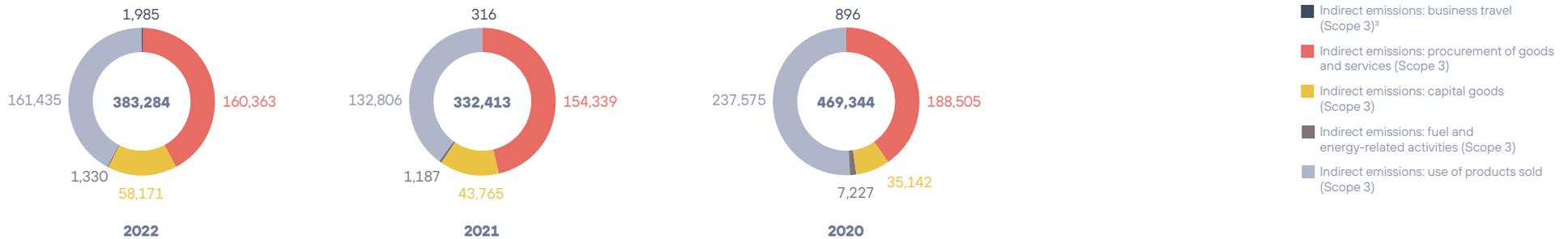


G 02

Climate protection: greenhouse gas emissions (market-based method)
In tonnes of CO₂ equivalent (tCO₂eq¹)



Indirect emissions in detail
(Scope 3)



¹ CO₂eq = CO₂, CH₄, N₂O and climate-relevant refrigerant gases (F-gases)

² Carbon emissions (including Scope 1 and Scope 2) are calculated on the basis of ISO 14064, the Greenhouse Gas Protocol and ITU-T L.1420. The data and calculations have been verified by the Spanish standardisation and certification company AENOR INTERNACIONAL, S.A.U. A standard Germany-wide conversion factor is used to convert electricity consumption to carbon emissions. For the market-based method, 588.83 g CO₂ per kWh is used (source: Association of Issuing Bodies (AIB), European Residual Mixes 2020). Information on the site-based method can be found in the table of key figures.

³ Scope 3 emissions: other indirect emissions due to business travel (flights and rail travel). The emissions per km for flights and rail travel for the years 2020 to 2022 were calculated with emission factors applied Group-wide (source: UK government GHG conversion factors for company reporting, 2022). There are also other Scope 3 emissions not included in the total. These are listed separately. The focus at the Telefónica Deutschland Group is on business travel.



Smart helpers for efficient network technology

In a mobile network, the majority of the energy is consumed by network technology. But the resources allocated for peak load times are not needed for every hour of the day. During low-load periods, a site typically uses only 20% of the resources allocated for high-load periods. To save energy where it is not needed, transmitters can be switched to an energy-saving mode and resources in the form of one or more frequency bands which are temporarily not in use can be powered down when there is less voice and data traffic, such as in the night. A basic supply is always maintained, while individual capacity layers can be powered up or down depending on the current load. Smart systems allow for individual energy-saving measures at each network cell. Here, the Telefónica Deutschland Group aspires to ensuring that mobile communication customers do not notice any difference in the network quality. Significant energy-saving potential was achieved in a test conducted in July 2022. Its introduction is planned for 2023.

The power consumed by the network is already measured by smart metering systems at many of the sites. The power consumption of every mobile network installation equipped with a smart meter is recorded every second and is transmitted to a cloud server by an Internet of Things radio unit via the O₂ network. Subsequently, the power consumption of all the sites is to be analysed on the basis of alerts when thresholds are exceeded, thus allowing for predictive maintenance, facilitating the early identification of malfunctions and lowering the related costs.

With smart metering, the company is taking another step towards greater energy efficiency as energy consumption can be managed better with real-time data. This also brings the Telefónica Deutschland Group closer to achieving its goal of reducing carbon emissions to zero. A target had been set of equipping 27,000 sites with smart meters by the end of the reporting year. The chip shortage triggered by the coronavirus pandemic meant this target could not be achieved. More than 22,000 sites featured a smart meter at the end of 2022.

Lowering emissions for company mobility

The pandemic meant that travel activities were again significantly lower in the reporting year than in the years prior to the pandemic, in spite of an increase in travel in 2022. In comparison to 2019, the last year not impacted by the pandemic, the company recorded around 63% fewer kilometres for flights and over 22% fewer for rail travel in the year under review.

However, the figure for other indirect emissions due to business travel (flights and rail travel) is only of limited meaningfulness when compared with the pre-pandemic years. The company is nevertheless still aiming to reduce the number of business trips taken by its employees between national and international Telefónica sites by 70% in comparison to 2019. This relates to internal meetings and workshops. With the key initiatives of its HR strategy, 5 Bold Moves, the Telefónica Deutschland Group wants to help the employees to work together virtually wherever this is possible and expedient. More information on 5 Bold Moves can be found in the “[Shaping an attractive working environment](#)” chapter.

In its travel guidelines, the Telefónica Deutschland Group promotes a switch to rail travel. The Group also wants to gradually transition its company cars to hybrid and electric drives. Almost 70% of its fleet had been made partially electric by the end of 2022. The target of 50% was therefore achieved. In addition to a fuel card, all e-vehicles come with a charging card. 26 charging points have now been installed and are operational at the Munich, Hamburg and Düsseldorf sites. The average carbon value¹ of company cars newly registered in 2022 was 55.7 g CO₂/km (2021: 51 g CO₂/km).

Energy-efficient site operation

The Telefónica Deutschland Group is working specifically on making the energy supply of its own operational processes as climate-friendly and efficient as possible. Thus, an important focus here is reducing the ecological footprint of our offices and shops. The company implemented the statutory energy conservation requirements in 2022 and took additional voluntary steps. The Telefónica Deutschland Group therefore reduced the minimum temperature required on business premises, previously 20 degrees Celsius, to 19 degrees Celsius. Moreover, the shop teams and sales partners have been informed of the new legal requirements and dialogue has been sought with the shop spaces' lessors. In the majority of the stores, room temperature can be precisely managed via climate control units. The shop lighting was examined in 2022. As required by law, illuminated outdoor logos have been switched off between 10 p.m. and 6 a.m. since early September. The same goes for the logo on the O₂ Tower. Additionally, the majority of the advertising and information screens in the shops were reprogrammed so that they are switched off overnight. Previously, the screens were left on around the clock. This measure saves approximately 8,800 kWh of energy a week.

¹ Calculated on the basis of the Worldwide Harmonised Light Vehicle Test Procedure (WLTP)



At the O₂ Tower in Munich and at other sites, modern workspace sharing concepts are in place via which the Telefónica Deutschland Group can also use the available office space more energy-efficiently. The Nuremberg site was renovated in 2022 with the rented space being adapted in the course of this. The company also reduced the rented space at the Rostock site. New collaboration spaces were inaugurated at the O₂ Tower in Munich in the year under review (see the “[Shaping an attractive working environment](#)” chapter for more information). This enabled 10,000 square metres of office space to be eliminated Group-wide.

Offsetting of unavoidable emissions

Unavoidable emissions will still ultimately be caused in spite of 100% green electricity usage, more sustainable green electricity procurement, high energy efficiency targets, network optimisation, utilisation of the potential offered by green cloud service providers and similar measures. For example, not all of the refrigerants used in the company’s air conditioning systems can be replaced with carbon-free alternatives. The Telefónica Deutschland Group offsets the remaining emissions by purchasing carbon certificates. The projects that qualify for these certificates must be certified according to the [Gold Standard](#)¹ or the [Verified Carbon Standard \(Verra\)](#)². The Telefónica Deutschland Group offset 40% of the residual emissions in 2022; this quota will be increased by 20 percentage points every year, resulting in 100% of unavoidable emissions being neutralised by 2025.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
Reduction of Scope 1 and 2 carbon emissions (base year: 2015)	Carbon emission savings in comparison to 2015 (Scope 1: direct emissions from own or controlled sources; Scope 2: indirect emissions from the generation of purchased energy)	96%	96.7%	95%
Reduction of Scope 3 carbon emissions (base year: 2016)	Carbon emission reductions in the upstream and downstream value chain in comparison to 2016	–	–	–39% by 2025
Reduction of energy consumption per data volume (base year: 2015)	Reduction of energy consumption per data volume represents the change in energy intensity in comparison to the 2015 base year. Energy intensity is calculated as follows: total energy consumption (electricity and fuel consumption)/data volume per petabyte.	79.4%	81.4%	81%

[Click here for ESG data and indices.](#)

¹ Gold Standard is the world’s most stringent standard for emission reduction projects which not only lower emissions of greenhouse gases, but also ensure sustainable development and feature an additional social and/or environmental component. Gold Standard was developed under the aegis of the WWF.

² Verra sets the world’s leading standards for climate protection and sustainable development. The projects include standards for different activities such as reducing deforestation, improving agricultural practices, combating plastic waste, and gender equality.



Circular economy

"We align more and more aspects of our business activities with the principles of the circular economy."

THE KEY FACTS:



The Telefónica Deutschland Group has adopted the goal of becoming a zero-ICT-waste company by 2030.



The Telefónica Deutschland Group collected around 187,000 used mobile phones through its mobile phone recycling programme in 2022.



The use of virtual desktop infrastructure reduces the need for hardware for external employees.

BASIC PRINCIPLE AND CHALLENGES

Focusing on saving resources and avoiding waste

The finiteness of natural resources and the environmental impacts throughout a product's life cycle are examples of the major ecological challenges we currently face. They generate considerable pressure to act in the direction of resource efficiency, waste avoidance and circular economy – pressure which has already effected significant changes in the legal and political parameters. Regulation will increase further over the next few years. For example, the EU is planning to introduce an energy label for mobile devices and wishes to make a circular economy a greater priority in the Taxonomy Regulation.

A circular economy comprises not only management of waste and raw materials, but also relates to all the stages of the value chain. It is therefore a question of systemic transformation with the aim of closing loops and reducing the use of raw materials. The circular economy therefore also gives companies the opportunity to reduce their costs and offer the customers products and services which are produced sustainably and can be used as such. This boosts not only their ability to compete, but also their credibility as responsible stakeholders within society. The Telefónica Deutschland Group therefore uses the comprehensive term "circular economy" and sees this as going above and beyond the understanding of this as per the Circular Economy Act (KrWG), which essentially deals with management of waste and secondary raw materials.

In view of this, the Telefónica Deutschland Group has developed its own circular economy concept, which serves as the framework for the gearing of its activities. It is based on the principles of reuse and recycling, the controlling of environmental criteria in the supply chain, sustainable product offerings and the promotion of ecological design in product development. In the materiality process it conducted for the sustainability strategy in 2020, the Telefónica Deutschland Group identified the circular economy as a material topic and, using this as its basis, then developed a circular economy concept in 2021. This concept focuses on the three company-specific areas of products and services, administration and shops, and network infrastructure and operation.

While the initial conversion of products and processes, such as replacing printed advertising materials with digital solutions, allows for extensive resource savings, it becomes more difficult to achieve further successes as the circular economy continues to be implemented. Close dialogue with product manufacturers is therefore needed in order to be able to influence their design and, for example, thus reduce plastic packaging in the supply chain.

Human rights consequences likewise need to be incorporated when the entire life cycle of products is considered. Raw material mining can be reduced overall by substituting primary raw materials with secondary raw materials. This mining can go hand in hand with human rights violations, for example in the case of conflict minerals (more on this topic in the "[Sustainable supply chain management](#)" chapter).



PROCESSES AND MANAGEMENT

Targeted management of resource efficiency

Waste avoidance is legally enshrined in the Circular Economy Act (KrWG) as the top priority within the waste hierarchy. There are also other laws featuring specific requirements to improve the recycling of electrical appliances such as mobile phones and tablets. In particular, the design of electrical appliances, placing them on the market and their correct disposal are regulated by an array of laws and EU regulations. There was a particular focus in the past on the tightening of labelling and take-back obligations in accordance with the Electrical and Electronic Equipment Act (ElektroG). There are also signs that the European Ecodesign Directive will be expanded to include mobile devices. For example, the EU is planning requirements regarding battery durability, guaranteed security updates and an energy label for mobile devices. A directive regarding uniform charging cables has already been agreed on, stipulating that by the end of 2024 all mobile phones, tablets and an array of other devices sold in the EU must have a USB-C port. The promotion of the circular economy is also a key aspect of the European Union's Green Deal with its corresponding action plans, among other things regarding the electronics and IT sectors. The EU's Taxonomy Regulation attaches particular importance to a resource-efficient and circular economy and seeks to have a steering effect on investments and capital market activities.

The company's environmental and energy policies, the aim of which is to conserve valuable resources and handle waste and recycling responsibly, are authoritative with regard to the fundamental orientation and management of the circular economy within the Telefónica Deutschland Group. Protecting natural resources is one of the important areas that the Telefónica Deutschland Group addresses with its environmental management system in accordance with ISO 14001. The Environmental Management Officer, who is a member of the CR&S division, reports to the CR&S Director and also directly to the Chief Officer for Legal and Corporate Affairs regarding measures and target attainment in the context of the RBP 2025. Annual management reviews regarding energy and environmental aspects in accordance with ISO standards 14001 and 50001 are discussed directly with the Chief Executive Officer and the Chief Officer for Legal and Corporate Affairs.

The Telefónica Deutschland Group manages its circular economy activities with the circular economy concept developed in 2021. The company is also sending a clear signal regarding the conservation of resources with its climate strategy and its targets of offsetting Scope 1 and 2 emissions by 2025 and reducing all emissions to net zero by 2040.

The economical use of technical equipment conserves not only energy, but also resources. For example, the use of our partners' efficient cloud servers allows for the optimum capacity utilisation of the technological resources as it results in economies of scale in terms of both energy consumption and resource utilisation. The Telefónica Deutschland Group helps companies to, for example, make their logistics processes more efficient with IoT solutions (more information in the "Products, service experience and digital skills" chapter). The leasing of, for example, routers likewise offers a means of securely recovering resources.

Becoming a zero-ICT-waste company by 2030

The Telefónica Deutschland Group is pursuing the Telefónica, S.A. Group's goal of becoming a zero-ICT-waste company by 2030. The goal relates to information and communication technology (ICT) in the area of network technology and is to be achieved on the basis of eco-design, reuse and resource recycling. Instead of ICT waste being disposed of at landfill sites or by means of incineration, it is to be turned into raw materials that can be fed back into the value chain. The following sub-goals have been set for Germany in order for this overarching goal to be achieved:

- By 2024 90% of the stationary devices taken back from the customers such as routers and decoders will be refurbished and reused.
- By 2025 circularity criteria will be introduced for the customers¹ for all purchases of electronic devices.
- By the end of 2025 no more network device waste will be disposed of as landfill.
- With the industry-wide Eco Rating, consumers can already determine the impact on the environment of the entire process of manufacturing, using and disposing of a smartphone. The Telefónica Deutschland Group is pushing for more manufacturers to participate in this.
- The Telefónica Deutschland Group labels business customer products and services that make a significant contribution to reducing energy, carbon emissions and water consumption and/or to promoting the circular economy with the Eco Smart certification mark. The company wishes to continuously increase the proportion of business customer products bearing the Eco Smart certification mark.

The topic of waste reduction is something that the Telefónica Deutschland Group strives for across all processes and areas. It consistently ensures that statutory environmental standards are observed when disposing of unavoidable waste. The Telefónica Deutschland Group operates on the basis of its own guidelines in

¹ The circularity criteria include assessment of the eco-design, repairability, recyclability, durability and upgradeability of electronic devices before they are purchased.

Circular economy concept

Improved circular economy through digitalisation



the area of waste management. It documents the relevant waste volumes via the waste management system GReTel (Gestión de Residuos de Telefónica). This system records, among other things, types of waste together with where the waste occurred,

the volume, each type's disposal channels and the evidence needed. This additional transparency allows the Telefónica Deutschland Group to effect disposal chain optimisations with a view to achieving an almost complete level of recycling.



Additionally, a series of guidelines and voluntary commitments support the company in doing business more resource-efficiently. These include the company's commitment to the UN Global Compact and its environmental principles, the [environmental policy](#) and [energy policy](#), the [Human Rights Policy](#), the [Supply Chain Sustainability Policy](#) including the specifications regarding conflict minerals and the [low-carbon procurement guidelines](#). The Telefónica Deutschland Group additionally obliges its suppliers to take circular economy steps with the mandatory environment annex for product- and service-specific contracts that have an impact on the environment (see the "Sustainable supply chain management" chapter). Its own employees are given guidance regarding eco-friendly and social business and on advertising materials and printed matter by the [guidelines for ethically responsible communication](#).

STRATEGIC PRIORITIES

Products and services

Through its brands, the Telefónica Deutschland Group offers business and private customers a broad range of hardware comprising mobile phones and other electronic devices (such as tablets, games consoles and smartwatches) both with and without a mobile communications contract. The enhanced performance and the consolidation of functions in these devices hold significant resource conservation potential. This includes, for example, replacing cameras or fixed line phones as well as using smart home applications to make day-to-day life energy- and resource-efficient.

However, this benefit is cancelled out if, on the whole, mobile devices are replaced too soon and disused devices are not recycled because the manufacture of mobile phones and electrical devices results in significant environmental impacts when viewed over the life cycle. In particular, mining primary raw materials is very resource-intensive and entails social and environmental risks. The relevance to climate protection is also illustrated when the carbon emissions of the various life cycle phases are considered – around 70% of emissions are already generated during production.¹

The composition of mobile phones and other mobile devices such as tablets and laptops is complex and correctly making used devices reusable demands high technical standards of recycling companies. The Telefónica Deutschland Group rigorously pays attention to these standards being met when selecting its partners. Another barrier to the circular economy is mobile devices gathering dust in drawers in the workplace or homes, resulting in a lack of recirculation above all of mobile phones and small electrical devices. The illegal disposal of electrical

waste in household waste, which harms the environment, and the illegal export of electrical waste to countries with only very low environmental standards are likewise problematic. The Telefónica Deutschland Group has put up signs in its shops stating that it takes back used devices, SIM cards and batteries.

Together with subsidiaries and cooperation partners, the Telefónica Deutschland Group is working to strengthen the circular economy via product range composition and the ecological design of own-brand products, information for the customers and approaches to the reuse and recycling of mobile devices. Raising awareness among and educating the employees is very important too – there were a number of workshops for employees in the area of private customers in the year under review. Among other things, measures were derived here which will henceforth be further developed.

Product range composition and packaging design in accordance with eco-design criteria

In terms of its procurement activities, the Telefónica Deutschland Group focuses first and foremost on selecting smartphones that it wishes to offer the customers. With its [Supply Chain Sustainability Policy \(SCSP\)](#), it obliges its suppliers to comply with high environmental and social standards in everything from the extraction of raw materials and water consumption to production, transport and dealing with waste. Here, the joint protection of the environment and human rights is very important to the company (more information on this can be found in the "Sustainable supply chain management" chapter). The eco-friendliness of the resources used is monitored with the SCSP and the environment-related points of the General Purchasing Terms and Conditions. The Telefónica Deutschland Group additionally expects manufacturers to take eco-design principles and reparability into account as far as possible and to give preference to the use of recycled materials.

The Telefónica Deutschland Group wishes to promote the development and sale of ecologically beneficial mobile communications devices, gadgets and accessories by increasingly putting its product range together in accordance with the principles of a resource-conserving circular economy. With the Fairphone 4, for example, the company offers an especially sustainable device as part of O₂ my Handy. Its manufacturer sets great store by fair production labour conditions, recycled materials, transparency regarding the raw materials used, reparability, durability and a well-thought-out recycling approach. The Fairphone 4 was awarded the Blue Angel eco-label in early 2022. To date, this certification has only been awarded to this smartphone and a predecessor model, the Fairphone 2.

¹ Source: Greenpeace (2017): "FROM SMART TO SENSELESS: The Global Impact of 10 Years of Smartphones"

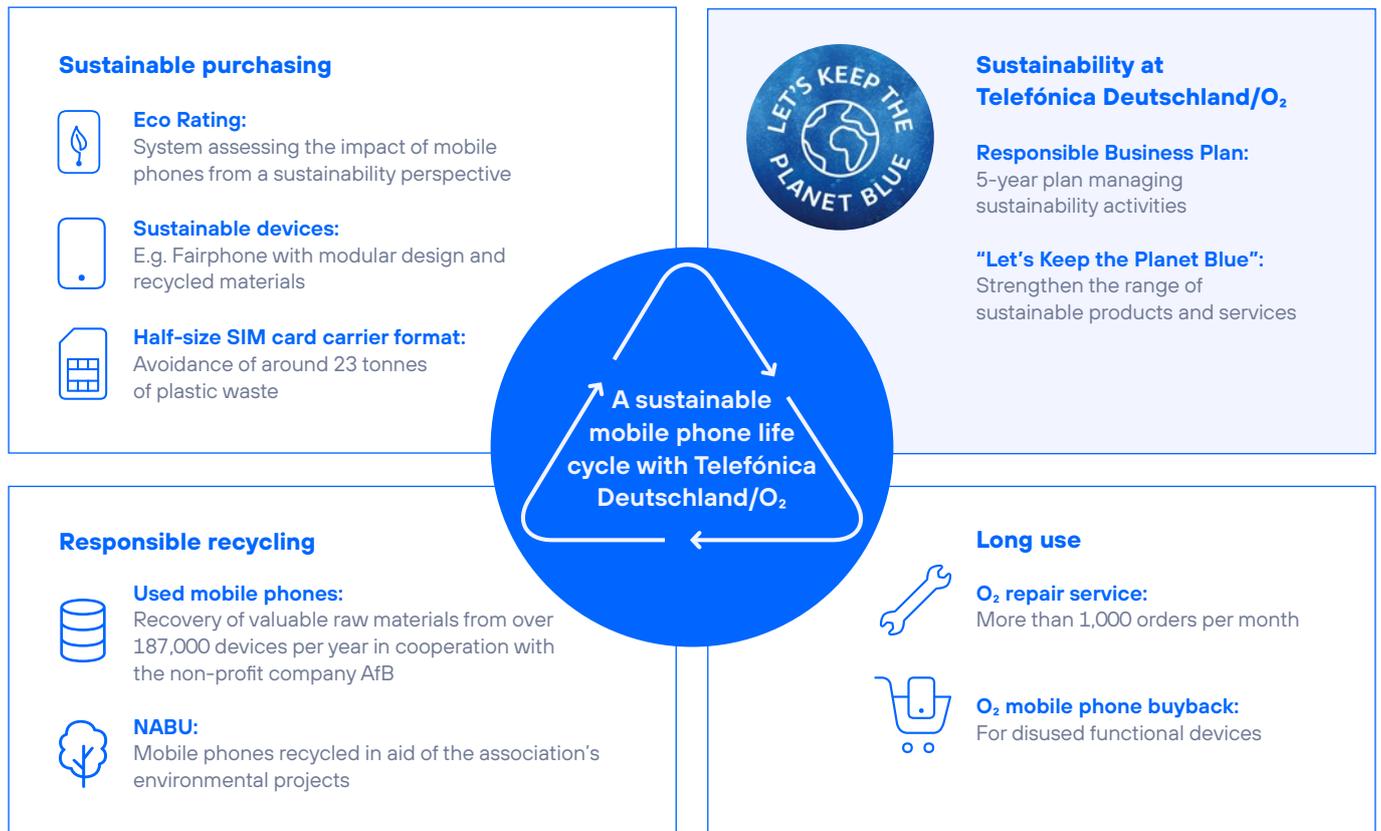
The Telefónica Deutschland Group also wants to further optimise the products offered under its O₂ brand together with their packaging by means of targeted eco-design. Here, there will be a particular focus on the next generations of routers: the outer packaging of the O₂ HomeSpot 5G SA router is to consist entirely of (FSC-certified) recycled paper by mid-2023. The changeover to the half-size SIM card carrier format is another example. This is only half the size and half the weight of the previously used bank card format, thus making the ecological footprint for manufacture and transport smaller and reducing the volume of waste. The Telefónica Deutschland Group issued around 11.3 million SIM cards in this carrier design to customers and partners in 2022, thereby avoiding 23 tonnes of plastic usage in the year under review. In addition, the company dispatches its parcels made of recycled materials to the customers and shops climate-neutrally with DHL GoGreen – doing so at no extra charge. To reduce transport volumes and avoid packing materials, the parcels are specifically tailored to virtually every device dispatched. The

packaging for the O₂ DSL routers is designed in such a way that they can be forwarded without the need for outer packaging, with an address label simply needing to be applied.

Repair service, refurbishment and recycling

The Telefónica Deutschland Group accepts mobile phones that still work as payment through the cooperation partner Teqcycle. Teqcycle refurbishes the mobile phones and puts them back into circulation. Mobile phones taken back by the company within 14 days of their purchase or as a gesture of goodwill are repaired if needed and then sold at a discounted price. In both cases, a data erasure process certified by DEKRA is used.

In all, the Telefónica Deutschland Group was able to refurbish and recirculate approximately 31,570 devices in 2022 – the majority of them devices returned within 14 days. Minor external blemishes, for example, are remedied without an entirely new casing being installed. Customers who have taken out mobile





phone insurance cover with the Telefónica Deutschland Group can likewise send in their device for repair. An additional 11,866 devices were repaired in this way in the year under review.

Furthermore, the O₂ mobile phone recycling programme allows consumers to dispose of their used devices responsibly. They can submit their devices at Telefónica Deutschland Group shops, via the online portal www.o2online.de and via the collection points of the cooperation partner Nature And Biodiversity Conservation Union (NABU). The data on working mobile phones is deleted via a certified process and the devices are processed for remarketing, where possible, by the IT company AfB. In comparison with the production of a new mobile phone, this causes fewer emissions and requires less metals and energy. Devices which are inoperable, for example smartphones with a broken display, are destroyed by a mechanical shredder. The pieces measuring just a few millimetres are passed on to certified businesses which have been checked by the Telefónica Deutschland Group and which guarantee professional and environmentally impeccable disposal. The Telefónica Deutschland Group was able to collect more than 187,000 used mobile phones through its mobile phone recycling programme in 2022 alone. Resource efficiency in the area of products likewise determines how the DSL routers returned to the company by customers are dealt with. These devices also undergo a technical inspection and, if possible, are refurbished to make them as good as new once again. Routers that cannot be refurbished are professionally disposed of. Approximately 37 tonnes of electrical waste were avoided in 2022 by refurbishing some 73,900 routers.

Information on device features and model ratings

Customer advice and information are key factors in the success of the company's strategy as this is how the products and services are presented to the customers in the context of a resource-conserving circular economy. In accordance with the guiding theme of "Let's Keep the Planet Blue", environmental initiatives at various touchpoints throughout the customer journey are being expanded and communicated, for example regarding the utilisation of used mobile phones. The Telefónica Deutschland Group has also pooled its sustainable customer offerings and information on a microsite in the O₂ my Handy online shop. In this way, it is pursuing the goal of transparently teaching customers about relevant device features and environmental benefits and informing them about the repair, refurbishment and recycling programmes.

A key approach in this context is Eco Rating product evaluations. The participating manufacturers' model ratings are presented transparently on the O₂ my Handy product page. The customers can therefore see information about mobile devices' durability, reusability, repairability, resource efficiency and climate efficiency at a glance. In 2021 the Eco Rating replaced the Eco

Index, which the Telefónica Deutschland Group introduced back in 2011. The Eco Index was created as an assessment catalogue for the purposes of transparently providing product information. Other telecommunications companies and manufacturers are now involved in its successor, the [Eco Rating](#), and this further increases the value of the information for the customers. At the same time, the catalogue of requirements for various categories was made more stringent.

The Telefónica Deutschland Group also supports smartphones having longer useful lives by offering, among other things, contract terms of 36 and 48 months in the O₂ my Handy programme, with the terms not being automatically extended. This therefore does not generate an incentive for customers to replace their mobile phones. Once they have paid off their mobile phone, all the customers pay is their mobile communications tariff.

Administration and shops

The principles of the circular economy apply across all processes and areas at the administrative sites and shops too. As a service provider, the Telefónica Deutschland Group has a relatively low direct ecological footprint in comparison to product manufacturers. In view of its size, the company sees it as its responsibility to also use small levers to achieve high resource efficiency in the workplace.

The Telefónica Deutschland Group develops measures along the relevant material uses in day-to-day business, from the efficient usage of paper and the systematic reduction of packaging waste in canteens and cafes to environmentally sound marketing materials and the IT and office equipment. The energy conservation measures at the shops and in the offices are listed in the "Energy and CO₂" chapter.

Lowering paper consumption and using recycled materials

To significantly reduce its paper consumption, the Telefónica Deutschland Group developed a digital flyer in the year under review that will gradually replace the product brochures and flyers printed on paper which are found at O₂ shops. Previously, 3 million flyers were printed on 75 tonnes of paper and distributed to the points of sale every year. Together with the start-up Webmag, which is promoted by the start-up accelerator Wayra, the Telefónica Deutschland Group incorporated the flyers into an online platform. Customers can access the online publications using a QR code. Changing over from paper to digital flyers eliminates 87 tonnes of carbon emissions a year.

The Telefónica Deutschland Group is also reducing its paper usage in customer services by, for example, seeking to engage



in dialogue with the customers via digital services such as apps and assistants and giving preference to sending bills online, for example via the Mein O₂ app. The proportion of online bills was 92.5% at the end of 2022, meaning the Telefónica Deutschland Group achieved its goal for the reporting year of 92%. In the years to come, the company wishes to use additional measures to further increase the proportion of online bills in order to promote paper-saving behaviour.

Since early 2022 framework agreements in the B2B area have predominantly been documented in digital form. More than 90% of contractual documents are issued in digital form and are signed digitally by the parties with the aid of a signature service provider. This allows up to 100 pages of paper to be saved per framework agreement document. The documents were previously always issued in duplicate to make a copy each available to both the customer and the Telefónica Deutschland Group. The archiving of hard copies of these documents has now been eliminated. This also saves the documents being sent by post between the customer and the company as well as between different company sites. The majority of framework agreements were still issued in paper form in 2021.

The Telefónica Deutschland Group is making it easier for its employees to save paper by promoting digital document administration. Only recycled paper with Blue Angel certification is used in the offices. A comparison of virgin fibre paper and recycled paper illustrates the potential to conserve resources – recycled paper completely does without wood as a primary raw material and, according to Initiative Pro Recyclingpapier, also reduces energy and water consumption by 60%. Just under 10% of the 2022 waste volume was paper and card waste. The Telefónica Deutschland Group recycled 100% of this.

Optimisation of water consumption

The Telefónica Deutschland Group focused on optimising water consumption at its offices once again in 2022. When replacement purchases are made, only economical appliances are installed and, where technically feasible, water-saving tap aerators are used. When conversions are planned, the company ensures that entire areas are fitted with tap aerators and efficient dishwashers. Consumption totalled around 95,000 m³ in the year under review (2021: around 73,000 m³).¹ Water consumption rose in comparison to 2021 due to the employees increasingly returning to the offices and the higher volume of business at the shops.

Reducing canteen and café packaging

The RECUP deposit system for to-go coffee cups is established at the sites with a canteen or café, avoiding single-use waste and conserving resources. For hot meals too, only reusable packaging is now employed. With the REBOWL system, leftovers are placed in packaging with a lid and can also be taken home.

Reducing hardware and refurbishing used devices

Used hardware at the Telefónica Deutschland Group offices, call centres and data centres is continuously being replaced with models that are new, more powerful and more energy-efficient. The professional disposal or reconditioning of used laptops, monitors or printers is seen to by an IT service partner.

External employees are afforded access to the Telefónica Deutschland Group's virtual desktop infrastructure. This allows them to access the company's network and applications using their own devices, meaning they no longer need laptops provided by the Telefónica Deutschland Group. This reduces the hardware needs. Around 121 tonnes of carbon emissions were eliminated in this way in the year under review.

Changeover to sustainable office materials

The procurement of consumption-based materials is subject to the [low-carbon procurement guidelines](#) and the [Supply Chain Sustainability Policy](#). The Telefónica Deutschland Group examined its core range of consumption-based office materials in 2022 and switched to sustainable products wherever possible. The article stock will continue to be reviewed. The [guidelines for ethically responsible communication](#) additionally apply to the company. The company realises the sustainability requirements as stipulated in these guidelines by, for example, transferring communication events to the digital arena or by eliminating plastics or printed communication materials wherever possible.

Network infrastructure and operation

The Telefónica Deutschland Group operates its mobile communications network with around 31,000 mobile network sites. Of these, some 20,000 sites (roof and tower sites) and their passive infrastructure are owned by TowerCos, while the Telefónica Deutschland Group owns the facilities' technology. Responsibility for this active infrastructure (antennas, cables and system technology) of all the mobile network sites lies with the Telefónica Deutschland Group. The volume of materials used for network expansion involving antennas, cables, steel structures,

¹ The water consumption data for 2022 is based on invoice amounts where available. Projections were additionally made for sites for which no invoice was available yet. Water consumption in 2021 was estimated at a very low level due to the effects of the pandemic. The consumption figure for 2021 still includes estimates, but was able to be updated due to annual statements since having become available.



etc. and the volume of waste generated by conversion and dismantling work are accordingly high. As there are only a few suppliers who provide the necessary network components, the scope for action in the area of purchasing is limited. The company therefore focuses primarily on the resource-efficient modernisation of the network infrastructure and the correct disposal of electrical waste and metals in order for them to be recycled.

In the course of the modernisation of its network infrastructure, the Telefónica Deutschland Group performs dismantling when a change in technology is effected or when sites are expanded. For the time being, sites that may be relevant in the future as 5G sites are not being dismantled. Dismantled base station technology that still works is reused if technologically prudent. Dismantled technology which cannot be reused is recycled quickly and efficiently with the assistance of a specialist recycling company.

Valuable raw materials such as iron, aluminium and non-ferrous metals are extracted from the electronic waste as far as possible and, in the case of large yields, can be fed straight back into the economic cycle. Residual waste is disposed of properly in accordance with the applicable statutory provisions. Recycling is performed in accordance with the environmental certification as per ISO 14001, which guarantees fast, professional and verifiable recycling. Furthermore, the electronic waste is collected and taken to a recycling plant with the assistance of efficient transport logistics that avoids empty lorry runs and aims to reduce carbon emissions.

The volume of waste from electronics and electronic devices related to network operation, offices and customers amounted to 1,201 tonnes¹ in 2022 (2021: 849.6 tonnes). The Telefónica Deutschland Group passed 100% of this on to professional disposal companies for recycling.

2022 CR target status and 2023 CR targets

Topic/KPI	KPI definition	2022 target	2022 status	2023 target
B2B solutions certified with the Eco Smart certification mark	Total number of B2B solutions certified with the Eco Smart certification mark in comparison to the total number of B2B solutions in the portfolio	50%	57%	> 50%
Mobile phones with an Eco Rating	Total number of mobile phones assessed with the Eco Rating in relation to the total number of mobile phones in the portfolio	75%	88%	80%

[Click here for ESG data and indices.](#)

¹This solely comprises recycling and not electrical waste outright. Compared to previous years, monitors and coolant gases are included in the 2022 reporting year. The previous year's figures are therefore not comparable.



Appendix

ESG data and frameworks

ESG data

[ESG data and indices](#)

The document "ESG data and indices" includes all published ESG metrics as of financial year 2018 including ESG reporting standards, EU taxonomy disclosures, CR targets, contribution to the SDGs and indices (GRI, SASB and TCFD).

GRI Standards 2021

[ESG data and indices \(GRI content index incl. UNGC principles\)](#)

With its 2022 CR Report, the Telefónica Deutschland Group reports in accordance with the Global Reporting Initiative (GRI)-Standards 2021 for the period from 1 January 2022 to 31 December 2022. The GRI Standards serve to create transparency regarding the impacts that companies have on the economy, the environment and people, and about how an organisation contributes or wishes to contribute to sustainable development. The Telefónica Deutschland Group derives the CR focal areas from a continuous CR strategy process that deliberates on stakeholder expectations as well as impacts on society and business relevance. For reporting in accordance with the GRI Standards, the Telefónica Deutschland Group's societal and environmental impacts are particularly relevant.

UN Global Compact (UNGC)

[ESG data and indices \(GRI content index incl. UNGC principles\)](#)

Since 2020 the Telefónica Deutschland Group has been reporting in accordance with the Ten Principles of the United Nations Global Compact (UNGC). The corresponding Communication on Progress will be completed on the UNGC's online platform from 2023. In this way, the company is making a commitment to the UNGC's Ten Principles and undertakes to realise these in the interests of governance for responsible corporate management. This focuses on the topics of human rights, labour standards, environmental protection and anti-corruption.

German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG)

["Sustainable supply chain management"](#) and ["Human rights due diligence"](#) chapters and on the [website](#)

The objective of the German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) is to strengthen the rights of the people affected and vulnerable groups throughout the supply chain. The Telefónica Deutschland Group reports on its human rights due diligence obligations in its Separate Non-Financial Group Report and in this CR Report.

EU taxonomy

www.telefonica.de/nfe

The Taxonomy Regulation ((EU) 2020/852) attaches particular importance to a resource-efficient and circular economy and seeks to have a steering effect on investments and capital market activities. The Telefónica Deutschland Group also uses the CR Report to report on the sustainability of its business model. More information can be found in the Separate Non-Financial Group Report.



Task Force on Climate-related Financial Disclosures (TCFD)

[“Energy and CO₂” chapter](#) and [ESG data and indices \(TCFD index\)](#) ↗

The Telefónica Deutschland Group is conscious of the fact that climate change also presents its business model with various opportunities and challenges which the company must rise to. The Telefónica Deutschland Group gives an account of the financial impacts of climate change on the company in the CR Report and in the Task Force on Climate-related Financial Disclosures (TCFD) index in line with the recommendations of the TCFD. The recommendations of the TCFD are divided into the four areas of governance, strategy, risk management, and metrics and targets, which the company reports on.

Sustainability Accounting Standards Board (SASB)

[ESG data and indices \(SASB index\)](#) ↗

The Telefónica Deutschland Group follows the framework of the Sustainability Accounting Standards Board (SASB) for the disclosure of financially material sustainability information and reports on the relevant environmental, social and governance topics.

Sustainable Development Goals (SDGs)

[“Governance” chapter](#)

With the implementation of the Responsible Business Plan 2025 the Telefónica Deutschland Group is actively supporting the attainment of the United Nations’ global Sustainable Development Goals (SDGs). The Telefónica Deutschland Group endeavours to make a contribution to achieving the SDGs and to society’s sustainable transformation with its activities that fall under the three areas of action and the corresponding topics.

Corporate Digital Responsibility (CDR) Initiative

[CDR Initiative](#) ↗

The Corporate Digital Responsibility (CDR) Initiative has set itself the goal of developing good responsibility practice and concrete solutions for sustainable digitalisation. In addition, it aims to increase awareness of the topic amongst the public and in the corporate world. As a member of the initiative, the Telefónica Deutschland Group has made a commitment to the guiding principles and objectives of the CDR Code and includes these in its reporting.



Memberships

The Telefónica Deutschland Group selects its memberships on the basis of its strategic priorities. The aim is for the Telefónica Deutschland Group's memberships to support its business activities and serve as the parameters within which added value can be generated for society. It is also especially important to

the Telefónica Deutschland Group that it promotes dialogue on economic and societal issues within the industry. The Telefónica Deutschland Group continues to participate in initiatives that strengthen responsible business. Below is a selection of the memberships and cooperations.

Membership/cooperation	Description
AfB gGmbH (Work for people with disabilities)	Non-profit company which refurbishes the old IT hardware of major enterprises and public institutions (including the deletion of any data) and puts it back into the market; at least 50% of the workforce is made up of people with a disability.
AmCham Germany – American Chamber of Commerce in Germany	Corporate network for global business development and for German-American partnership
AKDU – Arbeitskreis der Deutschen Unternehmenssicherheit (Working Group for German Corporate Safety and Security)	Advocacy organisation in the areas of business, industry, logistics, financial services and critical infrastructures, to name but a few, for the area of work of the organisational unit responsible for the key function of corporate safety/security and the related processes
B.A.U.M. e. V. – Bundesdeutscher Arbeitskreis für Umweltbewusstes Management (German Association of Environmental Management)	Corporate network for sustainable business in Germany
Bitkom	Association of companies from the IT, telecommunications and new media industries; includes working groups looking at the issues of data protection, media policy and occupational safety
BVDW – Bundesverband Digitale Wirtschaft e. V. (German Association for the Digital Economy)	Association of the digital economy which advocates market transparency and innovation-friendly framework conditions to policymakers and society
Cybermobbing-Hilfe e. V. (Cyberbullying Support)	Association which supports victims of cyberbullying and promotes prevention work in society
Deutsches Kinderhilfswerk e. V. (German Children's Fund)	Association for strengthening children's rights and eradicating child poverty
DICO – Deutsches Institut für Compliance e. V. (German Institute for Compliance)	Institute which develops compliance standards and plays a role in shaping good corporate governance
DIRK – Deutscher Investor Relations Verband e. V. (German Investor Relations Association)	Europe's largest professional association for promoting dialogue between companies and capital markets
eco – Verband der Internetwirtschaft e. V. (Association of the Internet Industry)	Association for companies from the IT and telecommunications industries with a focus on future Internet topics
econsense – Forum for Sustainable Development of German Business e. V.	Sustainability network of German business with the goal of actively shaping the transformation to a more sustainable economy and society with companies
Europäische Bewegung Deutschland e. V. (European Movement Germany)	Network for European policy in Germany
FSM – Freiwillige Selbstkontrolle Multimedia-Diensteanbieter e. V. (German Association for Voluntary Self-Regulation of Digital Media Service Providers)	Alliance that combats online media content which is illegal, harmful to young people or jeopardises their development, provides a platform for complaints and promotes the media skills of children and young people
Förderkreis Zentrum für Telekommunikations- und Medienwirtschaft e. V. (Society for the Promotion of the Telecommunications and Media Industry)	Non-profit association for the exchange of knowledge and experience regarding telecommunications, information technology, media, entertainment and electronic security
GDD – Gesellschaft für Datenschutz und Datensicherheit e. V. (German Association for Data Protection and Data Security)	Association for data protection and data protection officers
GDW – Global Digital Women	Network for accelerating gender equality and making women with a digital focus spanning a number of different industries visible in business and day-to-day life
Grüner Wirtschaftsdialog e. V. (Green Business Dialogue)	Party-independent alliance of companies and individuals wishing to promote mutual understanding and open communication between businesses, politics in general and policymakers
GSM Association	Global industry association representing the interests of GSM mobile operators
Information Security Forum	Independent non-profit organisation for networking on the topics of cybersecurity, information security and risk management; active participation in its capacity as a member of Telefónica, S.A.
Initiative Chefsache (Chefsache initiative)	Network of leaders from business, science, the public sector and the media, for promoting equal opportunity for women and men



Membership/cooperation	Description
International Telecommunication Union (ITU)	United Nations specialised agency that officially and globally focuses on the technical aspects of telecommunications
Initiative D21 e. V.	Germany's largest non-profit network for the digital society; commitment to the challenges of digital transformation and initiation of debate regarding how to wisely shape the future of the digital society
klcksafe	Initiative that in Germany promotes the safe use of the Internet and new media on behalf of the European Commission
Klimapakt Münchner Wirtschaft (Munich Business Climate Pact)	Pact of major enterprises based in Munich which have committed to voluntarily reducing their carbon emissions
MINT Zukunft e. V. (STEM Future)	Initiative to promote schools' STEM profile in general and their IT and digitalisation profile in particular through the programmes "MINT-freundliche Schule" (STEM-friendly school) and "Digitale Schule" (Digital school) as well as increase the proportion of women in STEM study courses
Mission Female – network for successful women	Network in which successful women can engage with one another on an equal footing and strengthen their personal and professional development
MÜNCHNER KREIS (MUNICH CIRCLE)	Non-profit association focusing on matters relating to technology, society, the economy and regulation in the area of information and telecommunications technologies
NABU – Naturschutzbund Deutschland e. V. (Nature And Biodiversity Conservation Union)	Commitment to people and nature with numerous projects for the protection of species, the environment and nature in Germany
#SheTransformsIT	Initiative for greater representation of women in digitalisation and better career opportunities for girls and women
Stiftung Digitale Chancen (Digital Opportunities Foundation)	Foundation that assists people in using the Internet in order to counteract the exclusion of disadvantaged sections of the population from the development of the information society
Umweltpakt Bayern (Bavarian Environmental Pact)	Voluntary agreement between the Bavarian state government and Bavarian industry on environmental protection
UN Global Compact and Global Compact Network Germany	The world's largest initiative for governance for responsible corporate management and the pursuit of the vision of an inclusive and sustainable global economy for the benefit of all people, communities and markets
UPJ e. V. – Unternehmen als Partner der Jugend (Companies as a Partner of Young People)	Network of companies and civil society regarding corporate citizenship and corporate social responsibility
VATM	Interest group comprising some 100 telecommunications and multimedia companies which are in competition with the former monopolist Deutsche Telekom
VDE – Verband der Elektrotechnik Elektronik Informationstechnik e. V. (Association for Electrical, Electronic & Information Technologies)	Organisation that brings together science, standardisation, testing, certification and application consulting under a single umbrella and advocates the promotion of research and the next generation of those working in the field; supporting member of Special Committee Lightning Protection and Lightning Research (ABB)
Wirtschaftsforum der SPD e. V. (SPD Economic Forum)	Independent professional business association for the promotion and expansion of sustainable, innovative and economic progress; the topics covered in its specialist forums include energy and climate, mobility and infrastructure, and resources and sustainability
Wirtschaftsrat der CDU e. V. (Economic Council)	German business association; network and centre of excellence to help shape economic and social policies through dialogue on topics such as the Internet and the digital economy; environmental, climate and energy policy; transport and the labour market
Zentrale zur Bekämpfung unlauteren Wettbewerbs e. V. (Centre for Protection against Unfair Competition)	Self-regulation institution active Germany-wide for the enforcement of the law against unfair competition



Independent practitioner's report

Independent Practitioner's Report on a Limited Assurance Engagement on Sustainability Information¹

To Telefónica Deutschland Holding AG, Munich

We have performed a limited assurance engagement on the disclosures in the Corporate Responsibility Report of Telefónica Deutschland Holding AG, Munich (hereinafter "the Company") for the period from 1 January to 31 December 2022 (hereinafter the "Report").

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the "GRI-Criteria").

This responsibility of Company's executive directors includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal controls as they have considered necessary to enable the preparation of a Report that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis - IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the disclosures in the Report based on the assurance engagement we have performed. Within the scope of our engagement we did not perform an audit on external sources of information or expert opinions, referred to in the Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the disclosures in the Company's Report for the period from 1 January to 31 December 2022 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Report
- Identification of the likely risks of material misstatement of the Report under consideration of the GRI-Criteria
- Analytical evaluation of selected disclosures in the Report
- Inspection of additional documents and supportive systems
- Comparison of selected disclosures with corresponding data in the Group financial statement and the Group management report
- Evaluation of the presentation of selected sustainability information in the Report
- Use of the work of a practitioner's verification of energy consumption and greenhouse gas emission indicators according to ISO 14064.
- Evaluation of CO₂ compensation certificates exclusively with regard to their existence, but not with regard to their impact

¹ PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the Corporate Responsibility Report and issued an independent practitioner's report in German language, which is authoritative. The following text is a translation of the independent practitioner's report.



Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures in the Company's Report for the period from 1 January to 31 December 2022 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement. The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Munich, 25 April 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Michael Conrad
Wirtschaftsprüfer
(German Public Auditor)

Annette Fink



Verification Statement of AENOR for Telefónica Germany on the Inventory of greenhouse gas emissions corresponding to the year 2022

DOSSIER: 2009/1133/GHG/01

Introduction

Telefónica (hereinafter the company) commissioned AENOR to make a limited revision of the inventory of greenhouse gases (GHG) of its activities in the period 2022.

Inventory of GHG emissions issued by the Organisation:

- Corporate: C/ Ronda de la Comunicación, Distrito Telefónica, Madrid (Spain).
- Germany: Georg-Brauchle-Ring 50, 80992 München (Germany).

Representatives of the Organisation: Maya Ormazábal Herrero/Camilo Andrés Guarín García, Climate Change and Energy Efficiency Office, and Jürgen Franke, Energy Manager NT Network Implementation/Real Estate & Energy of Telefónica Deutschland.

Objective

The objective of the verification is to provide the interested parties with an independent and professional opinion on the GHG emissions reported by Telefónica.

Scope of the Verification

During the verification the information was analysed according to the operational control approach. Under this approach the geographic scope is established in the following regions:

Organizational and geographic boundaries
Europe
Germany (Fixed and Mobile Network)

The GHG inventory of the organization includes the following GHGs: CO₂, CH₄, N₂O and HFCs.

Direct, indirect activities and exclusions from the verification.

- Scope 1- Direct GHG emissions
- Scope 2 – Energy indirect GHG emissions
- Scope 3- Other indirect emissions. It is included:
 - o Business travel

General Exclusions:

The organization has not excluded any GHG source.



Materiality

For the verification it was agreed to consider as material discrepancies those omissions, distortions or errors that could be quantified and result in a difference of more than 5% with respect to the total of emissions declared.

Criteria

The criteria and information that have been taken into consideration to carry out the verification were the following:

1. GHG Protocol. Corporate accounting and reporting standard. Rev 01.
2. Referential ITU-T L.1420 (02/2012) Methodology for energy consumption and greenhouse gas emissions impact assessment of information and communication technologies in organizations.
3. Standard ISO 14064-3:2006: Specification with guidance for the validation and verification of greenhouse gas assertions.

AENOR waives any responsibility for decisions, regarding investment or of any other type, based on this declaration.

Verified activity data

Scope 1	Stationary combustion (natural gas)	Nm ³	343.077,11
Scope 1	Stationary combustion (diesel)	Litres	19.862,00
Scope 1	Mobile combustion (gasoline)	Litres	606.210,43
Scope 1	Mobile combustion (diesel)	Litres	1.120.471,13
Scope 1	Fugitive emission (fluorinated gases)	Kg	237,73
Scope 2	District Heating	kWh	3.908.056,00
Scope 2 (Location)	Electricity consumption	kWh	774.908.337,75
Scope 2 (Market)	Electricity consumption renewable	kWh	774.967.177,50
Scope 3	Business trips, km plane (short)	Km	2.381.324,00
Scope 3	Business trips, km plane (medium)	Km	2.770.718,00
Scope 3	Business trips, km plane (long)	Km	1.962.173,00
Scope 3	Business trips, km (train)	Km	3.749.893,00



Conclusion

As a conclusion and according to the limited level of assurance agreed, AENOR states:

Based on the above, in our opinion *there is no evidence to suggest that the information on GHG emissions reported by Telefónica Germany for the period 2022 is not a true reflection of the emissions from its activities.*

In consequence with this Declaration below is a list of the emissions data that were finally verified.

GHG emissions	t CO2eq
Scope I+II (market method)	5.781,01
Scope I	5.519,91
Mobile Combustion	4.385,89
Stationary Combustion	702,08
Fugitive Emissions	431,94
Scope II (Location)	325.722,60
Electricity	325.461,50
District Heating	261,09
Scope II (Market)	261,09
Electricity	0,00
District Heating	261,09
Scope III	
Cat. 6 - Business travel	1.985,39
Emissions offsets	3.107,00

Lead Verifier: Jesús Carlos SAN MELITON SANZ

Technical Reviewer: Fernando SEGARRA ORERO

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