



**2024 Report**

# Telefónica's Green Financing Instruments

## Content Index

<b>1. Introduction</b>	3
<b>2. Telefónica ESG Strategy</b>	6
<b>3. Telefónica's Sustainable Financing Framework</b>	11
<b>4. Summary of the instruments covered by the report</b>	13
<b>5. Project allocation and impacts</b>	15



# 1. Introduction

# 1. Introduction

## Who we are?

Telefónica offers digital solutions that connect people through the deployment of telecommunications networks that are environmentally and sustainably efficient.

Telefónica is a telecommunications company with over 1.1 million shareholders and is listed on the world's leading stock exchanges. The Company currently operates in 12 countries and employs over 104,000 people, serving more than 388 million accesses. At the end of 2023, revenues amounted to €40,652 billion.

In 2018, the Company published its first Sustainable Financing Framework, which has been subsequently updated in January 2021 and in July 2023, with the aim of continuously meeting best market practices and investor expectations. The framework is linked to Telefónica's business-relevant projects, which focus on enabling high-quality telecommunications infrastructure and services, and bridging the digital divide by deploying the most energy-efficient next-generation networks, which play an important enabling role for smart solutions, thus reducing the environmental impact across other sectors of the economy and society.

Telefónica is a pioneer in sustainable financing and stands out for the volume and diversification of its financial instruments. In 2019, it was the first company in the telco sector to issue a green bond for an amount of €1 billion. Also, in 2020 the company issued the first green hybrid amounted to €500 million and in 2021 it launched the sector's first sustainable hybrid, amounting to €1 billion.

The proceeds of these issuances are mainly used for financing and/or refinancing:



### Green projects

- Energy efficiency associated with the transformation and improvement of the fixed and mobile telecommunications networks based on high-speed fixed and mobile technologies.



### Social projects

- Inclusive connectivity through the deployment of mobile broadband in unconnected or underserved rural areas.



Presence in  
**12 countries**



**+104,000**  
Employees



**€40,652**  
million revenues  
2023



First telco to issue  
a green bond



33.6% financing  
linked to  
sustainability  
criteria by the end  
of 2023

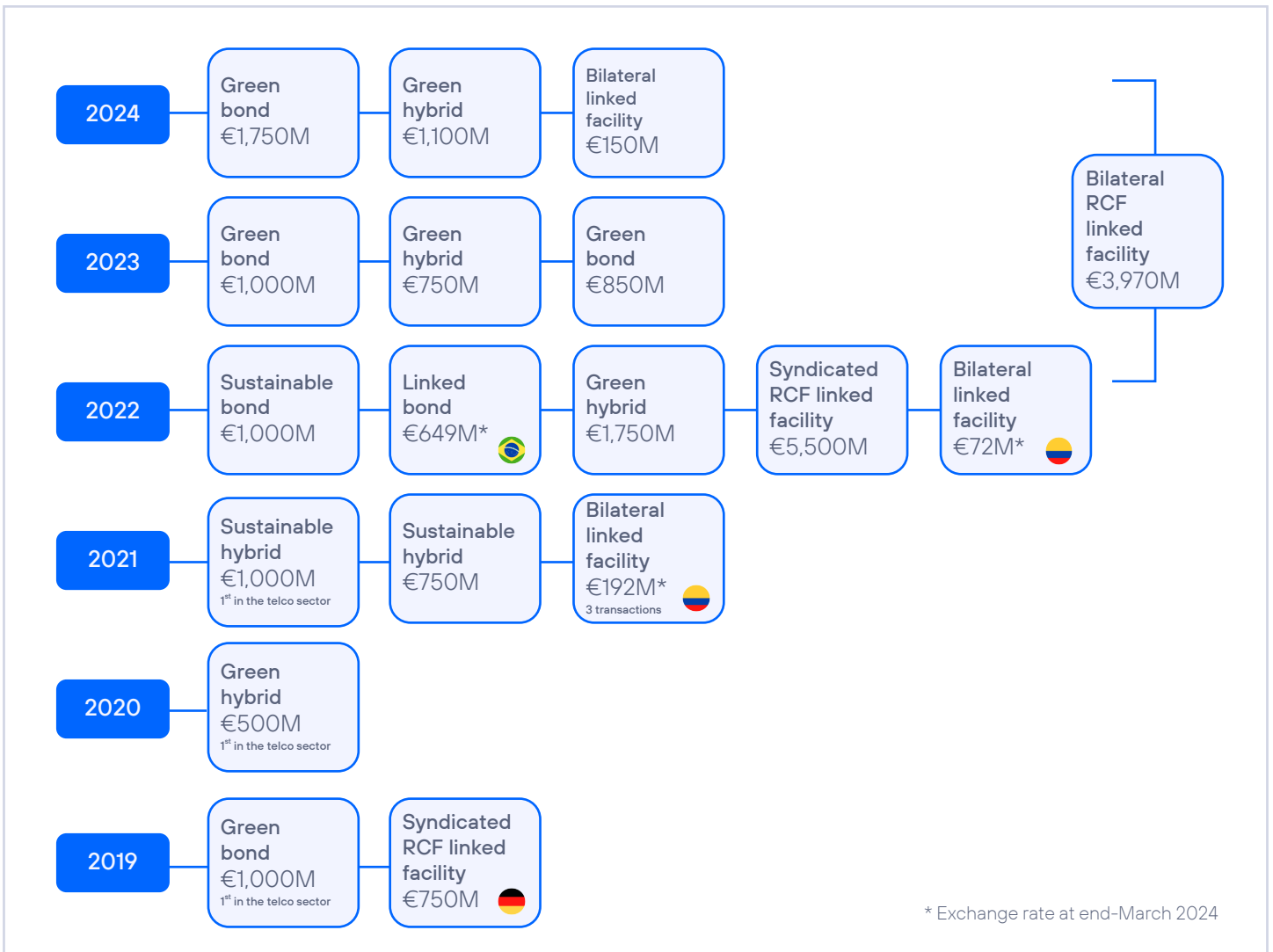
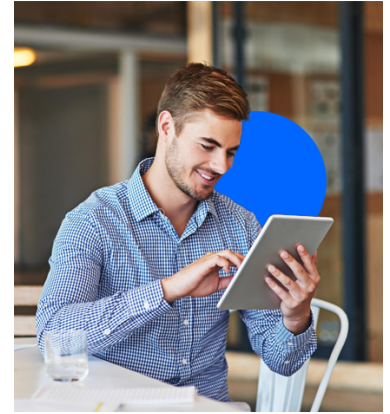
## We are pioneers in sustainable financing

This allocation and impact report relates to the green hybrid issued in September 2023 (€750M) and the green senior bond issued in November 2023 (€850M).

By the end of 2023, Telefónica Group's sustainable financing<sup>1</sup> activity exceeded 33% of the Company's total financing, positioning the Company among the market leaders in the global telecommunications sector capital markets in terms of the volume of bonds and hybrid instruments issued.

In 2024, Telefónica has carried out new sustainable financing operations. Specifically, a 1,750 million euros senior green bond -the company's largest placement since 2020-, and 1,100 million euros green hybrid, as well as a bilateral linked facility amounting 150 million euros.

Telefónica has set a new target for financing linked to sustainability to represent ~40% of total financing by 2026.



<sup>1</sup>Sustainable financing includes balance sheet debt (accounted under current and non-current financial liabilities items), hybrids, and undrawn committed credit lines. Sustainable criteria are defined on Telefónica's sustainable financing frameworks according to ICMA, LMA, APLMA, LSTA principles, or other recognised standards, as well as ESG criteria applied to other financing instruments. Not necessarily aligned with the requirements of the EU Taxonomy Regulation.



## **2.** Telefónica ESG Strategy

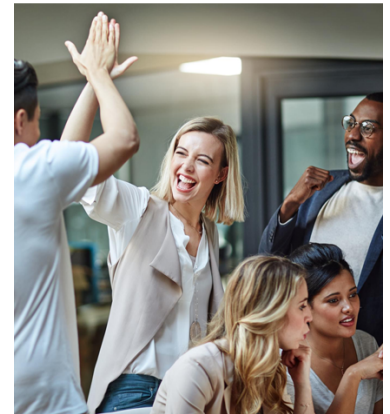
## 2. Telefónica ESG Strategy

### Our sustainability pillars

Telefónica's strategy has its mission as its starting point and the [Responsible Business Principles](#) as a fundamental pillar to encourage the transition to a more digital, environmentally friendly and sustainable economy that is committed to all stakeholders.

The Company considers the impacts of its activities, as well as long-term targets and aspirations, both internally and externally.

The Responsible Business Principles are integrated into Telefónica's Strategic Plan and are supported by policies and standards that govern the way the Company acts: with integrity, commitment, and transparency. The targets are linked to the variable remuneration of all Telefónica employees, including members of the Executive Committee.



### Main lines of our ESG strategy

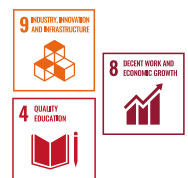
**Building a greener future**

- Minimise our environment impact - including achieving net-zero emissions and zero waste.
- Minimise our reach in providing products and services that decarbonise the economy.



**Helping society thrive**

- Reduce the digital divide with focus on connecting rural areas and digital skills.
- Ensure an inclusive working environment attract retain the best talent, committed and diverse.



**Leading by example**

- Embed ESG in every area of our business with the highest ethical standards according to our Responsible business principles.
- Proactive engaging with suppliers to drive sustainability across our supply chain.
- Ensure the security privacy and confidentiality of customer data.



## Our Climate Action Plan

### Addressing Climate Change fight with credible actions

Telefónica's Energy and Climate Change Strategy focuses on climate risk management to mitigate the impact and adapt to the adverse effects of global warming

Telefónica's [Climate Action Plan](#) defines the organisation's overall business strategy that lays out a set of science-based targets and actions supporting its transition towards a low-carbon economy.

In 2022, following the release of SBTi Corporate Net-Zero standard, Telefónica reinforced its climate commitments by becoming the first telecommunications operator in the world to have its 2040 net zero emissions target validated by the initiative.

To guarantee compliance with its short-, medium- and long-term objectives, the Climate Action Plan has been integrated into Telefónica's governance model and includes the GHG emissions accounting, the implementation of specific actions with verifiable indicators and the definition of oversight and accountability responsibilities within the organisation.

The plan not only defines actions in Telefónica's operational model, but also in its business and financial strategy and in its commitment to customers, the supply chain and society as a whole.

The goal for Telefónica is to prosper in a world in which the average global temperature does not exceed 1.5°C above pre-industrial levels and in which the health of natural ecosystems is restored.



**Net-zero** emissions across our value chain by 2040

We increased the ambition of our goals



**SBTi validation**

**1.5°C**





## Telefónica's Energy and Climate Change Targets

On the road to Net Zero by 2040, Telefónica's decarbonisation plan includes short, medium, and long-term targets that have been validated by the SBTi (Science Based Targets Initiative).

	 <b>Energy efficiency</b>	 <b>Renewable energy</b>	 <b>Scope 1 and 2 Emissions</b>	 <b>Value chain emissions (Scope 3)</b>	 <b>Customers' emissions avoided through digitalisation</b>	 <b>Neutralisation</b>
<b>Short-term</b> <b>2025</b>	Improve energy consumption per unit of traffic by <b>90%</b> , compared to <b>2015</b>	Continue to consume electricity with <b>100%</b> renewable origin in the main markets	<b>-90%</b> in main markets compared to 2015	<b>-39%</b> globally, compared to 2016	Helping customers to reduce their CO <sub>2</sub> emissions, through connectivity and Eco Smart services.	Neutralise unabated Scope 1 and Scope 2 emissions in main markets annually ( <b>10%</b> )
<b>Medium-term</b> <b>2030</b>		<b>100%</b> of electricity from renewable sources globally	<b>-90%</b> globally compared to 2015	<b>-56%</b> globally, compared to 2016		
<b>Long-term</b> <b>2040</b>			Reduce total emissions by <b>90%</b>			Neutralise residual emissions annually ( <b>10%</b> )
<b>Net zero emissions</b> (including value chain)						

These targets help Telefónica to leverage decarbonisation opportunities, to be more competitive and to offer its customers services based on a clean, efficient network. Achieving these targets has formed part of the variable remuneration of all Telefónica's employees since 2018.

## Our commitment promoting an inclusive connectivity

### Telefónica's commitment to society

Connectivity is an essential part of the transition process towards a digital society to achieve true social inclusion in all regions and at all levels.

Social and economic development in remote areas depends on access to mobile broadband and digital services. Telefónica is actively engaged in the deployment, and continuous improvement of its telecommunication networks in poorly (un)connected areas, especially in rural areas, due to their greater vulnerability in terms of digital inclusion.

Broadband networks have significant positive effects on various social and economic factors, such as fostering the creation of new businesses and increasing household income. Several studies have shown that these networks have a positive impact on GDP. Specifically, the International Telecommunication Union (ITU) found that a 1% increase in mobile broadband penetration rates generates an increase of 0.15% in GDP (thus, an increase of 10% in the mobile broadband penetration rate results in an average increase of 1.5% in GDP)<sup>2</sup>.

Digital solutions have shown that they can contribute to positively transforming communities and productive and economic models. The deployment of broadband networks, together with measures to boost digitalisation, have a direct impact on the socio-economic development of entire regions and on the lives of many people who gain access to services and opportunities that were previously unavailable to them.

Telefónica is also committed to helping SMEs in their transformation process, extending its range of communication services with specific IT solutions adapted to their needs.

Digital inclusion and the opportunity to thrive by using digital resources are rooted in quality connectivity and the ability to develop the necessary skills to get the most out of using digital tools.



**Connectivity** is one of the drivers of social and economic development



**Target: 90-97%** mobile broadband coverage in rural areas of our main markets **by 2024**

<sup>2</sup> The economic contribution of broadband, digitalisation and ICT regulation (2018). International Telecommunication Union (ITU).



### **3.** Telefónica's Sustainable Financing Framework

### 3. Telefónica's Sustainable Financing Framework

The Sustainable Financing Framework is a fundamental tool for supporting the transformation of our business through investment in projects with a positive environmental and social impact.

The instruments covered in this report were issued in accordance with the [Sustainable Financing Framework](#) updated as of July 2023, and positively endorsed by Sustainalytics' Second-Party Opinion. The Framework has been outlined with the 4 pillars of the Green Bond Principles (2021), Social Bond Principles (2023), the recommended External Review Component as well as the Green Loan Principles and Social Loan Principles, dated February 2023.



#### Use of proceeds

In accordance with the Framework, Telefónica may issue green, social, and sustainable financing instruments, the proceeds of which must be used to finance, in whole or in part, new or existing projects within the eligible categories defined in the Framework.

Green projects		
<ul style="list-style-type: none"> <li>Energy Efficiency of Telefónica's Network Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Renewable Energy</li> </ul>	<ul style="list-style-type: none"> <li>Data-driven solutions</li> </ul>
Social projects		
<ul style="list-style-type: none"> <li>Inclusive Connectivity (access to basic services)</li> </ul>		

The above eligible categories help to contribute to the Sustainable Development Goals, particularly SDG 9 (industry, innovation and infrastructure), SDG 8 (decent work and economic growth), SDG 7 (affordable and clean energy) and SDG 13 (climate action).

Project selection and evaluation	Management of proceeds	Reporting
<ul style="list-style-type: none"> <li>The Sustainable Financing Committee oversees the allocation of proceeds to the project categories defined in the framework.</li> <li>The Committee is made up of senior management representatives from the following areas: finance, management control, sustainability, and other technical areas as required.</li> </ul>	<ul style="list-style-type: none"> <li>Proceeds of each issuance are deposited in the general funding accounts and earmarked for allocation using the Sustainable Financing Register.</li> <li>Funds are managed according to Telefónica's internal liquidity policy until the allocation.</li> </ul>	<ul style="list-style-type: none"> <li>Allocation and impact report on an annual basis and until the proceeds are fully allocated.</li> <li>An independent third-party will ensure that eligible projects and reporting metrics are consistent with the Framework.</li> </ul>



## 4. Summary of the instruments covered by the report

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Instrument	Hybrid	Senior Bond
Issuer	Telefónica Europe B.V.	Telefónica Emisiones, S.A.U.
Guarantor	Telefónica S.A.	
Guarantor rating	Baa3/BBB-/BBB (stable) (Moody's/ S&P/Fitch)	
Date of issuance	September 07/09/2023	November 21/11/2023
Type of debt	Direct, unsecured and subordinated obligations, senior only to share capital, pari passu with outstanding hybrids	Senior unsecured
Nominal amount (EUR)	750,000,000	850,000,000
Maturity date	Perpetual NC8 (First Reset Date 7/09/2031)	21/11/2033
Coupon	6.750%	4.183%
Admission to securities trading	The Irish Stock Exchange plc regulated market	The Irish Stock Exchange plc regulated market
ISIN code	XS2646608401	XS2722162315
Use of proceeds	Eligible green investment related to the transformation and modernisation of telecommunications networks based on high-speed fixed and mobile networks, including supporting infrastructures and software to improve the energy efficiency of the networks, as well as projects related to the implementation of Telefónica's renewable energy plan.	



## **5.** Project allocation and impacts

## 5. Project allocation and impacts

The total funds allocated amounted to 1,601 million euros.

The proceeds of these issuances have been earmarked for the financing of the **transformation and modernization of the fixed and mobile network to improve energy efficiency**, as well as **projects related to Telefónica's Renewable Energy Plan** in Brazil between 2021 and 2023.

Please note that **2021 figures for fixed network transformation only include investments outside the São Paulo region**, so the environmental impact is also limited to this area. Therefore, this data is not comparable with 2022 and 2023. Investments made in the São Paulo region in 2021 have already been allocated. Information on renewable energy projects for 2022 only covers the first quarter of the year (January to March).

Eligible project	OB	Indicator	Units	Impact			SDG
				2021	2022	2023	
Fixed network transformation		<b>Funds allocation</b>	<b>M€</b>	<b>129</b>	<b>476</b>	<b>405</b>	  
		Electricity total consumption	(KWh)	135,203,408	718,107,759	768,479,054	
			%YoY	–	n/a	7 %	
		Network traffic	PB	16,829	48,067	59,931	
			%YoY	–	n/a	25 %	
		Electricity consumption/ network traffic	(KWh/PB)	8,034	14,940	12,823	
			%YoY	–	n/a	-14 %	
Electricity savings	(KWh)	920,856	119,975,518	57,377,615			
Avoided CO <sub>2</sub> emissions	(tCO <sub>2</sub> )	125	5,219	2,107			
Mobile network transformation		<b>Funds allocation</b>	<b>M€</b>	<b>–</b>	<b>–</b>	<b>580</b>	  
		Electricity total consumption	(KWh)	–	–	866,369,919	
			%YoY	–	–	0,4%	
		Network traffic	PB	–	–	6,133	
			%YoY	–	–	30,5%	
		Electricity consumption/ network traffic	(KWh/PB)	–	–	141,269	
			%YoY	–	–	-23,1%	
Electricity savings	(KWh)	–	–	259,989,678			
Avoided CO <sub>2</sub> emissions	(tCO <sub>2</sub> )	–	–	9,549			
Renewable energy		<b>Funds allocation</b>	<b>M€</b>	<b>8</b>	<b>3</b>	<b>–</b>	
		Renewable energy consumption	(KWh)	123,169,787	40,284,393	–	
		Avoided CO <sub>2</sub> emissions	(tCO <sub>2</sub> )	16,657	1,752	–	



## Green projects financed

### Telefónica's network transformation

The way in which telecommunication networks are deployed, and how sustainability criteria are integrated since its design is crucial to shaping the roll-out of the networks of the future.

Telefónica's network is aimed at achieving a more efficient and sustainable network that will also enable a wide range of digital services with a positive impact on society. **In this context, the fixed network is also essential as the backbone of the telecommunications system for data transmission, enabling other technologies, such as mobile technologies, to maximise their potential for performance.**

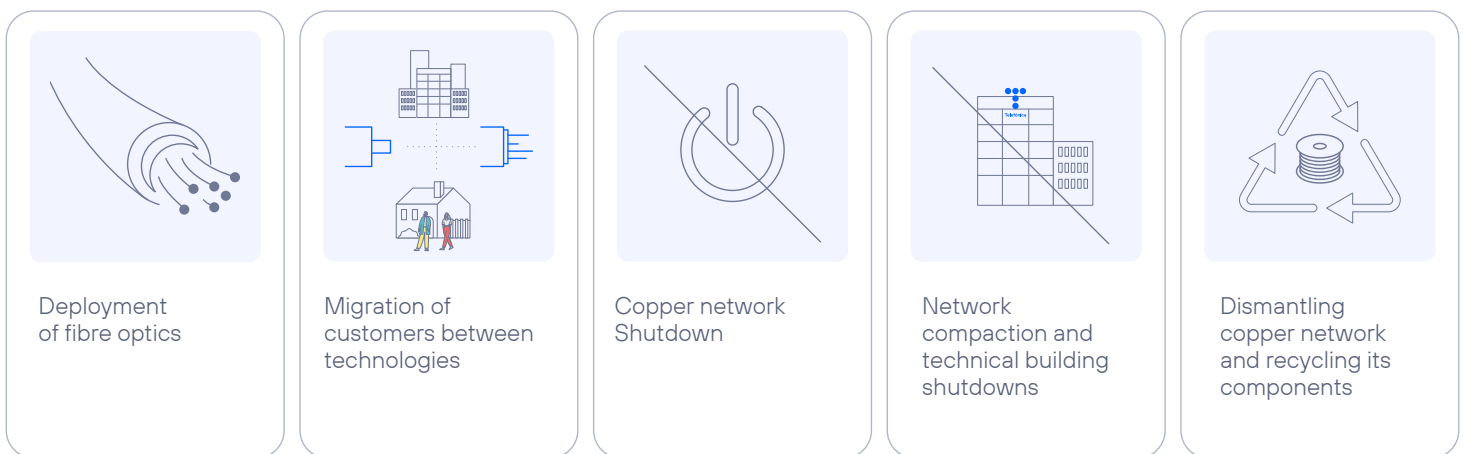
How the networks are operated is also important **to make the equipment perform at its highest level of energy efficiency**, as well as **accelerating the switch-off of legacy networks** and its sustainability impacts.



### Fibre optics: a more efficient fixed network in term of energy efficiency

A significant portion of the proceeds from these issuances have been allocated to the transformation of Telefónica's fixed network in Brazil from copper to fibre to the home (FTTH), where fibre optics is 85% more energy efficient than copper.

### Network transformation process



The project is mainly divided in three phases:

Fibre deployment	Transport	Customer migration
<ul style="list-style-type: none"> <li>Construction of the fibre optic FTTH network between Telefónica's technical building and the CTO (point of deployment closest to the customer's home, whether a residential or a business customer).</li> </ul>	<ul style="list-style-type: none"> <li>Construction of the network necessary to transport the data of customers with a fibre connection. This has been covered in a very limited way when allocating funds, as transport is a common element of several technologies. For this bond, only the part of transport associated with agreements with various public or private entities in which it is specified that the access technology must be fibre optics has been selected.</li> </ul>	<ul style="list-style-type: none"> <li>Migration of existing customers with copper technology to provide them with access to fibre optic technology. It includes the operations between the CTO and the customer's home.</li> </ul>

### A high-speed mobile network based in optimising energy efficiency and interoperability

The deployment of the latest advanced mobile technologies is expected to bring an unprecedented, disruptive, technological change to many different sectors of the economy and society over the next decade. The **transformation and modernisation of the mobile networks is key to enabling high-speed connectivity** with the ability to support new services with more demanding requirements over time.

In this context, **Telefónica is deploying the necessary infrastructure** to guarantee the required network capacity and coverage. Investments in **new and multi-technology equipment also allow Telefónica to continuously reduce energy consumption** per data traffic and to run multiple technologies with a minimum amount of hardware units, thus increasing the energy efficiency.

Although 4G and 5G traffic demand are expected to grow steadily and may eventually lead to an overall increase in energy demand, the **efficiencies achieved are expected to result in a net reduction in energy consumption per unit of data transmitted**. This will be achieved by enabling energy efficient transmission as well as operational efficiencies in industries and activities downstream of the financed network.

As an example, **energy efficiency related 5G network deployment increases significantly due to its higher spectrum capacity**. Furthermore, in 2020, Telefónica carried out a case study based on energy consumption measurements at its 5G sites deployed in Germany and Brazil. The study showed that the technology was up to 90% more efficient in terms of energy consumption per traffic unit<sup>3</sup> and has much more capacity, so it will be able to provide increased services with a lower energy consumption.



<p><b>Telefónica specific actions and enhancements boosting the energy efficiency of mobile networks.</b></p>	<ul style="list-style-type: none"> <li><b>Mobile site modernisation</b> by decommissioning legacy technologies and replacement with more efficient multi-band and multi-technology equipment.</li> </ul>
	<ul style="list-style-type: none"> <li>Activation of <b>power-saving features</b>, such as: switching off bands/carriers, downgrading MIMO, and shutdown electronics.</li> </ul>
	<ul style="list-style-type: none"> <li><b>Implementation of AI/ML platform</b> on top of power saving features (PSFs) to continuously monitor and manage the network capacity and shut down useless resources on air.</li> </ul>

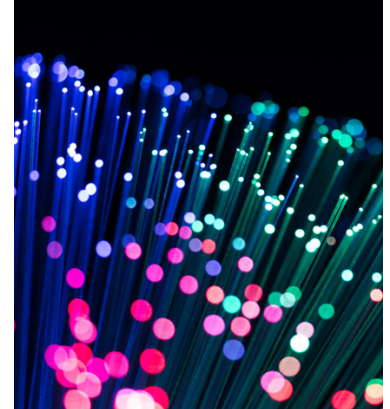
<sup>3</sup> [Telefónica makes progress in the design of a green 5G network](#)

## What are the benefits of the telecommunications network transformation?

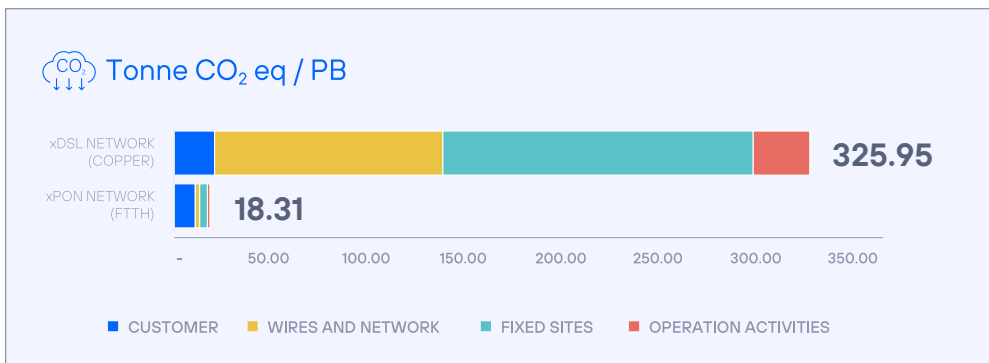
### A. Greater simplification and environmental efficiency in the operation of the business:

- **Energy efficiency:**

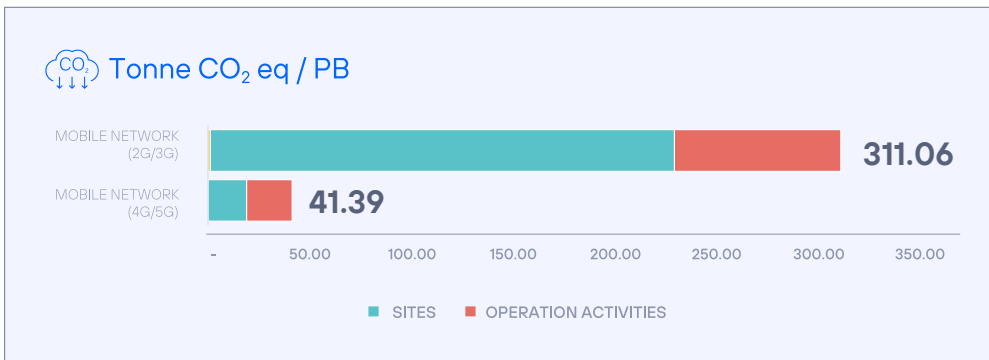
Fibre and 4G/5G technologies have a lower environmental impact compared to copper and 2G/3G, respectively. Mainly related to a more efficient and lower energy consumption during the transport and processing of data in the network system<sup>4</sup>.



#### Fixed network environmental impact



#### Mobile network environmental impact



In addition, Telefónica's efforts to increase energy consumption from renewable sources impact positively since without renewable energy, the results would have been significantly higher.

- **Shutdown of legacy technologies:**

Telefónica completed the 3G switch-off in Germany by 2021 and is already making progress in other geographies such as Spain. As of April 2024, Telefónica has almost completed the closure of the copper network and its support systems in Spain.

<sup>4</sup> [Connectivity Solutions' Life Cycle Assessment](#). Telefónica Spain. 2022.

• **Circular economy:**

The recycling of equipment and the materials: metals, rare-earth elements, etc. allow for its reuse and an extended span life.

• **Space saving:**

Fibre takes up 10 times less space and has 100 times more capacity. Also, the virtualisation and compactness of mobile equipment allows for more free space and less energy consumption.

• **Network quality and reduced maintenance and support resources:**


Application of new functionalities in the telecommunication network enabling continuous remote monitoring.



**B. A new relationship model between customers and services based on self-installation/ self-supply, flexibility, and immediacy.**


**C. Environmental benefits for the customers in the shape of CO<sub>2</sub> emissions avoided due to digital services that need the capacity and data transmission speed offered by latest high-speed fixed and mobile technologies.**

**Triple impact of the mobile network transformation**



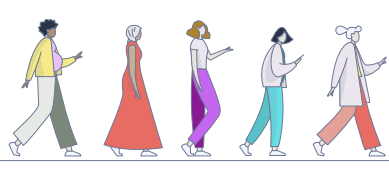
**Business**

- Enables higher download speeds and the ability to support many connected devices.
- Connectivity drives digitalisation by integrating new technologies and applications for security, automatization of processes and optimisation of the value chain to increase efficiency and competitiveness and create new business models.



**Environmental**

- From a Life-cycle Analysis<sup>5</sup> perspective:
  - FTTH environmental impact per PB is 18 times lower than copper, and 5 times less per access.
  - 4G and 5G technologies have an environmental impact 7 times lower than legacy mobile technologies per access and per PB.



**Society**

- The digitalisation of society has the potential to reduce up to 15% of CO<sub>2</sub> emissions globally by 2030<sup>6</sup>.
- A positive impact on society: By facilitating digital education, entrepreneurship, new business and relationship models, greater ability to balance family life and work, better access to health services and population retention in rural areas.

<sup>5</sup> Connectivity Solutions' Life Cycle Assessment. Telefónica Spain. 2022.

<sup>6</sup> Connectivity & Beyond How Telcos Can Accelerate a Digital Future for All. ETNO and Boston Consulting Group. March 2021.

## Renewable Energy

### Telefónica's Renewable Energy Plan

**Telefónica promotes the usage of renewable energy to reduce CO<sub>2</sub> emissions** as part of its strategy to fight against climate change. As a part of RE100, a global initiative of companies committed to 100% renewable electricity. Our goal is for the electricity we consume in all our operations to come entirely from renewable sources by 2030.

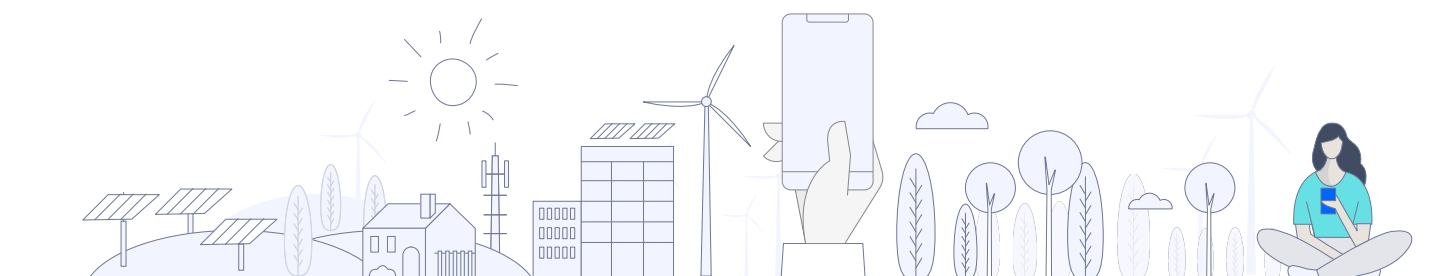
**Telefónica's Renewable Energy Plan contributes to increasing the renewable energy mix** through self-generation and/or by facilitating the construction of new renewable power plants, as well as long-term **Power Purchase Agreements (PPA), and distributed generation.**

These contracts often have a long term and provide the Group with a **mechanism to ensure the supply of green energy at fixed prices.** When these arrangements involve physical delivery of electricity and are entered into for the purpose of receiving the energy for the entity's expected purchase, sale or usage requirements (i.e. volume agreed does not exceed actual and expected power needs), the contract is for "own use" and is generally accounted for as power purchases or sales when the underlying transactions take place.

These **agreements prioritise non-conventional renewable energy sources such as wind and solar.** This contractual mechanism allows Telefónica to secure the supply of green energy at fixed prices, reducing operating costs and exposure to fluctuations in electricity prices.

**In 2023, 84% of our total electricity consumption in our own facilities came from renewable sources.** In Europe, Brazil, Chile and Peru, 100% of the electricity we used came from renewable sources. In Brazil, it is worth highlighting the continuation of the distributed generation project, which allowed 67 renewable energy plants to be put into operation in 2023, out of a total of 85 planned, which will generate more than 700 GWh per year for our operation, thereby reducing dependence on renewable energy certificates (iRECs).

Also, in Spain, the five long-term renewable energy purchase agreements (PPA) keep being into operation, signed for the period 2021-2031 and equivalent to 582 GWh annually for 10 years. In Germany, Telefónica signed two PPAs, the first for an annual volume of 350 GWh from an offshore wind farm during the period between 2025 and 2035, and a second for an annual volume of 200 GWh for the period 2025-2040, both with energy suppliers that provide long-term energy security and renewable energy supply.



## Impact indicators calculation methodology

### Fixed network transformation and modernisation



#### Fixed network electricity consumption (kWh)

Electricity consumed by the Telefónica buildings needed to provide fixed-line network communications services. It includes buildings that are already 100% fibre and those that still have copper network equipment. It excludes those buildings considered to be "unique" because they provide other types of services as well as consumption by other operators in our buildings to provide their own services.



#### Fixed network electricity consumption per unit of data traffic (kWh/PB)

Energy intensity ratio calculated by using fixed network electricity consumption (kWh) as described above and mobile data traffic, expressed in petabytes (PB).



#### Fixed network electricity savings (kWh)

It is the electricity saved by disconnecting elements from the copper network and subsequent total shutdowns of technical buildings. The copper network is made up of a number of legacy technologies.

The number of elements that are shut down and their type are reported monthly. This, alongside the consumption data for each type of element (either through the element's technical specifications or through the direct measurement), allows the amount of energy saved each month by these projects to be calculated. A small fraction is added to this consumption, corresponding to the savings in air conditioning thanks to the reduced heat dissipation of the communication equipment.

Since the exact day on which each element is shut down is not known, only the savings over 15 days are allocated for the current month. From the following month onwards, the amount of electricity saved over 30 days is taken into account. The savings are accounted for over a 12 months period.



#### Fixed Network avoided CO<sub>2</sub> emissions from electricity savings (tCO<sub>2</sub>)

The calculation of avoided carbon emissions is based on the electricity savings generated by the mobile network transformation, according to the description in the indicator, using the emission factors of the electricity mix in the country where the projects are developed<sup>7</sup>.

<sup>7</sup> Brazil: Ministério da Ciência, Tecnologia e Inovações. Fator médio Brasil.

## Mobile network transformation and modernisation



### Mobile network electricity consumption (kWh)

Electricity consumption at base stations where Telefónica has equipment. It includes both, the consumption of base stations owned by the Company and the consumption of sites rented by Telefónica to other operators. Both are needed to provide mobile network communications services. IT and supporting consumption are also considered.



### Mobile network electricity consumption per unit of data traffic (kWh/PB)

Energy intensity ratio calculated by using mobile network electricity consumption (kWh) as described above and mobile data traffic, expressed in petabytes (PB).



### Mobile network electricity savings (kWh)

Electricity savings are calculated annually through real data; paid invoices, and estimated data (using data from prior years as proxies for unpaid invoices) when calculations are made. These savings are the result of analysing how much the annual consumption of the network would have been with respect to the previous year if the network transformation had not taken place. It considers both the evolution in electricity consumption and the evolution in the data traffic that had to be managed in the same period.



### Mobile Network avoided CO<sub>2</sub> emissions from electricity savings (tCO<sub>2</sub>)

The calculation of avoided carbon emissions is based on the electricity savings generated by the mobile network transformation, according to the description in the indicator, using the emission factors of the electricity mix in the country where the projects are developed<sup>8</sup>.

Please note that the activity data (mobile network electricity consumption) and emission factors have been validated by an independent third party (AENOR). These data are used to calculate the impact indicators shown above.

<sup>8</sup> Brazil: Ministério da Ciência, Tecnologia e Inovações. Fator médio Brasil.

## Renewable Energy: Distributed Generation



### Renewable energy consumption

Consumption from renewable energy sources associated with long-term power purchase agreements tied to Telefónica's specific and identifiable projects. In Brazil, distributed generation refers to the small-scale production of electricity from renewable sources, such as solar, wind or biomass, located close to the point of consumption.



### Avoided CO<sub>2</sub> emissions from electricity savings (tCO<sub>2</sub>)

The calculation of avoided carbon emissions is a theoretical exercise based on the consumption of renewable electricity associated with long-term power purchase projects as described in the indicator, using the emission factors of the electricity mix of the country where the projects are developed<sup>9</sup>.

<sup>9</sup> Brazil: Ministério da Ciência, Tecnologia e Inovações. Fator médio Brasil.





## **Telefónica, S.A.**

### Independent Limited Assurance Report

“Fixed network transformation”, “Mobile network transformation” and “Renewable energy” (re)financed by the hybrid green bond (ISIN XS2646608401) issued by Telefónica Europe B.V. and by the senior green bond (ISIN XS2722162315) issued by Telefónica Emisiones, S.A.U., (hereinafter, “the Bonds”), considering the period from 7 September 2023, the date of issue of the hybrid green bond (ISIN XS2646608401), to 31 December 2023, as well as the three years prior to the date of issue of the hybrid green bond



## Independent limited assurance report

To the directors of Telefónica, S.A.

We have undertaken a limited assurance engagement in respect of the information related to the projects “Fixed network transformation”, “Mobile network transformation” and “Renewable energy” (re)financed by the hybrid green bond (ISIN XS2646608401) issued by Telefónica Europe B.V. and by the senior green bond (ISIN XS2722162315) issued by Telefónica Emisiones, S.A.U., (hereinafter, “the Bonds”), contained in section “5. Project allocation and impacts” of the “2024 Report Telefónica’s Green Financing Instruments” of Telefónica, S.A. (hereinafter “Telefónica”), considering the period from 7 September 2023, the date of issue of the hybrid green bond (ISIN XS2646608401), to 31 December 2023, as well as the three years prior to the date of issue of the hybrid green bond, as indicated in the sustainable financing framework and prepared in accordance with the sustainable financing framework “Telefónica Sustainable Financing Framework, July 2023” (hereinafter, “the Framework”), available in the web page:

<https://www.telefonica.com/en/shareholders-investors/rating/sustainable-finance/>

The aspects of the information subject of our engagement are the following:

- The application of the eligibility criteria in the projects (re)financed by the Bonds described in the Framework, as well as the (re)financed projects themselves.
- The allocation of the funds obtained through the Bonds to the (re)financed projects and that the capital invested in the projects (re)financed is attributable to the Bonds (“Funds allocation” included in table in section “5. Project allocation and impacts”).
- The verification that the impact indicators (Fixed network transformation: Electricity consumption/network traffic (kWh/PB), electricity savings (kWh), avoided CO2 emissions (tCO2); Mobile network transformation: Electricity consumption/network traffic (kWh/PB), electricity savings (kWh), avoided CO2 emissions (tCO2) and Renewable energy: Renewable energy consumption (KWh) and avoided CO2 emissions (tCO2), are prepared in accordance with their calculation methodology, defined in the mentioned report “2024 Report Telefónica’s Green Financing Instruments”).

### Responsibility of the directors

The directors of Telefónica are responsible for the preparation, content and presentation of the “2024 Report Telefónica’s Green Financing Instruments” report, in accordance with the criteria included in the Framework in which the eligibility criteria of the projects, the allocation of funds and the impact indicators are described.

This responsibility includes the design, implementation and maintenance of internal control required to ensure that the information included in “2024 Report Telefónica’s Green Financing Instruments” report is free from any material misstatement, whether due to fraud or error.

The directors of Telefónica, S.A. are also responsible for defining, implementing, adapting and maintaining the management systems from which the information required to prepare the mentioned report, is obtained.

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### Our responsibility

Our responsibility is to issue a limited assurance report based on the procedures that we have carried out and the evidence obtained. Our limited assurance engagement was done in accordance with the International Standard on Assurance Engagements 3000 (Revised) “Assurance Engagements other than Audits or Reviews of Historical Financial Information”, issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC).

The scope of a limited assurance engagement is substantially less extensive than the scope of a reasonable assurance engagement and thus, less security is provided.

The procedures that we have carried out are based on our professional judgment and have included consultations, observation of processes, document inspection, analytical procedures and random sampling tests. The general procedures employed are described below:

- Meetings with Telefónica’s personnel from various departments who have been involved in the preparation of the “2024 Report Telefónica’s Green Financing Instruments” report to understand the characteristics of the projects (re)financed by the Bonds, the internal management procedures and systems in place, the data collection process, and the environment control.
- Verification of the application of the eligibility criteria, described in the Framework, for the selection of projects (re)financed by the Bonds.
- Analysis of the procedures used for gathering and validating the information and data presented in the impact indicators included in the “2024 Report Telefónica’s Green Financing Instruments” report.
- Verification of the traceability of the funds obtained through the Bonds to (re)finance the projects and verification that the investments undertaken by Telefonica in the projects (re)financed have been made in accordance with the Framework criteria.
- Verification, through random sampling tests revisions and substantive tests related to impact indicators. We have also verified whether the impact indicators have been appropriately compiled from the data provided by Telefónica’s sources of information.
- Obtainment of a management representation letter from the Company.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we do not express a reasonable assurance opinion about whether the information related to the Bonds contained in “2024 Report Telefónica’s Green Financing Instruments”, in all material respects, in accordance with the calculation methodology, defined in the mentioned report “2024 Report Telefónica’s Green Financing Instruments”.

### Our Independence and quality management

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.



Telefónica, S.A.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### Limited assurance conclusion

Based on the procedures we have performed and the evidence obtained, nothing has come to our attention that causes us to believe that:

- The projects (re)financed by the Bonds included in the “2024 Report Telefónica’s Green Financing Instruments” report do not comply, in all its significant matters, with the eligibility criteria described in the Framework.
- The funds obtained through the Bonds have not been assigned to the (re)financed projects and that the capital invested in the (re)financed projects is not attributable to the Bonds.
- The impact indicators contain significant errors or have not been prepared, in all their significant matters, in accordance with what is indicated in the Framework and as indicated in the “2024 Report Telefónica’s Green Financing Instruments” report in relation to its calculation.

#### Restriction on distribution and use

This report, including the conclusion, has been prepared solely for the directors of Telefónica as a body, to assist them in reporting on the information related to the projects “Fixed network transformation”, “Mobile network transformation” and “Renewable energy” (re) financed by the hybrid green bond (ISIN XS2646608401) and by the senior green bond (ISIN XS2722162315) contained in the “2024 Report Telefónica’s Green Financing Instruments” report. We permit the disclosure of this report within the “2024 Report Telefónica’s Green Financing Instruments” report, to enable the directors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the information related to the projects (re)financed by the Bonds. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the directors as a body and Telefónica, S.A. for our work or this report save where terms are expressly agreed and with our prior consent in writing.

PricewaterhouseCoopers Auditores S.L.

A handwritten signature in blue ink, appearing to be 'Pablo Bascones Ilundain', written in a cursive style.

Pablo Bascones Ilundain

22 July 2024

