Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Telefónica is one of the largest telecommunications companies in the world in terms of market capitalisation and number of customers. Supported by the best fixed, mobile and broadband networks, as well as an innovative range of digital and data economy services, our Company is favorably placed to meet the needs of our customers and capture growth in new businesses. Our headquarters is in Madrid (Spain). At the end of 2020, we operated in 13 countries and had a customer base that surpasses **345** million connections throughout Spain, the United Kingdom, Germany, and Latin America, where most of our growth strategy is focused. We are, therefore, one of the most international companies in the sector, generating more than 71% of our business outside the domestic market. Movistar (Spain and Hispam), Vivo (Brazil), and O2 (UK and Germany) are the main brand names around which we structure our commercial offer. We are a wholly private company with **1,2** million direct shareholders. We are listed on the continuous market of the Spanish stock exchanges, as well as on the stock exchanges in New York and Lima. Revenue totalled **43,076** million euros, which represents a 3.3% year-on-year organic decrease and the net profit totalled 3,086 million euros in 2020 representing a 13.7% year-on year increase. The number of Telefónica employees on 31 December 2020 totalled 112,349, which represents a decrease of 1.3% compared with the previous year. More information at : https://www.telefonica.com/documents/153952/13347920/2020-Telefonica-Consolidated-Management-Report.pdf/8e690923-f95f-4247-ed34-91c0ba0ff510 (pages 20-24).

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2020	December 31, 2020	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Argentina
Bolivia (Plurinational State of)
Brazil
Chile
Colombia
Dominican Republic
Ecuador
Germany
Guatemala
Mexico
Panama
Peru
Puerto Rico
Spain
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Venezuela (Bolivarian Republic of)

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	The Board of Directors is responsible for the company's Climate Change Strategy (CCS), as part of the Company's Global Responsible Business Plan. The Committee of the Board of Directors in charge of sustainability and climate change objectives is the Sustainability and Quality Committee. This Committee is responsible for the organization's sustainability strategy and the monitoring of the Global Responsible Business Plan, including the evolution of climate change targets & all other climate-related issues. As an example, in 2019 the Board of Directors decided to include the reduction of CO2 emissions at Telefónica as one of the non-financial KPIs to be considered in the calculation of the annual variable remuneration of all our employees. In early 2021, one of the climate-related decisions made by the Board of Directors was the increase of the weighting of emission reduction target to up to 5% of the variable remuneration . The most significant decision taken in 2020 was the approval of new and more ambitious climate change targets, including for the first time net zero targets for all operations by 2040. The Committee is made up of four Counsellors. The Senior Directors who report to this committee on CCS are the CSO, COO, and CFO to the extent that this strategy affects their responsibilities. Furthermore, the Board of Directors is also in charge of supervising the risk management model, including climate change risks, which are reported to them by the Audit Committee.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action	In order to ensure that the corporate governance is undertaken correctly, the Board is divided into 6 separate committees, each one focused on a particular area of the business. In this regard, the

	Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Sustainability and Quality Committee is the one in charge of the Sustainability and Climate Change Strategy. This Committee is responsible for the organization's sustainability strategy and monitors the Global Responsible Business Plan, including the performance of climate-related KPIs such as emissions, renewable energy and energy efficiency objectives. In addition, this Committee monitors the actions planned in the main programs related to climate-related issues such as the Renewable Energy and Energy Efficiency Plans. Additionally, to ensure that the Climate Strategy is engrained in the company's operations, the Board incorporates climate change aspects to all levels of governance, as well as in the strategic indicators and key objectives of the company as a whole. They are included in the company's three-yearly strategic business plan. For example, early in 2021, we updated our Sustainable Financing Framework, with the objective of extending the scope of development to projects with a social impact. The company has identified five types of initiatives: energy efficiency of network infrastructure; renewable energy; digital solutions for the environment; broadband deployment in disconnected areas; and, finally, support for employment, entrepreneurship, educational initiatives, and the development of skills for economic growth. This framework, initially defined in late 2018, has allowed us to issue the first Green Bond of the telco sector worldwide in early 2019 and the first telco hybrid green bond in 2020. Early in 2021, we issued our first sustainable perpetual hybrid bond. With this operation, Telefónica reinforces its commitment to green bond issues, following two placements in the last two years. This allows the diversification of its portfolio and is aligned to the target related to the business decarbonization strategy and its new targets, which are aligned with the greater ambition of limiting the global temperature rise to 1.5ºC. In addition, this committee has approved that, since 2019, a percentage of the variable remuneration of all employees, including the Board of Directors, is conditional upon the accomplishment of our carbon reduction targets. In 2020, this percentage has raised its weight in the annual bonus of all employees,

		including the BoD. Moreover, the function of risk management, both locally and at a corporate level, is integrated into the Audit and Control Committee, which receives reports on Climate Change risks as part of the basic risks included in the global Risk Management Model. The Senior Directors who report to these committees are the Director of Sustainability, the Global COO (in charge of Operations) and the Director of Finance (CFO), to the extent that this strategy affects their responsibilities.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Risks Officer (CRO)	Both assessing and managing climate-related risks and opportunities	Half-yearly
Chief Sustainability Officer (CSO)	Other, please specify The CSO is in charge of reviewing and reporting the information regarding Energy and Climate Change KPIs, jointly responsible with the COO for the achievement of objectives.	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

i) Below the Board level – who is ultimately responsible for the approval of the company's Climate Change Strategy – the committee in charge of sustainability and climate change objectives is the **Sustainability and Quality Committee**. This Board committee oversees the implementation of the climate change and environmental initiatives and monitors the progress on the climate change objectives (as well as all other objectives of Telefonica´s Global Responsible Business Plan). The Director of Sustainability (CSO), the Global COO and the Director of Finance (CFO) report to it.

Our Responsible Business Principles and our Responsible Business Plan, respectively, make up the ethical framework and our roadmap as regards sustainability. Both are approved by the Board of Directors, as are the group's most important policies on this issue. The Sustainability and Quality Committee of the Board supervises the implementation of the Responsible Business Plan at its monthly meetings. In addition, the Audit and Control Committee takes on an important supervisory role as regards ethics and sustainability, as it supervises the compliance area, the risk analysis and management process, and the Company's reporting processes.
The Committee meets 11 times a year, they monitor and assess the progress of the Responsible Business Plan, including the climate change strategy. For example, the Committee closely monitors Telefónica's performance against its carbon reduction targets (SBTs), ensuring emission reductions are in line with the objectives as variable remuneration of Telefónica's entire workforce includes this factor. Also, during the year 5 CEOs of the main Telefónica companies report their progress on climate change strategy.

Below this Committee, the Global Climate Change and Energy Efficiency Office (CC&EEO), comprising company-wide departments such as Operations **(led by the COO)**, Environment **(led by the CSO),** and Purchasing, is in charge of the operational implementation of the Company's CC Strategy (including energy efficiency projects, renewable energy purchases and emission reduction activities in all countries). Progress in climate-related aspects (i.e. progress against carbon targets and renewable energy goals) is regularly reported to the Management Committee in each country and reported at a global level to the Sustainability and Quality Committee. The strategy implemented by this Office is coherent with the Company's Responsible Business Plan to foster value creation in the long term through effective risk management and taking advantage of environmental opportunities.

The main associated responsibilities of the CC&EEO are to:

- Assess and monitor Telefónica's environmental KPIs such as energy and fuel consumption, percentage of renewable electricity, scope 1,2 and 3 carbon emissions, etc.
- Ensure climate-related metrics (i.e. absolute and intensity emissions, carbon targets) are reported according to international standards;
- Monitor performance against targets, for example, performance against carbon targets (SBTs), against renewable targets (100%), contribution to SDG 13.
- Review compliance with our stakeholders' expectations and ensure a high level of performance in climate-related indices.
- Permanently monitor possible climate-related regulatory aspects which may affect the company's operations.

Regarding the evaluation and management of climate change risks and opportunities, the ultimate responsibility lies with the Chief Risks Officer. **The CRO** is in charge of the risks area, which in turn is responsible for the quarterly evaluation and reporting of the company's risks, in which climate change is included since it is one of Telefónica's basic risks.

ii) The COO is the most suitable executive for the monitoring of the climate-related issues and the achievement of the energy efficiency and reduction targets because on him/her depends the operation of our network, which is the main energy consumption source of Telefónica. In addition, network infrastructures are the most exposed to the physical Climate Change risks.

On the other hand, **the CSO** is responsible for monitoring the achievement of Climate Change targets from an emissions reduction perspective.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Environmental strategy is the responsibility of the Board of Directors, which approves the global environmental policy and targets, within the framework of our Responsible Business Plan. For instance, carbon emissions reduction targets are part of the variable remuneration of all the Company's employees, including the Board of Directors. Climate Change has become a strategic issue for the Company.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Operating Officer (COO)	Monetary reward	Efficiency target	Telefónica´s COO, in charge of Operations and IT, has incentives related with energy efficiency, linked directly with one of our global goals of Energy and Climate Change: 90% more efficient by 2025 in terms of MWh/PB. But also has the emission reduction target fulfilment as part of his/her bonus.
Corporate executive team	Monetary reward	Emissions reduction target	The Corporate executive team's incentives (and therefore his/her bonus), as well as all Directives and employees with variable remuneration, are linked to the accomplishment of the emissions targets. Therefore, their variable remuneration is directly linked to emission reduction (90% reduction of Scope 1 and 2 CO2 emissions for our main markets - Spain, Brazil, UK and Germany -, 70% reduction for our other markets, and a 39% reduction for our Scope 3 by 2025, as well as net-zero Scope 1 and 2 emissions in our main markets by 2025, expanding to cover our Scope 3 and the rest of the markets by 2040). The KPIs used to assess performance are annual CO2 emissions reduction.

Chief Procurement Officer (CPO)	Monetary reward	Emissions reduction target	One of our lines of action is low-carbon purchasing: mainly through renewable energy purchase; TCO implementation; and CO2 consideration when purchasing refrigerant gases. For equipment with high energy consumption, we incorporate the concept of Total Cost of Ownership (TCO) in the acquisition process, thus considering the amount of energy that the equipment will consume during its use and not just the cost of purchase. The TCO makes it possible for us to reduce the Company's energy expenditure and, therefore, the associated carbon emissions. The CPO is responsible for ensuring that this TCO concept is incorporated in the procedures of the purchasing division as well as ensuring renewable energy purchases take place. This directly links with Telefónica's Energy Efficiency and Renewable Energy Plans and hence, with our global goals of Energy and Climate Change. Therefore, the CPO's variable remuneration is directly linked to emission reduction (90% reduction of Scope 1 and 2 CO2 emissions for our main markets - Spain, Brazil, UK and Germany -, 70% reduction for our other markets, and a 39% reduction for our Scope 3 by 2025, as well as net-zero Scope 1 and 2 emissions in our main markets by 2025, expanding to cover our Scope 3 and the rest of the markets and value chain by 2040) and also renewable energy targets (100% by 2030). The KPIs used to assess performance are the annual CO2 emissions reduction and the % renewable electricity.
All employees	Monetary reward	Emissions reduction target	At Telefónica we are committed with the Paris Agreement. As a tangible sign of our commitment to long term sustainability strategy, a percentage of the variable remuneration of our entire team with variable bonus scheme is conditional upon the accomplishment of our (90% reduction of Scope 1 and 2 CO2 emissions for our main markets - Spain, Brazil, UK and Germany -, 70% reduction for our other markets, and a 39% reduction for our Scope 3 by 2025, as well as net-zero Scope 1 and 2 emissions in our main markets by 2025, expanding to cover our Scope 3 and the rest of the markets and value chain by 2040). This applies from the

			Executive Team to all employees with variable remuneration, including the Chief Sustainability Officer, the Global Head of the Climate Change Office, and environmental/energy managers. The % of the remuneration varies in function of the direct responsibility to emission reduction and the performance, and the relevant KPI is annual CO2 emissions reduction. In addition, for all environmental and energy managers their bonus is related to our climate change and energy targets (among other environmental targets) at local level. The Global Head of Infrastructure Efficiency's objectives (reporting to COO) are linked to implementation of energy efficiency projects, the reduction of the company's energy costs in the network and the achievement of energy and efficiency targets. She/He has incentives related to energy efficiency, linked with one of our global goals: 90% more efficient by 2025 in terms of MWh/PB; as well as an impact on the other two: 100% renewable electricity by 2030, and 90% reduction of CO2 emissions in our main markets and 70% for the rest by 2025. The following KPIs are used to assess performance: MWh/PB; % renewable energy and annual CO2 emissions reduction. Therefore, these targets are linked to his/her bonus.
Buyers/purchasers	Monetary reward	Supply chain engagement	Telefónica is firmly committed to an open, collaborative relationship with its suppliers. Our commitment to them is based on establishing relations which enable us to jointly have a positive impact on our surroundings, through close collaboration and the sharing of good practices, fostered thanks to different initiatives with our suppliers, as the participation in ECOVADIS or JAC (Joint Audit Cooperation). For this, in 2019 we developed a supplier engagement programme with key suppliers, which was extended in 2020 to cover a greater portion of our supplier base. The programme has the objective of collecting primary information from our

			suppliers in order to understand the level of maturity of their sustainability strategies and help them move forward in their Climate Change Management and to set more ambitious emission reduction targets, inspiring them to take action and offering them a best practices forum to foster innovation and an exchange of practices. The suppliers included in this programme represent 68% of the emissions from our supply chain and 39% of our total Scope 3 emissions. In the UK, in order to engage buyers with this program, carbon reduction related KPIs were incorporated into their objectives. This is directly reflected in their annual performance review and has an impact on the bonus.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	10	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium, and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year (2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate-related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change Strategy 2015-2050, which sets intermediate reduction goals for 2025, 2030 and 2050.
Medium-term	10	15	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium, and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year

			(2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change Strategy 2015-2050, which sets intermediate reduction goals for 2025, 2030 and 2050.
Long-term	15	35	These time horizons are in line with our Science Based Targets and our Renewable Energy objectives at short, medium and long term (2015-2025, 2015-2030, 2015-2050), counting from the baseline year (2015). Additionally, they are also in line with the timeframes we have used in the vulnerability analysis of climate related risks (namely physical risks), since our infrastructures have an estimated lifetime of 20 to 30 years and physical risks related to climate change are expected to have a greater impact in the medium and long terms. They are also in line with our Climate Change Strategy 2015-2050, which sets intermediate reduction goals for 2020, 2030 and 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Telefónica has identified a threshold to determine if a risk has the potential to significantly affect the company and needs to be reported. Our Risk Management corporate policy defines an acceptable risk as the degree of exposure that the company is ready to accept inasmuch as it allows the creation of value, achieving the right balance between growth, performance and risk. This threshold is considered when reviewing our strategy to ensure we operate within the established risk boundaries. What we define as a “reportable risk level” is divided between corporate and local:

a. At a company level, a significant financial impact is either 0.3% of the company´s OIBDA (if the probability of the risk happening is higher than 50%) OR 0.66% (without factoring in probability)
b. At a local asset level, the threshold lies at 0.5% of each asset’s OIBDA, with a minimum financial impact of 2M€, and is updated annually.

OIBDA is considered as the metric to define substantive impact since it is one of the measures of financial performance that Telefonica uses to determine profitability of the company, hence directly affecting the business strategy.

Additionally, a risk is considered to have a **significant strategic impact** if it impacts our ability to meet stakeholders’ expectations either directly or indirectly. In relation to CC, any risk associated with a negative perception of our commitment towards a low carbon economy or adaptation against resource scarcity will be considered a significant strategic impact

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Our global risk management model (GRM) allows us to analyse exposure to potential climate-related risks&opps. The GRM takes the Company's strategy and objectives as a reference for the identification of the main risks that could affect its achievement, recognizing the benefits to guarantee a high awareness on risks&the capacity to assign the most effective resources to control&respond to them.
i. Risk identification and assessment
We assess risks from 4 different viewpoints to ensure an integral evaluation aligned with the Group's operations&needs: Local(Bottom-Up), Global(Top-Down), Risks in Processes& Projects Risks. The assessment of CC risks is done mainly through the Top-Down approach& supported by specific office evaluation (Bottom-Up).
Global: To ensure consistency, the Top-Down approach focuses on global R&O that may incur possible losses in value&results from events that affects us in corporate sustainability, markets, shareholders&investors or marketing management. These risks are defined as "Basic Risks" &are assessed&periodically reviewed by the relevant global operational areas (Compliance, Strategy, etc). One of the Basic Risks analysed is CC, including both physical risks that affect our infrastructures/business lines due to chronic or extreme weather events&transition risks due to changes in CC regulation or lack of resources. Additionally, we perform the analysis under different climate scenarios&different time scales, in accordance with the TCFD's recommendations &stakeholder demands.
To facilitate their evaluation&monitoring, each potential risk is assigned a Key Risk Indicator, which considers the following:
•Probability&potential financial impact of each basic risk in each asset&the whole company

•Historical&future development trends per risk
•Opinion regarding the level of control (self-evaluation)
•Potential reputational impact
•Exposure estimation for each basic risk based on the sum of the potential impact&probability of all the specific risks
Local: We also use a Bottom-Up approach based on a risk self-assessment, where local managers are responsible for identifying risks in their areas, prioritizing reporting,monitoring&determining their specific response to them (i.e. mitigation plans to avoid/transfer those risks). Local risk owners meet periodically (at least half-yearly) to identify, evaluate &manage risks. Whenever possible, risk assessment will be quantitative & potential impact measured against operational cash-flow. To minimise the impact of potential physical risks materialising in our assets, we also manage exposure to acute physical events from an insurance perspective. The modelling is carried out every 3yrs by an external consultant &consists of:
1. Data Collection: Corporate Insurance team compiles info from every location in all countries into the modelling software
2. Analysis&modelling: QA process to correct any errors prior to the modelling, which is based on statistical calculations using the most updated software system (RMS, EQCat, etc.) with historical climate-related events
3. Results &findings: results are broken down by country&risk, establishing the probabilities of possible losses for different return periods. The results are analysed to create the most efficient limits&retentions structure for the insurance program on material damages.
Net impact of the identified risks will be compared against the Group's Reportable Risk Level (information on the substantive impact threshold has been provided in C2.1b).
ii. Risk management (RM) & prioritization
This initial assessment allows us to prioritize risks & incorporate results into long-term business decisions, minimising risks&maximising opportunities. Decision making is based on the financial impact estimated during the assessment risk process&its influence in operational efficiency, access to new markets, reputation, etc. For each identified risk we establish a mitigation plan including an implementation timeline assigning responsibilities. The person responsible will update & report the degree of development of each risk using our RM tool. Likewise, local risks will be prioritised in order to review their development&update their potential impact on the company. These risks are then supervised periodically by the Exec Committees at country level & reported to the Corporate Function of RM. This strategy allows us to adapt to both physical & transition changes.
Physical risk: whilst the evaluation using different projections and historical data demonstrated the risk of operations' interruption due to extreme climate events to have a low magnitude, it's high probability in the scenarios analysed translated into mitigation actions via the introduction of Emergency Committees & Business Continuity Plans at asset level, aimed at re-establishing connectivity asap, &reducing the risk of revenue&reputational losses associated to connectivity loss. The last reported event was in Colombia in 2020 due to Cat 5 Hurricane Iota, which interrupted our services for a number of days and resulted in a significant increase of operational costs. The actions carried out under the Emergency Committee to minimize this impact resulted in Telefónica being the first operator to re-establish communications after the event.

Transition risk: establishment of our Renewable Energy (RE) Plan. During our top-down risk assessment, based on scenario RCP2.6 &with 2030 as the time horizon due to data availability, we identified a high probability of future fossil fuel price increases, leading to energy price increases that would have a high impact in our operations. To reduce our dependence we self-generate energy, purchase RE & establish Power Purchase Agreements (PPA). In 2020, our main markets maintained 100% renewable& a PPA was signed for the first time in Spain to supply 100GWh of clean energy per year for 10 years, whilst we continued our ambitious distributed generation project in Brazil, covering 42% of our electrical consumption and thus reducing dependence on iREC guarantees of origin. In summary in 2020, 4,918 GWh came from renewable energy sources enabling us to avoid close to 1 MtCO2e.
iii. Opportunities management
Climate related opps are also assessed & managed through our GRM, since we believe an efficient & proactive management allows for the detection of new business opps. In a low-carbon economy, Telefónica has considerable opps for both internal energy management &business growth, through selling products that reduce our customers emissions. The internal opps include the Renewable Energy Plan & the Energy Efficiency Plan, which enable us to reduce the Company's operating costs, decrease GHG emissions&improve our positioning. From a product development perspective, our greatest contribution is increased digitalisation, supported by a RE network. Through our services, we are able to reduce GHG emissions in other sectors&increase the resilience of the communities in which we operate.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Telecom sector is not intense in terms of fossil fuels consumption or GHG emissions, so we are not a regulated sector in terms of emissions in the countries where we are present. However, as the electricity consumption of our network is high, reaching 6,548,152 MWh in 2020, current regulation in Mexico and Argentina requires us 5% and 8% respectively of our electricity consumption in those countries should be renewable from 2018 increasing until 2025, which is why we include this category in our Global Risk Assessment Process as Basic Risk of Climate Change. The estimated economic impact of this risk category is lower than the 0.3% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, so it is therefore below the “Reportable Risk Level” that Telefónica sets as the threshold of its significant risks.

Emerging regulation	Relevant, always included	Telefónica includes upcoming climate-related legislation into the risk assessment process, evaluating the magnitude, probability and vulnerability to the impact. For example, a new legislative Spanish Climate Change law was approved by Congress in 2021, proposing national 2030 targets based on 1990 figures (23% emission reduction, 42% renewable final energy consumption, 74% renewable energy on electricity grid, 39.5% improvement on energy efficiency) and the achievement of net zero emissions by 2040, ten years ahead of the initially planned target. Although carbon taxation is not explicitly included in the new law, the latter does include the creation of an Expert Group dedicated to defining the best approach to updated the current fiscal system to incorporate green elements to it. Whilst the implementation of a carbon tax is still in an initial phase in the countries in which Telefónica operates, measures in this regard are already beginning to be planned in the short term: • Germany plans (1) to impose a carbon emissions tax in 2021 for the construction and transport sectors • Spain established (2) in 2014 a carbon tax, where around 30% of the emissions made were taxed, fundamentally affecting the transport sector • Brazil is currently studying the possibility of imposing a tax on emissions or an ETS system Since the Telecom sector is not intense in terms of fossil fuels consumption or GHG emissions, we do not expect to become a regulated sector in terms of emissions in the countries where we are present, so the estimated economic impact of this risk category in our assessment is lower than the 0.3% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, and it is therefore below the “Reportable Risk Level” that Telefónica sets as the threshold of its significant risks.
Technology	Not relevant, explanation provided	Currently none of Telefónica's business lines are dependent on any technology that may be displaced by a transition to a low-carbon economy. However, we still evaluate this category from the perspective of opportunities, since the services provided by Telefónica are not only not carbon intensive, but also, they help its users reduce their own emissions and adapt to climate change. As an example, broadband networks have been identified as compatible with a low carbon economy by the Climate Bond Initiative. In fact, in 2019 Telefónica issued the first green bond of the sector to finance the deployment of the fibre broad band in Spain and also the first telco hybrid green bond in early 2020. The funds from the hybrid Green Bond (500 million euros) have served to finance projects aimed at increasing the company’s energy efficiency through the process of transforming the copper network into fibre optic (85% more

		efficient) in Spain. Part of Telefónica's DNA, the company sees future potential technology shifts as an opportunity as opposed to a risk. In fact, digitalisation is expected to be essential to address the transition to a low carbon economy, according to the Smarter 2030, having the ICT sector the potential to reduce 3.6 GtCO2e by 2030. For instance, Telefónica is developing services based on the IoT, Cloud, Big Data and Connectivity in order to enable our customers a more efficient use of resources such as energy and water, improve traffic planning, air quality, reduce greenhouse gas emissions or improve our response to a climate catastrophe. In 2020, the income from these new digital services grew by 16.7%compared to last year In the climatic scenarios evaluated in our global risk evaluation processes, we do not foresee that an increase of technology risk related to climate change could affect significantly Telefónica´s business lines.
Legal	Not relevant, explanation provided	Although the potential impact of environmental legal liabilities to Telefónica's operations associated to energy and emissions is not material due to the services provided not being carbon intensive, legal risks are still considered in the company's risk evaluation processes. Risks associated to this category include direct or indirect disturbances due to environmental issues, mainly associated to non-compliance during the network deployment, for instance: - Environmental passives: equipment or network components that may cause pollution problems such as fuel tanks in a bad state, AC equipment working with banned refrigerant gases and noise generating equipment. - Deployment of the network with environmental permits, which could cause the suspension of the operation or incur fines. In the climatic scenarios evaluated in our global risk evaluation processes, the estimated economic impact of this risk category is lower than the 0.3% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, so it is therefore below the "Reportable Risk Level" set as the threshold of significant risks. And we do not foresee that an increase of legal risk related to climate change could affect significantly Telefónica's business lines.
Market	Relevant, always included	Market risks are considered in Telefónica's Global Risk Assessment Process under the Basic Risk of Climate Change due to our significant reliance on electricity. In 2020, our electricity consumption amounted to 6,548,152 MWh. In

		some countries in which we operate, the grid mix is highly dependent on hydraulic generation (e.g. Both Brazil and Peru approx. 60%). In the climate-related scenarios that we analysed we estimate that annual precipitation in those countries is set to decrease by 20% around 2050. This may imply significant increases in energy prices that will directly affect our OPEX . The estimated economic impact of this risk is higher than the 0.3% of the OIBDA at group level and the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold.
Reputation	Relevant, always included	Reputational risks related to climate aspects such as the ones explained below are considered by Telefónica to be Basic Climate-Related Risks, and therefore are always included in the company wide’s risks’ assessment and evaluation. For instance, greater demand of information by investors and shareholders, maintaining consistency in the CC management, alignment with the TCFD. A concrete example is the case of Black Rock, one of our main investors and the world’s largest asset manager. In his influential annual letter to chief executives in 2020, the firm confirmed that they will avoid investing in companies that “present a high sustainability-related risk”. This shift in their investment policy could potentially lead to a reduction in the perceived value of our company should Telefonica become unable to meet these new expectations. Additionally, non-compliance with environmental law from any of our suppliers that may lead to a negative impact in Telefónica’s reputation. Although the estimated economic impact of this risk category is lower than the 0.3% of the OIBDA at company-level and lower than 0.66% of the OIBDA at an asset-level, as per our definition in C2.1b we consider this risk to have a significant strategic impact, as it impacts our ability to meet stakeholders’ expectations, i.e. a negative perception from our stakeholders of our commitment towards a low carbon economy or adaptation against resource scarcity
Acute physical	Relevant, always included	Acute physical climate risks are considered in Telefónica’s Global Risk Assessment Process under the Basic Risk of Climate Change and therefore are always included in the company’s risks assessment and evaluation. As part of our risk identification process, in 2020 we underwent a more in-depth climate scenario analysis (more information in C3.2), which allowed us to assess and quantify the exposure of our different business lines in each country to physical and transition risks under

		2different climate scenarios, one representing Business As Usual (RCP8.5), and one keeping temperatures in line with the Paris Agreement (RCP2.6). For instance, our analysis identified our greatest exposure to physical risks to be lying in our landline and mobile network infrastructure, mainly in Latin America. Based on the probability and impact that the different extreme climatic events could have on our infrastructures and operations (for instance, service disruptions, increase of the insurance cost, etc), we found the most impactful acute physical risk to which these would be exposed in the medium and long term, under both scenarios, would be flooding . This climate-related risk assessment process has been incorporated into our general risk assessment framework, with identified risks therefore managed following the same process described in C2.2 via our adaptation plan, which includes several action lines to limit our exposure to these risks. For instance, exposure to acute physical events from an insurance perspective is managed by our Corporate Insurance Department in an effort to protect assets. The modelling for this is carried out by an external consultant and consists of the following: 1. Compiling the necessary information into the modelling software for every location in all countries. 2. Use of relevant software systems (RMS, EQCat, etc.) - updated with catastrophic information and historical climate-related events -, to perform the modelling based on statistical &probability calculations. 3. Results broken down by country&risk, establishing for different return periods the probabilities of possible losses. Results are analysed to look for the most efficient structure in limits &retentions for the insurance program in the area of material damages. The estimated economic impact to 2050 of this risk is higher than the 0.3% of the OIBDA at group level &the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold.
Chronic physical	Relevant, always included	Chronic physical climate risks are considered in Telefónica’s Global Risk Assessment Process under the Basic Risk of Climate Change and therefore are always included in the company’s risks assessment and evaluation. As part of our risk identification process, in 2020 we underwent a more in-depth climate scenario analysis, which allowed us to assess and quantify the exposure of our different business lines in each country to future physical and transition risks under two different climate scenarios, one representing Business As Usual (RCP8.5), and one keeping temperatures in line with the Paris Agreement (RCP2.6). For instance, our analysis identified our greatest exposure

		to physical risks to be lying in our landline and mobile network infrastructure, mainly in Latin America. The most impactful chronic physical risk to which these would be exposed in the medium and long term, under both scenarios, would be temperature increases, which could cause failures in the telecom equipment, would require more cooling and consequently more energy consumption. All this will translate into a greater need for OPEX and CAPEX. This climate-related risk assessment process has been incorporated into our general risk assessment and management framework, with identified risks therefore managed following the same process described in C2.2 via our adaptation plan, which includes several action lines to limit our exposure to these risks. The estimated economic impact of this risk to 2050 is higher than the 0.3% of the OIBDA at group level and the probability of it happening is higher than 50%, which is why it is above the “Reportable Risk” threshold.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Rising mean temperatures

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Rising mean temperatures could increase Telefónica’s operating costs due mostly to the increase on refrigeration needs of network equipment.

In 2020 we underwent an in-depth quantitative Climate Scenario Analysis which highlighted that temperature increase is one of the main significant climatic threats to our activity. The increase of the global average temperature would directly affect the operational conditions of our network equipment, especially in data centres, fixed operational buildings and cell sites. High temperatures can affect the telecommunication equipment producing failures, write-offs and early retirement and therefore increase the risk of service disruption; therefore, cooling is essential. Nowadays it represents an average of 40% of energy consumption in our network. In the climate scenarios analysed, the average temperatures are expected to increase until 2050 in all countries where we operate. Brazil and Spain stand out with an increase of 2.5ºC. Therefore, cooling needs and operational costs could also rise.

The electricity consumption of our network was 6,548,152 MWh in 2020. Our network consumption in responsible for more than 95%, from which 40% corresponds to our refrigerant needs. Small increases due to greater cooling needs may incur higher energy costs. For example, a 10% increase of the electricity consumption of our network would have an average impact of 73 million euros in our energy Opex. According to our Global Risk Analysis, Procedure, the estimated economic impact of this risk is classified as substantive.

To avoid this risk Telefónica has several action lines with the objective of reducing cooling needs. With this purpose we promote energy efficiency projects, like free-cooling and also, we include more critical technical specifications in the network equipment we are buying from now so it can work under higher temperatures.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

9,470,000

Potential financial impact figure – maximum (currency)

13,104,000

Explanation of financial impact figure

The impact of this risk was calculated as part of our Climate Scenario Analysis exercise, the information of which can be found in C3.2.

The final financial figures have been calculated based on:
- The costs associated to changes in the energy consumption of our network at different operating temperatures foreseen in scenario RCP 8.5 (maximum potential impact) and the Paris Agreement scenario (minimum potential impact), as extracted from the Copernicus database for the specific regions the assets analysed were located in within the countries analysed.
- An empirical model to determine the impact of temperature increases on electricity consumption. We have also taken into account the potential damage to our assets as a result of heatwaves. For this model, the following parameters have been taken into account to determine the expected consumption increase:
o countries' historical electricity consumption data,
o % of consumption by asset,
o regression parameters
o average temperature changes.
- For the associated electricity price, the following parameters have been used:
o Annual consumption, % consumption by asset
o Increase in electricity prices associated to temperature
o Average temperature changes
- The impact range was then calculated as follows:
i. Minimum impact – considering the above KPIs under the Paris Agreement scenario: We consider the location of our different assets and the forecasted temperature increase. Then we apply the empirical model to calculate the costs associated to the increase in energy consumption as a consequence of temperature increase.
ii. Maximum impact – considering the above KPIs under scenario RCP 8.5: We consider the location of our different assets and the forecasted temperature increase. Then we apply the empirical model to calculate the costs associated to the increase in energy consumption as a consequence of temperature increase.

Overall, financial impact ranges come from: Σ (Δ IT CAPEX+Δ IT OPEX+Δ ENERGY OPEX).

Cost of response to risk

6,852,000

Description of response and explanation of cost calculation

To manage this risk, Telefónica has an adaptation plan that includes several action lines including the objective of reducing cooling needs. With this purpose we promote energy efficiency projects, like free-cooling &also we include more critical technical specifications in the network equipment we are buying so it can work under higher temperatures.

Another action line within our adaptation plan is our Energy Efficiency Plan (EEP). In 2020 we modernised our network to increase its efficiency, e.g. by replacing copper with fibre optic; power plants&HVAC equipment renovation projects; using free cooling to cool with air directly from outside; shutting down legacy networks; implementing power saving features in the access network;&reducing fuel consumption by

implementing hybrid stations with photovoltaic solar energy. In 2020 we also managed to implement projects under a new disruptive business model called Energy Savings as a Service (ESaaS); which is based on an agreement with a specialised supplier who designs the solution, invests, operates, maintains &ensures savings. The actions encompass different initiatives such as AC replacement, power, lighting or electric generation systems &the service is paid for by sharing the savings generated thanks to the measures implemented. With this model, we can count on the investment &experience of a 3rd party, allowing us to keep our investments in our business CORE while reducing energy, emissions &generating OpEx savings.

Since 2010, under our EEP we have rolled out 1036 projects, saving more than 772M€ on energy, reducing over 2MtCO2 and saving 6678GWh. In 2020 we implemented 173 initiatives leading to savings of 192GWh & 43.5ktCO2e.

We also modified our purchasing criteria to purchase equipment with greater resistance to high temperatures, reducing the need for cooling of our networks and we have implemented ISO 50001 on EMS in our operations in Spain and Germany (which account for approximately 46% of our revenues & 36% of our total energy consumption), &we are working to extend this standard to other operations, such as Brazil, where the EcoBerrini headquarters have already been certified, ensuring that the EE and management of our Network is continuously improving.

The cost of management has been calculated considering the CAPEX involved in the EEP (98% of cost) &costs related to the implementation &maintenance of EMS (2% of cost): Σ(Energy Efficiency Projects CAPEX + EMS).

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Increased indirect (operating) costs

The two main financial impact drivers are the damages to our network assets and the income losses for services disruption due to electricity cut and damage to our telecommunication equipment

Company-specific description

An increase in severity and extreme weather events such as cyclones and floods can damage Telefónica´s infrastructure, mainly our telecommunication network assets.

In 2020 we underwent a Climate Scenario Analysis which highlighted the increase in the frequency and intensity of floods as the most significant climatic threat to the activity of Telefónica. They can cause physical damage to our infrastructures and therefore could produce service and operations disruptions.

In the climate scenarios that we have analysed, the greatest exposure to physical risks lies in the infrastructure that supports fixed and mobile connectivity. As a result, Telefónica's assets with greater exposure to risk are: Base Stations and Fixed Line network. The geographical area with the greatest exposure is Latin America, namely in Brazil due to our greatest % of activity being located there, representing 19% of our assets.

As an example, the last reported event was in Colombia in 2020 due to Category 5 Hurricane Iota. Passing over the archipelago, the hurricane had its greatest impact in the island of San Andres and Providencia, where it interrupted our services. To re-establish them we activated our Network Services Contingency Plan that ended up in a cost of more than 1.2M€. The actions carried out under the Crisis Committee resulted in Telefónica being the first operator to re-establish communications in Providencia and in San Andres a few days after the hurricane passed.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

5,566,000

Potential financial impact figure – maximum (currency)

28,138,000

Explanation of financial impact figure

The financial impact of this risk is calculated by analysing the extreme weather events forecast of the countries in which we have presence and its possible impact assuming we did not carry out any control, mitigation or adaptation action. The financial impact has been calculated based on the results of our Climate Scenario Analysis, considering

scenario RCP 8.5 (maximum potential impact) and the Paris Agreement scenario (minimum potential impact). The impact range was calculated based on the following parameters:
- Destruction of physical assets and service interruption
- Impact of extreme weather events on our assets (IT equipment CAPEX and OPEX)
- % of assets annually affected by floods
- Cost of an increase in the premium to cover the most exposed assets
- Value of the assets exposed to floods
- Costs associated to service interruption
- Asset expenditure

Overall, financial impact ranges come from:
Σ (INCOME LOSSES&PENALTIES + Δ NETWORK OPEX + Δ NETWORK CAPEX + Δ INSURANCE COSTS)

The reported range is related to the differing probabilities associated to the minimum impact (considering the Paris Agreement scenario) and the maximum impact (RCP8.5 scenario).

Cost of response to risk

10,000,000

Description of response and explanation of cost calculation

To manage this risk, we have Global Business Continuity (GBC) Regulations included within our Adaptation Plan to prescribe preventive risk management, ensuring the maximum resilience of our operations in the face of any potential interruption. These include:
a) Business Continuity Plans in each country establishing how to restore essential functions that have been interrupted
b) Global Crisis Management System to manage high impact threats. It has a Global Crisis Committee, including specialists for each type of incident (i.e. natural catastrophes).

The Committee acts in 4 phases:
i) alert of the crisis at local level
ii) evaluation of the impact globally
iii) development and implementation of the action procedures
iv) return to normality post-crisis

As an example, the last reported event for which we followed this plan was in Colombia in 2020 due to Category 5 Hurricane Iota. Passing over the archipelago, the hurricane had its greatest impact in the island of San Andrés and Providencia, where it interrupted our services. To re-establish them we activated our Network Services Contingency Plan that ended up in a cost of more than 1.2M€. The actions carried out under the Crisis Committee resulted in Telefónica being the first operator to re-establish communications in Providencia and in San Andres a few days after the hurricane passed. In order to mitigate the more critical effects of acute risks, Telefónica's Corporate Assurance Dept.

also determines the most appropriate insurance contracts and premiums for each country based on the outcomes of climate modelling. This considers the risk exposure of that specific country (e.g. higher in Latam).

The cost for managing this risk considers the costs associated to having a Global Business Continuity System in all countries and average costs not covered by our insurance premium.

Overall, the cost of management comes from: Σ (Global Continuity Plan annual cost + cost not covered by insurance premium) = 10 000 000 €

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Market

Increased cost of raw materials

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Whilst electricity prices have remained fairly stable in the last few years, the increased demand that will come by the hand of a population increase and the greater electrification needs make increased costs of energy the main market risk that Telefónica will be confronted with in a RCP2.6 scenario. As we explained in the sections above, Telecom sector is not intense in terms of fossil fuels but is very dependent on the electricity consumption for its networks. In 2020 our total electricity consumption reached 6,548,152 MWh. For this reason, an increase in the electricity price due to emerging regulation of the electricity generation sector or shortage of natural resources, may have a high impact on our energy OPEX.

In this sense we differentiate two types of risks according to the electric mix of the countries in which we are present:

(i) Countries with an electric mix highly dependent on fossil fuels: the increase on fuel and energy taxes and regulations can cause increases in electricity production costs and therefore increase kWh price. This is the case of countries like Germany, one of the main markets in which we operate and responsible for 17.5% of our 2020 revenue, where non-renewable sources account for 49.5% of the total generation

(ii) Countries with an electric mix with a high percentage of hydraulic generation: These countries have a high vulnerability to drought periods so water stress can also increase electricity prices. This is the case of Brazil and Peru both with approximately 60% of hydro generation in their energy mix and responsible for 21.2% of our revenue.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

176,028,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact of this risk has been calculated based on the following aspects:
- Traffic demand from Telefónica's customers, which will continue to increase significantly in the coming years, even if this increase will be partially offset by energy efficiency improvements.
- Telefónica's energy consumption projections per country up until 2030
- Projection of electricity prices: we have based these on the EU energy outlook (2050), whereby prices increase by 2% by 2030, then by 1% until 2040 and by 0.5% until 2050. The latter have been determined as a conservative approach based on other country specific projections which indicated a decrease in energy prices in the medium term.

Overall, the financial impact of this risk comes from: Σ(Energy consumption projections x increase in electricity price)

Note: transition risks and opportunities have only been analysed under scenario RCP 2.6 for 2030, since RCP8.5 would be a BAU scenario whereby no transition to a low carbon economy would take place.

Cost of response to risk

1,215,000

Description of response and explanation of cost calculation

In order to manage this risk and reduce our exposure to increasing energy prices we have in place 2 main plans:

(i) Energy Efficiency Plan: Since 2010 we have implemented 1036 projects under this plan achieving savings of more than 6678 GWh and 772 M€ on energy.
For example, in 2020 we implemented 173 initiatives leading to savings of 192 GWh and preventing over 43.5 ktCO2e . These efforts are reflected in an 81% improvement in our energy intensity ratios (MWh/PB) compared to 2015. In 2020 our networks transmitted 87,770 PB and we keep on decoupling our services' growth from energy consumption, significantly reducing the risk of an increase in our electricity OPEX. The objective of these projects is to increase our network efficiency, e.g by replacing copper by fibre optic; shutting down legacy networks and reducing fuel consumption by implementing hybrid stations.

(ii) Telefónica has a Renewable Energy Plan which reduces our operating costs and makes us less dependent on fluctuations in fossil fuel prices. Our Renewable Energy plan projects potential savings in energy OPEX that could reach more than 25% in 2030. Indeed, Telefónica's Renewable Energy Plan was awarded the GLOMO 2019 in the Green category at the Mobile World Congress.
To manage this risk we have committed to making our electricity consumption 100% renewable by 2030 and adhering to RE100 initiative. In 2020, our main markets maintained 100% renewable& a PPA was signed for the first time in Spain to supply 100GWh of clean energy per year for 10 years, whilst we continued our ambitious distributed generation project in Brazil, covering 42% of our electrical consumption (67.5 GWh) and thus reducing dependence on iREC guarantees of origin.

The cost of management considers the costs associated to:
- Purchase of Renewable Energy Certificates (OPEX) in Spain, UK, Germany, Brazil Colombia, Chile and Peru
- Energy consulting costs in Brazil (OPEX)
- PPA consulting costs (OPEX)
- Self-generation project investment (CAPEX)

Overall, the cost of management comes from: Σ of [PPA + GOO] + REP Capex

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Telefónica has identified opportunities in a low carbon economy for business growth, by selling products that reduce our customers' carbon emissions. In this sense, digitalization will be essential to address the transition to a low carbon economy.

According to the Smarter 2030, the ICT sector has the potential to reduce 3.6 GtCO2 by 2030. Telefónica's business strategy is committed to the digital revolution to address environmental challenges, which is why we are promoting the sale and development of new products in the following business lines: services based on the IoT, Cloud, Big Data and Broadband Connectivity.

In 2020 we had a sustained annual growth of these services which represented an increase of 16.7% of our income from these new digital services. Most of the portfolio of these products focus on enabling our customers to make a more efficient use of resources such as energy and water, improve traffic planning, air quality, reduce greenhouse gas emissions or improve our response to a climate catastrophe. We see a greater investment into the development and improvement of these services as an opportunity to both increase our revenues and reduce environmental impact of our clients.

Regarding IoT, we highlight some of the most important services provided in 2020:
- Smart energy meters for our customers, such as the case of the United Kingdom and Spain where Telefónica manages millions of connected gas, water and electricity meters. For instance, in 2021 Telefónica Tech will be working with an strategic supplier in Spain to offer combined solutions for smart buildings, a value proposition that includes everything from energy efficiency and user experience to connectivity, security and data analysis at a national level.
- Mobility optimisation solutions, such as our fleet management or asset tracking solutions

Solutions for the transport sector which help optimise planning of transport systems and infrastructure planning through greater understanding of travellers, timetables and

routes
As a result, in 2020 IoT in Telefónica closed with nearly 23 million IoT lines for our customers.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,085,635,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Telefonica's Digital Services Revenue in 2020 amounted to 1,083 M€. Telefónica has identified opportunities in a low carbon economy for business growth, by selling products that reduce our customers' carbon emissions. In this sense, digitalization will be essential to address the transition to a low carbon economy. Telefónica estimates potential increases in revenues due to both:
- Services that we currently have in our portfolio and we expect their sales volume will increase in the coming years. Some examples are broadband connectivity for Teleworking, Smart Energy Management, Fleet Management, Smart Agro (IoT services) and Cloud solutions.
- Expected sales volume of new products and services currently under development. Some examples are fire-prevention with drones or renewable energy generation systems in remote mobile antennas or new services that will be possible thanks to applications of 5G technology, which is expected to avoid 269 megatonnes of CO2 by 203, with the greatest impact seen in the utilities and home energy sector5.

The potential financial impact has thus been estimated based on:
- Telefónica's revenues associated to IoT and Cloud in 2019, broken down by country
- Global growth projections for digital services to 2030 according to Statista (11.5% for IoT and 17.5% for Cloud)
- % of these services associated to sustainability based on World Economic Forum and the Guardian projections (84% for IoT and 38% for Cloud)

Overall, the financial impact of this opportunity comes from:Σ [(current IoT&Clould

revenues) x (Expected growth to 2030 of these services) x (% of these services associated to tackle climate change)]

Note: transition risks and opportunities have only been analysed under scenario RCP 2.6 for 2030, since RCP8.5 would be a BAU scenario whereby no transition to a low carbon economy would take place.

Cost to realize opportunity

12,720,000

Strategy to realize opportunity and explanation of cost calculation

The company sees future potential technology as an opportunity, with digitalization being essential to addressing the environmental challenges, which is why we are a founding member of the European Green Digital Coalition. Given this potential Telefónica created LUCA, a Big Data services unit & a IoT business unit to promote the development & sale of new products based on Broadband Connectivity, IoT, Cloud & Big Data, with positive impact on the adaptation and mitigation of CC. By the end of 2019, Telefónica Tech (TTech) was also created to boost the growth of digital services involving IoT/Big Data, cloud & cybersecurity to achieve an even greater scale & integrate the main digital solutions that help our B2B customers progress towards a more digital & sustainable world. In 2020, TTech is already a reality.

In addition, in 2019 we launched the Eco Smart seal, an initiative run by TLF Empresas to identify the environmental benefits generated by our products & services following implementation. In this way, we help our customers incorporate sustainability criteria into their purchasing decisions. In 2020, our Eco Smart seal received 3rd party verification by Aenor to ensure these products & services achieve what the seal promises: a reduction in energy, water, or emissions, or the promotion of a circular economy. This means we have become the first tech company in Spain to externally verify the environmental benefits of the solutions we market.

As our business strategy is committed to the potential of these new digital services, we had set a new objective for 2025: to avoid the emission of 5 MtCO2 into the atmosphere. The pandemic in 2020 reinforced the need to accelerate digital transformation by having the precise security tools to maintain business activity & services. For this reason, solutions provided by TTech were more in demand, with revenues related to climate solutions increasing by 16.7% to €1,083M. In 2020, thanks to IoT's services we avoided 9.5 MtCO2 from being generated by our customers thanks to the high penetration of digitalisation during the pandemic. The result without the impact of COVID19 would be 3.8 MtCO2.

The cost to realize this opportunity is 12,7M€. It has taken into account the budget dedicated to R&D activities to develop new climate-related digital services & improvements to the ones already offered. The cost of management thus comes from: Σ [Capex New Digital services]+ [Capex Improvement of current digital services]

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Telefónica has an important opportunity associated to cost reduction coming from energy management.

As we have explained in question 2.3a the electricity consumption of our network is high. Telefónica's total average electricity consumption in recent years has been around 6 million MWh. Telefónica has multiple projects underway to increase the efficiency of its network, such as the replacement of the copper network by FTTH, which is 85% more efficient or the implementation of 5G, which is estimated to be 90% more efficient.

As our network evolves due to technology evolution, we could have energy increasing demands, as an example, an increase of 10% in our energy consumption would mean an average increase of 73 million euros in Telefónica´s electricity OPEX.

Telefónica´s Energy Efficiency Plan allows us to manage this risk, but also we consider it as an opportunity because it provides us with an important competitive advantage in our sector as it increases the efficiency and resilience of our networks and also reduces our operating costs. This allow us to increase the quality and technologies that we offer to our clients (3G, 4G, 5G, Broadband), without an increase in fares.

Telefónica has within its strategic objectives for the fight against climate change, the reduction by 2025 of 90% of energy consumption per unit of traffic, taking 2015 as a reference. With the Energy Efficiency Plan our objective is to decouple the growth of our business from energy consumption and that is why it is integrated into our global climate change strategy. Our energy consumption is almost stable, although the data traffic passing through our networks in increasing in an exponential way.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

197,409,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact of this opportunity is calculated by projecting:
- Company's energy consumption taking into account energy efficiency measures. Since 2010 our Energy Efficiency Plan has allowed us to achieve 772 million euros of energy savings. In 2020 we implemented 173 initiatives in our networks and offices, achieving savings of 29,6M€ in our OPEX, energy reductions of 192 GWh, reducing 43.5 ktCO2e.
- Company's energy consumption without taking into account energy efficiency measures
- Average cost of electricity in the last few year

We have also taken into account that these estimated savings will increase if energy prices or taxes increase in the future.

Overall, the financial impact of this opportunity comes from: Σ [(BAU's energy consumption) – (MLS's energy consumption) x (Avg cost of electricity)]

Note: transition risks and opportunities have only been analysed under scenario RCP 2.6 for 2030, since RCP8.5 would be a BAU scenario whereby no transition to a low carbon economy would take place.

Cost to realize opportunity

6,850,000

Strategy to realize opportunity and explanation of cost calculation

Telefónica´s Climate Change strategy includes 3 global energy and GHG emissions targets. One of them focus on taking advantage of this opportunity:

- Reduce energy consumption per traffic unit (MWh/PB) by 90% in 2025 compared to 2015

In order to achieve these strategic objectives, in 2010 Telefónica established an Energy Efficiency (EE) Plan and in 2019 a new and more ambitious target was set. Since 2010,

we have implemented 1036 projects under this plan. These projects are mainly developed in our infrastructures of fixed and mobile network, offices and data centres. Since 2010 our Energy Efficiency Plan has allowed us to achieve 772 million euros of energy savings. These estimated savings will increase if energy prices or taxes increase in the future.

During 2020 we undertook 173 Energy Efficiency projects, achieving savings of 29,6 million euros, leading to savings of 192GWh and avoiding the emission of over 43.5 ktCO2 eq. The projects cover all the different possibilities of efficiency: lighting; PSF (Power Saving Features); cooling; rectifiers and power update; network transformation. For instance, in 2020 we implemented a disruptive model in Colombia, using the Battery as a Service (BaaS) model, which enables us to reduce fuel consumption and pay with the savings achieved. This project will enable us to increase the autonomy of the batteries at 170 sites and will reduce diesel consumption by more than 70%. This means a saving of nearly 500,000 litres of diesel a year, reduced maintenance costs and greater availability for customers

These efforts have made it possible for us to reduce energy intensity per traffic by 81% in 2020 compared to 2015 (MWh/PB).

The cost to realize this opportunity considers the CAPEX involved in the EE Plan, in projects that are mainly developed in our infrastructures of fixed and mobile network, offices and data centres, which amounted to 6,85M€.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

On top of the Energy Efficiency Plan explained in Opp2, whose objective is to minimise energy consumption, Telefonica has also identified in its Climate Scenario Analysis an important opportunity associated with the use of lower-emission sources of energy. This provides us with an important competitive advantage since it reduces our exposure to

energy price volatility and foresees potential OPEX savings of 6% for 2021, with the possibility to reach 25% by 2030
As we have explained in question 2.3a the electricity consumption of our network is high, reaching 6,548,152 MWh in 2020, so increases in kWh price because the increase on the fuels or a lower availability of water for hydroelectric generation taxes may incur high costs for Telefónica.

As an example, an increase in the price of energy of 10% would mean an increase of 73 million euros in Telefónica´s electricity OPEX.

In 2020, Telefonica's Renewable Energy Plan allowed us to save 5% of our Electricity OPEX compared to regulated tariffs. At Telefónica we have seen important cost opportunities linked to renewable energy, in Mexico and Spain, for instance, moving to a renewable PPA solution which is offering us approximately 5.45% reduction cost in the electricity bill. Another example is the Distributed Generation project, which is still on-going, has allowed Telefónica Brazil to save 23% on average, compared to the regulated tariffs.

In summary the main benefits of this opportunity is the resilience improvement of our business and also the reduction of our operational costs.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

59,883,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact is calculated by projecting what the energy consumption of our network and the kWh price would be in the climate scenario analysed and what is the potential average price of energy that we can achieve thanks to the long-term purchase agreements executed under our Renewable Energy Plan. We consider different mixes between the following solutions: self-generation, purchasing renewable energy with guarantees of origin, and long-term Power Purchase Agreement (PPAs). According to

our calculations, taking into account the time horizons and the percentage of renewable energy that we will consume in each of the countries, and the path defined in our Renewable Energy Plan, we have the objective of achieving 100% of electricity consumption from renewable sources by 2030.

Additionally, the potential savings associated to a reduction in our Scope 2 emissions have been estimated using Telefónica's internal emissions projections, the expected carbon price for each geography, and the savings associated with avoided emissions.

Overall, the financial impact of this opportunity comes from: Σ [(Electricity consumption) x (% of electricity under PPA) x (Savings related to PPA)]

Note: transition risks and opportunities have only been analysed under scenario RCP 2.6 for 2030, since RCP8.5 would be a BAU scenario whereby no transition to a low carbon economy would take place.

Cost to realize opportunity

1,215,000

Strategy to realize opportunity and explanation of cost calculation

Telefónica´s CC strategy includes 3 global energy and GHG emissions targets. One of them focus on taking advantage of this opportunity: Commit to renewable energies as a sustainable source for our business, achieving 100% of electricity consumption from RE by 2030.

In order to achieve this strategic objective, in 2016 Telefónica established the Renewable Energy Plan, considering all kinds of solutions: self-generation, purchasing renewable energy with guarantees of origin, distributed generation and long-term PPAs.

In 2020, 100% of our electricity in Europe, Brazil and Peru and 87.5% worldwide comes from zero emissions sources. Our goal is to go further than 100% in our main markets and achieve 100% in HispAm in 2030 or even before. By "further than 100%", we are referring to our endeavours to contribute to increasing the renewable energy mix in the countries in which we operate, through self-generation or by fostering the construction of new parks, facilitated by our medium and long-term consumption commitments.
Regarding self-generation, we gradually increased the base stations of the mobile network that run on renewable energy, and we now have 436 sites. This also allows us to avoid using fuel powered generators in isolated base stations, thus achieving a reduction in fuel consumption of between 70% and 100%. It is important to highlight the role that each country's regulations can play in fostering these types of facilities.

In Spain, we have implemented PV electrical energy self-generation systems in several buildings, where solar production is used for self-supply (without excess being sent to the grid) under two models, the 1st with our own CapEx and the 2nd under a service model where we pay for the electricity generated at a lower rate than the market rate, obtaining OpEx savings.

As a result, in 2019 we achieved a renewable-sourced electricity consumption of 87.5%, being 100% RE in Europe, Peru and Brazil. This has enabled us to avoid the emission of around 1 MtCO2e.Indeed, Telefónica's Renewable Energy Plan was awarded the GLOMO 2019 in the Green category at the Mobile World Congress.

The cost of management considers the costs associated to:
- Purchase of RE Certificates (OPEX) in Spain, UK, Germany, Brazil Colombia, Chile and Peru
- Energy consulting costs (OPEX)
- PPA consulting costs (OPEX)
- Self-generation project investment (CAPEX)

Overall, the cost of management comes from: Σ of [PPA + GOO] + REP Capex

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, but we intend it to become a scheduled resolution item within the next two years	Whilst our low-carbon transition plan has not been explicitly put forth for approval in our AGM, in 2020 Telefónica's shareholders approved the incorporation of our Net Zero targets to the performance metrics included in the Board's variable remuneration incentives. Furthermore, our Net Zero plan is included in our Annual Report, which is also approved by our shareholders in our AGMs. Our intention however is to include in our AGM agenda a scheduled resolution item relating to our Net Zero strategy in the next two years.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
RCP 8.5	i) Scenarios: We selected the worst-case (RCP 8.5) or business as usual & our target scenario(RCP2.6), in line with TCFD recommendations Inputs: Climate variables projections of each scenario extracted from the EU's Copernicus, Telefónica's assets by location and value, historical data, projections not based on the scenarios (undertaken by Telefónica or a 3rd party) Methodology: We divided our scenario analysis in 5 phases: a) Probability analysis of the most relevant climate threats affecting Telefónica based on scenario projections for each geography and year evaluated b) Impact analysis in financial terms by scenario, time horizon and geography for each risk based on historical data and our projections c) Exposure analysis based on the results obtained from multiplying (1)&(2), broken down by scenario, year, threat & region d) Aggregation of results to company level e) Conversion of these risks to Basic Risks in order to consolidate with our risk management approach Assumptions: Telefónica used a series of common hypotheses for RCP8.5 all the countries evaluated. i.e.: Increase in GHG emissions leading to a 4C increase in temperature by 2100; Economic value of the impacts based on Telefónica's historical business&country-specific data; analysis has been extrapolated to the rest of our assets to get an overview of company wide impact. ii) Time horizons: 2030, aligned to our original SBT target year, 2040, aligned to our global net zero target, and 2050, which is aligned to the Paris Agreement timelines and to our climate strategy time horizon. iii) Assets analysed: Base stations, switch centres, data centres Regions covered: The analysis focused on the countries which hold our greatest amount of activity, representing 61% of the Group's total asset value, with results being extrapolated to the entire organisation in order to get an overall quantitative impact of our potential risks and opps. iv) Results: •Fixed &mobile connectivity in the LatAm region are our business lines with greater vulnerability •Flooding &the increase of temperatures are the climatic variables with greater incidence •Considering risk exposure &business

	volume, Brazil is the most vulnerable due to the income they represent for the Group. The largest potential costs are: •Increases in energy prices in countries very dependent on hydropower •Increase in our network electricity consumption due to greater air conditioning needs •Increase of operation &maintenance costs •Loss of income due to service disruptions. The analysis has already influenced our strategy: In order to manage these impacts, we have created lines of work that help increase our resilience to CC. The main measures are: Business Continuity Plans for climate disasters & Energy Efficiency (EEP) &Renewable Energy Plans(REP), which enable us to reduce power & fossil fuel consumption & emissions. v) Case study of how results have impacted strategy: Established an EEP to optimise power consumption in our network. In 2020 we implemented 173 initiatives in our networks &offices, avoiding >43.5 ktCO2e. The global initiatives include upgrading our network to increase its efficiency(e.g. replacing copper with fibre optic; power &HVAC equipment renovation projects; using free cooling; shutting down legacy networks; implementing power-saving features in the access network &reducing fuel consumption by implementing hybrid stations). This effort is reflected in a 81% improvement in our energy intensity ratios (MWh/PB) compared to 2015 &we separated the growth of our services from power consumption.
RCP 2.6	i) Scenarios: We selected the worst-case (RCP 8.5) or business as usual & our target scenario(RCP2.6), in line with TCFD recommendations Inputs: Climate variables projections of each scenario extracted from the EU's Copernicus, Telefónica's assets by location and value, historical data, projections not based on the scenarios (undertaken by Telefónica or a 3rd party) Methodology: We divided our scenario analysis in 5 phases: a)Probability analysis of the most relevant climate threats affecting Telefónica based on scenario projections for each geography and year evaluated b)Impact analysis in financial terms by scenario, time horizon and geography for each risk based on historical data and our projections c)Exposure analysis based on the results obtained from multiplying (1)&(2), broken down by scenario, year, threat & region d)Aggregation of results to company level e)Conversion of these risks to Basic Risks in order to consolidate with our risk management approach Assumptions: Telefónica used a series of common hypotheses for RCP2.6 all the countries evaluated. i.e.: Increase in GHG emissions leading to a <2C increase in temperature by 2100; Economic value of the impacts based on Telefónica's historical business&country-specific data; analysis has been extrapolated to the rest of our assets to get an overview of company-wide impact. ii) Time horizons: 2030, aligned to our original SBT target year, 2040, aligned to our global net zero target, and 2050, which is aligned to the Paris Agreement timelines and to our climate strategy time horizon.

	iii) Assets analysed: Base stations, switch centres, data centres Regions covered: Countries which hold our greatest amount of activity, representing 61% of the Group's total asset value, with results being extrapolated to the entire organisation in order to get an overall quantitative impact of our potential R&Os. iv) Results: •Fixed &mobile connectivity in the LatAm region are our business lines with greater vulnerability •Increase in electricity prices is by far our most significant impact under this scenario, however opportunities under this scenario largely offset risks, namely due to the increase in climate-related digital services •Considering exposure &business volume, Spain is the country which will be the most benefited from opportunities due to the income they represent for the Group. The largest potential opportunity is an increase in climate-related digital services, whilst the largest costs will be the potential increase in electricity prices The analysis has already influenced our strategy: In order to manage these impacts and opportunities, we have created lines of work that help increase our resilience to CC. The main measures are: Business Continuity Plans for climate disasters & Energy Efficiency (EEP) &Renewable Energy Plans(REP), which enable us to reduce power & fossil fuel consumption & emissions v) Case study of how results have impacted strategy: To achieve the emissions reductions stipulated in the results of our CSA, we broke down the targets into different measures to be taken with respect to emissions, efficiency & RE: -In 2020, we have updated our Scope 3 reduction targets with the level of ambition required by the SBTi &committed to Net Zero by 2040. - Reduce energy consumption by 90% per unit of traffic by 2025 through our Energy Efficiency program - Become 100% renewable by 2030. In this regard, Brazil Peru &Europe made outstanding progress, achieving 100% RE in 2020, allowing both the construction of new RE plants countrywide, savings with regard to the market rate & reducing dependence on iREC guarantees of origin. Company wide, 87.5% of our electricity came from RE sources -We have reduced energy consumption by 81% per unit of traffic compared with 2015. -Integrated Energy and Climate Change Strategy -Compliance with ISO14001 for 100% of our business and 50001 for 44% of our business -Board level oversight of the company's sustainability strategy.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities	Description of influence

	influenced your strategy in this area?	
Products and services	Yes	As described in Opp 1, digitalisation will be a key tool in the management of environmental challenges such as climate change, waste, water, air pollution, fires and biodiversity during the transition to a low carbon economy. According to GlobalData forecasts, the global IoT market was worth $622bn in 2020, up from $586bn in 2019, and will grow to reach $1,077bn by 2024, with a compound annual growth rate (CAGR) of 13% over the period, whilst according to Smarter 2030, the ICT sector has the potential to reduce 3.6GtCO2e by 2030. This means it is a very substantive business opp for Telefónica in the short and medium term. We want to position ourselves as a key stakeholder in the transition to a green economy and hence we are aligning our business and environmental strategies to find opps related to these new types of solutions. For instance, the Business Solutions area is developing New Digital Services that have the potential to optimize the consumption of resources of our customers and therefore reduce their impact on the environment. In terms of emissions, thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on site, we avoided 9.5MtCO2 from being generated by our customers in 2020. This figure is triple the figure of the emissions avoided the previous year, thanks to the high penetration of digitalisation during the COVID-19 crisis. The result without the impact of COVID-19 would be 3.8MtCO2. One of the most substantial business decisions made to capitalise on this opportunity has been the creation of Telefónica Tech in late 2019. This unit was born to further increase the revenues of these new digital services & boost the growth of digital services involving IoT/Big Data, cloud and cybersecurity, bringing together the digital businesses with high growth potential and aims to be the partner which supports other companies in their digital transformation. Telefónica Tech is already a reality after completing the carve-out process, delivering on the announced road map. As our business strategy is committed to the potential of these on these new digital services, in 2020 we set a new ambitious objective for 2025: to avoid the emission of 5 MtCO2 into the atmosphere through our products and services.

Supply chain and/or value chain	Yes	We see the identification & mgmt of risks in our supply chain as an inherent responsibility for every company, & more so for the ICT sector, where many of the sustainability risks in the short & medium term are not in a company's own operations but in its supply chain. As a result, our approach to supplier strategy has been influenced via the following actions: 1) As part of our sustainable management model, we pay special attention to supply chain issues with a high social and environmental impact, including CO2 emissions. The most substantial strategic decision in this regard was the creation of a new version of our Supply Chain Sustainability Policy, which was approved by our BoD in early 2020 & covers aspects related to CC, such as emissions reductions or eco-efficiency. All aspects are part of the Minimum Responsible Business Criteria that each of our suppliers must meet & implement in their own supply chain. Sustainability high-risk suppliers identified also have to evaluate their sustainability performance via EcoVadis. 2) We are also incorporating environmental criteria that should be considered to select products or services with a lower impact. For instance, in the global purchase area of equipment with high energy consumption, we have incorporated the concept of Total Cost of Ownership (TCO) in the acquisition process, thus considering the amount of energy that the equipment will consume during its use & not just the cost of purchase. The TCO will make it possible for us to reduce the Company's energy expenditure & the associated emissions in the short and medium term. 3) In 2019, we developed a supplier engagement programme with key suppliers, extended in 2020 to cover a greater portion of our supplier base. These suppliers have been selected based on the following criteria: - % of their emissions contribution to our Scope 3 - % of spending - Strategical importance for Telefónica Our programme has the objective of collecting primary information to understand the level of maturity of the suppliers' sustainability strategies & help them move forward in their CC management & to set more ambitious emission reduction targets, which in turn will help us achieve our medium term Scope 3 target. This increased awareness & reduced impact will ensure our most important suppliers

		have the mechanisms in place to mitigate & adapt to climate related risks.
Investment in R&D	Yes	Digital services will be a key tool in the management of challenges such as CC in the short & medium term, whilst the vision of sustainability as a business opp that allows us to bet on R&D and innovation as a tool for social and environmental good remains a long-term strategic line. As a transversal pillar to the internal R&D processes of Core Innovation and Open Innovation (developed from Open Future and Wayra) we invest in initiatives with the goal of improving our customers' CC mitigation and adaptation capacity, and that translate into business opportunities. For instance, in 2020 Wayra invested in Hybrico, a clean technology company that designs, manufactures, installs and operates "hybrid energy" and "intelligent energy storage" solutions for Off-Grid and Bad-Grid telecommunications sites, aiming to achieve the lowest levelized cost of energy in the market, reducing carbon emissions & increasing connectivity. One of the most influential decisions made has been the investment in R&D of new products and services related to climate change in order to achieve our 2025 target of avoiding 10 tCO2e per 1 tCO2e that we emit. Highlight below are some of the most important services provided in 2020: - Smart energy meters for our customers, such as the case of the UK & Spain where Telefónica manages millions of connected gas, water and electricity meters. - Mobility optimisation solutions, such as our fleet management or asset tracking - Solutions for smart cities, based on optimising lighting, using parking spaces & managing &collecting waste - Energy optimisation solutions for businesses, such as Smart Agro for agriculture or E-health solutions to facilitate remote medical care - Solutions for the transport sector which help optimise planning of transport systems &infrastructure planning through greater understanding of travellers, timetables &routes - Solutions for retail and Industry 4.0, in which private networks (5G or LTE) & associated solutions (e.g. AGV, drones, predictive maintenance, asset control & operator safety) take the manufacturing & mining industries and management of ports and airports to a new level of operation, flexibility, productivity and efficiency. As a result, in 2020 IoT in Telefónica closed with nearly 23

		million IoT lines for our customers. The approximate investment that these initiatives have meant in 2020 is about 12.7 M€.
Operations	Yes	As explained in Risk 3, the electricity consumption of our network is high, reaching 6,548,152 MWh, which accounted in average 747 million euros in OPEX. We expect energy prices to increase in the medium- and long-term due to extended drought periods, taxes on energy generated using fossil fuels, etc. This could potentially impact our operations in the medium & most significantly in the long term. In order to reduce our exposure to this risk, we have implemented the following mitigation actions: 1) Creation of the Energy Efficiency Plan: In 2020 we implemented 173 initiatives in our networks and offices, achieving savings of 29,6M€ in our OPEX, energy reductions of 192 GWh, reducing 43.5 ktCO2e. A substantial decision in 2020 was the implementation of a disruptive model in Colombia, using the Battery as a Service (BaaS) model, which enables us to reduce fuel consumption and pay with the savings achieved. This project will enable us to increase the autonomy of the batteries at 170 sites, reducing diesel consumption by more than 70%. This means a saving of nearly 500,000 litres of diesel a year. 2) Creation of the Renewable Energy Plan in 2016, including all kinds of solutions: self-generation, purchasing REGOs, distributed generation and long-term PPAs. In 2020, our main markets maintained 100% renewable& a PPA was signed for the first time in Spain to supply 100GWh of clean energy per year for 10 years. 3) Implementation of the Unified System of Infrastructure Supervision platform in our main buildings in Brazil to enable a centralised and automatic monitoring of a range of critical infrastructure equipment that have a direct influence on the energy consumption of our network. 4) Sharing infrastructures with other operators or communication tower management companies to reduce square footage, visual impact, energy consumption &waste generation. In 2020, the number of base stations we shared rose to more than 80000. 5) In Germany we equipped 12,300 sites (40% of the total electricity consumption in the country) with smart meters for

		digital power consumption logging to further increase the energy efficiency. The plan is to have equipped 27,000 sites with a smart meter by the end of 2021. These efforts are reflected in an 81% improvement in our energy intensity ratios (MWh/PB) compared to 2015.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Access to capital	As part of our Climate Change Strategy 2015-2050, Telefonica commits to reduce scope 1 and 2 emissions 90% by 2025 & achieve net-zero Scope 1 and 2 emissions in our main markets (Spain, Brazil, UK and Germany) by 2025, and globally (including Scope 3) by 2040. Whilst this will have an impact in all the financial elements selected, we want to draw attention to what opportunities the transition towards a low carbon economy represents for both internal energy management (i) & business growth (ii): i. REP & the EEP enable us to reduce our operating costs. This is important since our energy expenditure makes up around 1.7% of our revenue. Hence, managing the risk of growing energy prices is a central focus of our business strategy&has influenced our business decisions to date in the short & medium term. ii. Digital services, e.g. IoT-based, necessary for the decarbonisation of the economy. In 2020 revenues coming from new digital services increased 16.7% compared to 2019, so this impact is already a reality for us and is expected to increase in the short and medium term. CC has also impacted our financial planning & capital allocation. Based on the results of our Vulnerability Assessment, we allocate part of our CAPEX to the purchase of equipment resistant to greater Tª ranges, lower energy consumption & implementation of EE projects. An example of how we have modified our financial planning is the incorporation of the Total Cost of Ownership criteria in the purchasing process of energy intensive equipment, considering the amount of energy that the equipment will consume during its use & not just the cost of purchase. Under the latest EEP, the CAPEX involved amounted nearly 7M€, implementing 173 initiatives leading to savings of 192GWh & prevented over 43.5ktCO2e, with savings of 29,6M€ in our OPEX. We consider this as a medium impact at a company level. Additionally, Telefónica needs to secure access to capital. The company issued the 1st Green Bond of the telco sector in early 2019 for an amount of 1,000M€ & a 5-yr term, & it was invested in by more than 310

		investors. The funds obtained will be used to finance projects to increase our energy efficiency, transforming our copper network into fibre optic in Spain (85% more energy efficient). As part of integrating the environment into the Company's strategy, in 2020 we issued another Green Bond —the first hybrid in the sector— based on our Sustainable Financing Framework. The funds from the hybrid Green Bond (500 million euros) have served to finance projects aimed at increasing the Company's energy efficiency through the process of transforming the copper network into fibre optic (85% more efficient) in Spain. The target is to have 100% of retail customers in fibre before 2025 (short term). This financing enables us to diversify our portfolio, effectively accessing a wider variety of investors. As a result of our leadership in terms of sustainable financing, we received in 2021 a Prize by the Spanish Observatory on Sustainable Financing. Finally, we have been following very closely recent developments regarding the new EU Taxonomy due to the key role it will play in future investors decision and thus Telefónica's access to capital. Although no delegated act had been approved by the end of 2020 and the taxonomy was still under development, during 2020 Telefónica was part of different groups, associations and initiatives participating in public consultations, and meetings with the involved DGs in order to provide information on the ICT sector, propose thresholds and significant KPIs, etc. Taking into account that some of the Telefonica's activities are taxonomy eligible, we'll disclose information starting in 2021 according to the final legal approved framework

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Our Energy and Climate Change strategy, aligned with the business model, allows us to cover every aspect of this global phenomenon; we take on mitigation, leverage opportunities and adapt managing risks. At Telefónica, we are committed to reducing our own carbon footprint, and, more significantly, we deliver solutions to reduce our customers' emissions. Given its transversal and global nature, climate change is currently integrated in the management of the core aspects of the Company, such as governance, strategy, risks, targets and financial planning. We implement the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) to meet the demands of our main stakeholders and the transparency required in this area.

Our global Risk Management Model allows us to analyse specifically our exposure to the potential risks and opportunities arising from the impact of projected climate effects in different scenarios of CO2 equivalent concentration in the atmosphere and over different periods, following the TCFD recommendations. This analysis enables us to incorporate climate change into long-term business decisions, minimising risks and maximising opportunities for our business. Moreover, our Environmental strategy is the responsibility of the Board of Directors, which approves the global environmental policy and targets, within the framework of our Responsible Business Plan. One of the key metrics used to integrate climate change into the

financial planning is the inclusion of carbon emissions reduction targets are part of the variable remuneration of all the Company's employees, including the Board of Directors. All of the above evidences that environment has become a strategic issue for the Company.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

1,912,188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

70

Covered emissions in target year (metric tons CO2e) [auto-calculated]

573,656.4

Covered emissions in reporting year (metric tons CO2e)

743,366.3

% of target achieved [auto-calculated]

87.3211883829

Target status in reporting year

Revised

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

In 2020, in view of the urgent need to reduce CO2 emissions and given the need identified by the scientific world to increase ambition, we announced new energy and climate change (CC) targets for 2025, 2030, and 2040, aligned with the 1.5ºC scenario of the Paris Agreement and validated by the Science-Based Targets initiative (SBTi).

These targets are part of our CC strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions and help us to leverage decarbonisation opportunities, to be more competitive, and to offer our customers an ever-cleaner network. With this purpose, we have defined a path of emission reduction until 2040, establishing milestones of emission reduction: Reduce our Scope 1&2 emissions by 70% in absolute terms by 2025, 80% by 2030, and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2025 (Scope 1&2), and globally by 2040 (incl. Scope 3).

In 2020 we reduced our total Scope 1&2 emissions by 61.1% compared with 2015 (base year). This has been possible mainly thanks to the actions within our Energy Efficiency Plan (EEP) and our Renewable Energy Plan (REP).
These actions are based on implementing energy efficiency projects and transitioning to a greater proportion of renewable electricity.
- Our EEP enables Telefónica to decouple its business growth from energy consumption so that in 2020 we achieved 80.9% improvement of our energy-intensive ratios (MWh/Traffic PB)
- Under the REP in 2020 we achieved a renewable-sourced electricity consumption of 87.5% at a global level.
Despite the challenges for buying renewable electricity in some of the countries we operate, thanks to the extension of guarantee of origin programmes in LatAm, countries such as Chile, Colombia, and Peru managed to certify 29%, 61%, and 100% respectively of their electricity consumption. In 2020, we continued our ambitious distributed generation project in Brazil, covering 42% of our electrical consumption and thus reducing dependence on iRECs.

OTOH, Scope 1 emissions come from 2 main sources: fuel consumption and fugitive emissions of refrigerant gases from air conditioning units. We reduce these through

different initiatives, such as replacing fuel-powered generators with renewable self-generation and cooling units with free cooling or with other units whose refrigerant gases have lower GWP.

Target reference number

Abs 2

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

1,912,188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

80

Covered emissions in target year (metric tons CO2e) [auto-calculated]

382,437.6

Covered emissions in reporting year (metric tons CO2e)

743,366.3

% of target achieved [auto-calculated]

76.406039835

Target status in reporting year

Revised

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

In 2020, in view of the urgent need to reduce CO2 emissions and given the need identified by the scientific world to increase ambition, we announced new energy and climate change (CC) targets for 2025, 2030, and 2040, aligned with the 1.5ºC scenario of the Paris Agreement and validated by the Science-Based Targets initiative (SBTi).

These targets are part of our CC strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions and help us to leverage decarbonisation opportunities, to be more competitive, and to offer our customers an ever-cleaner network. With this purpose, we have defined a path of emission reduction until 2040, establishing milestones of emission reduction: Reduce our Scope 1&2 emissions by 70% in absolute terms by 2025, 80% by 2030, and achieving net-zero emissions in our main markets (Spain, Brazil, UK and Germany) by 2025 (Scope 1&2), and globally by 2040 (incl. Scope 3).

In 2020 we reduced our total Scope 1&2 emissions by 61.1% compared with 2015 (base year). This has been possible mainly thanks to the actions within our Energy Efficiency Plan (EEP) and our Renewable Energy Plan (REP).
These actions are based on implementing energy efficiency projects and transitioning to a greater proportion of renewable electricity.
- Our EEP enables Telefónica to decouple its business growth from energy consumption so that in 2020 we achieved 80.9% improvement of our energy-intensive ratios (MWh/Traffic PB)
- Under the REP in 2020 we achieved a renewable-sourced electricity consumption of 87.5% at a global level.
Despite the challenges for buying renewable electricity in some of the countries we operate, thanks to the extension of guarantee of origin programmes in LatAm, countries such as Chile, Colombia, and Peru managed to certify 29%, 61%, and 100% respectively of their electricity consumption. In 2020, we continued our ambitious distributed generation project in Brazil, covering 42% of our electrical consumption and thus reducing dependence on iRECs.

OTOH, Scope 1 emissions come from 2 main sources: fuel consumption and fugitive emissions of refrigerant gases from air conditioning units. We reduce these through different initiatives, such as replacing fuel-powered generators with renewable self-generation and cooling units with free cooling or with other units whose refrigerant gases have lower GWP.

Target reference number

Abs 3

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based) +3 (upstream & downstream)

Base year

2015

Covered emissions in base year (metric tons CO2e)

1,912,188

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2040

Targeted reduction from base year (%)

90

Covered emissions in target year (metric tons CO2e) [auto-calculated]

191,218.8

Covered emissions in reporting year (metric tons CO2e)

743,366.3

% of target achieved [auto-calculated]

67.9164798533

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

In 2020 we set ourselves ambitious new goals which go further than the Paris Agreement. We will be a company with net-zero emissions in our main markets (Spain, Brazil, Germany, and the UK) by 2025 and, including our value chain and HispAm, by 2040 at the latest. To achieve this, we will reduce our emissions by 70% by 2025 (90% in our main markets), 80% by 2030, 90% by 2040, and emissions in our value chain by 39% by 2025 and 90% by 2040. These reductions are in line with the 1.5ºC scenario, and residual emissions will be neutralised via nature-based projects.

In order to align with the latest Net Zero foundations paper published by the SBTi, Telefónica increased the ambition of its Scope 3 target by a) including all Scope 3 emissions into the target; and b) increasing its ambition to ensure the targeted reduction aligned with the 1.5C pathway. We have not only included an ambitious reduction target to reduce value chain emissions by an amount consistent with net-zero in global

scenarios that limit warming to 1.5C, but also in our own emissions; that's why we include Scope 1 and 2 in our emissions reduction pathway.

Target reference number

Abs 4

Year target was set

2017

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Base year

2016

Covered emissions in base year (metric tons CO2e)

271,866

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

25

Covered emissions in target year (metric tons CO2e) [auto-calculated]

203,899.5

Covered emissions in reporting year (metric tons CO2e)

154,420

% of target achieved [auto-calculated]

172.7998352129

Target status in reporting year

Achieved

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

We calculate and reduce our carbon footprint every year, including direct emissions (Scope 1) from fuel consumption and fugitive emissions of refrigerant gases and indirect emissions from electricity consumption (Scope 2), and other indirect emissions related to our value chain (Scope 3).

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Fuel-and-energy-related activities are one of the most important categories, representing 8.1% of our scope 3 emissions. Our objective was aimed to reduce 25% emissions associated with the energy life cycle (category 3 of Scope 3).

In 2019 we have achieved a 100% reduction of this target with respect to 2016 (our base year), this was possible thanks to the actions within our Energy Efficiency Plan and our Renewable Energy Plan. In 2020 we reviewed our decarbonisation path and set a new target covering not only Fuel-and-energy-related activities but all other relevant categories for our value chain. This new target is described in ABS5.

Target reference number

Abs 5

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2016

Covered emissions in base year (metric tons CO2e)

2,606,625

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

39

Covered emissions in target year (metric tons CO2e) [auto-calculated]

1,590,041.25

Covered emissions in reporting year (metric tons CO2e)

1,909,321

% of target achieved [auto-calculated]

68.5928729433

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

In order to align with the latest Net Zero foundations paper published by the SBTi, Telefónica increased the ambition of its Scope 3 target by a) including all Scope 3 emissions into the target; and b) increasing its ambition to ensure the targeted reduction aligned with the 1.5C pathway.

To achieve this target, Telefónica is firmly committed to an open, collaborative relationship with its suppliers. Our commitment to them is based on establishing relations that enable us to jointly have a positive impact on our surroundings, through close collaboration and the sharing of good practices, fostered thanks to different initiatives with our suppliers, as the participation in ECOVADIS or JAC (Joint Audit Cooperation). In this sense, we work on the management of emissions in the supply chain, both globally and at a local level. In 2020, we created a new sector-based working group as part of the Joint Audit Cooperation (JAC) initiative, in order, as a telecommunications sector, to drive climate action in our supply chain. We assessed the climate-related maturity of the strategic suppliers of the 17 companies who are part of the conglomerate and began working along several different lines in order to increase their level of ambition, as well as providing training in collaboration with CDP and GSMA for the major Chinese companies.

Globally, in 2020 we continued our supplier engagement programme about climate change with our key suppliers. we gathered information from our suppliers to understand the maturity level of their climate strategies and help them set more ambitious emission reduction targets, to inspire them to take action and offered them a best practices forum to foster innovation and exchange of practices. The suppliers included in this programme represent 66% of the emissions from our supply chain and 37% of our total Scope 3 emissions. In order to optimise the supplier assessment process, in 2020 we joined the CDP Supply Chain programme. Another significant action in 2020 related to our commitment to working with the supply chain was to join the "1.5 ºC Supply Chain Leaders" initiative, which advocates reducing the emissions of the small and medium enterprises that are part of our value chain. This programme

enables us to reinforce our role in the value chain and accelerate the decarbonisation of the global economy.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2017

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 3: Purchased goods & services

Intensity metric
Other, please specify
kilogram of CO2e per Euro (€) purchased

Base year
2016

Intensity figure in base year (metric tons CO2e per unit of activity)
0.06594

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2025

Targeted reduction from base year (%)
30

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.046158

% change anticipated in absolute Scope 1+2 emissions
0

% change anticipated in absolute Scope 3 emissions
30

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.0446

% of target achieved [auto-calculated]

107.8758467294

Target status in reporting year

Achieved

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

This emission reduction target applies to Cat 1 (Purchased goods & services) and 2 (Capital Goods) of our Scope 3. Telefónica has calculated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity, cats 1&2, which represented 59% of our scope 3 emissions. Our objective is to reduce 30% emissions per unit of product purchased between 2016 & 2025 (Cats 1&2 of Scope 3).

Telefónica is firmly committed to an open, collaborative relationship with its suppliers, based on establishing relations that enable us to jointly have a positive impact on our surroundings, through close collaboration and the sharing of good practices, fostered thanks to different initiatives with our suppliers, as the participation in ECOVADIS or JAC (Joint Audit Cooperation). Globally, in 2020 we continued our CC supplier engagement programme with our key suppliers. gathering info from our suppliers to understand the maturity level of their climate strategies and help them set more ambitious emission reduction targets, to inspire them to take action and offered them a best practices forum to foster innovation and exchange of practices. The suppliers included in this programme represent 68% of the emissions from our supply chain and 39% of our total Scope 3 emissions.

This work with suppliers has allowed us to achieve a 32% of reduction of the emissions per € purchased with respect to 2016.

Since this intensity target has already been achieved, we have established new more ambitious targets in order to continue to align ourselves with the latest science. In this regard, a new target was set in 2020 (Abs 4) to reduce absolute emissions by 39% between 2016 and 2025. Additionally, Telefónica has committed to achieving Net Zero emissions no later than 2040 (NZ1).

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)

Base year
2015

Figure or percentage in base year
20.83

Target year
2025

Figure or percentage in target year

85

Figure or percentage in reporting year

87.5

% of target achieved [auto-calculated]

103.8959015116

Target status in reporting year

Achieved

Is this target part of an emissions target?

Our renewable electricity target is one of the key levers to achieve our targets for reducing emissions covered Abs 1, Abs 2, Abs 3, and Abs 4

In 2020, the Renewable Energy Plan has allowed us to reduce our Scope 2 emissions by the equivalent of 194.6 thousand tons of CO2 compared to last year and shows that renewable energies are the key to achieving the decarbonisation of our operations and to reducing our carbon footprint in absolute terms.

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through our Energy Efficiency Plan and our Renewable Energy Plan, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms. These are the 4 global objectives within our strategy:

- More renewable energy: To continue using 100% of electricity from renewable sources in our main markets, promoting development through long-term contracts and self-generation (HispAm 100% renewable by 2030).
- More energy efficiency: To reduce energy consumption per traffic unit (MWh/PB) by 90% in 2025 compared to 2015.
- Decrease CO2 emissions: reduce emission by 70% by 2025 and by 80% by 2030, compared to 2015,
- To have net zero emissions by 2025 in our main markets (Spain, Brazil, UK, and Germany), taking into account Scopes 1+2, and neutralise residual emissions (2040 for HispAm and the value chain).

These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present.

Our Renewable Energy Plan considers all kinds of solutions to achieve the 100% renewable objective: self-generation, purchasing renewable energy with guarantees of origin, and long-term purchase agreements (Power Purchase Agreement – PPA). It

foresees potential OPEX savings of 6% by 2021, with the possibility to reach 25% by 2030.

As a result of the various strategies established in our Renewable Energy Plan, in 2020 we achieved a renewable-sourced electricity consumption of 87.5%.

Target reference number

Low 2

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

Base year

2015

Figure or percentage in base year

20.83

Target year

2030

Figure or percentage in target year

100

Figure or percentage in reporting year

87.5

% of target achieved [auto-calculated]

84.2111911077

Target status in reporting year

Underway

Is this target part of an emissions target?

Our renewable electricity target is one of the key levers to achieve our targets for reducing emissions covered Abs 1, Abs 2, Abs 3, and Abs 4

In 2020, the Renewable Energy Plan has allowed us to reduce our Scope 2 emissions by the equivalent of 194.6 thousand tons of CO2 compared to last year and shows that renewable energies are the key to achieving the decarbonisation of our operations and to reducing our carbon footprint in absolute terms.

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through our Energy Efficiency Plan and our Renewable Energy Plan, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms. These are the 4 global objectives within our strategy:

- More renewable energy: To continue using 100% of electricity from renewable sources in our main markets, promoting development through long-term contracts and self-generation (HispAm 100% renewable by 2030).
- More energy efficiency: To reduce energy consumption per traffic unit (MWh/PB) by 90% in 2025 compared to 2015.
- Decrease CO2 emissions: reduce emission by 70% by 2025 and by 80% by 2030, compared to 2015,
- To have net zero emissions by 2025 in our main markets (Spain, Brazil, UK, and Germany), taking into account Scopes 1+2, and neutralise residual emissions (2040 for HispAm and the value chain).

These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present.

Our Renewable Energy Plan considers all kinds of solutions to achieve the 100% renewable objective: self-generation, purchasing renewable energy with guarantees of origin, and long-term purchase agreements (Power Purchase Agreement – PPA). It foresees potential OPEX savings of 6% by 2021, with the possibility to reach 25% by 2030.

As a result of the various strategies established in our Renewable Energy Plan, in 2020 we achieved a renewable-sourced electricity consumption of 87.5%.

Target reference number

Low 3

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: energy carrier

All energy carriers

Target type: activity

Consumption

Target type: energy source

Low-carbon energy source(s)

Metric (target numerator if reporting an intensity target)

MWh

Target denominator (intensity targets only)

Other, please specify

Petabytes of data traffic (PB)

Base year

2015

Figure or percentage in base year

409

Target year

2025

Figure or percentage in target year

40.9

Figure or percentage in reporting year

78.2

% of target achieved [auto-calculated]

89.8668839989

Target status in reporting year

Revised

Is this target part of an emissions target?

Our energy intensity target is also related to our emissions goals: Abs 1, Abs 2, and Abs 3.

To optimise the power consumption of our network, in 2010 we compiled the Energy Efficiency Plan. Since then, we have rolled out 1,036 projects; these have generated savings of more than 772 million euros and 6,678 GWh, with 2,049,590 tCO2eq avoided, thanks to the Global Energy Centre, which was created in 2015 to accelerate efficiency, with managers responsible for encouraging energy efficiency projects in each country.

Under this framework, in 2020 we undertook 173 initiatives in our networks and offices, thanks to which we saved 192GWh and avoided the emission of over 43,727 tCO2eq. These efforts are reflected in an 80.9% improvement in our energy intensity ratios (MWh/PB) compared to 2015. The objective of these projects is to increase our network efficiency, e.g by replacing copper with fibre optic; shutting down legacy networks, and reducing fuel consumption by implementing hybrid stations.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Telefónica´s Climate Change strategy aims to decouple our business growth from energy consumption and GHG emissions. Through energy efficiency and renewable energy, we are managing to reduce energy expenditure while reducing our carbon emissions in absolute terms.

In 2020, in view of the urgent need to reduce CO2 emissions and given the need identified by the scientific world to increase ambition, we announced new energy and climate change (CC) targets for 2025, 2030, and 2040, aligned with the 1.5ºC scenario of the Paris Agreement and validated by the Science-Based Targets initiative (SBTi).

These targets are part of our CC strategy, which aims to decouple the growth of our business from energy consumption and GHG emissions and help us to leverage decarbonisation opportunities, to be more competitive, and to offer our customers an ever-cleaner network. With this purpose, we have defined a path of emission reduction until 2040, establishing milestones of emission reduction: Reduce our Scope 1 & 2 emissions by 70% in absolute terms by 2025, 80% by 2030, and achieving net-zero emissions in our main markets (Spain, Brazil, UK, and Germany) by 2025 (Scope 1&2), and globally by 2040 (incl. Scope 3).

These are the 3 global objectives within our strategy:

- More renewable energy: To continue using 100% of electricity from renewable sources in our main markets, promoting development through long-term contracts and self-generation (HispAm 100% renewable by 2030).

- More energy efficiency: To reduce energy consumption per traffic unit (MWh/PB) by 90% in 2025 compared to 2015.
- Decrease CO2 emissions: reduce emission by 70% by 2025 and by 80% by 2030, compared to 2015,
- To have net zero emissions by 2025 in our main markets (Spain, Brazil, UK, and Germany), taking into account Scopes 1+2, and neutralise residual emissions (2040 for HispAm and the value chain).

These are Telefónica´s global objectives, therefore apply to all our business lines in all the countries where we are present.

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify

Other, please specify

Avoided emissions through our services

Target denominator (intensity targets only)

Base year

2017

Figure or percentage in base year

939,000

Target year

2025

Figure or percentage in target year

5,000,000

Figure or percentage in reporting year

3,793,947

% of target achieved [auto-calculated]

70.3015759665

Target status in reporting year

Revised

Is this target part of an emissions target?

We want to increase the emissions avoided by the growth in sales of our connectivity and digital services.

Our digital and connectivity services —based on one of the most efficient and cleanest telecommunications networks in the sector— enable our customers to optimise their consumption of resources such as energy and water; they facilitate remote working; they improve traffic planning and air quality in cities, and they promote the circular economy.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Digitalisation is expected to be essential to address the transition to a low-carbon economy. Our connectivity and new Digital Services have a great potential to reduce emissions in other sectors of the economy.

As our business strategy is committed to the potential of these new digital services, in 2020 we set a new objective for 2025, to generate a greater positive impact: to avoid the emission of 5 MtCO2 into the atmosphere through our products and services.

With the aim of measuring the positive impact of the services provided by Telefónica, in 2020 we increased the volume of services we use to calculate avoided emissions. This information enables us to continue working on those developments which have the most positive effect on reducing emissions.

Thanks to IoT's services for fleet management, building energy, video/audio conferences, cloud services, and connectivity to promote teleworking and eliminate the travelling associated with attending meetings on-site, we avoided 3.2 million tonnes of CO2 from being generated by our customers.

In order to continue our progress in this strategy, we have increased our ambitions and set ourselves the target of helping our customers avoid the emission of 5 million tCO2 by 2025 through our products and services. This target was calculated on the basis of a return to normal. In a situation without COVID-19, our results for 2020 in our four main markets would have been 3 million tCO2.

In general, to calculate the total avoided emissions the methodology follows the following general principle:
Carbon abatement = volume x carbon abatement factor
This volume factor is either the number of relevant M2M connections, or another factor such as the number of devices, or the number of people using the service. The chosen methodology also takes into consideration rebound effects that arise from utilising the respective connections, and methodologies are designed to ensure that there is no additionality or double counting across categories.

Target reference number

Oth 2

Year target was set

2020

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Engagement with suppliers

Other, please specify

Percentage of suppliers in our Engagement Programme committing to an emissions reduction pledge

Target denominator (intensity targets only)

Base year

2016

Figure or percentage in base year

0

Target year

2025

Figure or percentage in target year

50

Figure or percentage in reporting year

72

% of target achieved [auto-calculated]

144

Target status in reporting year

New

Is this target part of an emissions target?

Yes, it is part of Abs 5

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

To achieve our Scope 3 target, whereby Categories 1 & 2 represent 56% of total Scope 3 emissions, Telefónica is firmly committed to an open, collaborative relationship with its suppliers. Our commitment to them is based on establishing relations that enable us to jointly have a positive impact on our surroundings, through close collaboration and the sharing of good practices, fostered thanks to different initiatives with our suppliers, as the participation in ECOVADIS or JAC (Joint Audit Cooperation). In this sense, we work on the management of emissions in the supply chain, both globally & at a local level. In 2020, we created a new sector-based working group as part of the Joint Audit Cooperation (JAC) initiative, in order to drive climate action in our supply chain. We assessed the climate-related maturity of the strategic suppliers of the 17 companies who are part of the conglomerate and began working along several different lines in order to increase their level of ambition, providing training in collaboration with CDP and GSMA for the major Chinese companies.

Globally, in 2020 we continued our supplier engagement programme about CC with our key suppliers. We gathered information from our suppliers to understand the maturity level of their climate strategies & help them set more ambitious emission reduction targets, inspire them to take action & offer them a best practices forum to foster innovation & exchange of practices. Whilst in terms of the number of suppliers the coverage may seem minimal, the suppliers included in this programme represent 66% of the emissions from our supply chain & 37% of our total Scope 3 emissions. Our target consisted of achieving at least 50% of participation & commitment to emission reduction pledges from the 25 suppliers we engaged with. This has already been achieved, with 84% of participation and 72% of suppliers invited to the programme committing to a pledge.

In order to optimise the supplier assessment process, in 2020 we joined the CDP Supply Chain programme. Another significant action in 2020 related to our commitment to working with the supply chain was to join the "1.5 ºC Supply Chain Leaders" initiative, which advocates reducing the emissions of the SMEs that are part of our value chain. This programme enables us to reinforce our role in the value chain and accelerate the decarbonisation of the global economy.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1
Abs2
Abs3
Abs4
Abs5

Target year for achieving net zero

2040

Is this a science-based target?

Yes, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain (including target coverage)

In 2020 we set ourselves ambitious new goals which go further than the Paris Agreement. We will be a company with net-zero emissions in our main markets (Spain, Brazil, Germany, and the UK) by 2025 and, including our value chain and HispAm, by 2040 at the latest. To achieve this, we will reduce our emissions by 70% by 2025 (90% in our main markets), 80% by 2030, 90% by 2040, and emissions in our value chain by 39% by 2025 and 90% by 2040. We will also continue working to become a company with zero waste, thereby helping to create a more circular economy by fostering the ecodesign, reuse, and recycling of electronic equipment. These reductions are in line with the 1.5ºC scenario, and residual emissions will be neutralised via nature-based projects. The carbon credits we rely on to neutralise emissions must meet a number of criteria that we have established internally:

• Carbon sequestration projects (permanent fixing of CO2 from the atmosphere) should preferably use nature-based solutions.
• There should be a demonstration of additionality.
• There should be a demonstration of permanent impact.
• There should be alignment with social and environmental co-benefits, in line with the Sustainable Development Goals contributed to by Telefónica.
• There should be use of reputable standards.
• There should be verification by an accredited third party.
• It should preferably have territorial anchorage with regard to the geographical regions in which Telefónica is present.

Our operation in Brazil was the first to compensate 100% of its remaining emissions in 2020 through compensation credits (not neutralisation). The projects that generate these credits are backed by reputable certificates and support local projects for both conserving ecosystems and fostering renewable energy. Brazil will move towards net zero over the next few years with projects that meet the aforementioned conditions.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	55	69,407
Implementation commenced*	6	7,572
Implemented*	174	238,369
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Lighting, Power-Saving Features, Cooling/Climate control, Power Modernization, Network transformation and others,

Estimated annual CO2e savings (metric tonnes CO2e)

43,727

Scope(s)

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

19,680,541

Investment required (unit currency – as specified in C0.4)

6,851,775

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

To optimise the power consumption of our network, in 2010 we compiled the Energy Efficiency Plan. Since then, we have rolled out 1,036 projects; these have generated savings of more than 772 million euros and 6,678 GWh, with 2,049,590 tCO2eq avoided, thanks to the Global Energy Centre, which was created in 2015 to accelerate efficiency, with managers responsible for encouraging energy efficiency projects in each country.
In 2020 we undertook 173 initiatives in our networks and offices, thanks to which we saved 192GWh and avoided the emission of over 43,727 tCO2eq.
The global initiatives include modernising our network to increase its efficiency, for example by replacing copper with fibre optic; power plants and HVAC equipment renovation projects; using free cooling to cool with air directly from outside; shutting down legacy networks; implementing power-saving features in the access network, and reducing fuel consumption by implementing hybrid stations with photovoltaic solar energy.

Initiative category & Initiative type

Low-carbon energy consumption
Other, please specify
Renewable energy purchase

Estimated annual CO2e savings (metric tonnes CO2e)

194,642

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3,525,210

Investment required (unit currency – as specified in C0.4)

1,215,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Title: renewable energy purchase. Description: In 2016 we established the Telefónica Renewable Energy Plan. To reach the point of decarbonisation of the Company, not only do we need maximum efficiency in energy usage but we also need the energy to come from renewable sources. In 2020, 100% of our electricity in Europe, Brazil, and Peru and 87.5% worldwide comes from zero-emissions sources.
The Plan includes all types of solutions —self-generation, the purchasing of renewable energy with a guarantee of origin, and long-term agreements (Power Purchase Agreements - PPA)— and prioritises non-conventional renewable electricity sources.
In 2020, we continued our ambitious distributed generation project in Brazil; this will enable new renewable energy plants
to be built throughout the country, covering 42% of our electrical consumption and thus reducing dependence on iREC guarantee of origin (GOO).
Thanks to the extension of GOO programmes in LatAm, countries such as Chile, Colombia, and Peru managed to certify 29%, 61%, and 100% respectively of their electricity consumption.
In addition, in Spain, we managed to sign the first long-term renewable energy purchase agreement (wind power) to
supply 100 GWh of clean energy per year for 10yrs.
In 2020, a total of 4,918 GWh of our electricity consumption came from renewable sources. This enabled us to avoid the emission of around 911,070 tonnes of CO2.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	To reduce the carbon footprint, reduce operational costs and provide services at attractive prices, Telefónica assesses, defines, and implements projects with CAPEX dedicated for energy efficiency (since financial indicators suggest that the project is attractive). Examples of indicators that we use: - The Net Present Value (NPV), that determines when an investment complies with the basic financial objective of maximizing the investment. If the NPV is positive it means that the project is viable. -Payback: this is a KPI for the company to get an idea of the time it takes to recover the payment on an investment.
Financial optimization calculations	In 2020 Telefónica managed to continue implementing projects under a disruptive business model called Energy Savings as a Service (ESaaS); this totally changes the way we optimise our infrastructure and is based on an agreement with a specialised supplier who designs the solution, invests, operates, maintains and ensures savings. The actions encompass a number of different initiatives and the

	service is paid for by sharing the savings generated thanks to the measures implemented. We also implemented a disruptive model in Colombia, using the Battery as a Service (BaaS) model, which enables us to reduce fuel consumption and pay with the savings achieved. This project will enable us to increase the autonomy of the batteries at 170 sites and will reduce diesel consumption by more than 70%. This means a saving of nearly 500,000 litres of diesel a year, reduced maintenance costs, and greater availability for customers.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

Our digital and connectivity services —based on one of the most efficient and cleanest telecommunications networks in the sector— enable our customers to optimise their consumption of resources such as energy and water; they facilitate remote working; they improve traffic planning and air quality in cities, and they promote the circular economy.

CONNECTIVITY SERVICES:
We are committed to digitalisation as a tool for protecting the planet. Our networks form the basis of the connectivity and other digital solutions we offer our customers. This is why our sustainability strategy focuses on transforming them so that their capacity can always increase efficiently. This enables us to offer the best services with the least environmental impact.
Within this transformation, we have focused on fibre optics as a replacement for copper – a shift geared towards improving the capacities of our customers at a technological level and one that consumes 85% less energy as well. It is with this same vision that we are executing the transformation at the core of the communications network, making it more sustainable through two crucial tools: consumption of renewable energy and energy efficiency.
Thanks to this, we can offer one of the sector's most sustainable networks as a basis from which to expand the digital economy, thereby strengthening its benefits to the environment and assisting the transition to a decarbonised society
Based on this connectivity, we offer digital solutions as products. These include

broadband, fiber, and Digital Work Place, Cloud, IoT, and Big Data solutions.
In addition, the inclusion of the technological capacities of blockchain in many of the use cases mentioned above leads to improvements in traceability, transparency, and security, enabling faster and more efficient forms of doing things. An example of this is its application in the areas of document management (for example, eliminating the use of paper when managing invoices, official certificates, contracts, and so on), and logistics (providing complete traceability of foods or medication, in manufacturing and throughout the supply chains of all types of goods, etc.), thus boosting the circular economy.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Methodology developed by the Carbon Trust (an expert partner supporting businesses in realising ambitious plans for a sustainable, low carbon future)

% revenue from low carbon product(s) in the reporting year

2.5

Comment

In general, to calculate the total avoided emissions the methodology follows the following general principle:
Carbon abatement = volume x carbon abatement factor
This volume factor is either the number of relevant M2M connections, or another factor such as the number of devices, or the number of people using the service. The chosen methodology also takes into consideration rebound effects that arise from utilising the respective connections, and methodologies are designed to ensure that there is no additionality or double counting across categories.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

297,042

Comment

Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard.

Scope 2 (location-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

2,066,340

Comment

Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard.

Scope 2 (market-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO2e)

1,615,146

Comment

Telefónica calculates and verifies its emissions according to the GHG Protocol and ISO 14064 standard.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

212,682

Start date

January 1, 2020

End date

December 31, 2020

Comment

Our Scope 1 emissions come from two main sources: fuel consumption of our fleet and power generators, and the fugitive emissions from refrigerant gases used in air-conditioning units in our network.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

237,620

Start date

January 1, 2019

End date

December 31, 2019

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

252,937

Start date

January 1, 2018

End date

December 31, 2018

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

295,622

Start date

January 1, 2017

End date

December 31, 2017

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

In 2016 we established the Telefónica Renewable Energy Plan, with the goal of consuming 100% of electric energy from renewable sources by 2030.

As a result in 2020, 87.5% of our electricity consumption is renewably sourced. This, added to our energy efficiency projects, has allowed us to reduce our Scope 2 emissions by 194.642 tonnes of CO2 equivalent.

To reach the point of decarbonisation of the Company, not only do we need maximum efficiency in energy usage but we also need the energy to come from renewable sources.
To do this, Telefónica has a Renewable Energy Plan, whereby 100% of our electricity in Europe, Brazil, and Peru and 87.5% worldwide comes from zero-emissions sources. Our goal is to go further than 100% in our main markets and achieve 100% in HispAm in 2030 or even before. By "further than 100%", we are referring to our endeavors to contribute to increasing the renewable energy mix in the countries in which we operate, through self-generation or by fostering the construction of new parks, facilitated by our medium and long-term consumption commitments.

The Plan includes all types of solutions —self-generation, the purchasing of renewable energy with a guarantee of origin, and long-term agreements (Power Purchase Agreements - PPA)— and prioritises non-conventional renewable energy sources.
In 2020, we continued our ambitious distributed generation project in Brazil; this will enable new renewable energy plants to be built throughout the country, covering 42% of our electrical consumption and thus reducing dependence on iREC guarantees of origin.

Thanks to the extension of guarantee of origin programmes in Latin America, countries such as Colombia, Chile, and Peru managed to certify 61%, 29%, and 100% respectively of their electricity consumption,.

In addition, in Spain, we managed to sign the first long-term renewable energy purchase agreement (wind power) to supply 100 GWh of clean energy per year for 10 years,.

In 2020, a total of 4,918 GWh of our consumption came from renewable energy. This enabled us to avoid the emission of around 911,070 tonnes of CO2, which demonstrates that renewable energies are key to achieving the decarbonisation of our activity and reducing our carbon footprint in absolute terms.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

1,396,941

Scope 2, market-based (if applicable)

530,684

Start date

January 1, 2020

End date

December 31, 2020

Comment

Scope 2 emissions, from electricity consumption, are the most significant in our business.

Past year 1

Scope 2, location-based

1,650,417

Scope 2, market-based (if applicable)

725,326

Start date

January 1, 2019

End date

December 31, 2019

Comment

Past year 2

Scope 2, location-based

1,836,464

Scope 2, market-based (if applicable)

923,719

Start date

January 1, 2018

End date

December 31, 2018

Comment

Past year 3

Scope 2, location-based

1,759,281

Scope 2, market-based (if applicable)

1,059,796

Start date

January 1, 2017

End date

December 31, 2017

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

994,237

Emissions calculation methodology

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Purchased goods and services is one of the most important categories, representing around 52% of our scope 3 emissions.

In the perimeter of this category, we include 100% of the total purchase volume of Telefónica, covering all the product lines of Telefónica Corporate Procurement Department: Services&Works, Market Products (B2B2C, Information systems, Advertising/Marketing, and Mobility. The following purchasing categories are not accounted as Purchased goods and services to avoid double accounting: Network Infrastructure procurement (accounted in Scope 3 Cat 2) Energy procurement (accounted in Scope 3 Cat 3), Business travel (accounted in scope 3 Cat 6). For this category emissions are calculated using a hybrid approach, using product emissions from Life Cycle Assessment (LCA) studies for purchased products (cradle to gate emissions) where it is available. When LCA is not available we calculate the proportion of the reported suppliers' scope 1 and 2 emissions that correspond to Telefónica's spend with those suppliers.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

89.4

Please explain

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

76,964

Emissions calculation methodology

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Capital Goods is one of the most important categories, representing 4% of our scope 3 emissions. In the perimeter of this category, we include 100% of the acquisition volume of products classified by the Telefónica Corporate Procurement Department as Network Infrastructure. In this category emissions are calculated using a hybrid approach, using product emissions from Life Cycle Assessment (LCA) studies for purchased products (cradle to gate emissions) where it is available. When LCA is not available we calculate the proportion

of the reported suppliers' scope 1 and emissions that correspond to Telefónica's spend with those suppliers.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

45.8

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

154.42

Emissions calculation methodology

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Fuel-and-energy-related activities is one of the most important categories, representing 7.7% of our scope 3 emissions. In the perimeter of this category, we include 100% of the Energy Consumption of Telefónica. In this category we consider: a) Upstream emissions of purchased fuels b) Upstream emissions of electricity c) Transmission and distribution losses Upstream fuel and energy emissions are calculated by applying the relevant emission factors to the fuel and energy consumption data used in the scope 1 & 2 calculations. For this, we use DEFRA´s Well-to-tank (WTT) emission factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

80

Please explain

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

These emissions have already been included in categories 1 and 2 of our scope 3

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Waste generated in operations emissions came from the disposal and treatment of waste generated as part of Telefónica Group´s operations. We carried out an estimation of these emissions by applying emission factors to the waste volumes generated by Telefónica and the results showed that this category is not relevant in terms of total emissions (less than 5%)

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

10,513

Emissions calculation methodology

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Business travel is not one of the most important categories, as it only represents 1% of our scope 3 emissions. However, for years we have been implementing plans and actions to reduce emissions in this category, so we consider it relevant to include it in the total of our scope 3. In this category we consider all different modes of travel (air, car, taxi, bus and train) as follows: Air - emission factors applied to distance travelled for different categories (short-haul, long-haul,). Emission factors used are from DEFRA and include radiative forcing. Bus – distance travelled by bus was calculated using a typical annual distance per employee, multiplied by the number of employees who travel for business. Total distance was then converted to emissions using the emission factor for an average local bus. Train – distance travelled by train was calculated using a typical annual distance per employee, multiplied by the number of employees who travel for business. Total distance was then converted to emissions using the emission factor for national rail.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Employee commuting

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. These emissions stem from Telefónica's employees' travel between home and work during the reporting period. These trips are made in vehicles not owned or controlled by Telefónica. We carried out an assessment of these emissions in one of the countries in Telefónica and it is not relevant in terms of total emissions. (less than 5%).

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica leases space for network infrastructure sharing, but we have the operational control of the energy bill, so the emissions arising from electricity consumption at those sites have already been included in Scope 2.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. These emissions stem from Downstream T&D of sold products in vehicles and facilities not owned or controlled by Telefónica are not material. We carried out an assessment of these emissions in one of the countries in Telefónica and it is not relevant in terms of total emissions (less than 5%).

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

This category is not applicable to Telefónica Group. Typically, Telefónica Group does not manufacture products and does not sell intermediate products, therefore there are no emissions from further downstream processing of products.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

673.188

Emissions calculation methodology

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. Use of Sold Products is one of the most important categories, representing 35% of our scope 3 emissions. In the perimeter of this category, we include the end-use of goods and services sold in the reporting year (mobile phone handsets and other devices sold), as well as those installed in customers´ premises (such as routers, set-top boxes, etc). For this category, emissions are calculated by multiplying the number of products sold and installed by the energy usage for that product category over its lifetime and by the electricity emission factor for the country. The product categories include routers, smartphones, mobile phones, set-top boxes, and others.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

90

Please explain

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. These emissions stem from the waste disposal and treatment of products sold by the reporting company at the end of their life. We carried out an assessment of these emissions in one of the countries in Telefónica and it is not relevant in terms of total emissions. (less than 5%).

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Main downstream leased assets are office buildings and space in data centers. These emissions are already accounted for in our scope 1 and 2 emissions as we have operational control of these assets and we pay for the energy consumed. For example, Telefónica leases space for virtual hosting & cloud computing services in our data centers.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order to have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. In this category, emissions stem from the operation, during the reporting period, of the different franchises owned by Telefónica. We carried out an assessment of these emissions and it is not relevant in terms of total emissions. (less than 5%).

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Telefónica has estimated the emissions of the 15 categories included in the GHG Protocol Scope 3 Standard in order have a comprehensive view of the total Scope 3 emissions related to its business lines in all the geographies. This has allowed us to identify the most relevant categories for our activity. In this category we consider the emissions stem from entities that Telefónica has an equity share in but does not have operational control of. We carried out an assessment of these emissions and it is not relevant in terms of total emissions. (less than 5%).

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	9.695	

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000017257

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

743,366

Metric denominator

unit total revenue

Metric denominator: Unit total

43,076,000,000

Scope 2 figure used

Market-based

% change from previous year

13.2

Direction of change

Decreased

Reason for change

In 2020, our revenue totalled 43,076 million euros.

The COVID-19 pandemic significantly affected the Group throughout the year 2020, as lockdowns imposed across the Group's markets put unprecedented pressure on both its B2C and B2B segments.

In 2020, the estimated negative impact of the COVID-19 pandemic on the Group's revenue performance amounted to 1,905 million euros, mainly related to a decrease in service revenues (-1,450 million euros) and handset sales (-456 million euros). With regards to service revenues, there were lower roaming revenues and commercial activity in the B2C segment, along with project delays and lower SME revenues which affected the performance of the B2B segment.

Our intensity figure has decreased 13.2% because our scope 1 and 2 emissions have decreased 219.580 tCO2e, even that our revenues (denominator), have reduced by 11%. The decrease of our emissions has been possible thanks to our Energy Efficiency Plan. In 2020 under this plan we carried out 173 initiatives in our networks and offices reducing energy consumption by 192 GWh. These efforts are reflected in the 80.9% improvement of our energy-intensive ratios (MWh/PB) since 2015, which shows the decoupling of our business growth from energy consumption. Moreover thanks to Renewable Energy Plan, in 2020, 87.5% of our electricity consumption is renewably sourced (considering electricity directly purchase). This has allowed us to reduce our Scope 2 emissions by 194642 tonnes of CO2 equivalent.

Intensity figure

8.5

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

743,366

Metric denominator

Other, please specify

unit of service provided petabyte (Traffic)

Metric denominator: Unit total

87,770

Scope 2 figure used

Market-based

% change from previous year

46.9

Direction of change

Decreased

Reason for change

Our intensity figure has decreased 46.9% because our scopes 1 and 2 emissions have decreased 213,710 tCO2e but also because in 2020 traffic has increased 45.3% over the past year. The services that Telefónica offers are subject to continuously growing demand, not only in connectivity but also in data traffic which is increasing exponentially. The decrease of our emissions has been possible thanks to our Energy Efficiency Plan. In 2020 under this plan we carried out 173 initiatives in our networks and offices reducing energy consumption by 192 GWh. These efforts are reflected in the 80.9% improvement of our energy-intensive ratios (Mwh/PB) since 2015, which shows the decoupling of our business growth from energy consumption. Moreover thanks to Renewable Energy Plan, in 2020 87.5% of our electricity consumption is renewably sourced (considering electricity directly purchased). This has allowed us to reduce our Scope 2 emissions by 194.642 tonnes of CO2 equivalent.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	67,826	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	146	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	78	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	144,632	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United Kingdom of Great Britain and Northern Ireland	3,043
Germany	5,623
Spain	32,103
Mexico	7,721
Central America	47
Colombia	12,689
Peru	5,621
Ecuador	1,686
Venezuela (Bolivarian Republic of)	16,848
Chile	8,488
Argentina	38,823
Uruguay	558
Brazil	78,876

United States of America	279
Puerto Rico	232
Bolivia (Plurinational State of)	3
Dominican Republic	41

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Operational Business, this includes all telecom operators in all our countries.	204,256
Infrastructure Business, it includes our telecom infrastructure business (Telxius) in all countries.	8,426

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United Kingdom of Great Britain and Northern Ireland	135,634	63,098	581,872	400,296
Germany	285,695	20,201	715,942	678,568
Spain	322,851	46,428	1,616,530	1,464,316
Mexico	150,275	108,407	297,575	82,907
Central America	642	596	1,856	114
Colombia	36,377	15,323	284,889	164,884
Peru	54,805	6,562	277,215	244,024
Ecuador	9,901	9,901	62,269	0

Venezuela (Bolivarian Republic of)	35,557	35,557	113,275	0
Chile	101,792	73,906	267,177	73,191
Argentina	147,319	147,319	489,432	0
Uruguay	396	396	25,233	0
Brazil	113,148	442	1,812,977	1,805,898
United States of America	1,485	1,485	3,874	0
Puerto Rico	308	308	860	0
Bolivia (Plurinational State of)	51	51	145	0
Dominican Republic	704	704	1,258	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Operational Business, this includes all telecom operators in all our countries.	1,327,045	479,283
Infrastructure Business, it includes our telecom infrastructure business (Telxius) in all countries.	69,896	51,401

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	194,642	Decreased	20.2	Thanks to renewable energy Plan our renewable electricity consumption has increased by 281,718 MWh, this means an increase of 37% with respect to 2019, This results in a reduction of 194,642 tCO2e of our Scope 2 Market-based, Through these activities we reduced our emissions by 194,642 tCO2e, and our total S1 and S2 emissions in the previous year were 962,946 tCO2e, therefore we arrived at -20,2% through (-194,642 /962,946) * 100 = -20,2%) (i,e, an 20,2%) decrease in emissions).
Other emissions reduction activities	24,938	Decreased	2.6	In 2020, thanks to the cooling projects implemented, and the old refrigeration equipment replaced with new more efficient equipment which uses refrigerant gases with lower GWP, we reduced the leakage of refrigerant gases in our operations and also reduced our maintenance costs, Additionally, in 2020 we have implemented Energy Efficiency Projects aimed to reduce fuel consumption in operations and vehicles, that led us to a reduction of 67,931 MWh, This results in a reduction of 24,938 tCO2e of our Scope 1, Through these activities we reduced our emissions by 24,938 tCO2e, and our total S1 and S2 emissions in the previous year were 962,946 tCO2e, therefore we arrived at -3,11% through (-24,938 / 962,946) * 100 = -2,6% (i,e, an 2,6% decrease in emissions).
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		

Change in output	0	No change		
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other	0	No change		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 10% but less than or equal to 15%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No

Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	30,803	276,369	307,173
Consumption of purchased or acquired electricity		4,914,198	1,629,778	6,543,977
Consumption of purchased or acquired heat		0	8,403	8,403
Consumption of self-generated non-fuel renewable energy		4,175		4,175
Total energy consumption		4,949,176	1,914,551	6,863,728

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Biodiesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
71

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
71

Emission factor
2.499

Unit
kg CO2 per liter

Emissions factor source
GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

Fuels (excluding feedstocks)
Bioethanol

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
30,732

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
30,732

Emission factor

1.469

Unit

kg CO2 per liter

Emissions factor source

GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

175,802

MWh fuel consumed for self-generation of electricity

130,359

MWh fuel consumed for self-generation of heat

45,442

Emission factor

2.676

Unit

kg CO2 per liter

Emissions factor source

GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

24,128

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

24,128

Emission factor

1.885

Unit

kg CO2 per liter

Emissions factor source

GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5,274

MWh fuel consumed for self-generation of electricity

5,274

MWh fuel consumed for self-generation of heat

0

Emission factor

1.611

Unit

kg CO2 per liter

Emissions factor source

GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

71,166

MWh fuel consumed for self-generation of electricity

2,067

MWh fuel consumed for self-generation of heat

69,099

Emission factor

2.272

Unit

kg CO2 per liter

Emissions factor source

GHG Protocol Emission Factors from Cross-Sector Tools (March 2017)

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4,175	4,175	4,175	4,175
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Other, please specify

Solar PV; Concentrated solar power (CSP); Wind; Hydropower; Biomass (including biogas)

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Spain

MWh consumed accounted for at a zero emission factor

1,464,135

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In Europe, given the maturity of the energy market, the strategy is based on the acquisition of Guarantees of Origin.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Solar PV; Concentrated solar power (CSP); Wind; Hydropower; Biomass (including biogas)

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Germany

MWh consumed accounted for at a zero emission factor

678,568

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In Europe, given the maturity of the energy market, the strategy is based on the acquisition of Guarantees of Origin.

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Other, please specify

Solar PV; Concentrated solar power (CSP); Wind; Hydropower; Biomass (including biogas)

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United Kingdom of Great Britain and Northern Ireland

MWh consumed accounted for at a zero emission factor

400,296

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In Europe, given the maturity of the energy market, the strategy is based on the acquisition of Guarantees of Origin.

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Other, please specify

Solar PV; Wind; Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

1,269,819

Comment

All the electricity consumption of our operation in Brazil, apart from PPAs, is supported by Energy attribute certificates, I-RECs.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

Low-carbon technology type

Other, please specify

Solar PV; Concentrated solar power (CSP); Wind Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

468,482

Comment

The Brazilian energy sector is partially liberalized as a consequence of some regulations changes. This liberalized market is only available for industry and commerce and is incentivized and supported by renewable energy sources. So, all the electricity available in this incentivized and liberalized market, comes from renewable sources but it is not supported by energy attribute certificates. This market only incentivizes energy from renewable sources: Solar PV, Wind, etc.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

Low-carbon technology type

Other, please specify

Solar PV, MiniHydro, Wind

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Brazil

MWh consumed accounted for at a zero emission factor

67,598

Comment

Thanks to a new regulation in the energy market of Brazil, it is permitted to sign long-term contracts with renewable energy generators connected to the grid (Distributed Generation), All the electricity generated under this scheme comes from renewable sources (Solar PV, MiniHydro, and Wind)

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Solar

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Mexico

MWh consumed accounted for at a zero emission factor

82,907

Comment

Since 2018 the largest solar park in the country started supplying our operation in Mexico, thanks to a PPA signed between Telefónica and the solar power generation company. This solar park will supply 40% of the power consumed by Telefónica Mexico over the next 20 years.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Peru

MWh consumed accounted for at a zero emission factor

244,024

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In some countries of Latin America, it is possible, because of the energy market, to acquire electricity bundled with energy attribute certificates.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Colombia

MWh consumed accounted for at a zero emission factor

164,884

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In some countries of Latin America, it is possible, because of the energy market, to acquire electricity bundled with energy attribute certificates.

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Other, please specify

Solar PV, Wind, Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Chile

MWh consumed accounted for at a zero emission factor

73,191

Comment

The energy purchasing strategy established in the Renewable Energy Plan is put into effect in several different ways. In some countries of Latin America, it is possible, because of the energy market, to acquire electricity bundled with energy attribute certificates.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

DECLARACION TELEFONICA GLOBAL EN 2020 VF_signed.pdf

Page/ section reference

The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2020, so all the document is relevant, The specific data on emissions are on pages 4 and 5

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

DECLARACION TELEFONICA GLOBAL EN 2020 VF_signed.pdf

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Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

DECLARACION TELEFONICA GLOBAL EN 2020 VF_signed.pdf

Page/ section reference

The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2020, so all the document is relevant, The specific data on emissions are on pages 4 and 5

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3 (upstream & downstream)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

DECLARACION TELEFONICA GLOBAL EN 2020 VF_signed.pdf

Page/section reference

The attached document is the Verification Statement of AENOR for Telefónica on the Inventory of greenhouse gas emissions corresponding to the year 2020, so all the document is relevant, The specific data on emissions are on pages 4 and 5

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year change in emissions (Scope 1 and 2)	ISO 14064	According to the GHG Emissions Inventory Report describes the results of Energy and GHG emissions assessment including the year on year change emissions (Scope 1 and 2), Therefore, this information is verified in the ISO 14064 verification process,
C4. Targets and performance	Year on year change in emissions (Scope 3)	ISO 14064	AENOR has verified our scope 3 emission data, including the year on year change emissions and the reporting year,
C4. Targets and performance	Progress against emissions reduction target	AA1000AS	PWC has verified this indicator under AA1000AS standard in our Integrated Report,
C6. Emissions data	Year on year emissions intensity figure	AA1000AS	PWC has verified this indicator under AA1000AS standard in our Integrated Report,
C8. Energy	Other, please specify (Energy and Renewable Electricity %) Energy data and year on year change in energy consumption and percentage of renewable energy consumption.	ISO 14064	According to the GHG Emissions Inventory Report describes the results of Energy and GHG emissions assessment including the year on year change emissions (Scope 1 and 2), Therefore, this information is verified in the ISO 14064 verification process,

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

Cikel Brazilian Amazon REDD APD Project Avoiding Planned Deforestation
The CIKEL Brazilian Amazon REDD APD Project aims to avoid emissions from planned deforestation on a property in Paragominas Municipality, Para State, Brazil. The project has a positive social impact on the local community as it provides employment as well as schools and improved medical facilities.

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

21,308

Number of credits (metric tonnes CO2e): Risk adjusted volume

21,308

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

Project REDD+ Jari/Pará - VCS

Jari Valley covers several productive activities – from forest management to sustainable agriculture and extractivism – being a region of great social and environmental importance, and constantly threatened by human activity. Jari Group's properties are located in this context and have great regional importance. Aiming to curb the constant threats towards the area, the Amapá & Pará REDD+ Projects seek to promote qualification of the sustainable forest management and agroextractivism productions, promoting the well-being of the communities and turning them into partners for the maintenance of the forest resources.

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

50,075

Number of credits (metric tonnes CO2e): Risk adjusted volume

50,075

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

GREEN FARM DAP REDD+GF, register in the PNBSAE (Business Platform in Environmental and Ecosystem Goods and Services of Mato Grosso): Reforestation of Locally Occurring Native Species in Degraded Atlantic Forest Areas, at the Porto Bonito Farm, for the production of wood for energy and industrial and Green Farm Carbon Credits.

Verified to which standard

Other, please specify

MRV Green Farm Rapid Inventory Methodology for Generation of Forest Carbon Credits in Reforestation and/or Revegetation of Native Species for the Production of Timber Forest Products – PFM in Forest Areas of Rural Properties REDD+GF

Number of credits (metric tonnes CO2e)

3,255

Number of credits (metric tonnes CO2e): Risk adjusted volume

3,255

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit purchase

Project type

Transport

Project identification

GREEN FLEET VALECARD, register in the PNBSAE (Business Platform in Environmental and Ecosystem Goods and Services of Mato Grosso): Substitution of fossil fuel for renewable fuel

Verified to which standard

Other, please specify

Other: MRV Methodology for Generating Carbon Credits to Reduce GHG Emissions Using Ethanol in the Corporate Light Fleet v. 1.0

Number of credits (metric tonnes CO2e)

3,463

Number of credits (metric tonnes CO2e): Risk adjusted volume

3,463

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope

Scope 1
Scope 2

Application

Deriving from our commitment to achieving net zero emissions, we use an implicit carbon price based on the price of the carbon credits purchased in each region, which helps us to make investment and equipment purchase decisions so as to move towards being a net zero emissions company.

Actual price(s) used (Currency /metric ton)

10

Variance of price(s) used

This is the first year we are implementing an internal carbon price. Ongoing adjustments will result in more accurate forecasts and follow up of our objectives and targets.

Type of internal carbon price

Implicit price

Impact & implication

This is the first year we have introduced a carbon price in the organisation to inform our decisions relating to emissions reduction and energy efficiency initiatives. In this first year, the carbon price has been used as a pilot in our Brazil operations, and the idea is to extend it to the rest of our geographies. Although this is the first year, we have implemented this practice, a number of impacts have already been noted. For instance, Telefónica Brazil includes in the fleet contracting model a requirement to offset through certified absorption projects the emissions generated by the use of rental vehicles. On the one hand, this makes the fleet they put into operation less polluting (use of biofuels), and on the other, it is included as a criterion at the time the contract is awarded.

Decarbonization is a strategic pillar for us and consequently the process of strategic and industrial planning assesses the impact of the carbon price on operations and on short-, medium - and long-term investment decisions. It supports our efforts to:
• Align our investment strategy with our newly established Net Zero goals.
• Accelerate reduction of GHG emissions; drive investment in energy efficiency initiatives, renewable energy procurement, R&D of low-carbon products/services
• Generate revenue to re-invest in low-carbon activities

In this regard, our strategy is focused, on the one hand, on increasing our use of renewable energy and, on the other, an increase in the energy efficiency of our operations. In the process of implementation of our strategy, carbon price is a key tool that allow us making better informed decisions on capital expenditure, procurement and also to assess the efficiency of our operations with the carbon cost in mind.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

0.3

% total procurement spend (direct and indirect)

32

% of supplier-related Scope 3 emissions as reported in C6.5

67

Rationale for the coverage of your engagement

In 2019, we developed a supplier engagement programme with key suppliers, which was extended in 2020 to cover a greater portion of our supplier base. These suppliers have been selected based on the following criteria:

- % of their emissions contribution to our Scope 3
- % of spending
- Degree of maturity in its management of climate change
- Strategical importance for Telefónica

The suppliers included in this program represent 66% of the Category 1&2 of our Scope 3 and 37% our total Scope 3 emissions. The emissions covered by the suppliers in this

programme are included in our Scope 3 reduction targets - to reduce 39% our absolute emissions.

Impact of engagement, including measures of success

Our supplier engagement programme has the objective of collecting primary information from our suppliers in order to understand the level of maturity of their sustainability strategies and help them move forward in their Climate Change Management and to set more ambitious emission reduction targets.

The carbon maturity curve designed by Telefónica classify suppliers in 5 levels and identify actions and initiatives to be implemented by maturity level, to ensure the engagement approach is tailored to the different stage of maturity that our suppliers may be in, thus ensuring no supplier is left behind and no supplier feels they no longer need to act on their climate impact (for Level 5 suppliers)

Within this program we have organized a series of workshops to educate suppliers on climate change, inspiring them to take actions and to establish a forum of best practices and a space to encourage innovation and reduce carbon emissions via a commitment to a series of pledges contributing to our Scope 3 target. For instance, our suppliers committed via these pledges to taking actions related to the carbon journey in fields that include Renewable Energy purchase, Energy Efficiency Projects, Emissions Targets validations (SBT) and switch to lower emissions vehicles, amongst others.

We measure the success of the engagement through two main KPIs: % of participation as a consequence of the engagement and % of companies committed with a pledge. We would consider this engagement to be successful if both the % participation and the % of committed companies is over 50% of total invited suppliers. This programme is ongoing and 84% of the invited companies have already participated, satisfying the impact of engagement criteria that we were pursuing.

We consider this initiative to be a success because not only 84% of the invited suppliers participated (widely surpassing our 50% initial target) but also because they represent 66% of the emissions for categories 1&2 of our scope 3. With regards to the pledges, 72% of the suppliers committed to a pledge, which is above our initial expectations of 50%. Due to these results, we consider this initiative to be a great success and are further developing the programme, developing a reward scheme in 2021 to ensure continuous engagement.

Comment

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

Code of conduct featuring climate change KPIs
Climate change is integrated into supplier evaluation processes

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

% of supplier-related Scope 3 emissions as reported in C6.5

100

Rationale for the coverage of your engagement

We are aware of the opportunities during the acquisition process to minimise their impact on the environment. Hence within our Global Supply Chain Sustainability Policy (SCSP) https://www.Telefónica.com/en/web/responsible-business/our-commitments/supply-chain , we have incorporated environmental, incl. CC & circular economy criteria, such as the compulsory incorporation of preventive measures & LCAs when supplying products/services.

Any company that wishes to be our supplier must accept the minimum requirements established by the SCSP in the registration&renewal processes. If a supplier does not meet the required standards or is not able to provide the info, we initiate the necessary processes to secure a commitment to implement improvement plans.

The minimum standards related with CC included in our SCSP are:
(i) CC: the supplier will minimize their impact on CC considering their entire supply chain (scopes 1,2&3). They should work to reduce its GHG emissions by setting reduction targets for the next 3 yrs, which should, as far as possible, be science-based. To this end, they will promote EE & RE initiatives in their own activities & will support any requests for data on emissions/energy relevant to the products & services they provide to Telefónica.
(ii) Consumption of materials, resources & atmospheric emissions: The supplier shall use eco-efficient criteria in the development of its activity, especially with respect to scarce resources such as water or non-renewable resources.
(iii) Cooling gases: The supplier shall not supply equipment containing ozone-depleting gases (such as CFC or HCFC), nor shall it refill it with these gases, unless expressly authorised by Telefónica. In the offers, gases with a lower Global Warming Potential (PCG or GWP) will always be prioritised. For maintenance works on cooling equipment, the leakage of these gases into the atmosphere must be prevented in all cases. The supplier must also have a record of the amount (in kgs) of each type of gas refilled. This information must be reported quarterly to us.
(iii) Other related issues like "Life cycle & preventive action" can be seen online. In the evaluation process we focus on those suppliers that are the most significant due to their level of risk & the impact they have on our business objectives, including CC.

We have two main tools: JAC (Joint Audit Cooperation) & ECOVADIS.

Impact of engagement, including measures of success

Sustainability in the supply chain has become a key issue in the telco sector, since companies share more & more parts of the value chain with our suppliers & outsourcers. When facing CC, we need to engage our supply chain from the very beginning & for that we have included the Minimum Responsible Business Criteria in our Supply Chain Sustainability Policy.

Measures of success:
- % of suppliers accepting our minimum responsible business criteria
- % of suppliers evaluated via the ECOVADIS tool

Impact:
- 100% of our suppliers have accepted to conduct their activities in line with ethical standards that are similar to ours, guaranteeing compliance with all human & fundamental labour rights, & fostering protection of the environment. The success of the engagement strategy is high, because all our suppliers have to meet our minimum environmental criteria included in our Supply Chain Sustainability Policy (e.g. GHG emission reduction targets).
- Additionally, suppliers accounting for 68% of the risk suppliers identified in our global risk analysis were evaluated via the ECOVADIS tool which includes Climate Change aspects in the evaluation process.
In 2020, we also received recognition for our transparency & commitment to customers as regards climate change, obtaining an A rating in the CDP Supply Chain Climate.

Moreover we include the reduction of carbon as an additional criteria to award a contract, requesting an active reduction plan, or a proposal regarding this subject, from our suppliers. Indeed, in our main procurement contracts in the UK, the reduction of carbon is one more aspect in the evaluation of offers. We continued to ask our suppliers for contractually agreed carbon reduction programs or plans to establish them in our major contracts.

These programs are another step towards reaching the goal set out to reduce the emissions of our supply chain – 39% absolute emissions reductions by 2025 (2016 levels).

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

77

% of customer - related Scope 3 emissions as reported in C6.5

42

Please explain the rationale for selecting this group of customers and scope of engagement

Telefónica works to make its customers aware of the climate change impact by providing information on this topic on our web, blog, social networks, etc, We have also in place specific campaigns focused on the products and services we offer our customers. The most relevant for 2020 was Eco Rating.

When purchasing a new telephone, our customers can consult the Eco Rating of the different handsets in the catalogue. This is a seal that rates the device's environmental sustainability level. The score is based on a methodology that assesses the environmental impact of the life cycle of the devices, including indicators such as global warming (GHG emissions), energy consumption, the use of raw materials, and ease of recycling.
A classification is given on the basis of 100 criteria which assess the impact on the environment of the life cycle of the devices, including indicators such as global warming, the use of raw materials, or their ease of recycling, The final score is represented on a scale of 1 to 5 (1 being the lowest score and 5 being the highest), with one decimal point,

This initiative allows the customers to make informed purchasing decisions when buying new phones, taking environmental and climate change criteria into account, This initiative also allows us to work with our suppliers, since this information serves to encourage innovation and implementation of the most environmentally friendly practices throughout the production cycle and with our peers, to drive good practices across the industry,

We have implemented this initiative in 10 countries of strategic importance to Telefónica,

Impact of engagement, including measures of success

Measures of success: We inform our customers about the score of their devices on the Eco Rating scale and offer them the possibility of choosing a more sustainable option within their purchasing criteria, We use as a measure of success of the initiative the % of Telefónica's portfolio of devices that currently have an Eco Rating score and the average score of our devices portfolio, We would consider the initiative to be successful if more than 50% of our portfolio had been rated and the average score is over 3,
Impact: We consider the success of the engagement strategy to be high due to the fact that in 2020, we managed to obtain the Eco Ratin seal for 86% of our portfolio (

(significantly higher than the target of 50%), with an average score is 3,2 out of 5 (above the threshold established by Telefonica as a success), In 2020, we have provided information about the Eco Rating of our devices in 10 countries. This information serves to foster innovation and the implementation of the most favorable practices for the environment throughout the production cycle, and especially among our suppliers.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

Other

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Telefonica is member of the Board of the Spanish Green Growth Group.
http://grupocrecimientoverde.org/

This business association was created to promote a green development, facilitate public-private agreement and advance collaboration in environmental challenges we face today, mainly climate change.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Spanish Green Growth Group comprises a group of companies in Spain which aim to convey to society and government their vision of an economic growth model that is compatible with the efficient use of natural resources.

Social and environmental sustainability is essential to ensure the economic sustainability of the business, and it is something that our stakeholders (shareholders, clients and suppliers) are demanding. We understand that the response to this demand must be shared with other players, particularly with the government.

This approach inspires us to define a Green Growth model for Spain and identify our

country's potential and the necessary conditions for it to be realised. A model which is compatible with the ultimate goal of economic growth and job creation. Green Growth is linked to those economic activities which help preserve the quality of our environment, primarily through the efficient use of resources.

Efficient use means working together to protect biodiversity, the quality of air, soil, and water and, of course, reduce greenhouse gas emissions linked to climate change.

The debate on climate change at a national and international level makes us keenly aware of the need to publicly position ourselves and to implement initiatives in our companies to analyse the climate footprint and adopt abatement and offsetting measures. Working together to achieve emission reduction targets must be perceived as a task shared by citizens, companies, and also the public administrations.

The goal is to respond to the challenge of sustainable development, a concept that is currently the subject of discussion in many international forums, inspiring policies in developed and emerging countries. It is a concern that will lead to demand for new goods and services, in which public-private partnerships will be essential. The world must evolve towards a low carbon economy. In view of this challenge, the economies that lead the transformation will be the first to leverage the opportunities that green growth is already beginning to provide. Spain's business sector has an enormous opportunity to position itself and to lead the change in the growth model, in Spain and around the world.

See the complete text of the statement: http://grupocrecimientoverde.org/wp-content/uploads/2016/05/declaracion_barcelona_vf_en.pdf

How have you influenced, or are you attempting to influence their position?

Telefonica is part or the Board of this association and we participate in public debates and interviews to promote the vision and mission of it.

Trade association

GSMA (Groupe Special Mobile Association)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers, and internet companies, as well as organisations in adjacent industry's sectors. The GSMA also produces industry-leading events such as Mobile World Congress. The GSMA plays an extremely important role in the development of the mobile industry, uniting the world behind a standard technology and ensuring seamless and interoperable mobile services for billions of consumers globally. Key programmes: The network 2020 programme is

focused on: The development and deployment of IP services, The evolution of the 4G networks in widespread use today, and the 5G Journey, developing the next generation of mobile technologies and service. Personal Data and Mobile Connect help operators manage consumers' digital identities across multiple online services, ranging from access to content and services on the web to more secure e-government and banking services. Industry Purpose's activities are a clear commitment to supporting the Sustainable Development Goals. As the first industry to align itself to the SDGs; the GSMA is stating a clear intention to contribute and advance the societies in which we operate. Industry Purpose works closely with the world's mobile operators who are all unified behind one common industry purpose: Connecting everyone and everything to a better future in achieving the Goals. GSMA Mobile for Development brings together our mobile operator members, tech innovators, the development community and governments, to prove the power of mobile in emerging markets. We identify opportunities and deliver innovations with socio-economic impact in financial services, health, agriculture, digital identity, energy, water, sanitation, disaster resilience, and gender equality.

How have you influenced, or are you attempting to influence their position?

Telefónica is part of the GSMA climate action programme which aims to work on a path to achieve net-zero GHG emissions by 2050 for the ICT sector. One of the most remarkable results of this task force is the guide "Setting Climate Targets", This ICT sectoral target-setting approach was developed through a collaboration between the Global Enabling Sustainability Initiative (GeSI), the GSMA, the International Telecommunications Union (ITU), and the Science-Based Targets initiative (SBTi). The methodology currently applies to mobile network operators, fixed network operators, and data centre operators exclusively, with the ICT sub-sector for equipment manufacturers to be added later in 2020. Overall, Telefónica is a key contributor to the GSMA: developing standards, leveraging ecosystems, engaging governments or other bodies.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Joint Audit Cooperation (JAC) is an initiative of telecom operators aiming to assess and develop the CSR performance (including climate change issues) on the manufacturing sites of strategic suppliers in the ICT industry. As for 2020, there were 17 telecom operators that have joined the JAC initiative.

JAC members cooperate beyond competition to ensure suppliers conform to CSR regulations mainly by using on-site audit verification. They share resources and best practices to develop long term Corporate Social Responsibility implementation in the different layers or tiers of the ICT Supply Chain globally.
After years of conducting CSR audits, JAC members decided to move to another level of cooperation and address the challenges of GHG emissions in the ICT industry.

To address this challenge, the Climate Change workstream was set, which aims to encourage JAC suppliers to take action towards CO2 emissions reductions of scope 3 emissions (categories 1 and 2). Telefónica is leading the JAC Climate Change taskforce.

In 2020 we assessed the climate-related maturity of the strategic suppliers of the 17 companies who are part of the conglomerate and began working along several different lines in order to increase their level of ambition, as well as providing training in collaboration with CDP and GSMA.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Telefónica has a Sustainable Energy Policy, a Sustainability Policy in the Supply Chain and a Climate Change and Energy Strategy that, all together, clearly define our priorities: reduce our own and our suppliers' carbon footprint and increase the sales of new digital services for a low carbon economy. One of the pillars of this strategy is policy advocacy and we recognise we have to work together with the sector to leverage the role of ICTs for climate change mitigation & adaptation. The work to situate Digitalisation on the top of the political agenda of climate change and environmental sustainability worldwide is our main objective in this policy influence. To achieve this and to be consistent with the global strategy we have established the following processes:

- Coordinate all activities through one single channel: The climate change & energy efficiency Office of Telefónica
- All participation in sectoral or industrial groups has to be approved by the Board to assure consistency with Telefónica policies
- Invest and collaborate in research and communication on ICTs, environmental sustainability, and climate change
- Participate in trade associations approved by the Board that help the implementation of Telefónica Sustainable Energy Policy and a Climate Change and Energy Strategy (i.e: Spanish Green Growth Group)
- Participate in standardization activities on ICTs and Climate Change (i.e: ITU)

Literally, commitments of our Sustainable Energy Policy:
All Telefónica Group companies undertake to:
1. Apply continuous energy improvement across the entire Company, through the systematic assessment of performance.
2. Set targets for energy consumption, carbon emissions, and renewable energy consumption on a global and local level, and provide the resources required for their achievement.
3. Move forward in the use of energy from renewable sources through the Telefónica Renewable Energy Plan, with the goal of consuming 85% of electricity from renewable sources by 2025 and 100% by 2030
4. Establish common standards of energy management, share best practices and gradually implement energy management systems that contribute to reducing their consumption and optimise the efficiency of processes.
5. Ensure compliance with current legislation pertaining to energy and other commitments to which the organisation subscribes.

6. Gradually incorporate criteria for the internalisation of the cost of energy and carbon, such as the Total Cost of Ownership (TCO) as well as the measurement of emissions in our supply chain. Actively collaborate with the supply chain in order to promote moving forward in our commitments and energy standards.
7. Communicate this policy and the energy performance of the Company, as well as having our performance verified by an external entity.
8. Cooperate with other entities towards a low-carbon economy, i.e. through the exchange of good practices within the industry.
9. Foster greater awareness and commitment around consumption and energy efficiency.
10. Utilise the potential of digital innovation and the investment of resources in the improvement of the infrastructure to promote energy efficiency and the reduction of emissions among our employees, partners, and customers.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

2020-Telefonica-Consolidated-Management-Report.pdf

Page/Section reference

Pages 211-238; 255-256; 276-278

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify
Table of Climate-related Financial Disclosures (TCFD)

Comment

Find attached the integrated report,

You can find this document in the following link:

https://www.telefonica.com/documents/153952/13347920/2020-Telefonica-Consolidated-Management-Report.pdf/8e690923-f95f-4247-ed34-91c0ba0ff510

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Global Chief Sustainability Officer (CSO)	Chief Sustainability Officer (CSO)