

Second-Party Opinion

Telefónica SDG Framework



Evaluation Summary

Sustainalytics is of the opinion that the Telefónica SDG Framework is credible and impactful and aligns with the Sustainability Bond Guidelines 2018, Green Bond Principles 2018, and Social Bond Principles 2020. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Energy Efficiency of Telefónica’s Network Infrastructure, Renewable Energy, Energy Efficiency/Resources: Digital Solutions for the Environment, Inclusive Connectivity Broadband Equality, and Employment generation, Entrepreneurship, Education for Economic Growth – are aligned with those recognized by both the Green Bond Principles and Social Bond Principles. Sustainalytics considers that the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 8, 9 and 11.



PROJECT EVALUATION / SELECTION Telefónica’s project evaluation and selection is governed by a dedicated SDG bond committee / working group. The committee has cross-departmental senior management representatives from the Finance Department, Sustainability Department, Control Department and other technical areas. This process is in line with market practices. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS Telefónica Group’s processes for management of proceeds is overseen by Finance and Control, as well as Sustainability departments. Telefónica will establish an SDG Bond Register to monitor and track allocation of proceeds from Green, Social or Sustainability Bonds. Proceeds will be deposited in a general funding account and earmarked for allocation to the SDG Bond Register. If proceeds remain unallocated, they will be temporarily invested according to Telefónica’s normal liquidity policy. This is in line with market practice.



REPORTING Telefónica Group intends to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include a list of Eligible Projects financed through the Framework, including amounts allocated, bond proceeds allocated per eligibility category and the remaining balance of unallocated proceeds, if any. In addition, Telefónica Group is committed to reporting on relevant impact metrics. Sustainalytics views Telefónica Group’s allocation and impact reporting as aligned with market practice.

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Report Sections

Introduction.....	2
Sustainalytics’ Opinion	3
Appendices	11

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Introduction

Telefónica Group (“Telefónica”, or the “Company”) is a telecommunication and digital services company which offers connectivity, digital services and technological solutions, operating in Spain, the United Kingdom, Germany and Latin America.

Telefónica has developed the Telefónica SDG Framework (the “Framework”) under which it intends to issue sustainability bonds and use the proceeds to finance and/or refinance in whole or in part, existing and future projects that promote energy efficiency and the reduction of GHG emissions within its own operations and those of its clients and/or deliver positive social outcomes. The Framework defines eligibility criteria in five areas:

1. Energy Efficiency of Telefónica’s Network Infrastructure
2. Renewable Energy
3. Energy Efficiency/Resources: Digital Solutions for the Environment
4. Inclusive Connectivity Broadband Equality
5. Employment generation, Entrepreneurship, Education for Economic Growth

Telefónica engaged Sustainalytics to review the Telefónica SDG Framework, dated January 2021, to provide an updated Second-Party Opinion on the Framework’s environmental and social credentials and its alignment with the Green Bond Principles 2018 (GBP), Social Bond Principles 2020 (SBP), and Sustainability Bond Guidelines 2018 (SBG).¹ The Company’s original Framework and Second-Party Opinion were published in 2018. The new Framework has been published in a separate document.²

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent³ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2018, Social Bond Principles 2020, and Sustainability Bond Guidelines 2018, as administered by ICMA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.6, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Telefónica’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Telefónica representatives have confirmed (1) they understand it is the sole responsibility of Telefónica to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Telefónica.

¹ The Sustainability Bond Guidelines are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/>

² The Telefónica SDG Framework is available on Telefónica Group’s website at: https://www.Telefónica.com/es/web/shareholders-investors/ratings_y_perfil_de_deuda

³ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Telefónica has made available to Sustainalytics for the purpose of this Second-Party Opinion.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Telefónica SDG Framework

Sustainalytics is of the opinion that the Telefónica SDG Framework is credible, impactful and aligns with the four core components of the GBP, SBP, and SBG. Sustainalytics highlights the following elements of Telefónica's Sustainability Bond Framework:

- Use of Proceeds:
 - The eligible categories – Energy Efficiency of Telefónica's Network Infrastructure, Renewable Energy, Energy Efficiency/Resources: Digital Solutions for the Environment, Inclusive Connectivity Broadband Equality, Employment generation, Entrepreneurship, Education for Economic Growth – are aligned with those recognized by the GBP and SBP. Sustainalytics notes the following projects and activities may be financed throughout Europe and Latin America.
 - Regarding Energy Efficiency of Telefónica's network Infrastructure, the Company may finance the deployment of mobile and fixed networks with the aim to improve energy efficiency, through activities including the modernization of broadband networks (5G deployment), fibre optic cables to replace copper networks and improvements in supporting infrastructure, including free cooling systems, cooling optimization, power modernization, smart management, intelligent lighting and automation of maintenance processes. Additionally, Telefónica may finance software aimed at reducing power consumption, including power savings features, server virtualization, remote and data management applications and machine learning. Sustainalytics notes that these activities are specifically aimed at decreasing the energy consumption of data traffic and the Company has established corresponding goals for which these activities aim to support. For more information, please see Section 2: Sustainability Strategy.
 - Regarding Renewable Energy, Telefónica may finance self-generation of electricity from renewable sources including solar, wind, mini hydro and geothermal. Sustainalytics notes that geothermal projects must comply with a direct emissions threshold of <100g CO₂/kWh, and mini hydro excludes facilities over 25MW, which is aligned with market practice.
 - Within the Energy Efficiency/Digital Solutions for the Environment category, Telefónica may finance the development and implementation of products and services based on Internet of Things (IoT), big data and/or artificial intelligence, which aim at energy savings and conservation of natural resources. Potential technologies include financing of hardware, software and innovation, such as IoT products and services that are end-to-end (E2E),⁴ IoT connectivity,⁵ IoT smart technologies, excluding any applications for fossil fuel technologies. Additionally, Telefónica may finance new IoT connectivity with technologies including Narrowband-IoT, which is a Low Power Wide Area network technology and can facilitate increase energy efficiency, improve network coverage and enhance the duration of batteries.⁶ Telefónica may also finance

⁴ CAD IT, "What is an end-to-end IoT solution", (2018), at: <http://main.cadit.com.sg/2018/04/what-is-an-end-to-end-iot-solution/>

⁵ Connecting assets, devices, endpoints, in order to acquire real time information of remote equipment in order to enable operational efficiencies.

⁶ GSMA, "Narrowband-Internet of Things", (2020), at: <https://www.gsma.com/iot/narrow-band-internet-of-things-nb-iot/>

IoT analytics and data processing mechanisms which are aimed at increasing efficiency, decreasing impact of network outages and refurbishment or maintenance of these systems.

- Sustainalytics notes that IoT investments described in the Framework will contribute to supporting internet connectivity for a high density of devices and are expected to enable more energy-efficient data transmission. This could unlock new opportunities in areas such as smart metering, smart lighting and smart cities. Refer to Section 3 for further discussion on the environmental impacts of these technologies.
- Sustainalytics recognizes that, by enabling high-speed network connectivity, Telefónica's solutions have the potential to support significant energy savings by end users across many sectors. Sustainalytics also acknowledges that the expansion of IoT networks and increasing data flows from IoT enablement technologies may result in additional overall energy demands on telecommunications networks. Overall, Sustainalytics believes that the enabled savings outweigh the potential adverse effects of additional network demands. Additionally, although such investments may indirectly benefit a broad range of industries, including the fossil fuel industry, Sustainalytics positively notes that Telefónica excludes products and solutions developed specifically to support the fossil fuel industry/infrastructure.
- Regarding the financing of innovative IoT solutions and products, such as smart logistics, smart cities and smart metering solutions, Sustainalytics recognizes that R&D has the potential to drive positive environmental outcomes. However, it is also acknowledged that it is more challenging to quantify the direct impacts of such investments. As such, Sustainalytics encourages Telefónica to prioritize R&D investments that have reasonable assurance of implementation, as well as achievement of measurable impact in the near-term.
- Regarding Telefónica's social bond categories, including Inclusive Connectivity/Broadband Equality, the Company may finance the deployment of broadband in unconnected or underserved areas. This includes the deployment of broadband networks and services to underserved (rural and remote areas) in order to provide network access to communities with low-quality access to broadband networks.⁷ Sustainalytics further expands on the importance of providing network access to underserved communities in Section 3.
- Regarding Employment Generation, Entrepreneurship, and Education for Economic Growth, Telefónica may provide funding and support to entrepreneurs and small- and medium-sized enterprises (SMEs) in areas where unemployment is a critical risk for socio-economic deployment and social welfare.⁸
- Project Evaluation and Selection:
 - In line with market practice, Telefónica has established a dedicated SDG Bond committee/working group in order to oversee the project evaluation and selection process. The committee is composed of senior management representatives from the Finance Department, Sustainability Department, Control Department and other technical areas. The committee will also review and select projects based on the eligibility criteria outlined in the Telefónica Framework.
 - Based on the above process, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - Telefónica Group's processes for management of proceeds is overseen by Finance and Control, as well as Sustainability departments. Telefónica will establish an SDG Bond Register to monitor and track allocation of proceeds from Green, Social or Sustainability Bonds. Proceeds will be deposited in a general funding account and earmarked for allocation to the SDG Bond Register.

⁷ Unconnected: no service exists (fixed or mobile) by any operator; Underserved communities: There is at least mobile service by one operator with no broadband capacity. The backhaul or access capacity of the given site does not allow for a quality Internet experience. For the avoidance of doubt, according to the new definition (2018) from FCC (Federal Communication Commission), the definition of broadband internet is a minimum of 25 Mbps download and 3 Mbps upload speeds. This would include, among others, HSPA+, 4G and 5G broadband mobile technologies. Usually (but not necessarily) involves disperse population and rural municipalities. Rural areas are defined by local governments according to their political and geographical structure and organisation.

⁸ Regions with a high unemployment ratio include countries with unemployment ratio above the OECD average and local regions, such as rural and remote places, where unemployment and migration are key issues.

- If proceeds remain unallocated, they will be temporarily invested according to Telefónica's normal liquidity policy.
- Based on this process, Sustainalytics considers the management of proceeds to be in line with market practice.
- Reporting:
 - Telefónica Group intends to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include a list of Eligible Projects financed through the Framework, including amounts allocated, bond proceeds allocated per eligibility category and the remaining balance of unallocated proceeds, if any. In addition, Telefónica Group is committed to reporting on relevant impact metrics.
 - Based on the above, Sustainalytics considers this process to be in line with market practice.

Alignment with Sustainability Bond Guidelines 2018

Sustainalytics has determined that the Telefónica SDG Framework aligns with the four core components of the GBP and SBP. For detailed information please refer to Appendix 1: Sustainability Bond/ Sustainability Bond Programme External Review Form.

Section 2: Sustainability Strategy of Telefónica

Contribution of Framework to Telefónica Group's sustainability strategy

Telefónica's core strategy incorporates sustainability and is based on the following three pillars: (i) Help society thrive – improving internet access, speed and quality for people and businesses, promoting digitalization of SMEs and enabling digital transformation, and supporting education and training for new digital competences, (ii) Build a greener future – deploying telecommunication networks (fiber and 5G) powered by renewable energy, providing solutions that help customers reduce their CO₂ emissions, promoting circular economy in the use of electronic devices through eco-design, reuse and recycling, and (iii) Go beyond responsibility – driving equality and equity among employees, building digital trust, safeguarding data security and privacy of customers, and promoting sustainability in the supply chain.² Telefónica's roadmap toward sustainability is supported by its Responsible Business Principles and Responsible Business Plan.⁹

With regards to its commitments to society, Telefónica launched the Internet for All (IpT) project to provide access to millions of people in Latin America⁹, and has also committed to deliver 5G coverage in urban Spain and connectivity in rural regions of Germany and Spain. At the same time, the Open Future, Wayra and Telefónica Venture Capitals programs foster entrepreneurship and innovation.² These programs have supported more than 500 start-ups in 15 countries, which promote economic growth and employment in local markets.⁹

Energy efficiency is key to Telefónica's business, and the Company demonstrates progress in its commitments. From 2015 to 2019 energy consumption per data traffic unit (byte) fell by 72% while data traffic tripled in the same period.⁹ The Company sees the deployment of 5G technology and fiber optic as essential to its efficiency efforts. In 2020, Telefónica deployed 5G in its four main markets¹⁰ which has demonstrated to be up to 90% more efficient than 4G in terms of energy consumption per data traffic unit (byte) transmitted.¹¹ Telefónica aims for 100% fibre optic access to its retail customers in Spain by 2025, which was 71.8% in 2019.⁹

Regarding Telefónica's climate action, the Company is committed to decarbonising its operations and decoupling business growth from GHG emissions, aligning its efforts with the 1.5°C global warming scenario.² Telefónica's GHG emission targets are validated by the Science Based Targets Initiative.¹² Telefónica's aims to reduce its global scope 1 and 2 emissions by 70% by 2025 (compared to 2015); this target is higher (90%) in Telefónica's four main markets.² and achieving net-zero emissions by 2040 including its value chain.² As of 2019, Telefónica achieved nearly 50% reduction in scope 1 and 2 emissions compared to 2015.¹³ Telefónica's

⁹ Telefónica, "Consolidated Management Report 2019", (2020), at: <https://www.telefonica.com/documents/153952/13347920/2019-Telefonica-Consolidated-Management-Report.pdf/>

¹⁰ Spain, Brazil, UK and Germany.

¹¹ Telefónica, "Telefónica makes progress in the design of a green 5G network", (2020), at: <https://www.telefonica.com/en/web/responsible-business/article/-/blogs/telefonica-makes-progress-in-the-design-of-a-green-5g-network>

¹² <https://sciencebasedtargets.org>

¹³ Telefónica, "Telefónica brings its zero emissions target forward to 2030", at: <https://www.telefonica.com/en/web/press-office/-/telefonica-brings-its-zero-emissions-target-forward-to-2030>

Renewable Energy Plan is key to its decarbonization effort. The Plan includes 85% renewable energy¹⁴ by 2025 and 100% by 2030 targets.² In 2019 the Company reported 81.6% energy from renewable sources,⁹ including 100% in its four main markets.²

Additionally, Telefónica's efforts in circular economy focus on electronic equipment and recycling, in 2019 73% of collected equipment was recycled and 27% reused.⁹ The Company recycled 98.4% of all waste generated, of which 77% is composed of copper cables no longer useful after its transition to fiber optic network, in 2019.⁹

Sustainalytics is of the opinion that the Telefónica SDG Framework is aligned with the Company's overall sustainability strategy and initiatives and will further the Company's action on its key environmental, social and sustainability priorities.

Well positioned to address common environmental and social risks associated with the projects

Sustainalytics acknowledges that the proceeds from Telefónica's SDG Framework will be directed towards eligible projects that have positive environmental and social impact. However, Sustainalytics is aware that such projects entail potential environmental and social risks. These risks include human rights challenges in the supply chain for raw materials critical to the telecommunications industry, health and safety risks associated with the construction of infrastructure to promote energy efficiency, biodiversity and community relations risks associated with the construction of new assets, and exposure to data privacy, security and censorship risks. Moreover, social projects bear the risk of increasing inequality if not targeted at an appropriate population. To manage these risks Telefónica is taking the following steps:

- Telefónica has adopted a supply chain due diligence framework in order to mitigate risks associated with the sourcing of conflict minerals and the metals utilized for manufacturing telecommunication electronic equipment.¹⁵ While the Company does not have direct business relationships with smelters or refiners, it works towards including its sustainability criteria in its value chain.¹⁶ The framework includes the establishment of an internal conflict mineral management system, a risk identification and assessment process in the supply chain, a strategy to respond to identified risks during the assessments, third-party audits of supply chain due diligence at identified points in the supply chain and reporting on supply chain due diligence.¹⁶ In 2019, 84% of Telefónica's risk suppliers evaluated in EcoVadis had a policy on conflict minerals.⁹ Moreover, Telefónica has engaged in various initiatives regarding the responsible sourcing of minerals, such as Responsible Minerals Initiative¹⁷ and the Public-Private Alliance for Responsible Minerals Trade (PPA)^{18,15} The Company has a separate due diligence framework that seeks to address slavery and human trafficking risks in its supply chain, which is outlined in its Modern Slavery Statement.¹⁹ Sustainalytics considers the due diligence framework to be credible and robust to manage risks related to conflict minerals in Telefónica's supply chain.
- Over 90% of the Company's operations incorporate a health and safety management system, and 60% of operators have certified their systems based on the ISO 45001 or OHSAS 18001 standards. Furthermore, 55% of all Company providers report on health and safety indicators.⁹ Suppliers need to conduct their business activities in line with ethical standards similar to Telefónica, including health and safety as outlined in the Company's Supply Chain Sustainability Policy,⁹ indicating that the Company expects adequate health and safety standards for its own operations and within its supply chain.
- 100% of Telefónica's operators already implemented environmental management systems certified according ISO 14001 standard, which represents best practice for mitigating the environmental impact of operations.⁹
- Telefónica has adopted several policies that regulate data privacy, protection and censorship. The Company discloses commitments to customer privacy,²⁰ respecting digital rights of children,²¹ and freedom of expression.²² Telefónica signed the Telecommunications Industry Dialogue Group for the

¹⁴ The plan includes self-generation, purchasing renewable energy with a guarantee of origin and long-term agreements (Power Purchase Agreements (PPA) and prioritises non-conventional renewable energy sources.

¹⁵ Telefónica, "Supply Chain", at: <https://www.telefonica.com/en/web/responsible-business/our-commitments/supply-chain>

¹⁶ Telefónica, "Sustainability in the supply chain: responsible minerals provisioning", at:

https://www.telefonica.com/documents/1258915/1261723/Minerales_en.pdf/66972d60-530d-e1a8-1628-25e1f92512f7

¹⁷ Responsible Minerals Initiative, at: <http://www.responsiblemineralsinitiative.org/>

¹⁸ Public-Private Alliance for Responsible Minerals Trade, at: <https://www.resolve.ngo/site-ppa/default.htm>

¹⁹ Telefónica, "Modern Slavery Statement 2019", (2019), at: https://static-www.o2.co.uk/sites/default/files/2020-05/Modern%20Slavery%20Statement_2019.pdf

²⁰ Telefónica, "Privacy and Security Centre", at: https://www.telefonica.com/en/web/about_telefonica/privacy-centre

²¹ Telefónica, "Children" at: <https://www.telefonica.com/en/web/responsible-business/digital-wellbeing/children/presentation>

²² Telefónica, "Ethics", at: <https://www.telefonica.com/en/web/responsible-business/our-commitments/ethics>

Freedom of Expression and Privacy,⁹ which outlines a common approach to protecting individual rights to privacy and freedom of expression. Moreover, in 2017, Telefónica became a member of the Global Network Initiative, which promotes the same goal.⁹ The Company also requires minimum privacy criteria for its providers, included in its Global Supply Chain Security Regulations, and carries out specific projects to ensure that data privacy provisions are met and best practices in data protection are identified annually.⁹ Furthermore, in November 2018 Telefónica announced its Artificial Intelligence (AI) Principles, which outlines its commitments for developing AI in a responsible manner. Privacy and security by design are a key principle, further supporting the Company's accountability framework for addressing this key issue for the telecommunications industry.

Based on the above, Sustainalytics believes that Telefónica has adequate policies and programmes in place to mitigate the main environmental and social risks associated with the eligible projects.

Section 3: Impact of Use of Proceeds

All five use of proceeds categories are recognized as impactful by the Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines. Sustainalytics has focused on four below where the impact is specifically relevant.

Importance of energy and resource efficiency worldwide

According to the International Energy Association (IEA), in 2017 world electricity demand rose by 3.1% while innovations in energy efficiency slowed down significantly.²³ According to the IEA Bridge Scenario,²⁴ increasing energy efficiency for industry, buildings and transport, is a critical action to reduce GHG emissions, with a potential contribution of approximately 48% of global emissions reductions by 2030.²⁵ Information and Communications Technologies (ICTs) are already having a sizeable positive impact, with annual carbon abatement from ICTs estimated at 180 million tonnes of CO₂e in the United States and Europe.²⁶ Furthermore, the Global e-Sustainability Initiative (GeSI) estimates that ICTs can drive an additional 20% reduction in global carbon emissions by 2030, equivalent to maintaining 2015 levels.²⁷

Telefónica's Internet of Things (IoT), Big Data or Artificial Intelligence (AI) have a wide range of applications that have the potential to save energy through the distribution of electricity and optimization of energy use in cities, industries, buildings, and vehicles, amongst others, ultimately leading to a reduction in carbon emissions.⁹ Additionally, Telefónica's IoT, Big Data and AI also have important applications for driving resource efficiencies not directly related to energy or carbon mitigation. These broader applications include Smart Agro (for agriculture).²⁸ Therefore, Sustainalytics considers Telefónica's projects in energy and resource efficiency to have the potential to contribute to energy and GHG emission reduction.

Moreover, Telefónica pursues energy efficiency within its mobile/fixed networks through network infrastructure innovations, improved hardware and energy saving software which can contribute to foster energy efficiency in the countries where the upgrades are taking place. For example, 10% energy savings in air conditioning were achieved through Telefónica's SUSI Platform in over 150 buildings from Brazil, Colombia and Chile.²⁸ SUSI is Telefónica's digital platform for automated building management, integrating a range of functions for enhancing efficiencies related to maintenance, energy and CAPEX & OPEX. Regarding network transformation, Telefónica communicated to Sustainalytics that the switch from copper to fiber optic wiring can save between 7 and 20 times the amount of energy used (>85% efficiency). This process has been underway since 2008, and until 2020, 22.8 million premises have been connected to fibre optic cable in Spain

²³ IEA, "Global Energy & CO₂ Status Report 2017", (2018), at: <https://www.iea.org/reports/global-energy-co2-status-report-2017>

²⁴ Bridge Scenario puts forward a bridging strategy, based on five specific energy sector measures, to achieve an early peak in energy-related CO₂ emissions. The five measures are: (i) Increasing energy efficiency in the industry, buildings and transport sectors, (ii) progressively reducing the use of the least-efficient coal-fired power plants and banning their construction, (iii) increasing investment in renewable energy technologies in the power sector from \$270 billion in 2014 to \$400 billion in 2030, (iv) gradual phasing out of fossil-fuel subsidies to end-users by 2030, and (v) reducing methane emissions in oil and gas production. At: <https://webstore.iea.org/weo-2015-special-report-energy-and-climate-change>

²⁵ IEA, "Insights Brief: Meeting climate change goals through energy efficiency", (2017), at: <https://www.iea.org/reports/insights-brief-meeting-climate-change-goals-through-energy-efficiency>

²⁶ GeSI and Carbon Trust, "GeSI Mobile Carbon Impact", (2015), at: <https://prod-drupal-files.storage.googleapis.com/documents/resource/public/Mobile%20Carbon%20Impact%20-%20REPORT.pdf>

²⁷ GeSI, "#SMARTer2030 ICT Solutions for 21st Century Challenges" (2015), at: https://unfccc.int/sites/default/files/smarter2030_executive_summary.pdf

²⁸ Telefónica, "Integrated Report 2017", (2018), at: <https://www.telefonica.com/documents/153952/13347920/Integrated-Report-2017.pdf/513e9154-9212-d665-0df0-aa8c76e0625c>

alone. The network transformation in Spain has also facilitated the recovery of copper and other network elements.

Sustainalytics is of the opinion that the increase in energy and resource efficiency in Telefónica's own operations as well as its customers' can contribute to reduce GHG emissions and resource use at its own operations and through customers around the world.

Importance of internet and mobile connectivity for long-term socio-economic development

Studies have analysed the relationship between internet connectivity and economic development, highlighting that internet connectivity is important for economic growth, especially for innovation and entrepreneurship.²⁹ GeSI (Global e-Sustainability Initiative) has indicated that digital access and mobile penetration can contribute to more than 65% of UN SDGs.³⁰ According to GeSI, digital access is most strongly correlated with positive impact related to health, growth and innovation.³⁰ In this regard, e-health solutions have been identified as being a critical benefit of connectivity that helps to make progress towards achieving the SDGs, including remote diagnostics, health data storage and personalized medicine, for example.³⁰ These benefits are also impactful for isolated communities typically lacking direct access to medical services. Improved digital and mobile access is also positively impacts digital fluency rates, enabling improvement in digital skills and female empowerment.³⁰ Moreover, complementary studies have indicated that digital fluency positively impacts gender equality in the workplace.³¹ In this context, Telefónica's definition of an underserved community as having either 2G EDGE or 3G or less than 25 Mbps per user on average is notable, as 4G and 5G technologies are important pre-requisites that facilitate quick and reliable access to the next generation of digital services, particularly in the area of e-health and education amongst others.³² Additionally, digital services may provide the support for the transformation of administrative systems and bring institutional change through the deployment of e-platforms for accountable and transparent administrative decision-making processes. In this sense, OECD studies indicated that digital transformation of both the (i) administrative services and (ii) direct personal services enable improved administrative governance, openness and social engagement through data sharing, data crowdsourcing and analytics.³³

Given this context, Sustainalytics considers that Telefónica's projects of providing connectivity infrastructure and related innovations in areas with risk of digital exclusion in rural / remote areas to be impactful, contributing not only towards the digital integration of marginal communities, but also enabling a range of socioeconomic benefits.

Socioeconomic advancement and employment generation through the financing of ICT focused SMEs

SMEs represent a significant socio-economic component in most developing countries, contributing up to 60% of total employment and up to 40% of national income (GDP), in these economies.³⁴ In the EU 85% of net employment creation is attributable to SMEs.³⁵ Telefónica intends to use part of the bond proceeds to finance its start-up hub accelerator Wayra, which has already supported the development of more than 100 SMEs globally, in Spain, the United Kingdom, Germany and Latin America. The International Telecommunication Union ('ITU') indicated that tech SMEs within the ICT manufacturing industries, the ICT trade industries or the ICT services industries are a primary source of net job creation. While some critics have raised concerns on technology replacing jobs, the ITU study highlights that the ratio of job creation by tech SMEs compared to the job losses they may create through digital disruption is positive.³⁵ Furthermore, the report indicates that due to the relative ease of scaling digital technologies, ICT focused SMEs can grow rapidly, and overcome key hurdles of non-ICT based start-ups.³⁵ While many tech-start-ups will ultimately fail, the ITU report also highlights data from the US indicating that job creation from successful small technology firms outweighs job losses from early-stage company failures.³⁵ Given this context, Sustainalytics favourably views Telefónica's plans to invest in ICT-focused SMEs, as start-ups will support and promote entrepreneurship and generate employment opportunities in Telefónica's European and Latin America markets.

²⁹ The Atlantic, "Internet Connectivity and Economic Development", (2010), at <https://www.theatlantic.com/technology/archive/2010/07/internet-connectivity-and-economic-development/60639/>

³⁰ GeSI, "Digital Access Index", at: <http://www.digitalaccessindex-sdg.gesi.org/>

³¹ Accenture, "Getting to Equal: How Digital is Helping Close the Gender Gap at Work", (2016), at: https://www.accenture.com/t00010101T000000_w_/ar-es/_acnmedia/PDF-9/Accenture-Getting-To-Equal.pdf

³² ITU, "The State of Broadband: Broadband catalyzing sustainable development", (2018), at: https://www.itu.int/dms_pub/itu-s/opb/pol/S-POL-BROADBAND.19-2018-PDF-E.pdf

³³ OECD, "Digital Government Strategies for Transforming Public Services in the Welfare Areas" (2016), at: available at: <http://www.oecd.org/gov/digital-government/Digital-Government-Strategies-Welfare-Service.pdf>

³⁴ Ndiaye, L. et al (2018), "Demystifying small and medium enterprises' (SMEs) performance in emerging and developing economies," Borsa Istanbul Review, at: <https://www.sciencedirect.com/science/article/pii/S2214845018300280>

³⁵ ITU, "A review of Micro, Small and Medium Enterprises in the ICT Sector", (2016), at: https://www.itu.int/dms_pub/itu-s/oth/06/36/S06360000013301PDFE.pdf

Alignment with/contribution to SDGs.

The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations General Assembly and form an agenda for achieving sustainable development by the year 2030. The bond(s) issued under the Telefónica SDG Framework advances the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Energy Efficiency of Telefónica's Network Infrastructure	7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency
	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Energy Efficiency/Resources: Digital Solutions for the Environment	6. Clean Water and Sanitation	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
	7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency
	8. Decent Work and Economic Growth	8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead
	11. Sustainable Cities and Communities	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
Inclusive Connectivity Broadband Equality	9. Industry, Innovation and Infrastructure	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all 9.C Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020
Employment generation, Entrepreneurship, Education for Economic Growth	8. Decent work and economic growth	8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

Conclusion

Telefónica has developed the Telefónica SDG Framework under which it will issue sustainability bonds and use the proceeds to finance the deployment of energy efficient broadband networks and mobile solutions as well as increasing access to underserved areas and rural populations. Sustainalytics considers that the projects funded by the sustainability bond proceeds are expected to provide positive environmental and social impact.

The Telefónica SDG Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that Telefónica SDG Framework is aligned with the overall sustainability strategy of the Company and that the use of proceeds categories will contribute to the advancement of the UN Sustainable Development Goals 6, 7, 8, 9 and 11. Additionally, Sustainalytics is of the opinion that Telefónica has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Telefónica Group is well-positioned to issue sustainability bonds and that Telefónica SDG Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles (2018) and Social Bond Principles (2020) and Sustainability Bond Guidelines (2020).

Appendix

Appendix 1: Sustainability Bond / Sustainability Bond Programme - External Review Form

Section 1. Basic Information

Issuer name:	Telefónica Group
Sustainability Bond ISIN or Issuer Sustainability Bond Framework Name, if applicable:	Telefónica SDG Framework
Review provider's name:	Sustainalytics
Completion date of this form:	January 22, 2021
Publication date of review publication:	November 27, 2018

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP and SBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (*if applicable*)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

The eligible categories for the use of proceeds – Energy Efficiency of Telefónica’s Network Infrastructure, Renewable Energy, Energy Efficiency/Resources: Digital Solutions for the Environment, Inclusive Connectivity Broadband Equality, and Employment generation, Entrepreneurship, Education for Economic Growth – are aligned with those recognized by both the Green Bond Principles and Social Bond Principles. Sustainalytics considers that the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 8, 9 and 11.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other (please specify): |

If applicable please specify the environmental taxonomy, if other than GBPs:

Use of proceeds categories as per SBP:

- | | |
|---|--|
| <input type="checkbox"/> Affordable basic infrastructure | <input checked="" type="checkbox"/> Access to essential services |
| <input type="checkbox"/> Affordable housing | <input checked="" type="checkbox"/> Employment generation (through SME financing and microfinance) |
| <input type="checkbox"/> Food security | <input checked="" type="checkbox"/> Socioeconomic advancement and empowerment |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with SBP categories, or other eligible areas not yet stated in SBP | <input type="checkbox"/> Other (please specify): |

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Telefónica’s project evaluation and selection is governed by a dedicated SDG bond committee / working group. The committee has cross-departmental senior management representatives from the Finance

Department, Sustainability Department, Control Department and other technical areas. This process is in line with market practices. Sustainalytics considers the project selection process in line with market practice.

Evaluation and selection

- | | |
|---|--|
| <input checked="" type="checkbox"/> Credentials on the issuer's social and green objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Sustainability Bond proceeds | <input type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (please specify): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (please specify): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section *(if applicable)*:

Telefónica Group's processes for management of proceeds is overseen by Finance and Control, as well as Sustainability departments. Telefónica will establish an SDG Bond Register to monitor and track allocation of proceeds from Green, Social or Sustainability Bonds. Proceeds will be deposited in a general funding account and earmarked for allocation to the SDG Bond Register. If proceeds remain unallocated, they will be temporarily invested according to Telefónica's normal liquidity policy. This is in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Sustainability Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (please specify): |

Additional disclosure:

- | | |
|--|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (please specify): |

4. REPORTING

Overall comment on section (if applicable):

Telefónica Group intends to report on allocation of proceeds on its website on an annual basis until full allocation. Allocation reporting will include a list of Eligible Projects financed through the Framework, including amounts allocated, bond proceeds allocated per eligibility category and the remaining balance of unallocated proceeds, if any. In addition, Telefónica Group is committed to reporting on relevant impact metrics. Sustainalytics views Telefónica Group's allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- ☐ Project-by-project ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s) ☐ Other (please specify):

Information reported:

- ☒ Allocated amounts ☐ Sustainability Bond financed share of total investment
- ☐ Other (please specify):

Frequency:

- ☒ Annual ☐ Semi-annual
- ☐ Other (please specify):

Impact reporting:

- ☐ Project-by-project ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s) ☐ Other (please specify):

Information reported (expected or ex-post):

- ☐ Energy Savings
- ☐ Number of beneficiaries
- ☒ Other ESG indicators (please specify):

Green Project Categories	Impact Reporting Metrics
Energy Efficiency of Telefónica Network Infrastructure	<ul style="list-style-type: none"> Energy consumption per data traffic (MWh/PB or equivalent unit) Estimated GHG Emissions reduced (tCO₂eq) Expected energy saved (in MWh)
Renewable Energy	<ul style="list-style-type: none"> Renewable MWh generated or purchased % of electricity consumption from renewable sources Estimated avoided GHG Emissions (tCO₂eq)
Energy Efficiency: Digital Solutions for the Environment	<ul style="list-style-type: none"> Estimated avoided GHG Emissions through services (tCO₂eq) Expected energy savings (in MWh) Service-related kpi's such as number of smart meters. Qualitative reporting on new innovations

Social Projects Categories	
Inclusive Connectivity – Broadband equality	<ul style="list-style-type: none"> Population covered with broadband networks in unconnected or underserved areas Number of users connected with broadband networks in unconnected or underserved areas
Supporting employment generation, entrepreneurship, education initiatives and development of new skills for economic growth	<ul style="list-style-type: none"> Number of Entrepreneurs / Start-ups / SMEs supported or funded Estimated number of jobs created Number of beneficiaries of education and upskilling/reskilling programmes.

Frequency:

- ☒ Annual
 ☐ Semi-annual
 ☐ Other (please specify):

Means of Disclosure

- ☐ Information published in financial report
 ☒ Information published in sustainability report
- ☐ Information published in ad hoc documents
 ☐ Other (please specify):
- ☐ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- ☐ Consultancy (incl. 2nd opinion)
 ☐ Certification
- ☐ Verification / Audit
 ☐ Rating
- ☐ Other (please specify):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP AND THE SBP

- i. Second-Party Opinion: An institution with sustainability expertise that is independent from the issuer may provide a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Sustainability Bond framework, or appropriate procedures such as information barriers will have been

implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy, and/or processes relating to sustainability and an evaluation of the environmental and social features of the type of Projects intended for the Use of Proceeds.

- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or sustainability criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally or socially sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Sustainability Bond proceeds, statement of environmental or social impact or alignment of reporting with the Principles may also be termed verification.
- iii. **Certification:** An issuer can have its Sustainability Bond or associated Sustainability Bond framework or Use of Proceeds certified against a recognised external sustainability standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green, Social and Sustainability Bond Scoring/Rating:** An issuer can have its Sustainability Bond, associated Sustainability Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental and/or social performance data, process relative to the Principles, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material sustainability risks.

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Named
2015: Best SRI or Green Bond Research or Rating Firm
2017, 2018, 2019: Most Impressive Second Opinion Provider

