100 Years
Leading Change

100 **Telefónica**

SUSTAINABILITY

Transformation Handbook

MWC2024

100 Years Leading Change

We've turned 100 years old. A century of making our world more human by connecting people's lives. What a ride!

But now, it's not time to get nostalgic. It's time to prepare for a new era. Because in these times we live in, we are witnessing a strange paradox: while the life expectancy of people is getting longer and longer, the life of companies is getting shorter and shorter. For a company to survive for more than a hundred years is a complete anomaly. And this anomaly can be explained by a single reason: its ability to change.

Telefónica's history is one of anticipating change. We were born as a voice company and moved to data, from copper to fibre, from operating in a single country to becoming a global company. A company forged, from its very foundation, in change.

And now we are committed to change again. Change to lead a new era of progress. A revolution capable of rewriting history of businesses and people... and yes, also our own.

There is great value to be captured by the telco industry. Times that are opening a new world of business opportunities, where Open Networks are key to foster innovation while driving profitable and sustainable growth. With this goal ahead of us, it is not time to ask "What if...?" but "How we will make it happen".

We've been doing it for a hundred years, imagine what we can do in the next 100.

ESG is an integral part of Telefonica's history and strategy.
We work across an array of initiatives within the 3 pillars.

Environment
Building a greener future

We are committed to achieving a world where technology helps the protect the planet and connects people's lives, leaving no one behind. **That is why we promote** digital and green transitions.

To this end, our environmental strategy is structured on two pillars:

- In the first pilar we work to **minimize the impact of our operations**. Our goal is **to have the most efficient network** in terms of energy, carbon and waste, so that the connectivity an all of the services we offer across our network are as green as possible.

  To ensure that the company is transformed based on these commitments, we have set two major environmental targets.
    - **We will reach net zero emissions by 2040.**
    - In terms of waste our target is to be **a zero-waste company by 2030.**

- In the second pilar of our environmental strategy we have the commitment to **develop digital solutions** that not only improve the competitiveness of our customers, but also help them to **reduce their environmental impact**.

Digital technologies can help to **reduce global emissions by more than 15%** in sectors such as energy, industry, agriculture, construction and transport, and up to **35%** thanks to their ability to transform people's habits.

To identify products that have this potential we have created the Eco Smart Seal. Today **52% of our B2B services** have been verified as **Eco Smart** by AENOR.

But we don't only focus on the qualitative aspect, **annually we calculate the emissions that we help our customers** to avoid through the use of our services, and in **2023 we estimate that this figure was 86.1 MtCO$_2$.**

Social
Helping society to thrive

In terms of our social priorities, our main target is to **bring connectivity to underserved communities** and, with it, deliver **economic and social impact** through our products and services. We also foster an inclusive workplace to attract and retain the best talent – committed and diverse.

Governance
Leading by example

In Governance, to highlight the importance that we place on the **security and privacy** of our customers' data and the standards we follow to protect them. Moreover, we strive to build a culture based on ethical and sustainable principles with zero tolerance to corruption. We embed ESG across our business, including the entire value chain.

ECOSMART SERVICES

VERIFIED BY
AENOR

CASE
INDEX

ECOSMART
SERVICES

VERIFIED BY
AENOR

NB-IoT Connectivity • Big Data • Artificial Intelligence • IoT Devices

EMASESA

Telefónica Tech, in collaboration with the manufacturer, Contazara, is going to connect more than 300,000 water meters for Emasesa, the Metropolitan Water Supply and Sanitation Company of Seville. This project is part of Emasesa's Digital Transformation Strategic Plan. This technology has reached more than 100,000 homes since last January, and it is expected that 41,500 more hubs will be added over the next two years. Each of these hubs allows up to seven water meters to be connected.

Links: [News](#) · [Press Release](#)

Goals

Emasesa's objective with this project is to enable remote, automatic, and accurate reading of water consumption through Telefónica Tech's NB-IoT network. This project aims to reduce water consumption to 90 liters per person per day, achievig annual savings of 20% which in 10 years would be a equivalent to a reservoir.

Results

Thanks to Telefónica Tech's NB-IoT connectivity, which will transmit 7.5 million readings per day, and advanced analysis using Big Data and Artificial Intelligence, these smart meters provide Emasesa with hourly consumption data. This enables better management, detection of anomalies in the network and improved service for users, which has a significant impact on sustainability, service quality and safety.

Microsoft Dynamics AX • Data Lakes • Cloud Computing • IoT
RPA • Artificial Intelligence • Virtual Reality • Augmented Reality

ELES

ELES has gone through several transformations over its long history, but the digital one began in 2012, when it launched a public tender for a digital solution. After years of using its in-house on premises solution, management realized that it was no longer sustainable to rely on manual data entry to make informed decisions at the scale the company needed. During the bidding process, BE-tern, part of Telefónica Tech, stood out for its unique offer and began the project with Eles, the gatekeeper of Slovenia's power transmission system.

Link: Web

Goals

The main objective of ELES, the guardian of the Slovenian power transmission system, is to ensure the safe, reliable, and uninterrupted transmission of electricity. Almost a decade of continuous and successful cooperation between BE-terna, Part of Telefónica Tech and ELES proves how dedicated the company is to its goal of fully digitalizing its processes and operations.

Results

The latest collaborative project is the DIGI-ELES project, a comprehensive digital transformation strategy aimed at preparing the company for future energy needs, ensuring data-driven decision making by introducing Internet of Things, digital twins, RPA and Artificial Intelligence. As well as increasing efficiency and employee satisfaction. In summary, ELES has undergone a significant digital transformation with the help of various technologies provided by BE-terna, part of Telefónica Tech, with a focus on improving operational efficiency and preparing for future challenges in the energy sector.

Advanced Analytics • Strategic Consulting • Artificial Intelligence • Big Data Solutions

REPSOL

We helped Repsol improve operational efficiency, reduce transportation, storage costs and promote sustainability by optimizing its logistics system.

Goals

The project aimed to optimize operations at Repsol's chemical plants, establishing efficient systems for the location, transportation, and delivery of products to end customers. One of the key aspects of this case was the application of a component of the RAIP (Repsol Artificial Intelligence Products) platform. RAIP is a catalog of modular Artificial Intelligence solutions, developed internally at Repsol, which are aimed at transforming the company into a data-driven one. Thanks to RAIP's potential, Repsol has received support from Red.es to continue its development. The advanced analysis of 29 million variables has allowed Repsol to have a detailed and monitored view of its logistics process and better decision making based on data and in real time, which means a competitive advantage by optimizing processes and improving efficiency throughout the logistics chain.

Results

Repsol has significantly improved its logistics operations by implementing artificial intelligence, Big Data and Data Analytics. This has enabled the automation of complex tasks, reduced storage and transportation costs, and improved sustainability by reducing emissions and avoiding waste associated with product ageing. The solution has also contributed to the reduction of the carbon footprint by reducing material transfers, as well as the generation of waste due to a higher turnover of finished products in external centers. In addition, the transfer operations have been optimized, achieving a significant reduction in transportation and storage costs, together with a higher stock rotation.

Links: Success Case • Testimonial Video

Testimonials

EMASESA

"We have been working together with EMASESA for many years and they have always been committed to new technologies, implementing those they considered beneficial for their customers and their city. Now, with this big bet on Contazara meters and Telefónica Tech's NB-IoT remote reading, they are once again making a great qualitative leap, putting Seville at the global forefront of water management."

Isaac Navarro
CEO of Contazara

"This project is one of the pillars of an ambitious five-year Digital Transformation Program that covers the entire water cycle, placing the user and his or her safety at the center of EMASESA's management. Remote control of water consumption is also a fundamental tool for combating drought. The remote reading of the digital meters will help us to reduce consumption to 90 liters/person/day, thereby achieving an annual saving of 20%, which in 10 years (drought cycle forecast) would be equivalent to having a new reservoir."

Manuel Romero
Chief Executive Officer of EMASESA

EMASESA

"Our Smart Water solution helps water management companies to digitally transform their infrastructures and processes to be more efficient and sustainable, as well as to offer a more personalized service to users. The combination of IoT technologies, Big Data and Artificial Intelligence allows us to generate impact on our customers and citizens, optimizing the supply service."

Alfredo Serret
Global IoT Director, Telefónica Tech

ELES

"DigiELES is our company's first official digitalization project. Other expected results include the application of RPA to certain processes, the implementation of IoT devices in fleet management, the introduction of VR and AR in asset management, the introduction of a platform for sustainability reporting, AI for better decision making in future network development, etc. The main objective of all these activities is to develop and enhance digital competencies that will help meet future challenges."

Tamara Slapar
Deputacy ICT Director of ELES

Repsol

"With this project we have managed to optimize the logistics operations associated with the management of our chemical products. Automation and digitalization have allowed us not only to improve efficiency and optimize the cost of stock management, but also to reduce the carbon footprint by reducing material transfers between internal and external warehouses."

Aurora Ferri
Repsol 360 Transformation Manager

"The industrial sector is relying on three drivers: on digitalization, sustainability and the environment. Thanks to the emergence of these technologies such as AI, Advanced Analytics or Big Data, these companies are making increasingly innovative projects, focused on achieving efficiency, reliability, and operational forecasting. Telefónica Tech is always looking for operational efficiency in industrial processes."

María Muñoz
Director of IoT and Big Data Spain,
Telefónica Tech

NB-IoT Connectivity • Kite Platform • Cloud
Digital Twin • Monitoring system devices

REDEIA

The project aims to digitalize the Spanish electricity transmission grid in order to increase the use of high-voltage lines, improving the efficiency of the electricity system and increasing the integration of renewable energy into the system. Telefónica Tech is one of the main technological partners providing NB-IoT connectivity, several sensors of meteorological variables of Libelium and Cloud services in this project implemented by REDEIA (former REE) under the name of Dynamic Line Rating (DLR).

Links: Article • LinkedIn Post

Goals

To operate the transmission grid safely, it must be verified that the transmission of electricity is carried out in compliance with the maximum transmission capacities of the lines, which depend on environmental and meteorological conditions. Traditionally, these capacities have been calculated theoretically, at station level, using average values and safety margins. The availability of DLR measurement and digitalisation systems allows the real capacity of the lines to be inferred at any given moment and many moments when the capacities are higher than those calculated by the traditional method to emerge, allowing greater and better use to be made of the networks.

Results

Thanks to the installation of these monitoring and communication systems, the reinforcement of the transmission grid is promoted through actions with a very low environmental impact, while improving the efficiency of the electricity system and allowing greater integration of renewable energy into the system, making the Spanish electricity mix less carbon-intensive.

This project has been one of the case studies analysed by the European Green Digital Coalition, determining that its application to 13 electricity transmission lines contributes to avoiding the emission of more than 50 thousand tonnes of CO_2.

IoT • Big Data • Artificial Intelligence

DTI Benidorm

The project, co-funded by the European Regional Development Fund (Feder) and managed by Red.es, aims to transform Benidorm into a leading intelligent and sustainable tourist destination. Deploying 17 technological components across key areas such as destination management, sustainability, beaches, and citizen satisfaction, the goal is to enhance the quality of life for tourists, residents, and businesses. The integration of a technological platform and a control center will facilitate the consolidation of Benidorm as a leading smart tourist destination.

Links: Web • Data Sheet • Dossier

Objectives

The project aims to benefit visitors and serve as a model for municipalities with "sun and beach" tourism. The implementation of a DTI (Smart City) Platform is crucial for comprehensive city management. Data collection will be essential for decision-making, allowing for the measurement of investment profitability and positioning Benidorm as a reference in Smart Tourist Destinations.

Goals

The DTI project stands out for its technological approach, deploying elements such as the Smart Platform based on Telefónica's Thinking City, an Open Data Portal, hardware infrastructure, water cycle monitoring, smart parking, waste control, beach monitoring, digital signage, and a tourist mobile application. These components integrate information for comprehensive management and enhance the tourist experience.

Cloud · 5G · App · TV

SocialTV

Social TV is a platform offering leisure, entertainment, and communication services through television for the elderly and other vulnerable groups at risk of unwanted loneliness.

Through the TV and with a simple remote control, seniors can communicate with family, friends, and caregivers, as well as access a catalog of services with different content, games, and thematic channels.

No technical knowledge needed. The television becomes not only an entertainment tool but also a communication and socialization channel, capable of preventing isolation and improving people's quality of life at home.

Links: News with video on Telemadrid · News on El País
Getafe City Hall News

Goals

With this project, the Getafe City Council has been a pioneer in preventing unwanted loneliness, bringing technology closer to the elderly and allowing them to access various services in a simple and comfortable way.
The main objective is to provide better care to people who, for various reasons, can no longer attend daily therapeutic sessions at municipal centers. This care improves their quality of life and avoids or minimizes many of the problems arising from unwanted loneliness. Psychologists, animators, and occupational therapists have a tool that allows them to carry out physical and cognitive activities, and provide that emotional support so necessary for people living alone.

Results

We have made the elderly feel happier and accompanied. In some cases, we have even managed to get them back on the streets and receive therapies at municipal centers. In addition, professional staff can serve more people with the same resources. The ability to conduct video conferences has a positive impact on the attitude of the elderly, who dress up and eagerly await the opportunity to talk to their psychologists, animators or therapists, as well as their own family or friends. With games, virtual workshops, and other services, we have managed to stimulate activity, prevent cognitive decline, and improve the quality of life of the elderly.

Testimonials

"With the 'Benidorm, smart and sustainable tourist destination' project and the support of Telefónica, Benidorm solidifies its position as the reference for Smart Tourist Destinations in Spain and Europe. We will be the best tourist destination only if we are the best city to live in."

Antonio Pérez

Mayor of Benidorm and President of the Alicante Provincial Council

REDEIA

"Thanks to the new developments that we have designed together with Telefónica, we have improved the efficiency of use of the transmission grid, increasing renewable penetration in the electric sector. A further step in the energy transition."

Belén Díaz-Guerra Calderón

Head of the Transport Network Planning area, Redeia

Social TV

"Getafe is a pioneering city in the fight against 'unwanted loneliness'. This project was born with that objective, and we have managed to weave ties between the elderly and municipal services, to prevent their social and emotional uprooting in situations of physical vulnerability."

Sara Hernández Barroso

Mayor of Getafe City Council

"Thanks to SocialTV, the elderly have a better quality of life in their homes, being able to interact with care professionals, friends, and family in a simple and comfortable way. Leisure and socialization should be within everyone's reach."

Iván Franco

Head of Public Sector at Imatia.

"It's about changing traditional intervention models, which tend to be more rigid, towards innovative, flexible, and participatory models, dedicating the potential of public services to improving people's quality of life."

Cristina Gallardo Álvarez

Coordinator of care and quality of life programs for seniors at AEBIA

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Find out more in our
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