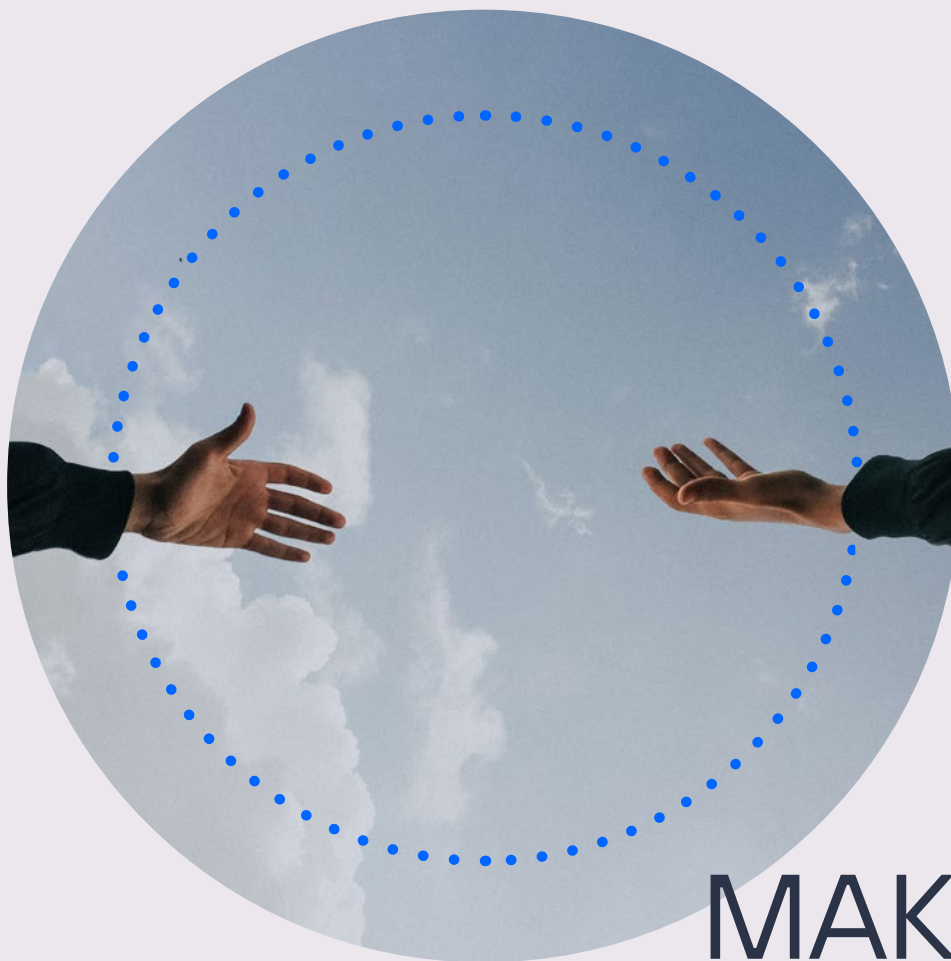




MWC2023

# MAKING PROGRESS HAPPEN

Transformation Handbook



# MAKING PROGRESS HAPPEN

With almost 100 years of experience working in an ever-changing world, we have learnt that **when we combine talent with human creativity, we can bring about greater social progress**, and that technology is a key factor in unlocking that talent.

Our commitment to progress based on **innovation, sustainability and inclusion**, only makes sense if we use this technology for the benefit of everyone, everywhere, across all nations. In our role as a provider of technology to society, we therefore promote economic and social growth based on digitalisation, as a way of **tackling inequalities** across the board.

We believe that everyone has the right to access a high-quality telecommunications network, as a driver of collective development, and we are convinced that we can only get there by working together.

As a result, our commitments include rolling out **fibre optic to all of Spain** by 2024 and achieving **gender parity** in our highest governance bodies before 2030. We have also signed up to the GSMA's **"Principles for Driving the Digital Inclusion of Persons with Disabilities"**.

At Telefónica, we believe that **only by creating inclusive environments can we break down the barriers of inequality**.

# CASE INDEX

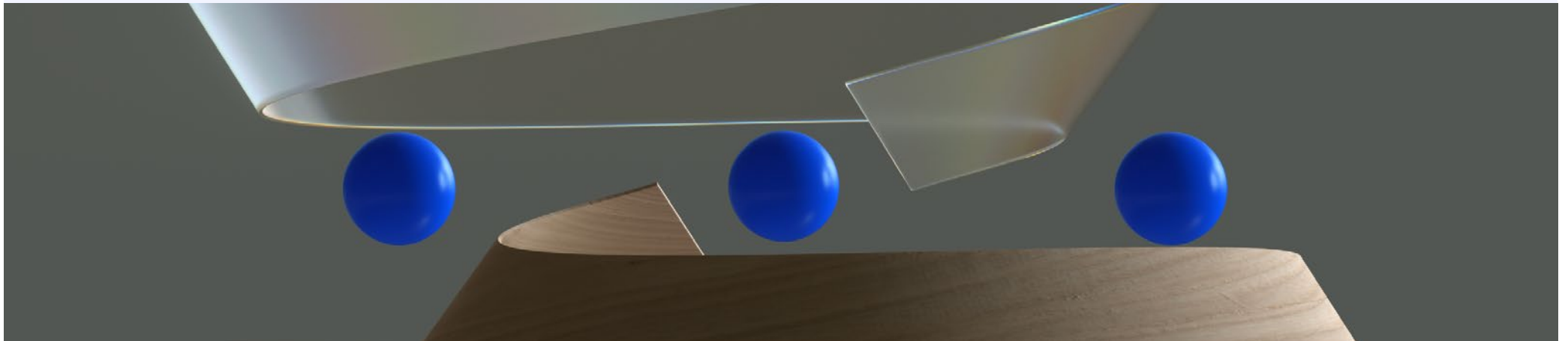
04  
Visualfy  
Places

06  
Oxford  
University  
Hospitals

08  
Keeping  
loneliness  
at bay

11  
Optimising  
healthcare

13  
Making  
a mark



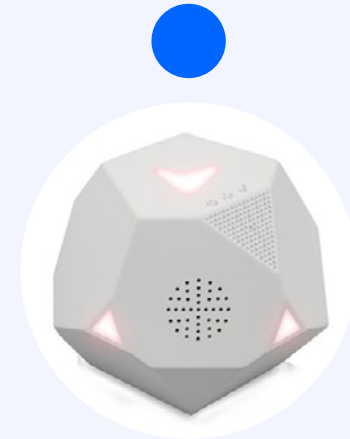
**AI**

# Visualfy Places

Improving accessibility through artificial intelligence

Visualfy Places is a system that uses AI to identify important sounds within spaces, such as fire alarms, waiting room alerts, doors closing, a service closing time or more personalised notifications. It then translates these sounds into visual and sensory alerts on any device, such as smart lighting within the space itself, or personal devices such as mobile phones, smartwatches or smartbands.

Magnetic loops improve communication for people with hearing aids and cochlear implants, while a speech recognition feature and sign language videos remove other communication barriers.





## Objectives

Improving accessibility at Madrid's Sol cercanías commuter train station, helping Renfe to improve their customer experience and comply with accessibility legislation.

Smart lighting can be used to alert the hearing-impaired or those wearing headphones to announcements in the station relating to their safety or personal autonomy.

Magnetic loops, sign language translation and a real-time speech recognition system also help to overcome communication barriers.

## Results

We have managed to make the space fully accessible to the hearing-impaired, while also improving safety and personal autonomy for anyone wearing headphones who can receive alerts on their personal devices.

This achievement fulfils Renfe's commitment to accessibility and complies with Royal Decree 1/2013, which states that any building open to the public must be accessible to everyone, regardless of their disability.





PaaS

Cloud

ITSM/IT Project Management

# Oxford University Hospitals

Taking its technology infrastructure to a new strategic level

Oxford University Hospitals wanted to make use of the best technology possible to free up clinicians and hospital staff to **spend more time with patients and make the most of limited resources**. A **transformative platform-as-a-service, Service Now solution** helped the trust to achieve this goal, with efficient, self-serve IT support and a 360-degree view of critical transformation projects.



## Objectives

Technology is key to helping the NHS respond to an increase in patient numbers with a limited workforce and resources. **This project sought to improve productivity and time spent with patients at the bedside** as well as gain a single view of projects that could help to reduce overall spending and improve speed and efficiencies.

## Results

- **Improved operational efficiency** - clinical and back-off staff can spend more time with patients rather than waiting for on-call IT support.
- **87% of the 11,000 tickets** logged in the first 3 months for technical support **were resolved via self-service**.
- 360-degree view of projects. **Strategic Portfolio Management allows the hospital to manage its live projects via a single dashboard**, gaining more detailed analysis of the budget, time, and impact these projects can provide.

## Discover

### Web

*"Drive a better patient experience with IT."*

[GO](#)

### Video

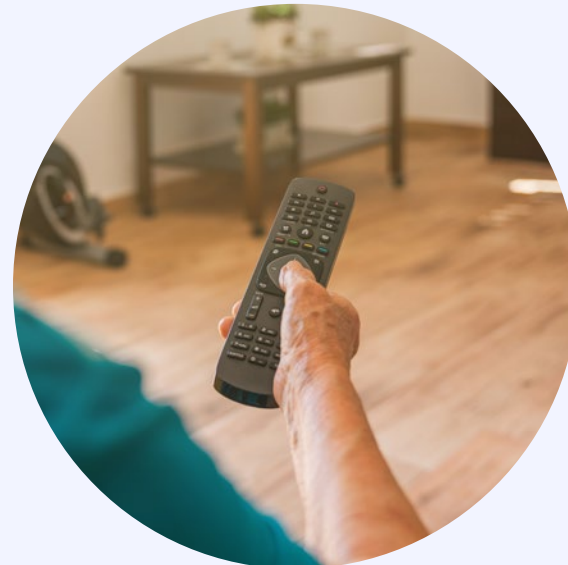
*"What more can we do to care better for the system that cares for us?"*

[GO](#)

**5G****AI****Virtual Assistant**

# Keeping loneliness at bay

There are currently 2 million people over the age of 65 living alone in Spain, 850,000 of whom are over 80. With this in mind, we started looking into developing a wide variety of solutions and programmes to effectively combat loneliness in older people, in a personalised way. We have been analysing the best ways to help our seniors (and not-so-seniors) feel less lonely, connecting with them via the power of technology.







## Objectives

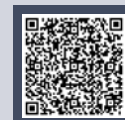
We wanted to create a digital ecosystem that was easy to access and use, giving older people easy and secure access to care services, such as contacting their loved ones, to help reduce feelings of helplessness and loneliness. We are also striving to integrate these platforms into social policies, especially when it comes to active policies for older people, boosting social inclusion for people with disabilities, and policies that promote independence and care for dependent people.

## Results

We have successfully developed products and services that people can use from the comfort of their own homes or care homes. By simply pressing a button on their TV remote, they can instantly start a video call with a family member or a carer, giving them someone to talk to. We can programme alerts to remind them to take their medication, and give them a wearable

device in case they fall or need immediate help. These devices connect to a call centre that can check on them and analyse their behaviour patterns over Wi-Fi. We can even programme a virtual assistant to call them every day and check on their social well-being and health, collecting health variables that can then be analysed by a health professional.

## Discover



**Press release**

*"Telefónica and Aerial are testing an innovative system..."*

GO

## What they say about us

“



“At Renfe, we are working on a number of ground-breaking digital projects focused on improving accessibility. Visualfy is the perfect solution for our mission to improve the customer experience, making journeys more accessible for the hearing-impaired.”

**Andrés Gómez Morón**

Head of Open Innovation en Renfe



“We set out to make a real difference for older people by giving them what they want and need in the environment where they live.”

**María Isabel Blanco**

Family counsellor - Castilla y León Regional Government



“The person being monitored doesn't have to do anything or interact in any way, they don't need to press a button or wear any kind of wristband or pendant.”

**Javier Barahona**

Sales Director for Spain – Aerial



“It closely monitors their every move and allows their relatives or carers to stay in direct contact with them. It's a great way to keep loneliness at bay.”

**María Luisa Varela**

Senior Citizens Councillor, Ponferrada City Council

”

What they say about us

**IoT**

# Optimising healthcare

In the A&E Department at the Navarra Hospital Complex

The A&E Department at the Navarra Hospital Complex (CHN) has implemented a **patient tracking system using IoT**. The system allows healthcare professionals to track the location of their patients in real-time and carry out processes more efficiently. The system works by **giving patients wristbands and installing beacons** in areas where they need to be tracked. This helps to **manage and visualise patient flow**, while improving resource and space allocation.





## Objectives

- **Easily locate patients and medical equipment** within the hospital by tracking them in real-time.
- **Improve the efficiency of A&E Department processes** within the hospital complex.
- **Make management decisions** to improve the quality of patient care and then quantify the impact of those actions.

## Results

Thanks to this solution, we were able to:

- **Optimise A&E management processes** to improve the quality of patient care.
- **Eliminate the need for ward clerks to manually locate patients**, reducing tracking time and helping to improve space management.
- **Reduce the response time** of healthcare professionals in different situations.



5G

Robotics

Remote control

# Making a mark

By combining 5G technology with videoconferencing and collaboration tools such as Cisco Webex, we can create new and enjoyable connected experiences, with huge potential benefits for society. One example of this is improving accessibility for the elderly and people with functional diversity, by giving them the ability to take a 'remote walk'. They can do this by tele-controlling a four-legged robot from any location, enjoying the views as if they were out on the trail themselves.

## Objectives

The main aim of this project is to provide real inclusion for people with functional diversity on the Camino de Santiago pilgrimage, showcasing the most human side of the latest advances in technology.

## Results

On June 10<sup>th</sup>, a group of pilgrims walking the Camino de Santiago trail reached their final destination, the Plaza del Obradoiro. They were accompanied by Unitree Go1, a robot equipped with 360° vision cameras and connected to Telefónica's 5G network. The network provides high upload bandwidth and immediate response time, both of which are essential to enable remote control using technology developed by Cisco, Universidade de Vigo and Makenai. Having real-time remote control of the robot meant that Eli, based in Italy, could join the rest of her teammates in the final stage of their pilgrimage.



# Discover



### Document

"Making a mark  
Tele-walking for a  
real inclusion."

GO



## What they say about us

“



“Telefónica Tech helped us to navigate a lack of resources, and time within our teams because we haven't got infinite resources. They have given us extra capability, and capacity to move projects along faster and deliver a better outcome quicker. One of the benefits from the ServiceNow implementation as an example, is the improved time for our staff to turn and look after patients.”

**Matt Harris**

Digital Services Director, Oxford  
University Hospitals Foundation Trust



“Our partnership with Telefónica and Cisco has given us a first-hand look at how 5G coverage and technology is opening up new possibilities that go far beyond connectivity, allowing so many people to enjoy experiences that would otherwise be almost impossible.”

**Felipe Gil-Castiñeira**

Honorary Professor at the School  
of Telecommunications Engineering  
and Researcher at atlanTTic



“When Telefónica works on technology for people with disabilities, it aims to empower them, making them more independent and happier as a result, fully integrating them into our digital society where they too belong, without leaving anyone behind.”

**Luis Rojo**

Social initiatives – Telefónica Foundation



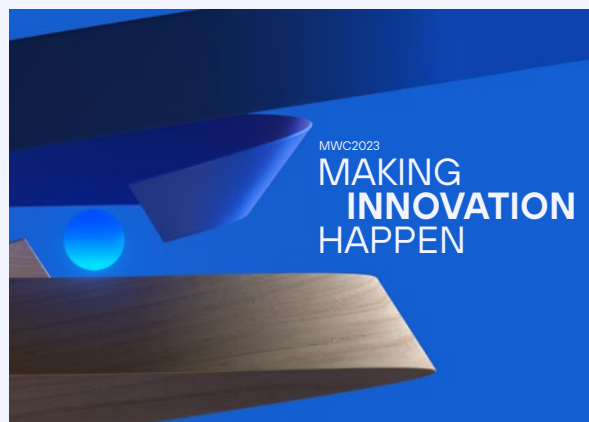
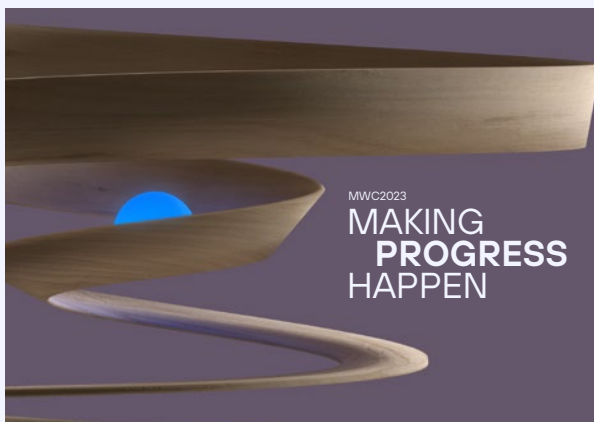
“Telefónica has played a crucial role in the success of Dejando Huella (Making a mark). We are transforming in a truly inclusive way and together we have made a real impact through digitalisation.”

**Karina Fariña**

Account Manager at Cisco

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What they say about us



Find out more in our  
[Transformation Handbooks](#)

