

# TELECOM DIVISION

Over **33 years of experience** in this field

We work for the major operators, vendors and owners of telecommunication infrastructures in the country, accumulating more than 30 years of experience as a great asset for Magtel

With the wide range of services we provide, the company continues to play a major role in the technological development of municipalities of all existing population densities, through participation in major network deployment and maintenance projects in both fixed and mobile communications.

We are a driving force in connecting environments, homes and businesses, and a major player in the development and expansion of 5G.

Our principles are based on four fundamental pillars:

- > Loyalty to our customers
- > Technological knowledge
- > Preventive and safety culture
- > Commitment to quality and respect for the environment to connect to the world around us as a model of sustainable management and professional solvency



#### > Fixed network

- >> Engineering, permits and legalisation
- >> Deployment of FTTH-FTTN-FTTx-MAN-LD-HFC networks
- >> Outside plant maintenance
- » Affected services

#### > Mobile network

- >> E2E project development
- » Installation and commissioning of telecommunication equipment
- >> Engineering services
- » Radio links
- >> Radiant systems
- » Construction of rural/urban sites and technical rooms
- » Adaptation of base station infrastructures
- >> Plant audits

#### > I&M for clients

» Installation and maintenance service for clients

#### > Railway installations

- » Communications
- >> Signalling
- >> Security
- >> GSMR systems

#### > Special projects

- Security installations
- » CCTV
- >> Public address
- >> Control and office automation

#### > Deployment of FTTH-FTTN-FFTx-MAN-LD-HFC networks

## Deployment of FTTH networks for

Fibre-to-the-home network engineering and installation

Design and construction of 93,500 IU, mainly in low population density cities in Andalusia, Extremadura, Castile-La Mancha and Madrid.

The work consisted mainly of obtaining permits, design and registration of as-built plans, civil works for cable installation, fibre optic splicing and commissioning.

#### Civil works project for Vodafone-ONO

Maintenance and deployment of HFC and FO networks

Extension, construction, conservation, site adaptation and implementation of network deployment projects in the fixed universe, within Vodafone's own infrastructure or that of third parties.

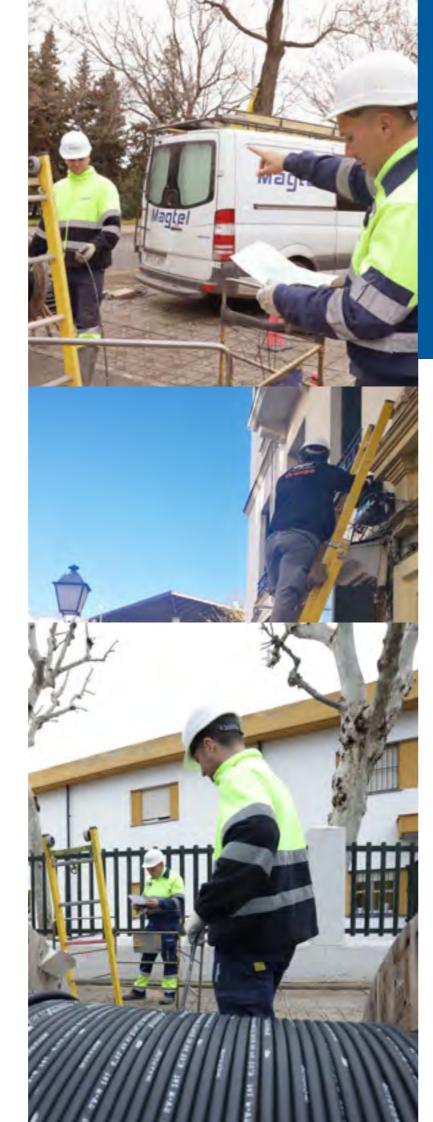
The scope of this project covers high-impact incidents occurring in the Vodafone network, and incidents of customers lack of service caused on the network, in Vodafone or third-party infrastructures.

Activity implemented in Andalusia and Extremadura.

We have 15 plus years working with the different companies that this operator has run (Supercable, Auna, ONO, Vodafone).

#### ▶ Installation and civil works for fibre optic infrastructures

Civil works, installation, splicing and fibre optic measurements have also been conducted for clients such as Adif, Reintel, Cobra, Comsa, Lyntia, Gamma Solutions, Kapsch Trafficcom Transportation, etc.



#### Outside plant maintenance

#### ▶ For more than 350,000 Orange customers

Service and fault resolution in Orange's fibre optic network; extension of TCs due to saturation and maintenance of more than one million homes in Eastern Andalusia, Melilla and Madrid.

#### > Installation and maintenance service for clients

#### ▶ Installation and maintenance (I+M) for Orange

Around 74.500 installations carried out

Installation of FTTH and ADSL to customers' homes, connection, testing and commissioning of telephone, internet and television installations.

Outside plant maintenance of the FTTH network was also undertaken.

These works were done in eastern Andalusia, Melilla and Madrid.



#### > Railway installations

### ► Experts in rail infrastructure, communications and signalling

We are backed by 25 years of experience in projects executed throughout the national territory

Extensive experience in railway communications through the deployment of fibre optics, operation and maintenance of networks and communications on high-speed lines.

- > Road construction and maintenance
- > Assembly of turnouts
- > Track welding
- > Rail replacement
- > Construction of molehills
- > Approval for aluminothermic welding and stress relieving (special permit class C)
- > Infrastructure machinery operator's licence
- > Traffic Safety Rating (safety pilot)
- > Track welders, safety engineer drivers and infrastructure machinery operators all officially approved by ADIF

Project for the installation of sensor cable on the Guadalmazán viaduct of the Cordoba-Malaga high-speed rail line Civil works, installation of signalling, telecommunications, train protection and energy systems. Project to develop innovative solutions in the field of inspection of bridges, viaducts and turnout devices in ADIF. Initiative developed for the SENER-UPTECH JV. **▶ IBLAU construction project with CTC** Arahal-Fuente Piedra Civil works and assembly of telecommunications, train protection and energy signalling systems. For CAF Signalling, and as an end customer ADIF.



## > Connecting to the world around us



PABLO MUÑOZ MÁRQUEZ
Director of the Telecommunications Division

since it began, Magtel has been one of the most prominent players in the deployment of fibre optics in our country, participating in the main public infrastructure projects, as well as those involving the provision of services to households through FTTH networks. This leadership in the deployment and maintenance of urban and interurban fibre networks is symbolised by the nearly 15,000 kilometres of networks installed for the country's major operators and the one million plus homes connected.

A deployment that we have achieved thanks to the continuous improvement of our technological model, with a focus on permanent innovation, sustainable growth and a group of professionals whose continuous training is essential for our services to have maximum efficiency.

It is our contribution to Spain's role as one of the countries with the largest fibre optic deployment in the world after the great effort made in recent years. In fact, in January 2022, almost 13 million Spanish households had FTTH fibre optic lines, with a large increase of 1.2 million in 2021 and a forecast for 2026 of 16 million. A process that is progressing at great speed and which places us at the top of the ranking of European countries in terms of broadband availability.

#### > Throughout 2022

Throughout the year, Magtel participated in major deployments of FTTH-FTTN-FTTx networks as well as in I&M services and plant maintenance with major telecommunications operators covering the national territory, providing our experience with the greatest versatility to contribute our technological expertise to our clients' needs.

At Magtel we have also worked on railway signalling and communications for major projects developed by ADIF, one of our traditional clients, placing us alongside other prestigious national and international tech companies, and we have taken on the challenge of 5G in the railway environment, with new projects to be developed throughout 2023.

#### > Market forecasts

In this context, reports estimate that by 2027 the number of households connected to fibre will reach 199 million in the EU and 309 million across Europe, with France (31.1 million), the UK (30.1 million) and Germany (26.9 million) leading the way.

This forecasting exercise highlights the ongoing digital transformation of European countries and FTTH is playing an important role in this digital inclusion. And that is where Magtel has set our next objective for growth and positioning as a relevant player in other European countries.

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