Magtel INNOVATION & TECHNOLOGY

Find out
about what we do

Railway Install. Division

Integrated Communications

Signalling

Safety

Communications

We are Magtel

Magtel is a technology-based company that promotes the implementation of advanced systems, fostering greater efficiency in the use of natural resources and enhancing quality of life for society.

Magtel currently operates in the telecommunications, energy, engineering, infrastructure, digital transformation, railways, mining, and defense sectors. Its business model covers the entire value chain, from engineering and design to construction, commissioning, and the operation and maintenance of facilities.

Throughout its history, the company has received numerous recognitions for its projects, its commitment to social and labor responsibility, and its strong business growth. Among the most recent are the Marca Andaluza de Excelencia en Igualdad distinction, awarded by the Regional Government of Andalusia in recognition of its firm commitment to gender equality, and the Nuestra Energía award, granted by the Andalusian Ministry of Industry, Energy and Mines, which acknowledges its contribution to an innovative and sustainable energy transition.

Magtel's mission is to promote a more efficient and sustainable world through comprehensive technological solutions; its vision is to lead projects that generate value for technological and sustainable development; and its core values are excellence, commitment, leadership, innovation, and trust. Magtel's history stands as an example of adaptability, resilience, and forward-looking vision, reflecting Andalusia's commitment to sustainable development, innovation, and progress.

OPERATIONS VOLUME AND INVESTMENTS

€145M

A reflection of the strength of the business model and the sustained contribution of all business areas. A model that drives sustainable growth, strengthens industrial and technological capabilities, and consolidates strategic projects across its areas of operation.

ENGINEERING

- BESS Systems
- Pumped Storage
- Green Hydrogen
- Offshore Wind
- Desalination
- Biogas

INFRASTRUCTURE

- Hydraulic Engineering
- Civil Works
- Building Construction

ENERGY

- EPC
- O&M
- PV
- LV/MV
- Efficiency

R&D&I

- Energy
- ICT
- Environment

TELECOMMUNICATIONS

- Fixed Network
- Mobile Network
- I&M Customer
- Special Projects

DEFENSE

- Security
- Digitalization
- Communications
- Technology
- Monitoring
- Infrastructure

RAILWAY INSTALLATIONS

- Communications
- Signalling
- Safety
- Maintenance

THARSIS MINING

- Tharsis
- La Zarza
- Other Exploration Activities

DIGITAL TRANSFORMATION

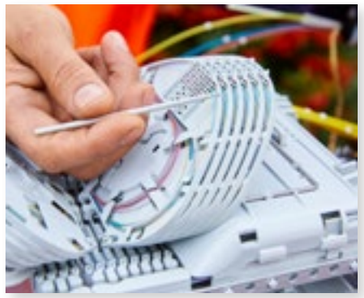
- ICT
- Smart Services
- Outsourcing

ECO RAÍL

- Freight
- Passengers

Shaping the Future **Since 1990**

→ A track record of innovation, growth and sustainable commitment that drives our progress and defines every milestone in our history



Leap in ICT:
from Copper to Fiber Optics

→ 1995

In 1990, we began our journey in the telecommunications sector, at a time of profound technological transformation.

We moved from working on traditional copper networks to playing an active role in the deployment of fiber optics—an advancement that redefined connectivity and laid the foundations for the digital future.

This leap enabled us to acquire key technical expertise and develop a solid operating model, aligned with increasingly demanding quality standards and driven by continuous innovation.

First Steps in Renewable Energy

→ 2005

In 2005, we took a key step by incorporating the energy business into our corporate structure.

We began by working on electrical infrastructure and gradually expanded into the field of renewable energy, promoting projects that combined efficiency, sustainability, and technology.

This evolution allowed us to complement our telecommunications expertise with new strategic business lines, strengthening our ability to design comprehensive solutions and contributing to the advancement of a more responsible and sustainable energy model.

Establishment of the Eco Raíl Railway Operator

→ 2013

The creation of Eco Raíl in 2013 marked our entry into the railway sector with a value proposition focused on efficiency and sustainability.

This step broadened our diversification and reinforced our vision of providing integrated services across key sectors for progress.

Through Eco Raíl, we incorporated newt echnical and management capabilities, consolidating a model that combines innovation, responsibility, and a strong commitment to sustainable mobility.

Entry into the Iberian Pyrite Belt

→ 2014

In 2014, we began our operations in the Iberian Pyrite Belt, participating in highly complex projects in Aznalcóllar, Tharsis, and La Zarza.

This move represented a significant milestone, as we applied our expertise in engineering, telecommunications, and energy to a sector characterized by stringent safety standards and demanding operational requirements.

Our work focused on improving infrastructure, optimizing processes, and delivering technological solutions to enhance the competitiveness of these mining environments, thereby reinforcing our commitment to economic development and applied innovation.

Commitment to Pumped-Storage Hydropower

→ 2020

In 2020, we launched an ambitious strategy focused on large-scale energy storage, developing 23 pumped-storage projects across different locations.

This commitment responded to the need to integrate renewable energy sources and improve the management of the electrical system, providing stability, flexibility, and efficiency.

The development of these projects strengthened our position as a forward-looking technology company, capable of undertaking high-impact initiatives and actively contributing to the transformation of the energy model toward clean and sustainable solutions.

Commitment to Biogas Plants and Lithium-Ion Batteries

→ 2023

In 2023, we took a further step forward in our sustainability strategy through the development of biogas plants and projects related to lithium-ion batteries.

These solutions enable the use of renewable resources, optimize energy storage, and support the transition toward a more circular and efficient model.

The combination of both technologies expanded our capabilities in the green energy sector and reinforced our contribution to decarbonization.

In doing so, we consolidated an approach focused on designing innovative infrastructure that addresses the major energy challenges of our time.

04

Railway Installations

Technology and reliability to drive a safer, more modern and efficient railway network

Railway Infrastructure Maintenance

Availability, safety and operational continuity in critical systems

The maintenance of railway infrastructure is a key element in ensuring operational safety, system reliability and service continuity across high-capacity corridors.

In 2025, Magtel strengthened its activity in this field through the delivery and support of complex interventions in signalling systems, train protection, fixed telecommunications, energy and traffic control, across both conventional, high-speed and tramway lines.

The experience gained from the deployment and modernisation of railway systems — such as automatic block systems, CTC, ERTMS/ETCS, ASFA, fibre optic networks and centralised control centres — enables maintenance to be approached from a comprehensive perspective, combining preventive maintenance, corrective actions and specialised support in demanding operational environments.

This approach helps maintain high levels of availability and reliability within railway infrastructure, reducing operational risks and ensuring the proper functioning of critical systems across strategic sections of the network.

Integrated Communications, Signalling and Safety Installations

Technological integration for present and future railway operations

During 2025, Magtel has delivered and progressed high technical-impact projects focused on the modernisation of signalling systems, traffic control, railway telecommunications and train protection systems.

Our areas of expertise include:

- Train detection systems, interlockings and signalling
- ASFA and ERTMS/ETCS systems
- Signalling, power and fibre optic cabling
- Control centres and fixed telecommunications
- Civil works related to ducting, trenches, manholes and technical buildings

This division encompasses projects of high technological complexity, delivered in collaboration with CAF Signalling, ADIF Alta Velocidad and public administrations.

Each project strengthens Magtel's role as a specialised partner in critical transport infrastructure.

Automatic Banalised Block (BAB) and CTC La Gineta – Socuéllamos

Within the framework of works carried out for CAF Signalling, Magtel has taken part in the execution of the Automatic Banalised Block (BAB) installation on the La Gineta–Socuéllamos section, as well as the Centralised Traffic Control (CTC) system between Alcázar de San Juan and Albacete, on the Madrid–Alicante railway line.

During 2025, specialised works have been carried out in railway signalling, train protection systems, fixed telecommunications, civil engineering and operational safety.

The project, which began in September 2024 and is scheduled for completion in the second half of 2026, reflects Magtel's capability to operate on critical railway systems in high-capacity corridors..

Grañén – Monzón Río Cinca Signalling

As part of works delivered for CAF Signalling, the project has included the installation of train detection systems, signals, technical cabinets, terminal boxes and all signalling and power cabling, as well as the decommissioning of existing installations.

ASFA systems have also been integrated, and fixed telecommunications upgraded through new digital transmission and fibre optic solutions.

The project, which began in September 2024 and is scheduled for completion in 2026, contributes to strengthening reliability and operational safety on a strategic section of the railway network.

Signalling and Train Protection Systems at Murcia del Carmen Underground Station

This project, developed for CAF Signalling, covers the full integration of railway signalling systems at the underground Murcia del Carmen station and the El Reguerón area, including signalling, ASFA, ERTMS/ETCS, auxiliary detection systems, CTC, fixed telecommunications and GSM-R.

Works have included, among others, the installation of fibre optic cabling, distribution frames, splicing, as well as the corresponding testing and final checks.

With an execution horizon extending to 2028, this project stands out for its strategic importance in the modernisation of railway infrastructure in south-eastern Spain.

Removal of Telephone Block System on the Cotos – Cercedilla Section

This project, carried out for CAF Signalling, involves the replacement of the telephone block system with a modern and safe signalling system, incorporating automatic train detection, signals, track equipment, technical cabinets and new signalling and power cabling.

The scope also includes the installation of transformer stations and the implementation of fixed telecommunications systems based on fibre optics.

Works began in March 2025 and are scheduled for completion in the second quarter of 2026, delivered by a specialised team that contributes to improving reliability and operational safety on the upgraded section.

Replacement of the Fibre Optic Backbone Cable in the Southern Area (Cáceres–Mirabel, Abla–Guadix, Seville–Utrera)

The replacement of the fibre optic backbone cable in the Southern Area (Cáceres–Mirabel, Abla–Guadix and Seville–Utrera), carried out for ADIF Alta Velocidad, has included civil works required to reuse existing infrastructure, as well as the construction of new ducts, trenches and conduits, and the installation of a new 64-fibre optic cable.

The project has also included the reorganisation of service connections, installation of distribution frames and the removal of existing cabling.

Starting in November 2025 with a duration of 14 months, the project has strengthened ADIF's optical communications backbone network across several strategic railway corridors.

Railway Systems for the Alcalá de Guadaíra – Pablo de Olavide University Tram Line

The rail systems for the Alcalá de Guadaíra–Pablo de Olavide University Tram Line were developed as part of a project led by the Regional Government of Andalusia, with Magtel participating as part of the Magtel–ENYSE–Syneox Rail joint venture.

The project involves a new 12.5-kilometer line that will connect Alcalá de Guadaíra with the UPO and incorporates tram signaling systems, centralized traffic control, selective automatic braking, SAE, fixed and mobile communications, security, SIV, and ticketing. Additionally, the project includes a Centralized Control Center fully integrated with the Seville Metro.

Construction has been underway since October 2024 and is scheduled for completion in the first half of 2026.

The CAF–Magtel Joint Venture to Modernise Safety on the Espeluy–Córdoba Section

→ The project will modernise 97 kilometres of Line 400 with new interlockings, detection systems and technical buildings. The works include the implementation of ASFA Digital, LED signals and new cabling to update railway operations along the section

The joint venture formed by CAF and Magtel has been awarded the contract for the drafting of the detailed design and the execution of works to upgrade the safety systems on Line 400, in the section between Espeluy and Córdoba. The project, spanning 97 kilometres, will enable a comprehensive modernisation of signalling and control systems to enhance the safety, reliability and availability of the infrastructure..

The technical proposal submitted by the joint venture is centred on the implementation of 17 new electronic interlockings and two Object Controllers.

The new interlockings will be deployed at the stations of Campus Universitario de Rabanales, Alcolea de Córdoba, Los Cansinos, Villafranca de Córdoba, El Carpio de Córdoba, Pedro Abad, Montoro, Villa del Río, Los Siles, Marmolejo, Arjonilla, Andújar, Villanueva de la Reina, Espeluy, Triángulo de Espeluy, Mengíbar-Artichuela and Jaén.

The project also includes the construction of dedicated technical buildings to house signalling equipment, as well as the installation of key systems for railway operations, including ASFA Digital, LED signals, electromechanical point machines and new train detection systems. In this regard, stations will be equipped with axle counters, while the line will use audio-frequency track circuits, except on the Jaén–Espeluy section, where train detection will rely entirely on axle counters.

Additionally, the installation of communication and telephony systems, video surveillance and access control is planned, together with the deployment of new primary and secondary fibre optic cabling, including all associated splicing and connections, to integrate the new field elements and ensure the operational effectiveness of the entire system.

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