

## INDUSTRY 4.0

# Computer Vision

## HOW CAN TELEFÓNICA TECH HELP?

We help you improve your industrial processes by capturing information in real-time using video cameras. We can reduce your costs by automating tasks, guarantee quality or increase the security of your operations.

**Artificial Intelligence (AI)** is transforming the world, and **Computer Vision** has been providing invaluable services to industry for years. This technology, which is **growing at an estimated annual rate of between 12% and 15%, will exceed 20 billion euros of investment in the manufacturing industry worldwide by 2025.**

The different Computer Vision technologies offer advanced solutions such as:

- › **More accurate and reliable quality controls** in manufacturing processes, including subjective controls that previously could only be carried out by humans.
- › **Analysis of the chemical composition of materials** using hyperspectral cameras, improving the precision and efficiency of industrial processes.
- › **Automation in logistics**, such as reading labels on packages or pallets without stopping workflows, as well as identifying logistics containers and truck license plates.
- › **Operational security control**, guaranteeing the correct use of personal protective equipment (PPE), detecting unauthorized entry into restricted areas and minimizing occupational risks.

**Computer Vision** not only **improves accuracy and efficiency** but also **increases security** and enables companies to address complex challenges with **innovative and scalable solutions.**

## WHO IS THIS SERVICE FOR?



**Companies in manufacturing** sectors such as **automotive, food and beverage, metallurgy, chemical and pharmaceutical**, among others, that require quality control of surfaces, component detection, chemical contamination or similar.



**Logistics companies** that need to take accurate label readings (barcodes or OCR) or automate the measurement of volumes and weights of goods.



**Companies with activities that pose a high risk to operator safety**, interested in monitoring these risks and reducing associated workplace accidents.



## OUR VALUE PROPOSITION

### Our service

We offer end-to-end management to implement a complete Computer Vision solution. This includes:

- › **A pre-study** to understand the scope of the project. **Lab tests**, if necessary, to validate feasibility.
- › The **design** and **development** of the necessary hardware and software elements.
- › The **implementation** of the project with a customized approach.

We select the best vision technologies for each use case, including visible range, infrared, hyperspectral and 3D cameras, as well as the most appropriate lighting and its optimal configuration to obtain the best results.

We also offer an **after-sales support service** tailored to the needs and criticality of each plant. In some cases, we also provide **premium maintenance**, which allows us to adjust the models to new situations and guarantee operational continuity.

### What does it allow you to do?

This service will allow you to:

- › **Reduce costs** by automating monitoring and control processes, eliminating repetitive manual tasks.
- › **Improve quality** through automatic controls that detect and reject defects with high effectiveness and adaptability to different scenarios.
- › **Access information in real-time**, obtaining an objective and accurate summary of what is happening in the plants, which facilitates making informed and quick decisions.

## Benefits

### Reliable quality control

We reliably ensure production quality, using the most appropriate technology to detect both parameterizable defects and more subjective ones.

### Control of foreign bodies and pathogens in food

We identify foreign bodies and pathogens in the food sector using hyperspectral technology, applicable both in production lines and in laboratories. This improves quality and reduces production downtime.

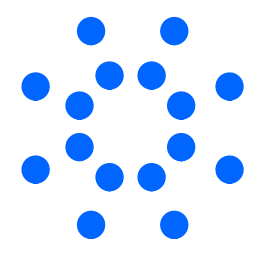
### Greater efficiency in logistics processes

We automate the reading of labels, barcodes and license plates of vehicles or logistics containers, either by OCR or other technologies. This optimizes process control and eliminates unnecessary manual tasks.

### Improved operator safety control

We monitor worker activity through security cameras to ensure compliance with regulations, such as the correct use of PPE, respect for aisles, detection of falls or slips, and the safe use of vehicles.

## Telefónica Tech's differential value



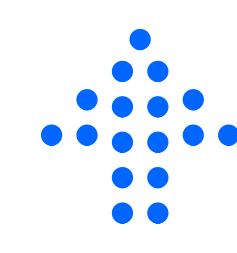
### Full integration with production systems:

We integrate with your organization's existing systems, such as PLC, MES, ERP, among others, or implement new systems as needed.



### Connectivity services and managed hardware:

We offer connectivity services and hardware management when required, guaranteeing a complete and adapted solution.



### Scalability and reliability:

We are prepared to scale the solution and tackle large-scale projects with complete confidence, backed by our experience and resources.

## EQUIPMENT, TEAMS AND ACHIEVEMENTS

### Our teams

- › **3 NOC locations**, Madrid, Valladolid and Brazil.
- › **+8 Computer Vision partners** specializing in different disciplines and use cases.

### Achievements

- › A service **that can be replicated** in different geographical areas.
- › **Broad experience** in real projects in industry.

## BUSINESS MODEL

After analyzing the customer's problem, including the possibility of site visits and laboratory tests with real samples, we define the solution and deliver a binding offer. **The service includes all necessary hardware and software, as well as the deployment and configuration of the solution.**

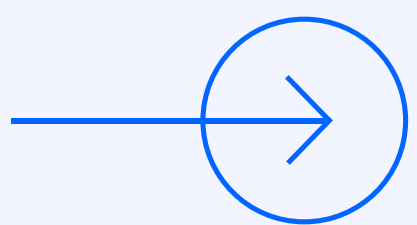
Our Telefónica Tech IoT & Big Data NOC experts also provide **operational support at different levels**, adapted to the criticality of the production process. **This support is offered under a monthly subscription model.**



## RELATED SERVICES

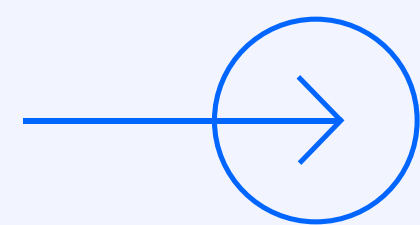
### Private Mobile Networks

An industrial network enables critical business operations by ensuring continuity, flexibility, and mobility in processes, supporting the rapid adaptation of production chains. It provides real-time responsiveness with low latency, depending on business criticality.



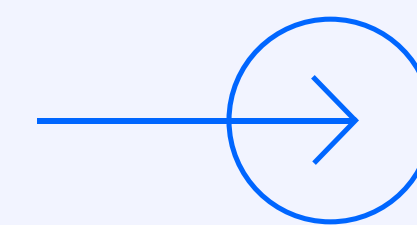
### Industrial Management Software

It is a comprehensive solution that optimizes efficiency in end-to-end manufacturing processes. It offers management of APS/SCM planning, DCS/SCADA/MES production, QMS quality, SGA logistics, and GMAO maintenance.



### Mobile Robotics

Automate recurring industrial processes such as load transportation and hazardous environment inspections, among others, more efficiently and with real-time activity traceability.



Contact us to start the digital transformation of your organization.

