

## **Electronic Manufacturing Services**

Technological capabilities, advanced customization.





# A wide range of services in the electronic industry area.

Adjusted, flexible and with innovative vocation, Fagor Electrónica provides a quick response, customer oriented and excellent in quality and service for their competitive companies that outsource manufacturing of electronics products.

In 1966, Fagor Electrónica started making components for the telecommunications sector with a clearly innovative spirit. Over the years its innovative spirit, and the experience in the sector, has allowed to offer a wide range of solutions.

#### Mission: Understand our customers

The will to understand our customers and connect with their needs has led us to offer a wide range of services in the electronic industry area for the following sectors: Automotive, White Goods, Telecommunications, Industrial Electronics, New Energies, ....

#### Mondragon: 1966

Manufacturing of components for the telecommunications sector ... Fagor Electrónica was born in 1966 with a distinctly innovative spirit. Research and industry experience have been critical to evolve into a leading electronics manufacturing services. Processes with the most advanced technologies and results in a rapid release of the product to get the necessary "time-to-market".



# Electronic Manufacturing Services

Fagor Electrónica is a leading EMS provider of PCA (Printed Circuit Assembly), which offers a complete portfolio of services with plants strategically located in Europe and Asia, to give our customers flexible solutions, economically efficient and scalable manufacturing.

- Low-volume FOT & prototyping
- · HMLV & HVLM automotive electronics
- · HMLV & HVLM consumer electronics



#### 1. DFA, DFM & DFT

In cooperation with the customer, we offer engineering solutions to improve the final product and to identify opportunities to reduce cost of materials, manufacturing process and tests costs and improve PCBA testability.



## 2. Materials purchase and logistics management

This constitutes added value to our range of services, providing in-depth knowledge of the sector, the manufacturers, and supply networks, and also the market evolution and cost-savings.

## 3. Prototypes /Pre-series preparation

We assembly first samples in order to assess, correct and improve the industrialization process according to our customer requirements, qualifying the manufacturing process and test controls before the release to mass production.





#### 4. PCBAs manufacturing

Fagor Electrónica offers a wide range of possibilities including assembly of complex PCBAs with diverse assembly and soldering technologies. Automatic assembly from SMT to THT; different soldering technologies like Nitrogen reflow, selective and wave soldering, Hot-bar, Test, in line 3D SPI, 3D AOI, inline and offline ICT & FCT, conformal coating and potting, developed according to our customer requirements and in compliance with sector and market requirements.





#### 5. Traceability

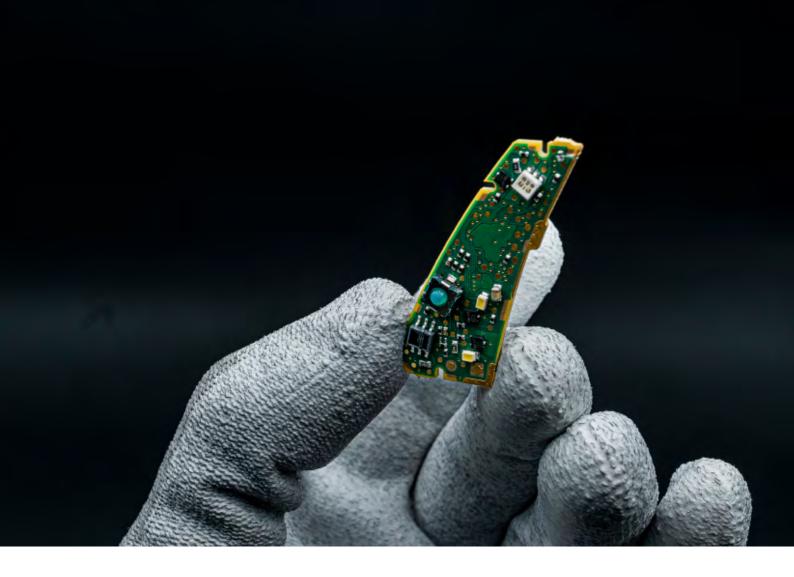
Full traceability of assembled PCBAs, from the components reception to the product delivered to the customer. We keep a record of all the measurements and controls performed during the assembly, test and packaging of the product.

#### 6. Reliability

An advanced components laboratory with burn-in facilities, temperature and humidity test chamber and thermal shock test chamber. In this way we can guarantee excellent reliability of our whole production process.







## Electronic assemblies and complete electronic product solutions for different sectors



#### **Automotive**

Big knowledge in this sector, supported by the IATF 16949 and experience with the major car manufacturers. We manufacture solutions for electric window antipinches, multimedia modules, light control knobs, radio frequency amplifiers and interior ambient lighting solutions for a wide range of vehicles.



#### **Telecommunications**

We have an extensive experience in design, development and manufacture of equipment for reception and distribution of TV signal.





#### **Industrial Electronics**

We have extensive knowledge in the development of circuits for applications in power electronics, inverters...



#### **White Goods**

We manufacture electronic products for various applications such as: touch controls for induction hobs and/or glass ceramic hobs, power controls for induction cookers, electronic controls for washing machines, dishwashers, ovens, electronic gas hobs, refrigerators,...



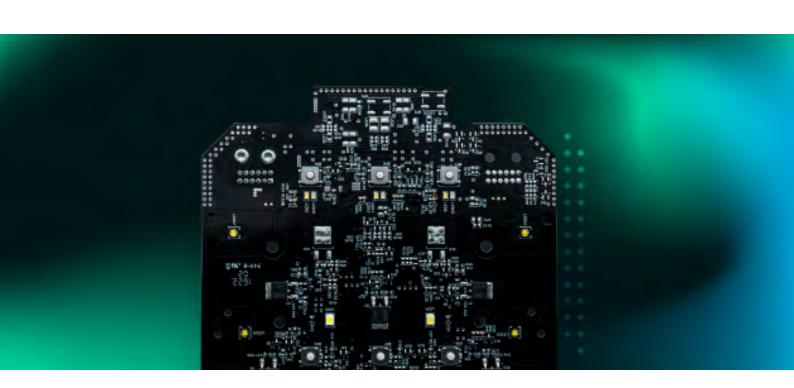
#### **Green Energies**

The ongoing commitment of the company to the environment has led us to collaborate with various companies in the manufacture of electronic products for this sector, mainly PV and solar thermal.

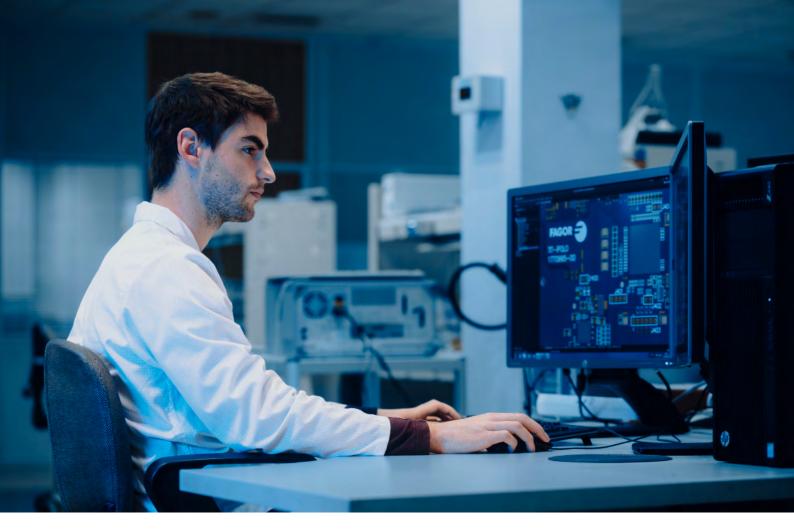


#### **Aeronautics**

Since the aviation sector is increasing the need for electronic innovations and sensing circuits, the need of inverters has increased. Fagor Electrónica has a wide range of inverters (DC-AC) suitable for the aeronautical sector.







# In Fagor Electrónica we provide development capacity, advanced production processes, flexibility and highly qualified personal.

We have different manufacturing technologies such as:

- · Lead free solder reflow, and tin-lead reflow with nitrogen ovens
- · SMT assembly with state of the art technology and equipment
- Automatic insertion of through hole technology components (THT)
- · Depaneling by routing
- · Wave soldering with nitrogen tunnel and with convection, infrarred and quartz preheating modules
- · Single and multipot selective soldering
- · Hot-Bar soldering
- Inline & Offline ICT (In Circuit Test) with In System Programming (ISP)
- Functional test and End Of Line test (FCT and EOL) tailored to suit customer, product and market requirements.
- Conformal coating with UV curing oven and potting
- We support our customers with big experience in Design for Assembly (DFA), Design for Manufacturing (DFM) and Design for Testability (DFT).

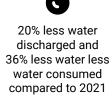


## Sustainability is in our DNA

Committed to people, committed to the planet and committed to our environment.

In Fagor Electrónica, sustainability is integrated in all our projects. Our cooperative essence has marked our roadmap in the more than 50 years that we have been working. A way of being, which is shown in our way of doing.







Budget for environmental management 428.162 €



Budget for community assistance projects 94.397 €





### Human Commitment. People first.

Fagor Electrónica is part of a cooperative project created by and for people. A company that stands out for its fairness, shared demands and co-responsibility. In spite of having different locations, all our staff is covered by collective agreements, in which communication between company and employees is always given importance.

And just as people are at the center of our company, so too are they outside, because our customer is the root from which all our projects spring.



## **Environmental Commitment Step by step towards a better future.**

In Fagor Electrónica we take care of the environment, we create solutions aimed at protecting the planet.

Our projects are focused on the reduction of emissions. In addition, we have a solvent management plan, we carry out reviews and inspections for the protection of the atmospheric environment and our main emissions are volatile organic compounds.

Emissions at all our plants are below the maximum levels established by current legislation. A group committed to the planet, always striving for a better future.

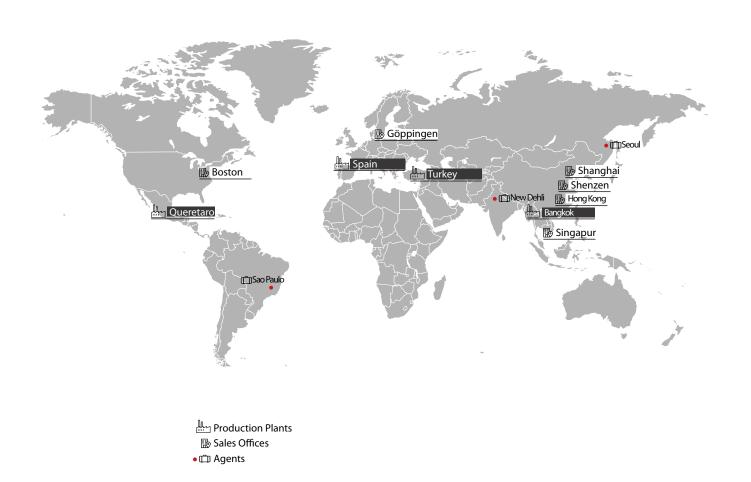
### Local commitment A close look to the whole world.

At Fagor Electrónica we have a global reach, but the attitude and closeness that characterizes us represents our local character. Circular economy is one of the bases of our strategy, reinvesting capital in new projects whose roots sprout in our territory and grow outwards. With transparency, adaptability and responsibility, we work on all five continents.





### A global company



## MONDRAGON The strength of a group that cooperates.

Fagor Electrónica belongs to the Mondragon Group, a cooperative reality, which started its activity in 1956, made up of 200 companies, 1 university, 14 research and development centers and 8 educational centers. We are committed people with a common identity that make up a profitable, competitive and enterprising project, capable of competing in international markets. With more than 80,000 employees, we are characterized by the use of democratic methods in our corporate organization. We aim to create jobs, to promote the human and professional development of our employees and to develop our social environment.







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