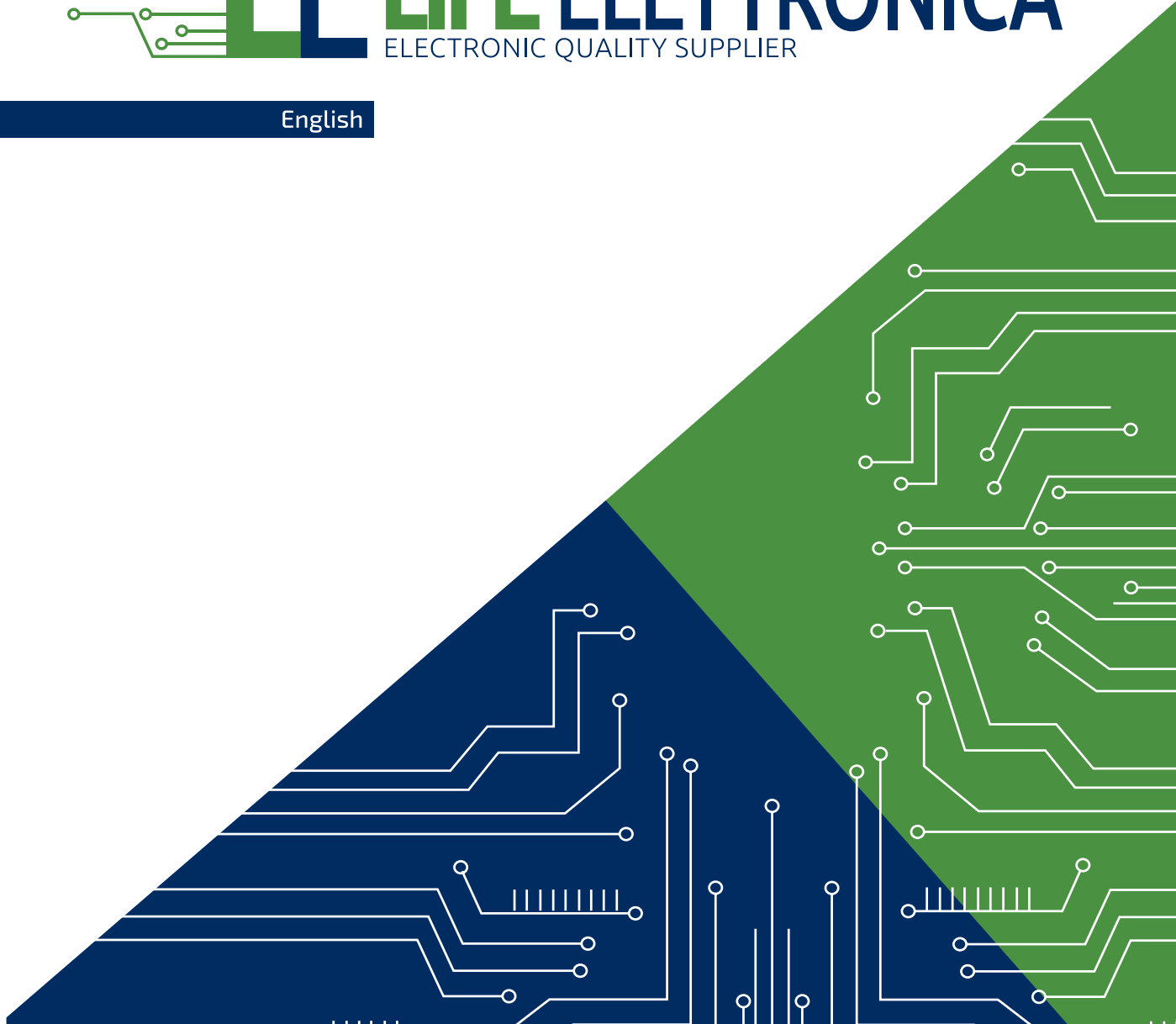
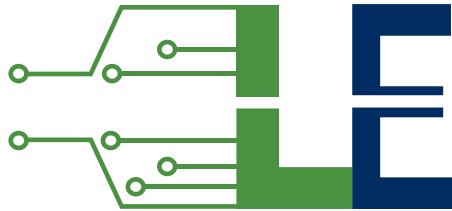




LE LIFE ELETTRONICA
ELECTRONIC QUALITY SUPPLIER

English



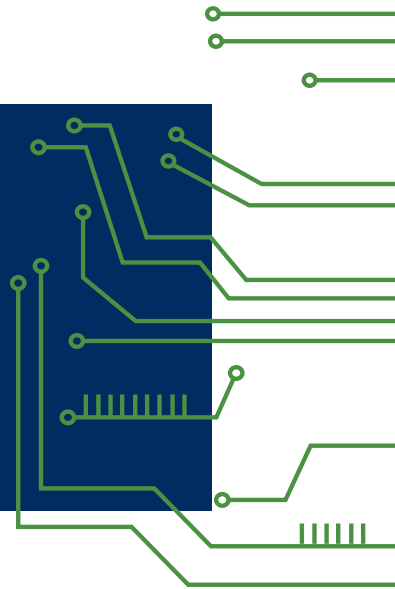


Our Products and Solutions have the same main philosophy:
to meet our Customers' needs.

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Passion, Technology and Quality



***“Our secret?** The tenacious pursuit of perfection, the ability to sustain and advance the needs of our customers, using the most modern technologies applied in all phases of the processes that generate our EMS services.*

***Our first task is to give security to the customer,** whoever he is: from smaller companies, with all their dynamism and desire to win, to the great global industrial group that wants absolute answers.”*

CEO Riccardo Galli



Company Profile

Life Elettronica was founded in 1982 and has specialized in the production of electronic boards and systems. It has developed and succeeded to become a reliable outsourcing solution for leading companies in different sectors of electronics.

In 2006 the property changed and was bought by the Galli family, in particular Ing. Claudio Galli and his son Riccardo. Under the new ownership, the company entered a new era, multiplying exponentially not only sales (which rose from 2 to 15 ML) but also skills and investment (both human and technological) stratifying experience and expertise to ensure high quality and technological standards. It has been equipped in recent years with all the latest technologies and certifications, obtaining a leading position in the Italian and International markets in terms of quality, service and flexibility

The company operates today in the most prestigious markets and industries such as Semiconductor testing, Railways, Automotive, Military & Avionic, Radiofrequency, Biomedical, Racing, Hydraulics and the entire Industrial world.

Today the role of Life Elettronica differs depending on the needs of customers and the sectors, ranging from an activity of mainly industrialization and assembly (EMS Electronic Manufacturing Services) to a fuller role that includes design and/or development of the product (ODM, Original Design Manufacturing).

Our Head Quarters

At the gates of Modena, in the heart of Emilia Romagna, our modern headquarters cover an area of 6,000 m², 5,000 of which dedicated entirely to the production of boards and complex embedded electronic systems.

Temperature and humidity controlled production departments and constant monitoring of all the ESD regulations make our plant a center of excellence in the Italian and International electronic markets.





Facts & Figures

A STEADY GROWTH

Life Elettronica presents itself to international technology markets with a steady growth due to high internal expertise, targeted investments and a continuous research for innovation and quality.

Our company's strength is a guarantee for our customers of a long and innovative partnership.

MORE THAN 15 MILLION TURNOVER IN 2018

INVESTMENTS IN INNOVATION

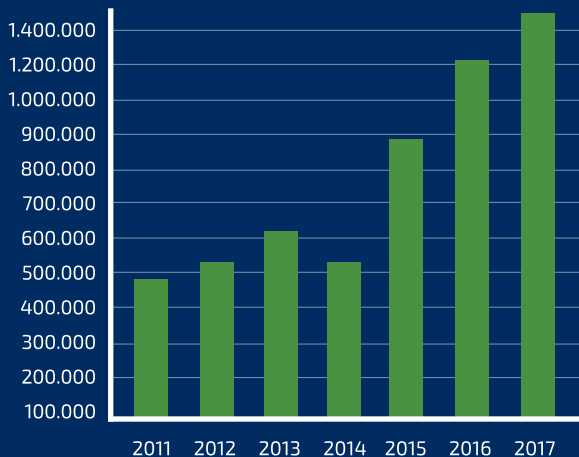
We constantly make massive investments in new technologies and innovative production platforms to offer more efficient services and solutions that meet the customers' demand especially the more technological and complex ones.

*We inaugurated our 6000 m2
new plant in January 2018*

MORE THAN 8 MILLION INVESTMENTS IN LAST 5 YEARS

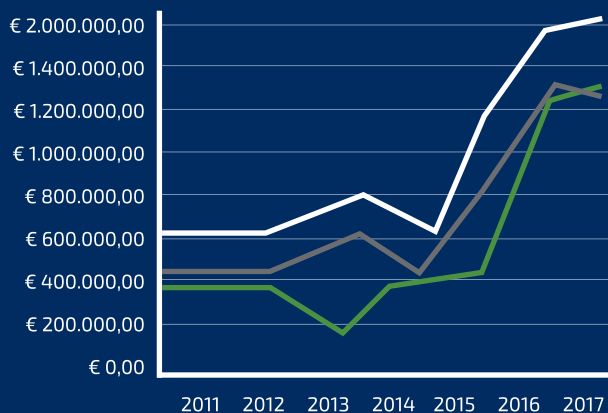
Economical Information

GROSS CASH FLOW



EBIT - EBITDA - GROSS PROFIT

■ EBIT ■ EBITDA ■ UTILE LORDO



TREND OF TURNOVER & PERSONNEL



Sector Skills



MARKETS AND PARTNERS

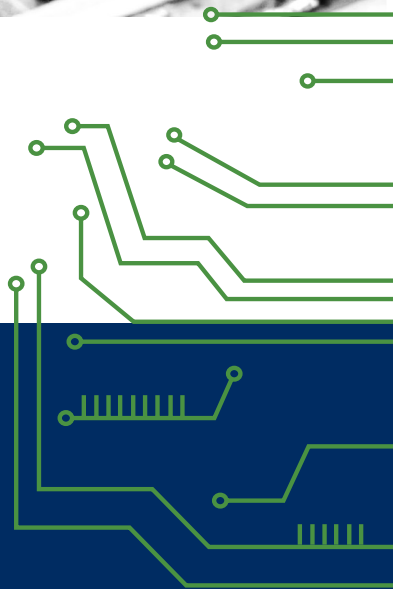
Life Elettronica presents a high level customer portfolio.

A lot of time has been dedicated to entering into very selective high-tech niche markets, which has permitted us to take a quantum leap in skills, investments and portfolio diversification.

SECTOR SKILLS OF LIFE ELETTRONICA ARE STRATIFIED IN THE FOLLOWING AREA:

INDUSTRIAL AUTOMATION
AUTOMOTIVE
RAILWAYS & TRANSPORTS
VISION SYSTEMS
MILITARY & AEROSPACE
RADIOFREQUENCY

SEMICONDUCTOR TEST
RACING
BIOMEDICAL
BATTERY MANAGEMENT
PACKAGING
BLUETOOTH



Application Technologies

TECHNOLOGIES AND KNOW-HOW

Thanks to our great Know- How, built over the years with experience and advanced specialization courses, Life Elettronica is now capable of top performances in the following applications:

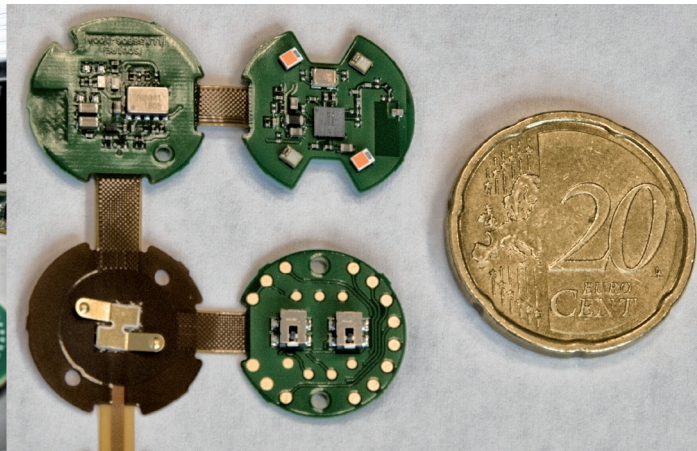
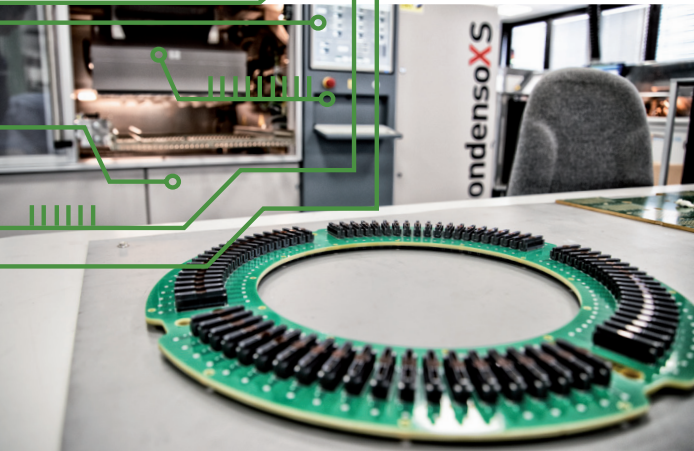
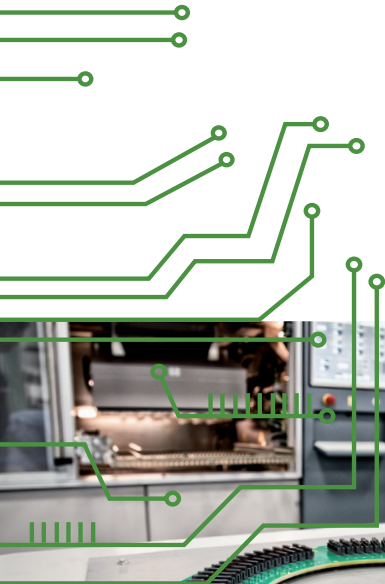
Balling MLO (multilayer organic), RE-balling BGA, Bonding, Flex, SemiFlex, Rigid Flex, Rigid (0.2mm to 7mm thickness), MotherBoard (up 685*585), IMS, PoP, Underfill, Vapor Phase soldering, Selective Soldering, 6 axis resin machine, Xray3D for process control and complex analysis.

HIGH- LEVEL RESEARCH

Our large production capacity, the excellent flexibility of our structure and the high professionalism of our staff, allow Life Elettronica to meet the demands of an increasingly competitive market.

The customer can rely on a quick and effective partner, who is able to offer a total supply, from project development to finish product. In various application fields and for different types of products.

The success of Life Elettronica is guaranteed both by extremely competent internal expertise resulting from research and know-how and by the good relationship with its reference supply partners, carefully selected worldwide.





QUALITY IN PROCESSES

The production process in Life Elettronica is constantly monitored in order to guarantee customers the highest quality and repeatability of results. We introduced some very effective tools in the company such as:

- P.F.M.E.A. (Process failure Mode Effect Analysis).*
- Model and control plans for each individual project.*
- Advanced tools for performance simulation.*
- Applications for statistical control of the production (SPC).*
- Management and classification of faults.*
- Marking and evidence of the history of each serialized product.*
- Systems to record events, transits and outcomes.*
- Automatic identification with bar codes, datamatrix and laser mark on PCB*
- Automatic identification of component packs with complete traceability per boards*

QUALITY OF PERSONNEL

Everyone in Life Elettronica is highly qualified and can take advantage of more than twenty years' experience in this field.

Moreover we are certified according to IPC-A-610, IPC 7711/ 21 standards, which guarantee that all processes in the company are constantly monitored to provide the highest quality of the finished product.



CERTIFICATIONS

The high standards of production efficiency, the ISO 9001: 2015, ISO/TS 22163:2017, EN 9100:2018 and the several automotive audits the company has undergone in recent years are the main guarantee for our customers.

Each individual stage of processing is studied to combine reliability, flexibility and low costs. Starting with testing equipment and constant comparison with internal and external benchmarking, the entire process is built to meet the transparency and quality requirements.

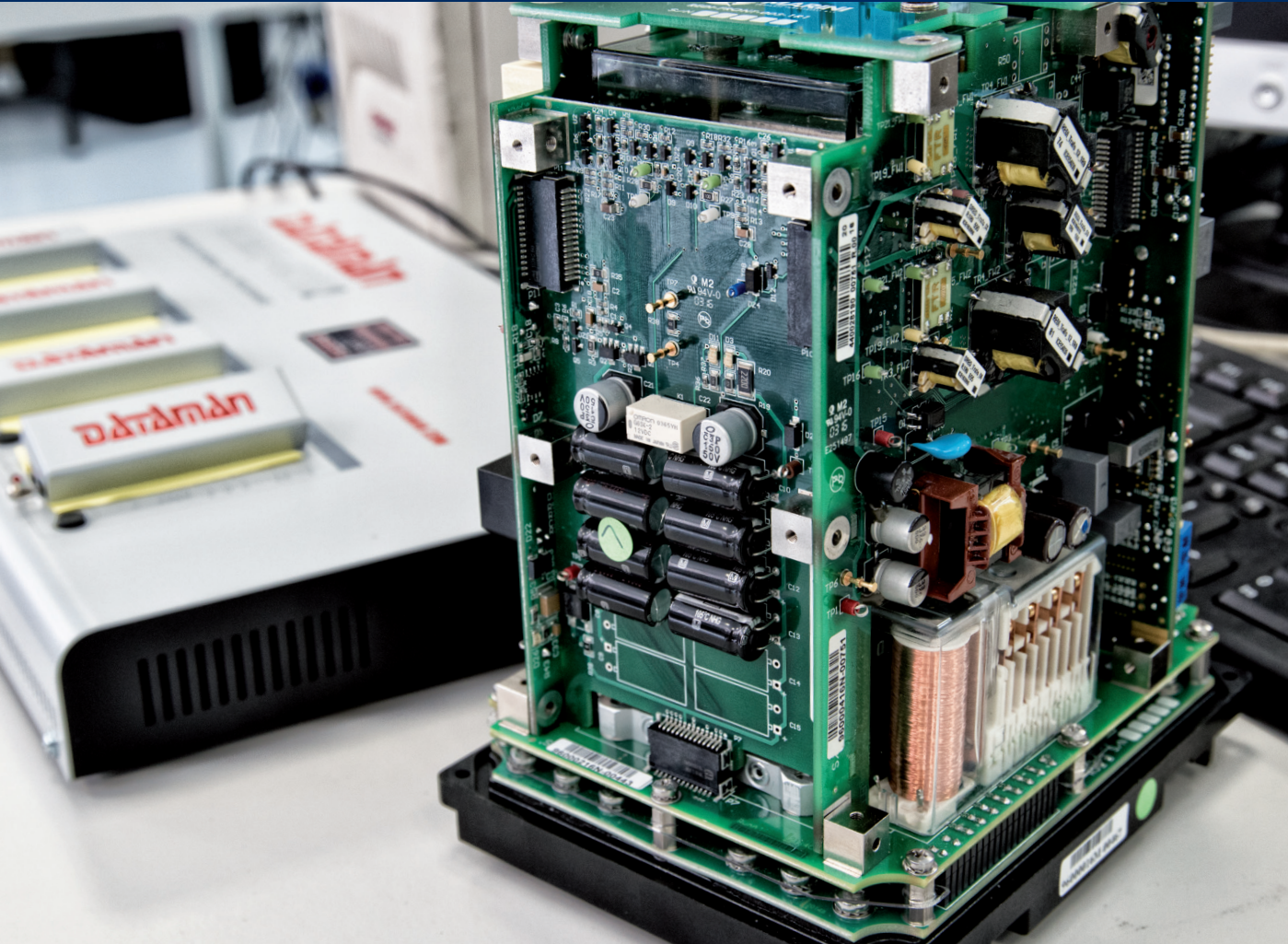
The processes are exposed to strict controls to allow the complete traceability of components throughout the whole production chain, from raw materials to finished product.

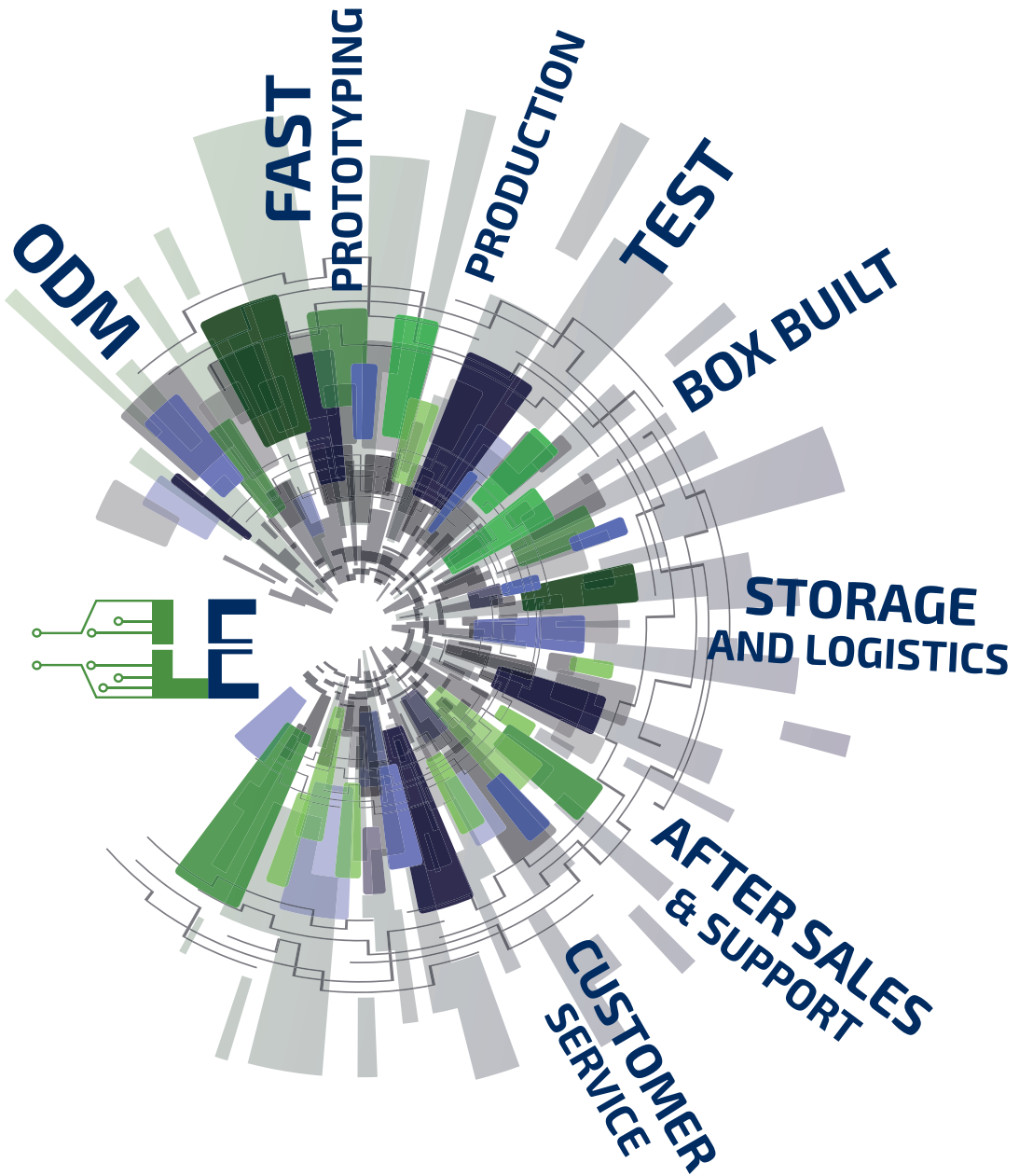


Services and Solutions

From design to fast prototyping,
to high-tech production and testing departments,
to respond to customers' needs.

Customer satisfaction has always been our first goal.
For this reason we provide a wide range of services
from ODM to after sales support.





Design

Products and systems designed by Life Elettronica are focused on fulfilling the technical requirements specified by the customer from the perspective of cost and reliability optimization. Our brand new R&D team will follow you during all the delicate phases from the concept development and certification to the serial production. Our engineering services are:

Feasibility studies
Development of "keys in hand" solutions
Co-design

Hardware Design
Software Design
Mechanical Design

DFM, DFT
Design and development of equipment for testing
Technical Assistance



Prototyping

Life Elettronica has a team and a latest generation assembly line dedicated to Prototyping and is able to offer to customers 24/h fast services. We guarantee rapid availability of all the components thanks to privileged agreements with distributors of components and printed circuit manufacturers. Particular attention is given to the engineering part of the process with retroactive feedback to the HW design, which is necessary for proper industrialization and a minimization of critical issues during mass production. Furthermore, with the help of our partners, we are able to certify products with the following tests:

Tests for the CE certification (EMC/EMI/RFI)
Reliability Testing HALT (Highly Accelerated Life Tests)
Safety Tests

Climatic Tests
IP Testing
Shock and Vibration Tests

X-ray Inspection
Thermography & Metrographic Test

Production



The production department of Life Elettronica is not only highly advanced, but is also a technological point of reference for any company in this sector.

The best technologies of the most expert industrial partners can be found in our EPA area to ensure our products and our processes a high quality standard.

***SMD Department, THT Department,
Coating & Resins Department,
Final Assembly***

Each production department of Life Elettronica meets the highest quality standards and has been designed to ensure maximum flexibility solutions to respond to the different needs of every single customer worldwide.

Production Departments

SMD DEPARTMENT

The SMD department in Life Elettronica offers 4 Complete assembly lines at the highest technological level with:

- Screen-printing Ekra*
- SPI3D Koh Young*
- Fuji NXTIII and Fuji Aimex*
- Reflow Ovens in nitrogen Ersas and Vitronics*
- AOI 3D ALeader*
- Vapor Phase Rehm oven for special applications*
- Single component traceability*
- Humidity controlled department and ESD*
- PCB laser Marker YJ LINK*
- XRAY 3D for process control*

THT DEPARTMENT

The Through Hole Technology Department in Life Elettronica has:

- Nr 2 Selective soldering line ERSA VersaFlow4/ 55 with double nitrogen pump*
- Welding line of Vitronics Soltec Wave Soldering*
- Manual assembly lines*
- PressFit assembly*

COATING & RESINS DEPARTMENT

The Coating & Resins department in Life Elettronica features:

- Line of automatic tropicalization Rehm, with treatment of resins*
 - Acrylic*
 - Silicone*
 - Silicones / glues / peelables*
- High precision Fluid dispenser S2-920 Nordson Asymtek*
- Two automatic resinating machines with 6-axis robot for bicomponent resins*
- Boards washing machine with Clean - No Clean processes*

FINAL ASSEMBLY DEPARTMENT

The Final assembly department in Life Elettronica has:

- 5 assembly lines for electromechanical products and electro plastics*
- Warehouses dedicated and close to assembly lines*

THE NUMBERS OF OUR PRODUCTION

- Manufactured boards: 1.500.000***
- Number of manufactured codes: 500***
- Number of batches produced: 1600***
- Max capacity / hour: 165,000 CPH***
- Max production / day capacity: 3.500.000 CPD***

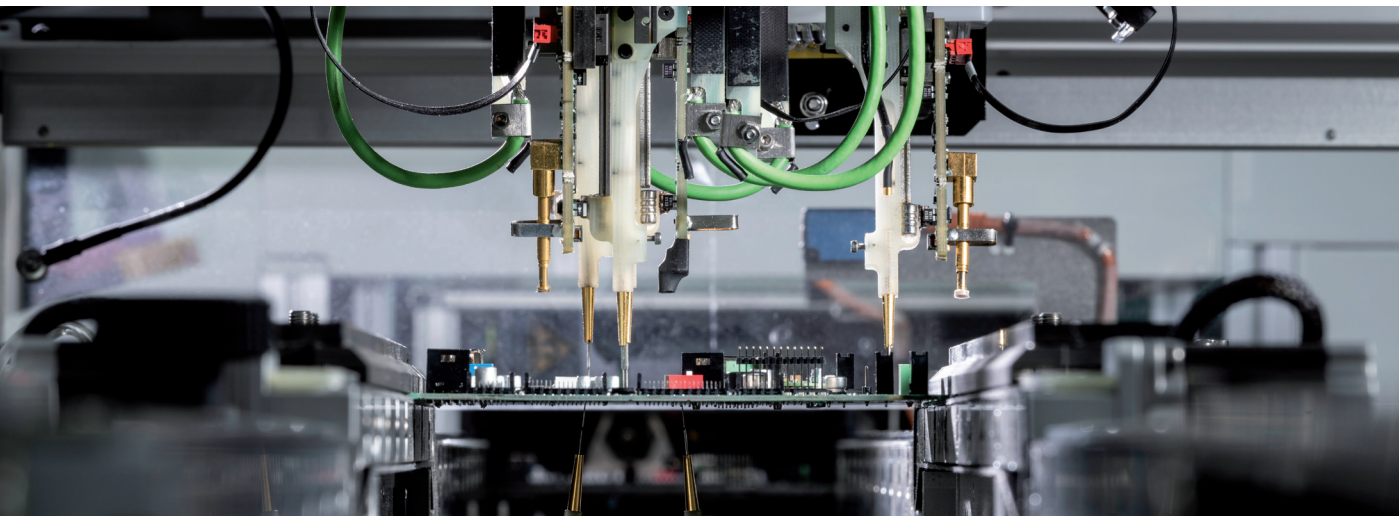
Test



The Testing department of Life Elettronica has the latest machineries and equipment to test the boards and electronic systems produced by the company.

The possible tests are:

Climate Chamber (Humidity and temperature controlled), Burn in test, Test ICT Flying Probe Spea, ICT test fixture fix Spea, Functional test (Lab View), OBP, AOI-3D, 3D Xray Test.



Integrated System



Life Elettronica is the ideal partner to rely on in every step of the supply chain.

If our customers require it, we can assemble, pack and ship the finished product to wherever the final destination maybe.

Thanks to our network of reliable purchasers we can provide a totally customized product.

POSSIBLE SPECIFICATIONS OF INTEGRATED SOLUTIONS:

High precision mechanical components

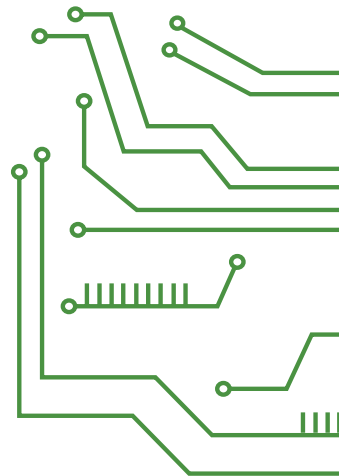
Plastic parts

Cables

Die Castings

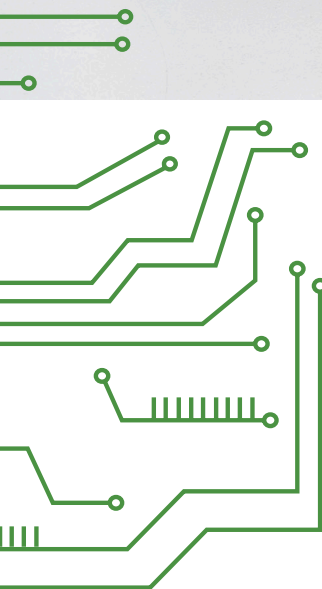
Thermoforming

Fusions





Warehouse and Logistics



Life Elettronica, with its automated temperature and humidity-controlled warehouses can handle the storage of raw material (components, printed circuit boards etc.) and the semi-finished products at the best possible conditions.

Our latest investment, to improve SMT components storage efficiency, are automated storage solutions.

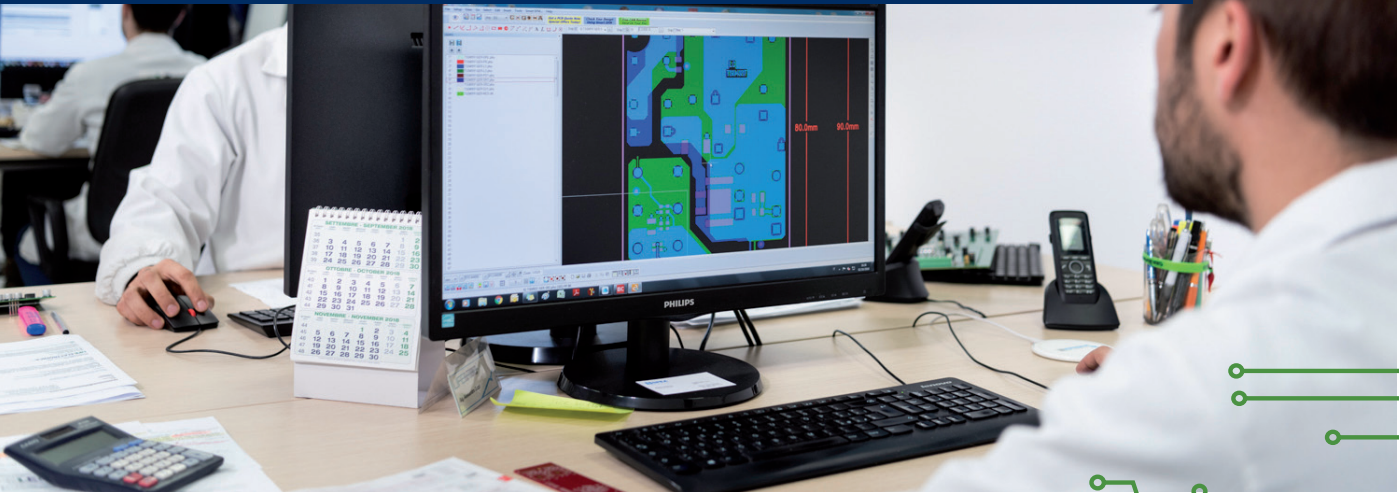
MAIN SERVICES ARE:

*Full traceability of every single component from incoming
Temperature and humidity controlled storage warehouses*

Automated storage solutions for SMT components

Production in humidity and temperature controlled areas and ESD Safety

Maintenance and After Sales Support



Our first target is the complete satisfaction of Our Customers.

This is why a team of engineers is at your service to guarantee always an updated product, economically competitive and designed with readily available components.

We effectively deal with issues regarding the EOL of the various components and we can provide compatible alternatives in case of allocations of items that are part of the BOM.

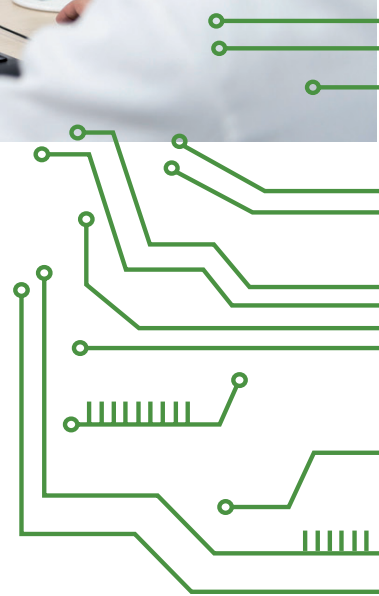
MAIN SERVICES ARE:

Re-engineering or re-design of electronic boards

Protection from obsolescence and monitoring of components at risk of obsolescence, through the PCN / EOL management

Research and proposal of alternatives for a cost review

Repairing and troubleshooting



Technology Profile

*Innovation and quality are a constant factor in the productive processes of Life Elettronica.
Discover the special technologies that support our solutions.*

GENERAL INFO

RoHS and NON RoHS capability
SMT and THT areas under temperature and humidity control
ElectroStatic and Moisture Sensitivity Management
Automatic magazine for reel, tube and tray under moisture control.

SMT ASSEMBLY CAPACITY

MAX. ASSEMBLY CAPABILITY 400 million of components per year
TYPES OF COMPONENT 01005, BGA, LGA, QFN fine-pitch (0,2 mm)
MAX. COMPONENT DIMENSION 180 mm x 32 mm OR 75mm x 75mm, H25.4
MAX. BOARD DIMENSION 680 mm x 580 mm
SOLDERING nitrogen atmosphere with real time profiling; Vapor Phase Soldering
TRACEABILITY each component SMT ASSEMBLY CAPACITY

THT ASSEMBLY CAPACITY

COMPONENTS PREPARATION automatic / semi-automatic
MAX. BOARD DIMENSION 540 mm x 450 mm
SOLDERING wave and selective (2 POT), nitrogen atmosphere

PROCESS CONTROL

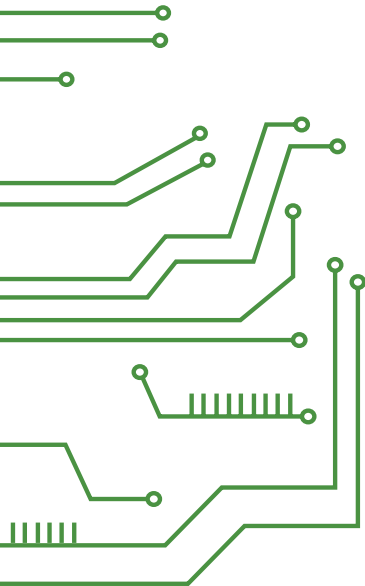
SCREEN PRINTER SETUP CONTROL
SPI3D IN LINE 100% AREA, VOLUME AND HEIGHT
3D-AOI INSPECTION 100%, solder joints and components placement
X-RAY 3D INSPECTION for BGA and non-visible characteristics PROCESS CONTROL

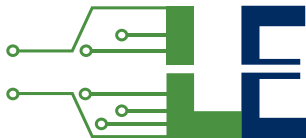
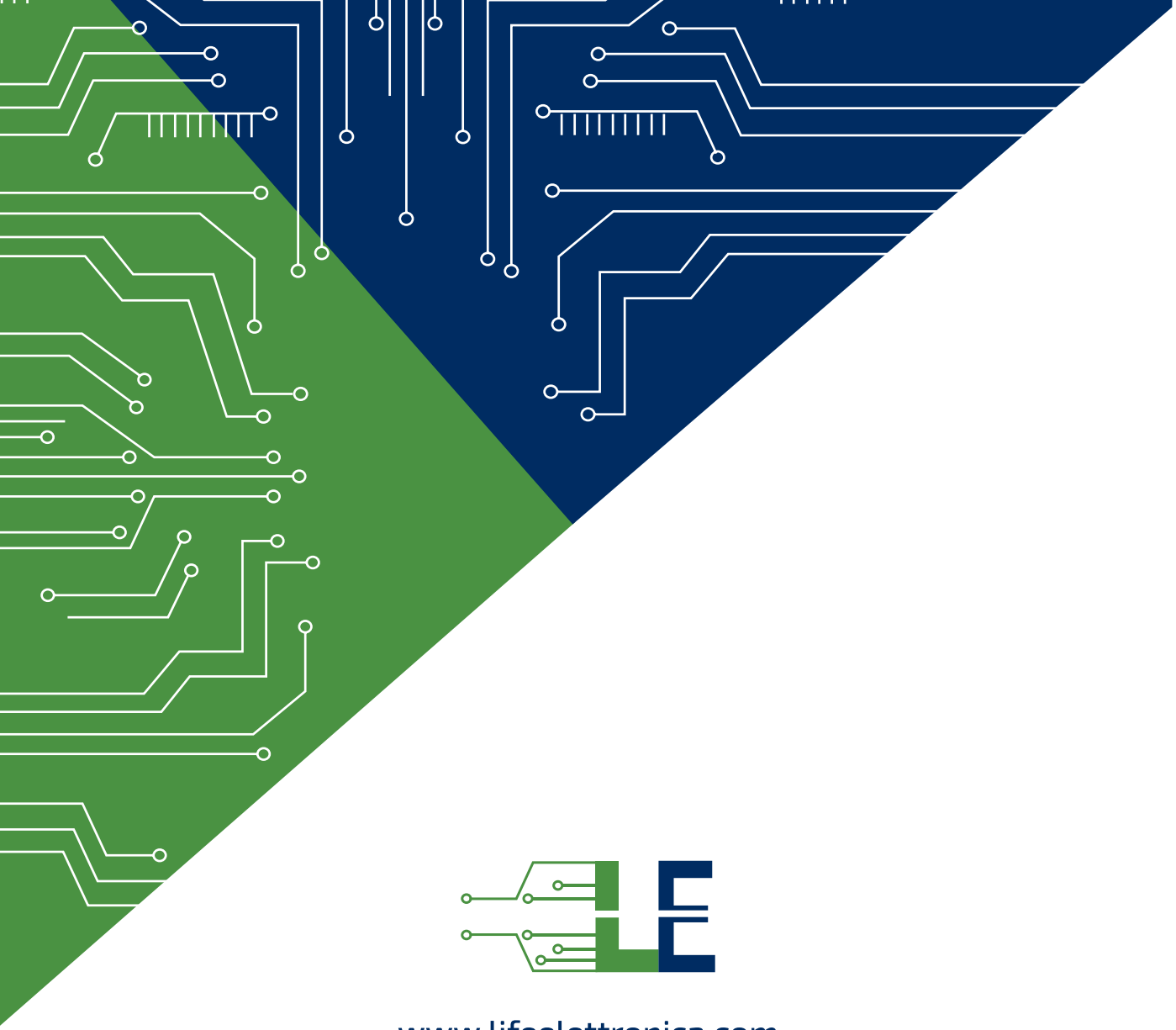
TESTING, AGEING, SAFETY

ICT FLYING PROBES with power-on features
ICT BED OF NAILS with power-on and integrated programming functionalities
AUTOMATIC FUNCTIONAL with National LabView®-based platforms
SEMI-AUTOMATIC FUNCTIONAL with customized simulation tools
AGEING burn-in and run-in climatic chambers
SAFETY hi-voltage, insulation, ground protection, leakage current

SPECIAL APPLICATION

COATING In line with acrylic and siliconic tropicalization
RESIN Automatic 6 axis machine
WASHING Clean & No Clean Technology
BALLING & RE-BALLING 400 Micron or bigger balls
BONDING Wire bonding application
PoP Package on package application
SPECIAL PCB Flex, semi-flex, rigid-flex, rigid (from 0,2mm to 8mm)
UNDERFILL Underfill BGA application.





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