

# COMPANY PROFILE 2019



www.bitron.net



#### Our reference point is Man



In this era of rapid change, we believe that the only certain reference point is Man, with his extraordinary capability to adapt and succeed. For this reason, our employees and the increasingly wider community of stakeholders are essential for our company to master economic, technological and environmental challenges successfully.







A LONG-STANDING EXPERIENCE IN OUR TRADITIONAL MARKETS AND OUR CONTINUOUS IMPROVEMENT IN TECHNOLOGY AND INNOVATION, ENABLE US TO MEET THIS CHALLENGE.

## ☐ ☐ BITRON KEY DATA

**Our numbers** 



#### **EXPERIENCE THAT MAKES A DIFFERENCE**

Since **1955** 

leader in research, development and manufacturing of mechatronic devices and systems for the automotive, appliance,

HVAC and energy industries.

#### **INVESTMENTS** [M €]

(Manufacturing & IT)

6.1% of sales

58M€

#### **HUMAN RESOURCES**

(temporary workers excluded)



6450

## BITRON IN THE WORLD

#### Manufacturing plants and development centres



**Elbi International (TO) APPLIANCE** HVAC TOOLING DEPT.



Alatri (FR) **APPLIANCE AUTOMOTIVE** 



Cormano (MI) **APPLIANCE** VENDING



**Dronero (CN) APPLIANCE** HVAC



**Grugliasco (TO) APPLIANCE** AUTOMOTIVE HVAC **ENERGY** 



Rossana (CN) **AUTOMOTIVE** 



Savona (SV) **AUTOMOTIVE MOTORCYCLES AND SCOOTERS** 



16 Sales and technical centres

**Bitron Service** (After market centre) Turin - Italy



**Electronic China Qingdao** 

APPLIANCE **AUTOMOTIVE** HVAC



#### Mexico

2 manufacturing plants: electromechanical and electronics units

Querétaro

**AUTOMOTIVE APPLIANCE** 



España Barcelona

**APPLIANCE AUTOMOTIVE** 



**APPLIANCE AUTOMOTIVE** HVAC **ENERGY** 



**Turkey** Manisa **APPLIANCE AUTOMOTIVE** 



China **Qingdao** 

**APPLIANCE** 

**AUTOMOTIVE** 

TOOLING DEPT.



## 

Home appliance, Automotive, Energy, HVAC

#### **Home Appliance**

























#### **Automotive**









MAHLE

TOYOTA











PIAGGIO®

#### **Energy**















## CORE TECHNOLOGIES

**Electromechanical Technologies** 

# High level of vertical integration to control the entire production cycle and to guarantee products' quality.



RUBBER COMPOUNDING
AND MOLDING



PLASTIC MOLDING,
OVERMOLDING,
MULTIMATERIAL INJECTION



PAINTING, PRINTING, LASER ETCHING



ELECTRONIC BOARDS
AUTOMATIC ASSEMBLY



METAL PROCESS: BLANKING, TURNING, SURFACE TREATMENT



**COIL WINDING** 



**AUTOMATIC AND MANUAL ASSEMBLY LINES AND TESTING** 

## ☐ ☐ CORE TECHNOLOGIES

**Electronic Technologies** 

















## 1. SMT phase

FULL TRACEABILITY AND AUTOMATIC MSL CONTROL

3D SOLDER PASTE INSPECTION

PIN IN PASTE ASSEMBLY

PTH AUTOMATIC INSERTION AND SOLDERING MODULE

IN-LINE ICT TESTING AND AOI (2D/3D)

X-RAY INSPECTION

## 2. Assembly and test phase

RECONFIGURABLE ROUTER (PCB SEPARATION)
RECONFIGURABLE MECHANICAL ASSEMBLY

**MULTI ASSEMBLY CELLS** 

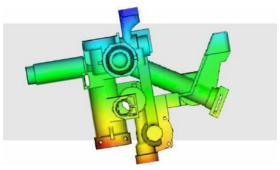
(STANDARD MODULE FOR AUTOMATIC LASERING, TESTING, ASSEMBLING AND PACKAGING)

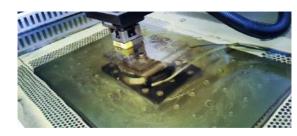
REAL TIME MONITORING OF PRODUCTION DATA
INTERNAL DEVELOPMENT OF TESTING SOLUTION

## ■ ■ ■ TOOL DESIGN AND MANUFACTURING

**Bitron Tool Departments** 













Located in Italy and China, with shared know-how. Focused on **mold design**, **production**, fine-tuning and maintenance.

## RESEARCH & DEVELOPMENT

The systems approach: expertise and strategy



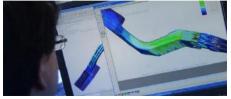






**MULTI-FUNCTIONAL ENGINEERING TEAMS BEST-IN-CLASS DEVELOPMENT TOOLS** SYSTEM KNOWLEDGE **DEDICATED COMPETENCE CENTRES MULTILOCATION R&D CENTRES** 





## **QUALITY: SYSTEM MANAGEMENT**

Quality, environment health and safety / Sustainability

Quality is one of the **fundamental principles** of the Bitron Group. Bitron group plants are certified according to **ISO 9001, ISO 14001** and where applicable, **IATF 16949**.

Alatri, Dronero, Grugliasco, Savona, Rossana and Poland plants are certified **BS 0HSAS 18001** as well.

The **ISO 27001** certification has been obtained by Bitron Headquarters and Bitron Grugliasco plant, we are working to certify the other Bitron plants.







#### The guarantee of lasting quality

The guarantee of lasting quality Bitron uses computerized axial tomography to visualize the internal geometry of parts and to performs digital radiography. It is designed to perform metrology tasks and it is currently in use to improve and speed-up mold tuning.













## 

**Health and Safety First** 



In order to spread the "safety culture" and to improve accident prevention, Bitron Group has launched a project entitled "Safety: our way of life".

The project has been rolled-out primarily in all of the Italian plants, focusing on training, education and improvement actions addressed to all Group employees. It is a permanent project involving all of the human

We are all highly committed to providing the **best** solutions in order to make our jobs and processes safer.

resources of the Company.



THE WELLBEING
OF OUR
EMPLOYEES IS
OUR PRIORITY



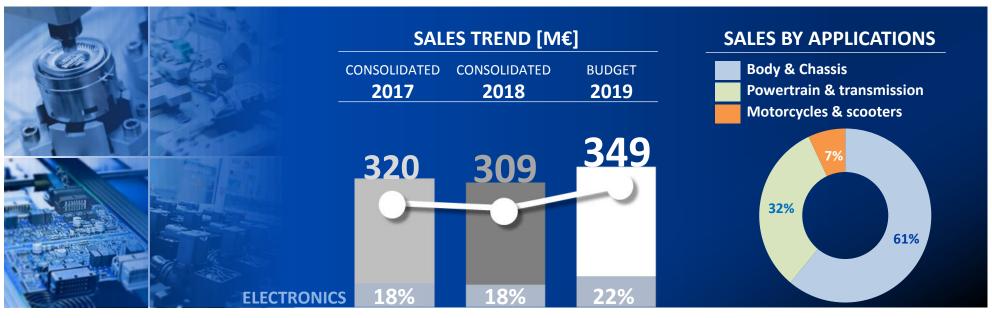




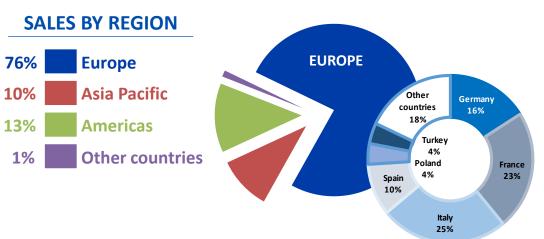
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#### Sales trend: share 2018 by applications / region



Bitron is a **leading** global supplier of mechatronic products for **body and chassis**, **powertrain and transmission**, **commercial vehicles**, **electric car**, **motorcycles and scooters industries**.





## **MAIN CUSTOMERS**

**OEM** and system suppliers































































#### **Powertrain: Engine**



**FUEL VAPORS CANISTER SEALING AND PURGE** 



**VACUUM SWITCHES & SENSORS** 



PROPORTIONAL VGT / **WASTE GATE / DUMP** 



AIR ON-OFF









WATER **VALVE FOR COOLING SYSTEM** WITH ELECTRICAL ACTUATOR



WATER **THERMAL** 



MANAGEMENT / **HVAC SYSTEM** 



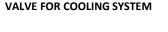
**ELECTRONIC PRESSURE TRANSDUCERS** 



PRESSURE SWITCHES



**ON-OFF & PWM** 



WATER



## AUTOMOTIVE PRODUCTS Automotive Division

#### **Powertrain: transmission**



**REAR GEAR BLOCK** 



**ELECTROMAGNET FOR** TRACTION CONTROL BI-STABLE



ON/OFF ELECTROMECHANICAL MAGNET



**PROPORTIONAL ELECTROMECHANICAL MAGNET** 



**ON/OFF SHIFT LOCK SOLENOID** 





**BACK LIGHT** 



**GEARBOX "CONTACTLESS"** 



#### **ELECTROMAGNETIC SOLENOIDS**



**SWITCHES** 



**SOLENOID VALVES** 





**OIL VALVES** 



#### **Body and Chassis**



RADIO, PHONE AND NAVIGATION CONTROL



SUN ROOF CONTROL AND VENTING



**HEAD LAMP** LEVELLING



**START & STOP** 



**SUSPENSION ROTARY CONTROLS** 



**HAZARD SWITCHES / SINGLE SWITCHES** 



WINDOW LIFT

**EXTERNAL MIRROR REGULATORS** 



**SWITCHES** LOCK/UNLOCK



**ELECTRIC PARKING BRAKE** 



**DOORS** 



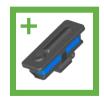
STEERING WHEEL



**ROOF** 



**DASHBOARD** 



HOOD **SWITCHES** 





#### **Body and Chassis**





**CONTROL HEADS** 



**ADDITIONAL** HEATER **CONTROLLERS** 



**TEMPERATURE CONTROLS** 



**SEATS** 







**ACOUSTIC & VISUAL WARNING DEVICES** 



**HVAC** 



**SMART ACTUATORS** 

**BRAKE / CLUTCH SWITCH AND SENSORS** 

**HAPTIC PEDALS** 



**PEDALS** 





**HEATING, VENTILATION** & MEMORY SWITCHES





SEATS ECU (MEMO, **HEATING VENTILATION)** 



## **Motorcycles and scooters products**





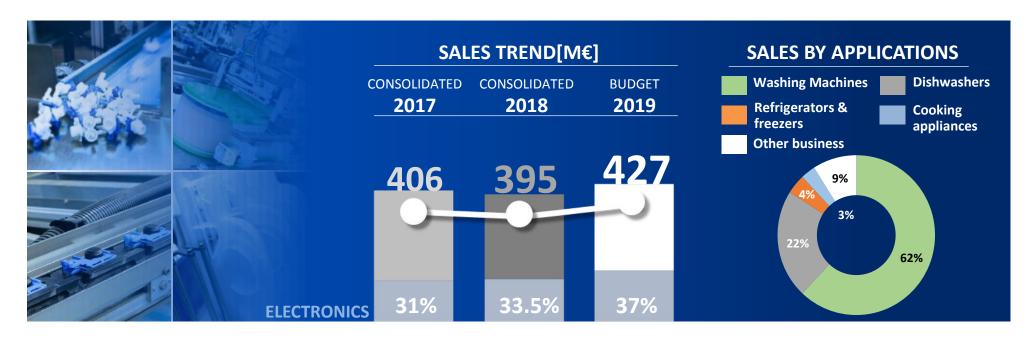




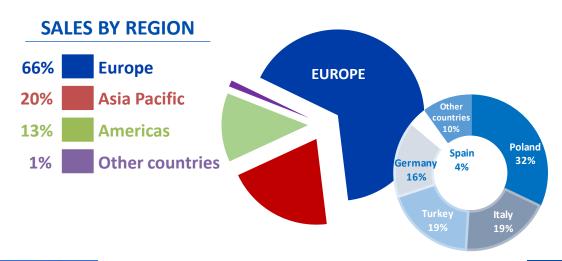
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Sales trend: share 2018 by applications / region



Bitron is a **leading** global supplier of mechatronic products for the **appliance industry.** 





## **MAIN CUSTOMERS**































































## **APPLIANCE PRODUCTS**

## **Washing Machine and Dishwasher**



**DETERGENT / RINSE AID DISPENSERS** 



**ACQUASTOP** 



**SOLENOID VALVES** WITH OR WITHOUT **FLOW METER** 



**SMART HOT & COLD MIXING VALVE** 



PRESSURE SWITCHES & SENSORS

**ELECTRONIC** 

**PRODUCTS** 



**TURBIDITY & TEMPERATURE SENSORS** 



**PERISTALTIC PUMPS** 



**MOTOR CONTROLS** 



**USER INTERFACES** 



**ELECTROMECHANICAL PRODUCTS** 



DOOR INTERLOCKS



**FLOATERS** 



**MICROSWITCHES** 



**ELECTRONIC** CONTROLS



**HEAT EXCHANGER** 



**SALT TANK INTO** THE DOOR



**AIR BREAKS & WATER SOFTENERS** 



**MOTORIZED VALVES FOR ALTERNATING** WASHING



**MOTORIZED WATER DISTRIBUTORS** 

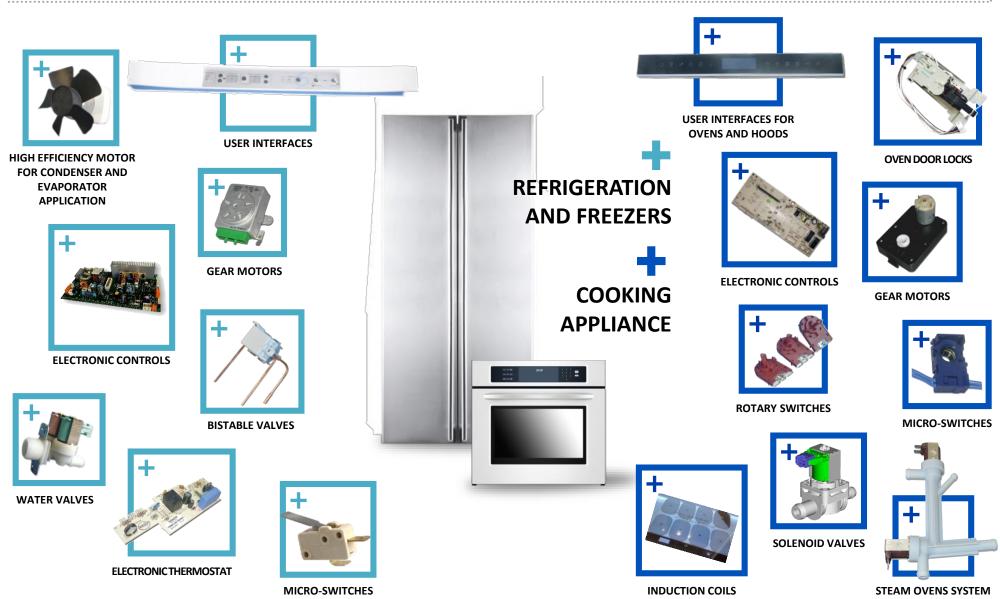






## APPLIANCE PRODUCTS Appliance Division

Refrigeration and freezer / Cooking appliance





## APPLIANCE PRODUCTS Appliance Division

Large appliance, Horeca and Vending



**GEAR MOTORS** 

MICROSWITCHES



SAFETY SOLENOID **VALVES** 



**SOLENOID VALVES** 





**FLOW SENSOR** 



**FLOW SWITCHES** 



**VALVE DISPENSER GROUP** 



**ELECTRONIC PRODUCTS** 





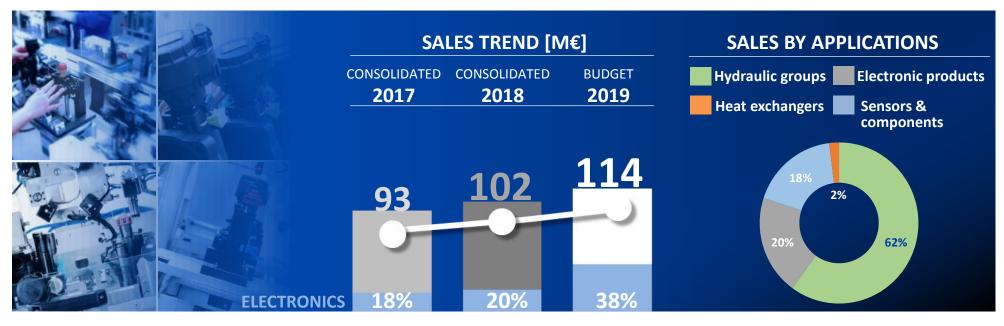




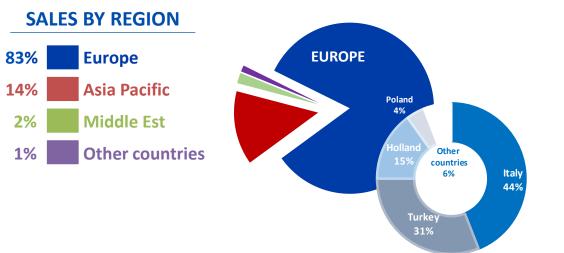
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#### Sales trend: share 2018 by applications / region



**Bitron HVAC Division** is an organization part of the Bitron group expertise in developing, producing and selling components and systems for **OEMs in the HVAC industry** 





## **MAIN CUSTOMERS**

















































































...and more

## **HVAC PRODUCTS**















**HIGH EFFICIENCY HEAT EXCHANGER** 



**SENSORS AND COMPONENTS** 



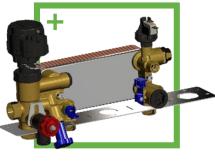
**MAIN PCBS, USER** INTERFACES, **INVERTERS** 

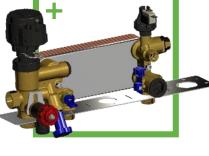


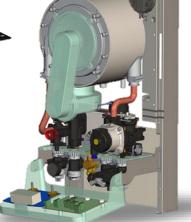






































## **KEY DATA AND MAIN PRODUCTS**











www.bitronelectronics.com



specialized in the design and manufacturing of electronic systems and devices for the automotive, home appliance, HVAC, energy and other applications.

WE SUPPORT
OUR CUSTOMERS FOR
PRODUCT DESIGN
FROM APPLICATION
REQUIREMENTS
DEFINITION TILL
PROJECT VALIDATION.

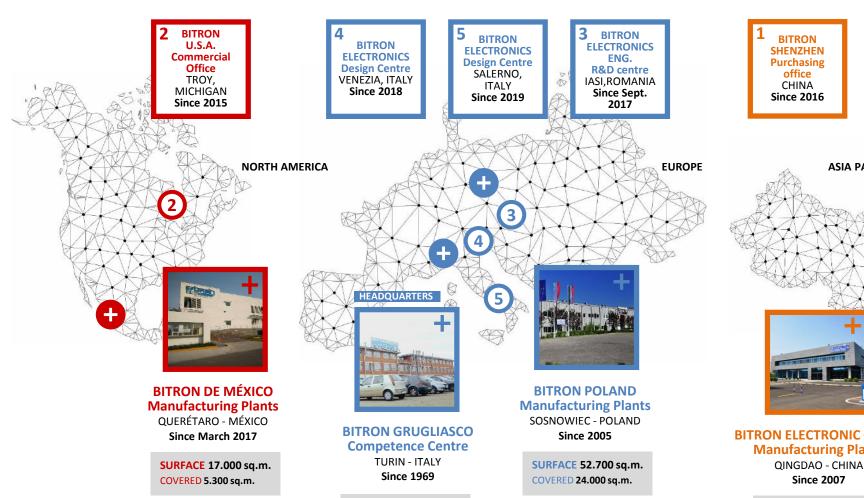
OUR WORLD-CLASS ELECTRONICS MANUFACTURING SERVICES MAKE US A RELIABLE PARTNER FOR OUR CUSTOMERS. WE BUILD A
STRATEGIC
PARTNERSHIP AIMED
AT A LONG TERM
RELATIONSHIP WITH
MUTUAL
SATISFACTION.

YOUR GLOBAL PARTNER FOR ELECTRONICS SOLUTIONS



## **GLOBAL FOOTPRINT**

#### Bitron Electronics in the world





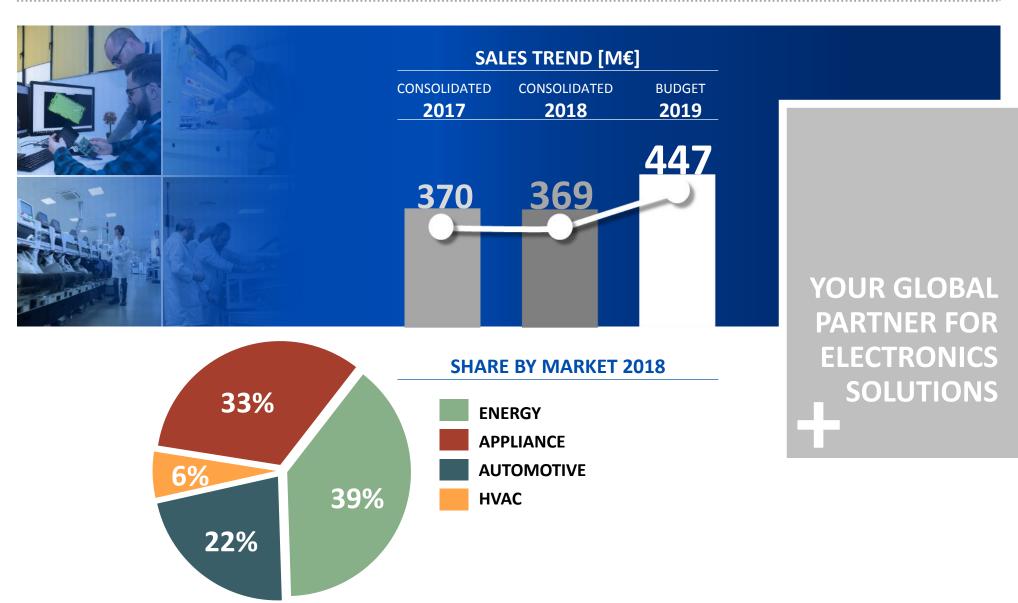
#### **BITRON ELECTRONIC CHINA Manufacturing Plants**

SURFACE 27.000 sq.m. COVERED 12.800 sq.m.

SURFACE 25.330 sq.m.

COVERED 19.000 sq.m.











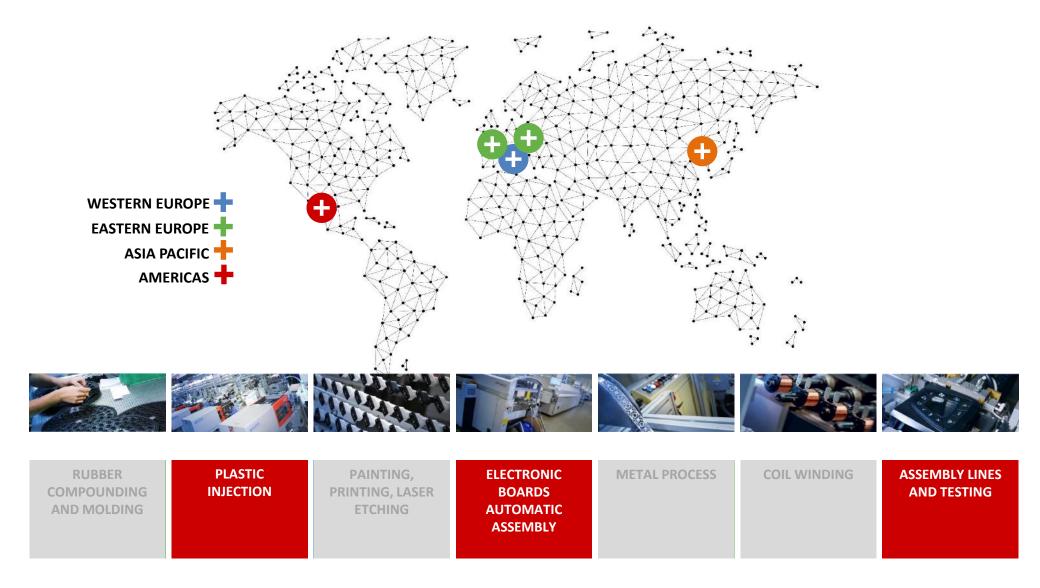
## **Optional auto**





## **CORE TECHNOLOGIES BY AREA**

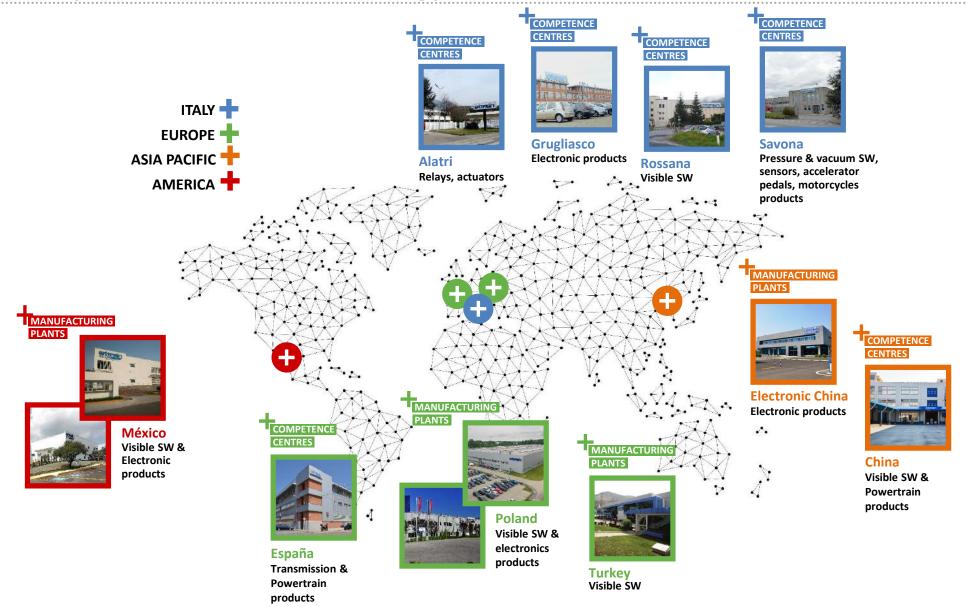
Available core technologies by area





## IN THE WORLD

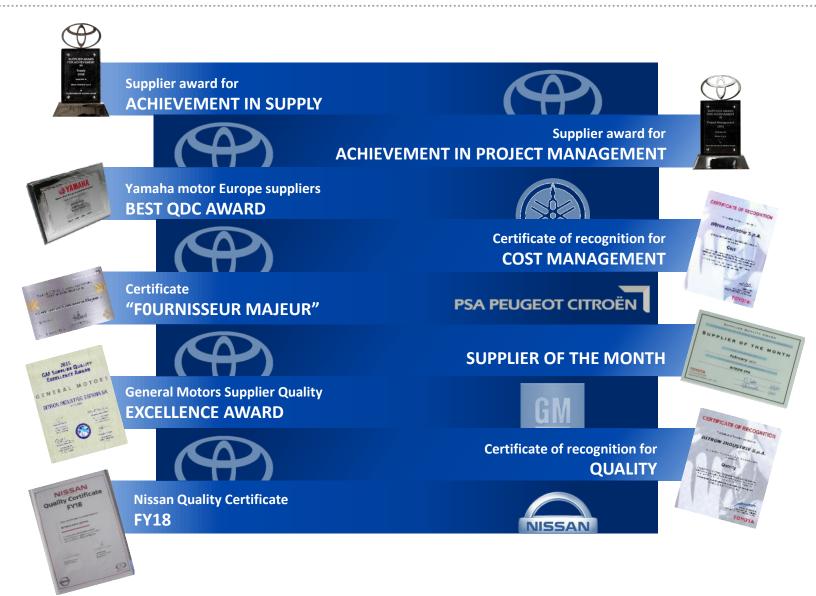
#### **Competence centres and Manufacturing plants**





## **AUTOMOTIVE AWARDS**

**Since 2005** 





#### **Electric car**





## **Optional**







Logo cliente

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Data-mese-anno



## ENERGY PRODUCTS







**AUTOMATING TESTING AND** RECLOSING DEVICE



PHOTOVOLTAIC FLEXIBLE **PANELS** 



