





COMPANY PRESENTATION



ABOUT US



COMPANY INTRO

About Us



▶ Controlar in a nutshell

- ▶ Global company dedicated to **industrial automation** and **test systems** (core business)
- ▶ High standard of excellency in developing hardware and software for the **Electronics Industry** with special focus in the **Automotive Industry**
- ▶ 23 years in the market
- ▶ More than 200 employees worldwide
- ▶ Production facilities and technical assistance around the world
- ▶ Stands for innovation, reliability and commitment to customers
- ▶ ISO 9001:2015 (Quality), ISO 14001 (Environmental) and **NP 4457** (R&D+I) Management Certifications





- ▶ Main areas of expertise
 - ▶ Electronics development
 - ▶ Automotive infotainment
 - ▶ Communication systems
 - ▶ Development of machines
 - ▶ Development of complete assembly lines
 - ▶ Systems integration development
 - ▶ Quality and functional test systems
 - ▶ Robotics
 - ▶ Interconnects Development
 - ▶ Mechanical Development
 - ▶ Software Development





► Our business units



- Each business unit delivers a significant portfolio of products and services worldwide including to best-known multinational companies.
- The company is currently experiencing a phase of strong growth and expansion both nationally and internationally, supplying new products and services always with excellent quality, innovation at a competitive price level.





- ▶ Our location: Alfena, Portugal (North)
 - ▶ 2500 m² state-of-the art offices, situated in an Industrial Park, near Porto



Some videos of our working facilities:



Award winning architecture concept

<https://youtu.be/VOzRkevxJeE>



Working and training in Controlar by
DUAL Academy partner
(other companies also in the video)

<https://youtu.be/LUg9iu8ONAY>



- ▶ Our location: Alfena, Portugal (North)
 - ▶ New facilities since beginning of 2016 (automation production with assembly area, and warehouse)





- ▶ Our location: Alfena, Portugal (North)
 - ▶ New building for test systems production and assembly





- ▶ Our location: Montijo, Portugal (South)
 - ▶ New facilities with 400 m² in Montijo (near Palmela, Lisbon)
 - ▶ This delegation is responsible for supporting customers in the south of Portugal.



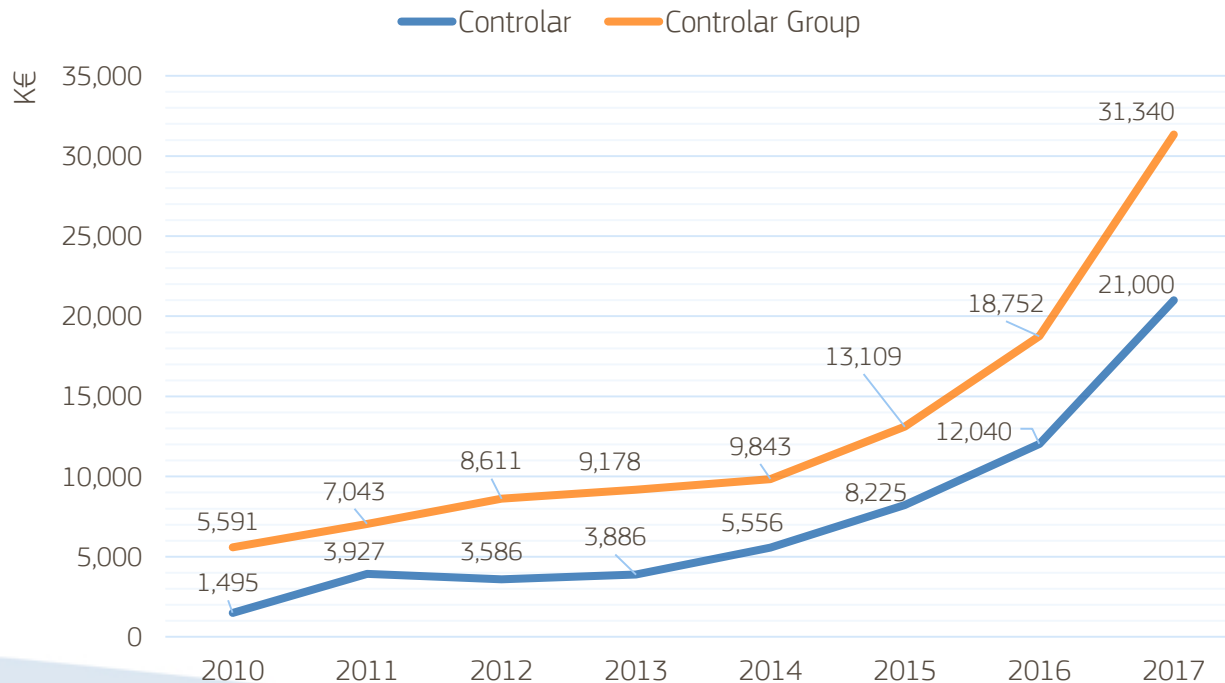


TURNOVER EVOLUTION

About Us



Turnover

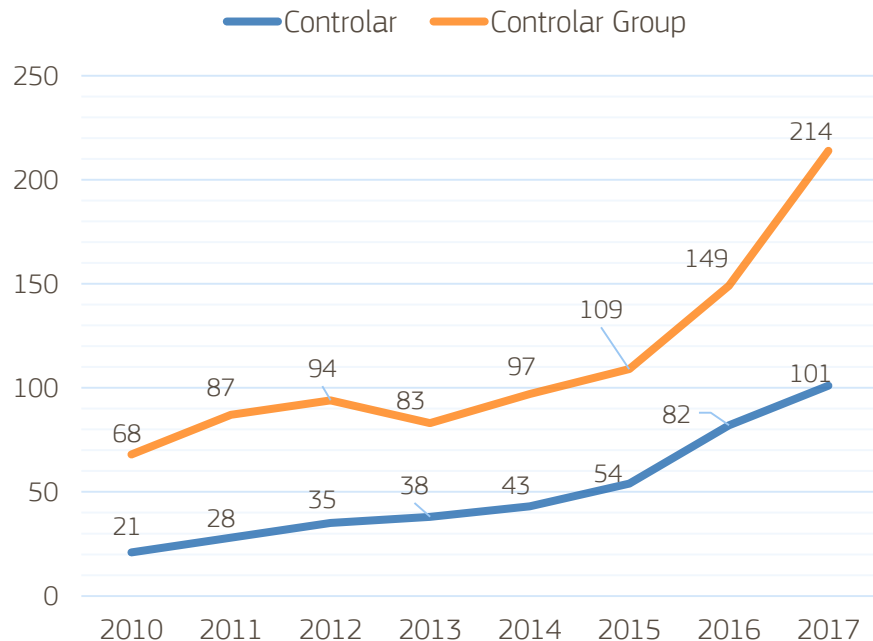




Human Resources Distribution - Portugal

Admin., Purchasing, Accountability, Finance, HR	10
Sales Marketing & Communication	2
Quality, Environment and Safety	2
R&D & Innovation	6
Key Accounts	5
Project Management & Development	23
Software Development	5
Mechanical Development	5
Electronics Development	4
Production	41
Technical Support	4

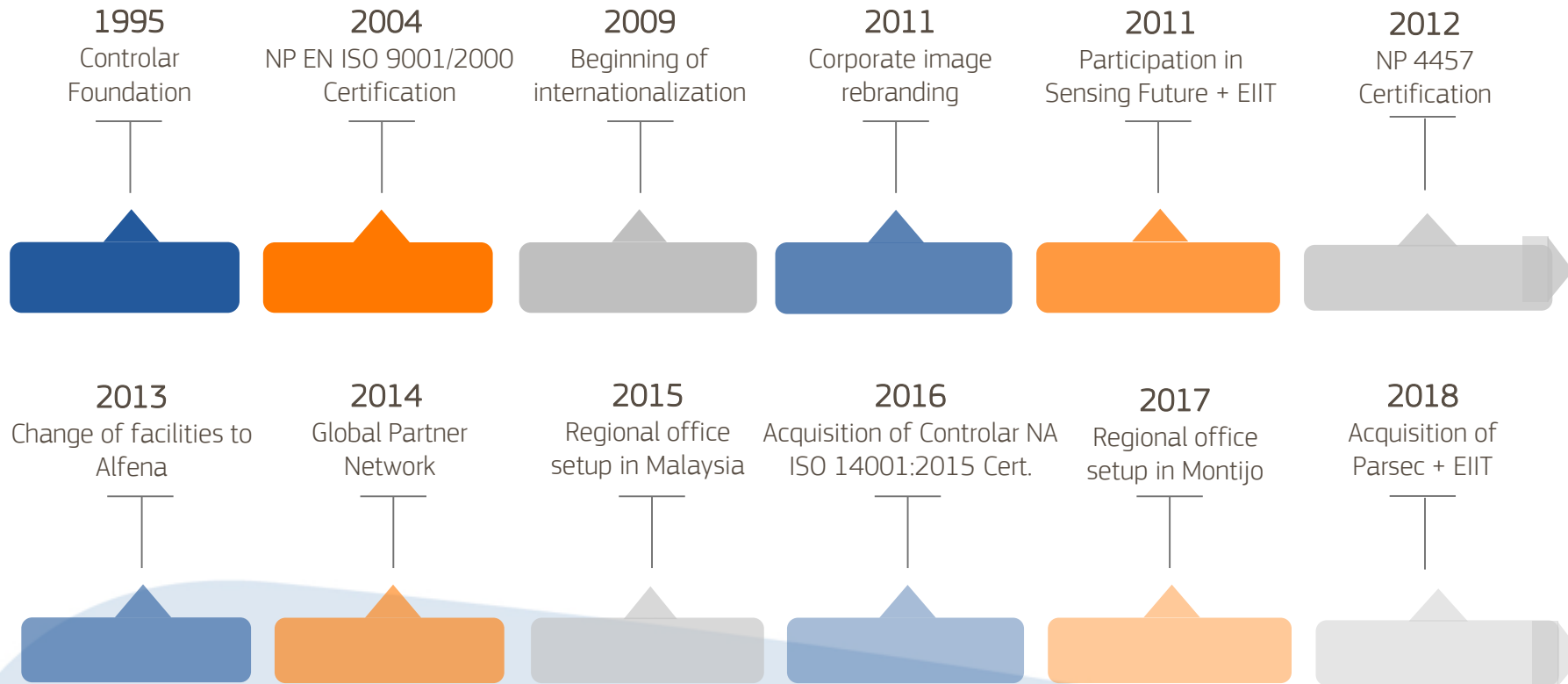
TOTAL 107





MILESTONES

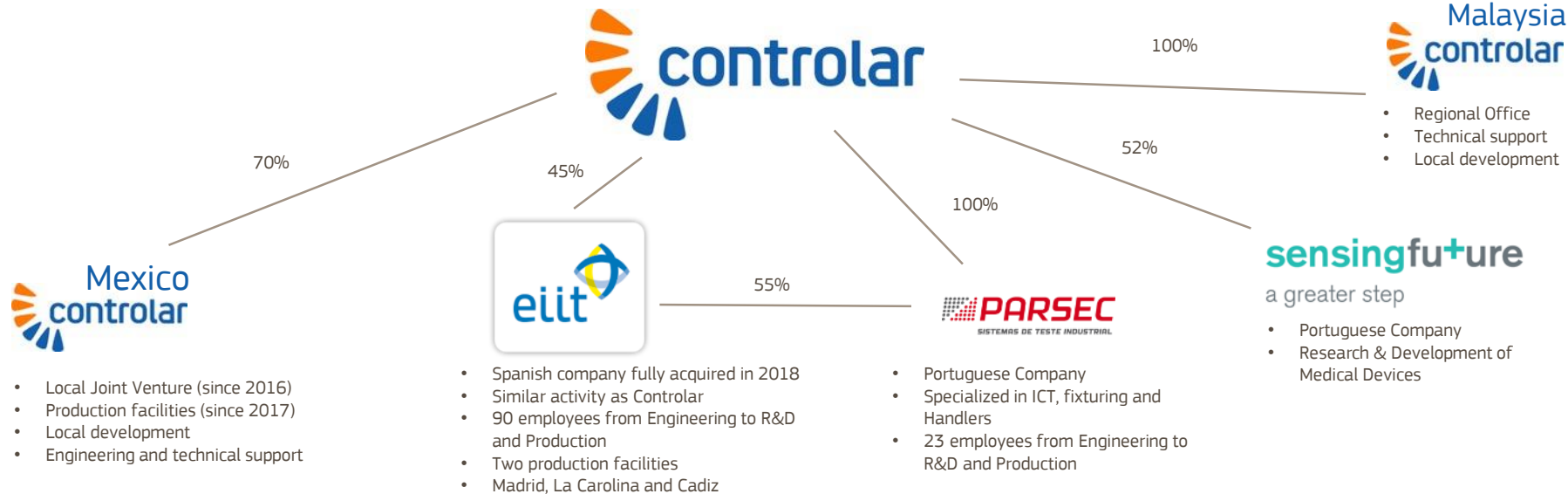
About Us





ASSOCIATED COMPANIES

About Us



Controlar owns other companies

▶ The EIIT Group

- ▶ Leading Engineering company with more than 30 years of experience in designing, manufacturing and commissioning test equipment for all industry fields. Activity fields:



- ▶ ELECTRONIC TEST SYSTEMS
- ▶ MODULAR ASSEMBLY SYSTEMS
- ▶ FIXTURING
- ▶ AGING AND DURABILITY TESTING (HALT)



- ▶ The EIIT Group > In-Line Handling Solutions
 - ▶ ILS series: economic in-line handlers to integrate ICT Offline Tests
 - ▶ XILS series: for demanding applications (high no. of test points, large panels and expandability)



NEW ILS600

Fast, Compact, Versatile and Powerful Handler ideal for Critical Instrumentation



 ILS 600

- ▶ The EIIT Group > Reference Projects
 - ▶ **Thales Alenia Space - MTG - METEOSAT 3rd GEN:** Validation system for the high speed communication bus PXI based system for 1,5Gbit/s HS bus.
 - ▶ **Raytheon Missile Systems USA (ERAM - Extended Range Active Missile Test):** Bench for electronic cards of TVA (primary booster thrust vectoring actuators) and SCS (secondary booster steering control system).
 - ▶ **IRKUT MC-21:** Primary Flight Control Testing System (High Lift Testing System)



ThalesAlenia
Space

A Thales / Finmeccanica Company

Raytheon
Missile Systems





- ▶ Sensing Future Technologies is dedicated to the design, development and implementation of **medical devices**

- ▶ **Activity Areas:**

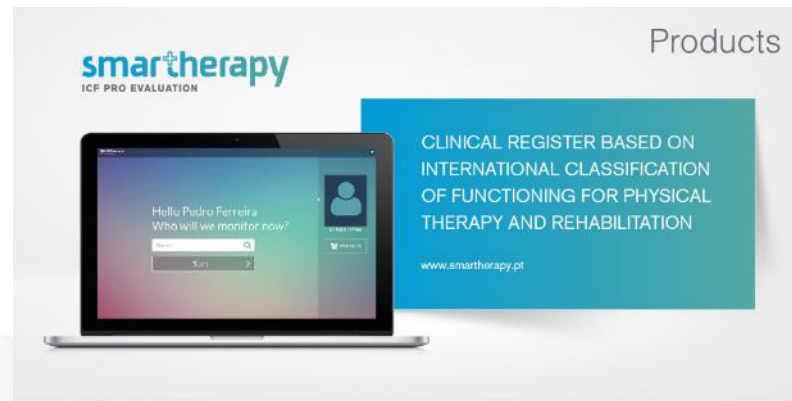
- ▶ Data Acquisition
- ▶ Software & Hardware & Eletronic Development
- ▶ Artificial Vision, Virtual Reality and Augmented Reality
- ▶ Robotics
- ▶ Test Systems

- ▶ **Human Resources:**

- ▶ 10
 - 1 PhD
 - 9 Master



physio
sensing



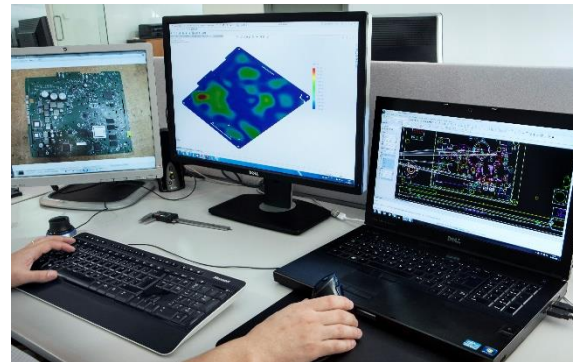


▶ Sensing Future Technologies > Reference Projects

- ▶ **Health Sensing Platform:** Clinic Register based on international classification of functioning for Physical Therapy and rehabilitation.
- ▶ **FallSensing System:** Evaluation of multiple fall risk factors and implementation of fall prevention exercise plans, while providing biofeedback during the execution of the exercises.
- ▶ **Rose:** System for the telemedicine market based on robotic assisted tele-echography, where physicians and patients can interact without requiring physical proximity.
- ▶ **Smart-Hip:** Development of a new intelligent hip prosthesis, enabling timely and accurate diagnosis of bone loosening, thus allowing for a fast and reliable support to the orthopedists.



- ▶ Parsec is a Portuguese supplier acquired by Controlar in 2018 and specialized in Industrial Test Systems:



► Parsec > Products

- ICT (In-Circuit Test)
- Fixtures
- Offline Handlers
- Inline Systems
- Boundary Scan
- ISP (in System Programming)





▶ Controlar North America > Local Joint Venture in Mexico

- ▶ Production facilities since 2017
- ▶ Engineering and technical assistance
- ▶ Local development
- ▶ New plant under preparation





▶ Controlar North America > Roadmap Guidelines

▶ 2016

Company foundation → IT and HR structure concept → Commercial prospection → Core team recruitment → Core team training → First POs

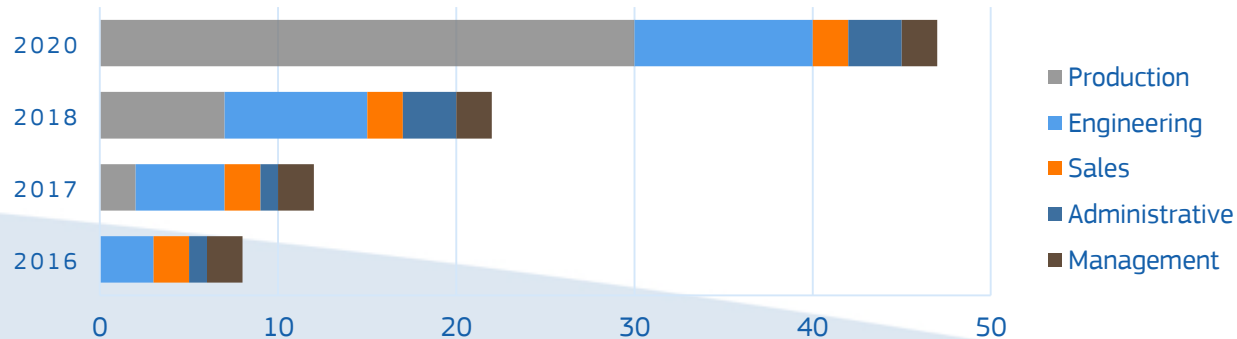
▶ 2017

Plant construction → Plant functionality → Certification → PO increase → Production procedures → Triangular purchasing → Self-sustainability

▶ 2020

Full plant activity → Low dependence from PT and ES

OF EMPLOYEES TIMELINE



- ▶ Controlar Malaysia > Regional Office in Bayan Lepas, Penang
 - ▶ Technical support
 - ▶ Local development





WHERE WE ARE

About Us



▶ Controlar

- ▶ Portugal – Porto
- ▶ Portugal – Montijo
- ▶ Malaysia – Penang
- ▶ México – México City (area)

▶ Parsec

- ▶ Portugal – Porto

▶ EIIT

- ▶ Spain – Madrid
- ▶ Spain – La Carolina
- ▶ Spain – Cadiz

▶ Sensing Future

- ▶ Portugal – Coimbra

controlar
innovating industry

eiit
controlar
innovating industry

PARSEC
SISTEMA DE TESTE INDUSTRIAL

sensingfu+ure

controlar
innovating industry



► Our Customers - Robert Bosch Worldwide

Infotainment Plants

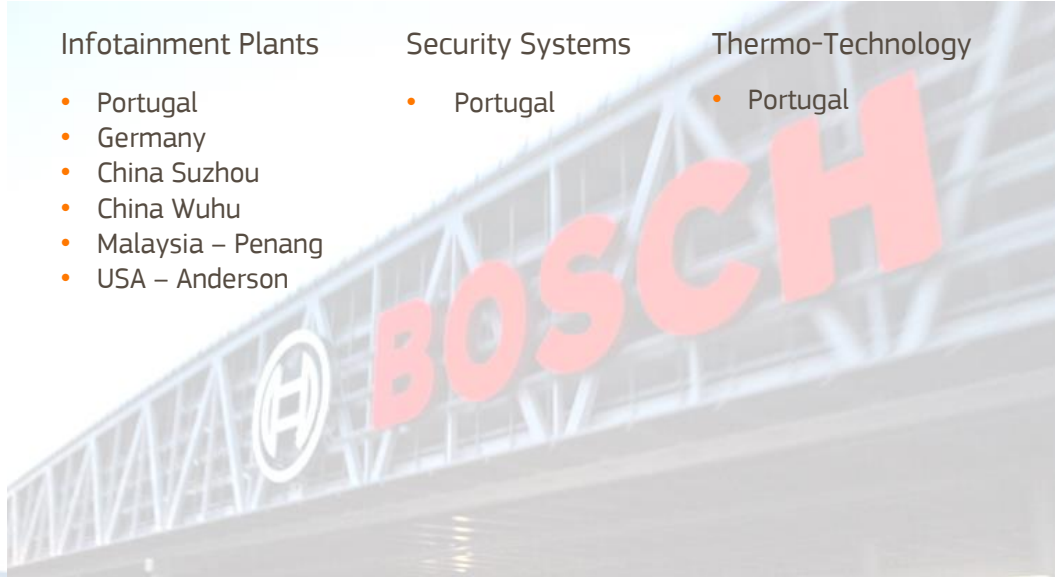
- Portugal
- Germany
- China Suzhou
- China Wuhu
- Malaysia – Penang
- USA – Anderson

Security Systems

- Portugal

Thermo-Technology

- Portugal





WORLDWIDE REFERENCES

About Us



► Our Customers





WORLDWIDE REFERENCES

About Us



► Our Customers





► Other Worldwide References





CERTIFICATIONS AND PARTNERS

About Us



Certifications and Partnerships



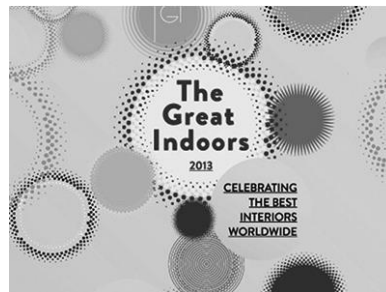


AWARDS AND DISTINCTIONS

About Us



Awards and Distinctions



"The Great Indoor Awards" de 2013





Affiliations





► Organization Methods

- Strong and solid implementation of the **ISO 9001:2015**
- Integrated System for R&D and Innovation (**NP 4457**) within the ISO 9001:2015
- Certified Environmental Management System **ISO 14001**
- **Lean** and **5S** implementation at all levels of Engineering
- **ERP** for all the areas of Commercial, Administrative, HR, Finance, Stocks Management
- **Internal Web Platform** to support all processes





PROJECTS & SOLUTIONS



BUSINESS LINES

Projects & Solutions



- ▶ The Test Systems Unit is responsible for:
 - ▶ Research and development of specific electronic equipment;
 - ▶ Assembly and testing of small sets of electronic components;
 - ▶ Development of **Automatic Testing Equipment – ATE** to perform Functional Tests on electronic equipment;
 - ▶ Integration of various test levels for electronic equipment;
 - ▶ **Development of systems to monitor:**
 - ▶ Durability and Quality tests in climatic and vibration chambers;
 - ▶ HALT – High Accelerated Life Tests;
 - ▶ Noise, vibration and harshness (NVH).



► Competences

ICT - In-Circuit
Testing



ISP - In-System
Programming



FCT - Functional
Testing



HALT – High
Accelerated Life
Testing



EOL - End of Line
Testing



- ▶ Development Examples
 - ▶ Car Radio – Infotainment Functional Testers (1/2)

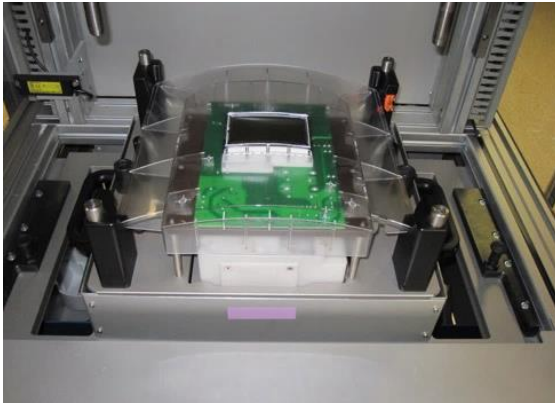


► Development Examples

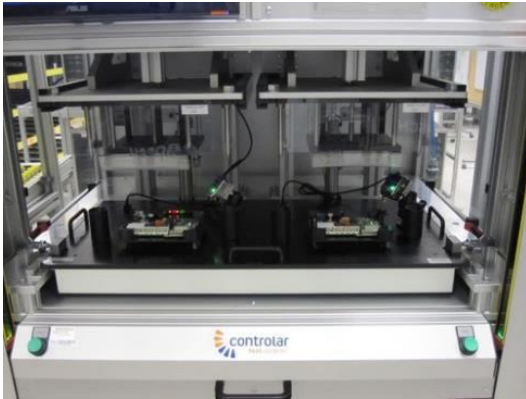
- Car Radio – Infotainment Functional Testers (2/2)



- ▶ Development Examples
 - ▶ Domestic Heater Controller and Functional and Vision Testers



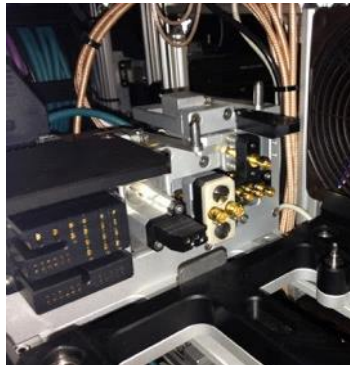
- ▶ Development Examples
 - ▶ Flash Programming



- ▶ Development Examples
 - ▶ HALT – High Accelerated Life Testing (1/2)



- ▶ Development Examples
 - ▶ HALT – High Accelerated Life Testing (2/2)



- ▶ Development Examples
 - ▶ EOL - Mechanical Fixtures



- ▶ The Automation Systems Unit is responsible for:
 - ▶ Development of machines and production lines;
 - ▶ Automation, remodelling and modernisation of machines and processes;
 - ▶ HMI and PLC programming;
 - ▶ Development of specific software to control production and monitor efficiency – OEE and MES;
 - ▶ Process monitoring solutions using SCADA, control of production lines and automation processes;
 - ▶ Projects, installation and programming of robots;
 - ▶ Industrial artificial vision systems;
 - ▶ Traceability applications.



► Project Development

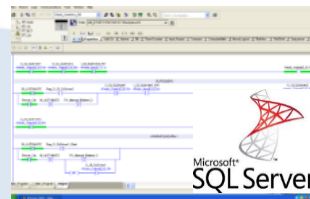
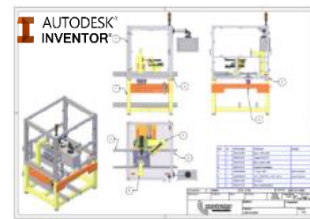
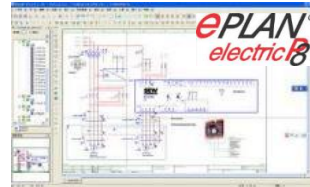
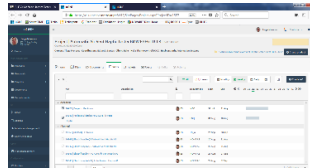
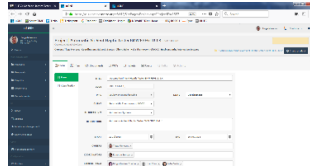
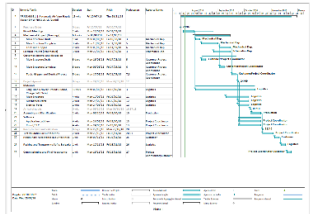
Project
Planning

Project
Management

Project
Development

Commitment at
Customer's Plant

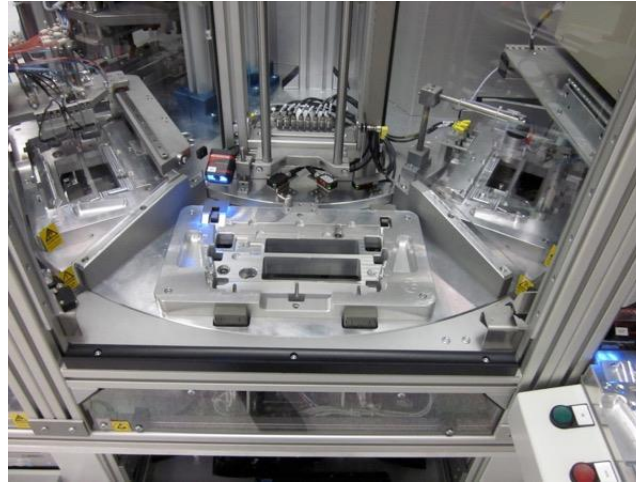
Delivery and
Technical Support



- ▶ Development Examples
 - ▶ HVCC – Automatic Assembly Line for Electric Compressors



- ▶ Development Examples
 - ▶ Electronic Control Unit Assembly and Test – Automotive Industry



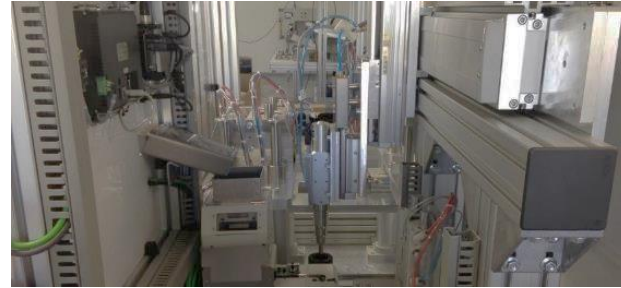
► Development Examples

- Plastics Vision and Testing – Haptics and vision control of a radio bezel - KLC



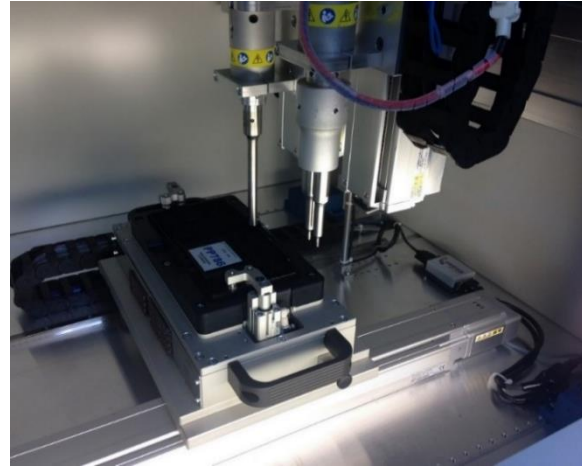
► Development Examples

- Arm Rest Assembly - Key Plastics Portugal

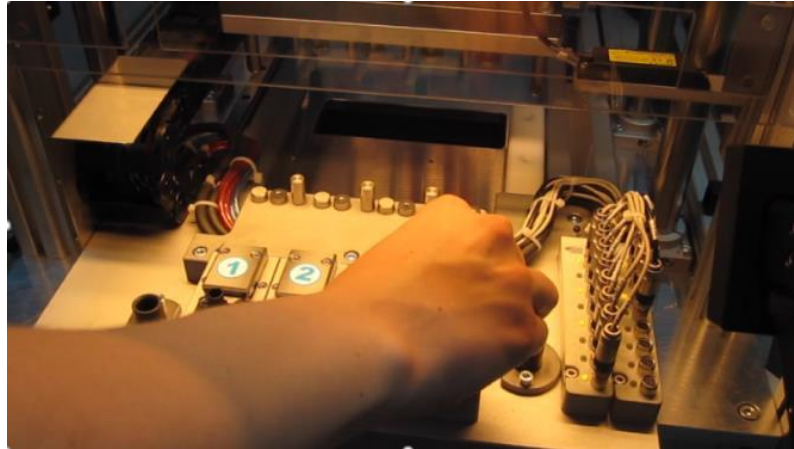


► Development Examples

- Ultra-sonic welding machine of a radio bezel - Key Plastics Portugal



- ▶ Development Examples
 - ▶ Other operations – Springs Cutting



- ▶ More Examples and Details



<https://youtu.be/VrhyUxnPrEO>

- ▶ The Auto-ID Unit is responsible for:
 - ▶ Representation and distribution of **automatic identification solutions**, such as barcode readers (1D and 2D) and machine vision systems from various international manufacturers (e.g. **Omron Microscan** and **Honeywell**)
 - ▶ Representation and distribution of **Kinova Robotics**
 - ▶ Representation and distribution of **Göpel Electronic** products (automotive test solutions)
 - ▶ Direct sales of industrial computers: **Advantech**, **Adlink**, **IEI** brands, among others
 - ▶ Direct sales of **Drew Technologies** products





R&D+I



▶ The R&D+I Department

- ▶ Ensures the correct development of internal, commercial and funded projects, according to certificated guidelines and in coordination with our partners, to meet the highest technological innovation potential.

▶ R&D Projects (some examples)

- ▶ **ICM** – Intelligent Condition Monitoring
- ▶ **SmartEnergy** – Efficiency smart management of industrial machines and line production
- ▶ **Modular Test Machine** – Modular, flexible and versatile inspection system, including hardware and software
- ▶ **BroadR Reach Ethernet Test System** – System for several types of equipment that use the BroadR-Reach protocol
- ▶ **EuMETfast** – Earth Observation Platform
- ▶ **AR/VR** – R&D project proposal under the “Bosch Suppliers Club”
- ▶ **NUVX.IQ** – Cloud based RF Infotainment Testing Platform





R&D for Industry

- Developed systems based on AI
- Collaborative Robotics
- AR/VR applications
- Energy efficiency
- Eco-Design and Innovation
- Seek opportunities to engage into European-wide projects

R&D for Automotive

- Distributed test system approach to reduce the test cost
- Radar/Lidar testing and sensor fusion
- Adding value to existing solutions to match customer needs
- Seek opportunities to engage into European-wide projects

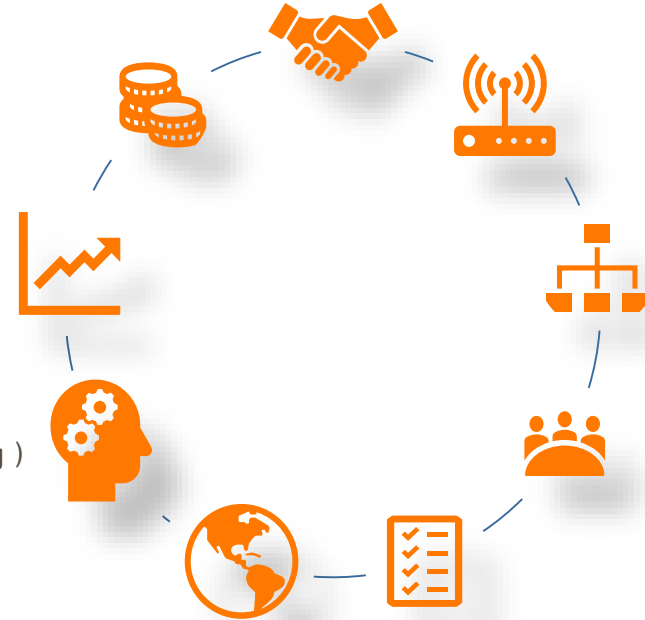
RF Products & IIoT

- New RF and IIoT solutions
- IoT/IIoT products for industrial applications
- EMI/EMC pre-compliance, PCB design, RF design & simulation, Spectrum compliance, etc.
- Seek H2020 opportunities on R&D proposals



► Why Controlar?

- **23 years of experience** in the Infotainment and Automotive Industry
- Well-established partnership with reference **OEM partners worldwide**
- Engineering and manufacture organization with **continuous improvement**
- Solid development process and **design validation** in joint collaboration with the customer
- Commitment to **quality and specifications**
- Supported by other companies and structures worldwide to provide **technical assistance around the world**
- Experience with high levels of specification (**WCM - World Class Manufacturing**)
- Experience with **high levels of validation requirements**
- Experience with industry methodologies (**OEE, FMEA, EEM**)
- Attractive **labour cost**





CONTACTS

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Thank you!