

MADES



Integrated Electronic Manufacturing Services

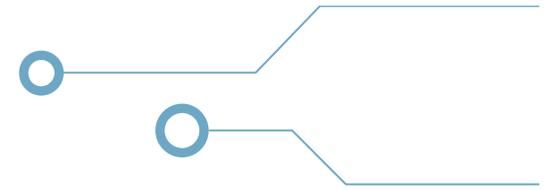
25 Right Team
Right Tools
years Right the First Time

Inspiring, Discovering and Creating
Together for over 25 years

www.mades.es

Introducing MADES

- MADES at a glance
- Applications
- Our Services
- Building Customer Trust & Operational Excellence
- Why MADES ?



“Not just manufacturing”

MADES at a glance

- > 13 % Compound Annual Growth Rate (CAGR)



- > MADES Six Sigma: a process and culture of continuous improvement

- > Technology Park of Andalusia (PTA) in Malaga, Spain

How

Where

When

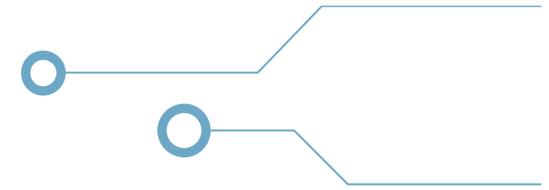
What

Who

- > Major supplier of system level electronic assemblies
- > Electronic Manufacturing Services
 - > Design From Specs
 - > Industrialization
 - > Manufacturing
 - > Testing & Integration
 - > Lifecycle Support

- > More than 100 highly skilled professionals: engineers, technicians and operators
- > Subsidiary of American Industrial Acquisition Corporation (AIAC)

- > Nearly 30 years of experience delivering customer solutions



About AIAC



Over
8,500
employees



\$1.6B
in aggregate
revenues



Industrial
portfolio of
75
companies



20+
years track record

PROCESSES

- Electronics
- Aerostructures
- Metal Work
- Cables
- Pharma

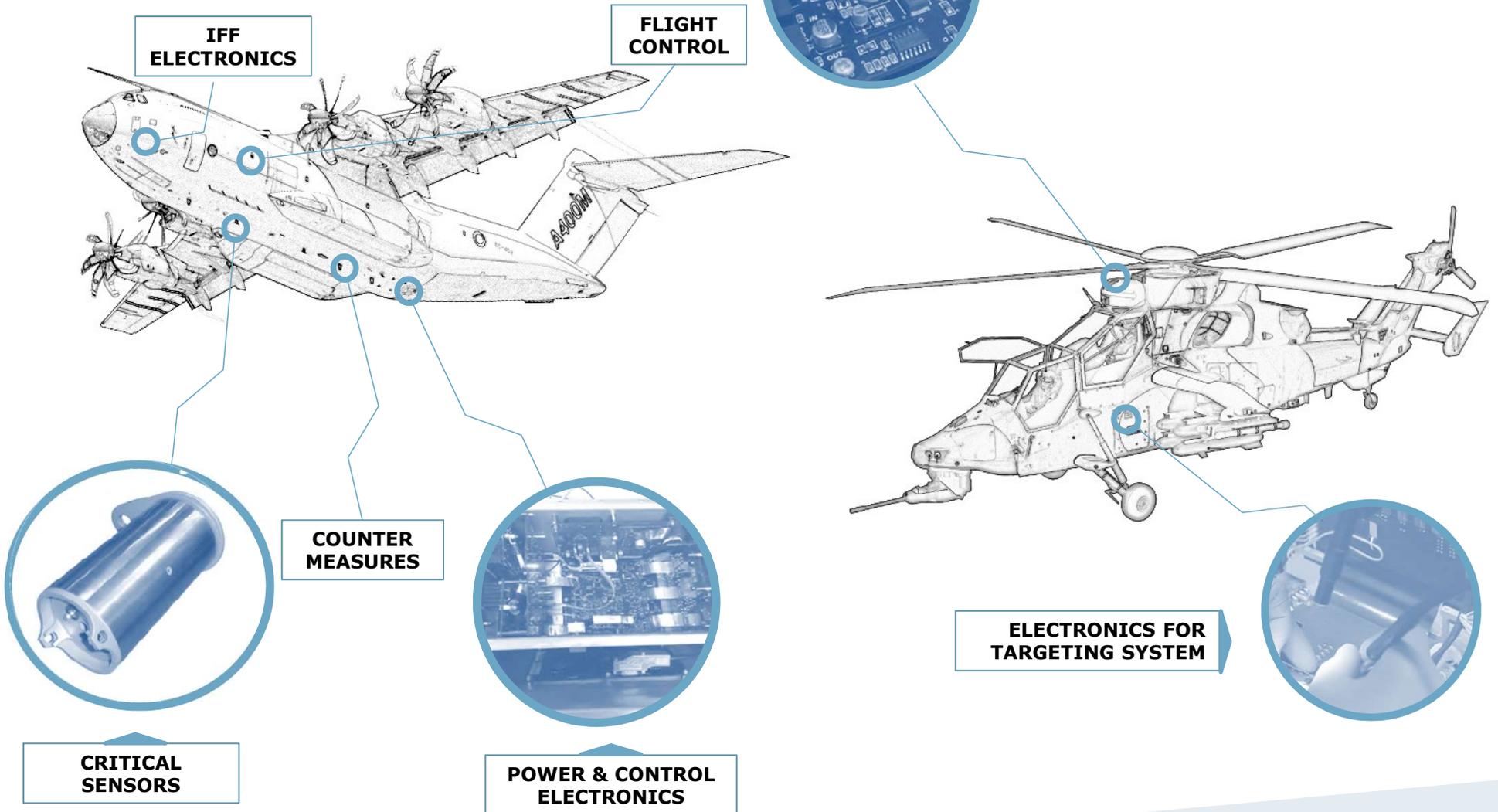
MARKETS

- Industrial 
- Defense 
- Aerospace 
- Medical 
- Automotive 

"Nearly 30 years delivering high reliability electronics"

Applications

Air & Heli-borne electronics

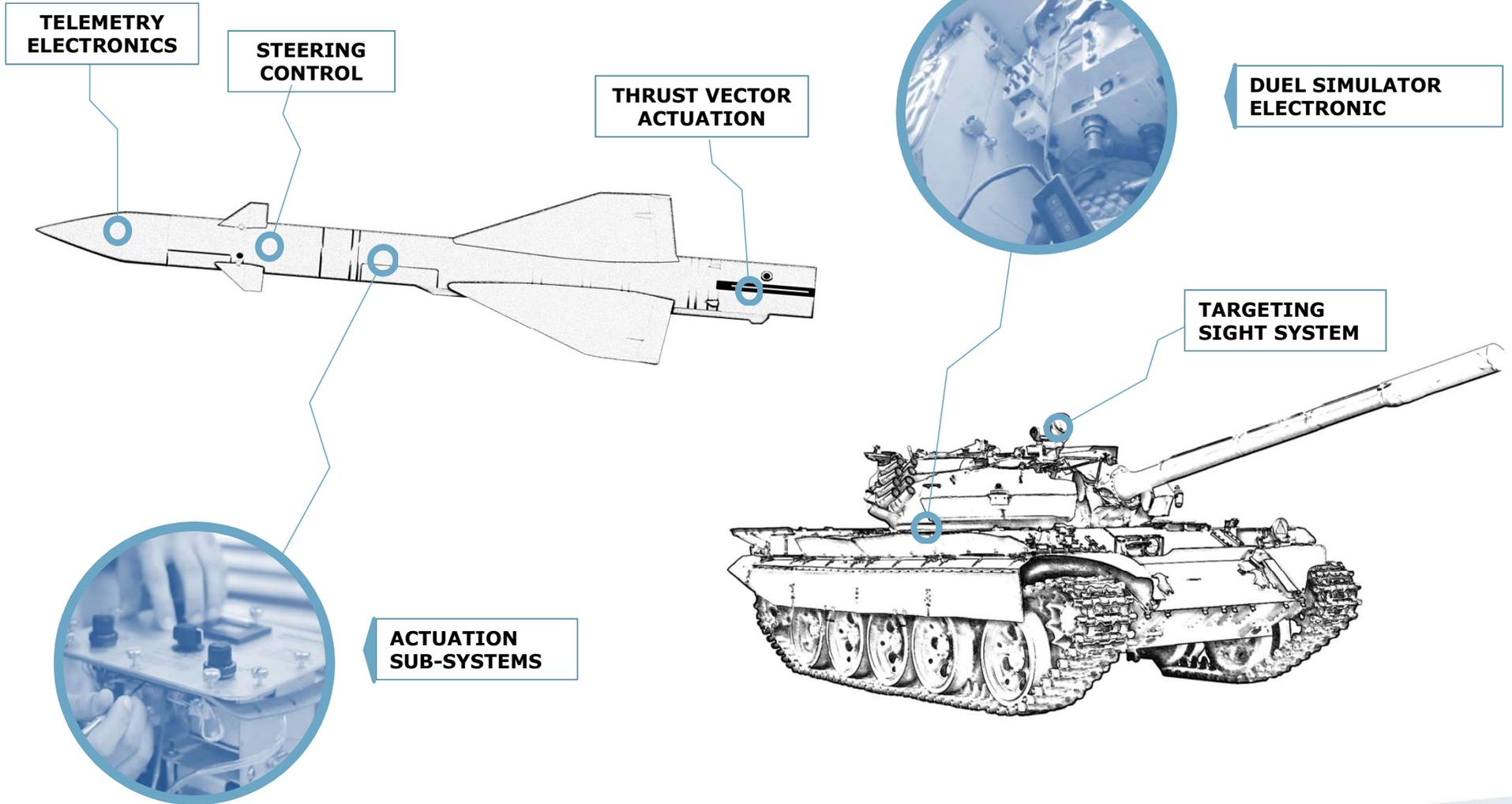
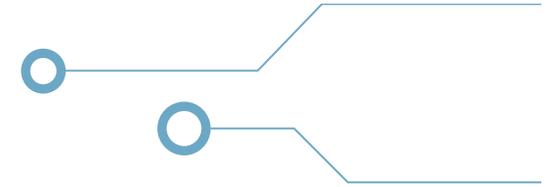


* Actual platforms are examples for explanation purposes.

"Nearly 30 years delivering high reliability electronics"

Applications

Missile & Tactical Surveillance Systems

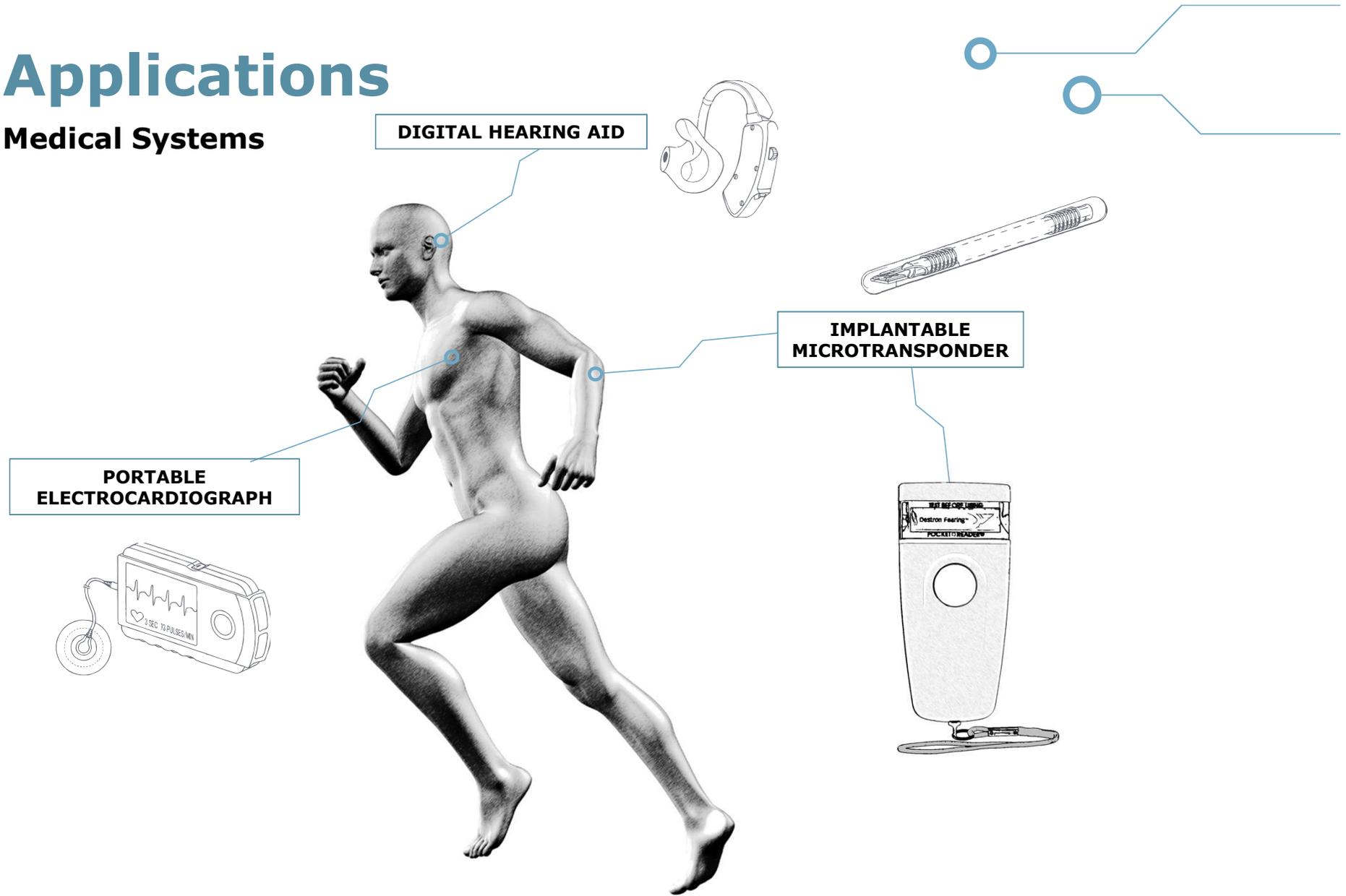


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"Nearly 30 years delivering high reliability electronics"

Applications

Medical Systems

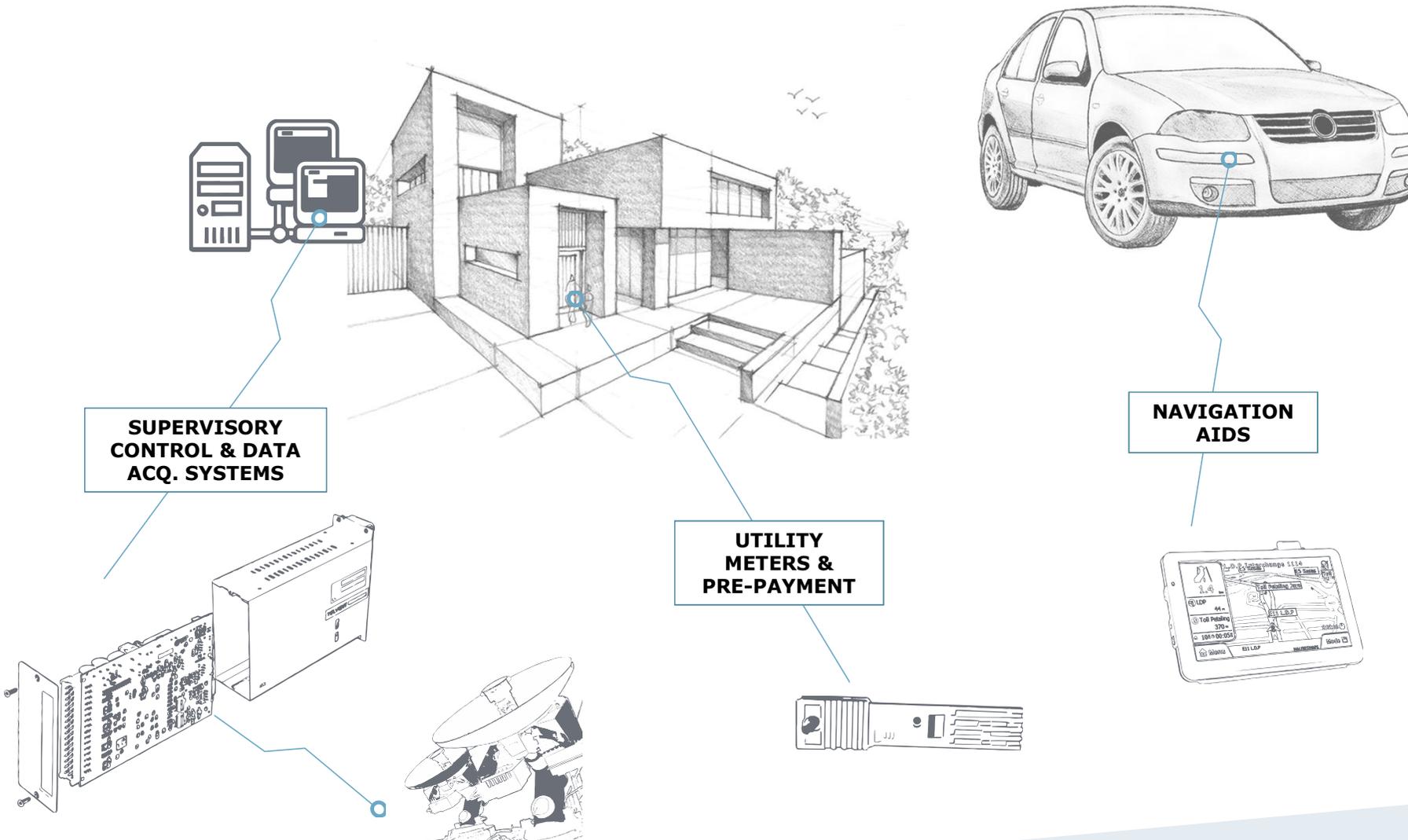
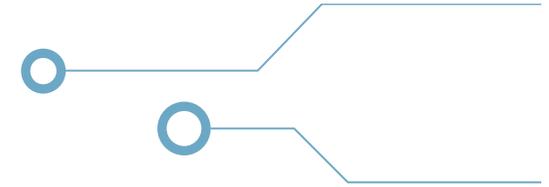


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"Nearly 30 years delivering high reliability electronics"

Applications

Industrial Systems



**SUPERVISORY
CONTROL & DATA
ACQ. SYSTEMS**

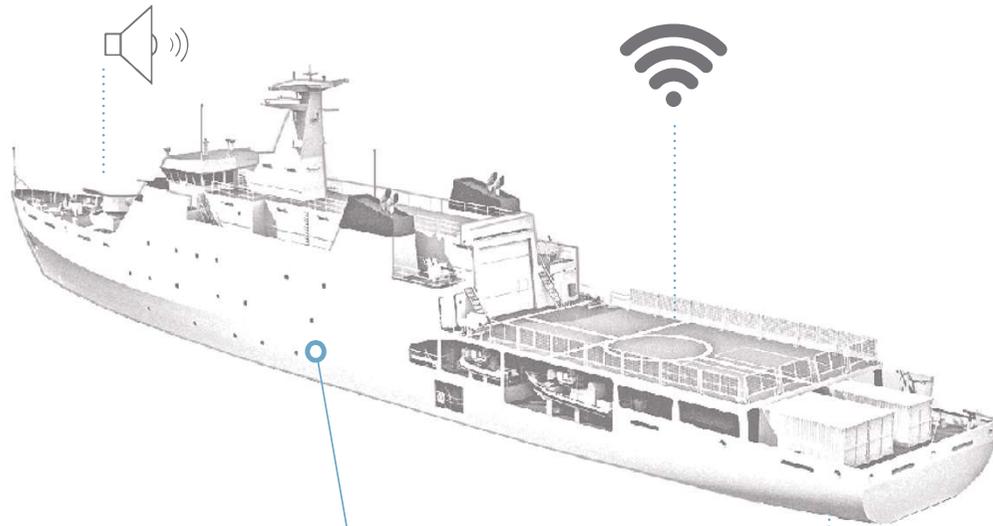
**NAVIGATION
AIDS**

**UTILITY
METERS &
PRE-PAYMENT**

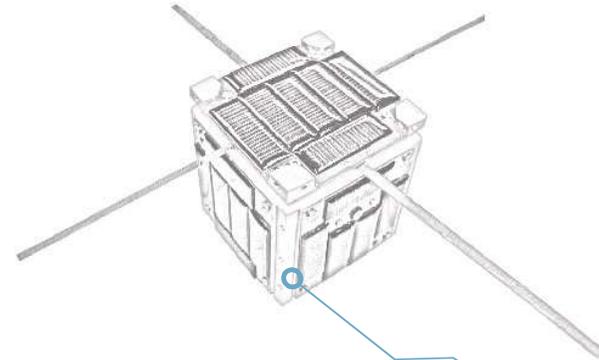
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Applications

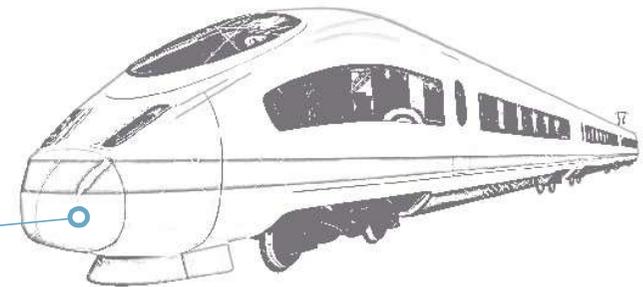
Other sectors



**ON-BOARD
COMMUNICATION SYSTEMS**



**EMBEDDED
ELECTRONICS ON
NANOSATELLITES**

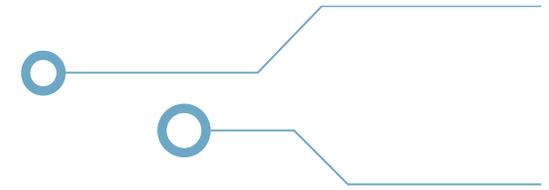


**RAILWAY TRAFFIC
CONTROL**



* Actual platforms are examples for explanation purposes.

"Bringing your products to life"



Our Services



Design From Specs



Industrialization



Manufacturing + Testing

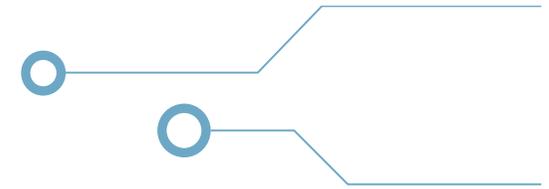


Integration and Other Services

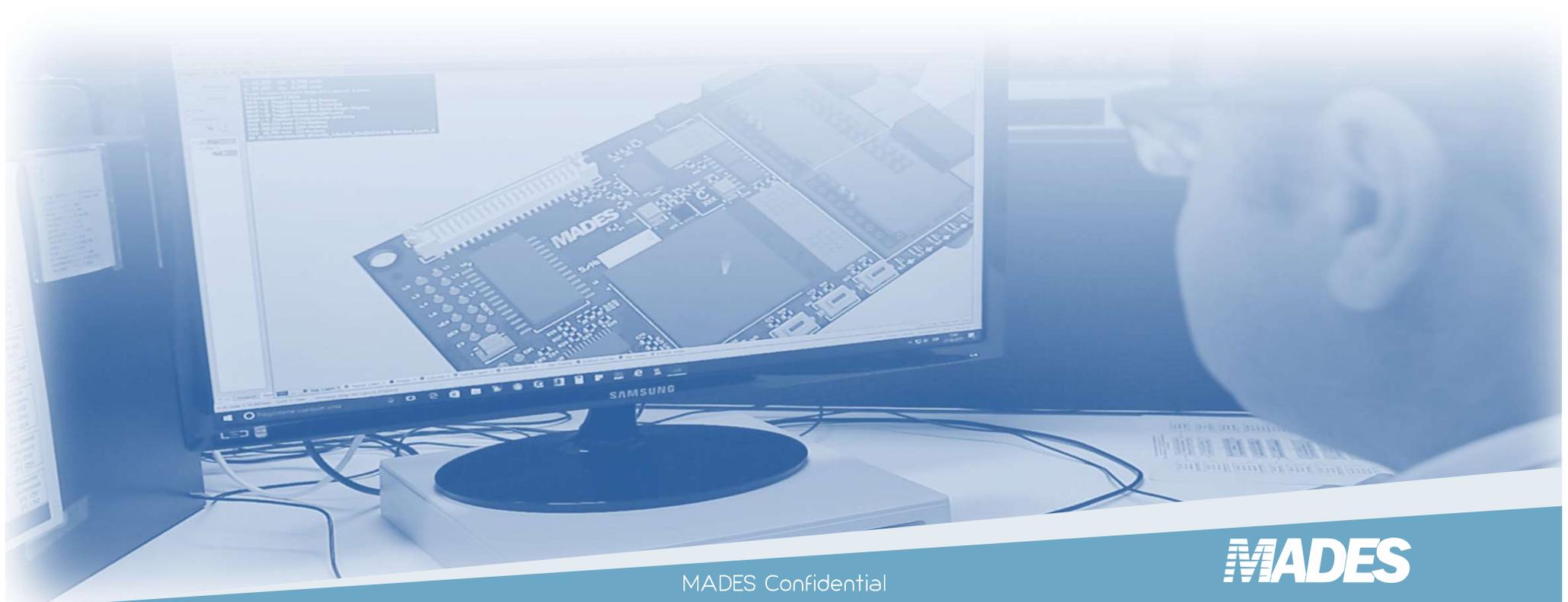
PRODUCT LIFECYCLE SUPPORT

Full Supply Chain Management. Extended Warranty, Obsolescence
& Counterfeit contingency, REACH, Repairs & Logistics Support

Development from Specs

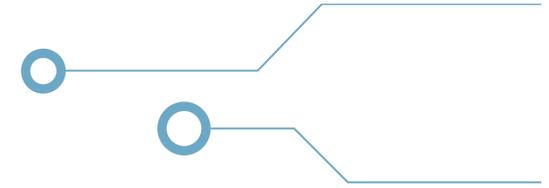


- From Specs through detailed Design and prototyping to volume production and life-cycle support
- Design partner integrated with Manufacturing to minimize time to market & cost
- Internal resources & best selected collaborators to optimize manufacturing, testing and product performance



“Bringing your products to life”

Industrialization



FAST-TO-MARKET
From Design to Prototypes & Qualification



Specs



Design



Rapid
Prototyping



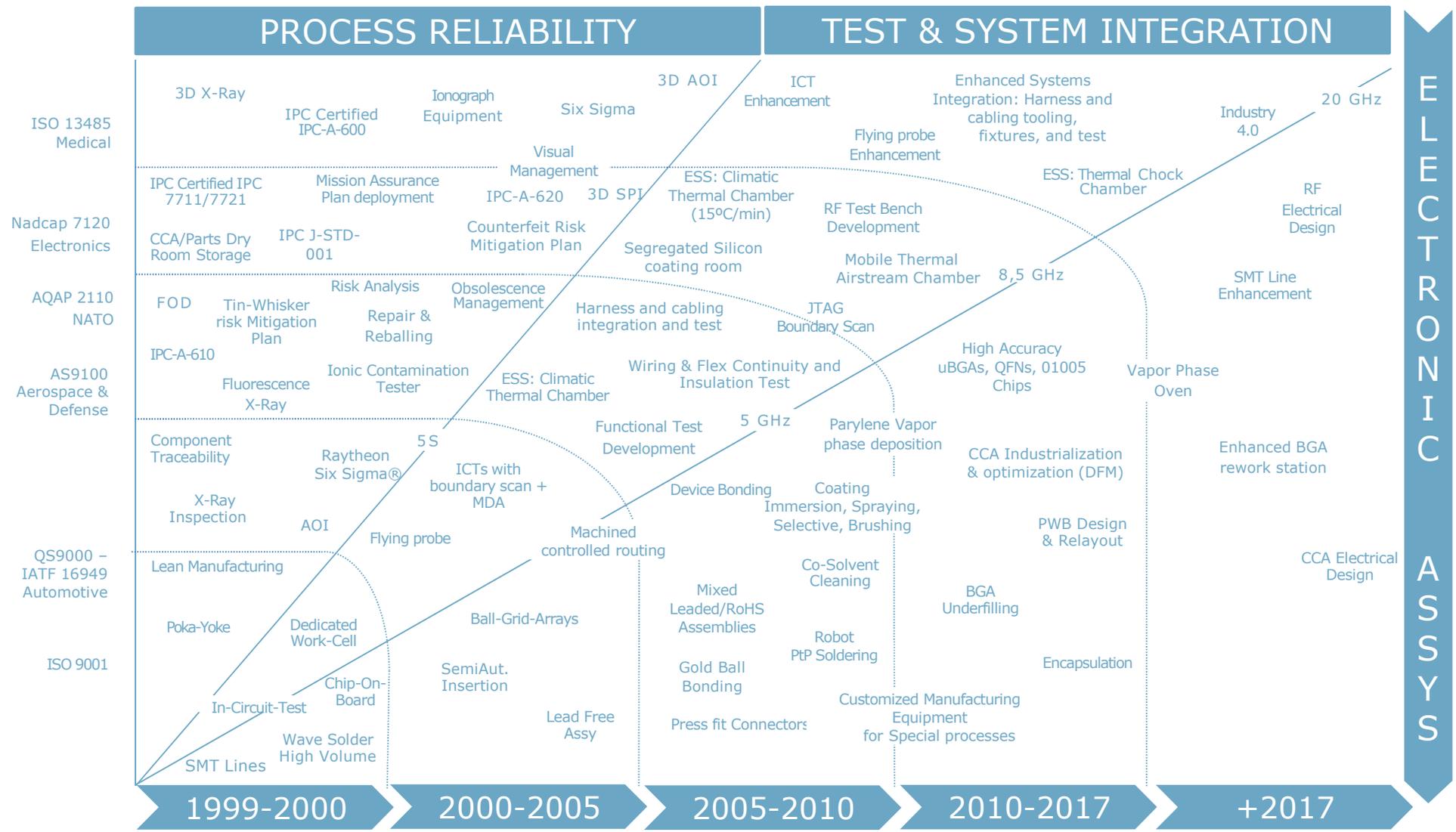
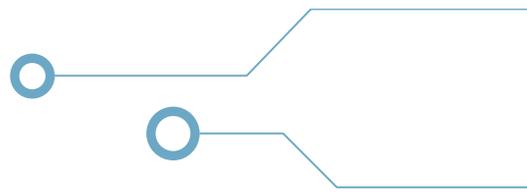
Product
Qualification



Industrialization

"Bringing your products to life"

Manufacturing



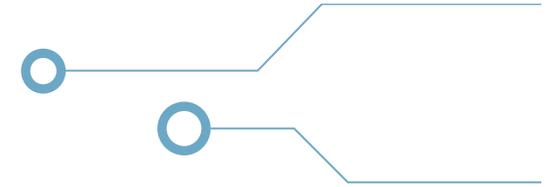
1999-2000

2000-2005

2005-2010

2010-2017

+2017



Testing & Integration

PRODUCT RELIABILITY

High frequency testing
High power system testing

PARAMETRIC ELECTRICAL TEST



- In-Circuit Test
- Flying Probe Technology

FUNCTIONAL TEST



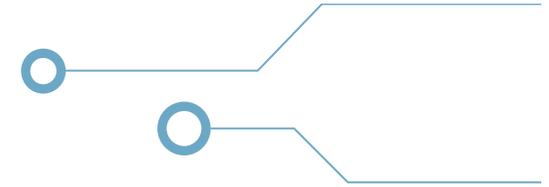
- J-Tag Boundary Scan
- Complete systems or CCAs
- Gral. Purpose or Product-Specific customized platform

ENVIRONMENTAL STRESS SCREENING (ESS)



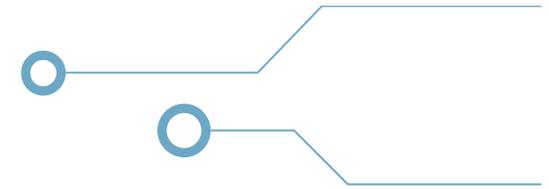
- Wide range of Environmental Screening
- Thermal cycling and shocks
- Stability assurance under humidity conditions

Testing & Integration



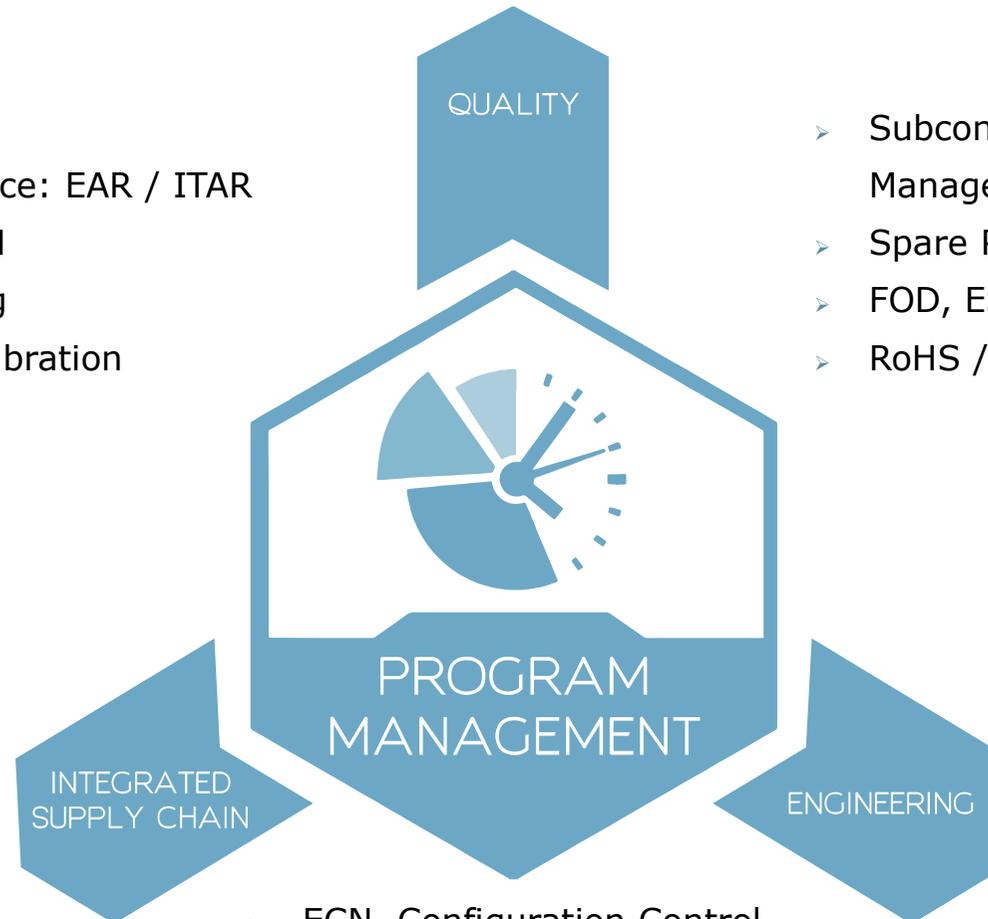
- Customer's Virtual Factory at MADES' premises
- Electro-mechanical Assemblies
- Complete Box-Build - Cables & Harnesses
- Development of custom-made equipment & Special Processes Automatization





Product Lifecycle Support

- Counterfeit
- Import/Export Compliance: EAR / ITAR
- Conflict Minerals, REACH
- Obsolescence Monitoring
- Equipment control & calibration

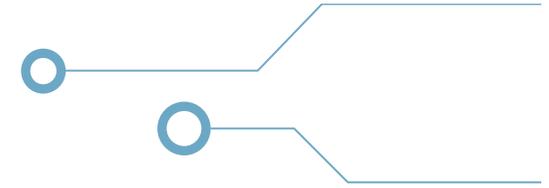


- Subcontract Development and Management
- Spare Parts, Repairs
- FOD, ESD & MSL Programs
- RoHS / No RoHS Control

- ECN, Configuration Control
- Production Planning
- Traceability
- Design Upgrade
- Mission Assurance Plan

“Tailored solutions that best adapt to each customer”

Program Management



Project Planning

Scope Definition

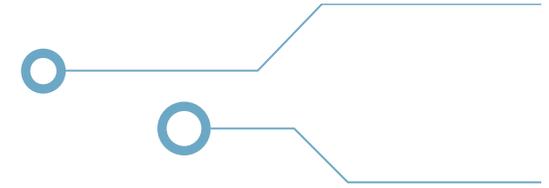
Cost Effectiveness



Balanced Resources

Record Time

Risk Management

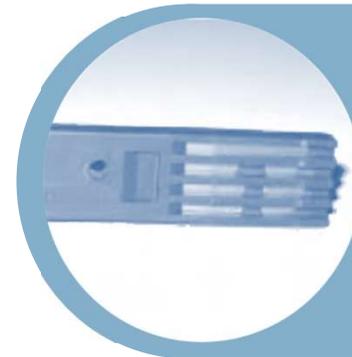


Building Customer Trust

Examples of long-term customer relationships



+ 24 Years
+ 105 Million Transponders
USA & EU



+ 23 Years
+ 23 Million Utility Meter Applications
UK

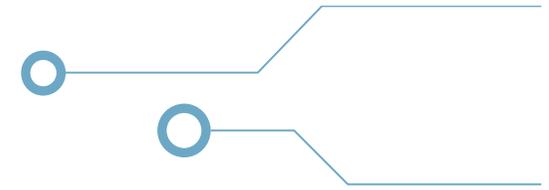


+ 20 Years
+ 600 thousand Automotive Navigation Aids
EU & USA



+ 15 Years
+ 20 thousand Actuation Systems
EU & USA

Operational Excellence



- Center of Excellence for Electronic Manufacturing Services
- State-of-the-art technology and continuous investment in talent and R&D
- Member of associations focused on Operational Excellence



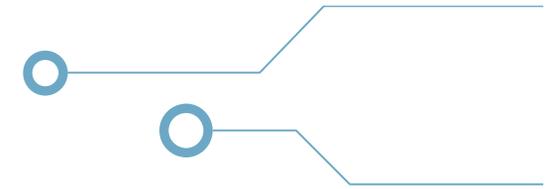
- Manejo y procesamiento incorrecto
 - Fallas o cambios en valores de ESDS componentes
 - Inmediato o Latente
- Importante construir protección para ESDS componentes hacia diseños de circuitos y embalaje (packaging).
- Información adicional
 - J-STD-001, ANSI/ESD-S-20.20 y documentos pertinentes

"High reliability, always"

Quality Certifications

- ISO 9001
- Nadcap 7120 Electronics
- NATO AQAP 2110
- EN9100 – Aerospace and Defense
- Customer Special Process Facility Qualified

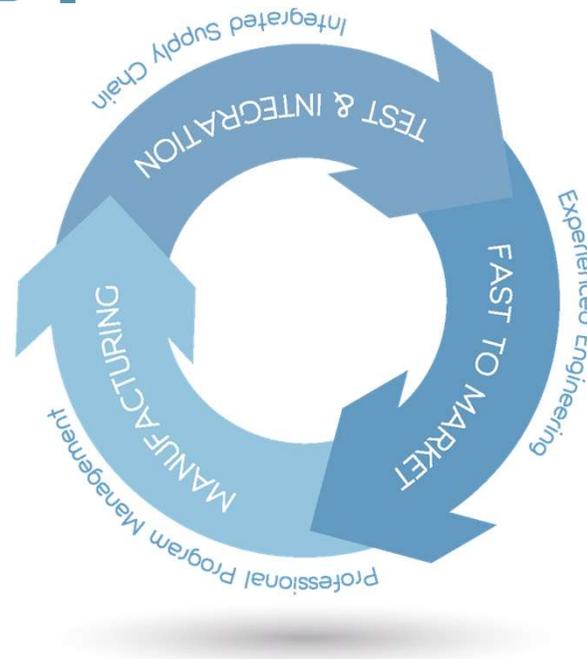
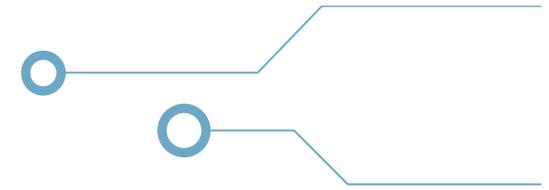
- IATF 16949 – Automotive
- ISO 13485* – Medical



*MADES manufacturing processes and Quality System are aligned with requirements of ISO 13485

Why **MADES**?

“Not just Manufacturing”



- Mature and strong processes, compliant with industry policies and certifications
- Proven experience in major multinational programs for nearly 30 years



MADES

Strategically located in the Technology Park of Andalucía (PTA), an innovation and development cluster in Malaga.

- Pablo Picasso international airport (AGP)
- High Speed train (AVE) hub
- Malaga port

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