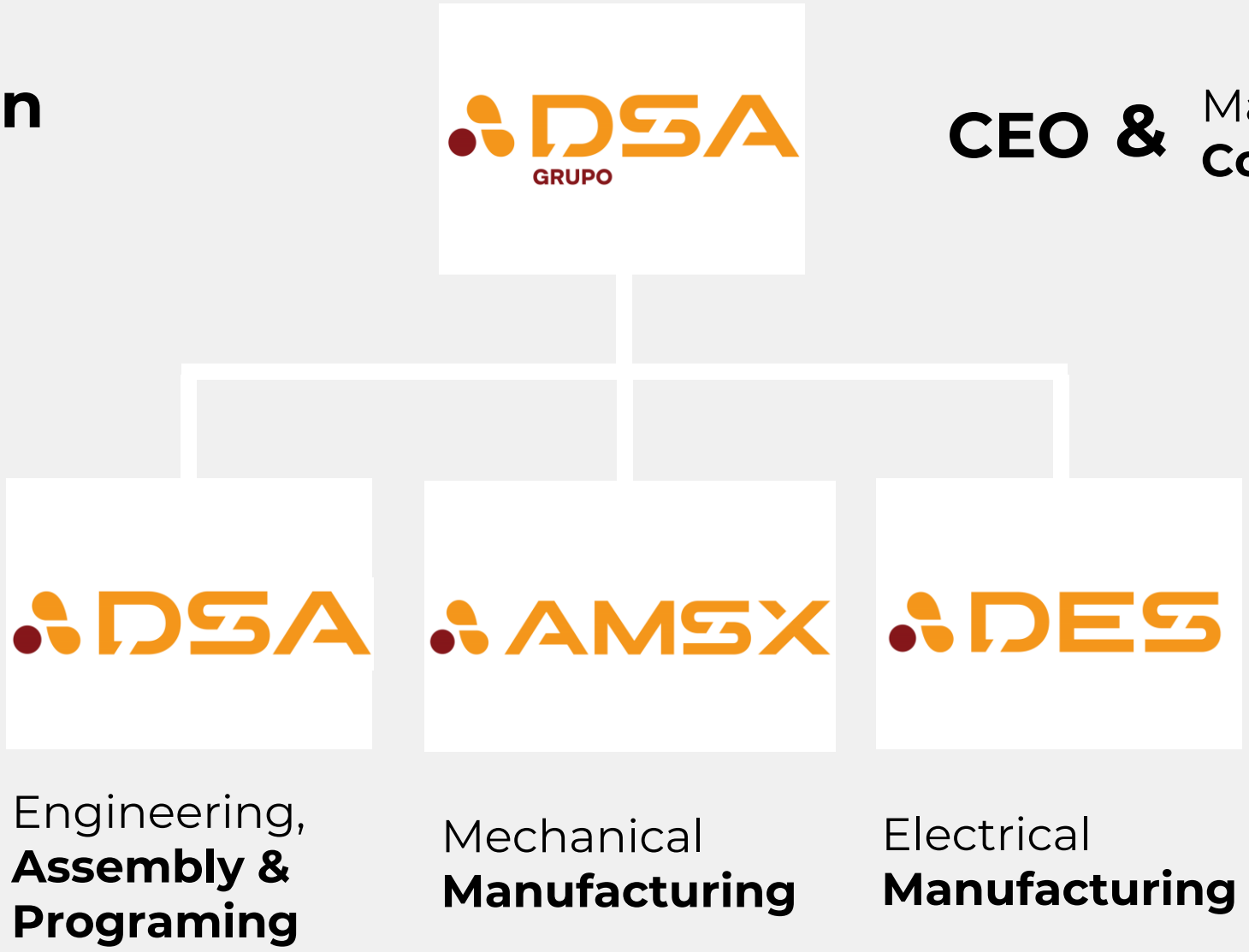
DSA
GRUPO

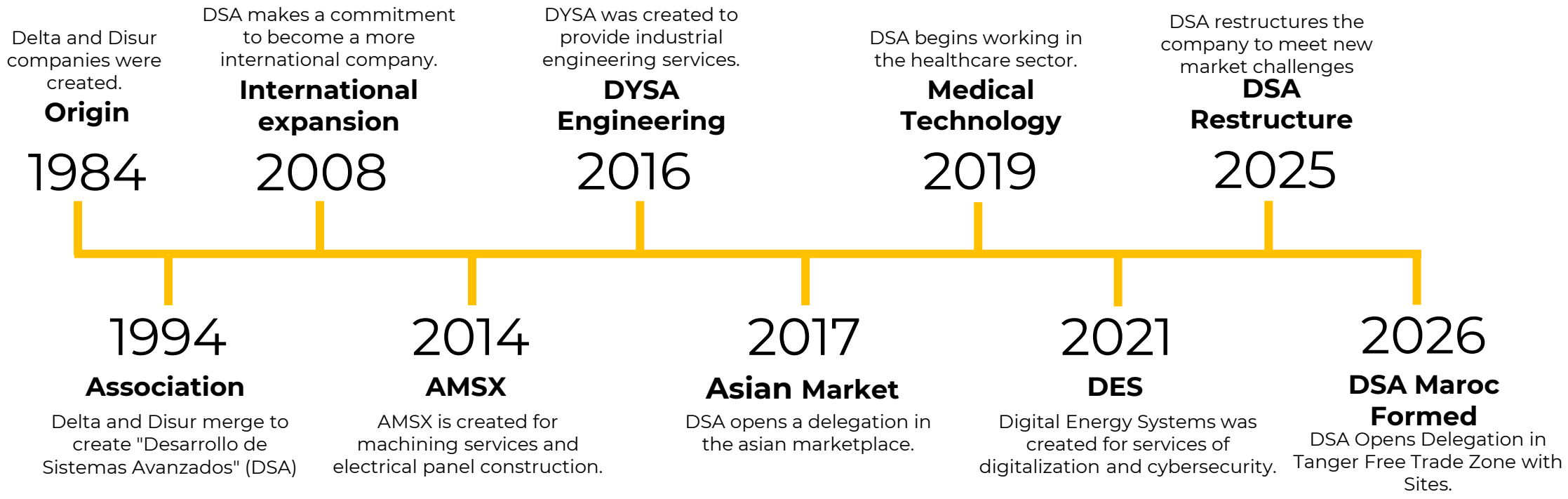
Desarrollo de **sistemas avanzados**

www.dsagrupo.com

Company **organization**



Highlights in **DSA GRUPO**



About
DSA GRUPO

Desarrollo de Sistemas Avanzados is a leading company in the design and manufacture of capital equipment for industrial applications.

- Comprehensive management of industrialization processes
- Manufacture of prototypes in all types of materials
- Design, manufacturing, assembly and control of tooling projects
- Manufacture of electrical panels
- R&D&I
- Cybersecurity
- Software development

+35 YEARS OF EXPERIENCE IN INDUSTRIALIZATION AND AUTOMATIZATION OF PROCESSES

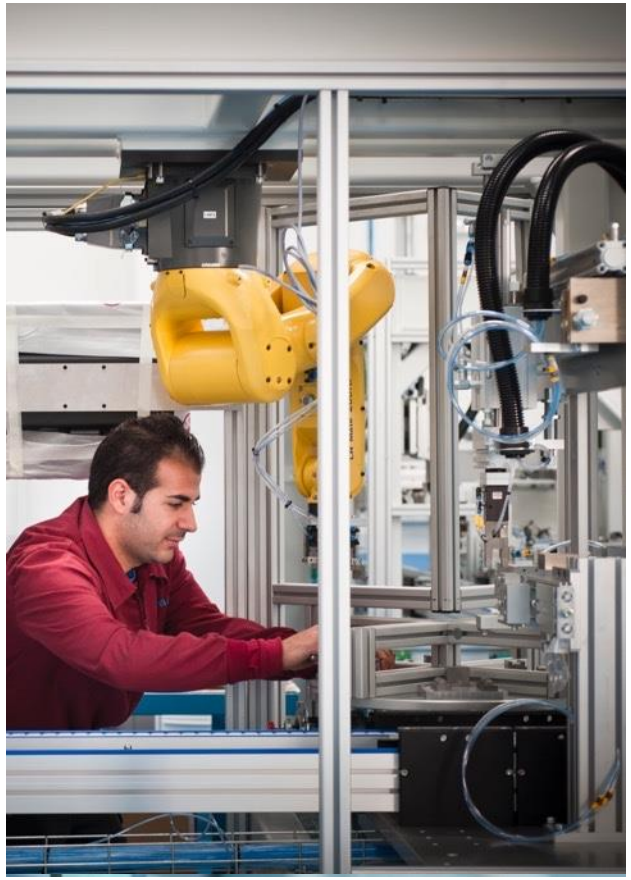
HEADQUARTERS LOCATED IN THE SOUTH OF SPAIN

+15 COUNTRIES
+10 SECTORS: AUTOMOTIVE, RENEWABLE ENERGY, HEALTHCARE, FOOD, TEXTILE...

Desarrollo de **sistemas avanzados**

Dsa S.L has more than 35 years of experience in design and build of specialized machinery for assembly and function test applications in many sectors of industry. (incl. Automotive, textile, medical).

Customer-specific and unique solutions.



+35 YEARS OF EXPERIENCE IN THE FIELD

COMPLETE MANAGEMENT OF INDUSTRIALIZATION PROCESSES

+15 COUNTRIES +10 SECTORS

MANUFACTURE OF PROTOTYPES, SMALL AND MEDIUM SERIES OF PARTS IN ALL TYPES OF MATERIALS

Desarrollo de **sistemas avanzados**

DSA

Advanced **Mechanical Systems**

AMSX

Advanced Mechanical Systems was created to provide a solution to market requirements for machining services. AMSX uses the most widespread design tools on the market, such as, Inventor, Catia, AutoCAD... for tooling design. CAM programming is done with GibbsCAM for 3 and 5 axis lathes and machining centers.

MANUFACTURE OF PROTOTYPES, SMALL AND MEDIUM SERIES OF PARTS IN ALL TYPES OF MATERIALS.

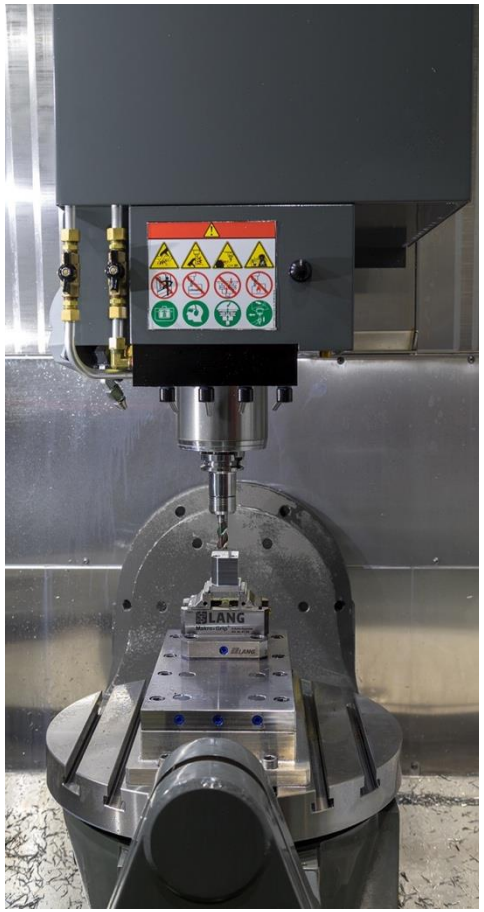
INTEGRAL MANAGEMENT OF INDUSTRIALIZATION PROJECTS

DEVELOPMENT OF TOOLING PROJECTS.

DIMENSIONAL CONTROL & VALIDATION

Advanced **Mechanical Systems**

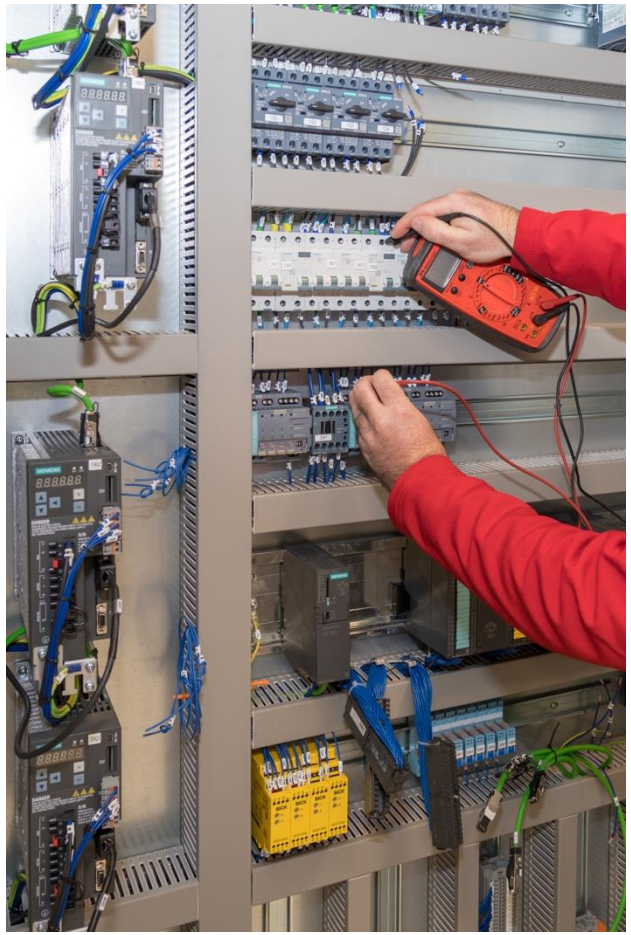
AMSX



Digital & **Energy Systems**

DES

Digital Energy Systems was created to support the increased demand for services in the energy sector, digitalization and cybersecurity. DES has the infrastructure and the means for the design and integral manufacture of electrical cabinets and its implementation in the customer's premises.



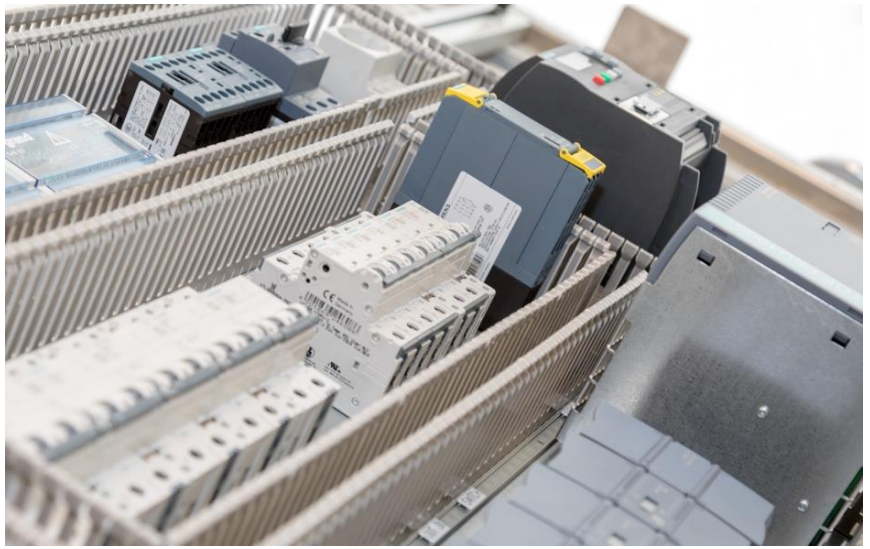
EXPERT IN THE DESIGN AND MANUFACTURE OF ELECTRIC CABINETS

MANUFACTURING BY CNC MACHINING SYSTEMS

EPLAN PRO-PANEL DESIGNING / SEE ELECTRICAL

CERTIFICATION UNDER AMERICAN UL STANDARDS, FOR THE MANUFACTURE OF ATEX CERTIFIED CABINET AND CE.

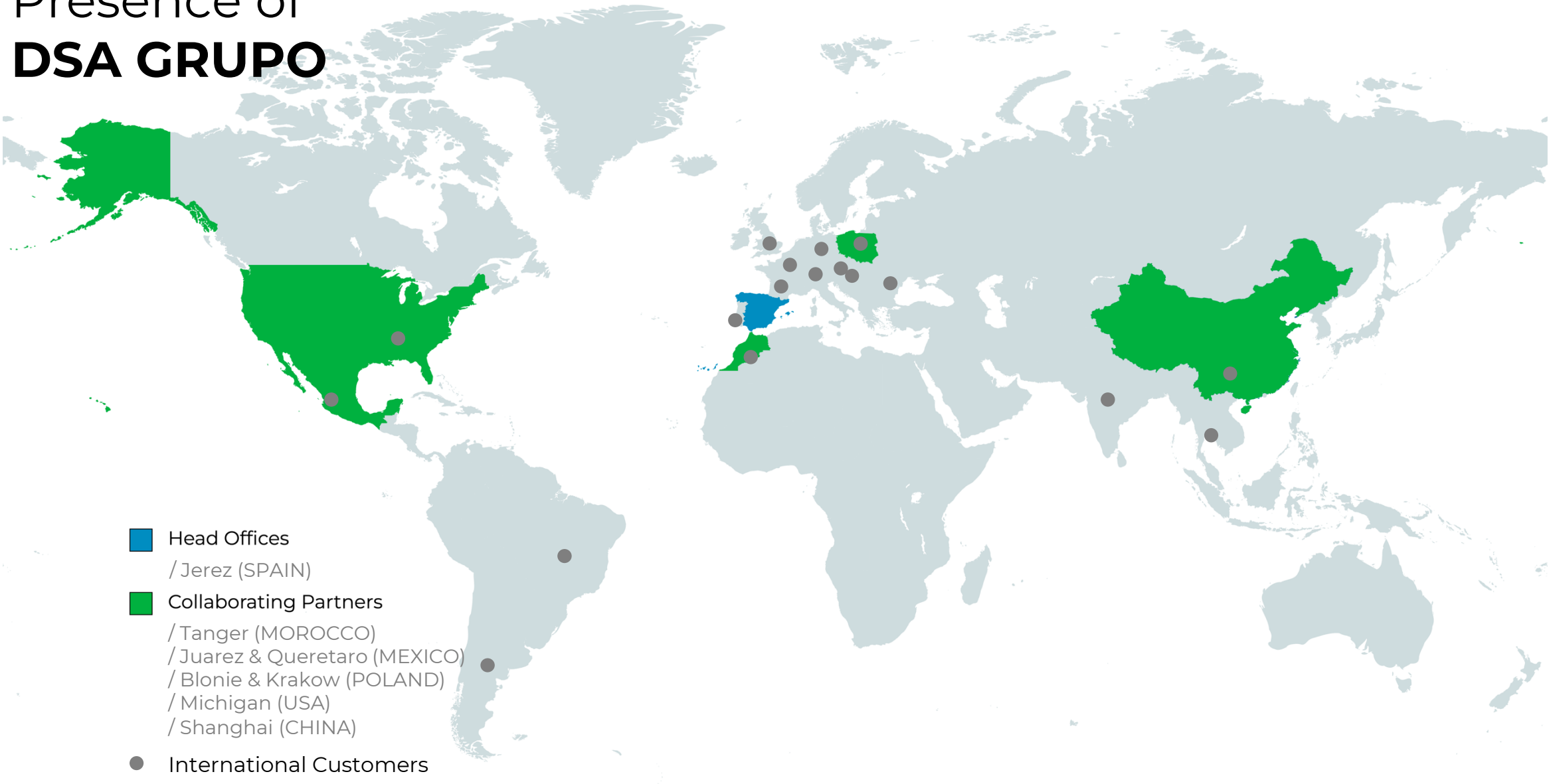
Digital & **Energy Systems**



DSA GROUP
in numbers

DSA GROUP STAFF	DSA	AMSX	DES
Department Directors	6	1	
Project Managers	3		
Mechanical Designers	15		
Electrical Designers	4		2
Machining		19	
Purchasing/Logistics	4		
Mechanical Assembly	23		
Electrical Assembly	5		20
Finances & Administration	4		
Programming	11		10
IT/Cybersecurity			2
Sales	8		
TOTAL	**83**	**20**	**34**
TOTAL DSA GROUP			**137**

Presence of **DSA GRUPO**



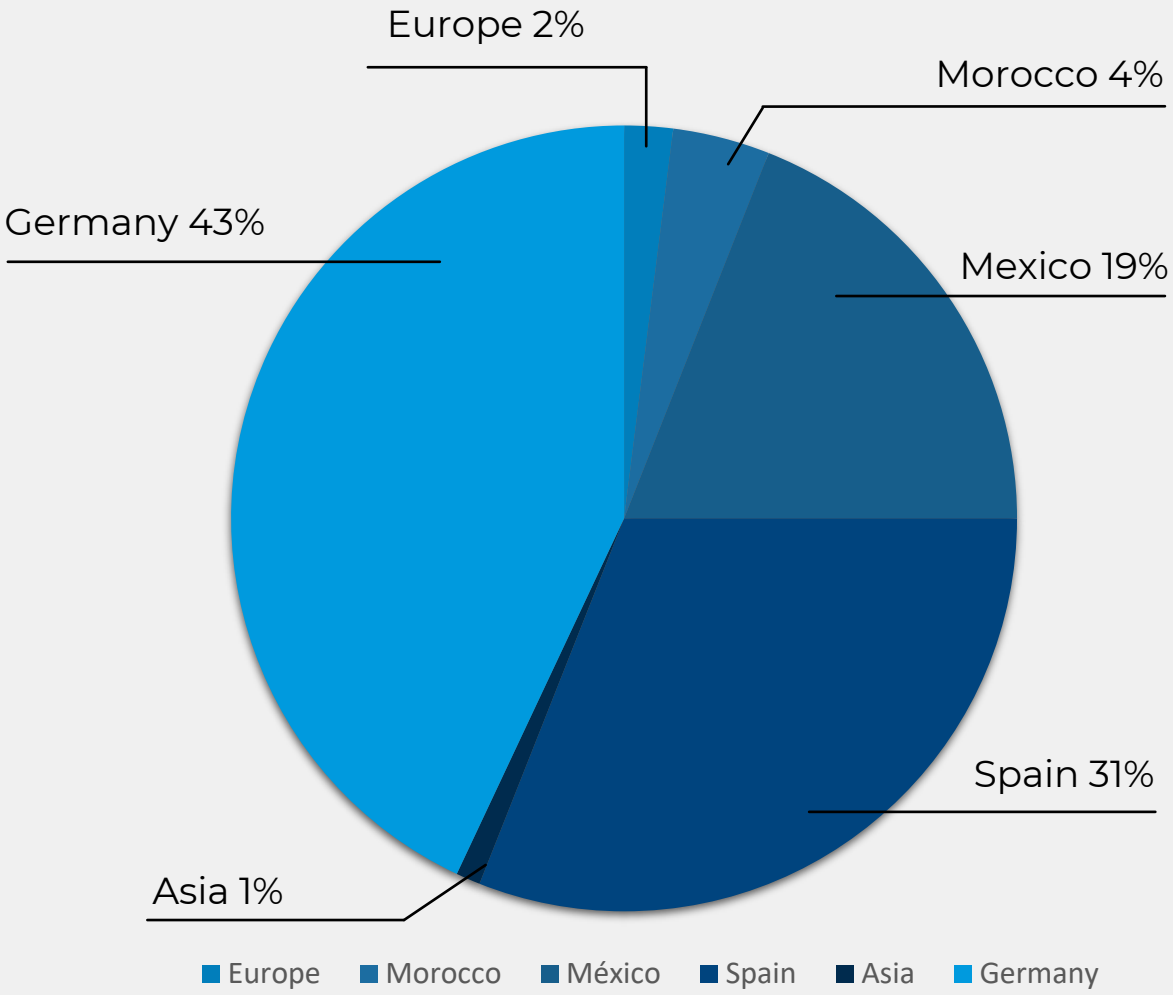
Key **customers**

50+ global manufacturers across 20 countries

Quality

- ENS (ISO 27001)
- Black Level Ciberseguridad España

Working Sectors & **Machine Types**



Working Sectors

- Automotive
- Agricultural
- Household Appliances
- Pharmaceutical
- Defense & Aerospace
- Electronics
- Energy

Machine Types

- Lean Assembly Cells
- Automatic assembly lines and advanced traceability
- Function Test Machines(Product Validation + EOLT)
- Press Machines (Electric, Hydraulic, Pneumatic and Air over Oil)
- Welding machines (Laser, Induction, Resistance, Ultrasonic, TIG, MIG...)
- Robot integration for industrial applications
- Vision systems for presence detection, selection and measurement
- Tooling for machining center
- Machines for the medical sector

DSA GROUP
Engineering Capacity

- 3D/2D mechanical design and calculation of mechanisms and automation systems
- Calculation and sizing of pneumatic and hydraulic systems for automated machines
- Finite element simulation of structures and mechanisms
- Fluid simulation and analysis
- Industrial plant layout and operational flow analysis
- Preparation of technical documentation for machinery and CE certification
- Design of power and control electrical cabinets
- Design of communication networks and signal collection in machines and industrial plants
- PLC programming (Siemens, Allen Bradley, Omron)
- Robot programming (Kuka, ABB, Fanuc)
- PC programming (Python, C++, LabVIEW, LabWindows CVI)
- Programming of industrial process control maneuvers
- HMI control programming

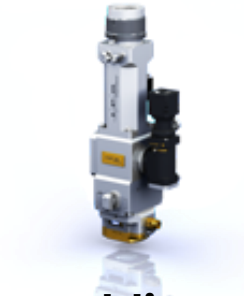
DESIGN GROUP0,,,,	SOFTWARE PROFICIENCY
Mechanical Designers	INVENTOR
	AUTOCAD 2024
	AUTODESK CFD
	SOLIDWORKS
	CATIA
	SOLIDWORKS FLUID SIMULATION
Electrical Designers	EPLAN ELECTRIC P8
	AUTOCAD ELECTRICAL
	SIE ELECTRICAL
Machining	GIBBSCAM
Programming PLC	SIEMENS/TIA PORTAL/STEP 7
	ROCKWELL/STUDIO 5000
	SCHNEIDER
	OMRON/CX PROGRAMMER/SYSMAC
Programming PC	LABWINDOWS CVI
	LABVIEW
	PYTHON
	C++
Programming Robot	ABB
	FANUC
	STAUBLI
	KUKA

Integrated **technologies**

Robots

Electro Servo Presses

Vision Systems



Welding (Laser/Ultrasonic/Sold.)

Marking Systems (Laser, Percusion, Ink-Jet)

Screwdrivers (Electric/Pneumatic)

Aut. Feeding Systems

Transport Systems (Palletized Conv./AGVs)

Integrated **technologies**

Rotary Dial Tables

Load Cells

Dispensing Equipment

Electric / Pneumatic Cylinders

Traceability Integration (1D/2D) and RFID

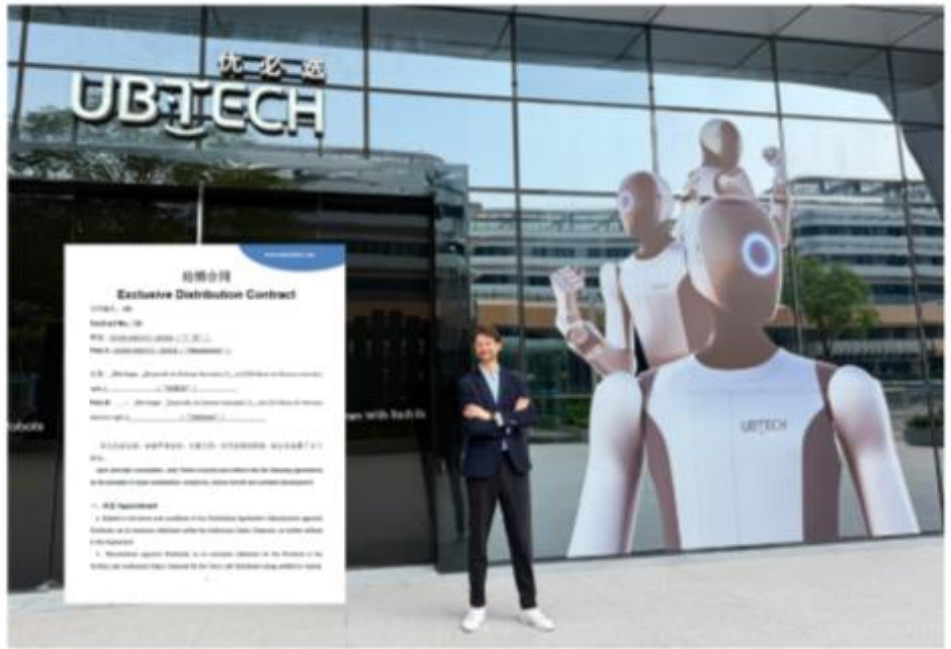
Special Grippers

HMI Monitors & Pick-Two Lights

Special Sensors

We build the future

Questions	Walker S2	UTAS	Walker E	Sky Walker	Cruzr Y
Pictures					
Features	Capable of squatting (0-1.8m), carrying, ±162° rotation,Support **3-minute autonomous battery replacement by humanoid self**,no people needed, Lifting and sorting is the standard function.	Wheeled humanoid robot, capable of carrying/sorting within 0-1.8m range, auto-charging.Lifting and sorting is the standard functions,share **same upper body** with Walker s2,easier R&D	High-speed running and complex movements; voice interaction inside, LLM/VLM integration research, with dexterous manipulation studies. No overheating	Voice interaction and guidance function inside, LLM, with dexterous manipulation. No overheating	Enables continuous handling of loads up to 10kg, with support for autonomous charging and rapid battery replacement.



DSA
We build the future

Rover X1 Explorer Sentinel (Max version)

Dobot Hexplorer Six-legged Bionic Robot

Xtrainer Robot

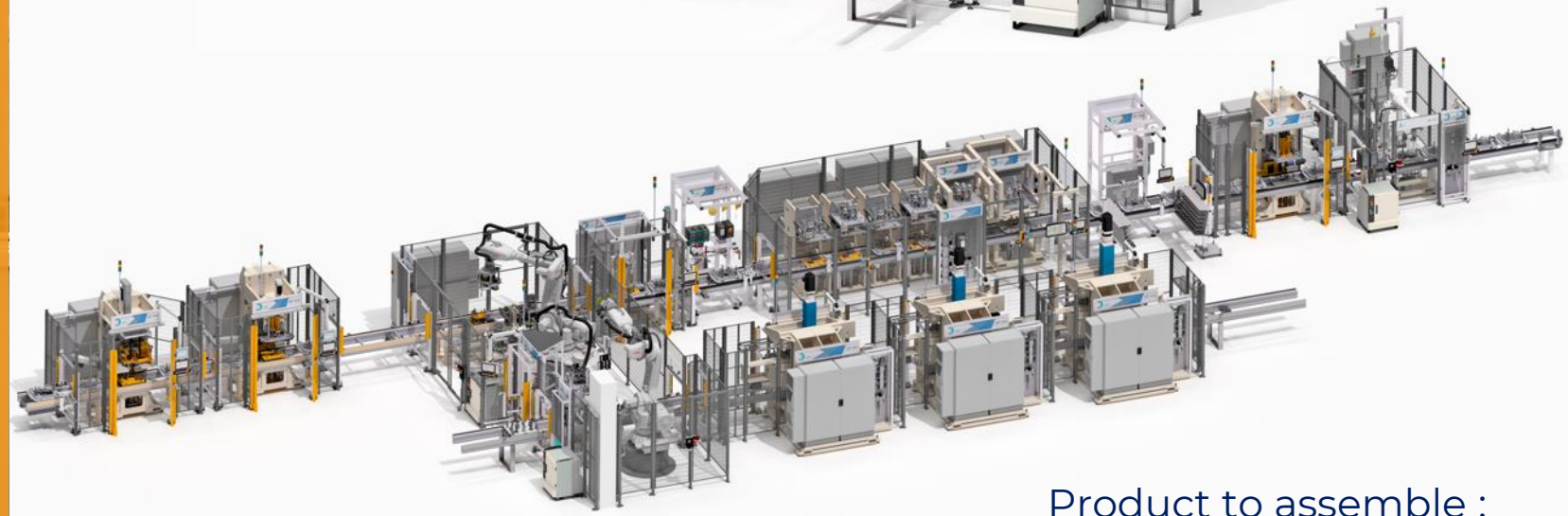
DOBOT DISTRIBUTION AGREEMENT

MOTORS

Automatic
E-Motor
Assembly Line

Technology integrated

- Electric pressing system (up to 200kn) with effort and path control.
- Position control of elements before assembly.
- Redundant height control.
- Vision system for checking components after assembly.
- Assembly of guide bushings on crankcase.
- Assembly of seals on crankcase.
- Assembly of bearings on axles and crankcase.
- Tightness test.
- Silicone application on crankcase.
- Electric screwdriving with torque and angle control.
- Crankcase support pallet with centering system.
- Pallet supported drive shafts with centering nests.
- Process traceability
- Flexibility in pressing range.



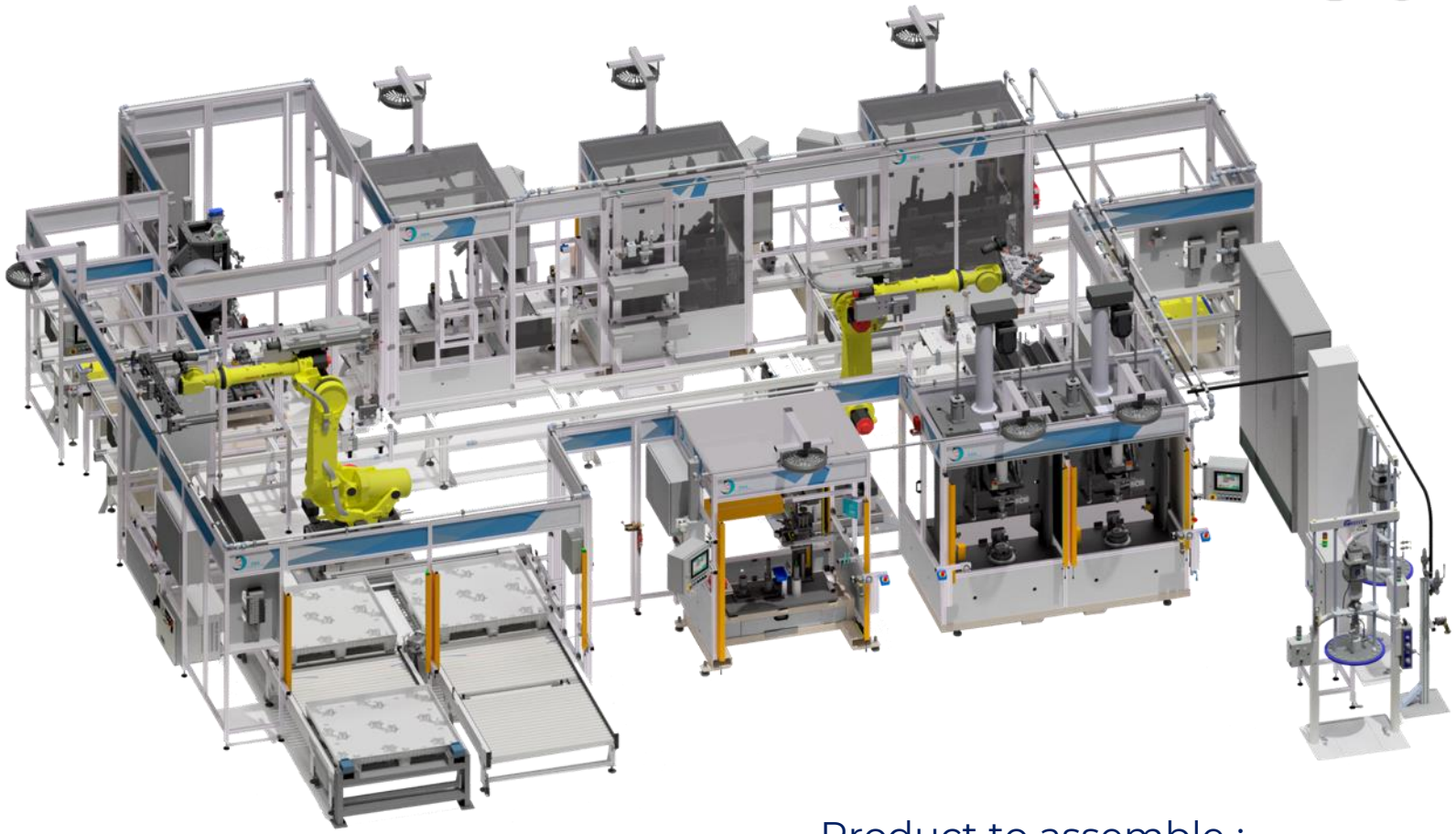
Product to assemble :

HALFSHAFT

Semi-automatic Axle Bar Assembly Line

Technology integrated

- Classification of sliding shaft
- Electric press with position and effort control
- Torque measurement & control
- Hydraulic crimping with Force Control
- Robot load and unload of product
- Electric tightening with torque & angle control
- Vision system for several controls
- Grease application system
- Traceability of the product



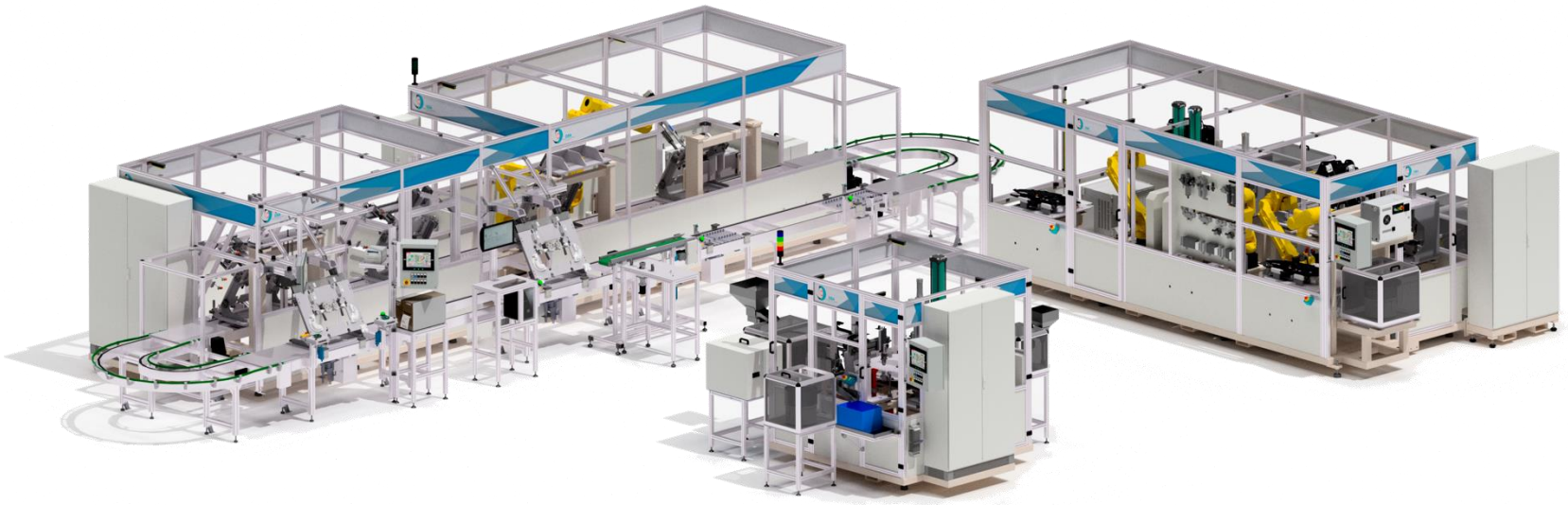
Product to assemble :

WINDOWS REGULATOR

Semi-automatic Windows Regulator Assembly Line

Technology integrated

- Automatic detection of elements
- Palletized transport system
- Vibratory feeding of small component
- Robot for automatic screwing
- Robot for automatic crimping
- Interchangeable nests
- Error proofing system or Poka-Yoke
- Artificial Vision system for controlling assembled components



Product to assemble :

ELECTRIC STEERING

Manual
Single Pinion Rack Assembly Cell

Technology integrated:

- Electric press with position and effort control
- Torque measurement & control
- Hydro-pneumatic crimping with stroke & force control
- Electric tightening with torque & angle control
- Vision system for several controls
- Grease application system
- RTV application system
- Traceability of the product

Product to assemble :

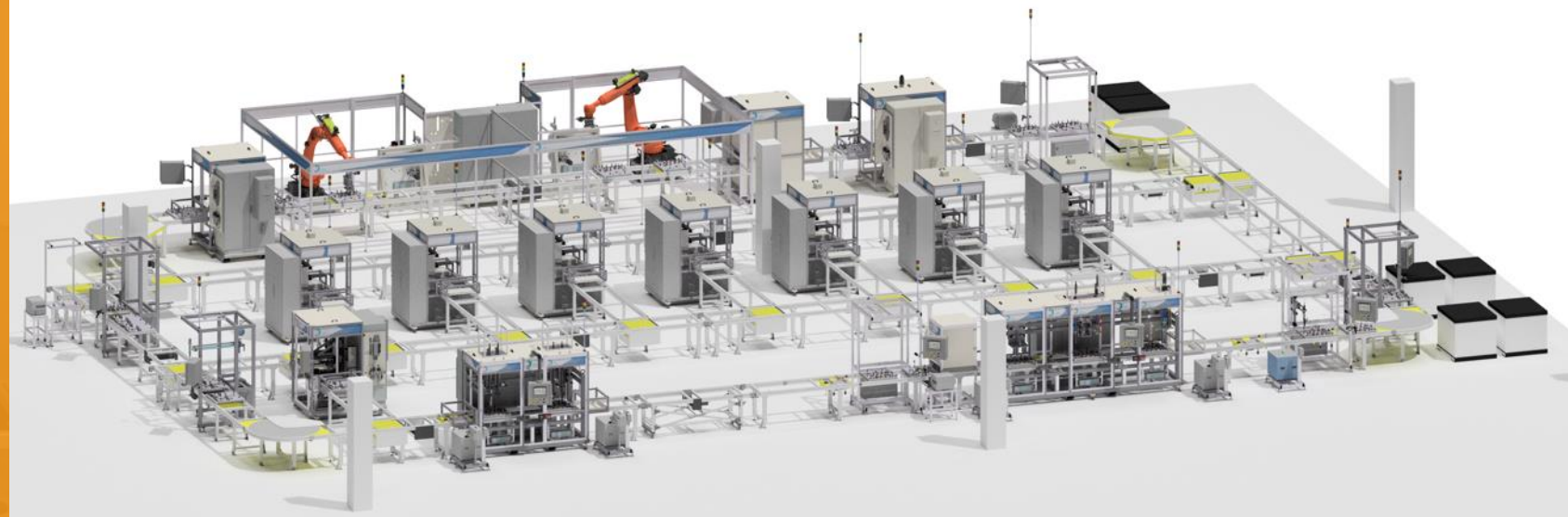
ELECTRONIC BMC

Automatic
BMC E-BOX
Assembly Line

Technology integrated

- FMS type pallet transport line, antistatic system
- Pallet support elements to be assembled
- Electric screwdriving system with torque and angle control, automatic feeding
- Control position of elements before assembly by vision
- Pneumatic manipulators
- Post assembly manuals
- Process traceability
- Robotic cell application of insulating material
- Automatic insulating material dispensing system
- Bubble checking system through vision
- Test benches to check operation

Product to assemble :

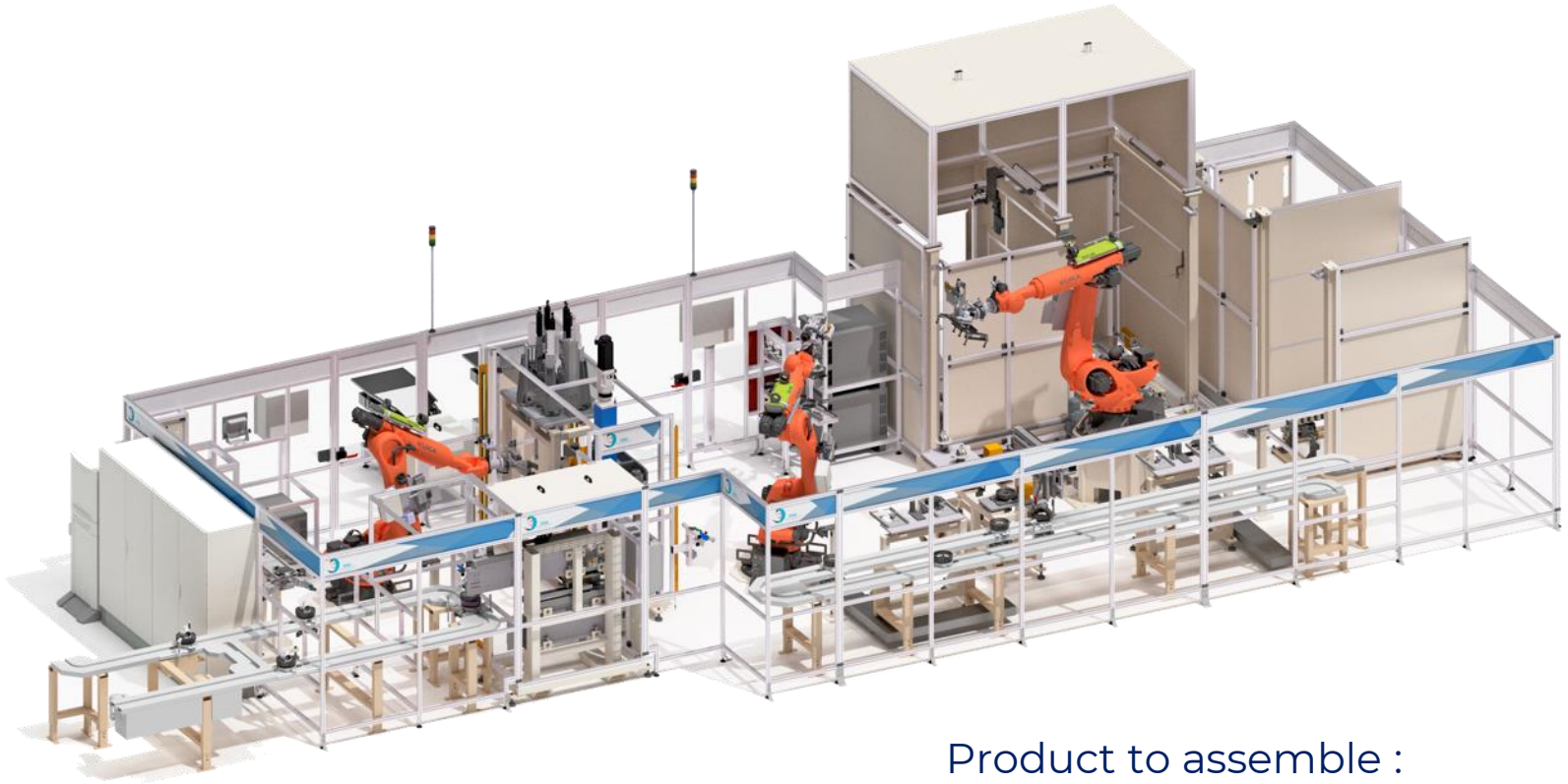


POWERTRAIN

Automatic Differential Assembly Line

Technology integrated

- Electric press with position and effort control
- Robot load and unload product
- Vision system for several controls
- Automatic screw feeding and screwdriving with torque and angle control
- Laser DM engraving
- Full automatic cell
- DM vision check



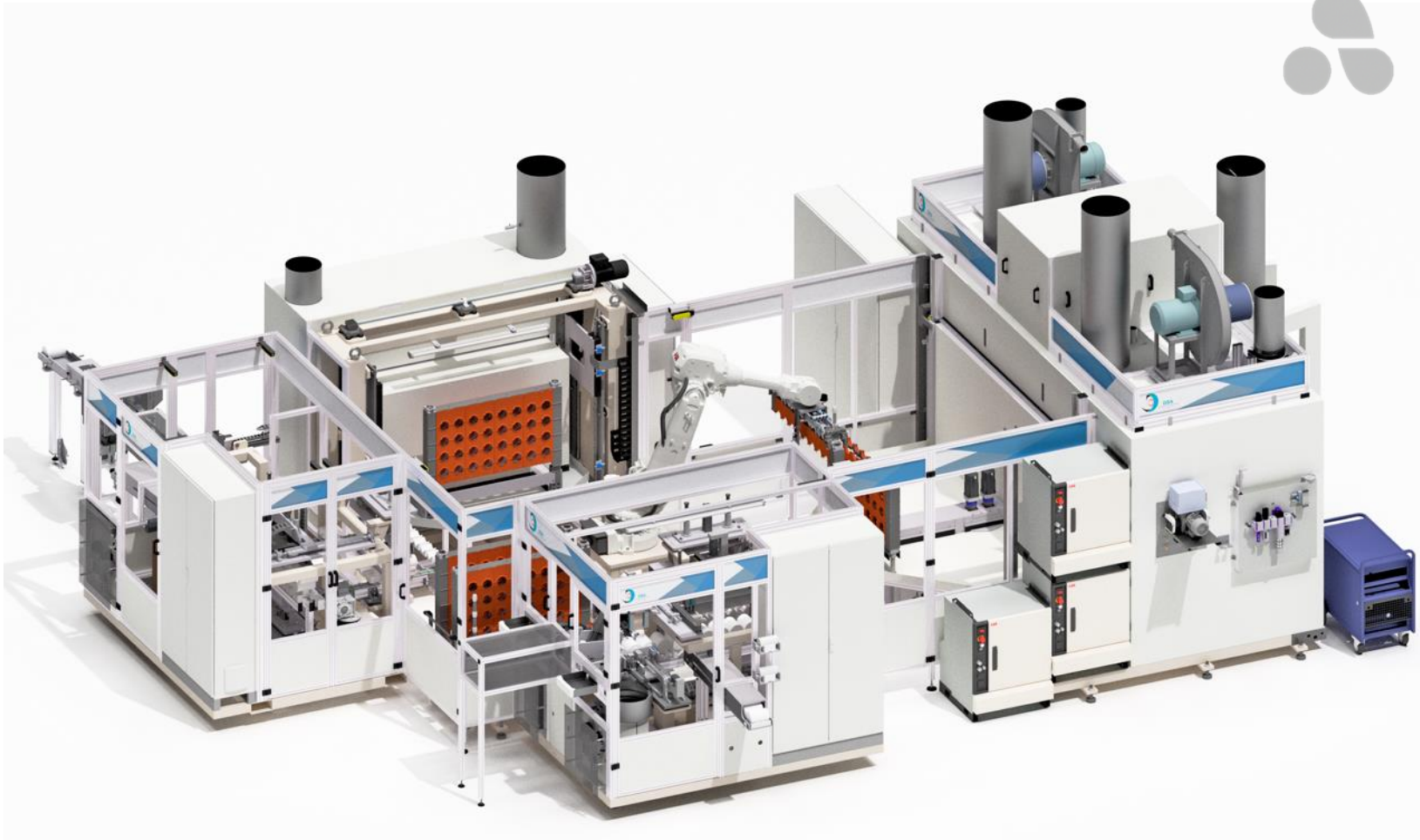
Product to assemble :

ENERGY INDUSTRY

Automatic
Metalize Capacitor Assembly Line

Technology integrated

- Fully automatic cell
- Robot for loading of parts
- XYZ Electric Cartesians for auxiliary operations and unload
- Automatic cleaning of the pallets
- Infrared sensors for parts temperature measurement
- Dial table and specific pallet
- Thermal arc spray system over XY electric cartesian
- Noise control



Product to assemble :

MEDICAL

Automatic Syringe Assembly Line

Technology integrated

- Processing 32 parts at the same time
- Palletized transport System
- Elevator and Vibratory feeding systems for Automatic Load of components
- Robot assembly of clips
- Vision system integrated to verify proper assembly

Product to assemble :

Thank you