



**Innovation Meets Precision:
Electronics Manufacturer for Radio Technology**

Premium Partner for Tailored Test Solutions
Meeting the Highest Demands in the Fields of
Mobile Communications, Automotive and Defence
– Development – Manufacturing – Service –
Made in Germany

// Competence Quality Reliability



“Your partner company for bespoke solutions - development, production, and service all from a single source.”

- // High-frequency technology
- // EMC technology
- // CNC milling technology



// The Company

Development and manufacture of customised products

Telecommunications / Mobile Industry

The telecommunications industry is one of our key markets. For our clients, we develop and manufacture high-quality shielded enclosures, relay panels, patch panels, as well as air interface adapters (air interface emulation) for 2G, 4G, 5G, IoT, Wi-Fi, and TETRA.

To efficiently control our devices and systems, we offer bespoke software solutions and integrate customised programmes – precisely tailored to your requirements.

High-Frequency and Measurement Technology

Our high-frequency components provide state-of-the-art technology for a wide range of applications. The portfolio includes, among other things, programmable attenuators, semiconductor switches, hybrid couplers, attenuators, power dividers, remote feeding switches, RF filters, coaxial relays, and much more.

In the field of EMC measurement technology, we supply high-quality relay units and matching accessories – perfectly tailored to your individual requirements.

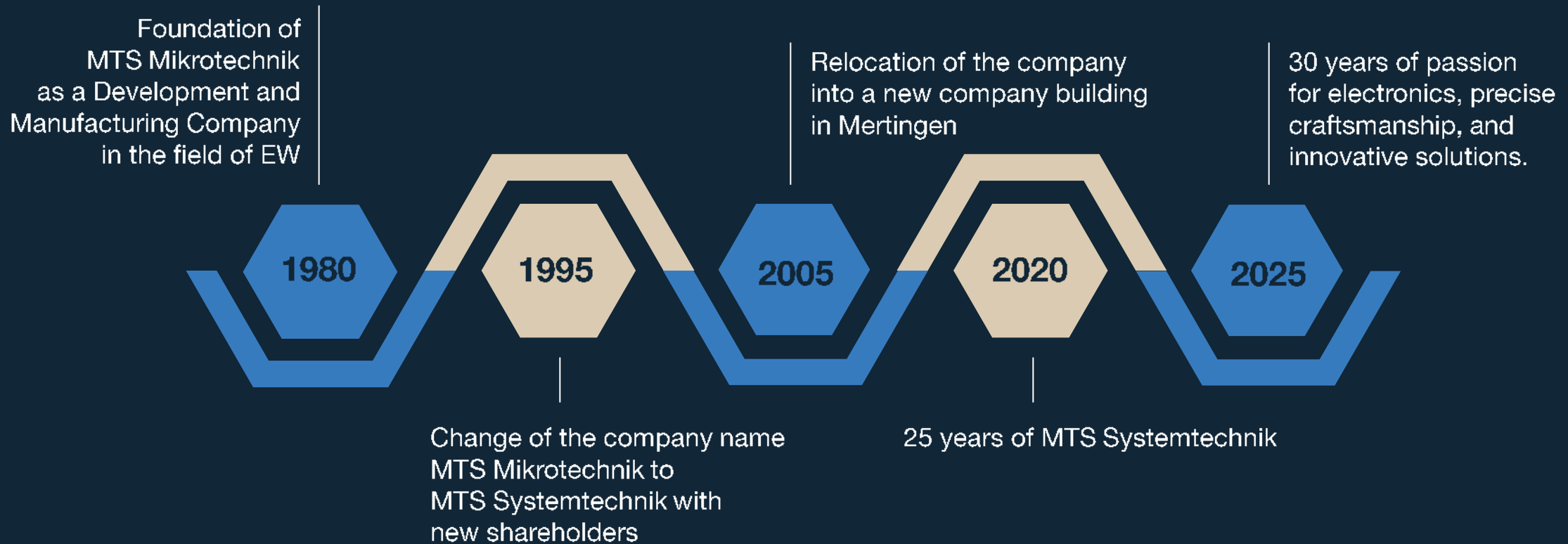
CNC Milling Technology

In our state-of-the-art CNC manufacturing centres, we produce high-precision milled components – from prototypes to series production, exactly according to your individual specifications.

Our mechanical product range also includes standard aluminium enclosures, such as profile enclosures, milled cassette trays, and 19" racks – robust, reliable, and versatile in use.

// The Company

The company's history at a glance



// *Main products*



Systems for the distribution of LF, video, and RF signals in the fields of telecommunications, satellite communication, Mobile Networks, and radio surveillance.



Development and production of active and passive High-Frequency components, including applications in signal distribution, switches, attenuators, filters, couplers, and more



Manufacture of mechanical components for the aerospace, High-Frequency technology, and optical industries

// *Company facts*

Company

Administration, sales and production - all under one roof. Worldwide representatives for the marketing of MTS products.

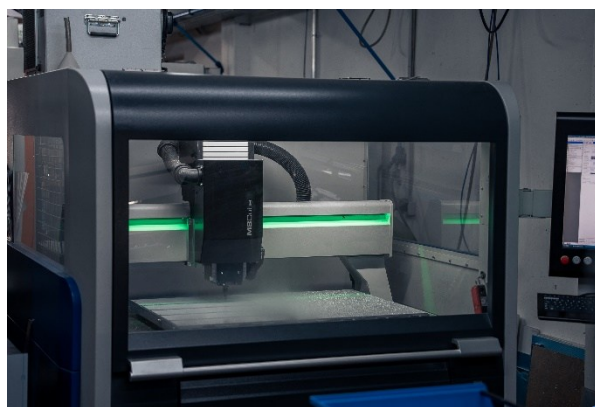
Employees

50 employees in full and part time, consisting of engineers, technicians, skilled workers and trainees

Training

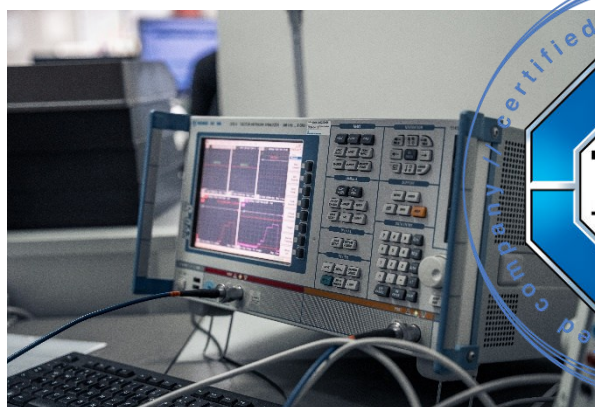
- Electronics technician (m/f/d) for devices and systems
- CNC cutting machine operator (m/f/d)
- Industrial clerk (m/f/d)

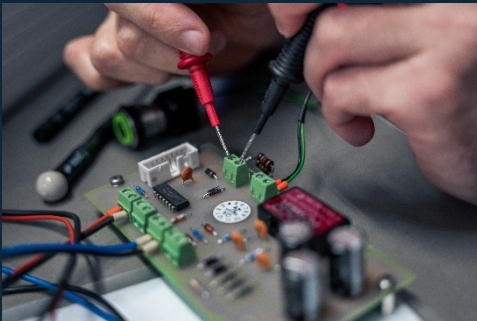
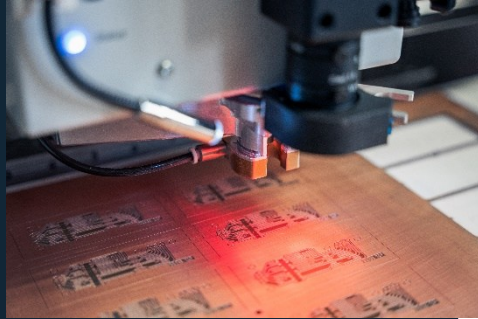
// Company facts



DIN EN ISO 9001:2015 certified
(Development, production, distribution)

Modern measuring devices and machines





// Competences

- // In-house development, simulation and production of high-frequency components and systems
- // Software and hardware laboratory
- // System integration
- // EMC absorber chamber
- // CAD services
- // CNC machining centre
- // Modern production processes
- // Quality standard DIN EN ISO 9001



// *Our markets*



Our customers include developers and manufacturers of highly sensitive equipment in the mobile communications, telecommunications, aerospace, defence, medical, automotive, and electronics sectors. MTS Systemtechnik is synonymous with cutting-edge technology, absolute reliability, discretion, transparent processes, and certified quality.

// *Development and design*

- // Own development department (hard- and software) with development engineers (high-frequency technology, electrical engineering, software)
- // Development and design of own products, complex devices and systems up to individual components
- // Development of operating and control software, firmware etc.
- // Circuit board plotter for development evaluation in circuit board design in the shortest possible time
- // 3D CAD designs in a modern software environment for complex devices and systems, components and mechanics
- // 3D printer for initial samples
- // Product test in our own EMC absorber chamber

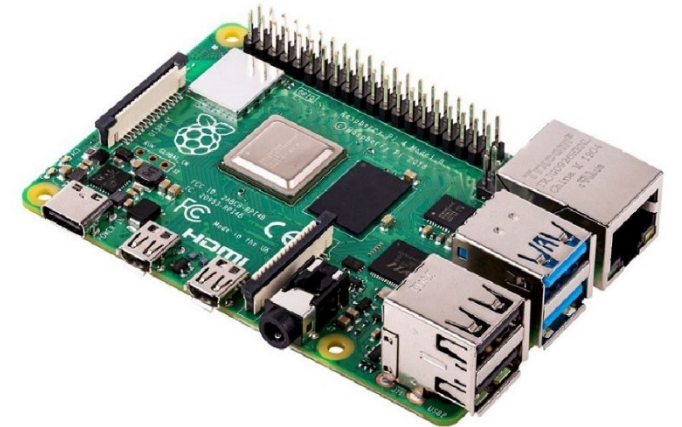
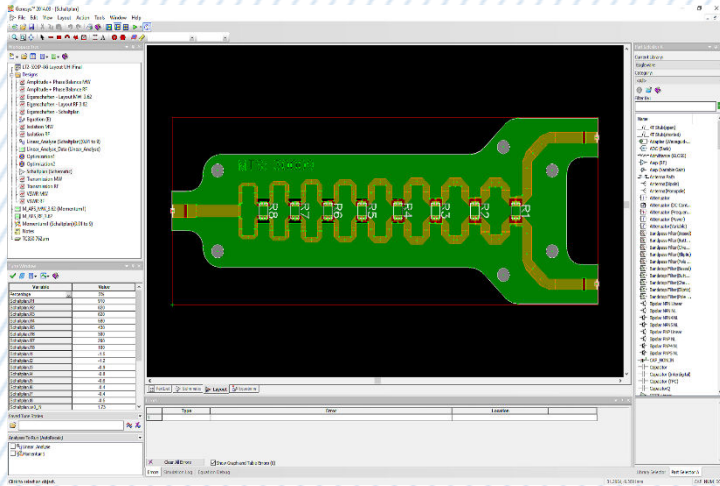
// Electronic manufacturing

- //*** Production of individual printed circuit boards
- //*** Assembly of the units and systems
- //*** Cable assembly (coaxial cable)
- //*** Production and assembly of components
- //*** Examinations and tests of the individual products
- //*** Electronic measurement
- //*** Creation of test protocols
- //*** Extended workbench as a service

// Mechanical manufacturing

- //* CNC milling centre with seven different milling machines
- //* Milling of single pieces up to series production possible
- //* Milling of high-precision components and parts
- //* 3D coordinate measurement
- //* Milling of different materials (e.g. aluminium, steel and polymer (POM))
- //* Surface treatment
- //* Extended workbench as a service

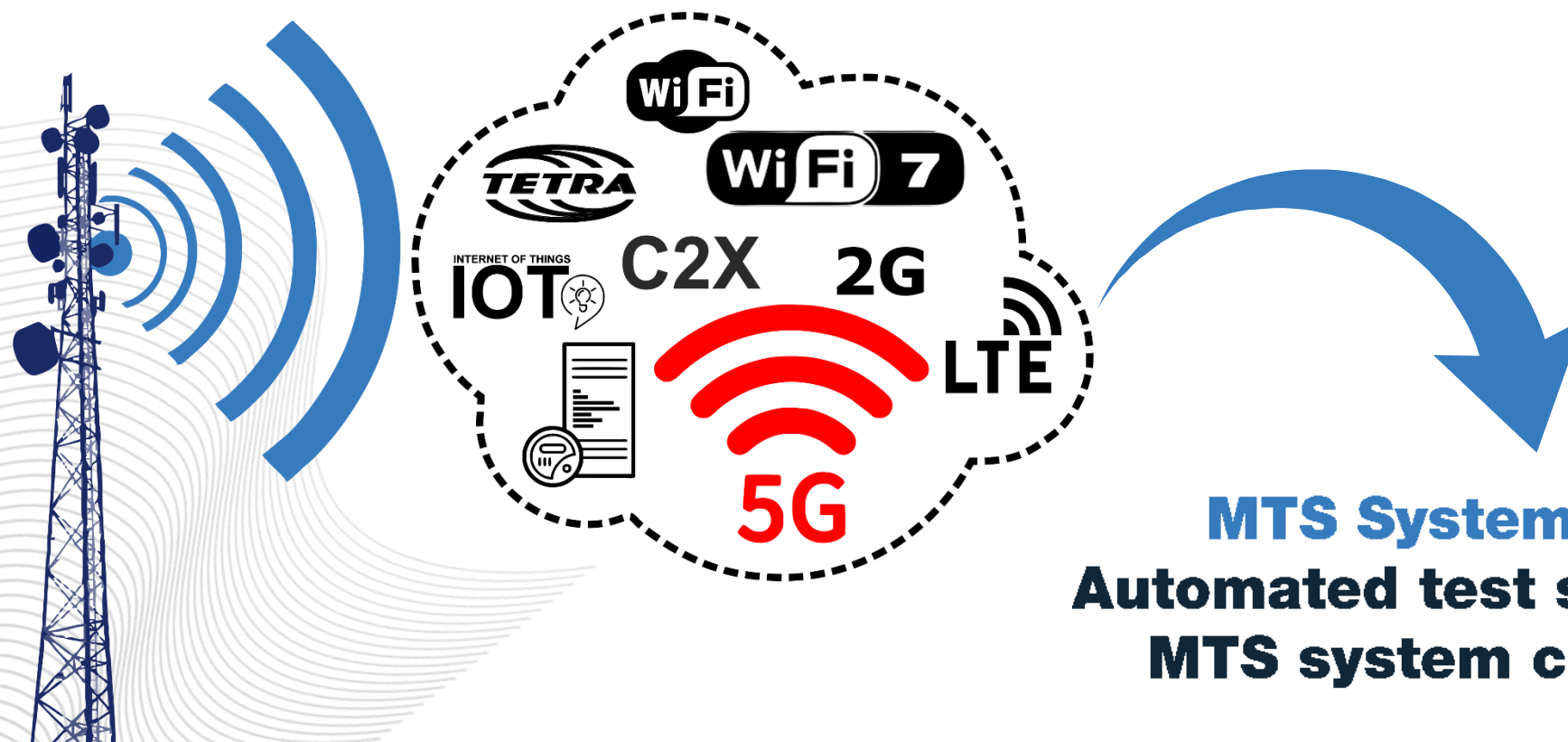
// Modern resources



- // Modern software environment with Keysight Genesys, Pulsonix circuit board design, Visual Studio etc.
- // Circuit board plotter for rapid development evaluation in circuit board design (LPKF S103)
- // Development boards for contemporary hardware and software programming (Raspberry Pi 4 Model B and Cora 7: Zynq-7000)

**Ready for the future –
Ready for new technologies**

5G



MTS Systemtechnik -
Automated test solutions with
MTS system components



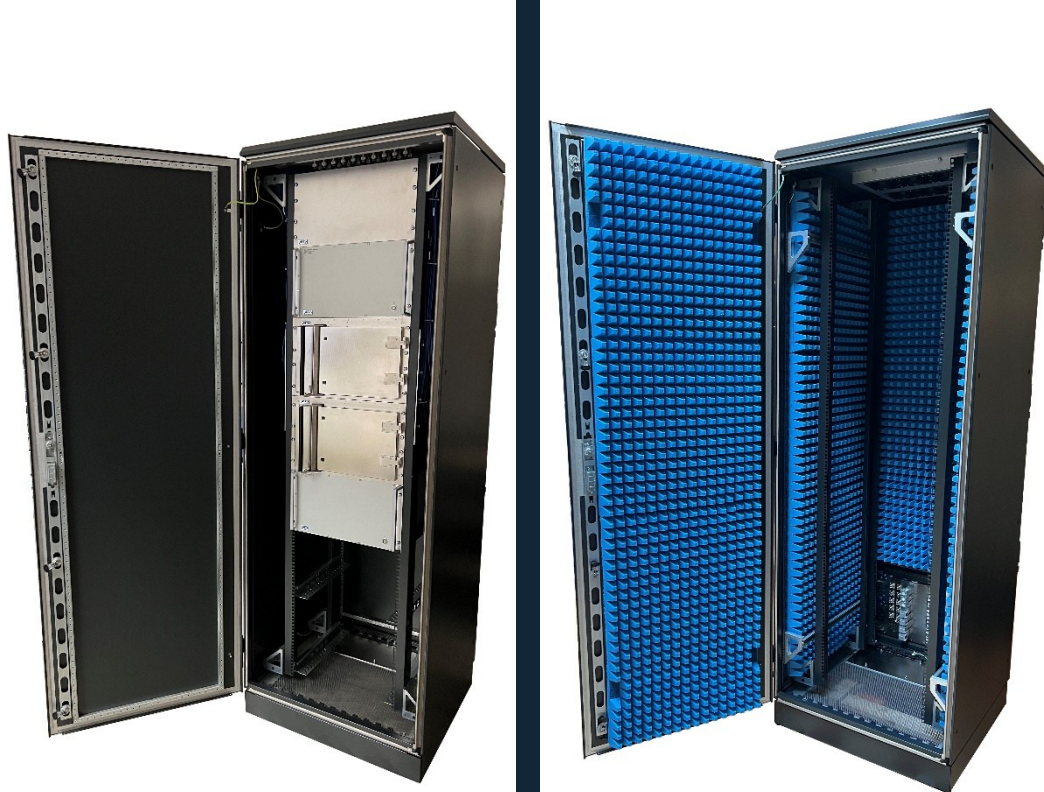
// Components

- // In-house development, simulation and production of high-frequency and microwave components
- // Power divider - Wilkinson and Resistive
- // Semiconductor attenuators - 95 dB / 122 dB attenuation
- // Semiconductor switch - 2s, 4s & 8s with ≥ 100 dB isolation
- // Coupler - Directional coupler & 3 dB Hybrid
- // Level detectors - 5 to -65 dBm dynamic range
- // Passive filter modules - USB 3.2 (20 Gbit/s) & Gigabit-Ethernet
- // etc.



// *Devices and systems*

- // Over 90% of MTS devices and systems consist of the company's own component developments
- // Power divider units - DC to 13 GHz
- // Attenuator units - 1 MHz to 13 GHz
- // Air Interface emulations - 1 MHz to 13 GHz
- // Coupling units - 380 MHz to 6 GHz
- // Switching matrices - 1 MHz to 13 GHz
- // Shielding boxes - 10 kHz to 13 GHz
- // etc.



// *System solutions*

The sensitivity of mobile devices has increased dramatically in the last year. 4G or 5G devices can detect up to -130 dBm, NB IoT applications even up to -145 dBm. Very high RF shielding is required to test these technologies under defined conditions. MTS rack systems are a solution that offers about 120-140 dB. The main features are a shell-type enclosure, filtered interfaces, adapted RF cabling and complete installation in and on the facility.

- // MTS 19" rack system
- // Integrated fans in the roof
- // Connection panel in the roof for RF connections
- // Connection panel on the back for feedthroughs

**// Autonomous solution
for radio measurements
and monitoring**



// *Measuring vehicle*

The autonomous solution for mobile, measuring, monitoring and communication vehicles

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Universal equipment carrier

5G

All types of radio measurements

Radio optimisation

Benchmarking

Troubleshooting / Debugging

IMSI Catcher

Optional radio direction finder

authorities and organisations with security tasks applications

Self-sufficient power supply, can be used almost anywhere

// **Measuring vehicle**

Further application possibilities:

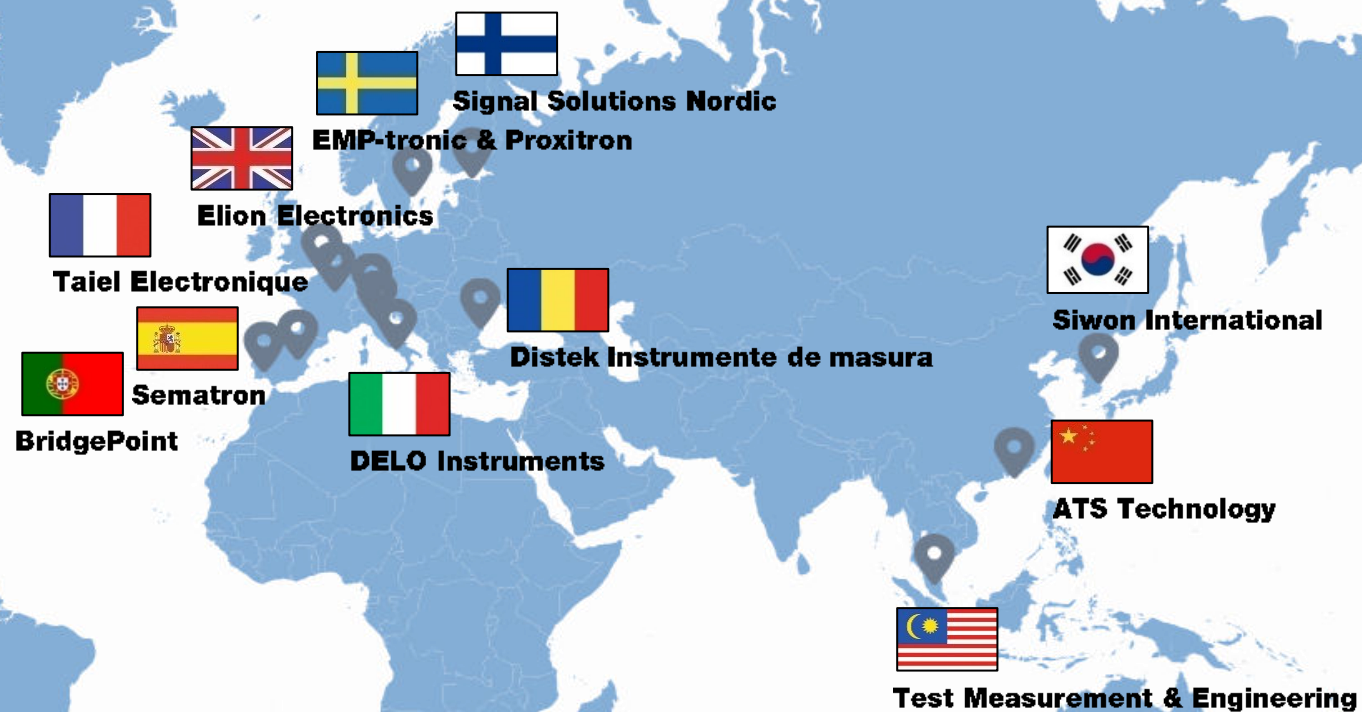
- // Jammer Technology
- // Drone defence
- // Monitoring
- // Wiretaps



// Main customers



// Representations





*// Together towards the right solution –
Contact us*

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