BAUDISCH

MEMBER OF LOXONE GROUP

Quality Management
ISO 9001
www.dekra-seal.com
DEKRA certified

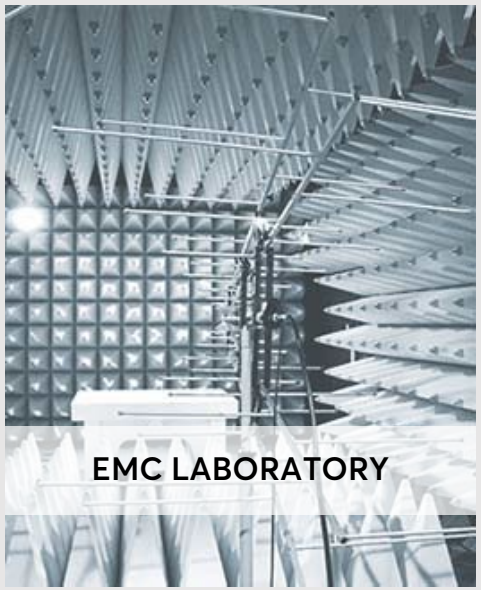
THE EMS FULL-SERVICE PROVIDER WITH EMC LABORATORY

BUSINESS UNITS

BAUDISCHELECTRONIC

ELECTRONIC DEVELOPMENT

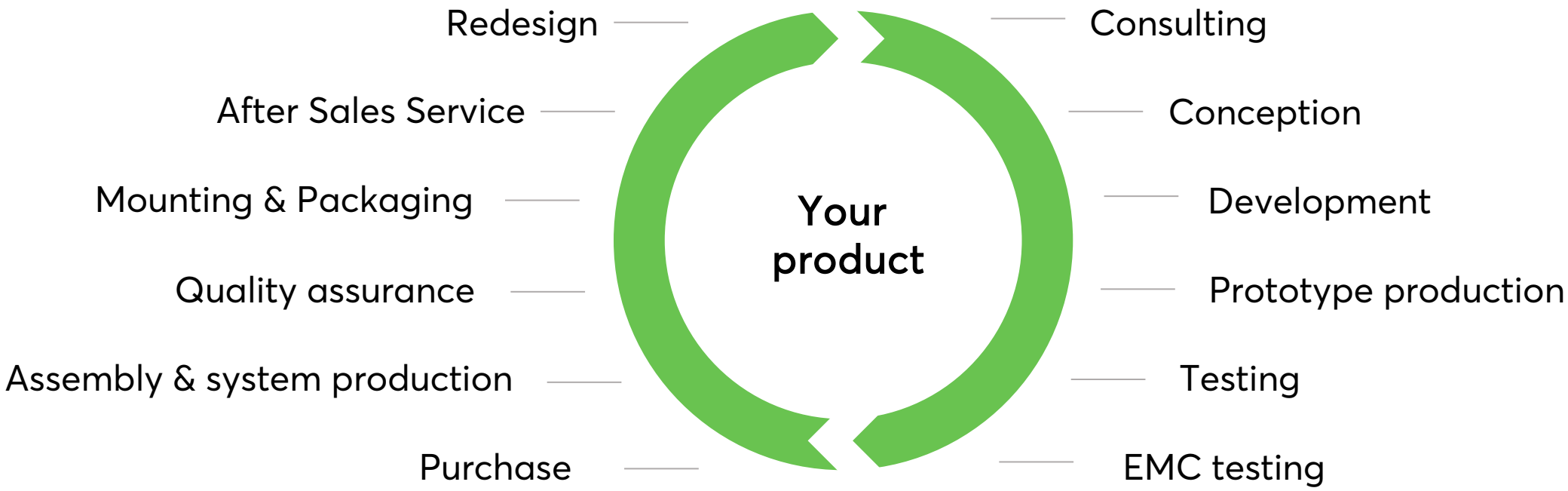
ELECTRONIC PRODUCTION



EMC LABORATORY

CORE COMPETENCIES

Covering the complete product lifecycle:

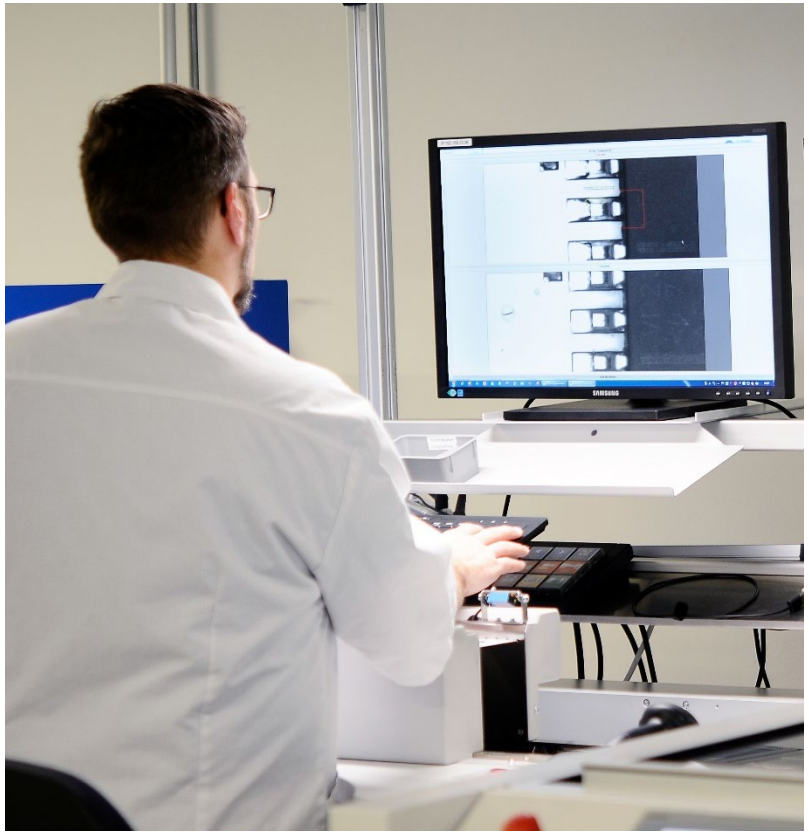


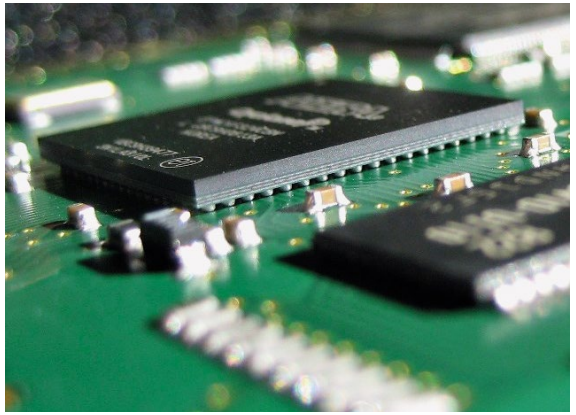
CORE COMPETENCIES

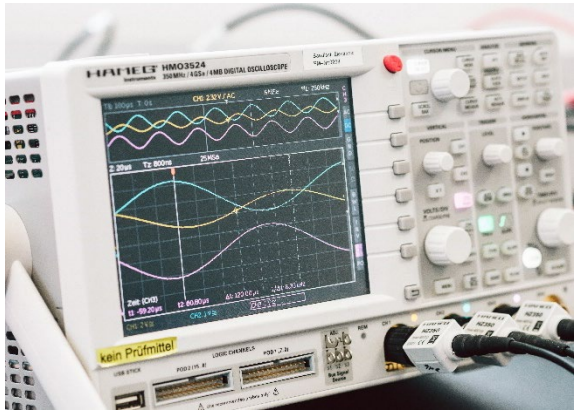
EMS services

Individual solutions along the entire value chain:

- ✓ Development
- ✓ Printed circuit board assembly
- ✓ Testing
- ✓ Assembly
- ✓ lifecycle management







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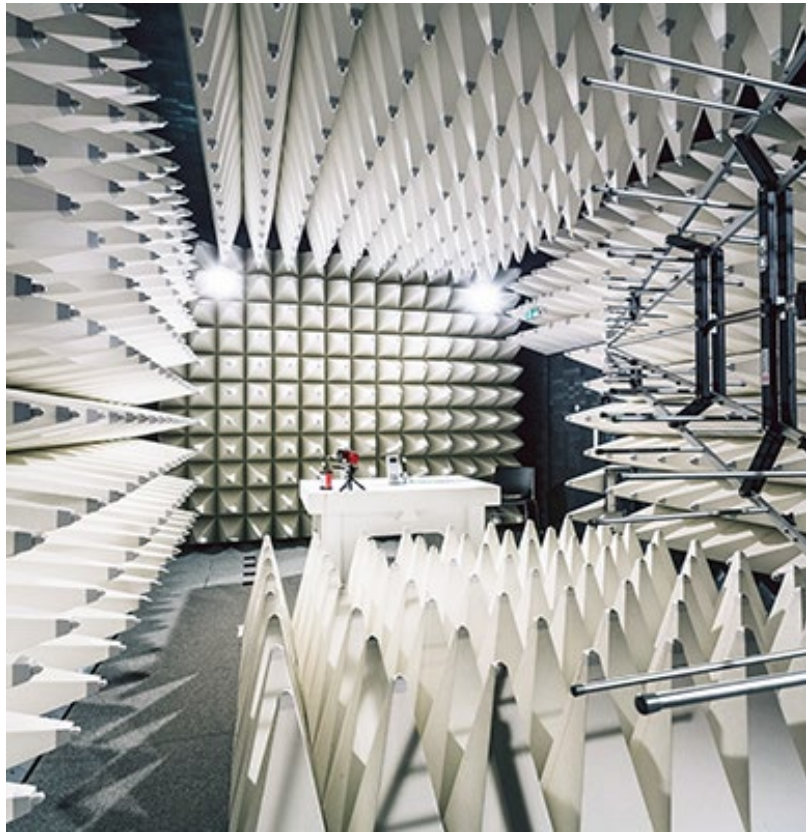
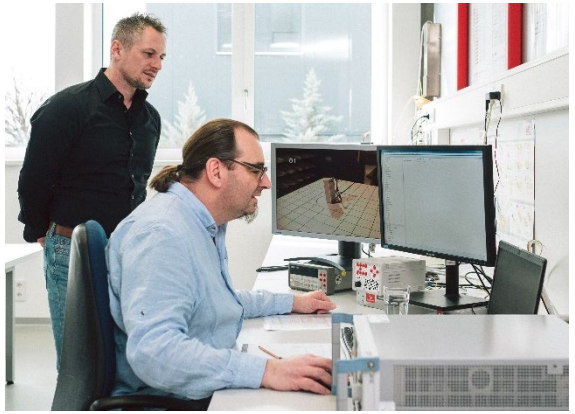
CORE COMPETENCIES

EMC laboratory

- ✓ Metrological testing of EMC conformity
- ✓ Interference suppression and elimination of deviations
- ✓ Consulting on all aspects of EMC
- ✓ Analysis and measurement also at the customer's site





ADVANTAGES AT A GLANCE

- ✓ Full-service provider from the initial idea to the finished packaged end product.
- ✓ Precision and speed with modern machinery.
  - SMD production line with 6 Fuji NXT III placement machines.
  - SEHO Powerwave2 wave soldering system with 4 lean placement stations
  - Ersa Versaflow selective soldering system
- ✓ Quality through DIN EN ISO 9001 certified quality management in all work steps.
- ✓ High flexibility in case of short-term order changes and customer requests.
- ✓ Fast time to market: all interfaces are precisely defined. This ensures plannability and short delivery times.

NUMBERS & FACTS

Sales markets independent of industry

Founded in 1992

> 70 employees

Location: Germany | Baden-Württemberg

14 million € sales in 2021

Total area > 3600 m^2

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SALES MARKETS

Mechanical engineering

R & D

IoT

Robotics

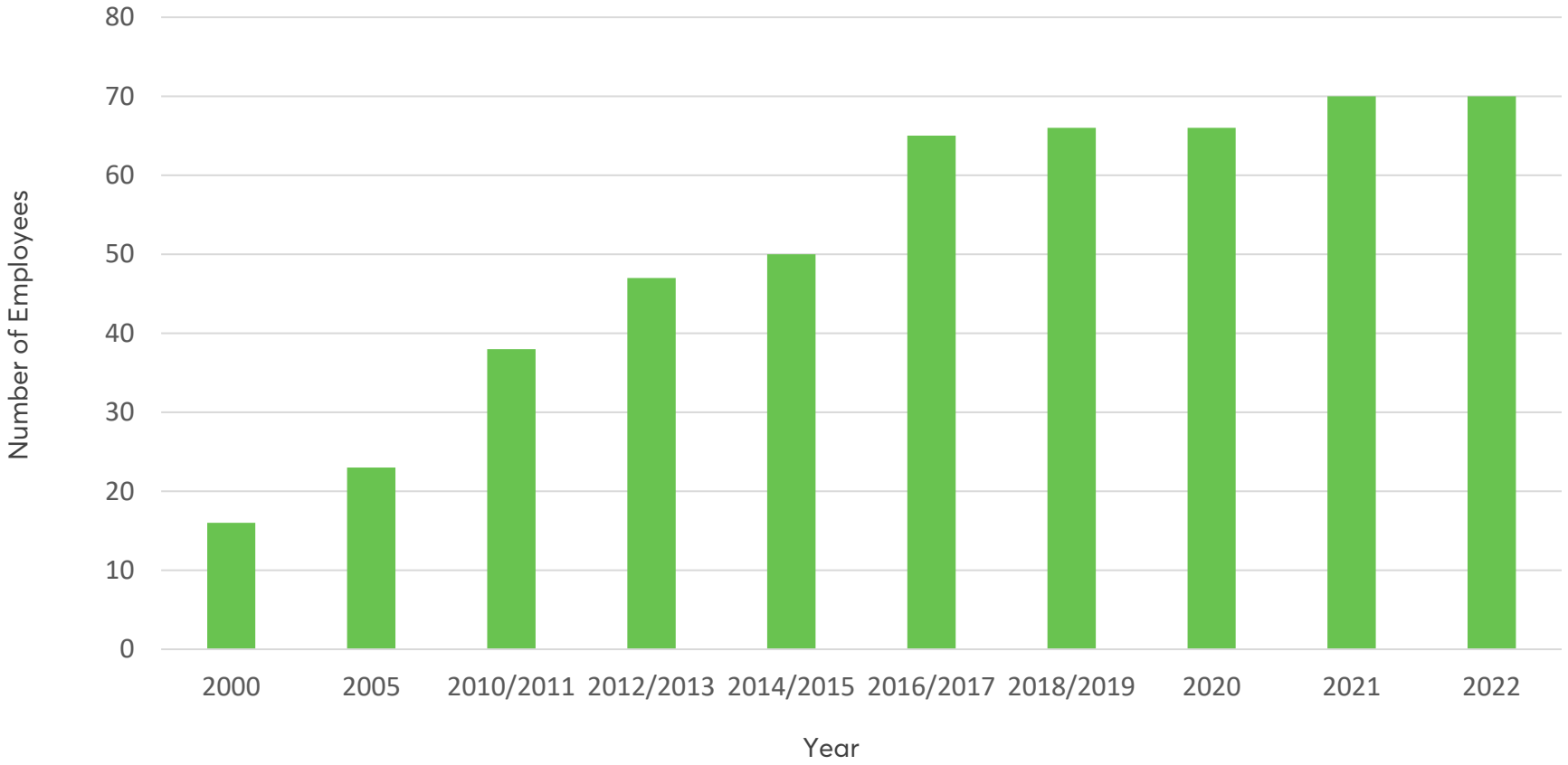
Building automation

Metrology

Telecommunications

Safety technology

EMPLOYEE DEVELOPMENT



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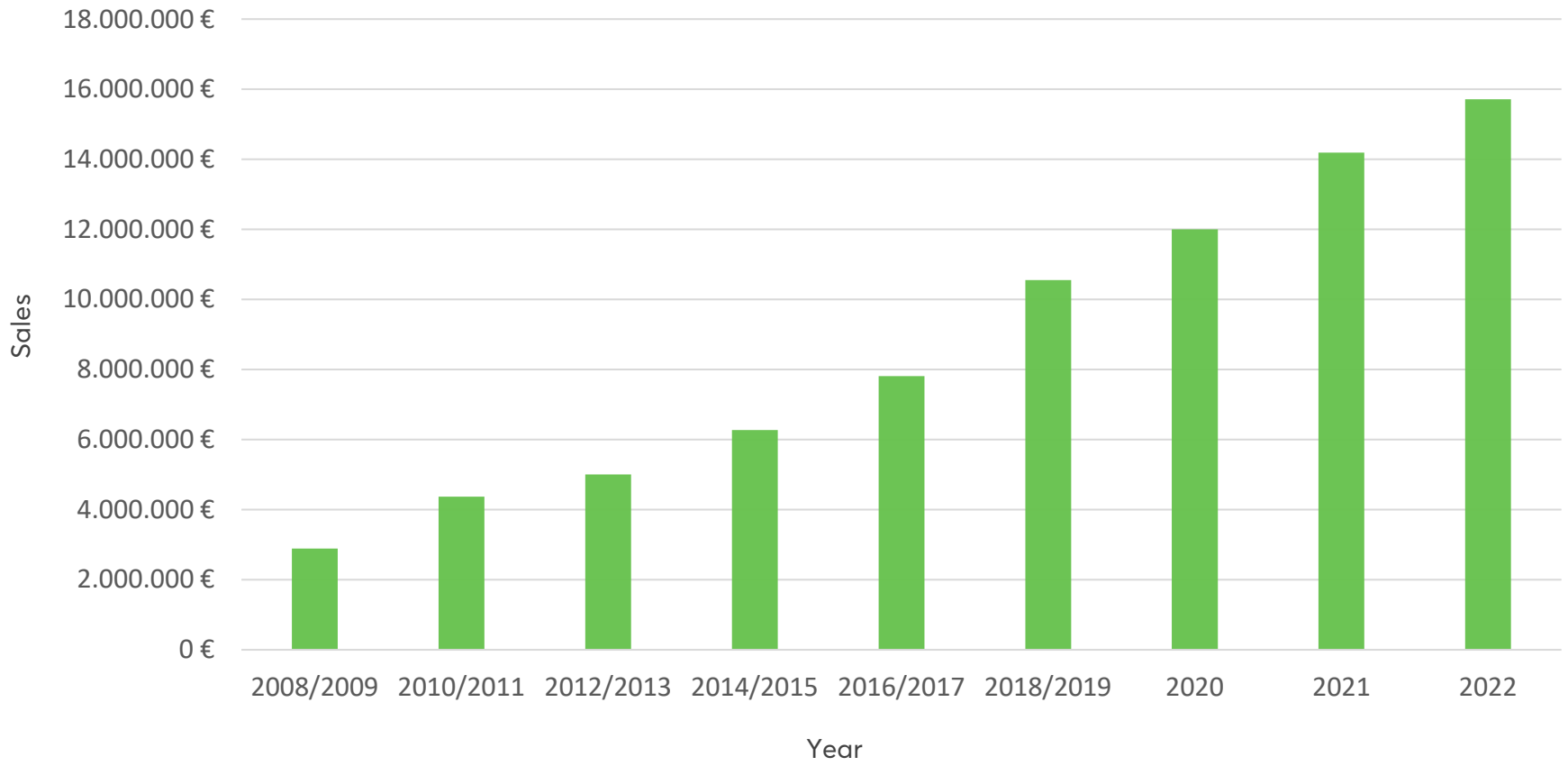
ECONOMIC DEVELOPMENT



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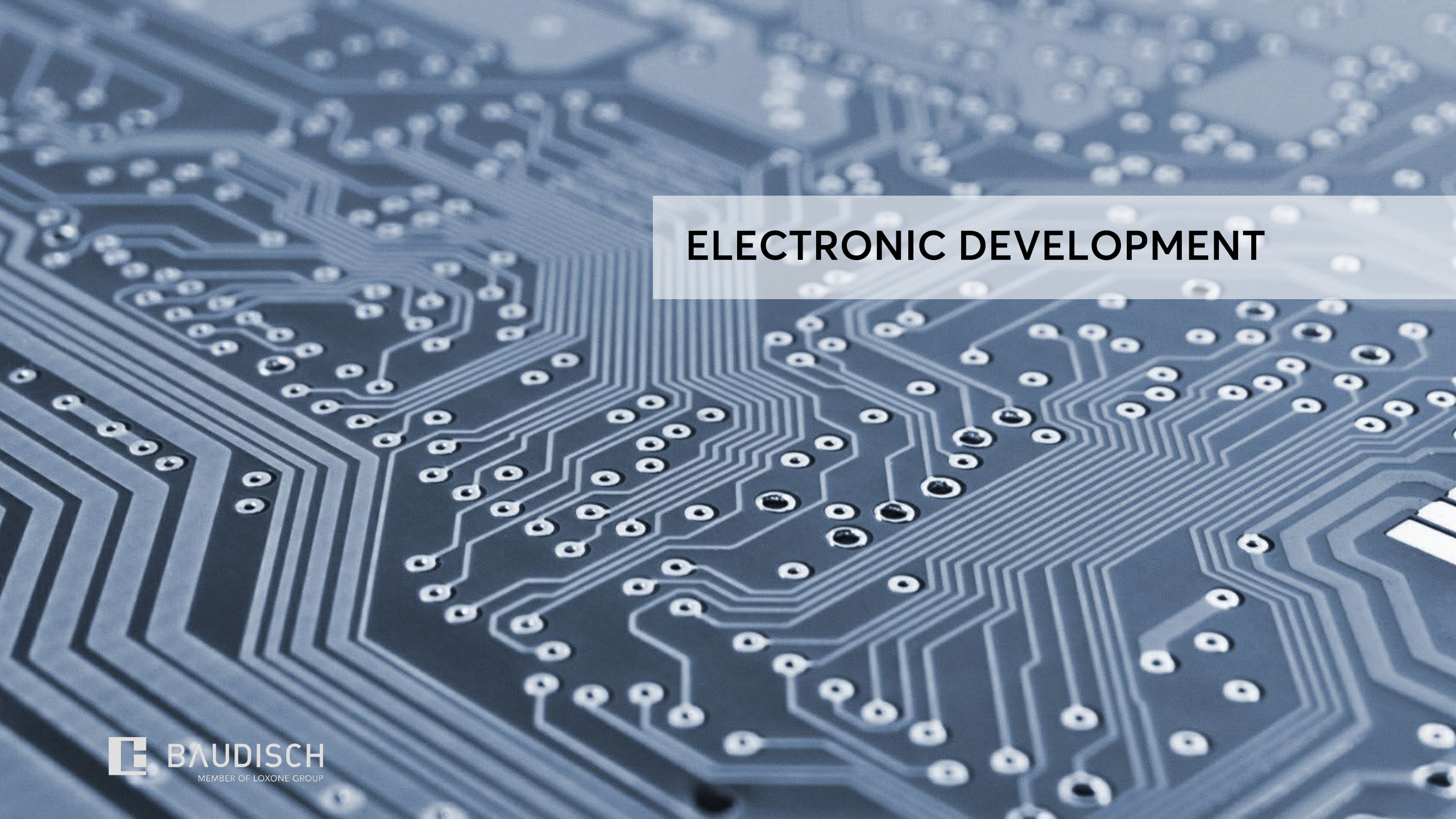
ELECTRONIC DEVELOPMENT
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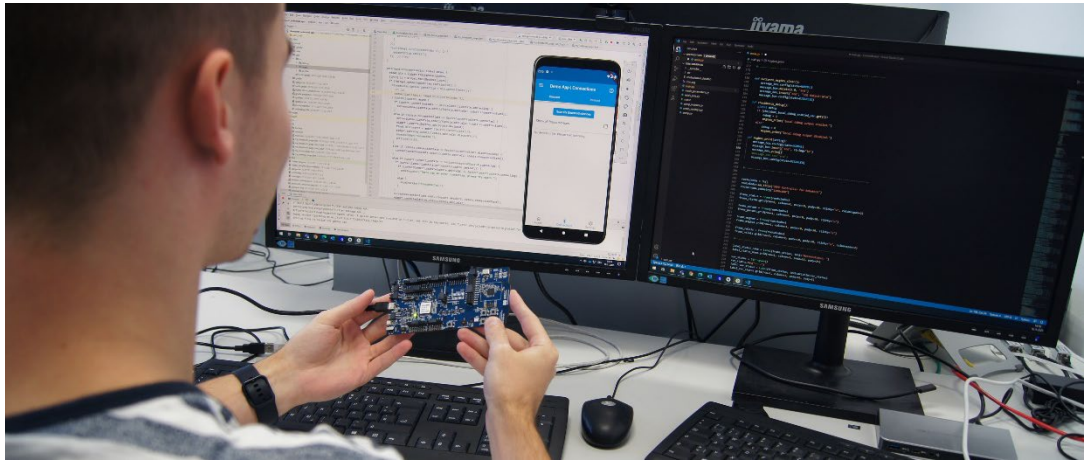
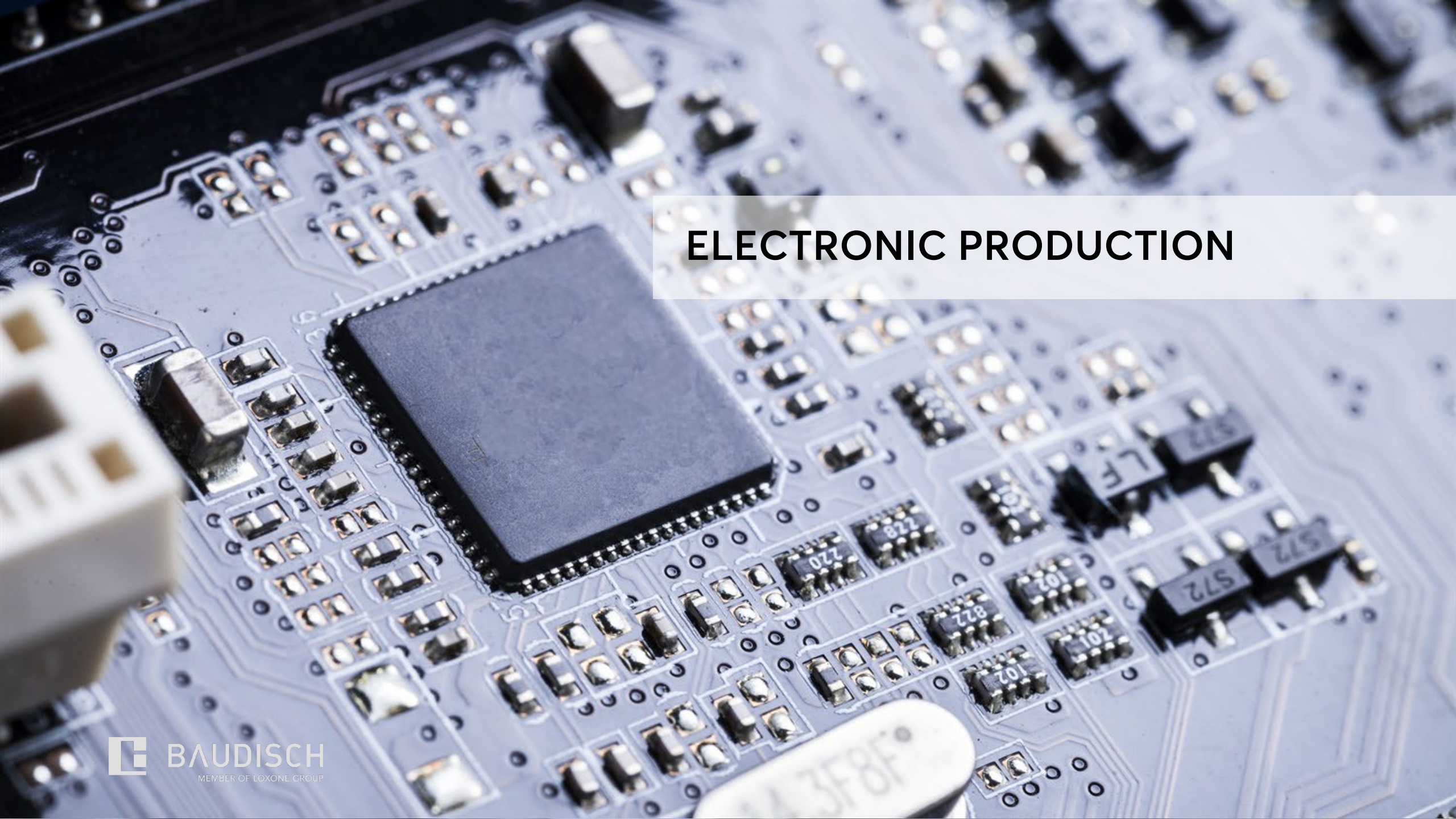
ELECTRONIC DEVELOPMENT

- ✓ Hardware development
  - ✓ Circuit diagram
  - ✓ Printed circuit board layout
- ✓ Software development
  - ✓ Microcontroller firmware with bootloader
  - ✓ User interface software (mobile device and PC)
- ✓ Design of mechanics



- ✓ Consulting on production & cost optimized as well as EMC-compliant design
- ✓ Evaluation and testing of prototypes
- ✓ Elaboration of optimization potential for already existing product design



ELECTRONIC PRODUCTION

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ELECTRONIC PRODUCTION

Areas:

- SMD and THT assembly: all components available on the market can be processed, special components on request.
- Lot sizes from prototype to high volume production (high volume and high mix)
- Optical and electrical measurements and tests
- Assembly and packaging
- Material procurement and after-sales service

Customer benefits:

- Flexibility for last-minute additions and order changes
- Short and reliable delivery times through internal interface optimization and control processes
- One contact person for all process steps

PCB ASSEMBLY

SMD assembly

- ✓ Powerful & fully automated SMD production line
- ✓ Traceability: each PCB carries a unique number
- ✓ 3D solder paste inspection to check the applied solder deposits

THT assembly

- ✓ SEHO Powerwave N2 wave soldering system for high throughputs
- ✓ Ersa Versaflow selective soldering system for processing individual solder joints
- ✓ Assembly at lean workstations

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OPTICAL INSPECTION

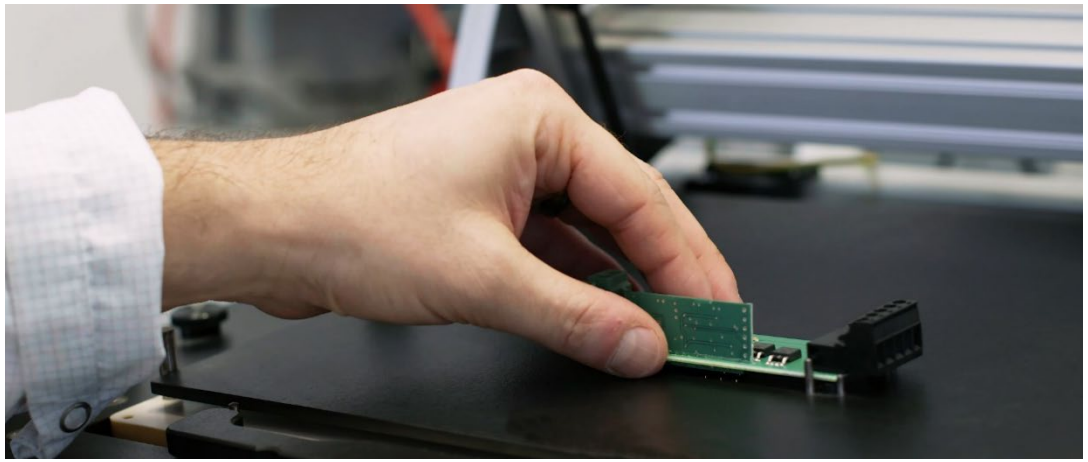
Automatic optical inspection

- ✓ Control of solder joint quality
- ✓ Control of component markings
- ✓ Independent of SMD placement, thus no production stop in case of correction requirements

Other methods for optical inspection

- ✓ Manual optical inspection with alternating image inspection system
- ✓ Optical inspection by microscopy for BGAs
- ✓ Optical inspection by microscopy

ELECTRICAL TESTING



- ✓ Testing of your assemblies for functionality
- ✓ Programming of the electronic assemblies
- ✓ Both simple and complete functional tests are possible

- ✓ Lean test stands for fast and efficient testing of large batches
- ✓ Individual test stands for small batches
- ✓ Testing also possible of assemblies that are not finally assembled

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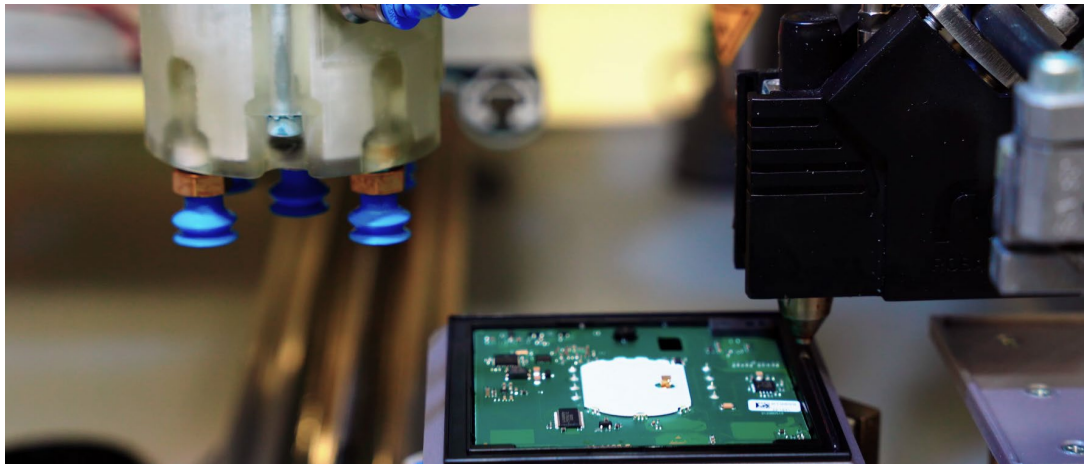
ASSEMBLY & PACKING

- ✓ Processing of all components to a complete device
- ✓ Special designs or special intermediate steps can be implemented
- ✓ Procurement of all materials, such as cables, housings, stickers or packaging material



Lean Management

- ✓ Development of a product-specific time- and cost-optimized work system
- ✓ Shorter lead times and higher effectiveness
- ✓ Ideal for high volumes

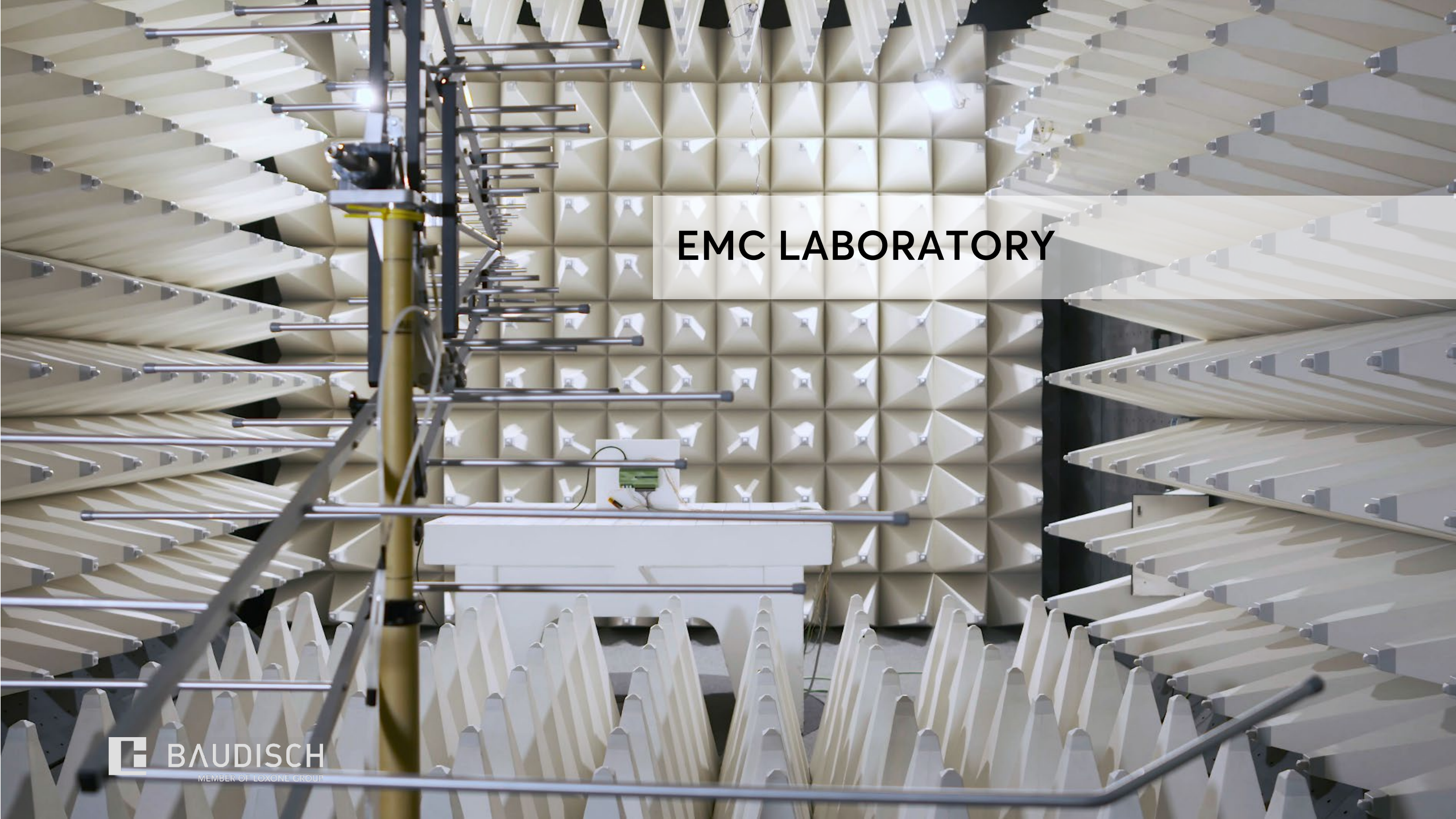
LIFECYCLE MANAGEMENT

Early information on component discontinuations or last time buy opportunities.

Stockpiling of critical components and spare parts for long-term availability.

Procurement of all materials through our globally networked purchasing department.

If required, we do the redesign at the end of the product life cycle.


EMC LABORATORY
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SERVICES IN THE EMC LABORATORY

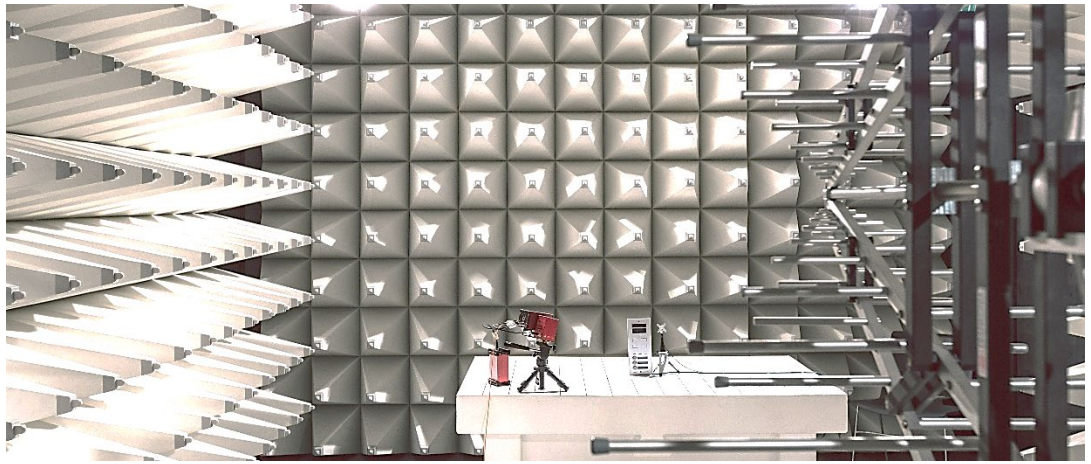
- ✓ Testing of interference immunity and emission
- ✓ Interference suppression and elimination of deviations
- ✓ Consulting on EMC-compliant development and EMC-compliant design
- ✓ Consulting on standards, laws and EU directives for electronic devices
- ✓ Analysis and measurement also at your location

- ✓ Support in the preparation of EU declarations of conformity
- ✓ Proposals for an EMC-compatible layer structure and corresponding conductor track layouts
- ✓ Optimization of circuit designs
- ✓ Documentation as a basis for certifications and the reproducibility of measurements

FULL-ABSORPTION HALL

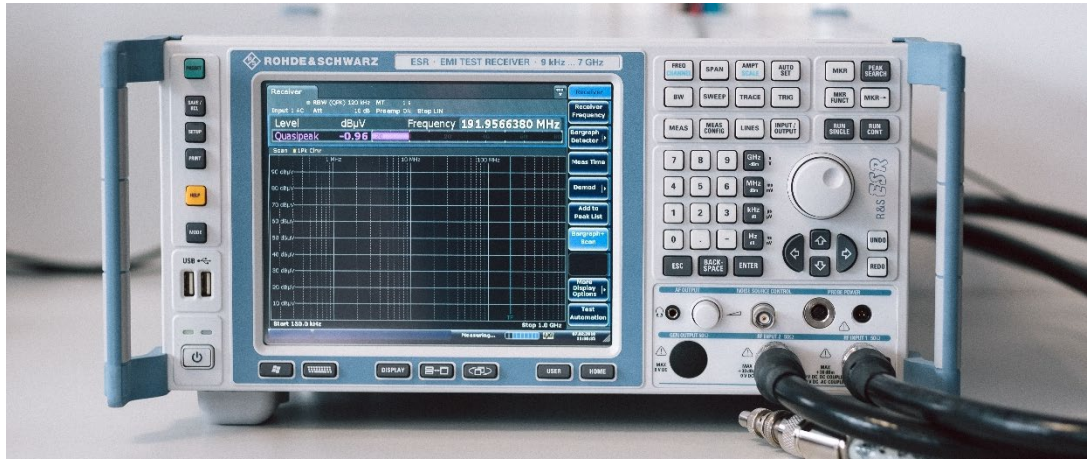
- ✓ Standard-compliant immunity tests according to IEC (EN) 61000-4-3
- ✓ Standard-compliant emission measurements according to CISPR 16-1-4
- ✓ Standard-compliant test and measurement procedures for electromagnetic compatibility according to EN 61000-4-22

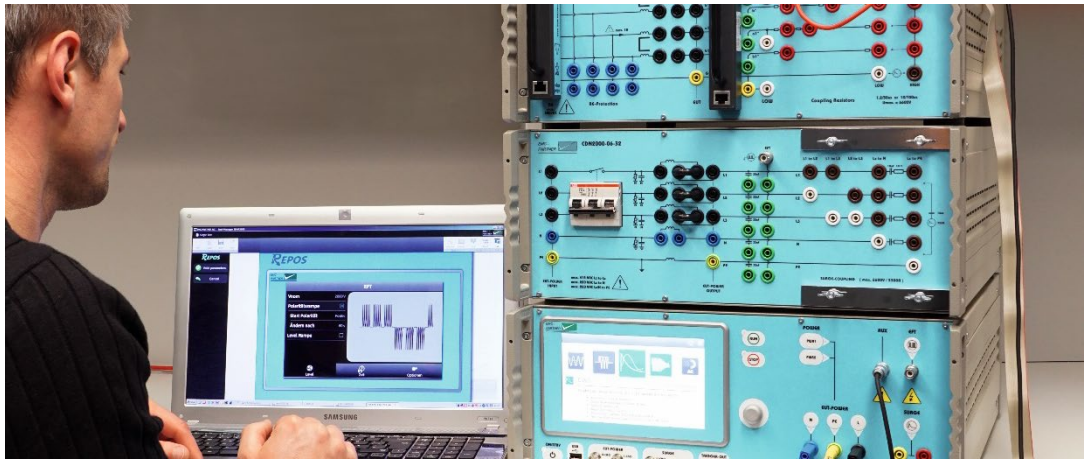
- ✓ Emission measurements 30 MHz - 6 GHz
- ✓ Immunity tests 80 MHz - 1 GHz with 20 V/m and 1 GHz - 6 GHz with 10 V/m, higher levels can also be set during development
- ✓ Rohde & Schwarz ESR 7 test receiver, frequency range: 9 KHz - 7 GHz



MEASURMENT EQUIPMENT

- ✓ Conducted emission measurements
  - Mesh replica
  - Current clamp
  - Probe
- ✓ Conducted immunity measurements
  - ESD Burst-Surge Generator





- ✓ Flicker and harmonic measurements
  - DPA 500N
  - Netwave 7-400
- ✓ Conducted high-frequency injection
  - Ametek NSG4070
  - Teseq CDN

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