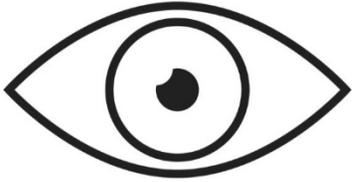


**RoodMicrotec**

# **Corporate Overview**

# Our Vision & Mission

## Vision



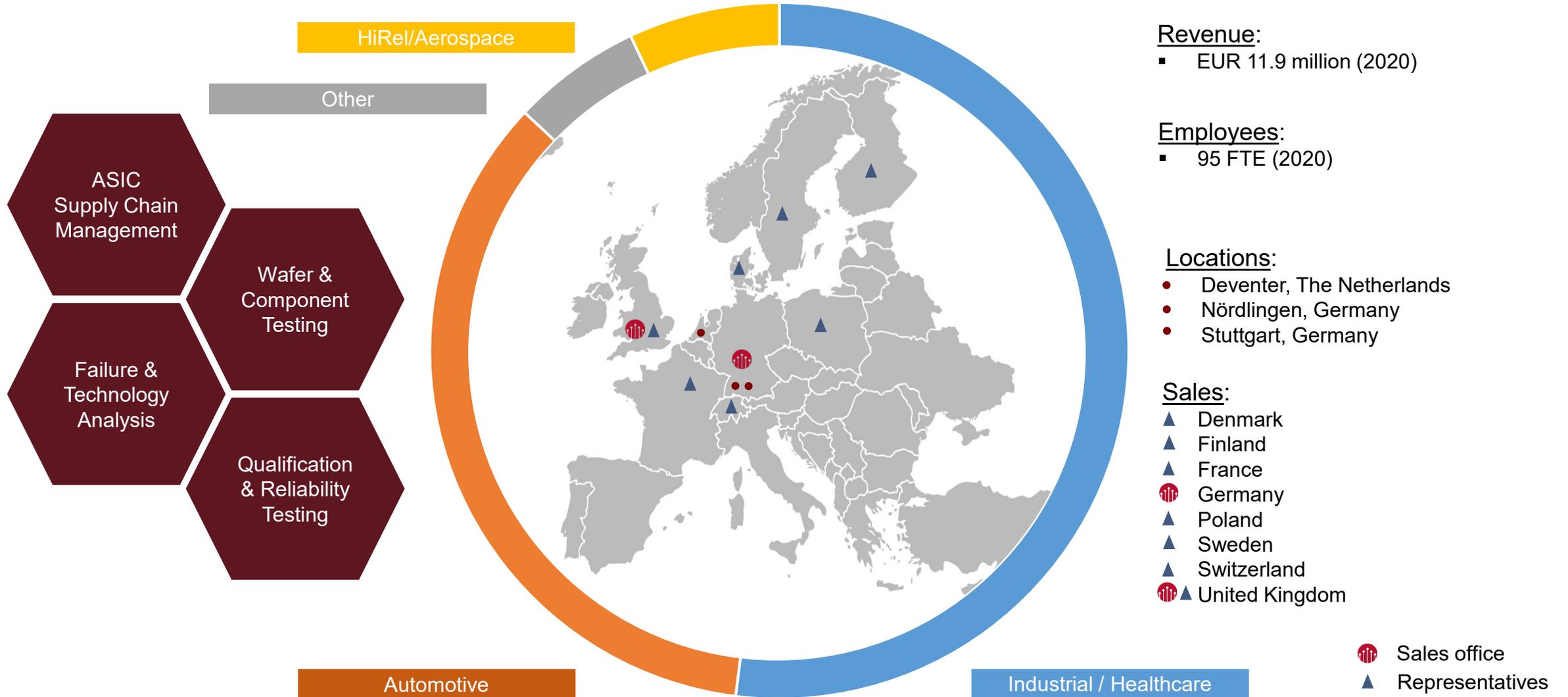
To offer a complete range of high-quality services that enable the manufacturing and supply of reliable semiconductor devices.

## Mission

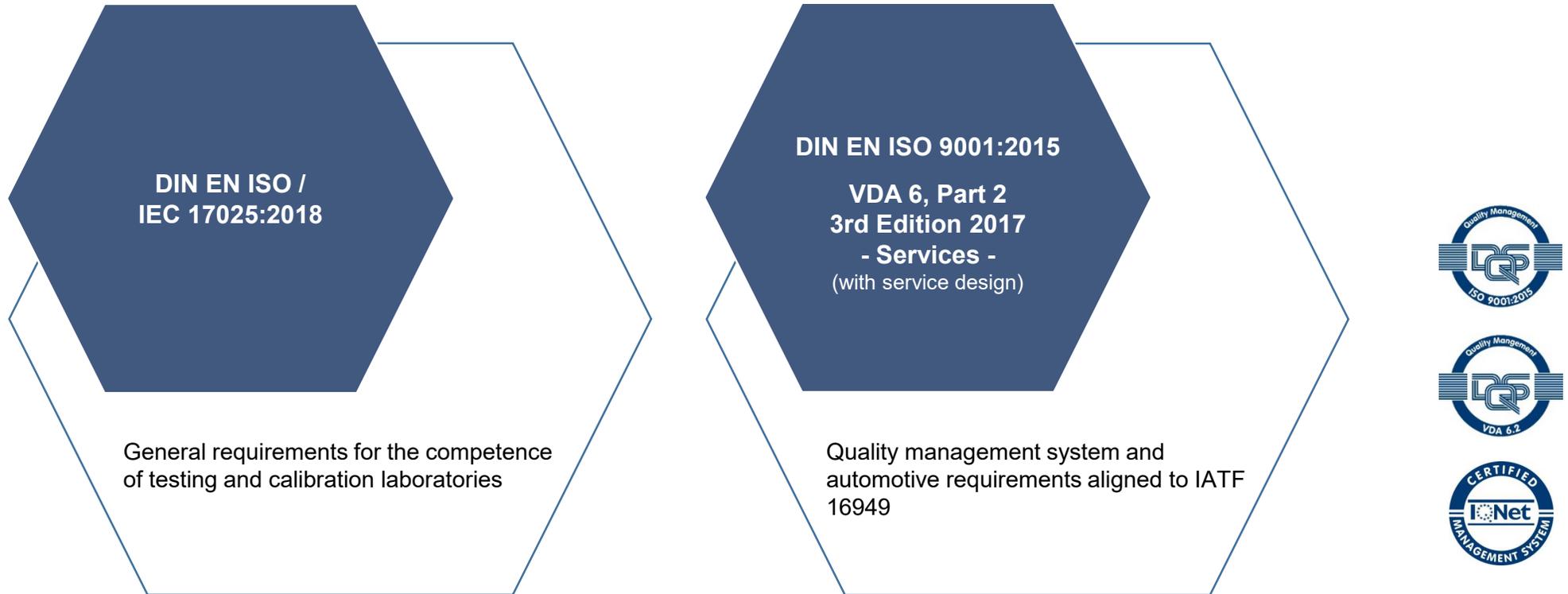


To be the innovative, independent and reliable partner of choice for semiconductor component supply, test and reliability services.

# RoodMicrotec at a glance



# Committed to quality



The test laboratories are accredited according to DIN EN ISO/IEC 17025:2018 by the accreditation body DAkkS. The accreditation is valid only for the scope listed in the annex of the accreditation certificates D-PL-12120-01-01 and D-PL-12120-01-02.

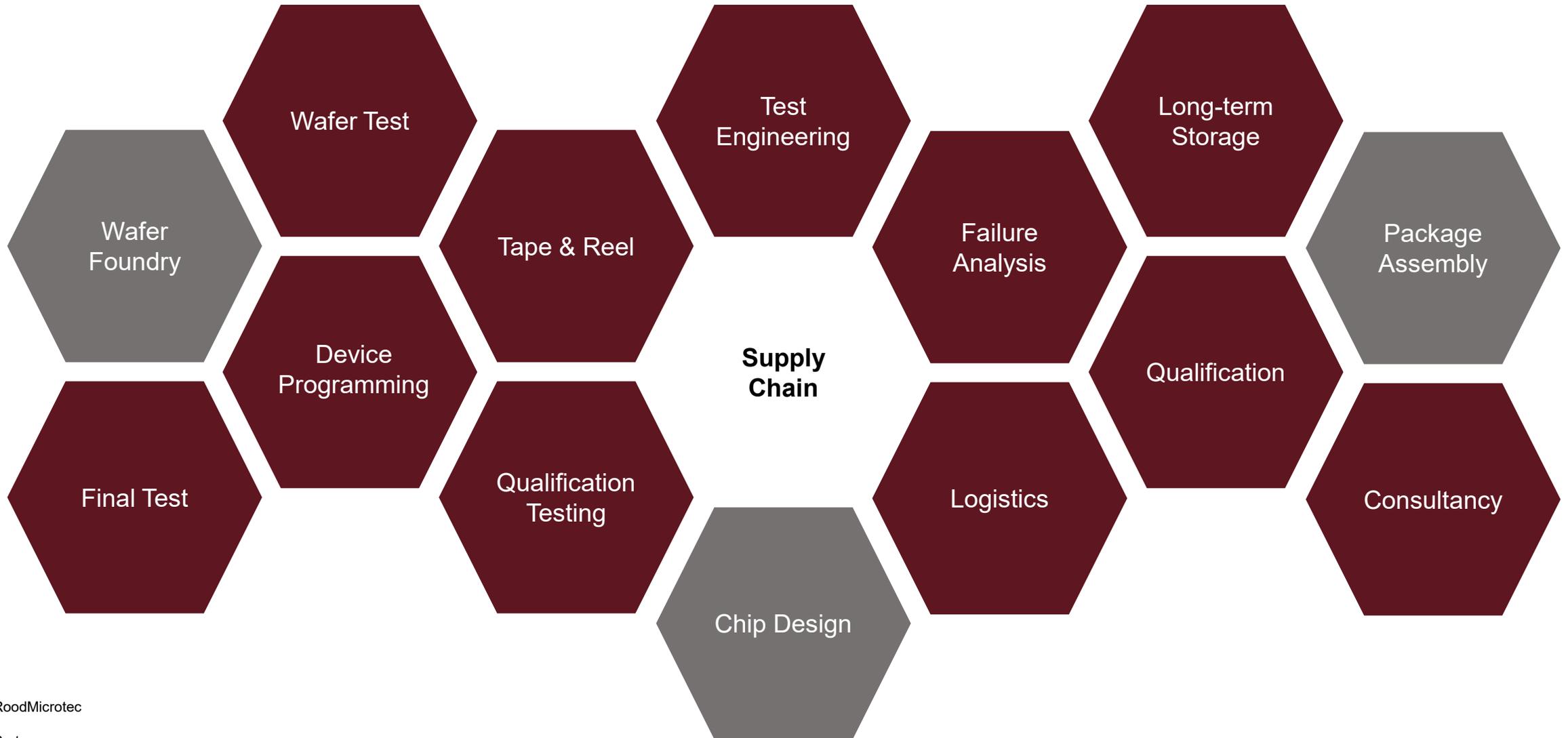
# Quality Management - 'Quality First' is our guiding principle



## Flawless service

- Forward-looking quality planning and its implementation in all relevant business, service and production processes
- Continuous improvement in all processes
- High level of dedication and commitment of all employees
- Provide products on-time at the agreed quality level and per defined reliability requirements

# Semiconductor Supply and Quality Services

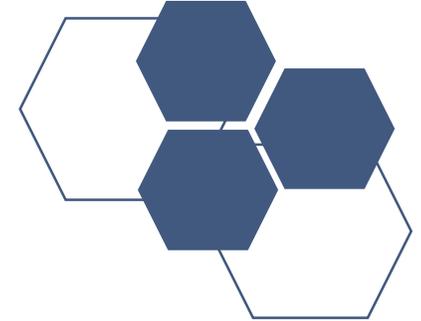


# Semiconductor Production Services



## Test Engineering

- Test program development
- Test hardware design
- Correlation and characterization
- Test program conversion
- Test data evaluation and optimization of test solutions
- Design for Test (DFT) support



## End-of-Line

- Tape & reel
- Scanning and straightening
- Device programming
- Long-term storage



## Test Services

- Wafer test up to 12 inch at -55°C to +200°C
- Automatic Optical Inspection (AOI)
- IC component testing from -40°C to +125°C
- RF and High Power testing
- Image sensor and PIC testing

# Qualification & Reliability Services

## Environmental Stress Tests

- Temperature Cycling (TC) and Temperature Shock (TS)
- High Accelerated Stress Test (HAST)
- Temperature Humidity Biased (THB)
- High Temperature Reverse Bias (HTRB)
- High Temperature Gate Bias (HTGB)
- High Voltage / Humidity / Temperature Reverse Bias (HV-H3TRB)

## Mechanical Stress Tests

- Vibration
- Shock
- Constant Acceleration (CA)

## Lifetime / Reliability

- Burn-In / Monitoring Burn-In
- High / Low Temperature Operating Life (HTOL / LTOL)
- ESD Test
- Solderability Test

## Optoelectronic Tests and Characterization

- Lifetime and Reliability tests of LEDs, VCSELs, photodiodes
- Electro-optical characterization of emitters and receivers
- Custom development of special reliability tests
- Telcordia GR468 qualification



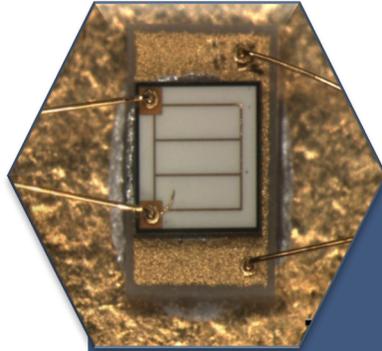
AEC-Q, MIL, Telcordia, JEDEC, ESCC

# Failure & Technology Analysis



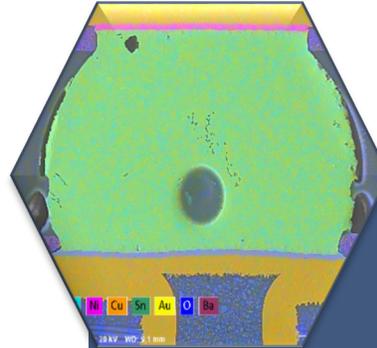
**Failure Analysis**

- Anamnesis / verification of history
- Electrical characterization
- Decapsulation
- Fault localization with OBIRCH / EMMI
- Deprocessing
- FIB cross section



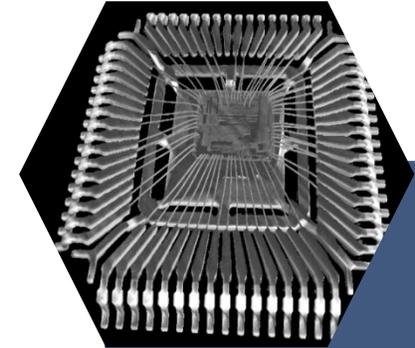
**Destructive Physical Analysis**

- Visual inspection (external / internal)
- Scanning acoustic microscopy
- Solderability
- Particle impact noise detection (PIND)
- Seal test (gross & fine leak)
- Bond pull & bond shear test



**Metallography**

- Cross sectioning
- Optical microscopy
- Dye penetration and dye & pry
- UV microscopy
- Scanning electron microscopy
- Material analysis (EDX)
- Microstructure characterization



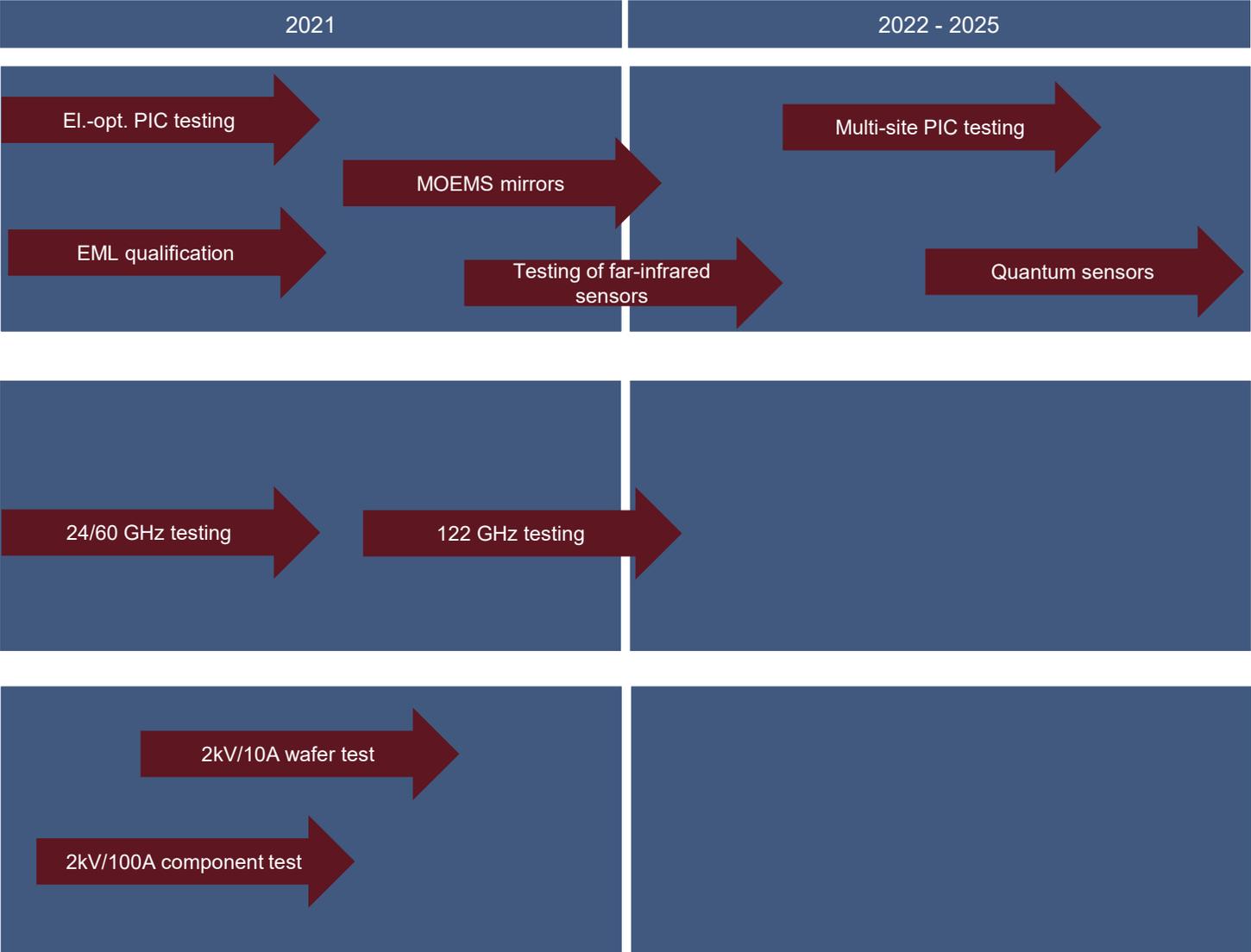
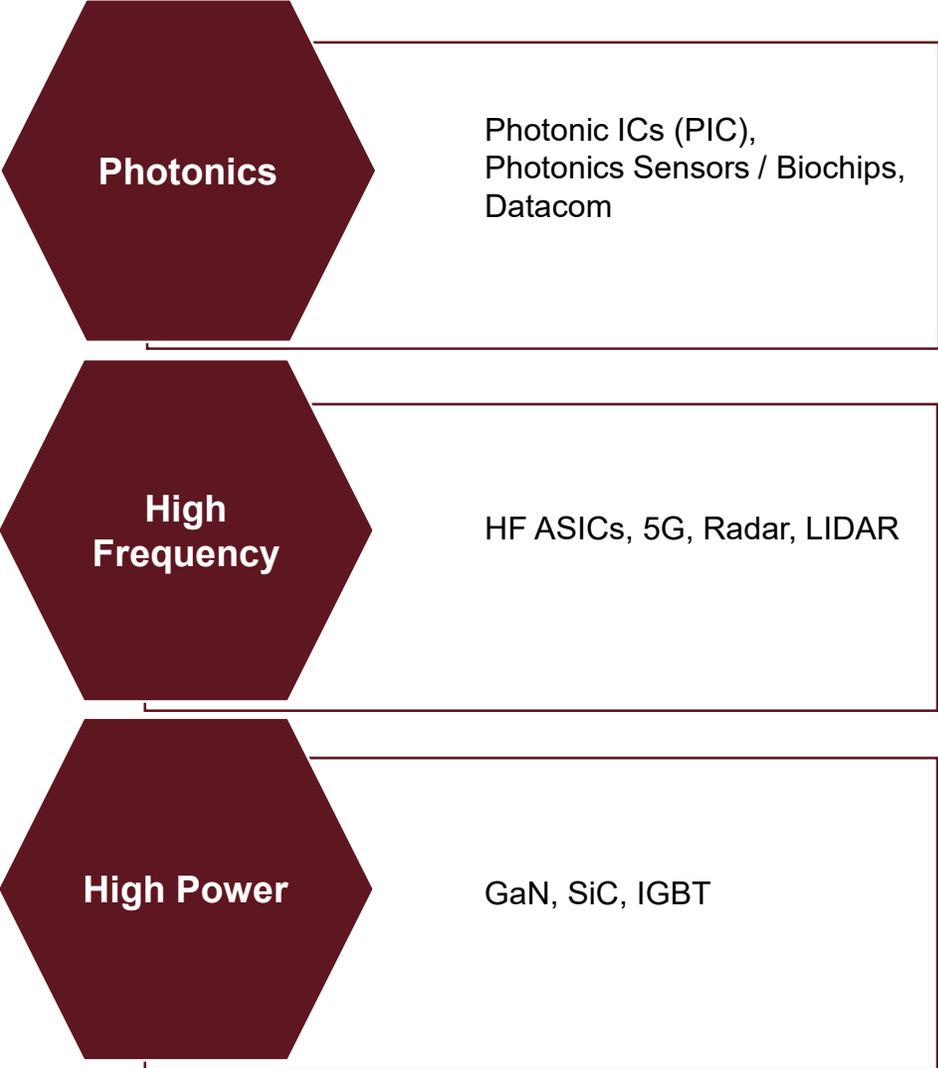
**Further Services**

- X-ray microscopy (2D & 3D)
- FIB modification (ASIC)
- Counterfeit parts identification
- Benchmark analysis
- Whisker inspection
- Measurement of ionic contamination
- Press fit qualification

# Supporting you in your own design process



# A look into the future



# Get in touch with us

Your  
Reliable  
Partner  
in Business!

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