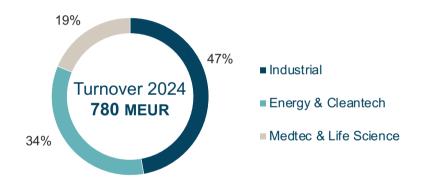


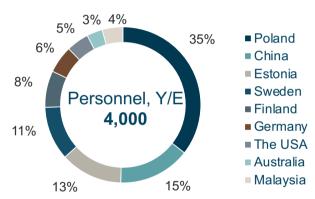
# **Significant Expansion in Global Footprint**





# **Global Operations with Industrial Focus**







# **Scanfil Electronics GmbH, Wutha-Farnroda**

- Electronics Engineering and Manufacturing Services (E2MS) provider
- Founded as "HASEC-Elektronik GmbH" in 1991 as one of the spin-offs from the former "Uhrenwerke Ruhla"
- Following a 130 years tradition in precision mechanics and watch making in the region
- Joined Scanfil Group May 2019
- Global Certifications:
  - DIN EN ISO 13485 (MedTech)
  - DIN EN ISO 9001 (Industrial)
  - EMAS incl. DIN EN ISO 14001
- Ready for manufacturing safety-critical assemblies (Common Criteria / EAL4+)





### **Our Aspiration**

- Generate value for existing and new customers and to grow the business in Central Europe
- Reduce time to market (prototyping, first time right in NPI, perfectly fitting services during design and ramp-up, standardized processes)
- Give our customers access to Scanfils Global Sourcing Organization
- Ensure Best-in-Class production concepts and infrastructure with Scanfil Smart Operations strategy
- Provide flexible capacity and the setup to scale up according to our customer's global needs
- Live the spirit of the German "Mittelstand" and complete it by the strengths of a reliable global player



### Wutha, Germany

PCBA and Boxbuild in medium volumes

- Complex System integration
- · Production of medical devices and safety-critical assemblies
- Production in clean room and extensive experience with Chip on Board
- · Mechanical assembly
- Dedicated staff for fast prototyping
- · High quality, fast delivery
- Experience with outsourcing projects and production transfers

~230

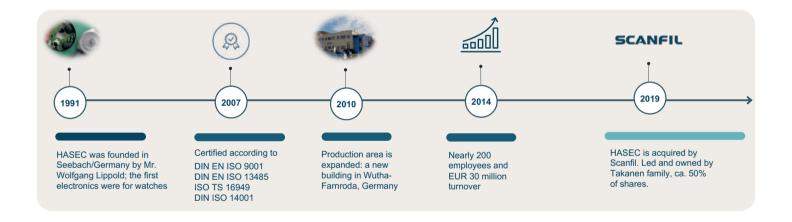
Personnel Headcount + third party ~ 6,200 m<sup>2</sup> 66,000 sft

Floor area

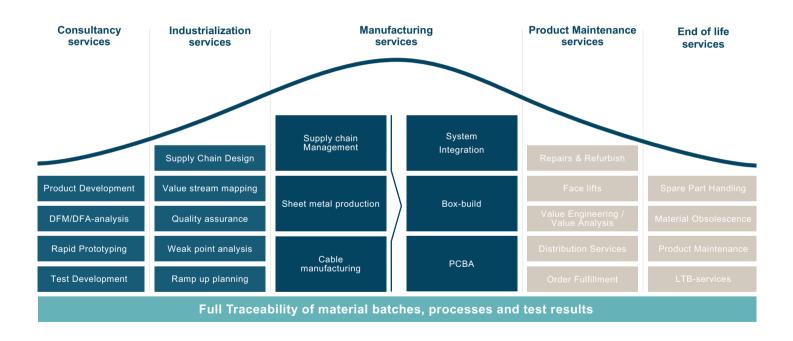




# **Key Milestones of Our Growth**



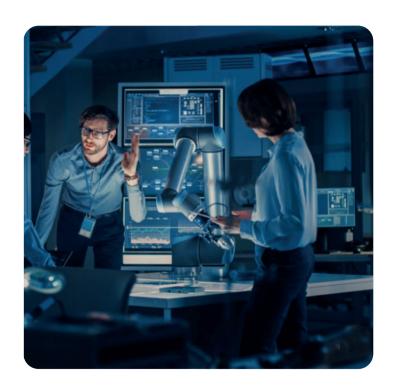
# Our offer throughout your products life cycle





### Tool Box for fast and reliable NPI

- Project management software platform
- Standardized processes with clear design rules
- Fast DfX analysis using CAD/CAM platform Valor / BOM Connector
- P-FMEAs ready for all standard processes
- Test FMEA / MSA tool for save test coverage
- Fast prototyping process using separate production infrastructure
- In-house mechanical workshop
- In house 3D printer for tools and fixtures
- Test development team integrated in the factory



### **Customer Segments**



#### Industrial

- The foundation of Scanfil
- Wide range of industrial and B2B clients
- Growth drivers: industry 4.0, self-service applications and urbanization



### **Energy & Cleantech**

- "The greenest energy is the energy we don't use"
- Heat pumps, smart control units, electricity grids etc.
- Growth drivers: regulation, electrification, circular economy



### Medtech & Life Science

- Demand changes are quite modest - resilient
- Mass spectrometers, analyzers, air control devices
- Growth drivers: growing middle-class

### **Products we have produced**

- Prosthetics
- Hearing aids
- Blood preparation and blood analysis
- Hospital emergency call systems
- · Plasma therapy systems
- Analytical instruments
- Control and power units for industrial automation
- Vacuum and pressure sensors
- Magneto resistive and optical sensors
- IoT applications
- · High speed data transmission systems
- Telephone and data networks in buildings

- · Fire security systems
- Official document chip card readers
- Sun protection, climate control
- Smart Metering solutions
- Time control
- Locking systems
- Physical access control
- Position monitoring
- Voice control
- Power applications
- Battery management
- LNG gas fueling systems

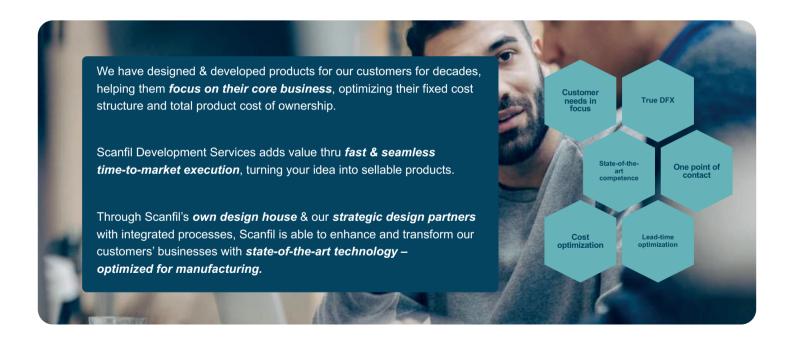








### **Scanfil Development Services - Value Proposition**



# **Scanfil Development capabilities**



Scanfil In-house team

Experienced and skilled in-house team with close contact to manufacturing that leads to industrialization-friendly products



Strategic partnership with Etteplan

A wide spectrum of technical capabilities & competence Large geographical footprint Capacity to run several large projects in parallel



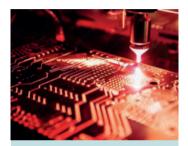
State-of-the-art competence to supports all phases of electronics development for hardware, software, FPGA design and power electronics.











#### Laser Marking / Traceability

- · Fibre laser marking
- Datamatrix and alphanumeric characters
- Full Traceability of material batches, processes and test results



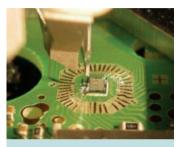
#### **Surface Mount Technology**

- All established components
- Validated process for processing 01005 components
- Process control using inline 3D-SPI- and AOI-systems (according to IPC-A-610)
- Processing of Flex and Starflex PCB



#### Through Hole Technology

- · Assembly of wired components
- Full tunnel machine with nitrogen atmosphere



#### Chip on Board (COB)

- · Die- and wire bonding
- Glob Top encapsulation
- Flip Chip assembly







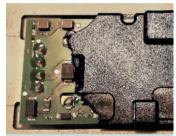
Selective/Manual Soldering

- manual or automatic soldering of wired components
- Cobot Soldering



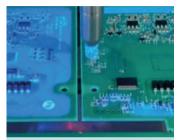
Cutting / Panel separation

- Manual and automatic panel separation
- Laser depanding process for flex, semi-flex and FR4
- Milling and sawing depanding for FR4 material



#### Hot Melt Molding

- Low Pressure Molding to cover PCBAs
- No damage of the electronic components
- · Low-cost aluminum tools



### Varnishing / coating

- coating for the protection of PCBAs against high humidity
- limitation to selected areas possible





### Potting

- protection of high voltage applications in harsh environments
- complete encapsulation of the PCBA



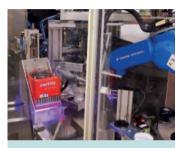
#### **Pad Printing**

 multi-color marking of plastic housings (e.g. for branding)



#### **Electrical / Optical Testing**

- · Programming, ICT, FCT
- Boundary scan, Radio Frequency, High voltage
- Automated optical control by cameras



#### Fully automated lines

- integrated assembly, quality control, testing and assembly
- Stable mass production with best cost, yield, throughput and quality level



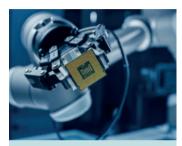
#### Box build

 Manufacturing of complete products directly for the end customer



System Integration

Complex systems



#### **Cobot Solutions**

- Soldering
- Glueing and potting
- Pick and place
- Packaging
- Screwing
- Assembly and test



### Packaging and Shipment

Packing, logistics and shipment services



### **Summary: Added value for our customers**

- Highly skilled personnel and wide access to resources
- New ideas with influence from other technique areas (cross contamination).
- SCANFIL's *long experience* in working with production and quality requirements
- · Close to the customer
- Short coordination channels
- Open Book pricing
- High flexibility in the production process
- · Wide range of technologies
- Partnership-based cooperation





# SCANFIL Electronics GmbH

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**Global Contract Manufacturer and Systems Supplier**