
SENSING INNOVATIONS

Company Presentation

First Sensor 
is now part of



OUR COMPANY

We are a leading provider of sensor technology

Short facts



- Part of TE Connectivity
- Founded 1991 in Berlin, Germany
- 1,000 employees
- € 154.8 m sales revenues in 2020
- Stock-listed in Germany

Capabilities



- 6 clean room production sites: chip design and production, microelectronic packaging
- Automotive, medical and aerospace certifications
- Complete sensor value chain in one company

Markets & Products



- 3 target markets: industry, automotive, medical
- Know-how in photonics, pressure and advanced electronics
- Development and production of customized solutions and standard sensors

OUR LOCATIONS

First Sensor AG – Berlin-Oberschöneweide

▶ Short profile

- Headquarters of First Sensor AG with central company departments
- Certification in accordance with IATF 16949

▶ Production

- Specialized in the semiconductor production with over 2.000 square meters of clean room space
- Silicon chips on 4 inch and 6 inch silicon wafers for optical sensors and MEMS pressure sensors



OUR LOCATIONS

First Sensor AG – Berlin-Weißensee

▶ Short profile

- Focus on packaging technologies
- Certification in accordance with ISO 9001 and EN ISO 13485

▶ Production

Specialized in the packaging of electronic microsystems for pressure sensors, flow sensors and optical sensors



OUR LOCATIONS

First Sensor AG – Dresden

▶ Short profile

- Focus on design and connection technology of electronic microsystems
- Certification in accordance with IATF 16949

▶ Production

- Customer-specific miniaturization of optical sensors and MEMS pressure sensors
- Integrated Manufacturing Services (IMS) for packaging microelectronic products



OUR LOCATIONS

First Sensor AG – Munich

▶ Short profile

- Focus on the distribution of standard products
- Certification in accordance with ISO 9001 and EN ISO 13485

▶ Production

- Focus on pressure sensors
- Over 30 years of experience in respiration and pneumology, dialysis and infusion as well as diagnostic methods



OUR LOCATIONS

First Sensor Lewicki GmbH – Oberdischingen near Ulm

▶ Short profile

- Focus on packaging technologies
- Certification in accordance with ISO 9001, EN 9100 and EN ISO 13485

▶ Production

- Specialist for hybrid circuits, electronic modules, power electronics and power semiconductors for high-reliability circuits in space flight
- Focus on aerospace, industrial security technology, medical technology and industrial applications



OUR LOCATIONS

First Sensor Mobility GmbH – Dresden

▶ Short profile

- Specialized in the automotive industry
- Focus on the on-site manufacture of automotive products with special expertise in customer-specific system development
- Certification in accordance with IATF 16949

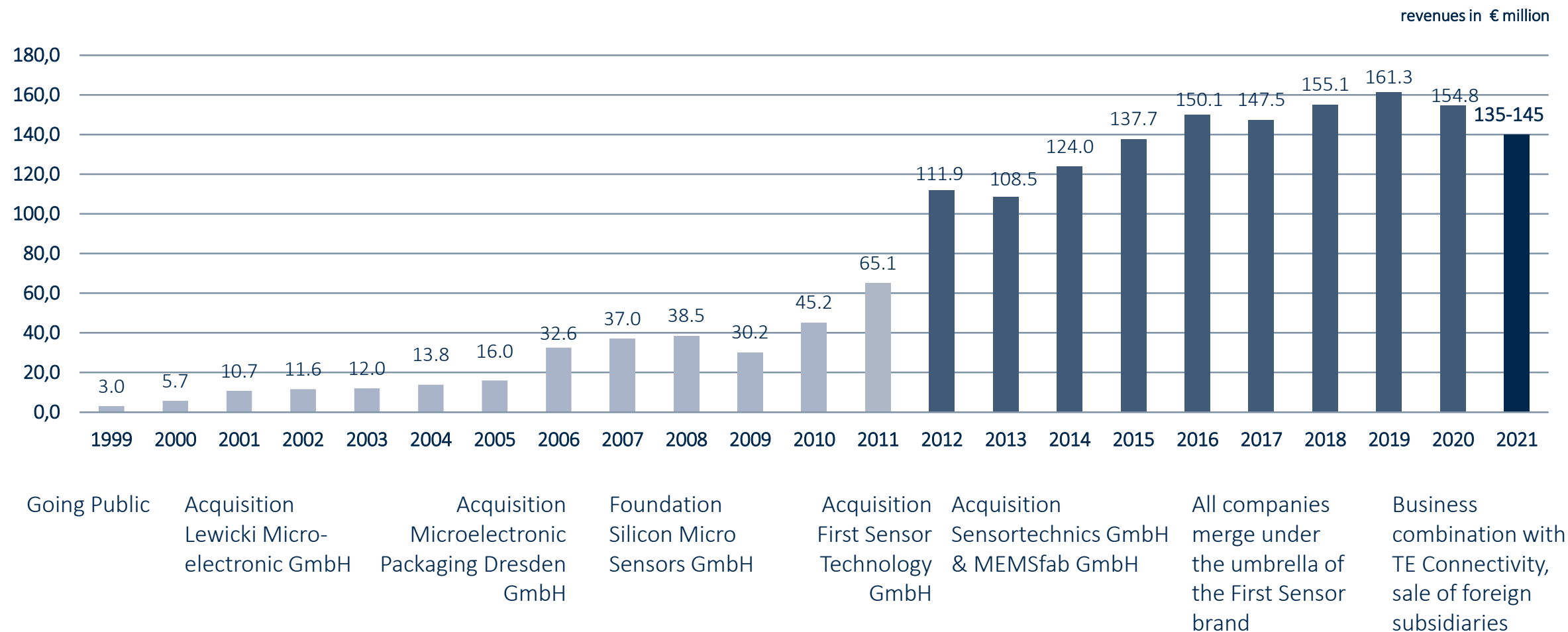
▶ Production

- Pressure sensors
- Flow sensors
- Optical sensors
- System solutions



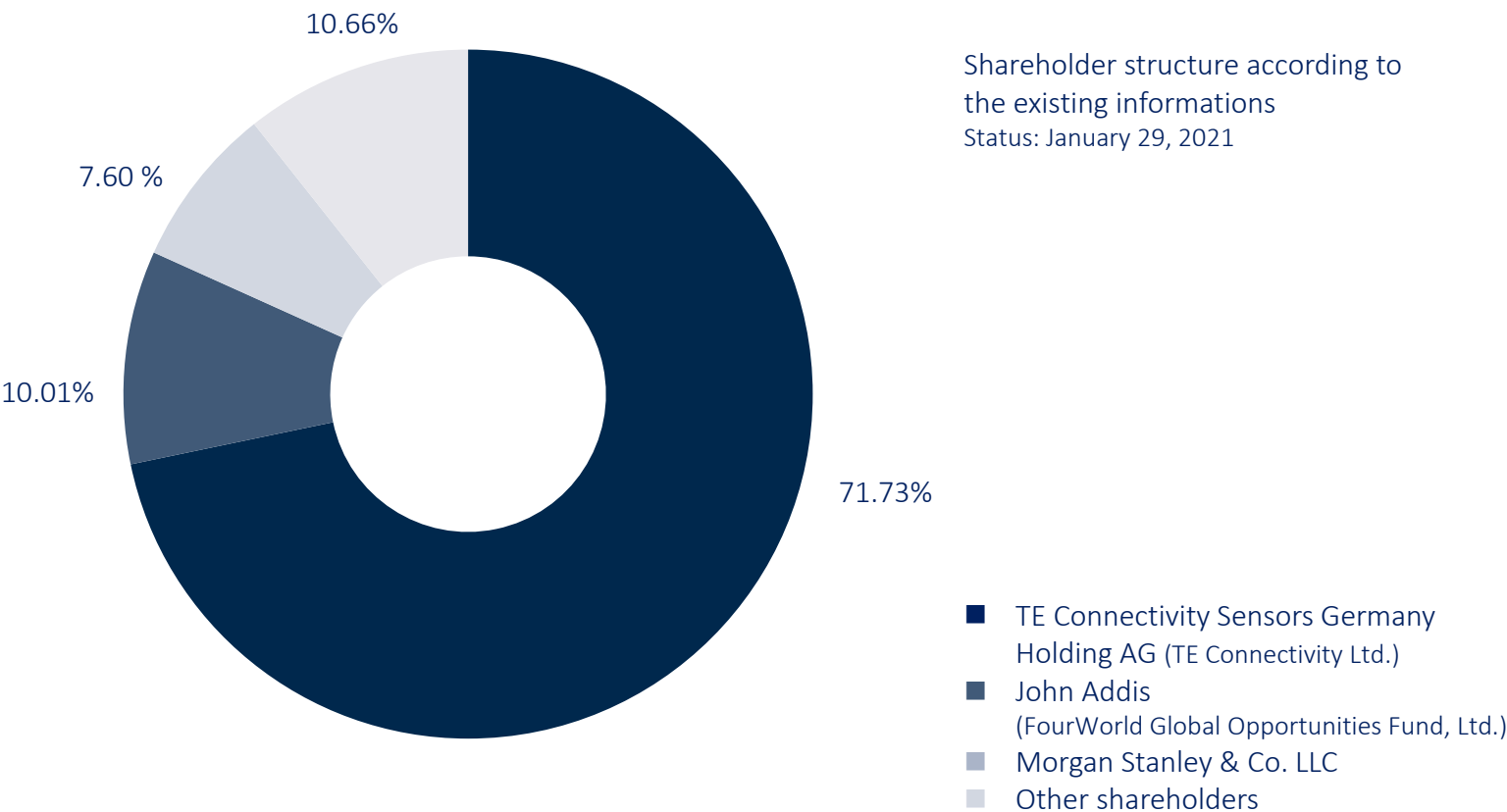
OUR GROWTH

We are clearly on a path of growth



OUR SHAREHOLDER STRUCTURE

TE Connectivity Sensors Germany Holding AG is our core investor

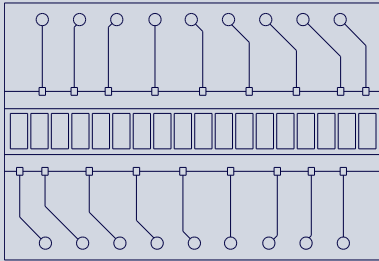


Stock fundamentals	
ISIN	DE0007201907
Stock symbol	SIS
Market listing	Prime Standard
Trading venues	XETRA, all German stock exchanges
IPO	1999
Designated sponsors	ODDO SEYDLER BANK AG

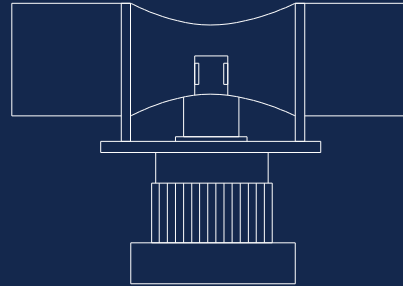
OUR RANGE OF SERVICES

We develop and produce standard products and sensor solutions

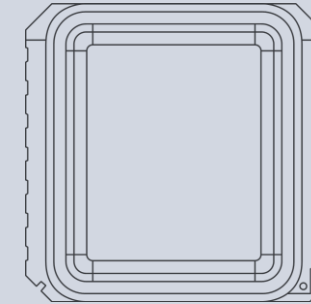
Radiation



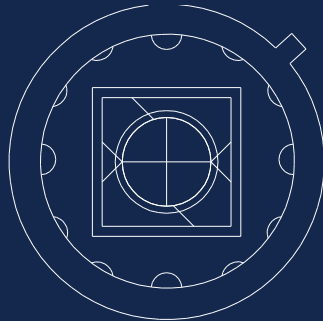
Flow



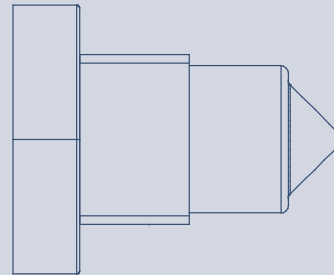
Acceleration



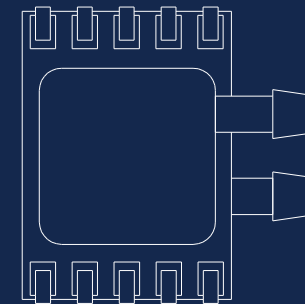
Light



Level



Pressure



OUR RANGE OF SERVICES

We offer integrated development and manufacturing services

Design &
Development

Manufacturing
Processes

Functional test /
Calibration

Qualification

Serial production



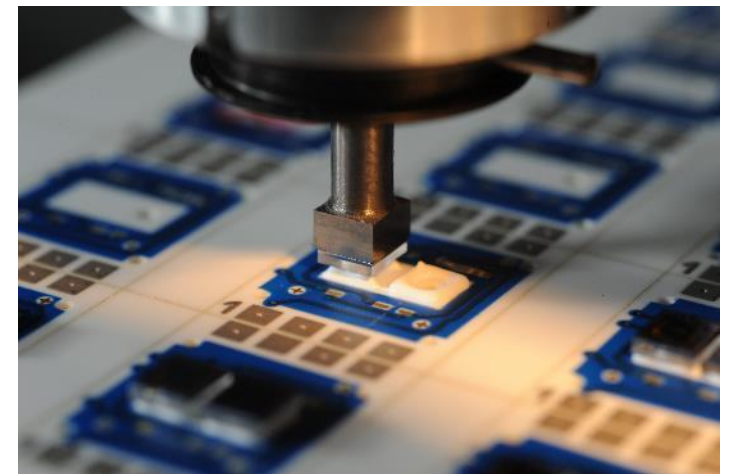
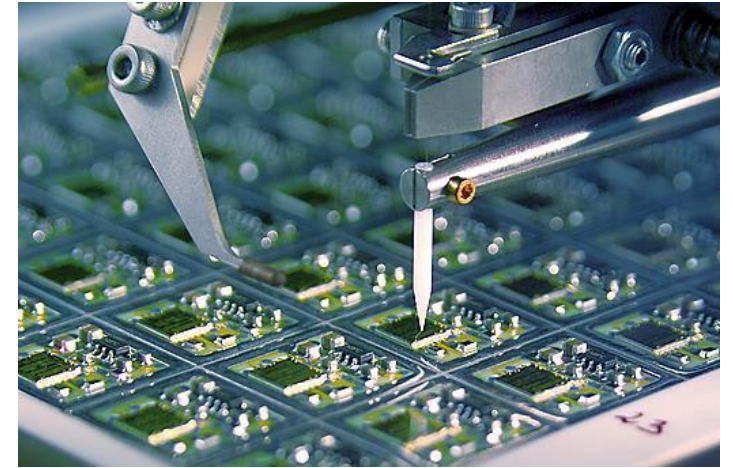
OUR COMPETENCE

We are an expert for semiconductor production



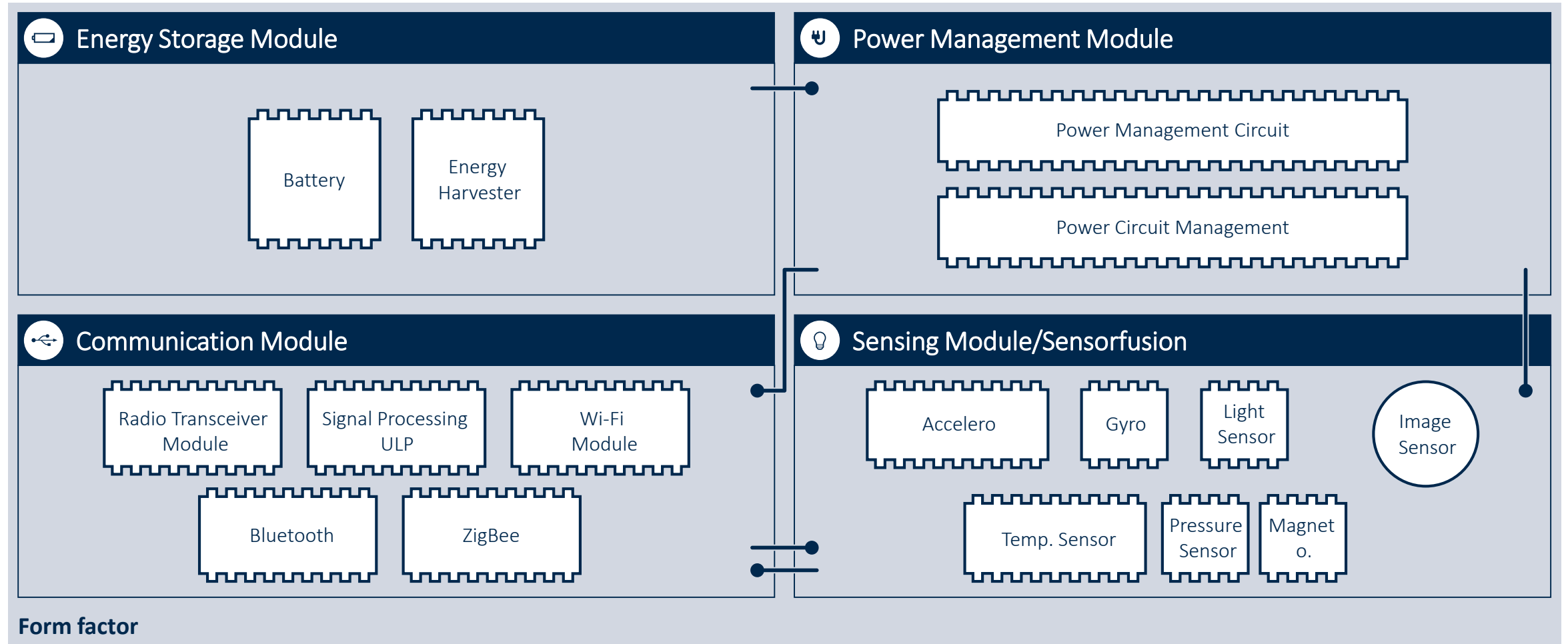
OUR COMPETENCE

We possess extensive experience in micro systems technology



OUR COMPETENCE

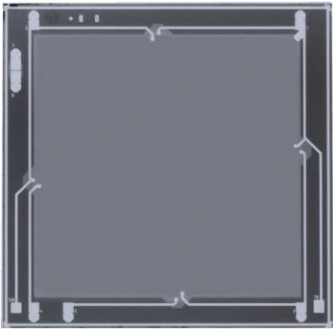
We combine these competences with profound system expertise



OUR COMPETITIVE ADVANTAGE

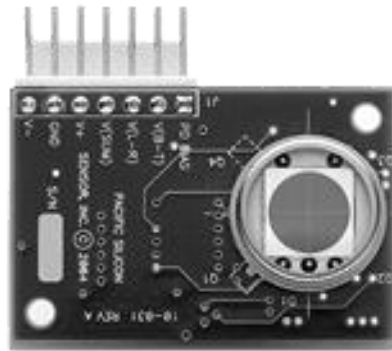
We cover the entire value chain of sensor technology

Sensor chip



- Silicon based
- converts physical parameters into electrical signals

Packaging



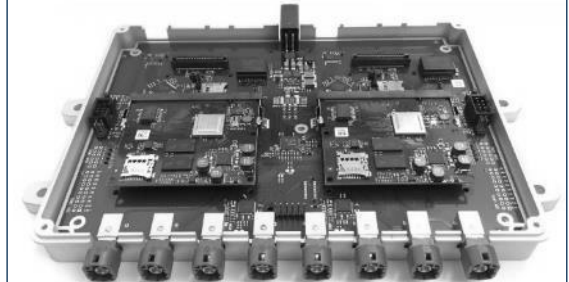
- Connecting microelectronic and non-electronic micro components to a housing

Sensor



- Consists of a sensor chip, housing and if appl. electronics
- The measurement signal can be calibrated

Sensor system



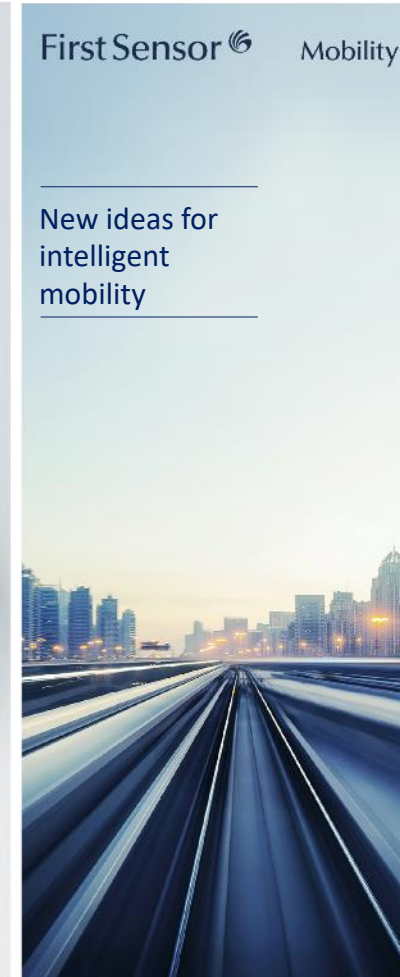
- Measures, interprets and preprocesses complex data
- communicates bidirectionally with other systems

Detect

Detect & Understand

OUR TARGET MARKETS

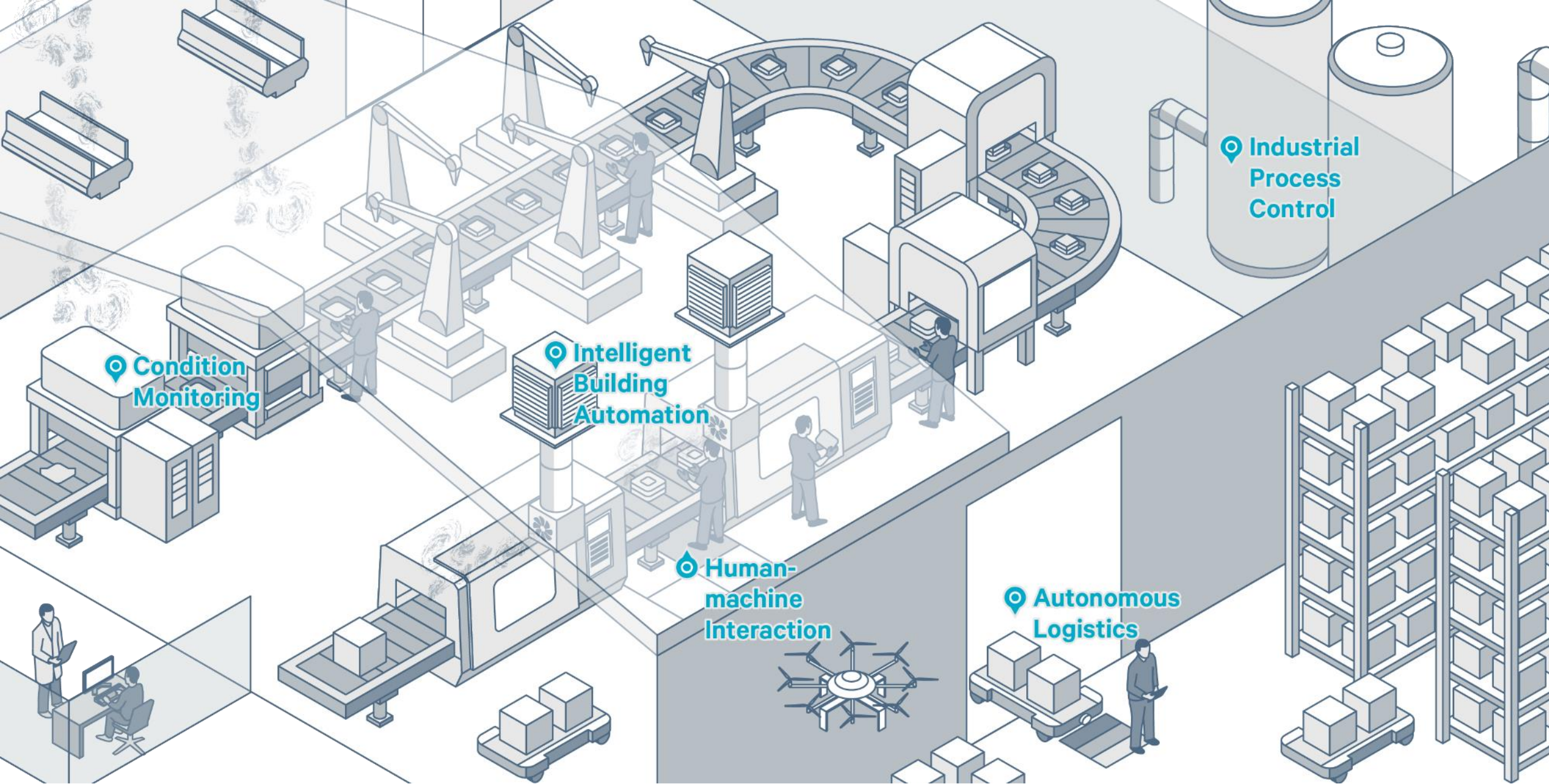
We focus on the growth markets Industrial, Medical and Mobility



OUR TARGET MARKET INDUSTRIAL

We are there
when smart things
become standard.





Condition Monitoring

Intelligent Building Automation

Human-machine Interaction

Autonomous Logistics

Industrial Process Control

INDUSTRIAL

Applications in our target market Industrial



Industrial Process Control

Liquid level measurement, laser alignment systems, filter control, leak detection, pressure detection



Radiation And Security

Container and baggage scanners, radiation detectors



Smart Building

Filter and condition monitoring, room pressure, volumetric flow controllers



Length Measurement

Laser rangefinders, laser scanners/LiDAR, laser alignment systems, encoders



Aerospace

Laser alignment systems, cabin air pressure, navigation



With the help of our radiation sensors, millions of passengers, luggage items and containers pass through airports and seaports across the world every day.



Modern building automation coordinates energy generation, energy distribution and air conditioning as a way of using energy efficiently. Our pressure sensors for ventilation systems support this process.



Thanks to a patented technology our inertial sensors can detect minute deviations, making them indispensable for structural health monitoring.



In aviation, our pressure sensors regulate the climate in the cabin, register any drops in cabin pressure and activate the emergency oxygen supply.

Staying One Step Ahead Together



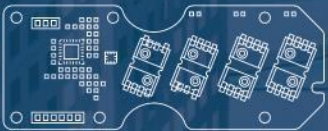
STARE K Series

Our standard piezo-resistive components are used in industry and medical technology. Pressure sensor chips based on STARE technology ensure their long-term stability and precision.

Thinking Joined-Up Together

LMI Multi-Sensor System

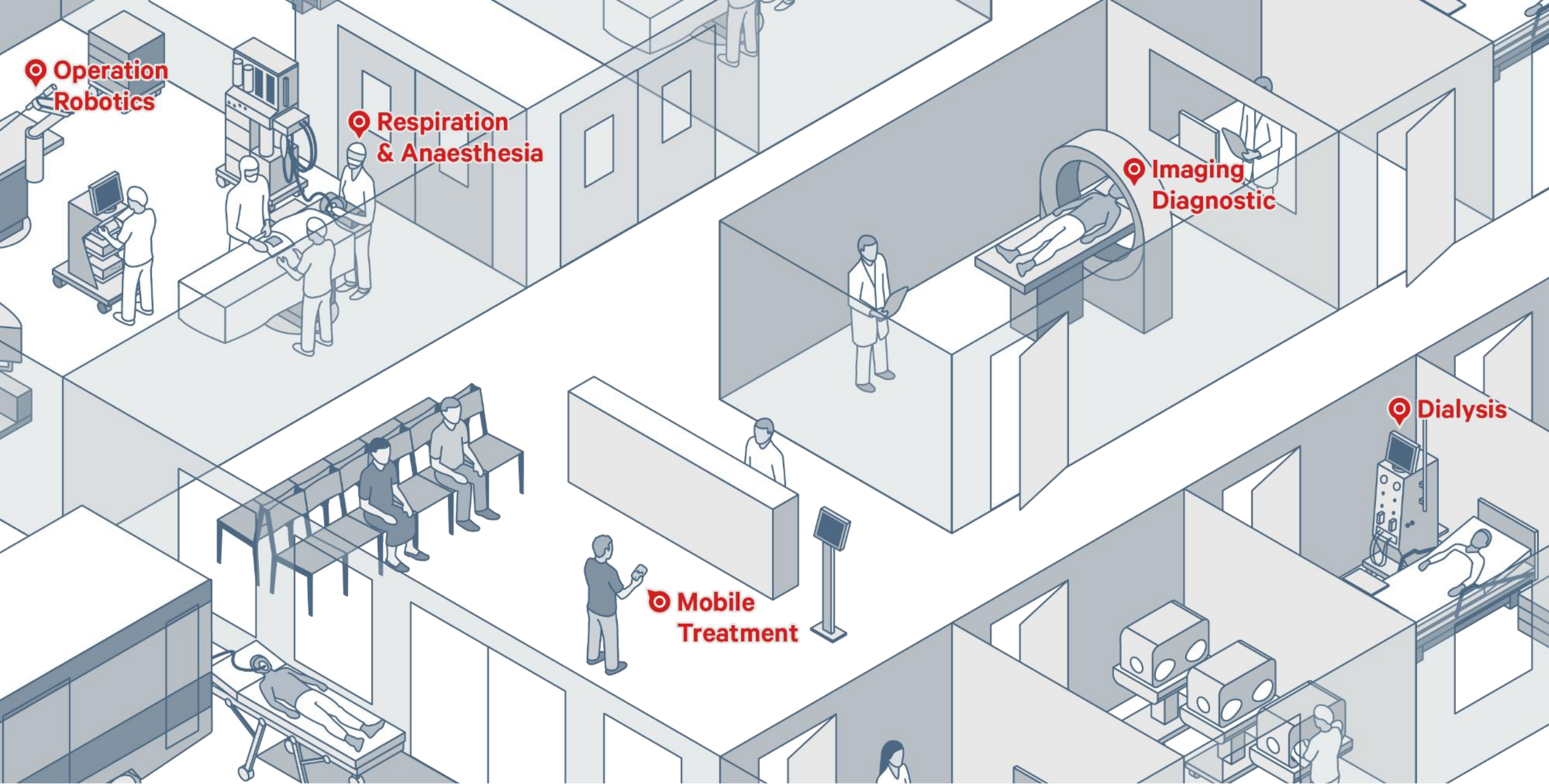
On a tailored printed circuit board, this solution combines electronic components with four of our LMI differential pressure sensors that can detect the smallest differences in pressure.



OUR TARGET MARKET MEDICAL

We are there
when little miracles
start being taken
for granted.





📍 Operation Robotics

📍 Respiration & Anaesthesia

📍 Imaging Diagnostic

📍 Dialysis

📍 Mobile Treatment

MEDICAL

Applications in our target market Medical



Diagnostics

Blood sugar measuring devices, pulse oximeters, computer tomographs, gamma probes, endoscopy



Respiration And Pneumology

Respiratory equipment, anesthesia devices, sleep diagnostic devices, sleep apnea therapy devices, spirometers, oxygen concentrators



Dialysis And Infusion

Dialysis machines, infusion pumps



Thanks to modern mounting and connection technology, hundreds of silicon PIN photodiodes in computed tomography scanners ensure razor-sharp images.

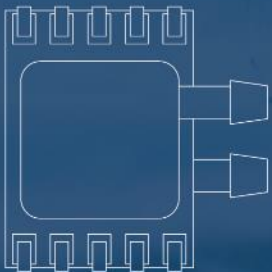


Our innovative pressure and flow technology has become a lifesaver in medical respiratory devices and for dialysis.

Irreplaceable Together

H Series

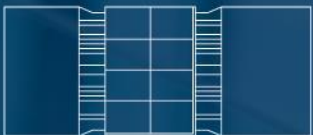
Our standard piezo-resistive pressure sensors measure extremely low pressures in dry, non-corrosive gases. Their applications include fields such as medical technology, measurement technology and air conditioning technology.



Giving Perspectives Together



Assembly of Arrays



When building large detector arrays, we mount sensor chips on a backing using state-of-the-art flip chip technology to achieve the best possible fitting accuracy with this solution.

OUR TARGET MARKET MOBILITY

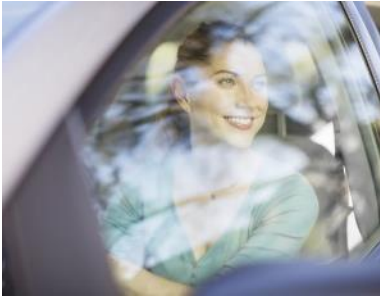
We are there
when mobility
is redefined.





MOBILITY

Applications in our target market Mobility



Passenger Cars

Speed control, tank leak detection, fuel delivery modules, measurement of tank pressure, measurement of temperature, sun and rain detection, automatic start-stop systems



Utility And Special Vehicles

Pressure sensors, distance detection, tank leak detection



Smart Cars

Adaptive cruise control, parking sensors, lane departure warning, pedestrian recognition, traffic sign recognition, collision avoidance systems, blind spot detection



Our cameras guarantee safety and convenience when driving by detecting road signs and dangers as well as providing assistance when parking.



With our pressure sensors for brake boosters we enable drivers across the world to brake safely with little breaking effort.

Going into Series Production Together

EPC 1089

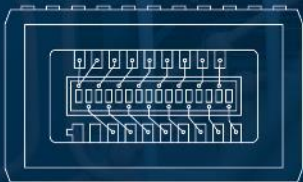
ST 420 L
ZONE 6

ST 420 R
Fender Fit

ST410L
TAILGATE
HANDLER

Avalanche Photodiodes

Our high-performance diodes measure light pulses in the nanosecond range. As one of the leading manufacturers, First Sensor also develops and produces array solutions for LIDAR systems.



Responsibility Together

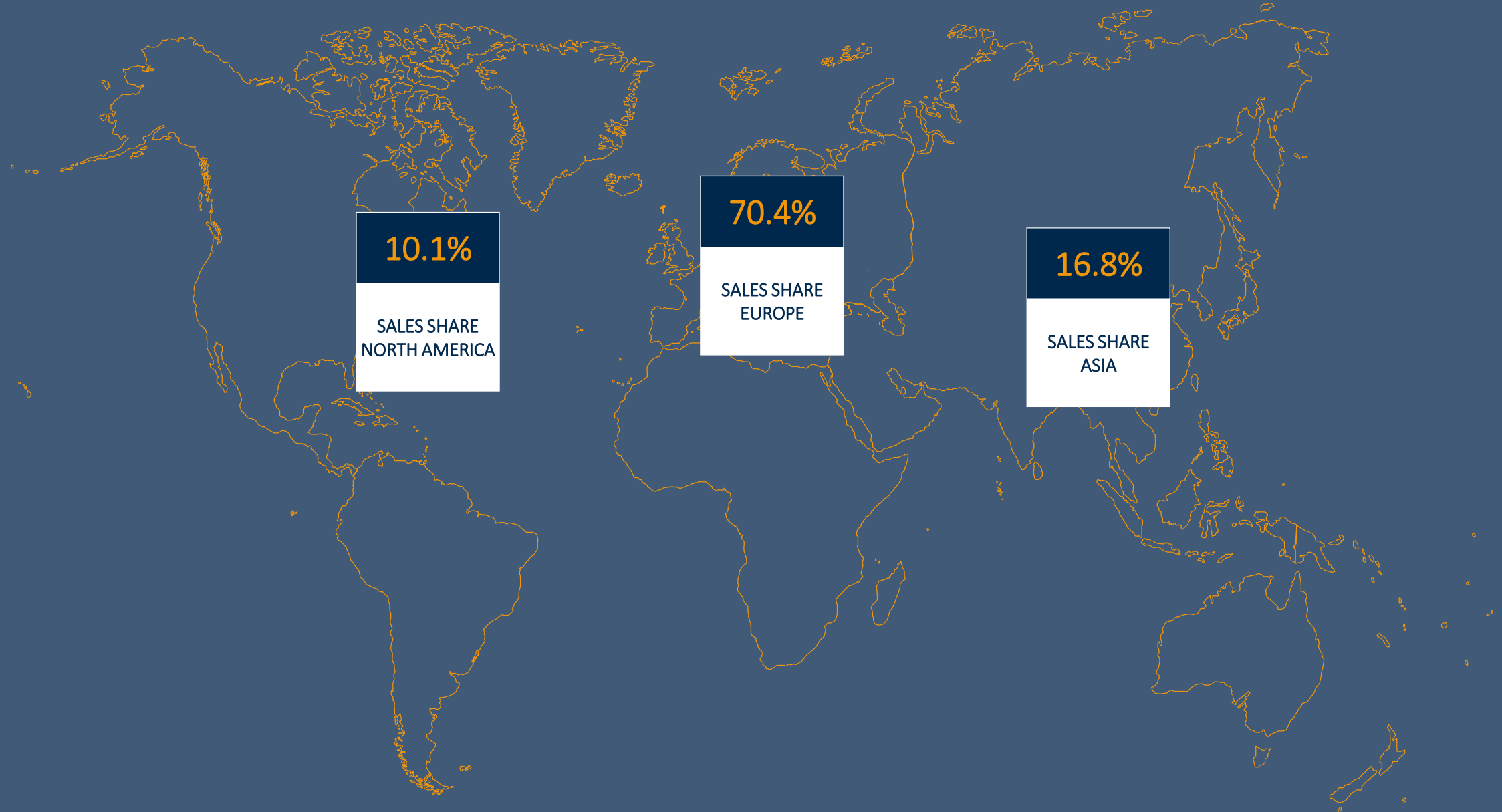


sensEdge Pressure Sensors

High-pressure sensors based on sensEdge technology are suitable for pressure changes up to 3,000 bar. Our solutions are used in steer-by-wire systems, for example.

OUR SALES MARKETS

We grow in our core market as well as in high potential sales regions



Thank you

Sensing Innovations – Company Presentation

May 2021

First Sensor AG
www.first-sensor.com