

**s-net®**

## **Wireless networks and positioning for local IoT applications**

s-net® lays the foundation for connecting and positioning things, machines, components and people, thus closing an information gap between IT and the real world.

What s-net® really brings into the limelight are the benefits it provides for IoT applications. As IoT devices require low power consumption and the possibility to communicate in the most challenging locations, s-net® is a prime candidate for solving these problems. s-net® permits the low power and complexity these devices need by respecting limited bandwidth and the high positioning accuracy expected in many applications.

Our advisory and development services enable you to quickly realize your own IoT solution for your specific project. With more than 20 years of experience in wireless technology, the expertise of more than 50 computer scientists, electrical engineers and management experts, and thorough familiarity with applications in production, logistics, security, smart city and smart building, we can help you successfully use the s-net® technology for your application.

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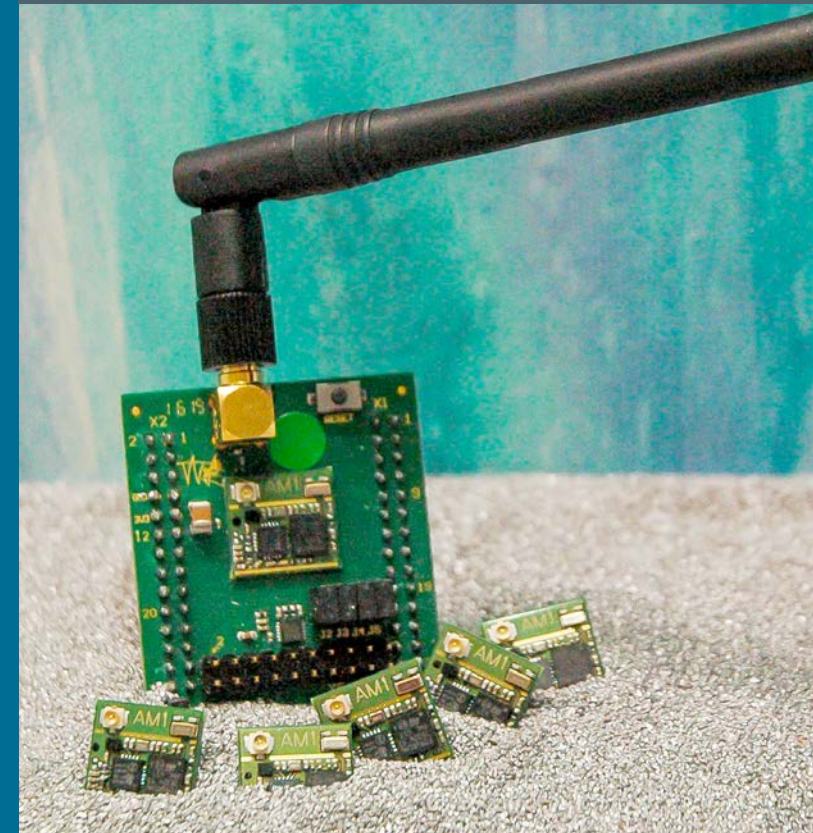
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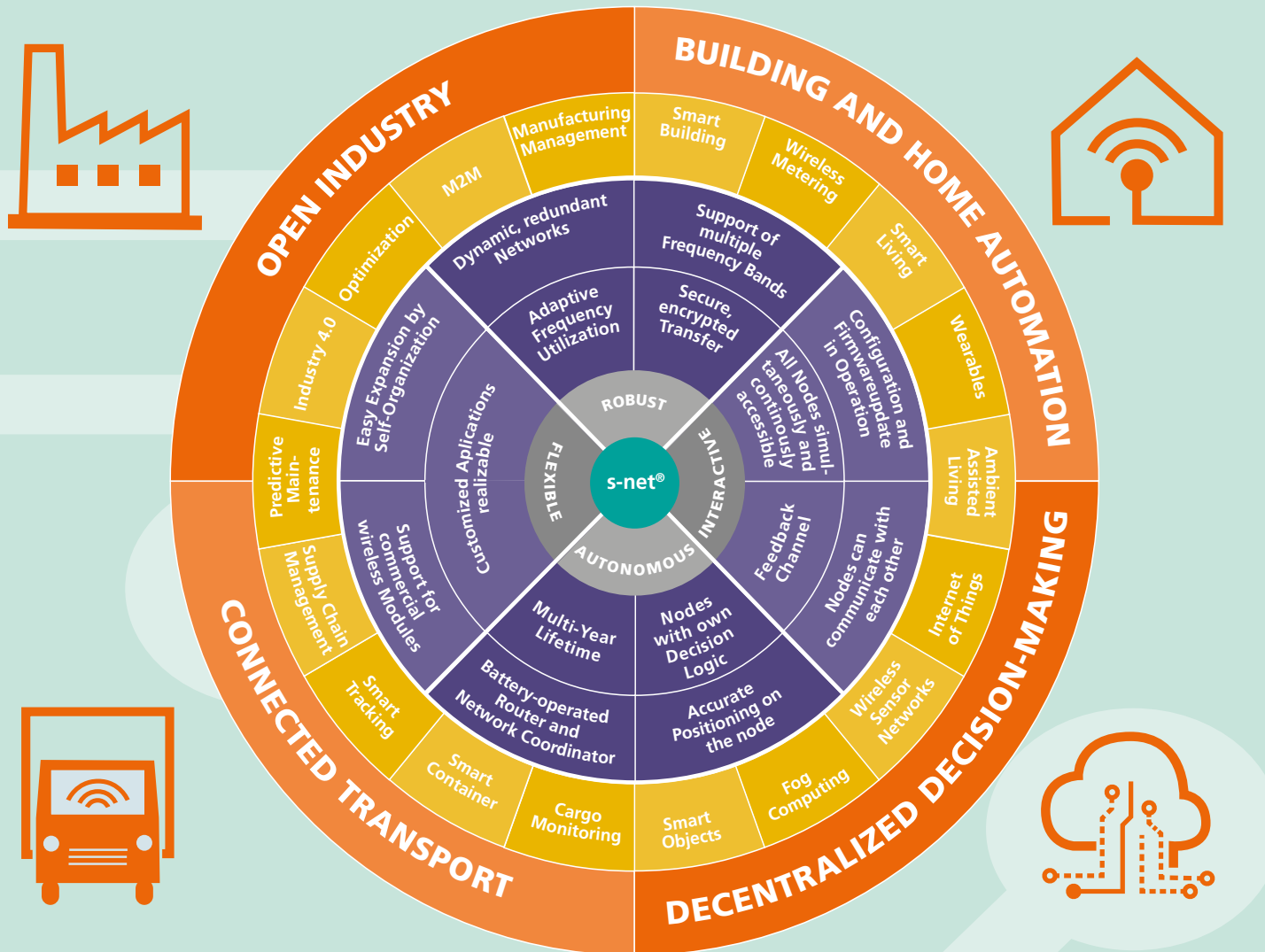
## **s-net® A SMART WAY TO IMPLEMENT WIRELESS NETWORKS**

Energy-saving communication technology for cyber-physical systems, fog computing and the Internet of Things IoT



# s-net® APPLICATIONS AND ADVANTAGES

# s-net® TECHNOLOGY AND FACTS



## NETWORKS



### Data throughput

- up to 255 byte/s per Node
- up to 512 byte/s per Frame per Network

### Communication

- self-organizing
- bidirectional
- multi-hop

### Technology

- Low Throughput Network LTN

### Positioning

- spatially accurate within the network

### Frequency Band

- 433 MHz
- 868 MHz
- 2,4 GHz

### Range (per Frame)

- over 300 m Indoors
- over 3 km Outdoors

### Number of Nodes (per network)

- up to 16.000 Nodes

### Network Capacity

- 1.600 Pakets per hour

## HARDWARE



### Size

- 5 cm x 4 cm x 1 cm

### Memory per node

- 512 kbyte

### Infrastructure Costs

- more than 50% lower than comparable Technologies

## CONSUMPTION



### Power Consumption

- over 90% less in multi-hop operation than comparable Technologies

### Energy Efficiency

- 175 nWh per Data Packet

### Lifespan

- more than 12 Years