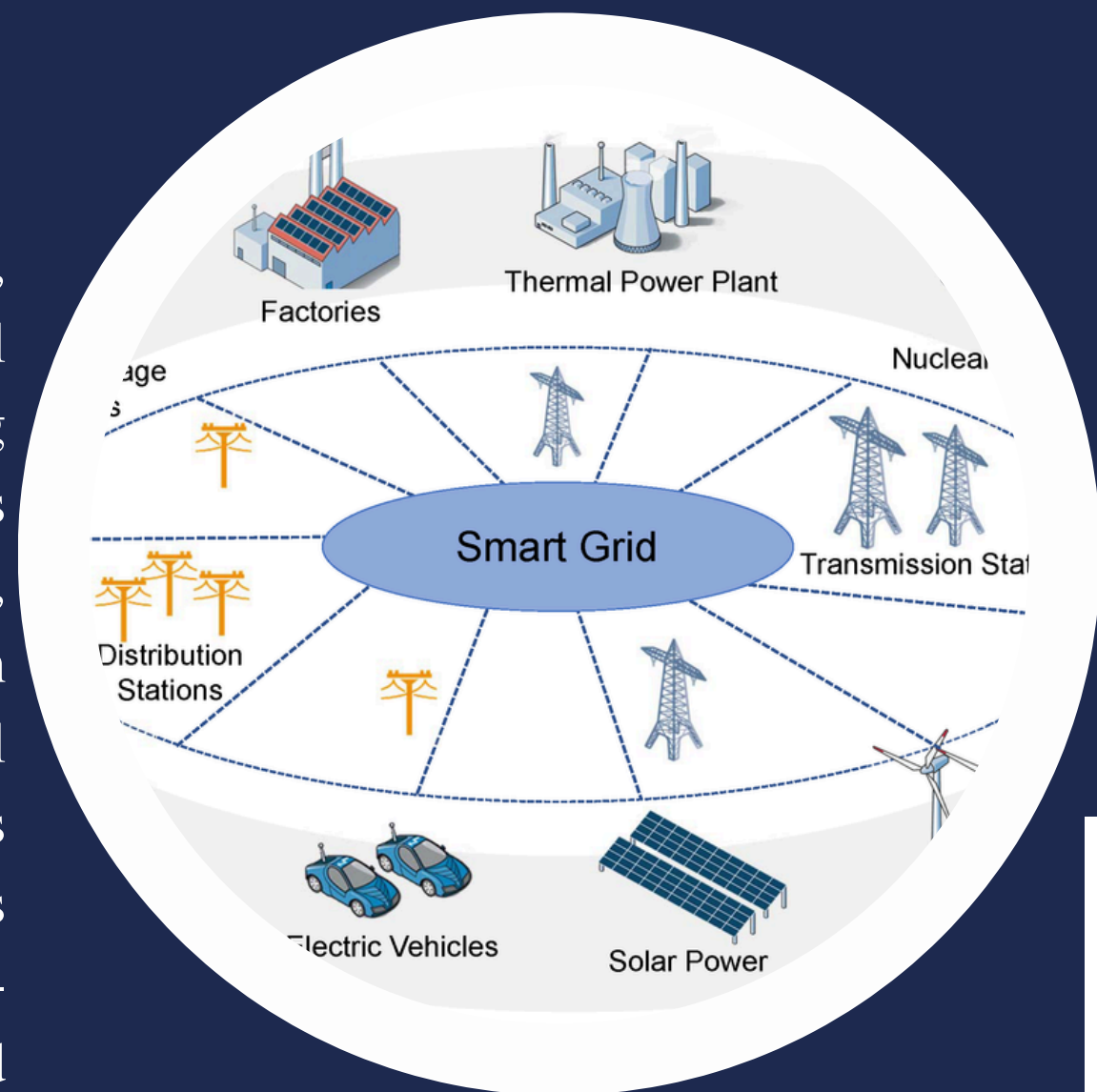


RESEARCH AND DEVELOPMENT IN SMART METERING SYSTEMS

This competency focuses on the research, development, testing, and deployment of smart metering solutions for electrical energy monitoring and accounting. While energy metering appears to be a routine task, large-scale and specialised systems introduce significant technical challenges related to accuracy, data handling, protection, and system integration. Building on extensive experience in electrical machines, drives, signal acquisition, and condition monitoring, the activity supports both standard and custom metering solutions. It enables partners to design reliable, transparent, and scalable energy-monitoring systems for industrial, commercial, and infrastructure applications.



ACHIEVEMENTS

- End-to-end development of smart metering solutions from needs assessment through RDI to system construction
- Development and implementation of custom measurement and data-acquisition solutions for specialised applications



INFRASTRUCTURE

- Measuring, testing, and inspection equipment for electrical and energy systems
- Data acquisition and processing systems for real-time diagnostics and monitoring
- On-site testing and validation capabilities supporting industrial collaboration



REFERENCES

- Smart metering solution implemented on transformer systems in collaboration with E.ON
- Industrial and commercial metering system developments for electricity suppliers and large consumers
- Individual and specialised metering solutions for transport systems, special machinery, and mining applications