Factsheet Open Industry 4.0 Sensor Demonstrator

Access to extensive information

- Reduced effort during application, starting with project planning and proceeding to simulation, commissioning, operation, service and maintenance
- Better comparability of products, higher data quality and operational reliability through uniform and standardized data structures
- Reduction of effort through standardized provision of information for all customers
- Better reputation, higher service quality for customers

Sensors are considered the sensing organs of machines and plants. The Sensor Demonstrator shows how digital twins significantly simplify the application of sensors throughout their entire life cycle, ensure the interoperability of components from different manufacturers and enable simulations as well as virtual commissioning.

The AAS as an interface for manufacturer-independent data

Industrial sensors based on different operating principles for the electrical detection of physical quantities are offered by numerous manufacturers. Although these components comply with relevant product norms and other standards, the provision of machine-readable information relating to the sensors is not standardized either in form or in content.

A considerable amount of manual effort is required throughout the entire life cycle in order to provide data such as specifications, test data or measured values from different manufacturers in a uniform, machine-readable form for further processing steps.
Standardized sensor data for all use cases

In the working group "Industry 4.0 in Sensor Technology", leading manufacturers of industrial sensors are working on machine-readable virtual representations of their products as the basis for Asset Administration Shells. A demonstrator will show the interoperable use of sensors from different manufacturers for selected use cases and identify potential gaps. The Asset Administration Shell provides all relevant data of sensors over the entire life cycle in standardized formats in a machine-readable manner and is thus in all use cases the comprehensive source of information for further processing electronic systems.