GENERAL LECTURE:

**DIGITIZATION OF THE HYDRAULICS -
UNIFORM SEMANTICS ONLY ALLOWS INTEROPERABILITY**

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Machine builders integrate products from different suppliers in their machines or production lines. Today, most of the information is supplier-specific. The major challenge is to extract the necessary information from all products from different suppliers. The information exchange is over the complete lifecycle of the machine from design, simulation, installation, operation and service phase.

At least, every supplier needs a Product Lifecycle Management from which he can manage the Digital Product Twins and produce the standardized data for the different lifecycle phases in machines.

The Industrie 4.0 Platform has defined two models. The Reference Architecture Model Industry 4.0 (RAMI4.0) and the Industry 4.0

component with its Administration Shell. They describe the important fields of action for identification, communication and for semantics. Both models describe a common language with vocabulary and structuring of the data to get an open exchange across the industry. Currently various working groups at national and international level are specifying this vocabulary for the various product groups and bring them into standardization.

This lecture shows the challenges, the current state of implementation, gives hints specifically for the implementation of the fluid technology and shows some opportunities for new services. (Sizing, Digital Nameplate, Product Dashboards, Oscilloscope)

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Important Topics for Industrie 4.0