

# The Asset Administration Shell (AAS) in action

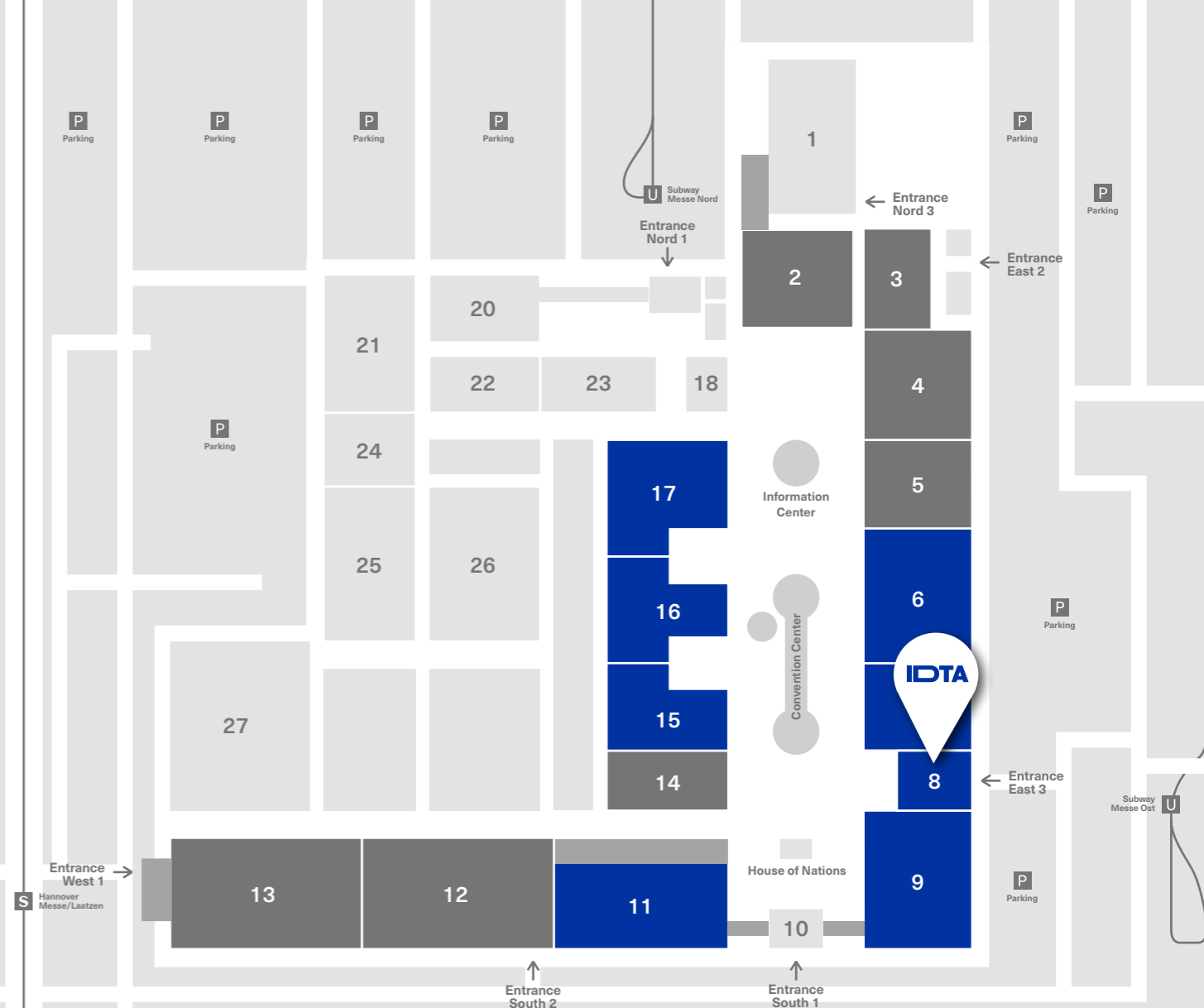


## AAS Guide Hannover Messe 2023



### AAS @ Industrie 4.0 Conference Stage (Hall 8, Booth D17)

MON 17.04.	
10:55 – 11:40	<b>AAS: Customer value along the life cycle through the standardised Digital Twin</b> Meik Billmann, IDTA; Kurt Bettenhausen, HARTING; Erich Barnstedt, Microsoft; Thiago Weber Martins, SAP; Andreas Brandauer, Siemens
16:00 – 16:25	<b>SmartMA-X: Dataspace Industry 4.0 - Testbed for Gaia-X</b> Keran Sivalingam, SmartFactory KL; Simon Jungbluth, SmartFactory KL
TUE 18.04.	
09:35 – 10:00	<b>News from the Asset Administration Shell</b> Michael Hoffmeister, Festo
14:50 – 15:15	<b>Data spaces: only with digital twins!</b> Dr. Birgit Boss, Bosch
16:30 – 16:50	<b>The Asset Administration Shell as the basis for the Digital Twin</b> Frank Bauder, Leuze electronic; Detlev Richter, TÜV SÜD Product Service
17:35 – 18:00	<b>Making Industry 4.0 integration of live data easy with Asset Administration Shells and Eclipse BaSyx</b> Frank Schnicke, Fraunhofer IESE
WED 19.04.	
09:35 – 10:00	<b>Digital Data Chain and Asset Administration Shell in the context of the EU Digital Product Passport</b> Christoph Attila Kun, BASF SE / Digital Data Chain Consortium; Sascha Pirzcall, Siemens
THU 20.04.	
10:00 – 10:25	<b>Standardized Device and Update Management based on Asset Administration Shell and OPC UA</b> Andreas Orzelski, Phoenix Contact
10:55 – 11:40	<b>The Asset Administration Shell and its implementation — Best Practices from the InterOpera project</b> Carina Gliese, Steinbeis Europa Zentrum; Philipp Liedl, Steinbeis-Beratungszentrum für Technologische Transformation; Jerome Blum, BCON2/ECLASS; Christian Block, BCON2/ECLASS
13:30 – 14:15	<b>How the AAS fit to the interoperability solutions AML &amp; OPC UA</b> Stefan Hoppe, OPC Foundation; Christian Mosch, IDTA; Rainer Draht, Hochschule Pforzheim;



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# AAS exhibits

**rexroth**  
A Bosch Company

**AAS Product Onboarding | Integrate product data into your system landscape**  
Have a single point of information. Speed-up engineering and commissioning. Enable data-driven decisions. Act sustainably – create your DPP4.0, trace the PCF.

**AAS Process Orchestration | Make your factory processes more flexible**  
Accelerate and ease your commissioning with the Bosch Rexroth Simulation Library (BRSL). Orchestrate your process with the FACTORY Orchestration Platform.

**AAS Factory Supervision | Analyze the big picture with service and support**  
Let your employees get situation-dependent instructions, notifications and live process insights. Get the AAS and contact service experts with the DSA App.

Hall 6  
Booth D26

**SCHUNK**

**Digital Product Pass for SCHUNK smart Products**  
Demonstration of smart products and their integration in data spaces and next generation digital services.

Hall 6  
Booth F21

**VDMA**

**Fluidpower 4.0**  
Live demonstration of AAS for hydraulic and pneumatic products with integrated Submodels like Digital Nameplate and documentation, CAD data, change notification.

Hall 6  
Booth B57

**Fraunhofer**

**AAS-driven Views and Business Cases for Industrial Equipment**  
Connecting industrial equipment and their Digital Twins in the cloud enables the implementation of innovative business cases: A live demonstration with Stäubli.

Hall 7  
Booth D27

**Lenze**  
engineered to win

**Lenze Digital Twin - The Future Central Hub of a Machine**  
With the generic architecture, information from machines and components for a wide variety of applications is available to OEMs and operators.

Hall 7  
Booth D28

**FESTO**

**Interoperable Digital Twins for Festo product range**  
Driving the industrial transformation with AAS & AML Digital Twins for battery handling, product carbon footprint and virtual commissioning of handlings.

Hall 7  
Booth D31

**ARENA2036**

**Asset Administration Shell for the wire harness (VWS4LS)**  
The objective of the VWS4LS project is to implement the AAS for development, production and assembly of the wire harness in automobiles.

Hall 8  
Booth E06

**Value Chain Platform**

**Life Cycle Assessment (focusing on PCF Tracking) for Battery Industry**  
An Introduction of VCP implementing Life Cycle Assessment (focusing on Product Carbon Footprint Tracking) for battery Industry using AAS & EDC.

Hall 8  
Booth C14

**GNTP**  
Greengram Technology

**AAS & private 5G based Smart factory in Korea**  
An Introduction of manufacturing operating system (MOS) and VR implemented in Central, an automotive parts factory in Korea, using private 5G and AAS technology.

Hall 8  
Booth C14

**NEST + FIELD**

**EV Battery lifecycle Management using AAS**  
An AAS based EV battery pack life cycle management solution that integrating production process data and real-time monitored data from vehicles in operation.

Hall 8  
Booth C14

**Meta-Level**  
SOFTWARE AG

**AAS Suite for Asset Administration Shells**  
AAS Suite provides great tools around AAS. You can easily create, edit, view human readable, share, publish (internal or public), find and instantiate AAS.

Hall 8  
Booth D26

**IDTA**

**AAS Data Management**  
Cross-application use of standardized Submodels and integration of engineering projects within the AAS using a repository and AAS management system.

**AAS Product Carbon Footprint**  
Application of the Digital Product Passport for Industrie 4.0 (DPP4.0) using the example of calculating the product carbon footprint of a control cabinet.

**Realtime Demonstrator of an active AAS on Connectivity+**  
Demonstrator of a realtime value case of intelligent connectivity that shows the benefits of the AAS for all stakeholders along the industrial value chain.

Hall 8  
Booth D26

**OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG**

**AAS networked**  
Autonomous Digital Twins interact directly with each other and make decisions related to allocation of production resources across company boundaries.

Hall 8  
Booth D26

**LNI4.0**  
LIFE CYCLE NETWORKING INSTITUTE

**XITASO**

**Germany-USA supply chain CO2 reporting using AAS**  
Production chain consisting of several machines at different locations (Germany and United States) to produce ball pen using several AAS submodels.

Hall 8  
Booth D26

**Catena-X**

**Catena-X: The Automotive Value Chain**  
Digital Twins are created using the AAS and enable cross-company interoperability and continuous exchange of data in the automotive value chain.

Hall 8  
Booth D26

**SIEMENS**

**Simulation for Automation - Speed up engineering by AAS**  
By utilizing the AAS & Siemens solutions, a standardized Digital Twin exchange across company boundaries is realized to increase efficiency within engineering.

**Realtime Demonstrator of an active AAS on Connectivity+**  
Interoperable Digital Twins enabled by the AAS help us to increase efficiency and data quality within engineering and further lifecycle phases.

Hall 9  
Booth D53

**OMRON**

**Dataspace Access Control and Ownership**  
OMRON, NTT and TNO demonstrate full data ownership and access control of data that is generated in a factory, securely shared via an International Data Space.

Hall 9  
Booth F24

**PEPPERL+FUCHS**

**AAS - The Future of Asset2Asset Communication in your Production**  
Several products are shown, all carry an IEC61406-QR-Code and demonstrate a solution to automatically generate AAS.

**NEOCEPTION**  
Pepper+Fuchs

**Standardized Digital Access to Product Documentation**  
Several products are shown, all carry an IEC61406-QR-Code to access the AAS. By scanning the code type and instance data related to the product is displayed.

Hall 9  
Booth D76

**100**  
PHOENIX CONTACT

**Manufacturing-X**  
Phoenix Contact shows for Manufacturing-X how OT security can be ensured by using the AAS to find and access software updates.

Hall 9  
Booth F40

**Multi Vendor Condition Monitoring via OI4 and AAS**  
Using the OI4 AAS infrastructure, ifm shows the exchange of asset nameplates, health status and calibration certificates between multiple field and cloud vendors.

Hall 9  
Booth D36

**zvei**  
electrifying ideas

**ZVEI-Show-Case PCF@Control Cabinet**  
Application of the Digital Product Passport for Industrie 4.0 (DPP4.0) using the example of calculating the product carbon footprint of a control cabinet.

Hall 11  
Booth B29

**RITTAL** **ePLAN**

**Article data with PCF according to Industry 4.0 with the AAS**  
Rittal and Phoenix Contact show how to use Rittal's digital wiring plan pocket „ePOCKET“ to access the AAS of a component in the cloud.

Hall 11  
Booth E06

**Realtime Demonstrator of an active AAS on Connectivity+**  
For more than thousand connectors the AAS has been made available starting the HANNOVER Fair 2023. This allows seamless integration of connectors in the entire Lifecycle.

Hall 11  
Booth C15

**Fraunhofer**

**BaSys in the chocolate factory: Digitalization of production**  
Simulation of production with a Fischertechnik factory and demo of how to use BaSyx to digitally network multiple sites and how to create a shared data space.

Hall 16  
Booth A12

**SAP**

**The AAS in their various ecosystems**  
SAP demonstrates different scenarios, where the AAS will add value in context of today's and future system landscapes and business processes.

**Realtime Demonstrator of an active AAS on Connectivity+**  
The SAP contribution to the joint showcase focusses and the origin of exemplary AAS content (e.g. Material Master) and the linkage of AAS to Business Processes.

Hall 15  
Booth E17

**INTERX**

**AAS-based manufacturing data acquisition solution**  
INTERX solution collects various manufacturing data such as injection molding and CNC machine data in AAS format. AI models using acquired data are generated.

Hall 15  
Booth D64

**GFT**

**SPHINX OPEN - Home of the Asset Administration Shell**  
Presenting the seasoned SPHINX OPEN platform in the context of Asset Administration Shell (AAS) implementation for industrial applications.

Hall 15  
Booth F28

**FABOS**

**FabOS - The Operating System for the Factory of the Future**  
In FabOS, AAS supports the IT and OT hardware resource management in heterogeneous system landscapes to enable dynamic and interoperable service deployment.

Hall 15  
Booth H07

**Fraunhofer**

**FA³ST Eco-Twin and support for time series data**  
This demonstrator shows how the FA³ST service and tools can be used to combine production data with eco-parameters to create a green product Digital Twin.

Hall 15  
Booth A06

**bill-X**

**The runtime for the Digital Twin**  
The ActiveDB digital ecosystem from bill-X as a runtime for the AAS. Use the interactive Digital Twin and bill it directly with bill-X OpenInformer.

Hall 16  
Booth G12

**CONTACT**  
Software

**Special implementation for AASX/Export/Exchange in AASHub research project**  
CONTACT Elements for IoT drives the consistent automation of processes. Requirements for quality, sustainability, security can be met faster and more flexible.

Hall 17  
Booth H20  
Also in Hall 7 Booth D27

**BOSCH**

**Bosch Semantic Stack – Product-centric digital transformation**  
Bosch shows how digital twins create added value throughout the entire product lifecycle and enable cross-company data exchange, based on the AAS standard.

Hall 17  
Booth G06

**IndustryApps**  
Appstore for Industry 4.0

**Automated Digital Twin builder - From Data Swamp to Data space**  
Demonstrates how asset informations from distributed systems like ERP, PLM or MES are automatically converted to standardized AAS based Digital Twins.

Hall 17  
Booth E05

**Realtime Demonstrator of an active AAS on Connectivity+**  
This is the operational phase of the joint Harting, IDTA, Microsoft, SAP and Siemens demonstrator of the Harting "SmEC" product along all 4 lifecycle phases.

Hall 17  
Booth G06

**Microsoft**

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Hall 17  
Booth G06

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Hall 17  
Booth G06

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Hall 17  
Booth G06

= Part of joint Demonstrator on AAS for Connectivity+