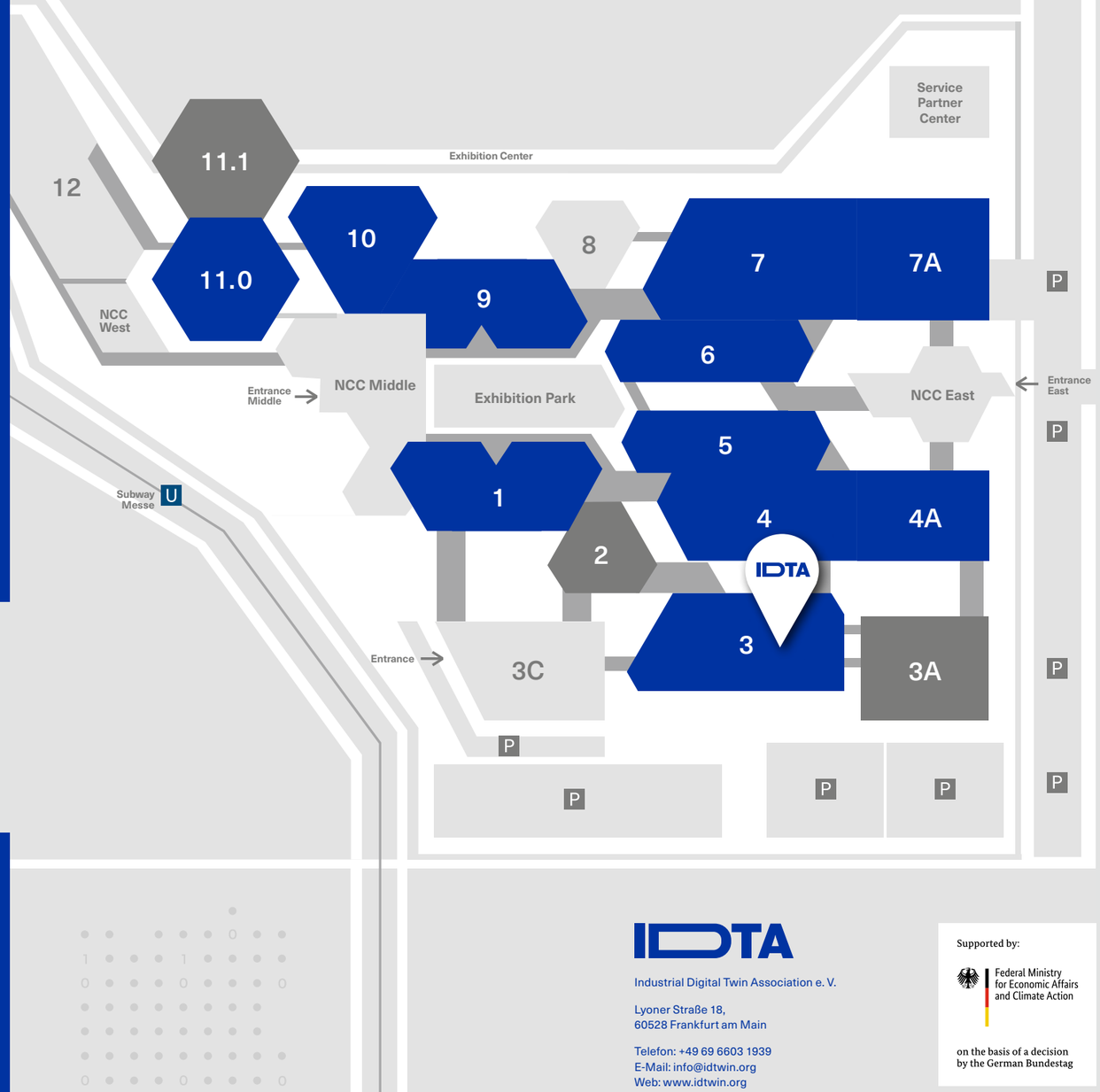
The Asset Administration Shell (AAS) in action

AAS Guide
SPS 2022



AAS @ Technology Stage powered by VDMA/ZVEI
(Hall 3, Booth 451)

TUE 08.11.	
9:40 – 10:25	**ZVEI-Show-Case PCF@Control Cabinet – The DPP4.0 as an Industry-Ready Concept for the Digital Product Passport** Prof. Dr.-Ing. Dieter Wegener, Siemens AG
12:15 – 13:00	**ECLASS Sensors Group - Standardized descriptions of sensors pave the way to the digital twin** Benedikt Rauscher, Pepperl + Fuchs; Josef Schmelter, Phoenix Contact
WED 09.11.	
13:30 – 13:55	**Simply create digital twins for Industry 4.0 with open source** Andreas Orzelski, Phoenix Contact
15:30 – 16:00	**IoT Use Case Energy Monitoring: Sustainable with the Digital Twin** Dr. Dirk Thieme, Volkswagen; Meik Billmann, Industrial Digital Twin Association (IDTA); Madeleine Mickeleit, IoT Use Case
THU 10.11.	
11:10 – 11:40	**The Digital Nameplate - Designing the Digital Twin Made Easy** Roland Dunker, R. STAHL

Forum
(Hall 5)

TUE 08.11.	
16:15 – 16:35	**Der AAS Online Generator: schnell und einfach AAS bauen** Thorsten Kroke, BCON²

IDTA

Industrial Digital Twin Association e. V.

Lyoner Straße 18,
60528 Frankfurt am Main

Telefon: +49 69 6603 1939
E-Mail: info@idtwin.org
Web: www.idtwin.org

Supported by:

Federal Ministry for Economic Affairs and Climate Action

on the basis of a decision by the German Bundestag

AAS exhibits

dunkermotoren

Hall 1
Booth 418

Integration of Robots and Motors in Maintenance Systems via AAS

Motors and Robots send Service Requests to an ERP Service System via AAS.

OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

Hall 3
Booth 448

AAS networked

The project „VWS networked“ within the activity interoperability tests AAS in various use cases: In addition to a testbed, a demonstrator is being created that shows „Production as a service“ in a cross-company scenario.

---

zvei electrifying ideas

Hall 3
Booth 450

Product Carbon Footprint @ControlCabinet

Demonstrating the automated calculation of the product carbon footprint of a control cabinet across the supply chain using the AAS.

Power Drive System 4.0

Large demonstrator with 8 electrical power drive systems, which are coupled via AAS and exchange information. The digital name plate with additional data for electric drives is implemented, as well as a sub model „oscilloscope“ and „reference point“ for condition monitoring.

IDTA

Hall 3
Booth 450

Create your Digital Nameplate

Create your Digital Nameplate in one simple step by scanning regular nameplate or a business card. An AAS based Digital Twin using standardised sumobels is generated. The QR-code on a physical nameplate enables access to your data at any time.

AAS Energy Monitoring

The demonstrator shows how Digital Twins record live energy data from a motor and enable a device change without complicated engineering by using standardized and semantically enriched AAS. The connection between the meter and the motor is represented by references within the AAS submodels.

XITASO

Hall 3
Booth 460

Hall 4
Booth 221

Mnestix – Standardized AAS

Mnestix is the software solution to create and manage AAS for your processes or products and to provide their information to devices or via interfaces. The Mnestix Viewer makes it easy to show all relevant AAS information on various devices.

WITTENSTEIN

Hall 4
Booth 221

AAS for Drive Systems

The benefits of the AAS can be experienced in various use cases, such as data acquisition during production for Galaxie® drives, IIoT connectivity through the integrated OPC UA server for cyber® simco® drive 2 controllers or the interaction with smart services for cynapse® gearboxes.

Endress+Hauser
People for Process Automation

Hall 4A
Booth 145

Multi-Vendor Onboarding und Master Data Management via AAS

The demonstrator shows the provision of multi-vendor asset master data in case of initial order/delivery of assets as well as the on-site recalibration process based on AAS and the Netilion IIoT Platform.

OPEN INDUSTRY 4.0 ALLIANCE

Hall 5
Booth 160

AAS goes AR: Easy visualization with augmented reality

Display basic asset information und submodel details in an enhanced way, to demonstrate practical approach of AAS visualization.

ECLASS

ECLASS Advanced and AAS Submodel Templates

In additon to cross-enterprise process-data management and the application in engineering tools, with Release 13.0 the ECLASS Standard has extended its data model with new content for the creation of AAS Submodels which enables users to describe an AAS in the ECLASS Standard as a Submodel.

Class.Ing

Class.Ing Software for AAS

AAS file generation for using ECLASS.

BCON²

Hall 6
Booth 114

BCON² AAS Generator

BCON² has developed the first AAS Generator that natively supports ECLASS. Generate AAS directly from the ECLASS Standard and describe your assets directly in your browser. The data can then be provided directly via the AAS API.

ISW

Hall 6
Booth 120

Machine Factory Stuttgart – The model-driven Factory of the Future

Using the AAS as a holistic information exchange system for the organization and operation of adaptive production.

SOFTWARE M&M
BY PEOPLE WITH PASSION
Member of WAGO Group

Hall 6
Booth 250

AAS on Microsoft Azure

Digital solutions for a smart connected world with the latest technologies, a lot of know-how and passion.

CONTACT Software

Hall 6
Booth 259

CONTACT Elements for IoT with a special implementation for AASX Export in the AASHub research project

Experts demonstrate how CONTACT Elements for IoT drives the consistent automation of processes. New requirements for quality, sustainability and security can be addressed faster and more flexible.

TwinStore

Hall 6
Booth 340

TwinStore

Digital product catalogs for virtual commissioning directly from the component manufacturer.

Fraunhofer

Hall 6
Booth 458

FA³ST Eco-Twin

The demonstrator shows how FA³ST service and tools can be used to combine production data with eco-parameters to create a green product Digital Twin.

STAHL

Hall 7
Booth 170

Digital Nameplate

By scanning a 2D data matrix code (QR tag) on a type plate in accordance with DIN SPEC 91406, direct access is gained to the Digital Twin (the instance AAS) of a product.

Lenze

Hall 7
Booth 391

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. This cross-manufacturer information/models are integrated automatically into various systems. One example here is asset management.

---

rexroth
A Bosch Company

Hall 7
Booth 450

AdminShell Scan & Connect with ctrlX Digital Service Assistant App from Bosch Rexroth

Scan, View, Deploy – Connect your Asset Administration Shells from Bosch Rexroth's products fast and easy into your applications.

---

ifm

Hall 7A
Booth 302

Multi Vendor Condition Monitoring via AAS

ifm presents a multi-vendor IIoT use case in the food and beverages domain. By continuously tracking temperature, conductivity and volume, a Clean-In-Place process and an on-demand sensor recalibration are enabled, ensuring product quality while minimizing downtime and maintenance cost.

PEPPERL+FUCHS

Hall 9
Booth 310

Automatic Asset Identification through Auto ID

Products carrying a QR-code linking to the product's website.

MURR ELEKTRONIK
stay connected

Hall 9
Booth 325

Material Identifikation

The demo shows a conveyer belt with moving assets. An industrial camera scans the QR-codes with the AAS identification links and displays the respective AAS.

HARTING
Pushing Performance

Hall 10
Booth 130

Smart Electrical Connector (SmEC)

A self-aware industrial connector that automatically locks the connection to prevent unplanned disconnections, such as being pulled under load. Its AAS ensures communication with external systems and allows configuration of plug/socket pairings and locking conditions, as well as monitoring of other internal sensor data.

SIEMENS

Hall 11

Digital Twins of Components in Mechatronic Designs

Integration of the AAS Explorer and the AAS Repository in NX for easy cross-manufacturer exchange of Digital Twins in mechatronics development.

From Acquisition to Cloud-based Data Management

Applying the AAS to use sensor data from the shop floor for cloud-based performance analysis with the help of the Industrial Edge and the Industrial Information Hub.