

Welcome @ cdmm

Der Digitale Produktpass in der Digitalwirtschaft.

D-SI vereinheitlichte Sensor- und Produktdaten für Interoperabilität und Datenqualität - in der Digitalwirtschaft und weit darüber hinaus.



Michael Hofmann | cdmm GmbH



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University of Applied Sciences



CIRPASS
Digital
Product
Passport

LEHRVERANSTALTUNG WS 23/24

PRAXISMODUL DIGITALWIRTSCHAFT

ANRECHENBAR ÜBER MODUL: BW 31.9 UND MW 42.1 (6 CP)

Lehrende:

Prof. Dr. Simon Emde (FSU)

Prof. Dr. Marek Opuszko (EAH)

cdmm GmbH JENA - von der Homepage zum DPP im WoT.

DNP | DCC | DPP in der AAS

Homepages – static HTML.

CMS Websites - static Product Information

CMS Websites - dynamic Product Information

CMS Websites - local DB, Print Template – and PIM-driven Print Information Management, Printed Paper Catalogues

Centralized DB Schema - PDMcloud PDM Product Data Management – Online, Offline and Print.

ONEPDM + O365 - digital Team Work, shared documents and more collaboration in common product data management.

ONEPDM – Tech Semantics and digital D-SI unified DCC + DPP Digital Product Passports across Industry and Society.



2002

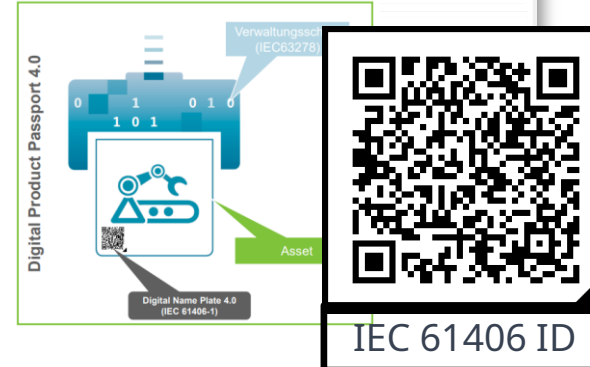
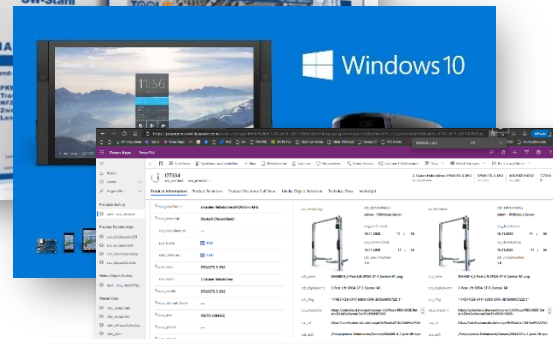
2006

PLATTFORM
INDUSTRIE 4.0

2013 / 2017

2019 / 2020 / 2023

CMS | PIM | PDM | AAS | DNP | DCC | DPP



IEC 61406 ID



Word Wide Web Consortium



3

cdmm GmbH | Michael Hofmann | Praxismodul Digitalwirtschaft im WS 23/24 | Der Digital D-SI vereinheitlichte DPP Digital Product Passport |

<https://www.w3.org/WoT/> | <https://www.oasis-open.org/projects-committees/> | <https://schema.org/ProductGroup> | <https://schema.org/Product> | <https://schema.org/gtin> | <https://schema.org/sha256> | <https://www.qi-digital.de/>



D-SI vereinheitlichte Sensordaten in Produkten und Netzwerken.

DQD Digital Quality Data in DQI Digital Quality Infrastructures.

PLATTFORM
INDUSTRIE 4.0

Enterprise

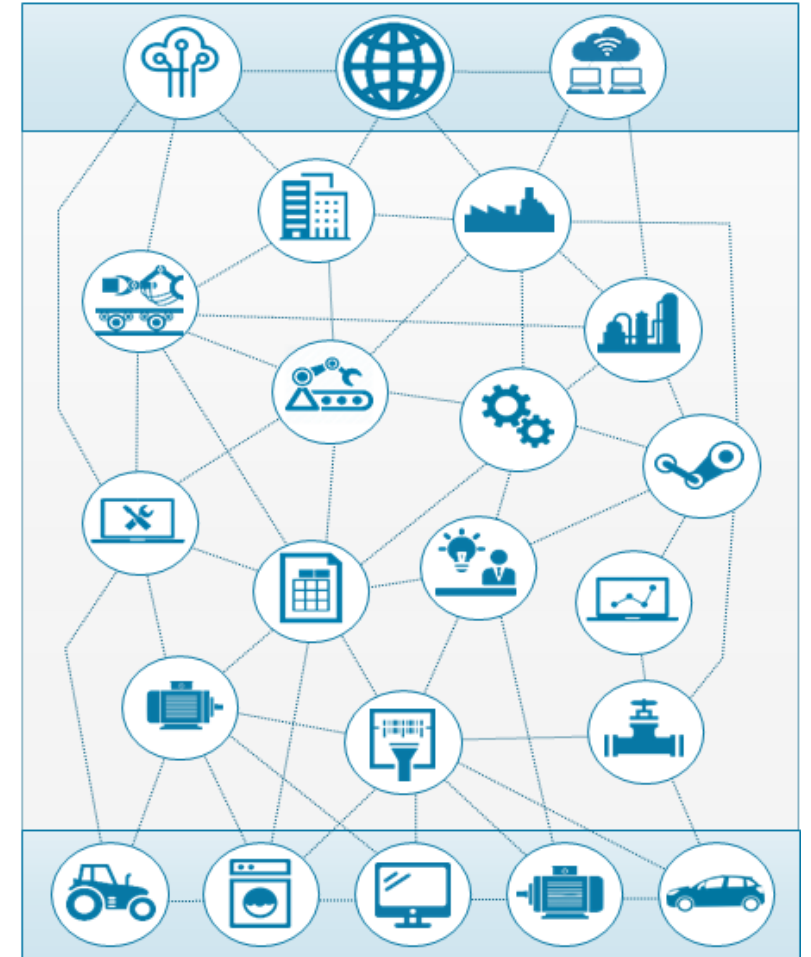
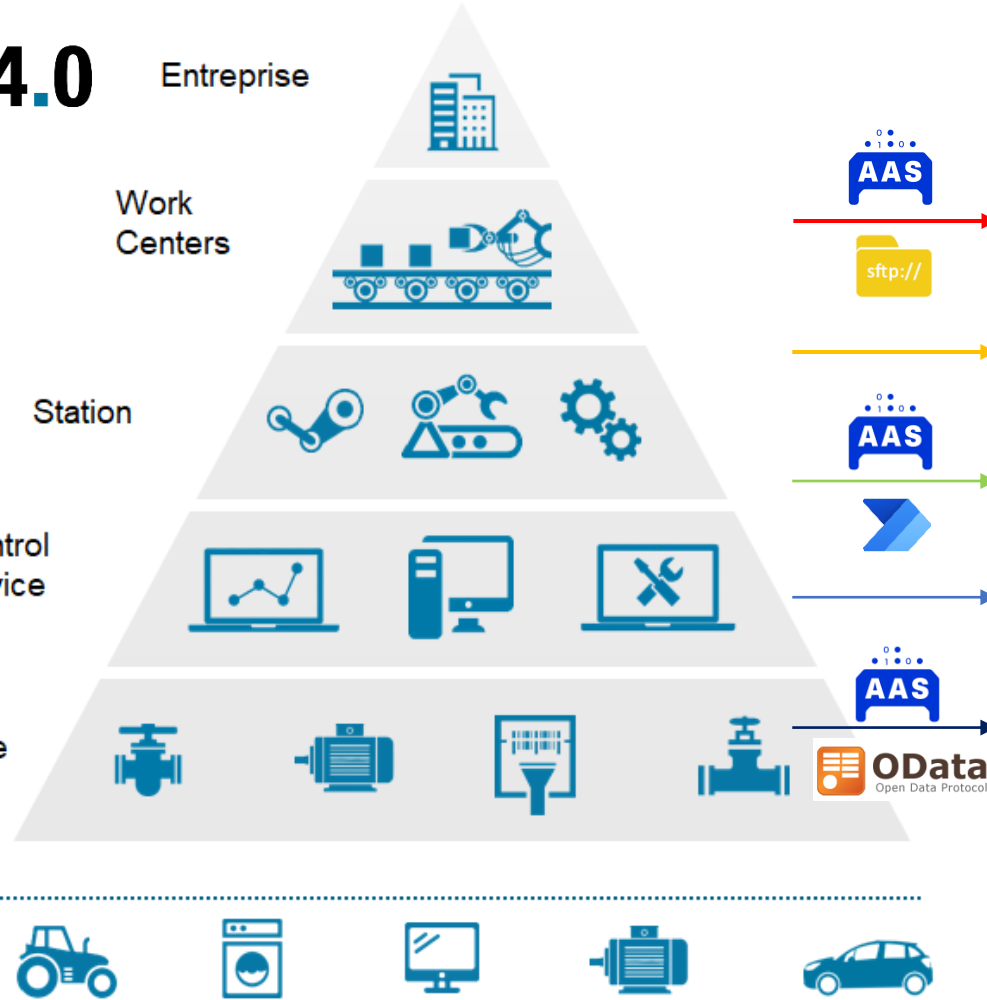
Work Centers

Station

Control Device

Field Device

Product

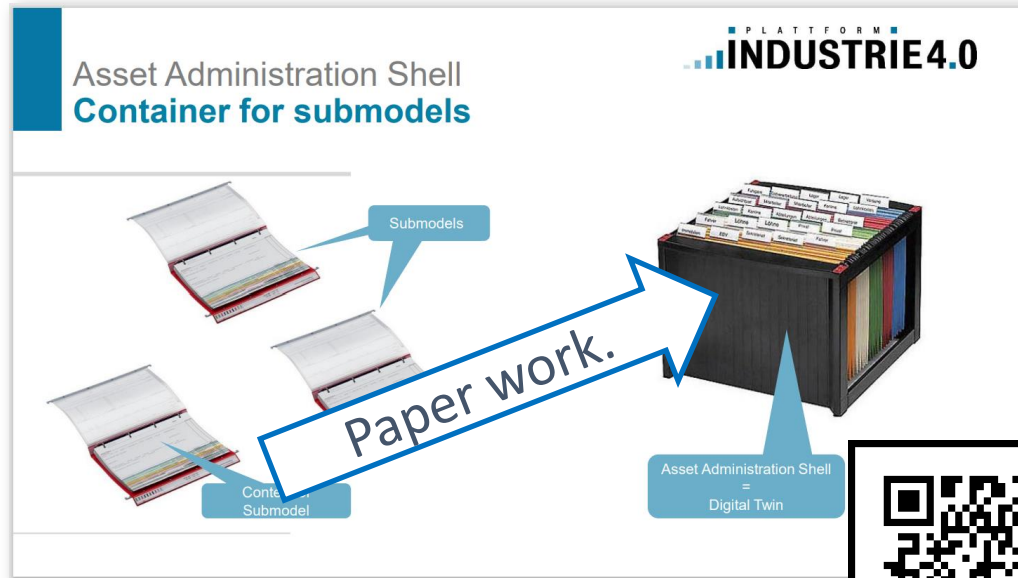


Digitale Produktdaten über den DPP verfügbar machen.

Das Digitale Typenschild - IEC 61406 ID – und der Digitale Produktpass.

Papier. Ordner. Regal.

Digital Product Passport.



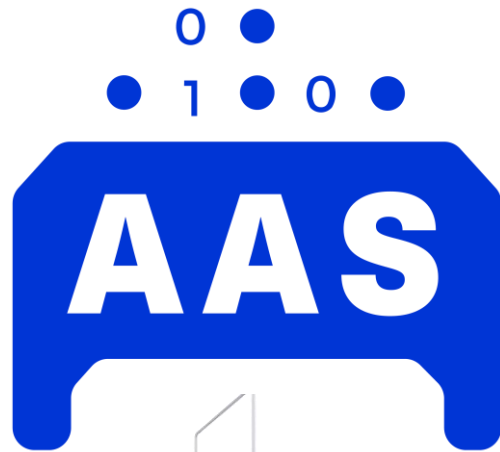
QR-Code



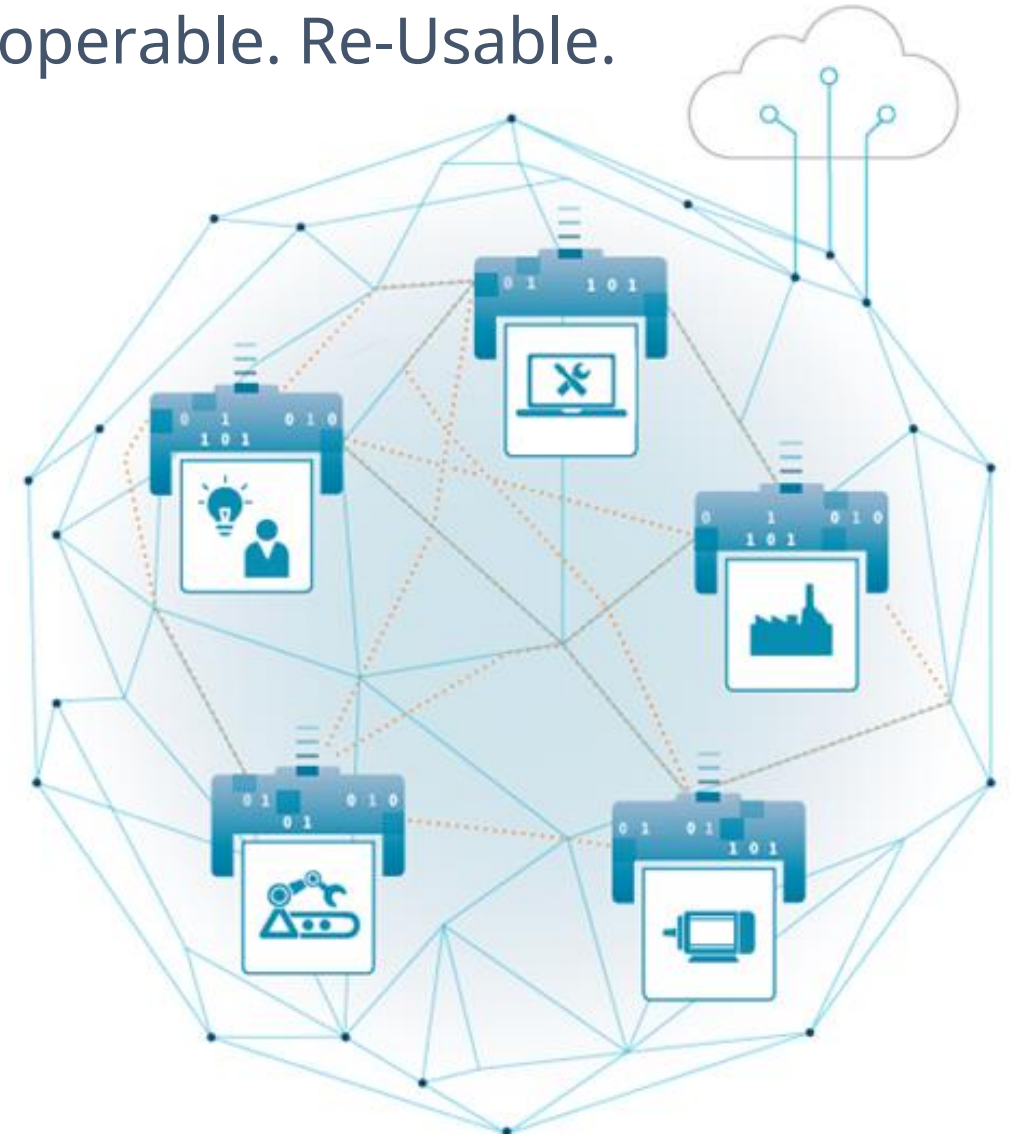
IEC 61406 ID

Die AAS Asset Administration Shell des WoT Web of Things.

FAIRdata im WoT: Findable. Accessible. Interoperable. Re-Usable.

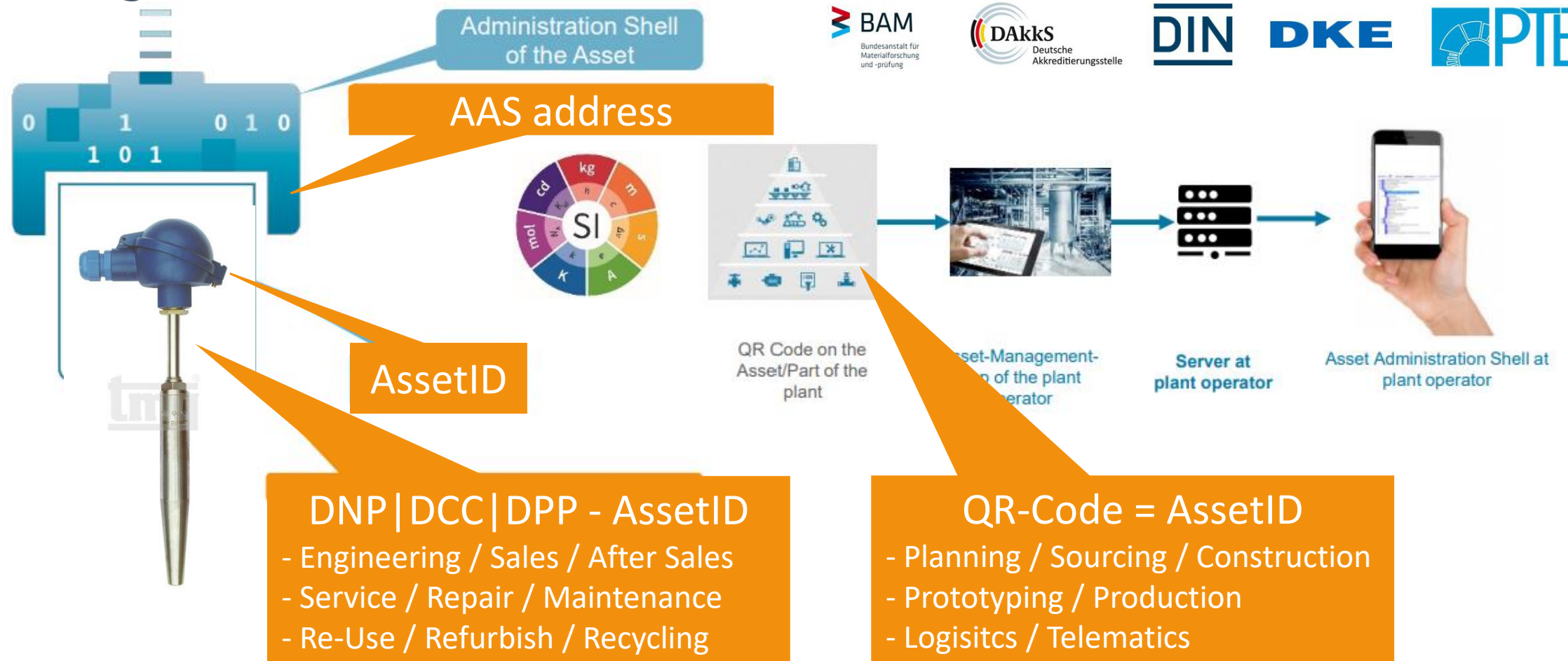


IEC 61406 ID



Die AAS. Home of the Product & its DPP Digital Product Passport.

Seit 2019 viel paralleles „Zeug“. Seit 2023 ist der DPP in der DIN/DKE/VDE Normung.



Die AAS – Home of the DPP Digital Product Passport.

Die AAS & der DPP – an einer Stelle alles einheitlich verfügbar machen.



DPP Product Passport

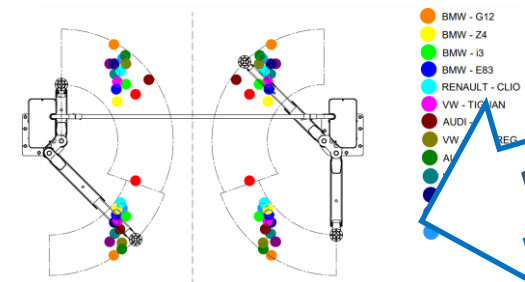
Manuals | Parts | Repair

3D | AR | VR Services

How to use?

Sales & Prices

More Details.



The AAS Asset Administration Shell as a tool for interoperability

Uniform standards – a prerequisite for digitized production

Common data.
Common rules.
Common language.
Understanding.
Semantification.
Datafication.
Technology.
Culture.
Society.

#1 | Motivation & „Big Picture“ Manufacturing-X. Make Data Work. 9 / 23 | 100% + |

- Platform owner operates services
- Operating Company of shared/federated

MIX MANUFACTURES PLATFORM INDUSTRIE 4.0

02 | The Asset Administration Shell as a tool for interoperability

Uniform standards – a prerequisite for digitized production

- Common communication structures: network and protocols
- Common rules for cyber security and data protection
- Common language with signs, alphabet, vocabulary, sentence structure, grammar, semantics, pragmatics and culture

Maschine Wort Authentifizierung Komponente
Logistik Sensor Grammatik Bedeutung Logistik
Syntax M2M Zeichen
Bedeutung Identifikation Maschine Bedeutung Komponente
Komponente Standardization M2M Zeichen Wort
Bedeutung Automatisierung Identifikation Verstehen
Wort Zeichen Sicherheit
Sensor Sicherheit Zeichen Syntax Komponente M2M Zeichen
Komponente Zeichen Bedeutung Komponente Grammatik Wort
Bedeutung Grammatik M2M Zeichen Sicherheit Maschine

Grafik © Anna Salari

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02 | The Asset Administration Shell as a tool for interoperability

Interaction of product passport and nameplate

Common understanding in Digital Product Passports and Digital Twins.

Targets:

ONE Asset ID

ONE data format

ONE file format

ONE document version

ONE language automation

ONE document automation

ONE automation

ONE ISO format / common understanding

SI / DIN / ISO Technologies:

ID | GTIN | CDD | ECLASS |

ID | same semantics | same data model

ID | PNG | SVG | PDF | etc.

ID | IEC CDD | ECLASS |

ID | SHA256

DID | DeepL Automation

P2P | Cyclically Education in Teams

DID | EU DataAct | FAIRdata | OData

ONE ISO format for B2B

Contact Details.

Welcome at cdmm GmbH | JENA | Weimarische Str. 15



Michael Hofmann | #derDatist

cdmm GmbH – Founder / CEO

ASA Verband e.V. - Member

Jena Digital e.V. – Founding Member

Open Industrie 4.0 Association – WG „DataSpaces“

Open Industrie 4.0 Association – WG „Standardization/ Semantification“

Workshop-net – Shareholder – WG „ Standardization/ Semantification“

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ONEPDM IN TEAMS

Exactly the same product semantics in every team.

People. Products. Properties.

[Properties | Values | Units]

