

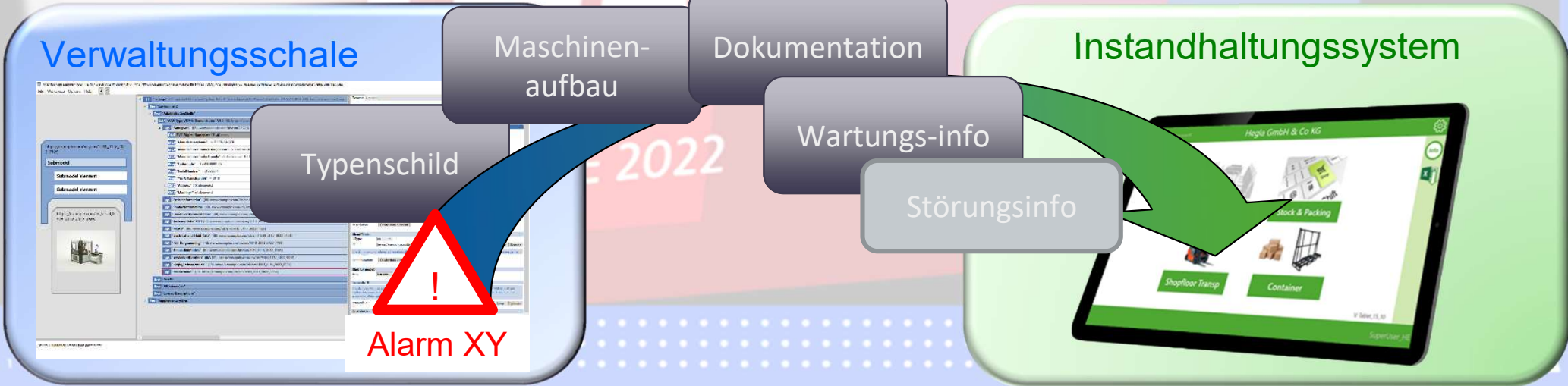


HANNOVER MESSE 2022

Wir zeigen Ihnen an Beispielen was Ihnen Industrie 4.0 bringt ... und wie Sie Ihnen massiv den Pflegeaufwand Ihres Asset Management Systems minimiert!!



IDTA Halle 8 Stand D24





XITASO



Lenze

SYNTEC

bright heads for smart solutions



New Technology
Innovations for Glass

Robotics + Automation

OPC UA Demonstrator

Interoperable Skill Based Vendor Independent

AUTOMATICA 2022 München

How you can benefit from AAS

... by using it to integrate and combine your machine with an Asset Management System

HEGLA®

VDMA Hall B5.318

Asset Admin Shell

Typenschild

Alarm XY

Maschinen-aufbau

Dokumentation

Wartungs-info

Störungsinfo

Asset Management System

Lenze

Agenda

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How you can benefit from AAS

1. Why AAS is a smart concept
2. Our aim
3. How we did it
4. What we achieved

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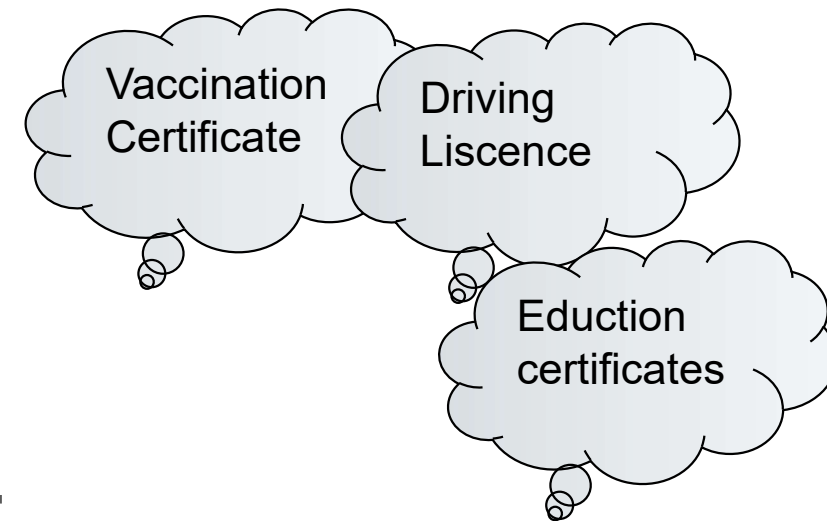
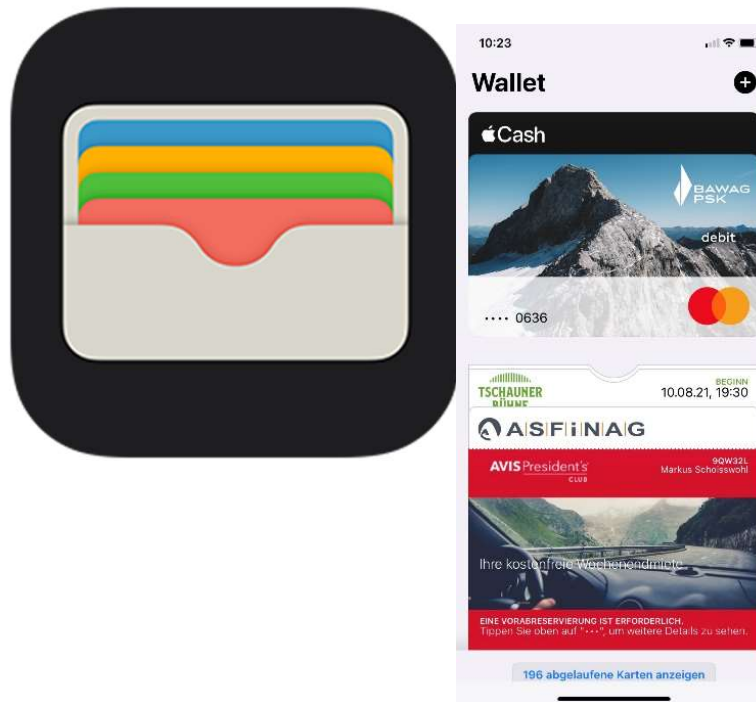
How you can benefit from AAS

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Introduction by the AAS

You all know this Icon

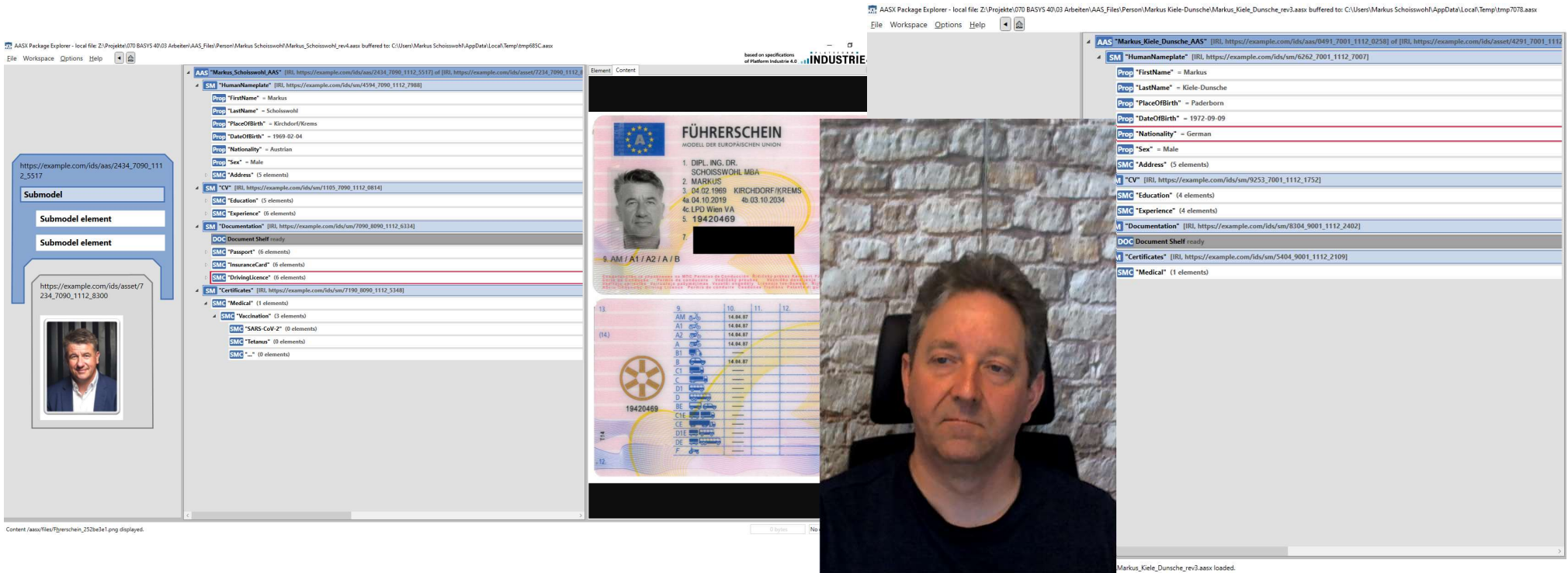
You probably know this Icon and its benefits



... what if it could do even more for you.....

Introduction by the AAS

... then it would be called humanized **Asset Administration Shell AAS**



The screenshot displays the AASX Package Explorer interface. The left pane shows a tree structure of AAS elements for 'Markus_Schwoiswohl_AAS'. The main pane shows the details of the selected 'HumanNameplate' submodel, listing properties like 'FirstName', 'LastName', 'PlaceOfBirth', 'DateOfBirth', 'Nationality', 'Sex', and 'Address'. Below this, other submodels like 'CV', 'Documentation', and 'Certificates' are visible. A central window displays a German driver's license (Führerschein) for Markus Schwoiswohl, including a photo and a table of driving categories. A video call window shows a man, presumably Markus Schwoiswohl, in a dark shirt against a stone wall background.

, what work for humans, works especially well for **Maschinen**

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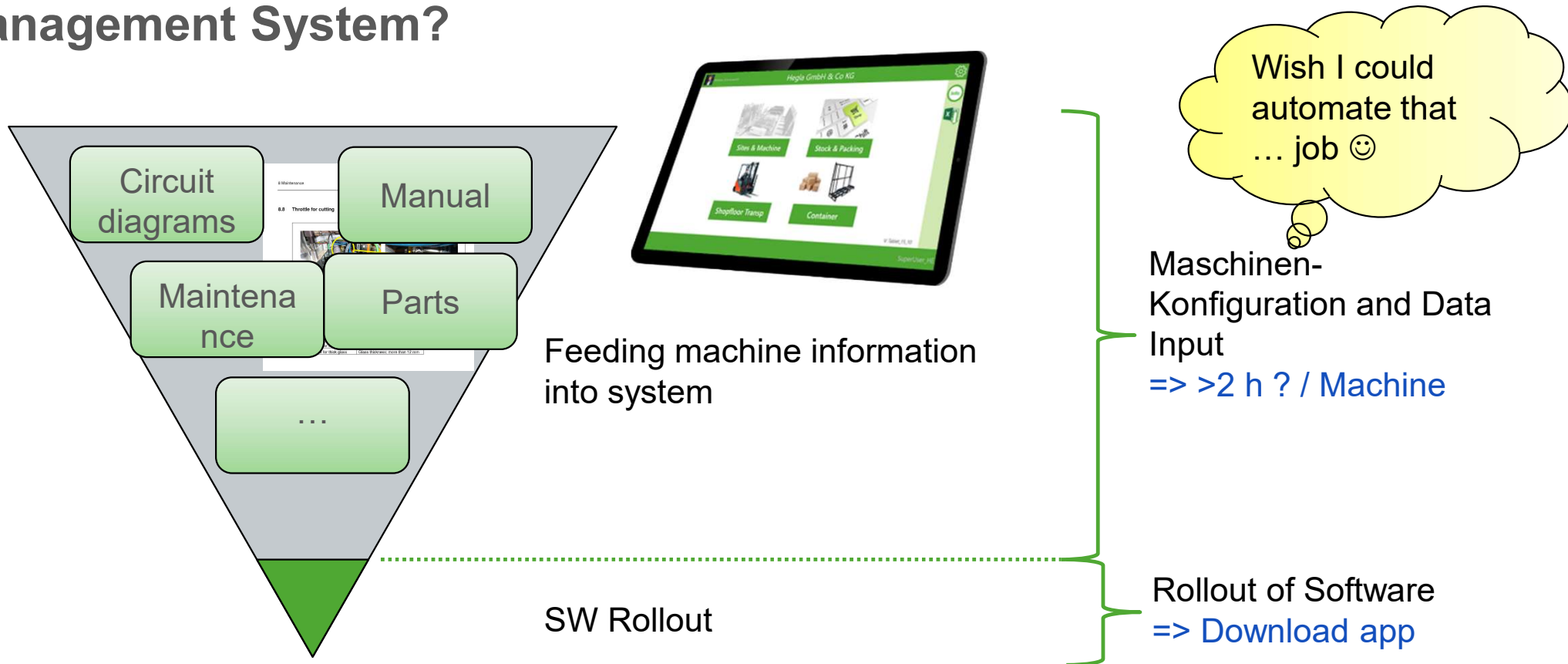
How you can benefit from AAS

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Motivation

The difficulty in setting up Asset Mgmt System

What may be a good motivation of using AASX for feeding an Asset Management System?



Overview & Definitions

The task

Idea:

➤ How can a machine

- A Sorting Picker with 2 Robot Arms from Lenze
- A Spinner-Assembler from VDMA

➤ be integrated into an Asset management system

- Hegla's Shopfloor Assistant

➤ automatically using Asset Admin Shell:

- Using AAS structure and Information to automatically setup configuration,
- Allow integration of data transfer



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How we did it

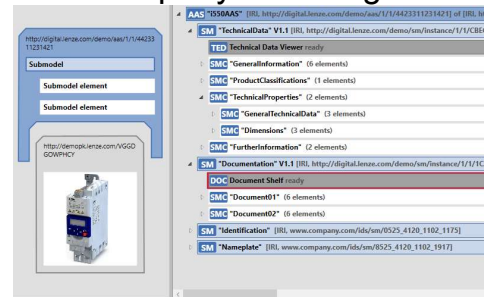
Basis

Lenze Showcase

- Structured Assets
- Related Information to Drives
- Link to Live Data
- Link to Product Information Hub

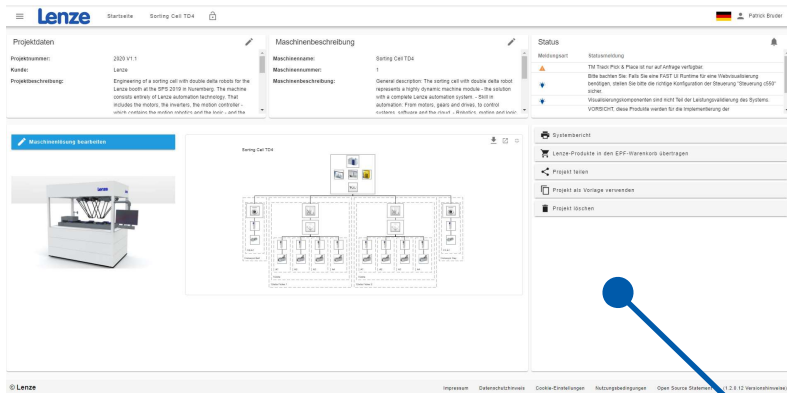
AASX Explorer

... for exemplary modeling of components



Asset Management

... as a target system for information



Lenze Easy System Designer
... as a basis for machine model from engineering phase

Conversion
ESD2AAS

AAS-based
Digital Twin
Server



Lenze Product Information Services

... as a data source for type and manufacturer information



The machine

... as a data source from the plant

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What we achieved

Automatic import

Automatic Import:

➤ of Machine

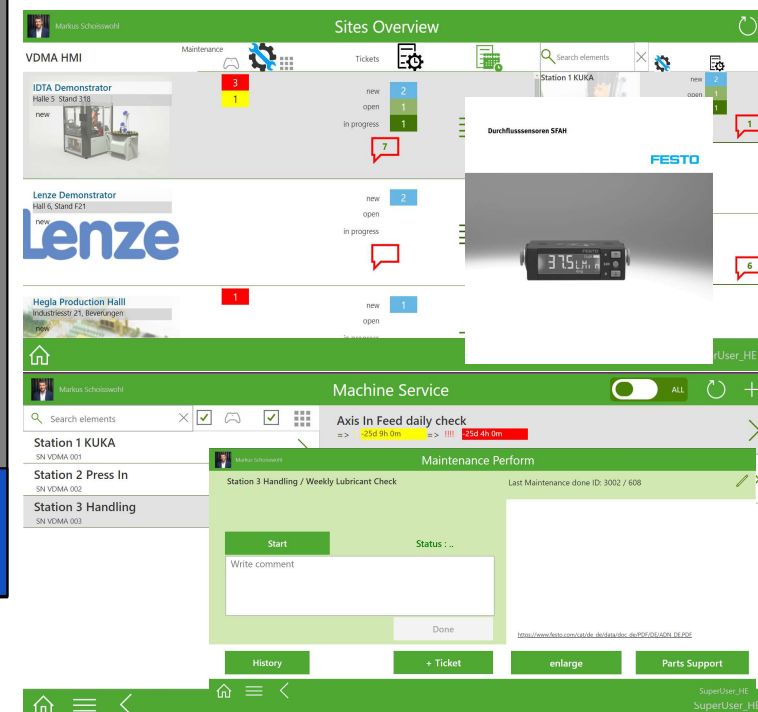
- Machine Name
- Build up
- Relevant machine Documentation
- Maintenance Intervals

➤ is a tremendous benefit!

- Reducing manual work
- Eliminating errors / omissions
- Insuring permanent access to actual data

Effort
without
AAS

using
AAS



AAS to convey Machine problems

Use the AAS (Submodel service order creation) integrate Maschine in Problem solving workflow

... to ease trouble shooting !!



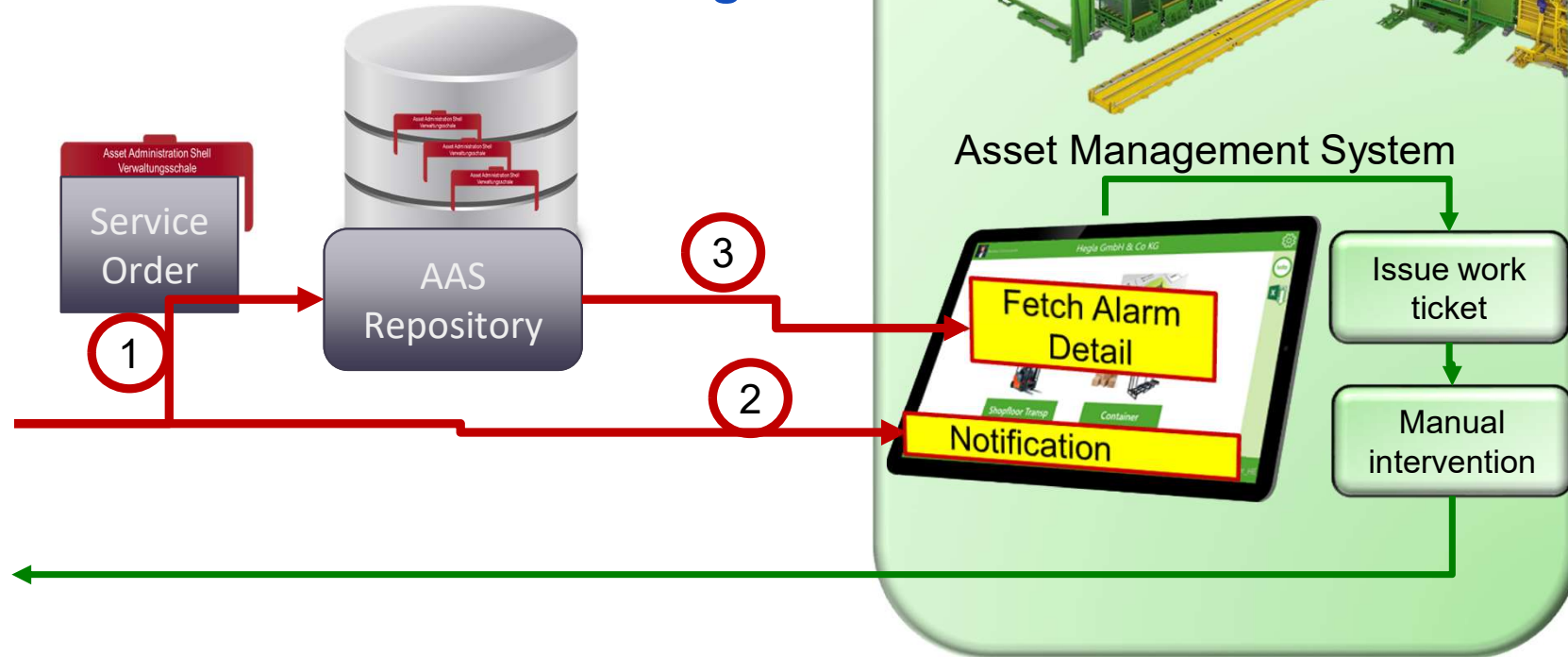
Issue Alarm
Simulate an error and create a service notification



Alarm XY

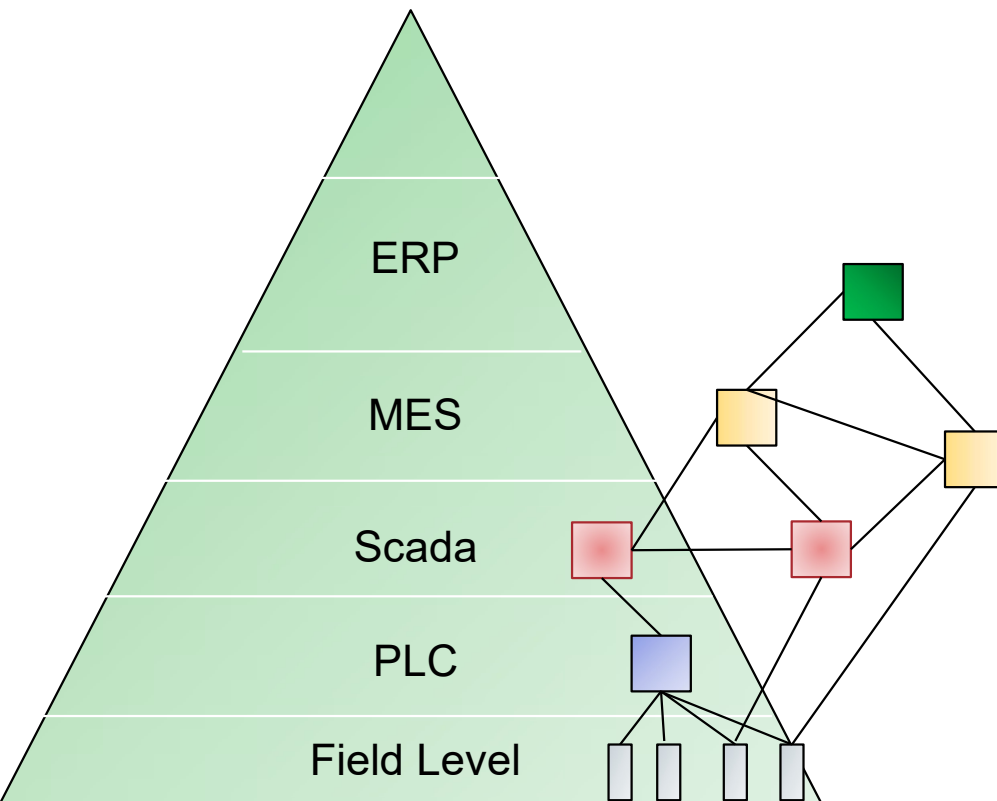


OPC UA VDMA Demonstrator
<https://digitaltwin-vdma.org/>

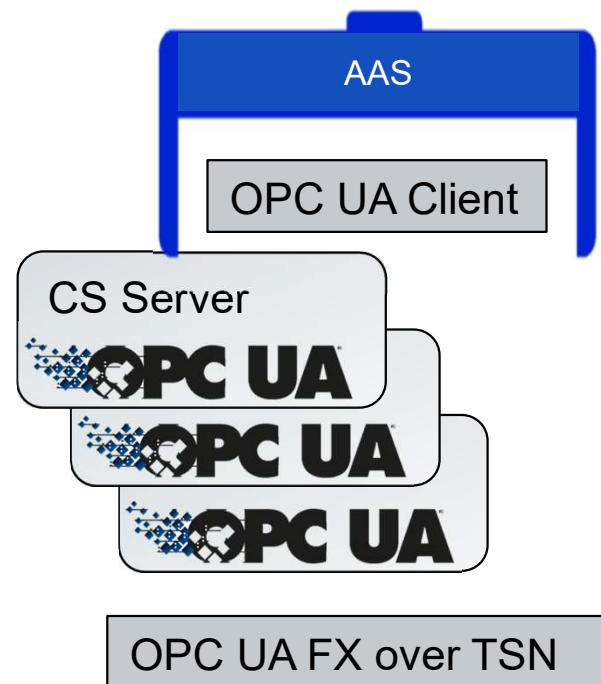


How we see the future of Automation as machine builder

Change in structure



Usefull technologies



Benefit

- ✓ Easy machine integration in organization
- ✓ Seamless machine integration into operation
- ✓ Standardized Fieldbus & connection

What we achieved

Lenze



In summary we achieved

A Living Demo using AAS for

- Connecting machines from different suppliers
- automated import of Machine data to Asset Mgmt System
- Machine Alarming issuing to Asset Mgmt System

... showing the potential of **saving time and cost** for machine administration and speeding up maintenance

...if you want to know more... let me know



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