



## CanvAAS: Connected Assets iNteroperability framework Via AAS

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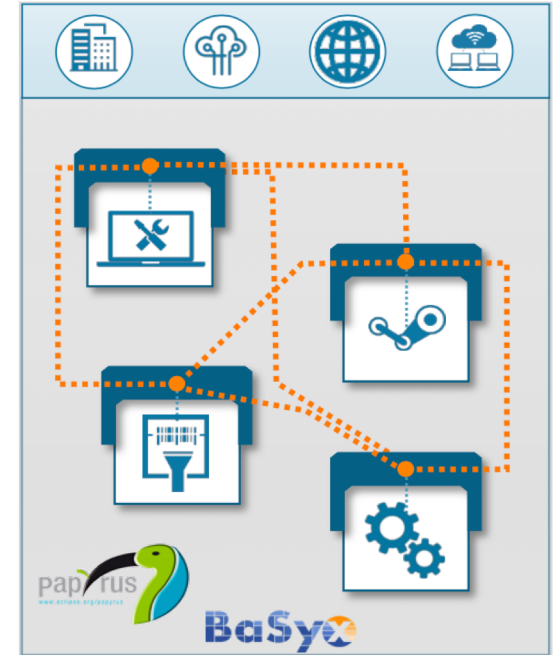
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# What is CanvAAS ?

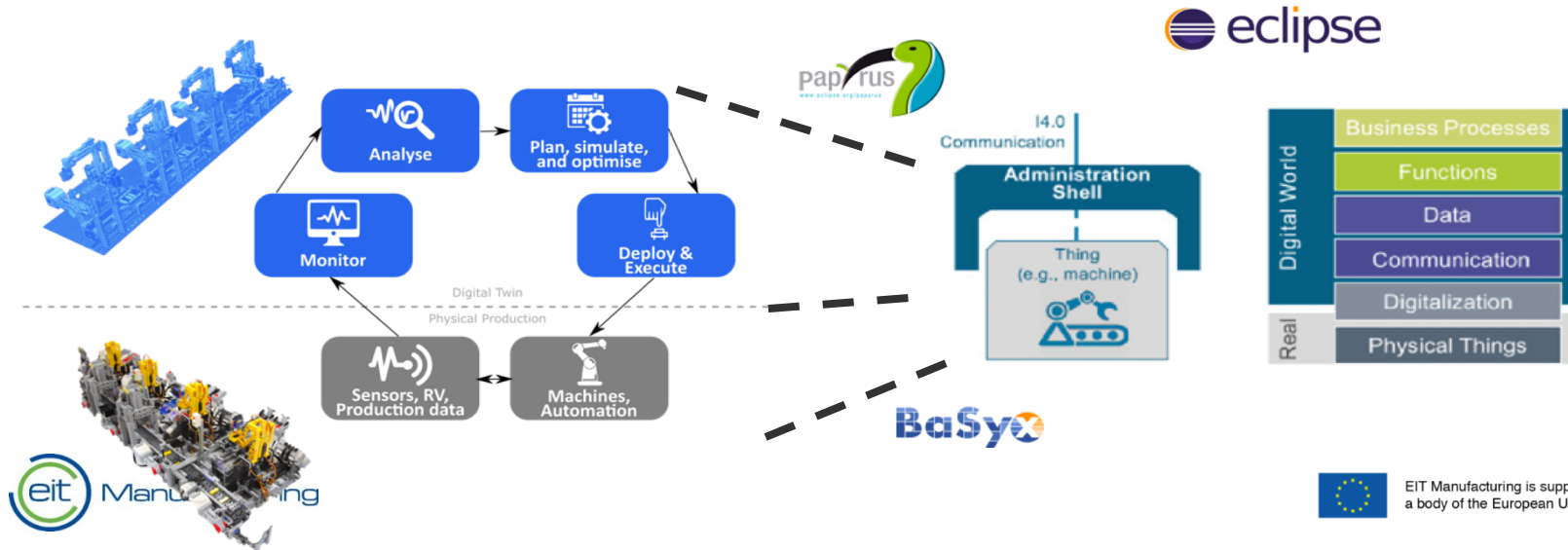
- CanvAAS is an open source implementation tool for the Industrie 4.0 Asset Administration Shell standard
- Validation of the AAS standard for horizontal and vertical interoperability (RAMI 4.0 and ISA95 layers)
- Standard communication protocol: OPC-UA



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# CanvAAS Toolset

- CanvAAS: An user-friendly tool and methodology to plan, design, test and deploy AAS interfaces on the end-user's manufacturing equipment to enable interoperability.

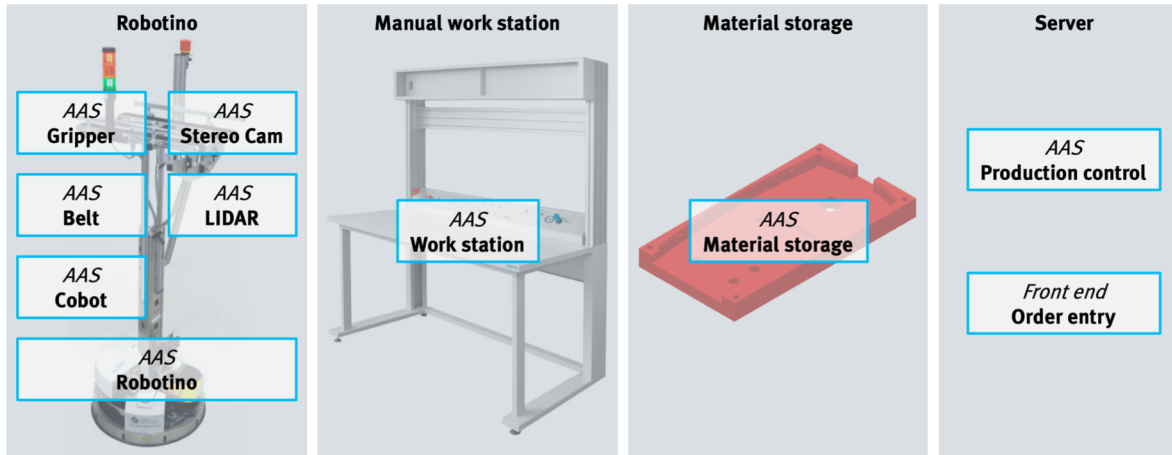


# Demonstration in Didactic Factories and Training course MooC

- A demonstration of the **CanvAAS** tool as an additional feature of Festo Didactic's learning systems for Industry 4.0.
- Festo Didactic will provide a **hands-on training MooC** course based on its learning systems on Industry 4.0 and Industrial Internet of Things.
- The training content will teach **how to deploy the AAS standard on Festo Didactic's automatic guided vehicle platform, Robotino 4**



## Use-Case: Robotino-Addon for AAS

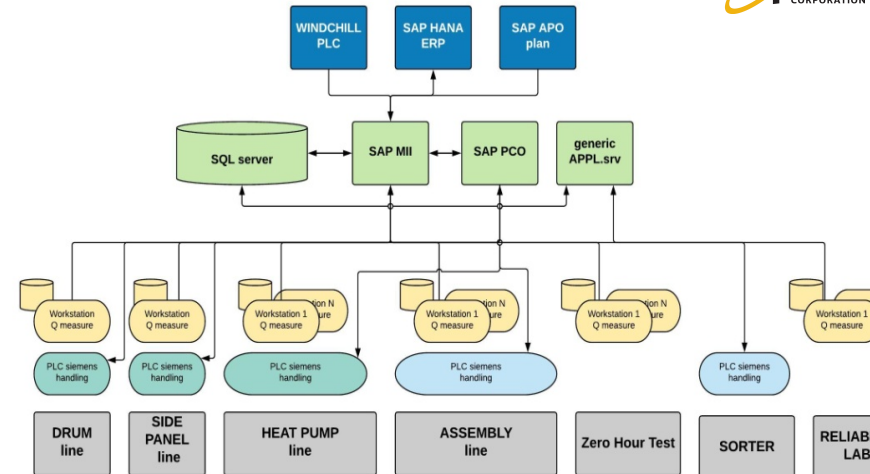


# T4: Demonstration in industrial example: Distributed automation at Whirlpool EMEA

- Develop an AAS for each equipment on the production line
- Map available Info on AAS
- Identify Gaps and opportunities for adopting AAS in three perspective (System Integrator, User/Production, Maintenance)
- Identify a potential operational standard (in cooperation with POLIMI lab)
- Update the WHR General Specification with new requirements



**Whirlpool**  
CORPORATION



# The impact

- Increase the adoption of AAS standard
  - User friendly open-source toolset
  - Training course MooCs
- A toolset allowing interoperability and digital twin implementation
- Business Creation: The CanvAAS toolset will make part of FESTO Didactic's learning systems for their didactic factories

- Impact on social indicators: 20% increase in the skilled workforce ready for Industry 4.0 challenges and state-of-the-art solutions.


# What are the next steps

- Distribution of the CanvAAS toolset as an open source Eclipse project
- CanvAAS 2 will address security by providing access control policies such as encryption and authentication
- CanvAAS 2 will focus on the AAS digital twin implementation for the smart factory by ensuring runtime monitoring





# How do you plan to share your innovation with the world?

- Open source distribution of the CanvAAS Toolset
- Organisation of webinars
- Use of the CanvAAS toolset in POLIMI Industry 4.0 classes
- Use of the CanvAAS toolset in  DIMOFAC
- Two business champions:
  - Festo Didactics
  - Sherpa Engineering