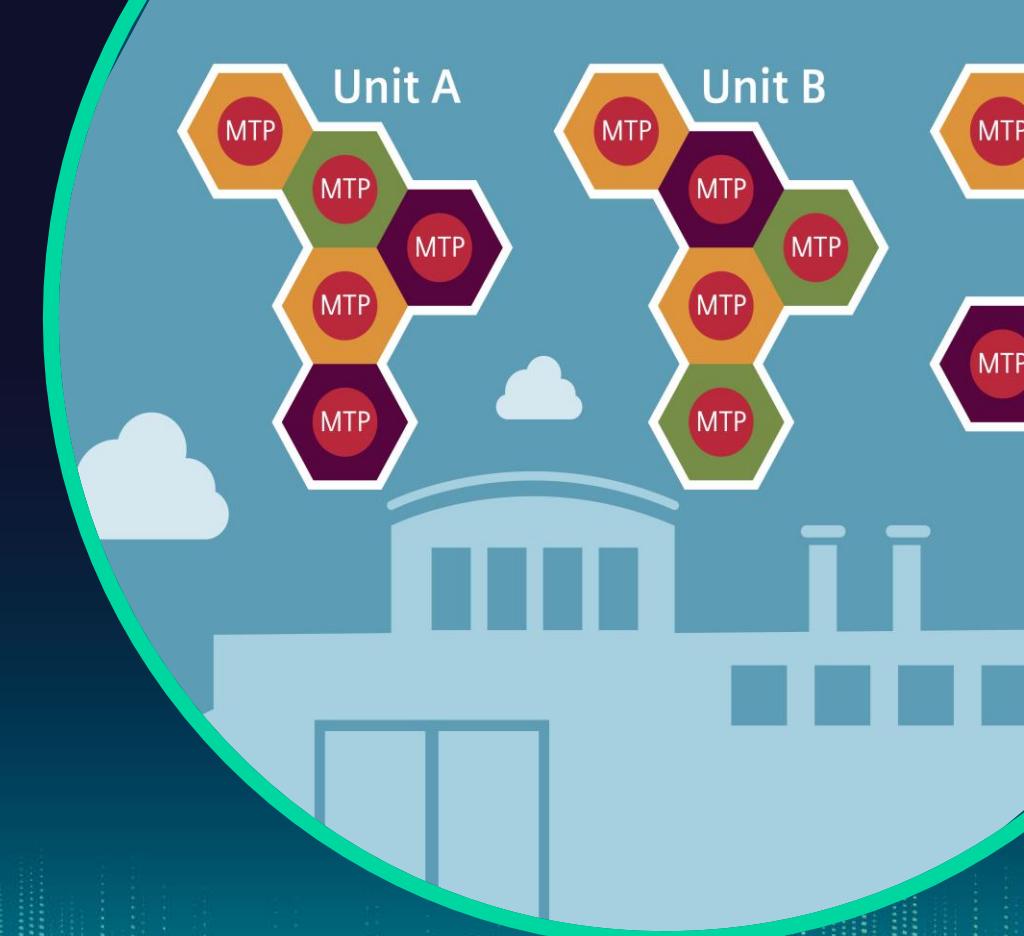


# Få et omstillingsparat procesanlæg med fokus på effektiviteten

Løsningen er Module Type Package



# Dagens værter

Erik Madsen, Technical Account Manager F&B  
Jens Norling Mathiassen, Technology Specialist



# Agenda

Introduktion og baggrund

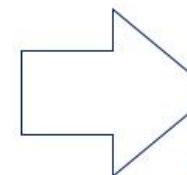
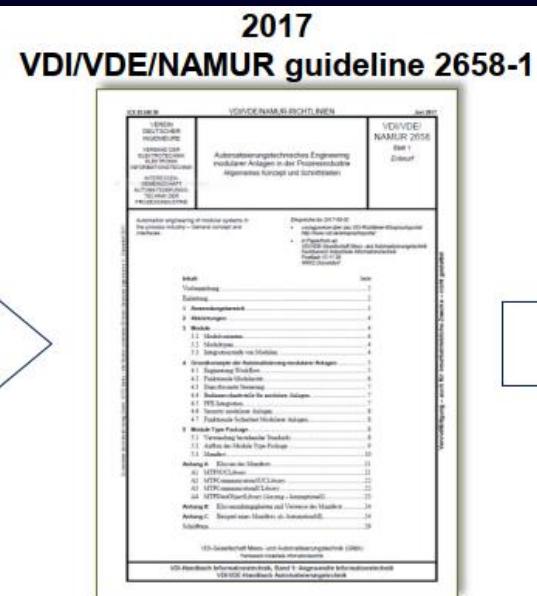
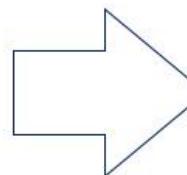
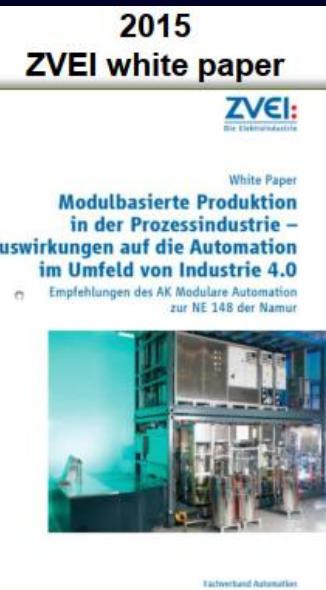
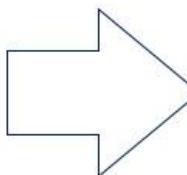
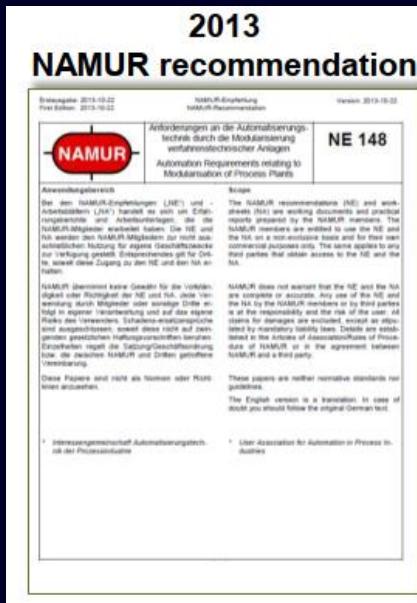
Fremtidigt workflow

Hvad betyder det for dig

Afrunding

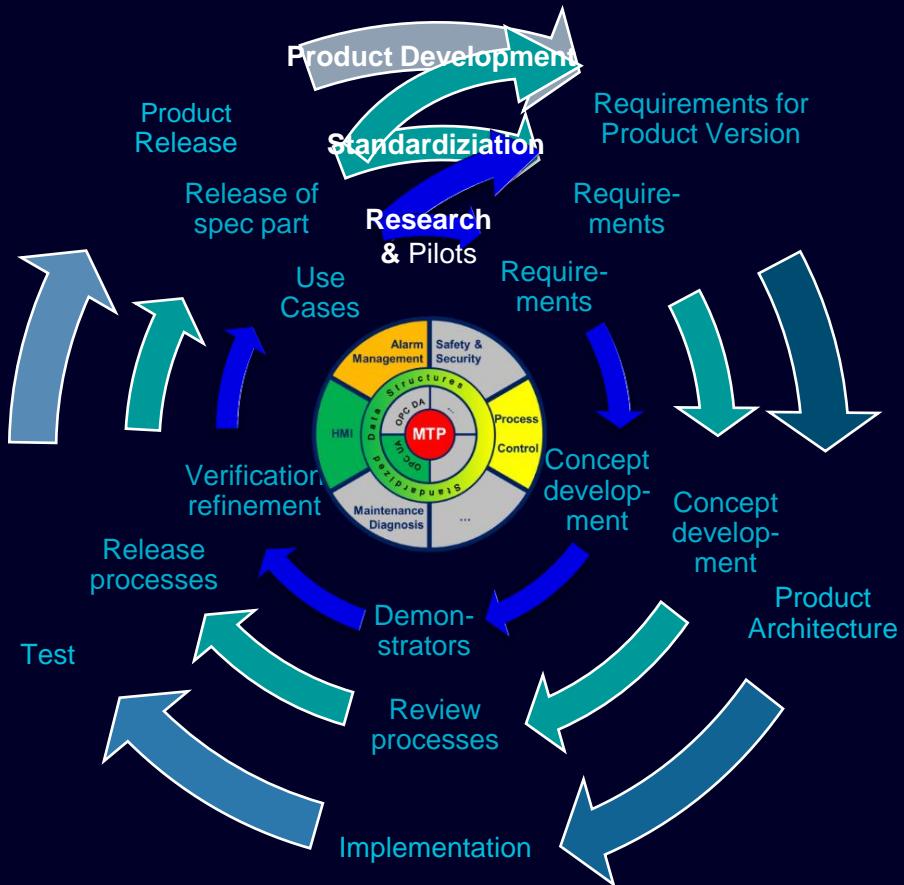
# Modular automation driven by NAMUR and ZVEI

## Collaborate with major Siemens customers and competitors



# Agile Standardization of Modular Automation

A stepwise approach to leverage first benefits before complete standard is ready



## VDI/VDE/NAMUR 2658-1 – Basic Concept

Published

## VDI/VDE/NAMUR 2658-2 – Static HMI Elements

Published

## VDI/VDE/NAMUR 2658-3 – Data Structures for HMI

Published

## VDI/VDE/NAMUR 2658-4 – Process Control

Draft published

## VDI/VDE/NAMUR 2658-5 – Runtime and communication aspects

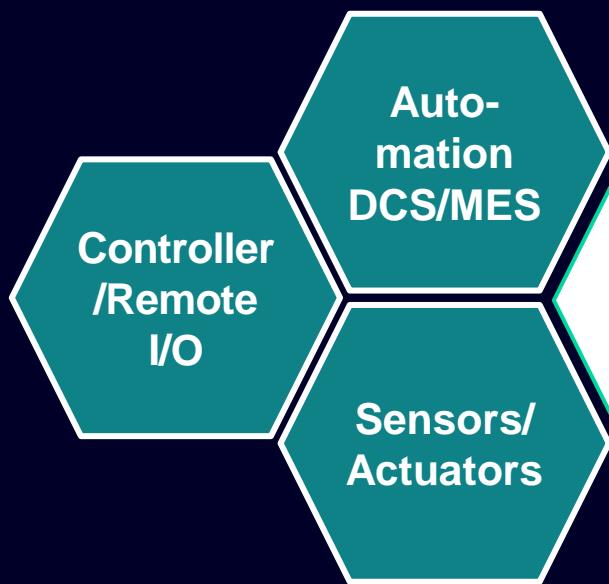
Draft under development

## VDI/VDE/NAMUR 2658-6 – Alarm Management

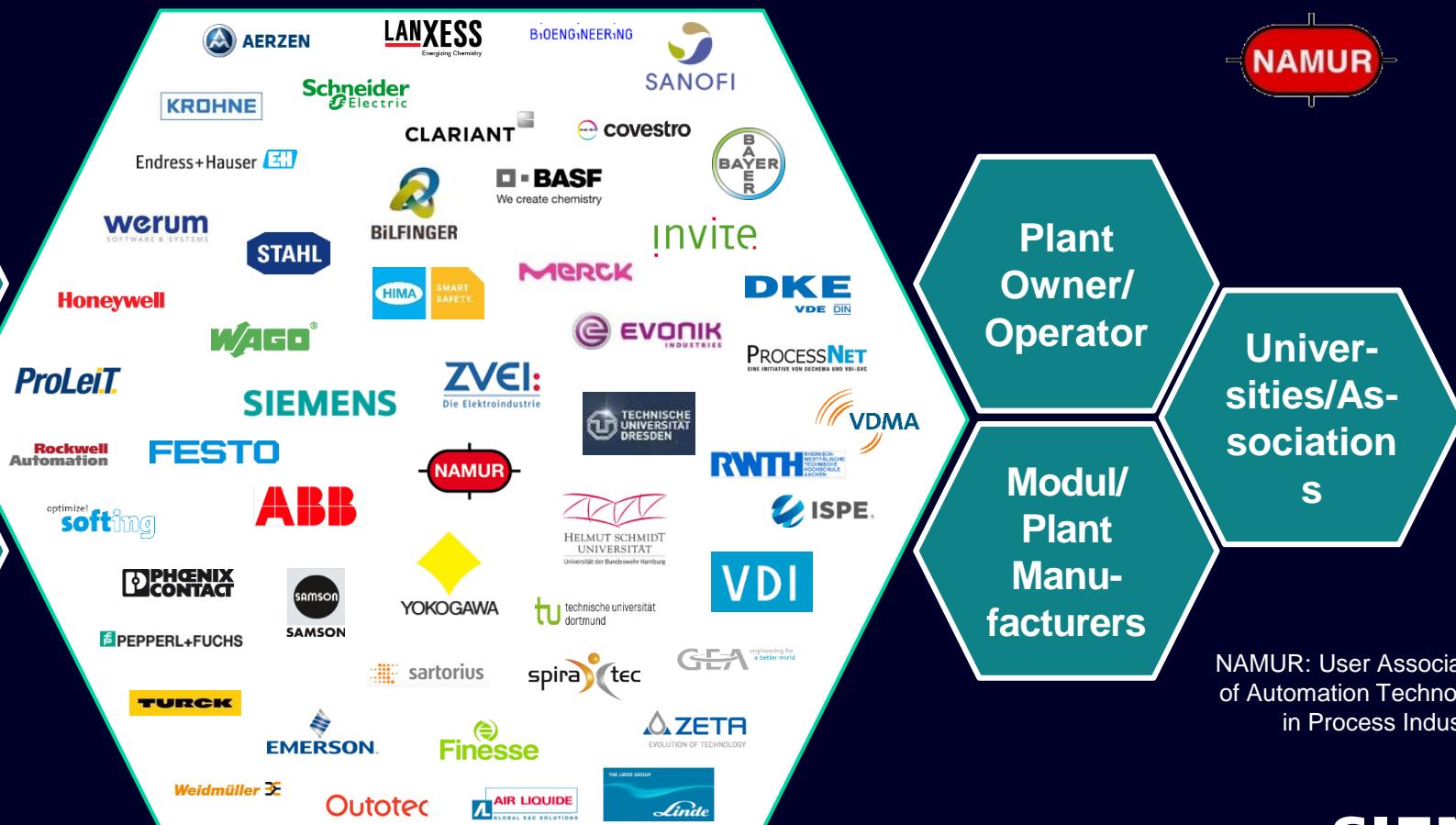
Draft under development

# ZVEI/Namur – Cross-vendor Module Integration – Participating Companies and Organizations

**ZVEI:**



ZVEI: German Electrical  
and Electronic Manufacturers'  
Association



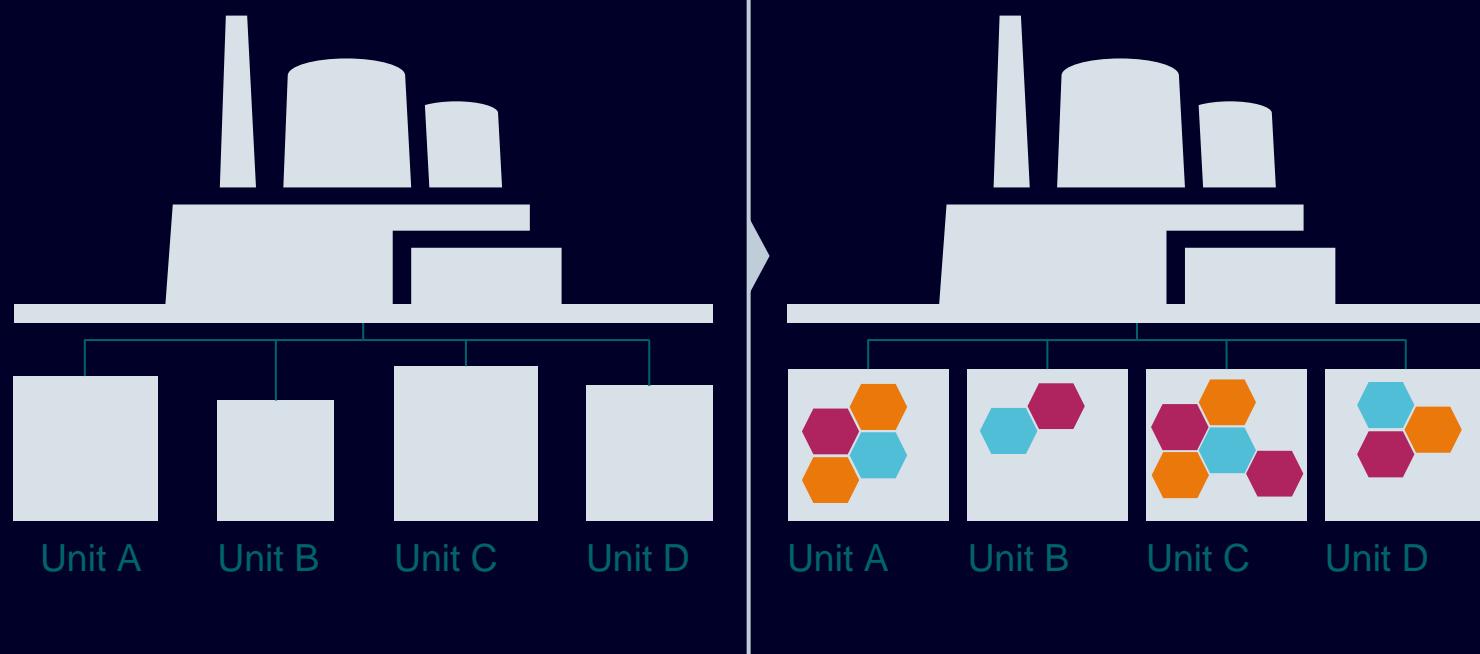
NAMUR: User Association  
of Automation Technology  
in Process Industries

**SIEMENS**

# Modular Production with Module Type Package (MTP) for more flexibility and shorter time-to-market

From modularization of a plant ...

... to modular production



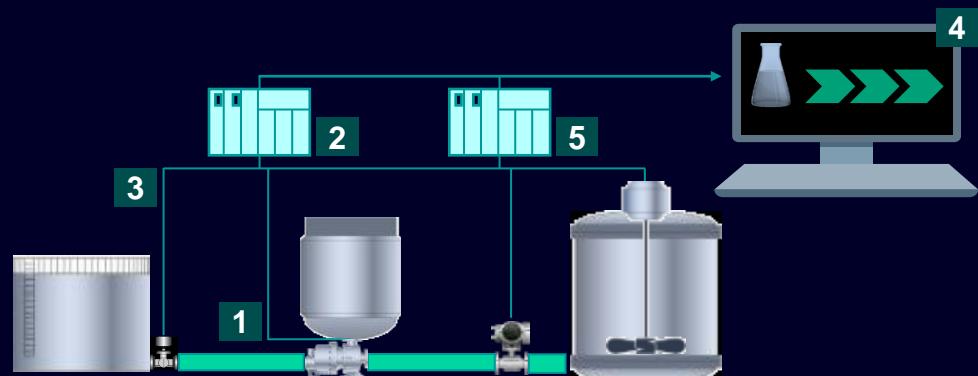
What is  
the benefit ?

- Better interoperability with easy and flexible integration of manufacturer independent process modules
- Plug-and-Produce on the technological level
- Supervisory control of large hierarchical systems, with the comfort of an integrated process control approach

# Modular Production leads to modularization of assets – Modularization of assets requires a new way of automation

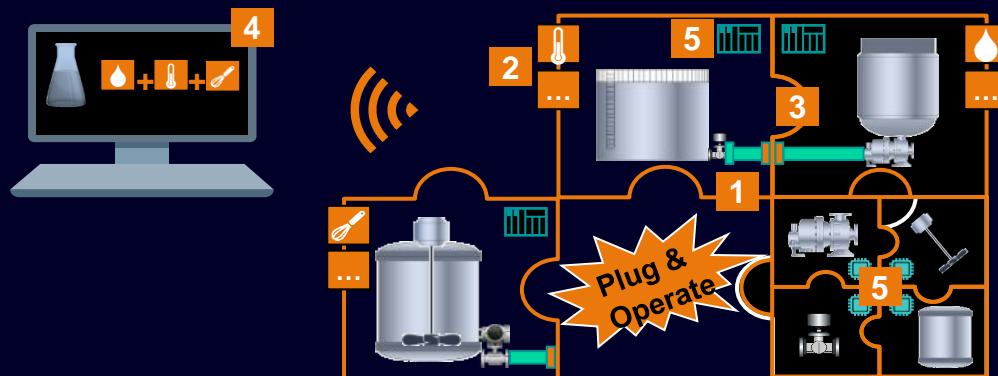
## Automation today

- 1 Manual interconnection and integration of process equipment
- 2 Proprietary SW interfaces
- 3 Different pre-engineered communication channels
- 4 Manual engineering of process sequence
- 5 Centralized large-scale controllers



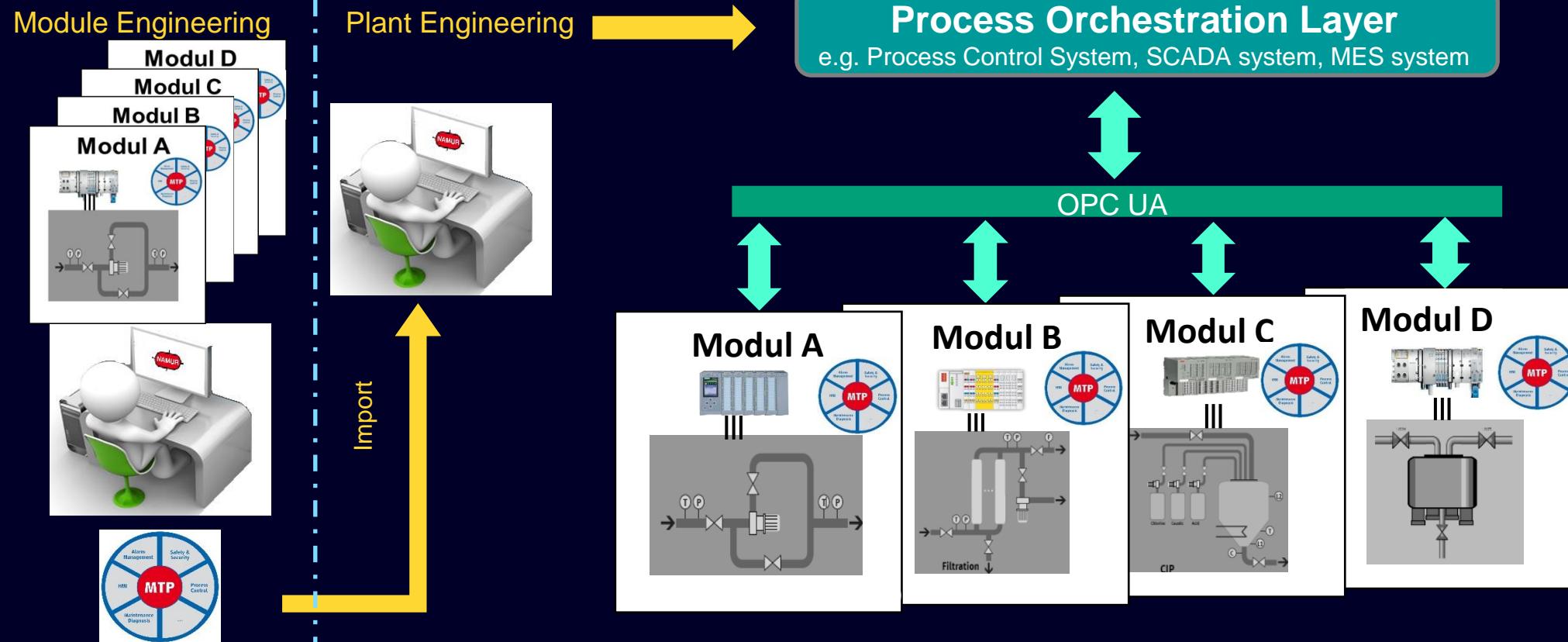
## Future of automation

- 1 Modules with defined physical interfaces
- 2 SW interfaces based on **standardized semantics** (data structures, services, etc.)
- 3 Open and flexible **connectivity frameworks**
- 4 Orchestration of modules via services
- 5 Decentralized intelligence: Modules/components with small controllers



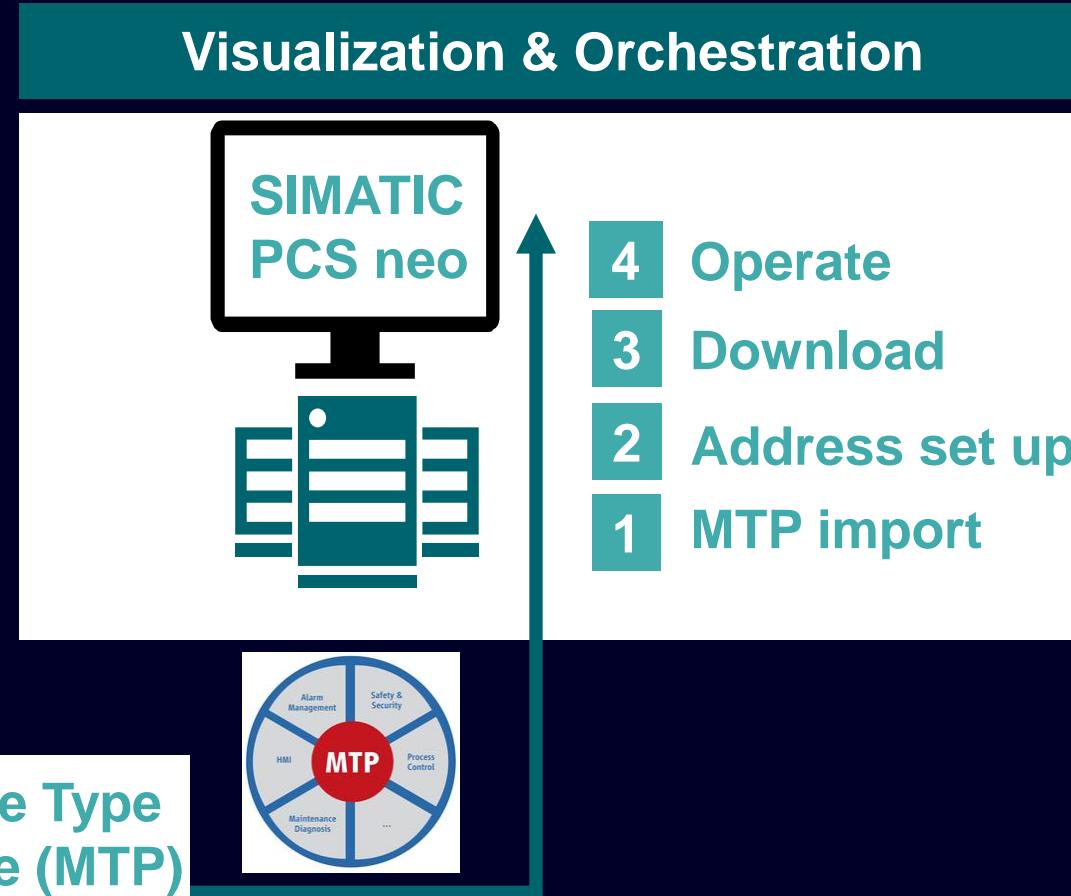
Modular production requires modular automation, which is currently standardized by NAMUR and ZVEI with strong participation of Siemens. First demonstrators are available.

# MTP Concept: Modular Automation



MTP establishes the foundation for a **new way of engineering and automation** in Process Industries

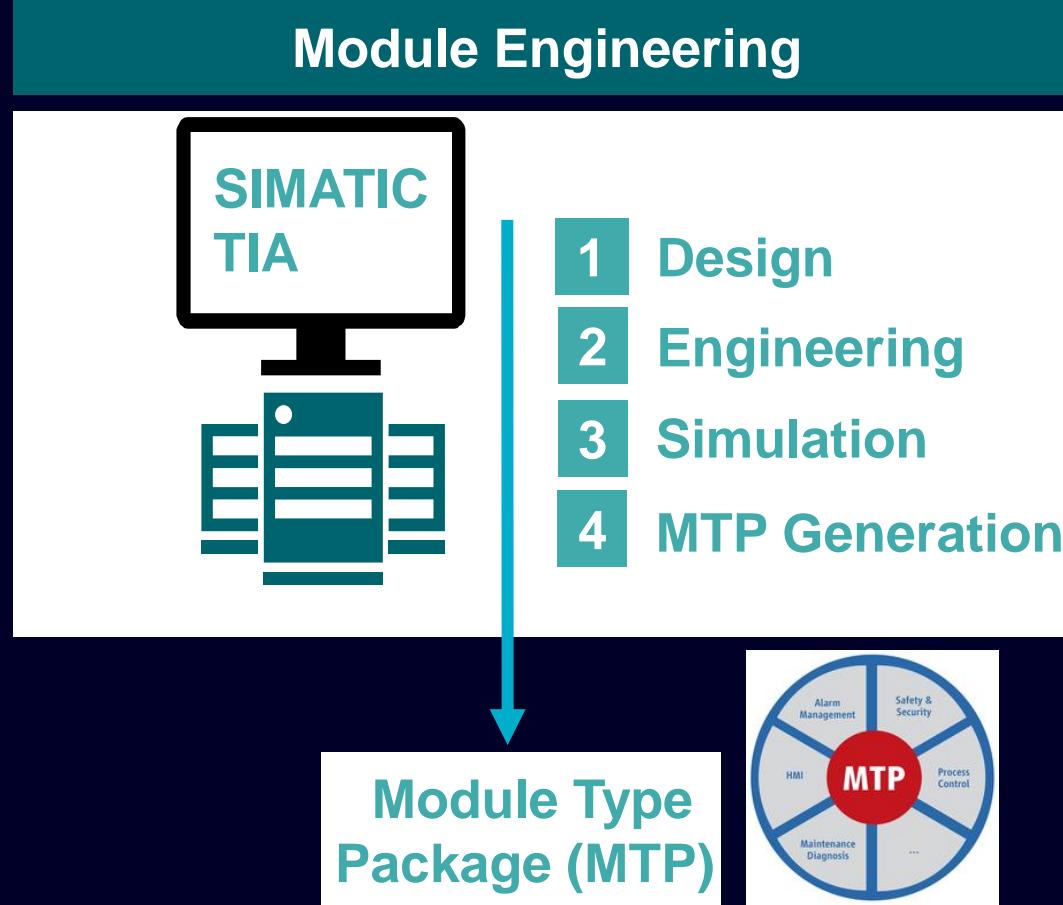
# Workflow Plant Engineering



## How to insert a new MTB unit

1. MTP import
2. Address set up
3. Download
4. Operate

# Workflow Module Building



## How to build a new MTB module

1. Module Design
2. Module Engineering
3. Module Simulation
4. MTP Manifest generation

# Together with Siemens from vision to reality – Based on NAMUR recommendation NE 148



Centrifugal separator using MTP – promotion  
at Hannover Messe and SPS 2019



Source: Namur; ProcessNet; ZVEI

# Motivation – MTP as driver for shorter time-to-market and increased flexibility in several industries

Chemical



Pharma



Glass



Water and Waste Water



Food & Beverage



Traditionally DCS oriented industries expect increased flexibility and shorter time to market by **modular production**

Traditionally PLC/SCADA oriented industries with OEM-footprint expect faster **machine integration**

**MTP standardization (VDI/VDE/NAMUR 2658) is driven by NAMUR1 and is spreading fast to further industries**

<sup>1</sup> NAMUR: User Association of Automation Technology in Process Industries, primarily chemical and pharmaceutical industries

# Process Module Manufacture

## Your benefits

- New delivery scope enables new business opportunities
- Reduced costs thanks to standardization of module automation supplier
- Shorter time-to-market thanks to faster development of process modules and reduced interface efforts



# Plant Operator

## Your benefits

- Increase flexibility thanks to faster module orchestration
- Reduced risk and costs due to standardized interfaces
- Shorter time-to-market thanks enabling faster commissioning and easy module integration



# Related links

## Media

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Siemens webpage

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## Link

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[www.siemens.com/modular-production](http://www.siemens.com/modular-production)

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ZVEI status report 19/02

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<https://bit.ly/32rkJT0>

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Hannover fair 2019: Quo vadis process industries  
? NAMUR, GEA, Siemens panel discussion

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<https://www.youtube.com/watch?v=GnTpivnKkQ0>

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Lots of interesting reading

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Google: „namur mtp“, „VDE 2658“, „modular type package“

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# | Kontakt

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Jens Norling Mathiassen

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Fredag den 30. oktober 2020 kl. 11.00

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UDKOMMER 8-10 GANGE OM ÅRET

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