

COMPAS VIRTUAL TESTBED COMBED

FOR DEVELOPMENT & TESTING OF SMART MANUFACTURING MANAGEMENT

COMPAS SMART DIGITAL FACTORY

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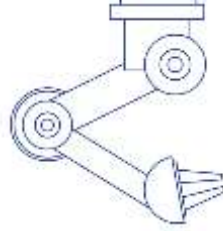
Automotive



Plastics and rubber



Mechanical engineering



Video-profile : <https://youtu.be/rhgrmsWkwYE>

Compas engineering activities:

Process automation

/ [automation of discrete and batch technologies](#)

Mechanical engineering

/ construction of machines and lines, [applications of robotics](#)

Manufacturing Execution Systems

/ [IT for manufacturing, logistics and maintenance](#)



Pharma and API



Food and beverages

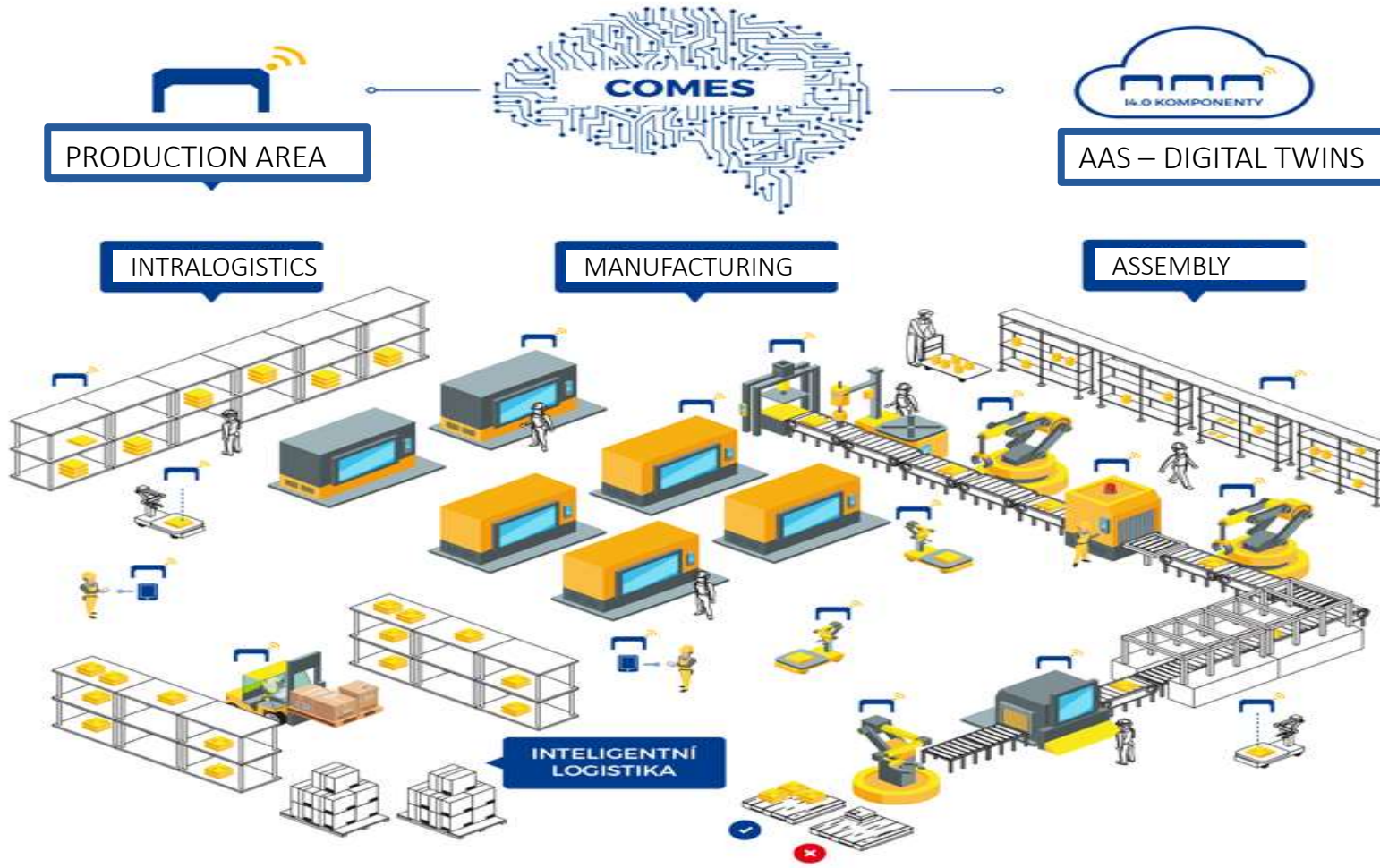


www.compas.cz/en

www.compas-robotika.cz/en

<https://www.comes.eu/en>

Development and testing solutions for digital manufacturing management → Compas smart digital factory



COMBED COMPONENTS

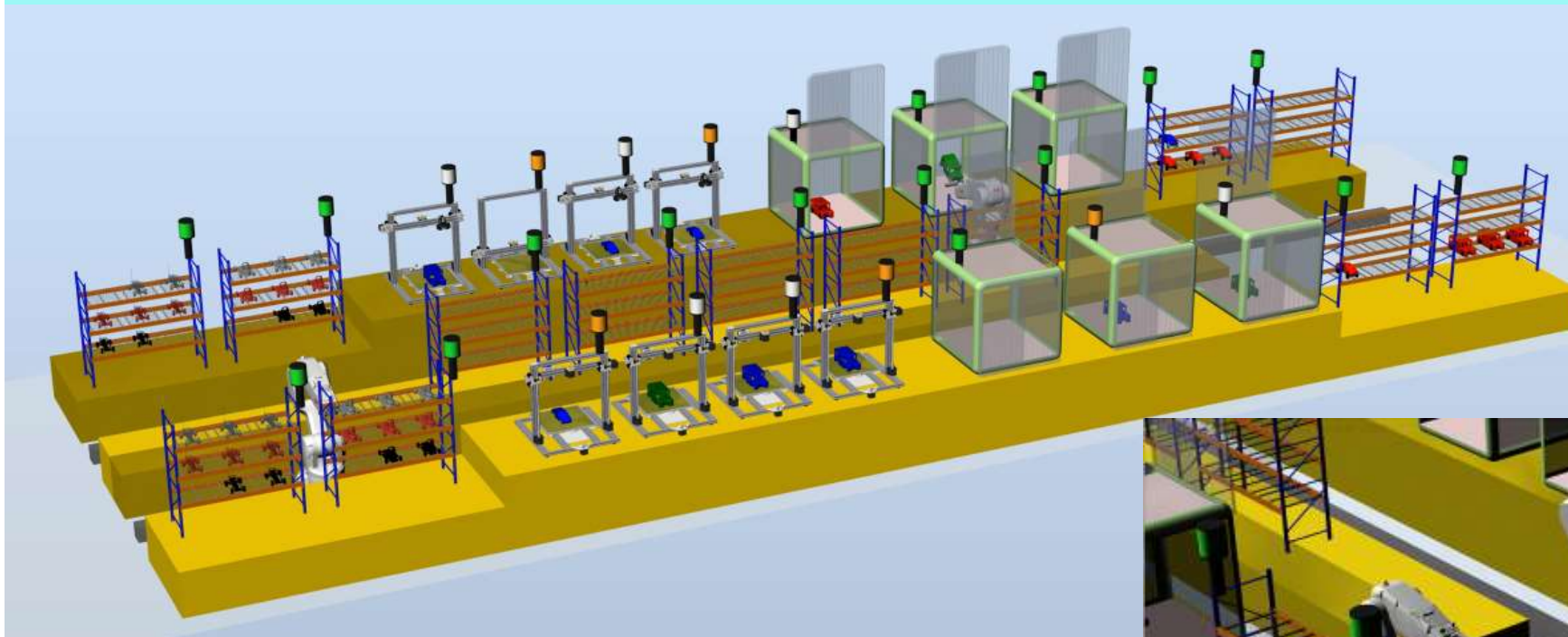
1. HW – PC

- ❖ Powerfull graphic – game PC

2. SW – application

- ❖ Animation - ABB Robot Studio
- ❖ COMES - parameter settings
(products, orders, ..)
- evaluation of results
- ❖ Application
e.g. Production control using
IIoT digital twins – AAS, incl.
OPC UA communication

COMBED virtual technology



With the option of virtual reality





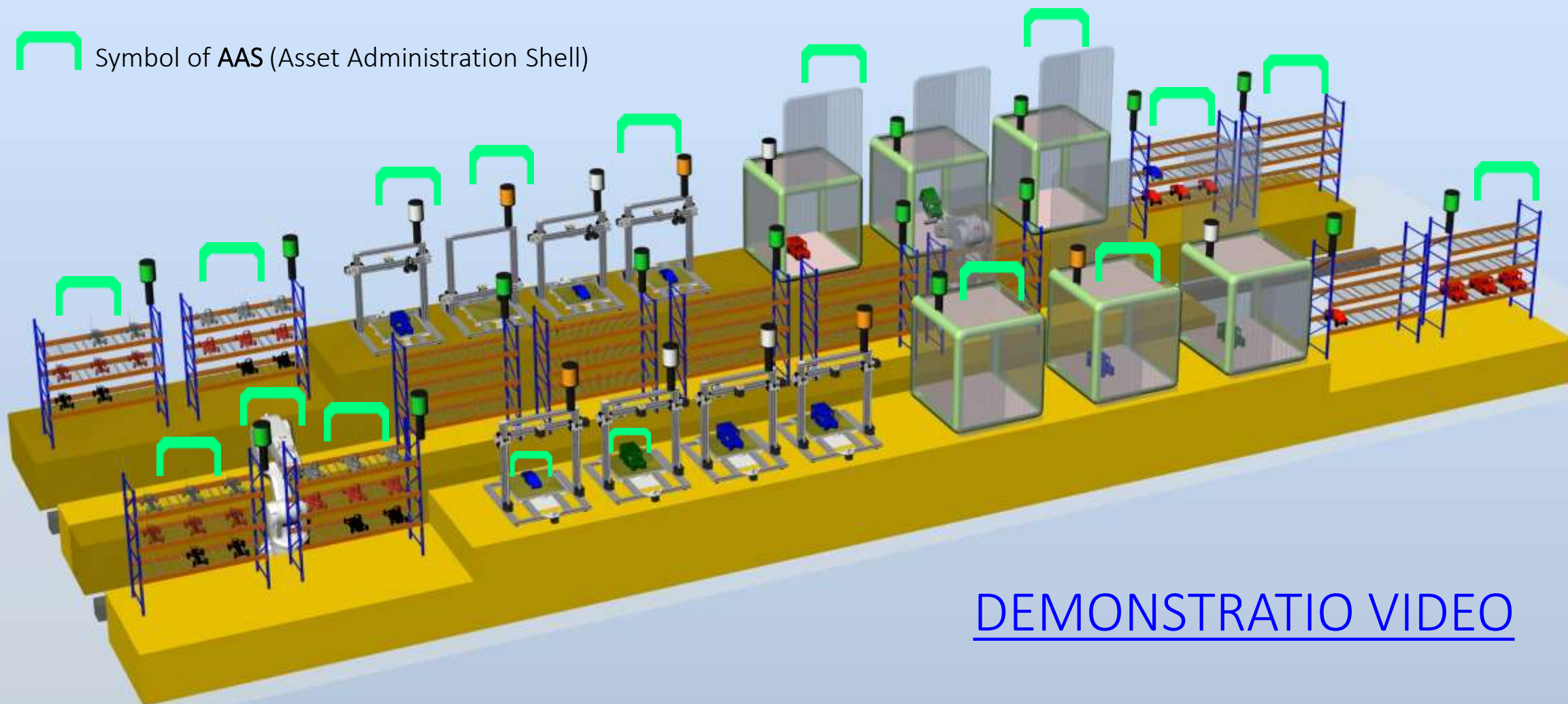
Product-driven production operations + synchronization of internal production logistics

➤ Development of the Smart solution using I4.0 Platform standards

- ✓ Principles of decentral intelligence – digital twins AAS (Asset Administration Shell)
- ✓ Implementation of I4.0 principles
 - Automatic production management with auto-optimization / auto-adaptation in real-time
 - Product control its manufacturing using products specification (operations, parameters, ...)
 - Automatic setup of assets / machines
 - Negotiation = local organization of manufacturing
 - ...

Smart manufacturing management based on Industrie 4.0/AAS - virtual testbed COMBED

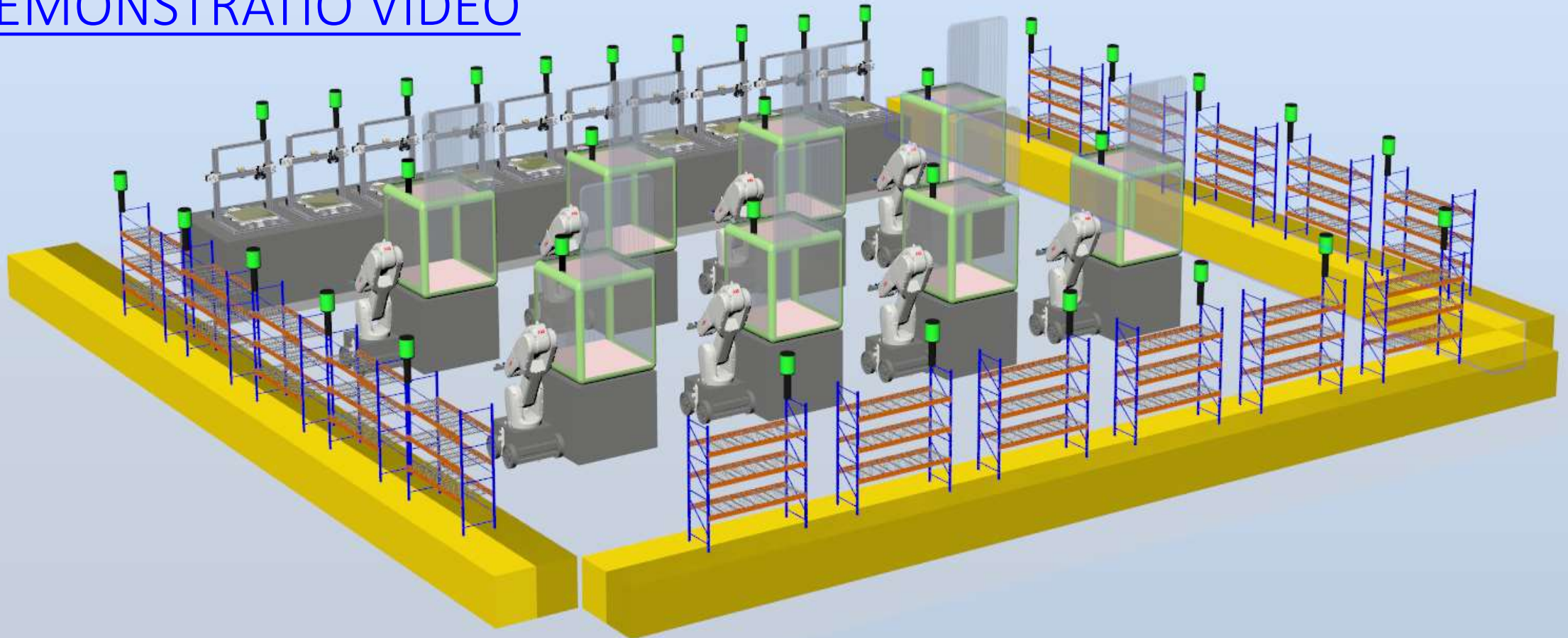
 Symbol of AAS (Asset Administration Shell)



[DEMONSTRATIO VIDEO](#)

Compas virtual testbed could be adapted to customer's plant.
Example: COMBED - mobile robots with free movements on the shop floor.

DEMONSTRATIO VIDEO



ANY QUESTIONS ... ?

For more information see web:

Industrie 4.0

<https://www.compas.cz/en/industry-4-0/> - COMBED 1 & COMBED 2 videos

Compas Digital factory

<https://www.comes.eu/en/concepts-and-applications/263-digital-factory>



www.compas.cz/en www.compas-robotika.cz/en www.comes.eu/en