

Implementing
**Innovations in
Production Processes**
using
Agile Business Models
and
**Technology
Convergence**

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We Innovate Technology

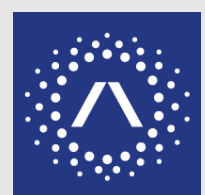
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**Private Engineering Company,
factory focused Integrator
1000 employees
600 engineers**

**Over 50%
Automotive**



Global Operation based on Local Subsidiaries / Local Presence



FULL COMPETENCE STACK for SMART FACTORY

Automation
Simulation
PLC & Robots
Programming,
Commissioning



Robotics
Desing &
Fabrication
of Stations and
Machines



**Automated
Warehousing**
ASRS,
Conveyors,
Shuttles & Lifts



**Continuous
Processes**
Instrumentation
Control Systems,
SCADA



EAM/CMMS
Maintenance
management
IBM Maximo,
Digital Twin



Industrial IoT
Smart Sensors,
Connectivity
IT ecosystems,
BI & AI



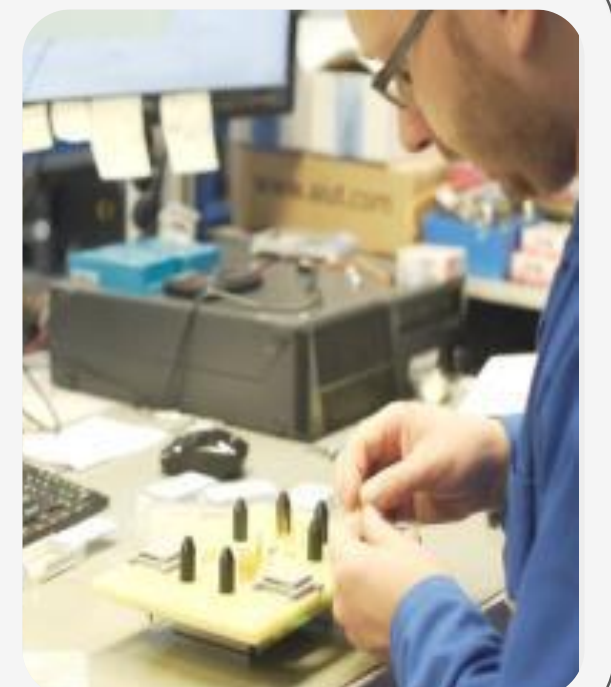
**Electrical
Engineering**
Electrical
Design, Cabinet
Fabrication



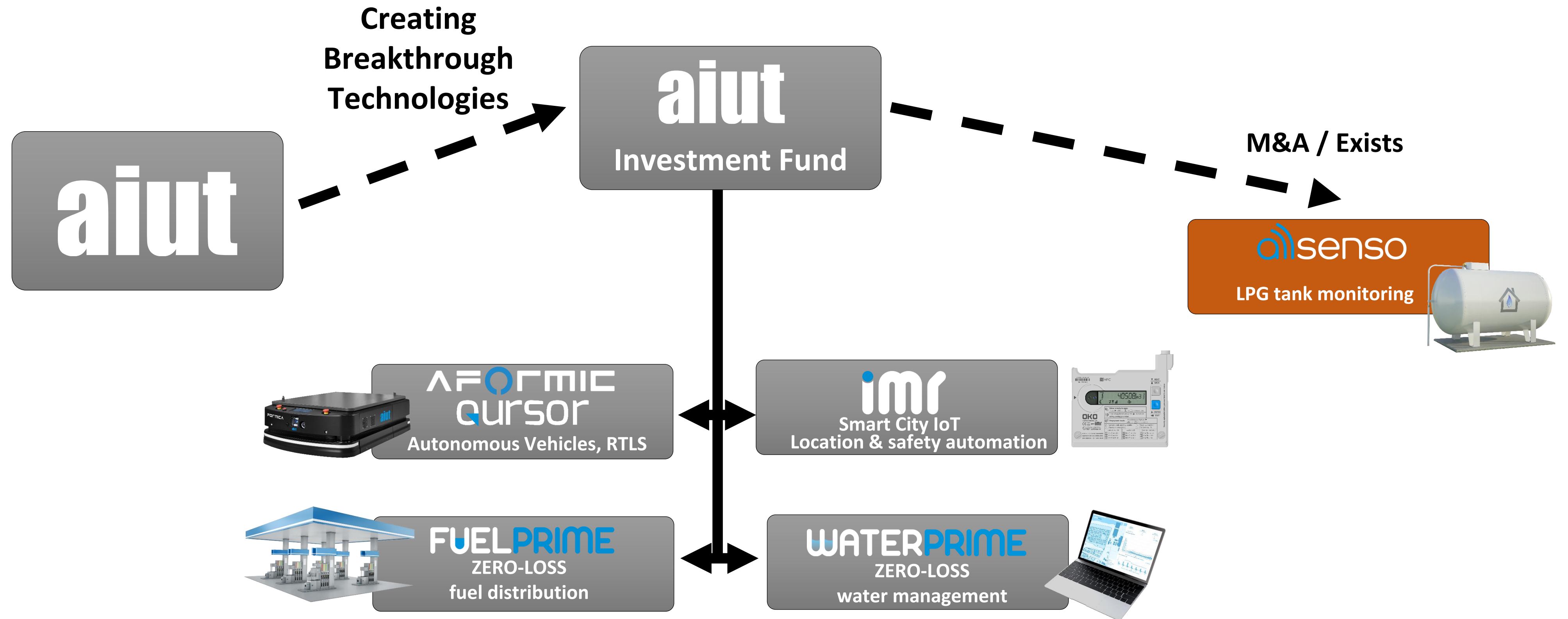
Industry X
Master Plan
Digitization
Production
As a Service



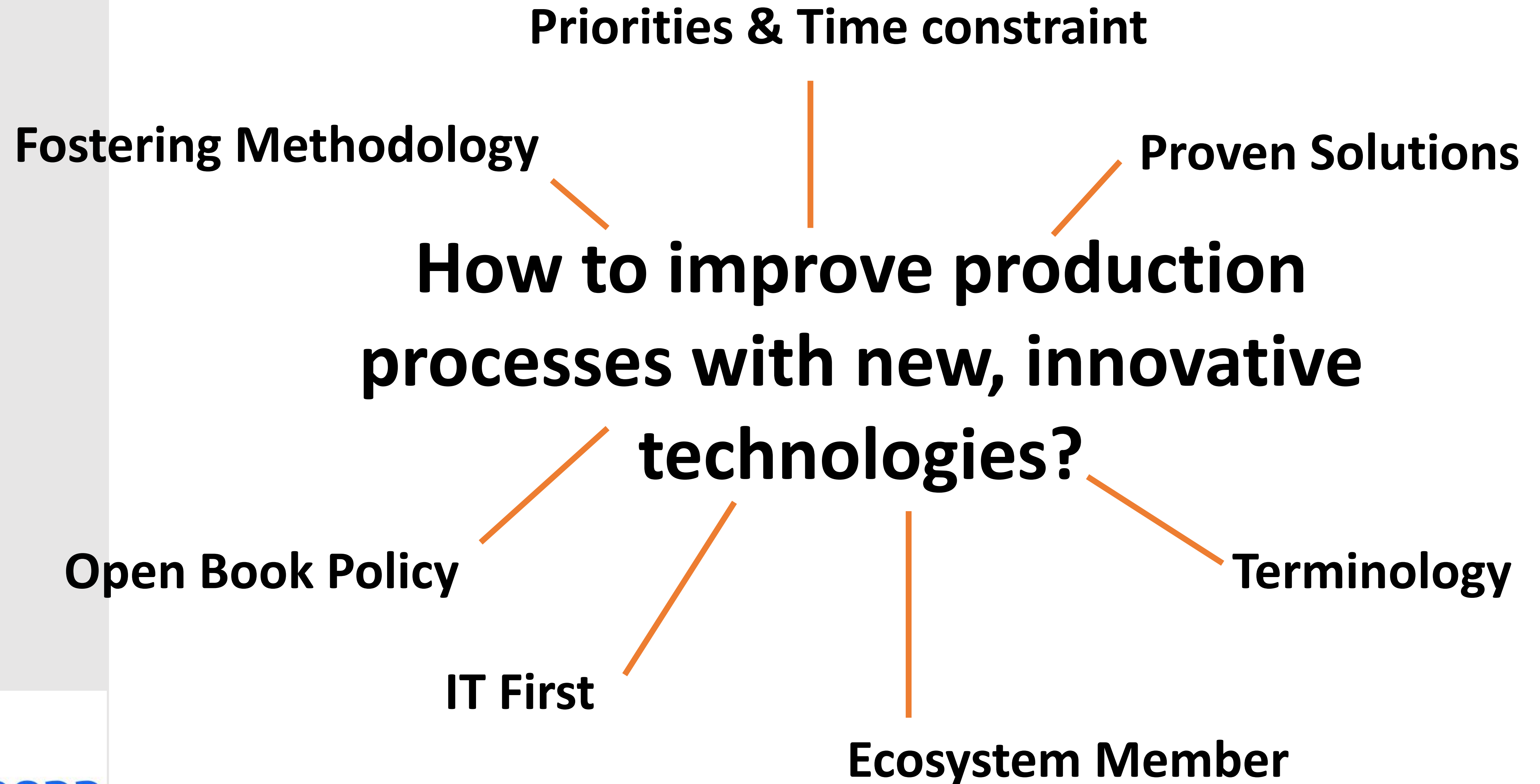
**Electronics
Product
Design &
Development**
QA, Certification,
Industrialization,



Ambition &
Capacity to
Drive
Innovation



After all Engineering is 80% Craft and **20% Art**

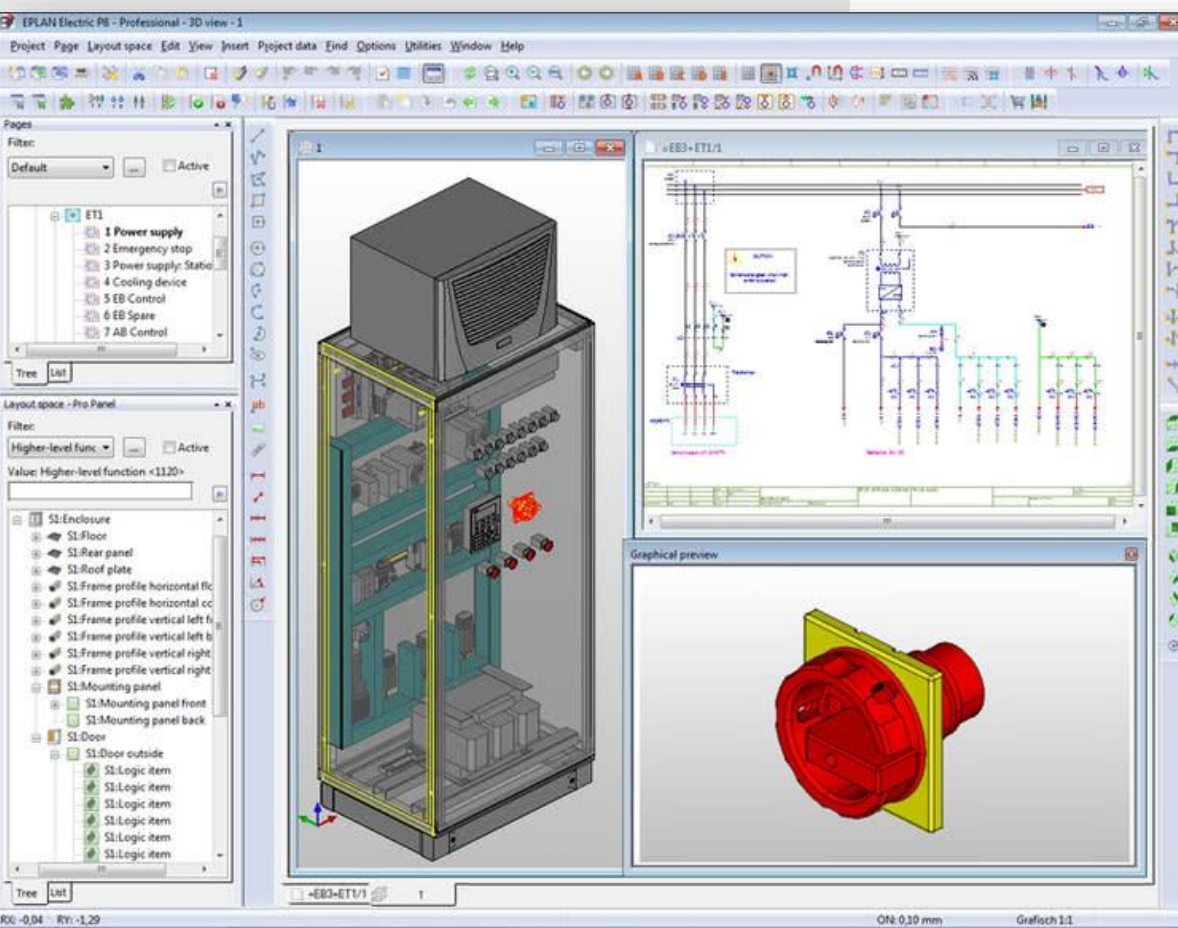




- Supply chain challenges
 - Workforce shortage
 - Economy slow down, demand fluctuations
 - Smaller, more customised production batches
-
- Core Tech project vs I4.0
 - Factory planners can manage only limited number of project
 - Wide range of engineering skills required for I4.0



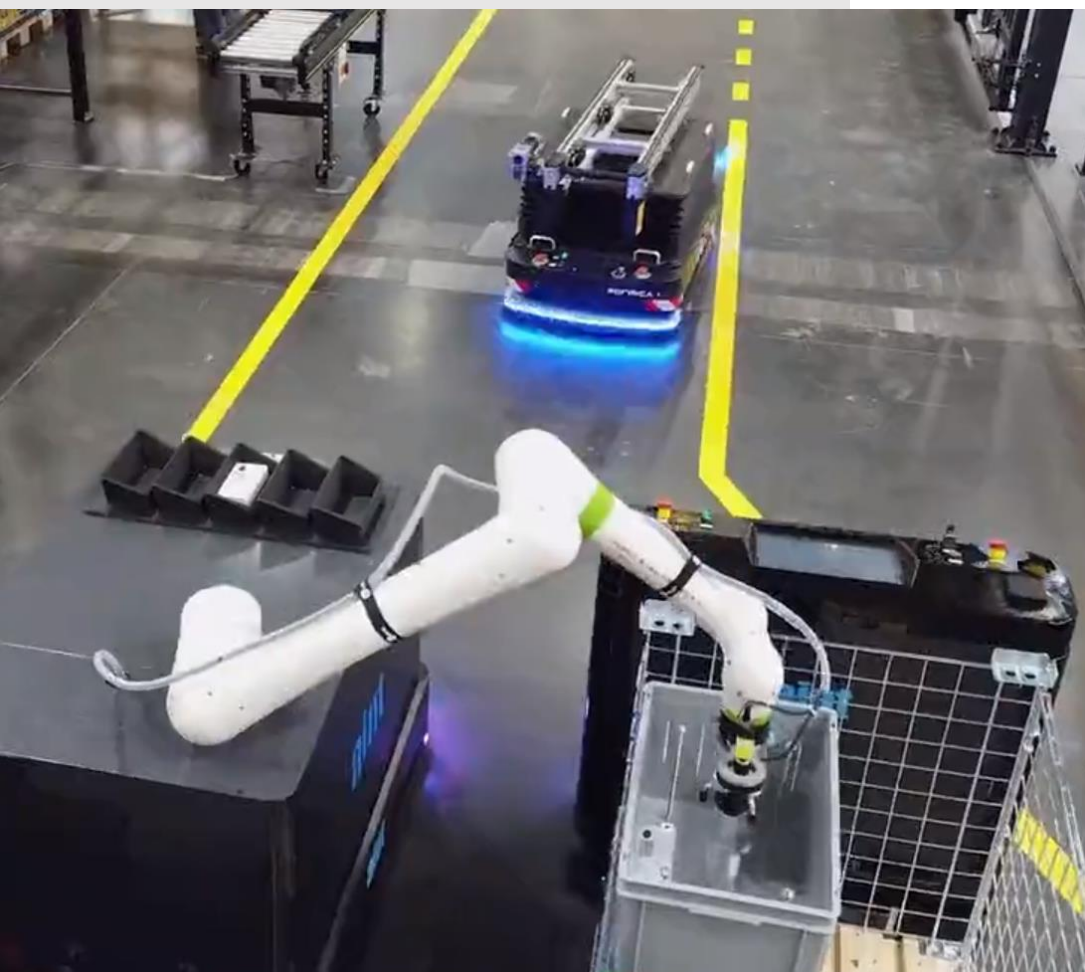
- Tech language hype
- False perception of underdevelopment
- Term definition missing, communication ambiguity
- Wild Wild West – (IT) vendors land grab
- Standardisation far behind the market, early stage



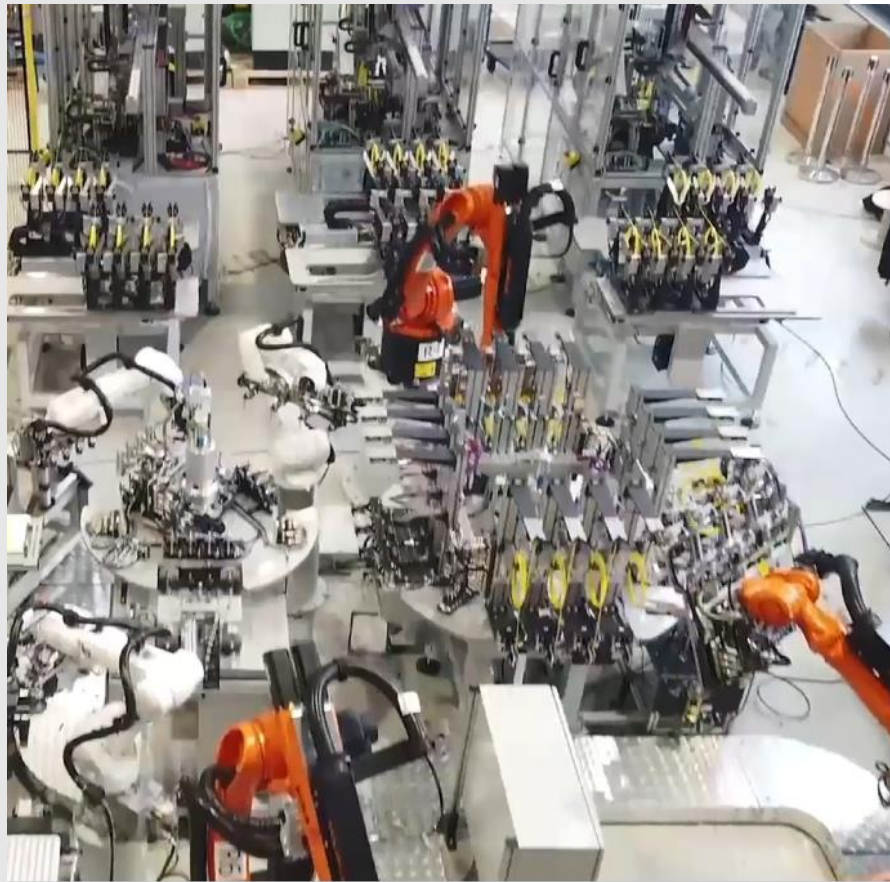
- Factory is very conservative.
- Bringing 20 years old technologies is called a revolution
- Innovation is frequently considered negative and risky
- Wireless smart sensor to the cloud vs Cable connected sensor to PLC IO
- Safety and Data Security as pretext of not doing things



Fostering Methodology



- Agile methodology
Let us define final scope in due course of the project
- R&D project: failure well documented is a success
- Staged execution with well defined deliverables
- Open book & good communication is a must
- Integration with existing factory systems
- Packaged Project or „As a service”

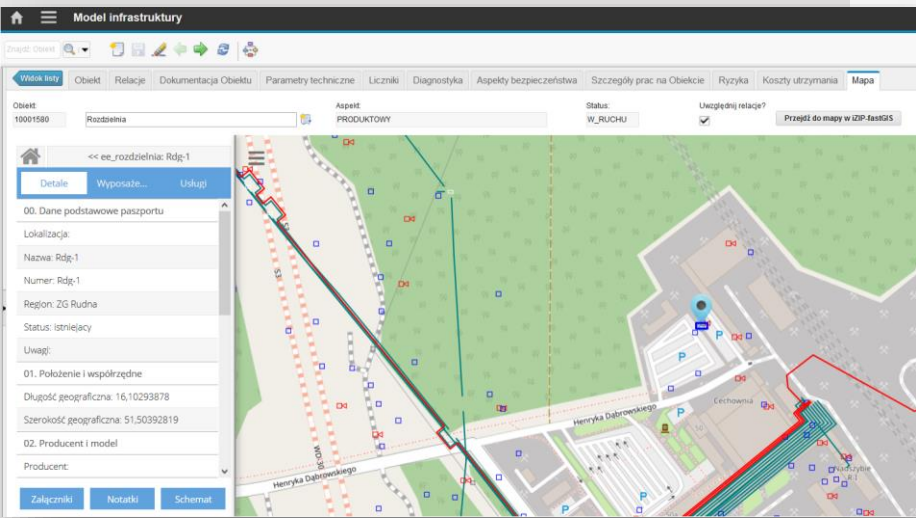


- I4.0 = ITC into industry
- Factory IT ecosystem is a blocker to innovation deployment
- Process digitalization, traceability
- Factory production version management

Examples

- Intralogistics + automated buffers
- Dynamic factory layout
- Testing in the process (EOL elimination)

Open Book Policy

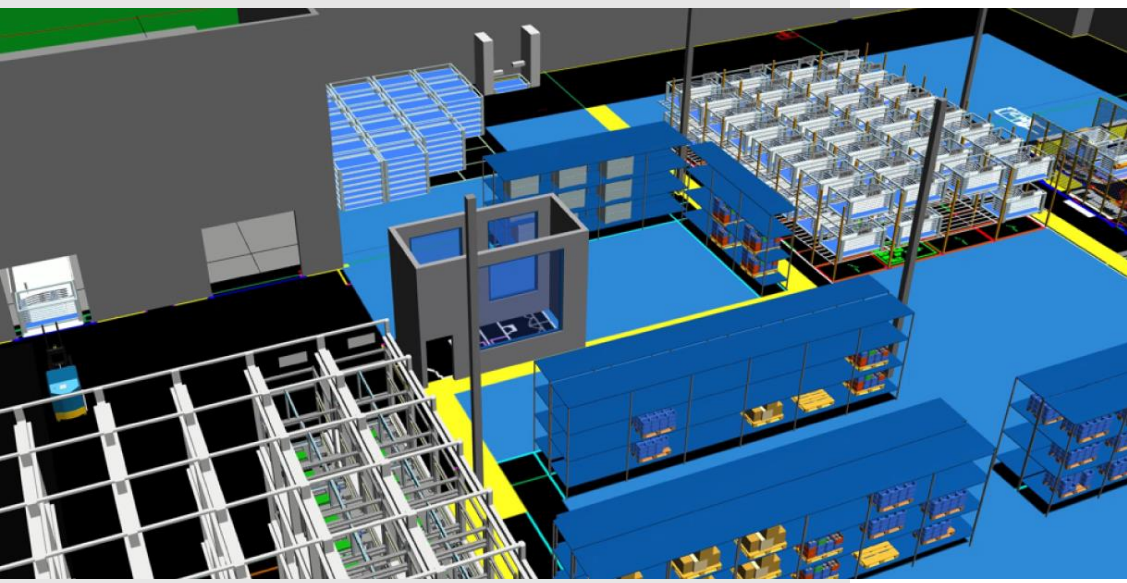


- Trust on the teams level, objectives aligned
- Transparent and regular communication
- Knowledge transfer, competence building
- Empowering factory team to become self sufficient
- Open financial model, eliminating risks of cost variation
- System lifecycle responsibility



- Clear definition of what we do and what we **do not do**
- Partnership with vendors, benefiting from **state of the art** tech
- Integration with 3rd party solutions. Integrate instead of replace
- Sharing good practices, patchwork of IT tools
- Technology convergence
Bringing well tested solutions, proven outside into factory realm

The Integrator - preferred partner for Innovation



- Understanding technology and machines
- Feeling at home on the **shopfloor** (project is not a spec ops)
- Local presence, on-site team
- Going beyond the project scope
- Core systems integration
- Maintenance & After Sales services

