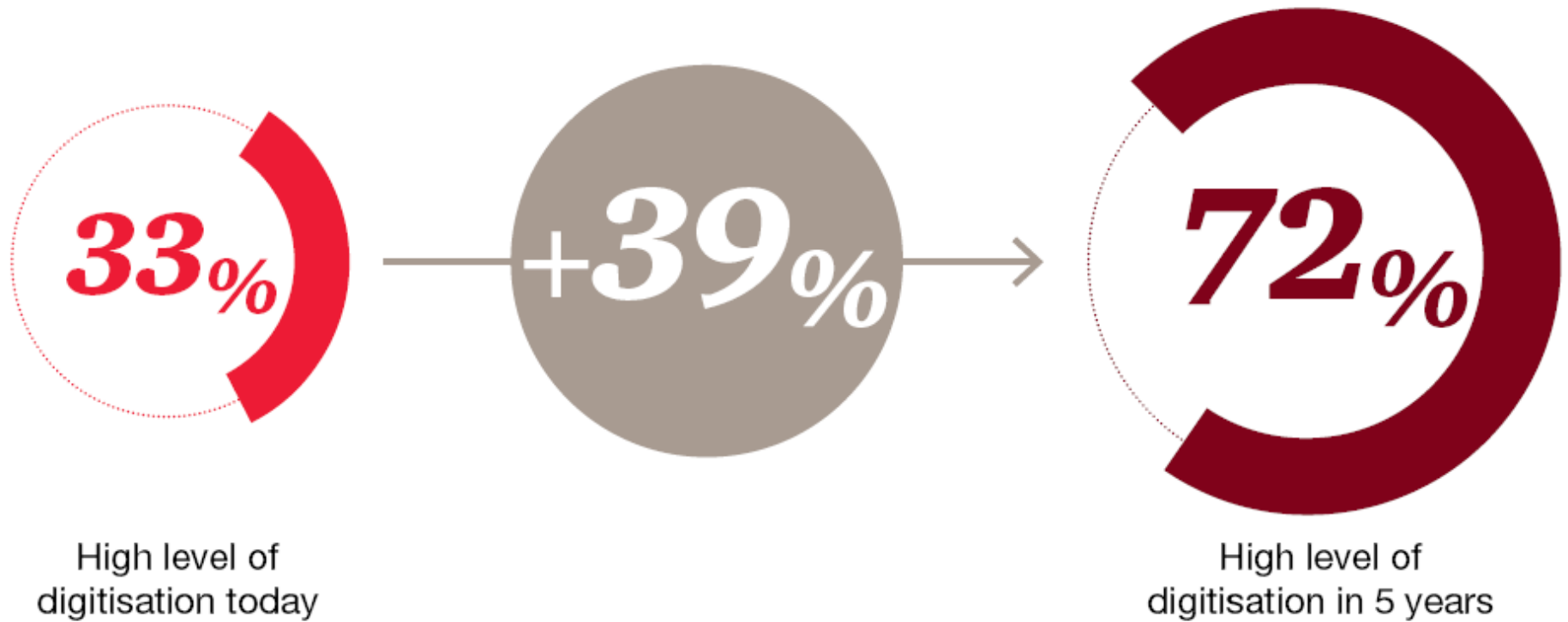




# AUTOWARE

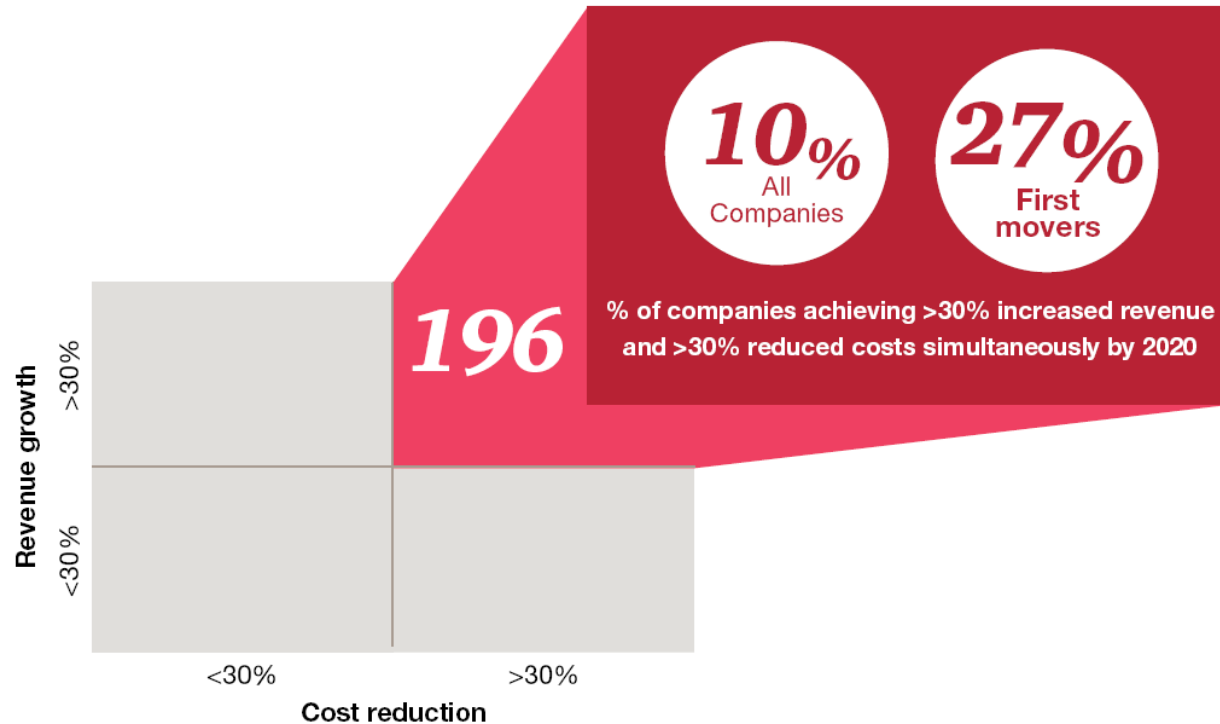
Digital Shopfloor Alliance  
Oscar Lazaro (Innovalia Association)  
[olazaro@Innovalia.org](mailto:olazaro@Innovalia.org)

# SME Digital Innovation Strategies



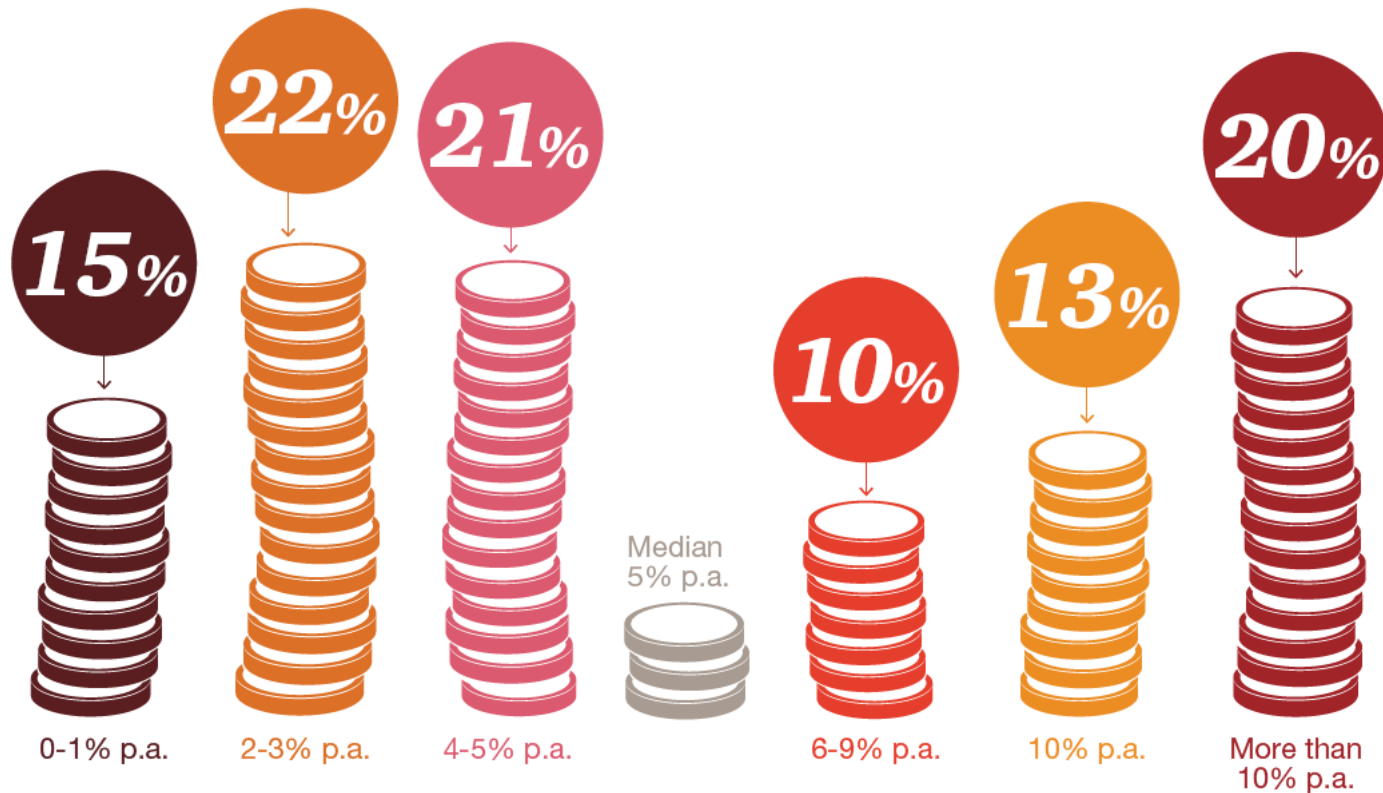
2020 Digitalisation Level

# SME Digital Innovation Strategies



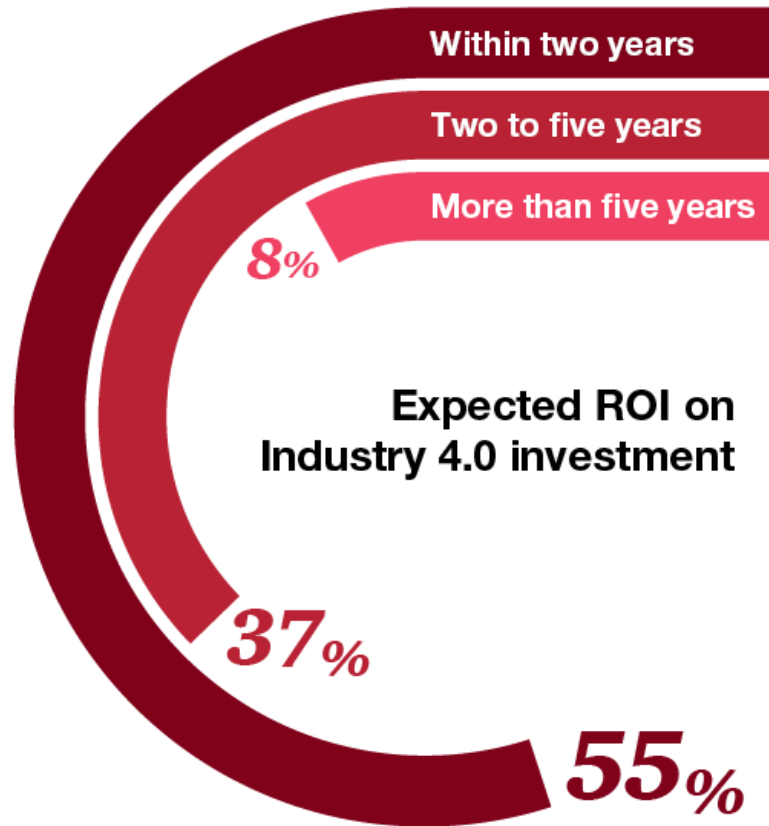
## Cost Analysis

# SME Digital Innovation Strategies



Investment

# SME Digital Innovation Strategies



ROI

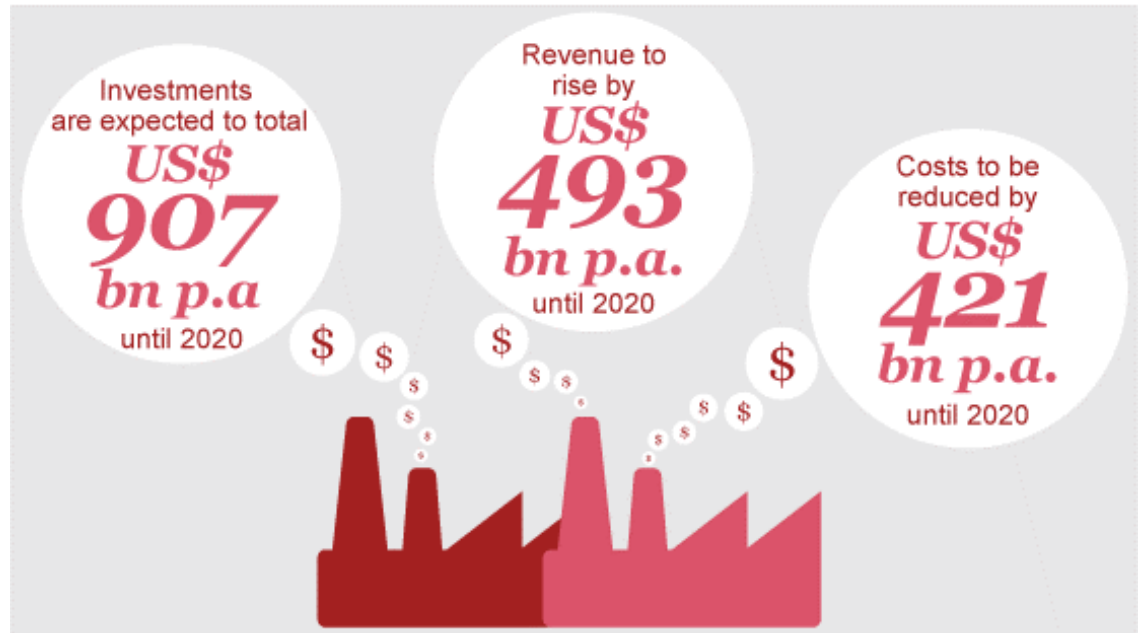
# SME Digital Innovation Profile

SME Average I4.0 Investment p.a.: 50-100K€

Expected ROI: 2-3 years

Cost reduction: 30%

Profit gain: 30%





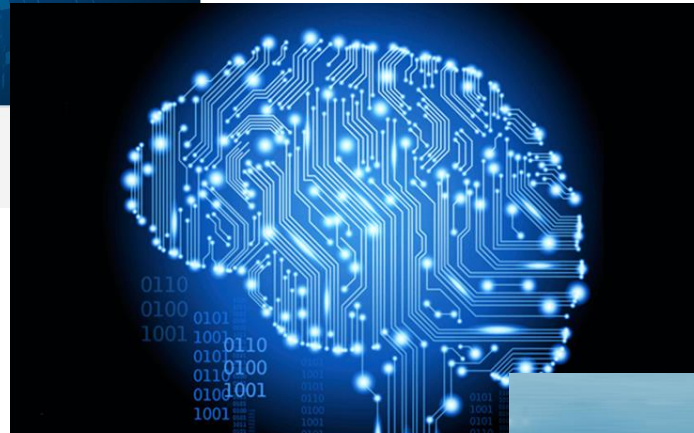
# Challenge



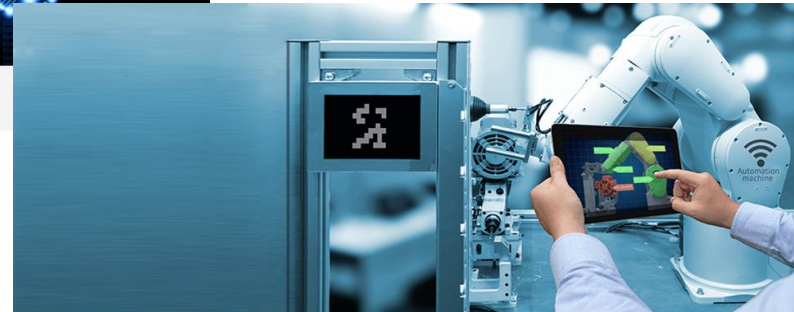
# Challenge



Digital **Technologies**



Smart **Services**



Automation **Solutions**



# Challenge



Building a Digital **Shopfloor**

# SME Digital Shopfloor Innovation Technical Drivers

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Low Deployment Cost

Fast Return of Investments

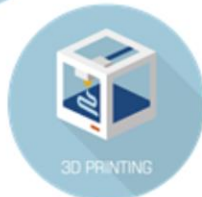
Easy configuration & operation

Reliable Solutions

Incremental deployment

Open Systems

# SME Digital Shopfloor Innovation Business Drivers



Smart Logistics &  
Distribution Services



Smart  
Maintenance  
Services



Smart Planning &  
Management  
Services



Smart  
Operations  
Services




Smart Product  
Services



# Digital Shopfloor Alliance (DSA)

[OBJECTIVES](#) [SERVICES](#) [NEWSLETTER](#) [CONTACT](#)

The logo consists of three overlapping, rounded shapes in shades of blue and teal, arranged in a triangular pattern. Below the shapes, the text "Digital Shopfloor Alliance" is written in a white, sans-serif font.

Digital Shopfloor Alliance

• • • • •



# DSA – Value Proposition

[OBJECTIVES](#) [SERVICES](#) [NEWSLETTER](#) [CONTACT](#)

There is no small digital dream



# DSA – Value Proposition

[OBJECTIVES](#) [SERVICES](#) [NEWSLETTER](#) [CONTACT](#)

A photograph of a male worker in a yellow hard hat and safety vest, smiling at the camera. He is in a factory setting with large industrial tanks and machinery in the background. Another worker in a yellow hard hat and safety vest is visible in the background, working on a machine. The text "Let's bring them to life" is overlaid on the image.

Let's bring them to life

# DSA – Value Proposition

[OBJECTIVES](#) [SERVICES](#) [NEWSLETTER](#) [CONTACT](#)



A digital shopfloor  
for your manufacturing mission

.....

## OBJECTIVES

Reduce the cost, time and effort required to implement safe digital processes and products and secure I4.0 digital automation systems



### Maximise Industry 4.0 ROI

Get the best business value out of your industry 4.0 investment



### Keep your integration time under control

Well established methods and framework for deployment of digital solutions.



### Ensure future digital shopfloor extendibility

Rely on certified and standard-compliant components to safely operate your digital shopfloor operations.

## SERVICES

Rely on the DSA network of experts, trusted components and service platforms to build a digital shopfloor matching your automation performance.



### DSA profiling

Engage with your DSA expert, select your digital shopfloor profile and assess the ROI of your digital shopfloor strategy



### DSA certification

Customise and apply the DSA "validation & verification" framework to ensure safe operation of your modular/reconfigurable manufacturing cell or collaborative robotic workplace.



### DSA integration

Find and select a suitable DSA integrator to support you in the safe and secure deployment of your digital shopfloor services.



### DSA-ready products

Benefit from certified HW components and software solutions and infrastructures to reduce the ramp-up time of your digital shopfloor services.

# DSA – How does it work

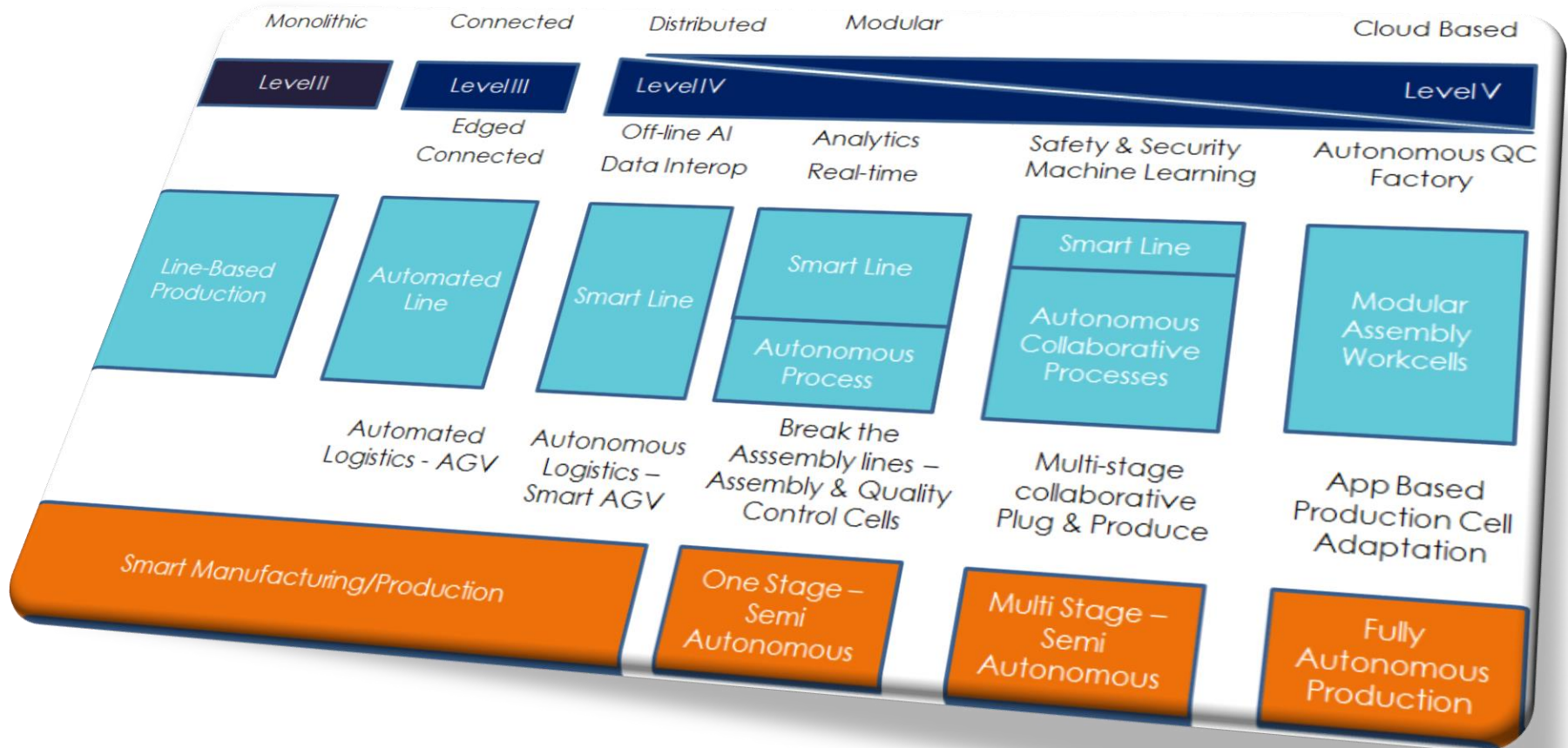
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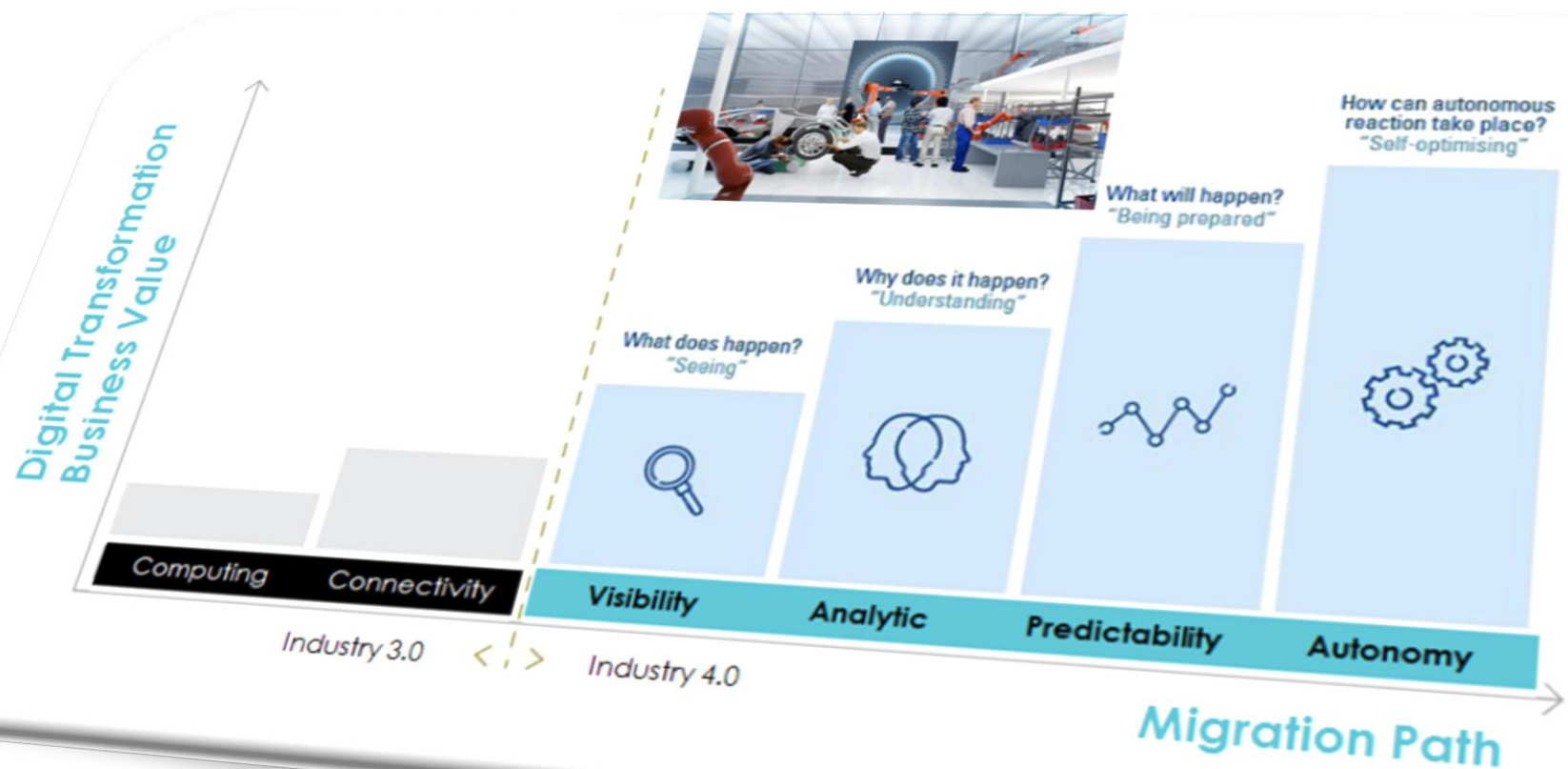
Maximise  
Industry 4.0 ROI



# How does it work: A brownfield SME Digital Shopfloor Capability Development Framework



# How does it work: A SME Digital Shopfloor Service Deployment Path



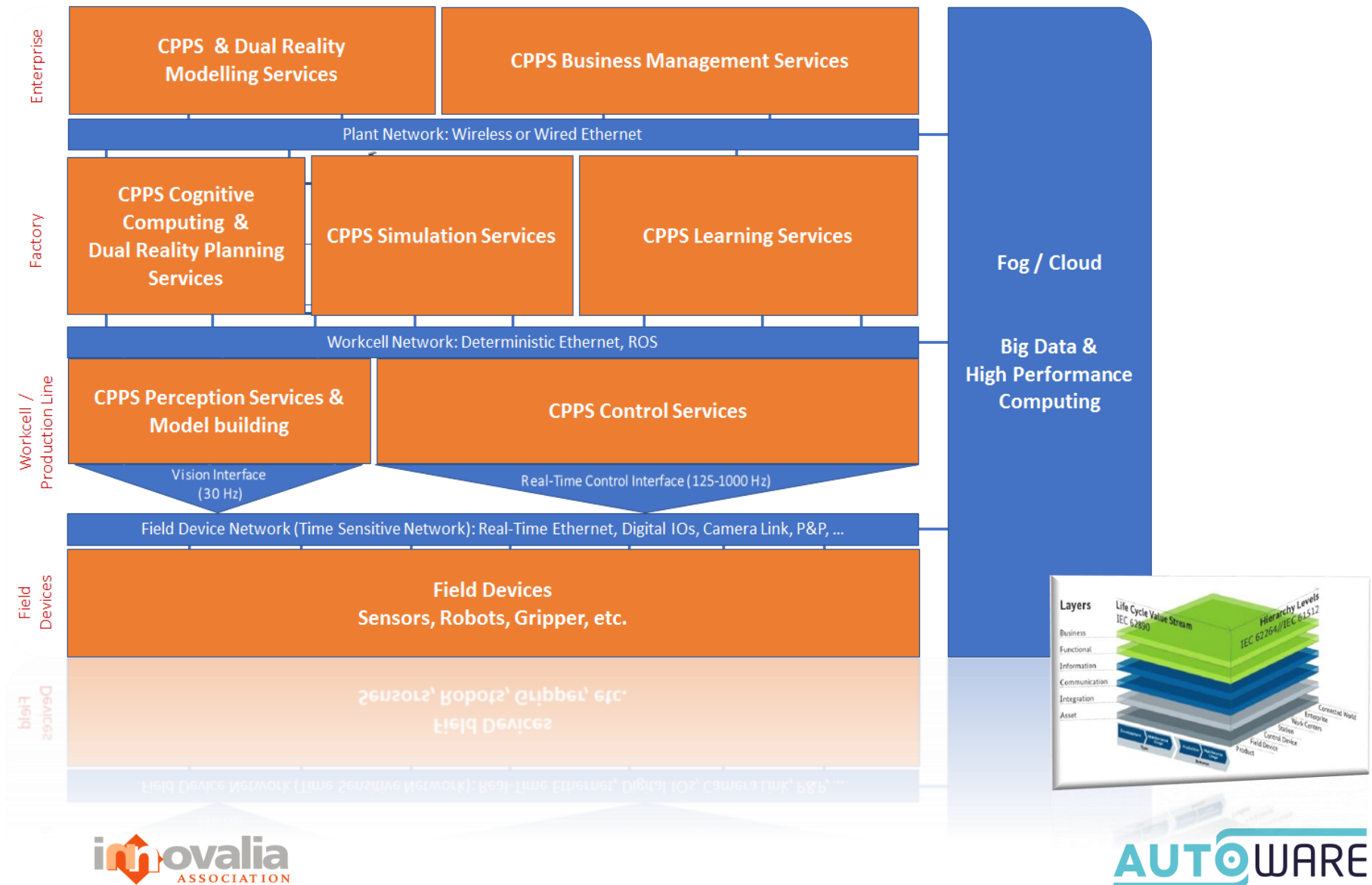
# DSA – How does it work

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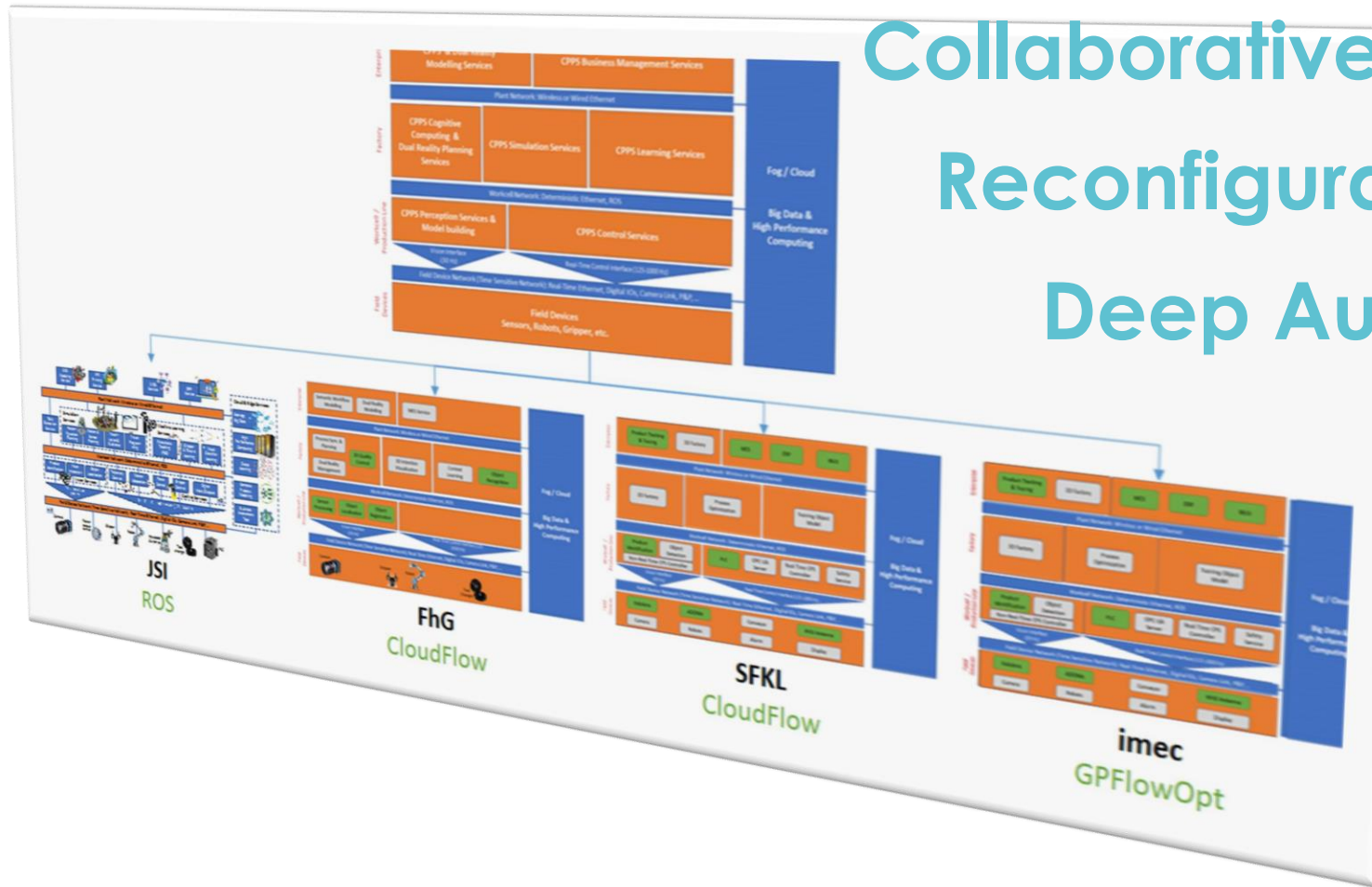
Keep your integration time  
under control

# How does it work: A Data-driven RAMI 4.0 Digital Automation Reference Model



# How does it work: Mission-driven Open Digital Automation Pipelines

Modular Manufacturing  
Collaborative Robotics  
Reconfigurable Cells  
Deep Automation





# DSA – How does it work

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Ensure future digital shopfloor  
extendibility

# How does it work: Open Hardware & Software Platforms



Industrial Automation



Industrial Communication



Industrial Security



HYPERLEDGER



Industrial Services



INTERNATIONAL DATA  
SPACES ASSOCIATION



# How does it work: Certified Pipelines & Solutions



Industrial App Software & Automation



Industrial Communication



Industrial Security

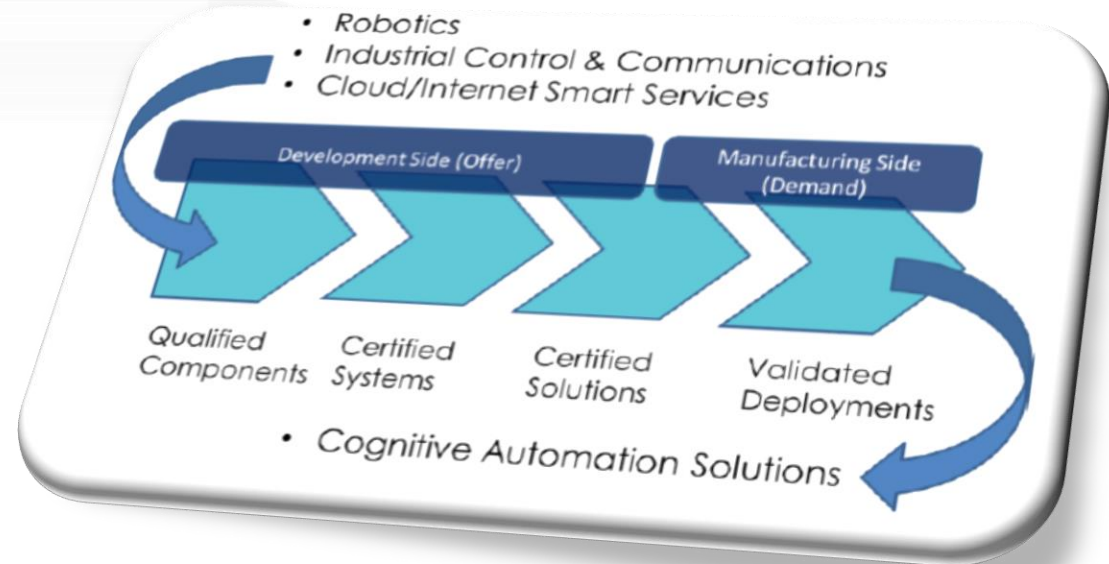


Industrial Services

Certification



Industrial Services



# DSA Benefits for ICT and Manufacturing SMEs

**SME**

**Manufacturing SMEs: Digital cognitive automation systems within budget.**



**Machine Providers: Incorporate open trusted and certified CPS platforms.**



**Developers: Certified and well-characterized open fog platform.**



**Cloud services providers: host cognitive services (HPC)**



**Integrators: Faster and more reliable solutions**



# Digital Shopfloor Alliance



 sustainable automation 	 Analytics Control Technology Research 	 Istituto di Tecnologie Industriali e Automazione Consiglio Nazionale delle Ricerche 	 	 	 
 Robotic Robotics as a Service 	 	 	 University of Applied Sciences and Arts of Southern Switzerland 	 	 Scuola Universitaria Professionale della Svizzera Italiana 
 	 	 	 	 	 ATHENS INFORMATION TECHNOLOGY CENTER OF EXCELLENCE FOR RESEARCH AND EDUCATION 
 	 	 SOFTWARE QUALITY SYSTEMS 	 	 	 
 	 	 	 	 	 Ensuring Reliable Networks 
 	 	 - for humans 	 	 	 embracing a better life 





**Factories of the Future**  
Public Private Partnership

# AUTOWARE

**THANK YOU FOR YOUR ATTENTION!**