

# AI on edge powering test optimization

Hannover Messe 2021 – Infinite opportunities from infinite data

Digital Enterprise Virtual Experience

Siemens  
and Atos  
Strategic  
Alliance

**Atos**

**SIEMENS**

# Meeting our Experts



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# Atos-Siemens Alliance, shaping an ever more connected world

## Strong complementarity for enhanced customer value

#1 European based Tech Companies

### Joint Industry Expertise

From Shopfloor to Cloud



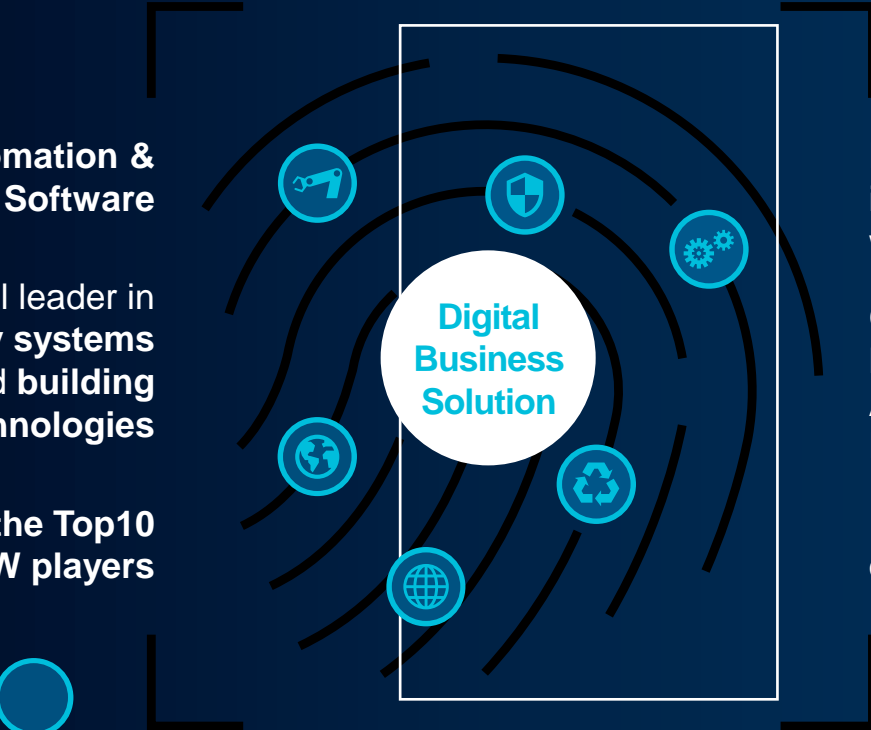
Joint expert teams delivering end-to-end industry specific business solutions

#1 in Automation & Industrial Software

Global leader in Energy systems and building technologies

Among the Top10 global SW players

Digital Business Solution



Digital security #1 in Europe and #3 worldwide

Global leader in Hyperautomation Advanced Digital Platforms & operations

Pioneer in digital decarbonization

### Joint Technology Research

- Artificial Intelligence
- Edge Computing
- Cyber Security
- Quantum Computing
- Internet of Things

Joint digital transformation portfolio

# Closed-loop manufacturing - Use of Artificial Intelligence (AI) to optimize test parameters in real time

## Higher First Pass Yield in PCB production with Artificial Intelligence

MindSphere DataLake/  
Edge Platform  
MindSphere Predictive Learning

### In the past

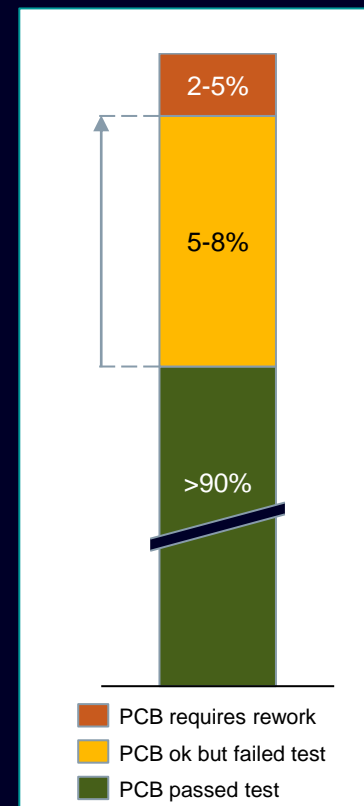
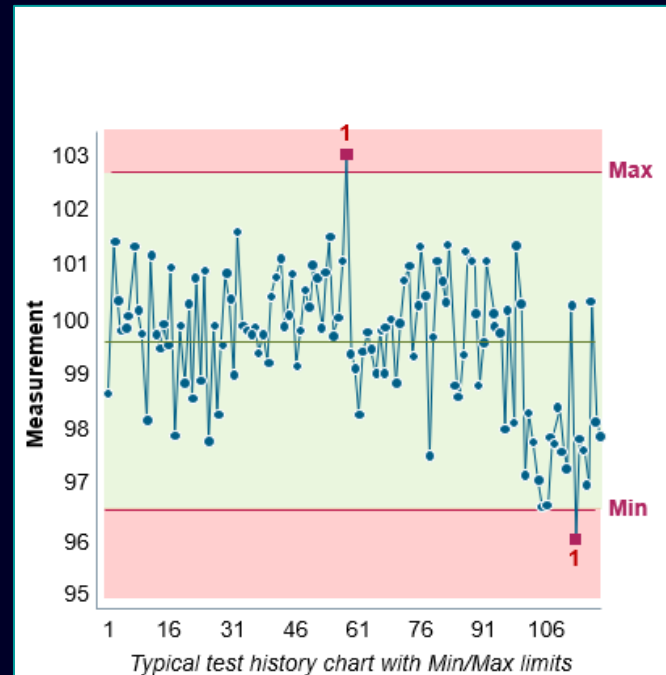
“Pseudo Errors” lead to high manual efforts due to static testing

### Today

Robust testing with Artificial Intelligence reduces “Pseudo Errors” by 50%

## Testing of Products

### Variation of test values by



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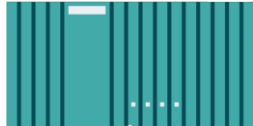
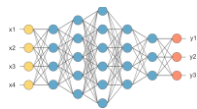
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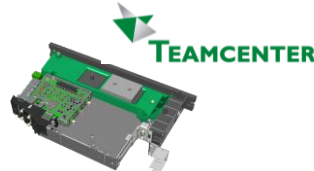
Visualization



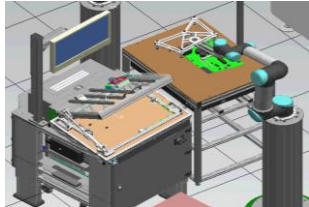
Quality Management System



Industrial Edge



Digital Twin of product



Test Equipment

# Closed-loop manufacturing - Use of Artificial Intelligence (AI) to optimize test parameters in real time

Live experience



# Proven Atos approach for data-driven use cases



## AI Lab Session

- ▶ **Discover:** Analysis of your data for a selected use case
- ▶ **Design:** Ready to start AI MVP project for a selected use case
- ▶ **Define:** Your AI Journey providing guidance how you could become an AI enabled organization



## Awareness & Ideation



- ▶ Create awareness on AI
- ▶ Find data driven use cases for your business domain
- ▶ Evaluate potential of identified AI use cases

## Build an MVP



- ▶ Succeed quick results to proof initial value hypothesis
- ▶ Experience real agile, highly iterative & efficient development approach

## Pilot Implementation



- ▶ Refine the MVP and integrate it in your existing landscape
- ▶ Deploy and roll-out a pilot version
- ▶ Leverage hybrid cloud approaches

## Global Operation



- ▶ Deploy and manage your analytics & AI solution at scale
- ▶ Earn the benefits at scale
- ▶ Leverage DevOps approach for continuous improvement

## What we achieved

**+50%**  
of pseudo error  
reduction

By using AI –driven  
quality control

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**Increase of  
first pass yield**

By optimizing test  
parameters with AI

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**Realizing  
closed-loop  
manufacturing**

By bringing Edge on  
the shopfloor

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