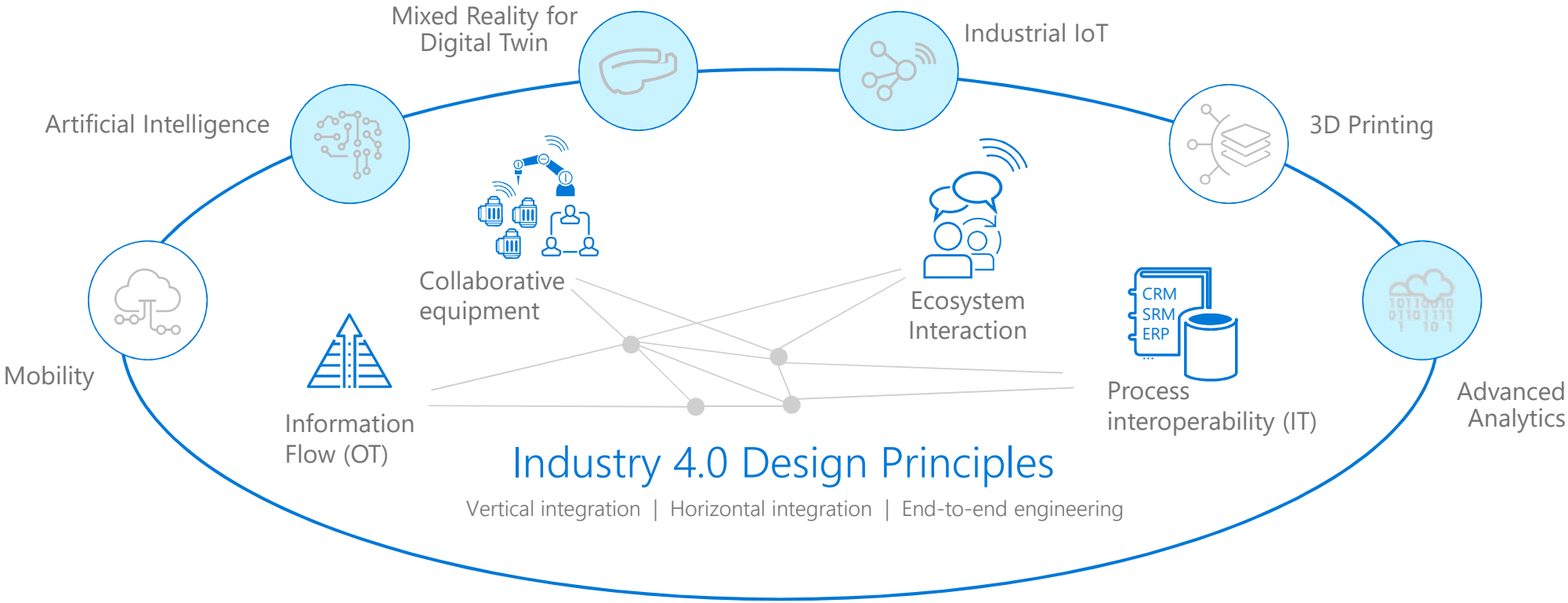

Microsoft
Smart Factory & Digital Engineering –
Optimierung von internen Logistik-,
Produktions-und Entwicklungsabläufen
Robert Nahm
Industry Manager, Automotive Sector
Microsoft Germany GmbH

Delivering excellence in digital manufacturing



Deliver remarkable field services with Azure IoT Cloud



WATCH VIDEO

Challenge

Sandvik Coromant, a manufacturer of cutting tools and services for the metal cutting industry sought to take its services to the next level.

Strategy

Sandvik developed a solution that connects to the Azure IoT cloud to collect data in real-time and get data out of the machining process such as temperature, load and vibration.

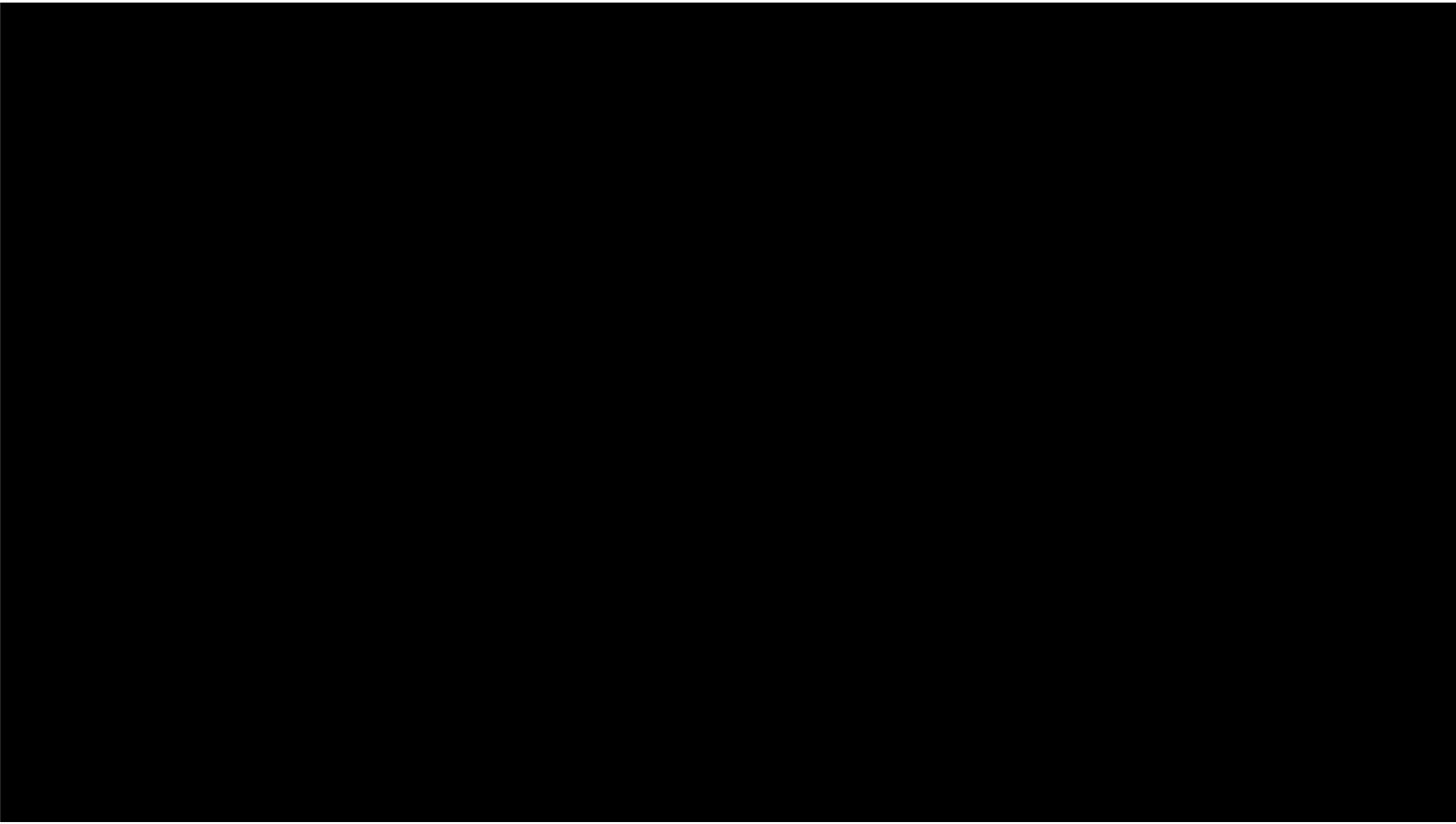
Results

- Provided instant feedback to customers to improve efficiencies
- Delivered cost savings of millions of dollars

SANDVIK Coromant

"With this solution we are able to reinvent the art of manufacturing. Tools, processes working together, all the way from the customer to the sales interaction, helping us deliver an unprecedented level of field service. "

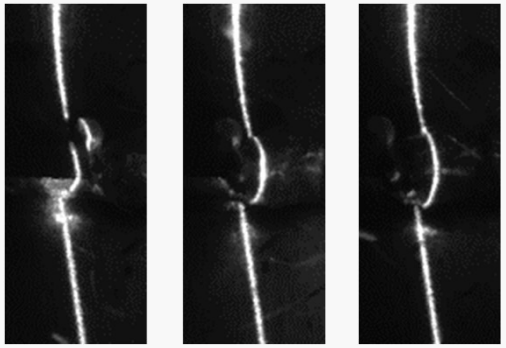
- Klas Forsström - President, Sandvik Coromant



Artificial Intelligence: Binary Classification for QA

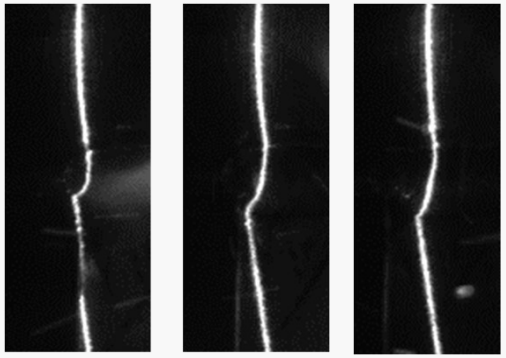
IO

90 items

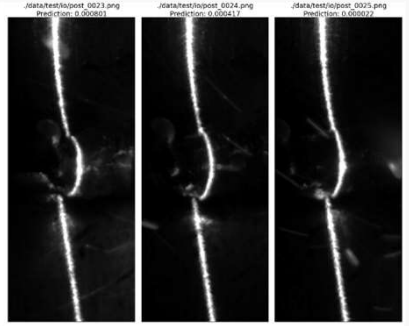


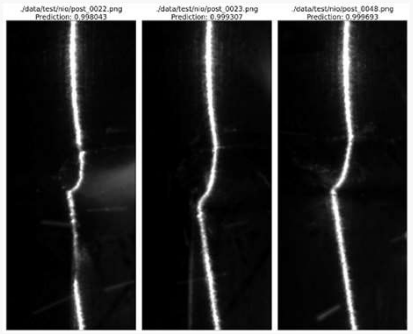
NIO

87 items



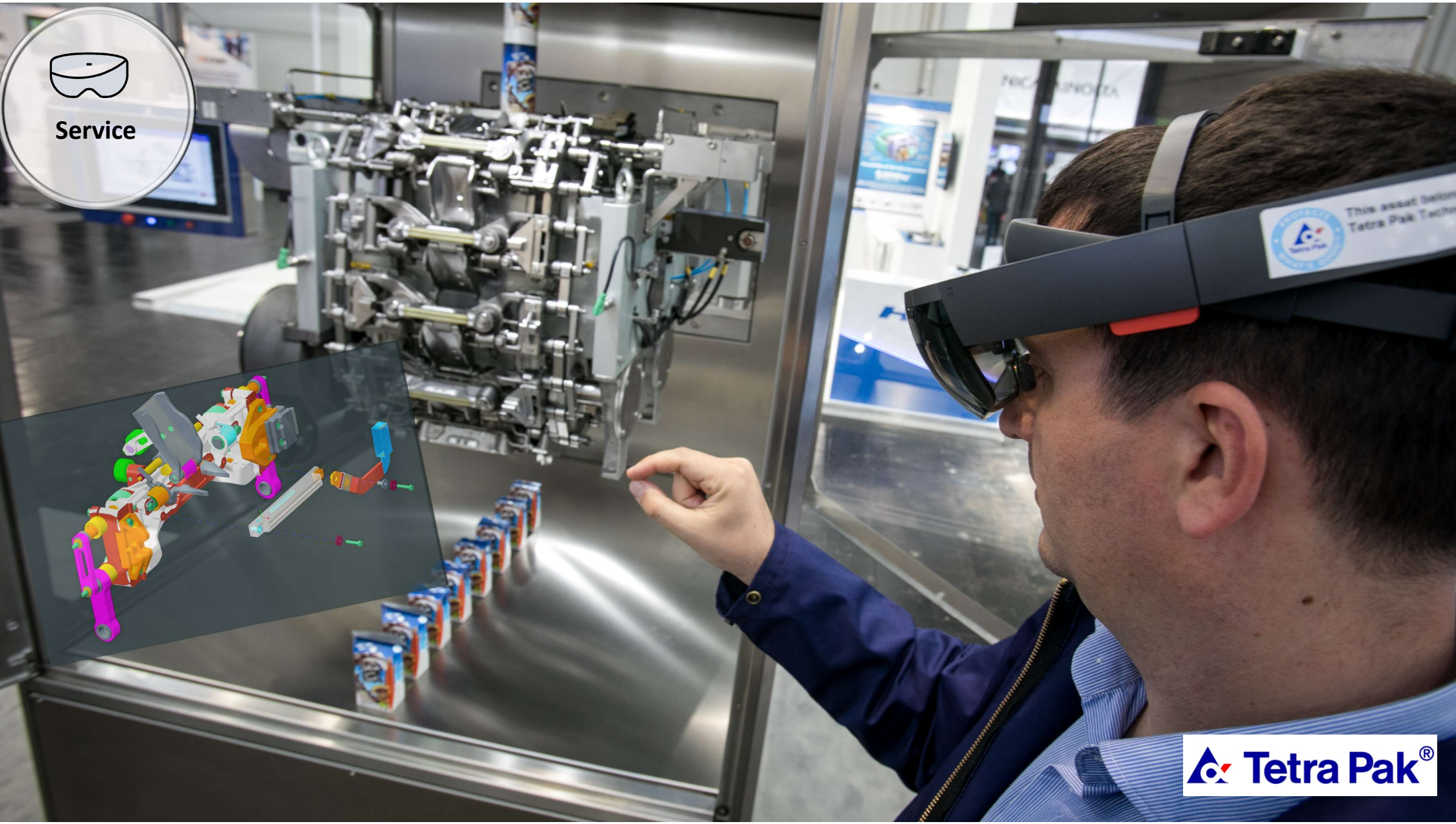
IO: > 99%





NIO: > 99%

Ignored 89 items y-gap 0.4, 86 items y-gap 0.5, 81 items y-gap 1.0


Service
Tetra Pak®

A new class of digital twin

NEW SERVICES DRIVEN BUSINESS MODELS

MANUFACTURING OPERATIONS, SERVICES

R&D & ENGINEERING

Information mirroring* model
- Powerful modeling and analysis
- R&D and engineering focus

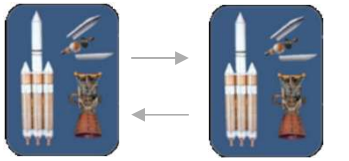
Simulation and 3D printing
- Digital design, virtual assembly, and simulation
- 3D printing mainstream

Connected IoT services
- Unified physical and virtual data
- Rapid feedback across design, manufacturing, and operations

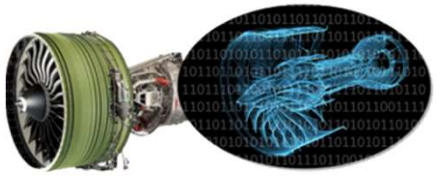
End-to-end innovation
- Mixed reality visualizations
- Cognitive services
- Humans and device collaboration

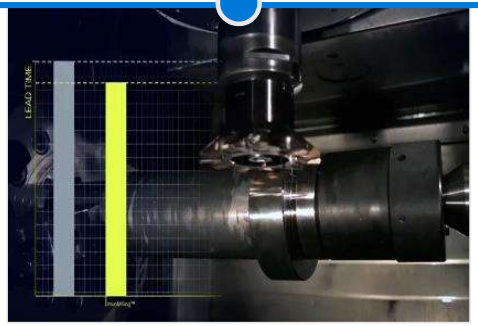
Digital Twin evolution

1985-2002 (18 years) | **2003–2014** (12 years) | **2014–2016** (3 years) | **2017**



Real space Virtual space







Dr. Michael Grieves and John Vickers – University of Michigan

"This is how we take the global expertise that we have available somewhere in Tetra Pak and bring it to the fingertips of the engineer in the countryside in Chile or Pakistan."

- Johan Nilsson, Vice President of Tetra Pak Services

Devices | Big Compute | 3D Printing Facilitation | IoT, Analytics, and CRM | Cognitive Services

Agenda

9.00 – 10.00 Uhr	Anmeldung und kleines Frühstück		
10.00 – 10.45 Uhr	**Begrüßung zum Microsoft Automotive Summit** Stefan André Raschke, Robert Nahm, Michael Zawrel | Microsoft GmbH		
10.45 – 11.10 Uhr	Mobilität in einer digitalen Welt – Perspektiven auf die Digimotive Industrie Heiko Weber | PwC Strategy & Deutschland		
11.15 – 12.00 Uhr	Blockchain Kollaborationen als Schlüssel zu neuen Geschäftsmodellen Kathleen Olstedt | +D Supply Chain Protocol Florian Seffert | Imperial Logistics International Lei Liu | Microsoft Deutschland GmbH		
12.00 – 13.30 Uhr	Mittagspause und Networking		
	Raum Washington	Raum Redmond	Raum Chicago
13.30 – 13.45 Uhr	Smart Mobility – Potentiale für die Mobilität von morgen durch die Cloud Robert Lokner | Microsoft GmbH	Smart Factory & Digital Engineering – Optimierung von internen Logistik-, Produktions- und Entwicklungsabläufen Robert Nahm | Microsoft GmbH	Future Sales / After Sales – Neue Customer Journey Michael Glaab | Microsoft GmbH
13.45 – 14.30 Uhr	Smart IoT-Lösungen für Connected Vehicles – Herausforderungen und Best Practice Marten Schirge | Device Insight GmbH	Big Data – und was nun? Die Bedeutung einer Innovationsplattform im Produktlebenszyklus eines Fahrzeuges Frank Möring | PTC	Wie digitale Erlebnisplattformen den Autokauf zum Erlebnis machen Stephanie Ryschka | Adobe Systems GmbH Julian Stank | Adobe Systems GmbH
14.30 – 15.15 Uhr	OpenADx – xcelerate your Automated Driving development Andreas Riexinger | Robert Bosch GmbH	Von der Manufaktur in die Serie – Bedarfsgerechte IoT Industrial Lösungen Dr. Uwe Wieland | Robotron Datenbank Software GmbH	Künstliche Intelligenz und Machine Learning: Ansätze zur Optimierung von B2B Vertriebs- und Preisstrategien in der Automobilindustrie Reno Koepp | PROS Deutschland GmbH
15.15 – 15.45 Uhr	Kaffeepause und Networking		
15.45 – 16.30 Uhr	Möglichkeiten der Automotive Analytics Solution beim Einsatz der Entwicklung Peter Schiekhofer | Bertrandt AG Dr. Markus Götzl | Bertrandt AG	Using the Microsoft Azure Cloud for CAE Simulations Reha Senturk | The UberCloud	Digitaler Wandel in der Vertriebssteuerung durch Azure Machine Learning Hendrik Preis | ORBIS AG Dr. Rainer Zeifang | FACTON GmbH
16.30 – 17.15 Uhr	Deep Learning zur Straßenerkennung Anton Junker | Elektronische Fahrwerksysteme GmbH	Artificial Intelligence in Production and Supply Chain Martin Whyte | pmOne AG Gernot Molin | pmOne AG	Digitale Transformation von Einkaufsprozessen mittels Vertragsmanagement-Lösung Bernd Kesslau | Icertis GmbH
Ab 17.15 Uhr	After-Work-Networking mit Snacks und Drinks		



© 2018 Microsoft Corporation. All rights reserved.