

# Mendix in Manufacturing Industries







**Across manufacturers value streams - initiatives for new efficiencies, new connections, and new ways of engagement experiences are at peak.**

**BUT 70% of digital transformation initiatives are not reaching their goals**

Harvard Business Review

The pressure to deliver compelling software solutions continues to **accelerate**.

76% of CIOs report increased demand for new digital products and services.

**BUSINESS  
DEMAND**

**SUPPLY**

Traditional software delivery methods **aren't keeping up**.

Almost a third of software projects are delayed by more than six months.

# Realities of Manufacturing IT landscape

## Challenges

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Business Units and plants with heavily customized systems are bought and sold all the time making the IT landscape in the same organization even more heterogenous

→ High costs of traditional software & integration projects



Plants have many single site solutions or systems that are difficult to integrate with

→ Fragmented tools, data and pockets of development



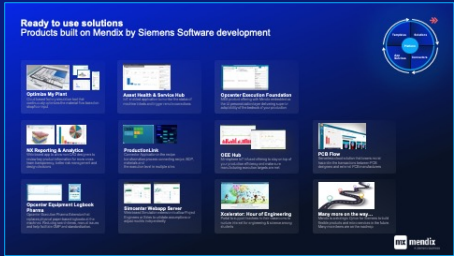
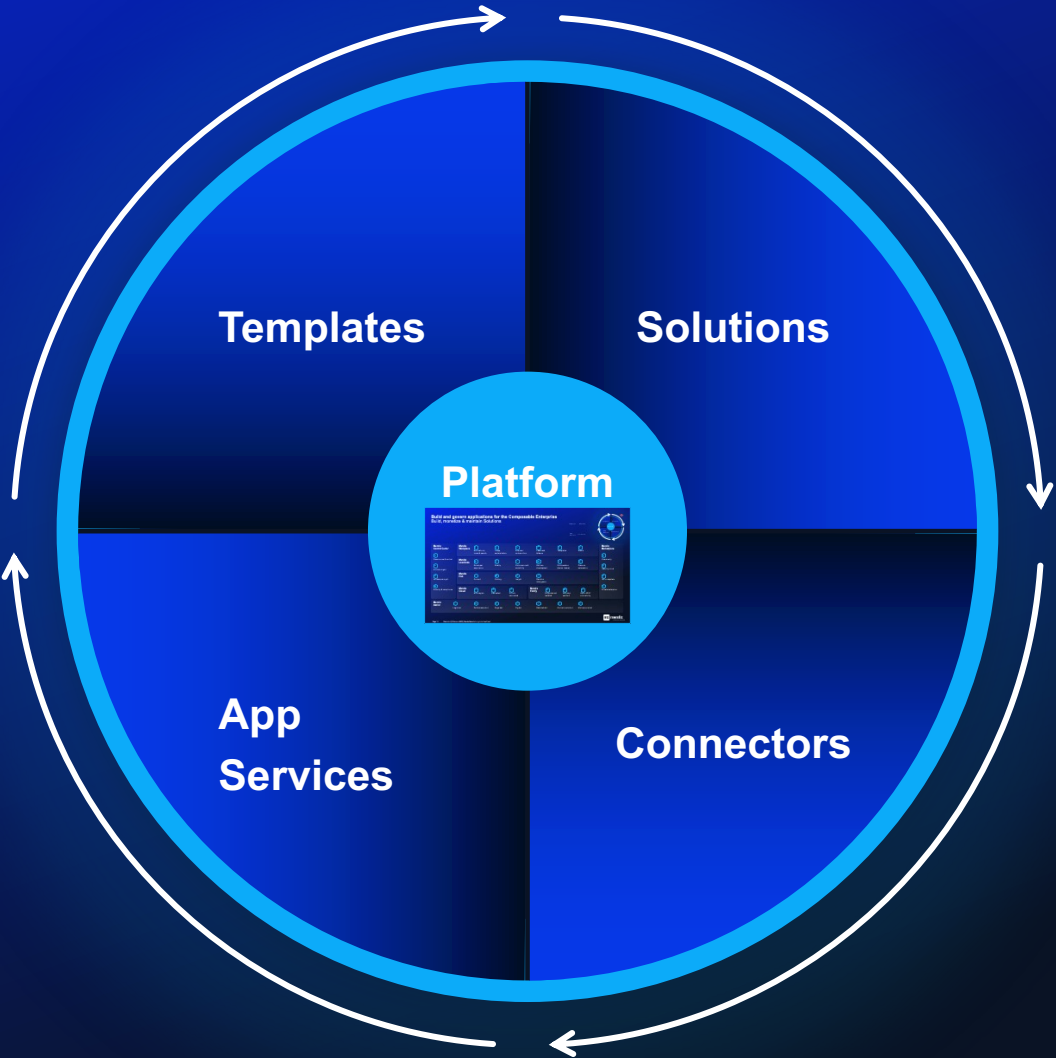
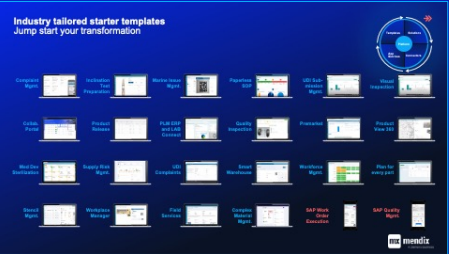
Smaller processes are often not even attempted to be covered by an IT solution because the path to getting one is so far or even unclear

→ Manufacturers still have many processes that run on Excel or Paper, which are poorly tracked and open to mistakes



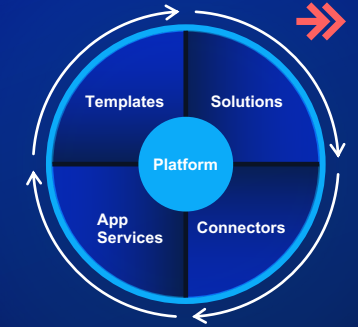


# Mendix building blocks



# Ready to use solutions

## Products built on Mendix by Siemens Software development



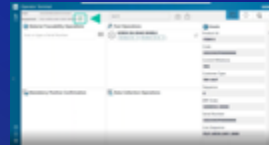
### Optimize My Plant

Cloud based factory simulation tool that continuously optimizes the material flow based on shopfloor input



### Asset Health & Service Hub

IoT enabled application to monitor the status of machine tickets and trigger remote corrections



### Opcenter Execution Foundation

MES product offering with Mendix embedded as the UI personalization layer delivering superior adaptability of the bedrock of your production



### NX Reporting & Analytics

Web-based app to allow non-CAD designers to review key product information for more cross-team transparency, better risk management and design decisions



### ProductionLink

Connector Application in the recipe transformation process connecting recipe, BOP, materials and the execution level in multiple sites



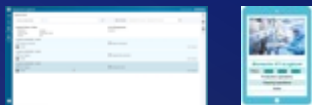
### OEE Hub

Mindsphere IoT infused offering to stay on top of your production efficiency and make sure manufacturing execution targets are met



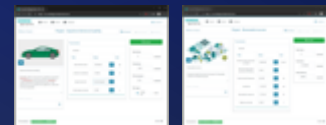
### PCB Flow

Serverless cloud solution that lowers moral hazard in the transactions between PCB designers and external PCB manufacturers



### Opcenter Equipment Logbook Pharma

Opcenter Execution Pharma Extension that replaces physical paper-based logbooks at the machines. Reducing search times, manual issues and help facilitate GMP and standardization.



### Simcenter Webapp Server

Web-based Simulation extension to allow Project Engineers or Sales to validate assumptions or adjust models independently



### Xcelerator: Hour of Engineering

Portal to support teachers in their classrooms to nurture interest for engineering & science among students

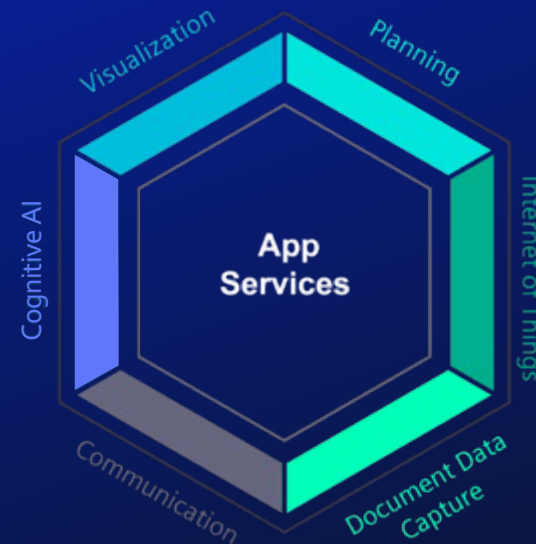
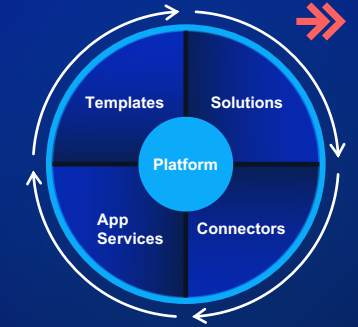


### Many more on the way...

Mendix is a strategic Option for Siemens to build flexible products and micro services in the future. Many more items are on the roadmap

# Domain specific building blocks

## Enabled through packaged capabilities (Mendix App Services)



### 3D Viewer

3D Visualization provides a viewing capability of JT models



### Translation

Translate the text between different languages



### Language Detection

Identify the dominant language in a paragraph



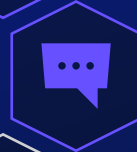
### Text to Speech

Convert the text input into voice output



### Speech to Text

Convert voice input into text



### Microsoft Teams Connector

Send and receive messages from app and specific MS Teams channel



### Email Service

Include an email component into the Mendix Applications



### Field Service Planning

The Field Service Planner uses AI to automatically create the most efficient planning. The planner assigns "tasks" to "resources" taking a wide range of constraints into account



### MindSphere IoT for Makers

Connect Industrial equipment and consume the IoT data in Mendix applications



### Intelligent Document

Extract a specific text from structured and semi-structured documents via multiple cutting-edge technologies



### Invoice Processing

Automates invoice processing almost immediately without any document training



### General Purpose OCR

Extract the entire text from the images or pdf documents



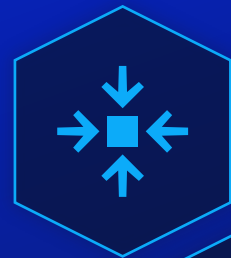
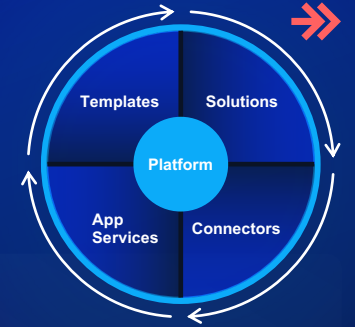
### Receipt Processing

Extract main and important fields, without need for any additional training



# Industry grade connectivity: Xcelerator Data Hub

Unlock and integrate all relevant data consistently



Connect  
ecosystems



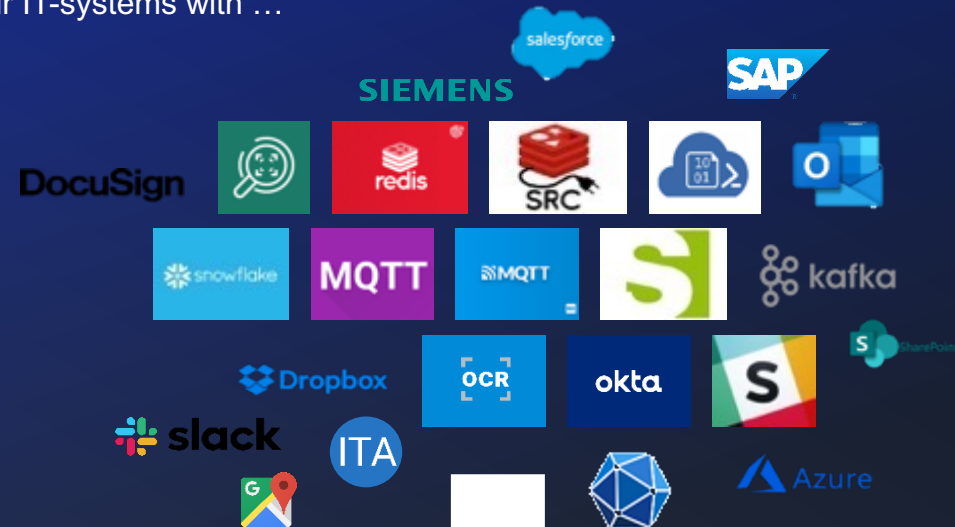
On premises  
and cloud



Pre-built  
connectors

## ANY SYSTEM. ANY DATA. ANY ASSET.

Connect your IT-systems with ...

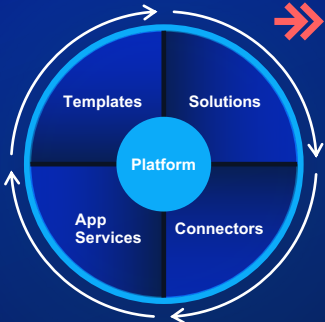


And many more...



# Industry tailored starter templates

Jump start your transformation



Complaint Mgmt.	Inclination Test Preparation	Marine Issue Mgmt.	Paperless SOP	UDI Submission Mgmt.	Visual Inspection
Collab. Portal	Product Release	PLM ERP and LAB Connect	Quality Inspection	Premarket	Product View 360
Med Dev Sterilization	Supply Risk Mgmt.	UDI Complaints	Smart Warehouse	Workforce Mgmt.	Plan for every part
Stencil Mgmt.	Workplace Manager	Field Services	Complex Material Mgmt.	SAP Work Order Execution	SAP Quality Mgmt.

# Mendix low code application development for Manufacturing Industries

## The fastest and easiest way to build, integrate and extend applications



### Low-code development

Build applications 10x faster with 70% less resources



### Run Everywhere

Shopfloor, Edge, Central IT or in the Cloud



### Integration capability

Unlock and integrate real-time data from ERP, PLM, IoT, MQ, OPC-UA connect IT to OT.



### Multi- experience

Applications for all forms of interaction  
Web, Native Mobile / Tablet,  
Handheld / Vehicle Mounted Devices,  
Conversational UIs, Augmented Reality (AR)



# With Mendix cloud native low code and multi-experience platform

## Across your manufacturing value streams

Assemble Personalized Digital Experiences

Simplify Business Processes

Modernize Systems Keeping Core Clean



“Mendix is a true digital transformation accelerator. Our IT is no longer perceived as a cost center, but as a value creator.”

Pradern Chotisuparach, Sr Executive Consultant,  
CHAROEN POKPHAND FOODS, THAILAND

“50 percent reduction in effort previously spent using multiple systems. Realized in 11-week project, a previously unthinkable time frame”

Tom Grigas, Industrial IT Director of Product Design Systems,  
CNH INDUSTRIAL

“Tremendous improvement in terms of time efficiency and also to the quality of data and analysis.”

Hiroyuki Nishimoto, Managing Director,  
KANEKA, MALAYSIA



“Democratize application development  
Reimagine and **GO MAKE IT**

**Easy, Open & Integrated**

A person in a red jumpsuit is preparing a hang glider on a mountain ridge. The glider has a large, colorful wing with orange, yellow, and red sections. The person is leaning forward, adjusting the glider's controls. The background shows a vast valley with a small town and rolling green hills, with snow-capped mountains in the distance under a clear blue sky. The sun is shining brightly in the upper left corner.

Thank You  
Go Make It.