Mendix & MindSphere
Speed up application development for the industrial IoT.

Oskar Möbert / Product Management / Siemens MindSphere
The industrial enterprise is the engine for growth in IoT markets.
Major industries are adopting the IoT.

- Facilities automation: +8.2%
- Mobile device management: +4.5%
- Fleet management: +4.3%
- Smart city: +3.7%

Source: 451 Research VoTE: Internet of Things, Organizational Dynamics 2017
Industry 4.0 manufacturing mandates.

Making more finished **custom products** and selling them for less.

Experiencing **less costly downtime** and waste.

Building products with **fewer defects** to drive satisfaction.

Requiring **fewer raw materials, resources and energy**.
1. MindSphere: The cloud-based, open IoT operating system.

2. Scale your business – the MindSphere application lifecycle.

3. Mendix & MindSphere – speed up application development for the industrial IoT.
MindSphere. The cloud-based, open IoT operating system.
Sell and purchase apps.
Sell and purchase apps.
Develop app

Register and test app

Sell and provide app

Buy and use app

MindSphere

Editor of choice

Upload

Developer Cockpit

Assign

Operator Cockpit

Launchpad

Private selling

Public selling
Operator Cockpit. Operate your applications.

**Explore** your IoT business in one dashboard.

**Receive** new **applications** from developers.

**React fast** on monitoring updates of your applications.

**Make** your own applications **available** to your customers.

**Track** the **usage** of your applications.
Developer Cockpit. Manage your applications during development.

Manage versions.

Configure applications.

Manage application specific roles and data access.

Promote and transfer to productive environment.
Four easy steps to develop a MindSphere application using Mendix.

1. Download Mendix Studio Pro.
2. Select pre-configured applications and connectors in Mendix App Store.
3. Create your MindSphere application.
4. Create deployment package and push to MindSphere.
# Mendix App Store.

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<th>Feature</th>
<th>Description</th>
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<td><strong>Pump Asset Example</strong></td>
<td>Demo application leveraging MindSphere APIs.</td>
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<td><strong>Starter Application</strong></td>
<td>Application that contains everything you need to start with MindSphere.</td>
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<td><strong>OSBarConnector</strong></td>
<td>Enable developers to integrate the MindSphere OS Bar into their apps.</td>
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<td><strong>Single Sign On</strong></td>
<td>Allows MindSphere end-users to get access to the deployed Mendix application within the Launchpad of MindSphere.</td>
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<td><strong>UI Theme Package</strong></td>
<td>To ensure the Mendix application has the correct fit within the MindSphere dashboard.</td>
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Hi!
Welcome to the Desktop Modeler!
Check out our learning paths to get started!
Pump Use Case

This is a demonstration application to show the use case of building a Mendix Application that is creating a template with a predefined set of KPIs for a primary field.

Please create an asset with an asset type called 'Pump' and the following variables in the asset, please fill:

- Variable 1
- Variable 2
- Variable 3

And deploy the application to see the results.
Leading solutions for the industrial IoT—Mendix & MindSphere.
With MindSphere:
Siemens Amberg manufacturing, a 24 hour production facility with volatile energy costs, saved 20,000 euros in just two weeks.

• Increased savings in electrical energy, nitrogen and compressed air, while reducing carbon footprint.
• Cost-effective data transparency.
• Traceable results.
• Continuous energy efficiencies improvement.
• Lean process maturity.
With MindSphere:
Rittal GmbH & Co. KG manufactures electrical enclosures. After implementing MindSphere, they realized a 30% savings in service and maintenance costs.

- Collection and transmission of data from cooling and chiller units to MindSphere.
- Custom applications to increase asset transparency and leverage analytics.
- Implementation of predictive maintenance to limit failures and downtime.
Explore Mendix & MindSphere.