

### Press Conference Founding MindSphere World Klaus Helmrich | Member of the Managing Board of Siemens AG Berlin | January 24, 2018

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# **MindSphere World**

In the race for industrial cloud solutions, German industrial companies are positioning themselves collectively as innovation leader

Founded on January 23, 2018 19 founding members Suppliers to electrical industry and German mechanical and plant engineering sector Global rollout



# **MindSphere World**

The association members drive forward the global reach of the MindSphere ecosystem as an open IoT platform. The broad-based expertise and the offering of all partners will open up totally new digitalization potential

for users everywhere in the world.

### Open collaboration helps position MindSphere as the leading industrial IoT platform



Platform providers

supply platform as a service, use economies of scale OEMS use the platform to develop their own solutions, business models and applications





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Klaus Helmrich, Member of the Managing Board of Siemens AG

### The MindSphere open IoT platform facilitates new business models **SIEMENS** and applications in the digital world – examples Ingenuity for life

#### Heller

- New machine operator model: The customer pays for the use of a machine tool rather than buying it (pay-per-use)
- Global access to machine data (connectivity over the cloud)
- Increased flexibility, quality and availability for the end customer
- Generation of new sales potential

#### Eisenmann

- Networking of production systems with the aid of MindSphere and E-MES
- Extensive transparency and data analytics
- Comparability between production, quality and maintenance data
- Increased efficiency in the end customers' production systems

#### **Deutsche Bahn**

- Supply of equipment for electric locomotives for condition-based and predictive maintenance
- Joint development of data analytics models
- Increased economic efficiency, availability and reliability of the locomotive fleet





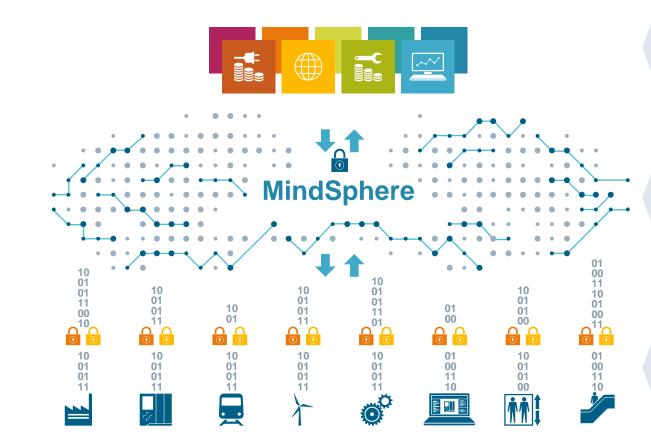


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## Siemens offers with MindSphere a cloud-based, open platform for the industrial Internet of Things





#### **Applications**

- Uses open interfaces (APIs) for creating OEM apps and services based on them
- Marketed through an app store
- **Protection** for self-developed OEM apps

#### **MindSphere**

- Open interfaces (APIs) for developing customer-specific apps
- Various cloud infrastructures: SAP, Amazon Web Services, Microsoft Azure, Atos as "public", "private" or "on-premise" (planned) versions

#### MindConnect

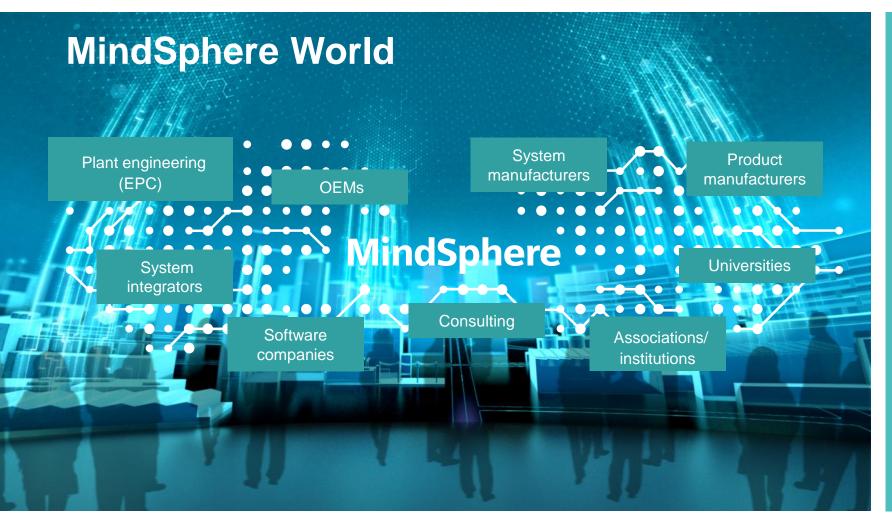
- Open standards for connectivity, e.g., OPC UA
- Plug-and-play connection with products from Siemens and third-party suppliers
- Secure, encrypted data communication

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# MindSphere World further develops MindSphere content and promotes its global use and positioning





#### Joint association activities

- Support for technical solutions on MindSphere and in opening up new digital markets
- Development of recommendations:
  - on requirements for the MindSphere IoT operating system
  - for standards and uniform rules on data utilization
- Marketing measures and PR work on positioning MindSphere
- Promotion of science, research and teaching

### Open Space – New form of collaboration for new ideas in the age of digitalization





#### MindSphere Open Space

- Bringing MindSphere
  World companies together with:
  - Startups
  - Freelance developers
  - Investors
  - Other companies
- Development of new individual ideas and business opportunities
- New, open environment
- New formats, e.g. hackathons

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#### FC Bayern München – Allianz Arena use case

Software and cloud-based solutions for higher pitch quality and thus a better game experience



MindSphere-based apps control pitch maintenance at the Allianz Arena

Control of water supply, lighting time, fan ventilation, etc.

### MindSphere World: The members drive forward the global reach of the MindSphere ecosystem as an open IoT platform





- The cloud-based open IoT platform MindSphere is the technical basis for new digital applications.
- MindSphere World now makes it possible for all stakeholders involved to work together openly and thus position MindSphere as the leading industrial IoT platform.

#### "Open Space" collaboration opens up new dimensions in innovation.

- Open Space as an IoT hub is a good prerequisite for developing new ideas in the age of digitalization.

#### MindSphere will become an open, global ecosystem across industries.

- Digitalization offers growth opportunities for suppliers to the electrical industry as well as German mechanical and plant engineering sector.
- Applications in these sectors serve as references for other industries, such as building technologies and mobility.

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All information is preliminary.



# Thank you!