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The BMW Group and Microsoft launch the Open Manufacturing Platform.

Companies are partners in a new initiative to drive open Industrial IoT development and help grow a community to build future Industry 4.0 solutions.

- Technology framework and open community to share smart factory solutions across the automotive and manufacturing sectors to significantly accelerate future Industrial IoT developments.
- Utilizing industrial use cases and sample code, community members and partners will develop their own services and solutions while maintaining control over their data and intellectual property.
- Built on the Microsoft Azure Industrial IoT cloud platform, the Open Manufacturing Platform will provide a reference architecture with open-sourced components based on open industrial standards as well as an open data model.
- By the end of 2019 there will be an initial set of 4-6 partners in place and a minimum of 15 use cases rolled out into select production environments.
- Manufacturers and suppliers including companies from outside the automotive industry are encouraged to join the community.

Hanover. Today, at Hannover Messe, Microsoft and the BMW Group announced a new community initiative to enable faster, more cost-effective innovation in the manufacturing sector. In manufacturing today, production and profitability can be hindered by complex, proprietary systems that create data silos and slow productivity. The Open Manufacturing Platform (OMP) is designed to break down these barriers through the creation of an open technology framework and cross-industry community. It is expected to support the development of smart factory solutions that will be shared by OMP participants across the automotive and broader manufacturing sectors. The goal is to significantly accelerate future Industrial IoT developments, shorten time to value and drive production efficiencies while addressing common industrial challenges.

Built on the Microsoft Azure Industrial IoT cloud platform, the OMP is intended to provide community members with a reference architecture with open-sourced components based on open industrial standards as well as an open data model. In addition to facilitating collaboration, this platform approach unlocks and standardizes data models that enable analytics and machine learning scenarios – data that has traditionally been managed in proprietary systems.

Utilizing industrial use cases and sample code, community members and other partners will be able to develop their own services and solutions while maintaining control over their data.

“Microsoft is joining forces with the BMW Group to transform digital production efficiency across the industry,” said Scott Guthrie, Executive Vice-President, Microsoft Cloud and AI Group. “Our commitment to building an open community will create new opportunities for collaboration across the entire manufacturing value chain.”

With currently over 3,000 machines, robots and autonomous transport systems connected with the BMW Group IoT Platform, which is built on Microsoft Azure’s cloud, IoT and AI capabilities, the BMW Group plans to contribute relevant initial use cases to the OMP community. One example is the company’s use of their IoT platform for the second generation of its autonomous transport systems in the BMW Group plant in Regensburg, one of 30 production and assembly sites worldwide. This has enabled the BMW Group to greatly simplify its logistics processes via a central coordination of the transport system, creating greater logistics efficiency. In the future, this and other use cases, such as digital feedback loops, digital supply chain management and predictive maintenance, will be made available, and in fact, developed further within the OMP community, with the BMW Group retaining ownership of its pre-existing business Intellectual Property (IP) and data.

“Mastering the complex task of producing individualized premium products requires innovative IT and software solutions,” said Oliver Zipse, member of the Board of Management of BMW AG, responsible for production. “The interconnection of production sites and systems as well as the secure integration of partners and suppliers are particularly important. We have been relying on cloud services since 2016 and are consistently developing new approaches. With the Open Manufacturing Platform as the next step, we want to make our solutions available to other companies and jointly leverage potential in order to secure our strong position in the market in the long term.”

The OMP is the next evolution in the BMW Group and Microsoft’s long-standing technology partnership and mutual commitment to innovation and creating industry-wide opportunities for collective success. Through the OMP, community members will have greater opportunities to

unlock the potential of their data, allowing them to build and integrate industrial solutions more quickly and securely and in turn, benefit from contributing to and learning from other organizations.

The OMP will be designed to address common industrial challenges such as machine connectivity and on-premises systems integration. This will facilitate the reuse of software solutions among OEMs, suppliers and other partners, significantly reducing implementation costs. For example, a ROS-based robotics standard for autonomous transport systems for production and logistics will be contributed to the OMP for everyone to use. The OMP is compatible with the existing Industry 4.0 reference architecture, leveraging the industrial interoperability standard OPC UA.

"This is very good news for the manufacturing industry," says Stefan Hoppe, President and CEO of the OPC Foundation. "The use of open international industry standards such as OPC UA in the OMP community enables manufacturers, machine builders and suppliers to integrate their existing equipment and systems efficiently and securely. For a long time, companies have promoted proprietary, closed ecosystems - the OMP commitment to open development will shape tomorrow's manufacturing".

The underlying platform will continue to evolve over time, along with manufacturing requirements, to incorporate new innovations including areas of analytics, artificial intelligence and digital feedback loops.

The broader OMP community is being formed now, with recruitment of additional partners underway. The OMP Advisory Board is expected to be in operation with an initial set of 4-6 partners in place and a minimum of 15 use cases rolled out into select production environments by the end of 2019. The two initial partners, Microsoft and the BMW Group, encourage other manufacturers and suppliers including companies from outside the automotive industry to join the community.

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About the BMW Group
With its four brands BMW, MINI, Rolls-Royce and BMW Motorrad, the BMW Group is the world's leading premium manufacturer of automobiles and motorcycles and also provides premium financial and mobility services. The BMW Group production network comprises 30 production and assembly facilities in 14 countries; the company has a global sales network in more than 140 countries.

In 2018, the BMW Group sold over 2,490,000 passenger vehicles and more than 165,000 motorcycles worldwide. The profit before tax in the financial year 2018 was € 9.815 billion on revenues amounting to € 97.480 billion. As of 31 December 2018, the BMW Group had a workforce of 134,682 employees.

The success of the BMW Group has always been based on long-term thinking and responsible action. The company has therefore established ecological and social sustainability throughout the value chain, comprehensive product responsibility and a clear commitment to conserving resources as an integral part of its strategy.

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