msg.Smart Factory Platform

Open Platform and Ecosystem for the Rapid Deployment of Intelligent Apps for Digital Manufacturing

msg is an international group of companies with over 8,500 employees in 28 countries for strategic consulting in IT and processes with intelligent, industry-specific IT solutions and services for 12 branches.

What the analysts say:

"Digital manufacturing requires a focused ecosystem of technology partners whose complexity companies can master."

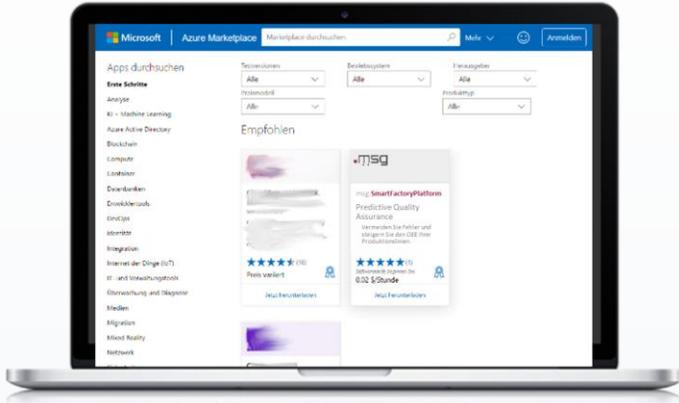*McKinsey & Company, Digital McKinsey, July 2018, "Digital Manufacturing – escaping pilot purgatory"*

The smart factory platform

The Smart Factory Platform is a marketplace for digital use cases in the form of Software as a Service (SaaS) for production and logistics. In a kind of modular system, apps can be purchased simply by subscription - directly via the Microsoft Azure Marketplace. With this SaaS solution, discrete manufacturers can set up digital lean manufacturing processes with minimal effort. These apps bring transparency to production, reduce the error rate and increase overall equipment effectiveness

The following use cases are currently available

Predictive Quality Assurance, visualization of overall equipment efficiency and reasons for disruption, Resilient edge computing, Digital Andon-Board, legacy system integration, efficient service documentation, achine learning based Process Mining, digital shop floor management, augmented reality for production, digital work instructions, smart devices for workers, standardized on prem / cloud integration.

msg.SmartFactoryPlatform Architecture

All Use Cases and necessary SFP components are installed within 15 minutes out of the Microsoft Azure Marketplace.

Process	Manufacturing Process Transparency and Optimization
Use Cases	Value-Stream Optimization · Digital Andon-Board · Digital Quality Management · Resilient Edge Computing
Smart Analytics	Smart Factory Platform Predictive Layer
Functional Integration	Virtual Production Reality
Customer on-premise systems	Shopfloor — Resilient Edge Computing · Manufacturing Execution System · IoT · Machining Control

Why Microsoft Azure?

Use standardized Azure Big Data architectures and machine learning models to increase your overall equipment efficiency in production

The SFP contains predefined big data analytics functions and data models to achieve maximum transparency in production and to produce more efficiently through forward-looking communication. The domain-specific machine learning models enable, among other things, early detection of production errors and thus increase your transparency and OEE.

Accelerate your journey to digital manufacturing with the pre-built Azure-native Data Driven Enterprise architecture

In addition to over 15 different use cases, the Smart Factory platform includes a reference architecture for data-driven enterprises in production. All architecture components required for this are integrated natively in Azure. This includes the Azure IoT and Event Hub. In this way, sensor and streaming data are analyzed, evaluated and incorporated into corresponding predictive models.

Individual expansion options using Azure Services

Due to the flexible publish-subscribe architecture of the SFP, customers can quickly implement robust extensions to the use cases and benefit from the data obtained. Each customer is thus able to implement their individual business logic, analyzes and reports quickly and efficiently. This is done without changing the standard scope of the individual use cases.

Increase your productivity in production through fast and efficient integration with Microsoft Dynamics in Azure - directly from the cloud

Historically grown IT and production architectures lead to complex proprietary adjustments to interfaces without enabling a sustainable transformation into digital manufacturing. In combination with Microsoft Dynamics in Azure, the Smart Factory platform enables the rapid provision of the latest IT and shop floor components directly from the cloud. Thus, customers can their production andsupply chain-Update processes quickly and non-disruptively.

Microsoft Azure

Microsoft Azure is an ever-growing suite of cloud computing services designed to help your organization meet its business challenges. With Azure, your business or organization has the freedom to build, manage, and deploy applications across a vast, global network using your favorite tools and frameworks.

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