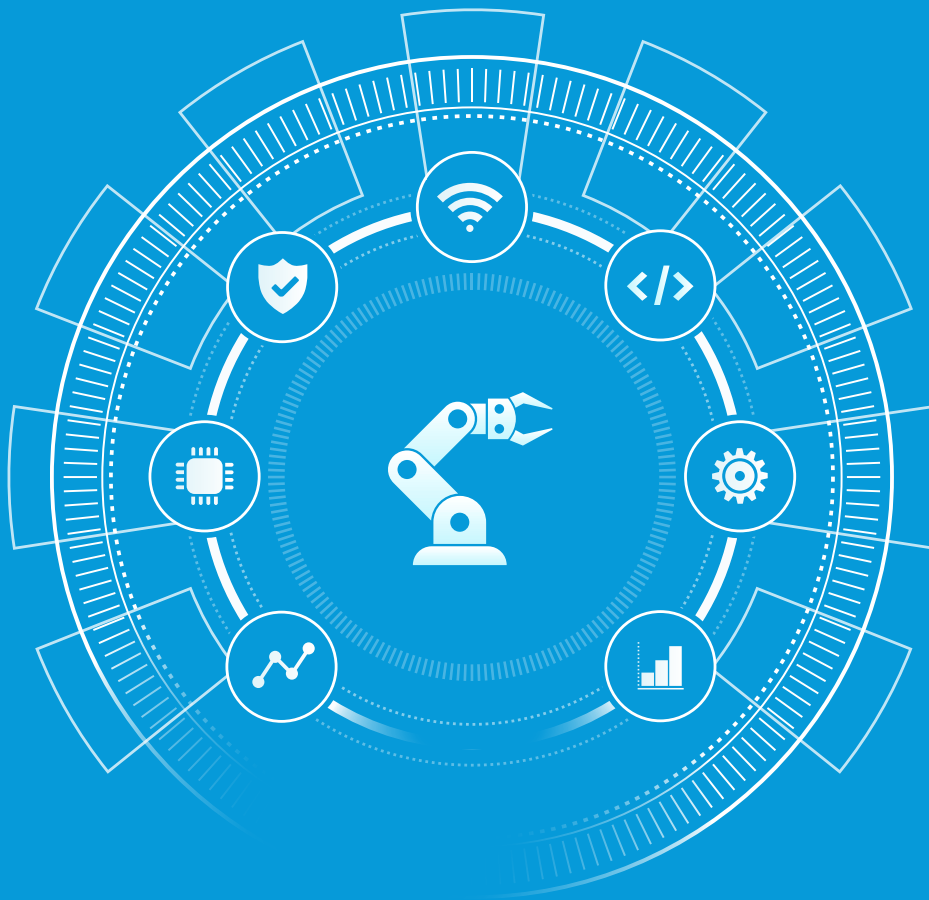# Meet the future of manufacturing with SAP DM.

Nowadays, manufacturing is undergoing rapid change. Manufacturing technologies have evolved and, more significantly, so has the context in which business is conducted. Companies are pushed to change their production, to make it ever more agile, smart and efficient to stay competitive.

The SAP Digital Manufacturing (DM) is the new tool in the manufacturing environment. The combined functionalities of a manufacturing execution system, detailed operation planning and advanced analytics elevate your production to another level.
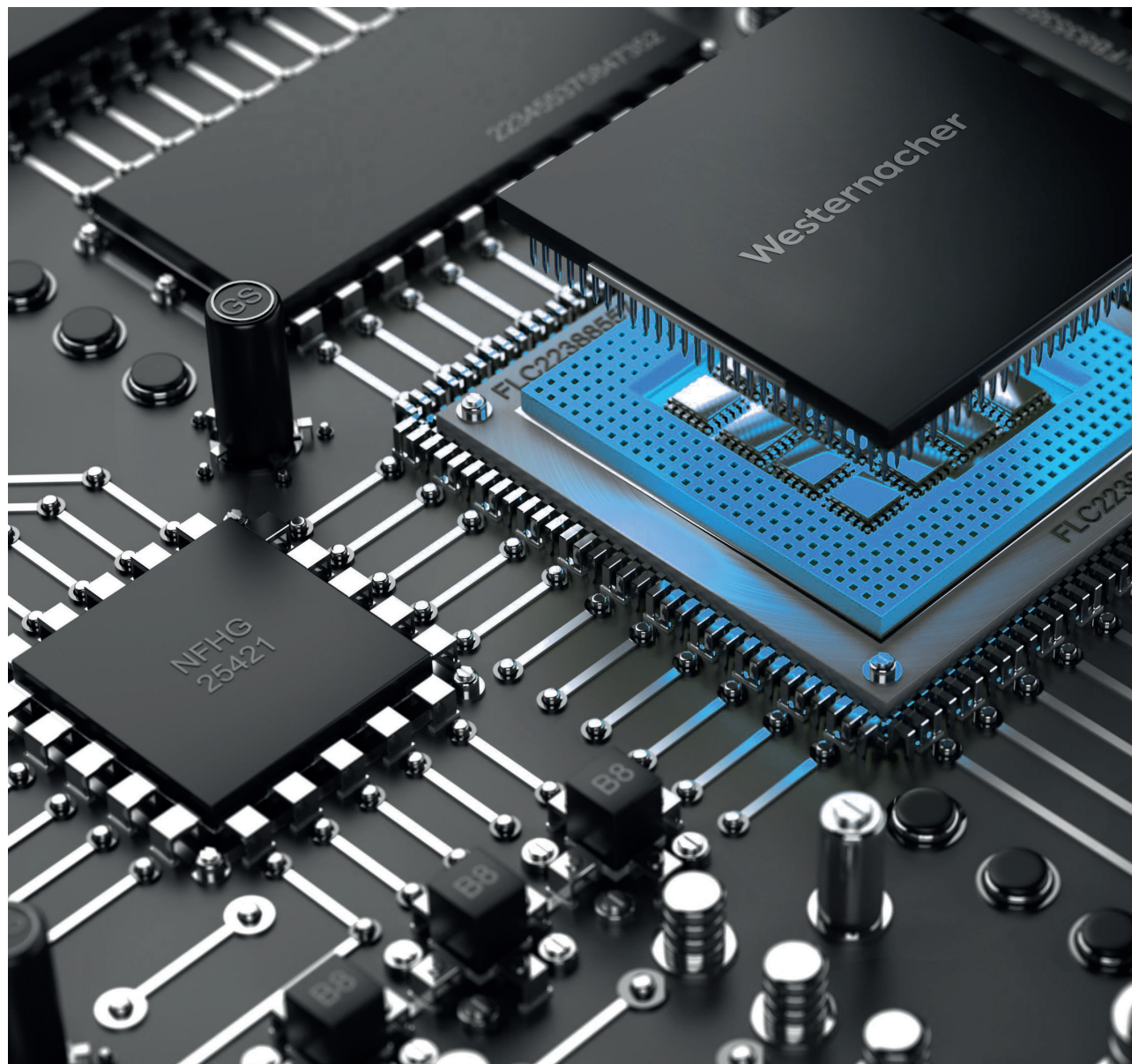
Why we need the Digital Manufacturing for the changing world.

In a networked world, the opportunities of implementing ever more agile, efficient and sustainable processes are endless. The competitive pressure to move from a standalone, manual and paper-heavy process to enterprise-wide / cross-company manufacturing execution and performance management poses a challenge for any company.
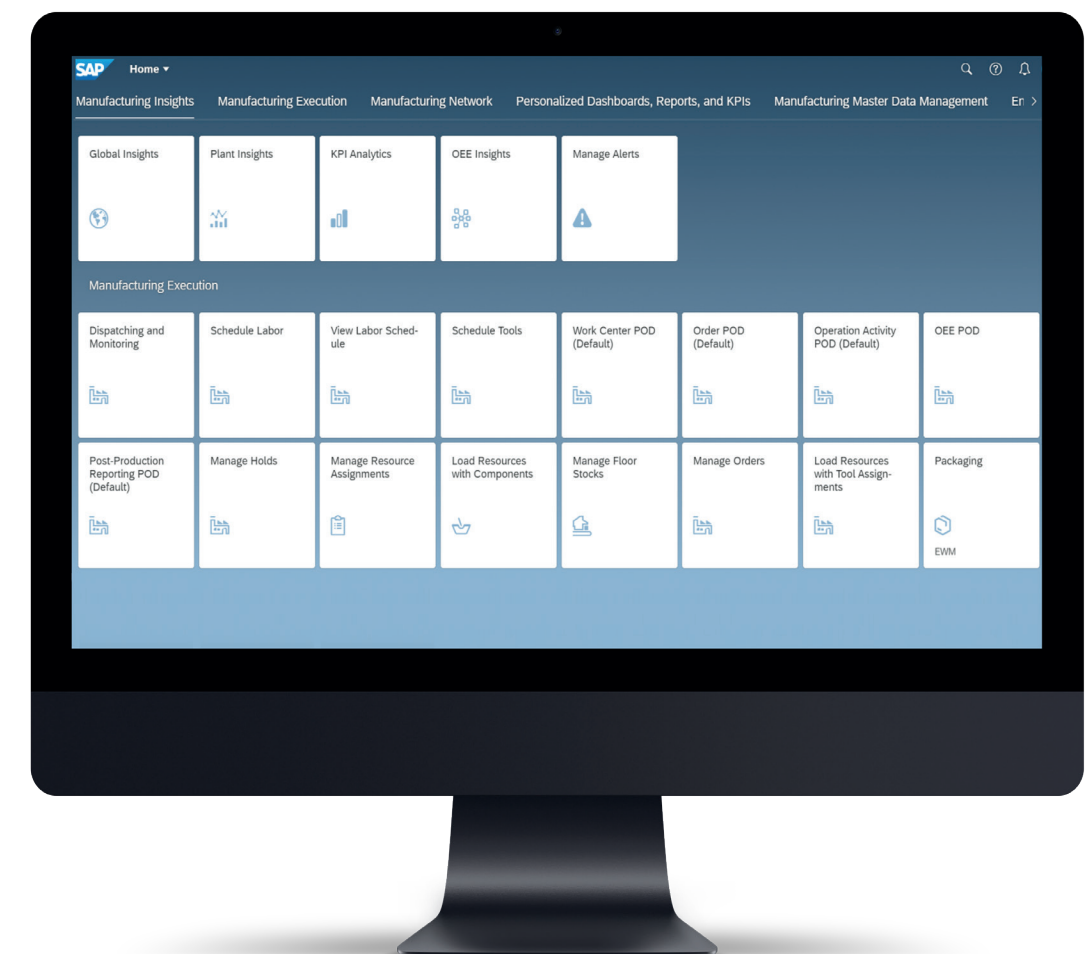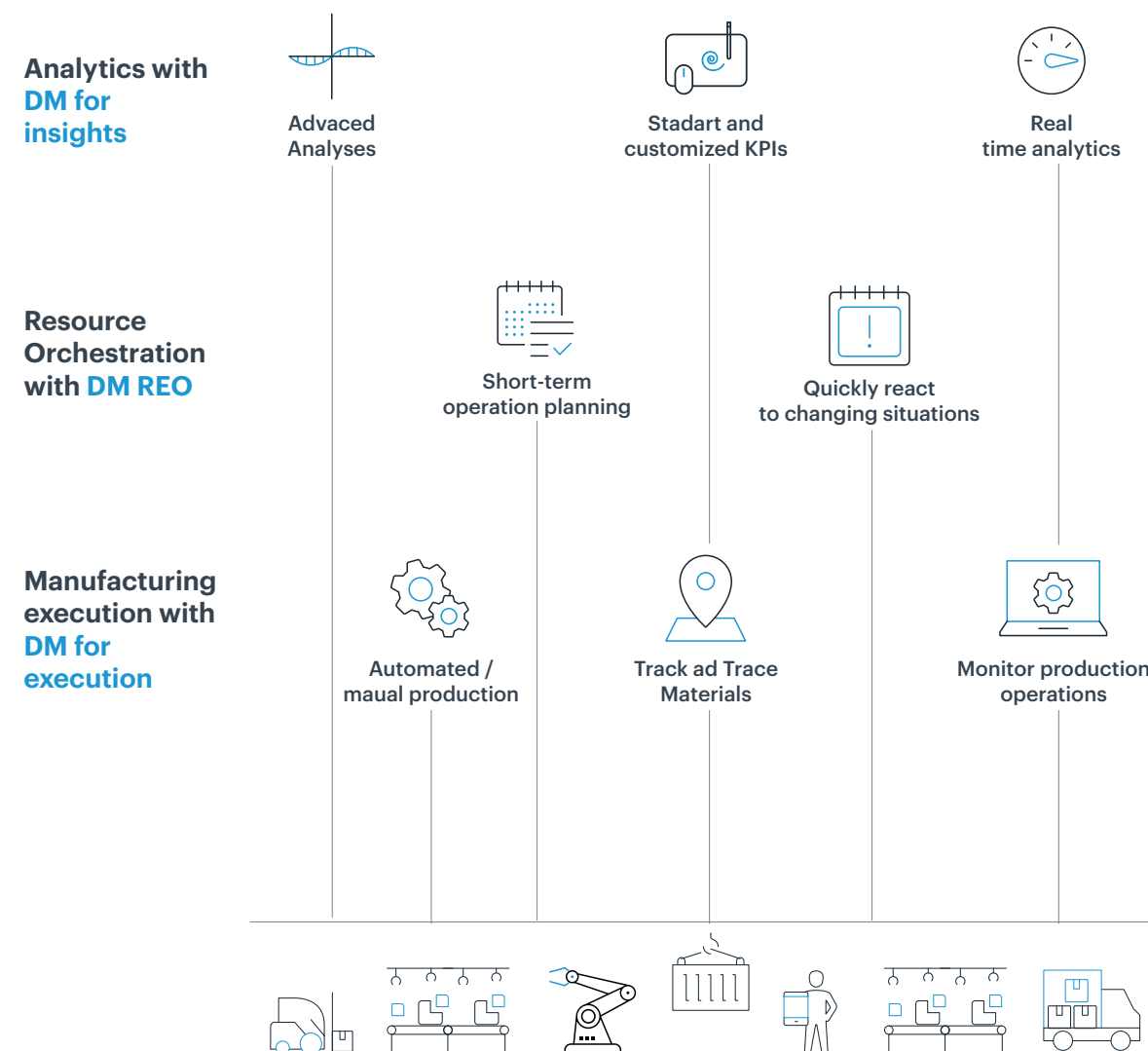
The emergence of technologies ranging from advanced analytics, Edge & Cloud computing, and Industrial Internet of Things (IIoT) offer manufacturers the potential to optimize and automate their production processes. A seamless implementation of these technologies requires the creation of conditions in which processes across the business can be changed, paving the way for wide-scale, sustainable value creation. In terms of manufacturing, this translates to the possibility of establishing an automated and efficient end-to-end production cycle which exhibits a high vertical and horizontal integration.

With the aim of embedding advanced technologies to meet the growing requirements in production SAP has developed the Digital Manufacturing (DM). It represents a lightweight and cloud-

based platform within the manufacturing environment, offering a variety of applications and enabling the implementation of a scalable and flexible production execution, combining it with extended monitoring functionalities and analytic tools. The DM represents the technology of the future and incorporates numerous functionalities that are important for the volatility of today's and future production.

All inclusive solution.

The Digital Manufacturing consist of three basic elements:

Analytics with DM for insights

Advaced Analyses

Stadart and customized KPIs

Real time analytics

Resource Orchestration with DM REO

Short-term operation planning

Quickly react to changing situations

Manufacturing execution with DM for execution

Automated / maual production

Track ad Trace Materials

Monitor production operations

Perform all production operations within one solution that provides all the features and functionality you need and puts the user and their work experience first. Leverage from the role-based, responsive, and intuitive design and enable individuals and teams to collaborate more quickly and effectively.

Objectives

⊙ Increase visibility and efficiency of all production operations

⊙ Efficient utilization of available production resources

⊙ Digitization and automation of production workflows

⊙ Intuitive design oriented to user needs to provide effective task fulfillment

⊙ Provision of KPIs to the right user at the right time and place

⊙ Extended short-term resource and labor planning reflecting the current production requirements

⊙ Responsive and flexible manufacturing solution focusing on user demands and efficient manufacturing conduction

⊙ Fully integrated solution providing out-of-the box interfaces to EWM, AIN, S/4HANA

Solution

⊙ Easy-to-implement solution that offers a wide range of options for expansion

⊙ Tight inclusion of IIoT such as automized visual inspection scenarios

⊙ Detailed scheduling and dispatching of production resources and operations

⊙ Integration of a variety of functionalities (manage holds, buyoffs, provide work instructions...) supporting production to ensure a smooth conduction of manufacturing operations

⊙ Direct data acquisition from the shop floor and subsequent analytical processing within the cloud

Benefits

⊙ Rapidly deployable and highly configurable solution adapted to the respective needs of the company

⊙ Establishment of an end-to-end operational production monitoring that enables direct reaction to incidents and enables optimization of production processes in the future

Take a closer look at
the functionalities.

Simplify Execution

Perform digitized production and process order execution

Draw from multiple capabilities that facilitate production such as buyoff management, OEE identification, set-point-definition, digital work instructions…

Perform floor stock (inventory creation, floor stock records management and inventory creation) and WIP management
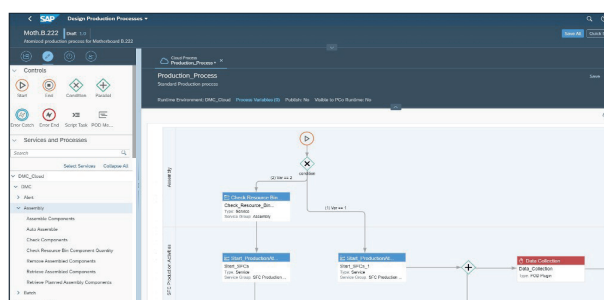
Orchestrate Resources
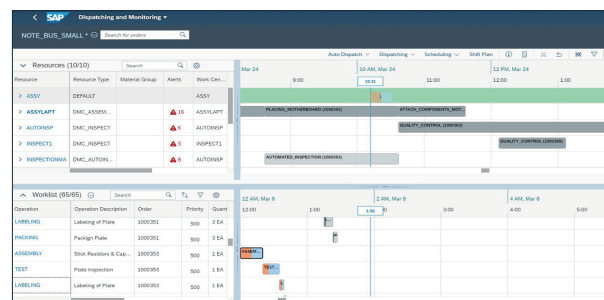
Perform labor management and assign shifts and work centers to users

Assign labor and tools to machines and equipment on the production floor

Schedule, dispatch (automized or manual) and manage production operations to resources based on work orders in graphical dashboard

Automize Execution

Integrate manufacturing machines and equipment enabling bi-directional communication.

Model production processes that orchestrate and automate machine communication and process execution through visual editor (Shop floor designer)

Automatically trigger business processes on the shop floor and top floor level through POD notifications

Perform advanced analysis
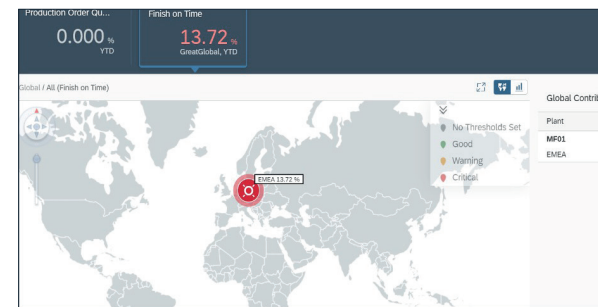
**Choose** between of custom or a variety of standard KPI's (Completion Item Accuracy, First Pass Yield …)

Analyze trend of selected KPI's to monitor productivity, quality, and delivery of products

Drill down and compare between different hierarchy levels (regions, plants, work centers, resources)

Identify contributors impacting production performance

Analyze the overall equipment effectiveness (OEE)

Track and trace production material
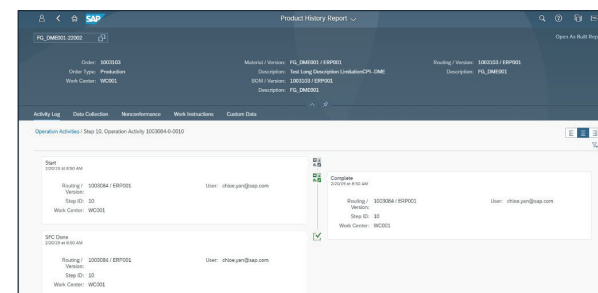
Define data collections and attach them to production process
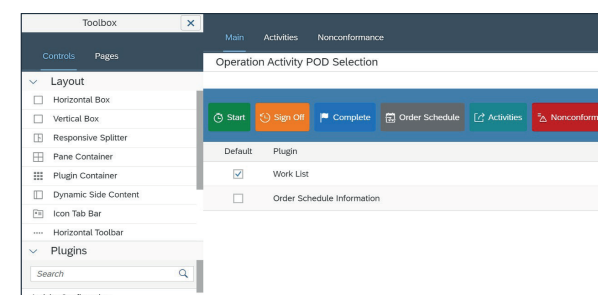
Record traceability, quality, and all other relevant production data

Tracking of the individual material at any production steps within multiple applications

Display of product genealogy reports and historical activities

Create and maintain full device documentation

Customize the solution

Utilize pre-delivered (quality inspection, packing) and / or customized plugins

Register services, business process extensions or plugins through service registry application

Design your own Production Operator Dashboards (POD) with a graphical POD designer

Create own dashboards through the dashboard designer including custom, pre-defined and plugins

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SAP Manufacturing Network | **Customers** | **Service Provider** | **Suppliers** | **OEM**

Unleash the full potential through integration.

The true benefit of the Digital Manufacturing becomes apparent when it is integrated with other systems. Only through the combination of information from different sources can the full potential of any system be accessed. In respect to the DM, out-of-the box integrations are thereby provided for the different elements (DMe, REO, DMi). As you can see within the graphic below, there are multiple logical interfaces to the different systems. An example for the importance of an embedded solution is the integration to the S/4HANA or other ERP system in order to realize optimal production workflows. It constitutes a necessity for production planning and order creation to be highly integrated into the production execution. Further interconnections to the Integrated Business Planning (IBP), optimizing demand planning, the Asset Management modules, improving asset maintenance, and several other integration scenarios maximize the business value on an enterprise level. As a diversified company having experience in nearly all operative and strategic software solutions from SAP, we at Westernacher have come to know how important an internal and external connection of these diverse systems is. It represents a crucial ingredient to remain competitive on a local and global level.
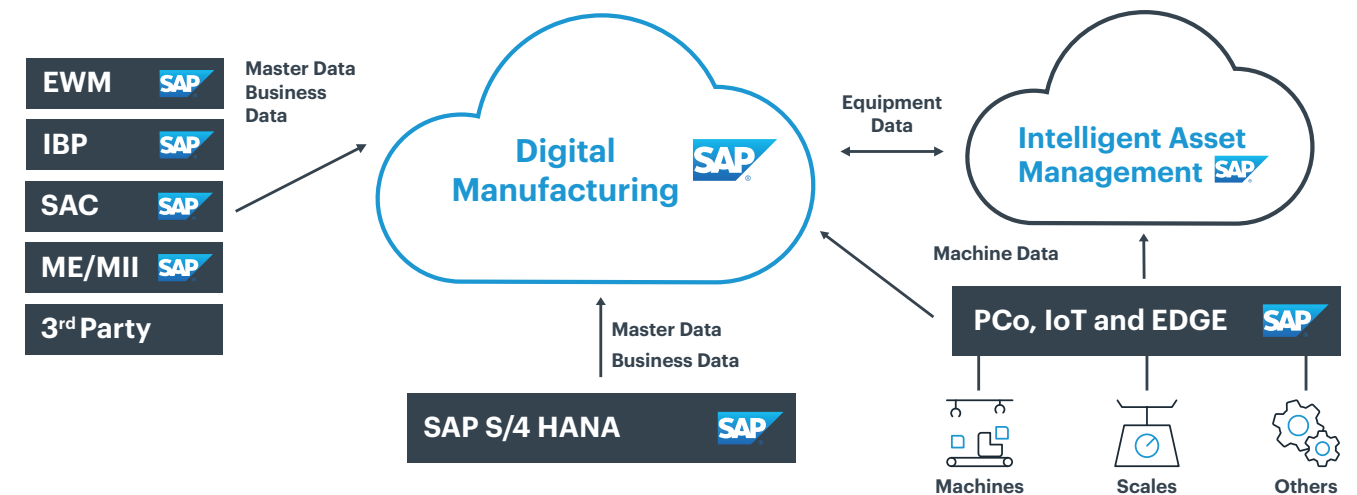
Start your transformation journey now with Westernacher.

As a well-known implementation partner for solution implementations across the entire supply chain, Westernacher has more than 35 years of expertise with SAP technology. We were one of the first to look into the topic of the new Digital Manufacturing, building up experience early to be prepared to solve the challenges of today and future manufacturing.

Westernacher is an expert when it comes to the digitalization of supply chain processes. Our consultants have hands-on experience in the many industries we serve, ensuring a perfect mix of resources within our teams to meet your needs. We think end-to-end and deliver globally. From Platinum Consultants with over 10 years of business and IT expertise, to Project Managers with over five successful end-to-end implementations, as well as off-shore delivery teams, we have the capability to deliver – globally. We understand your business and speak your language. We'll help you to determine the most suitable and cost-effective solution for your company.

Let's get started.

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