

MPDV SMART FACTORY WORLD



Executive board



Together on the way to the Smart Factory – company founder Prof. Dr.-Ing. Jürgen Kletti (right) with the two chief executives of MPDV (from left): Thorsten Strebel (CTO) and Nathalie Kletti (CEO).

Are you on the way to the Smart Factory?

The primary goal of manufacturing industry has always been to achieve competitive production that can also be operated at high-wage locations. Throughout the years, various strategies have emerged to achieve this goal: lean management, manufacturing execution systems, and, finally, digitalization. Viewed individually, these building blocks can make a difference but they do not have the necessary impact to deliver what the manufacturing sector expects in the age of Industry 4.0: transparency, efficiency, and sustainability.

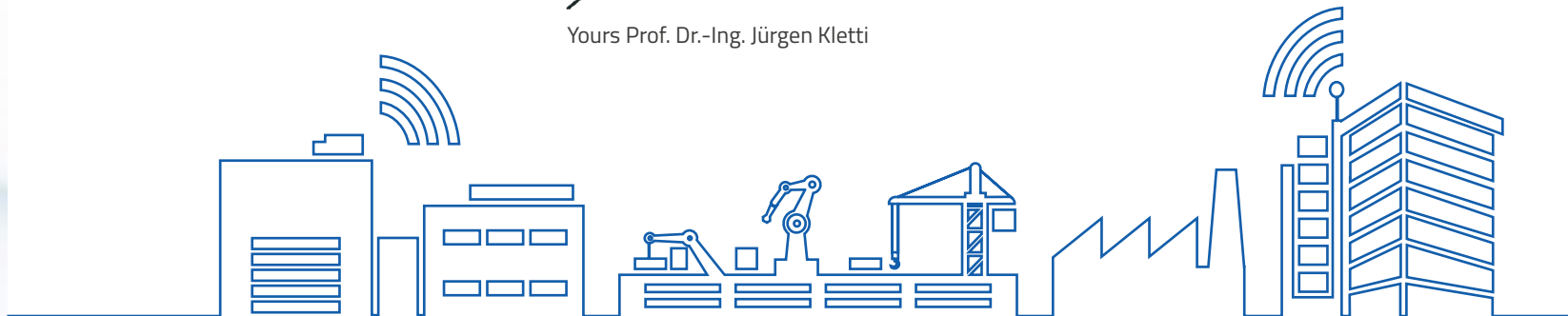
Only a well-thought-out combination of methods and technologies makes processes more resilient and enables manufacturing companies to produce competitively in the long term. The digital transformation is here to stay - and rightly so. Let's harness this momentum and work together to transform today's production facilities into true Smart Factories.

With products, services, and solutions from MPDV, we offer you the opportunity to decide for yourself how you want to proceed, what you want to implement yourself, and where you want to rely on our support.

Let us join forces! Only those who are ready to take the first step will get closer to their goal: the Smart Factory.



Yours Prof. Dr.-Ing. Jürgen Kletti



Who we are

We have been known for efficient solutions and absolute reliability since 1977. Drawing on our expertise, we are designing the Smart Factories of tomorrow and implementing digital production worldwide.

At MPDV, we combine many years of experience and extensive knowledge from the process industry, discrete manufacturing, production digitalization, lean management, and artificial intelligence. Our expert knowledge forms the basis for our pioneering IT solutions and drives the digital transformation in industry.

MPDV employees work at locations around the world to develop customized solutions for manufacturing companies of all types and sizes. This means that we are in close proximity to our customers and industrial hotspots.



Why choose MPDV?

MPDV is the market leader in manufacturing IT. We offer products, solutions, services, and consulting based on a broad spectrum of expertise. We support companies of all sizes and from all industries on their way to the Smart Factory.



We stands for about 530 MPDV employees. After all, it is the people who define a company. Every day, MPDV's teams develop smart solutions for manufacturing. We have used our passion for high-quality products, our knowledge, and team spirit to make MPDV what it is today: the market leader for IT solutions in manufacturing with around 50 years of experience in the production environment.

Create stands for what MPDV is doing. We are driving digitalization in manufacturing, thereby making companies competitive. We always have the finger on the pulse and know the needs of our customers very well. We operate competence centers, stay in close contact with our users, and continue to develop our solutions in line with demand. In doing so, we focus on key elements and stand out from the crowd.

Smart Factory is a vision of a self-regulating factory of the future where machines and logistic systems organize themselves almost autonomously. MPDV supports companies in turning this vision into reality. With our products, we make a significant contribution towards helping factories evolve into truly Smart Factories and remain at the cutting edge of technology. The focus continues to be on people as an integral part of creating value.

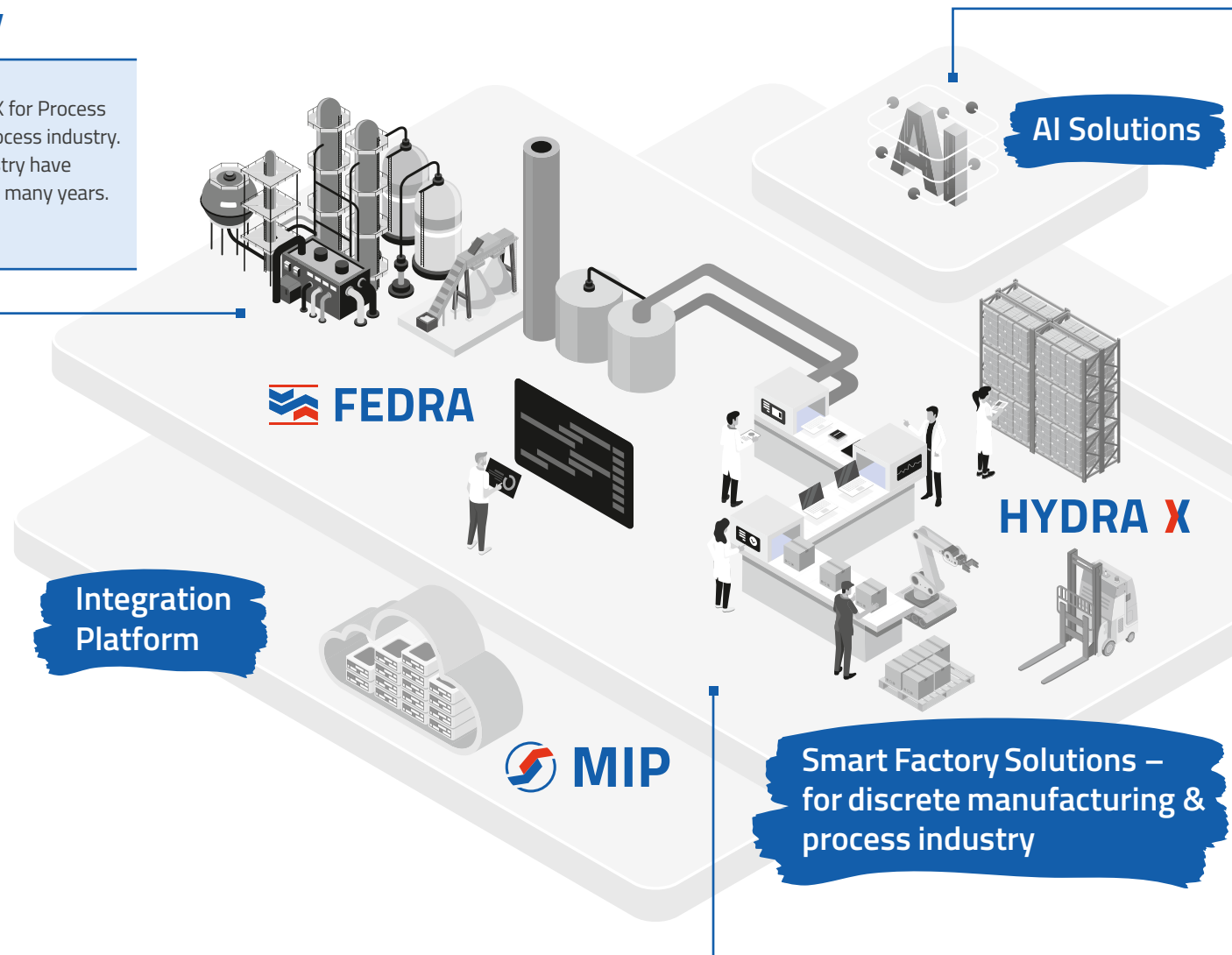
MPDV – from raw material to the finished product

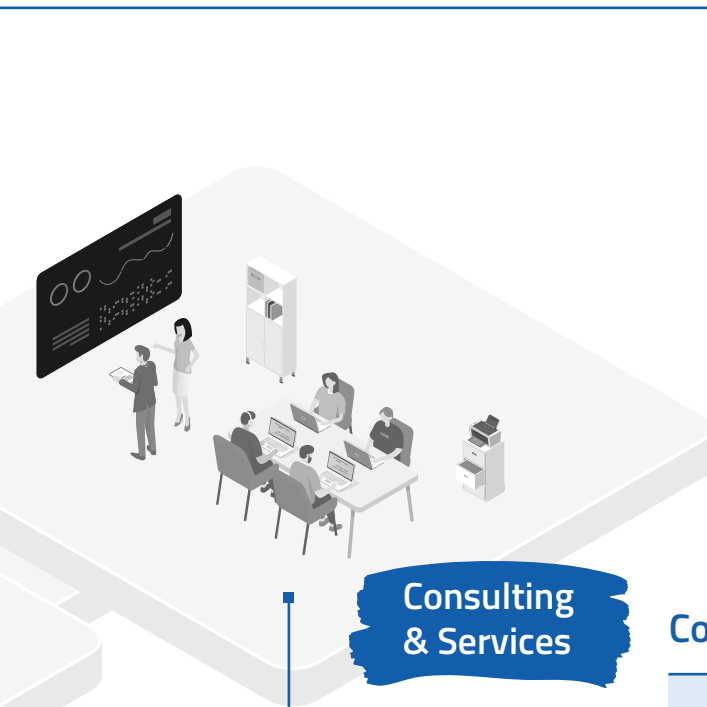
At home in the process industry

The Manufacturing Execution System (MES) HYDRA X for Process is synonymous with innovation and stability in the process industry. Renowned customers from different sectors of industry have relied on the competence of experts from FELTEN for many years. Since 2019, FELTEN has been part of MPDV.

Focus on discrete manufacturing

MPDV offers IT solutions for discrete manufacturing with the Manufacturing Execution System (MES) HYDRA, the Advanced Planning and Scheduling System (APS) FEDRA and the integration platform MIP. A wide range of industry expertise and many years of project experience are the hallmark of MPDV's experts. MPDV's products are known worldwide and successfully used in everyday operation.





Consulting & Services

Artificial intelligence for the Smart Factory

Artificial intelligence (AI) is playing an increasingly important role in the Smart Factory. For this reason, MPDV decided in 2019 to develop and offer standard AI applications. The advantage is self-evident: less effort and lower implementation costs. Production companies can also start right away with existing data.

Consulting for Manufacturing Excellence

The experts from the Executive Manufacturing Center (EMC) are an integrated management consultancy for manufacturing excellence, supporting manufacturing companies of all sizes and from all industries in their quest for greater competitiveness. Industry-wide expertise and motivation for cultural change spur the experts on to successfully shape the digital transformation. EMC offers practical solutions and services in the field of industrial manufacturing with a focus on process optimization and the implementation of these processes in IT systems, particularly in the MES. MPDV also offers services and training courses around their own software solutions for the Smart Factory.

In short, we cover the entire spectrum of the Smart Factory.

The past 45 years

The birth of MPDV

Prof. Dr.-Ing. Jürgen Kletti founds the company as an engineering firm specializing in custom hardware and software development for micro-processor applications.

1977



From customization to standardization

MPDV launches the first serial devices and implements the first standard software for machine data collection at a renowned injection molding company.



With HYDRA on track for success

The engineering firm becomes a supplier for standard software and grows to twelve employees. HYDRA conquers the market as the first standard software for manufacturing and workforce management.



Trade shows

From HANNOVER MESSE to CEBIT: MPDV has been at all major trade fairs since the late 1980s.



Certified quality

MPDV is certified according to DIN EN ISO 9001 quality management standard for the first time. Since then, MPDV has been using standardized processes ensuring high-quality business workflows.

1996



Starting the expansion

With the first sales representative in Hamm, northern Germany, the location begins to take shape and develops into a successful MPDV branch in the following years. MPDV is also active abroad and sets up a subsidiary in Switzerland in 1998.

Expansion of expertise

HYDRA evolves into a comprehensive MES solution. The acquisition of INCA Industrielle Computer Anwendungen GmbH and CSI GmbH enables the company to expand its industry expertise and CAQ competence. The incorporation of IBN-SYSTEME GmbH also expands our expertise in the field of plastics.

Moving into the MPDV high-rise building

The location in Mosbach, Germany, is constantly developing and growing. After a short planning and construction phase, employees can move into the first of the two MPDV high-rise buildings.

A star is born

2004 marks the founding of the HYDRA Users Group and the launch of the MPDV Campus. Around 90 users, manufacturers, and system integrators, chaired by Prof. Dr.-Ing. Jürgen Kletti, establish the pioneering VDI MES working group.

Modular MES HYDRA 7

With HYDRA 7, MPDV releases the first modular MES system. HYDRA is also undergoing its first validation against the U.S. Food and Drug Administration (FDA) requirements at a customer site. Companies in the food and drug industries must comply with these regulations in order to sell their products in the United States.

1997

2005



Experts very much in demand

Under the chairmanship of MPDV, the European MESA subsidiary MESA Europe is founded.

Internationalization

Since 2007, MPDV has been operating a subsidiary in Chicago that supplies the American market with manufacturing IT. Another milestone is the founding of MPDV Asia Pte Ltd. Singapore in the same year.

Appointment as honorary professor

Prof. Dr.-Ing. Jürgen Kletti receives the honorary professorship of the German state of Baden-Wuerttemberg for services rendered to promote education and advancement of young people. The first publication of VDI Guideline 5600 "MES" is imminent with MPDV providing leadership and guiding input.

MES-Cockpit

Market launch of the MES Cockpit product line.

Foundation of the MES D.A.CH association

MPDV is a founding member of the MES D.A.CH association and holds the chairmanship until 2016.

New location in Shanghai

The MPDV family is growing in China by opening a new office in Shanghai in 2012.

2006

2012



New generation: HYDRA 8

Following the announcement the year before, HYDRA 8 is now making its way into production halls. The software is based on the VDI guideline 5600 and kicks off a new MES generation.

Top Innovator

MPDV is awarded the innovation prize TOP 100 for the first time for its pioneering spirit. We develop initial concepts for the practical implementation of Industry 4.0 ideas and Smart Factory strategies. The future concept MES 4.0 is introduced, which includes these ideas and strategies.

Consulting

MPDV Campus Consulting is spun off into Perfect Production GmbH. Publication of the four-stage model "Smart Factory" and introduction of the HYDRA Dynamic Manufacturing Control (DMC) for highly varied assembly processes.

Expansion of the company headquarters

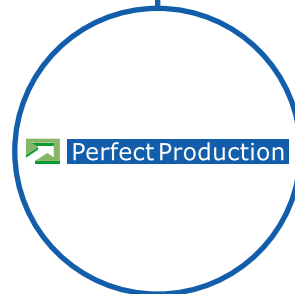
A year of major events: MPDV celebrates its 40th anniversary and the expansion of its headquarters in Mosbach by adding the prominent landmark: the MPDV office tower.

Integration Platform MIP

With the market launch of the pioneering Manufacturing Integration Platform (MIP), MPDV once again lives up to its role as a visionary and innovative driver. We have been awarded the title of TOP 100 Innovator for the third time, following 2013 and 2015.

2012

2018



FELTEN takeover and company formation of AIMES

MPDV acquires the FELTEN Group, thereby gaining access to companies in the process manufacturing sector. By **establishing the subsidiary AIMES**, which develops software components for artificial intelligence in manufacturing, we are setting the course for the future. We also publish the Smart Factory Elements model. The company claim is changed from *The MES Experts* to *We Create Smart Factories*.

New executive board

As part of the **planned company succession**, Nathalie Kletti is appointed CEO and Thorsten Strebel is made CTO. The founder Prof. Dr.-Ing. Jürgen Kletti remains managing partner of MPDV. Another milestone is the **market launch of the Advanced Planning and Scheduling System (APS) FEDRA**. MPDV also becomes a member of the Open Industry 4.0 Alliance.

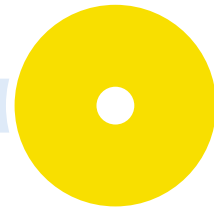
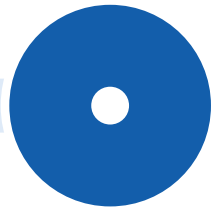
Five years and a strong foothold in industry

The year 2020 marks the **5th anniversary of Perfect Production** since its founding in 2015. The consulting firm has established a strong reputation by successfully implementing **over 200 client projects**, underscoring its continuous growth and strong positioning in industry.

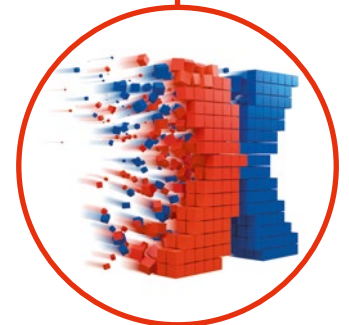
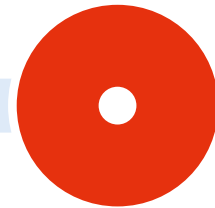
HYDRA X goes beyond MES

With the market launch of the new MES generation **HYDRA X**, we are **revolutionizing the Smart Factory**. The new generation of manufacturing IT is platform-based and consists of an array of manufacturing apps (mApps).

2019



2021



Specialist Book "Die perfekte Produktion"

The 3rd edition of *Die perfekte Produktion* (Perfect Production - only available in German) by Prof. Dr.-Ing. Jürgen Kletti (MPDV) and Jürgen Rieger (Perfect Production) shows in a practical way how companies can remain competitive in fast-moving supply chains using classic methods of production planning and control. The authors **address the challenges** in networked supply chains and offer tried-and-tested solutions to achieve **perfect production**.

Smart Factory Society

The **Smart Factory Society** is founded, bringing together the HYDRA Users Group and other user associations under one roof. In this context, MPDV is hosting the Smart Factory Society Conference for the first time. MPDV is announcing the **first World Day Smart Factory** on September 15, 2022.

New product generation: HYDRA X for Process

Our **new HYDRA X for Process** easily meets the requirements of discrete manufacturing and the process industry. We are the only provider to combine functionalities that support both worlds. **FELTEN's specific functions** complement the core elements of HYDRA X and offer tailor-made solutions for the process industry.

Integrating Perfect Production and FELTEN Group

Perfect Production GmbH becomes part of MPDV as the Executive Manufacturing Center (EMC) and offers consulting services for process optimization, MES, and digitalization strategies. With the introduction of MES HYDRA X for Process, the FELTEN Group becomes fully integrated into MPDV, strengthening expertise in the process industry and creating synergies for customer projects.

2022

today



Innovative manufacturing IT for multiple requirements

With products from MPDV,
you decide what you need and
what you want to use.

Today more than ever, manufacturing and process industries rely on flexible software products to remain competitive.

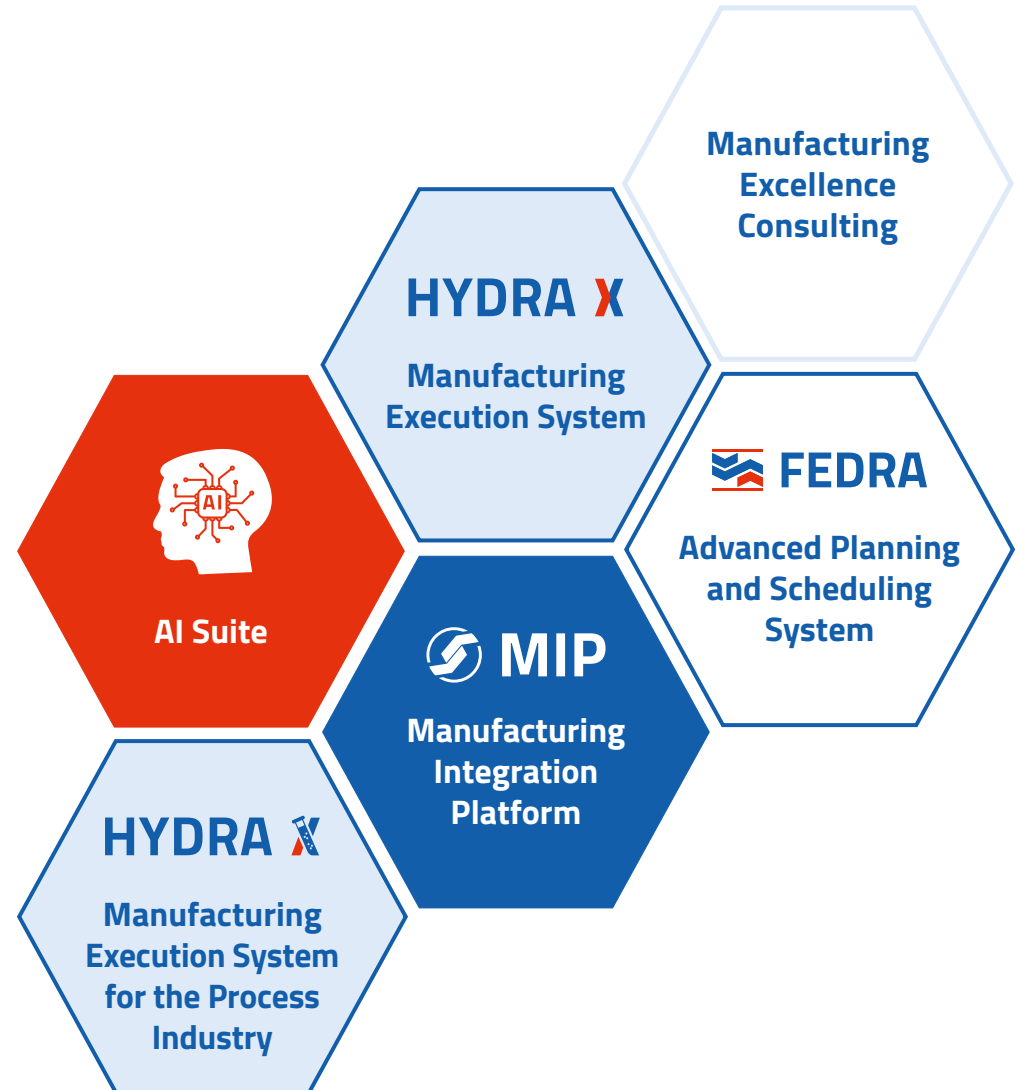
A key challenge is finding suitable applications and connecting them in such a way that all data can be shared. We typically refer to a brownfield environment in manufacturing, meaning that the equipment and IT systems to be connected are already in place.

Production-oriented IT works particularly well if the individual products and solutions are provided by their respective suppliers in the form of so-called manufacturing apps (mApps) and can be combined with each other as required. This principle is called appification and the basis for it is a central integration platform.

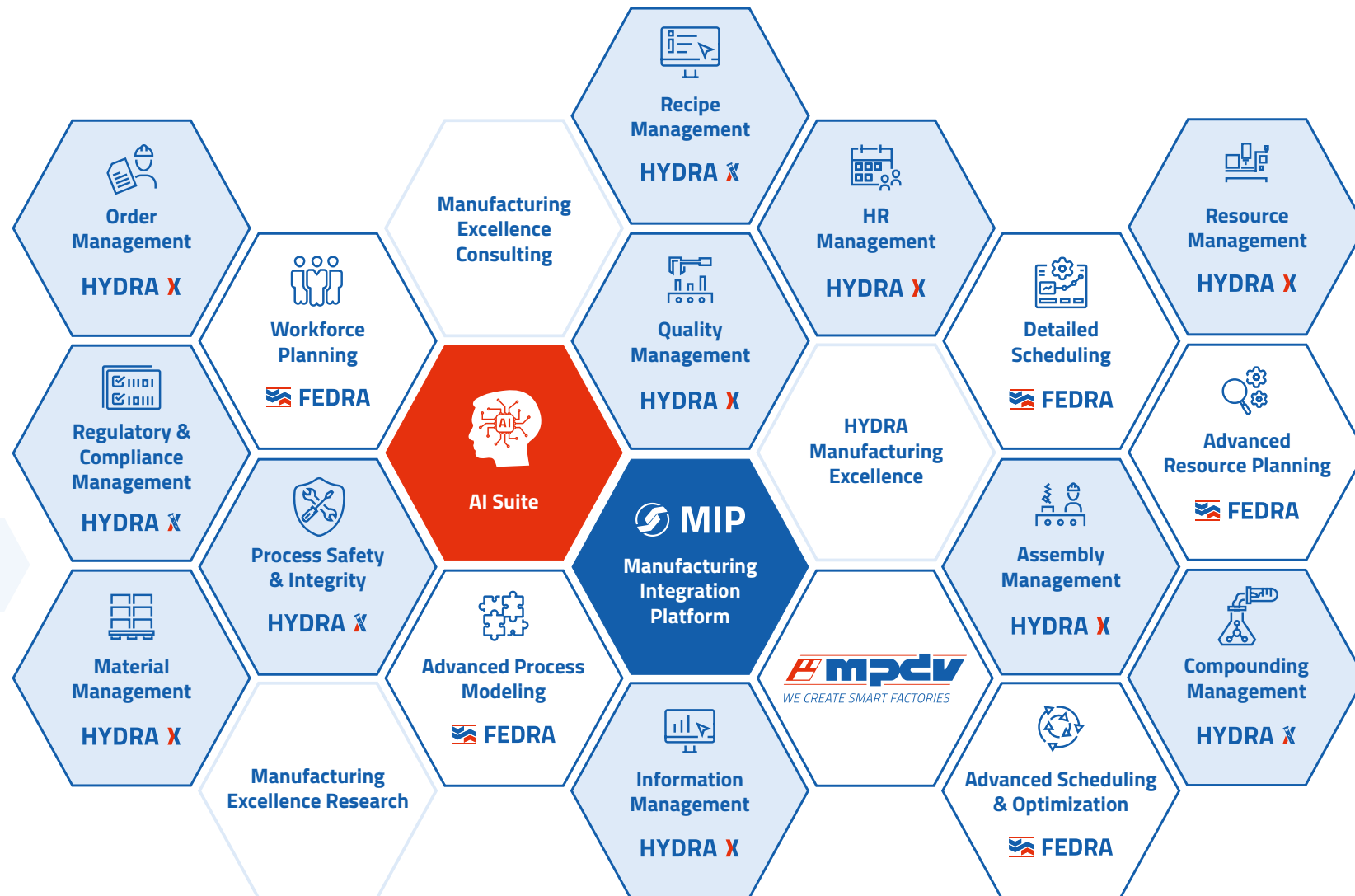


MPDV product portfolio: an overview of our solutions

Our innovative solutions in the field of manufacturing IT are designed to meet a wide range of requirements in today's industry. HYDRA X is our Manufacturing Execution System (MES) for the manufacturing and process industries that redefines efficiency. Our Manufacturing Integration Platform (MIP) creates valuable connections between different applications, while FEDRA enables intelligent production planning.



MPDV product portfolio: solutions and functions for the Smart Factory



IT solutions for discrete manufacturing and process industry

MPDV is the market leader providing IT solutions for the discrete manufacturing and process industry. With more than 50 years of experience in project management for the production industry, we have extensive specialist knowledge and support companies of all sizes and in all sectors on their way to the Smart Factory. MPDV's products include the Manufacturing Execution System (MES) HYDRA X, and the Advanced Planning and Scheduling System (APS) FEDRA. The Manufacturing Integration Platform (MIP) enables applications to interact with each other. With the MIP, production companies can design their manufacturing processes more efficiently and are always one step ahead of the competition.

With HYDRA X for Process, we cater to the process industry, focusing in particular on the specific requirements of segments such as food, flavor & fragrance, cosmetics, pharmaceuticals, fine chemicals, and adhesives.

MES solutions by MPDV record and analyze production data in real time along the entire value chain. If delays occur in the production process, staff can detect these instantly and take targeted measures. Every day, around 1.5 million people worldwide use MPDV's innovative software solutions at approximately 2,500 installations, including renowned companies from various industries.



HYDRA X Manufacturing Execution System (MES)

Build your Factory Smart – more than a classic MES

With HYDRA X, you monitor, control, and optimize your production continuously. You can keep an eye on all resources at any time and design your production processes to be as efficient as possible. Digitalization in production is unstoppable. Anyone who wants to produce efficiently today needs at least an MES – or better yet, HYDRA X!

The range of functions offered by HYDRA X far exceeds that of a classic Manufacturing Execution System (MES) and includes numerous supporting processes such as intralogistics and operator guidance for complex assembly lines. HYDRA X is platform-based and can easily be extended in terms of functionality to include third-party systems.

Your benefits:

- Increase productivity
- Reduce lead times
- Improve quality
- Cut down energy costs
- Reduce scrap rates
- Decrease inventory
- Optimize personnel deployment
- Ensure traceability



FEDRA

Advanced Planning and Scheduling System (APS)

Factory planning, easy, dynamic, realistic, adaptive

With APS FEDRA, users can plan simple operations as well as complex production orders quickly and flexibly. FEDRA is a platform-based software for innovative production planning using state-of-the-art technologies such as artificial intelligence. For example, FEDRA uses reinforcement learning, an established AI method, to distribute a large number of operations perfectly across the available machines in complex planning scenarios.

Multi-resource planning across different locations helps internationally operating companies to maintain an overview of their production processes worldwide and thus react quickly to instances.

Your benefits:

- Make optimum use of production resources
- Optimize lead times
- Minimize setup times and costs
- Improve personnel deployment
- Maximize productivity

HYDRA X

Manufacturing Execution System (MES)

Shaping the future of the process industry – with HYDRA X at the forefront of innovation

Our Manufacturing Execution System (MES) is revolutionizing the process industry with HYDRA X for Process. Monitor, control, and optimize your production in real time and receive significant data on the status of your shop floor. HYDRA X is the answer to the challenges of the future, with a focus on Industry 4.0 and complete digitalization. The modular platform seamlessly integrates optimization, quality, and energy management, is easily scalable, and cloud-capable. Achieve maximum flexibility and true business process integration. Our unique selling point, the comprehensive Production Intelligence (PI) approach, makes HYDRA X innovative, cost-efficient, and groundbreaking for your production needs. Enter the next era of digital production.

Your benefits:

- Improve production processes and efficiency
- Monitor production processes in real time
- Assure and control product quality
- Use materials and resources efficiently
- Adhere to legal regulations and quality standards
- Manage and optimize inventory levels
- Seamlessly track products and raw materials
- Provide information for decision-making
- Adapt to changing production requirements





Manufacturing Integration Platform

Manufacturing Apps (mApps) from the ecosystem for manufacturing IT

The Manufacturing Integration Platform MIP ensures that all mApps from different manufacturers can interact on a common data basis. There are no media disruptions in digital manufacturing but a common, digital twin.

The open platform concept of the MIP allows mApps from different providers to be combined with each other as required, without the vendor lock-in effect that has been customary up to now. The resulting ecosystem benefits manufacturing companies as well as developers, system integrators, and machine manufacturers. The MIP as the functional infrastructure of the Smart Factory gives manufacturing companies maximum flexibility in selecting solutions, while at the same time relying on a future-proof IT architecture.

Your benefits:

- Decide for yourself which applications are important
- Combine mApps of different providers as you like
- Easy to use existing data structures and basic services
- Easily integrate existing systems
- Create individual solutions based on standard software
- Benefit from the expertise of many ecosystem partners

On-premises and cloud/SaaS in comparison

On-premises

Direct on-premises costs

- One-time license fees
- Monthly warranty fees
- User training courses
- Introduction costs

Indirect on-premises costs

- Building technology (server room), energy
- Providing and installing server
- Installation and administration of database
- Installation and administration of applications
- Server maintenance, patching, updates (in regular intervals), release change
- Continuous server performance management
- Server security
- Creating backups and archiving data
- Staff costs
- ...

Cloud/SaaS

Direct costs for cloud/SaaS

- One-time setup fee
- Monthly SaaS fee
- User training courses
- Introduction costs

Indirect costs for cloud/SaaS

- None

»
FINALLY, WE CAN FOCUS ON OUR
CORE COMPETENCE AGAIN – THE
MANUFACTURE OF INNOVATIVE,
HIGH-QUALITY PLASTIC PRODUCTS.
«

Smart Factory Cloud Services

As an alternative to running manufacturing IT in your data center, you can also use our Smart Factory Cloud Services. In line with Software as a Service (SaaS), we operate your manufacturing IT in the cloud, creating a very convenient starting point for you. We take care of operation, maintenance, and support of all server-side applications.

To this end, we cooperate with renowned cloud computing providers and put together suitable combinations of our own solutions. Here, we benefit from the pioneering platform architecture of our products. The application of MES HYDRA and APS FEDRA, in combination with the Manufacturing Integration Platform, means that we have maximum flexibility and can offer a customized standard solution to any customer, regardless of industry or size.

Your benefits:

- **AI Planning** – reduce production costs and increase on-time delivery through perfect planning
- **AI Workforce Planning** – deploy available personnel capacities based on their qualifications
- **AI-based Setup Time Prediction** – set realistic default values and improve planning results
- **AI-based Machine Performance Analysis** – discover hidden potential and improve machine performance with AI
- **AI-based Machine Status Analysis** – analyze unproductive times and use machines more efficiently
- **AI-based OEE Analysis** – analyze overall equipment effectiveness and improve productivity
- **AI-based Scrap Analysis** – identify and understand correlations that lead to scrap
- **AI-based Scrap Reason Analysis** – analyze scrap reasons and identify potential for improvement
- **AI-based Capacity Utilization Analysis** – analyze fluctuating utilization rates of machines
- **AI-based Setup Rate Analysis** – identify factors influencing the setup rate of machines
- **AI-based Resource Performance Account Analysis** – analyze resource performance accounts systematically
- **AI-based Quality Failure Analysis** – analyze failure modes in quality management and initiate optimizations
- **Predictive Quality** – predict the quality of products



AI Suite

Artificial intelligence for the Smart Factory

Everybody is talking about artificial intelligence, which is already an integral part of our everyday lives in many areas, such as language assistants, translation tools, and navigation systems. AI also offers enormous opportunities in the Smart Factory by optimizing manufacturing and productivity as well as improving sustainability. Today, AI is mainly used by a few large companies in complex and costly projects. Not so with us: With the AI Suite, we offer a wide range of standard applications for use. This allows manufacturing companies of all sizes to get started with very little preparation or investment. You already have the required data either in MES HYDRA or in the MIP. AI-based applications of the AI Suite enhance MES HYDRA and APS FEDRA.



LEAN & IT - top-level services:

The Executive Manufacturing Center (EMC)

The Executive Manufacturing Center (EMC) is MPDV's competence center for digitalization strategies and operational excellence and provides answers to the following questions:

- What are the benefits of an MES solution for my production, and what are the requirements need to be implemented?
- How can I use an existing MES solution to establish data-driven improvement processes?

As an equal partner to the management and shop floor employees, the EMC department supports manufacturing companies on the way to manufacturing excellence.

The EMC offers practical solutions and services in the field of industrial manufacturing. We understand manufacturing excellence as the combination of process optimization and integrating these processes into IT systems, with a particular focus on Manufacturing Execution Systems (MES).



Our solutions help to ...

- increase your competitiveness
- digitalize your production processes
- increase productivity and efficiency
- improve quality
- increase flexibility and improve delivery capability
- reduce costs and utilize resources efficiently
- increase transparency and faster decision-making processes
- involve staff in improvement processes

Manufacturing Excellence Consulting

From setting up a strategy to its implementation – consulting for production companies

EMC consultants support management in all phases of production optimization: from developing a corporate vision, defining ideal processes, and analyzing requirements for MES functionalities to the long-term implementation of data-driven improvement processes. We advise companies not only on the implementation and use of an MES, but also on assessing their digital maturity and defining system delimitation with existing solutions such as ERP systems.

Together, we create transparency, reduce complexity, and establish the basis for cost savings and safeguarding competitiveness.

HYDRA Manufacturing Excellence

Fully exploit the potential of HYDRA

HYDRA Manufacturing Excellence supports companies in making optimal use of their HYDRA MES. We offer services to assist you in utilizing HYDRA as a central tool for tracking improvement processes. We align utilization across locations and develop specific measures to improve processes, make targeted changes to KPIs, and standardize the system landscape.

We show manufacturing companies how to simplify processes, reduce IT costs, and make decisions based on reliable data. This enables companies to increase efficiency, transparency, responsiveness, and long-term performance of their production.

Our solutions help companies to ...

- embrace continuous improvement processes (CIP) based on real-time data.
- increase the benefits of a HYDRA installation by integrating it into production.
- create a HYDRA template for global rollout projects mapping not only the standard but also procedural exceptions.



Manufacturing Excellence Research

Future impulses for production

As a scientifically oriented center of excellence, the EMC incorporates current research and the latest scientific findings directly into practical applications. By working closely with universities and publishing specialist publications such as *Die perfekte Produktion* (Perfect Production), we make sure that our methods are always based on the latest research and that EMC customers benefit directly from these findings.

We combine scientific expertise with practical experience to develop sustainable solutions for modern production. With a focus on digitalization and innovation, we support companies in seamlessly integrating innovative technologies and insights into production processes.

EMC not only offers practical support to managing directors, production and IT managers, but also provides strategic guidance for smart, sustainable, and future-proof production.



MPDV – we embrace innovation!



Future planning

Perfect production thanks to optimal and holistic planning

Today, production planning must be easy, dynamic, realistic, and adaptive. MPDV's solutions train artificial intelligence with each subsequent planning run, enabling it to automatically manage increasingly complex scenarios. MPDV provides flexible solutions for optimal planning, thereby enabling maximum productivity.



Production excellence

Innovative analytics tools for long-term competitiveness

Innovative analytics applications from MPDV form the basis for production optimization. By using artificial intelligence, recorded data can be used and analyzed even in complex and unclear situations. As a result, MPDV helps manufacturing companies to produce more efficiently and remain competitive in the long term.



Smart Factory 360°

End-to-end IT solutions for all manufacturing environments

Existing boundaries between the process industry and discrete manufacturing are dissolving. MPDV designs innovative solutions for both worlds – with consistent key figures and uniform planning for tomorrow's production. Industries must comply with regulations such as FDA or GMP. MPDV's validatable products ensure compliance and enable efficient, future-proof manufacturing.



Cloud, Edge & IIoT

Global availability by means of distributed networking

From the shop floor to the cloud, or from the machine to the data center – MPDV's IT solutions ensure that all relevant data is collected, processed, and made available, regardless of the source. Data processing always takes place where it is most useful for the respective application – in the edge, in your own data center, or in the cloud. Manufacturing companies can therefore operate both globally and locally and respond in real time.



Platform & ecosystem

Standardization for more individuality

The Smart Factory needs highly flexible IT solutions. The combination of applied applications, a semantic integration platform, and easy-to-use development tools (e.g., low code) enables customized solutions based on standardized building blocks and services. This is how MPDV supports manufacturing companies of all sizes and in all industries with their digital transformation.

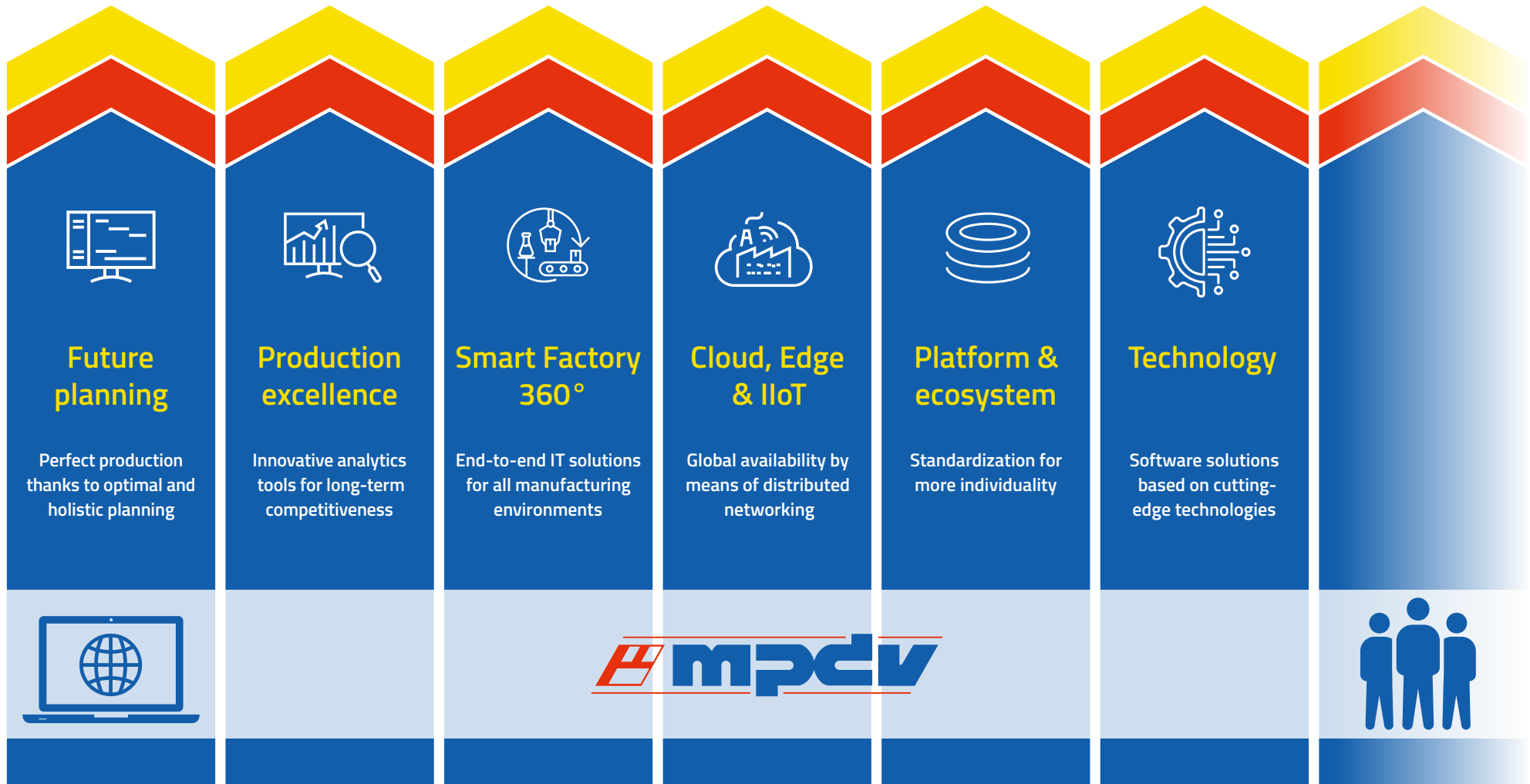


Technology

Software solutions based on cutting-edge technologies

Modern manufacturing requires smart technologies – flexible, networked, and secure. Future-proof systems connect machines, systems, and people, delivering high productivity through optimized deployment. IT Security by Design protects data, while transparent interfaces and intelligent workflows redefine the user experience to make better decisions and set the stage for tomorrow's networked production.

WE CREATE SMART FACTORIES



Your path to the Smart Factory

There are many ways leading to the Smart Factory. If you have the expertise and sufficient capacity, purchasing software products may be all you need. You can then install and set up the purchased systems yourself.

For those who prefer a turnkey system, we offer a one-stop solution. We help you find the right products and the necessary services for implementation. We provide professional support throughout the entire project – from conception to go-live. That is why we employ experienced and certified project managers who use tried-and-tested methods to make your Smart Factory project a success.

Customer Testimonials



>> WE COULD NOT HAVE ENVISAGED INTRODUCING EXTENSIVE MANUFACTURING IT IN THE PAST. AFTER ALL, WE DON'T EVEN HAVE A PROPER COMPUTING CENTER. DESPITE THIS, THE EXPERTS AT MPDV SUPPORTED US IN DIGITALIZING OUR PRODUCTION. EVERYTHING IS NOW RUNNING LIKE CLOCKWORK AND WE CAN PRODUCE EFFICIENTLY. <<



>> WE HAVE IT EXPERTS IN THE COMPANY BUT THEY DO NOT KNOW ABOUT REQUIREMENTS IN PRODUCTION. THE EXPERTS FROM MPDV ARE FAMILIAR WITH BOTH WORLDS AND HAVE BROUGHT TOGETHER WHAT BELONGS TOGETHER IN OUR COMPANY – DATA FROM OUR PRODUCTION AND IT APPLICATIONS FOR OUR EMPLOYEES. <<



How we work

PROGRESS – always a step ahead

PROGRESS is our tried-and-tested project methodology, which guarantees the success of your project. You can only benefit – the name says it all!

PROGRESS stands for:

PRO
FESSIONAL

Our qualified and certified project managers (IPM/GPM) apply standard solutions and tools.

G
UIDING

We manage projects according to the proven MPDV phase model. Our project documentation ensures transparency and traceability.

R
ELIABLE

We have over 30 years of experience in project management – you can bank on it.

E
FFICIENT

We aim for rapid implementation and strict adherence to plans in terms of quality, deadlines, resources, and costs.

S
USTAINABLE

We apply individual learning as well as organizational learning. That is how our project managers always stay up to date with the latest technology.

S
UCCESSFUL

Around 2,500 installations with satisfied customers are a clear testament of the success of MPDV's project methodology.

GPM



MPDV's project managers can look back to years of experience in this discipline. Furthermore, MPDV provides regular training to ensure that employees are always at the cutting edge when it comes to the latest developments. To this end, MPDV is a member of GPM (German Association for Project Management) and is involved in the "Project Management for Small-Medium Sized Enterprises" working group.

PROGRESS

>>
I HAVE NO IDEA HOW OUR IT PROJECT WOULD HAVE
TURNED OUT WITHOUT PROJECT MANAGEMENT.
THIS WAY, IT WAS ABSOLUTELY RELAXED.



We support you on your path to the Smart Factory with our service portfolio!

Strategy

We recommend pursuing a strategy systematically to ensure that you achieve your goal of a Smart Factory. First, clarify the following questions:

- Which goals are worth pursuing and in what order?
- How do you make sure that everyone in the company is on board?
- Which departments do you involve in the development of a digitalization roadmap?

We would be happy to support you in developing your digitalization strategy and embed it in your company in such a way that it leads to the desired success.



WE OFFER COMPREHENSIVE ADVICE AND DRAW ON BEST PRACTICES FROM A RANGE OF INDUSTRIES. TOGETHER WITH YOU, WE IDENTIFY YOUR CHALLENGES AND DEVELOP STRATEGIES TO MAKE YOUR DIGITALIZATION PROJECT A SUCCESS.



Conception

Regardless of the current status of a manufacturing company, some homework must be completed before introducing manufacturing IT. This includes a feasibility analysis with a detailed description of the current situation, including the company's existing procedures and processes. Objectives to be achieved with the introduction of the IT systems are also defined. Only once this primarily economically oriented basis has been established and accepted by all parties involved can the development of concepts, the selection of functions, and the specification of concrete requirements begin.

As part of a feasibility analysis, we offer the following services, among others:

- As-is analysis of IT-relevant processes
- Process descriptions for essential scenarios in the shop floor
- Description of required interfaces
- Definition of the desired target state
- Formulating an implementation plan for management

In addition, MPDV experts provide support in the following areas:

- ERP/MES integration consulting – based on extensive experience with SAP and all other common ERP systems
- Architecture consulting for manufacturing IT, including definition of a shop floor scenario
- Shop floor connectivity consulting to connect machines and systems
- Deducing MES tasks according to requirements of the feasibility analysis
- Selecting MES modules according to VDI guideline 5600 to further specify required functions
- Preparing a specification sheet or a vendor-neutral invitation to tender
- Drawing up detailed specifications for products from MPDV



TRUST US – WE SUPPORT YOU FROM THE OUTSET – AND WITH NO PREFERENCE FOR ANY PARTICULAR SUPPLIER. BECAUSE WE KNOW HOW PRODUCTION WORKS AND WHAT IT TAKES TO REALIZE THE VISION OF THE SMART FACTORY.



Implementation

Production companies can also decide whether they simply want advice for later in-house implementation, or whether they want us to do the implementation for them when installing HYDRA, FEDRA, and MIP products. Our employees have a wide range of expertise, covering not only traditional IT and automation topics, but also configuration and customization of MPDV products, as well as individual development and programming of production IT applications.

We provide you with tailored support for all tasks involved in implementation:

- Integration into existing IT environment
- Setup of interfaces to ERP, HR, and QM systems
- Installation and commissioning MPDV products
- Transfer of master data from other systems
- Connection of machines, systems, and measuring equipment
- Function tests and go-live

We offer the following services to meet your specific requirements:

- Individual design of intuitively operable user interfaces
- Mapping key processes as exploiting a wide range of configuration options
- Mapping customer-specific requirements using comprehensive development tools
- Providing support extending and customizing standard functions of MPDV products



OUR EXPERTS HAVE ALREADY TRANSFORMED MORE THAN 2,400 FACTORIES INTO SMART FACTORIES OR SUPPORTED THE PROCESS. WE KEEP EVERYTHING RUNNING SMOOTHLY FOR YOU SO YOUR PRODUCTION CAN BE AS EFFICIENT AS POSSIBLE.



Training courses

Efficient work requires more than just the right software – you must also be able to operate it. Learn from the best and become an expert! Our experienced trainers impart first-hand knowledge and practical know-how. You will familiarize yourself with functions in order to exploit systems to the full, and you can immediately put into practice what you have learned on the training system.

You decide whether you want to participate in our training sessions online or if you would like to come to one of our worldwide training centers. Upon request, we can also conduct on-site training at your company.

No matter if you have previous knowledge or not – we will be able to find the right training! Our training program is modular, so every interested party can choose the training that will help them in their daily work. We offer training courses for key users, advanced users, project managers, administrators, and developers.

Certification

A certification confirms the expertise you acquired. This will help you to remain calm in the face of any challenge. You will become a sought-after expert in your company.



IN OUR TRAINING COURSES, WE PREPARE YOU FOR THE FUTURE – WHETHER YOU ARE A BEGINNER, ADVANCED LEARNER, OR DEVELOPER. OUR CERTIFIED TRAINING PROGRAM IS PERFECTLY TAILORED TO YOUR NEEDS.





Operation

After installation, commissioning, and go-live, production IT enters the operational phase. The maintenance and expansion of the system can be performed by the employees themselves, supported by us, or completely transferred to MPDV. Whereas simple installations usually only require installing the periodically released service packs, complex systems rely on a consistent system support ensuring the necessary availability and updates.



WE SUPPORT YOU IN THE OPERATION AND FURTHER DEVELOPMENT OF SYSTEMS IN YOUR ENVIRONMENT OR IN THE CLOUD (E.G., SAAS).

WE OFFER EVERYTHING FROM ONE-OFF SUPPORT TO FULL SERVICE.



Among others, we offer the following services:

HYDRA system support in the required depth

- A hotline (1st level) that can be reached by telephone with convenient service times
- Experienced 2nd and 3rd level support, if required with direct contact to the software development department
- Useful documentation and advanced workshops

Lifecycle management of used HYDRA applications

- Delta analysis of production processes and MES functions
- System upgrade consultations
- Preparation of release or version changes

System enhancements incl. template management for the rollouts to other sites

- Rollout to other areas, production facilities, and locations
- Implementation of new MES applications and functions
- Configuration and customization of new applications

Our business units

PRODUCTS

Use our kit

You can benefit from all the advantages of standard software when using MPDV products. At the same time, all products can easily be customized according to your requirements. You decide which products and applications you use from MPDV and whether you supplement them with applications from other providers.



SERVICES

Services and consulting for the Smart Factory

We have individual and needs-based services. These can be added to MES products or ordered separately. MPDV experts help you implement an MES System and assist with machine integration. They also offer support, deliver training, and help you manage your production IT.



CONSULTING

Consulting for Manufacturing Excellence

The services provided by the Executive Manufacturing Center (EMC) go beyond conventional consulting. As your partner on the way to greater efficiency and competitiveness, our experts offer practical advice on process optimization, digitalization strategies, and the use of MES systems. The aim is manufacturing excellence with transparent, efficient processes tailored to your individual requirements.



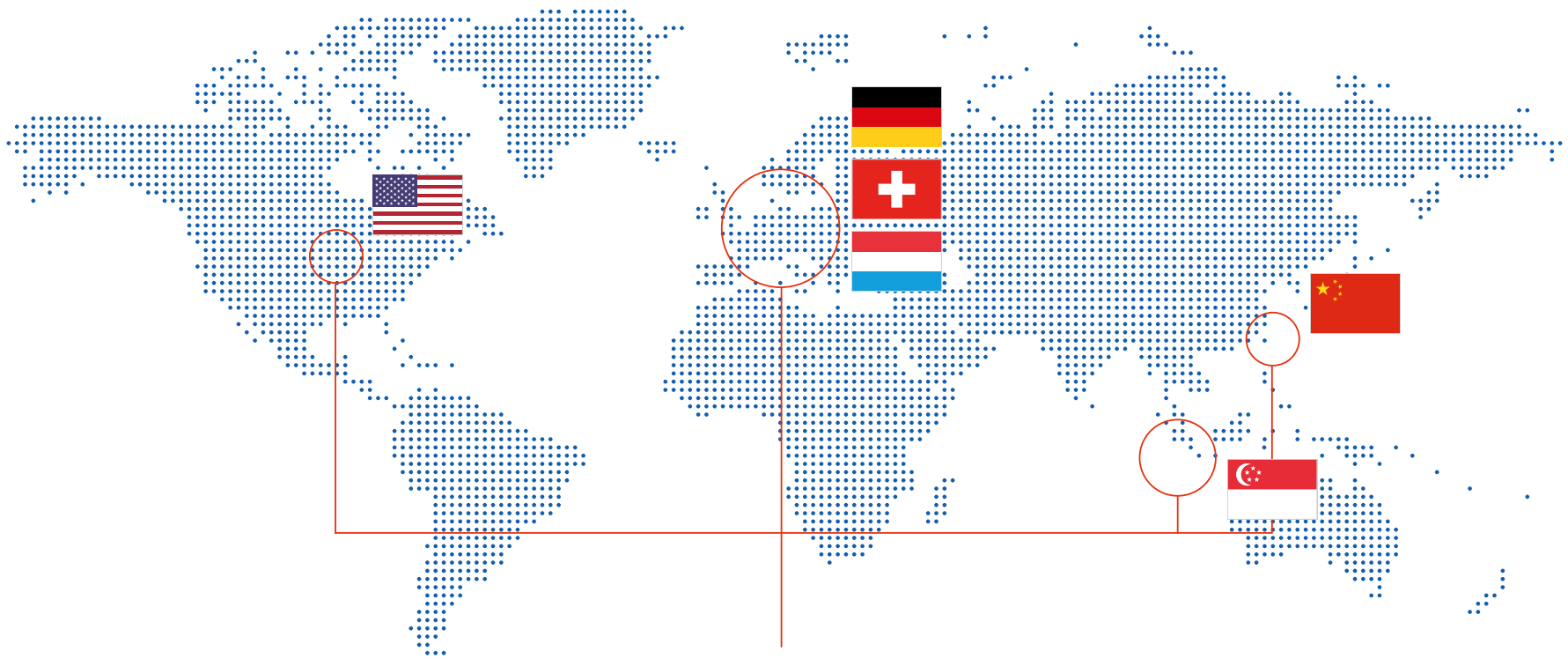
SOLUTIONS

Complete services

For manufacturing companies that want a complete IT solution from a single source, we offer support throughout the entire implementation of MPDV products, from start to finish. Our experienced project managers work closely with you, the future user, to coordinate which activities are required and when, and which tasks you perform yourself. Together we pave your way to the Smart Factory.



You decide whether you want to purchase products and services individually or as complete solutions from MPDV.



Chicago · Hamburg · Hamm · Heidelberg · Luxembourg · Mosbach
Munich · Shanghai · Singapore · Stuttgart · Winterthur



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