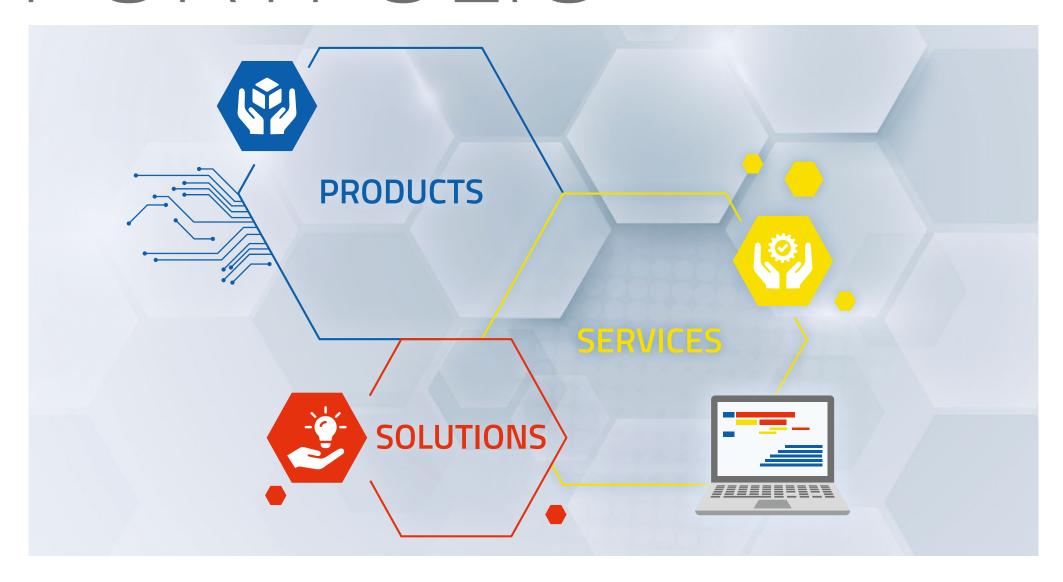
# PORTFOLIO





# **MPDV Executive Board**



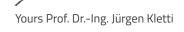
# Are you on the way to the Smart Factory?

The primary goal of manufacturing industry has always been to achieve a competitive production that can also be operated at high-wage locations. Different strategies have emerged over the years to achieve this goal: Lean Management, Manufacturing Execution Systems and, last but not least, digitalization. These building blocks can make a difference separately, but they don't have the necessary clout to deliver what the manufacturing industry expects in the age of Industry 4.0: transparency, efficiency, and sustainability.

A well-thought-out combination of methods and technology is the only way safeguarding more resilient processes and enabling manufacturing companies to produce competitively in the long term. The digital transformation is here to stay — and rightly so. Together, we can use the tailwind we are sailing on to turn today's production facilities into true Smart Factories.

The products, services, and solutions by MPDV give companies the flexibility to decide how they want to proceed towards the Smart Factory, what they want to implement themselves, and where they need a helping hand.

Let us join forces! Only those who take the first step will achieve their goal.





# Why you should opt for MPDV

MPDV is the market leader for manufacturing IT. We offer products, solutions, and services built on expertise and a broad skill set. MPDV supports companies from all industries and of all sizes on their way to the Smart Factory.

#### We create Smart Factories

We stands for about 520 MPDV employees. After all, it is the people who define a company. Every day, MPDV teams develop smart manufacturing solutions. With their passion for high-quality products, knowledge, and team spirit, they have made MPDV what we are today: the market leader for IT solutions in manufacturing with more than 45 years of experience in the production environment.

**Create** stands for what MPDV is doing. We are driving digitalization in manufacturing and making companies competitive. We always have the finger on the pulse and know the needs of our customers very well. We operate competence centers, are in constant exchange with our users, and further develop solutions according to requirements. To do so, we focus on essentials and thereby stand out from the crowd.

**Smart Factory** is the vision of a self-regulating factory of the future where machines and logistics systems organize themselves as independently as possible. MPDV supports companies in turning this vision into reality. We make a key contribution with our products to ensure that factories evolve into true Smart Factories and stay at the cutting edge of technology. The focus continues to be on people as an integral part of creating value.

# The birth of MPDV

Prof. Dr.-Ing. Jürgen Kletti founds the company as an engineering office specialized in custom hardware and software development for microprocessor applications.

# 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.

1977

1985

# The past 45 years

# With HYDRA on track for success

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

### Trade shows

From Hannover Messe to CEBIT: MPDV has been participating in all important trade fairs since the end of the 1980s.

# **Certified quality**

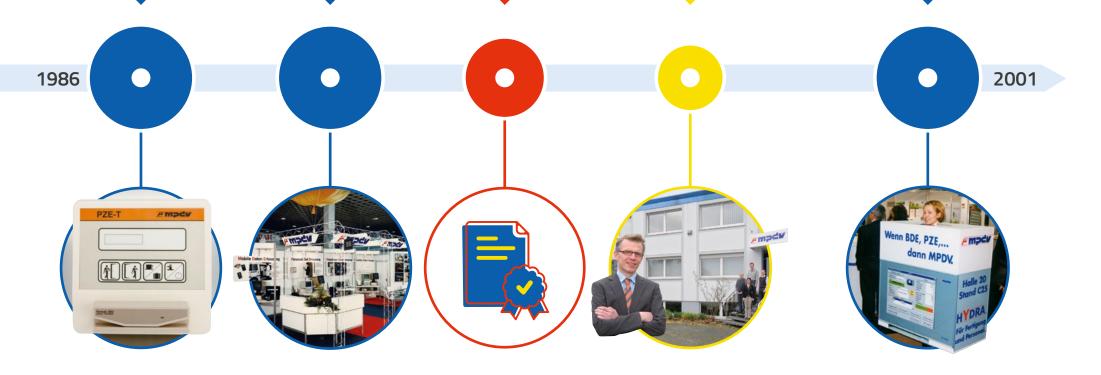
MPDV is **certified** according to the quality management standard **DIN EN ISO 9001** for the first time. Since then, MPDV has been using standardized processes ensuring high-quality business workflows.

# Start of the expansion

Jürgen Petzel starts his career at MPDV as the first salesman in Hamm (Germany) and turns the location into a successful branch office in the years to come.

# Expansion of expertise

HYDRA turns into a **comprehensive MES solution**, thanks to new functions for quality assurance. The acquisition of INCA Industrielle Computer Anwendungen GmbH and CSI GmbH helps MPDV to strengthen and expand its **industry and CAQ expertise**. The incorporation of IBN-SYSTEME GmbH adds to the company's **know-how in the plastics sector**.



# Moving into the MPDV high-rise building

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

### A star is born

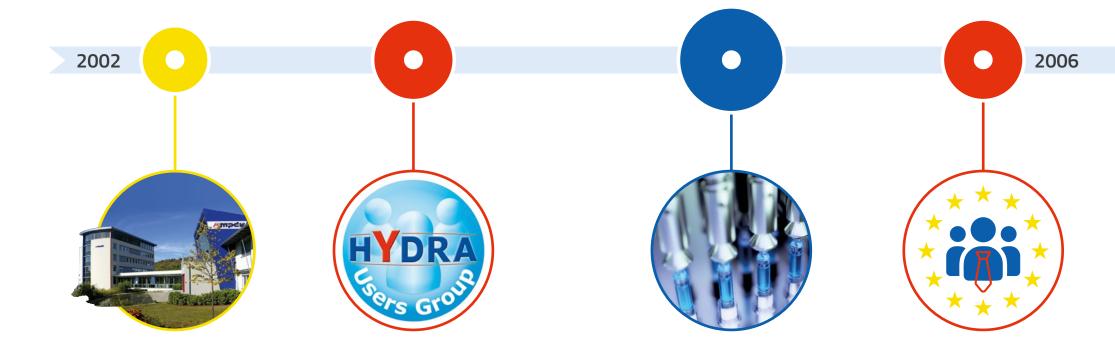
The user association HYDRA Users Group is founded and MPDV Campus starts its first activities. To curb trivialization of the MES term, the **VDI MES** working group is founded with about 90 users, manufacturers, and system integrators — under the chairmanship of Prof. Dr.-Ing. Jürgen Kletti.

#### **Modular MES HYDRA 7**

MPDV joins the board of the global umbrella organization for the MES market, the Manufacturing Execution Solutions Association (MESA). In 2005, MPDV also delivers HYDRA 7, 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.

# **Experts** very much in demand

The European MESA subsidiary MESA Europe is founded chaired by MPDV.



# Award of the honorary professorship

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 the VDI Guideline 5600 "MES" under the leadership and direction of MPDV is imminent.

# **MES Cockpit**

Market launch of the MES Cockpit product line.

# Foundation of the MES D.A.CH Association

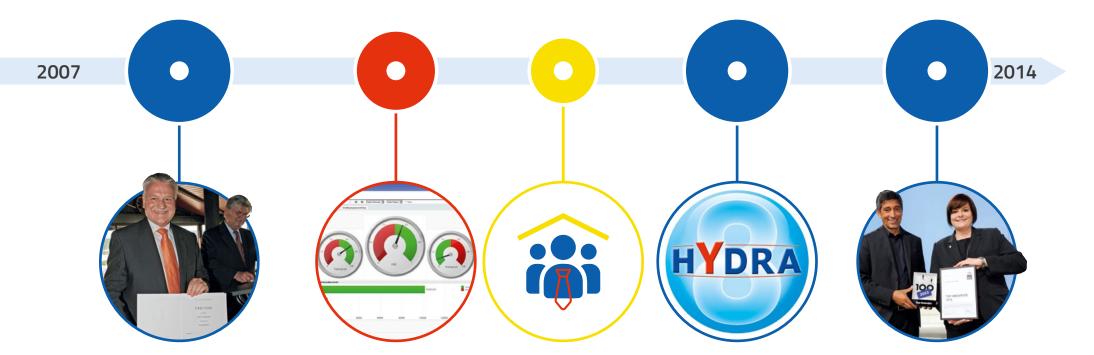
MPDV emerges as a founding member of the MES D.A.CH Association and assumes the chairmanship until 2016.

# New generation: HYDRA 8

Following its announcement in 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

For its pioneering spirit, MPDV is awarded the TOP 100 innovation prize for the first time. MPDV starts to 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.



# Consultancy

MPDV Campus Consulting is spun off into Perfect Production GmbH. MPDV publishes the four-stage model "Smart Factory" and introduces HYDRA Dynamic Manufacturing Control (DMC) for multi-variant assembly processes.

# Expansion of the company headquarters

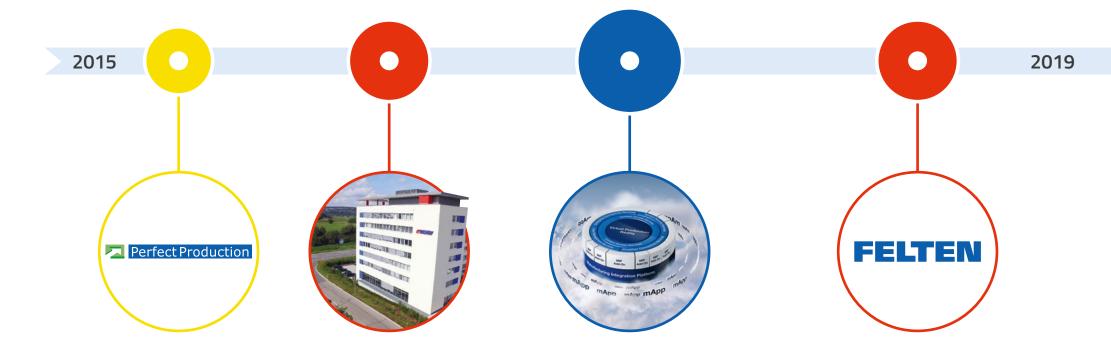
A year with big events: MPDV celebrates the 40th anniversary of the company and the expansion of its headquarters in Mosbach, Germany, to include the MPDV high-rise building, which can be seen from afar. Furthermore, the Manufacturing Integration Platform (MIP) is announced.

# Integration platform MIP

Nathalie Kletti, Jürgen Petzel and Thorsten Strebel are appointed to the management board to further strengthen sales and marketing as well as product development and consulting. With the market launch of the pioneering Manufacturing Integration Platform (MIP), MPDV once again lives up to its role as a visionary and innovation driver. Considered one of the most innovative medium-sized companies in Germany, MPDV is awarded the TOP 100 Innovator award for the third time after 2013 and 2015.

# FELTEN takeover and AIMES start-up

2019 is characterized by strategic growth:
MPDV acquires the FELTEN Group and gains
access to process manufacturing companies.
MPDV is setting the course for the future by
founding the subsidiary AIMES, which develops
software components for artificial intelligence in
manufacturing. MPDV releases the Smart Factory
Elements model. The company claim is changed
from The MES Experts to We Create Smart Factories.



## New executive board

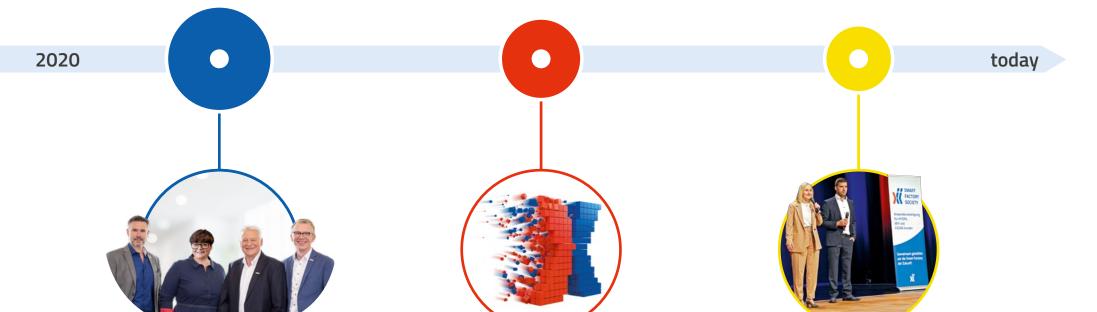
In the course of the planned company succession, Nathalie Kletti is appointed CEO, Jürgen Petzel is made CSO and Thorsten Strebel CTO. The founder, Prof. Dr.-Ing. Jürgen Kletti, remains managing partner of MPDV. Another milestone is the market launch of the Advanced Planning and Scheduling System (APS)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

## **HYDRA X goes beyond MES**

MPDV launches HYDRA X, the new generation of MES, and revolutionizes the Smart Factory. The new generation of manufacturing IT is platform-based and consists of an array of manufacturing apps (mApps). FEDRA and the MIP benefit from new features and technical improvements. From simple operations to complex applications — everything is possible with the new systems!

## **Smart Factory Society**

The Smart Factory Society is launched, bringing together the HYDRA Users Group and other user associations. In the course of these activities, MPDV organizes the Smart Factory Society Conference for the first time. Another highlight is the Serious Gaming app myFactoryMania, which brings young people and students closer to the Smart Factory in a playful way. On the 09/15/2022 MPDV proclaims the first World Day Smart Factory.



# The MPDV Group — from the raw material to the finished product

### **FELTEN**

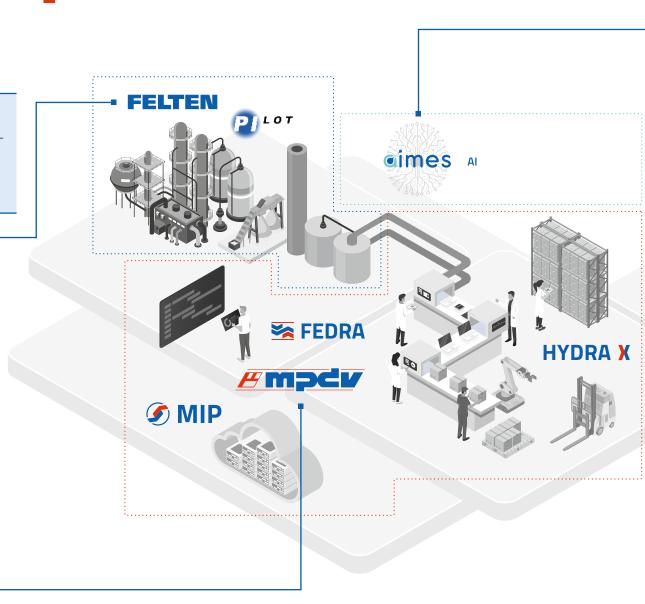
## At home in the process industry

The Manufacturing Execution System (MES) PILOT from FELTEN stands for innovation and reliability in the process industry. Well-known customers from numerous industries have relied on the expertise of FELTEN's experts for many years. FELTEN has been part of the MPDV Group since 2019.



## 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 is the hallmark of MPDV's experts. MPDV's products are known worldwide and successfully used in everyday operations. MPDV was founded in 1977.



# Perfect Production Consulting

# **gimes**

# Artificial Intelligence for the Smart Factory

Together with the AI specialists from Vernaio (former PerfectPattern), MPDV founded a joint venture in 2019 to align artificial intelligence methods and applications with the needs of the Smart Factory. This makes AIMES an important innovation driver in the MPDV Group.

> Together, we cover the entire spectrum of the Smart Factory.

# Perfect Production

# People, lean & IT

As an independent management consultancy for lean production and lean IT, the experts from Perfect Production support manufacturing companies of all sizes and from all industries on their way to greater competitiveness. Expertise across all industries and the motivation for cultural change drive the experts to master the digital transformation to perfection. Perfect Production was a spin-off from the former MPDV Campus Consulting in 2016.

# What's a Smart Factory anyway?

In a Smart Factory, manufacturing and logistics systems manage themselves. Based on intelligent networking, systems communicate with each other, exchange information concerning the manufacturing process, and react automatically to changes in production. To make this work, manufacturing IT is needed to process collected data in real time. After all, this is the only way to gain the transparency required to prevent bottlenecks and make optimum use of resources.



People play a central role in the Smart Factory. Their task is to optimize processes and to control workflows. Manufacturing IT supports people in identifying the need for action and making targeted decisions.

Furthermore, artificial intelligence (AI) methods are employed to process large amounts of data and help to identify patterns. Manufacturing IT provides evaluations based on knowledge gained and predicts events or results. These predictions allow people to act in good time.

# Innovative manufacturing IT for multifaceted requirements

Today more than ever, manufacturing industry needs flexible software products to remain competitive.

Finding suitable applications and connecting these applications in such a way that all data can be shared is a key challenge. We typically talk about brownfield in the manufacturing environment — in other words, equipment and IT systems are in place and need to be connected.

Manufacturing IT works particularly well when individual products and solutions in the form of manufacturing apps (mApps) are deployed by providers. The mApps are capable of being combined with each other. This principle is called appification and is the basis for a central integration platform.

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



# MPDV product portfolio



#### Your benefits:

- Increase productivity
- Reduce lead times
- Improve quality
- Reduce energy costs
- Reduce scrap rates
- Reduce WIP
- Optimize personnel deployment
- Ensure traceability

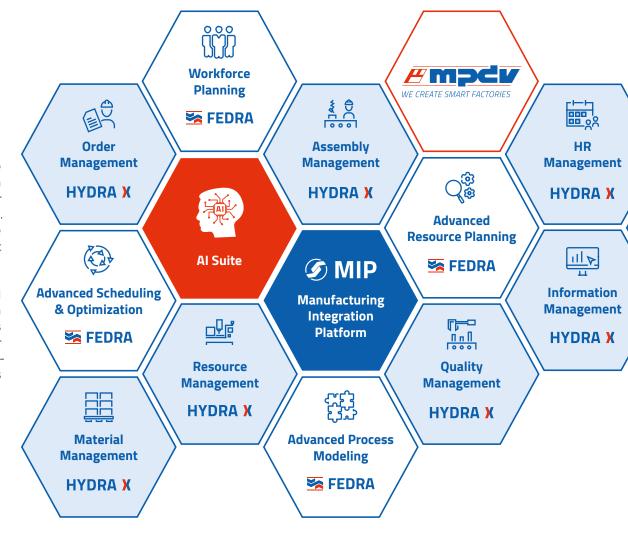
## HYDRA X

# **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 all times and design your production processes to be as efficient as possible. Digitalization in production is unstoppable. Anyone wanting to produce efficiently today needs at least an MES — or even better: HYDRA X!

The functional range of HYDRA X goes far beyond that of a classic Manufacturing Execution System (MES). HYDRA X also includes supporting processes such as intralogistics or operator guidance for complex assembly workflows. HYDRA X is platform-based and can easily be extended in terms of functionality to include third-party systems.







#### Your benefits:

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



# **Advanced Planning and** Scheduling System (APS)

#### Factory planning, Easy, Dynamic, Realistic, Adaptive

APS FEDRA allows to plan both simple operations and 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 (AI). FEDRA applies Reinforcement Learning, an established Al method, particularly when it comes to complex scenarios and allocates a multitude of work processes efficiently among available resources.

A multi-resource planning covering numerous sites also puts internationally operating companies in a position to keep an eye on their production processes worldwide, which is essential in order to respond quickly to events.



## **Manufacturing Integration Platform**

#### Manufacturing Apps (mApps) from the ecosystem for manufacturing IT

The Manufacturing Integration Platform MIP ensures that all mApps from different providers 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 also allows mApps from different vendors to be combined with each other as required, without the vendor lock-in effect that has been customary up to now. This combination creates an ecosystem which generates great benefits for manufacturing companies and developers, system integrators, and machine manufacturers. The MIP as the functional infrastructure of the Smart Factory gives manufacturing companies maximum flexibility in the selection of solutions, while at the same time relying on a future-proof IT architecture.

## Your benefits:

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





## Your benefits:

- Al Planning reduce production costs and increase on-time delivery through optimal planning
- Al Workforce Planning optimally use available personnel capacities based on their qualifications
- Al-based Production Time Prediction determine realistic target values and thus improve planning results
- AI-based Scrap Analysis recognize and understand correlations that lead to scrap
- Al-based Capacity Utilization Analysis explain fluctuating utilization rates of individual machines
- Al-based Setup Rate Analysis identify factors influencing the setup rate of individual machines
- Al-based Resource Performance Account Analysis targeted analysis of resource performance accounts
- Predictive Quality predicting the quality of products



#### **Al Suite**

#### Artificial Intelligence for the Smart Factory

Artificial intelligence (AI) is on everyone's lips and is already an integral part of our everyday lives, for example, in language assistants, translation tools and navigation systems. Also in the Smart Factory Al has enormous potential for optimizing manufacturing and productivity, as well as as improve sustainability. While AI is currently mainly used by a few larger companies in complex and costly projects, with the AI Suite MPDV provides a wide range of standard applications. This enables manufacturing companies — even small and mediumsized companies — to get started without preparation and a great deal of effort. The required data is usually available in MES HYDRA or the MIP. The Al-based applications of the Al Suite enrich both MES HYDRA as well as APS FEDRA.

## **On-premise**

#### Direct on-premise costs

- One-time license fee
- Monthly maintenance fee
- User training
- Implementation costs

## Cloud/SaaS

#### Direct Cloud / SaaS Costs

- One-time provisioning fee
- Monthly SaaS fee
- User training
- Implementation costs

#### Indirect on-premise costs

- Building services (server room), energy
- Server provisioning / installation
- Database installation and administration
- Application installation and administration
- Server maintenance, patching, updates (regular), release changes
- Ongoing server performance management
- Ensuring server security
- Creation of backups and archiving of data
- Employee costs

...

#### Indirect Cloud / SaaS Costs

None

FINALLY, WE CAN FOCUS ON OUR CORE COMPETENCE AGAIN — THE PRODUCTION OF INNOVATIVE AND HIGH-QUALITY PRODUCTS MADE OF PLASTIC.



## **Smart Factory Cloud Services**

As an alternative to running manufacturing IT in your data center, you can also use our Smart Factory Cloud Services. We run your manufacturing IT in the cloud — just like Software as a Service (SaaS). Thus we create a favorable starting position for our customers. We take care of operation, maintenance, and support of all server-side applications.

MPDV cooperates with renowned cloud computing providers and puts together suitable combinations of its own solutions. We benefit from the pioneering platform architecture of our products. The appification 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.

# MPDV as innovator



## Platform & Ecosystem

#### Standardization for more individuality

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



## Cloud, Edge & IIoT

#### Global availability through 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. The data is always processed where it makes the most sense for the particular application — in edge computing, in the company's own data center or in the cloud. This enables manufacturing companies to act both globally and locally and to respond in real time.



## **Production Excellence**

#### Innovative analytics tools for long-term competitiveness

Innovative analytics applications from MPDV are the basis to optimize production. Thanks to artificial intelligence, collected data can be applied and analyzed effectively, even in complex and confusing situations. As a result, MPDV helps manufacturing companies to produce more efficiently and remain competitive in the long term.



## **Future Planning**

#### Perfect production thanks to optimal and holistic planning

Today, production planning must be easy, dynamic, realistic, and adaptive. At MPDV, the artificial intelligence learns with each planning run and knows how to deal with increasingly complex planning scenarios automatically. MPDV provides flexible solutions for optimal planning, thereby enabling maximum productivity.



## **Regulated Manufacturing**

#### Master complexity in regulated day-to-day manufacturing efficiently and in compliance with specifications

A large number of manufacturing industries are subject to legal regulations (e.g. FDA, GMP...) Manufacturing IT from MPDV actively supports manufacturing companies in complying with these requirements and enables efficient production with products that can be validated. The experts from MPDV work closely with the user companies and also with industry specialists to achieve this.



## **Unified Manufacturing IT**

#### End-to-end IT solutions for all manufacturing environments

Existing boundaries between the process industry and discrete manufacturing are dissolving. Software solutions that can handle all types of manufacturing are becoming increasingly important. MPDV together with FELTEN is the first player on the market that develops functions that can be used in both worlds. The aim is to have consistent KPI systems and uniform production planning.

# WE CREATE SMART FACTORIES



# Your way to the Smart Factory

Many roads lead to the Smart Factory. If you have the know-how and sufficient capacity, then buying software products may be enough for you. 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 to find the right products and the necessary services for implementation. During the entire project we accompany you professionally — from the conception to the go live. We employ experienced and certified project managers who use tried and tested methods to make your Smart Factory project a success.

### What our customers say



>> INTRODUCING EXTENSIVE MANUFACTURING IT WAS SOMETHING WE COULDN'T IMAGINE BEFORE. AFTER ALL, WE DON'T EVEN HAVE A PROPER DATA CENTER. NEVERTHELESS, MPDV'S EXPERTS HELPED US TO DIGITALIZE OUR PRODUCTION. NOW EVERYTHING IS RUNNING SMOOTHLY, AND WE PRODUCE EFFICIENTLY. <<



>> WE DO HAVE IT EXPERTS IN THE COMPANY, BUT THEY ARE NOT WELL-VERSED WHEN IT COMES TO THE NEEDS OF MANUFACTURING. THE EXPERTS FROM MPDV KNOW 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

With PROGRESS, the tried and tested project methodology from MPDV, your project will be a guaranteed success. You can only benefit — the name says it all! PROGRESS stands for:



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 stands for:



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



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

# ELIABLE >>

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

# FFICIENT

Our goals are a rapid realization with a high degree of planning compliance in terms of quality, deadlines, resources, and costs.

# USTAINABLE

We apply individual learning as well as organizational learning. Our project managers constantly keep up to date with the latest technology.

# UCCESSFUL

More than 1,750 installations with satisfied customers are clear proof of the success of the MPDV project methodology.



I WOULDN'T LIKE TO KNOW HOW OUR IT PROJECT WOULD HAVE TURNED OUT WITHOUT PROJECT MANAGEMENT. EVERYTHING WENT ACCORDING TO PLAN WITH THE SUPPORT OF MPDV.



# We support you on your way 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 ensure the necessary acceptance at all levels of the company?
- 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 ADVISE YOU COMPREHENSIVELY AND, IN DOING SO, DRAW ON BEST PRACTICES FROM ALL INDUSTRIES. WE WORK WITH YOU TO IDENTIFY YOUR CHALLENGES AND DEVELOP STRATEGIES TO MAKE YOUR DIGITALIZATION PROJECT A SUCCESS.



## Conception

Regardless of where a manufacturing company stands today, some homework is required before implementation of manufacturing IT. One of these activities is a feasibility analysis with a description of the current status, including company workflows and processes. Goals are also defined that are to be achieved with the introduction of IT systems. Only when this basis, usually of an economic nature, is in place and accepted by all parties involved, do we move on to the development of concepts, the selection of functions, and the specification of actual requirements.

As part of a feasibility analysis, MPDV offers the following services, among others:

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

Furthermore, MPDV's experts provide support on the following issues:

- ERP/MES integration consulting based on extensive experience with SAP and all other common ERP systems
- Architecture consulting for manufacturing IT incl. 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
- Selection of MES modules according to VDI guideline 5600 to further specify required functions
- Preparation of a specification sheet or a vendor-neutral invitation to tender
- Drawing up detailed specifications for products from MPDV





YOU CAN RELY ON US — WE WILL SUPPORT YOU RIGHT FROM THE START. WE ARE ALSO HAPPY TO DO SO ON A VENDOR-NEUTRAL BASIS. AFTER ALL, WE KNOW HOW PRODUCTION WORKS AND WHAT IT TAKES TO TURN THE VISION OF THE SMART FACTORY INTO REALITY.



## **Implementation**

When implementing our products HYDRA, FEDRA, and the MIP, manufacturing companies can also choose whether they simply want to be advised in order to carry out the implementation themselves at a later stage or if they want us to get involved straight away. The knowledge of MPDV employees is wide-ranging and, in addition to classic IT and automation issues, also extends to the configuration and customization of MPDV products as well as the individual development and programming of manufacturing IT applications.

We support you with all tasks in the course of the implementation:

- Integration into your existing IT environment
- Setup of interfaces to ERP, HR, and QM systems
- Installing and integrating MPDV products
- Transferring master data from other systems
- Connecting machines, systems, and measuring equipment
- Function test and go live

We provide the following services in terms of individualization:

- Individual design of intuitively operable user interfaces
- Mapping of relevant processes as part of the versatile configuration options
- Integrating customer-specific requirements by using extensive development tools
- Providing support with the extension and customization of standard functions of MPDV products





OUR EXPERTS HAVE ALREADY TRANSFORMED MORE THAN
1,750 FACTORIES INTO SMART FACTORIES OR SUPPORTED THE
PROCESS. WE ENSURE THAT EVERYTHING RUNS SMOOTHLY, AND
YOU CAN PRODUCE MORE EFFICIENTLY AS SOON AS POSSIBLE.



# **Training courses**

Efficient work requires more than just the right software — you also must 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.

ernehmen, für Kunden, sto.

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

No matter if you have previous knowledge or not — with us you will always 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.

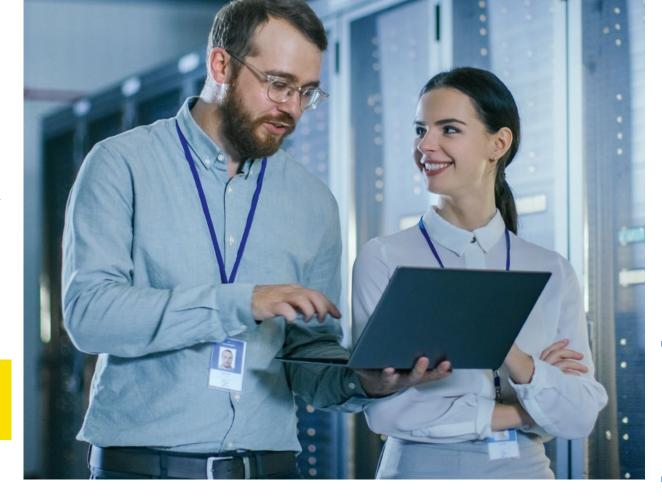




IN OUR TRAINING SESSIONS, WE MAKE YOU FIT FOR THE FUTURE — NO MATTER WHETHER YOU ARE A BEGINNER, AN ADVANCED USER, OR A DEVELOPER.

OUR CERTIFIED TRAINING PROGRAM IS PERFECTLY TAILORED TO YOUR NEEDS.







WE SUPPORT YOU TO OPERATE AND FURTHER
DEVELOP SYSTEMS IN YOUR IT ENVIRONMENT OR
IN THE CLOUD (E.G., SAAS). EVERYTHING IS POSSIBLE
— 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
- An experienced 2nd and 3rd level support with direct contact to software development
- Useful documentation and advanced workshops

# **Operation**

Following installation, implementation and go live, manufacturing IT moves into the operational phase. Maintenance and extension of the system can be carried out either by the user, supported by MPDV or completely delegated to MPDV. While it is usually sufficient to install the cyclically provided service packs for simple installations, consistent system support ensures the level of availability and up-to-date status required for complex systems.

#### Lifecycle management of the used HYDRA applications

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

#### System enhancements and rollouts incl. template management

- Rollout to other areas, plants, and sites
- Implementation of new MES applications and functions
- Configuration and customization of new applications

# Our business units



## **Services**

Consulting and services for the Smart Factory

We have individual and needs-based services.
These can be added to MES products or ordered separately. Experts from MPDV help you to introduce an MES system or lend you a hand connecting your machines. They also provide support, carry out training sessions and assist you in operating your manufacturing IT.

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

## **Products**

Use our kit

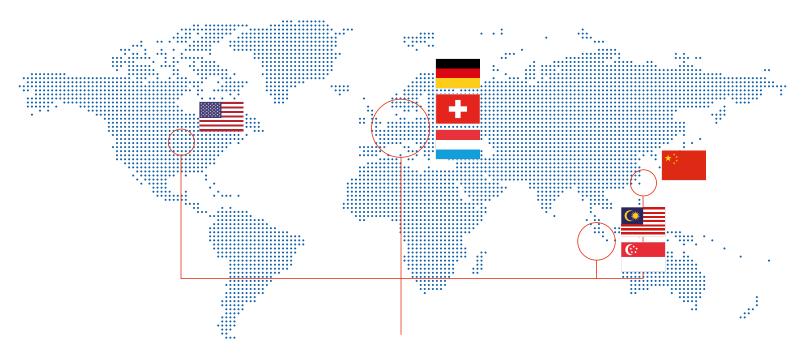
You can benefit from all the advantages of a standard software when using MPDV products. At the same time, all products can easily be customized according to your requirements. You decide freely which products and applications you use from MPDV and whether you supplement them with applications from other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

## **Solutions**

All from one source

We offer to oversee the introduction of MPDV's products from start to finish for manufacturing companies that want a complete IT solution from a single source. 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.





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









MPDV Mikrolab GmbH · Römerring 1 · 74821 Mosbach · +49 6261 9209-0 · info@mpdv.com · www.mpdv.com