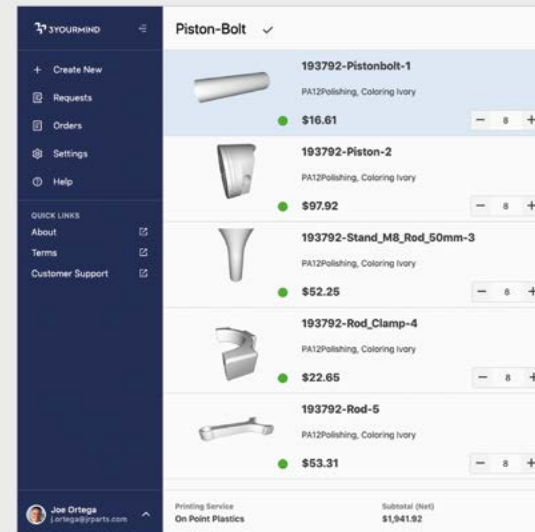


# Agile Manufacturing Software Suite

Optimize your AM workflow  
with the software built for  
automated, next-generation  
production.

[3yourmind.com](https://3yourmind.com)





## Agile PLM

### Evaluate and Manage AM Data

- ▲ Digital Part Inventory
- ▲ CAD Integrations
- ▲ ERP Integrations
- ▲ AM Part Identification
- ▲ Use Case Screening
- ▲ Inventory Analysis
- ▲ Printability Analysis
- ▲ Orientation Optimization

#### Product Lifecycle Management (PLM)

Connect the companies, departments, and employees involved with production and define parts that will outperform their competitors, are highly profitable, and are ready for manufacturing.

## Agile ERP

### Process and Distribute AM Orders

- ▲ Custom Part Requirements
- ▲ Material and Technology Comparison
- ▲ Instant Part Pricing
- ▲ Centralized Communication
- ▲ Automatic Order Management
- ▲ Distributed Manufacturing Networks
- ▲ Ordering Analytics

#### Enterprise Resource Planning (ERP)

Manage business processes and technologies efficiently. These integrated applications collect, store, manage, and interpret data from order requests and diverse business activities and then distribute the key details through your organization.

## Agile MES

### Schedule and Track AM Parts

- ▲ Custom AM Workflows
- ▲ Smart Part Prioritization
- ▲ Digital Production Planning
- ▲ Track Part Sequences
- ▲ Production Sheet Generation
- ▲ Quality Assurance
- ▲ Machine Connectivity
- ▲ Data Standardization

#### Manufacturing Execution Systems (MES)

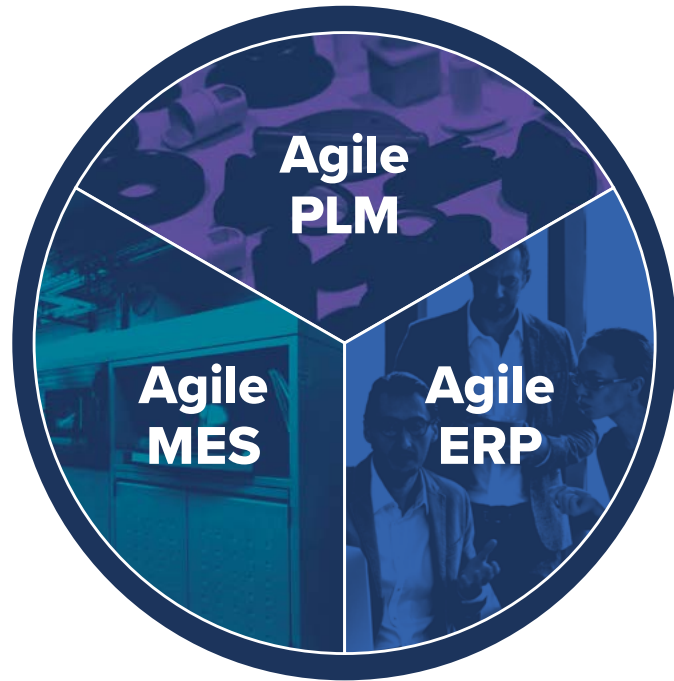
Track and document the transformation of raw materials to finished goods, including tracking current conditions, optimizing them to improve production output, and having real-time control of multiple elements in the production process.

# Agile Manufacturing Software Suite

Are you getting the most  
out of your additive manufacturing?

Our enterprise software optimizes end-to-end AM processes for leading companies and 3D print services. We work closely with customers to provide solutions for prototyping, mass-individualization and serial AM. Software is one of the key tools to minimize both production time and material waste.

By digitizing workflows, our software standardizes and evaluates AM data, connects teams to production locations, and optimizes machine utilization. These are the tools that enable data-driven production decisions and become the foundations for automated **Agile Manufacturing**.



# Agile PLM

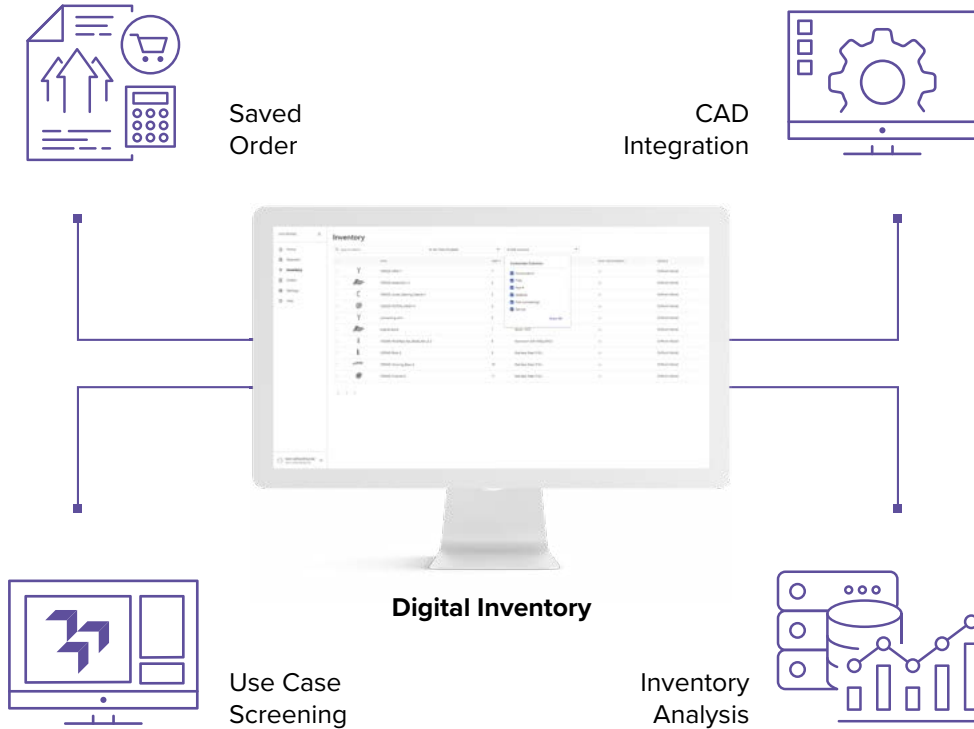
Get the Right Parts  
Fast.



The best digital inventory is full of AM-ready parts, fully prepared for production. The 3YOURMIND digital inventory saves orders with production data, so your team can add repeatability to production.

The Agile PLM (Product Lifecycle Management) centralizes data from past orders, from CAD, PLM and ERP integrations, and new business cases discovered by the AM Part Identifier into a single repository of production-ready AM parts.

# Evaluate and Manage AM Data





# Consultation for AM Part Identification

**When the AM Part Identifier is working for your team, it empowers your employees to find the right parts and bring value out of existing data. It spotlights the best use cases in your company.**

But to create a balance of technical, economic, business, and legal criteria customized to your specific business scenario, 3YOURMIND can work with you to deliver a batch of AM-ready parts and configured software algorithms that can be used on potential AM parts received through Use Case Screening or Inventory Analysis.

A successful expansion of your AM department will rely on collecting the parts that are technologically feasible, cheaper and more efficient to produce with AM. After working with our consulting team, you will have a software tool that is ready to deliver new AM use cases to your team.





## The P.R.E.P.

- ▲ **P.repare**  
Prepare initial dataset  
with default algorithms
- ▲ **R.refine**  
Refine algorithms, profiles  
and workflows per usage  
scenario
- ▲ **E.evaluate**  
Evaluate output, adjust  
metadata analysis,  
add new datasets
- ▲ **P.present**  
AMPI software launch  
for ongoing collection  
and evaluation of  
AM use cases



# Use Case Screening

**Gather AM use cases  
from every corner of  
your business.**





# How our Clients put AM Use Case Screening into Practice



## EMPLOYEES

Adding the eyes and ears of your entire team ensures that the best AM use cases are always identified, enabling your company to stay efficient and cost-effective well into the future.



## DESIGNERS

AMPI is a boon for designers. Knowing from the get-go that a part will be manufactured using AM enables them to tailor their designs. Better designs mean better parts.



## CUSTOMERS

As special requests come in, a quick AMPI screening can save hours or days of unnecessary phone calls and emails. Your sales team can verify in seconds whether that request can be executed using AM.



## PURCHASING

The purchasing team can review specific parts for AM suitability using data points they already have on hand. They also benefit from alerts based on AMPI's tracking of part life cycles. Armed with this information, purchasing departments can make well-informed decisions rather than filling in the gaps with guesswork.



# Inventory Analysis

**AM Part Identifier**  
reveals the items hidden  
in your inventory that  
are ripe for AM.



**CONNECT**  
your existing  
ERP and SAP  
inventories.



**ANALYZE**  
part information,  
and CAD model  
metadata.



**TRACK**  
part life cycles  
for the point  
of AM-readiness.



Your ERP database already holds everything you need to find new additive manufacturing business cases. AMPI gives your team a way to structure and leverage this information by connecting it to an algorithm that automatically reveals what items to shift from traditional to additive.

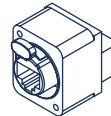
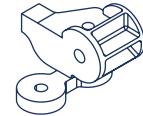
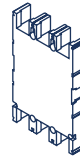
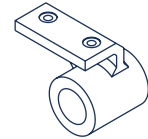
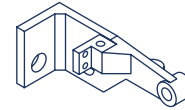
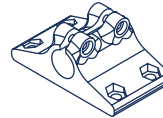
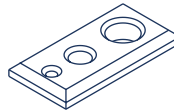
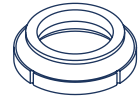
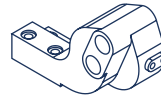
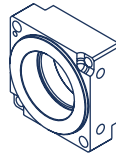
The software combines individual part metadata, CAD model analysis, production requirements, and usage scenarios to provide a clear focus for your whole team and guide your next AM decision.



# Digital Part Inventory

simplifies access to  
**AM-ready parts and  
production requirements.**

Your AM inventory can be filled with parts by AM experts and design engineers to provide a **one-click AM ordering system** that includes production requirements, technology and material selection. This is key for part repeatability, version management and serial AM.

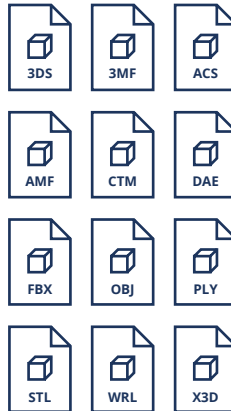


The platform accepts models from more than **15 leading CAD file types**, displays them in one standardized viewer, and collates all supporting documentation into a single 3D project.

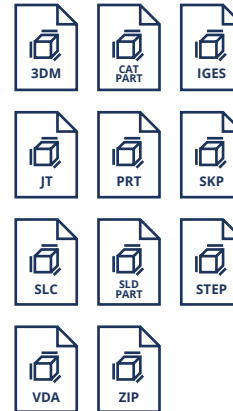
# Centralized Data Storage

manages files throughout the AM value chain

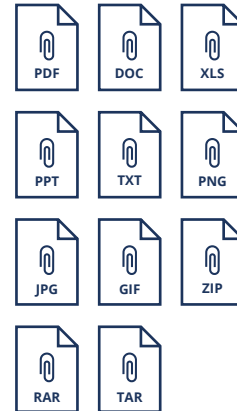
## Mesh formats



## CAD formats



## Attachments





# Printability Analysis

**validates and optimizes 3D  
files for production**

Weak points are shown in the 3D model viewer so your team knows exactly how they need to modify the file. Each model is further optimized by assuring the manifoldness of the input, fixing numerical and topological inconsistencies, and removing digital artifacts to create a watertight mesh while **maintaining the original part geometry**.

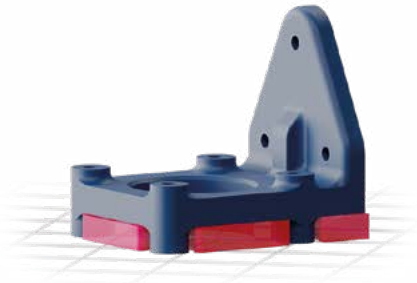


# Orientation Optimization

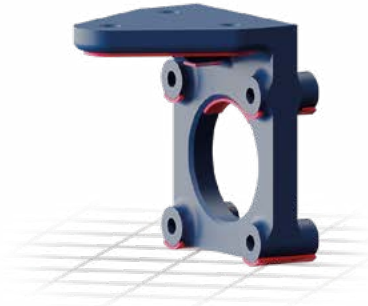
increases accuracy of  
pricing algorithms

The Orientation Optimization feature developed by the 3YOURMIND team allows an owner of the platform to have control over the orientation of the model and is used to estimate its price. It's now possible to choose between the **minimum height**, **minimum support volume** and **minimum contact area** of the contact between support structures and model surface. With this feature, it makes no difference how the customer orients the files because the calculated price will remain the same

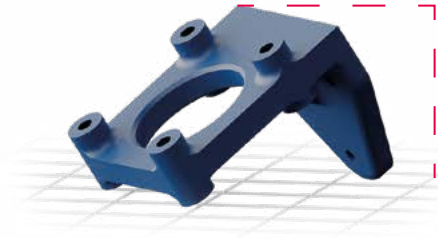
Minimum support  
structure volume



Minimum support  
structure area



Minimum model  
height

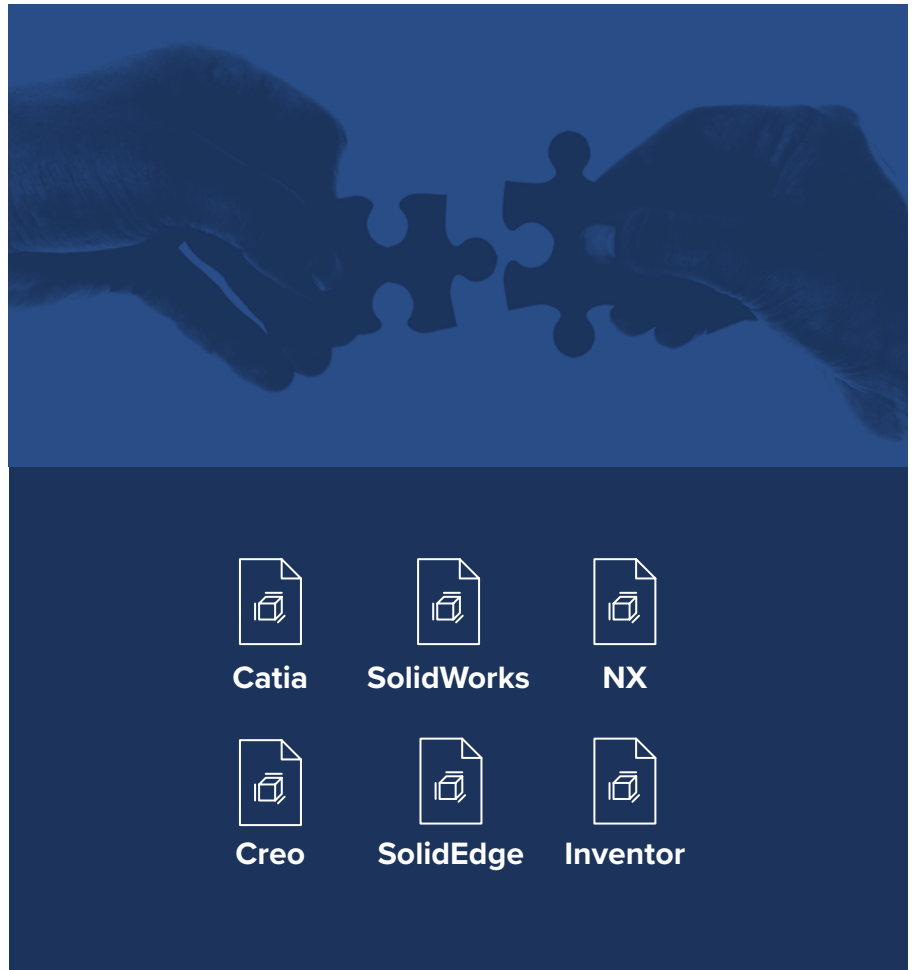




# CAD Integrations

**with leading design  
software systems.**

Allow your employees to **move 3D files with one click** from their CAD and simulation software into your digital part inventory. This populates your Agile PLM quickly and provides engineers with a fast turnaround for viewing pricing and production timelines.







# API Integrations

connects our backend  
and data to your  
existing interface.

Retrieve values and data about price, material, and suppliers by **accessing the 3YOURMIND** backend. Our software includes a database of 300 materials to enhance your user interface, giving customers the benefit of industry know-how accrued over years of software development. Completed orders, tracking and production data can also be exported into existing enterprise software systems.

Our market-leading 3D part analysis can be used with the 3D Viewer SDK (Software Development Kit).



# Dominik Lindenberger

Agile PLM Product Owner,  
3YOURMIND

Use Case Screening from the AM Part Identifier allows DB employees to propose potential 3D printing applications they encounter in their daily work using a simple digital interface. Within seconds, the employees can submit their new ideas. The software provides an analysis of the ideas and identifies the use cases with the highest production potential. A team of experts from Deutsche Bahn will then select the best projects to move into production to add cost savings, agility and stability to their spare part supply chain.

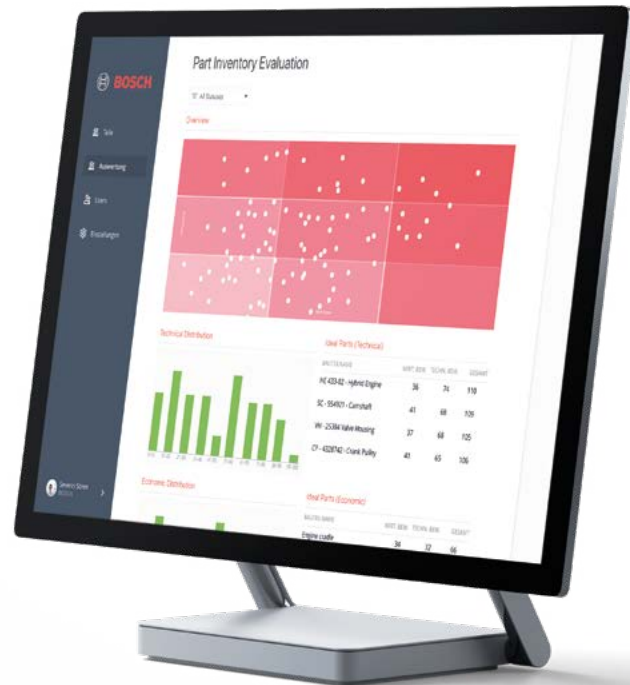


# Dr. Victor Roman

CEO of Ceres iAM  
at Bosch Group

With the help of the AM Part Identifier from 3YOURMIND, the identification of suitable use cases from within Bosch and with external customers is significantly easier.

Ceres Industrial Additive Manufacturing is able to produce small series of industrial plastic parts that combine unique benefits of both 3D printing technology and injection molding. The 3YOURMIND software enables us to find parts that can be produced more quickly and more cost-effectively - to introduce additional products to the market by taking advantage of dramatic reduction in lead times from conventional technologies.





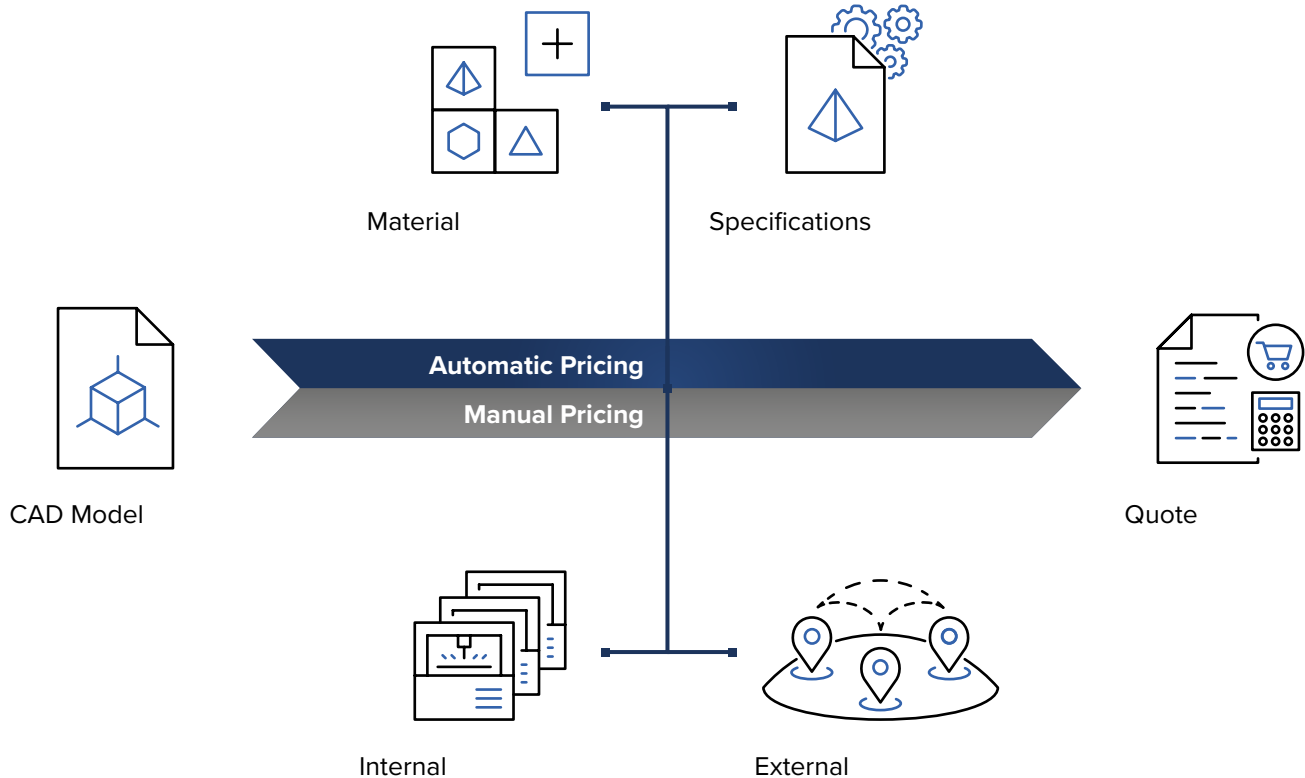
# Agile ERP

From Puzzle to Picture.

Automating order intake and customer management brings a new level of efficiency to your additive manufacturing. Agile ERP (Enterprise Resource Planning) provides simple access for your team as well as accurate pricing and comparison tools that ensure good AM production decisions - without requiring expertise.

But the magic happens when the management of orders is also automated. The custom part requirements, 3D file metadata and communication are automatically delivered to internal production locations or your distributed manufacturing network as complete, ready-to-produce orders. All part information and progress updates are communicated automatically through the software.

# Process and Distribute AM Orders



# Custom Part Requirements

**aligns the specific needs of your engineers, employees and customers.**

Collecting production and part specifications during the order process helps move parts more quickly into production and reduces potential errors.



The image shows a smartphone screen displaying the 3YOURMIND app. The app's header is blue with a white menu icon, the 3YOURMIND logo, and a user profile picture. Below the header, the part ID 'CLU\_29123' is displayed next to a 3D model of a mechanical part. The main section is titled 'Part Specifications' and includes a note '\*Required by Printing Service'. It contains four input fields: 'MAXIMUM MECHANICAL STRESS\*' with the value '1.8 bar', 'PART OF AN ASSEMBLY?' with the value 'Yes', and 'EXPOSURE TO ELEMENTS' with the value 'Indirect'. At the bottom, there is a slider for 'GRADE OF SANDBLASTING\*' with labels 'light', 'medium', and 'heavy'. A blue 'Save' button is located at the bottom right of the form.

9:41

3YOURMIND

CLU\_29123

Back

Part Specifications

\*Required by Printing Service

MAXIMUM MECHANICAL STRESS\*

1.8 bar

PART OF AN ASSEMBLY?

Yes

EXPOSURE TO ELEMENTS

Indirect

GRADE OF SANDBLASTING\*

light medium heavy

Save

Based on the 3D file analysis, your production selections and technical requirements, you will see the **best choices for production** in a single clear overview. Your team can optimize for speed, cost or availability in order to maximize your AM output.

# Material and Technical Comparison

based on price,  
specifications, delivery  
time and availability.



# Instant, Accurate Pricing

using custom pricing formulas and javascript-based algorithms.

To ensure competitive pricing, we use all relevant factors including material type, post-processing methods, support material and orientation in **fully customizable pricing formulas**. You can confidently accept orders 24/7 so your team can focus on more complex projects.

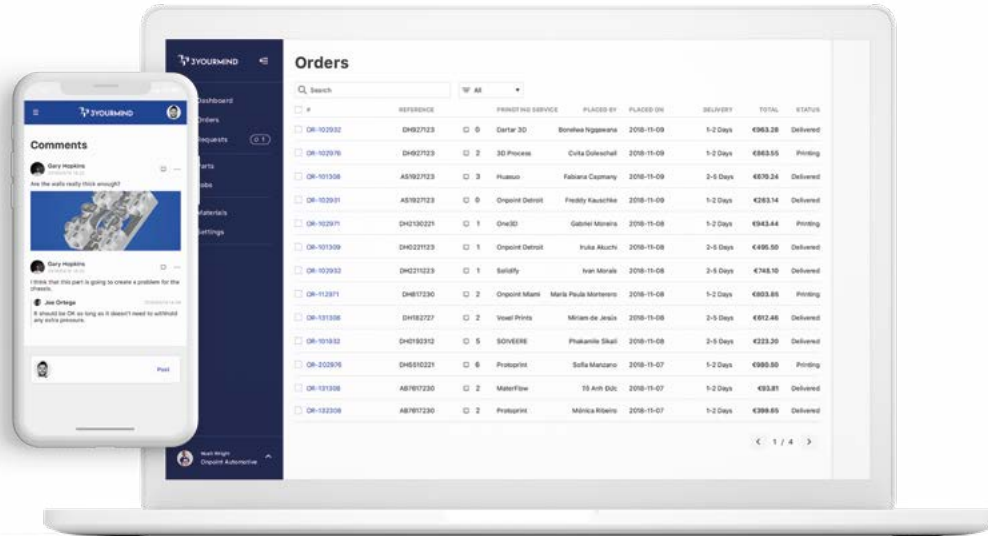




# Digital Communication Streams

The software **stores the dialogue** associated with production next to part requirements and optimized 3D files. This speeds up processes and reduces confusion. An important part of ensuring part quality is keeping everyone up-to-date as the part moves through production. Those final decisions are also stored when parts are recorded to support AM repeatability.

**add clarity, transparency  
and efficiency at every  
production step.**

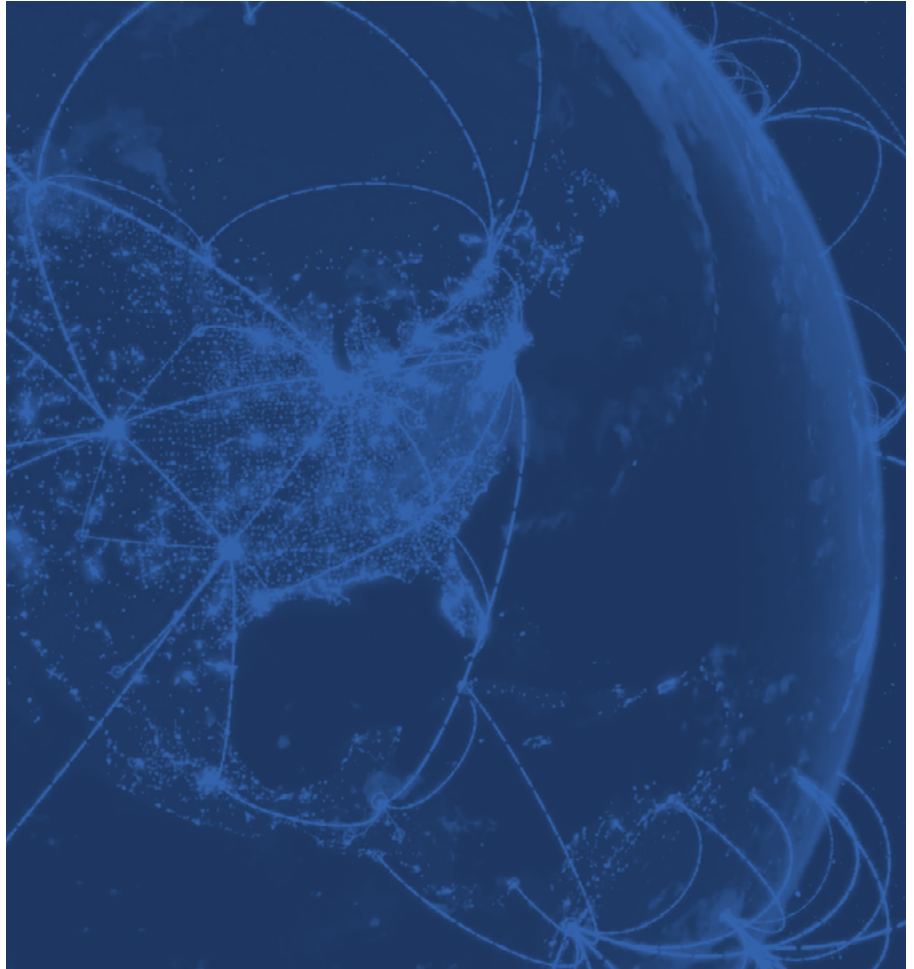




# Distributed Production Networks

**bring resilience and  
efficiency to production.**

A digital marketplace is the best way to show employees what AM capacity is available and provide access to those resources. Your company has a single view to **compare internal and external suppliers** and make a choice based on speed, security or cost. Schedulers are able to securely route AM orders to new locations with a single click.

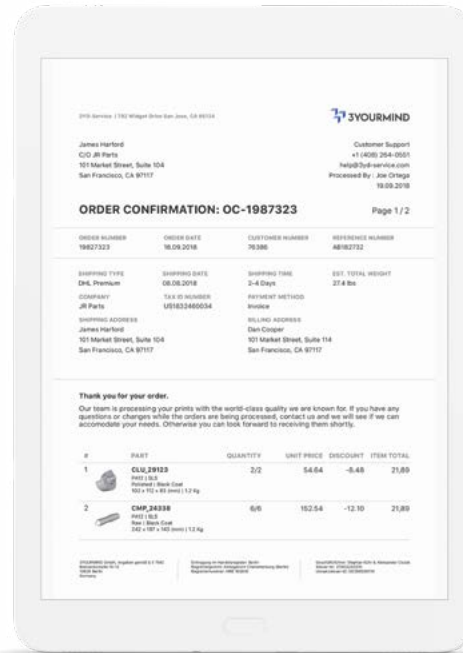


# Automatic Order Management

keeps all departments  
up-to-date.

The platform automatically generates routine project documentation such as quotes, delivery notes, invoices and shipping documents.

Any member of the team can check the status of production with automatic email updates or online tracking.

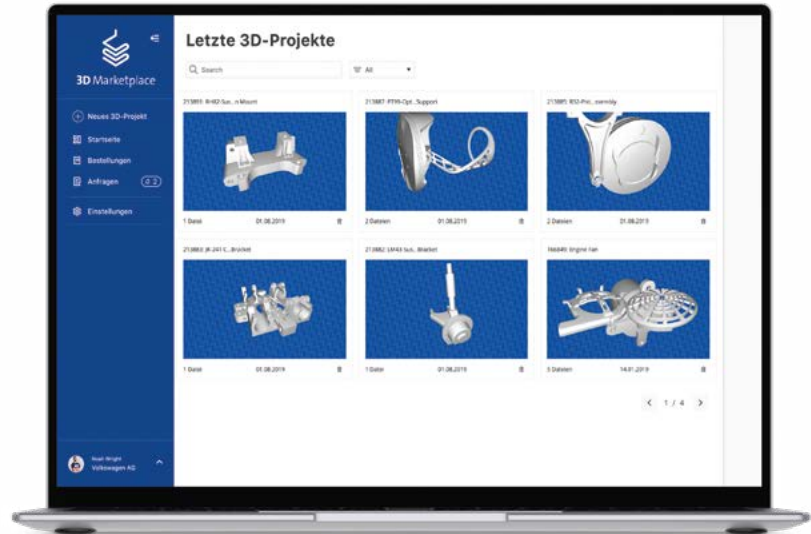


# Dr. Thorsten Gläsner

Product Owner 3D Marketplace,  
Volkswagen AG

The 3D Marketplace helps the Volkswagen Group mobilize its 3D printing capacity across its brands and international locations. Through the digital marketplace, we have become significantly faster in the development and production of 3D printed parts. 3YOURMIND has been an innovative, professional and highly agile partner both in the implementation and further development of the product.

**VOLKSWAGEN**  
GROUP



# Markus Josten

Instametal - GKN

Powder Metallurgy

“We want to use the time we gain through a more efficient ordering process to interact directly with our customers – for dialogue, developing joint strategies and also for individual consulting on complex topics. The time is much better invested in these areas for both our customers and for GKN.





# Agile MES

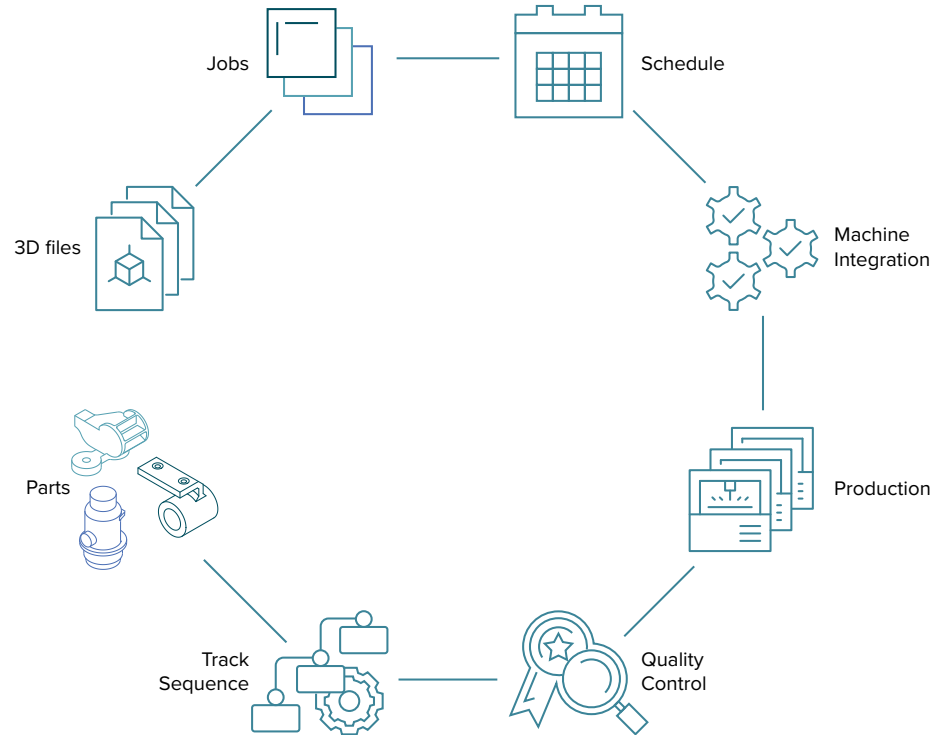
## Plan for Flow.

Getting your team on the same page is pretty conventional advice, but to unlock maximum AM efficiency, organizations need to shift the entire design to production workflow to digital.

Our Agile Manufacturing Execution System (Agile MES) increases transparency and speeds up the information flow while scheduling production and post-processing. Your team can leverage data using smart part prioritization, dynamic scheduling, and custom AM workflows that match how your team handles production.

To ensure the quality of output, the Agile MES automatically generates production sheets, tracks each produced unit, and receives real-time data through machine connectivity. With agile production streams, you simply accomplish more.

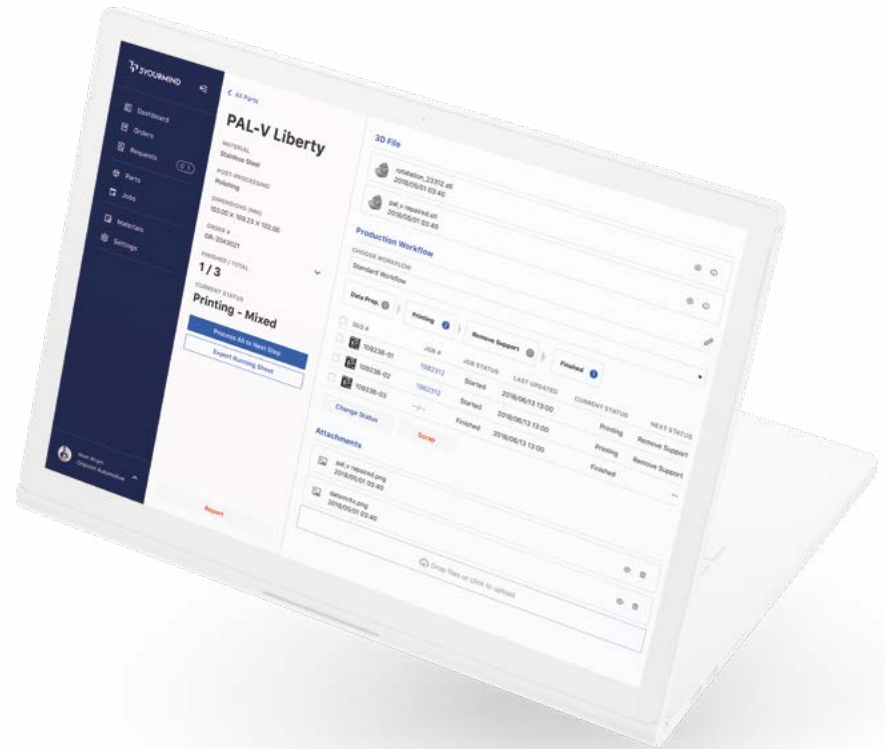
# Schedule and track AM Parts



# Custom AM Workflows

match the way your company schedules and assigns AM jobs.

Within the Agile MES, each production scenario can be laid out to **match your exact production and post-processing workflows**. Those processes become the basis of scheduling while routing through various combinations of machines and workstations. All progress is then tracked in the workflow to make better work estimations and help you maintain accurate delivery times.





Your scheduling team can automatically generate job build lists based on material, delivery date and priority level to quickly create their jobs without digging through orders and data. It's never been easier to maintain your delivery schedule.

# Smart Part Prioritization

automatically recommends  
efficient job scheduling.

**Create New Job**

**General**

WORKSTATION: EOS P380 MATERIAL: Polyamide JOB TYPE: Printing

**Parts**

<input type="checkbox"/>	PART NAME	PART #	MATERIAL	POST-PROCESS	ORDER DATE	AMOUNT
<input type="checkbox"/>	Alcomsat-1	343021	Polyamide	Raw	2018/02/13	— 3 / 20 +
<input type="checkbox"/>	Hylas-4	128391	Polyamide	Raw	2018/02/13	— 3 / 20 +
<input type="checkbox"/>	Dassault Falcon	123212	Polyamide	Raw	2018/02/13	— 3 / 20 +
<input type="checkbox"/>	Hylas-4	128391	Polyamide	Raw	2018/02/13	— 3 / 20 +
<input type="checkbox"/>	Boeing 737 MAX	398972	Polyamide	Raw	2018/02/13	— 3 / 20 +

Assign All Amounts Add New Part

**Schedule**

START TIME: 2018/07/19 12:30 FINISH TIME: 2018/07/20 14:30

# Production Planning

gives an accurate overview of the production floor.

Your team can quickly edit jobs to meet project deadlines, and accurately plan by using print run estimations and scheduled downtime. All jobs for machines, post-processing, and coordination are in a **single, clear overview**.





# Sequence Tracking

**monitors unit status to  
increase transparency.**

Each produced unit is tracked to keep a clear view of the production floor. Seeing the progress of all elements of an order also helps guarantee delivery times. The part progress can be viewed by anyone with access in the user interface, and this documentation leaves a **clear, auditable pathway for quality control.**

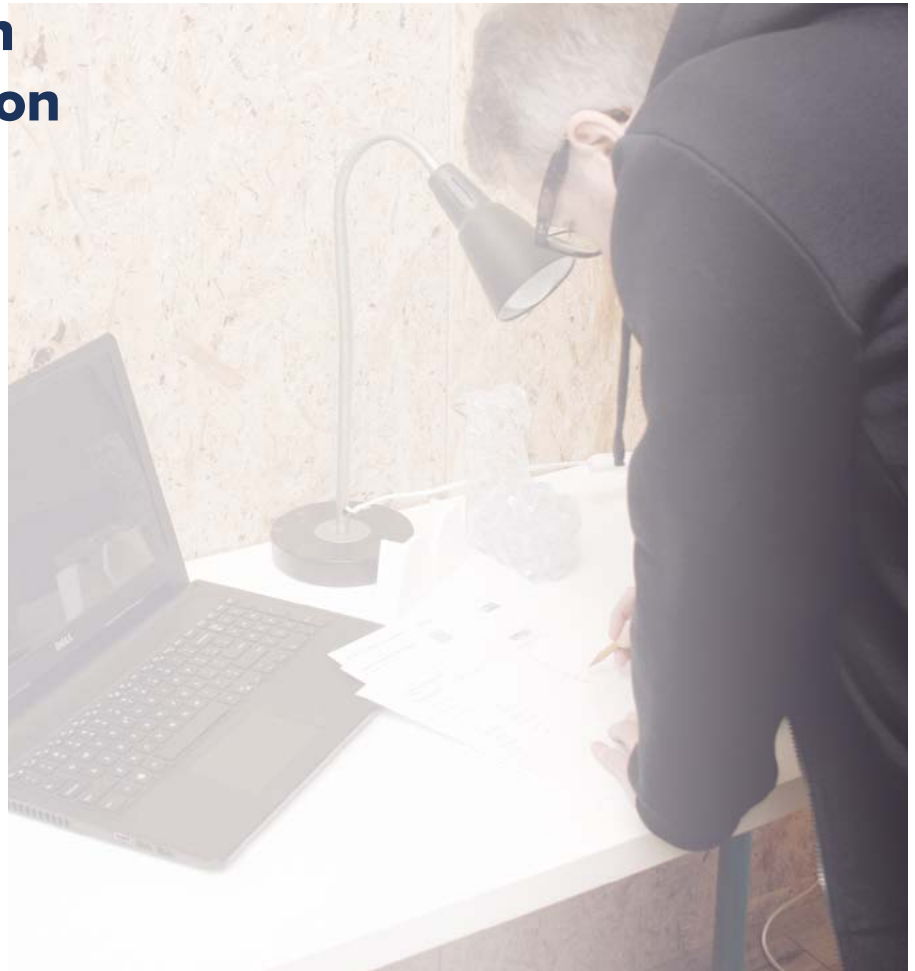




# Part Production Sheet Generation

**collects processing  
information to reduce  
errors.**

Production sheets can be downloaded for each part, and the assigned workflow is automatically displayed. This traveller moves with the part through the facility, and a QR code to jump into the software allows the engineer to instantly **mark progress, leave digital signatures, and comment about the production process** for auditing.



# Quality Assurance

is an essential part of additive manufacturing.



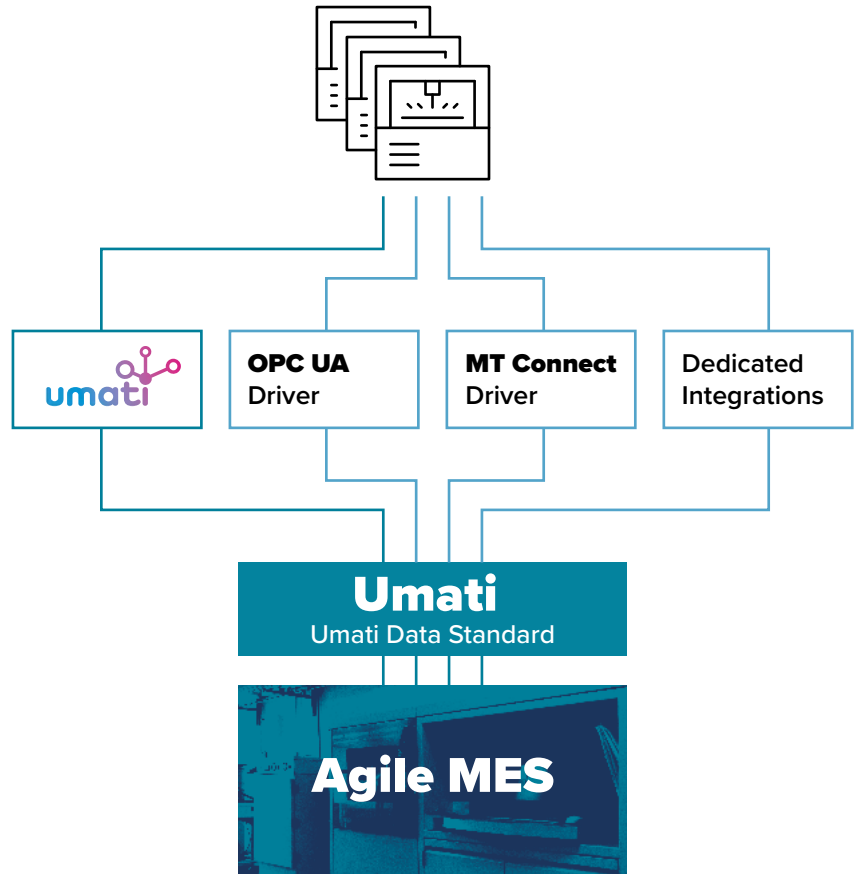
The Agile MES acts as a central storage point for **tracking the details of part production**. Digital markers show when steps were completed and which machines were used. They include notes about the production and even access real-time production data using machine connectivity. The software is important for audit data in a searchable, storable system.

# Machine Data Standardization

for a real-time production floor overview.

Machine connectivity connects technical production machinery with other hardware and software for **bidirectional controlling and tracking of production.**

The current AM-industry standards are the MT-connect in the US and the umati standard in the EU. 3YOURMIND standardizes both protocols into their software for data processing, machine comparison and production tracking.



# Götz Görisch

Chairman of the umati working group, German Machine Tool Builders' Association (VDW)

Machine connectivity and secure data transfer are critical for enabling smooth additive manufacturing production. 3YOURMIND joined as a partner to the umati (universal machine tool interface) organization in August 2019 as a specialist for the efficient organization of AM. The aim of umati is to establish a worldwide standard for simple data transfer between tooling machines, including 3D printing systems and production management software in the frame of Industry 4.0.

Umati brings leading machine manufacturers and software developers to one table in order to guarantee the best and most open and independent solution for the entire manufacturing industry. Because it is based on OPC UA, users of umati are also able to connect to other machines and industrial sectors. 3YOURMIND is one partner in a strong, worldwide network establishing this connectivity standard.





# Infrastructure

Robust software.

Professional support.

A successful partnership demands more than just a strong product. Shifting from conventional to additive manufacturing is a question of change management.

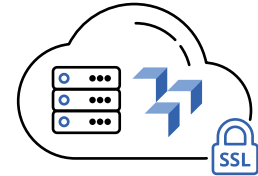
Our team has worked with some of the biggest names in manufacturing to provide both strong cloud solutions as well as the deployment our software into existing ecosystems. We also have a dedicated DevOps team to ensure software stability and support on-premises installations. Our team delivers professional support that helps your team maximize AM from user training to IT support and customization.



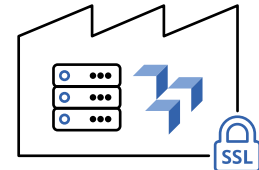


# Software installations for enterprise IT requirements.

White label customization  
to match your brand and  
production process.



Cloud



On-Premise



# Service, Training, and Support.

Scaling additive manufacturing becomes easier when your whole team is on the same page. Information gaps are filled, and a successful launch becomes far more likely. From platform customization to individual algorithms, 3YOURMIND's Agile Manufacturing Software Suite melds into existing manufacturing processes. Our customer success team is on hand for training and support to ensure a smooth execution at every turn.

## Platform Customization

- ▲ CAD Plugins
- ▲ 3rd Party Integrations
- ▲ Security Authentication Integrations

## Training Support

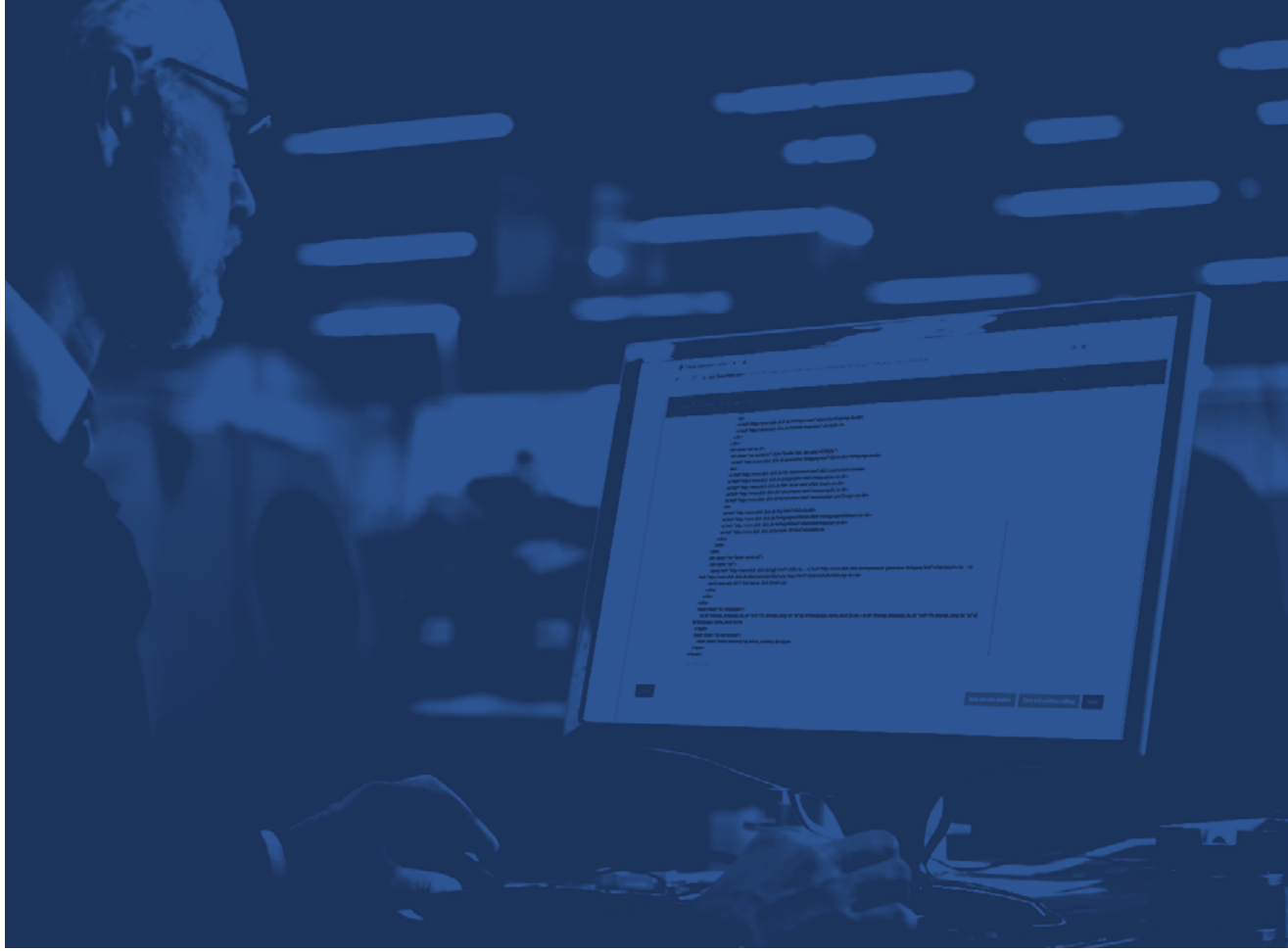
- ▲ Agile ERP Workshop
- ▲ Agile MES Workshop
- ▲ Administration Panel Workshop
- ▲ Roll-out Support

## Support

- ▲ Online Production Support
- ▲ Dedicated Production Support
- ▲ Application Customization
- ▲ End User Support
- ▲ Online IT Support
- ▲ IT Management

## Extended Services

- ▲ Platform Setup
- ▲ Agile MES Setup
- ▲ Custom Pricing Formulas
- ▲ Orientation Algorithm Creation



# Yvon Gallet

CEO, Initial

We have set up 3YOURMIND with some of our customers in order to have easier, more reliable and instantaneous contact with them. This allows these equipped customers to get part quotes when they want, as many times as they want, including in the late evening or even on weekends. Thus, we give them the opportunity to access the heart of INITIAL and to receive quotes as they need according to the technologies chosen. This is an important sign of trust and in the future we will deploy this advantage to all our customers.

**INITIAL**  
DESIGN & PRODUCTION  
**PRODWAYS**





# Dr. Hans Langer

CEO,

Electro Optical Systems (EOS)

3YOURMIND solves a huge problem in bringing additive manufacturing to the broad mass. With 3YOURMIND, 3D-data is analysed and optimised for printing in a matter of seconds. This saves a lot of time and money. A tremendous additional benefit for customers is direct integration into CAD programs for streamlined workflows.





# A Secure Platform Built for the Future of Production

3YOURMIND provide secure platforms to some of the world's largest manufacturers in the aerospace, automotive, medical and logistics Industries. As they build the products of the future, we understand the importance of maintaining enterprise-level security at every stage of their production process.



Multi-factor data authentication



Encryption in transit and at rest



Automatic system monitoring, direct alerts, instance logging



Layered platform permissions



Compliant with the GDPR-EU (General Data Protection Regulation)



Compliant with Federal Trade Commission Act (15 U.S.C. §§41-58)





# A Truly Optimized AM Workflow.

The Agile Manufacturing Software Suite is designed to be the core of the future of responsive, automated manufacturing. It provides the foundations for a seamless end-to-end process and to maintain the greatest level of efficiency possible.

Yet additive doesn't exist in isolation: it needs to communicate with other software systems, provide quality assurance, and work in the highest security environments. Our software has been developed with these key principles in mind.

By prioritizing data at every step - from standardization to optimization to automation - 3YOURMIND put you in the pole position to make additive manufacturing a success story for your business.



[3YOURMIND.com/demo](https://3YOURMIND.com/demo)

[3yourmind.com](https://3yourmind.com)

**3YOURMIND HQ, GERMANY**

Bismarckstr. 10-12

10625 Berlin

+49 30 555 787 46

**3YOURMIND Munich**

+49 157 92 346 007

**3YOURMIND USA**

28970 Cabot Dr #700

Novi, MI 48377

+1 (628) 252 94 22

**3YOURMIND Miami**

+1 (954) 243 47 14

**3YOURMIND FRANCE**

17-21 Rue Saint Fiacre

75002 Paris

+33 686 977 805

**3YOURMIND POLAND**

Tęczowa 57

53-601 Wrocław

+48 504 953 996