3YOURMIND

Manufacturing Trends Report 2025

How Digital Part Inventories Are Powering Distributed Production

January 2026

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Manufacturing is at an Inflection Point

In 2025, manufacturing organizations continued to face growing pressure from supply chain instability, labor constraints, geopolitical uncertainty, and accelerating product life cycles. These forces are driving fundamental changes in how parts are designed, sourced, produced, and sustained over time.

Across industries, three trends are shaping manufacturing strategies:

- **Growing focus on part digitization:** New investment into centralized inventories populated with ready-to-print parts

- **Decentralized production:** Additive manufacturing available at point-of-need with smaller, local production capabilities rather than large central factories.

- **Hybrid manufacturing:** Additive manufacturing is moving beyond prototypes into full production, while traditional manufacturing methods still support and complete the process.

Together, these trends reflect a broader shift toward data-driven manufacturing ecosystems, where production decisions are guided by digital access to part data, manufacturing rules, and real-time operational constraints.

In this environment, 3YOURMIND provides a digital infrastructure layer that connects engineering, production, and procurement. While customers deploy the platform in different ways, they share a common foundation: a centralized digital part inventory that enables scalable, repeatable manufacturing workflows.

This report examines how organizations are operationalizing these trends through two dominant customer models — the Defense Model and the Enterprise Model — and how customer needs continue to inform product development priorities.

More organizations are implementing additive manufacturing to hybridize their manufacturing and procurement strategies.

2025 Manufacturing Trends Shaping Customer Behavior

Across industries, three major trends are influencing how organizations adopt additive and advanced manufacturing technologies.

Trend 1: Supply Chain Resilience Through Digitization

Organizations are increasingly prioritizing digital access to part data as a prerequisite for supply chain resilience. Whether driven by geopolitical risk, long lead times, or supplier dependency, manufacturers are seeking ways to regain control over critical components.

Rather than relying solely on external suppliers, organizations are investing in digitizing legacy parts, repair components, and low-volume spares so they can be produced on demand using qualified internal or local production resources.

In 2025 alone, defense and enterprise customers screened tens of thousands of parts for manufacturability and suitability for alternative production methods, accelerating decisions around which components could be digitized and produced closer to the point of need.

Organizations are realizing the importance of digitizing physical components to counter supply chain fragility.
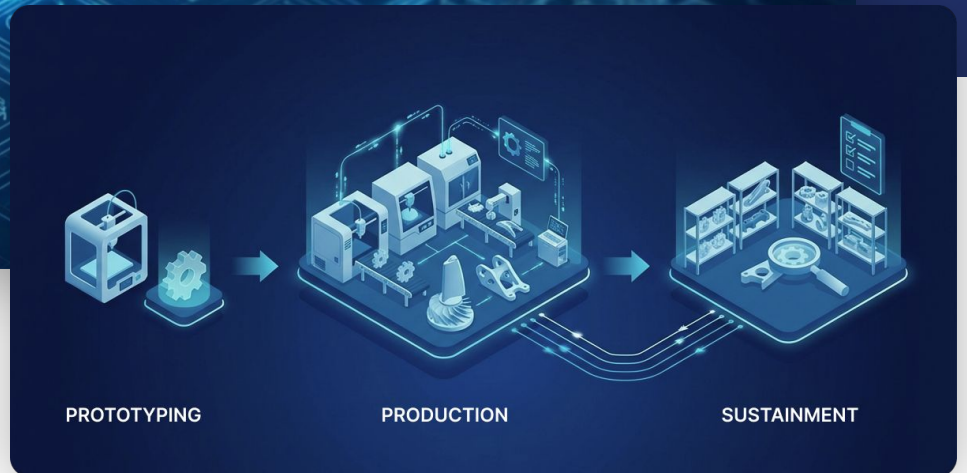
Centralized intelligence and decentralized production is the current vision for many defense and enterprise organizations

Trend 2: Distributed and Decentralized Production

As production capabilities spread across depots, factories, and service providers, the challenge is no longer just making parts—it is coordinating where, how, and by whom parts are produced.

Organizations are moving toward models in which qualified parts can be dynamically routed to internal sites or approved suppliers based on capacity, technology availability, and proximity to end use. This requires a digital backbone that connects engineering data, production rules, and ordering workflows.

The result is a shift from centralized manufacturing planning toward networked manufacturing ecosystems, where decisions are informed by real-time operational constraints rather than static supplier contracts.

Trend 3: From Prototyping to Production and Sustainment

Many organizations first adopted additive manufacturing for prototyping. In 2025, customers increasingly used additive technologies for production tooling, end-use parts, and sustainment operations.

What begins as a rapid workaround frequently becomes a permanent, cost-effective production method. This evolution creates demand for better part traceability, qualification workflows, and version control—capabilities that support long-term production rather than one-off builds.

The Defense Model: Digitized Sustainment and Distributed Production

Defense organizations are prioritizing the digitization of spare parts and assemblies to improve equipment readiness and reduce dependency on fragile supplier networks.

The objective is to establish centralized digital inventories that are broadly accessible, enabling leadership, maintenance teams, and frontline units to request parts through approved production pathways.

Using 3YOURMIND, defense customers digitize entire equipment systems by bulk uploading technical drawings, structured data, and 3D models. The platform standardizes part information, evaluates manufacturability across production technologies, and provides recommendations for internal production or qualified external suppliers.

This approach enables large-scale screening of legacy parts to identify candidates for additive and alternative manufacturing, significantly reducing the time required to assess feasibility and cost across thousands of components.

Once digitized, parts can be routed dynamically to production locations based on technology availability, capacity, certification status, and proximity to end use. Internal R&D teams can qualify new components in response to field requests and assign them to appropriate depots, supporting both expeditionary repair and long-term sustainment strategies.

This model reflects a broader shift toward data-driven sustainment, where digitization enables faster response times, greater operational autonomy, and improved equipment availability across distributed environments.

UNPRECEDENTED SCREENING VOLUME

35,000+
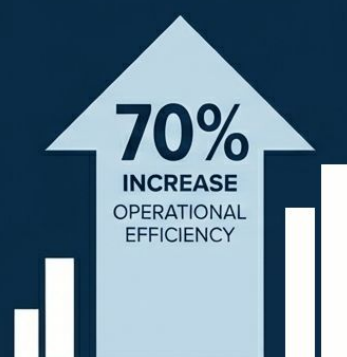PARTS DIGITALLY SCREENED

ACCELERATED ANALYSIS TIMELINE

DECADES (TRADITIONAL) → MONTHS (3YOURMIND)

SIGNIFICANT EFFICIENCY GAIN

70%
INCREASE OPERATIONAL EFFICIENCY

The Enterprise Model: Master Catalogs for Global Manufacturing Networks

> Enterprise manufacturers face a parallel challenge: while production capabilities are distributed across global facilities, part knowledge and engineering expertise often remain siloed within individual teams or sites.

Enterprise customers are creating master catalogs of qualified, proprietary parts, supported by 3YOURMIND, that have been designed, tested, and approved for additive manufacturing (AM). These catalogs allow for organization-wide access while maintaining design ownership at the originating site.

Facilities can upload qualified parts to the shared inventory, allowing other locations to view and order approved components directly through the platform, routing production to local equipment. The originating team retains design authority, ensuring version control and part integrity.

This approach has cataloged thousands of qualified parts at large manufacturing sites, reducing redundant development and accelerating access to production-ready components globally.

Beyond part reuse, internal demand signals captured via ordering workflows prioritize new product development. Engineering focuses on components with demonstrated operational value, shifting from isolated innovation to coordinated, enterprise-wide production strategies.

This model enhances collaboration, speeds up the deployment of AM innovations, and ensures more efficient use of AM capabilities across complex organizations.

2025

PARTS ORDERED

500,000+

Approx. 1 part / minute, non-stop, for almost a year

TOTAL VALUE

$ 19M+

Approx. lifetime salary of 6-7 engineers (20 yrs) or 25-30 average US homes

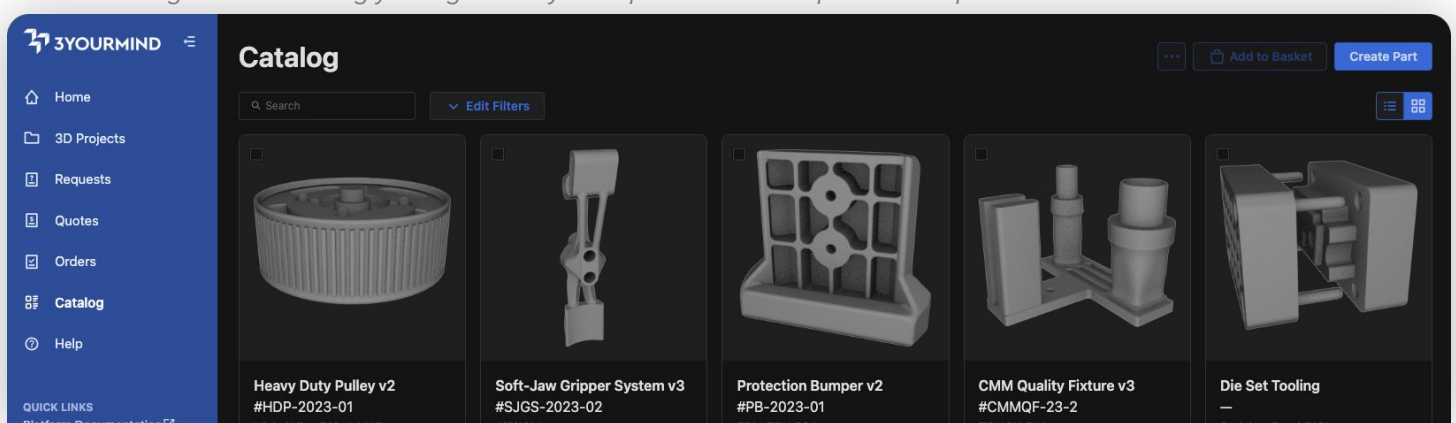## All-Time

ALL-TIME PARTS ORDERED

1.2M+

Unique parts, not considering production volume

ALL-TIME TOTAL VALUE

$ 127M+

Cumulative value of all parts ordered

Master catalogs are increasingly being used by enterprises with multiple internal production facilities.

Product Improvements Informed by Manufacturing Trends

In 2025, customer feedback consistently reflected two priorities:

- Organizations want to build digital manufacturing ecosystems faster
- Workflows need to be more intuitive and better aligned with how engineers, operators, and procurement teams actually work

As a result, our product development efforts focused on reducing barriers to part digitization, accelerating manufacturing decision-making, and simplifying ordering and production workflows across distributed environments. We are proud of the substantial improvements delivered to customers over the past year.

Below are several highlights that reflect these priorities.

1. Accelerating Part Digitization at Scale with AI

Digitizing large volumes of legacy parts has historically been a major bottleneck for organizations seeking to build digital inventories. In 2025, we introduced AI-powered capabilities to dramatically reduce the manual effort required to ingest and structure part data.

AI-Powered Technical Drawing Analysis

We introduced AI-powered technical drawing analysis to streamline the process of extracting data from engineering drawings. Customers can now bulk upload technical drawings and automatically extract key information such as dimensions, materials, part names, and cage codes, regardless of drawing format.

What was once manageable for a handful of parts becomes prohibitive when scaled to hundreds or thousands of drawings. This capability significantly reduces the time required to digitize large part libraries and enables organizations to move faster from legacy documentation to production-ready digital inventories.
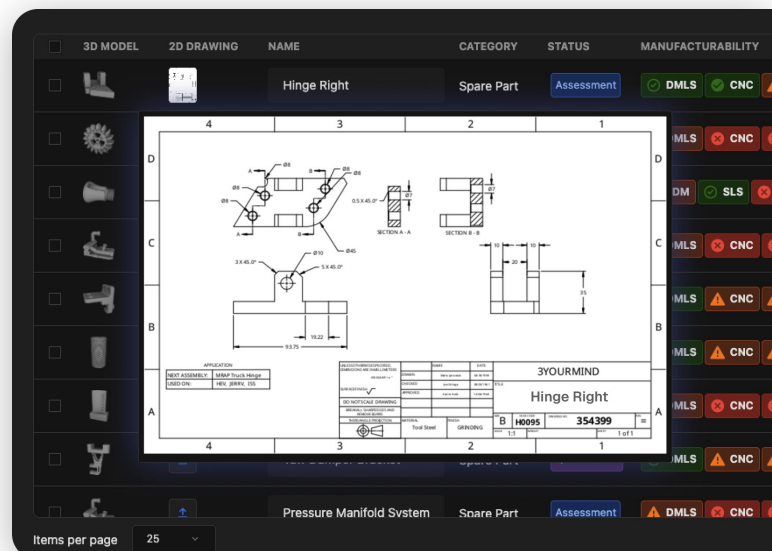
AI-Powered Technical Drawing Analysis extracts information from technical drawing, acting as the first step in part digitization.

AI-Powered Screening of 3D Models

We extended the same AI-driven approach to 3D models, allowing customers to screen parts in bulk without relying on manually populated CSV files. This enables users to assess manufacturability and production suitability directly from uploaded CAD data.

To further improve efficiency, part data can now be edited directly from the part inventory list view, allowing users to update multiple parts at once without navigating into individual part pages. Together, these enhancements significantly reduce friction during large-scale part digitization efforts.

2. Supporting Multi-Technology Manufacturing Decisions

As organizations adopt more diverse production strategies, manufacturing decisions increasingly require comparing multiple technologies rather than evaluating additive manufacturing alone.

Manufacturing Analysis for Additive and Conventional Technologies

In 2025, we expanded part assessment functionality into a broader manufacturing analysis capability. This enhancement provides manufacturing recommendations based on 13 design-for-manufacturing algorithms validated through EU-funded industry research.

Customers now receive recommendations for multiple additive manufacturing processes as well as conventional manufacturing technologies such as CNC machining. These recommendations are paired with industry-validated cost forecasting, enabling users to compare production methods and make informed decisions earlier in the development and procurement process.

This enhancement enables organizations to evaluate feasibility, cost, and lead time for manufacturing options within a single workflow, supporting faster, more confident decision-making

What Customer-Focused Product Development Looks Like in Numbers:

157 Completed Feature Requests

64 New Features Delivered

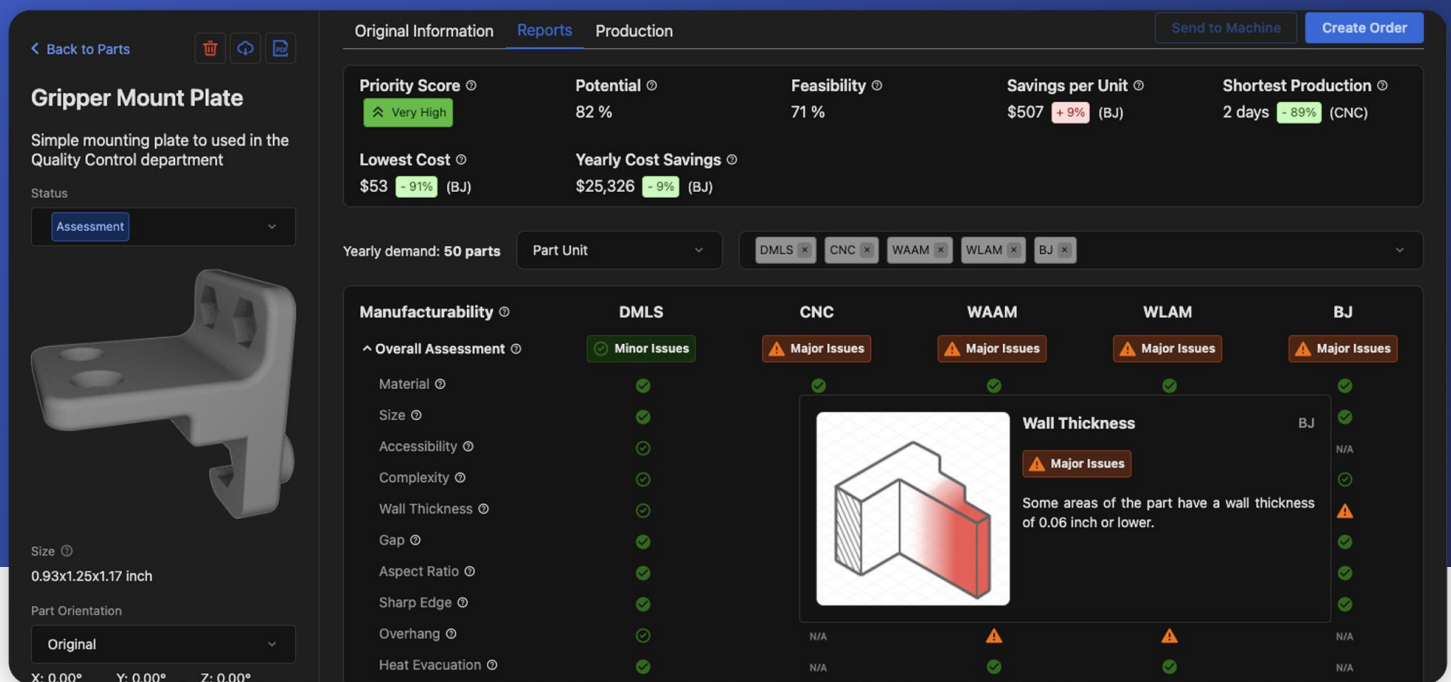**73%** of Features Driven by User Request

4.5 Months of Average Delivery Time

7 Large-Scale Releases

Lorem ipsum

3. Enabling System-Level Inventory Management

As digital inventories grow, organizations increasingly need to manage parts in the context of the systems and equipment they support.

Organizing Parts by Equipment Systems

Based on strong feedback from defense customers, we introduced the ability to organize inventory parts by the equipment systems they belong to. With support from automation features such as filename extraction, users can assign parts to systems with minimal manual effort. This allows users to quickly identify which systems have digitized and qualified parts, view repair-ready components, and prioritize future digitization or qualification efforts based on operational needs.

While developed initially for sustainment use cases, this capability also supports enterprise customers managing complex product families and equipment fleets.

The new System property helps organize the inventory of parts by equipment systems.

Simplifying Distributed Ordering and Production

As manufacturing networks become more distributed, ordering and production workflows must remain intuitive for both technical and non-technical users.

Improved Access and Navigation from the Part Inventory

For distributed manufacturing users, the part inventory is now accessible directly from the service panel, allowing faster access to part data and attachments. Both end users and service personnel can now initiate part orders directly from the part inventory.

This enhancement supports faster transitions from identification to production and lays the groundwork for upcoming push-to-print.

Streamlined Ordering Experience

We continued to simplify the ordering process to better align with familiar online purchasing experiences. Improvements include clearer pricing visibility, more intuitive workflows, improved 3D file uploads, and pre-selected options for part attributes such as colors and inserts.

These changes reduce friction for operators and procurement teams while maintaining the technical rigor required for manufacturing workflows.

New features and usability improvements
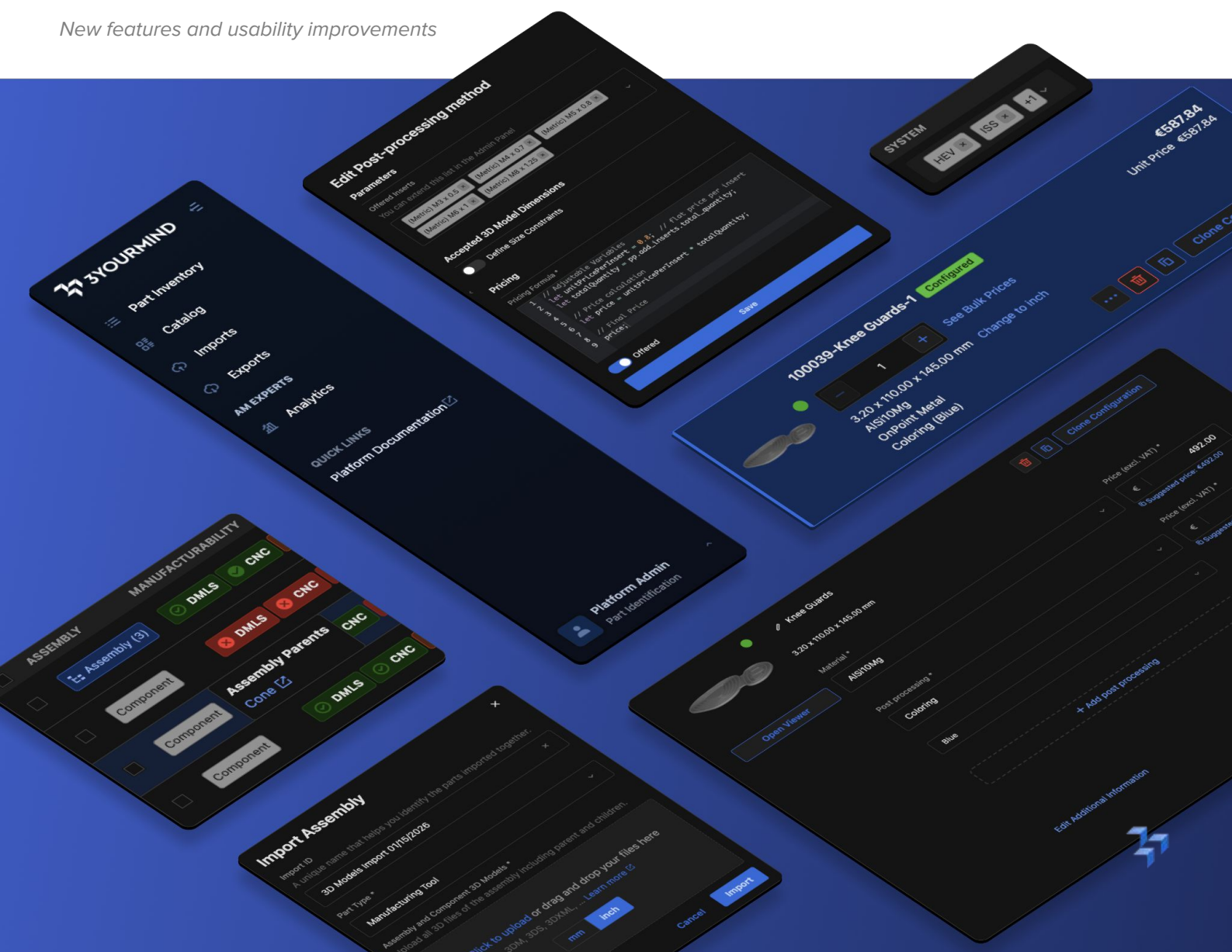
Trusted Partners, Proven Capabilities

We work with trusted technology partners to address emerging and existing challenges in advanced manufacturing. Our solutions support operability, sustainment, and mission readiness.

Joint -partner supporting allied defense and manufacturing readiness.

Six years of continued partnerships supporting the Department of War.

Certified Development Partner to advance operations in defense and energy.

Joint-offer focused on centralized intelligence and distributed manufacturing

Joint-partner advancing secure distributed manufacturing for defense.

Executive Summary

Manufacturing in 2025 is defined by three converging trends:

- Growing focus on part digitization and centralized inventories of ready-to-print-parts
.

- Decentralized manufacturing available at point-of-need with smaller, local production capabilities

- Hybrid manufacturing approach to production and sustainment

Customers are operationalizing these trends through two dominant models – Defense and Enterprise:

The Defense Model:

- Defense programs screened more than 35,000 parts in months, matching the scale of lifetime program analyses.
- The effort reflects 70% gain in operational efficiency.

The Enterprise Model:

- In 2025, 500K+ parts were ordered with support from 3YOURMIND – approximately 1 part/minute, non-stop for almost an entire year.
- In 2025, the total value of orders placed surpassed $19M, a new annual record.

Product development in 2025 focused on accelerating ecosystem readiness, powered by customer feedback, including:

- 7 large-scale software releases
- 157 completed feature requests
- 64 new features delivered
- 73% of features driven by user request
- 4.5 average delivery time to complete new features.

These developments establish digital part inventories as the foundation for scalable, data-driven manufacturing ecosystems supporting innovation and long-term production.

Company Profile:

Founded:
2014

Locations:
Berlin, Germany;
Novi, Michigan, USA

Industry:
Software & Services

Sectors:
Defense, Energy, Transportation

Serving:
OEMs, MROs, governments, contract manufacturers

Key Customers:
U.S. Army DevCom, Ford Motor Company, Forecast3D, Chevron

Contact:

William Cuervo
VP of Sales, North America at 3YOURMIND

Email: wcu@3yourmind.com
Phone: +1 954 243 4714

3YOURMIND

3YOURMIND offers digital solutions and technical expertise to address operational challenges related to equipment sustainment.

Request an onboarding call with one of our experts to get started.

Schedule Onboarding