

Manufacturing without limits

Accelerating manufacturing performance with digital operations



The better the question. The better the answer.
The better the world works.

The EY logo, consisting of the letters 'EY' in a bold, white, sans-serif font. A yellow diagonal line is positioned above the 'Y'.

Shape the future
with confidence



A new chapter in manufacturing is unfolding

As artificial intelligence (AI), advanced analytics and modern operational technologies come together, they're not just improving processes – they're opening entirely new possibilities for how we design, build and deliver the world's most essential products. Those setting the pace for large-scale transformation recognize it is now a business, financial and competitive imperative – not just a technology priority.

When change is integrated across products, operations, supply chain and talent, every decision amplifies the next, creating

a compounding advantage that fuels growth and long-term value. In this environment, speed, alignment and adoption aren't just enablers – they define industrial performance. This integrated approach shifts manufacturing from constraint-based systems to limitless, self-evolving ecosystems where AI doesn't simply optimize but reimagines where humans orchestrate rather than operate and where factories predict, adapt and regenerate.

For industrial products companies, **digital operations have become the distinguishing factor** between those who react and those who redefine what's possible – widening the gap between transformation leaders and everyone else. Leaders who act early, integrate AI faster and translate strategy into execution more effectively deliver **outsized revenue, margin and cost advantages**.

19%

of industrial companies
are true transformation
leaders

48%

are stuck in
the middle

34%

lag significantly

Source: EY Industrial Innovation and Transformation Index, 2026

EY digital transformation framework

Digital transformation has matured, but its full potential is far from realized. We help industrial product (IP) companies embrace innovation, transform operations, and broaden product and service offerings to scale their businesses for tomorrow.

We build **cognitive, adaptive, AI-driven operations** across four integrated layers, engineered specifically for industrial manufacturing environments.

Reaching the **future state of manufacturing** requires more than technology – it demands strategic thinking, change management expertise and a deep understanding of manufacturing operations.

1 Cognitive core systems modernize the industrial backbone

IP companies often rely on aging systems that weren't built for real-time analytics or AI. This cognitive core becomes the foundation for traceability, quality, engineering collaboration and multi-plant orchestration.

2 Living digital thread seamlessly connects engineering, factory and service

The digital thread collapses inefficiencies through connected and automated processes and traceability from design to shop floor to installed asset. This is essential for high-mix, low-volume environments and complex industrial portfolios.

3 Prescriptive AI predicts, prescribes and orchestrates action

The new AI blueprint underpins transformation at every level, improving decision-making, enabling rapid and cost-effective customization, enhancing human efficiency and driving growth in new and different ways.

4 Autonomous and adaptive operations that are resilient, intelligent and always optimizing

Autonomous operations enable scalability, cost stability and responsiveness across the manufacturing value chain - turning adaptability itself into a strategy.

Transforming the value chain: design to operate

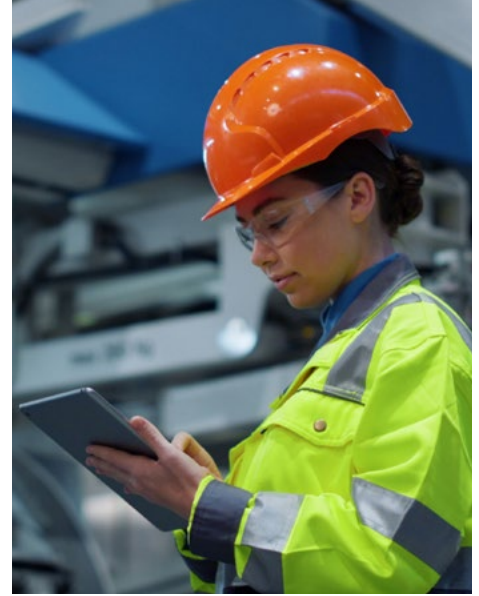
True manufacturing transformation extends far beyond the factory floor. Our comprehensive approach addresses every stage of the design-to-operate value chain so that digital capabilities enhance collaboration, accelerate innovation and improve outcomes from concept to customer.

Business process orchestration



Bridging OT, IT and process strategy into one seamless system

The convergence of operational technology (OT), information technology (IT) and business processes represents the greatest opportunity and most complex challenge in manufacturing transformation. We address this convergence through integrated solutions that work harmoniously across all three domains.



OT modernization

■ Intelligent and connected

- Real-time asset visibility
- Unified data thread across systems
- Edge intelligence for immediate decisions

■ Secure and resilient operations

- Automated cyber monitoring and remediation
- Rapid threat response aligned to operational priorities

■ Scalable and future-ready platforms

- AI-driven operational insights
- Modernized, flexible OT applications
- Reduced reliance on legacy systems

IT integration

■ Connected and scalable IT architecture

- Seamless connectivity across enterprise systems
- Advanced analytics infrastructure for high-volume data processing
- Unified IT/OT data thread ensures single source of truth

■ Intelligent, insight-driven IT systems

- Raw data becomes actionable insights
- Integrated analytics accelerate decision-making and operational optimization
- Scalable cloud and hybrid architectures support rapid deployment and future growth

■ Enterprise-wide digital enablement

- Seamless integration with existing IT systems
- Orchestrated workflows and efficient operations across the enterprise

Business process orchestration

■ Intelligent automation and workflow acceleration


- AI-enabled workflow automation handles routine tasks with precision
- Multi-agent orchestration increases speed and reliability across operations

■ Enterprise alignment and real-time collaboration

- Real-time visibility to all stakeholders across functions
- Breaks down silos between operations, supply chain, engineering, quality and service
- Enhances decision-making

■ Continuous optimization and autonomous decisioning

- Embedded feedback loops drive process refinement and operational agility
- Agentic capabilities power autonomous workflows and decision pathways
- Adaptive operating model evolves and scales



Digital operations are one of the greatest enablers of operational resilience and profitable growth.

Companies that modernize digital operations outperform at every level

30%-50%

reduction in unplanned downtime¹

25%-30%

overall equipment effectiveness (OEE) improvement in complex, mixed-model production¹

10%-20%

lower operating costs through automation and optimization²

Significant improvement in on-time delivery

across multi-plant networks²

Up to **40%**

energy savings via intelligent utilities and process optimization²

Faster engineering cycles and lower product costs

through integrated engineering to manufacturing pipelines³

Sources:

¹"Research reveals the power of IWS: Yale, MIT and LSE confirm its positive impact on operational performance," November 2025, EY, 2026.

²EY engagement experience and analysis

³"How connectivity goes hand in hand with business growth," April 2021 EY, 2026

Unlocking value through a people-centric culture of innovation

Manufacturers continue to face a persistent and growing talent gap driven by retirements, skill mismatches and accelerating demand. In this environment, digital and AI-enabled operations are becoming both a primary lever for resilience and a competitive advantage. The opportunity is less about replacing people and more about amplifying the workforce already in place – augmenting human expertise with intelligent automation, decision support and advanced analytics.

■ Scaling the workforce through technology

By embedding AI into planning, maintenance, quality and shop floor execution, manufacturers can increase productivity, reduce reliance on scarce skills, shorten learning curves and enable employees to focus on higher-value work. Technology becomes a force multiplier, allowing organizations to do more with fewer people while simultaneously making manufacturing roles safer, more engaging and more accessible to the next generation of talent.

■ AI tools alone do not create transformation

– AI-fluent workforces do

Research shows that leading manufacturers view workforce readiness as the strongest multiplier of value, outperforming the competition not because they have better tools but because they have more AI-fluent, confident, innovative workforces – signaling a departure from traditional digital transformation narratives that over-index on platform

selection, architecture or tech stack maturity.

■ Talent is a key transformation differentiator

An AI-enabled manufacturing future isn't about replacing humans with machines, it's about creating a powerful partnership that amplifies human capabilities and enables workers to focus on what they do best: creative problem-solving, strategic thinking and innovation.

- Transforming roles, not eliminating jobs, enables skilled human oversight and strategic thinking
- Creating new value and opportunities for workers to contribute in new ways
- Supporting the transition through change management

Culture, skills and change leadership are now major competitive differentiators. EY can bring connected worker, adoption engineering, change orchestration and AI fluency programs to unlock real ROI.



Culture and adoption multiply technology value

- Leaders in manufacturing transformation create a culture of innovation
- High digital fluency, daily generative AI use, fewer frictions from legacy systems
- Nurture an AI-ready workforce
- Embrace AI, contribute ideas, adopt new tools quickly, drive continuous improvement

Source: EY Industrial Innovation and Transformation Index, 2026



Why Ernst & Young LLP

Our manufacturing solutions combine strategic and capital advisory services with technical acumen to confirm your transformation delivers lasting value.

- A global network of 400,000+ professionals across supply chain, tax, engineering, digital and transformation
- Deep industrial products experience across machinery, equipment, components, advanced materials and engineered systems
- Extensive track record leading design to operate, nearshoring and AI-enabled manufacturing transformations
- A workforce transformation approach that addresses culture, skills and organizational alignment
- Ecosystem partnerships with Microsoft, SAP, NVIDIA, ServiceNow and others

The future starts here

We're not just implementing digital solutions, we're reimagining what manufacturing can become - helping clients create operations that are more intelligent, responsive and sustainable than ever before. Together, we'll unlock new levels of productivity, quality and innovation that drive lasting competitive advantage.

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