Markets in Focus

Q4 2025

MANUFACTURING

Economic Overview & Market Update

IMA

INTRODUCTION

2025 has been a turning point for manufacturing. Companies are bringing production back home, but finding skilled workers is challenging. At the same time, AI-powered factories are emerging next to older plants still trying to catch up. It's a mix of high-tech ambition and real-world hurdles. Manufacturers are pushing toward Industry 4.0 while dealing with tariffs, supply chain hiccups, and a shrinking workforce.

As we head into 2026, flexibility will be key. Efficiency alone won't cut it—companies will need to be resilient and ready to pivot. The pace of tech change, global tensions, and rising customer expectations are reshaping the game. Smart factories are no longer a novelty—they're the new standard. And with cyber threats on the rise, staying innovative means also staying secure.

2025: THE YEAR IN REVIEW

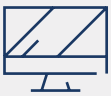
Manufacturing in 2025 didn't just evolve—it shifted dramatically. From new technologies and supply chain shakeups to changing policies and workforce challenges, the industry saw both bold moves and quick pivots in response to a fast-changing global landscape.

KEY EVENTS

+ Taiwan Semiconductor Arizona's gigfab' became operational, marking a major milestone in U.S. semiconductor manufacturing capability.
+ Siemens opened facilities in California and Texas and announced plans to continue expansion in the U.S., pledging $285 million for electronic and AI support systems.
+ Hyundai's Metaplant America opened in Georgia as one of the first AI-driven, fully digital-twin factories, integrating robotics, predictive maintenance, and real-time quality analytics.
+ Jaguar Land Rover suffered a major cyberattack that forced the suspension of operations across the UK, India, and Brazil.
+ For the fourth consecutive year, manufacturing was the number one targeted industry for cyberattacks globally, comprising 26% of documented attacks.[1]
+ South Korea launched the K-Humanoid Alliance in April, creating a national robotics R&D and manufacturing coalition to accelerate its humanoid robotics ecosystem.
+ GE Aerospace committed nearly $1 billion to modernize 25+ U.S. facilities and expand its aerospace supply chain, with plans to hire 5,000 workers.

TECH IN MANUFACTURING

Digital technology became central to how manufacturers operate. What started as an innovation is now everyday infrastructure. Automation, AI, digital twins, and adaptive systems have moved from pilot programs to must-haves—setting the new standard for competitiveness and agility on the factory floor. These tools are not only streamlining operations but also reshaping how decisions are made and how workers engage with increasingly intelligent systems.



AI Integration

+ AI is now driving actual back office and strategic decision-making, with companies implementing machine learning for quality control and demand forecasting.
+ Generative AI began entering the design phase, rapidly creating and iterating product designs and simulating material performance before prototype development.[2]

Digital Twins

+ Digital twin technology shifted from concept to core infrastructure, enabling virtual modeling of entire production systems for predictive maintenance and optimization.
+ The distinction between digital and physical manufacturing continues to blur with real-time data flows between virtual models and actual production lines.

Industry 4.0

+ Networks linking suppliers, manufacturers, and customers became standard operating procedure.
+ Production plants and logistics systems gained increasing autonomy in decision-making and optimization.
+ Factory robots evolved from rigid automation to adaptive learning systems that adjust in real-time to production changes.
+ Smart factory implementations became commercially operational rather than pilot-scale projects, marking a fundamental shift in production capabilities.

SUPPLY CHAIN

Manufacturers began rethinking the global supply chain from the ground up. Resilience has overtaken efficiency as the top priority, with reshoring and nearshoring shifting from long-term ideas to immediate action. Companies are building supply networks that can withstand disruption—not just optimize for cost.

Reshoring

+ GE Appliances announced over $3 billion in U.S. investments over five years, shifting production of washers, dryers, and other appliances from China and Mexico back to the United States.
+ 29% of global executives reported successfully reshoring operations by August 2025, while another 45% were actively pursuing reshoring.[3]

Resilience

+ Companies marked a decisive shift from just-in-time to just-in-case inventory strategies, accepting cost tradeoffs to build buffer capacity and redundancy.
+ Strategic partnerships emerged as the "fourth pillar" of procurement, alongside quality, speed, and cost, highlighting the growing need for long-term collaboration over transactional relationships.
+ Manufacturers prioritized flexible production capacity in order to scale up or down based on demand.

Disruptions

+ Global factory activity contracted in September 2025 due to weak U.S. and Chinese demand, with Eurozone PMI falling below 50.[4]
+ Steel and raw material costs rose 12-15% due to tariffs and supply constraints, constraining margins and investment flexibility.[5]

Risks

+ Cyber threats to operational technology emerged as a growing vulnerability, as interconnected systems create new risks.
+ Single-supplier dependencies and geopolitical turmoil heightened business interruption exposures.
+ Transportation infrastructure challenges, such as congested ports and outdated railways, have increased shipping delays and costs.

GOVERNMENTAL POLICY AND REGULATORY CHANGES

Policy and geopolitics returned to center stage in manufacturing strategy. Government incentives, tariffs, and national industrial agendas are now major forces shaping where and how companies invest. Strategic decisions are increasingly influenced by political shifts and economic alliances.

Tariffs

+ Average effective tariff rates reached 11.5% by August 2025, up from 2.4% at the beginning of the year, according to Yale's Budget Lab.[6]
+ U.S. consumers bear at least 55% of tariff costs, according to Goldman Sachs' analysis.[7]
+ Core goods prices rose 1.9% above pre-2025 trends by June, with appliances and electronics particularly affected.[8]

Geopolitics

+ Trade blocs and industrial policy reshaped global sourcing strategies as companies accelerated U.S. expansions to shield against import restrictions.
+ The EU semiconductor lobby called for "Chips Act 2.0" to extend funding to design and materials.
+ Companies moved to nearshore into Southeast Asia as a hedge against China exposure and tariff risks.

Regulatory Changes

+ The UK government announced significant investment to support training, apprenticeships, and technical colleges to reinforce manufacturing capacity.
+ ESG regulations in Europe, including CSRD and CBAM, began driving supply chain traceability and emissions reporting requirements.
+ New product liability laws explicitly include software and AI systems, extending manufacturer responsibility through the entire lifecycle of digital updates.

Clean Energy

+ Clean energy manufacturing investment dropped 15% from Q1 2025 and declined 19% compared to Q2 2024, totaling $11 billion in the second quarter.[9]
+ Policy uncertainty around clean energy incentives affected investment decisions in battery manufacturing and renewable energy equipment production.
+ Manufacturers continue green initiatives that are driven by customer demands and long-term efficiency goals.

REGULATION CHALLENGES

Regulation and geopolitics are reshaping manufacturing like never before. In October 2025, the Dutch government invoked its rare Goods Availability Act to take temporary control of Nexperia—an Asia-owned semiconductor manufacturer—citing concerns over governance and the need to protect European chip supply chains. Across the Atlantic, U.S. regulators have tightened export controls on advanced Nvidia AI chips, limiting access to non U.S. firms and effectively turning semiconductors into geopolitical tools. These high-profile moves underscore a broader trend: governments are now central players in safeguarding critical technologies, forcing manufacturers to navigate a complex landscape of national security, export regulations, and strategic sovereignty.[10]

Energy regulations are reshaping the manufacturing playbook. In the U.S., the EPA's sweeping rollbacks—31 in total, including revisions to the Clean Power Plan and Mercury & Air Toxics standards—have eased compliance burdens for energy-intensive sectors like automotive, chemical, and heavy industry. This deregulation helps lower operational costs and stabilize energy supplies, though companies still contend with varying rules across states and global environmental expectations. Meanwhile, federal efforts, such as the Energy Secretary's push for faster grid connections, are helping manufacturers and data-intensive facilities secure the reliable power needed for advanced AI and smart factories. Across the Atlantic, the EU's "Clean Industrial Deal" targets high energy costs and volatile markets by investing over €100 billion in energy-intensive sectors, improving grid infrastructure, and accelerating the deployment of clean technologies such as low-carbon hydrogen. Together, these regional reforms are pushing manufacturers to adapt—whether by investing in energy efficiency, building resiliency into their operations, or aligning with sustainability goals to remain competitive on a global stage.[11]

LABOR AND EMPLOYMENT

The workforce challenges revealed deep structural issues that technology alone couldn't solve. Despite reshoring efforts, manufacturing employment continued its decades-long decline, making up a smaller share of the U.S. workforce. The growing gap in skilled labor—especially the kind needed to run smart factories—remains a major hurdle, slowing progress even as digital tools advance.

Stagnating Employment

+ Manufacturing lost 33,000 jobs in 2025, with 12,000 of those lost in August alone, mostly in durable goods sectors.[12]
+ The transportation equipment sector was particularly hard hit, partly due to strike activity and production adjustments.[13]
+ Manufacturing employment continued its six-decade decline, representing a smaller share of total U.S. employment despite reshoring efforts.[14]

Underemployed Manufacturing Plants

+ In July 2025, there were 437,000 manufacturing job openings, near pre-pandemic levels but reflecting persistent hiring challenges.[15]
+ Plants balanced automation investments against the reality of needing skilled workers to operate and maintain new technologies.

Labor Skills Gap for Industry 4.0

+ Over the next decade, 3.8 million manufacturing jobs will likely be needed, with 1.9 million expected to go unfilled without workforce development initiatives.[16]
+ The rapid acceleration of AI and automation created new skills gaps even as it addressed others, making it difficult to find workers with the necessary expertise.
+ More than 48% of manufacturers cited attracting and retaining talent as their primary business challenge in Q2 2025 surveys.[17]
+ The skills gap widened as 68% of companies struggled to find qualified employees in August 2025, up from 56% in October 2023.[18]

REGIONAL TRENDS RESHAPING GLOBAL MANUFACTURING

United States

+ Reshoring and domestic industrial policy (CHIPS Act, IRA) continue to drive record capital investment.
+ Smart factories (AI, robotics, digital twins) became commercially operational, not just pilot-scale.
+ Cybersecurity incidents (esp. ransomware) exposed vulnerabilities in connected systems.

Europe

+ Europe focused on energy-intensive industry competitiveness post-Ukraine war and during fluctuating gas prices.
+ Workforce renewal and automation adoption accelerated, supported by policy subsidies.
+ ESG regulation (CSRD, CBAM) began driving supply-chain traceability and emissions reporting requirements.

China & Asia

+ Asia remains the center of electronics manufacturing, but slower demand forced cost optimization and digital efficiency investments.
+ Government-driven automation initiatives grew rapidly, especially in South Korea and Japan.
+ Nearshoring to Southeast Asia (Vietnam, Malaysia, Indonesia) intensified to hedge geopolitical and tariff exposure.

WHAT'S AHEAD: FOUR TRENDS SHAPING THE MANUFACTURING INDUSTRY IN 2026

As manufacturing moves into 2026, four major trends are set to define the industry's next chapter:

+ **AI becomes core to operations.** Companies will continue expanding AI across business processes, but success will depend on how well these tools are integrated into existing workflows—and whether teams are equipped with the skills to use them effectively.

+ **Cybersecurity moves from an IT concern to an operational priority.** As smart factories and connected supply chains grow, so do the risks. Cyber threats like ransomware are pushing manufacturers to treat security as a business-wide concern, requiring both stronger tech defenses and a shift in culture around risk awareness.

+ **Supply chains go regional and strategic.** The move away from global cost optimization continues. Companies are building more resilient networks through regionalization, diversification, and greater transparency—often enabled by digital tools.

+ **Labor challenges intensify.** Manufacturers face a paradox: advanced automation requires more skilled workers, but those workers are increasingly hard to find. The talent gap is widening, and solving it will be critical to sustaining growth.

These trends are interconnected—each one amplifies the others. For manufacturers ready to embrace transformation and manage risk strategically, they represent not just challenges, but real opportunities.

KEY COVERAGES TO WATCH

CYBER

The manufacturing industry is undergoing rapid digital transformation, but with increased connectivity comes heightened vulnerability. Cyber threats are evolving, and manufacturers must stay vigilant.

+ Abundant cyber insurance capacity persisted throughout the first half of 2025.[19]
+ Manufacturers incorporating smart tech into their factories should look to cyber insurance policies that address new operational, technological, and strategic vulnerabilities.
+ Where necessary, cyber policies should be tailored to include contingent business interruption and OT/IoT coverage.
+ Manufacturers should expect insurers to introduce clear definitions around excluded losses and emerging risk triggers.
+ Insurers are pushing for more robust disclosures and risk management practices to support underwriting.
+ Insurers are tightening up language around third-party risk exposures, especially when it comes to vendor responsibilities, data handling, and breach response.

D&O

Manufacturing executives face increasing scrutiny over ESG reporting, product safety oversight, and M&A decisions. D&O coverage protects personal and corporate assets from shareholder suits, regulatory investigations, and mismanagement allegations that can arise from strategic or operational decisions.

+ Although D&O litigation remains elevated over historical levels, overall market conditions remain favorable.
+ The downward pricing pressure has slowed down.
+ Capacity remains abundant, driven by competition among established carriers seeking to write more primary business and newer entrants seeking to gain traction.
+ Underwriters are increasingly prioritizing pricing discipline over growth.
+ Mid-market companies may be buying more D&O coverage than they need, by as much as $15 to $20 million, with total claims settlements averaging nearly half of their total coverage.[20]
+ Carriers remain cautious towards companies with near-term capital needs or a high likelihood of M&A.

GLOBAL

Manufacturers with cross-border operations face varying regulations, currency exposures, and political risks that can disrupt supply or distribution. International insurance programs coordinate coverage across jurisdictions, ensuring consistent protection and compliance worldwide.

+ Political risk, trade restrictions, and sanctions remain volatile—map critical suppliers and consider trade credit/political risk solutions where exposures cluster.
+ Local-admitted requirements, DIC/DIL structures, and evolving data-transfer rules complicate global programs—refresh compliance matrices annually.
+ Origin-labeling and ESG reporting (e.g., supply-chain transparency) are driving stricter regulatory enforcement. Audit marketing and traceability claims accordingly.
+ **Rate environment:** property softening in many regions; casualty still firming—time multinational renewals to capture favorable markets.

INTELLECTUAL PROPERTY

The dependence on proprietary technology, processes, and trade secrets for competitive advantage continues to increase. IP insurance defends against infringement suits and helps enforce rights, preserving the value of R&D investments and innovation pipelines.

+ Patent activity and damages ticked up—manufacturers face more suits (and countersuits) around process, packaging, and electronics/semiconductor methods; review Freedom to Operate (FTO) and licensing posture.
+ Recent Federal Circuit guidance narrows IPR estoppel scope—defendants may still assert certain product-based prior art in court; adjust defense strategy accordingly.
+ Evaluate IP insurance (defense/abatement) as filings and damage awards rise; align with indemnities in supplier and customer contracts.
+ High-profile suits in advanced manufacturing underscore counterparty risk, diligence, licensors, and NPE exposure.

PRODUCT LIABILITY

When products cause bodily injury or property damage, manufacturers face high-severity lawsuits that can cripple finances and reputation. Product liability insurance funds legal defense and settlements, allowing companies to innovate and distribute globally with confidence.

+ Expanded liability concepts in the EU (and copy-cat ideas elsewhere) explicitly pull software/AI and cybersecurity defects into "product defect" analysis—implications for connected equipment and smart devices. Manufacturers may now be held responsible for not just how a product is built, but how it behaves digitally.
+ Plaintiffs leverage social inflation and third-party funding; reassess umbrella/excess towers and venue strategy.
+ Heightened scrutiny of labeling claims raises exposure—coordinate marketing, legal, and QA on origin claims.
+ **Digital and AI Integration:** Embedded software or AI that controls product function can trigger liability if errors, failures, or bias cause harm—blurring the line between product and professional liability.
+ **Cybersecurity as a Safety Standard:** Inadequate patching or weak security in connected equipment is increasingly viewed as a safety defect, exposing manufacturers to claims following cyber-induced damage.
+ **Insurance Implication:** Traditional GL and product liability policies may not fully address these hybrid exposures—manufacturers should review overlaps and gaps with Technology E&O or Cyber coverage.

PRODUCT RECALL

A single defective batch or contaminated component can trigger multimillion-dollar recalls and irreversible brand damage. Recall insurance finances logistics, notification, disposal, and crisis management so manufacturers can respond quickly and protect consumer trust.

+ **Regulatory Expansion:** Global agencies are tightening recall notification and tracking requirements—particularly for food, automotive, and electronics sectors.
+ **Crisis Management:** Coverage often includes access to PR consultants, forensic specialists, and call centers for rapid response.
+ **Battery & Chemical Risks:** Lithium-ion and hazardous material failures are growing recall triggers; align policies with evolving testing standards.
+ **Supply Chain Linkage:** Validate supplier indemnities and track recall expenses across all tiers of the production process.

PROFESSIONAL LIABILITY, ERRORS & OMISSIONS (E&O)

Manufacturers offering design, engineering, or software services face exposure for financial loss from performance failures, faulty specifications, or defective automation logic. Professional liability fills the gap when errors cause financial harm without physical damage.

+ **Engineering & Software Convergence:** As machinery becomes smarter, coverage must contemplate coding, system integration, and AI algorithm liability.
+ **Contractual Clarity:** Define scope-of-work and limitation-of-liability clauses to reduce uncovered "failure to perform" allegations.
+ **Data Integrity Risks:** Firmware, update cadence, and patch management are now underwriting questions tied to E&O performance risk.
+ **Overlap Awareness:** Ensure seamless interaction between E&O, product liability, and cyber forms to prevent gray-area coverage disputes.

PROPERTY

Property insurance safeguards the physical backbone of a manufacturing operation – plants, machinery, inventory, and equipment – against perils like fire, mechanical breakdown, explosion, and natural catastrophe. It also ensures business continuity by covering business income loss and extra expenses when production halts due to physical damage or supply chain disruption.

+ Expect a friendlier market for good risks (more capacity, lower rates), but with disciplined underwriting in CAT-exposed regions and for secondary perils (severe convective storms, wildfire).
+ **Rising Focus on Secondary Perils:** Convective storms, wildfire, and flood risk are driving new modeling requirements and rate differentiation by geography.
+ **Business Interruption Hot Spot:** Contingent time-element and dependent property coverage are under scrutiny as supply chains remain volatile.
+ **Valuation Integrity:** Carriers are enforcing updated COPE data, appraisals, and modern replacement-cost valuations to reduce disputes at claim time.
+ **Cyber–Property Intersection:** Losses triggered by hacked OT/ICS systems are testing policy language—clarify how ensuing loss clauses respond to digitally induced damage.

AUTO/FLEET

Reliance on fleets for raw-material transport, distribution, and service logistics is paramount. Auto accidents can lead to major bodily injury or property damage claims. As verdict sizes and repair costs soar, robust auto coverage protects balance sheets and keeps critical transportation running smoothly.

+ **Pricing pressure persists:** the segment continues to post underwriting losses with adverse development and inadequate reserves; expect carriers to push higher retentions and strict fleet controls.

+ "Nuclear verdicts" and litigation funding keep severity elevated; venue/jurisdiction scrutiny is intensifying. Dashcams/telematics, fatigue management, and claims readiness are becoming must-haves.

+ Market commentary points to continued firming for auto liability and physical damage relative to other lines; explore multi-year rate plans.

+ Parts/repair inflation and driver shortages sustain frequency/severity headwinds—pressure test limits vs. catastrophic scenarios.

WORKERS' COMPENSATION

Production environments expose employees to physical, ergonomic, and repetitive-motion hazards, making workers' compensation both a legal requirement and a moral imperative. It ensures injured workers receive medical and wage benefits while shielding employers from costly lawsuits.

+ **WC remains comparatively stable, but watch the mix:** claim frequency has declined, while medical and indemnity severities rose—budget for medical inflation and complex claims.

+ Ergonomics, automation, and co-bot programs can reduce frequency but may shift some losses to GL if third-party devices are implicated—coordinate safety and procurement.

+ Carriers continue to favor a strong return-to-work, nurse triage, and analytics; document these to preserve credits and favorable mods.

+ Mental/behavioral health and heat-stress protocols are rising underwriter focus in certain geographies and roles.

IN SUMMARY

Manufacturing in 2025 has undergone a profound shift, shaped by technology, geopolitics, workforce challenges, and evolving supply chain strategies. Digital tools like AI and automation have moved from experimental to essential, while cybersecurity and regulatory pressures have become central to operational planning. Governments are playing a more active role in shaping industrial policy, as seen in high-profile interventions like the Dutch government's move on Nexperia and U.S. restrictions on Nvidia chips. At the same time, manufacturers are rethinking supply chains for resilience, not just efficiency, and grappling with a growing skills gap that technology alone can't solve.

As we look to 2026, success will depend on how well companies embrace transformation—not just in tools and systems, but in mindset. The future of manufacturing will be defined by those who can adapt quickly, manage risk wisely, and invest in both innovation and people.

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