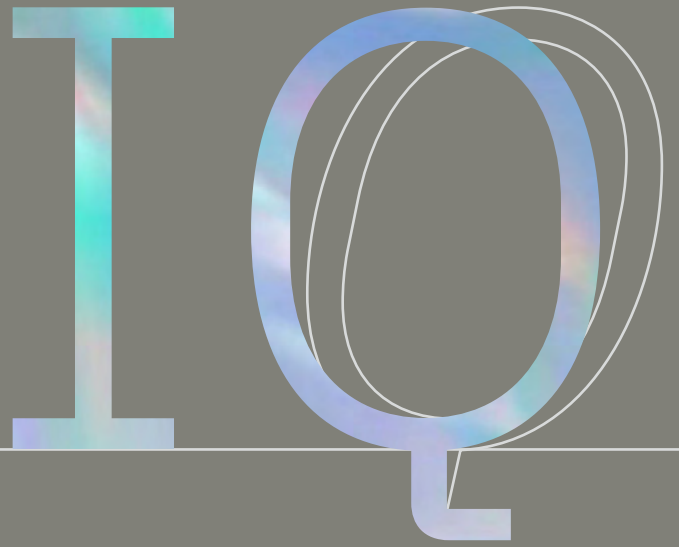


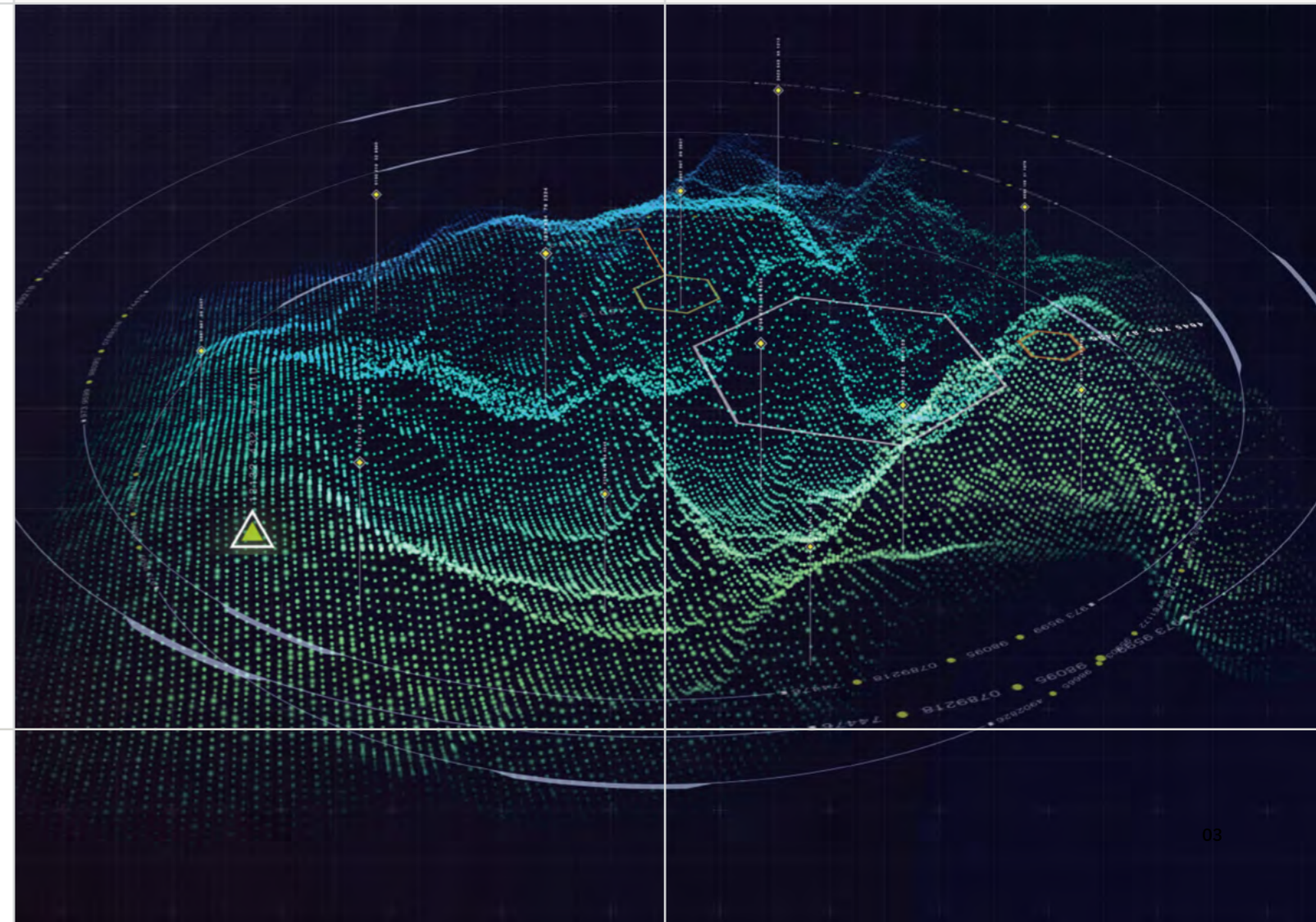
Intelligent Industry



Asymmetric Advantage

How AI and automation
can create new efficiencies
in defense production.

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A dramatic change has started for an industry that's largely operated hidden away from the spotlight for a very long time.

Why the future of defense production matters now



Dr. Daniel Knödler
Business Development Leader
Aerospace & Defense



Let's connect on LinkedIn



Marcus Abel
Account Partner
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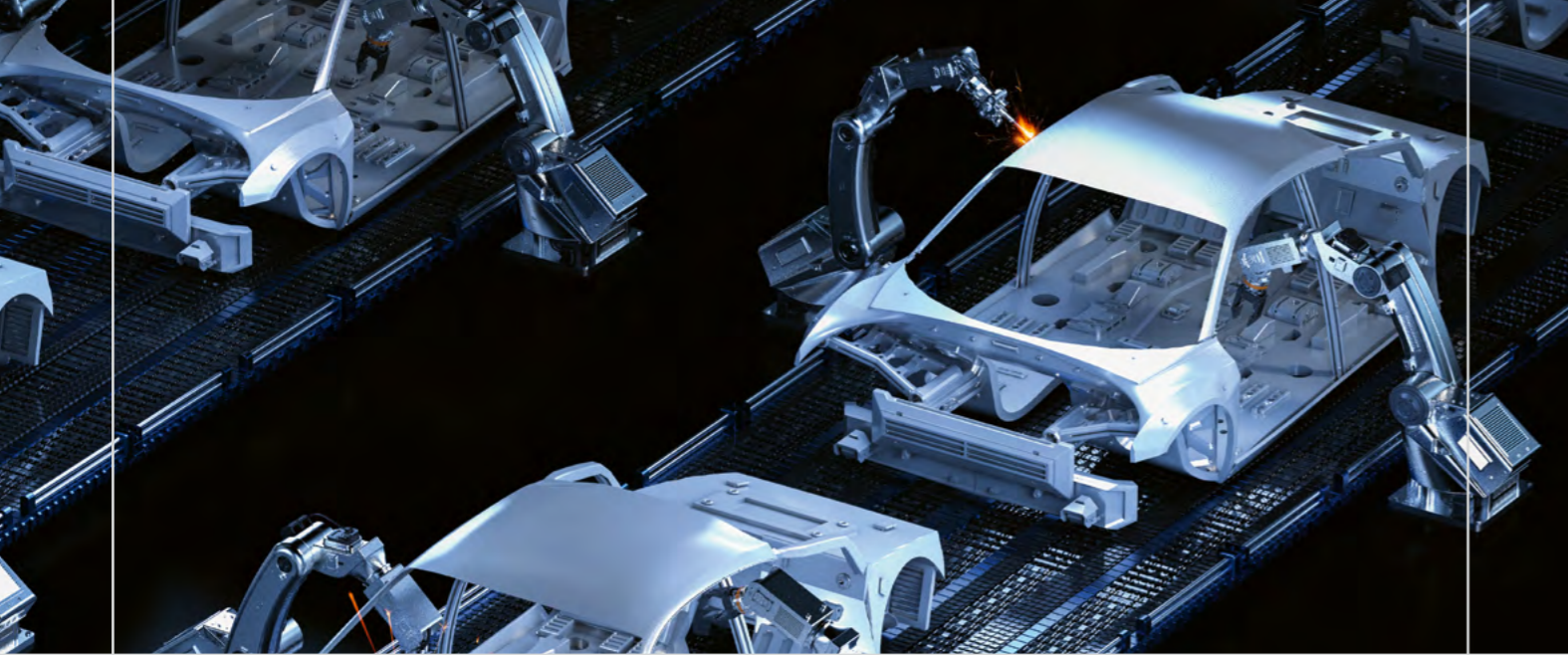
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Uncertainty arising from old and new conflicts is threatening Europe and urging leaders from the European Union and the United Kingdom to start rethinking defense for the continent, including the ambition for a much stronger role for their own defense industries.

For a very long time, Europe's defense industry wasn't very visible to the public and it had to deal with shrinking budgets. This is an additional pressure on top of companies being challenged with complex military programs, constantly changing requirements, and cross-border collaboration that wasn't paying the expected dividend.

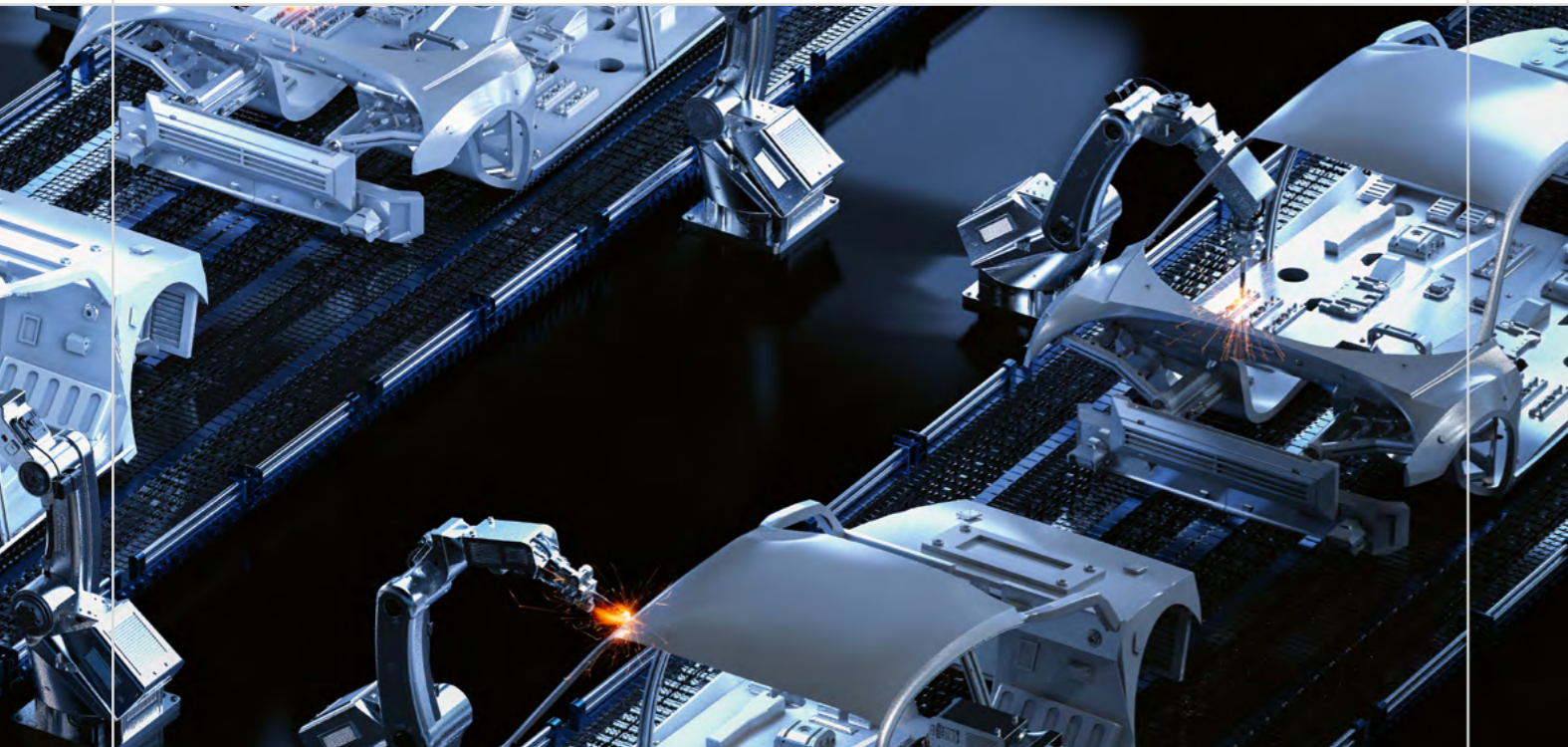
Visibility—even public appreciation—and budgets may have changed, but the rest of the challenges remain. While producing more tanks, missiles, or drones in a short time frame might be the only relevant task for the European defense industry today, it's highly likely that questions regarding flexibility, economies of scale, or even cost efficiency will soon dominate discussions in boardrooms. A dramatic change has started for an industry that operated largely hidden away from the spotlight for a very long time. And in order to navigate this change successfully, the European defense industry needs to learn a completely new set of capabilities.

We invite you to explore the role of data exchanged beyond traditional silos and the strength of platforms as catalysts for cooperation and speed. See how technology and learning from other industries can help the defense industry get ready for growth and flexibility and how challenges can enable the discovery of new perspectives on collaboration.



Looking over the fence

What can defense companies learn from industries that already cracked the code on scaling production?



While Germany's defense industry already exemplifies the high-tech production capabilities of today, there's still room for improvement in terms of digitization for companies that often employ a craftsmanship approach. Data exchange with suppliers is often behind expectations. The degree of automation in production is low compared to related manufacturers, maintenance and repair are characterized by frequent system failures, and many internal back-office processes like accounting or human resources still require a high level of manual involvement and substantial personnel effort. These are all opportunities for improvements in efficiency and production output.

If defense companies are to reorganize processes and IT systems to fulfill increasing demand, why not learn from other industries that have already mastered this challenge? The automotive industry, whose products share many similarities with those of defense companies beyond just the surface level, has established flexible production structures and supply processes to adapt to demand increases.

There are innovative examples demonstrating how businesses can achieve higher productivity, greater efficiency and increased profitability by using digitally managed or automated processes.

Take for instance, supplier integration for planning and production process at automotive OEMs. Electronic data exchange with suppliers sets a standard of shared information to synchronize production capacities with exact parts availability and is a key capability for stepping up mass production.

It's worth casting a look across all levels of the company: from organization and processes, supporting systems and technologies, to collaboration models within and beyond industry boundaries.

Although the supply chains of the defense industry may not be as complex as those of the automotive industry, data exchange with more and more suppliers will become increasingly crucial as production grows. This must happen through the identification of relevant data and sources, the processing, combination and analysis of data, and consequently, the integration of systems beyond company borders.

The opportunity is to shorten the journey from product development or modification to production using an integrational data architecture. Digital twin technologies help with this and also improve future serviceability and operability. The knowledge stored in corporate data will serve as a catalyst for innovation and boosting efficiency.

The knowledge stored in corporate data will serve as a catalyst for innovation and boosting efficiency.

Platforms can help a company collaborate and make data available for decision making, even in areas that are different from where the data originated.



Data plays a crucial role in all supporting business processes. From order processing to human resources, a higher degree of digitalization can enable quicker and more reliable decision making that shortens the time-to-market of products and services and supports processes like targeted recruitment of new employees.

Implementing shared data platforms requires collaboration both internally and externally to enable a shared, data-driven decision-making process. For this, the automotive ecosystem currently relies on Catena-X. But something comparable is needed for the defense industry.

These platforms can help a company collaborate and make data available for decision-making, even in areas that are different from where the data originated. This leads to significant gains in innovation, productivity, and efficiency.

As previously mentioned, digital twins help companies to understand products better throughout their lifecycle and improve them based on feedback from the field regarding their operability.

Platforms can also assist in introducing new technologies like artificial intelligence across the enterprise. They're designed for collaboration, to reuse ideas and assets, and accelerate development and production cycles, while ensuring the proper use of technology in compliance with laws, regulations and standards, and protecting proprietary knowledge.

Achieving higher productivity and exponential growth in the defense industry will mostly depend on its ability to collaborate effectively across company boundaries, whether in projects or programs, with non-industry players who can bring their own innovation capabilities or relationships that help integrate suppliers on one side and customers on the other.

Rigid role definitions and isolation do not help. Rather, in the future, more data than ever before must be exchanged between companies under controlled conditions. Hybrid cloud technologies, data and AI platforms, and process-specific applications used jointly in an ecosystem create the necessary foundations for a new dimension of collaboration.

Learning from the automotive industry to gain new efficiencies in mass production means collaborating with suppliers and partners, and creating platforms for standardization and flexibility that can make a data-driven decision-making process a reality.

No one needs to re-invent the wheel to significantly increase process efficiency and output. But it is critical to move fast enough to meet the moment.

Daniel Knödler
Business Development Leader, Aerospace & Defense
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Marcus Abel
Account Partner, Defense Industry
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Three perspectives on AI's military mission



The defense industry faces an uncomfortable deadline: combat readiness by 2029. It's a political demand colliding with an industrial reality. Manual processes, fragile supply chains, and development cycles measured in decades. To understand how AI might bridge this gap, we brought together three professionals who see the problem from different angles.

Their conversation reveals an industry at an inflection point—where the question isn't whether to digitalize, but whether there's still time.

Daniel:

The defense industry is currently under pressure with full order books, complex programs, political expectations like, "combat readiness by 2029." And at the same time, many companies are still working with old structures. Marcus, when you look ahead, what do you see as the most critical point?

Marcus:

I see two challenges.

First, the industry must be able to handle the rising production volumes. Many factories are still running with highly manual processes. For today's cycle times, that's simply too slow.

Second, the supply chains. They are complex and additionally strained by geopolitical tensions. If one link fails, it takes entire programs down with it. Without end-to-end digital control and automation, it will be difficult to meet political expectations.

Daniel:

That matches what I'm hearing in many conversations. The breaking points are often known, but they're difficult to fix in practice. Enrico, where do you think AI can help?

Enrico:

In several areas. One approach could be AI-based supply-chain agents. These systems continuously monitor delivery times, material risks, failure probabilities, and geopolitical developments and detect early on when bottlenecks are emerging. This lets companies evaluate alternatives before a project stalls.

Maybe a quick example; for an industrial client, we use Gen AI to compare delivery confirmations with contract data. This allows us to identify discrepancies more quickly, increase productivity, and reduce the risk of production downtime.

Daniel:

The systems themselves are becoming more and more complex, too, with electronics, software, sensors—everything integrated. Marcus, how can you deliver reliably with such a level of complexity?

Marcus:
Through better integration of the domains. R&D, supply chain, and production often still operate in silos. Data is not shared consistently and decisions take too long as a result. An integrated platform accessible to all stakeholders is essential.

And operational data must flow back into development. That's the only way to increase reliability. If I know how a tank behaves on the battlefield, I can make helpful adjustments for soldiers.

Daniel:
That feedback loop is technically demanding. Enrico, how does AI support this process?

Enrico:
AI can analyze sensor data from the field, identify patterns, and link them to historical data. This provides early indications of potential failures. It reduces unplanned downtime and enables condition-based maintenance instead of rigid intervals.

In my current project, we're developing such approaches for military vehicles and establishing links with the armed forces' logistics systems.

Daniel:
But digitalization also introduces new risks, especially around security. Marcus, what should companies consider right now?

Marcus:
The foundation clearly is data sovereignty. Anyone working with safety-critical information needs full control over data usage and an infrastructure designed specifically for that purpose. This includes secured systems, clear governance rules, and technologies developed explicitly for sensitive environments.

Daniel:
Enrico, how does AI remain trustworthy and compliant under such conditions?

Enrico:
A key aspect is *explainable AI*. Models must be able to show how they arrive at a given recommendation. That's essential for users to develop trust.

Then comes data governance: platforms like watsonx ensure that only verified data is used for training. With watsonx.governance, companies can monitor models throughout their entire lifecycle and automatically adjust them when data conditions change.

As an example, we have developed an application for an automotive customer to compare technical documents with new features. In this case, explainable AI provides a detailed, traceable list of the sources used to generate the results.

This allows for continuous checks to ensure that models remain reliable or adapt to changes like new data. Plus, the platform can be operated in highly secure environments like 'air-gapped' infrastructure completely separated from the public internet—particularly important in a defense context.

Daniel:
Another topic that comes up is personnel. Companies are hiring many people but onboarding often takes far too long. Marcus, what's your thought?

Marcus:
The processes are too inconvenient. You can't evaluate 70,000 unsolicited applications manually. And once someone is hired and switched from automotive to defense, you need fast, structured training paths. In this environment you simply can't afford for new specialists to take months before they become productive.

Daniel:
Enrico, how can AI support capability and knowledge development?

Enrico:
Through personalized learning paths. AI can analyze which competencies a role requires and what prior experience a person brings. From this, it generates an individualized training program tailored precisely to the task at hand. This dramatically accelerates onboarding while also boosting motivation.

I myself use our 'Your Learning' platform intensively. Based on my role and completed training courses, it regularly suggests new training courses for me.

Daniel:
To wrap up: Which three developments will shape the defense industry most in the years ahead?

Marcus:
First, faster implementation of innovations through platform strategies.

Second, much tighter collaboration between defense, IT, and electronics.

And lastly, resilience against external shocks—this will become a true competitive advantage.

Marcus Abel is a former German Armed Forces officer now guiding defense clients through digital transformation at IBM Consulting.

Enrico Eisen is a data scientist building AI solutions for defense manufacturers.

Dr. Daniel Knödler brings 27 years of experience from the aerospace, defense and automotive industries.

Companies must master three things. Implement innovations faster through platforms, cooperate intensively with other industries, and build resilience against external shocks.

The cognitive supply chain comes to defense

How IBM eliminated spreadsheets, unified 20 legacy systems, and deployed AI agents to manage global supplier networks and spot risks automatically.

Defense supply chains face a unique dilemma: they must guarantee long-term availability of critical components—often stockpiled for up to five years—while global dependencies and geopolitical risks make resilience harder than ever.

Cost pressure and security requirements pull in opposite directions. Unlike commercial industries, defense cannot simply rely on just-in-time models. What's needed are solutions that create transparency across complex networks, enable early risk detection, and support scenario planning under strict control of data sovereignty and security.



IBM's own Supply Chain Transformation provides a vision of how AI and automation could strengthen supply chain resilience for the defense industry.

The business problem: A need for more supply chain speed and transparency

IBM's global supply chain spans more than 2,000 suppliers, over 350,000 SKUs and operations in more than 170 countries. Faced with rising volatility, disruptions and fragmented data across more than 20 systems, decision making was often slow and manual. But its own supply chain team lacked real-time visibility and relied on labor-intensive processes to respond to issues, often missing opportunities to optimize inventory, reduce spend and improve logistics.

IBM needed to address these challenges quickly while also meeting compliance, sustainability goals and ensuring uninterrupted service in a fast-moving global market.

Previously, the IBM supply chain ran on legacy systems spread across different organizational silos, making information sharing slow and incomplete. Employees also performed much of their work on spreadsheets, which impeded collaboration and real-time data transparency.

However, at the same time, IBM was re-thinking supply chain business processes and transforming its technology platforms. IBM was making major strides in AI, cloud, and technology to move our own supply chain forward.

The transformation: Countering supply chain disruption with innovation

IBM supply chain management set out a bold vision to build its first cognitive supply chain. The aim was to have an agile supply chain that extensively uses data and AI to lower costs, exceed customer expectations, ruthlessly eliminate or automate non-value-added work and exponentially improve the experience of supply chain colleagues.

Starting a culture transformation was crucial. A lot of the supply chain domain knowledge was tribal and often depended on one person. The team recognized the need to digitize and democratize knowledge to support decision making throughout the organization. The lessons which the IBM team learned were very clear:

- Bring your people with you from day one. Don't shield them from the new technology—involve them. Yes, it may feel messy, yes, it may take effort, but the truth is simple: you only learn by doing and you only win by working together.
- Of course, data is crucial too. But if we wait for perfect data, we'll wait forever. Transformation is not about perfection—it's about progress, it's about momentum, and it's about learning as we go.

The solution: An AI enabled supply chain

By unifying data from over 20 systems and leveraging the IBM watsonx.ai AI studio and natural language processing, the teams gained real-time visibility and could query data seamlessly.

Since the system responds to natural language, users can extract data and gain insights and recommendations without having to be an expert in a legacy system or an ERP platform. The professional can ask—in natural language—about part shortages, order impacts, risks to revenue and trade-offs. This augmented intelligence empowers people with better information to make data-driven decisions very quickly.

AI agents automate tasks such as risk detection and supplier coordination, accelerating response times and improving accuracy. Supply Chain Executives receive morning briefings which include health assessments of the business domain. IBM watsonx Orchestrate enables cross-functional workstreams powered by multiple agents and human-in-the-loop engagement. It enabled seamless collaboration within the supply chain as across procurement, sales and finance.



Eliminate, simplify, automate, orchestrate. In that order.

The outcome: Greater operational visibility and cost savings

On a minute-by-minute basis, IBM's AI enabled supply chain provides employees with immediate access to the information they need to read and mitigate disruptions. There is unbelievable power that comes from taking lots of disparate data, gaining insights and putting it where people can see and understand it.

The real-time, single-view of the truth increases the velocity of decisions and leverages rapid response. It helps us develop 'what-if' scenario analysis from a planning perspective all the way through to the execution team and suppliers. In a supply constrained environment, whoever gets the information first wins.

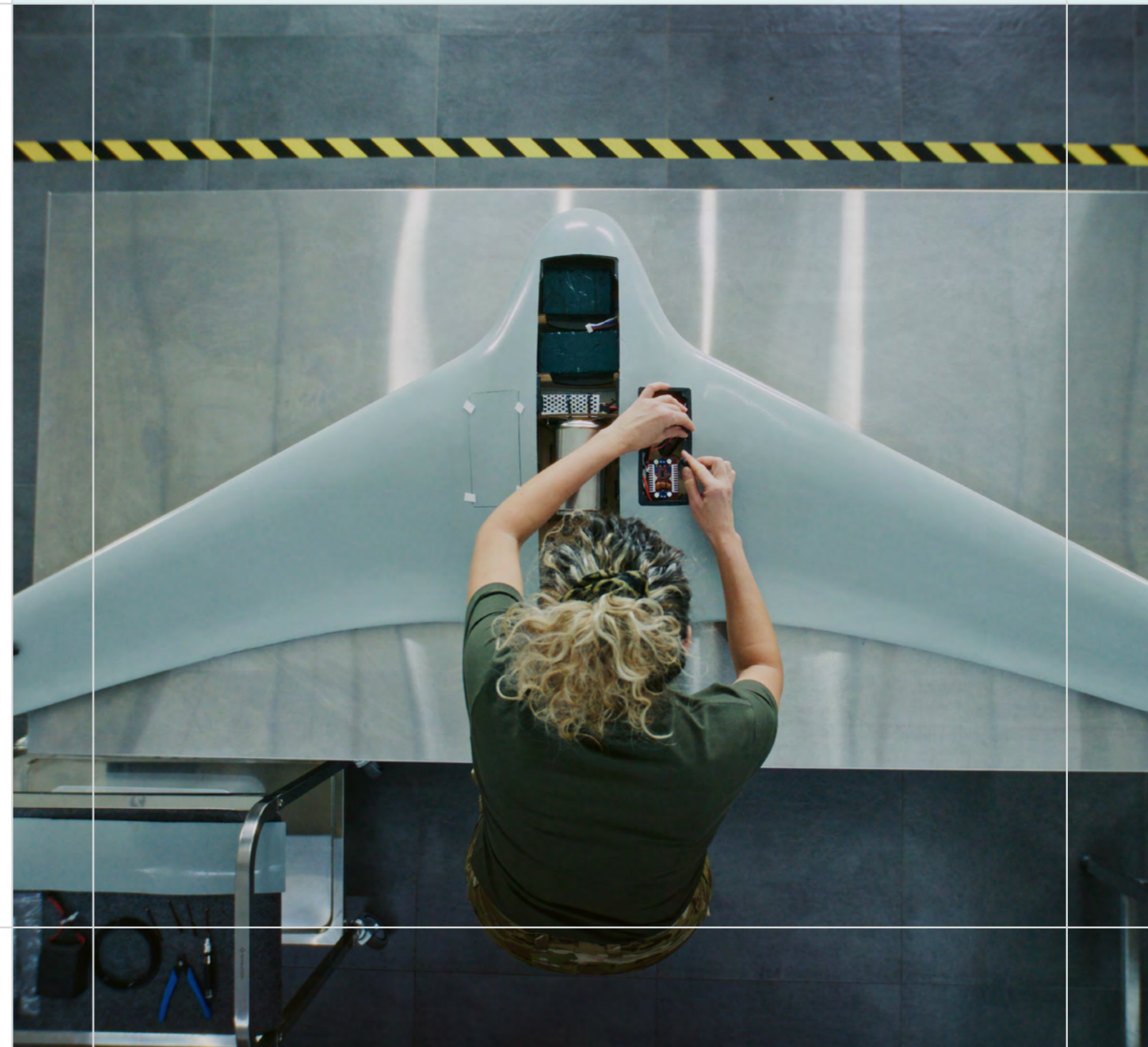
Guaranteed supply is important, but many clients are also looking for predictability of supply. AI addresses both issues. It enables supply chain leaders also to better manage the demand side to meet the right client expectations.

The bottom line: IBM's supply chain transformation delivered measurable, enterprise-wide impact.

Unified data and near real-time insights cut decision-making cycles from days to minutes and improved cross-domain collaboration. AI-driven insights and automated workflows streamlined procurement processes, optimized inventory management and improved supply assurance. These capabilities contributed to major procurement and supply chain savings while keeping a 98% on-time delivery.

Matthias Gräfe
Director of Supply Chain Transformation
IBM Infrastructure

In a supply-constrained environment,
whoever gets the information first wins.



AI defends against cyber risk: How autonomous security agents win the battle



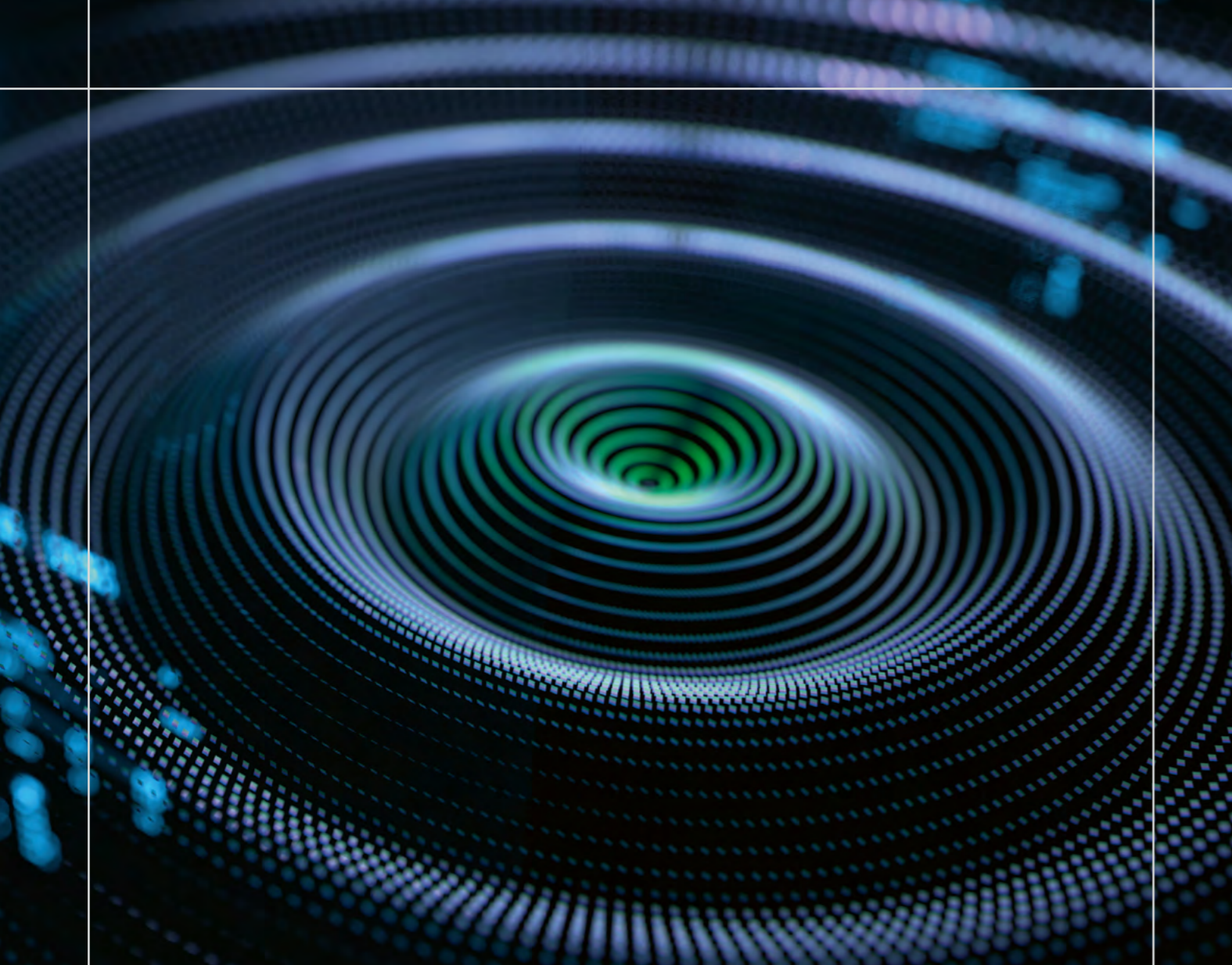
Generative AI is fueling a second security arms race with faster, tailored, and increasingly complex attacks. Human defenders alone can't win this race. This is where AI powered orchestration comes into play.

In today's landscape, cybersecurity might feel like a never-ending triage room. Alerts pour in faster than analysts can read them. Every day, attackers find new ways to weaponize AI. Meanwhile, defenders are working with smaller teams, widening skill gaps and automation tools that can no longer keep pace with today's demands. It's a race humans cannot win without a new dimension of support.

In a security arms race where AI doesn't just accelerate cyberattacks, but transforms them, a game changer is urgently needed. So why not focus on the toolset the attackers already use? But instead of relying on a single AI model or isolated automation script, introduce something entirely different. A coordinated system of AI agents that think, act and collaborate across the entire threat lifecycle.

Picture a new kind of defense organization that owns a large array of capabilities based on intelligence, a huge network of skills and state-of-the-art technology.

When a suspicious alert appears, this 'defense organization' instantly assembles a plan: dispatching specialized AI agents to investigate, gather information, correlate activity with your environment and determine risk. Within seconds it has a complete story of what's happening. It identifies what needs to be done and can either respond autonomously or hand the decision over to a human with full context. For security teams facing an unmanageable alert load, the difference is transformative. What once required a team now happens automatically, with humans stepping in only when their judgment is truly needed.



The next 36 months represent a critical window of opportunity for defense CISOs. How leaders respond during this time will separate the AI-resilient from the AI-disrupted.

This approach shifts the workload dramatically as it automates up to 85% of all Level 1 tasks, reducing noisy alerts by nearly half, and cutting investigation time by 48% so analysts finally get to focus on strategy instead of survival. Threat hunting that used to take 24 days would now be compressed to 15 minutes. Because the array of AI agents integrates directly into existing tools—from Microsoft and Google to Palo Alto and CrowdStrike—it can act as a digital operator that reflects a vendor-agnostic approach rather than requiring a new ecosystem. Additional agents can be developed quickly and enable access to legacy systems and expanding capabilities as environments evolve.

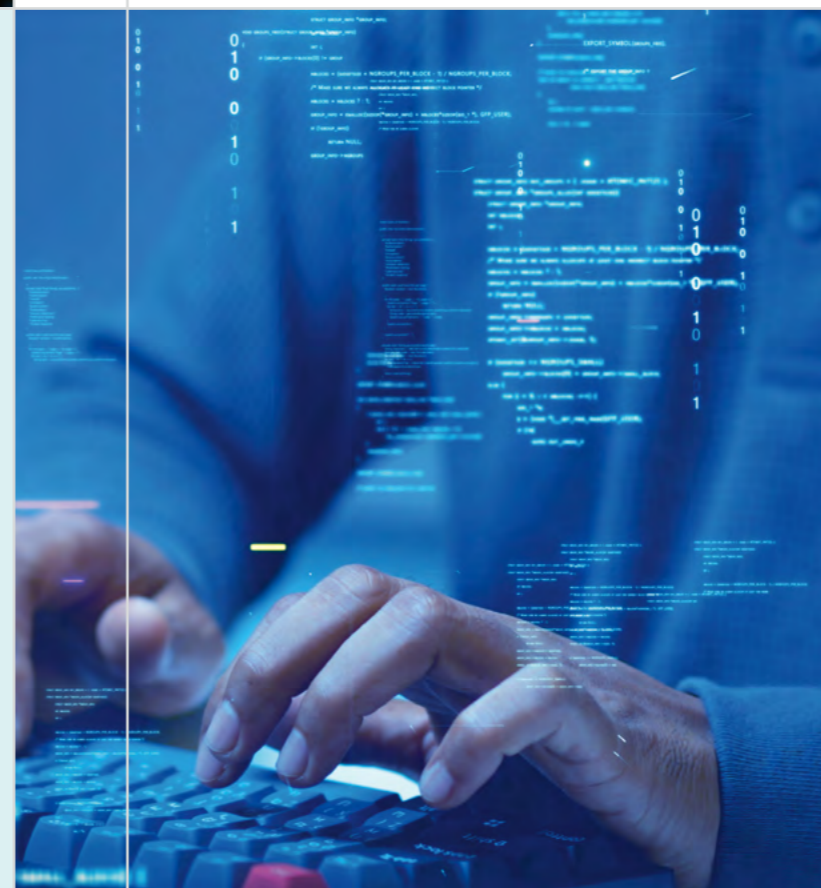
As 57% of security leaders report challenges with the global skills shortage¹ and attackers continue to scale their use of AI, organizations need a new operational model.

The vision is clear: by 2027, AI autonomy will take over a significant amount of human effort in cybersecurity operations. With the help of an army of AI agents, this vision could turn into reality, enabling AI systems to handle repetitive tasks so humans can focus on governing outcomes, not managing alerts.

With such an approach, security operations evolve from reactive to autonomous. Investigations complete in seconds, response plans generate themselves, and risk decisions are made with full context. Analysts finally move from fatigue to foresight. This isn't just making humans more productive—it marks the arrival of autonomous security value.

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The quantum leap that could rewire aerospace & defense development

Imagine consolidating decades of design work into months. For defense contractors racing to field next-generation capabilities, the question isn't whether to adopt it—it's whether you'll be ready when it arrives.

An excerpt from the IBM Institute for Business Value white paper: Exploring quantum computing use cases for the aerospace & defense industry.

Currently growing at one of the most rapid rates in its history, the global aerospace and defense industry is projected to bring in revenues of \$1.4 trillion by 2030.²

While demand for aerospace products is growing, the time frame for developing them is increasing, rising from an average of 5 years in the post-WWII era to over 15–20 years for modern, complex aircraft such as the B-2 Spirit and F-22 Raptor.³

Emerging computational methods like quantum computing hold promise in mitigating this problem. During the last decade quantum computers have evolved from experimental devices to useful tools for scientific discovery, becoming able to perform reliable computations at a scale beyond brute force classical computing methods.⁴

It is anticipated that 'quantum advantage', the inflection point where quantum computers combined with classical systems can perform significantly better than classical systems alone, may be demonstrated as early as 2026, opening more practical business and scientific applications. Moreover, the constant progress in error correction is expected to yield a demonstrable error-correcting quantum computer by 2029, further expanding the scope of quantum computing applications.⁵

To illustrate the range of potential design, engineering, manufacturing, and business impacts that quantum computing may have on aerospace organizations, two use case examples are described in detail.

Use Case 1: Accelerating computational fluid dynamics and finite element analysis

A major challenge in aircraft development is that early design decisions, made with limited information, largely determine costs and timelines, while the iterative design–manufacture–test cycle can take months or even years per iteration.

Computational fluid dynamics (CFD) and finite element analysis (FEA) can reduce development iterations but their long runtimes force model simplifications that reduce accuracy, making full-scale models impractical for design exploration and mainly suited for final design confirmation.

When fully realized, quantum algorithms have the potential to accelerate CFD and FEA, enabling accurate, high-fidelity simulations of multiple designs for both performance and manufacturability. This shift from design confirmation to design exploration would support earlier, better informed decisions, reducing costly late-stage changes and lowering both the overall development time and the risk of program failure.

Viewed from this perspective, the disruptive potential of quantum computers on aircraft performance simulation is high, with many ways to apply this capability throughout the aerospace product development process. When quantum computing is available at scale, designers and engineers may finally be able to explore, iterate, create, and qualify a range of new products, unlimited by the constraints of classical computing.

Use Case 2: Accelerating new material development

Often, the biggest jumps in the cost-performance curves of new products come with the introduction of new materials, such as carbon fiber composites, with high development costs and extended timelines for design, testing and manufacturing integration.

Early design decisions, made with limited information, largely determine costs and timelines. Quantum computing flips this equation entirely.



What if other aerospace materials with advanced capabilities and higher cost-performance curves could be investigated, tested and developed more rapidly at lower cost?

Traditional materials development is slow and costly, relying on empirical trial-and-error methods. Classical computers struggle with simulating relevant quantum effects in materials, as such simulations scale exponentially. In contrast, quantum computers align naturally with quantum systems, allowing simulations to scale more efficiently. This could shift materials development from experimental to computational, with experiments used mainly for validation. This could greatly accelerate materials development, helping predict responses to environmental conditions, such as UV light exposure, temperature variations, and chemical exposure, or assisting the design and development of advanced lightweight and high-strength composites.

When quantum computers are ready to tackle materials optimization problems at scale, it could have revolutionary and disruptive implications for the aerospace industry, not only in terms of performance but also in cost savings and accelerated development schedules.

Action Guide

01 Given its potential for disruption, enterprises need to **establish a strategic plan** for quantum computing, taking into account the arrival of quantum advantage in 2026 and error correction in 2029, the current talent shortage and the expected supply-demand mismatch for quantum computers.

02 To understand the potential magnitude of quantum computing's impact and its timing, enterprises need to **identify their key quantum opportunities** and pursue proofs-of-concept to both clarify practical challenges and help build in-house expertise and capabilities.

03 The quantum computing stack is often too much for single organizations to master. **Joining an ecosystem** where hardware, software, algorithms and application development can be shared is preferable. Now is the time to find partners in industry, academia and government that support your quantum computing strategy.

04 First movers could have a competitive advantage while early followers may have long waits for quantum computing resources and miss opportunities to learn, innovate and create intellectual property assets. By **starting today**, companies can intercept quantum advantage and be ready to benefit from the opportunities offered by quantum error correction.

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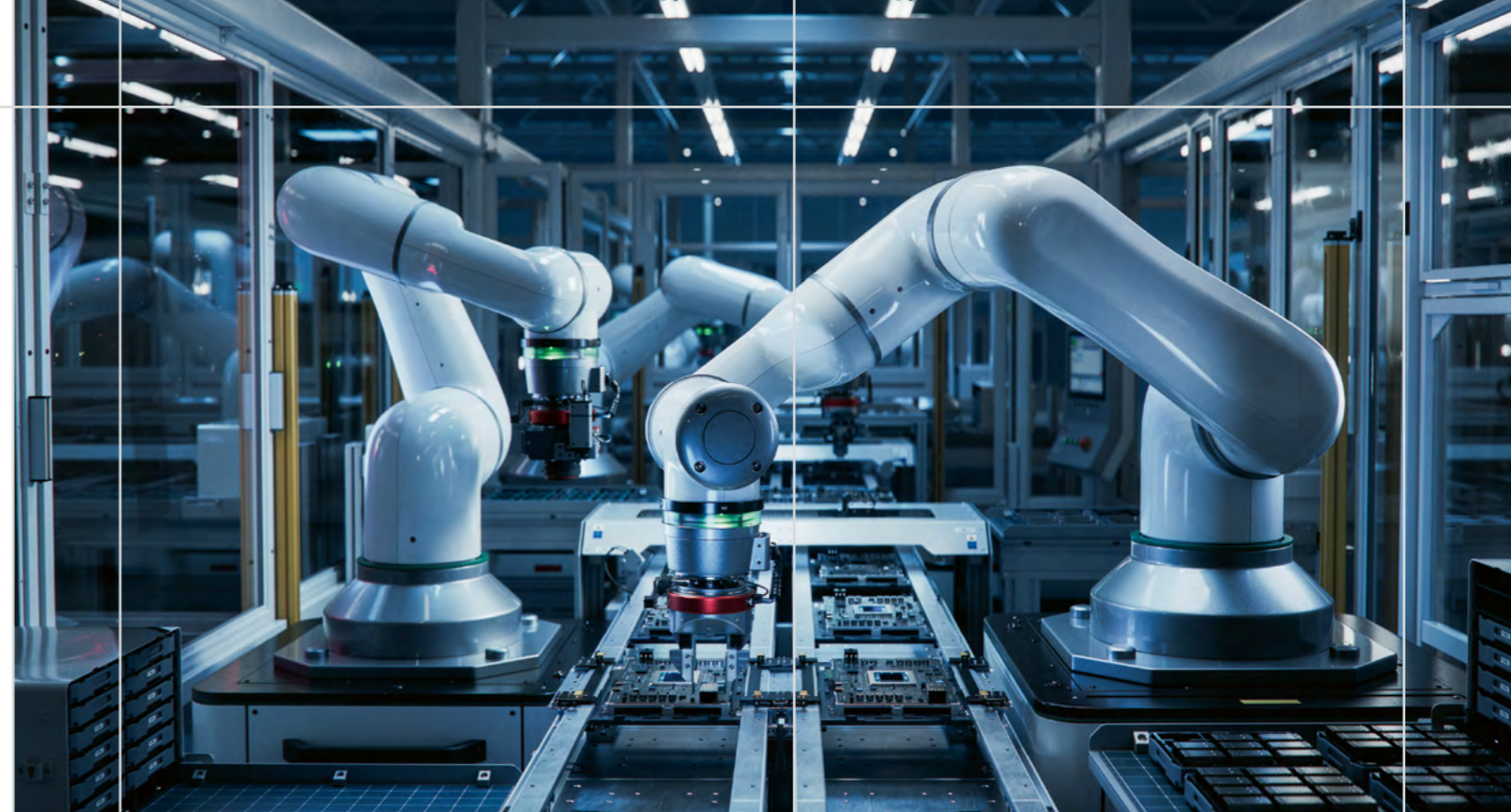
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This article is an excerpt from a white paper by IBM. The full paper may be found at:



How AI can protect your most prized production skillsets



Rare expertise in defense manufacturing is vulnerable to coordination chaos. With AI agents made to take over orchestration, skilled humans can put their focus where it counts.

Monday morning: 6:30am. When Corinna, the plant manager, enters the big production hall, she immediately recognizes that something must have gone terribly wrong. The well-known sounds of a machine that produces parts her company needs to build their sought-after defense products are missing. Production has obviously stopped. But nobody, it seems, is on it.

Although Corinna can't see anybody from her team, she knows that it won't take long until production will be up and running again. Because an array of AI agents is working in the background.

One agent collects data from production robots and analyzes it. It sends a clearly structured failure report to the company that maintains the machinery, indicating what needs to be done to fix it quickly.

In parallel, another agent has already sent notifications to suppliers and logistics companies, updating delivery schedules and quantities based on a ramp-up plan. A plan created autonomously using information provided by the AI agent that supervises all activities required to bring production back to normal.

But what about the high-precision parts that have been produced just before the incident happened? Corinna knows that she doesn't have to worry about this because a specialized AI agent has already started to analyze if all production parameters have been met. It sends the affected parts, which are outside fault tolerance, back into a rework process which will resume as soon as the production line is up again.



Corinna leaves the production hall and prepares for a daily morning meeting with her small team of production experts. They will review how well their agentic AI solution, just introduced earlier this year, worked and how quickly they will be back on track with respect to the tight delivery commitments for their customers.

Corinna and her team will discuss how quickly they can extend their agentic AI approach towards other areas. They know that at the end of this year, one of their best experts in the area of production preparation will retire. In order to maintain high product quality and flexible production schedules, the team has planned to pass a huge amount of responsibilities in this preparation process onto a set of AI agents that would do the job in the background.

When Corinna and her team walk over to the small café next to the production hall in order to have a quick coffee, they hear the familiar and reassuring sounds of operational machinery again. And the best part: it's supervised by an attentive and highly capable team of AI agents.

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Imagine an array of AI agents that can actually help orchestrate tasks quickly and reliably.

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Sources:

1. IBM – 2025: *Cybersecurity 2028: Your workforce, built for the AI frontier*
2. Zion Market Research – 2024: *Aerospace and Defense Market Size, Share, Growth, Trends, and Forecast 2030*
3. Acquisition Talk – 2021: *Did the 5000-series lead to longer cycle time for aircraft development?*
4. Nature – 2023: *Evidence for the utility of quantum computing before fault tolerance*
5. IBM – 2025: *Hardware for useful quantum computing*

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