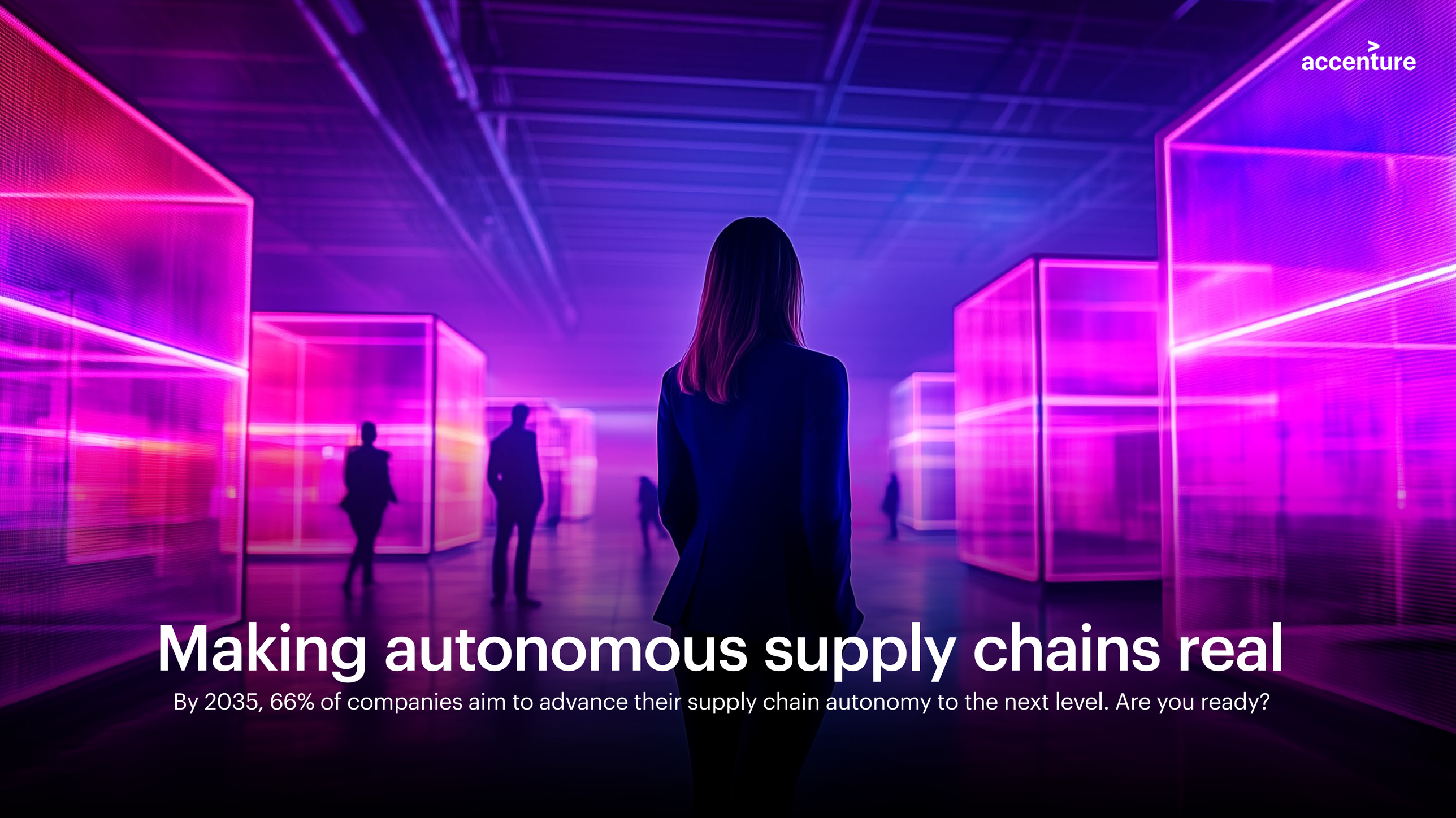

Making autonomous supply chains real

By 2035, 66% of companies aim to advance their supply chain autonomy to the next level. Are you ready?

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Foreword

By Kris Timmermans
Global Lead—Supply Chain & Operations

The playbook that built today's global supply chains is rapidly becoming obsolete. Geopolitical volatility and a constantly changing trade environment are reshaping patterns just as climate pressures mount, consumer expectations soar and traditional efficiency strategies deliver diminishing returns. Two imperatives now stand at the heart of supply chain reinvention.

First, we must shatter functional silos. Autonomous decision-making requires unprecedented transparency across functions, processes and dependencies. Without end-to-end visibility, even the most sophisticated AI systems will fail to deliver meaningful value. This is especially critical for emerging systems such as agentic AI, which orchestrate complex workflows rather than simply following fixed instructions.

Second, we must simplify processes. Companies that streamline operations and standardize processes will scale technology faster, adapt more quickly and accelerate AI learning cycles—a competitive advantage in today's market.

Our research across 1,000 C-suite executives confirms these strategic imperatives. It further confirms that autonomous supply chains are the next frontier of value creation. Nearly two-thirds of companies plan to advance their supply chain autonomy significantly within the next decade.

The financial case is compelling: Our survey respondents expect a 5% increase in EBITA and 7% improvement in return on capital employed. Operationally, companies could slash order lead times by 27%, boost productivity by 25% and reduce carbon emissions by 16%, while cutting recovery times from disruptions by approximately 60%.

Three critical actions distinguish leaders in the autonomous supply chain journey. They build solid data foundations through a secure digital core, which standardizes platforms and governance frameworks. They invest strategically in AI-enabling technologies, starting with targeted pilots before scaling proven solutions. And they restructure how people and technology collaborate, shifting human roles from routine execution to strategic guidance and oversight.

The dividing line is clear: Companies that embrace autonomous supply chains will create unprecedented value and resilience, while those clinging to outdated models will struggle to remain relevant. Will you lead the autonomous revolution, or be left behind? The insights that follow provide a roadmap for navigating this critical reinvention.

Pressing challenges fuel the next reinvention of supply chain

Companies are seeing diminishing returns from classic business efficiency strategies—from economies of scale and globalization to lean manufacturing and Six Sigma™—creating a growing need for a new source of value.

At the same time, online consumer transactions are skyrocketing and pressures on supply chains are increasing. In the past three years, consumer online spending rose by 30% globally,[1] creating multiple new channels, along with new demands for product customization. Climate issues, health crises and sector-specific shifts like we're seeing in the automotive industry require unprecedented agility. Sudden, unpredictable geopolitical turns and a changing trade environment are causing chief supply chain officers to quickly realign operational networks. Adding to the complexity is the loss of institutional knowledge due to an aging workforce, decreasing job tenure and skills shortage.

Today, it's simply not enough to be cost-efficient. Supply chains must also be fast, agile and sustainable; they must reach a new value frontier.

Autonomy, enabled by recent advances in AI,[2] is how to get there. Our research shows it's also the new strategy to create lasting value. Why? It's the next phase of industrial evolution. Beginning with steam-powered machines and moving from electricity to early computing and data analytics, we're now at a stage in which technology can support autonomous systems. Supply chains' process- and data-driven nature is the ideal use case for technologies like agentic AI, which can orchestrate complex decision-making faster and more efficiently than previously possible. Many supply chain and technology leaders agree.

Our survey of 1,000 C-level executives across 10 industries revealed that within the next decade, nearly 66% of companies plan to advance their supply chain autonomy to the next level. Among them, approximately 40% aspire to achieve a higher degree of autonomy where the system handles most operational decisions.

But where does this leave people? Our research confirms the human workforce remains key in the autonomous supply chain ecosystem. In fact, the most effective autonomous supply chains will be those that move people from executing tasks to providing guidance and oversight on system decision-making. We see this shift occurring in companies through a progressive journey of human + machine collaboration, with each stage contributing to improved outcomes.

Additionally, by capturing and codifying the know-how and insights that experienced team members amassed over decades, an autonomous supply chain can help ensure that critical knowledge is preserved and accessible to the next generation of the workforce, even as longstanding team members reach retirement.

Operational performance breakthroughs

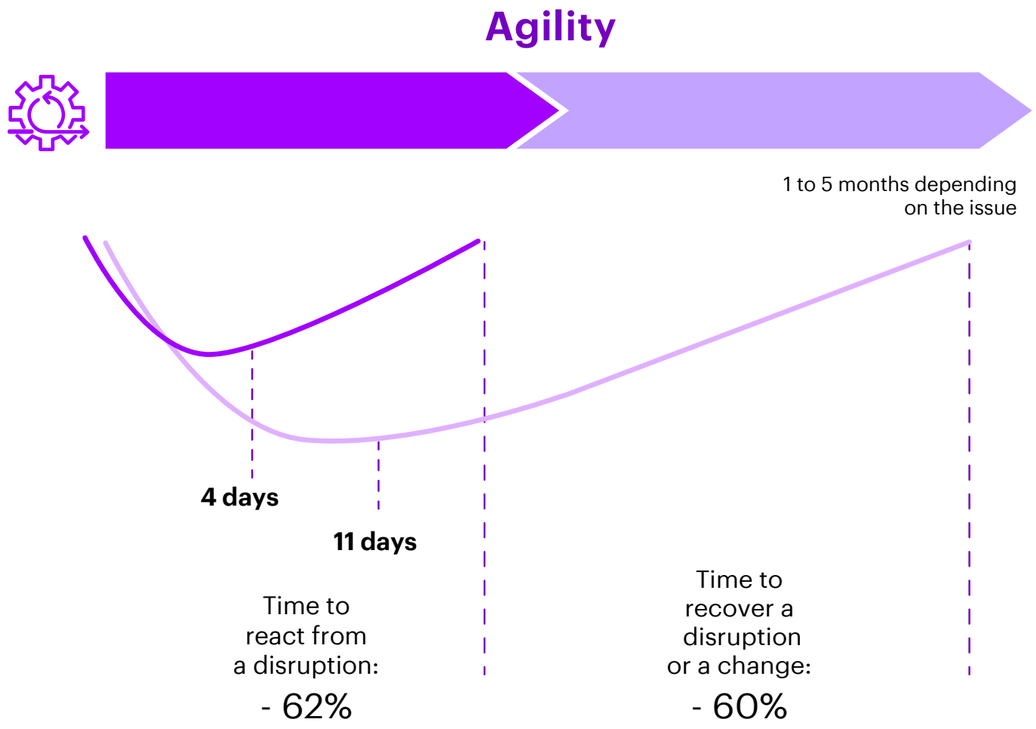
Our research found that pursuing autonomous operations with humans supervising process milestones (or being “on the loop”) can improve efficiency, agility and sustainability—all crucial for adapting to sudden changes in dynamic environments.

This approach uses the power of AI-driven systems while maintaining human oversight for strategic decision-making and intervention.

For example, businesses can improve speed, agility and cost optimization starting with financial outcomes. Our respondents project a 5% increase in EBITA and a 7% improvement in return on capital employed (ROCE). Beyond the bottom line, they expect significant operational and productivity gains. They believe autonomous systems could reduce order lead time by 27% and improve labor productivity by 25%, allowing companies to respond to customer needs faster. Respondents further expect a 5% boost to on-time delivery, improving reliability in increasingly unpredictable times and benefiting industries for which rapid fulfillment is a key competitive advantage.

Improved sustainability is another result. Nearly four in 10 companies (39%) say autonomous operations will significantly advance supply chain circularity, thanks to better reuse, recycling and resource efficiency.

Figure 1 - Time to react and recover from disruptions



Moreover, businesses estimate achieving around 16% reductions in carbon emissions, directly supporting corporate sustainability targets.

Finally, autonomous operations strengthen resilience to cyber-attacks, talent shortages, geopolitical disruptions, severe weather events and raw material scarcity. We found that companies expect their reaction and recovery time from disruptions to decrease by 62% and 60%, respectively. This enhanced resilience is crucial in times when supply chain disruptions have become more frequent and severe.

This enhanced resilience is crucial in times when supply chain disruptions have become more frequent and severe.

Autonomous systems are still in their early stages and most organizations are just starting their journeys. We examined what leaders are doing right to realize initial success and found the following key actions:

1.Build a solid and secure data foundation

2. Invest in critical AI-enabling technologies, then scale strategically

3. Re-structure how people and technology work together

These strategies are not sequential, but early results are visible for companies that act on one or more of them as part of their journeys toward autonomous systems. We will expand on each action in the upcoming sections.

What makes a supply chain autonomous?

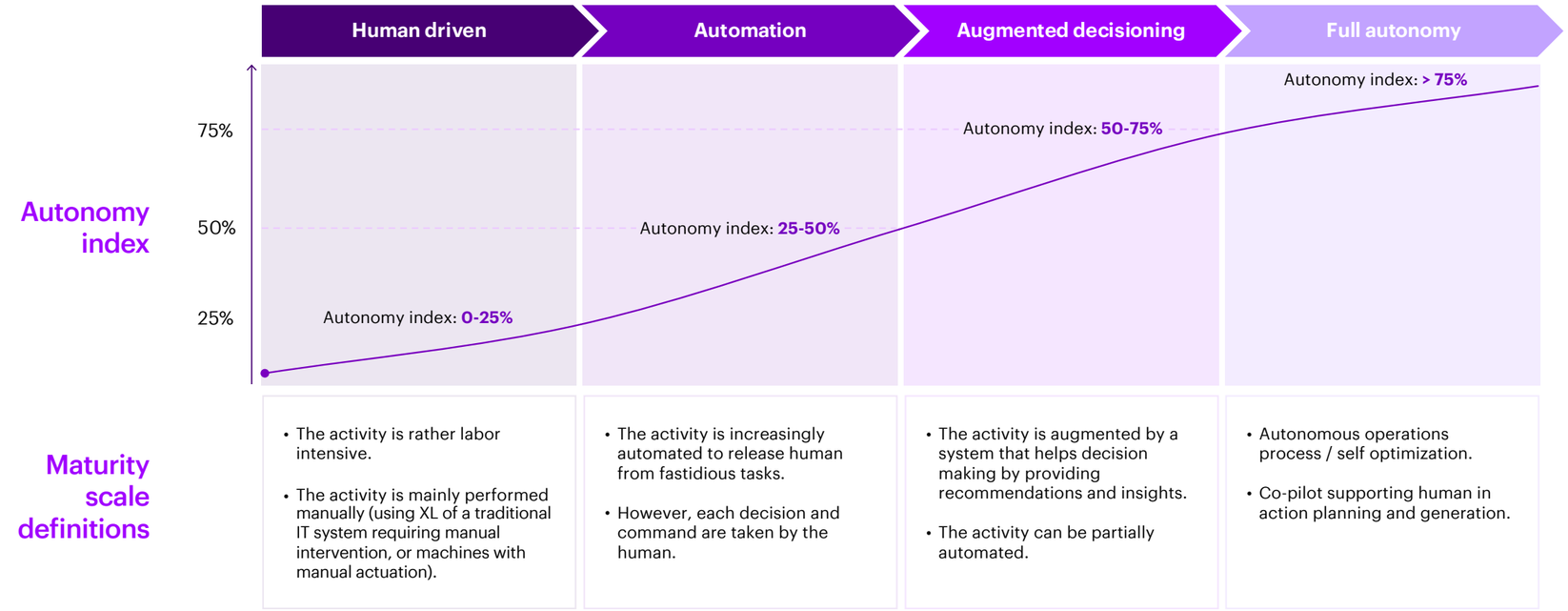
We define full autonomy within supply chains as more than just siloed automation. Classic automated systems follow pre-set instructions and require human oversight. Think of the cruise control function in a typical car: It automatically maintains a set speed but still needs human intervention for steering and braking.

On the other hand, autonomous systems include a degree of automation but go beyond it. They are enabled by AI agents that make decisions and perform tasks without human intervention. For example, fully autonomous cars—already on roads in certain cities—have self-driving capabilities and are in full control, requiring minimal to no driver input.

Truly autonomous supply chains will have two dimensions (Figure 2): automation and delegation. In automation, a machine replaces human tasks. Automating order processing, for example, allows a machine to validate, check stock, create shipping labels and handle exceptions, freeing up people for more strategic work. In delegation, a machine replaces human decision-making. Just like a supply chain manager reacts to events and responds by directing team members to complete specific tasks, machines can plan, execute, correct and improve activities to meet defined performance criteria.

Autonomous supply chains with automation and delegation abilities will still have human involvement—at least for now. People and technology bring unique strengths to the table, making collaboration essential. At the intersection of these two spheres of competency is the human + machine workforce, where onsite and remote employees integrate seamlessly with autonomous agents and intelligent robots.[3] In the most effective autonomous systems, humans are not just "in the loop" completing tasks. They are "on the loop," nearly always present at key milestones in the process, like designing, testing and checking. In other words, autonomous systems will sense and respond, while humans will provide feedback and optimize outputs to achieve continuous improvement, raising the collective organizational intelligence.

Figure 2 - The journey towards autonomy implies a true transformation along 4 maturity steps



The state of autonomy: Today and within the next decade

According to our survey, most companies are just beginning to explore and deploy autonomous capabilities. While about 25% of our respondents have started their autonomy journeys, the median autonomy maturity across supply chain activities is just 16% (average maturity at 21%) on an index that ranges from 0% (fully manual) to 100% (fully autonomous). Median maturity is expected to rise significantly—to 42%—within the next five to 10 years.

To better understand this progress toward higher autonomy levels, we segmented typical supply chain processes into nine clusters and 29 activities (Figure 3). The “Make” cluster, for example, includes production and manufacturing, product assembly and packaging activities. We then mapped survey respondents’ current and projected future states of the individual activities onto defined stages of autonomy (Figure 4).

The survey notably revealed that no supply chain activity will escape this transformation. AI will at least somewhat augment all of them (Figure 5). Today, most capabilities are at a low level of automation and delegation, with notable exceptions in clusters like Make; Quality and Production Control; and Customer and Field Support, where automation is already gaining traction. For instance, automakers increasingly rely on robotic assembly lines using AI-driven precision to boost production speeds and reduce errors.

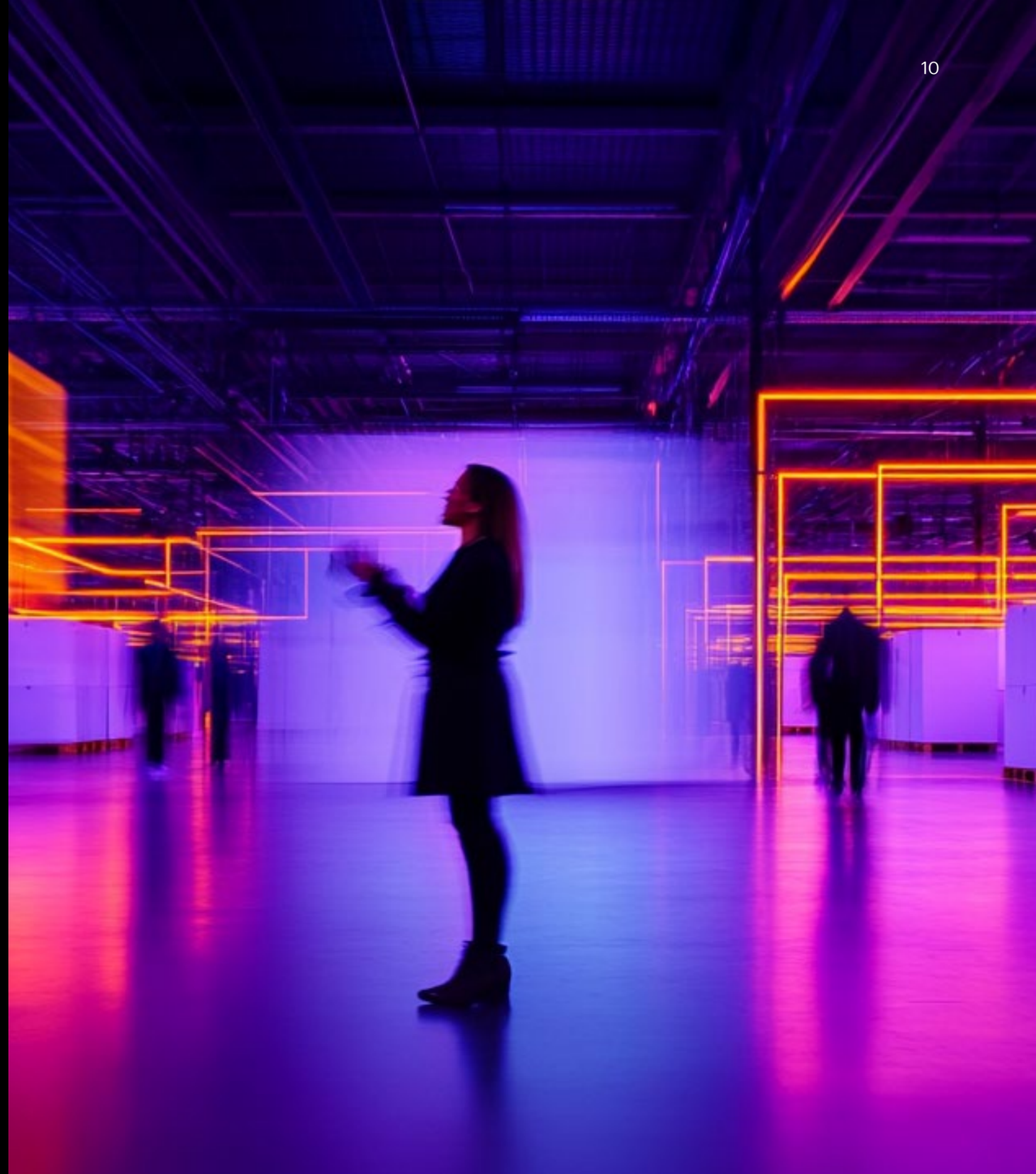


Figure 3 - End-to-end supply chain activities have been segmented into 29 activities grouped in 9 clusters of similar tasks

Activities clustered into similar characteristics

Design, develop and strategic purchasing

1. Ideation / innovation
2. Design, testing and validation of new products/services
3. Sourcing, supplier selection and negotiation
4. Supplier development and relationship management

Plan and schedule

5. Demand & supply planning
6. Production scheduling / MRP
7. Transport scheduling
8. Planning of maintenance and spare parts

Move

9. Warehouse picking and handling
10. Raw material and component feeding
11. Transport preparation (packing & loading)
12. Transportation (shipping)
13. Product moving

Make

14. Production/manufacturing
15. Product assembly
16. Product packaging

Set-up, maintenance and changeover

17. Industrialization (initial equipment set-up, scale up)
18. Changeover (including cleaning)
19. Maintenance

Quality and production control

20. Production control
21. Quality control

Operational purchasing

22. Supplier contracting
23. Procure to pay

Alert, risk, improvement

24. Issue or risk detection and alert
25. Evaluation and root cause analysis
26. Improvement plan execution internally and with suppliers

Customer and field support

27. Customer support
28. Field service
29. Order to cash

Figure 4 - Most of our activity clusters will undergo significant transformation through smart systems, with some progressing toward a high level of autonomy in the future

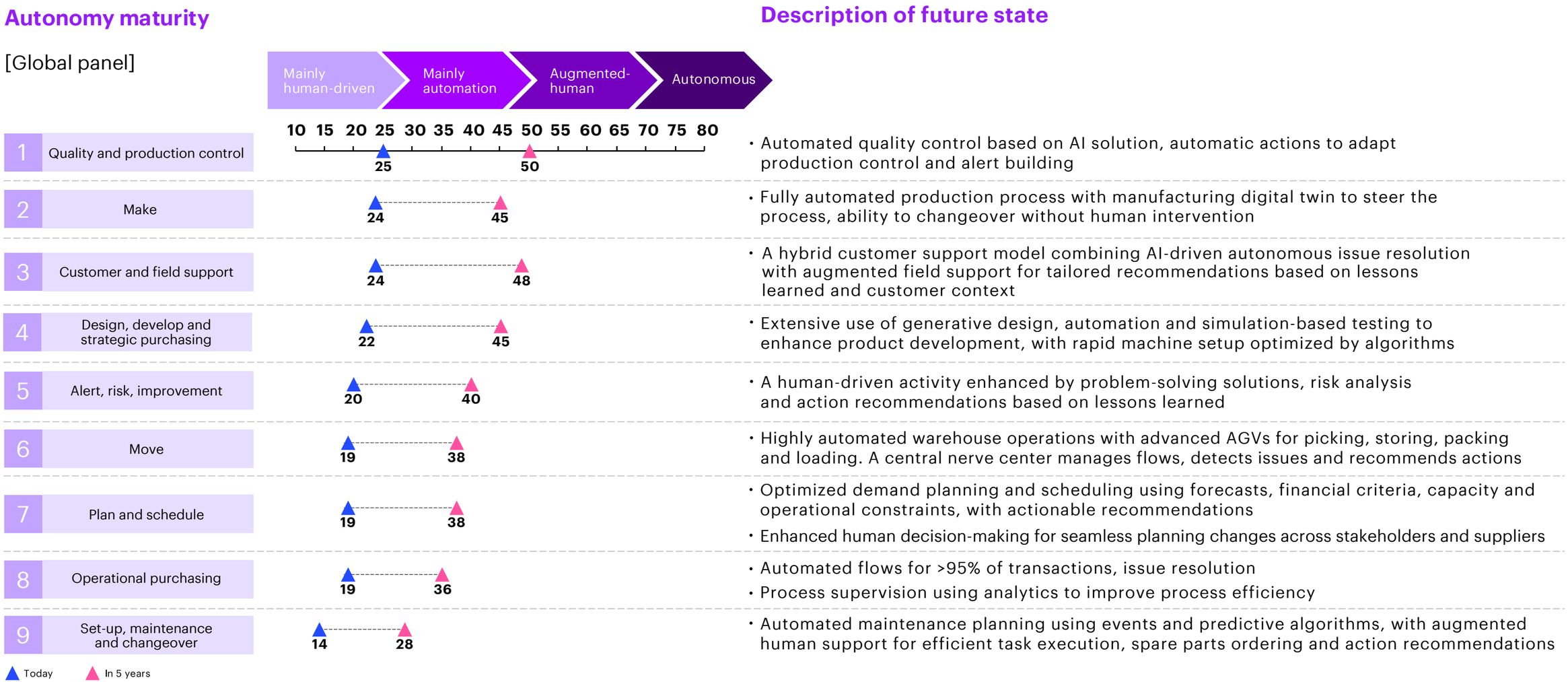
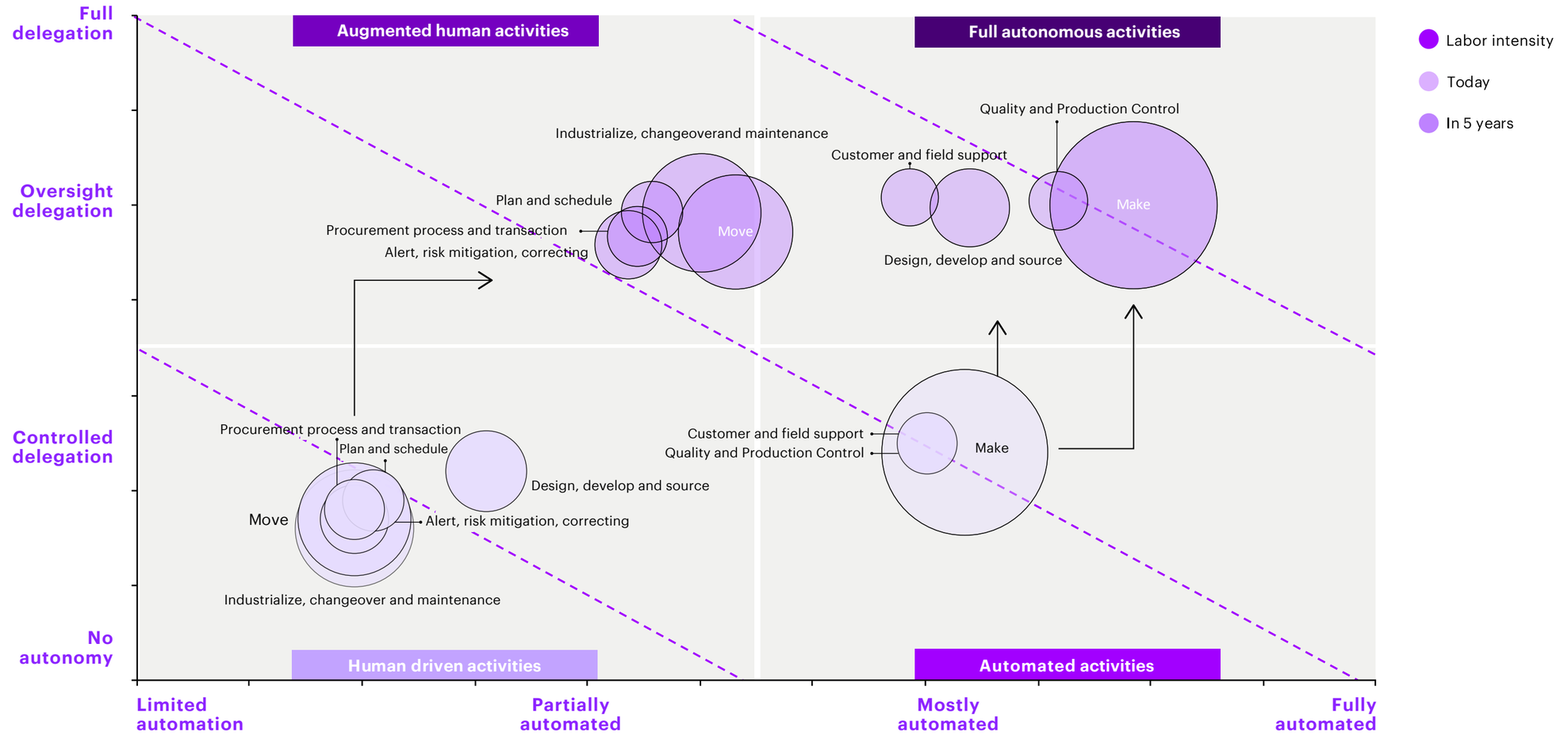


Figure 5 - Most supply chain activities will see a strong augmentation combined with automation to move towards full autonomy



Looking ahead, clusters such as Move, Set-up, Maintenance and Changeover; and Plan and Schedule will see higher delegation capabilities thanks to augmentation by smart systems. Retailers and logistics providers, for example, are already implementing autonomous warehouse robots and intelligent scheduling systems to manage inventory flows more efficiently and reduce order fulfillment times.

Ultimately, the highest level of autonomy maturity is expected within the Make cluster, reflecting recent innovations such as lights-out factories that use robotics and advanced additive manufacturing technologies to rapidly produce custom products. Close behind will be areas like Quality and Production Control and Customer and Field Support, where logistics firms deploy autonomous drones and digital assistants for quicker response times and improved service.

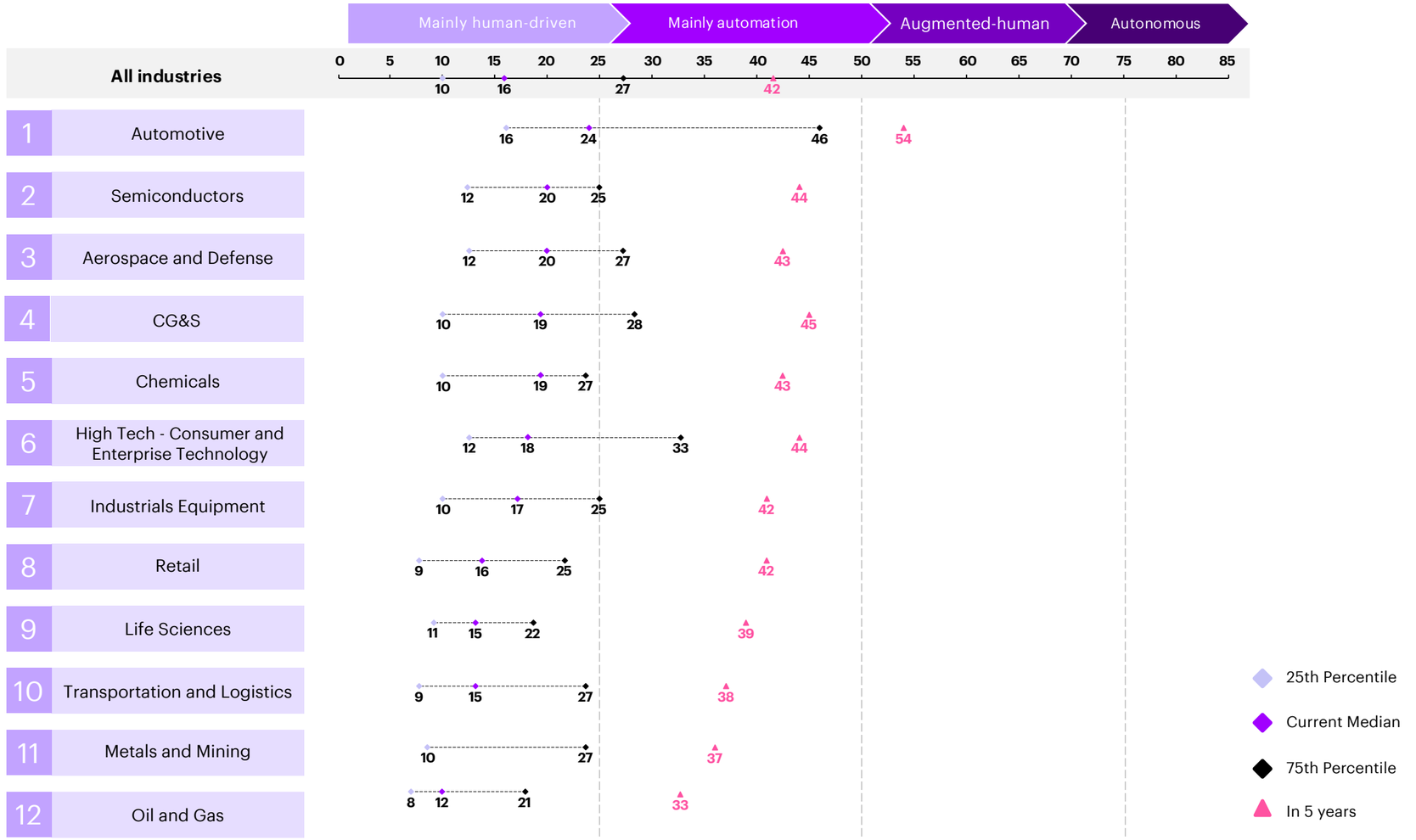
The key takeaway? Most companies surveyed are planning to make incremental progress in their supply chains to achieve higher levels of automation and delegation while new technologies emerge and mature.

Figure 6 - Most advanced industries are in the discrete manufacturing area

Key highlights

- All industries are projected to see significant improvement in supply chain autonomy over the next 5 years. Most industries show consistent growth from current to future state, indicating a broad push toward automation and autonomy. However, the pace and scope of transition vary significantly across sectors, highlighting opportunities for strategic interventions tailored to each industry's unique needs and operational realities.
- Automotive emerges as a benchmark for digital supply chain transformation, rapidly moving from primarily human-driven operations today into an augmented-human model, highlighting significant industry-wide implications.
- Process-oriented sectors (Oil & Gas, Chemicals) currently lag. However, substantial future maturity growth (e.g., Oil & Gas: +21%) signals increasing adoption momentum to close the gap with discrete manufacturing industries.
- Despite significant progress, no industries anticipate achieving complete autonomy within next 5 years, reflecting realistic expectations regarding technology maturity, operational complexity, regulatory environments, and the need for human oversight.

Highlight of current and foreseen autonomy scope per industry



Source: Accenture Autonomous Supply Chain Global Survey, 2024. Base: All companies (n=1000).

Procurement, an early use case for autonomy

Procurement is emerging as a prime candidate for automation—and ultimately, full autonomy—in supply chains due to its repetitive and predictable tasks. Automating procurement can save time, reduce errors and cut costs, making processes like purchase requisitions, order processing and even negotiation more efficient.

Technologies such as AI, machine learning and robotic process automation are key to autonomous procurement. They can help manage supplier relationships smarter, optimize digital costing and design-to-cost and power spare parts procurement, for example by retrieving specifications from old user manuals for Maintenance, Repair and Operations negotiations. As AI agents become more widespread, they will add even more value by facilitating demand forecasting, optimizing inventory and handling repetitive tasks like data entry.

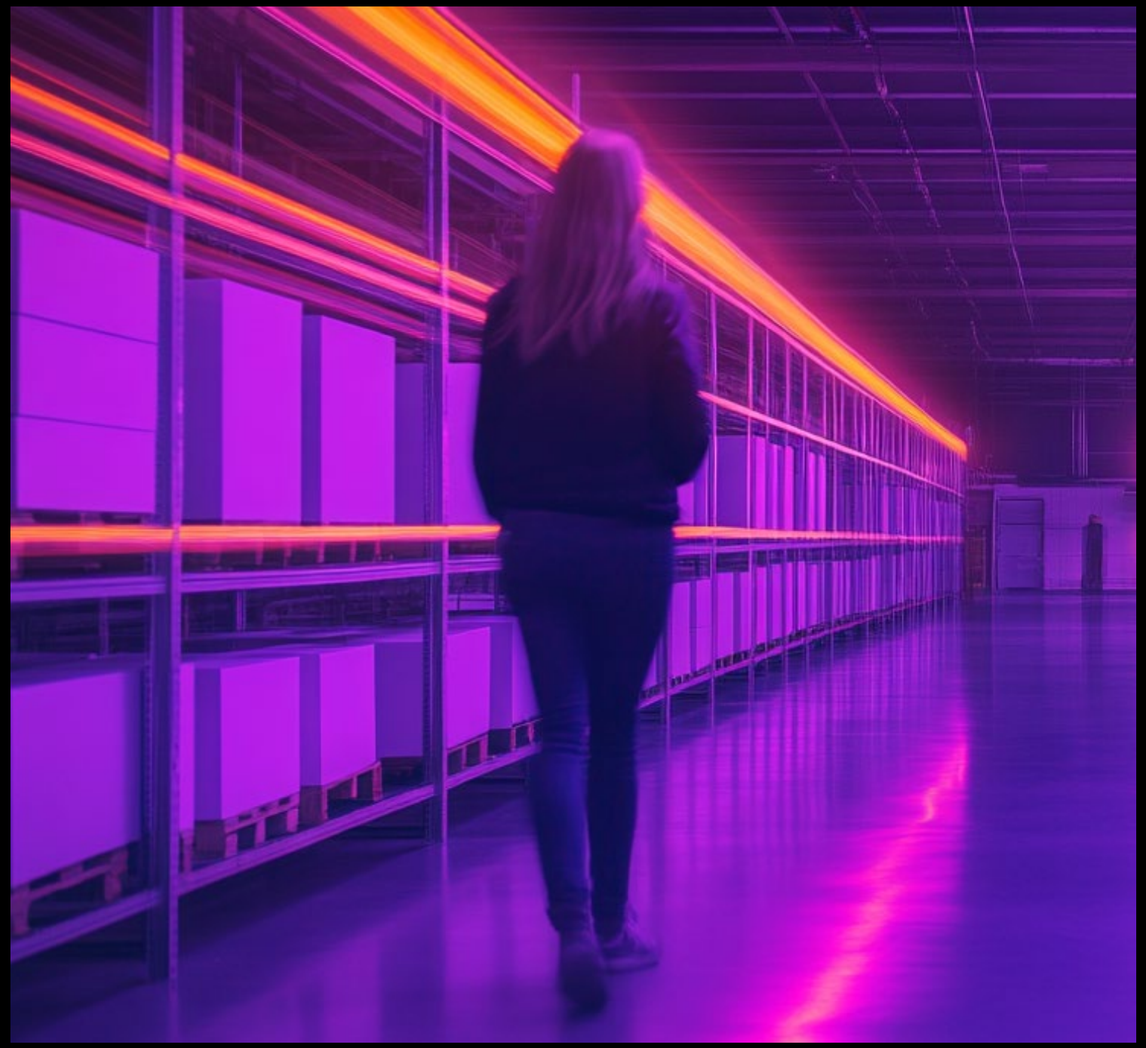
Early results at consumer goods company

The consumer goods company used autonomous supply chain initiatives to significantly create value. The AI-powered batch health monitoring system at one of its factories in India has reduced costs per ton by predicting optimal batch performance based on cycle time, quality and utility cost.

The company's new program has reduced the average distance per dispatch by 15% and increased truck utilization by almost 10%, enhancing logistics efficiency.

The company has also achieved material savings and procurement efficiency improvements through competitive buying and value chain interventions, such as global tenders for materials and backward integration projects in palm oil and palm kernel oil.

AI tools like the forecaster and optimizer provide accurate market price forecasts and AI-based sourcing scenario projections, further improving procurement efficiency.



Challenges to autonomous supply chains

The supply chain leaders we surveyed—including chief operations, supply chain, digital and technology officers—largely agreed on the benefits of autonomous supply chains. Autonomous systems can reduce costs (86%) and improve efficiencies (76%), increase agility (77%) and speed up processes (63%). However, achieving autonomous supply chain is not a key priority for many. Only 25% of respondents indicated that autonomous supply chains are a key priority and they are investing heavily in them. A very small fraction—just 4%—aspire to reach full autonomy. What is holding them back?

Our analysis revealed data privacy and cybersecurity risks, data availability and quality, and a lack of supply chain and operations process readiness as top roadblocks. One other concern is particularly relevant: a lack of trust in AI and autonomous systems. In other recent research,[4] we found that trust and autonomy are inextricably linked. Rules-based systems like automation are highly predictable and thus more trustworthy. But the new AI systems that underpin autonomy—including generative AI and agentic AI—need additional guardrails along with meaningful employee involvement as they diffuse across enterprises.

Every company, regardless of where it falls on the autonomous supply chain journey, can overcome these hurdles and move toward a future of new value. Recognizing most companies are still at the start, we suggest the following actions for material benefits at each step along the way.

A roadmap for realizing autonomous supply chain value

Three key actions to take to realize autonomous supply chain value:

1. Build a solid and secure data foundation

Imagine a supply chain in which real-time data integration and visibility are available in a single dashboard accessible to all decisionmakers—from supplier visibility on orders, fulfillment and service; to inventory levels across all warehouses and planned downtime in every plant; to demand forecasting. With such a foundation in place, supply chains can transition from reactive decision-making to proactive, self-optimizing operations. AI-driven systems can predict disruptions before they happen, autonomously adjust sourcing and logistics, and balance supply with demand in real time. This level of autonomy not only increases efficiency and resilience but also frees human teams to focus on strategic innovation rather than firefighting daily challenges.

For many companies today, however, the supply chain data landscape remains fragmented, inefficient and outdated. Our previous research found 67% of companies do not trust their data enough to use it effectively and derive value from it, and 55% of companies still have mostly a manual approach to discovering data within their enterprise.

What many companies are missing is a critical technology capability that glues everything together—we call this the digital core.[5] It integrates key components—like cloud, data, AI and security— along with data from ecosystem partners, enabling advanced automation and ultimately, autonomy.

A high-tech company’s path to a smarter, autonomous supply chain

A global high-tech company needed to modernize its data and decision intelligence layer to scale AI across the supply chain. Before this transformation, supply chain teams manually made thousands of inventory decisions, relying on fragmented data and inconsistent processes that slowed their response to shortages. The company built a decision intelligence system that automatically diagnoses shortages and excess inventory, determines optimal replenishment strategiesand writes decisions back to source systems. The system now orchestrates thousands of decisions that were once manual, significantly improving labor productivity, distribution efficiency and response time.

The early successes highlighted the importance of a modern data, knowledge and agentic layer (digital core) in scaling AI and achieving a step change in labor productivity, capital improvement cost and overall business growth. Implementing a digital core is enabling autonomous operations and orchestrating decision intelligence across functions like planning, logistics, manufacturing, finance and commercial sales. Because of these efforts, the company is emerging as an industry leader in autonomous supply chain management.

2. Invest in critical AI-enabling technologies, then scale strategically

Integrating AI at scale requires significant investment in enabling technology: survey respondents estimate that investing 0.9% of revenue per year is necessary to develop an autonomous supply chain. This investment will become a key differentiator. Some firms will enter a virtuous cycle of continuous improvement, while others risk falling into a vicious cycle of stagnation due to financial constraints. To allocate resources efficiently, supply chain leaders should start “from the future back” to imagine the optimal future state of their AI-enabling tech stack, and answer, “what does good look like?” to determine how to get there as a team.

Our research shows that companies view cybersecurity, cloud computing and SaaS platforms, advanced sensors like RFID and IoT and supply chain platform orchestrators as tech enablers of autonomy. But building autonomous systems is more than the sum of many parts. It requires thoughtful planning, defining and redesigning processes for new ways of working, data integration and ongoing monitoring. Process maturity is an important starting point. Many companies cannot implement an autonomous supply chain without first stabilizing their current operations. They can do this by establishing solid foundations like structured plant layouts, digitized planning processes and basic IT tools like Transportation Management System, Manufacturing Execution System and Warehouse Management System.

How Schaeffler's AI and robotics revolution is reshaping manufacturing

Inside Schaeffler's plants, a transformation may soon redefine how global supply chains operate. The leading motion company has created a proof-of-concept that uses physical AI and robotics to create more autonomous, efficient operations—all while elevating its workforce.

Working with partners such as Microsoft, Agility Robotics and NVIDIA, the company is exploring AI-assisted innovations such as planning the ideal facility. Simulating and identifying the best layout for facilities up front reduces commissioning times and can help determine the right degree of automation for each facility.

Another application is Mega, an NVIDIA Omniverse Blueprint, to test robot fleets, including general-purpose humanoid robots, in industrial digital twins of factories and warehouses. Physical AI, such as humanoids are appealing because of their versatility. They will fit quickly and easily into a human-centric world, accessing physical spaces and participating in repetitive workflows.

Live optimization of robotics operations is another innovation explored in the proof-of-concept. Using simulated data, the company can optimize the physical performance of robots in the warehouse and on the shop floor—for example, to avoid congestion. Data from various simulated scenarios is fed into Microsoft Fabric, a unified, AI-powered data platform. Site managers and workers responsible for operations can then compare key performance indicators like availability, utilization and overall equipment effectiveness for these scenarios to identify potential issues in time to act.

These advanced capabilities are centralized to unite Schaeffler's global team. Instead of simply performing tasks on the shop floor, its talent will proactively design, monitor and optimize processes in real time and more efficiently than ever.

3. Re-structure how people and technology work together

Historically, companies structured themselves around functions—logistics managed warehouses, sales managed the salesforce and so on. Increasingly, data cuts across functional silos to support a platform-based organization in which multifunctional teams group around data assets. This emerging structural shift coupled with achieving autonomy in the supply chain will impact talent, but not in the way many leaders think.

Today, some fear that automation will reduce the workforce, a concern amplified by an increased pace of AI investments. According to our survey, however, only 1% of respondents expect a significant decrease in staffing. At the same time, while some roles will evolve or be redefined, the overall opportunity for workforce transformation outweighs potential disruption.

Augmentation enhances work quality by giving employees greater control, a clearer understanding of their impact, ownership of output, and the ability to measure client satisfaction. This revival of "craftsmanship" boosts engagement, a critical factor for any company's success.

In autonomous systems, people will do higher-order work, requiring new skills. They will be on the decision-making loop—designing the system, checking, testing, adjusting and planning—rather than simply completing tasks recommended by machines.

This shift will transform work fundamentally. As companies quickly onboard new technologies and redesign their processes, they also must redevelop their talent and organization models for a data-driven, tech-intensive workplace.

Key recommendations

Build a solid and secure data foundation

Building an autonomous supply chain starts with standardized data platforms, processes and governance frameworks.. A data ontology or structured model helps ensure that everyone (and every system) understands data elements in the same way. Without this, insights become fragmented, slowing decision-making. A unified approach ensures accurate, actionable intelligence that supports business goals. AI can play a key role in automatically cleaning and structuring data from sources like inventory levels, shipment tracking and supplier information.

A decentralized data operating model further enhances agility. Empowering business domains to manage their own data as a product ensures relevance and quality, while enabling faster, more informed decisions across the supply chain.

Collecting data from across the organization—not just a few areas—should be a priority. For example, internet of things (IoT) sensors provide real-time data, while digital twins simulate scenarios to optimize workflows, reduce risks and minimize downtime. This shift moves supply chains from reactive to predictive. In the future, AI could even generate synthetic data for companies to use, for example, to train models like building a cost benchmark database for target costing. Without data integration made possible by the digital core, companies will struggle to capture value from implementing autonomous supply chains.

Invest in critical AI-enabling technologies

Organizations must upgrade legacy systems and build an adaptive stack of AI capabilities supported by agentic architecture. This will enable organizations to orchestrate workflows across complex processes by integrating AI into their operations. AI agents can perform routine, high-frequency tasks, combine multiple functions and synthesize data, and even oversee end-to-end processes. These agents enhance efficiency, drive strategic workflows and break down silos. They create new levels of operational intelligence and scalability.

Companies should initiate targeted pilot programs addressing specific pain points in critical areas such as logistics, manufacturing, demand forecasting and inventory optimization. By starting small, organizations can quickly demonstrate value, refine approaches and address challenges effectively.

Once pilots prove successful, businesses should scale them incrementally. This approach manages costs, demonstrates ROI and secures stakeholder confidence in the transition toward an autonomous supply chain.

Furthermore, protecting the supply chainr equires robust cybersecurity measures. Supply chains are attractive targets for cyber threats. Implementing comprehensive security protocols—such as supplier security audits and advanced multi-factor authentication—ensures data and systems remain secure against increasingly sophisticated threats.

Re-structure how people and technology work together

A successful transition to autonomous supply chains hinges on how companies prepare their talent for a workforce transformation that reimagines the work experience, learning and reskilling. Involve supply chain experts early to build trust among frontline employees who will use and refine these systems. Technology alone can't ensure success—people's input, through a continuous feedback loop, is essential to designing solutions that truly meet operational needs.

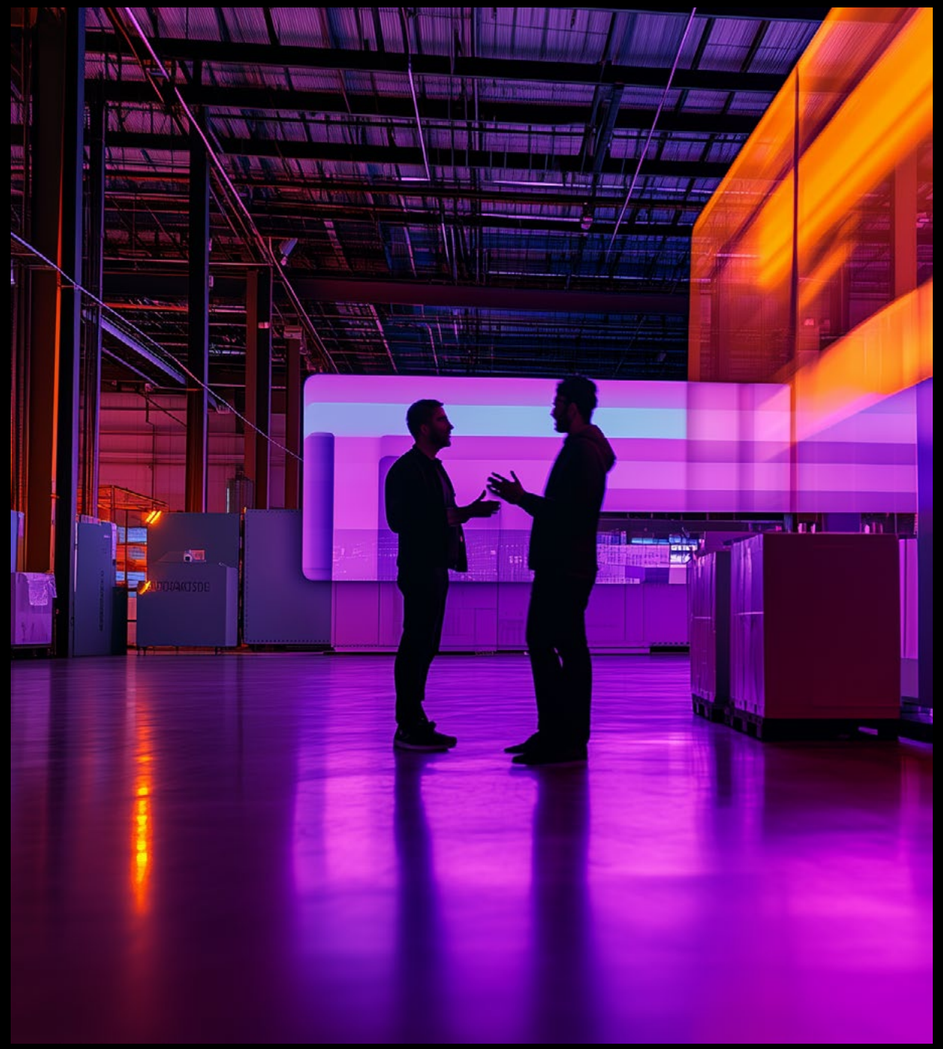
As they introduce new technologies, leadership must build trust and agility within their workforce at a realistic, cross-organizational pace. One way to do this is by offering personalized upskilling programs, such as targeted training that meets people where they currently are in their digital journey. Leaders also can build networks of "influencers:" approachable team members who become change evangelists. They are empowered with tools and formal leadership support to increase engagement and trust throughout the transformation.

Transparency and explainability of how the systems work and make decisions will also help build trust within the workforce. Meaningful human oversight coupled with training people to be good data stewards through rigorous validation will help prevent trust-eroding biases and inaccuracies. Overcoming trust issues in AI and autonomous systems will help talent upskill faster and achieve the full potential of these technologies.

Organizations should also embrace the shift from traditional business unit structures to platform-based operating models. This allows multifunctional teams that include internal and external stakeholders to collaborate and problem-solve faster across the supply chain—not just in parts of it.

Finally, businesses must revisit their governance and leadership styles, transitioning from reactive practices like crisis management, to proactive approaches focused on risk assessment and anticipation. Leaders who think ahead about future risks and how to improve their teams' effectiveness will guide more resilient, adaptable supply chains.

Ultimately, the rise of autonomous systems will fundamentally change how organizations are structured and how people work with each other and technology. It also is an opportunity to reimagine work and reshape the workforce. Businesses that adopt autonomous supply chains will see real value—such as increased production speed and cost reduction—only if they rewire their organizations to support radically different processes and ways of working.



Leading the next value frontier

The urgency to find new ways to create value across the supply chain is pressing and made more critical by sudden and unpredictable geopolitical and policy shifts. At the same time, the pace of technology advancement is accelerating. Companies don't just need to agility for today, they must be ready for artificial general intelligence, quantum computing and innovations yet to be imagined. Autonomous systems offer not only present-day value creation, but the ability to adjust to and optimize whatever comes next, including quick adoption of evolving technologies.

In the face of rapidly evolving trade policies, autonomous supply chains can leverage AI-driven scenario planning, real-time risk sensing and dynamic network optimization to mitigate disruption. This allows organizations to algorithmically adjust sourcing strategies, reroute logistics and recalibrate inventory positions with minimal human intervention.

The key is to move beyond opportunities to optimize based on legacy capabilities and existing operational constraints. Seeking out discrete (and often unrelated) processes to automate often only delivers small, localized improvements without creating new enterprise value. Focusing on the critical outcomes supply chains must deliver as well as the unconstrained human + machine collaboration, on the other hand, leads to unconstrained reinvention.

By establishing a solid data foundation, investing in enabling technologies and enhancing workforce capabilities, companies will have the infrastructure needed for a sustained value-creation journey. And perhaps most importantly, autonomous systems are an opportunity to move supply chain beyond functional areas and reinvent the entire business, end-to-end.

How Accenture can help

In today's rapidly evolving business landscape, staying ahead of the curve requires embracing innovation and leveraging new technologies. At Accenture, we are committed to supporting your supply chain reinvention, no matter where you are on your transformation journey. We can help with strategy and road-mapping, building, running and optimizing. Our comprehensive approach covers process redesign to pinpoint high-value opportunities, architecting a modern data foundation, leveraging agentic architecture and upskilling your workforce to drive sustainable growth and operational excellence:

- **Process redesign to pinpoint high-value opportunities:** Our 360-degree approach to process reinvention helps identify and prioritize specific processes and personas, reducing friction and streamlining operations.
- **Architect a Modern Data Foundation:** Our team will partner with you to build a data infrastructure with advanced computing power to support rapid analytics, digital twins and IoT, enabling easy data sharing and proactive troubleshooting.
- **Leverage Agentic Architecture:** Implement a multi-layer, scalable agentic architecture using Accenture’s proprietary agents to enhance decision-making and drive better business outcomes.
- **Upskill Your Workforce:** We’ll help transform your team’s capabilities through continuous learning and upskilling—leveraging the latest AI-enabled practices from LearnVantage™, ensuring both your organization and employees stay ahead of industry advancements.

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About Accenture

Accenture is a leading global professional services company that helps the world's leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth and enhance citizen services—creating tangible value at speed and scale. We are a talent- and innovation-led company with approximately 801,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world's leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology and leadership in cloud, data and AI with unmatched industry experience, functional expertise and global delivery capability. Our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Song, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients reinvent and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners and communities. Visit us at accenture.com.

About the research

The research explores the shift toward autonomous supply chains and the strategic considerations that underpin this transformation. We segmented end-to-end supply chain operations into 29 core activities and evaluated each activity's current and projected levels of automation as well as the extent of machine delegation involved. A global survey of 1,000 senior executives—spanning North America, South America, Europe and Asia Pacific across 10 industry sectors—yielded approximately 168,000 data points. These insights provide an objective view of companies' current and future positions regarding supply chain automation and delegation capabilities. Based on the findings, we developed a maturity model that integrates automation levels with machine delegation to generate a composite Autonomous Supply Chain Maturity Score.

Some images in this document were created with the help of AI.

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