2025 Supply Chain Compass:

Spotlight on technology and AI

BlueYonder

A note on the audiences

As we step into a transformative period for supply chains, uncertainty is our new norm. We are witnessing rapid changes driven by technological innovation, geopolitical tensions, inflation, climate change and more. These shifts have fundamentally altered the landscape of supply chain management, especially since the COVID-19 pandemic. Speed, precision and agility have become the cornerstones of success, where quicker access to accurate information enables businesses to make the right decisions, faster, and to navigate changes, challenges and opportunities effectively.

In the context of such constant change and challenge, we spoke to 671 senior supply chain leaders across Europe and North America, operating in a range of industries within manufacturing, retail and logistics. We asked them about their hopes and fears, about the way their supply chain run, about their priorities for the future and how they see their supply chain evolving over the next five years.

The research was conducted independently by B2B International and took place from November 2024 to January 2025. This was before the inauguration of U.S. President Donald Trump on Jan. 20, 2025, and before the president's announcement of trade tariffs in April 2025.

In this report we identified three groups based on their strategic priorities.

Group A: Resilience Builders

This group's business priorities include a focus on efficiency, productivity, resilience, real-time supply chain management, breaking down silos and improving the quality of service provided to end customers.

Businesses in this group are spread across the industry—half in Manufacturing, one-third in Retail and one in five operating in Logistics—with a greater presence in the U.S.

The priorities that unify them are more common to retail hardlines businesses, parcel carriers and third-party logistics businesses (3PLs), along with industrial, high tech and semi-conductor manufacturers.

Sentiment-wise, this group (A) is somewhat optimistic: 56% are "very optimistic" about their financial outlook for the next three years, above Group B (39%) and below Group C (73%). However, Resilience Builders are 20% more likely than average to say that the supply chain is facing a lot of challenges without many clear solutions.

Group A

Resilience Builders

46% of leaders

Group B

People-First Operators

28% of leaders

Group C

Sustainable Accelerators

26% of leaders

Operationally, they currently see themselves as more reactive businesses, less ready for the future or to handle unexpected shocks (66% agree that their supply chain is ready for the future; 43% state that for unexpected shocks, they have some measures in place, but there's room for improvement), and one in three rate their performance as excellent across key business areas from customer satisfaction (highest), through to employee satisfaction (lowest). Despite some challenges, 56% are very optimistic about the revenue and profit outlook of their business over the next three years.

Group B: People-First Operators

Over a quarter of supply chain leaders have different priorities from those primarily focused on efficiencies. This group aims to make their businesses more agile, through operational excellence, investing in people and geographical expansion.

These tend to be younger businesses, and they're more likely to be retailers or logistics businesses than those in the other groups (24% have been in operation for fewer than 30 years; 28% are from the Logistics sector and 26% are from Retail). Specifically, CPG retailers and manufacturers, convenience retailers, automotive manufacturers, and logistics fourth-party logistics (4PL) and fifth-party logistics (5PL).

This set of leaders is more pessimistic and seemingly more challenged by the current goings on in the world of commerce. They are 20% more likely to think that old business models are being radically disrupted, and that slow decision-making/execution is a drag on their business.

Operationally, they are somewhat conflicted: 60% are of the belief that their supply chain can manage and recover from unexpected shocks, yet just 25% rate themselves as excellent across key business areas (from supply chain planning the highest, down to execution lowest). This is reflected in their financial outlook, where only 39% are "very optimistic," the least confident group of the three.

Group C: Sustainable Accelerators

The final quarter of businesses have a different outlook to groups A and B, prioritizing faster and better decision-making, sustainability and customer centricity.

This group tends to be comprised of retail softlines businesses, life sciences manufacturers and third-party logistics operators. Leaders with this set of objectives are more likely to be in mainland Europe than the USA. Additionally, 20% of this group has an annual revenue of between $250 million-$499 million (compared to 14% of the total sample).

Culturally, this set of leaders is the most optimistic and proactive of the three. 82% state their supply chain is ready for the future, and two in three believe their business can effectively manage and recover from unexpected shocks. Nearly half rate their business performance as excellent, where supply chain planning is their best performing area, and ecommerce fulfillment is their weakest. As a result, 73% are very optimistic about their future financial performance.

The full report, "The Supply Chain Compass," can be found here. In this spotlight paper, we're going to look specifically at attitudes and sentiments toward technology and artificial intelligence (AI).

Building a foundation for the future of supply chains

The disruptions of the last few years have undoubtedly affected global supply chains. While the impact of each disruption was unique to each company, the lasting effect seems to be the same. Companies now understand the value innovative technology can bring to their sustainability and agility.

In fact, in a recent study of 671 senior supply chain leaders across Europe and North America, operating in a range of industries within manufacturing, retail and logistics, a striking 82% of leaders agreed that outdated technology will hinder their supply chain from achieving its goals, and 51% of leaders have identified implementing new technology as a top strategic priority.

The push for innovation is more than just efficiency for these leaders. While they want technology to help them respond swiftly and appropriately to disruptions and changes in the market, they also want to ensure a sustainable future for their companies. Long-term profitability is a major driver for technology investments.

The other 49% of supply chain leaders said that their focus is more on the immediate needs of their business and fortifying the business fundamentals to remain competitive in an ever-evolving industry. Improvements to resiliency, productivity and profitability are the top priorities.

In this group, change is not the way forward, but an investment in what works. 44% of leaders in this group agree that their business models are being disrupted, but their focus is on technology that can standardize their operations rather than tools that facilitate big pivots.

No matter a company's priorities, 87% say they plan to increase their investment in upgrading the technology throughout their supply chain. Over the next five years, 39% of respondents said they would invest $1 million-$5 million into new supply chain technology, while 23% said they have allocated $6 million-$10 million.

8 out of 10 recognize the benefit of investing in new technology, to enhance their supply chain

Statement A

"Outdated technology will hold back my supply chain from achieving what we want to"

83% agree

- 36% strongly agree
- 47% slightly agree

Statement B

"We can achieve our goals without needing to upgrade our current technology"

5% agree

- 3% strongly agree
- 2% slightly agree

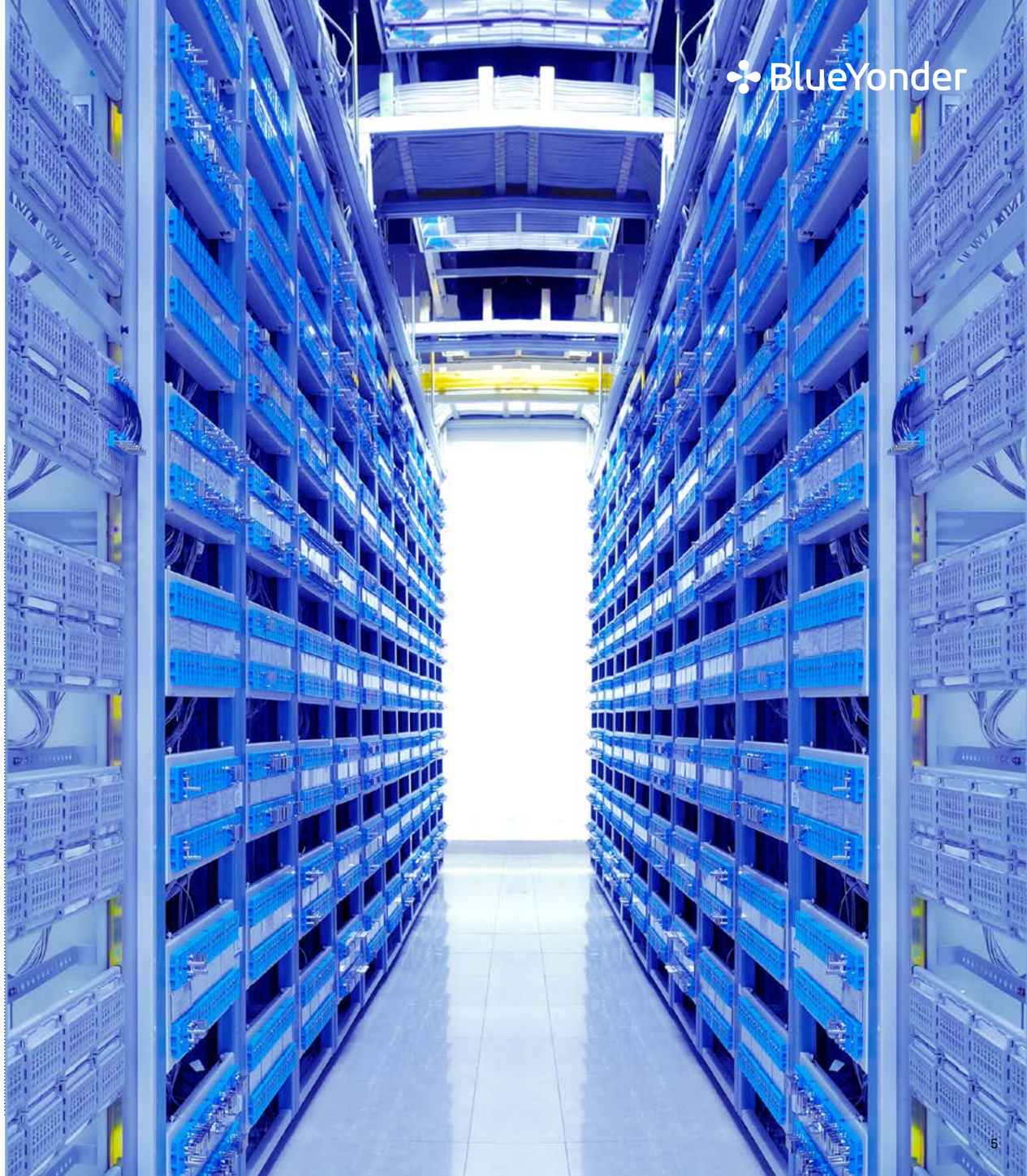
How will companies invest their budget in technology?

With budget allocated to invest in changes, the next question is where is it going? On this, supply chain leaders are also split.

Currently, technology, including automation, is being used to handle tracking, demand forecasting, fraud detection, creating bills of materials, as well as monitoring and predicting machine performance and servicing needs.

More manual tasks include carrier selection, supplier management, quoting, quality control and reactive disruption management. Transportation and route management, financial analysis, regulatory compliance, warehouse management, and general supply chain optimization are part manual, part automated.

Over the next five years, most of the budgets will be invested in technology to overcome siloed decision-making (67%), speed up decision-making (49%) and make complex changes to business models (53%). All budgets are set with an expectation of achieving ROI within one year, a goal that is not only necessary, but also achievable with dedication and smart partnerships.



Investment in new technology is recognized as essential for supply chain performance – dedicated budgets are set by most, targeting ROI within one year

Technology is taken seriously as an enabler of supply chain performance; decision-makers recognize the need to "keep up" with evolving technologies

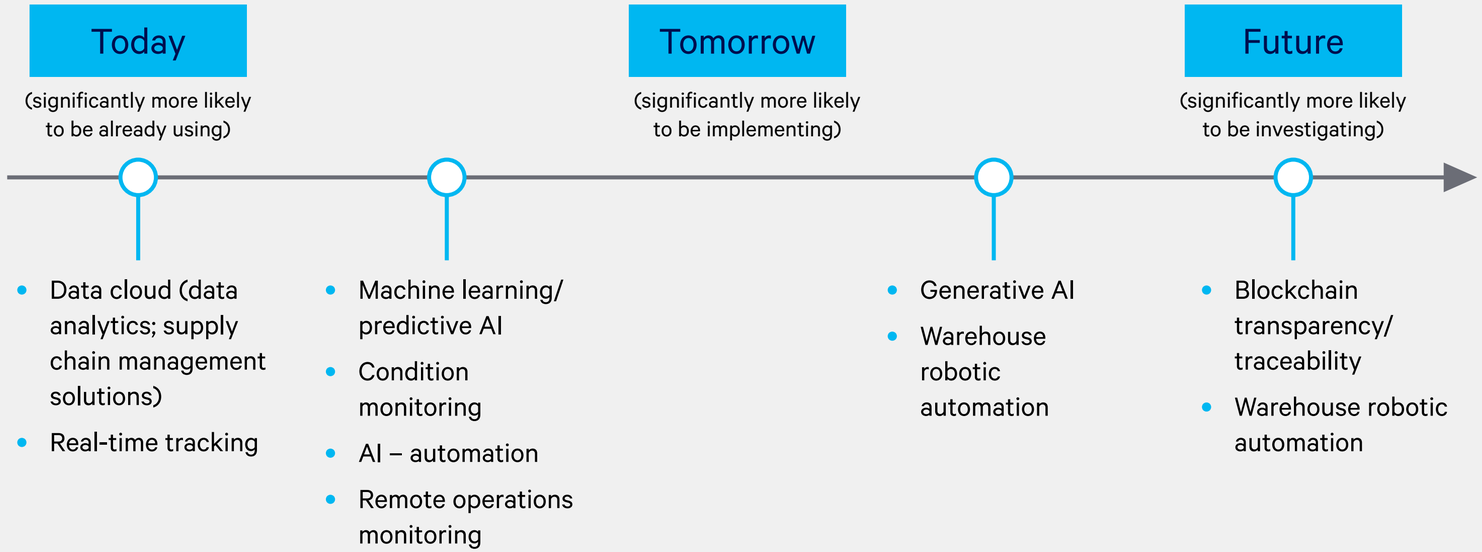
82%
recognize that, for their supply chain to perform as needed, investment in new tech is essential

89%
of decision-makers have a dedicated budget for new supply chain technologies

61%
the budget for supply chain tech is between $1-10 million across the next 1-5 years

73%
(the majority) expect to see the impact of their investments within one year

"Horizons" of global adoption for supply chain technology



What is the current role of AI in the supply chain?

While technology can mean so many different things, in 2025, much of the technology conversation revolves around AI. 40% of leaders said AI is already changing how they operate, including advancements in machine learning (ML) and predictive AI, which 47% of companies say they are using. The influence of these tools will grow as they become more powerful and intuitive to supply chain workers.

Right now, the opportunities for transforming the profitability and sustainability of all supply chains with AI are vast, even for those that consider themselves to be at the leading edge of innovation. In this survey, one in four businesses said that generative AI was being implemented in their supply chain, with just 12% currently using the technology. Only 16% of respondents indicated they had no plans to implement AI or ML.

Once implemented, companies are clear on the advantages they expect from AI tools. Many of the executives' goals are tied to efficiency and risk management. 37% of respondents said better planning and predictability is the most important advantage for them, and better/faster decision-making followed right behind with 36%.

Together, these trends all suggest we'll see a fast and extensive adoption of AI tools across the supply chain in the next few years.

Advantages of AI

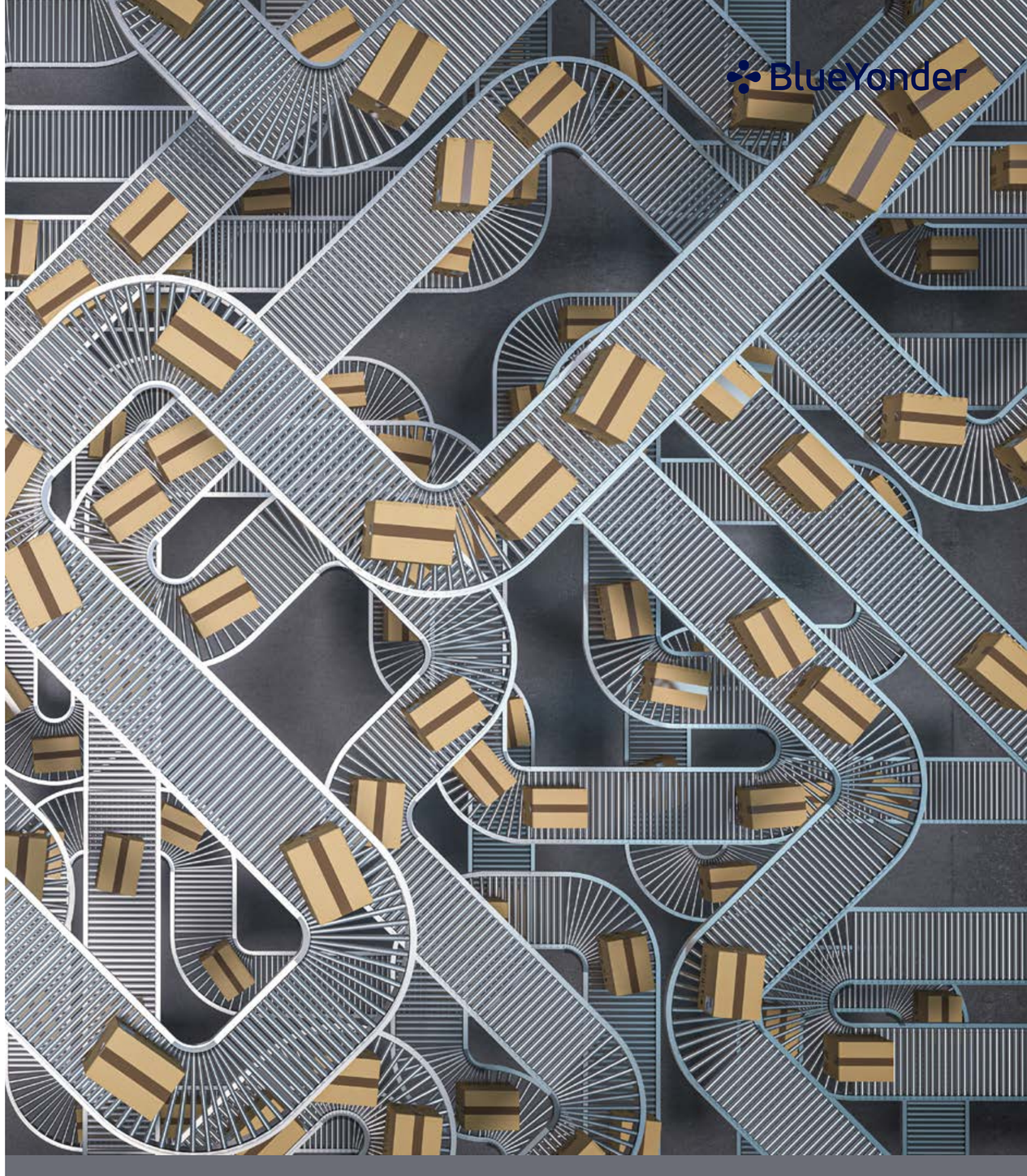
Better planning & predictability	**37%**
Better/faster decision making	**36%**
Better risk management	**31%**
Increased productivity	27%
Better inventory management	22%
Faster/better coordination & collaboration up and down the supply chain	20%
Faster responsiveness	20%
Better execution	14%
Proactive rather than reactive	14%
Lower cost (e.g., logistics, operations, people)	13%
Improved response to disruption	13%
More efficient admin/contract/procurement processes	11%
Access to new/quicker information	11%
Speed of fulfillment (inbound & outbound)	10%
Sustainability benefits	8%
Less waste	6%
Growing the network of available partners to trade/collaborate with	3%
Happier, more motivated workforce	3%

What barriers to adoption do companies face?

Although AI and ML offer promising ROI in supply chain technology, leadership still needs to overcome some perceived challenges for quick adoption. Of all the impediments to adoption, most supply chain leaders said that data security/privacy, data quality, and implementation costs are at the top of their list.

Challenges in implementing AI

Issues around data security or privacy	**45%**
Issues with data quality	**40%**
High cost of implementation of AI	**32%**
Defining a strategy for the deployment of AI	25%
Insufficient skills among the workforce to use AI	24%
Insufficient skills among the workforce to develop AI	24%
Fear of job changes or losses resulting from using AI	22%
Identifying appropriate use cases for AI	22%
Resistance or mistrust of AI outputs among the workforce	21%
Scalability of AI solutions	21%
Something else (please specify)	0%
None of these	3%



In the 2025 Supply Chain Compass, we outlined three segments that represented the differing priorities of the leaders surveyed for this study. The full explanation for each group can be found at the beginning of this paper. As expected, we found nuanced differences between each group and their outlook on technology and AI.

Resilience Builders said their biggest obstacle was insufficient skills to develop AI as well as concerns about the implications AI will have on the workforce. These leaders, concerned mostly with efficiency and resilience, want to ensure that any choices they make are adopted quickly and enthusiastically, which is hard to do with AI not fully understood by the masses yet.

People-First Operators admitted that they lack a strategy for AI and require clear direction and evidence to understand the full potential and benefits of AI for their business. As operational minds, leaders in this group need a business case that makes sense right now. They are not prone to making decisions that might compromise today's operations for tomorrow's successes. These are leaders who will need to look for platforms that offer composable journeys that they can make their own.

Finally, Sustainable Accelerators currently use AI for faster decision-making (47%) and better risk management (49%), but still cite data security/privacy (60%) and data quality (61%) as their main concerns. This group seems to understand that AI is the best path forward, but is thinking about the long-term impacts of their decisions, both financially and logistically. As AI tools become more robust and familiar, Sustainable Accelerators will likely speed up their investments in new AI technology.

As such, in all groups, there are plenty of opportunities to grow in AI implementation, especially in B2B businesses. Many decision-makers need more exposure to AI-driven insights to see how they can drive more accurate decisions, as only 31% identify "more informed decision-making" as a potential advantage of AI adoption. This suggests that those companies who find clear benefits to AI solutions will have a competitive advantage in the marketplace, particularly when disruptions occur. Whether those teams dive into AI solutions themselves, or find consulting partners to work with, starting sooner rather than later will help all companies.

For the 28% of leaders who believe slow decision-making holds back their business, adopting AI quickly is less likely. These companies are significantly less apt to see the link between AI tools and better/faster decision-making or risk management. They cite insufficient skills, internal resistance/mistrust, and lack of direction as their main obstacles.

From the outside, we can clearly see how these leaders get stuck in a feedback loop. Without a clear vision of what's possible, it's hard to invest resources into the right tools. Without the right tools, companies can't evolve their supply chain operations. What's more, the 28% of respondents mentioned above are also far less optimistic about their financial performance and rate themselves the lowest in business performance in key areas.

Action begets action. To finally step out of the cycle of inaction and into a more profitable and powerful supply chain, companies will need to take steps towards understanding how AI will impact their business and what opportunities are available to them.

We can see that unmet needs contribute to a risk-averse mindset for all groups, even if those needs are different. All leaders continue to search for the technology that meets their specific use case, as well as the skillset of their workforce. That doesn't mean those solutions don't exist, however. It simply reveals opportunities for technology companies to educate and consult with their customers on their various AI offerings and success stories.

Despite obstacles, the appetite for innovation persists

The obstacles leaders currently face ultimately won't stop them from investing in innovative technologies to revolutionize their supply chain.

Leaders who think the "supply chain is facing a lot of challenges, without many solutions" (26% of total respondents) are more likely to value and actively support employees coming up with new and better ways of doing things. Simply put, there is an appetite for creativity and change. Executives want to explore solutions and iterate on processes to find answers that are practical and transformative. Internal advocates, on all levels, will be crucial for successful adoption of new technology. Overall, a human-first approach to innovation across the supply chain will lead to more examples of how AI can amplify success for the company and its workforce.

Knowing all the plans and challenges of leaders across industries, it's clear the real challenge of the next year will be change management. Organizations have operated within their supply chain silos for decades, leading to cemented processes and fragmented data — all of which will make adopting new technologies, especially AI and ML technologies that require data integration and coordination across departments, more difficult. Overcoming the current standards to achieve a "one-speed supply chain" requires a significant education process on the part of solutions partners.

Organizations can, and will, achieve their strategic goals, regardless of where their priorities lie. Whether leaders are focused on structural changes, operational efficiencies or sustainable, customer-centric supply chains, new technology will be at the heart of that success.

Closing thoughts

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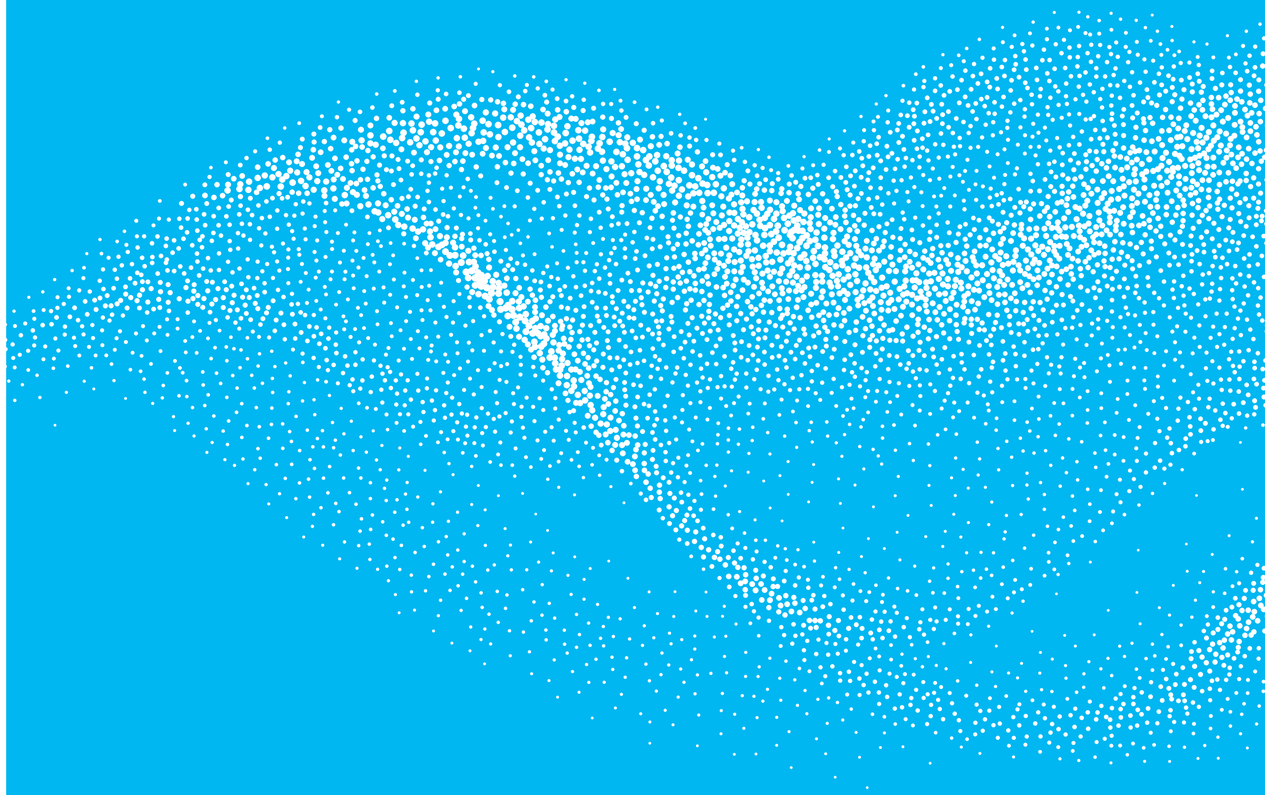
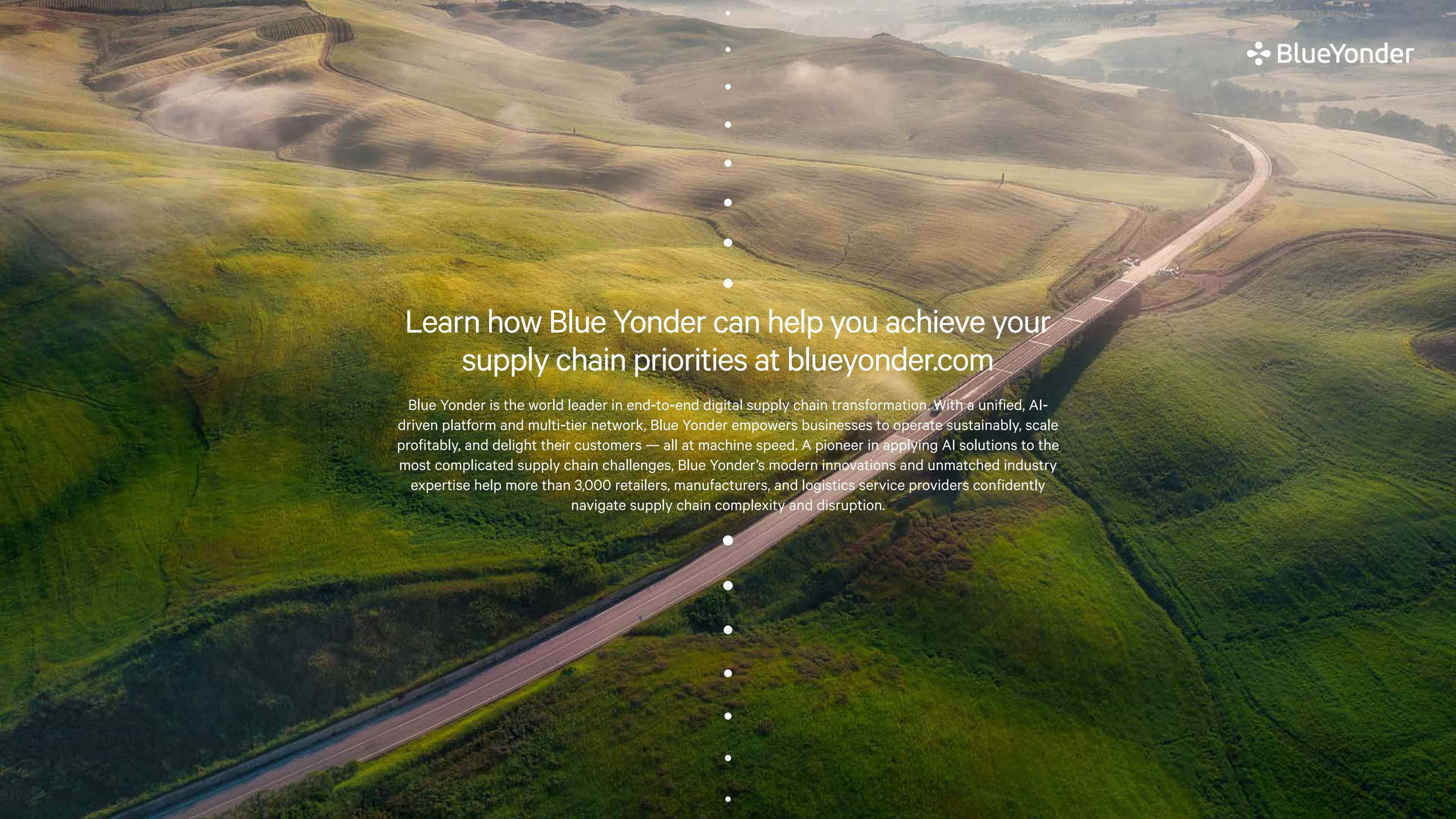
Small shifts in supply chain technology are no longer enough. Continuous disruptions and quick changes in consumer demands mean companies need to be faster and more precise. They need AI technology.

AI offers the opportunity for companies to do more than react to the present moment. It allows them to shape what the future of the supply chain is. AI and other technology can transform companies to be more accurate, agile and resilient in the face of uncertainty.

It's an exciting time, and it's a delicate one. Implementing technology to allow your business to run with machine speed and precision at scale doesn't happen overnight. The considerations outlined in this report are real and important to explore. But consideration shouldn't stop companies from making steady steps towards progress.

Start where you are. Find technology partners who can help guide you through these changes. Invest in the skills and expertise of your employees. The future is happening right now. Those companies excited to embrace these shifts will shape how it looks for all of us.





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