

Körber Supply Chain

# Supply Chain Benchmarking 2022

Global perspectives on supply chain  
complexity and performance



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# Supply Chain Benchmarking 2022

## Executive Summary

Over the last decade, supply chains have become a mission-critical function. Rising customer expectations and the rapid expansion of ecommerce mean that supply chains have to keep executing flawlessly – which is increasingly challenging against a backdrop of labor shortages, material supply issues, and rising costs. For most businesses, these developments also bring a swift increase in complexity that prevents supply chains from running at peak performance.

In late 2021, Körber launched a research project to understand the underlying factors that drive supply chain complexity and identified six operational areas:

<b>Labor Engagement, Safety &amp; Efficiency</b>	<b>Sustainability</b>
<b>End Customer Experience</b>	<b>Digitization &amp; Process Automation</b>
<b>Agility &amp; Resilience</b>	<b>Facility Optimization</b>

Körber then commissioned management consultancy Roland Berger to survey supply chain professionals to assess their progress in tackling these factors and reducing the resulting complexity. Respondents were then classified into four maturity levels – **Leaders, Advanced, Developing** and **Initiating** – to help benchmark their organizations against industry best practices.

Among our top findings:

### Labor Engagement, Safety & Efficiency

Hiring and retaining labor is among the top challenges for today's supply chains. Only 1 in 3 supply chains say they have an adequate level of staff. At the same time, only 22% of respondents ranked as leaders in the category – the lowest across all six complexity factors.

### End Customer Experience

In today's digital economy, fast isn't fast enough. Of our respondents, 92% recognize that supply chain performance has a critical or major impact on customer satisfaction. The results also show attaining this is a challenge: fewer than a third rank as leaders.

### Digitization & Process Automation

Supply chains need to become smarter and more efficient to keep delivering in today's dynamic markets. Respondents are well aware of this need: 84% say digitizing is a strategic or high priority, yet only 33% of leaders have introduced automated, paperless processes.

### Facility Optimization

Highly productive facilities are the basis of successful supply chain operations. About a third of respondents lag behind, scoring as initiating or developing. And more than 40% are using legacy tools or manual approaches to plan improvements for their facilities, risking suboptimal project outcomes.

## **Sustainability**

Sustainability is top of mind for supply chain professionals. Of the respondents, 89% see increasing sustainability as a strategic or high priority, but many are lagging when it comes to adopting sustainable packaging – a major opportunity to reduce supply chain waste.

## **Agility & Resilience**

The COVID-19 pandemic has clearly shown the importance of a flexible, resilient supply chain. Good visibility into the network and external collaboration can help mitigate disruptions, but are not available to most supply chain professionals.

This report contains a deep dive into the survey results and provides insights into how leaders are addressing each complexity factor to increase the performance of their supply chains.

## **Benchmarking your supply chain**

For more information about supply chain benchmarking, and to assess how well your supply chain tackles its operational pain points, visit [benchmarking.koerber-supplychain.com](https://benchmarking.koerber-supplychain.com).





## Supply Chain Benchmarking 2022

### Introduction

In 2022, supply chain professionals face the future with equal parts excitement and concern. The COVID-19 pandemic and its aftermath have further raised the pressure to build highly productive, flexible and resilient supply chains that can ensure continued business success.

In late 2021, Körber initiated a research project to define the underlying factors that create supply chain complexity and that, when addressed, improve supply chain performance and enable a competitive advantage. The research was peer-validated by industry experts and yielded six complexity factors, that fall into three groups:

### People

#### **Labor Engagement, Safety & Efficiency**

With an increasingly tight labor market, many organizations find it challenging to hire and retain sufficient staff. To do so, it is essential to keep them engaged and motivated, in a safe work environment. Equipping workers with the right technologies and tools will enable them to work as efficiently as possible.

#### **End Customer Experience**

Customer preferences are becoming more complex and personalized and ecommerce continues to grow. Today's supply chains play a central role in creating a great customer experience and driving customer loyalty – which means they need to run at peak performance to meet rising consumer expectations.

### External

#### **Agility & Resilience**

The last two years have demonstrated why building a resilient supply chain is critical. Flexibility and scalability are essential to keeping operations running despite disruptions, while visibility into the supply chain network can help businesses prepare for upcoming changes.

#### **Sustainability**

Sustainability has a growing impact on companies' public image and investor decisions. The mounting pressure for companies means their supply chains are expected to be greener, too. As a result, reducing the environmental impact of warehouse and transportation operations is fast becoming a strategic goal.

### Operations

#### **Digitization & Process Automation**

To address new challenges, supply chains must become smarter and more efficient. Introducing new IT technologies and integrating supply chain solutions helps automate processes. The benefits are increased visibility, reduced cost and downtime. All this will make it easier to manage rapid change and improve scalability.

#### **Facility Optimization**

Today, new warehouses are built with efficiency in mind – every aisle, rack and piece of equipment is designed to move goods as quickly and as safely as possible. However, with new industrial space in short supply, supply chain professionals are adopting technology that helps them maximize efficiency in their existing warehouses.

In the next step, Körber commissioned management consultancy Roland Berger to survey supply chain professionals across Europe and North America to determine their current practices and plans across all six factors.

Based on their responses, participants were grouped into four maturity levels to benchmark their progress in addressing supply chain complexity.



#### **Initiating**

Significant potential for growth. We recommend creating a roadmap to evolve supply chain operations.



#### **Developing**

Average performer, with solid capabilities and average scores.



#### **Advanced**

Above-average performer, with well-established capabilities and high scores.



#### **Leader**

Among the top performers, with established best practices and excellent scores.

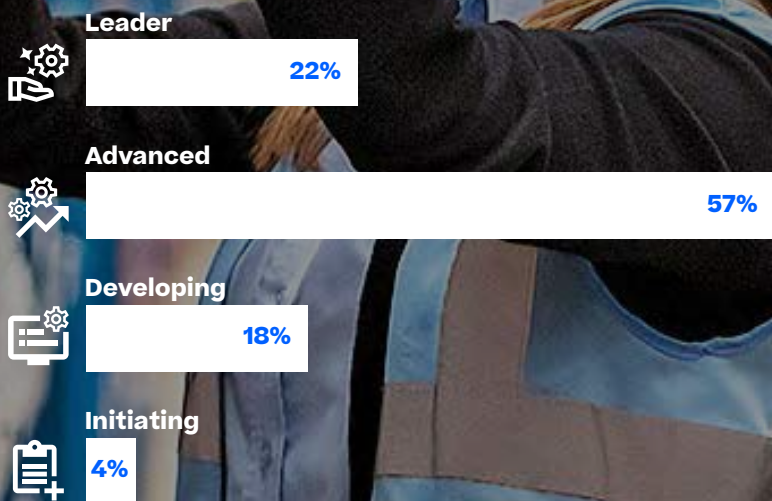
The research findings, summarized in this report, provide an overview of the current status and industry best practices for each of the factors, and may serve as input for the prioritization of your upcoming supply chain initiatives.



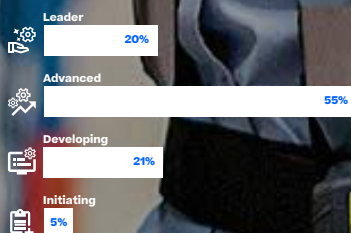


# Labor Engagement, Safety & Efficiency Maturity Levels

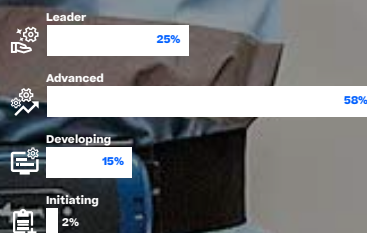
## All respondents



## Europe



## North America



## Labor Engagement, Safety & Efficiency

### **Uncertainty is pervasive in a fast-changing labor market**

Hiring and retention are key issues in warehouse operations. It is a job seeker's market, as businesses desperately attempt to fill vacancies to keep their supply chains running smoothly.

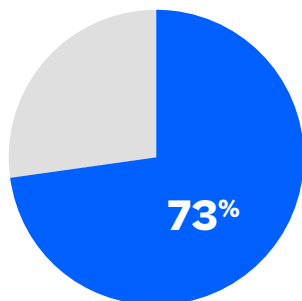
High turnover rates compound the issue: more than 1 in 3 supply chain professionals say they churn at least 50% of their warehouse staff each year.

Between a tight labor market and high churn, only 37% of supply chain professionals said they have an adequate number of employees. Leaders are in good shape however – 89% have enough staff – but confidence falls off quickly, with only 27% of advanced supply chains reporting the same.

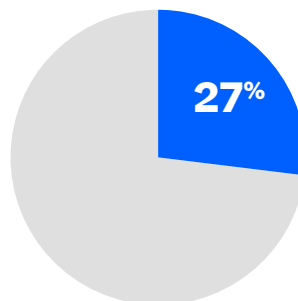
With the current tight labor market, employee engagement is key to attracting and retaining employees. Gamification is a fairly recent, but highly promising solution to increase motivation, by offering incremental goal setting, virtual incentives, ongoing feedback and tips throughout the day. Almost three-quarters of leaders recognize this and have already deployed gamification, compared to fewer than a third of advanced organizations.

#### Have work gamification solution in place

Maturity level: **Leader**



Maturity level: **Advanced**



Another differentiator is employee health and comfort, which is critical to reducing churn. Again, leaders are significantly ahead with 86% attaining their workplace safety goals compared to fewer than a third for advanced organizations.

In summary, businesses need to rethink how they engage long-term employees to build a more welcoming workplace and reduce turnover, how they train temporary employees for success during peak seasons, and how they comply with continually changing health and safety guidelines – all while improving productivity. It's a daunting task, but supply chain software and technologies that can help businesses create a more engaging and safer employee experience.

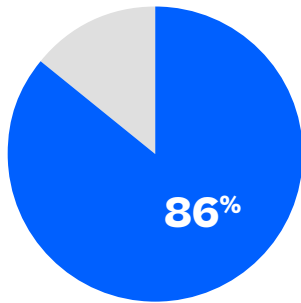
**“It’s very hard to staff up, and whether I mean staff up in terms of labor capacity, or technological capacity, it’s very difficult to try to operate in a fashion commensurate with the lumpy demand that we see.”**

Thomas Goldsby  
Professor of Supply Chain  
Management  
University of Tennessee

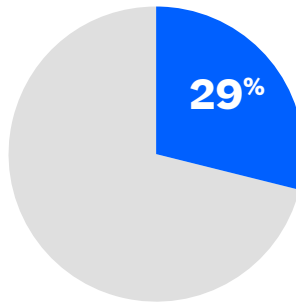


## Attained workplace safety goals in warehouse operations in the past year

Maturity level: **Leader**



Maturity level: **Advanced**



### Additional Takeaways

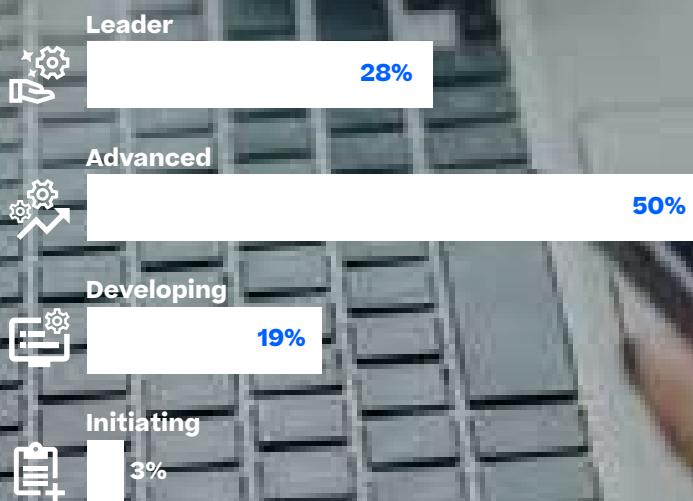
- Respondents across regions recognized the importance of labor engagement. However, it is also the most challenging. Of the six complexity factors assessed in this study, labor engagement has the lowest percentage of leaders.
- Both European and North American supply chain professionals are taking a more active approach to workplace health and safety. More than a third of respondents are working on multiple workplace ergonomics projects, for example to reduce bending and turning, and offering tools for lifting heavy objects.

**“Customers demand a level of service... Employees require safe and healthy working environments, and while these are the realities that we live in, there’s a lot of tension between those two statements.”**

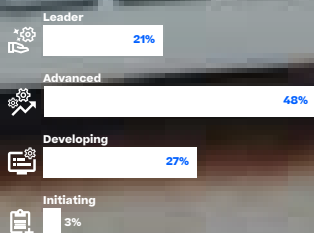
John Santagate  
VP – Robotics  
Körber Supply Chain

## End Customer Experience Maturity Levels

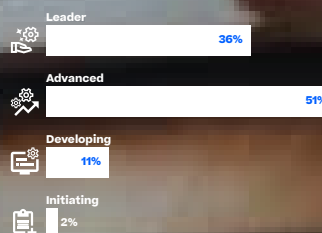
### All respondents



### Europe



### North America

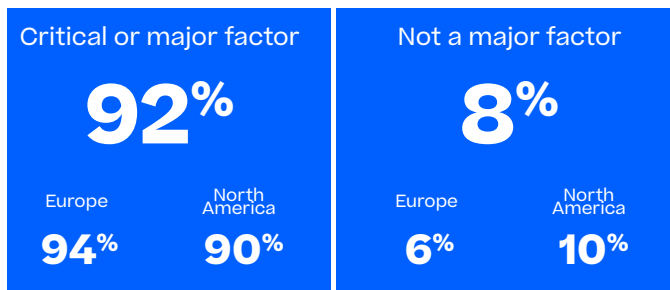


## End Customer Experience Critical importance, few leaders

The customer is always right. And in today's crowded marketplace, if the customer doesn't get exactly what they want, they have a host of other businesses they can patronize. They want to pay less, receive their items faster, and work with businesses that make the buying process convenient. Bottom line: a superior customer experience is essential for business success and even survival.

In the survey, almost every company – 92% – said that a strong supply chain is a critical or major factor for customer satisfaction. However, only 28% of respondents ranked as leaders in end customer experience.

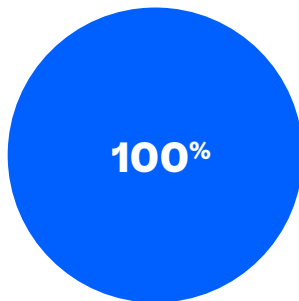
### How important is your supply chain performance for the customer experience?



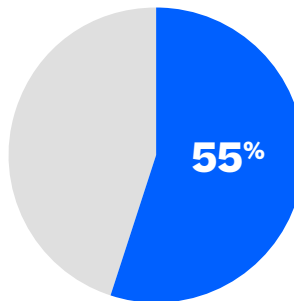
One of the key factors separating leaders from advanced supply chains is that leaders consistently use order management systems, optimizing order fulfillment and delivery across locations at the network level.

### Uses an OMS or DOM to manage order fulfillment at the network level/across facilities

Maturity level: **Leader**



Maturity level: **Advanced**



**“Supply chain technology is no end in itself – creating a superior customer experience should be its end goal.”**

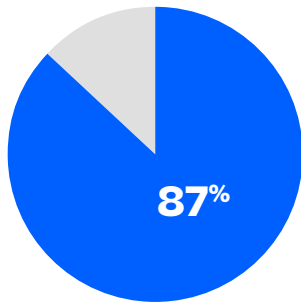
Supply chain VP at a major German online retailer



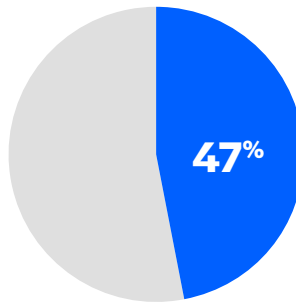
They can also manage the effects of SKU proliferation, such as inventory complexity and growing numbers of orders with fewer articles, more effectively.

### Can effectively manage the effects of SKU proliferation

Maturity level: **Leader**



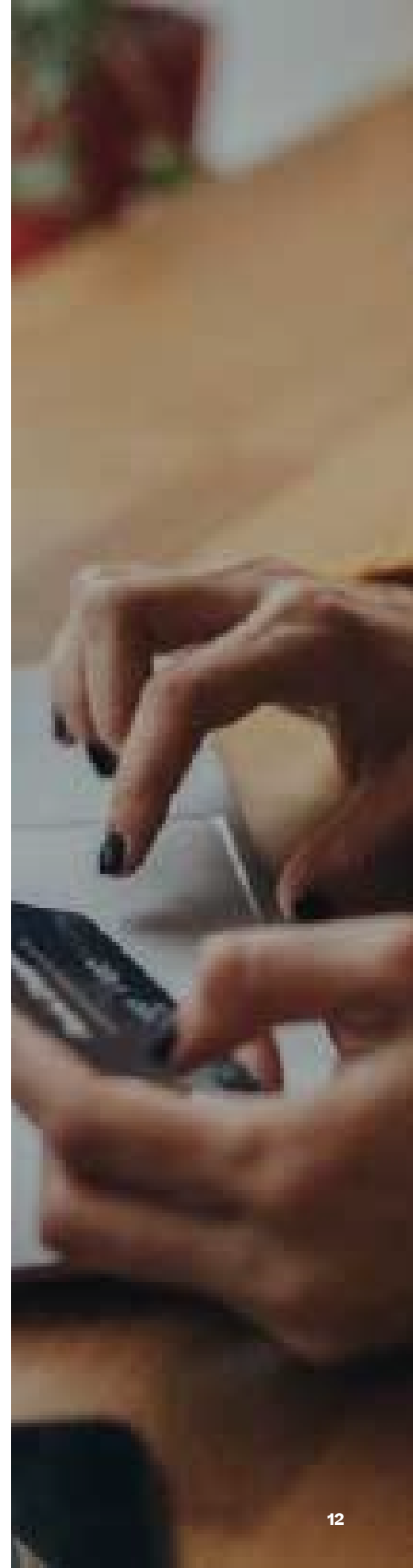
Maturity level: **Advanced**



Both of these capabilities, supported by supply chain software and technologies, enable speedier and more accurate processing of orders, to increase customer satisfaction and build brand loyalty.

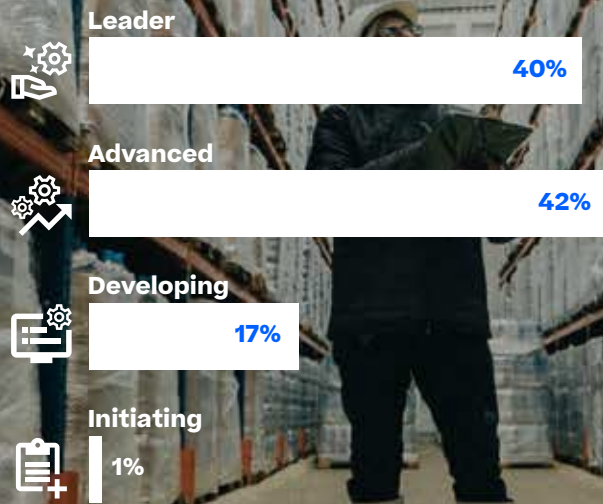
#### Additional Takeaways

- Supply chain professionals have made progress toward speeding up fulfillment: 86% of leaders say they can process orders through their warehouse in four hours or less, while 49% of advanced supply chains say the same.
- North American supply chains still provide better returns experiences, but Europeans are catching up. In North America 77% of respondents said their customers are satisfied with the returns process, while 68% of Europeans said the same.

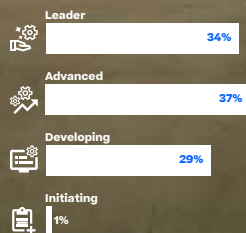


# Agility & Resilience Maturity Levels

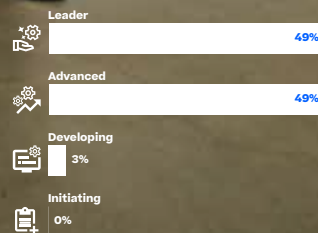
## All respondents



## Europe



## North America



## Agility & Resilience

### A key concern, with businesses preparing for future disruptions

2020 and 2021 tested the supply chain like never before – first through the impact of the COVID-19 pandemic, then with production and supply backups as manufacturers attempted to outpace rising demand post-pandemic. As businesses contend with COVID's aftermath, building an agile and resilient supply chain has become a top priority.

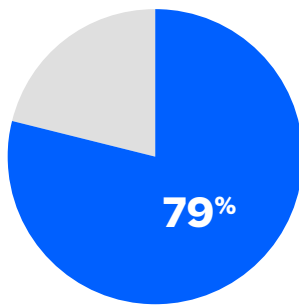
This starts with contingency planning. For example, 50% of supply chain professionals said that they were prepared to deal with unexpected demand fluctuations by keeping extra stock on hand or quickly hiring temporary labor.

However, a key characteristic of an agile supply chain is the ability to anticipate and respond to challenges and disruptions.

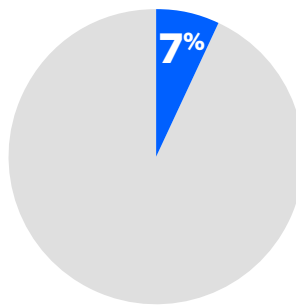
This starts with transparency: four-fifths of leaders said they have good visibility across their entire supply chain, while only 7% of advanced supply chain operators could say the same. Better visibility also allows leaders to prepare for upcoming challenges.

#### Have sufficient end-to-end visibility into own supply chain network to assess and mitigate disruptions

Maturity level: **Leader**



Maturity level: **Advanced**



Another differentiator is the willingness to cooperate with the wider supply chain network. Two-thirds of leaders feel that external partners, like vendors, carriers or customers, will help them mitigate supply chain disruptions, while only 16% of advanced supply chains organizations think this will be the case.

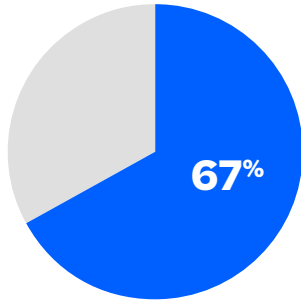
**“Current crises demonstrate that there are much higher risks on the market than we were ever able to see – we are now willing to incur higher costs to manage risk.”**

Division EVP at a durable goods manufacturer

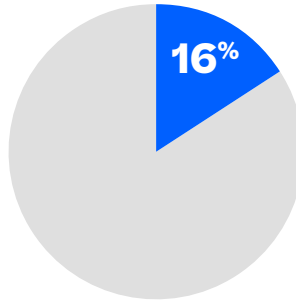


## External supply chain partners would collaborate with us to help mitigate supply chain disruptions

Maturity level: **Leader**



Maturity level: **Advanced**



### Additional Takeaways

- Nearly two-thirds (61%) of respondents say they have IT vulnerabilities despite security measures – a worrisome statistic, as an attack on one system can impact the entire supply chain.
- A flexible transportation network is essential to resilient supply chain operations. Two-thirds of leaders feel they can adjust their transportation network to mitigate disruptions, compared to only 16% of advanced organizations.

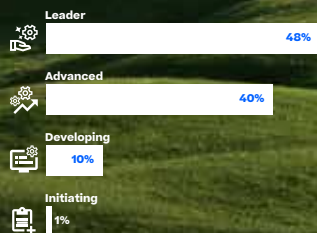


# Sustainability Maturity Levels

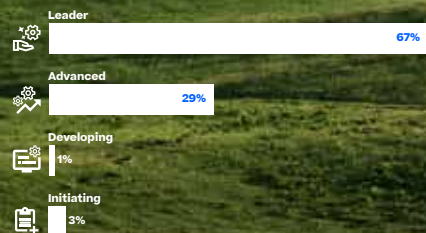
## All respondents



## Europe



## North America



## Sustainability

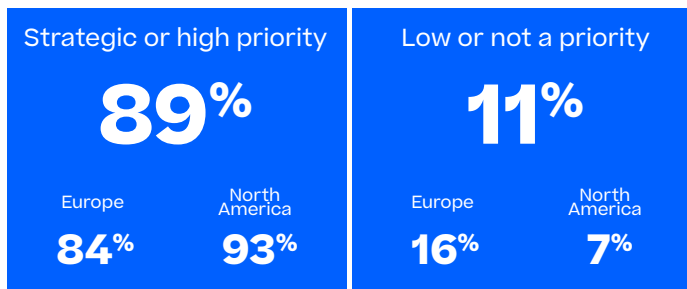
### A top priority – but implementation is still ramping up

Supply chain sustainability has become a priority for businesses as it increasingly influences consumer and investor decisions, and is impacted by national and global regulation.

Transportation has become a key focus, as companies look to reduce miles driven by their trucks and adopt more electric vehicles. More recently, the environmental sustainability of warehouse operations is also being prioritized.

These concerns are clearly reflected in the survey results. In fact, 89% of businesses state that increasing sustainability is a strategic or high priority, and the overwhelming majority rank as leaders or advanced organizations.

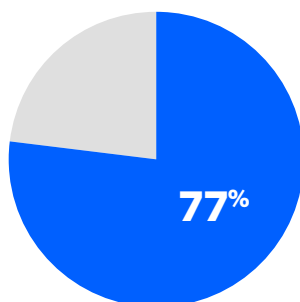
#### Is increasing sustainability a priority for your supply chain operations?



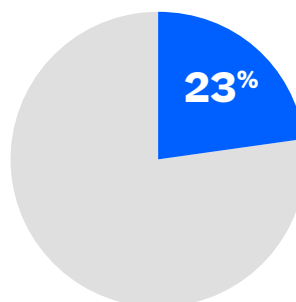
Packaging materials are one of the significant sources of waste in the supply chain. The use of sustainable packaging can significantly improve environmental sustainability. Leaders recognize this – they are three times as likely to shift to sustainable packaging options than advanced supply chains are.

#### Use of sustainable packaging materials is a priority

Maturity level: **Leader**



Maturity level: **Advanced**



**“What we’re seeing now is a tremendous shift, creating economic, environmental, and societal burdens. As we talk about more traffic, more pollution, more packaging, gig economy – there are a lot of worries about what this new economy means to sustainability. It’s very challenging.”**

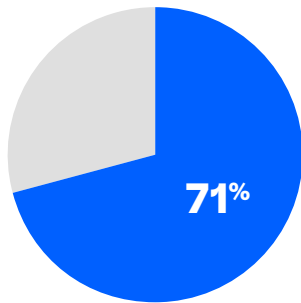
Thomas Goldsby  
Professor of Supply Chain Management  
University of Tennessee



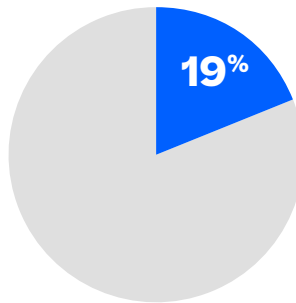
Another strategy popular among leaders is to invest in circular economy projects, which enable the re-sale, re-use or upcycling of previously sold products. These projects are often harder to manage, as they run counter to the traditional mindset of supply chain operations – which are based on a one-way flow of goods from producer to customer. Leaders are four times as likely to implement circular economy projects than advanced supply chains are.

**Circular economy projects currently implemented or in process**

Maturity level: **Leader**



Maturity level: **Advanced**



**Additional Takeaways**

- More businesses are factoring in sustainability when they plan for greenfield expansions: 49% say they factor sustainability into the design of new warehouses.
- Both leading and advanced supply chains are also looking beyond their own sustainability efforts. Of the leaders, 98% ranked supplier sustainability as either “important” or “very important,” as did 81% of advanced supply chains.

**“While logistics only accounts for a fraction of a product’s CO<sub>2</sub> footprint, quantifying its impact is essential for truthful reporting.”**

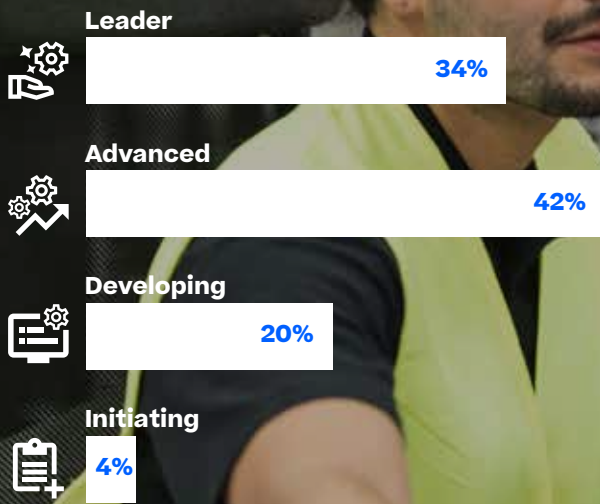
Managing director of a medium-size 3PL for chemical and pharma companies

**“73% of consumers would either definitely or probably change consumption habits to reduce the impact on the environment.”**

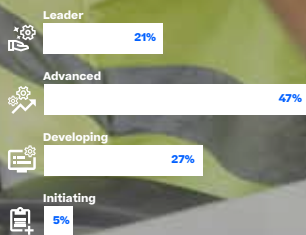
Bain & Company – as reported in Körber Supply Chain Perspectives – Sustainability

# Digitization & Process Automation Maturity Levels

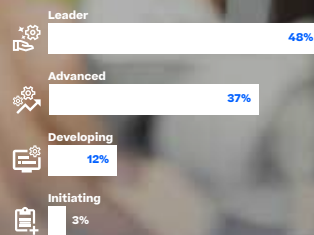
## All respondents



## Europe



## North America



**“Digitization is a key enabler for future-proofing supply chain management at our company.”**

Supply chain VP at an automotive supplier

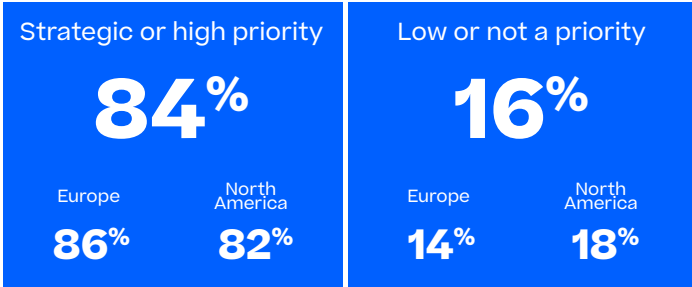
## Digitization & Process Automation

### Creating smarter supply chains is a top priority

To address rising complexity and the resulting challenges, supply chains must become smarter, more productive and more efficient. This means they have to become technology-enabled.

Supply chain professionals clearly understand the need for digitization and process automation. For 84% of the companies surveyed, it is either a strategic or high priority, and a third of them rank as leaders.

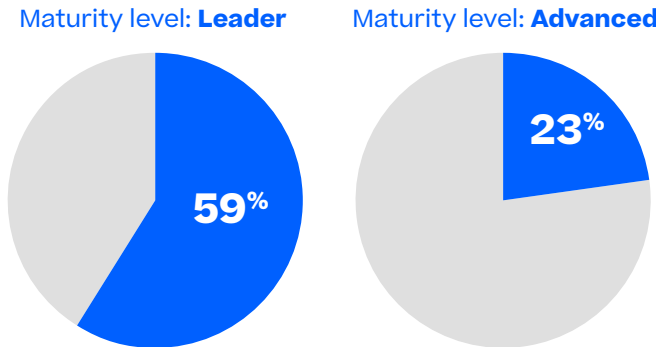
#### Is the digitization and process automation of your supply chain operations (aka “Supply Chain 4.0”) a priority?



Process automation is one of the key factors that distinguishes leaders. A third of leaders say their workflows are fully automated and paperless, as opposed to only 6% of advanced supply chains. This is critical, as automated workflows reduce errors, increase efficiency and allow data capture and analysis by the WMS.

Leaders are also far more likely to complete digital transformation projects in-house. Among the leaders, 59% said they plan and execute projects with in-house resources, compared to only 23% of advanced supply chains. In other words, leaders are more likely to view digitization and process automation as a core skill.

#### Can plan and execute digitization projects using in-house resources



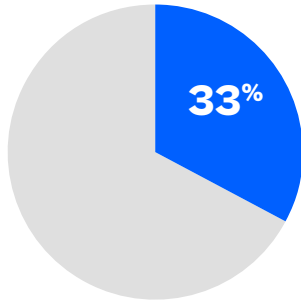
**“Think of all that technology – automation, robotics, warehouse management, voice, warehouse control, labor management – as one integrated entity that serves a single purpose: to run the holistic warehouse at maximum efficiency.”**

Sean Elliott  
Chief Technology Officer  
Körber Supply Chain

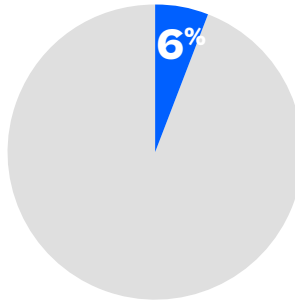


### Workflows in warehouse operations are automated and paperless

Maturity level: **Leader**



Maturity level: **Advanced**



#### Additional Takeaways

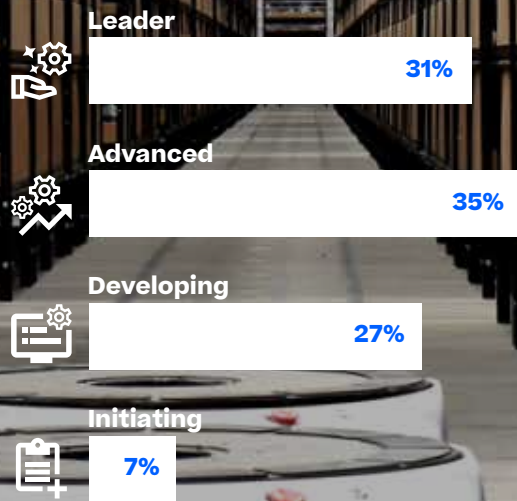
- Organizations in all the regions surveyed largely agree on the importance of digitization and process automation. However, there are regional differences when it comes to implementation. Among North American organizations, 48% qualify as leaders, compared to 21% of European businesses.

Supply chain software systems – such as a WMS, TMS, or YMS – provide the basis for digitization, as they automate planning, workflows, monitoring and control of operational processes, and introduce system-driven decisions.

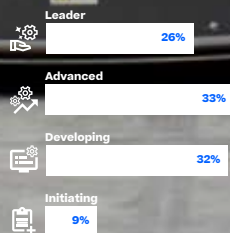
Importantly, these systems and technologies also provide data streams. It is this data that is key to driving advanced supply chain analytics with innovative AI and ML technologies. They support the high-level decision-making and ongoing process optimization that supply chains need to succeed in increasingly complex dynamic market environments.

# Facility Optimization Maturity Levels

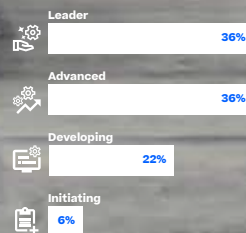
## All respondents



## Europe



## North America



## Facility Optimization

### Growing in importance, innovative technologies are still being adopted

To meet the complex demands of both the industry and consumers, supply chains need to run as efficiently as possible, and facilities need to be optimized – whether they are greenfield or brownfield sites.

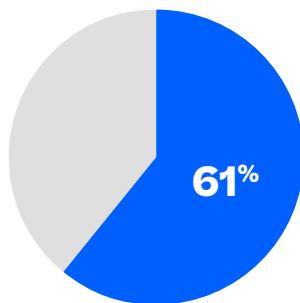
The businesses surveyed are actively engaged in optimizing their facilities. About a third score as leaders and another third as advanced.

One of the key differentiators is the technology that leaders use to optimize their facilities.

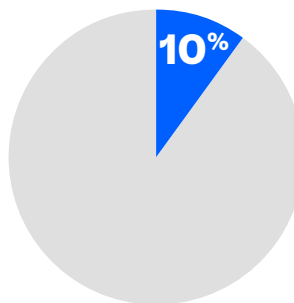
To plan facility improvements, 61% of leaders are using modeling and simulation tools, compared to just 10% of advanced supply chains. This gives leaders a major advantage, as simulation and modeling software allows them to assess the impact and ROI of improvement projects prior to making actual investments.

#### Plan facility improvements and assess their impact using modeling and simulation tools

Maturity level: **Leader**



Maturity level: **Advanced**



The use of flexible automation is another differentiator. For example, leaders are well ahead in the use of Autonomous Mobile Robots (AMR) and voice-directed work solutions. Both solutions significantly increase productivity and accuracy. They also support workers effectively in their tasks and can be scaled to accommodate changes in order volumes, for example during seasonal peaks.

**“To assess the impact of facility investments, we merely use Microsoft Excel – if we use any tool at all.”**

Supply chain VP at a chemical company

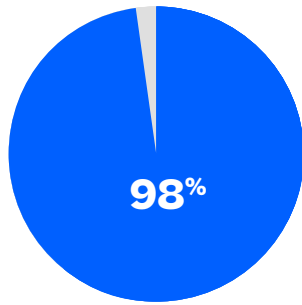
**Every year, a typical warehouse or DC facility loses 14% productivity through poor layout and process ergonomics. Optimizing the warehouse layout and workflows is therefore critical for operational efficiency, increasing safety and lowering running costs.**

Körber Supply Chain Perspectives – Facility Optimization

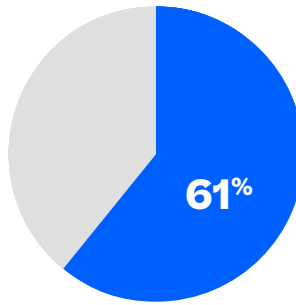


### Currently using flexible automation solutions e.g. Autonomous Mobile Robots

Maturity level: **Leader**

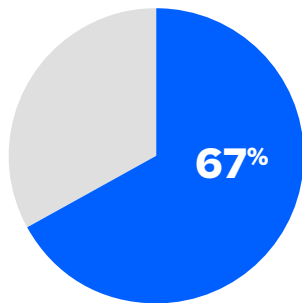


Maturity level: **Advanced**

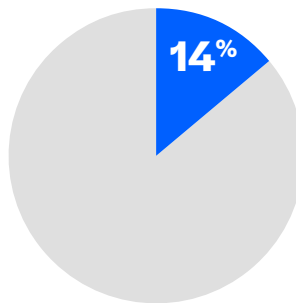


### Have been using voice-directed work systems for 2 or more years

Maturity level: **Leader**



Maturity level: **Advanced**



#### Additional Takeaways

- Europeans are more likely to launch highly innovative technologies, such as AI and machine learning, augmented reality or real-time locating systems (RLTS) in their warehouses. Of the European respondents, 36% plan to implement them – compared to 24% of North American respondents.
- Among the leaders, 65% have adopted preventive maintenance systems for their warehouse automation systems, as opposed to only 13% of advanced supply chains. As a result, leaders very rarely experience unplanned downtime.

“There is a correlation between the growth in warehouse worker capacity, the increasing amounts of ecommerce order fulfillment and the transition of warehouses handling full pallets to individual items. So, even though we have seen that capacity double, it’s still not keeping pace with the demand that we are seeing to support the volumes being shipped through warehouses.”

Andreas Bahke  
Director of Sales & Business  
Development – AMR  
Körber Supply Chain



## In Closing

Every supply chain grows at a different pace – and every business has different priorities for shaping their operations, be it by moving goods to customers in record-breaking time, preparing for future disruptions or creating a motivating, safe work environment.

The one thing all organizations have in common? Technology is enabling them to enhance their operations to build more efficient, resilient supply chains.

As you continue planning conversations within your business, consider where you might rank compared to your competitors and partners. Do you still rely on manual or paper-based workflows and can you automate more processes to increase efficiencies? Can your facilities become more productive by increasing levels of flexible or fixed automation? Are you comfortable with your current staff levels and employee engagement, or are there steps you could take to improve retention? Are you adopting sustainability initiatives into your supply chain operations?

While many companies ranked as leaders or advanced in the surveyed topics, these results demonstrate there's always room for improvement.

Are you ready to start your journey towards increasing supply chain performance? The team at Körber Supply Chain is ready to help you assess the options and develop a plan to help you attain your goals. Learn about our capabilities and contact us at [koerber-supplychain.com](https://koerber-supplychain.com).



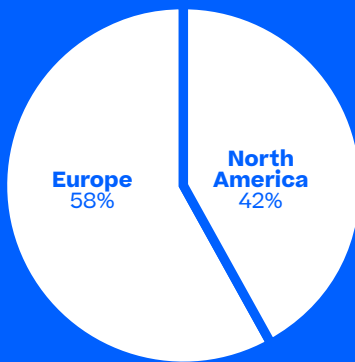
# Supply Chain Benchmarking 2022

## About the Survey

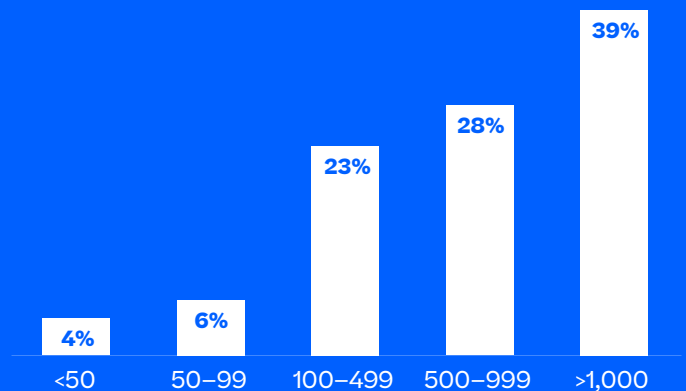
In this 2022 Supply Chain Benchmarking Survey, Körber Supply Chain commissioned management consultancy Roland Berger to conduct an online survey of 244 supply chain professionals across Europe and North America. Respondents self-identified as having management responsibility within the supply chain function in an organization with 500 employees or more.

The breakdown of respondents and their organizations is as follows:

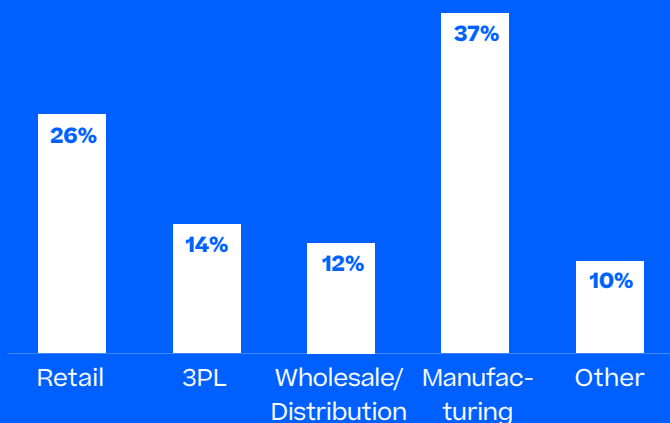
Location



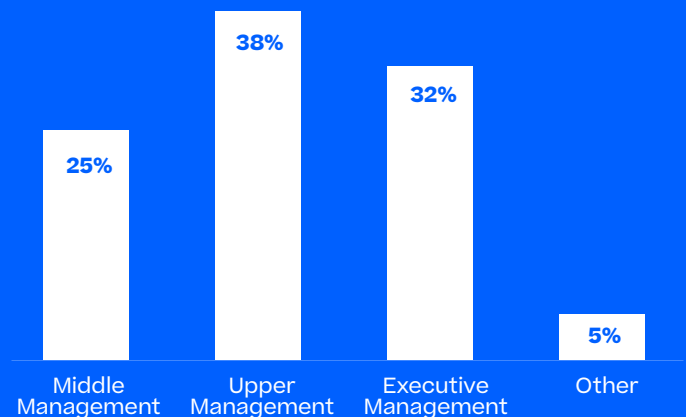
Revenue in millions of USD



Industry



Respondent level



**Your supply chain is the lifeblood of your business.**

**That's why you need more than a vendor. You need a partner. At Körber, we have the industry's broadest range of proven solutions to fit your size, business strategy, and appetite for growth. A range that goes beyond software, including automation technology, mobile, voice, robotics and more. All backed up with a depth of expertise to help you make smart decisions about what to invest in now, and how to move forward as your needs continue to evolve. We'll help you manage your supply chain as a competitive advantage. A strategic asset. An opportunity to excel.**

**Conquer supply chain complexity – with Körber.**

