CtrlChain

From reactive to proactive logistics

Introduction

If you work in logistics operations, this probably sounds familiar:

- A shipment is delayed
- A carrier misses a pickup
- Traffic disrupts a route

And suddenly, your day shifts **from planning to problem-solving.**

You call the carrier. You update the customer. You try to find a workaround.

And somewhere in the middle of it all, the same question comes up:

"Why are we always reacting?"

It's not a performance problem. It's an operating model.

For many logistics teams, constant firefighting isn't the result of poor planning or lack of effort. **It's structural.**

Most transport operations are still built around a reactive model, where disruptions are only addressed after they impact execution.

That means:

- Delays are managed once they happen
- Capacity issues are solved last-minute
- Customers are informed when it's already too late

In this environment, logistics teams become highly efficient at responding to problems, but far **less effective at preventing them.**

Why logistics still feels reactive

Transport operations today are **far more complex** than they were a decade ago.

Supply chains are more global, customer expectations are higher, and disruptions occur more frequently. At the same time, logistics teams are expected to **make faster decisions across larger transportation networks.**

Several trends are driving this complexity:

- Growing carrier and subcontractor networks
- Increasing demand for real-time updates
- More frequent weather, geopolitical, and infrastructure disruptions
- Greater pressure to balance cost and service levels
- Rising volumes of operational data

As a result, logistics teams must manage more variables than ever before while maintaining control across increasingly dynamic supply chains.

83%

freight leaders operate in a reactive mode

74%

report making more than 50 decisions per day

68%

use five or more systems to manage shipment workflows

74% of freight leaders make **more than 50 operational decisions per day**, while 68% rely on **five or more systems** to manage shipment workflows. Despite widespread investment in digital tools, 83% still describe their operations as largely reactive.

For many organizations, transportation management now goes beyond execution. It requires **continuous decision-making** across multiple stakeholders, systems, and risks, including supplier failures, geopolitical instability, regulatory changes, cyber incidents, cargo theft, and freight fraud.

43.6% of organizations experienced supply chain disruption due to third-party failures, making it the most frequently reported cause of disruption.

Geopolitical uncertainty also affects transport planning by impacting trade routes, energy costs, customs procedures, capacity availability, and lead times. According to the WTO, global merchandise trade growth was expected to slow to 1.9% in 2026.

The real cost of reacting too late

Complexity itself is not the problem. The challenge is when organizations can only respond after disruptions have already affected execution.

In some cases, it can take **up to two weeks to fully plan and implement a response**. By then, the operational and financial impact is often unavoidable.

Late decisions can result in:

- Emergency carrier sourcing
- Inefficient routing
- Increased detention and waiting times
- Missed delivery windows
- Service failures

Limited visibility further increases the risk. Some estimates suggest that up to **93% of a typical supply chain remains invisible beyond tier-one suppliers**, leaving many risks undetected until they disrupt operations.

The financial impact is significant:

Supply chain disruptions cost companies an average of $184 million per year.

Reactive operations can lead to up to 42% higher revenue losses compared to proactive approaches.

59% of freight leaders report experiencing financial losses in the past 12 months due to manual operational errors.

61% say they have made decisions they later reconsidered because of time pressure or workload.

When teams only act after a disruption occurs, they are not managing risk, they are absorbing its consequences.

The cost of reactive logistics is not limited to delays, emergency sourcing, or inefficient routing. Late detection can also increase exposure to **cargo theft and freight fraud.**

TAPA EMEA and IUMI reported nearly 160,000 cargo-related crimes across 129 countries between 2022 and 2024, with total losses estimated at several billion euros.

In North America, CargoNet reported that estimated cargo theft losses reached nearly $725 million in 2025, a 60% increase from the previous year.

These figures show that early visibility and carrier verification are not only service improvements, but also important tools for reducing financial and security risk.

The gap between measurement and action

Most logistics organizations already track KPIs such as on-time delivery, cost per shipment, and carrier performance. However, these metrics are often retrospective.

They explain what happened but do little to influence what happens next.

This creates a gap between measuring performance and improving it in real time.

Logistics teams may have **access to large amounts of operational data**, yet still lack the insights needed to identify risks early and take action before disruptions escalate.

What this report covers

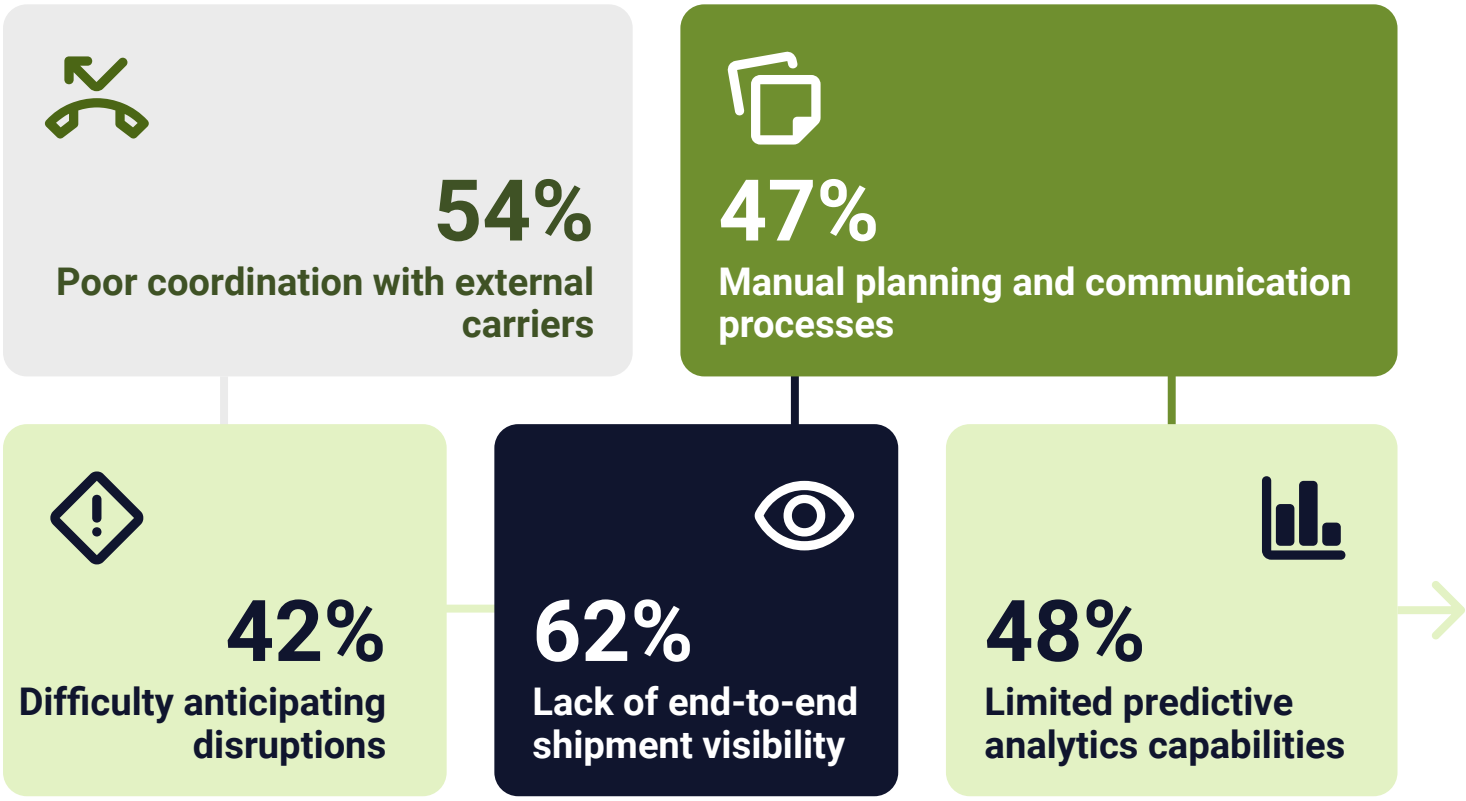
This report explores how logistics and supply chain leaders can transition **from reactive to proactive logistics**, and which operational, technological, and strategic changes are required to make that shift successful.

Operational insights from the industry

What transport managers actually struggle with

While logistics technology has improved dramatically, **operational challenges remain remarkably consistent across industries.**

The most common transport management challenges include:



While 99% of shippers report being either intermediate or advanced at tracking logistics KPIs, only a portion actively use KPI data to drive real-time operational decisions.

Only 42% of shippers consider themselves advanced at taking action on KPI insights, highlighting a significant gap between monitoring performance and acting on it.

The firefighting reality of transport operations

Transport managers often spend a significant portion of their time solving urgent operational issues.

This reactive environment creates several operational challenges:

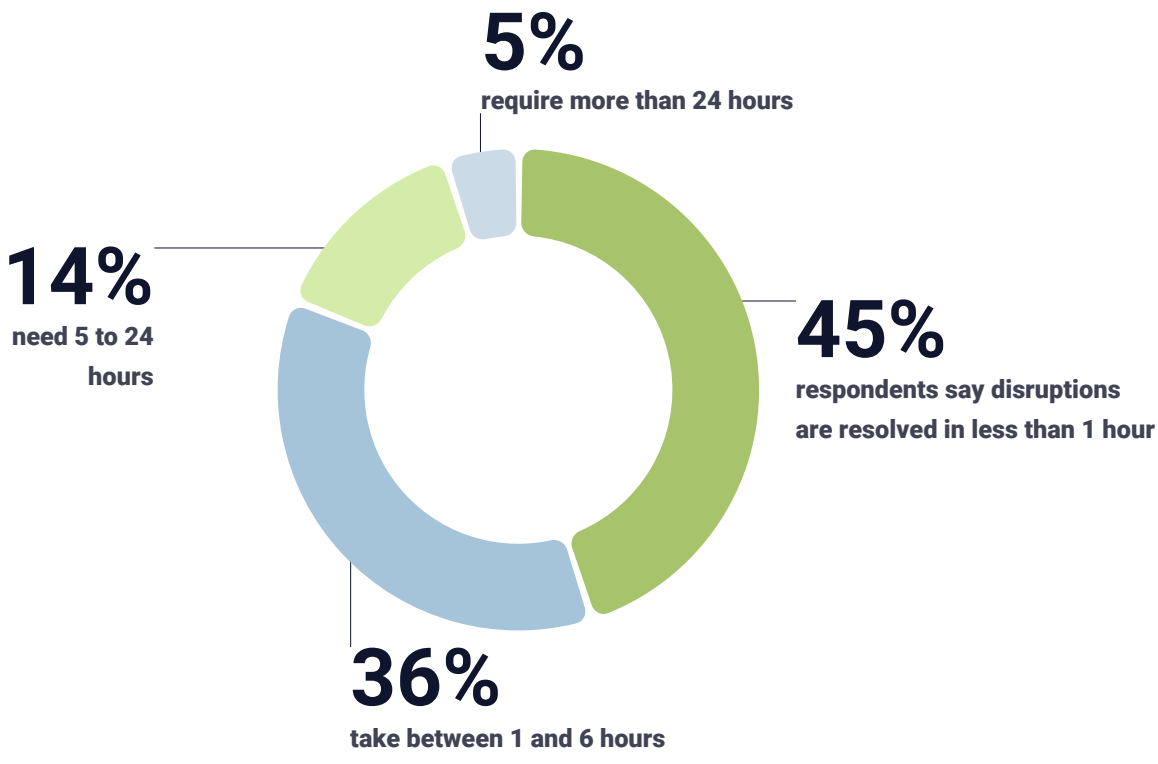
- Planning teams cannot focus on optimization
- Operational stress increases for logistics staff
- Disruptions cascade across warehouses and production sites

INDUSTRY SNAPSHOT

How fast can teams really react?

To better understand how logistics teams handle disruptions in real operations, we gathered input from transport and supply chain professionals across our network.

The results highlight a clear operational reality:



At first glance, this suggests that most organizations respond quickly to disruptions.

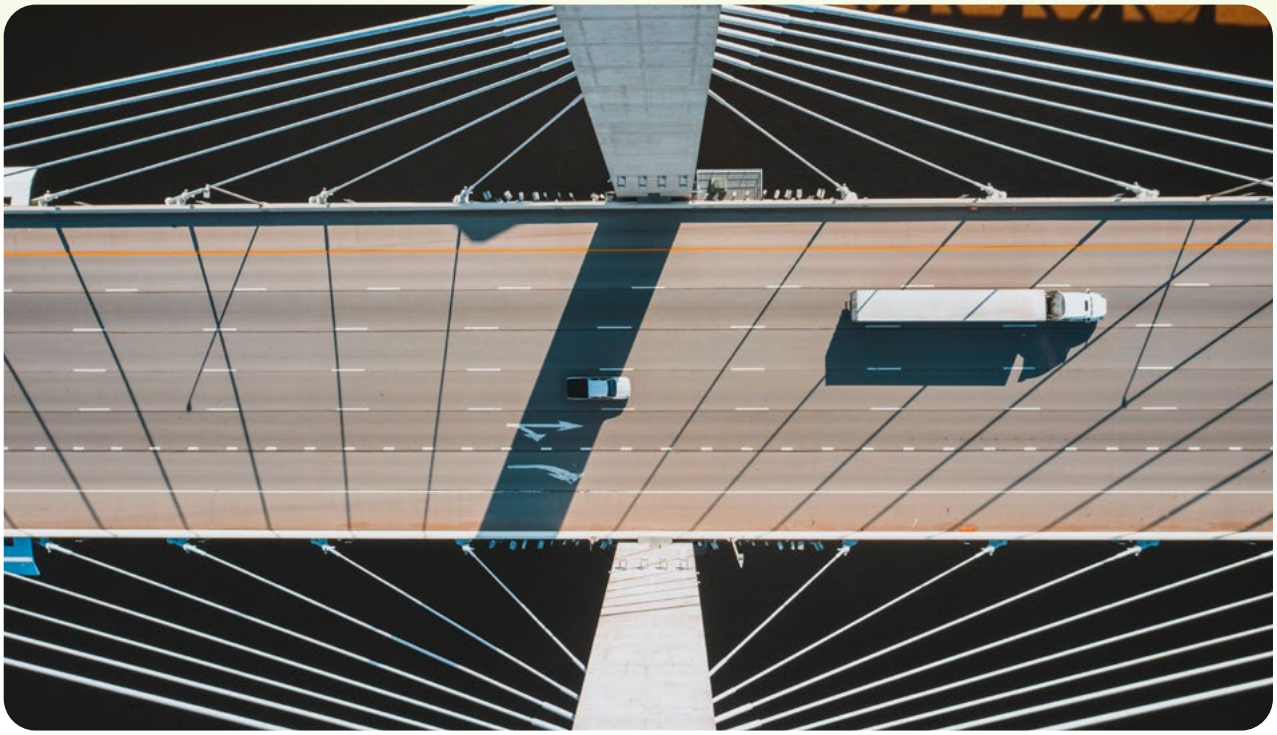
However, the data reveals a more important insight:

Speed of reaction does not equal proactivity.

Even when disruptions are resolved within hours, they are still being addressed **after they occur**, often under time pressure and with limited room for optimization.

This reactive response model creates structural inefficiencies:

- Decisions are made under urgency rather than based on optimal scenarios
- Costs increase due to last-minute adjustments
- Teams remain in constant firefighting mode




Year s to reach 25x annual spending
Time to Financial Independence

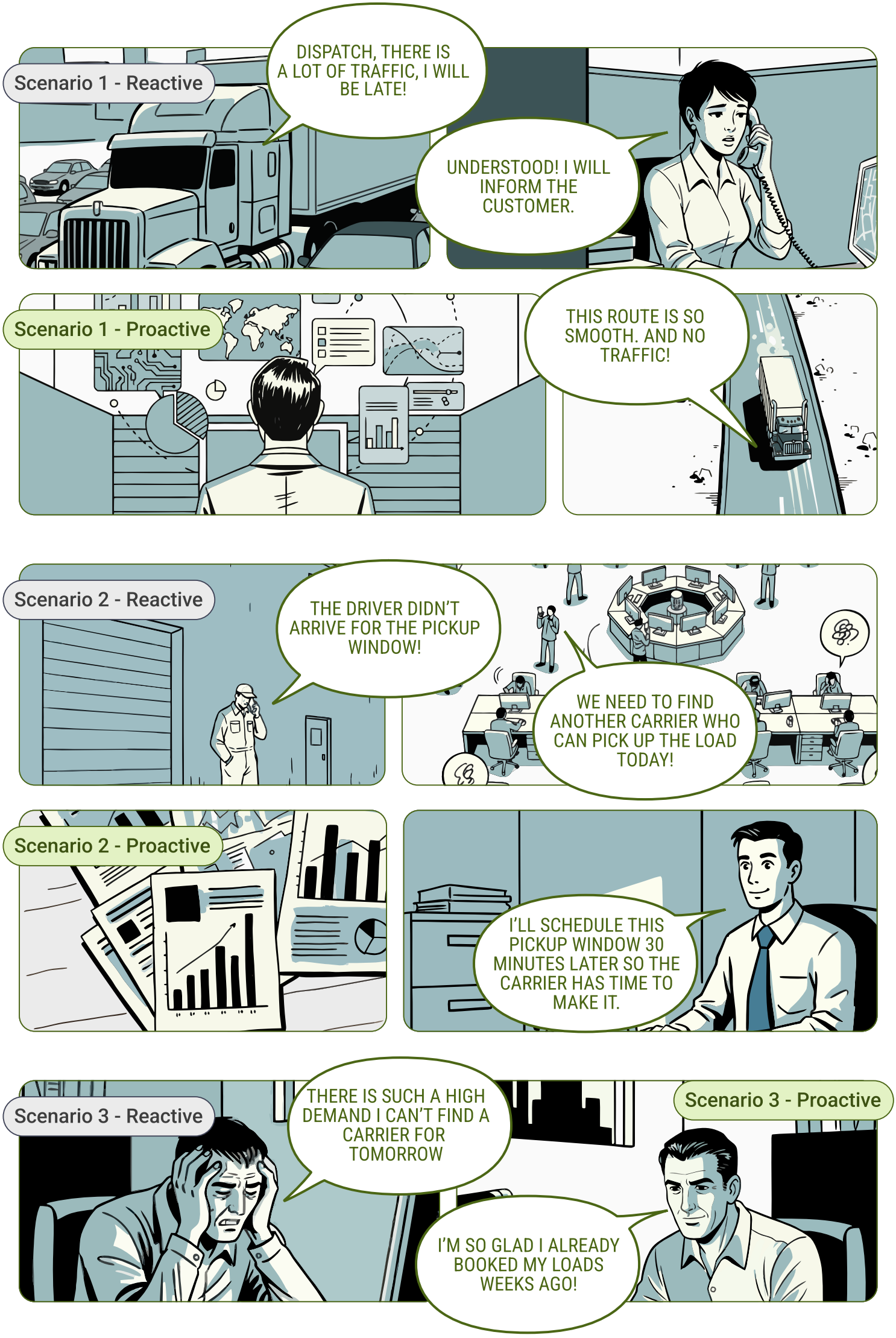
What proactive logistics really means

Proactive logistics is a conceptual approach where supply chain and transport operations anticipate **potential disruptions before they occur**, rather than reacting to them after the fact.

In contrast, reactive logistics responds only once a disruption has already impacted operations.

	Reactive logistics	Proactive logistics
Timing	Responds after disruptions occur	Anticipates events before they happen
Decision-making	Short-term, fire-fighting mode	Data-driven, forward-looking
Cost impact	Higher due to inefficiencies	Lower through early intervention
Tools	Limited visibility, manual coordination	Advanced system, predictive insights
Goal	Mitigate immediate consequences	Prevent or minimize disruption

True proactive logistics involves anticipating events before they occur and adjusting operations accordingly.


Scenario 1 - Reactive
DISPATCH, THERE IS A LOT OF TRAFFIC, I WILL BE LATE!
UNDERSTOOD! I WILL INFORM THE CUSTOMER.
Scenario 1 - Proactive
THIS ROUTE IS SO SMOOTH. AND NO TRAFFIC!
Scenario 2 - Reactive
THE DRIVER DIDN'T ARRIVE FOR THE PICKUP WINDOW!
WE NEED TO FIND ANOTHER CARRIER WHO CAN PICK UP THE LOAD TODAY!
Scenario 2 - Proactive
I'LL SCHEDULE THIS PICKUP WINDOW 30 MINUTES LATER SO THE CARRIER HAS TIME TO MAKE IT.
Scenario 3 - Reactive
THERE IS SUCH A HIGH DEMAND I CAN'T FIND A CARRIER FOR TOMORROW
Scenario 3 - Proactive
I'M SO GLAD I ALREADY BOOKED MY LOADS WEEKS AGO!

Reactive vs. proactive decision-making

Scenario 1: Traffic Congestion

Reactive approach

A truck encounters congestion. The driver informs dispatch. The delay is communicated to the customer.

Proactive approach

Traffic patterns are analyzed using historical and real-time data. Congestion risk is detected before departure, and the route is adjusted proactively.

Scenario 2: Carrier Reliability

Reactive approach

A carrier misses a pickup window. Operations calls alternative carriers.

Proactive approach

Carrier performance data identifies patterns of missed pickups on specific lanes. Planners adjust carrier allocations or schedule buffers before disruptions occur.

Scenario 3: Capacity Shortages

Reactive approach

Demand spikes and transport planners struggle to secure last-minute capacity at higher rates.

Proactive approach

Demand forecasting identifies seasonal or promotional spikes weeks in advance, allowing capacity to be secured early.

Key capabilities of proactive logistics operations

Organizations that successfully transition to proactive logistics typically develop **several core capabilities**.

Continuous network monitoring

Transport networks are monitored continuously using operational data such as:

- Real-time shipment locations
- Carrier status updates
- Pickup and delivery milestones

This allows operations teams to detect deviations early.

Predictive risk detection

Historical data combined with external inputs enables predictive models to **detect patterns** such as:

- Recurring congestion points
- Unreliable carriers on specific lanes
- Seasonal delivery bottlenecks
- High-risk delivery windows

Predictive analytics is becoming one of the most impactful technologies in transport management.

Early operational intervention

Perhaps the most important element of proactive logistics is the **ability to act early**.

Examples include:

- Reassigning shipments before delays occur
- Adjusting routes based on predicted congestion
- Reallocating capacity across lanes
- Informing customers before disruptions impact delivery commitments

The goal is not simply to detect problems, but to prevent them from becoming operational incidents.

Case Study: VDL Systems - From passive coordination to proactive control

VDL Systems, a Netherlands-based manufacturing company managing complex inbound logistics flows, provides a clear example of how limited visibility creates reactive operations.

Before: reactive inbound logistics

VDL Systems did not directly control inbound transport.

Instead:

- Suppliers arranged transport via a fixed carrier
- Transport costs were embedded in supplier invoices
- Shipment execution was largely opaque

This model created several issues:

- No real-time visibility into shipment status
- Delayed issue detection, with missed pickups sometimes discovered days later
- Goods occasionally remained at supplier locations for up to a week without being noticed

Operationally, this meant that problems were only addressed after they had already impacted production planning.

After: proactive transport management

By taking control of transport planning and execution through a centralized system, VDL Systems shifted toward a more proactive model:

- Direct management of transport bookings

- Real-time visibility into shipment status and ETA
- Faster communication with suppliers and carriers

This enabled earlier intervention and better coordination across teams.

Operational impact

The shift to proactive logistics resulted in **several measurable improvements**:

- Earlier detection of potential delays, enabling intervention before escalation
- Improved warehouse planning through accurate arrival times
- Reduced dependency on supplier communication
- More reliable execution and carrier performance

A key improvement was in decision timing: instead of reacting days later, VDL Systems could act **within hours**.

The VDL Systems case highlights a critical insight:

The biggest limitation in reactive logistics is not disruption frequency, but lack of timely visibility and control.

By shortening the time between event occurrence, detection, and action, companies can significantly improve reliability without fundamentally changing their transport network.

Technologies enabling proactive logistics

Technology is a critical enabler of proactive logistics, providing tools that allow logistics teams to anticipate events and take action before disruptions occur.

However, technology **should not be seen as the solution by itself**. Its value depends on how well it supports operational decision-making, carrier collaboration, and early intervention.

Advanced Transport Management Systems (TMS)

Modern Transport Management Systems go beyond basic shipment planning and execution. They act as a **central platform** where transport teams can manage bookings, monitor shipment progress, coordinate carriers, and identify exceptions.

A proactive TMS enables logistics teams to:

- Centralize shipment and carrier information
- Monitor transport execution in real time
- Detect deviations from the original plan
- Support faster decision-making across teams

Automated event detection

One of the most important functions of proactive logistics technology is the **ability to detect operational events automatically**.

Advanced systems can flag situations such as:

- Risk of late delivery
- Missed pickup windows
- Route deviations
- Delays at loading or unloading points
- Lack of carrier status updates

Instead of waiting for a carrier, driver, warehouse, or customer to report an issue, automated alerts allow teams to intervene earlier.

Predictive analytics

Machine learning models analyze historical transport data to identify patterns that indicate potential risks.

Examples include:

- Recurring congestion on certain routes during specific time windows
- Carrier performance issues under peak demand conditions
- Seasonal patterns affecting delivery reliability

Predictive logistics capabilities like these **can reduce disruptions by 30–50%**, supporting smarter transport optimization.

Although technology adoption is high, 91% of shippers agree technology has improved KPI management, yet 56% still rely partially on manual tools such as spreadsheets and email.

This creates a disconnect between system capability and operational reality.

Digital carrier integration

Direct digital connectivity with carriers enables **seamless communication and operational control**.

Instead of phone calls or emails, systems manage shipments digitally:

- Carriers receive transport assignments automatically
- Shipment updates are shared in real time
- Status changes trigger immediate alerts

This integration allows logistics teams to act proactively and maintain high levels of operational efficiency.

Cybersecurity and digital resilience

As logistics operations become more connected, **cybersecurity becomes part of operational resilience**. TMS platforms, carrier integrations, real-time tracking tools, and automated data exchange improve visibility, but they also increase dependency on secure digital infrastructure.

ENISA's 2025 Threat Landscape analyzed 4,875 cybersecurity incidents between July 2024 and June 2025, showing the scale of the current cyber threat environment.

For this reason, proactive logistics should also include **secure data exchange, controlled system access, carrier verification, and contingency processes** in case digital systems are disrupted.

Operational best practices for proactive logistics

Technology provides the foundation for proactive logistics, but operational processes determine whether organizations can act on the information available to them.

A proactive logistics model requires clear routines, structured planning, carrier accountability, and collaboration between teams.

The objective is to move from isolated problem-solving to coordinated prevention.

Structured lane planning

Instead of planning shipments individually or reacting to capacity needs at the last minute, proactive logistics teams define structured lane strategies.

This includes:

- Allocating preferred carriers per route
- Defining backup carriers for critical lanes
- Planning capacity commitments in advance

This approach reduces the need for last-minute carrier sourcing.

Carrier performance management

Carrier performance is one of the most important elements of proactive logistics. A transport network can only be proactive if carriers are measured, reviewed, and managed consistently.

Shipper expectations toward carriers are increasingly defined by measurable performance standards rather than informal service levels.

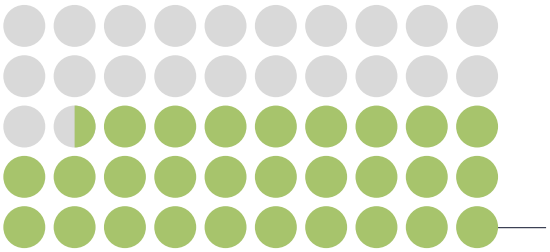
Key trends include:

95%

on-time pickup and delivery performance as an industry benchmark

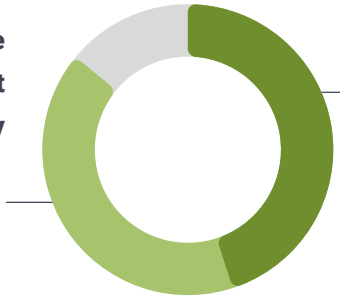
57%

shippers consistently use KPI data in procurement and RFP decisions



86%

shippers reference logistics KPIs at least weekly



45%

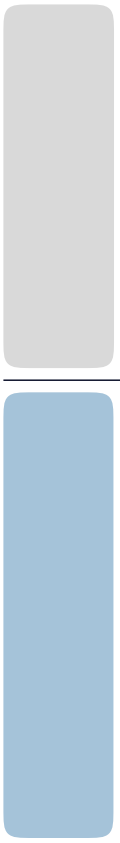
shippers do so daily

90%

carriers agree

89%

shippers say both sides should be accountable for KPI performance



55%

shippers measure on-time performance against appointment time rather than delivery day

source

Overall, expectations are evolving from basic execution toward a model based on consistent performance, real-time visibility, and proactive communication.

Carrier responsiveness and execution speed

Beyond on-time delivery performance, leading logistics organizations increasingly measure **how quickly carriers respond to transport requests** and capacity inquiries.

Slow response times reduce operational agility, delay planning decisions, and often force teams into reactive last-minute sourcing. In contrast, high-performing transport networks prioritize rapid response cycles that enable earlier decision-making and better execution control.

Road Transport RFQ Type	Average Response Time	Best-in-Class
Monthly lane pricing RFQ	12–48 hours	< 2 hours
Quarterly capacity RFQ	2–4 business days	< 24 hours
Mini-bid / tactical lane request	1–12 hours	< 30 min
Recurring lane repricing	4–24 hours	Near real-time
Spot truckload quote	15 min – 4 hours	< 10 min

Reducing RFQ response times improves planning flexibility, accelerates carrier allocation decisions, and allows logistics teams to respond to market changes before they impact execution.

Risk monitoring

Proactive logistics teams actively monitor external risks such as:

- Weather disruptions
- Road congestion patterns

- Cargo theft and freight fraud hotspots
- Cybersecurity incidents
- Geopolitical disruptions affecting transport routes

Clear escalation processes help teams act earlier and reduce the time lost in deciding how to respond.

Proactive logistics KPIs

Organizations transitioning to proactive logistics should move **beyond traditional retrospective KPIs** and introduce metrics that measure **anticipation, prevention, and decision speed**.

KPI	What it indicates
On-time delivery rate	**Overall service reliability**
Incident prevention rate	**Percentage of disruption prevented**
Delay detection time	**Speed of operational visibility**
Cost per shipment	**Operational efficiency**
Carrier reliability score	**Stability of transport network**

Monitoring these metrics helps organizations evaluate whether proactive strategies are improving operational performance.

Barriers to proactive logistics

Despite the clear benefits of proactive logistics, **several obstacles** still prevent companies from adopting these practices at scale.

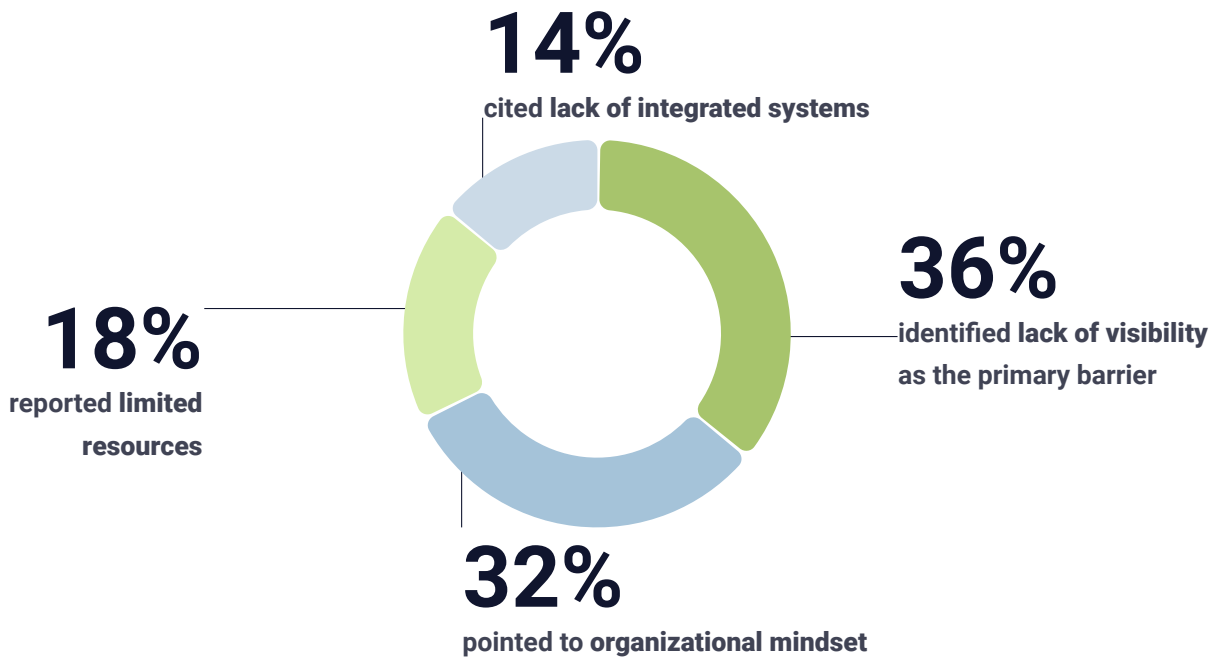
The main challenge is not only access to technology, but the ability to **redesign operating models around earlier decision-making, stronger collaboration, and preventive action**.

INDUSTRY SNAPSHOT

What prevents teams from planning ahead?

To better understand the barriers to proactive logistics, we gathered input from transport and supply chain professionals across our network.

When asked about the main challenge their teams face when planning ahead, responses highlighted a mix of structural and cultural limitations:



The results show that the challenge is not purely technological.

While visibility remains the most commonly reported issue, a significant share of respondents highlight internal factors such as mindset and ways of working.

This reinforces an important insight:

The transition to proactive logistics is not only a systems upgrade, but an operational and cultural shift.

Even with access to data and tools, organizations may struggle to plan ahead if:

- Teams are structured around reactive workflows
- Decision-making remains short-term and execution-focused
- Processes are not designed for early intervention
- Organizational resistance to changing routines and decision-making processes

Companies that successfully move toward proactive logistics are those that **combine technology with process redesign**, team training, and clear accountability for early intervention.

In other words, becoming proactive requires more than better visibility. It requires changing how teams use that visibility to make earlier, faster, and more coordinated decisions.

Key market trends

Several market trends are accelerating the shift toward proactive logistics.

Artificial intelligence in transport planning

AI is increasingly used for:

- Predictive demand planning
- Transport optimization
- Disruption forecasting

Sustainability and emissions monitoring

The industry is increasingly shifting toward connected logistics ecosystems where shippers, carriers, and logistics providers operate within shared digital environments.

This connectivity enables:

- Faster decision-making
- Improved operational coordination
- Better performance monitoring across the network
- Regulatory pressure and supply chain accountability

Regulatory pressure is also becoming an important driver of proactive logistics. Companies are increasingly expected to monitor, document, and manage risks across their operations, suppliers, and wider value chains.

In the European Union, the Corporate Sustainability Due Diligence Directive entered into force on 25 July 2024 and aims to promote sustainable and responsible corporate behavior across companies' own operations, subsidiaries, and global value chains.

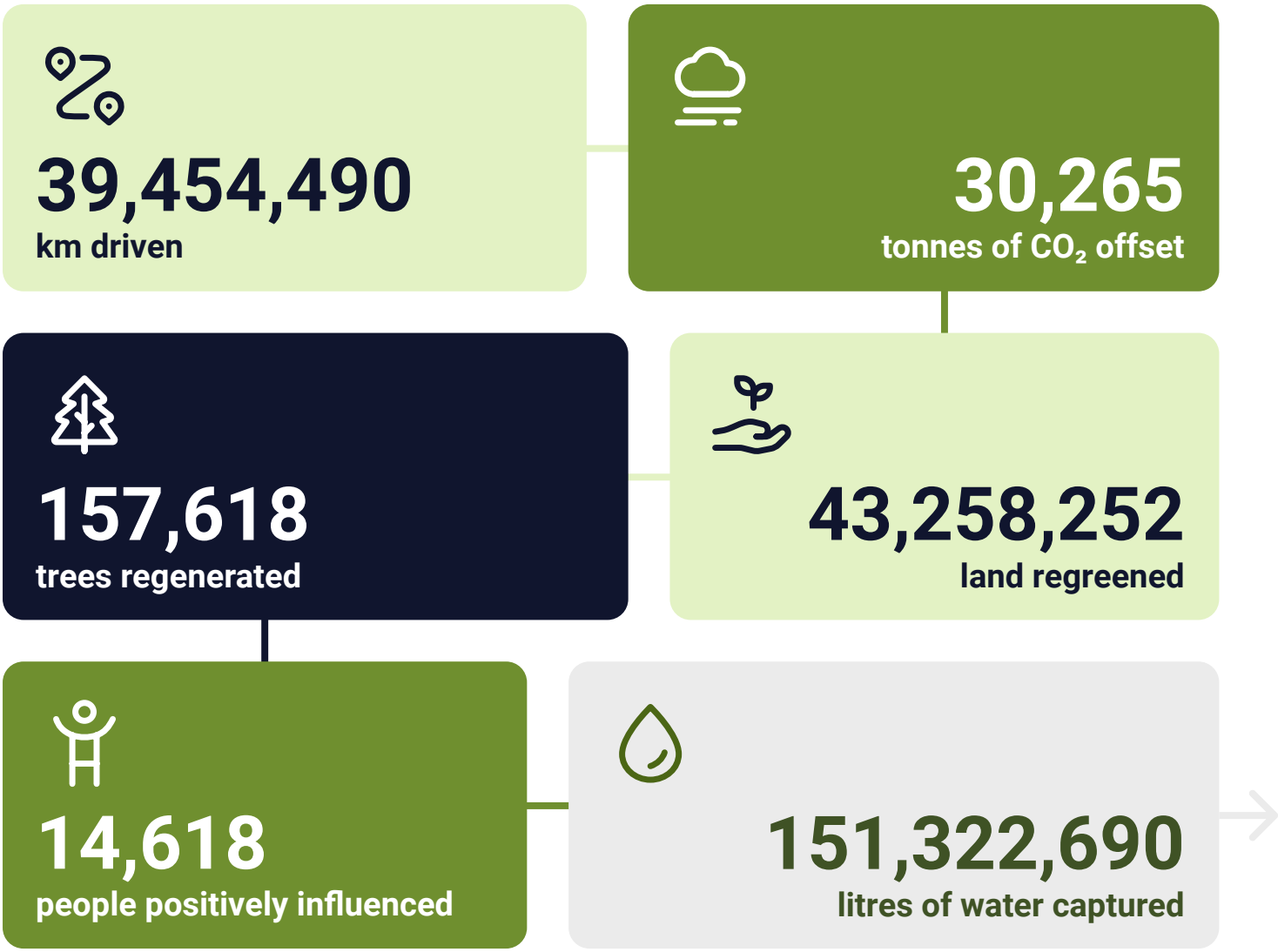
The NIS2 Directive also reinforces the importance of cybersecurity and digital resilience, establishing a common cybersecurity framework across 18 critical sectors in the EU.

Beyond regulatory compliance, these ecosystems also support more sustainable logistics practices by **reducing unnecessary transport activity, improving load efficiency, and minimizing empty kilometers**.

For emissions that cannot yet be fully eliminated, **CO_2 compensation mechanisms** can be used as a **complementary measure**, allowing companies to address up to 100% of shipment-related emissions while they continue working on reduction initiatives.

In the case of CtrlChain, CO_2 emissions are calculated for every shipment booked through the system. This provides customers with shipment-level emissions visibility and gives them the option to offset up to 100% of their transport emissions where direct reduction is not yet possible.

A live overview of impact achieved through this approach illustrates the scale of these efforts:



This demonstrates **how digital logistics ecosystems can evolve beyond operational efficiency and enable measurable sustainability outcomes**.

Practical steps toward proactive logistics

Organizations do not need to transform their entire logistics model at once. The transition can start with a few practical actions that improve visibility, decision speed, and coordination.

Quick wins

- ☑ **Implement real-time shipment monitoring**
- ☑ **Introduce automated alerts for delays**
- ☑ **Standardize transport KPIs**
- ☑ **Improve carrier communication processes**
- ☑ **Add carrier verification and risk alerts for high-value or high-risk shipments**

Strategic moves

- ☑ **Deploy advanced transport management systems**
- ☑ **Digitally integrate carriers**
- ☑ **Adopt predictive analytics tools**
- ☑ **Implement structured lane planning**

These initiatives help organizations move **from faster reaction to true anticipation**. The objective is to build a logistics model where risks are visible earlier, decisions are data-driven, and teams can act before disruptions affect cost, service, or customer commitments.

Conclusion

For logistics and supply chain leaders, the key message is clear:

Reactive logistics is no longer just an operational issue

It is a **structural limitation** that affects cost, service reliability, risk exposure, and decision-making.

Many logistics teams are reactive not because they lack effort, but because their **systems and processes detect problems too late**. Delays, missed pickups, capacity shortages, supplier disruptions, fraud, cybersecurity risks, regulatory pressure, and geopolitical instability all become more costly once they have already impacted execution.

Reacting quickly is no longer enough. The real opportunity is to identify risks earlier, make better decisions faster, and act before disruptions affect cost, service, or customer commitments.

Proactive logistics depends on **visibility, prediction, and action**. Technology enables this shift through advanced TMS platforms, real-time monitoring, automated alerts, predictive analytics, carrier integration, and KPI-driven decision-making. However, the value comes from embedding these tools into daily workflows, escalation processes, carrier management, and cross-functional collaboration.

Digital logistics systems and technology partners can support this transition. Solutions such as CtrlChain can help companies **centralize transport execution, improve shipment-level visibility, and make more data-driven logistics decisions**.

Proactive logistics does not eliminate uncertainty. Disruptions will continue to happen. But companies that build proactive capabilities will manage them earlier, faster, and with more control.

The competitive advantage will belong to logistics organizations that stop treating disruption as something to absorb and **start managing it as something to anticipate**.

Ready to move from reactive to proactive logistics?

See how CtrlChain can help →

CtrlChain