

Industrial supply chains under pressure

The Strait of Hormuz and the rising cost of raw material volatility

Global supply chains are under pressure again, with no clear end in sight

34%

of global crude oil trade passes through the Strait of Hormuz.¹

19%

of global LNG trade is exposed to Hormuz-linked flows.²

16%

projected increase in global commodity prices in 2026, driven by energy and geopolitical risk.²

This means greater exposure to energy prices, chemical and fertilizer inputs, resins, metals, packaging materials and freight volatility..

Where the disruption hits the supply chain

- › **Higher volatility** in chemicals, fertilizers, resins, films, coatings, packaging materials and oil-linked inputs
- › **Risk exposure** through energy prices, supplier costs and freight volatility
- › **Rising cost and allocation risk** for metals, cables, components and industrial materials
- › **Less predictable total landed cost** and higher risk to revenue, margins and customer service

The strategic decision pressure

Companies that do not react now risk turning volatility into **permanent margin and revenue loss** as supply chains become less predictable.

The decision leaders face now:

How do we adjust sourcing, production, inventory and network design fast enough when raw material and energy conditions keep shifting?

What leading companies are trying to achieve

- › Protect **margins and revenue** under sustained input-cost volatility
- › **Recover faster than competitors** when markets stabilize; capture demand earlier
- › Maintain **service levels** during raw material and supply chain disruptions

Facts and figures shaping 2026 decisions

2.5x

higher European gas prices vs. U.S. levels, sustaining a structural cost disadvantage for energy-intensive industries.¹

+20%

forecast increase in copper, aluminum and tin prices in 2026, intensifying cost pressure for industrial manufacturers.²

Only 15.4%

of European plastics production was circular in 2024; most production still depends on virgin fossil-based feedstocks.³

20 mb/d

oil and oil products move through the Strait, creating sustained chokepoint risk.⁴

Fuel surcharges

war-risk premiums and shipping disruption costs increase under Middle East uncertainty.⁵

Recovery depends on scalable capacity

Companies need to secure and **scale transport, handling, storage and supplier capacity fast enough** to protect availability, service, revenue and margin.

100 → 7,000 trucks per day

Alternative routes can require a massive increase in transport capacity.⁶

2,000 → 50,000 containers per week

Recovery depends on how quickly ports and logistics networks can absorb redirected volumes.⁶

Companies require software to shift from reaction-mode to decision-mode

Model the network

Create a digital overview of routes, nodes, capacity, flows and constraints.

Compare trade-offs

Select the option that best protects service, revenue, margin, and recovery speed.

Simulate recovery scenarios

Test how redirected volumes affect transport, storage, service and cost.

When volatility turns into capacity, cost and availability constraints, recovery depends on identifying the right network response before disruption turns into lost revenue.

Network optimization suite

Design and continuously optimize your supply chain network



Instant network transparency and analytics

Gain end-to-end visibility into how your network operates



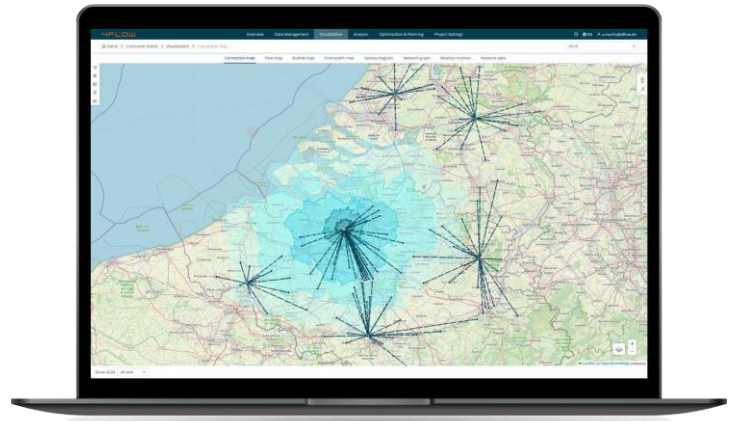
Scenario planning and trade-off analysis

Compare strategic alternatives using quantified cost, service and risk impacts



Strategic network redesign and location optimization

Continuously redesign your network footprint to balance cost, service and capacity



Our supply chain expertise

Real results with 4flow

20%+

Savings in logistics costs

10%+

Reduction in inventory levels

20%+

Increase in process efficiency

Interested or have questions? Contact us!

Get in touch to have your questions answered or to schedule a live demo of our software solutions.

We look forward to hearing from you.

4flow software

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About 4flow

4flow is a leading provider of supply chain consulting, software and fourth-party logistics (4PL) services. With this cross-functional competency, we are able to meet and exceed the highest standards of quality and innovation.

25+

offices in Europe, North America, South America and Asia

1500+

team members globally

400+

customers globally

4flow customers include:

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