

# Software solutions

for digital supply chains



## Shaping the future of supply chain

### **4flow vista®**

Supply chain network optimization

### **4flow VIA®**

Supply chain network planning suite

### **4flow iTMS**

End-to-end transportation  
management

### **4flow TORO**

Transportation optimization in MRP

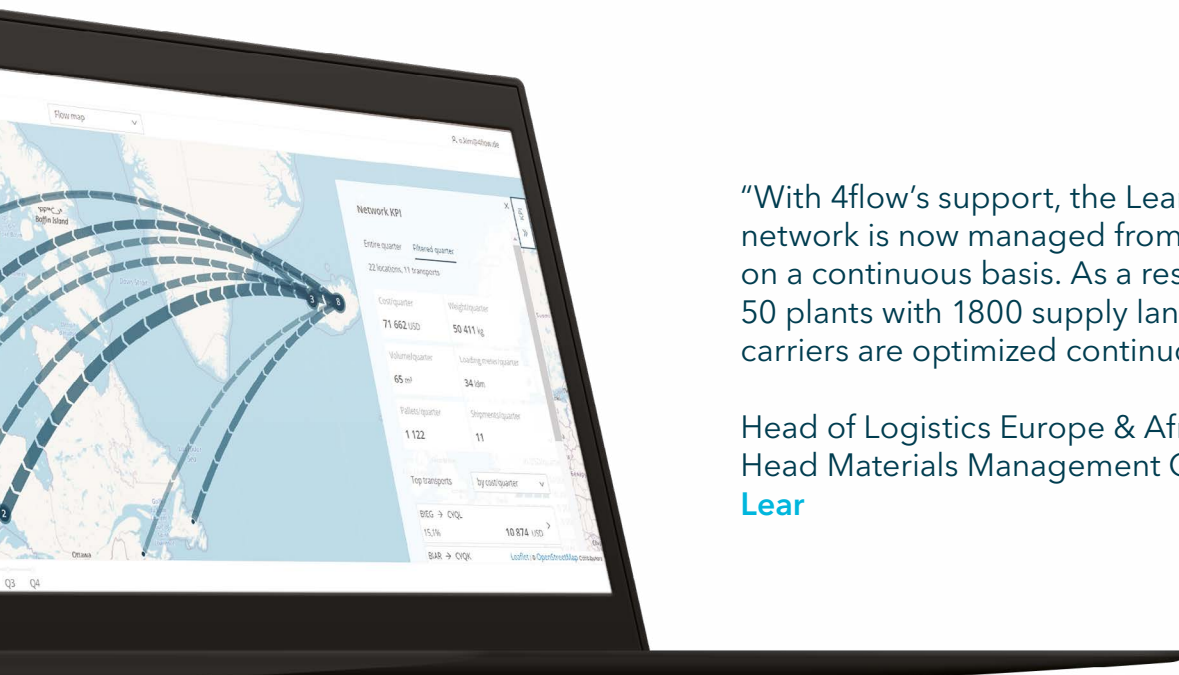
### **Kinaxis applications by 4flow**

Transportation optimization and  
network design in Maestro®

4flow is a leading global provider of supply chain consulting, software and fourth-party logistics (4PL) services. Our end-to-end solutions help our customers optimize their supply chains to be prepared for the future.

4flow customers include:

BASF	BAT	B. Braun	BMW	Bosch	
Deichmann	eBay	EDEKA	Festo	HelloFresh	
KTM	Lear	Mars	Meyer Werft	Puma	Roche
Siemens	Stellantis	Volkswagen	Volvo Cars		



“With 4flow’s support, the Lear transportation network is now managed from end to end on a continuous basis. As a result, more than 50 plants with 1800 supply lanes and about 25 carriers are optimized continuously.”

Head of Logistics Europe & Africa and Global Head Materials Management Center of Excellence  
**Lear**

## About 4flow

# 20+

offices in Europe, North America,  
South America and Asia

# 13000+

team members globally

# 400+

customers globally

# 300+

projects annually  
around the world

# 100%

management-owned

# 2000

year of foundation



**4flow supports its customers  
globally with extensive  
supply chain and software  
development know-how**

4FLOW

# We support your entire supply chain journey with planning, optimization and execution solutions

## Network transparency



Visualize and analyze network



Optimize network structure



Calculate and monitor carbon emissions



Find optimal transportation routes

## Order planning



Consolidate your orders based on transportation factors



Allocate inventory for service level fulfillment



Bridge the gap between material planning and transportation



Ensure reliability with early optimization of demands

## Network optimization

## Transportation optimization



Supply chain network design software



Integrated material and transportation planning software

## Transportation management



Assign carriers and plan loads based on actual demands



Order and manage operational delivery dispatch



Manage orders and inventories of returnable packaging



See shipment status with real-time track and trace

## Transportation execution



Handle exceptions with step-by-step support



Coordinate time slots at loading docks to balance capacity



Get business intelligence analyses and KPI reports



Clarify freight cost claims, pricing structures and billing

## Transportation execution

## Transportation controlling



End-to-end transportation management system

**kinaxis®**

Already using Kinaxis Maestro®?

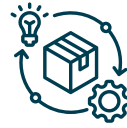
Expand your capabilities – see how on page 24

# Supply chain software from 4flow



## Value-driven solutions

Our solutions bring you tangible and direct benefits: cost reduction, supply chain sustainability, end-to-end visibility and agile planning. We ensure your success in a dynamic environment.



## Supply chain expertise

Backed up by extensive business know-how, we specialize in supply chain process optimization, digitization and automation. Our solutions are used globally and ensure a competitive advantage.



## Cutting-edge technology

Scalable and easy-to-integrate solutions leverage artificial intelligence and machine learning. Enable data-driven decisions and enhance performance across your supply chain.



## Customer-centric approach

We prioritize customer success with highly adaptable, user-friendly solutions customized to the unique needs of your organization.




## Software products for planning, optimization and visibility of supply chain and transportation networks



## Supply chain network design software




### 4flow VIA®

Supply chain network  
planning suite

-  Strategic planning
-  Tactical planning
-  Operational planning

### 4flow vista®




Comprehensive network  
optimization and  
transportation planning

-  Strategic planning
-  Tactical planning
-  Operational planning

## End-to-end transportation management system




### 4flow iTMS

Integrated transportation  
management

-  Strategic planning
-  Tactical planning
-  Operational planning

### 4flow vista® SAP add-on




Network design and  
planning in SAP TM

-  Strategic planning
-  Tactical planning
-  Operational planning

## Integrated material and transportation planning software




### 4flow TORO

Transportation  
optimization in MRP

-  Strategic planning
-  Tactical planning  
+ ERP/SAP®
-  Operational planning

### Kinaxis TLO by 4flow

Transportation optimization  
in Maestro®

-  Strategic planning
-  Tactical planning  
+ Kinaxis
-  Operational planning

# Supply chain network design software

## Strategic and tactical network design, planning and optimization

To help you design and optimize your network, 4flow offers a range of modern and intuitive network design software. These solutions quickly provide network visibility, analyze network scenarios and optimize tactical and strategic planning.



Easy-to-use workflow



Quick, reliable and actionable insights



Sustainable optimization algorithms developed in-house for faster run times



Modeling and optimization of multi-leg and intermodal transportation



Suitable for all industries and all modes of transportation



Total cost analysis and calculation

Supply chain network design software from 4flow supports users from creating transparency to designing a resilient network

### 2024 Gartner® Market Guide for Supply Chain Network Design Tools

4flow was listed as a Representative Vendor in the 2024 Gartner® Market Guide for Supply Chain Network Design Tools\* for the software product 4flow vista®.

\*Gartner, Market Guide for Supply Chain Network Design Tools, Vicky Forman, Pia Orup Lund, February 15, 2024



## Common use cases

### Instant supply chain network transparency

Achieve early-stage transparency to improve the quality of planning and support decision-making

### Boost sustainability with a carbon emissions dashboard

Track, analyze, and reduce greenhouse gases, carbon emission intensities, exhaust emissions and air pollutants for a greener future

### Network optimization and strategic transportation planning

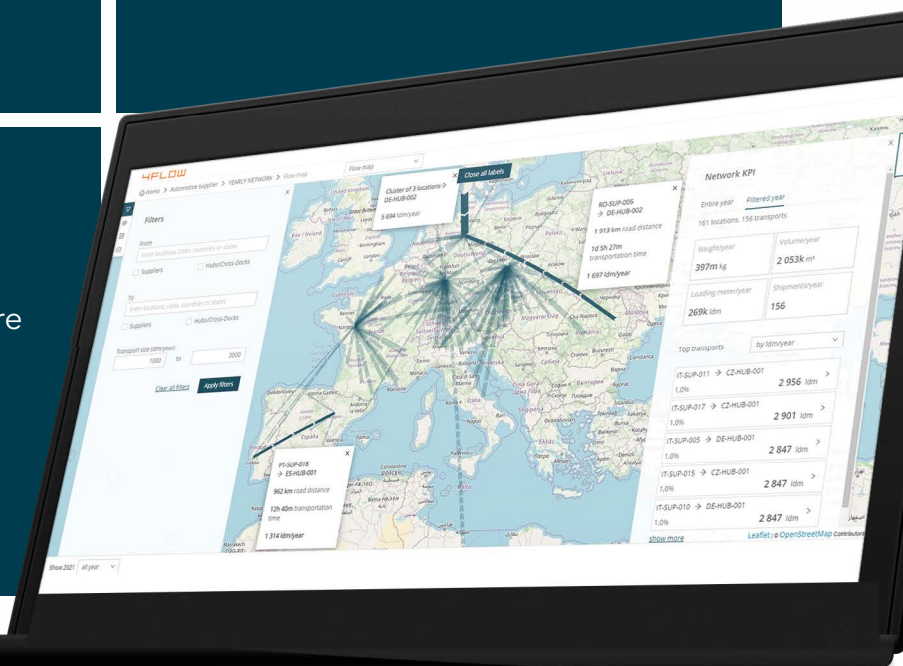
Determine the optimal structure of supply, production, and distribution networks based on past and future requirements

### Tactical transportation planning

Get support for every step, from the definition of transportation structures to the optimization of transportation rates and modes to efficient route planning

### Reliable inventory allocation decisions

Make quick, data-driven decisions about inventory allocation to ensure stock availability and improve service level



# 4flow vista® – comprehensive optimization and planning software for supply chain networks

Improve network agility while maintaining network efficiency and minimizing total costs

4flow vista® is the industry-standard software for the optimization of complex networks and transportation planning. As a comprehensive software solution, 4flow vista® covers use cases from the strategic to the tactical level. Algorithms and heuristics developed in-house for network design and supply chain planning reflect more than 20 years of experience.

4flow vista® is available as an active module in the 4flow iTMS and as an add-on to SAP TM.

## End-to-end planning approach

Optimize network structures for the long term as well as transportation capacities for the short term. Planning results can also be integrated into existing IT systems.



Up to 15% proven reduction in logistics costs



Network design for greater efficiency and growth



Identification of optimal strategic routes



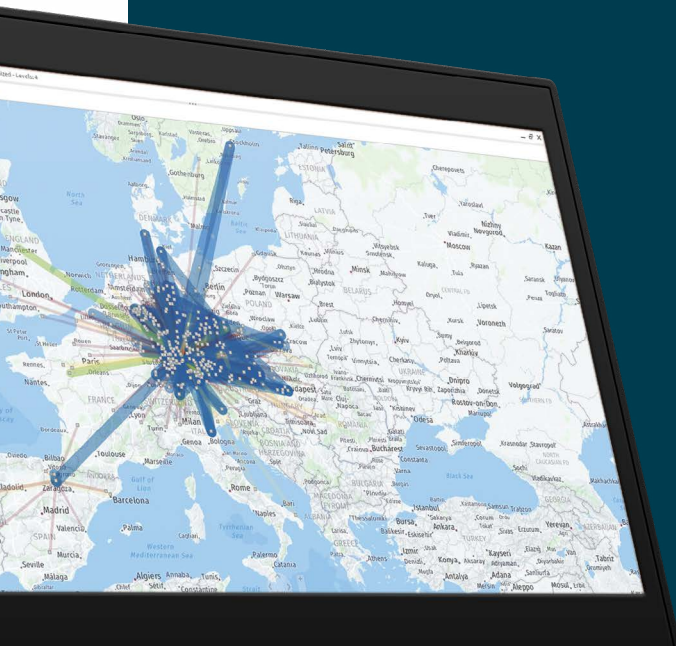
Improved transportation utilization



Optimization methods developed in-house with options to set parameters



Modeling and optimization of multi-leg and intermodal transportation



## Common use cases

### Network optimization and strategic transportation planning

- > Visualization of supply chain networks
- > Definition of the transportation network and number of network levels
- > Position of sites and allocation of assortment
- > Total cost optimization

### Tactical transportation planning

- > Definition of transportation structure
- > Optimization of transportation costs and modes
- > Efficient route planning
- > Preview of transportation

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**Did 4flow vista® spark your interest?** Please get in touch to find out about our services. Scan the QR code and we will be in contact soon.



# 4flow VIA® - supply chain network planning suite

For organizations that continuously need to optimize their complex supply chain networks, 4flow VIA® is the modular software for use cases from the strategic to the tactical level - including network visualization, analysis and optimization.

## Cutting-edge software suite for agile supply chain network planning



Dedicated modules for specific use cases



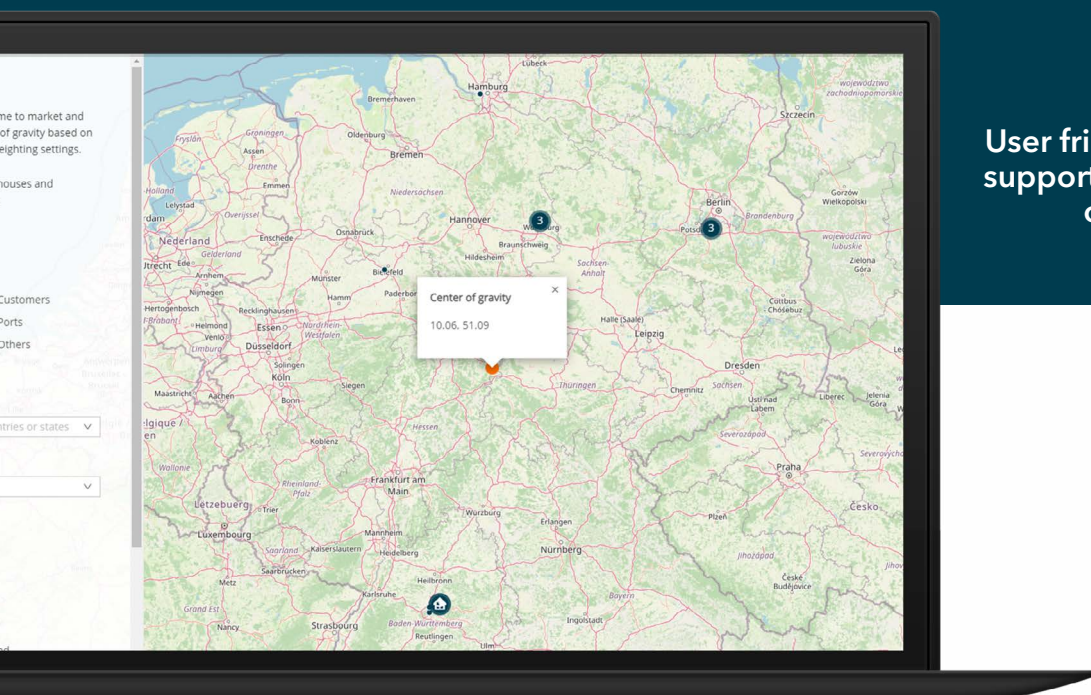
Easy data integration



Centralized data management

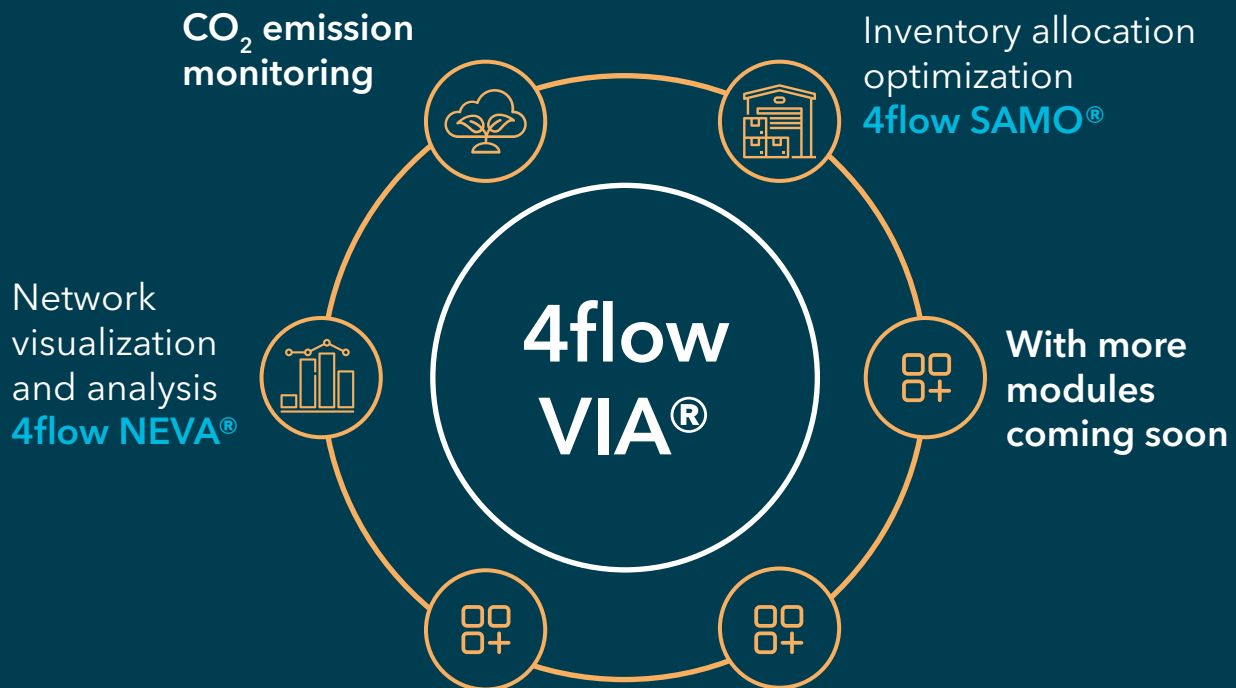


User friendly with in-app support, user guides and online help





# Build your custom modular solution



- ✓ Function-specific modules
- ✓ Use as stand-alone or integrated solutions
- ✓ Continuous development of new modules

SCAN

to learn  
more about the  
4flow VIA®  
software suite



# 4flow NEVA® – rapid modeling and analysis software for supply chain networks

## Quickly gain transparency and improve supply chain planning quality

4flow NEVA® (Network Exploration, Visualization and Analysis) provides visibility in complex baseline networks in minutes with user-friendly and detailed interactive models and analyses.

The software improves supply chain network transparency, enables quick reactions to changes, and identifies potential improvements in the network.



Visualization and analysis of complex networks with **thousands of lanes in minutes**



**Insight into network dynamics** like changes in demand, lanes or network performance



**Carbon footprint** calculation and analysis (optional add-on)



**Center of gravity analysis** to find ideal warehouse locations

## Common use cases

Improve supply chain network transparency

Identify the optimal location for a new warehouse or distribution center

Track your network's changing footprint

See tips to improve your supply chain network

Improve sustainability with a carbon emissions dashboard



to start your  
free trial



# 4flow SAMO® – smart inventory allocation optimization

Ensure stock availability and keep service level up while reducing total logistics costs in distribution networks

4flow SAMO® (Smart Allocation Management Optimization) optimizes product allocation in relation to customers and existing warehouses.

Smart analysis and optimization algorithms empower supply chain experts, planners and consultants to make quick, data-driven allocation decisions.



**What-if scenario** modeling and management



**Assured stock** availability



**Cost savings** across the supply chain



**Allocation optimization** across warehouse networks

## Common use cases

Optimize product allocation across warehouse network

Explore the total cost impact of different service scenarios

Identify need for additional warehouse space



# 4flow iTMS – the integrated transportation management system

## Sustainable cost savings in complex supply chain networks with a single platform

The 4flow iTMS enhances the functionalities of a transportation management system by adding the decisive advantages of planning and optimization. This modular yet fully integrated combination is the key to efficient cost analysis and digital transformation of your supply chain processes.

**Optimize end-to-end transportation processes in supply chain networks**

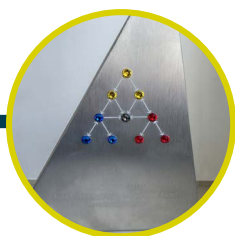
**Identify optimal transportation concepts**

**Make savings potential visible and achievable**

### Supply Chain Excellence Awards 2023

Mars Europe and 4flow were presented awards for excellence in supply chain operations.

To significantly improve performance of its intermodal European transportation network, Mars partnered with 4flow to implement a continuous approach to integrated transportation planning, optimization and execution.



Designed for **cost savings** of up to 15%



Viable long-term decisions with **CO<sub>2</sub> reporting**



**Mature transportation management** with 20% improvement of network performance



Collaboration of all stakeholders on a **single platform**



Modular configuration for a **flexible architecture**



Reflects real-world constraints with a **digital twin**

**Unlike other transportation management systems, the 4flow iTMS supports users throughout the transportation planning process**



## One single platform for maximum transparency

Involve stakeholders early to increase transparency, improve the quality of planning and support decision-making

## Clear workflow for active management

Continuously optimize your network and transportation processes to maximize savings, gain full transparency and actively manage your supply chain

## Fast and scalable implementation

Integrate the 4flow iTMS into any ERP system landscape or deploy the software as a service (SaaS)

## Advanced planning

Empower holistic supply chain planning and optimization by taking strategic, tactical and operational time horizons into account

## Increased maturity

Grow with us as a partner - reach your highest possible supply chain maturity level with our step-by-step approach

### A Notable Vendor in 2023 Gartner® International and Europe Context: 'Magic Quadrant™ for Transportation Management Systems'

4flow has been named a Notable Vendor in both 2023 Gartner® International Context: 'Magic Quadrant for Transportation Management Systems'\* and 2023 Gartner® Europe Context: 'Magic Quadrant for Transportation Management Systems'\*\*. In both reports, 4flow was recognized for the 4flow iTMS.

\*Gartner, "International Context: 'Magic Quadrant for Transportation Management Systems'", Oscar Sanchez Duran, Brock Johns, March 28, 2023.

\*\*Gartner, "Europe Context: 'Magic Quadrant for Transportation Management Systems'", Oscar Sanchez Duran, Brock Johns, March 28, 2023.

# Customize your iTMS set-up to answer your most pressing questions

With its modular architecture, the 4flow iTMS offers a wide range of options to tailor the solution according to your individual needs.

Do any of these questions sound familiar to you?

Whether in the strategic, tactical or operational planning phase: **The tailored 4flow iTMS modules will give you the insights to confidently answer these questions - and more.**

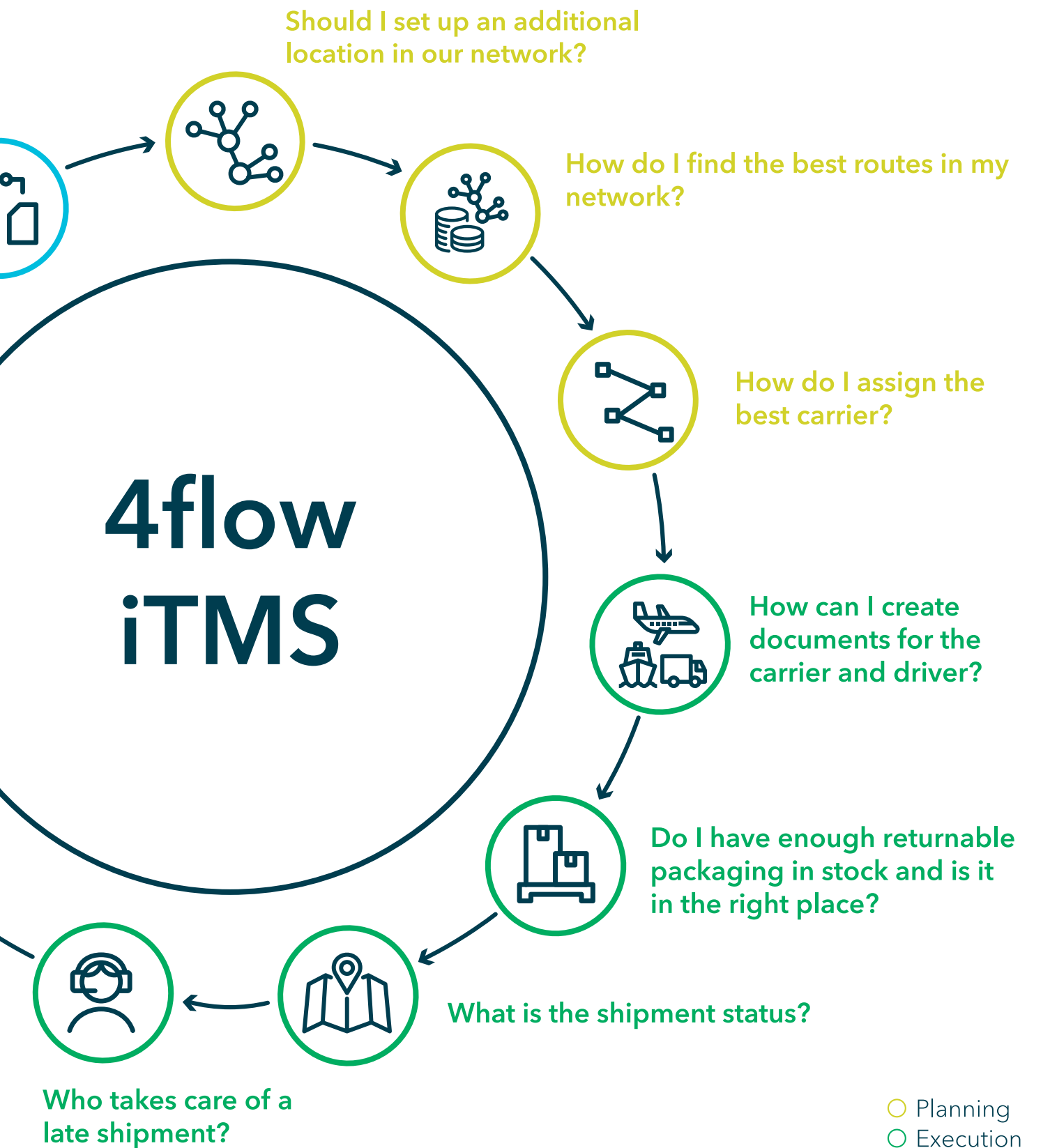
How can I get validated data?

How is the performance in my network?

How can I handle all these carrier cost claims?

How can I balance the dock capacity?

With its modular architecture, the 4flow iTMS covers all relevant transportation processes - planning, execution and controlling



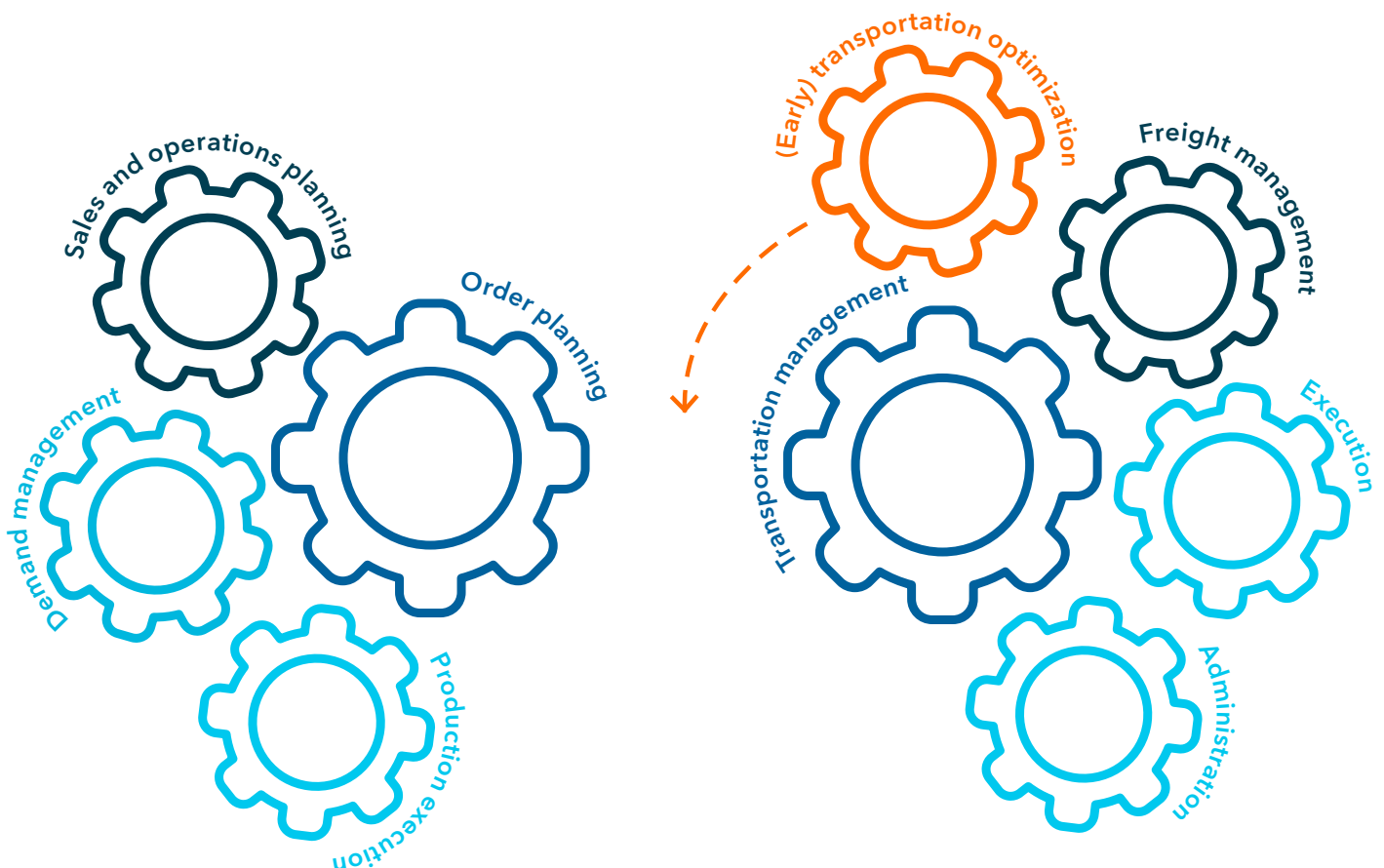
# Integrated material and transportation planning software

Optimize orders by considering critical transportation factors in the material planning phase

Enable planners to make confident decisions by bridging the gap between orders and transportation planning.

Seamlessly consider transportation costs and restrictions at an early stage without a negative impact on inventory levels or material availability.

## Modern order planning software integrates transportation optimization





## Tangible benefits

All your **complex data is considered and optimized** – automatically

**Streamlined processes** that eliminate planning silos and reduce manual effort

**Utilization improvement** up to 25% and **cost savings** up to 20%

## Common use cases

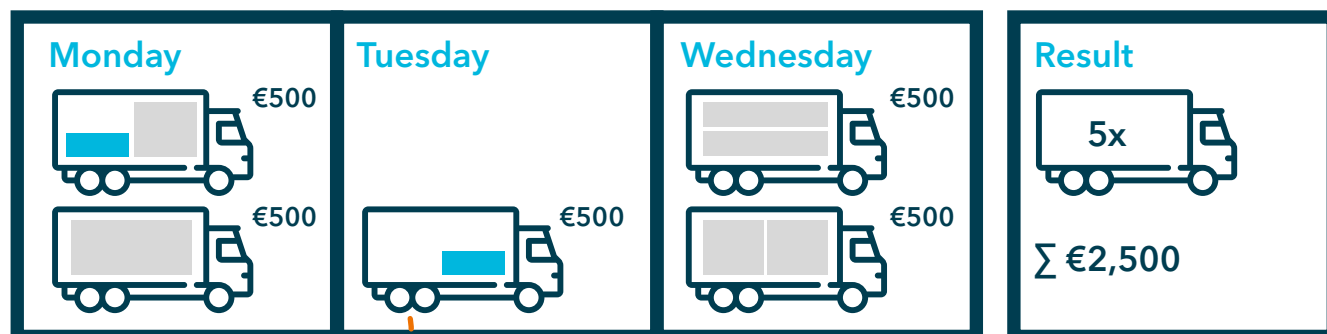
### > Inbound

Optimize your call-offs and improve utilization of FTL or LTL shipments

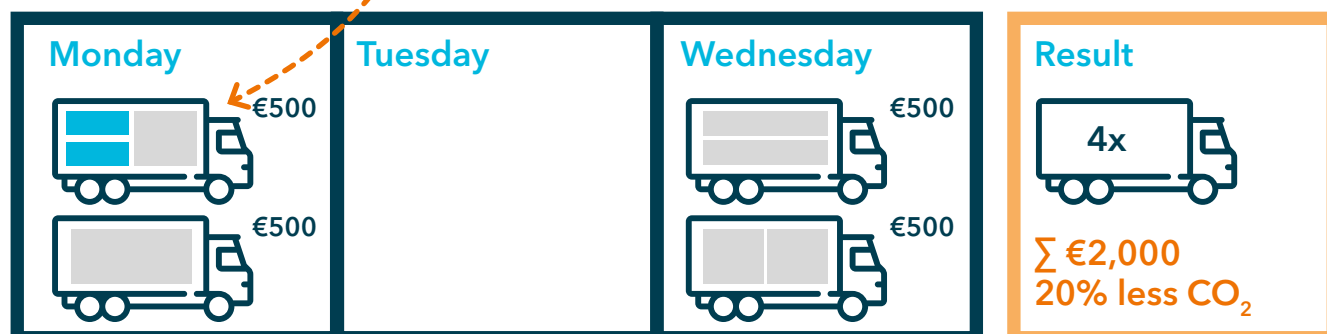
### > Intercompany and outbound

Optimize your orders between production and distribution sites or between warehouses and distribution

## Before optimization



## After optimization

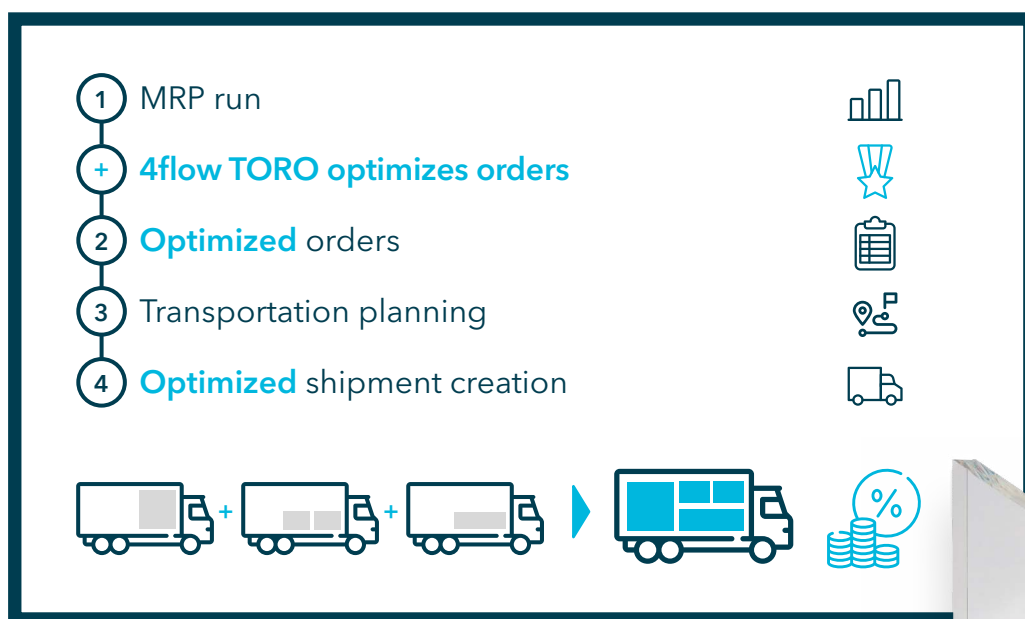


# 4flow TORO – seamlessly optimize your order planning

## Achieve transportation cost savings earlier in your supply chain

4flow TORO is the new plug-in solution that integrates transportation optimization into material planning with minimal impact on inventory.

The solution helps businesses consolidate and optimize their orders, maximize shipment utilization and achieve significant cost savings.



## Product of the Year

4flow TORO was named Product of the Year 2022 by materialfluss magazine.





## Flexible architecture and quick implementation

Thanks to its composable and easily adaptable architecture, 4flow TORO can be seamlessly integrated into existing ERP systems such as SAP.

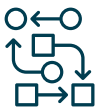
As a result, 4flow TORO enables planners to make confident decisions, eliminate silos and create tangible benefits in their supply chains.



Create up to 20%  
**cost savings**



**Increase utilization**  
by up to 25%



Improve planning  
quality and **efficiency**  
by up to 12%



Enable **greater**  
**sustainability**



Plug-in **composable**  
**cloud** solution

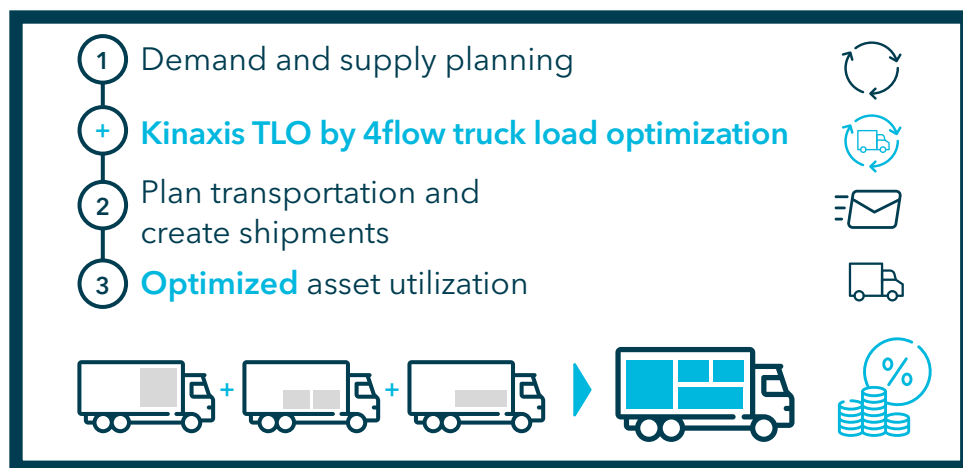


**Boost transparency**  
with full results control

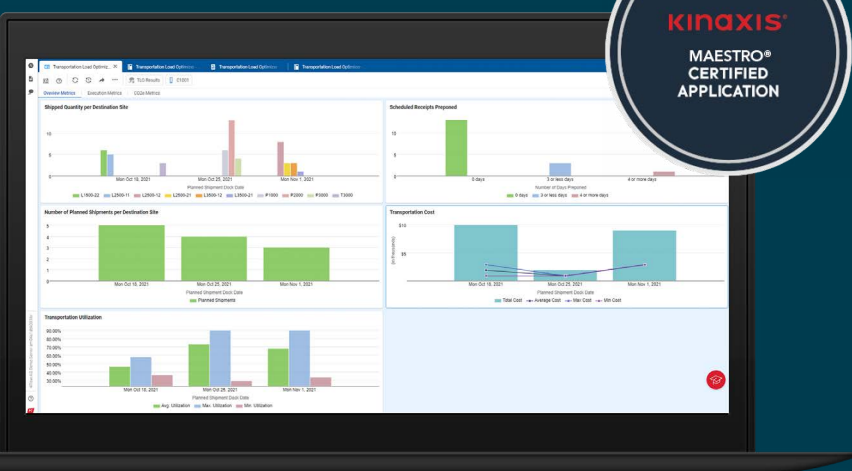
# Seamless transportation and load building optimization in Kinaxis Maestro®

Increase planning efficiency, save transportation costs and reduce carbon emissions

The Kinaxis Transportation Load Optimizer by 4flow (TLO) is an embedded certified Maestro® application that enables Kinaxis customers to integrate transportation constraints earlier into S&OP processes.



Enable planners to make confident and profitable supply chain decisions



Reduce transportation costs up to 10% while ensuring inventory feasibility



Automate and optimize supply chain processes

# Rapid network design and optimization in Kinaxis Maestro®

Achieve transparency and optimize entire networks for cost, lead times or service level

Kinaxis Network Design by 4flow (NWD) is an integrated Maestro® application that gives users transparency across their supply chain networks and lets them optimize for cost, lead times, carbon emissions or service level.



Improvement tips for your supply chain network



Insight into network dynamics like changes in demand or lanes



Bring the power of transportation optimization to Maestro® concurrent planning



Reduce carbon emissions by over 15 %



Learn how BAT optimized its transportation network with 4flow



# 4flow

## Your supply chain solution

4flow is a leading provider of supply chain consulting, software and managed services. With cross-functional competence and supply chain optimization expertise, we meet and exceed the highest standards of quality and innovation

### 4flow consulting

offers process-oriented supply chain consulting, from strategy to implementation

### 4flow software

offers a wide product portfolio for transportation and supply chain network optimization

### 4flow management

manages and optimizes supply chain networks as a neutral party



4flow  
on LinkedIn



## Customer focus

Solutions designed to fit individual customer needs



## Cost reduction expert

Structural and long-lasting cost reduction



## Safe transition

Years of change experience put to work for your success, from strategy to implementation



## Digital leader

Award-winning projects and software, state-of-the-art technology competence



## Optimization as a business model

Project, software and optimization process outsourcing



## Constant innovation

Generating new ideas and turning them into reality - every day



**Interested or have questions?**  
**Contact us!**

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

**4FLOW**

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