

Freight Transport Management and Logistics Networks

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Sustainable Transportation within the Framework of Green Deal - SPHERE

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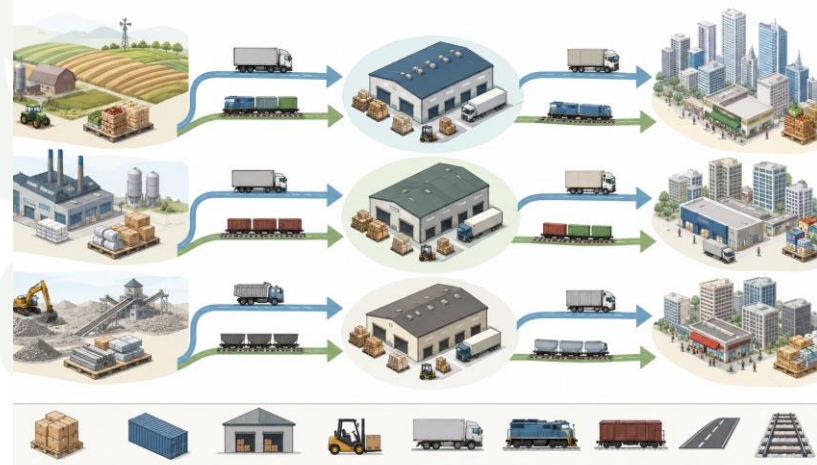
Freight Transport Management and Logistics Networks

Freight transport management includes planning, organisation, monitoring and control of goods movement through a logistics network. The goal is to ensure timely, reliable and cost-effective delivery while using vehicles, infrastructure and warehouse capacities efficiently.



Structure of a Logistics Network

A logistics network consists of suppliers, production facilities, warehouses, distribution centres, terminals, transport links and users. A well-designed network reduces unnecessary movements, shortens delivery time and improves the reliability of the entire transport system.



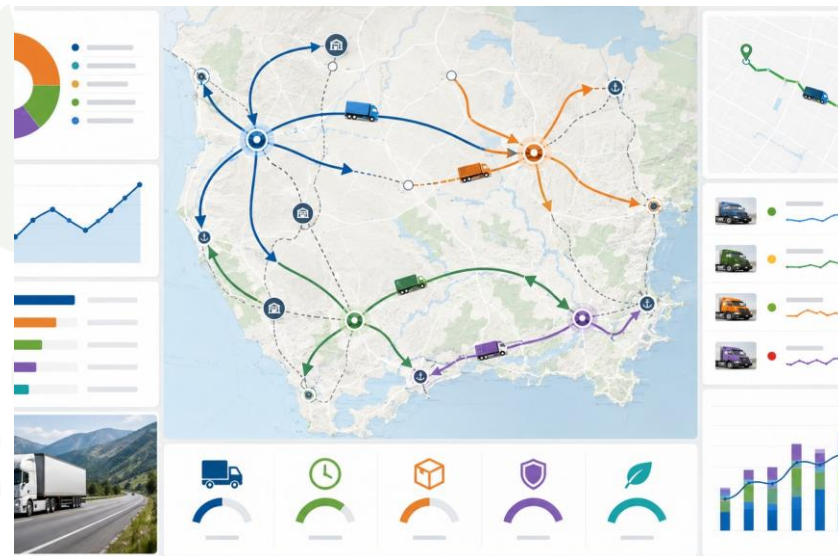
Route and Fleet Planning

Route planning involves selecting the most suitable paths for freight movement. Distance, travel time, costs, vehicle capacity, network restrictions, delivery deadlines and the possibility of combining several shipments in one trip must all be considered.



Role of Warehouses and Distribution Centres

Warehouses and distribution centres enable the receiving, storage, sorting and dispatching of goods. Their location and organisation affect the speed of market supply. Well-positioned centres reduce trip length and improve inventory control.



Intermodal Transport

Intermodal transport uses at least two transport modes within a single transport chain. Road, rail and water transport are most often combined. This approach can reduce costs, road congestion and negative environmental impacts.



Urban Distribution and the Last Mile

The last mile is the most sensitive part of delivery because it takes place in urban areas with limited space, congestion and high user expectations. Solutions include micro-hubs, electric delivery vehicles, cargo bikes, parcel lockers and delivery time windows.



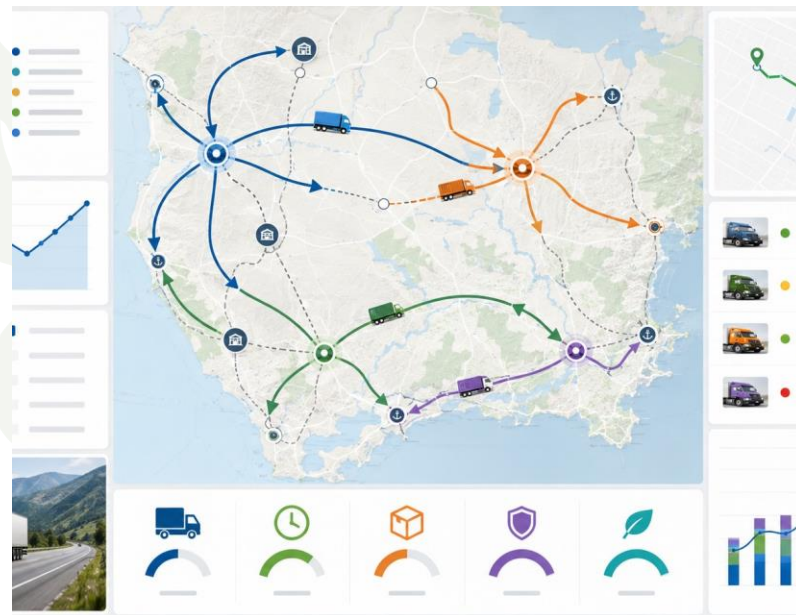
Digitalisation and Shipment Tracking

Modern transport management relies on GPS tracking, sensors, electronic documentation, warehouse management systems and route optimisation platforms. Digitalisation increases visibility, reduces errors and enables faster responses to disruptions.



Costs and System Performance

Freight transport costs include fuel, driver labour, vehicle maintenance, tolls, warehousing, transshipment and administration. Performance is monitored through delivery accuracy, vehicle turnaround time, capacity utilisation, reliability and customer satisfaction.



THANK YOU!