

Logistics Management overview



Logistics (Christopher, M. 1998)



- **Logistics** is the process of strategically managing the procurement, movement and storage of materials, parts and finishing inventory (and the related flows of information) through the organisation and its marketing channel in such a way that current & future profitability are maximised through the cost-effective fulfilment of orders.



Transportation

Warehousing (and more generally, location)



Material handling

Packaging



Inventory management

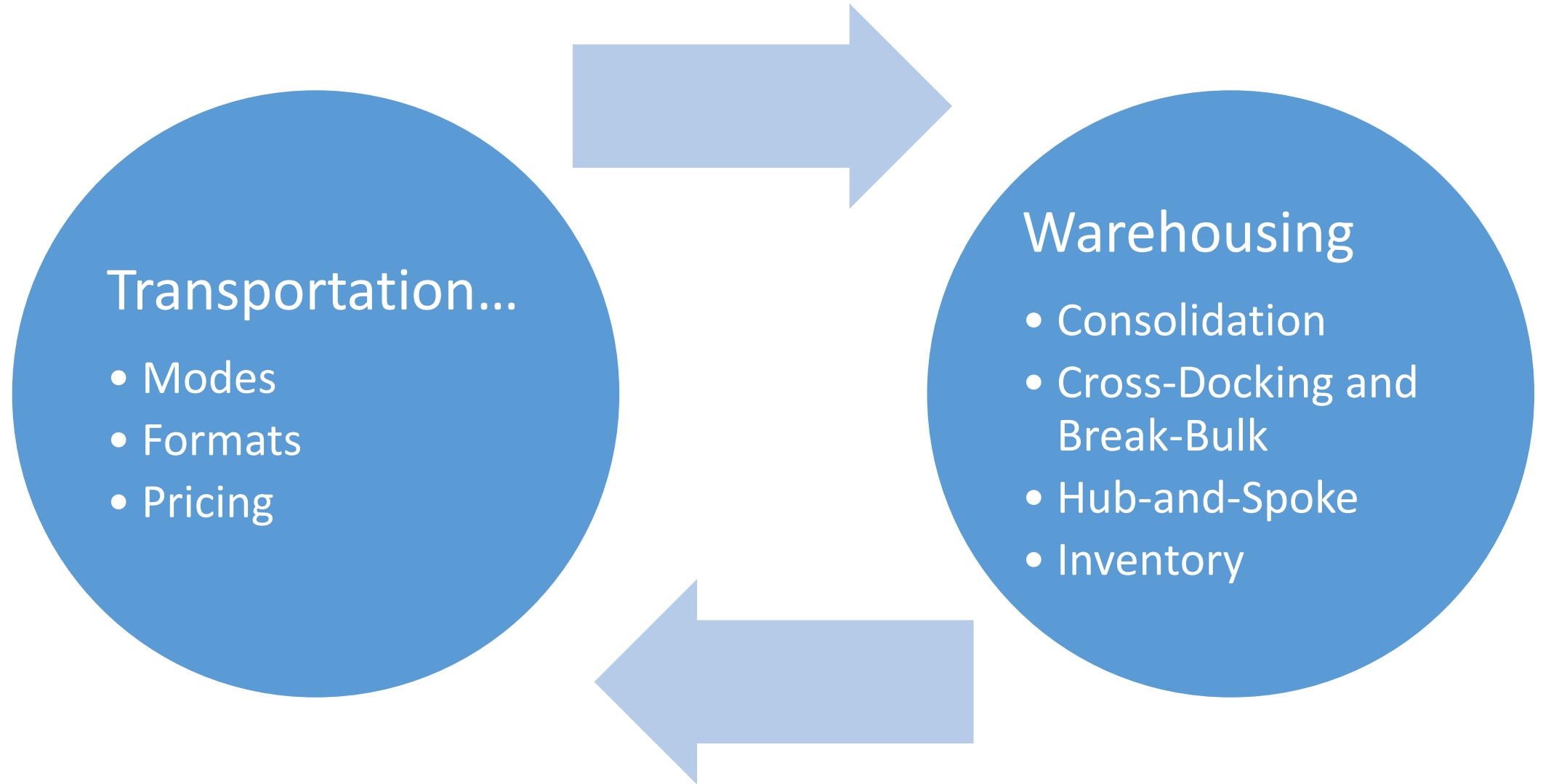
Logistics information systems



Management Areas



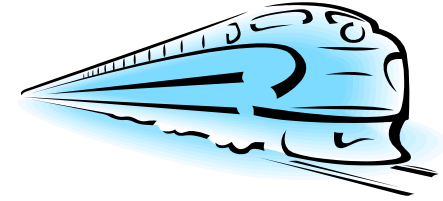
Logistics Decision Areas



Major Transportation Modes

Rail

Nation's largest carrier, cost-effective for shipping bulk products, piggyback



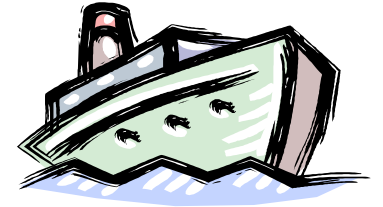
Truck

Flexible in routing & time schedules, efficient for short-hauls of high value goods



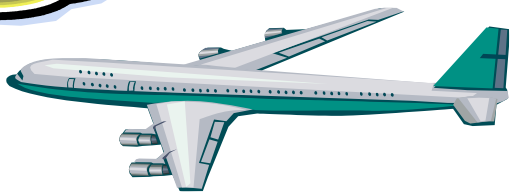
Water

Low cost for shipping bulky, low-value goods, slowest form



Pipeline

Ship petroleum, natural gas, and chemicals from sources to markets



Air

High cost, ideal when speed is needed or to ship high-value, low-bulk items

Steps of Logistics Development



Phase I – Pre-business applications



Dating from the Napoleonic Wars



Refers to the technique of moving and quartering armies – quartermasters' work



Still applied for the NATO Allied forces



Steps of Logistics Development, cont'd

- Phase II – Logistics supports marketing-mix



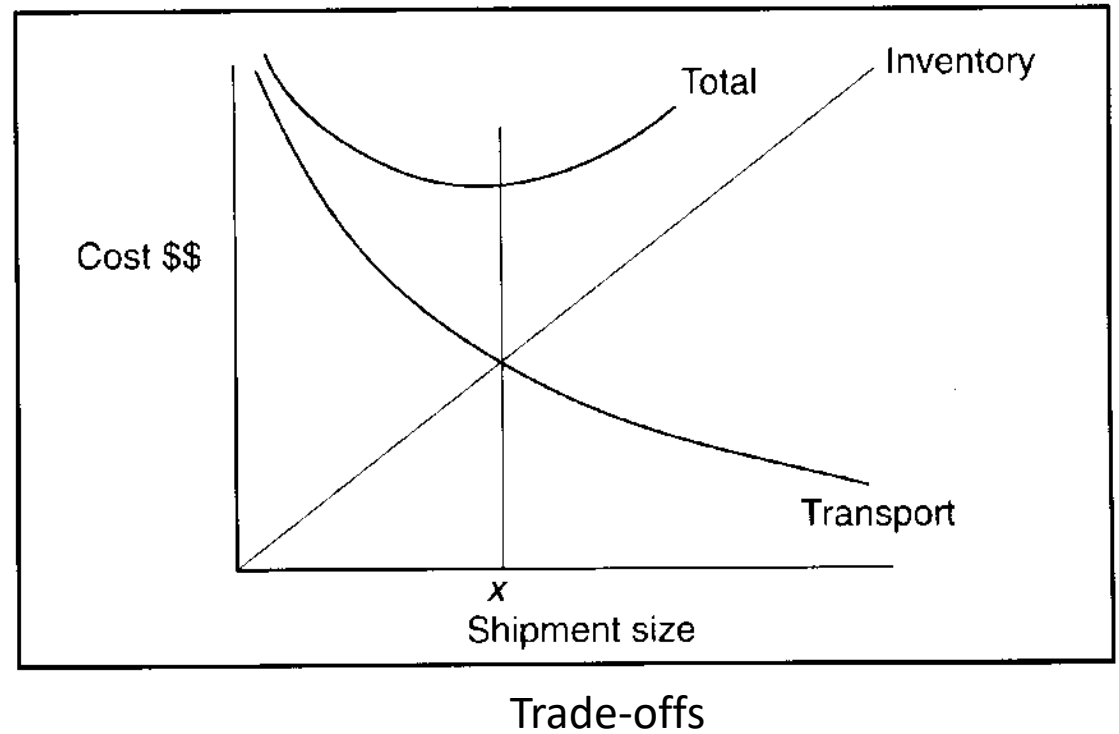
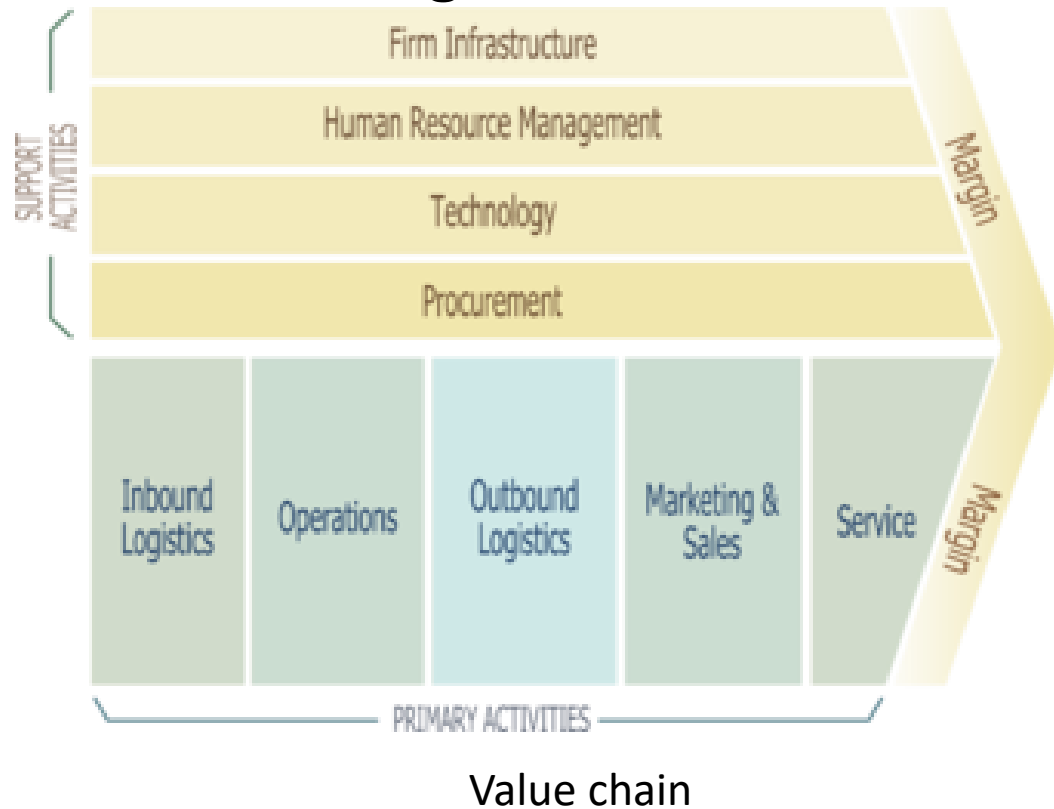
b) Trade-offs in marketing



a) Utility of place, time and possessions

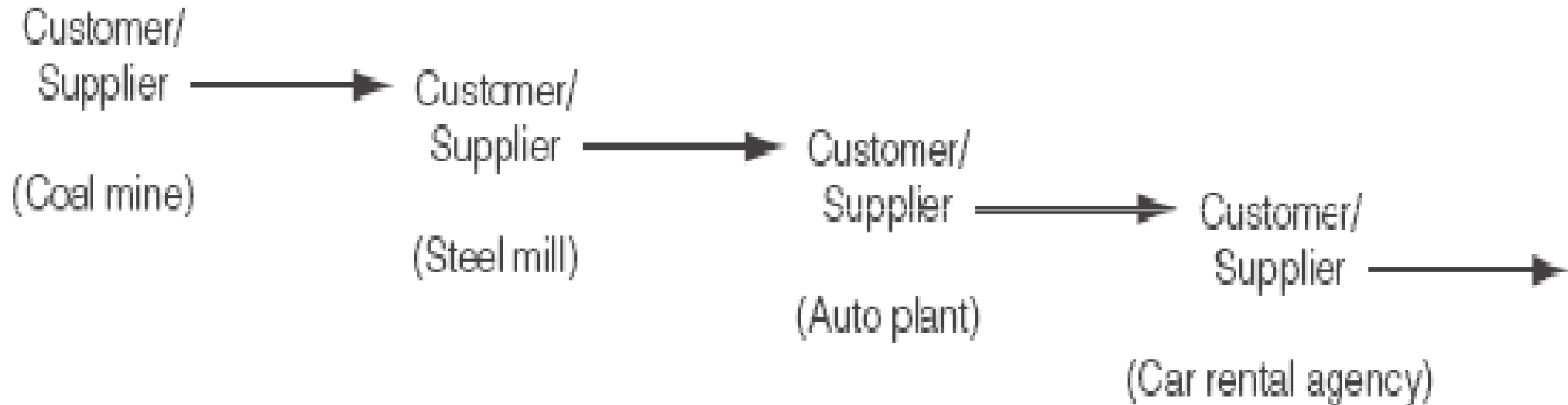
Steps of Logistics Development, cont'd

- Phase III – Logistics integrates processes throughout organizations



Steps of Logistics Development, cont'd

- Phase IV – Supply chain management

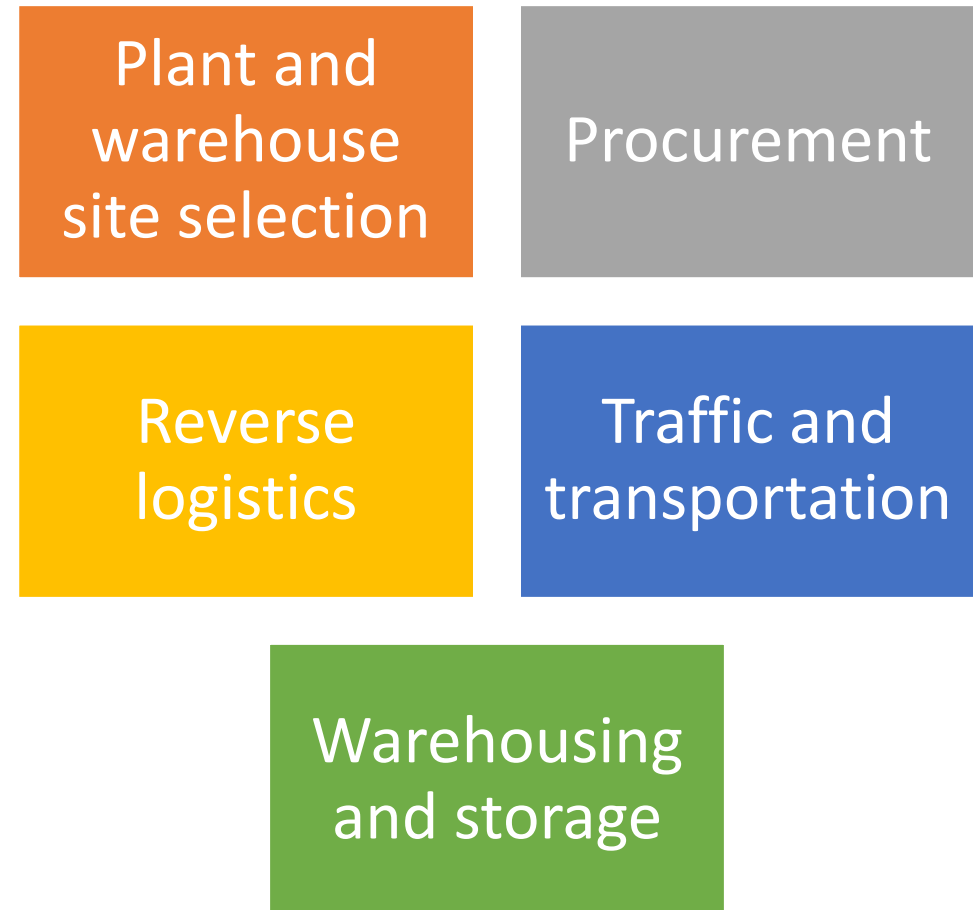
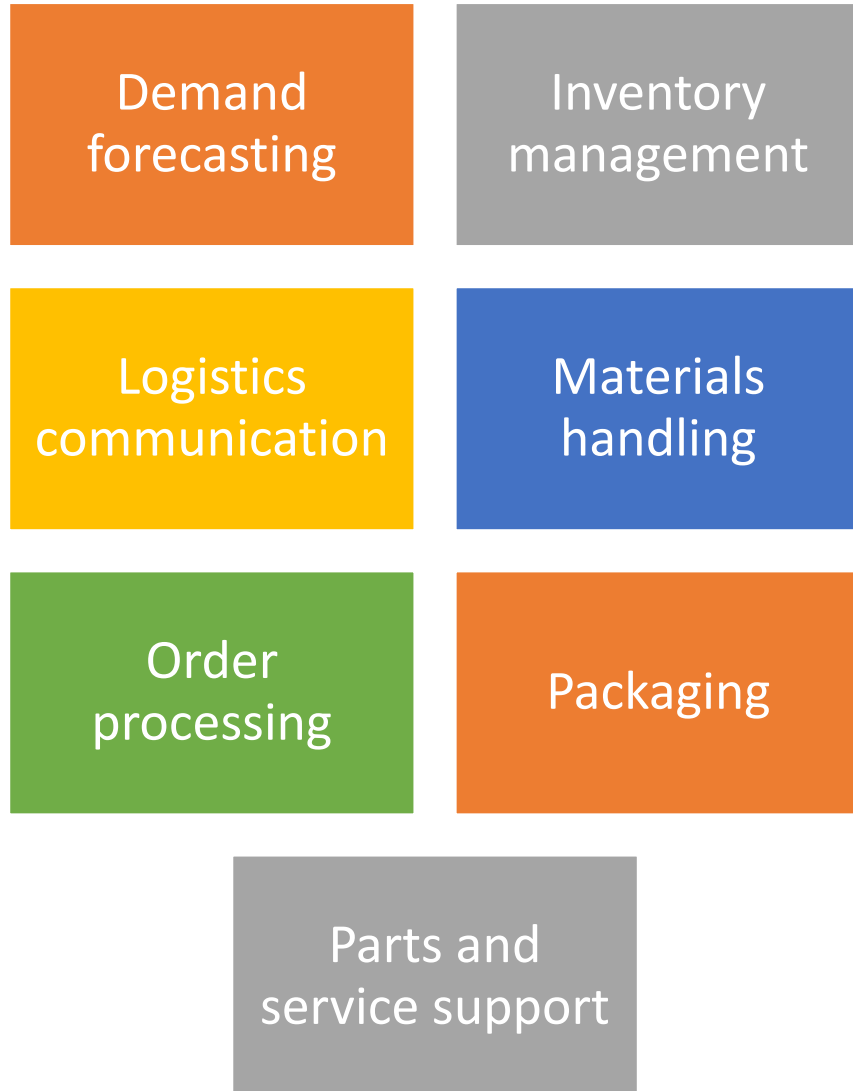


Perspective of value management beyond single organizations!

IT Development



Key Logistics Activities



Supply Chain

- A supply chain is that network of independent organizations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer



Key Characteristics of Supply Chains

They're networks instead of loosely linked associations of discrete businesses



Linkages – coordinating supply chain processes and relationships

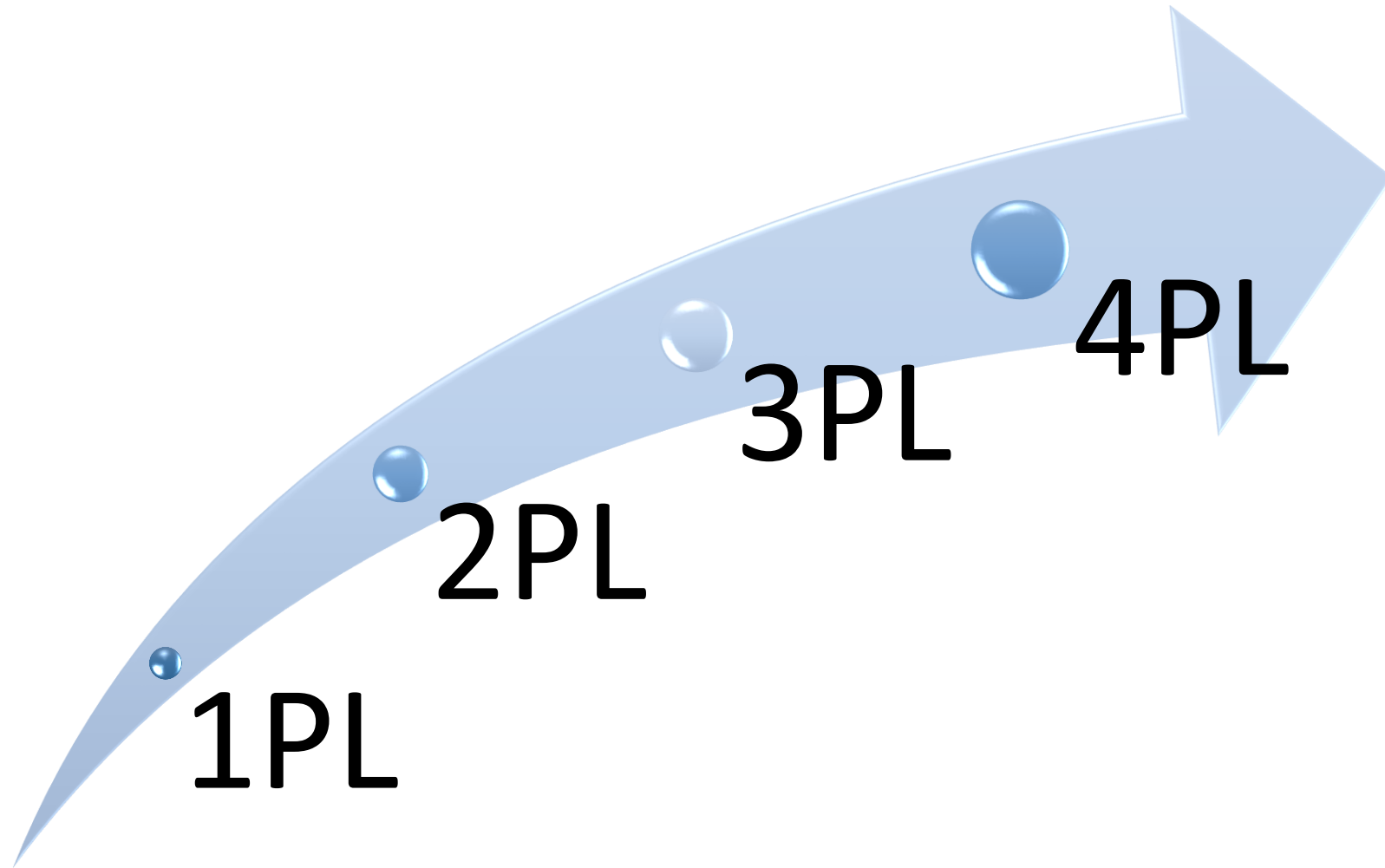


The linkages go both downstream and upstream



Based on process orientation

Logistics Parties



Third Party Logistics (3PL)

- A firm provides multiple logistics services for use by customers. Preferably, these services are integrated, or bundled together, by the provider.
 - Among the services **3PLs** provide are transportation, warehousing, cross-docking, inventory management, packaging, and freight forwarding.



Third Party Logistics (3PL), cont'd



- **Third-party logistics providers**
- freight forwarders
- courier companies
- other companies integrating & offering subcontracted logistics and transportation services

Fourth Party Logistics (4PL)

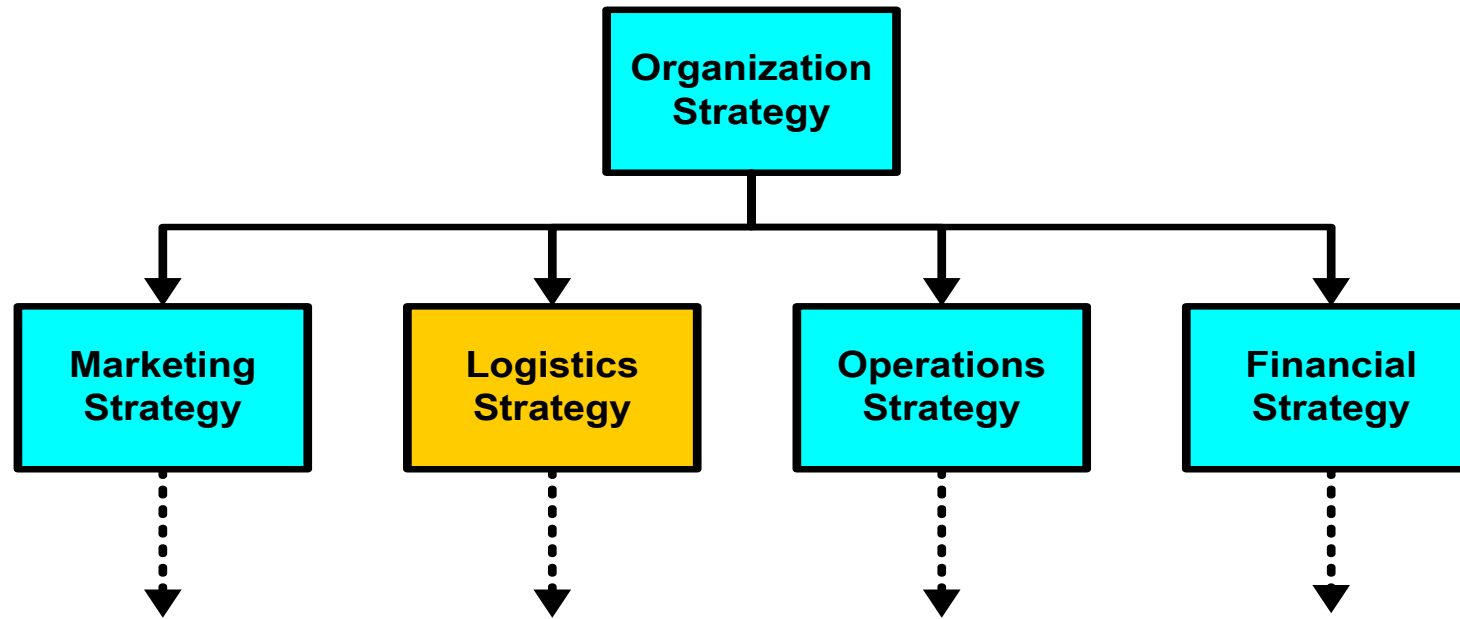
- A **Fourth-party logistics provider** (abbreviated **4PL**), lead logistics provider, or 4th Party Logistics provider, is a consulting firm specialized in logistics, transportation, and supply chain management.
 - **NON-ASSET BASED!**



Logistics Strategy Choices

Performance Dimension	Transportation Mode	Warehousing System
Delivery Reliability	Highway, Air	Direct Ship, Assortment, Spot Stock
Delivery Speed	Air, Highway	Direct Ship, Assortment, Spot Stock
Mix Flexibility	Highway, Air, Rail	Assortment, Spot Stock
Design Flexibility	Highway, Air	Postponement
Volume Flexibility	Highway, Air	Direct Ship, Assortment, Spot Stock
Cost	Rail, Water, Pipeline, Highway	Consolidation, Cross-Docking, Hub-and-Spoke

Who “Owns” Logistics?



Executive-level of representation
Difficult goal of functional integration
Organizational question: Who really ‘owns’ logistics?
Transportation?
Marketing?
Operations?

Thank you for your attention!