IDS Supply Chain Executors

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Supply Chain Control Towers

Case: DSM Engineering Plastics & IDS

Amsterdam
June 22 2017

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Agenda

1. Introduction
2. DSM Engineering Plastics
3. IDS
4. Why a Transport Control Tower?
5. Control Towers and Smart Transport Management

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Jan-Pedro P.M. Vis

ORMIT Enjoy talent

February 2006 - June 2008

Management Trainee

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June 2008 - October 2010

Transport manager

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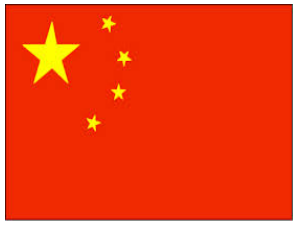
October 2010 - July 2013

Manager Customer Service & Sales Operations



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July 2013 - June 2015

Program Manager Marketing Sales

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June 2015 - Feb 2017

Manager Purchasing Europe

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March 2017 - Today

Global Procurement Director

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DSM Engineering Plastics

Company Introduction

HEALTH · NUTRITION · MATERIALS

Growth driven by global megatrends

Health & Wellness	Global Shifts	Climate & Energy
		
Aging population	Population growth	Sustainability concerns
Healthcare issues	Urbanization drive	Resources constraints
Food composition	Wealth increase	Energy concerns
Health	**Nutrition**	**Materials**

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DSM at a glance*

People

20,750

Workforce
(at year-end 2015)

Planet

24

Innovation sales as % of total sales

Profit

€ 7,722

Net sales, continuing operations (x million)

€ 1,075

EBITDA, continuing operations[1] (x million)

* 2015 numbers total DSM

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Key financial figures 2015
Engineering Plastics

Net Sales (€ million):

2015	2014
1,378	1,324

# of employees:

2015	2014
1,963	1,826

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Creating shared value in our end markets

Automotive

Reduction fuel consumption

Solutions to lower footprint

Safety & comfort

Electrical & Electronics

Speed of innovation

Miniaturization

Elimination of substances of hazardous concern

Packaging

Reduction of food waste

Recycling and bio-based solutions

Safety & convenience

Consumer goods

Improved functionality

Safety, health and comfort

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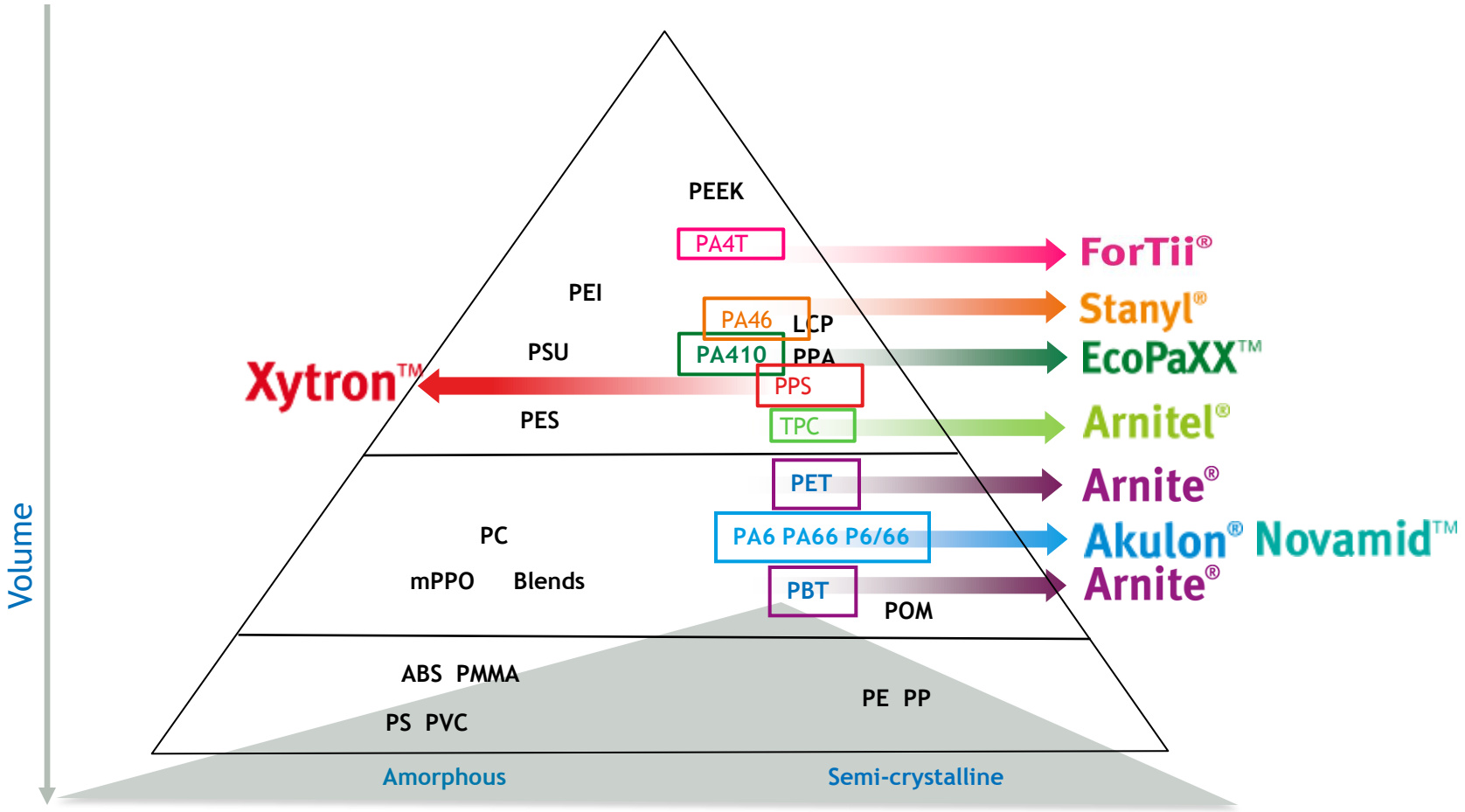
Leadership in core product lines



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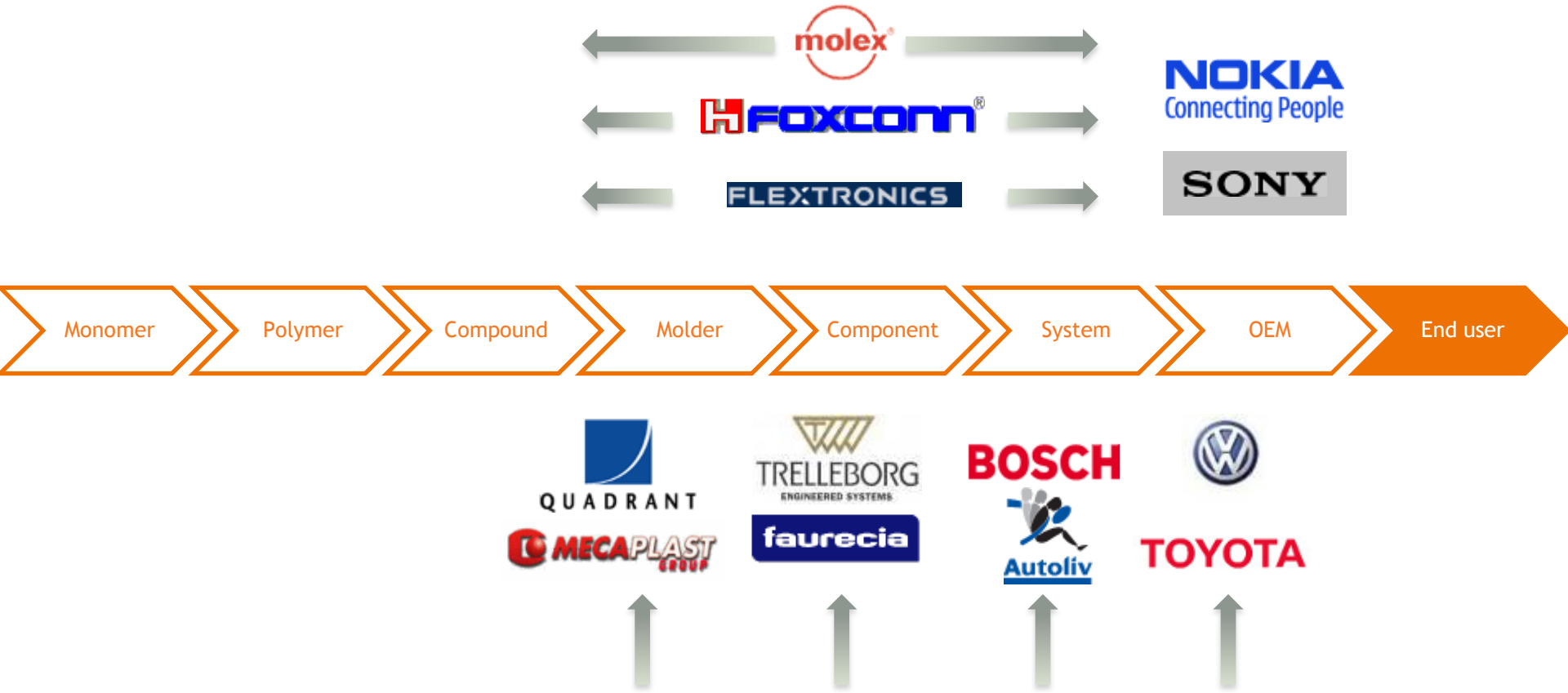
Understanding the value chain



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The applications

AUTOMOTIVE

PAKCAGING

ELECTRONICS

CLOTHING

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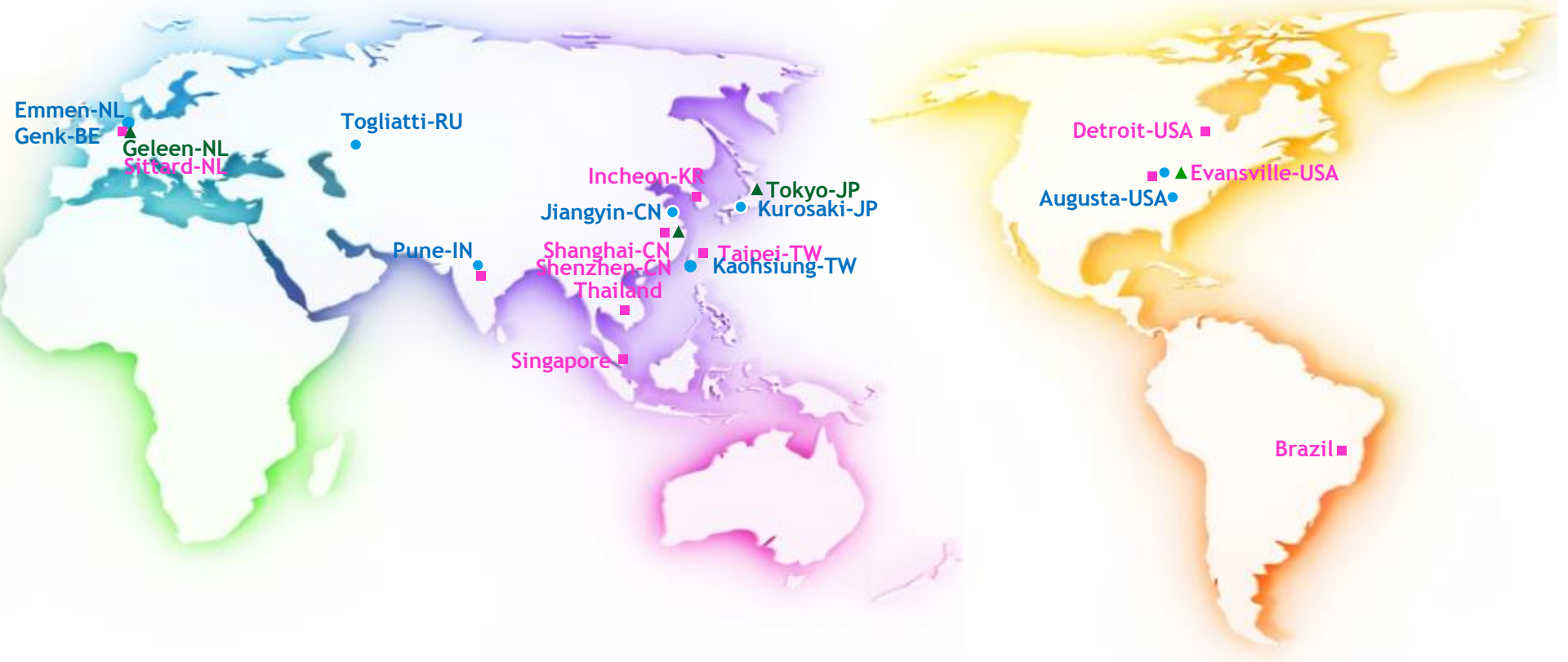
Our locations worldwide



- DSM production locations
- DSM R&D locations
- DSM offices

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The Product

Non ADR granulate

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Packaging types

Bag in Sample Box ~ 25 kg

Dry Bulk~ 25 tons

Bags on Pallets ~ 1300 kg

Octabin on Pallets ~ 1300 kg

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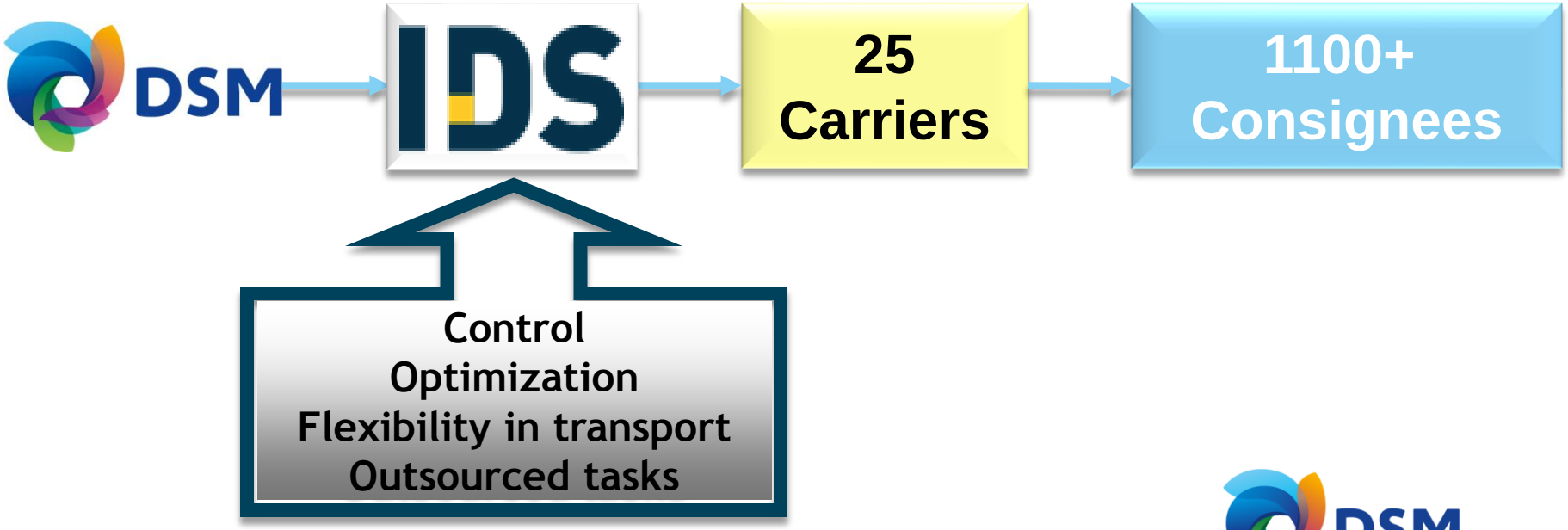
Why outsource transport management?

1. DSM Engineering Plastics is not a Logistics company, but a Material Sciences company.

2. We need best in class partner with professional tools to optimize and control the quality and cost of our transport

Transport process DEP



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IDS: Supply Chain Executors

HEALTH · NUTRITION · MATERIALS

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Non-asset based 4PL / logistics control tower, founded 1988
Managing, executing & optimizing (larger) shipper's transportation operations & contracts, from a carrier neutral perspective.

1. Transport Management Platform
- SaaS - Secure web based environment
- State-of-art TMS, full functionality
- ***PLUS:*** Optimization tools

2. Highly educated supply chain professionals
- Daily Logistics Execution
- Managing carrier base
- ***PLUS:*** improvement target

Independent transport management partner (transaction fee)

YPAREX EXTRUDABLE ADHESIVE RESINS

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Mitsubishi Engineering-Plastics

stahl

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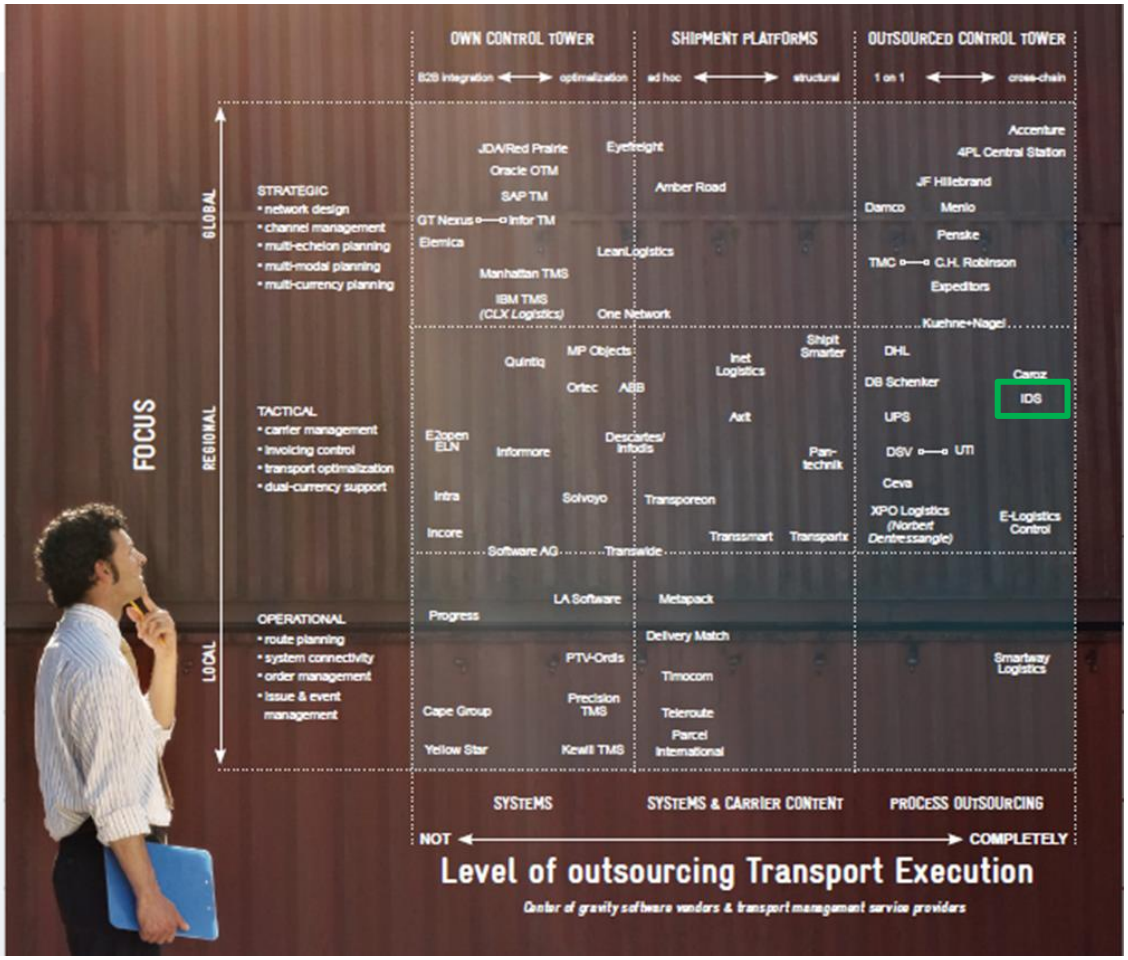
What is Control Tower?



A **supply chain Control Tower** is a central hub with the required technology, organization, and processes to capture and use supply chain data to provide enhanced visibility for short and long term decision making that is aligned with strategic objectives.
Capgemini Consulting

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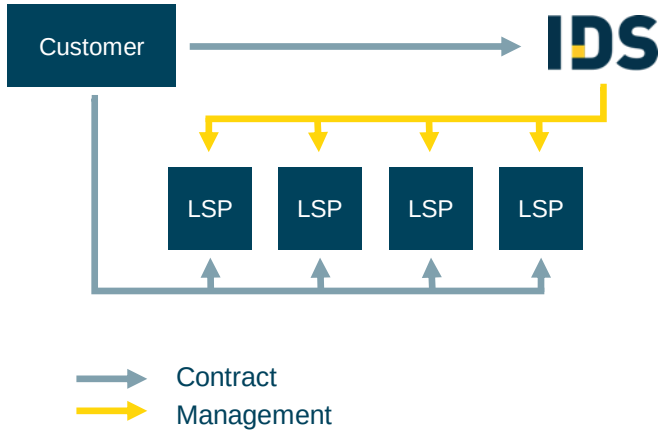
The Neutral 4PL

IDS managed Transportation Services



Transport Management

- **Visibility** of the Supply Chain
- World class TMS functionality

IT Integration

- Integrated IT platform over the services
- **Single point of entry** for full service portfolio
- **Flexible** connectivity towards carriers

Leverage of expertise

- **Best practice** sharing
- Global pool of expertise
- High skilled personnel

Operational Excellence

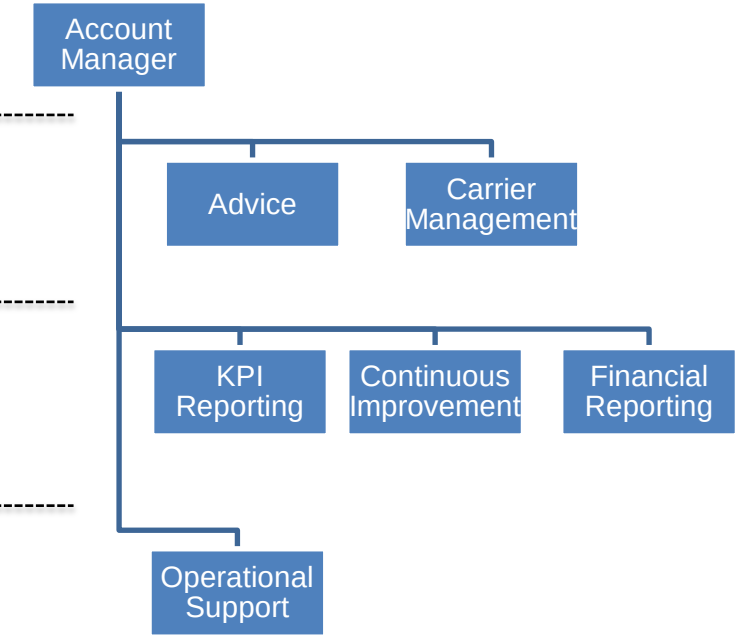
- Culture of **Operational Excellence** and Compliance
- Proven track record of **Cost Optimization**
- Proven standardized processes

Account Structure

Strategic

Tactical

Operational



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Control Towers and Smart Transport Management

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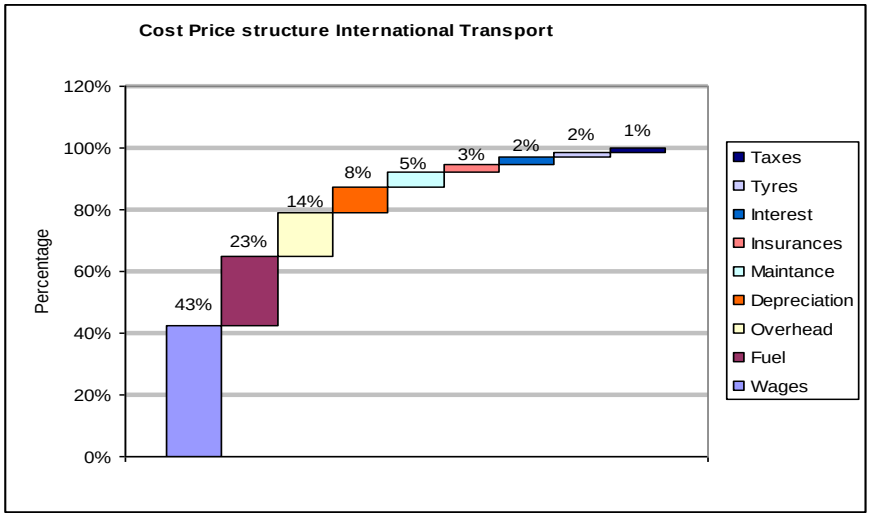
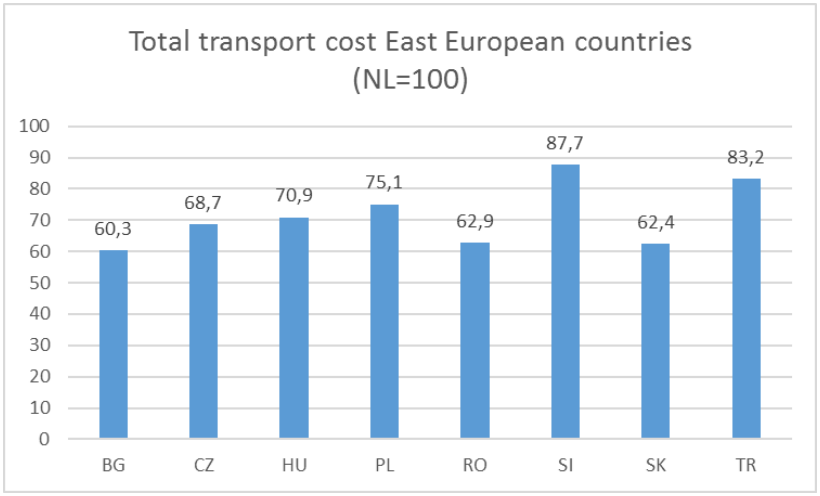
Cost Structure International Transport



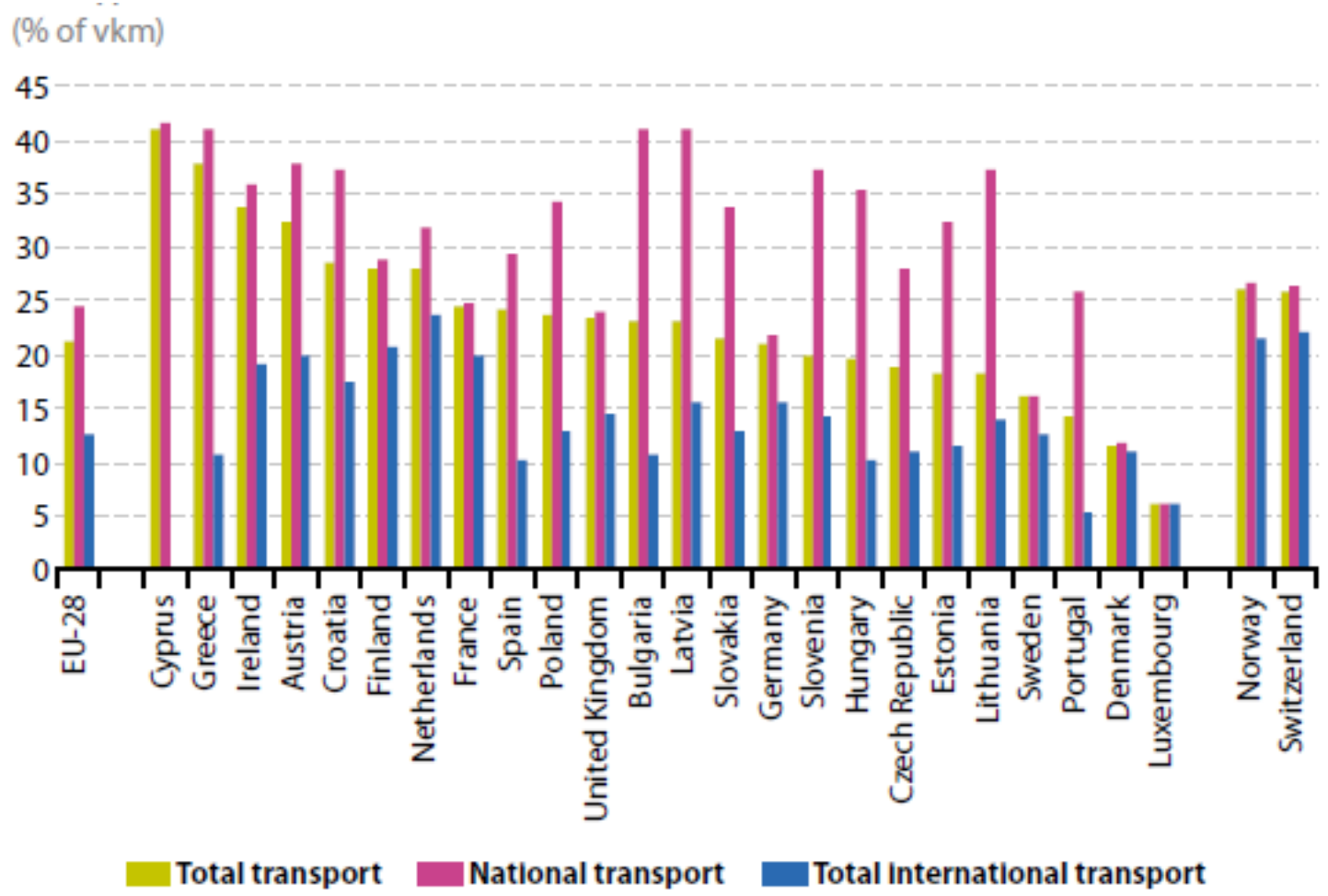
60% of the cost price is labor and fuel

East European carriers are more cost effective but wages are increasing and how long will this bring a cost advantage?



Transport Capacity

Share of empty journeys in the total journeys by type of operation, 2014



(1) No empty vkm reported by Belgium, Italy, Malta and Romania.

Source: Eurostat (online data code: road_go_ta_tott)

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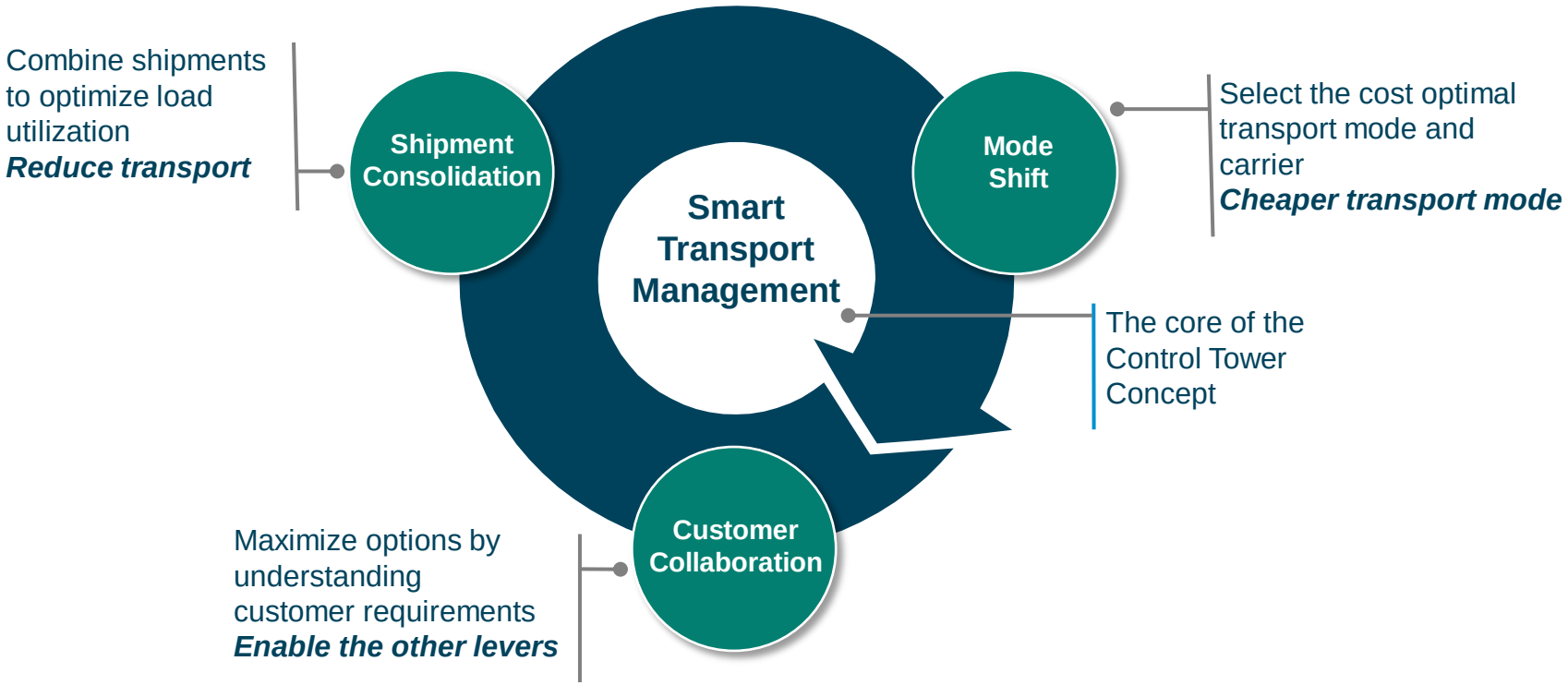
Levers of Smart Transport Management



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Smart Transport Management Solutions

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Shipment Consolidation

Financial Consolidation

Merge multiple orders administrative into one shipment
(orders need to have the same pick up and delivery address and need to move ate the same tome)

Separate shipping

Shipment A
5 pallets euro 190,-

Shipment B
5 pallets euro 190,-

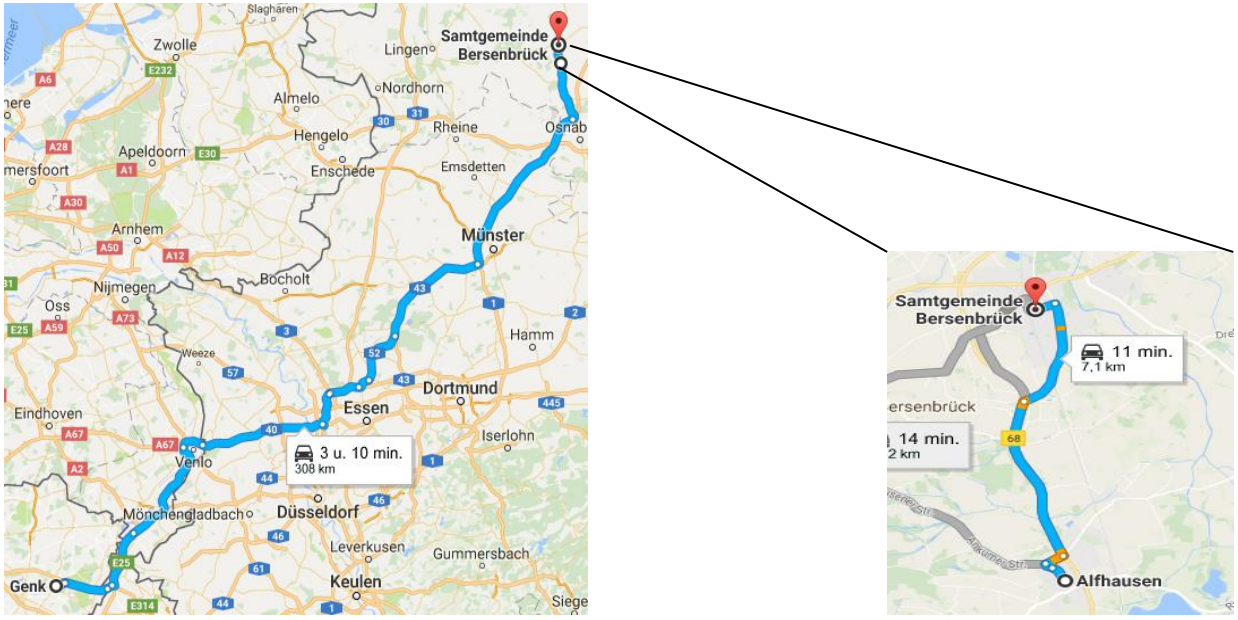
Consolidation

Shipment A + B
10 pallets euro 310,-

Shipment Consolidation

Geo Consolidation

Geo Consolidation optimizes shipment consolidation by considering all shipments that have delivery addresses close to each other.



Shipment Consolidation

Chemical Cross Chain Control Center (IDS-5 C)

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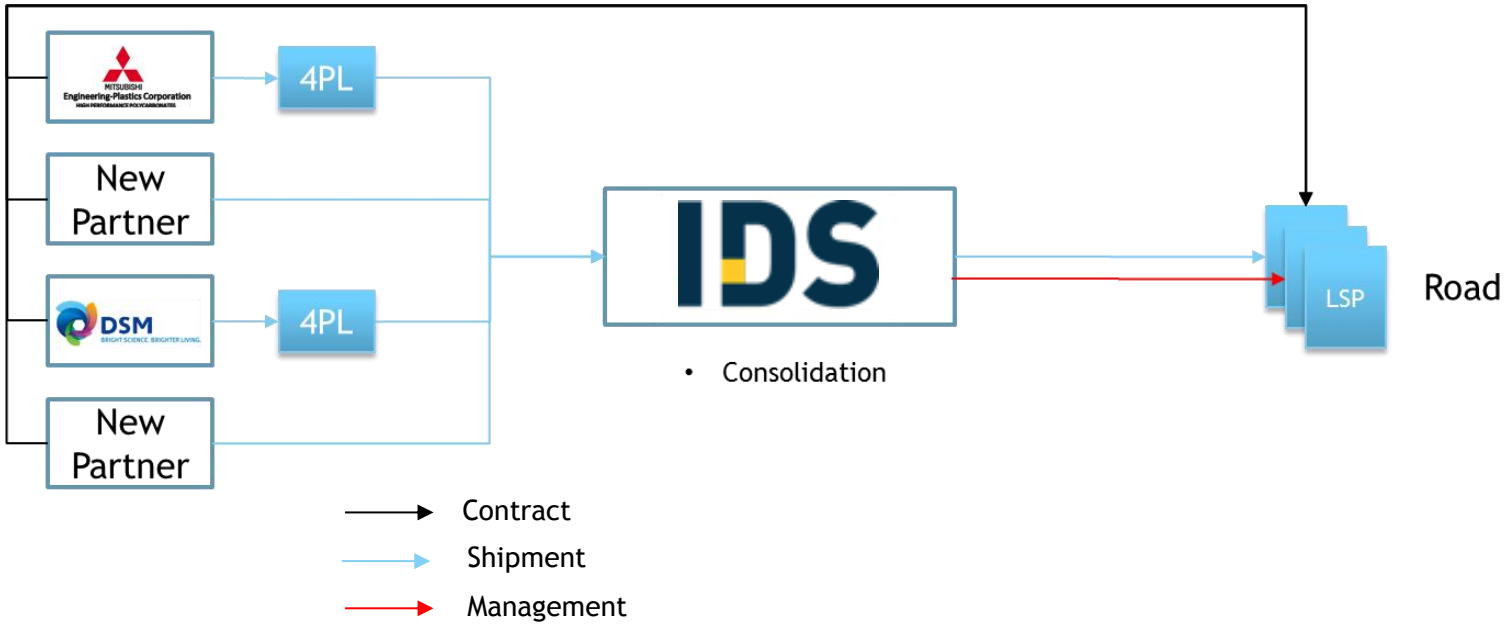
5 C consolidation optimizes shipment consolidation by considering shipments from different shippers and that have loading and delivery addresses close to each other.



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Mode Shift

Transport Optimizer by destination and modality based on costs

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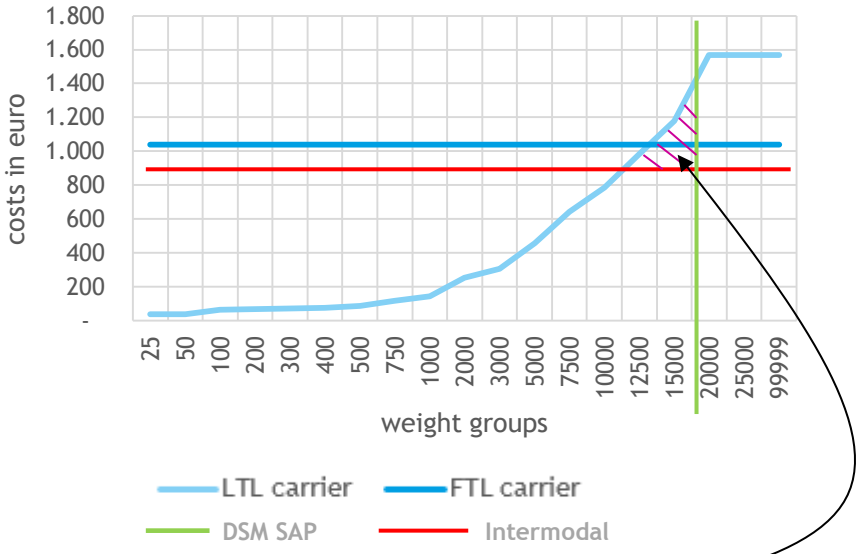
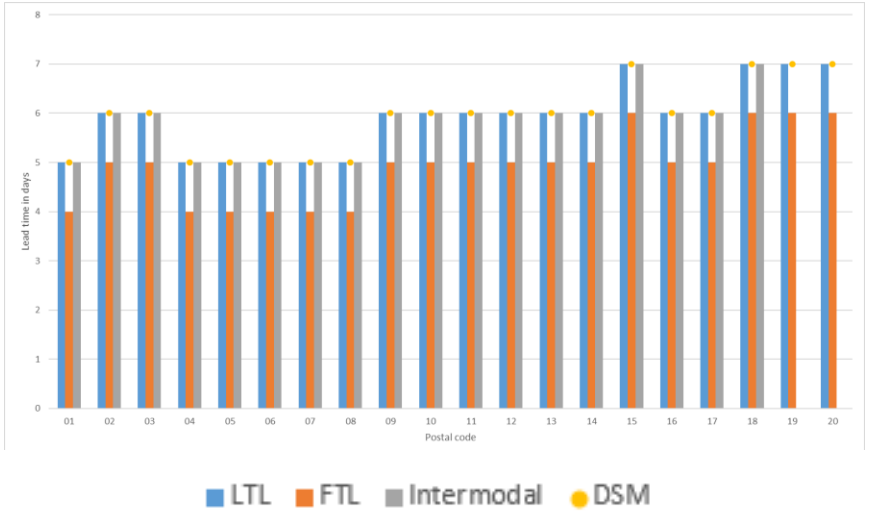
Shipment to Italy



Lead time to Italy



Additional savings due to optimization

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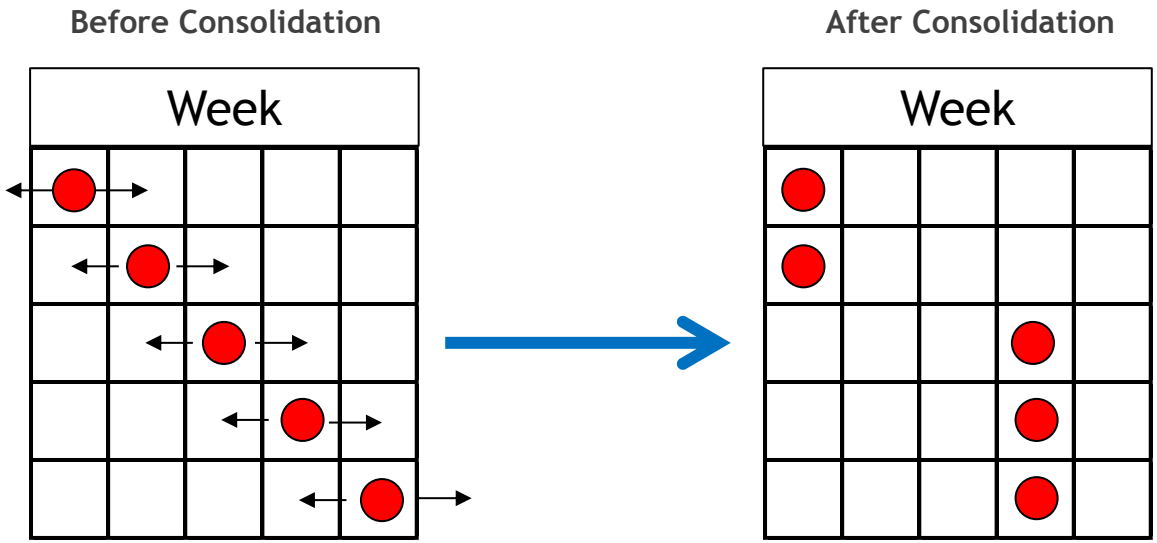
Customer Collaboration

Delivery windows

A Delivery Window to set a delivery window per receiver that may span several days before and several days after the planned delivery date.



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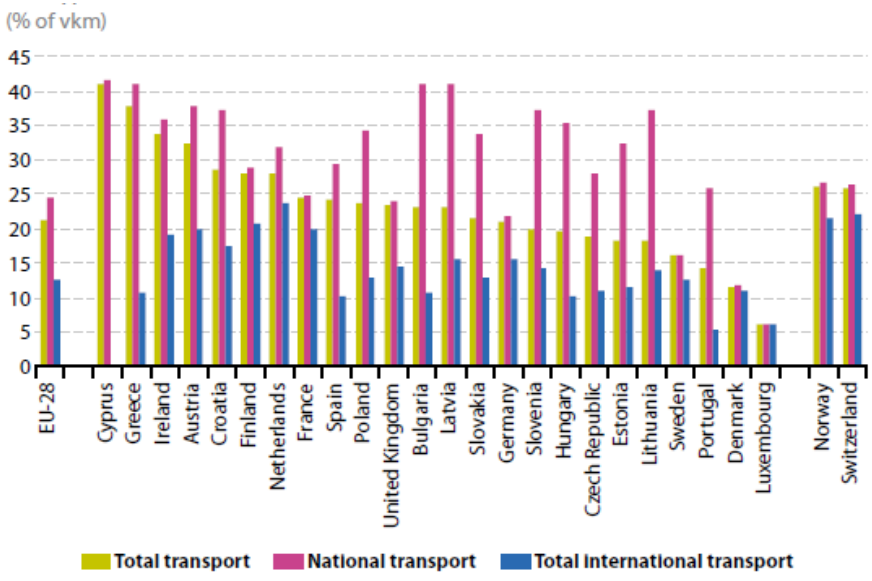
The Future Challenges

1. 30% unutilized transport capacity
2. Increasing pressure on Labor Market
3. Steep increase of heavy traffic projected for 2021 in the Netherlands
4. Importance of sustainability will increase, Paris Accord



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Source: Eurostat (online data code: road_go_ta_tott)

deVerdieping Trouw

Home Nieuws Opinie Groen Religie & filosofie Schrijf

Nederland Buitenland Politiek Economie Sport Cultuur G

Verkeer in steden dreigt vast te lopen

Door: Alwin Kuiken – 28/12/16, 06:45

© anp. De ring van Amsterdam. Foto ter illustratie.

2021 Steden slibben dicht. De komende vijf jaar verdubbelt de chaos. Te lang lag de focus op het oplossen van files op hoofdwegen.

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Smart ideas for the future…

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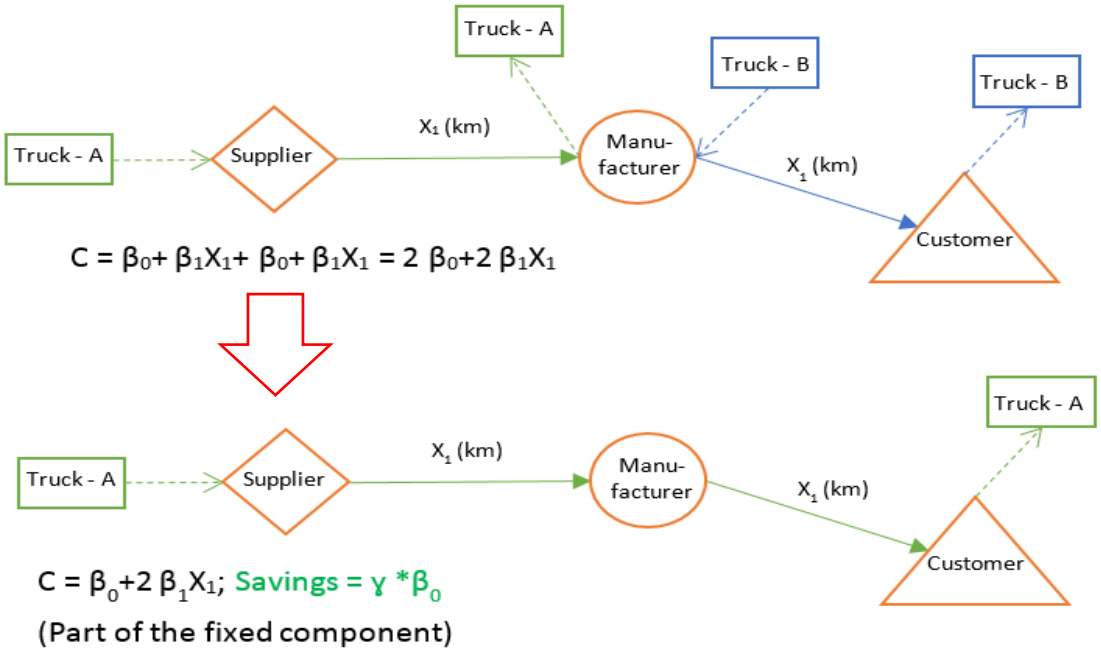
Inbound-Outbound Project

Minimize the empty kilometers driven



The Weight of Cargo	20,001-25,000kg
Adjusted R Square	*0.93*
Fixed Component *(p-values<0.01)*	206.05
Variable Component per Extra KM (p-values<0.01)	0.93

Challenges:

- Hauliers are reluctant to work on "spot-market" basis *(Irrational behavior)*
- Raw material suppliers use hauliers that deliver inbound flows as the return trips;
- Low interest due to potentially short distances for outbound flows and reasonably long dwelling time

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Challenge DSM - IDS

Organizations that enable success

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Outsourced business still requires business commitment to drive continues improvement

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Leverage the strengths of Descartes without losing the flexibility, agility and speed

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