

Proposition

Supply chain coordination

February, 2016



Content

• Proposition	3
• Supply chain coordination	6
• Why coordinate across and along supply chains?	8
• Supply chain coordination expertise in the Netherlands	15
• Innovation in supply chain coordination in the Netherlands	23
• Dutch solutions: Supply chain services	36
• Dutch solutions: Control towers for supply chain coordination	41
• Dutch solutions: Supply chain coordination IT	51
• Supply chain coordination analysis target markets	55

Proposition



Proposition Supply Chain Coordination to logistics chain operators

“ Dutch Supply Chain Coordination solutions enable your service organization to improve system availability and reliability and reduce operational costs through intelligent and optimized planning, direction and execution of transport flows “



Proposition Supply Chain Coordination to shippers

“Dutch Supply Chain Coordination solutions enable your organization to improve customer satisfaction by increased system availability and reliability and reduce operational costs through intelligent and optimized planning, direction and execution of transport flows .”

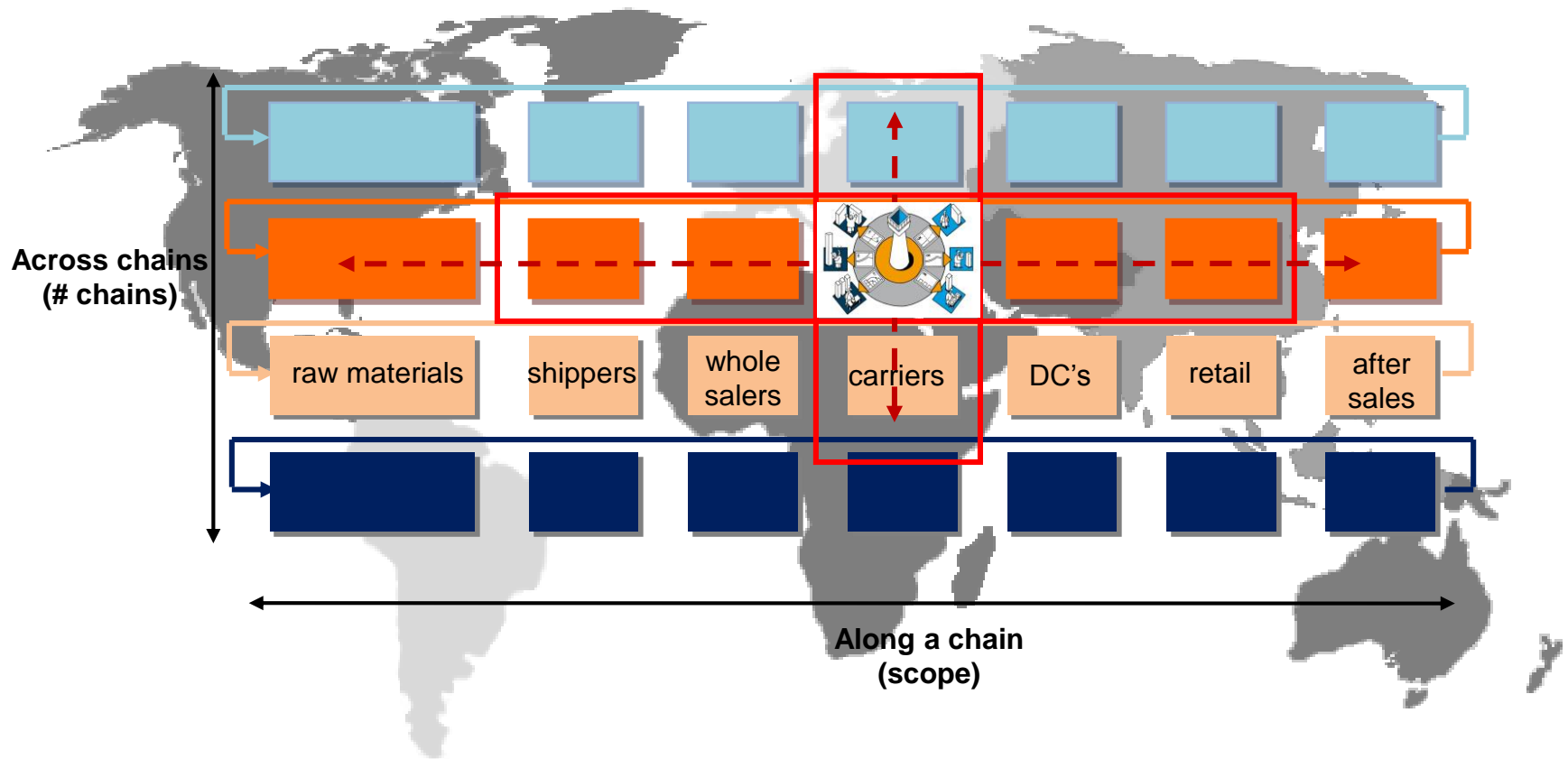


Supply chain coordination



Supply chain coordination

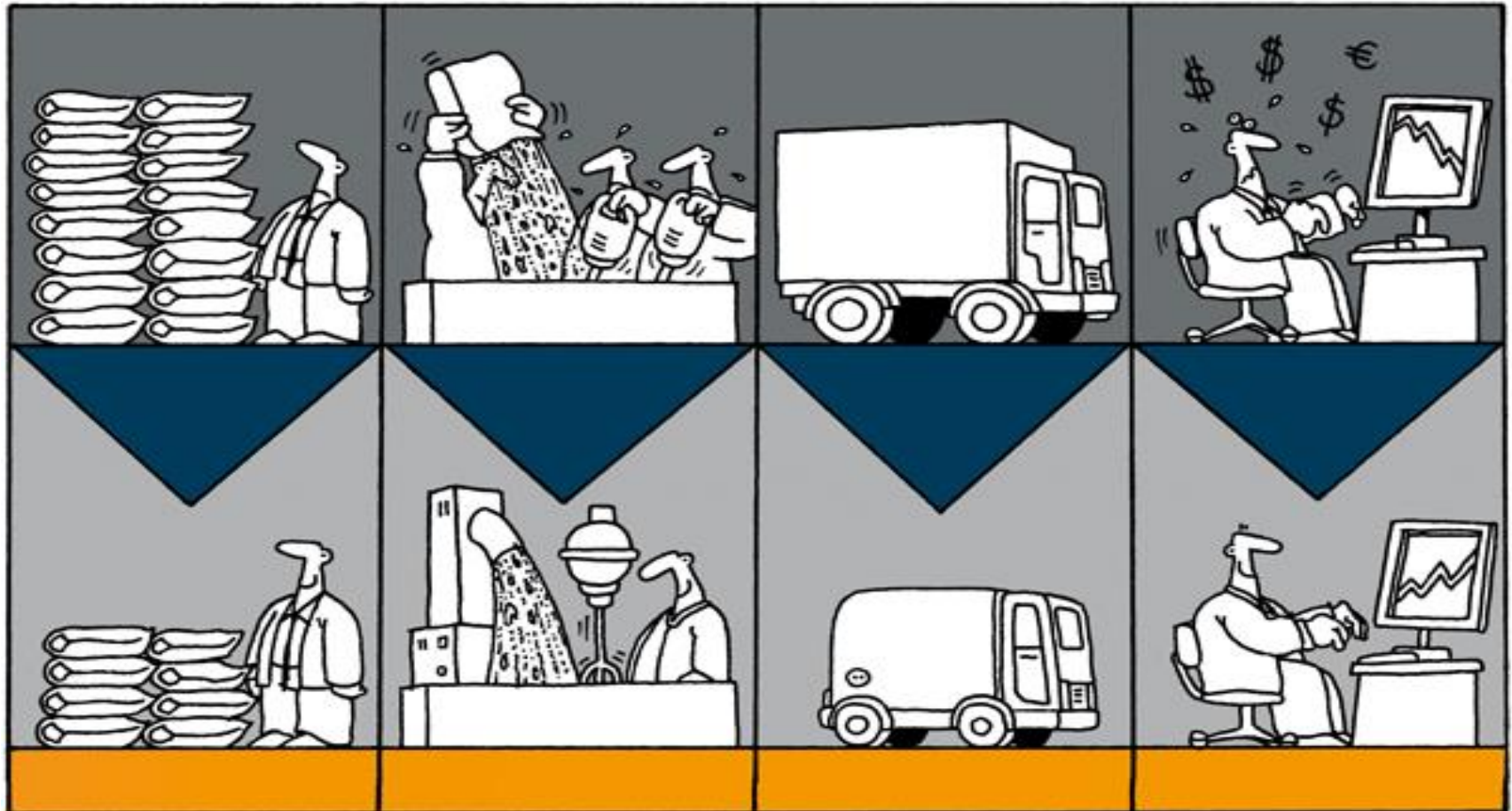
Along and across chains: thinking in networks



Why coordinate across and along supply chains?



Why supply chain coordination?



Drivers and solutions for supply chain coordination



Shippers perspective

- Low Price
- reliable time of delivery
- Right Quality (also safety, sustainability)



Logistic service provider perspective

- Optimization of asset use
- Efficiency in performance
- Flexibility of activities



Supply chain Solutions

- Network of service providers
- Scalable IT systems
- Available Infrastructure
- Network business models
- Trust in supply chains



Benefits

of supply chain coordination



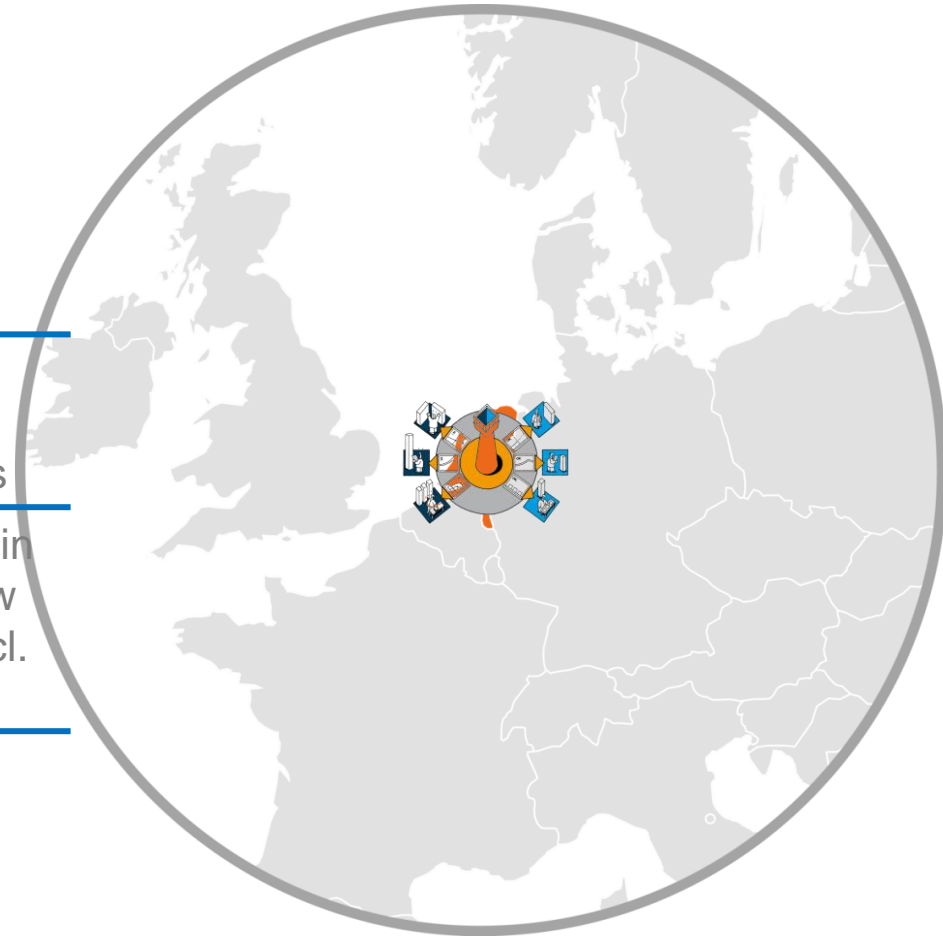
Improved coordination of transports in involved chains, leading to better harmonization and bundling of activities



Additional savings in costs and decreased pressure on the environment by combining loads



Development of new supply chain coordination knowledge and new profitable business activities (incl. new jobs);



Execution

through Cross Chain Collaboration Centers (4C)

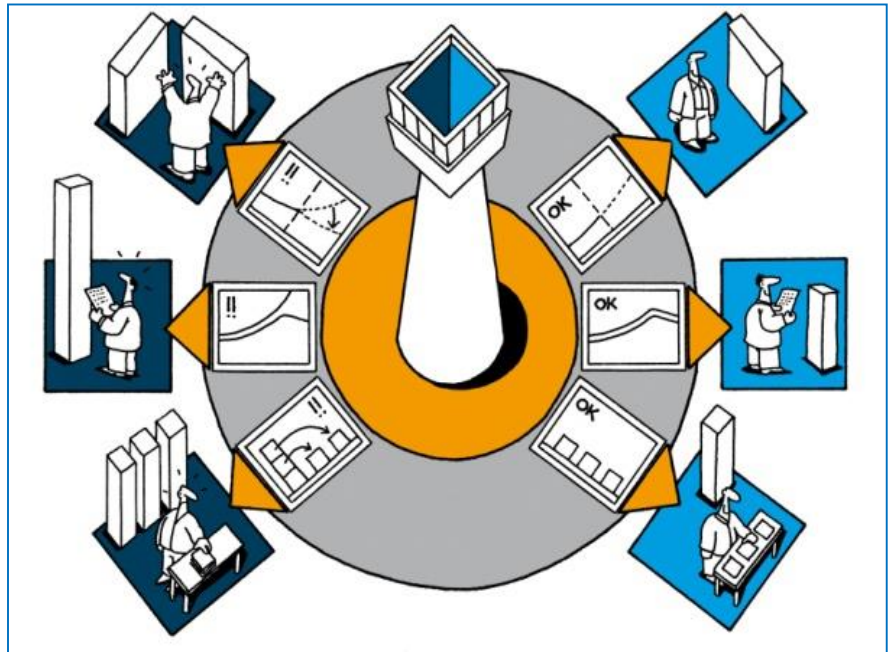
Cross Chain Coordination Centers (4C) are advanced centers where several complex worldwide supply chains are coordinated and directed.

This concerns the bundling, coordination and control of:

- physical goods flows,
- information flows,
- and financial flows.

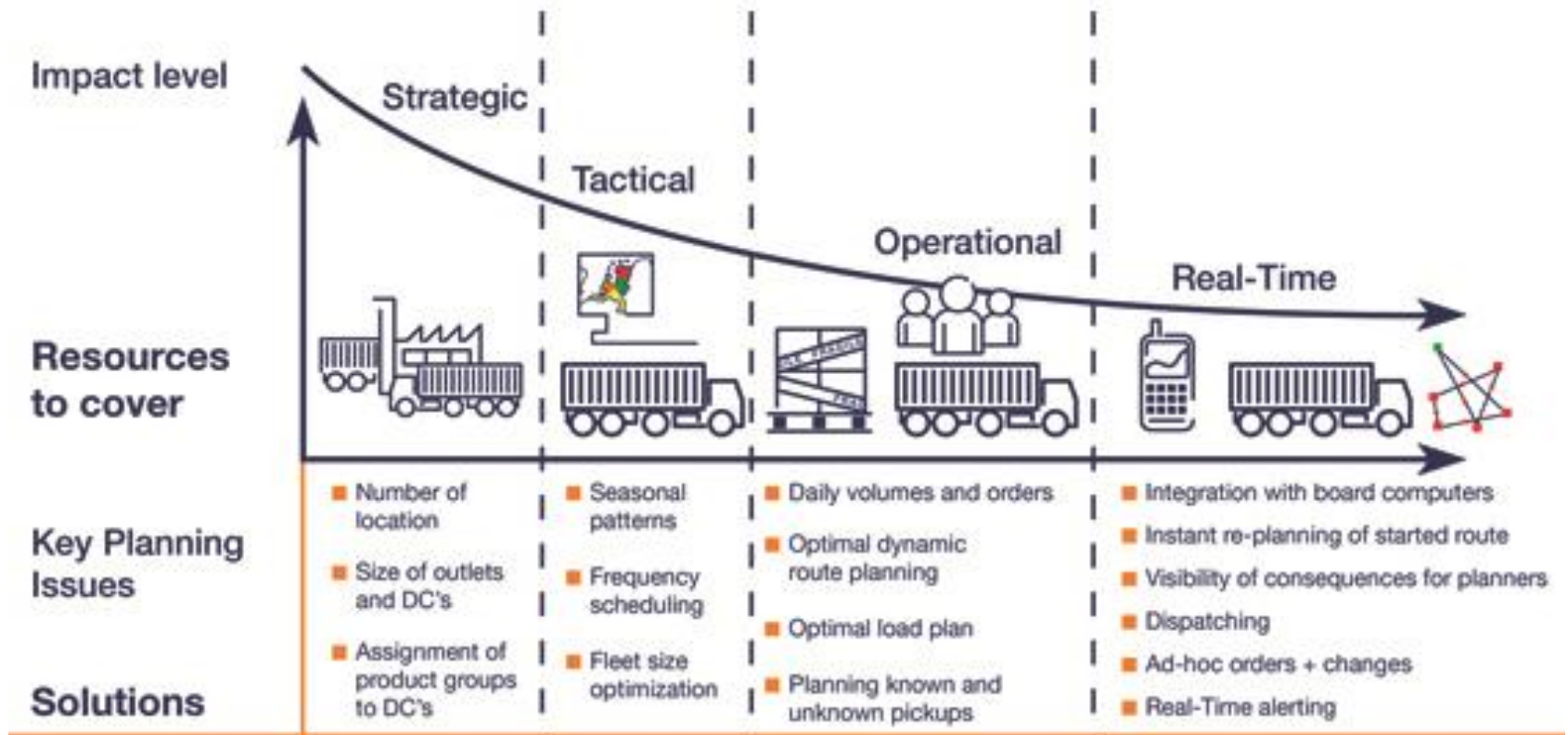
Key words:

- Cooperation among multiple companies
- Bundling, realizing economies of scale in the operations
- Sharing information



Logistics planning



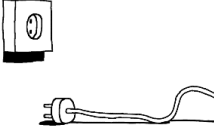



different levels for supply chain coordination



Source: ORTEC

Main Trends & Development

for logistics supply chain coordination planning

 <ul style="list-style-type: none">• E-fulfilment & Omnichannel• Closely knit distribution• More returns• Complex planning	 <ul style="list-style-type: none">• Internet of things• More data sources• More opportunities for planning optimization
 <ul style="list-style-type: none">• System integration• Plug & Play• Collaborative Planning	 <ul style="list-style-type: none">• Real-time data• Reliable planning• Increased service level
 <ul style="list-style-type: none">• Planner 2.0• Control Tower environments• Other skills	 <ul style="list-style-type: none">• Paperless transport• Documents coupled to logistics

Supply chain coordination expertise in the Netherlands



The Netherlands = Logistics



Geographical position as gateway to Europe



Availability of Mainports (Rotterdam, Schiphol/Amsterdam)



Excellent hinterland connections (road, rail, barge, shortsea)

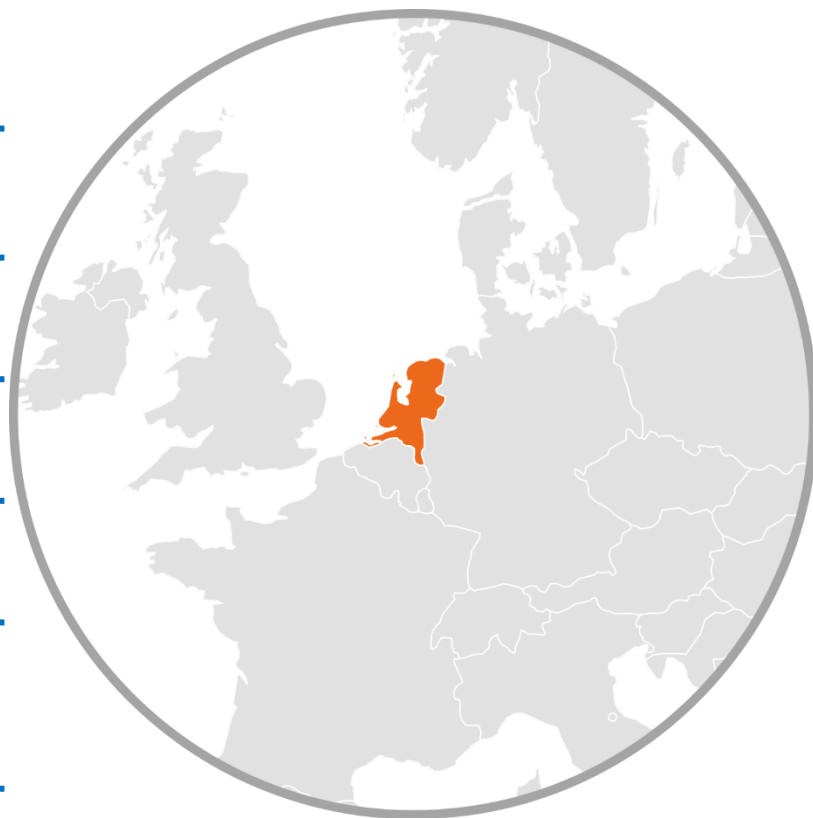


Many Logistics Service Providers (1PL-4PL)

Hassle-free legislative framework & customs



High level of knowledge:
8 research universities and 11 Universities of Applied Sciences specialized in logistics,



Logistics/transport related GDP in 2012)

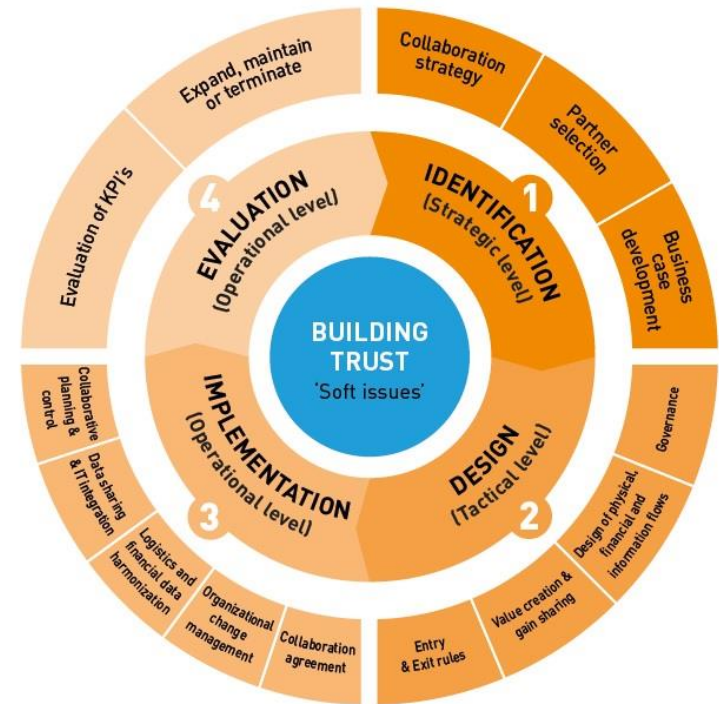
55 billion euro of added value (10% of GDP); 813,000 jobs (12% of Dutch workforce)

Knowhow Supply Chain Coordination

The Netherlands

The Netherlands: high level knowledge and innovation on how to develop and operate supply chain coordination

- Plan from collaboration
- Operational aspects
- Integration of IT, Plug&play
- Collaborative planning



Supply Chain Collaboration tool, TKI Dinalog

Examples of expertise supply chain coordination

The Netherlands



LSP's offering supply chain coordination services and control towers for European and worldwide supply chains



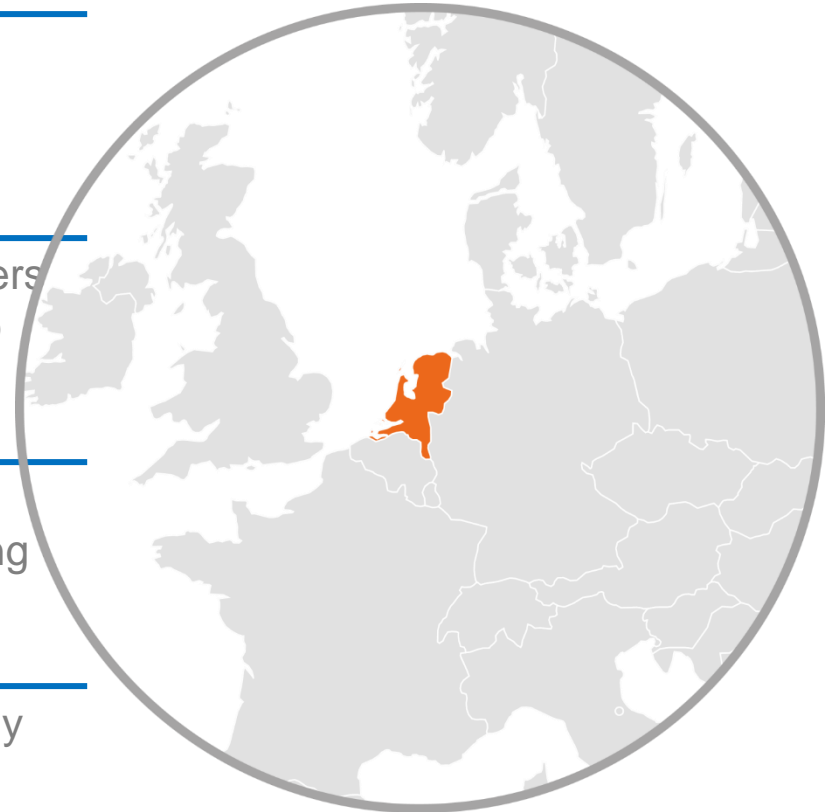
IT Companies, including global players offer a broad range of IT solutions to manage supply chains.



Dutch universities together with industry have carried out trend setting research leading to knowledge intensive practical solutions.



Dutch education institutes offer highly skilled graduates.

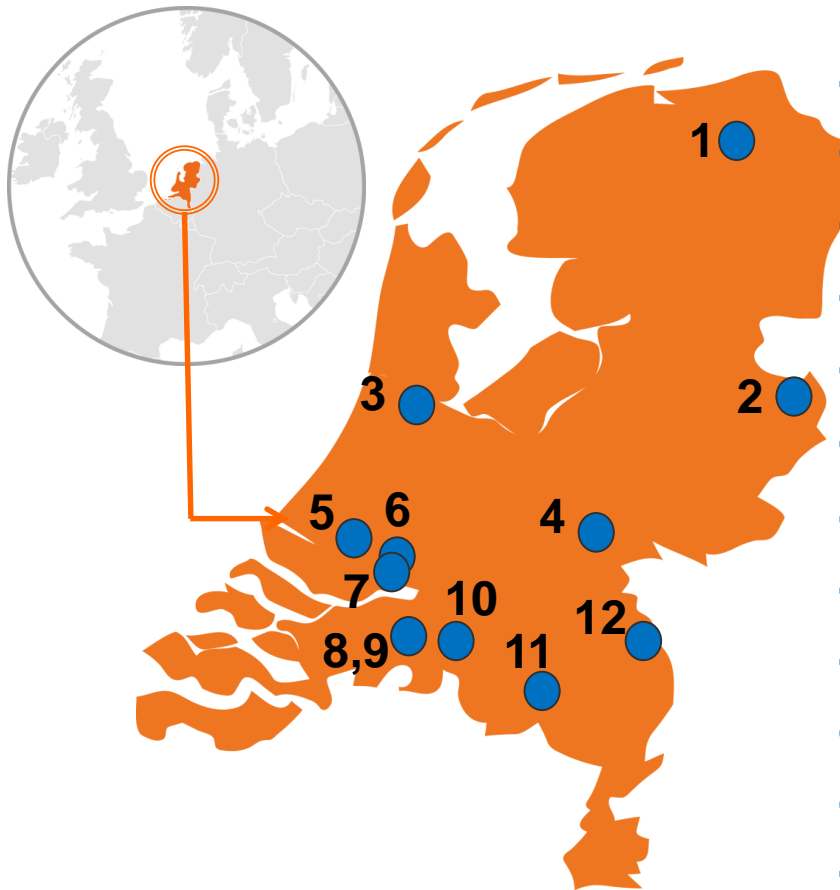


Examples of Supply chain coordination expertise in The Netherlands

Type of company	Supply chain role	Examples in the Netherlands
Logistic Service Provider	Control Tower coordination and transport and warehouse operations	Seacon, DSV, CEVA Logistics, Samskip van Dieren, Ewals, Greenway
IT suppliers	Development of supply software and services for logistic cooperation and optimization	ORTEC, Centric, Blue Rock Logistics, Quyntess
Network controllers	Develop and maintain platforms for exchange of logistic data and chain direction	Caroz, IDS, SIMACAN, Spierings Smart Logistics



Major knowledge institutes and universities for supply chain coordination in the Netherlands



1. University of Groningen

2. University of Twente

3. University of Applied Sciences Amsterdam

4. University of Applied Sciences Arnhem Nijmegen

5. Delft University of Technology

6. Rotterdam University of Applied Sciences

7. Erasmus University Rotterdam

8. University of Applied Sciences Breda (NHTV)

9. Dutch Institute for Advanced Logistics (Dinalog)

10. Tilburg University

11. Eindhoven University of Technology

12. University of Applied Sciences Venlo (Fontys)

Examples of Service providers

supply chain coordination the Netherlands

Supply chain services	Supply chain coordination	IT
Argusi	Ewals	Quyntess
CAROZ	IDS	ORTEC
CAPE Groep	Simacan	CAPE Groep
Flinqer	Spierings Smart Logistics	Quintiq
TransdocLink	E-Lc	Eyefreight
Pro-Quidity	GET Service / Jan de Rijk	Centric
Blue Rock Logistics	SilFit	ISTIA
Van Berkel	Formaat XL	Antaris Solutions
IZI Motive/Packs	INAD	
12return	Huuskens Vers	
Gordian		
Various services	Various services	
Cargogator	Den Hartogh/ 4C4Chem	
Hubways	Modality/CTU/MCS/TNO	
	Cofano	

Why locate your supply chain coordination in the Netherlands?

Key decision factors for the Netherlands:

- **Highly skilled expertise** in service logistics, both from a knowledge, solution and logistics operation perspective
- **Technological capability** to establish and maintain a control tower: superior IT infrastructure, being one of the most 'wired' countries in the world with the largest Internet Exchange offering an excellent high speed data network. Combined with world class sensor knowledge for system monitoring
- **International business environment**, with fiscal, communication and language skills base to cater for your worldwide service needs
- **Good living environment** for international experts, attracting your needed decision makers to serve your company's global footprint
- **A supporting government** for an excellent breeding ground for innovation and international business in service logistics

Innovation in supply chain coordination in the Netherlands





Logistics priority in economic policy

Logistics is one of the nine priority sectors in Dutch economic policy. Government, business and academia work together to increase competitiveness, in business climate, education, infrastructure and innovation.



Ambition logistics:

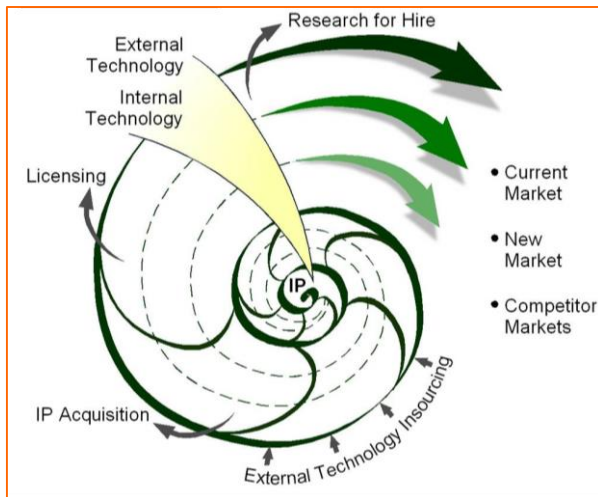
In 2020, the Netherlands holds an international top position

1. in handling transport flows through the NL,
2. as supply chain coordinator of international logistic activities and
3. as a country with an attractive innovation and business climate

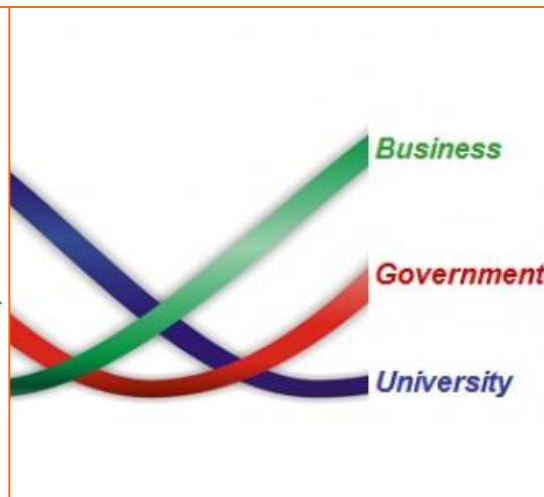
Dutch collaborative innovation in logistics



1. Open innovation



2. Public private partnerships: triple helix collaboration



3. Supply chain collaboration and coordination





National innovation program in logistics

The National Innovation program of the economic priority sector Logistics in the Netherlands focusses on six innovation roadmaps, in which innovation is driven and carried out by all partners in the supply chain.

1. Neutral Logistics Information Platform
2. Trade compliance and border management
3. Synchromodality

4. Cross Chain Control Centers

5. Service Logistics
6. Supply Chain Finance

Supply chain Coordination and Cross Chain Control Centers have been recognized as one of the internationally competitive strong areas with further development potential in the Netherlands and dedicated resources are geared to develop this field advance this competitive position even further.

Innovation roadmap supply chain coordination

collaborative research and development



- The Netherlands has designated a special innovation program for supply chain coordination, coordinated by the Dutch Institute for Advanced Logistics.



Ambition:

International top position in supply chain control of (inter)national logistical activities



Coordinate and control international transport flows



Attract international cross chain control centers to the Netherlands



Increased share of GDP in Supply Chain Coordination

Innovation roadmap supply chain coordination

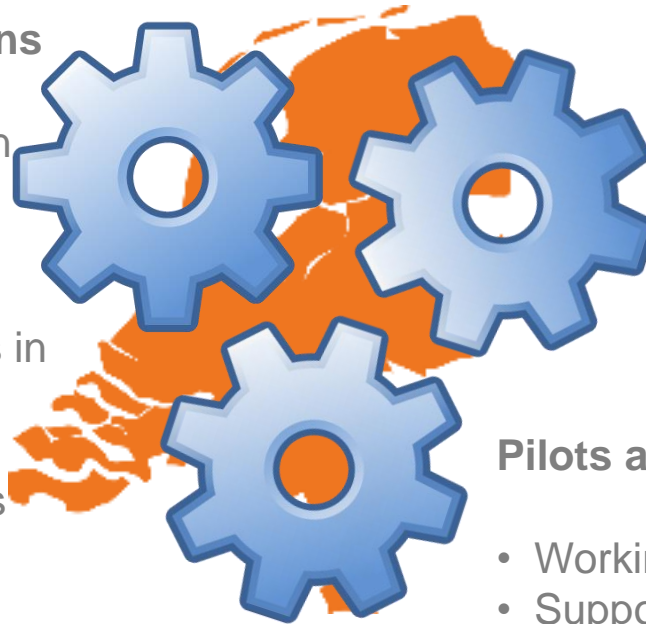
Overview of collaborative research and development

- The Netherlands has set up a special innovation program for supply chain coordination, based on knowledge in the Netherlands, driven by the Dutch Institute for Advanced Logistics.



Focus on supply chains

- Strategic level: design of supply chain networks
- Tactical level: coordinating activities in chains
- Positioning of supply chain directors



Improving Tools & Models

- Focus on Cooperation
- Take care of Governance
- Set up of Business Models
- Designing Control Tower

Pilots and communication

- Working on Mental shift
- Support changes in supply chains

Innovation program supply chain coordination

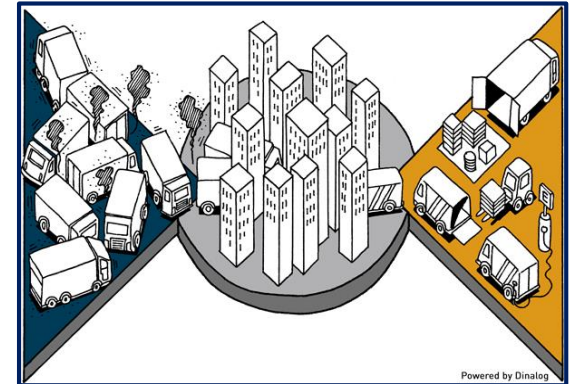
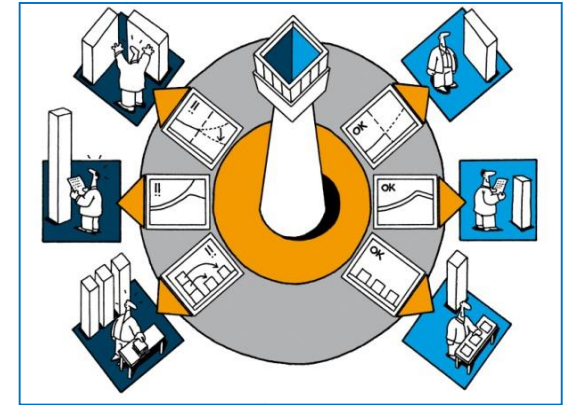
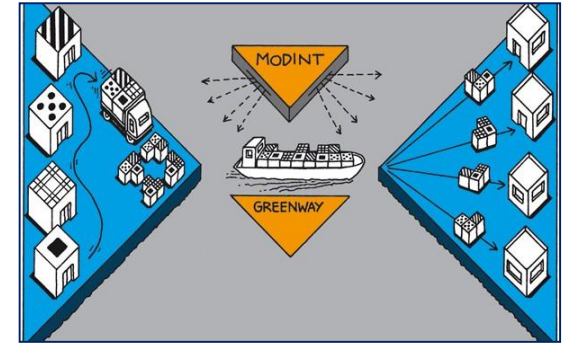
overview collaborative research and development in the Netherlands

Research & Development	Demonstration	Fundamental research
4C4CHEM	4C for Healthcare	Network planning and contract design for cross-chain control in cash networks
4C4D	Bundling at Source Location	
4C4More	Hubways Demonstrator	Industrial development
Cargo Hitching	Logistics in Construction	Smart Data for Logistics Innovation
CATeLOG	Sense and Response	4C in Construction Logistics
CONCOORD	Planning Services (SL)	
Cross Chain Order Fulfillment	IZI Motive (SL)	Experimental development
DAIPEX	SIEEG	Delivery Time Harmonization in Lifestyle
Value Creation by Closing the Loop	Modal Shift in Total Logistics	
Cargo Driven Intermodal Transport		Exploitation innovation clusters
DaVinc3i		Innovation cluster KLS
Design of LNG Networks		
SALOMO		
ULTIMATE		
SynchromodalIT	Some examples on next slides	

Solutions

for improved supply chain collaboration

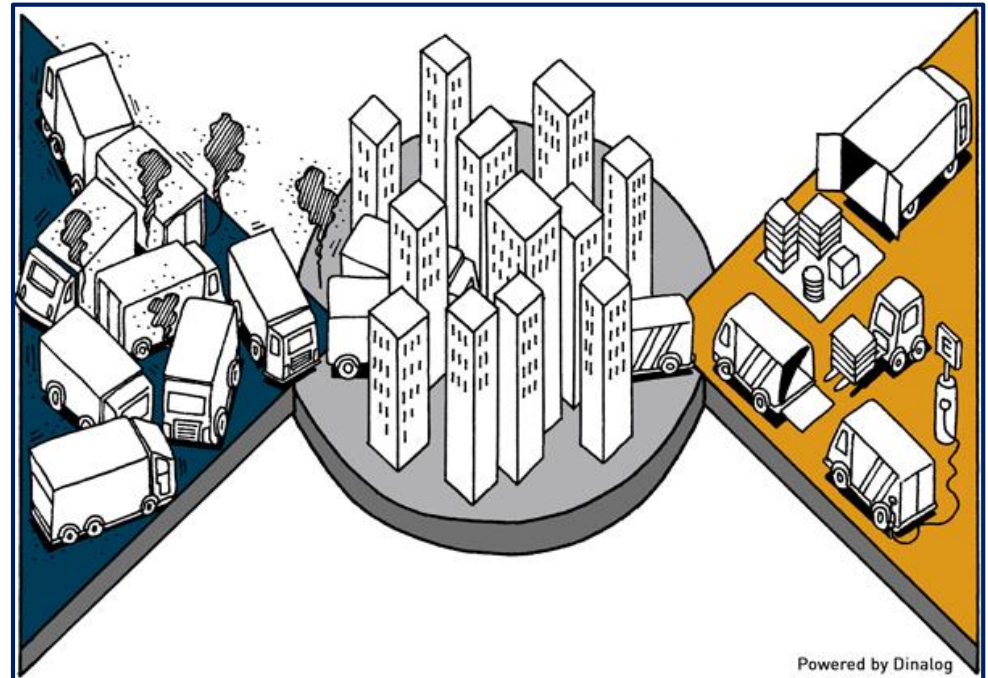
1. Design of Plug & Play Cross Chain Collaboration Centers
2. Construction and execution of control towers to support supply chain coordination activities
3. Supply chain collaboration for city distribution



4C4D: Cross chain collaboration city distribution

Dutch innovation program supply chain coordination

- Developing logistics solutions employing the appropriate local method for last-mile distribution, or incentives and 'demand management' methods to address different local preferences.
- Successful online sales models (national and cross border) integrating the appropriate role for offline sales points on operational, tactical and strategic level.
- ICT application involving logistics companies, suppliers, manufacturers and customers for order-to-delivery management



TILBURG UNIVERSITY

ORTEC

PETER APPEL
Transport

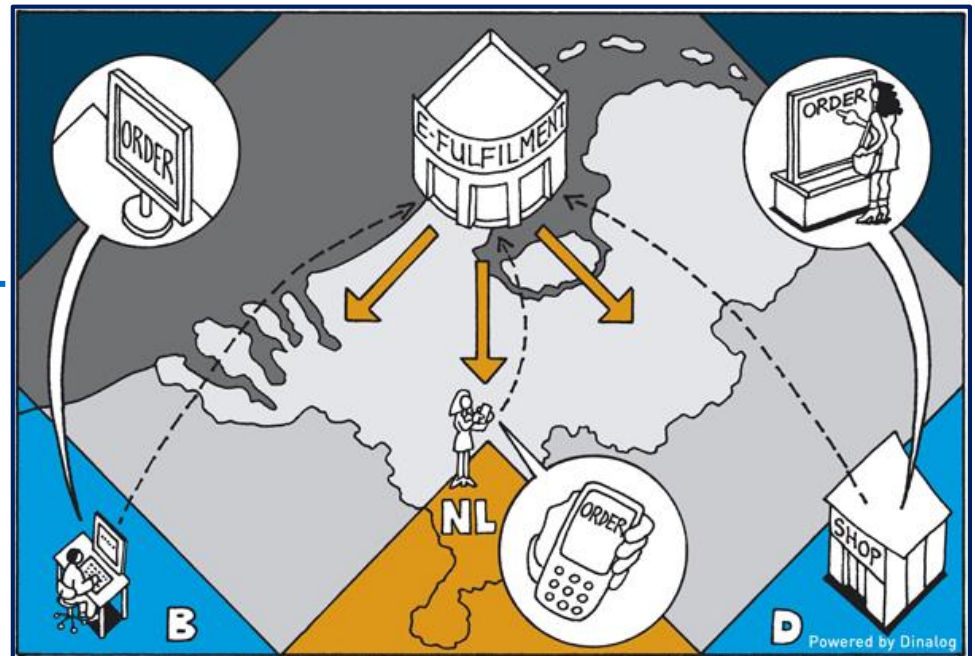
Ahold

binnenstad
service

CATeLOG: Cross border retail logistics

Dutch innovation program supply chain coordination

- R&D project with retailers and logistics service providers (LSPs)
 - Development city distribution models
 - Bundling and control of freight flows for various retailers
-
- Focus on how to improve the quality and quantity of the distribution activities by a better orchestration of the different physical flows by collaboration in distribution and coordination between LSPs and between LSPs and retailers.
-
- Results: innovative distribution concepts based on sound business models, while meeting objectives and restrictions set by municipalities



VU
VRIJE
UNIVERSITEIT
AMSTERDAM

NIC. OUD
SINCE 1979

de Bijenkorf

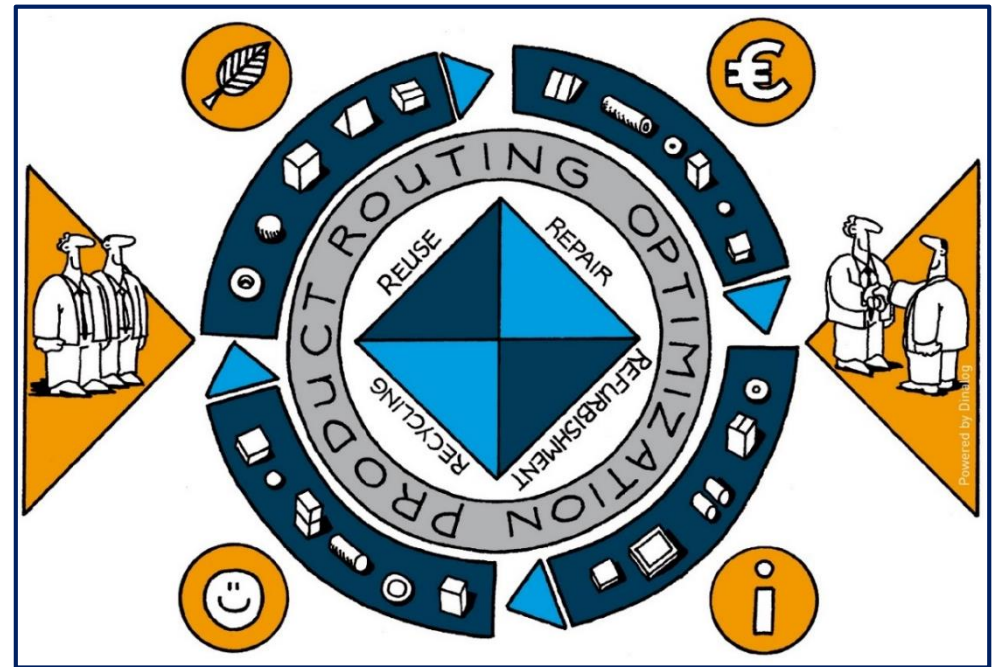
centric
connect.engage.succeed.

postnl

Value creation by closing the loop: re-use

Dutch innovation program supply chain coordination

- A closed loop supply chain creates ecological and economic value, realized with critical mass through horizontal and vertical coordination.
- Development of a framework of conceptual models and algorithms for 4C in the context of closed loop supply chains
- Start-up of a 4C business for coordinating closed loop supply chains: 12 Return
- Results: development of a Product Routing Algorithm (PRA) that serves to govern the coordination across supply chains for returns management.



DAIPEX: Data and Algorithms for Integrated Transport Planning and Execution

Dutch innovation program supply chain coordination

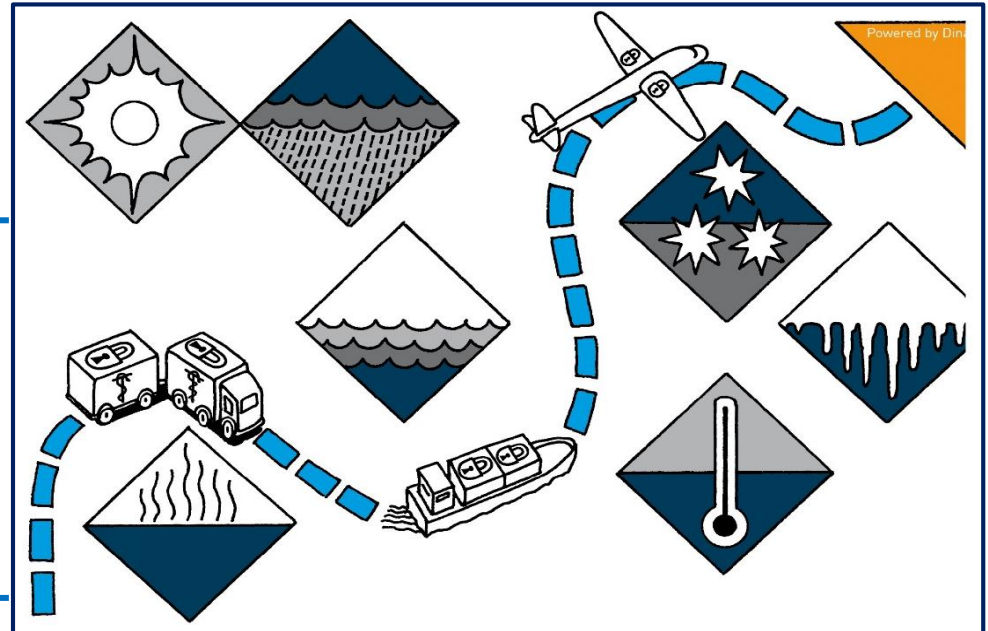
- Development of algorithms and software for cross chain collaboration that can handle time-dependent, stochastic, planning problems, employing high-volumes of information.
- Result: 4C transport planning software that accounts for time dependency and stochasticity with continuous re-routing of delivery addresses
- Information aggregation techniques that can efficiently calculate time-dependent distributions from large volumes of data.



Sense and response: Innovation in the refrigerated supply chain

Dutch innovation program supply chain coordination

- Integration of ICT and logistics with condition and location information in transport of temperature sensitive goods, such as pharma and food.
- Real-time transparency and coordination in the cool chain by real-time in-transport tracking system
- Signaling and pro-active response in case of abnormalities wherever the goods are in the chain
- Wireless sensors and Smartview software for every modality
- ConnectGate device for real-time temperature monitoring in vehicles and warehouses



antaris

ambient

Dhatec
Line pipe Logistic Solutions

PANALPINA
on 6 continents

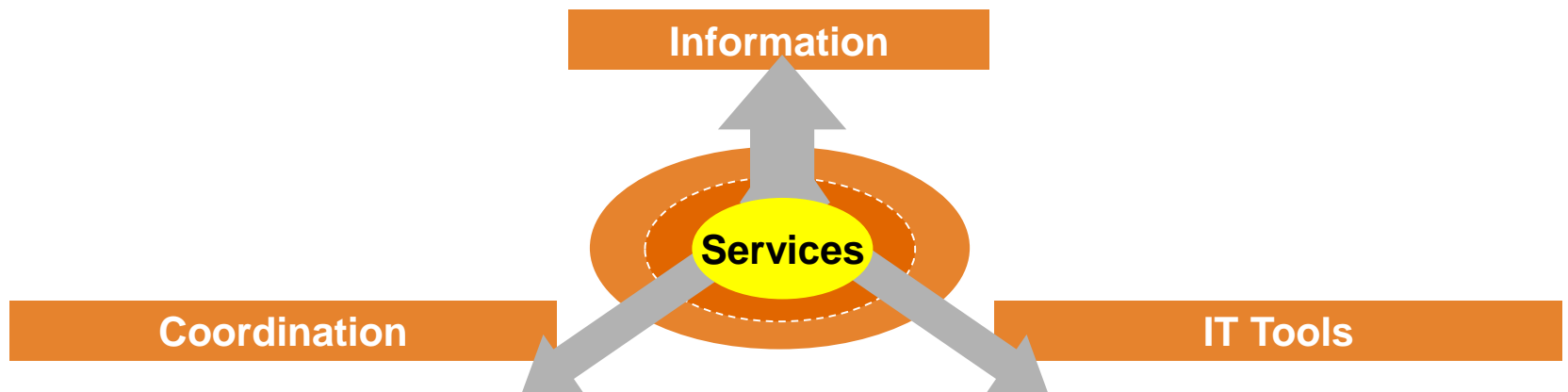
UNIVERSITEIT TWENTE.

Dutch solutions: Supply chain coordination



Solution 1: supply chain services

Support cooperation and optimization in supply chains



Blue Rock Logistics

Exercising influence on big flows through analysing inefficient logistics



Specialized company offering practical applications and knowledge for logistics optimization of inbound and outbound freight flows in complex networks.



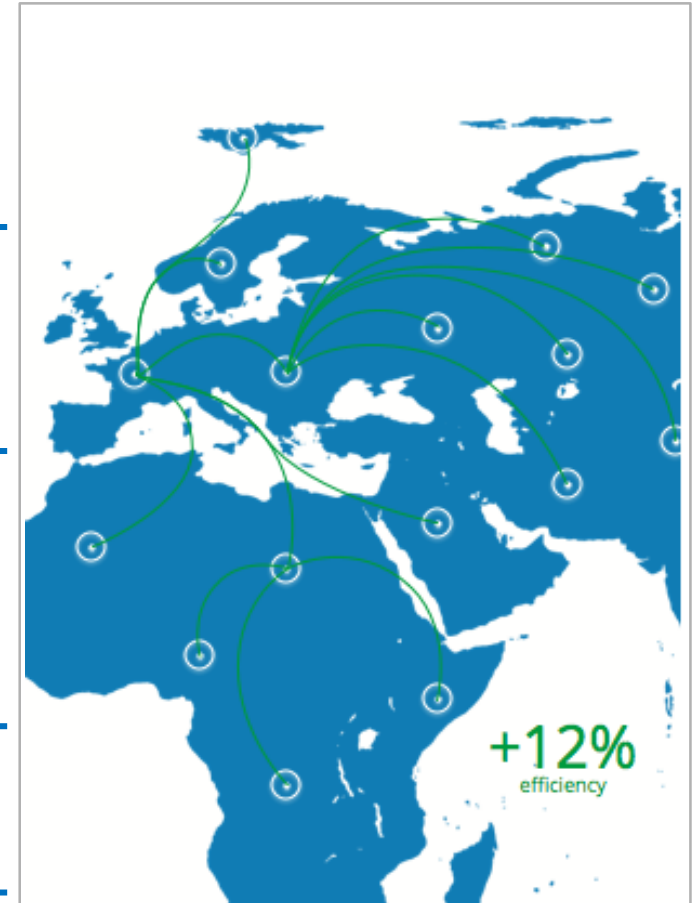
Optimize the Freight Audit processes and visibility of freight flows and costs across their 40 European locations of a reputable metals company.



Standardized platform for Freight Audit system for the shipper and their carriers, with analysis and visualization of large data sets of the complex supply chain network.



Typically a ten-fold ROI with a payback time of less than a year.



Caroz

Supply Chain optimization and collaboration



Unique combination of theory (logistics data- & process analyses) & practice (multimodal solutions, horizontal collaboration, independent Control Tower).



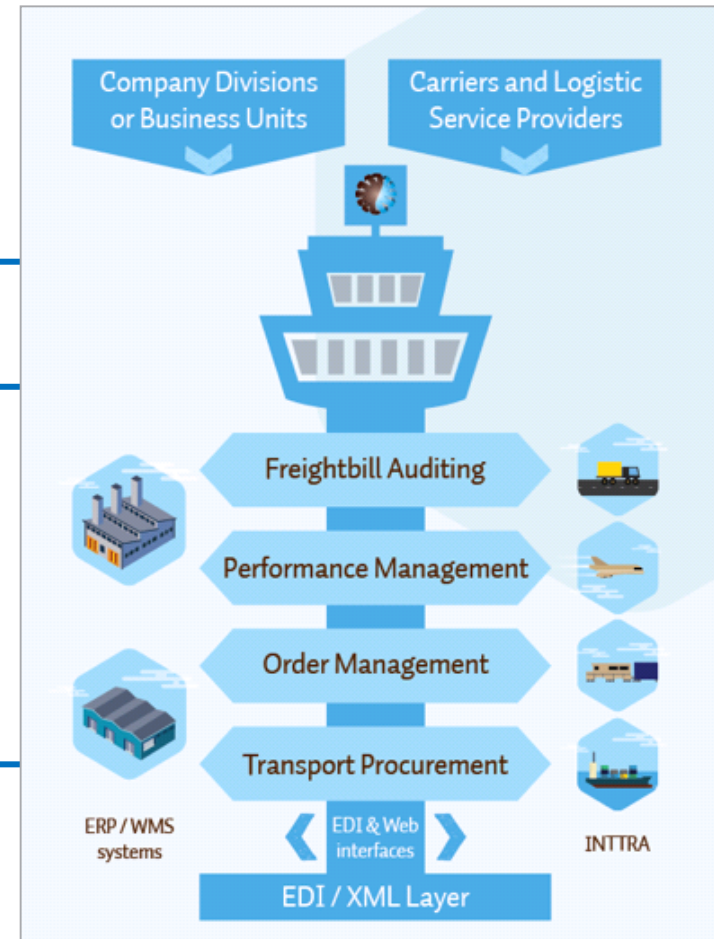
How to arrange transportation management activities for (multiple) shippers.



Dr. James - independent logistics platform and crew which enable supply chain optimization and collaboration including transport procurement, order management, performance management, freightbill auditing and continuous improvement activities.



Better insight and control of logistics flows. Reducing logistics costs (10%-20%), improving service levels and sustainability (CO2 reduction).



TransdocLinks

Providing real-time information on cargo, payments and customs



TransDocLink delivers on-line payment & cash management capabilities in combination with logistical tracking & service provisioning.



You want to know the details of manufacturing timelines, shipment conditions and have insight on payable & receivable of funds.

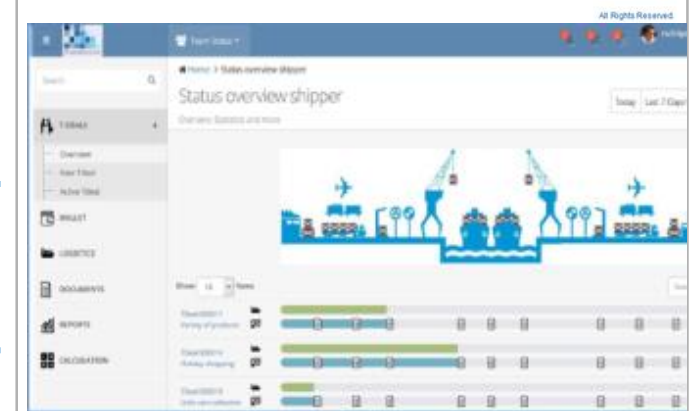


Transdoclink, the platform to agree conditions, arrange & schedule payments, arrange & track logistics and workflow & document handling



Transparency, cost efficiency & risk minimalisation.

TDeal: Flow of events



Dutch solutions: Supply chain coordination control tower solution



Solution 2: control towers

Construction and execution of control towers to support supply chain coordination activities



FormaatXL

Control tower solution supply chain coordination



A partnership platform for cross chain collaboration in distribution of lengthy construction materials



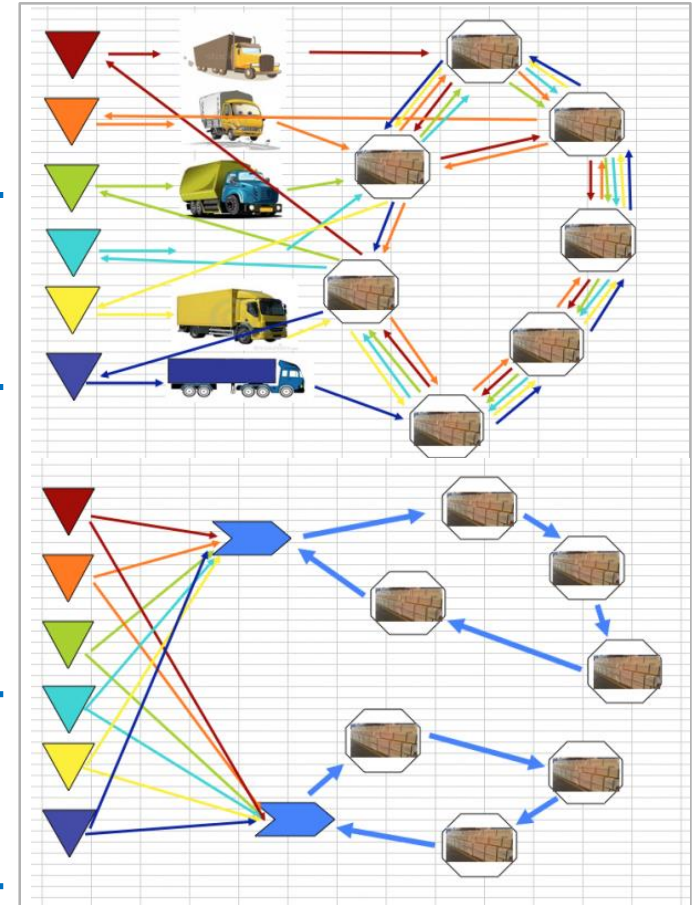
Efficient Benelux distribution of construction materials > 220cm in both FTL and partial shipments



Cloud-based order processing system for real-time information exchange between client and selected transport partners combining shipments with capacity



Full trucks by combined shipments resulting in lower costs and less emissions



Greenway Logistics/ Ewals Logistics

Control tower solution supply chain coordination



Ewals Cargo Care

Ewals operates as a Lead Logistics Provider (LLP) and manages total logistics flow. Greenway is active in mediation, buying and selling of logistic services, developing logistic concepts, IT, advice and consultancy.



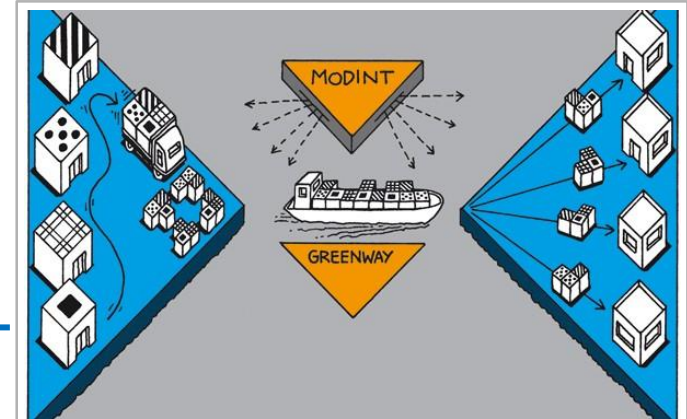
How to increase the efficiency of shipments from various Chinese suppliers to individual Dutch stores?



Design and realization of central organization for "Bundling at source location", working IT SAAS platform and execution for inbound transports from Shengzhen.



Reduction of handling costs of 30-40%
Reduction of distribution costs of 7%
Reduction in lead times



12return

Control tower solution reverse logistics coordination

1 2 Return Returns management software company enabling brands and retailers a controlled reverse supply chain



Managing the returns and re-use of products for retailers, their customers as well as prevention of value erosion



Cloud-based control tower streamlining authorization, transportation, processing and settlement of product returns from consumers and business clients



Returns are turned into value with 96% customer satisfaction, 86% efficiency, 82% sustainability benefit and 61% lower costs, saving 4-8 euros per return on physical handling and administration.



Returns Authorization



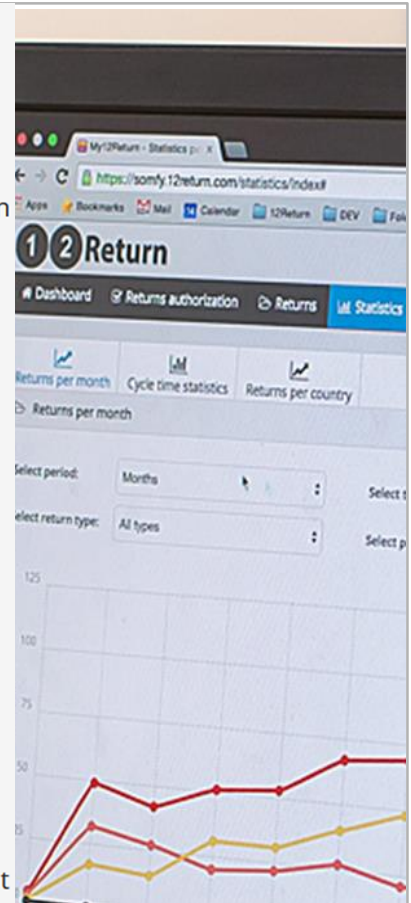
Reverse Logistics



Returns Processing



Returns Settlement



IZIMotive

Control tower solution spare parts for garages



IZI Motive offers a purchasing platform solution organizing the parts purchase, delivery, stock optimization and return for garagists



Garagistis often receive 10-12 parts deliveries a day, having to order with brands paying high margins



The Izi2Connect online purchasing and planning platform enables ordering directly form importers and parts manufacturers and offering reduction of the number of deliveries a day



15-20% cost reduction on parts
Potential 35% supply chain cost reduction and 15% logistics cost reduction for transport and warehousing



Silfit

Control tower solution supply chain coordination



Service company for information flows in bulk serving farmers, suppliers and transport companies. Subsidiary company of LSP Nijhof Wassink



Insufficient stock keeping systems at clients locations (farms) leads to rush orders and sub optimal transport planning



Measuring stock of bulk products in clients' silos and using data for order and transport planning



Optimized bulk planning leading to 10% reduction in vehicle kilometres .



IDS

Control tower solution supply chain coordination



IDS manages contracts with “third party (3PL)” logistics service providers, taking over the daily and tactical operations.



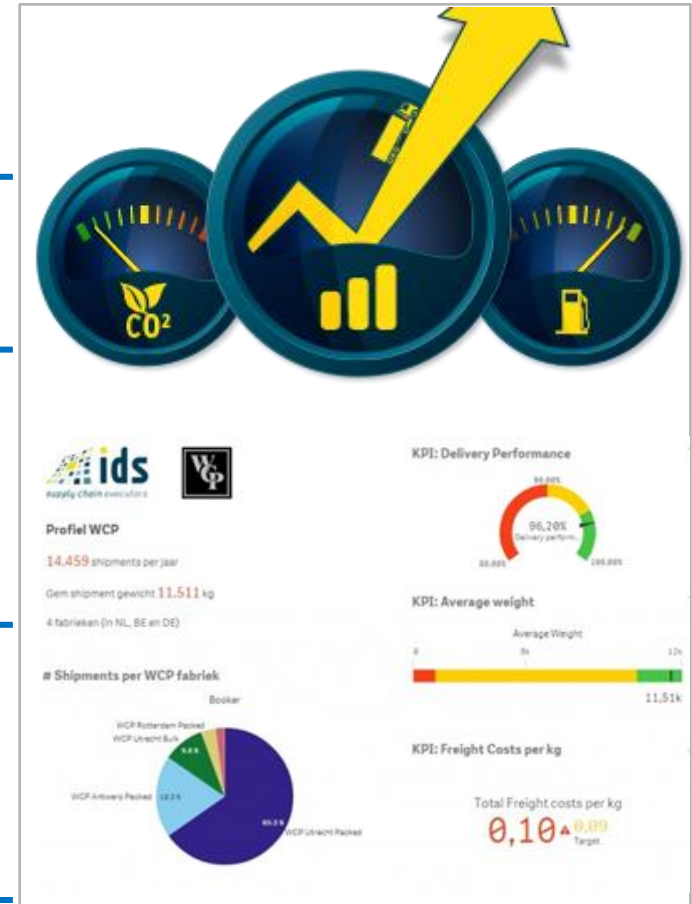
How to manage shippers' transport flows using a variety of transport companies for inbound and outbound transport



IDS offers advanced ICT systems for the smart consolidation and combination of shipments, streamlining of the invoicing process, carrier management and systematic disputes & claims processing



Supply chain cost reductions of 15 to 20% as a result of bundling flows, more efficient handling of disputes and claims, managing various carriers and inventory reduction



Gordian - Land Maintenance Initiative

Control tower solution supply chain coordination



Advice, solutions and innovations in service logistics, management of spare parts and supply chain.



High cost and low service in spare part supply of Dutch army due to various suppliers with different logistical concepts and systems



LMI to streamline the maintenance of land systems. Redesign and manage existing service supply chains in close cooperation with the OEM's, service suppliers and component suppliers. Introducing a "Shared Business Intelligence Cell (SBIC)".



Increasing operational availability of landbased systems, lower logistic costs



SIMACAN/ Ahold transport

Retail control tower solution supply chain coordination



Integrate real-time traffic information in primary business processes.
Specialized in making geospatial data accessible and useful



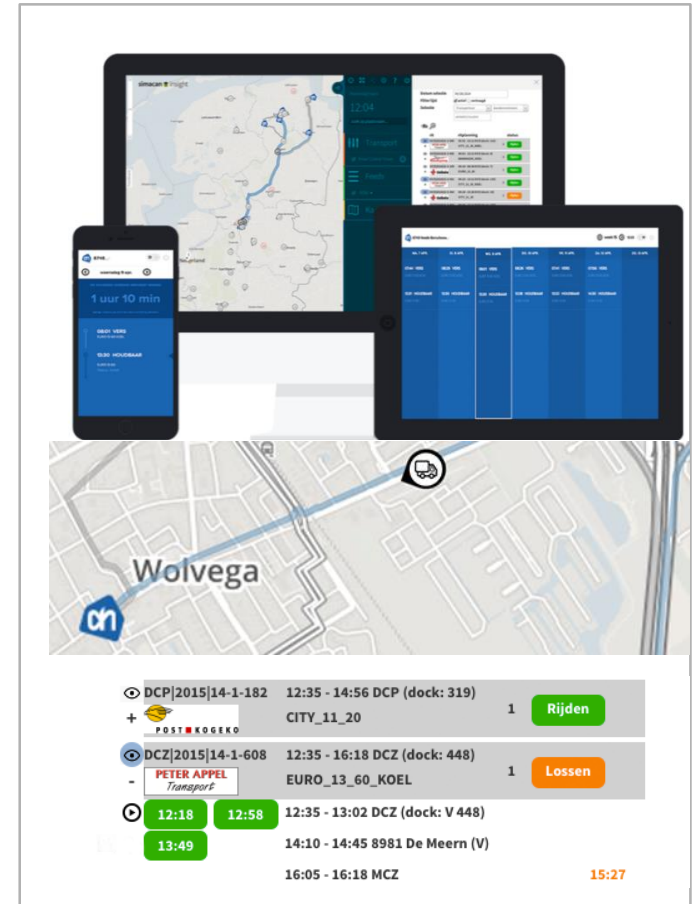
How to integrate planning of delivery trucks of 13 carriers and 1000+ stores



Simacan Control Tower within Ahold Transport. Daily positions of 1000+ truck journeys in the Netherlands and Belgium visualized on map, 13 carriers, each connected via its own TMS



1000+ stores see ETAs of incoming deliveries
ETAs are calculated 1/min, based on real-time traffic information

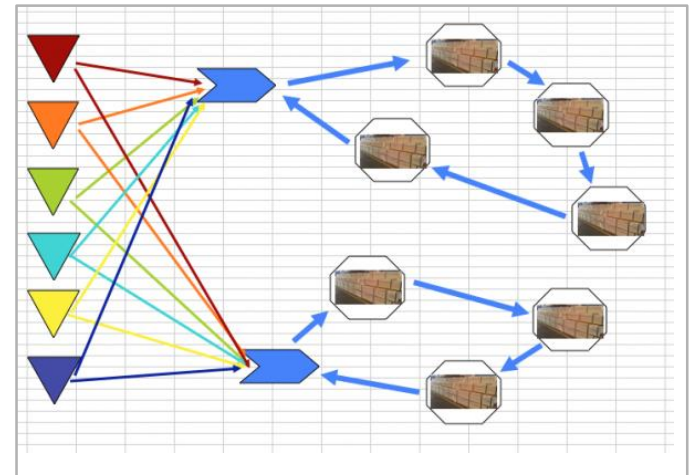
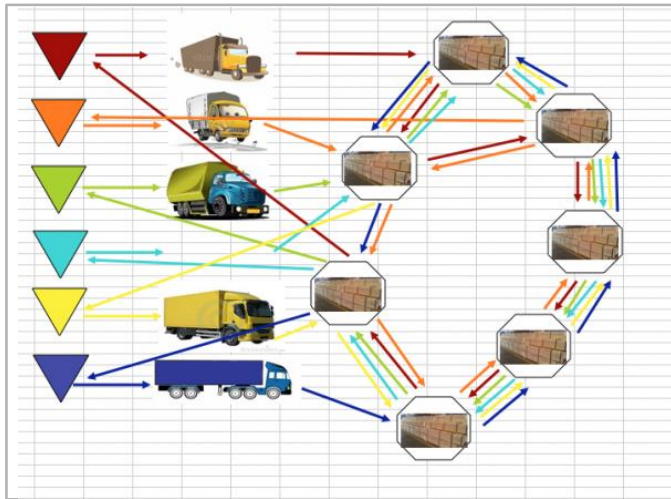


Dutch solutions: Supply chain coordination IT



Solution 3: IT support

Apps, platforms and other IT-tools



Quyntess

IT solution supply chain coordination



Providing supply chain solutions as a service in the cloud using Business Networks simplifying supply chain collaboration.



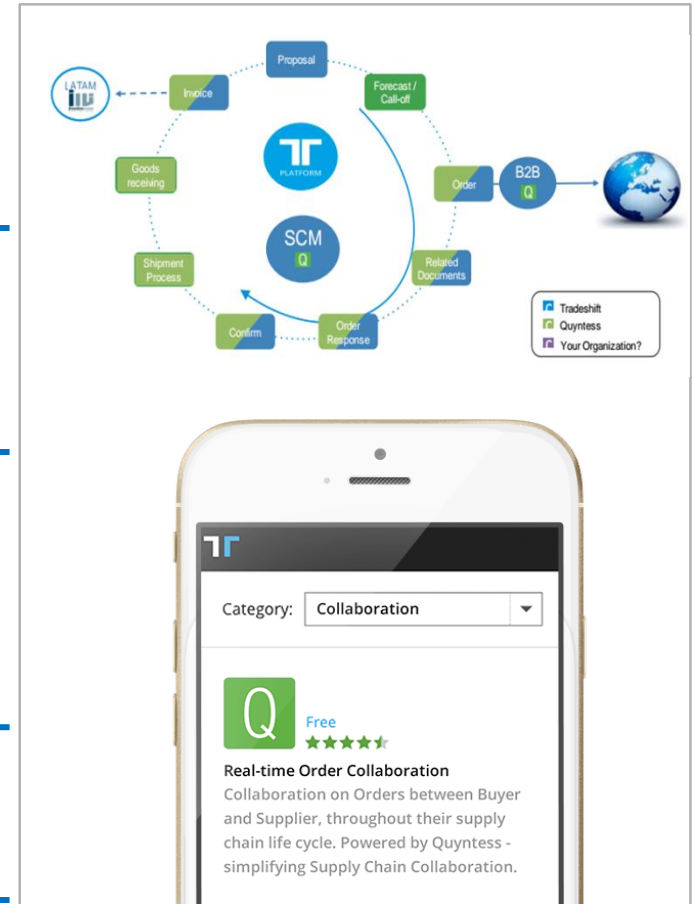
No seamless supply chain collaboration process for your entire supply chain. No flexible onboarding due to lock-up in current legacy B2B integration solution.



Advanced and scalable Supply Chain Collaboration solutions. These SCM Apps enable companies to connect, manage and control crucial supply chain processes and business transactions.



Future proof supply chain process with merged capabilities in one fully integrated platform based collaboration.



ORTEC for Coca Cola

IT solution supply chain coordination



World leader in optimization software and analytics solutions, 750 employees and 15 offices across 4 continents.



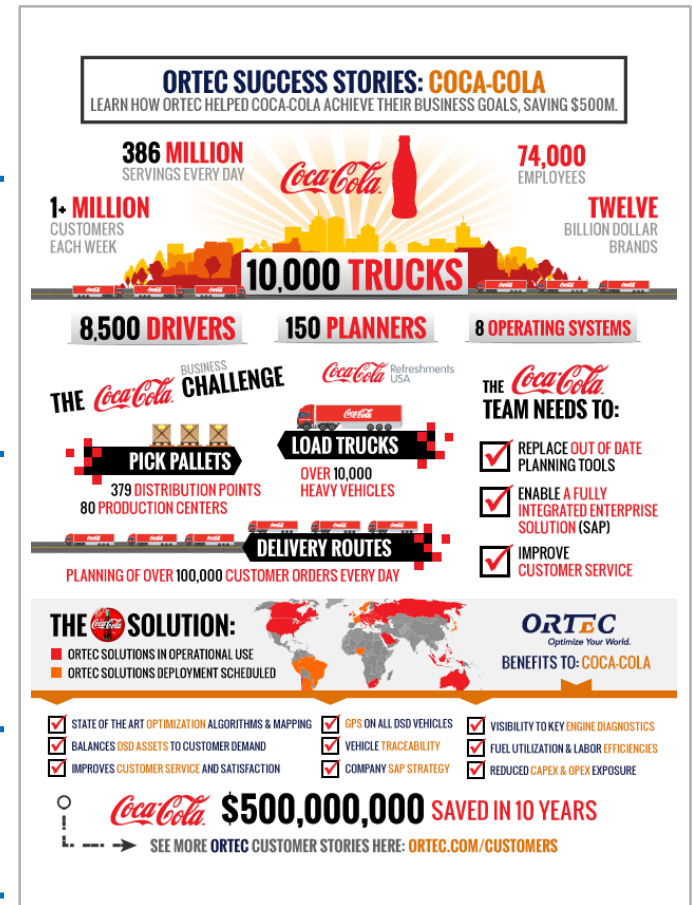
Coca Cola Refreshment needs to plan one of the largest distribution systems in North America with over 100,000 customer orders each day loading more than 10,000 vehicles a day.



ORTEC Optimization Solutions for Routing and Load Building, planning efficient delivery routes with cost effective and flexible scheduling and driving.



Saving Coca Cola an estimated \$ 500 million over a period of 10 years



Supply chain coordination analysis target markets



Global developments

freight markets



Industry comprises of **shipping, warehousing**, courier and road/rail and air freight.



Research indicates that **global market value** of logistics has surpassed **\$4 trillion**, which equates to **10%** of global GDP.



Transportation sector is fastest growing sector. **7% increase** each year since 2011.



Transport sector alone expected to generate **\$3.8 trillion** in revenue in **2016**.



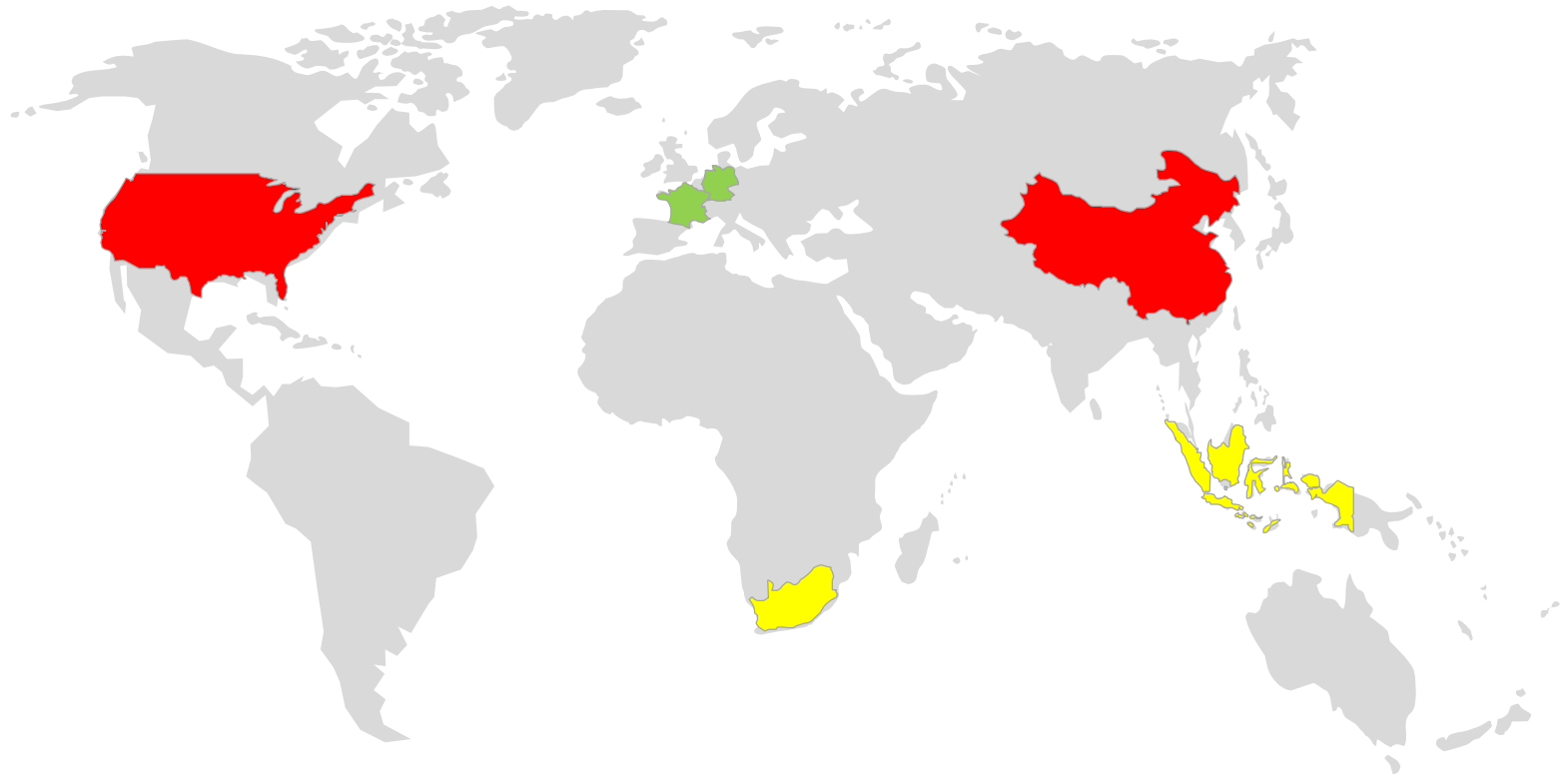
United States currently accounts for over **42%** of global transportation services sector.



Emerging markets such as **China and India** are expected to have increasing influence in global logistics in coming years.

Source: Freightxtension (2014)

Target markets supply chain coordination selection



Neighbouring countries

Fast growing markets

Developing markets

European market trends & developments

1. **Vertical integration:** when carriers and shippers increase profit pools by "conquering" additional parts of the value chain
2. **Yield Decline** as shippers and carriers seek to exploit volatile freight rates to protect their own profit margins
3. **Modal split** as demand shifts from air freight to predominately ocean and, increasingly, rail to reduce costs of supply chains
4. **Volatility of freight rates** is increasing and demands greater sophistication in steering hedged capacities
5. **Specialization and value added services** become key USPs as complex supply chains will call for specialized logistics service providers
6. **Industry specific solutions** increasingly key, both in terms of IT and know-how, to meet complex customer demands
7. **Shift in the trade landscape** with legacy trade lanes losing importance – emerging markets are new major trading nations
8. **Hinterland connections** efficiency is of increasing importance – and even an entry condition for business with Chinese shippers
9. **Contract logistics** – challenges from the tendency toward shorter contract lifecycles will increase hurdles to achieve an appropriate ROI
10. **Globalization** vs. regionalization: demand will either grow for "global total solutions" or revert back to regionalization

Source: Fraunhofer SCS, 2015 & Roland Berger 2014



Germany

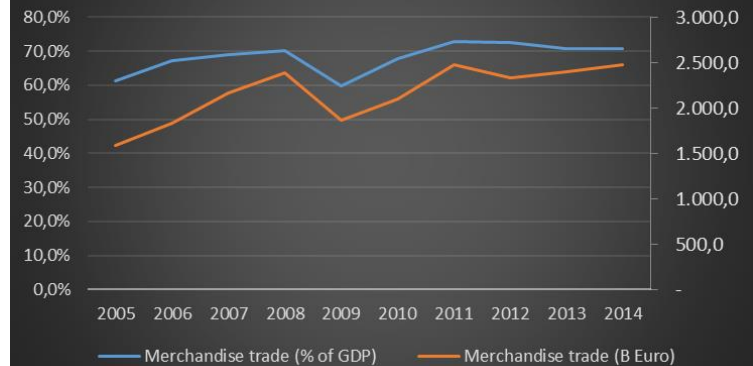
overview



Fast facts

GDP 2014 (Bill. Euro)	3.502
GDP per Capita (Euro)	36.107
Population 2014 (Mill.)	81
Rail network (km in 2009)	33.446
Road network (km in 2011)	643.702

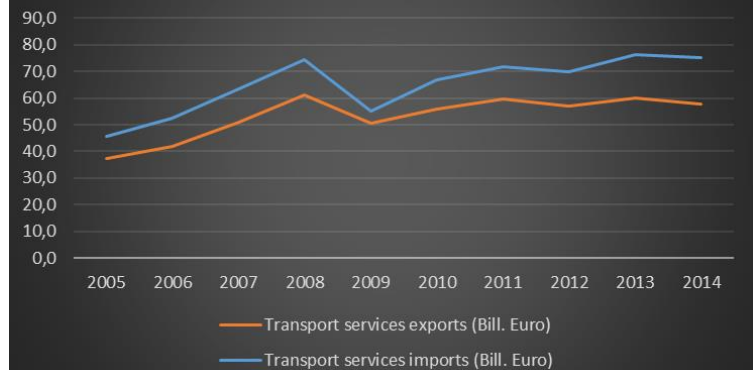
Merchandise Trade



Logistics Performance Index (LPI)



Transport services (import/export)



Source: WTO and WB

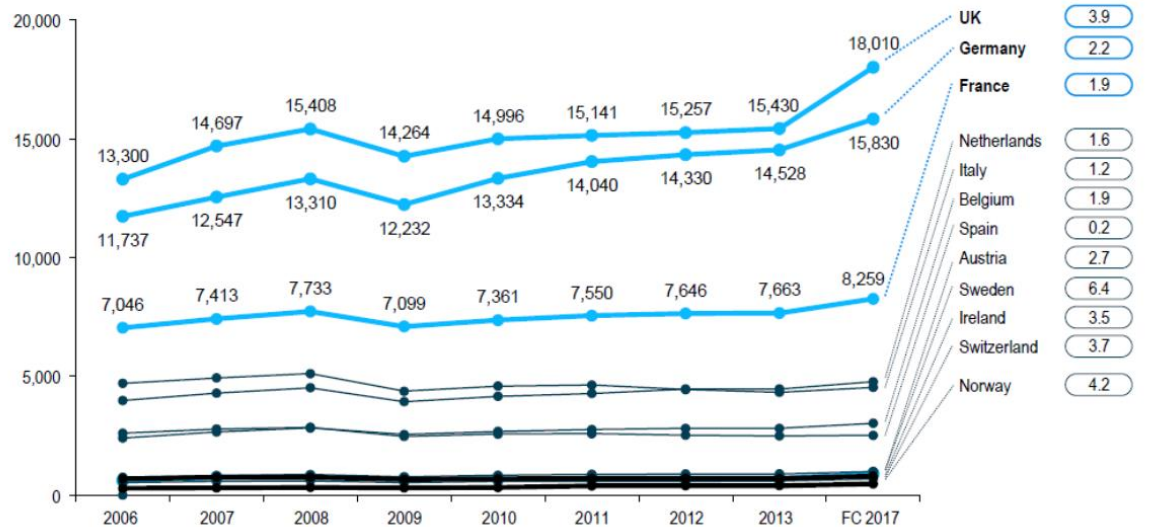


Germany

market size & development

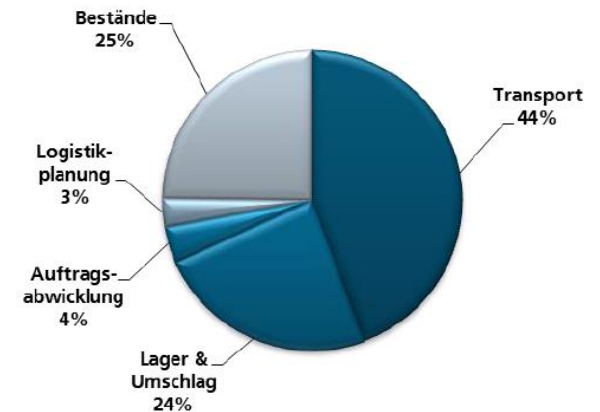


Contract logistics market size per country [EUR m] WESTERN EUROPE



Source: Roland Berger 2014

Logistikumsätze nach Leistungsart in %



Source: Fraunhofer SCS, 2014

Germany

logistics service providers



Rank	Company	Data Quality	Logistics revenue 2014 in m. €	National employees	Logistics revenue 2014 in Europe in m. € (excluding »Mail«)	Notes
1	DEUTSCHE POST DHL (DE)	*	7,340	170,596	29,700	diversified
2	DB MOBILITY LOGISTICS (DE)	***	7,121	122,970	15,107	div., via DB SCHENKER LOGISTICS and DB SCHENKER RAIL
3	DACHSER (DE)	***	2,850	13,058	4,895	forw. / LTL / food log.
4	KUEHNE + NAGEL (CH)	***	2,623	n/a	11,745	forwarder / net forw. rev.
5	RHENUS (DE)	***	2,300	n/a	4,135	forwarder
6	VOLKSWAGEN KONZERNLOGISTIK (DE)	*	1,800	n/a	2,400	VOLKSWAGEN owned contract logistics
7	UPS EUROPE (BE)	*	1,700	18,000	6,000	CEP service provider
8	HERMES EUROPE (DE)	*	1,650	n/a	2,230	CEP, forwarding
9	GEOPOST (FR)	***	1,585	7,500	4,921	CEP, via DPD
	CARGOLINE (Cooperation) (DE)	***	1,415	n/a	2,054	LTL cooperation
	E.L.V.I.S. (Cooperation) (DE)	***	1,388	n/a	2,018	part load network
10	HELLMANN WORLDWIDE (DE)	***	1,364	n/a	1,810	forwarder
	Sum Top 10		30,333			
11	ARVATO (DE)	*	1,250	40,846	2,000	contract logistics
12	IMPERIAL LOGISTICS (DE)	***	1,210	4,982	1,560	forwarder / diversified
13	KRAFTVERKEHR NAGEL (DE)	**	1,200	n/a	1,700	chilled goods distribution
	IDS (Cooperation) (DE)	***	1,192	n/a	1,800	LTL cooperation
14	PANALPINA (CH)	***	1,032	n/a	2,159	forwarder / net forw. rev.
15	FIETZ LOGISTIK (DE)	*	1,000	n/a	1,400	contract logistics
	Sum Top 15		36,025			

Most of the largest logistic players in Germany do also have their headquarters in Germany. Only UPS, GeoPost and K+N have their HQ abroad.

The combined top 10 turnover is just over Euro 30 bn. and equals about 13% of the total German market.

Source: Fraunhofer SCS, 2015

Germany

trends and challenges

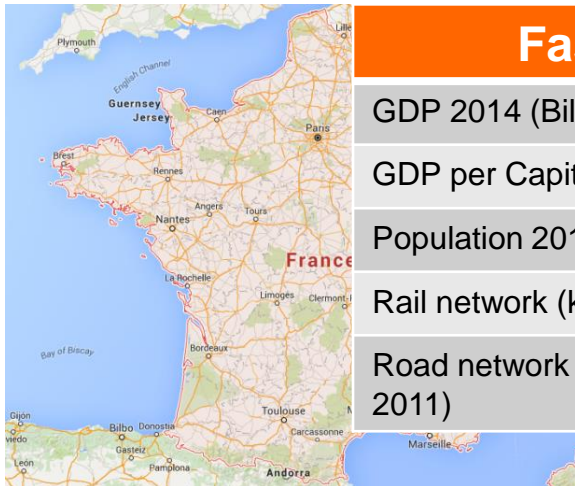
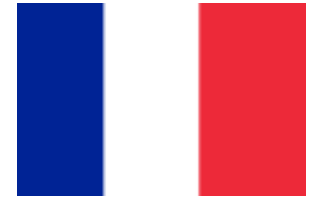


- As the evolution of Germany as a logistic location is highly dependable on the economy, the positive GDP forecast will also lead to increasing importance.
- Despite its well developed logistics infrastructure, investments are urgently needed, especially on ports to prepare for larger container vessels , rail to solve several bottleneck and road which in places over-crowded.
- Because of a lack of funding prioritizing (new) infrastructure projects is needed.

Source: Fraunhofer SCS, 2015 & Roland Berger 2014

France

overview



Fast facts

GDP 2014 (Bill. Euro)	2.572
GDP per Capita (Euro)	32.424
Population 2014 (Mill.)	66
Rail network (km in 2009)	30.013
Road network (km in 2011)	1.052.380

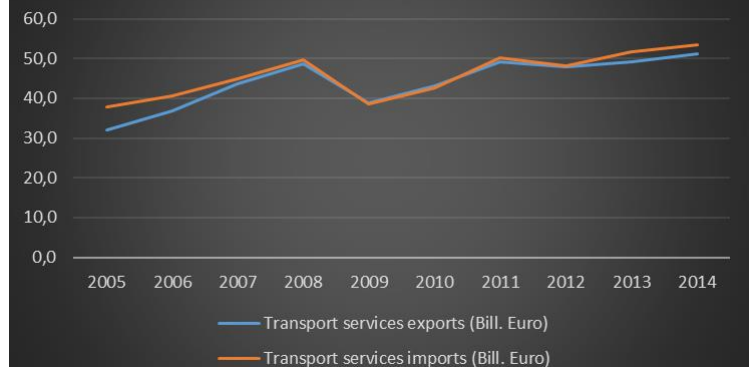
Merchandise Trade



Logistics Performance Index (LPI)



Transport services (import/export)



Source: WTO and WB

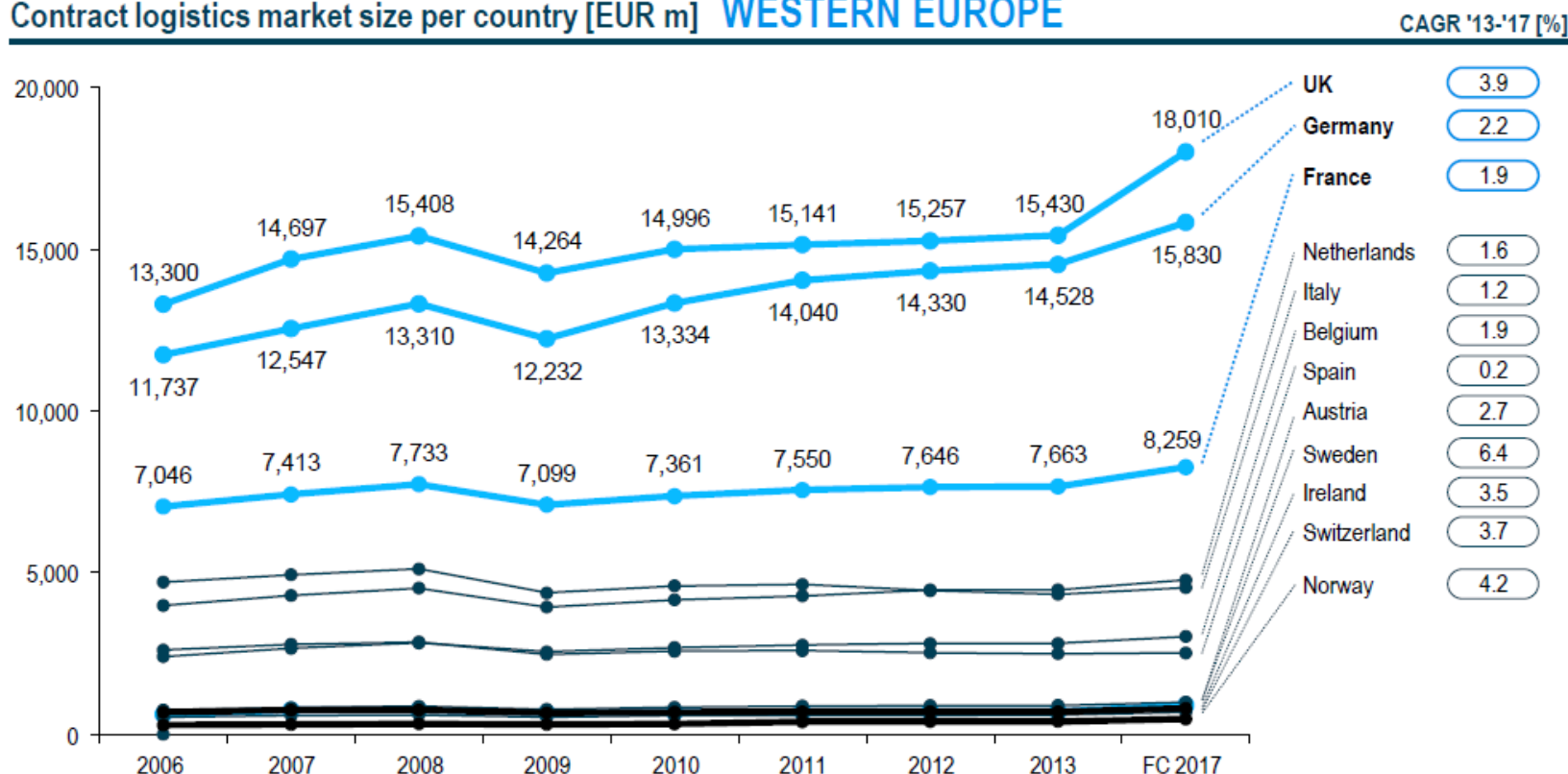


France

market size & development



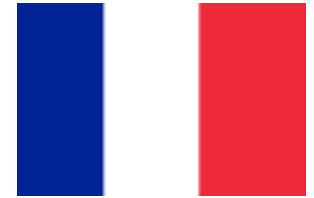
Contract logistics market size per country [EUR m] WESTERN EUROPE



Source: Roland Berger 2014

France

logistics service providers



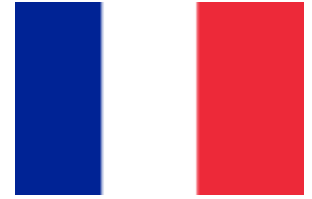
Rank	Company	Data Quality	Logistics revenue 2014 in m. €	National employees	Logistics revenue 2014 in Europe in m. € (excluding «Mail»)	Notes
1	SNCF (FR)	**	4,880	n/a	9,041	rail cargo / forwarder, via GEODIS CALBERSON
2	CMA-CGM (FR)	*	3,450	n/a	n/a	ocean cargo
3	LA POSTE (GROUP) (FR)	**	3,385	n/a	7,180	CEP, also via GEOPOST
4	STEF (FR)	***	2,162	12,735	2,370	contract logistics / food
5	GEFCO (FR)	*	2,137	n/a	3,037	diversified
6	XPO LOGISTICS (UK)	***	1,690	n/a	4,400	forwarder, formerly NORBERT DENTRESSANGLE
7	BOLLORE HOLDING (FR)	***	1,689	5,034	2,252	forwarder
	ASTRE GROUP (Cooperation) (FR)	*	1,435	n/a	1,435	forwarder
8	DB MOBILITY LOGISTICS (DE)	***	1,386	7,222	15,107	div., via DB SCHENKER LOGISTICS and DB SCHENKER RAIL
9	DEUTSCHE POST DHL (DE)	*	1,350	n/a	29,700	diversified
10	KUEHNE + NAGEL (CH)	***	1,247	n/a	11,745	forwarder
	Sum Top 10		23,376			
11	TNT EXPRESS (NL)	***	736	4,443	2,743	CEP service provider
12	DACHSER (DE)	***	717	n/a	4,895	forw. / LTL / food log., former GRAVELEAU
13	UPS EUROPE (BE)	*	698	2,500	6,000	CEP service provider
14	EASYDIS (FR)	***	548	n/a	548	FMCG distribution
15	CAT GROUP (FR)	*	530		1,024	automotive contract log.
	Sum Top 15		26,605			

The France logistics market is dominated by French companies. The top 5 only contains French LSP's which are supported by a protective government. As in many countries the national railway company leads the list.

Source: Fraunhofer SCS, 2015

France

trends and challenges

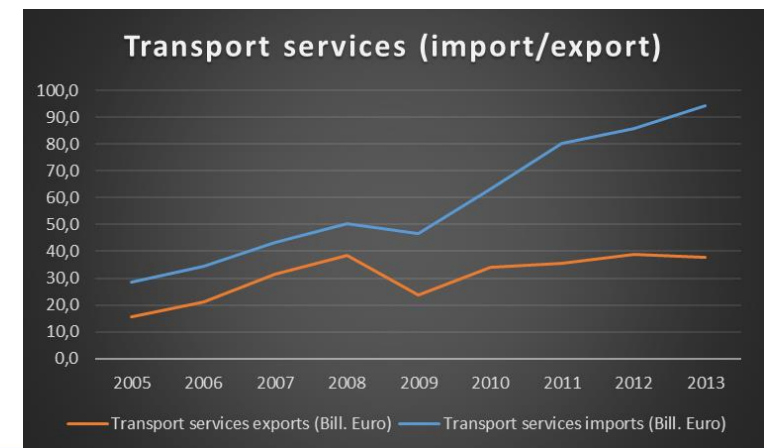
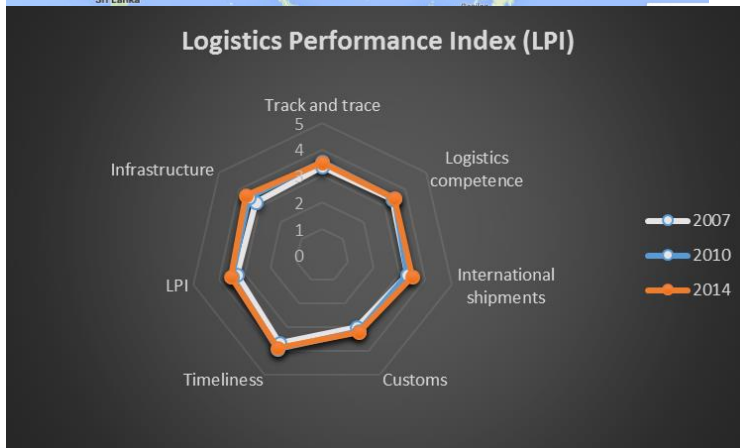
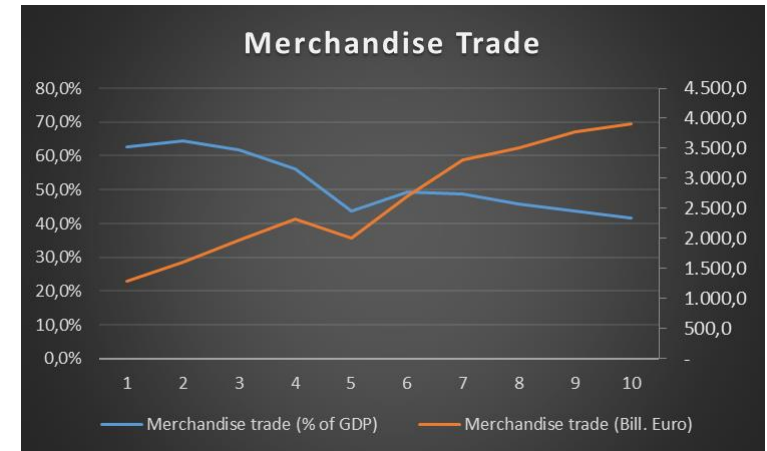
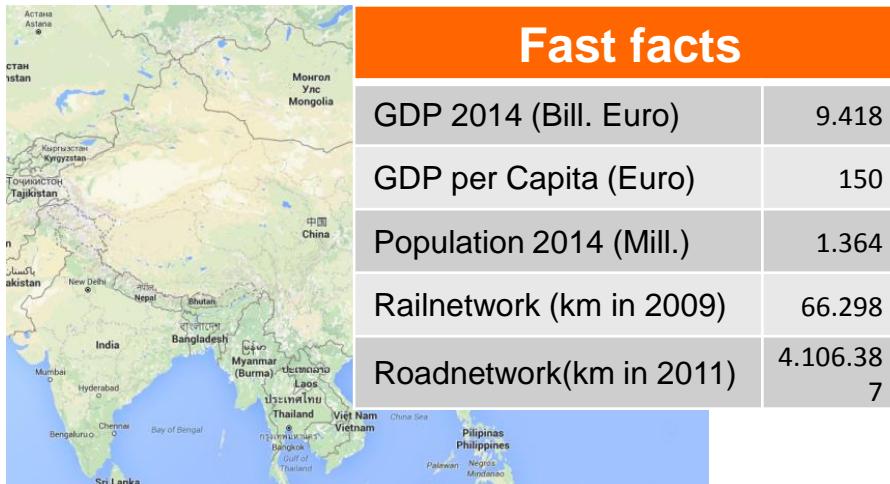


- The national government is demanding increasing awareness of the environment in logistic. For example a leading initiative is “Distripolis”, a city logistics concept executed by Geodis on now rolled out to many French and maybe other European cities.
- In 2017 the new channel Seine-Nord (CSNE) will be opened offering an alternative freight route between Paris/ La Havre and Belgium/ Netherlands/ Germany
- Next to increasing awareness French government also stimulates alternative freight transportation with the aim to reduce road freight transport.

Source: Fraunhofer SCS, 2015 & Roland Berger 2014

China

overview



Source: WTO and WB



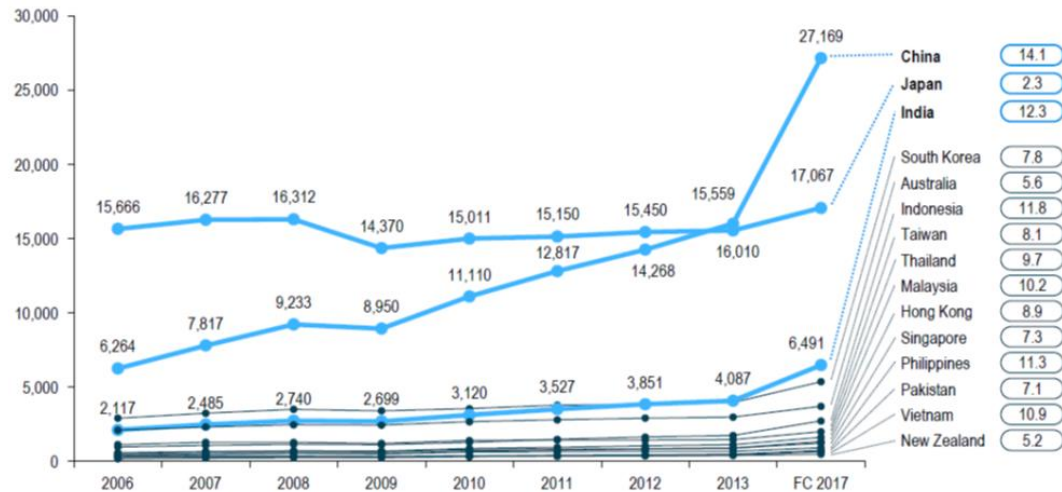
China

market size & development

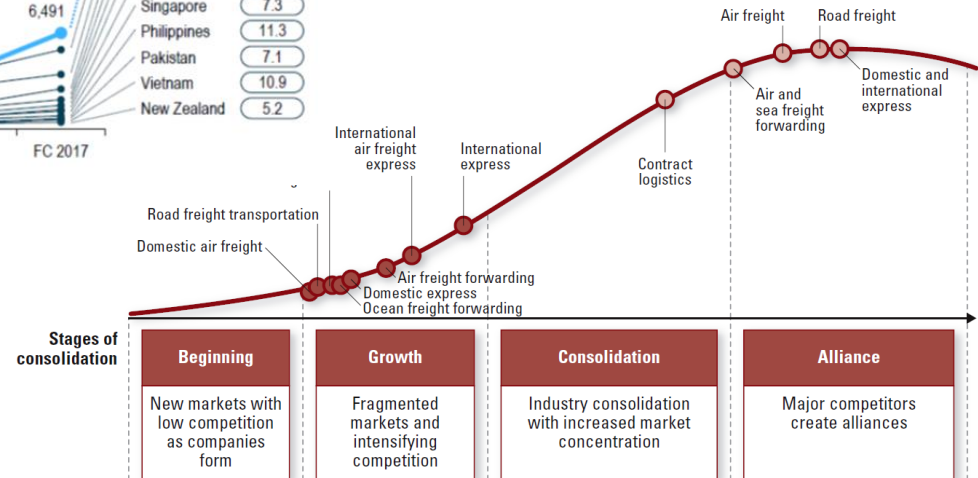


Contract logistics market size per country [EUR m] ASIA PACIFIC

CAGR '13-'17 [%]



Despite Chinese extraordinary success, China's transportation and logistics industry as a whole remains in the early stage of development



Source: Roland Berger 2014

China

logistics service providers



Nr.	Name	Revenue (Euro) Million
1	China ocean shipping (group) corporation,	14.946
2	Sinotrans changhang group co., LTD.,	10.232
3	China Shipping (group) corporation	6.372
4	Kailuan group international logistics co., LTD.	3.925
5	China material storage and transportation corporation	2.535
6	Xiamen xiangyu group co., LTD.	2.426
7	China railway materials group co., LTD.	2.012
8	Yizhong energy fengfeng group Hangdan Dingfeng logistics co., LTD.,	1.594
9	Chinese oil and gas transportation company	1.430
10	Henan coal chemical industry group the kingdom dragon logistics co., LTD.	1.259

China

trends and challenges



- Especially in the regions with newly added logistics centers new roads will increase the need for transportation and logistics.
- Companies' distribution models are moving from dealership models to multi-channel and direct sale models requiring higher density network with quicker response times
- Low carbon rules will force transportation and logistics companies to make environmental protection a primary goal
- Chinese shipping companies increasingly viewing logistics as strategic area that can provide key competitive advantage and therefore setting higher requirements on service levels and offerings.

Source: Fraunhofer SCS, 2015 & Roland Berger 2014

Indonesia

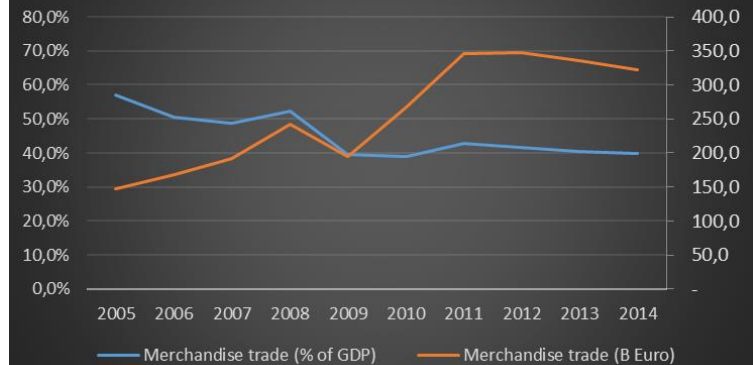
overview



Fast facts

GDP 2014 (Bill. Euro)	808
GDP per Capita (Euro)	1.685
Population 2014 (Mill.)	254
Rail network (km in 2009)	4.684
Road network (km in 2011)	496.607

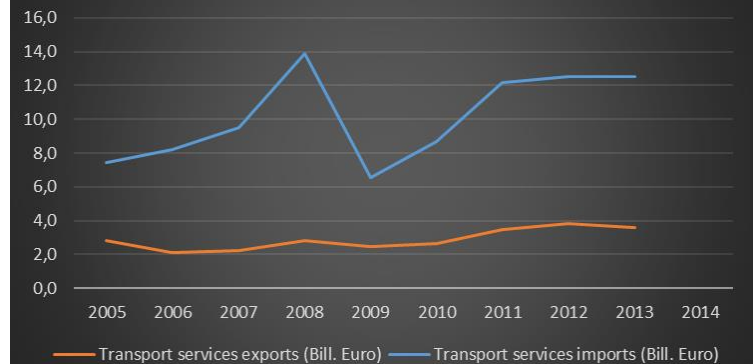
Merchandise Trade



Logistics Performance Index (LPI)



Transport services (import/export)

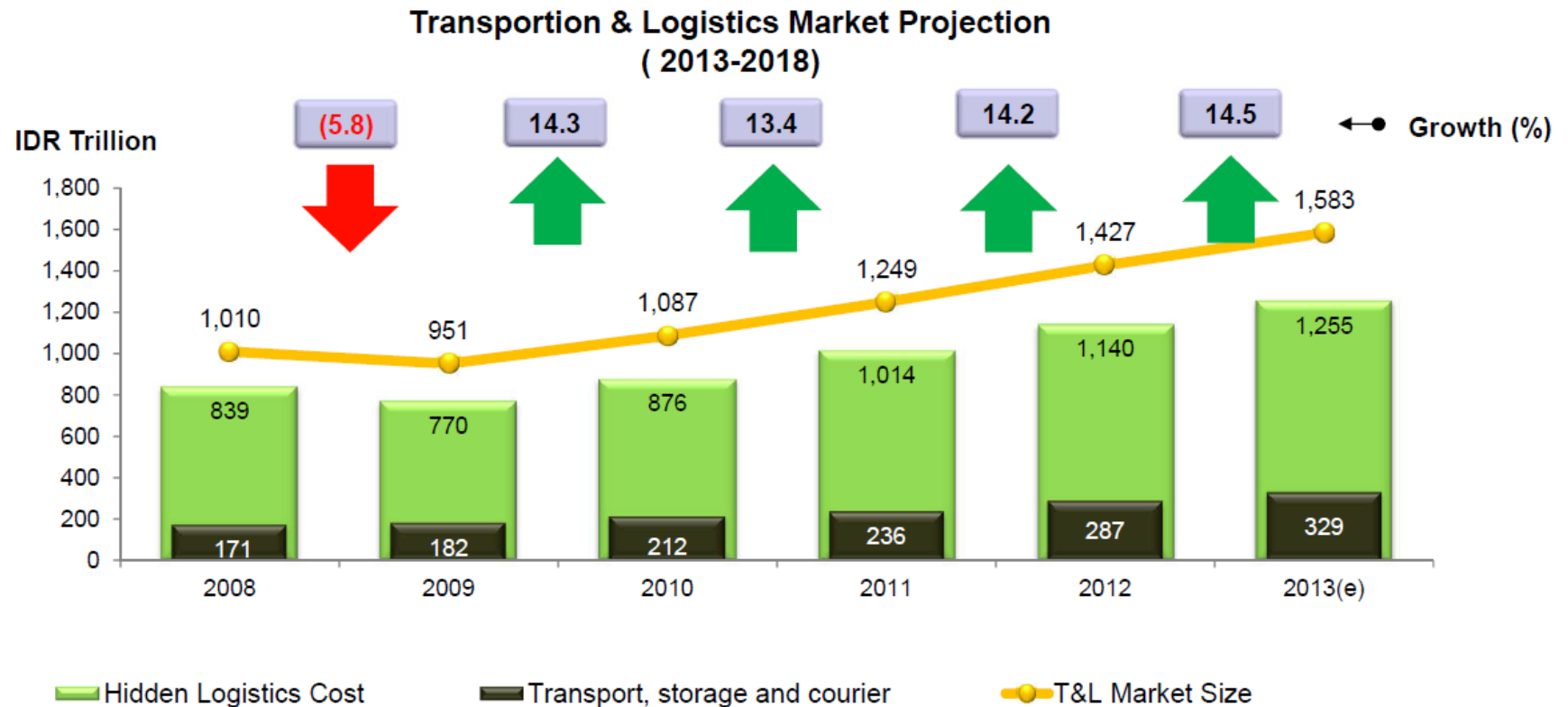


Source: WTO and WB



Indonesia

market size & development



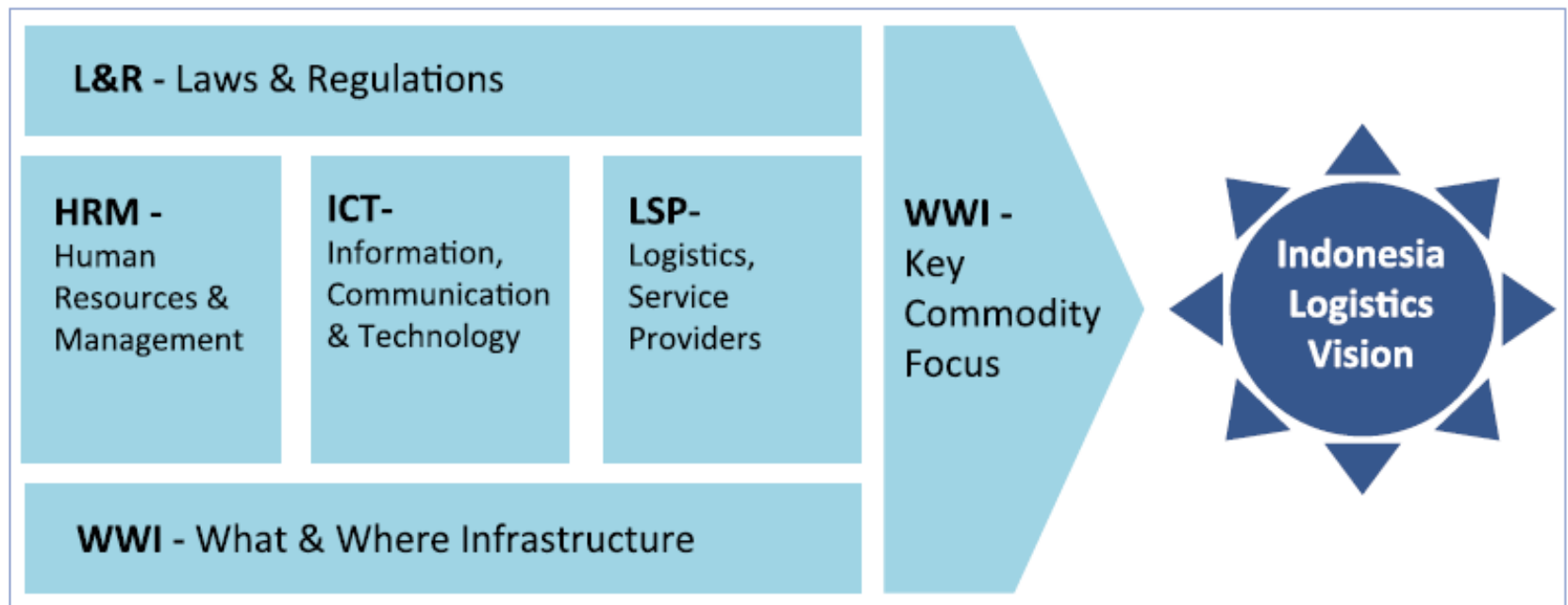
Source: Indonesian Statistical Agency

Indonesia

trends and challenges



To enhance its logistics industry Indonesia is developing a National Logistics System which is program running until 2025, the main goal is to to establish an integrated, effective and efficient logistics system to improve the national competitiveness on the regional and global markets, and to improve social welfare.



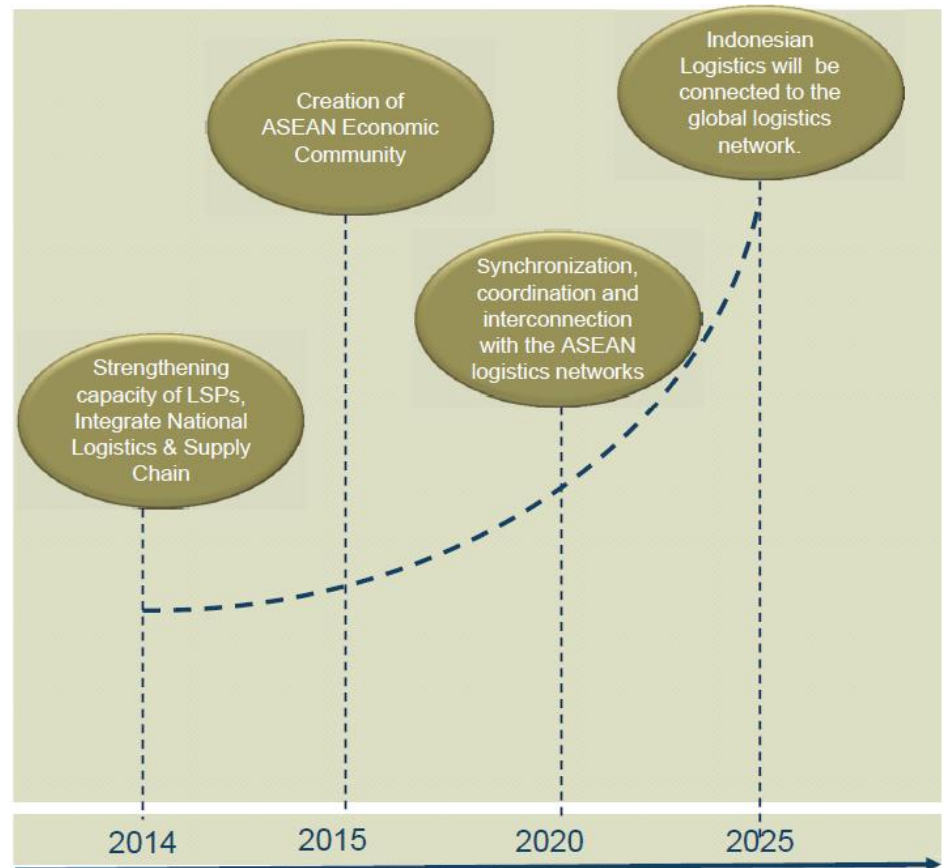
Indonesia

trends and challenges



Main goals:

- 2014-2015: Infrastructure development among ASEAN countries are expanded to support the transportation & logistics service in the region
- 2015-2020: ASEAN Logistics Network Integration
- 2020-2025: Integrated Global Logistics Network. Indonesia will be connected to the regional (ASEAN) and global logistics systems via International Hub Ports



Source: Frost & Sullivan Analysis

South Africa

overview



Fast facts

GDP 2014 (Bill. Euro)	318
GDP per Capita (Euro)	5.533
Population 2014 (Mill.)	54
Rail network (km in 2009)	20.500
Road network (km in 2011)	-

Logistics Performance Index (LPI)



Merchandise Trade



Transport services (import/export)

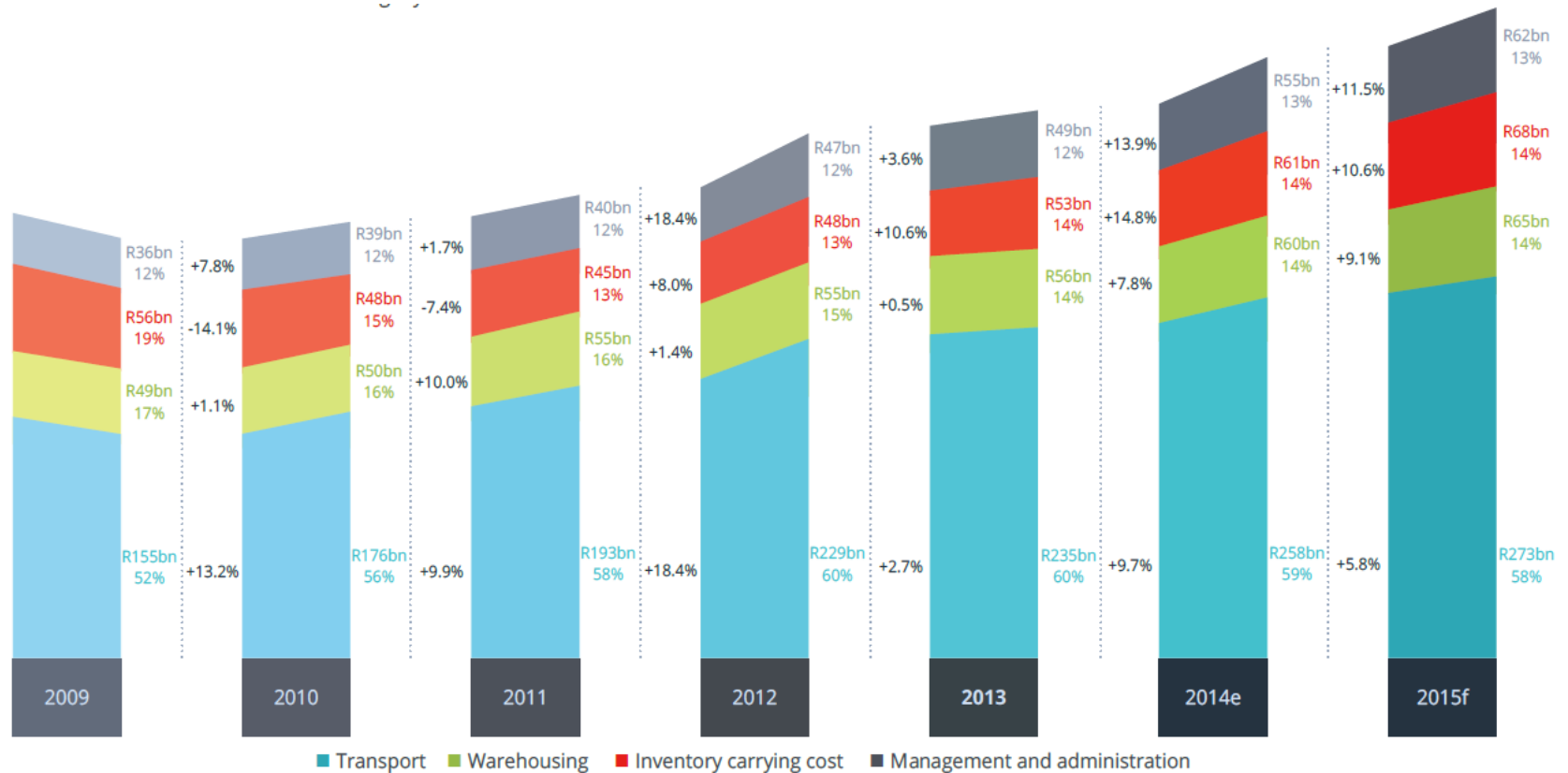


Source: WTO and WB



South Africa

market size & development



Source: Stellenbosch University, 2015

South Africa

logistics service providers



Barloworld: Barloworld Logistics is one of the leading logistics and supply chain management businesses in southern Africa, with complementary operations in China, the United Arab Emirates, Iberia, Germany and the United Kingdom.



Jonen Freight (Pty) Ltd. is an independent South African owned company who has been on the local market since 1979. They are one of the oldest of the medium sized freight forwarders on the South African market today



Logwin offers complete full service solutions. The service portfolio extends from branch-appropriate supply chain management and warehousing through to logistical value-added services to complete outsourcing projects. The business segment Solutions thereby has a high level of competence in process control and the development of customised IT solutions.



Managed Freight developed an online **freight management consultancy** to provide companies with an alternative to existing services and logistics service provider selection. Most of our clients are small to medium businesses that require support in their shipping department and do not have the volume to negotiate preferable terms and rates.

www.logisticssouthafrica.org



South Africa

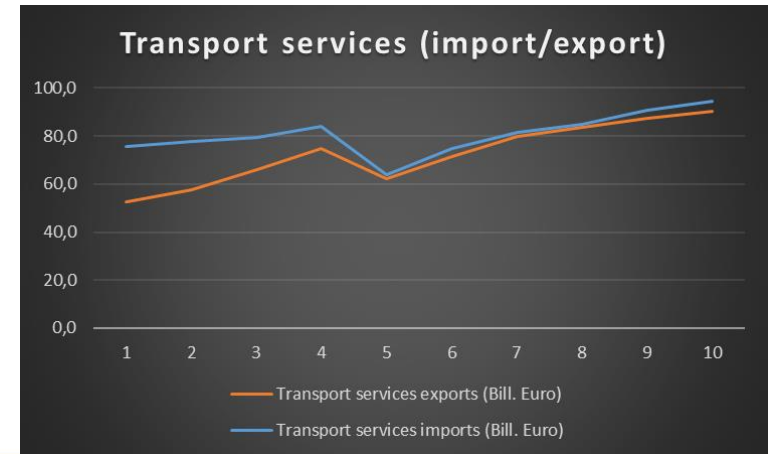
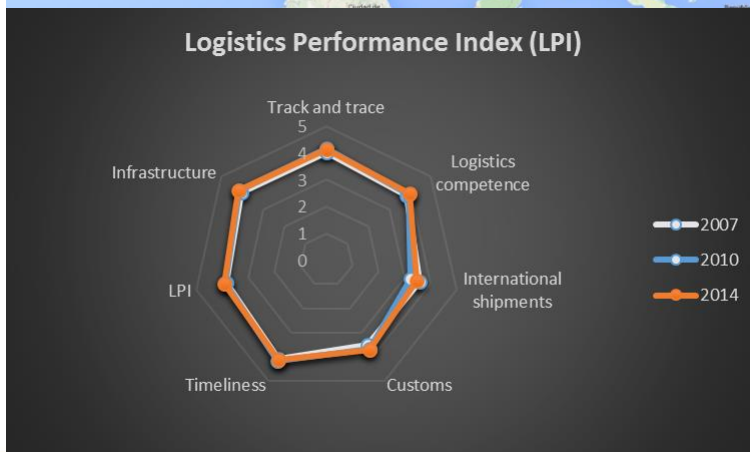
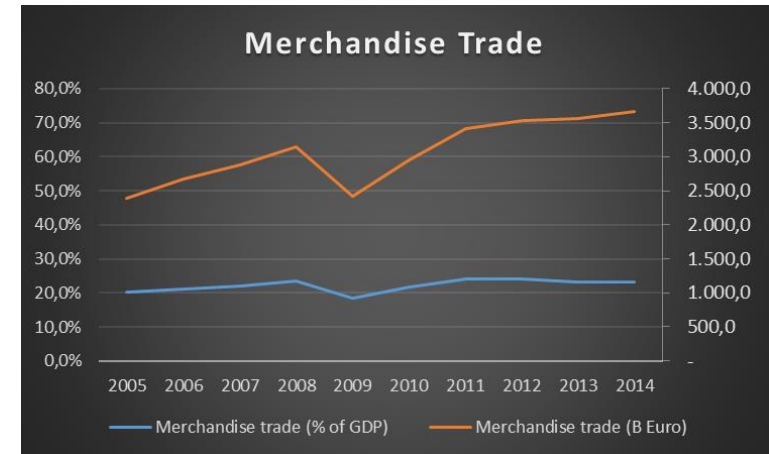
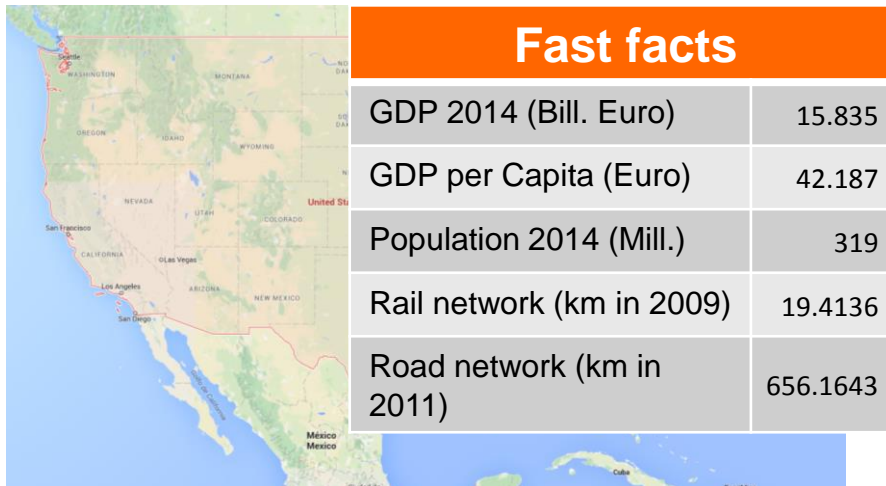
trends and challenges



- In South Africa, there is much to be done about reducing the demand for logistics – in other words reducing the kilometres travelled by each tonne, how long it is stored and how often it is handled.
- A major objective is to achieve sustainable funding and maintenance for the infrastructure used by each transport mode.
- Reducing the monetary cost of logistics is an important goal but equally important is the reduction in societal costs such as emissions.
- More general Supply Chain challenges in S-A are:
 - Improving service levels to customers
 - Integration of technology
 - Lowering procurement costs and reducing order lead times
 - Improving visibility in the supply chain
 - Improving the flow of business intelligence
 - Aligning with key players in the supply chain.

Source: Council for Scientific and Industrial Research (CSIR), 2014 & Stellenbosch University, 2015

United States of America overview



Source: WTO and WB



US

market size & development



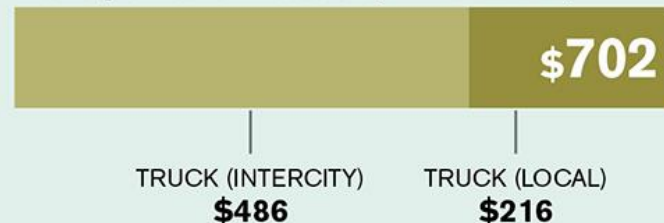
The U.S. business logistics system cost is the equivalent of 8.3% of GDP in 2014

(\$ billions)

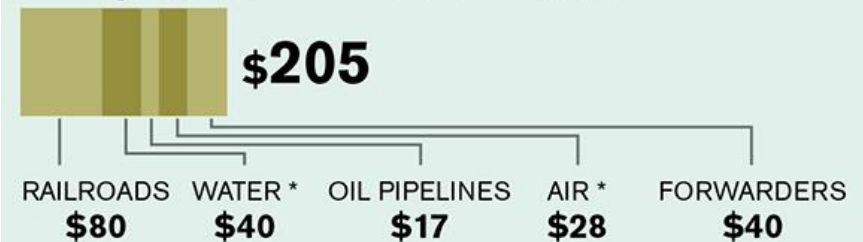
Carrying costs (\$2.496 trillion all business inventory)



Transportation costs (Motor carriers)



Transportation costs (Other carriers)



* WATER: INTERNATIONAL 31, DOMESTIC 9
AIR: INTERNATIONAL 12, DOMESTIC 16

Shipper related costs

\$10

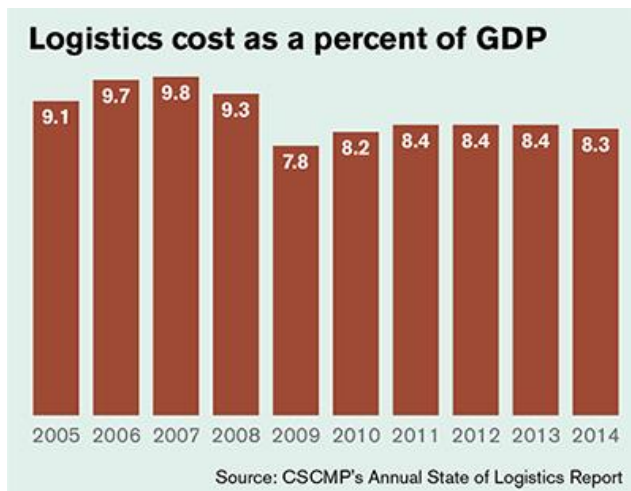
Logistics administration

\$56

Source: CSCMP State of Logistics Report, 2015

US

market size & development



Source: CSCMP State of Logistics Report, 2015



Source: TradingEconomics.com 2016



US logistics service providers

Armstrong & Associates Top 50 U.S. Domestic 3PLs

Third-Party Logistics Provider	2014 Gross Logistics Revenue (USD Millions)*
1. C.H. Robinson Worldwide	\$13,470
2. Expeditors	\$6,565
3. J.B. Hunt (JBI, DCS & ICS)	\$5,799
4. UPS Supply Chain Solutions	\$5,758
5. Kuehne + Nagel (The Americas)	\$5,157
6. UTi Worldwide	\$4,180
7. Hub Group	\$3,571
8. Burris Logistics	\$3,506
9. Schneider Logistics & Dedicated	\$3,390
10. Exel	\$3,300
11. CEVA Logistics (The Americas)	\$2,618
12. DB Schenker Logistics	\$2,615
13. Panalpina (The Americas)	\$2,463
14. Ryder Supply Chain Solutions	\$2,461
15. XPO Logistics	\$2,357

Source: Armstrong & Associates' Top Third-Party Logistics Provider (3PL) Lists

US logistics service providers



Barloworld: Barloworld Logistics is one of the leading logistics and supply chain management businesses in southern Africa, with complementary operations in China, the United Arab Emirates, Iberia, Germany and the United Kingdom.



Jonen Freight (Pty) Ltd. is an independent South African owned company who has been on the local market since 1979. They are one of the oldest of the medium sized freight forwarders on the South African market today



Logwin offers complete full service solutions. The service portfolio extends from branch-appropriate supply chain management and warehousing through to logistical value-added services to complete outsourcing projects. The business segment Solutions thereby has a high level of competence in process control and the development of customised IT solutions.



Managed Freight developed an online **freight management consultancy** to provide companies with an alternative to existing services and logistics service provider selection. Most of our clients are small to medium businesses that require support in their shipping department and do not have the volume to negotiate preferable terms and rates.

www.logisticssouthafrica.org



US

Trends and challenges



The U.S. Roadmap for Material Handling & Logistics identifies 10 major trends in the economy, technology and society that will shape the future of the industry:

1. The growth of e-commerce
2. Relentless competition
3. Mass personalization
4. Urbanization
5. Mobile and wearable computing
6. Robotics and automation
7. Sensors and the Internet of Things
8. Big Data and predictive analytics
9. The changing workforce
10. Sustainability

More general Supply Chain challenges in are:

- The industry already faces a workforce challenge, in both finding good workers and training them.
- Significant levels of collaboration in the industry could lead to breakthrough reductions in the cost and environmental impact of logistics.
- Sensors, data and algorithms: Recommendations include real-time optimization of distribution systems, cloud-based data from ubiquitous sensors, and sharing protocols to protect sensitive data.
- New methods of distribution including emerging distribution models based on crowd-sourcing and delivery to mobile customers.

Source: U.S. Roadmap for Material Handling & Logistics, 2015

