Executive Summary

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DVZ TOP 100

Martin Schwemmer

TOP 100 in European Transport and Logistics Services 2017/2018

Updated version of TOP 100 in European Transport and Logistics Services 2015/2016

Editor: Alexander Pflaum

A study by
Fraunhofer Center for Applied Research
on Supply Chain Services SCS

Fraunhofer IIS

Foreword

On the occasion of the 34th International Supply Chain Conference, the Fraunhofer Center for Applied Research on Supply Chain Services SCS will once again be looking at the developments in the European logistics markets. The Fraunhofer scientists will be picking up where the last »TOP 100 in European Transport and Logistics« left off two years ago. The authors have chosen a new, compact format for the 2017 edition. The new study is just 100 pages long but supplies the information readers are really interested in, profiling the changes that have taken place in the logistics sector since 2015.

Martin Schwemmer and his team at SCS describe the trends and drivers in the European logistics sector succinctly and to the point. They also supply updated rankings for the nine key market segments that are traditionally examined in detail, such as bulk, contract logistics and air freight. And it goes without saying that the useful – and eagerly awaited – Top 100 list is once again an integral part of the study. In an Annex providing value added for users, the findings of the BVL Study on Trends and Strategies in Logistics and Supply Chain Management are included in the market analysis for the first time. As there have been few changes, the Industry Profiles, Company Profiles and Country Profiles are not included in the 2017 study.

The theme of the 34th International Supply Chain Conference – think different, act digital – also applies to the presentation of the TOP 100 of 2017/18. In line with user preferences, the publication is also being made available as an eBook. This means readers can also take the benchmarks and insights with them in their hand luggage without having to carry around a heavy hard copy printout. In this digital era, we view all these changes as part of the ongoing optimization of an established standard reference work for the logistics sector.

We would like to thank Martin Schwemmer and his colleagues at the Fraunhofer Center for Applied Research on Supply Chain Services SCS for their – once again – soundly researched work and we hope that all users of the TOP 100 study will find answers to many of their questions, input to help them determine their own position in the market, or inspiration for the development of forward-looking strategies.

Bremen / Hamburg, October 2017

Prof. Dr.-Ing Thomas Wimmer
Chairman of the Executive Board,
BVL Group

Oliver Detje
Publishing Director,
DVV Media

Introduction and Acknowledgements

The European logistics sector has reached a size of € 1,050 bn. for the total expenditure on logistics activities carried out in 2016. So, distinctly more than € 1,000 bn. got spent on logistics and the sector has recently grown by 2.7 per cent (2015) and 1.9 per cent (2016).

On the one hand there is a mature logistics industry that does a very good job and puts the things we need in the right place, at the right time, to the right (or maybe too low) costs. On the other hand we have a whole lot of trends which influence and mold the logistics of tomorrow. The results of this edition point in the direction outlined with the following hypotheses for the development of logistics:

- Logistics chains will become even longer with last mile concepts that reach even more end customers with their online ordered goods.
- Logistics processes will become more professional through more implemented technological innovations.
- Logistics will become more modern through a change of mindset and an embracement of new concepts and ideas.
- Logistics will also become somewhat more dynamic out of itself through new ways to do business and new market entrants.

As in every effort to describe ongoing developments it cannot be answered distinctly when logistics chains are long enough, professional enough, modern enough or dynamic enough. Every time has its logistics industry which develops just according to its environment which is somewhat less than perfect through cost pressure and operative driven requirements at logistics service providers.

Some may say that logistics is lagging behind. Some may say logistics is in the right place. Unfortunately no one says that logistics is leading the way. But with fresh ideas, innovative approaches and with a little help from technology a new logistics might evolve which will even more facilitate trade, growth and prosperity.

This report is written for all logisticians, the industries in need of logistics services and interested readers the like. For the very first time we chose to present a new and compact format of this report with this 2017/2018 edition that focusses on the presentation of everything that is relevant for logistics deciders right now. For readers who are interested in all the details on the 30 European nations, on every top logistics service provider or every industrial sector, the former 2015/2016 edition shall be understood as the encyclopedia with those detailed information on the European logistics markets.

I want to thank the sparring partners from industry and the academic worlds that enable to generate a sound picture of logistics as it is right now. In too many cases the included statistics had to be not only reproduced but questioned and challenged.

For his ongoing support I would like to thank Prof. Peter Klaus, the inventor of the »Top 100« market surveys. All of the various discussions, telephone calls and the exchanged materials and data helped a lot in the statistical and market assessments for this »Top 100« edition.

I also want to thank Prof. Alexander Pflaum, the director of the Fraunhofer Center for Applied Research on Supply Chain Services SCS and now, for the first time, editor of the »Top 100« studies.

Many thanks go out to all the experts, companies and institutions, which supported us by providing data and assessments. Special thanks go to DVV Media Group, Hamburg, and the German Logistics Association (BVL), for their continuing support for this project as publishers.

I also thank the dedicated and professional »Top 100« team at the Fraunhofer Center for Applied Research on Supply Chain Services (Fraunhofer-Arbeitsgruppe für Supply Chain Services SCS) in Nuremberg, namely Estella Cäsar, Annemarie Kübler, Reinhard Neumann, Natalie Weber and – last but not least – Alexander Hempfing.

Nuremberg, October 2017

Martin Schwemmer

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Management summary and trend discussion

Since more than 20 years researchers at the Fraunhofer Center for Applied Research on Supply Chain Services SCS in Nuremberg are assessing logistics markets. With this 2017/2018 update a focused overview shall be given for deciders in logistics businesses as well as interested readers. The following starting lines shall wrap up some of the most important findings and give hints how to read this edition.

The European logistics sector has grown by 1.9 per cent in 2016. About € 1,050 bn. got spent on logistics services and activities in the last year. € 470 bn. alone represents the share of transportation and includes direct administrational costs for transportation tasks. Costs for warehousing account for about € 345 bn., while overhead costs for administration and planning incl. order processing costs for all logistics processes in transport and warehousing add up to € 68 bn. With inventory holding costs of € 165 bn. a total volume of € 1,050 bn. results for the year 2016. The 2015 growth of 2.7 per cent could not be repeated with just under 2 per cent in 2016, but moderate growth has taken place which might proceed. For the near future the growth expectations result in a figure of about 2 per cent for the year 2017. For 2018 the expectations are a bit lower but also can be stated with about 2 per cent. Unforeseen events sure might change these expectations.

As a share of the European GDP, the logistics sector accounts for about 7 per cent of it. This aggregate figure delivers a good impression of the value and relevance of the European logistics system that is relevant in nearly every sector of an economy. The »insourced« and the »outsourced« part of logistics activity account for approx. 50 per cent each for Europe as a whole. I.e. only about half of the logistics activity is carried out by logistics service providers. The other half is in hand of manufacturers and retailers.

19.2 bn. tons are moved in Europe as national domestic and outbound goods flows. The highest share of 78 per cent of this is carried on the road with about 29 tons of road transport per head of the European population. Taking all modes of transport together about 37 tons per head of population were transported for the European population of about 524 mil. citizens. For single countries this per capita figure noticeably deviates from the average figure. E.g. for Germany more than 50 tons per head of population are moved each year and highly developed nations reach or distinctly exceed that amount of tons moved per head of population. For those saturated markets mainly in Western and Northern Europe a pure growth in tonnage figures cannot be expected for the future, while for emerging markets a steady growth can be expected.

Because of the influence of an unparalleled growth of B2C consignments, supply chains get longer and more often reach the households of end customers. This on the one hand opens up business opportunities for companies which are new to the logistics industry. On the other hand it also raises requirements for logistics service providers to fulfill logistics processes even more customer oriented. I.e. Logistics service providers try to become more transparent and enhance communication about the status of delivery and work well together across company boundaries. Consequently, for saturated markets strategies of logistic service providers should not only base on the assumption of steady growth of traded tons.

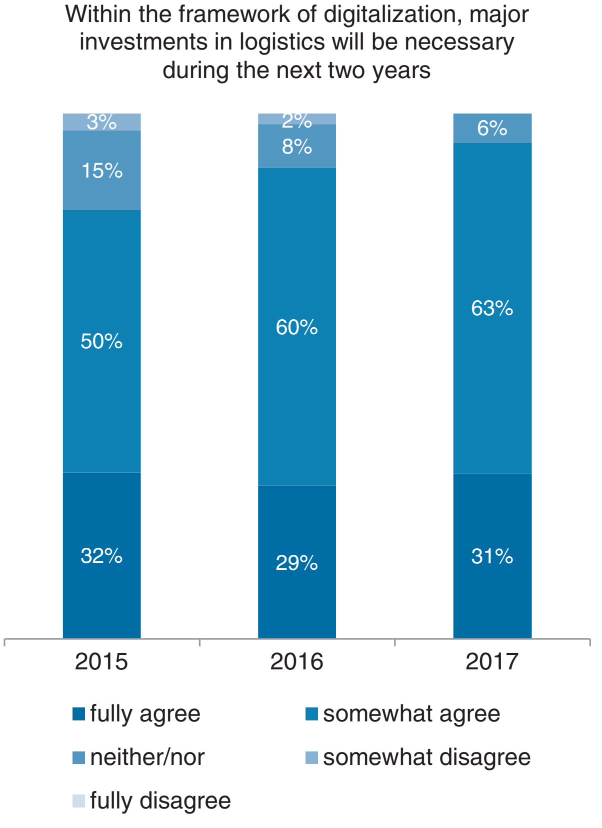
Megatrends in Logistics and Supply Chain Management

Implications	Trend titles	
External trends: These trends can hardly be influenced by companies and mostly effect demand for logistics activity and services. Deciders should consider these trends to react properly in strategy development and decision making.	**Globalization and volatility in goods flows**	1
	Demographic change through aging societies, immigration and urbanization	2
	New lifestyles create high demand for convenience in business and consumer markets	3
	Servitization	4
	Sustainability	5
	Rising risks and threats from terrorism, political and economic instability, natural catastrophes and cyber-crimes	6
Internal Trends: Internal trends are possible to influence through companies and their managers. Innovation and organizational development can be set up to successfully develop businesses according to those trends. Service offers can be optimized directly.	**Innovative technologies and digital transformation**	7
	New challengers	8
	Professionalization and effective logistics	9
	Shareholder value objectives are pursued and verticalization of logistics businesses	10

Where digitalization leads to and what implications it has on logistics

Digitalization has received a broad recognition in recent years and is still one of the most important topics in numerous publications. Of course, examples of cloud logistics, applications of sensor technology, big data solutions, predictive analytics, virtual reality, wearable sensors, smart objects and robotics, additive manufacturing and many more can be described from an inexhaustible landscape of trend reports. The following deliberations focus on actual developments that take place on a business level at logistics service providers in Europe.

Starting in 2015, a survey among the top logistics service providers which are addressed by the »Top 100« data query each year was initiated. It intends to make developments of trends traceable over time. To react on trends companies must spend some kind of resource (time, investments). Yet, when resources get allocated, actions and measureable outcome will follow. The following Figure 4 shows the rating of the top logistics service providers in Europe over the years regarding the hypothesis that digitalization makes investments necessary in the short term.



Necessity of major investments because of digitalization trend
(Fraunhofer SCS)

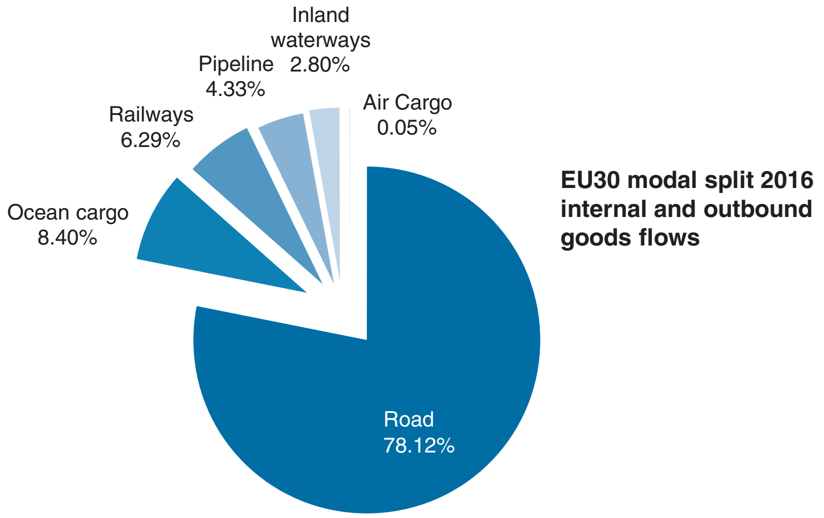
Measuring the total cost of the European business logistics system

The volume of total logistics sector expenditures in Europe for 2016 amounts to € 1,050 bn.

The European transport and logistics sector has grown once more in 2016. With a growth of about 2 per cent compared to 2015, the growth stays in line with the real GDP growth for the European Union with an increase of 1.9 per cent according to Eurostat. Over the years the following rule of thumb could be learned from the assessment of logistics markets in Europe and especially Germany:

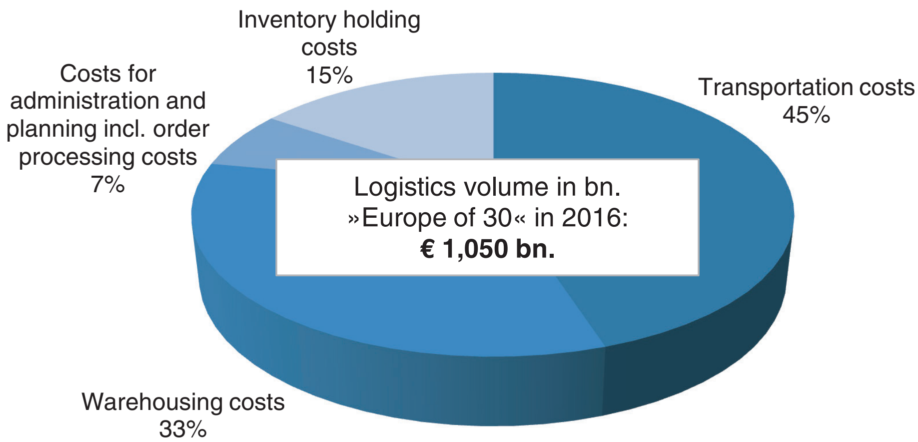
In ripe markets (countries) the logistics sector grows just above the GDP each year. Export goods flows boost logistics development, indeed, but also economic wealth and purchasing power of the population drive logistics growth.

The following diagram displays the origin of logistics activities which lie in the flow of goods via the different modes of transport.



EU 30 transport volumes by modes of transport in 2016
(Fraunho-fer SCS, data source: Eurostat database exports 09/2017)

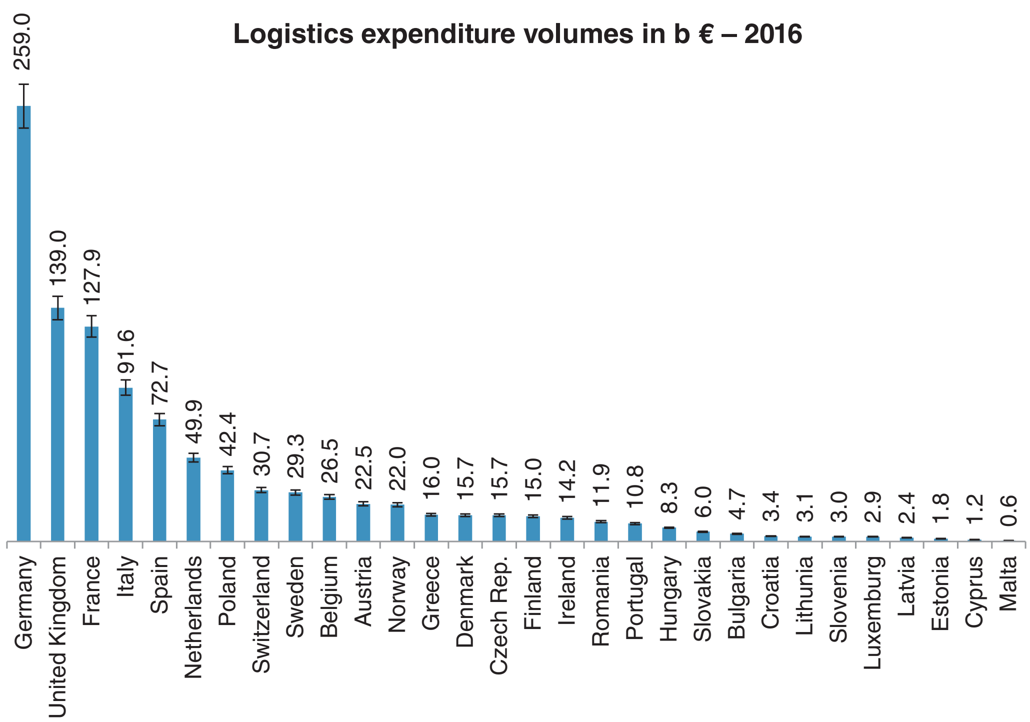
The 2016 national domestic and outbound goods flows for the 30 European countries sum up to 19.2 bn. tons of goods. About 78 per cent of these tons are carried by road. This figure is still very high and counteracts political aims to shift goods flows to more environmentally friendly modes of transport, first of all – railway transport. Yet, railway transportation distinctly lacks flexibility compared to transport by road. Additionally, still booming B2C deliveries of goods to households which are purchasing online (mainly occurring under the



EU 30 Logistics expenditure by cost type
(Fraunhofer SCS)

About 45 per cent of logistics expenditures are attributable to transportation, 33 per cent to warehousing. The costs for administration and planning incl. order processing cost reaches a level of 6.5 per cent. Inventory carrying account for 15.5 per cent, whereas those costs include inventory write-offs for the reporting period of an imputed rate of interest.

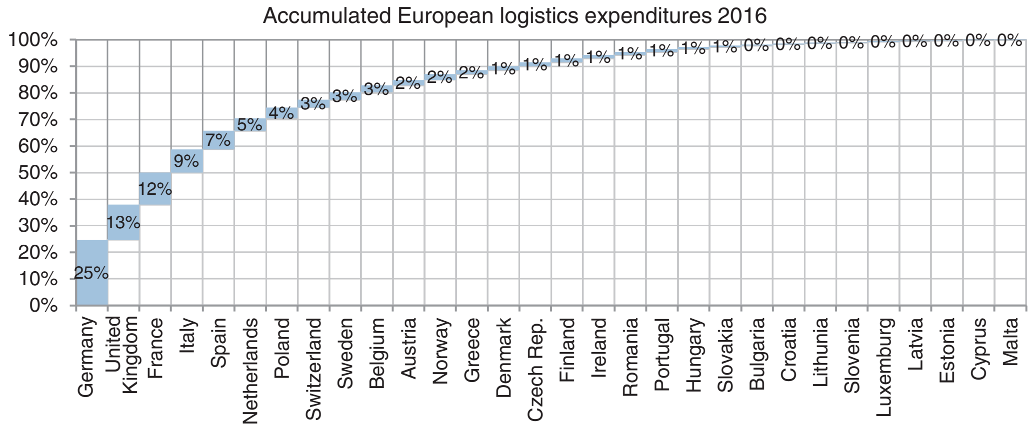
The total size of the logistics sector in the »Europe of 30«: € 1,050 bn., of which at least € 525 bn. is not yet outsourced to logistics services providers



Spread of European logistics expenditures 2016
Fraunhofer SCS

The error bars indicate a two sided 5 per cent deviation from the calculated values as those need to be considered as a tentative breakdown with a higher level of uncertainty.

Likewise to the big economies, about 75 per cent of logistics are concentrated in the five largest countries. The logistics expenditures of 14 of the 30 countries represent 90 per cent of the overall expenditures.

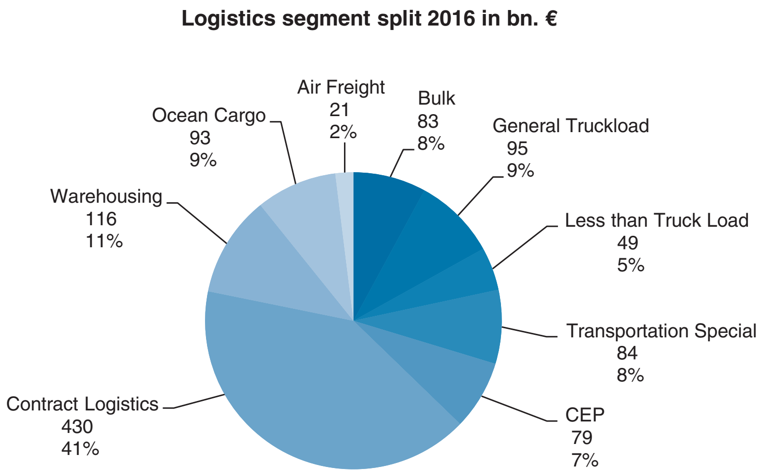


Concentration of European logistics expenditures 2016
Fraunhofer SCS

The »Homeland Principle« for the geographical attribution of logistics services and market size estimates.

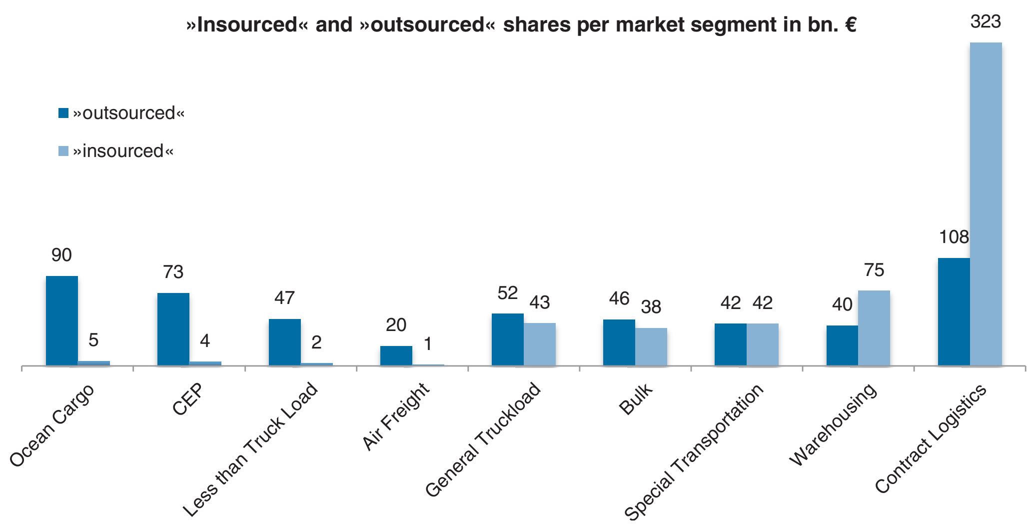
The revenues of transportation services that cross borders are attributed only to the country of departure, but not to the countries passed in transit and of destination.

Profiles of nine logistics segments under observation



Overview of the logistics sector in Europe by logistics segments in 2016 in billion € and in %
(Fraunhofer SCS)

In addition to the size of these segments, the result of the estimation for the degree of outsourcing is presented in the following figure. In sum, the outsourcing degree accounts for slightly below 50 per cent.



Logistics segments and their estimated »insourced« and »outsourced« shares in 2016
(Fraunhofer SCS)

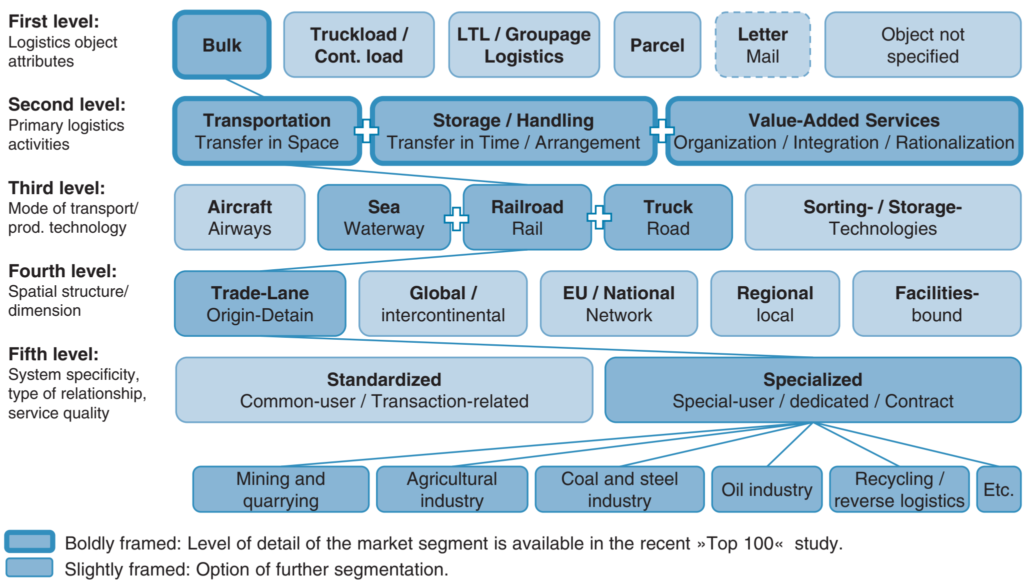
Market segments – Example Bulk Logistics

Key data on the logistics segment

	Market segment »Bulk Logistics« in bn. €	in %	Logistics market in bn. €	Data quality
Logistics volume (total) of market segment:	83	8%	1,050	**
... thereof »**outsourced**« **market share**:	46	55%	83	*
Performance indicators				
Carried/handled tonnage (million tons p.a.)			10,416	**
Number of processed orders (in millions p.a.)			21	**
Number of employees estimated (thousands)			1,200	*
Benchmarks				
Ø Revenue per employee p.a. (thousand €)			80	**
Ø Revenue per order (€/order)			4,000	**
Ø Revenue per ton (€/ton)			8	**
Ø Size of order, tons/order (tons)			500	**

Logistics Segment 1: »Bulk Logistics«

Schematic market segment structure



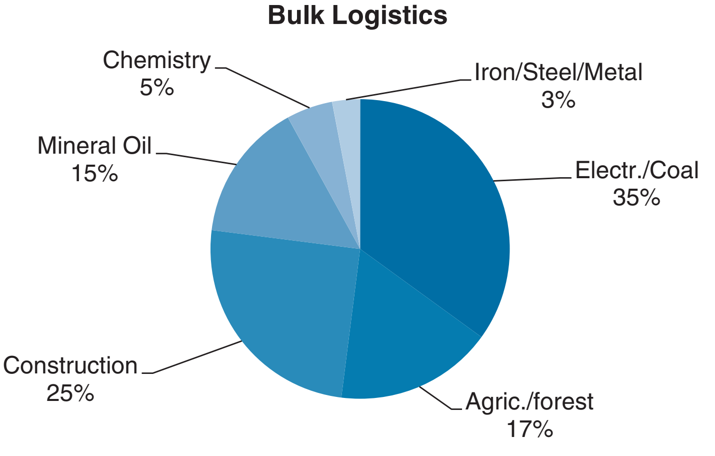
Structure of the logistics segment 1: »Bulk Logistics«

Characteristics

The logistics activities in this segment involve bulk transport, storage and other additional logistics services needed to supply companies with natural raw materials and base materials in solid or liquid form. Therefore, the equipment is mostly specialized. The average size of its contracts and loads in this segment is larger than the capacity of a single truck or railroad car. Consequently, services are carried out by different means of transportation: transportation in block trains, by pipeline, internal waterway and sea shipping as well as the transportation by a complete fleet e.g. serving large construction sites. Because of their relatively low volume/value ratio and the fact that the time of production and the time of use can be completely different, large volumes of bulk products are often held in interim storage. Loads are carried mainly between fixed sources and sinks such as bulk-handling sea and inland ports, refineries, basic industry plant locations, natural raw materials mining operations and waste dumps, as well as temporary building sites. Some bulk cargoes are subject to special regulations for hazardous goods or basic foodstuffs. The processes of loading and unloading are mostly automatized. In many cases, the production or consumption of bulk products is seasonal.

Typical network architecture

Shipping Industries



Segmentation of »Bulk Logistics« by industries

Market structure

Rank	Company	Revenue Bulk Logistics Europe (in m. €)	Notes	Data quality
1	DB Mobility Logistics (DE)	2,200	rail transport, DB CARGO rail assets	**
2	SNCF SA (FR)	1,690	rail transport and assets	***
3	Rhenus SE & Co. KG (DE)	1,485	inland port, barge and rail assets	***
4	PKP CARGO SA (PL)	845	rail transport and assets	***
5	Rail Cargo Group (division of ÖBB) (AT)	485	rail transport and assets	***
6	CLH SA (ES)	425	bulk oil storage and transport	*
7	Latvijas dzelzceļš (LV)	283	rail transport and assets	**
8	E.B. TRANS SA (LU)	380	rail transport and assets	***
9	Trenitalia S.p.A. (IT)	370	rail transport and assets	**
10	Stolt-Nielsen Holdings B.V. (NL)	350	bulk terminal operations, tank container transports and ocean cargo for chemicals and bulk liquid	**
	Sum Top 10	8,513		
11	Ceske Drahy Cargo a.s. (CZ)	339	rail transport and assets	***
12	Imperial Logistics (DE)	306	diversified, inland port and barging assets	***
13	Green Cargo AB (SE)	305	rail transport and assets	**
14	VR Transpoint (FI)	300	rail transport and assets	*
15	Lineas (BE) (formerly SNCB Logistics NV)	295	rail transport and assets	***
	Sum Top 15	10,058		

The top 15 in »Bulk Logistics«

The »Top 100«

Rank	Company	Data Quality	Logistics Revenue Worldwide	Logistics Revenue Europe	Employees
1	2	3	4	5	6
1	Deutsche Post DHL (Group) (DE)	**	47,592	**25,174**	459,26
2	Deutsche Bahn AG (DE)	**	19,688	**15,160**	306,36
3	Maersk A/S (DK) (ocean carrier)	**	26,610	**13,300**	87,73
4	Kuehne + Nagel International AG (Konzern) (CH)	***	15,387	**13,053**	70,03
	DB Schenker (part of Deutsche Bahn AG) (DE)	**	15,128	***10,200***	68,38
5	SNCF SA (FR)	**	10,040	**10,040**	51,56
6	Mediterranean Shipping Company SA (MSC) (CH) (ocean carrier)	*	19,000	**9,500**	22,50
7	La Poste (Group) (FR)	**	8,414	**8,414**	140,00
8	CMA-CGM SA (FR) (ocean carrier)	***	15,162	**7,500**	32,47
9	UPS Europe NV (BE)	*	57,800	**6,700**	434,00
10	The Royal Mail Holdings Plc. (Group) (UK)	***	6,299	**6,299**	142,00
	Sum Top 10		**225,992**	**115,140**	**1,745,95**
	GeoPost SA (part of La Poste) (FR)	***	*6,200*	***6,200***	*32,600*
11	DSV A/S (including UTI Worldwide since 2016) (DK)	***	9,106	**5,768**	44,77
12	Dachser SE (DE)	***	5,706	**5,280**	27,45
13	XPO Logistics Inc. (formerly Norbert Dentressangle SA) (US)	*	5,450	**5,200**	49,70
14	Rhenus SE & Co. KG (DE)	***	4,800	**4,675**	26,00
	DB Cargo Deutschland AG (part of Deutsche Bahn AG) (DE)	**	4,560	**4,560**	29,67
15	Bolloré Holding SA (FR)	***	7,423	**4,143**	36,73
16	FedEx Inc. (BE) (including TNT Express since 2016)	**	54,072	**4,500**	400,00
17	Gefco SA (FR)	**	4,228	**3,170**	10,66
18	Panalpina Welttransport AG (Holding) (CH)	***	4,838	**2,928**	14,21
19	DP World (Europe) (UK)	**	4,016	**2,914**	37,00
	TNT Express (part of Fedex) (NL)	**	*2,750*	***2,750***	n/a
20	CEVA Group Plc (UK)	***	6,307	**2,722**	42,15
	General Logistics Systems B.V. (GLS) (part of Royal Mail) (NL)	***	*2,521*	***2,521***	*17,000*
	Damco International B.V. (part of Maersk) (ocean carrier) (NL)	**	*2,507*	***2,507***	*11,400*
21	Hapag-Lloyd Aktiengesellschaft (DE) (ocean carrier)	**	7,630	**2,500**	9,22
22	STEF SA (FR)	***	*2,482*	**2,482**	16,00
23	Hermes Europe GmbH (DE)	**	*2,480*	**2,480**	12,26
24	Volkswagen Konzernlogistik GmbH & Co. OHG (DE)	*	3,100	**2,450**	n/a
25	Rail Cargo Group (AT)	***	*2,079*	**2,079**	8,40
	Sum Top 25		**349,709**	**168,431**	**2,480,55**

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