



Ministerie van Infrastructuur
en Waterstaat

The market segmentation of road transport in the Netherlands

Analysis performed as part of the preparation
for the HGV toll system

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Important notice

In preparing this report and the analyses, important data sources have included desktop research and several interviews with transport associations and statistical organisations. Analysis has been conducted on publicly available data sets and some tailored data sets provided by CBS (Dutch National Statistics Agency) and RDW (Department of Road Transport).

We draw your attention to the following remarks regarding the information and analyses used to prepare this report:

- Due to limitations in the availability of information, several assumptions were made to modify the data to be useful for the purpose of this report. Analyses made based on this data are marked as indicative in the report
- For the segmentation of foreign carriers active in the Netherlands, a segmentation was made based on available data on foreign carriers active in Belgium, which was applied for the Netherlands. Hence, it was assumed that the characteristics of foreign carriers active in Belgium are similar to the characteristics of foreign carriers active in the Netherlands
- The data on the trucks in the Belgian market covered approximately 70% of the total number of foreign trucks in the Belgian market. The other 30% is served by commercial EETS providers and no information is available on carrier characteristics for this segment. The foreign carrier data is based on an analysis of Satellic, Viapass, Statbel and Eurostat data
- Data on Dutch and foreign carriers has been cross-checked by comparing data sets from different sources, both at the level of the source data and based on the outcomes of analyses. However, the reliability of these data sources has not been confirmed by reference to other evidence and this report therefore does not express an opinion or any form of assurance on the information presented in this report (including appendices). The responsibility for the correctness of the data remains with the provider of the data
- Interviews with industry associations, experts and statistics agencies were mainly conducted to gain clarity about and cross-check and triangulated the information in data sets. The statements of interviewees have not been checked for factual accuracy and the responsibility remains with the interviewees
- For a detailed basis of preparation including an explanation of the research methodology including primary and secondary research we refer to the appendix (pages 34-36)
- This report aims to identify carrier segments and analyse their characteristics. This report does not aim to assess whether these segments are potentially attractive for EETS providers. There has been no contact with EETS providers to align on their criteria for potential attractiveness

We would like to emphasise that this report does not express an opinion or any form of assurance on the information presented in this report (including its appendices). It is not permitted to use or copy the report as a whole or in parts without prior written consent by the Ministerie van Infrastructuur en Waterstaat (Ministry of infrastructure and water management) and KASEA⁽¹⁾.

Note: (1) Uitsluitend voor gebruik in de communicatie tussen enerzijds het Ministerie van I&W en anderzijds het consortium van KPMG, Stibbe, Eubelius en Arup maken wij gebruik van de afkorting "KASEA". Dit doet er niet aan af dat het Ministerie van I&W ter zake van het project "Ondersteunen bij stelsel implementatie vrachtwagenheffing" uitsluitend een overeenkomst heeft met Antea en dat KPMG, Stibbe, Eubelius en Arup onderopdrachtnemers zijn van Antea. Gebruik van de afkorting "KASEA" impliceert op geen manier dat genoemde partijen een samenwerkingsverband, joint venture of vennootschap in het leven hebben geroepen en ter zake van partijen bestaat geen hoofdelijke aansprakelijkheid.



Basis of preparation (1/2)

Primary and secondary sources of information for NL road transport market segmentation

	Primary (interviews)	Secondary
Total km driven on Dutch roads		<ul style="list-style-type: none"> — Eurostat: total km driven in the Netherlands per origin country of carrier, type of transport, type of products and transported weight per country (2005-2019) — CBS: total km driven by Dutch carriers in the Netherlands and abroad and km driven in the Netherlands by foreign carriers (2005-2018; totals for Dutch and foreign carriers, not per carrier) — BBGV: km driven in the Netherlands per origin country of carrier and per type of transport (2014-2017)
Dutch segmentation	<ul style="list-style-type: none"> — TLN — EVOFENEDEX — VERN — RDW — CBS — NIWO — Carriers (VOS, Kuehne + Nagel) — Industry experts (2 experts) 	<ul style="list-style-type: none"> — RDW: km driven per Dutch truck (1994-2019) — CBS: survey data on the driving behaviour of Dutch carriers per carrier fleet size category (2018-2019) — NIWO: number of permits of professional carriers (2018)
Foreign segmentation	<ul style="list-style-type: none"> — FEBETRA (Belgium) — ITLB (Belgium) — FOD (Belgium) — Satellic 	<ul style="list-style-type: none"> — OBUs in the Belgian market: characteristics of registered accounts in Belgium and their characteristics (2016-2019) — ViaPass: annual reports providing insights on the users of Belgian toll roads (2017-2018) — FEBETRA: number of Belgian professional carriers, including a split in the fleet size of carriers — STATBEL: total number of Belgian carriers — Satellic: data on OBUs in the Belgian market (other foreign)



Basis of preparation (2/2)

Approach and quality and reliability of data

Approach

KM segmentation

- This report includes various analyses showing a split of km driven by Dutch and foreign carriers per type of carrier and/or type of transport. These analyses were made based on Eurostat data on transported weight per type of transport per country, which was applied to CBS (Dutch national statistics agency) data on Dutch and foreign km to come to a KM split

Dutch segmentation

- This analysis on Dutch carriers is based on data sets from the RDW (Dutch department of road transport), including: Mileage measured in recent years per truck and information on the status of the trucks
- This data set was cleaned up to exclude: buses and non-regular trucks, trucks that are tagged as non-active, trucks with no data points and trucks containing outlier values
- Per truck the average annual km per truck in the last 12 months was calculated, which resulted in a list with buckets based on fleet size and the average annual mileage per truck
- A different data set was used to isolate the professional carriers in the overall list. A cross-check (“triangulation”) with CBS data indicated that the number of professional carriers in this resulting list was too low. By using a top-down approach based on CBS data, a correction in the overall list was made, resulting in corresponding number in both sources
- Information on the (inter) national character of carriers from CBS survey data was then applied on our carrier data set to gain insights on the specific character of particular carriers

Foreign segmentation

- To gain insights into the international carriers active on Dutch roads, data taken from the Belgian market (based on Satellic and Eurostat data) was used and applied to the Dutch market under the assumption that the structure of the Dutch and Belgian transport markets is comparable
- Available data on the Belgian market covered ~70% of the Belgian market. The remaining ~30% of the market is comprised of larger international carriers that are already serviced by commercial EETS providers

Note: See the appendix for a detailed methodology



Glossary of terms

CAGR	Compound Annual Growth Rate	OBU	On Board Unit
CBS	Centraal Bureau voor de Statistiek (Dutch national statistics agency)	Own account carrier	Operates a fleet to facilitate the transport of their own products or to provide services to customers, not being professional transportation services
EETS	European Electronic Toll Service	Professional carrier	Carrier active in the transport of goods for third parties. This includes freelance transporters
e.g.	For example	RDW	Rijksdienst voor het Wegverkeer (department of road transport)
HGV	Heavy Goods Vehicle	#	Number
i.e.	Id est (for example)	>	More than
km	kilometre	<	Less than
KvK	Kamer van Koophandel (chamber of commerce)	~	Approximately
Ministerie van infrastructuur en waterstaat	Ministry of Infrastructure and Water Management	/	Divided by
MSP	Main service provider		
NIWO	Nationale en Internationale Wegvervoer Organisatie (national and international road transport organisation)		
NDA	Nationale Dienst Aanbieder (national service provider)		



Executive summary



1. Introduction

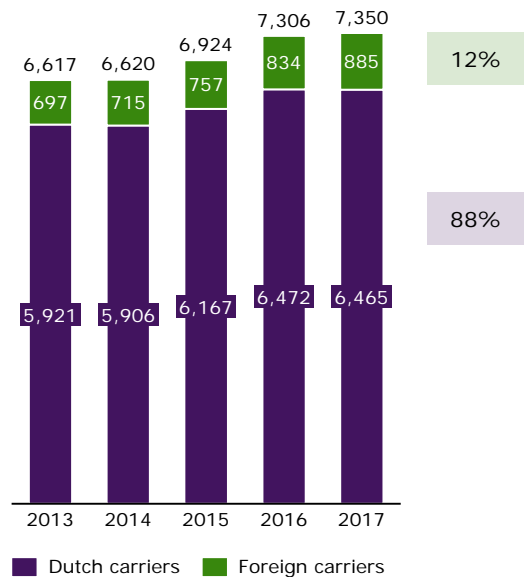
2. Dutch segmentation

3. Foreign segmentation

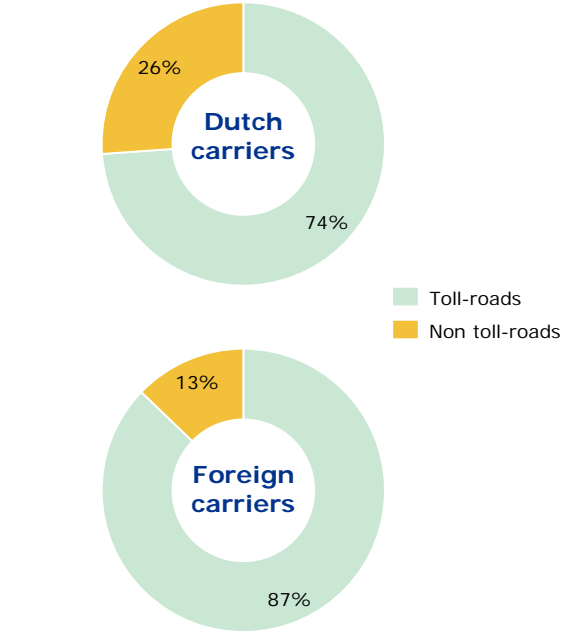
1

Dutch carriers dominate the number of transport kilometres (km) driven in the Netherlands, with only ~12% of freight road transport km being operated by international carriers. The share of km driven by foreign carriers increased between 2013 and 2017 compared to the km driven by Dutch carriers, (with respective CAGRs of 6.2% and 2.2%) due to an increasing presence of drivers/trucks from lower-wage countries. Compared to Dutch carriers, foreign carriers make more use of toll roads

Freight road transport in the Netherlands in million km⁽¹⁾, 2005-2017



Km driven on potential future toll roads (highways) and non-toll roads (secondary roads), 2019



- The total number of km driven on Dutch roads was 7,350 million km in 2017. Since 2013 the number of driven km increased gradually with a CAGR of 2.7%
- This graph shows only km driven on Dutch roads
- The majority of km driven on Dutch roads is driven by Dutch trucks (~88%). The rationale for this substantially higher number can be found in the higher frequency and/or distances of driving on Dutch roads by Dutch trucks, since the majority of Dutch trucks only operate in the Netherlands
- Foreign trucks drive predominantly on potential future toll roads (i.e. highways) since their trips usually have an international character versus the higher share of regional trips (on secondary roads) made by Dutch carriers

Note: (1) Number of km is the total number of km driven by Dutch and foreign carriers (in the Netherlands only)
 Source: CBS

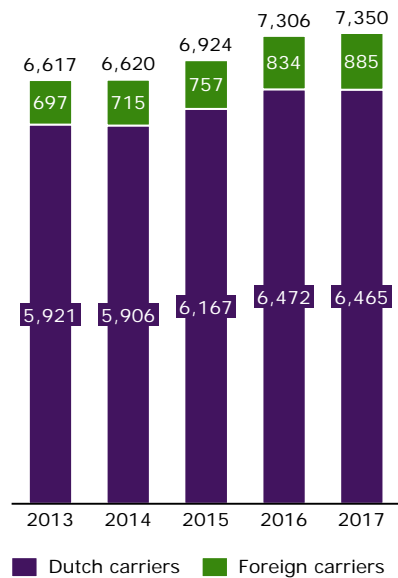
Source: Significance report



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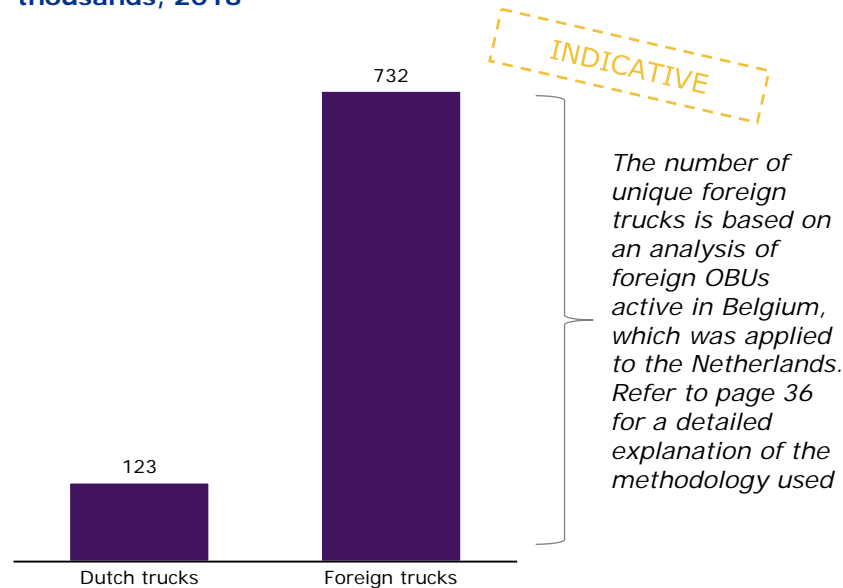
1 Dutch carriers dominate the roads in terms of freight road transport in number of km. However, in terms of number of trucks⁽²⁾, the importance of foreign carriers is higher due to more incidental nature of trips

Freight road transport in the Netherlands in million km⁽¹⁾, 2005-2017



Note: (1) Number of km is the total number of km driven by Dutch and foreign carriers (in the Netherlands only)
Source: CBS

Number of unique Dutch and foreign trucks⁽²⁾ in thousands, 2018



Note: (2) Based on an analysis of foreign OBU's active in Belgium; each truck is included only once in the data, regardless of its frequency of presence
Source: CBS, RDW, NIWO, data on foreign OBUs in the Belgian market. The foreign carrier data is based on an analysis using Satellic, Viapass, Statbel and Eurostat data

- Approximately 123,000 Dutch trucks are active on Dutch roads
- The number of trucks is based on a RDW data set that includes trucks heavier than 3.5t and data points of the past 3 years. The data has been cleaned up to exclude:
 - Buses or other non-regular trucks
 - Trucks that are not in use (suspended, exported, destroyed, etc.)
 - Trucks with no data on mileages measurement in 2017 and 2018
 - Trucks with outlier values (annual mileage higher than 850,000km)
- Approximately 732,000 foreign trucks were active on Dutch roads in 2018; this number is based on data from the Belgian market which has been applied to the Dutch market
- Km driven by foreign carriers is relatively low compared to the overall number of trucks. The reason for this is the more incidental (non-recurring) nature of trips by foreign trucks in the Netherlands



1. Introduction

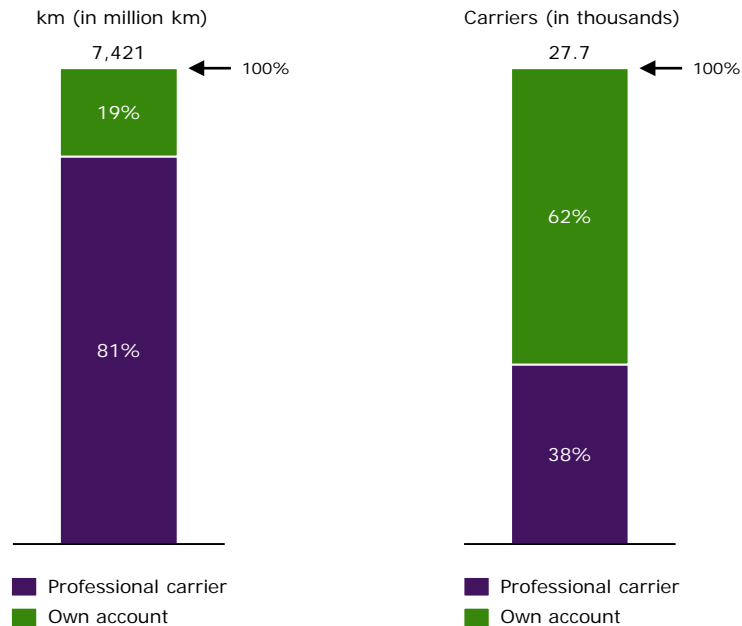
2. Dutch segmentation

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2

The Dutch road transport sector is characterised by a large number of own account carriers, which generally drive a lower number of km compared to professional carriers. Professional carriers are active in the transport of goods for third parties. Their core business is transport. Own account carriers operate a fleet to facilitate the transport of their own products to customers (e.g. supermarket trucks), but professional transportation services are not their core business. This is the main reason for the on-average lower number of driven km by own account carriers

Km by Dutch carriers⁽¹⁾ vs. number of carriers by type of carrier, 2018



- The graph on the left shows the total km driven by Dutch trucks (including km driven outside NL), segmented by type of carrier
- Own account carriers account for only 19% of km driven by Dutch trucks, which can be explained by the fact that professional carriers drive longer distances with higher frequency since their core business is transport
- The graph on the right shows that ~38% of the 28,000 Dutch carriers are professional carriers

Note: (1) Number of km is the total number of km driven by Dutch carriers (in NL and abroad)
 Source: CBS, RDW, NIWO

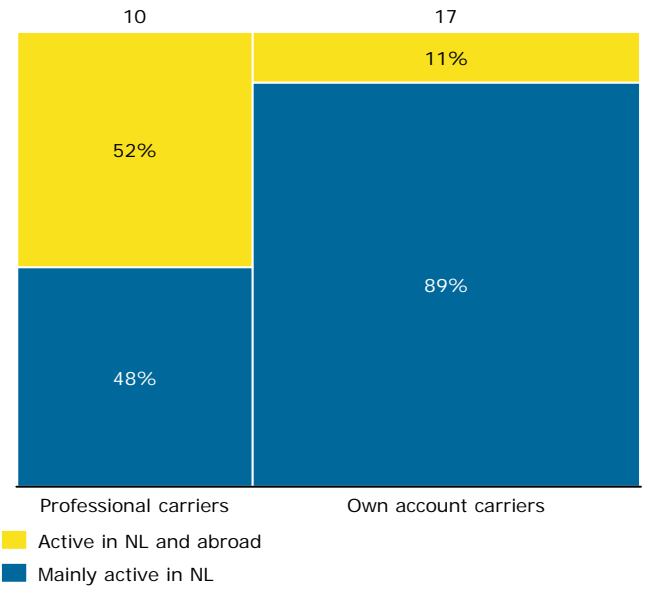


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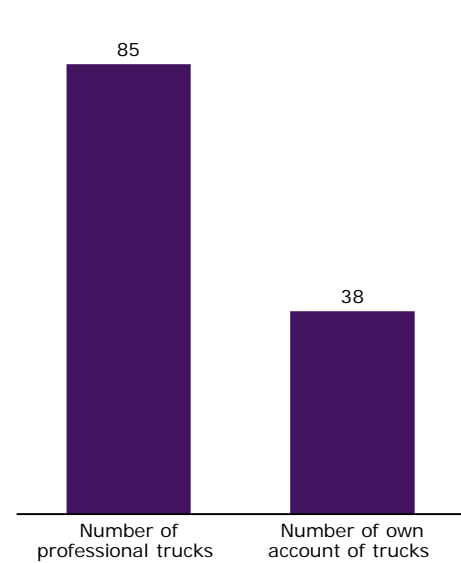
2

Own account carriers are predominantly active in the Netherlands. In the segment of professional carriers, carriers have on average a substantial larger fleet size and drive more international KM compared to the own account carriers

Number of Dutch carriers (in thousands) by share active in NL only or in NL and abroad⁽¹⁾ by type of carrier, 2018⁽²⁾



Total number of trucks per type of carrier (in thousands), 2019



- The graph illustrates that a substantive share of the 10,000 professional carriers (52%) is active in the Netherlands and abroad and drive are
- The majority (89%) of the 17,000 own account carriers only drive in the Netherlands
- The graphs indicate that the average fleet size of professional carriers is larger with on average ~8 trucks compared to ~2 trucks for the own account carriers
- In the detailed analysis on pg. 13, 15 and 31, 32 a clustering of the carriers in fleet size will highlight that carriers with a large fleet size are more common in the group of professional carriers compared to the own account carriers

Note: (1) There is no data on carriers which only drive internationally.
 (2) CBS (the Dutch national statistics agency) survey data has been used to determine the share of carriers strictly driving on Dutch roads as opposed to those driving on both Dutch and foreign roads. The data from the survey data is combined with the carrier list to enrich this carrier list with insights on the respective shares between national or international transportation routes

Source: CBS



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A segmentation of Dutch professional carriers results in six potential segments. Based on the carriers fleet size, average mileage and their level of international activity

Identified carrier segments – Professional

	 Fleet size	 Mileage	 (Inter) national activities	
1	Large carriers active in NL and abroad	Professional transporters, which sometimes own foreign subsidiaries and have fleet sizes of >50 trucks	Mileage of these players is >30,000km	Players are mostly active internationally as well as within the Netherlands
2	Medium-sized carriers active in NL and abroad	Professional transporters, often with a niche focus and a fleet size of 11-50 trucks	Mileage of these players is >100,000km	Mostly active in the Netherlands and abroad and often specialised in specific transport types (i.e. tank transport)
3	Medium-sized carriers mainly active in NL	Specialised transporters with a fleet size of 11-50 trucks and a local character	Mileage of these players is 30,000-50,000km due to the more regional character of this segment	Players are mostly active in national or regional transportation activities, including the transport of construction or moving materials
4	Mainly municipalities and waste carriers	Professional transporters with >10 trucks and a local character, mainly municipalities or local commercial waste or materials transporters	Mileage <30,000km mostly active on secondary roads in cities for the local collection of materials	All carriers have a highly regional character, and are sometimes excluded from the toll system (i.e. municipalities)
5	Small carriers active in NL and abroad	Professional transporters with <10 trucks, including carriers which rent out their services to larger transport companies	Mileage of these players is >100,000km indicating frequent and longer distance trips	Players are mostly active internationally as well as within the Netherlands
6	Small carriers mainly active in NL	Smaller specialised professional transporters with <10 trucks, including freelancers	Mileage <100,000km, part of these transporters have a more local character	The majority of these carriers are involved in transport within the Netherlands, i.e. cattle transport, courier services or relocators

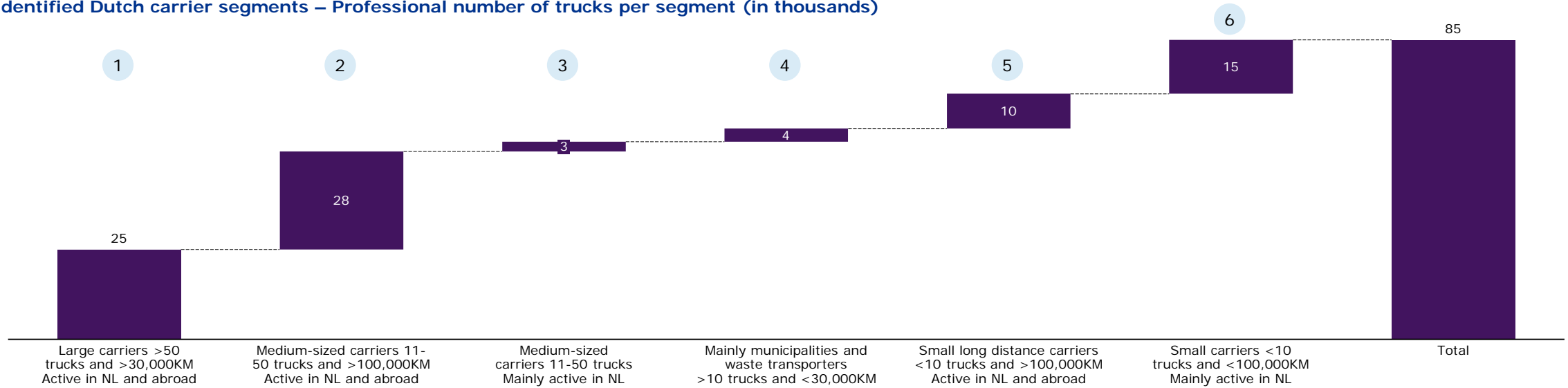
See next page for an estimated number of trucks per segment



1. Introduction **2. Dutch segmentation** 3. Foreign segmentation

2 A significant share of the trucks in the professional segment is operated by a relatively small group of large- to medium-sized transporters with a high mileage and which make trips both within the Netherlands and abroad. The number of trucks operated by these carriers is likely to be even larger than the estimates provided due to foreign subsidiaries or foreign flex workers who also use their own trucks (but are not considered Dutch carriers in the analyses). Outside the segment of the major international carriers the professional transport market in the Netherlands appears fragmented

Identified Dutch carrier segments – Professional number of trucks per segment (in thousands)



- Graph indicates the break-down of professional carriers in the Netherlands by number of trucks in segments based on the previously-discussed characteristics: fleet size, average mileage and national or international character of the activities
- Example: the first segment consists of all professional carriers with a fleet size of more than 50 trucks, driving on average more than 30,000 km (in NL and abroad). This group of carriers represents approximately 25,000 trucks in the Netherlands

Source: CBS, RDW, NIWO



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2

A segmentation of Dutch own account carriers yields six further potential segments that have been segmented based on the fleet size, the average mileage and the level of international activities carried out by carriers

Identified carrier segments – Own account

	 Fleet size	 Mileage	 (Inter)national activities	
7	Large carriers mainly active in NL	Own account carriers with a fleet size >50 trucks, often active in retail, distribution or (car) rental companies	Mileage of these players is >30,000KM	Mostly involve national transport between locations or to customers
8	Large short distance carriers	Fleets >50 trucks owned by local service providers such as fire departments and sewage management companies	Mileage <30,000KM, likely to be mostly active on secondary (non-toll) roads	Highly regional character and sometimes excluded from the toll system (i.e. fire departments)
9	Medium-sized long distance carriers	Fleets of 11-50 trucks used in the day-to-day logistics operations of Dutch companies (i.e. smaller retailers and lease companies)	Mileage >100,000KM, companies active in a sector such as car rental, where products have to be transported over longer distances	Players are mostly active internationally as well as within the Netherlands
10	Small to medium long distance carriers	Businesses operating their own fleet of 2-50 trucks to facilitate the transport of goods or services (i.e. road security and laundry services)	Mileage >50,000KM, mostly transport to customers or between locations, nature of trips is not necessarily long distance	Segment includes national as well as international businesses, mostly active in non-food retail or construction
11	Small long distance carriers	Businesses operating one truck for transportation of their own products (i.e. small wholesalers and players in niche markets)	Mileage >100,000KM, players are mostly active in sectors for which frequent trips are required, i.e. wholesalers	The majority of these businesses is active in NL only
12	Small to medium carriers mainly active in NL	Fleet size <50 trucks, mostly specialised businesses (i.e. small retailers, specialised installers or construction companies)	Mileage <100,000KM with strong local character (active mainly in NL)	Fleets are used for regional transport by local specialised businesses (i.e. road plates supplier, timber trader, flower shop)

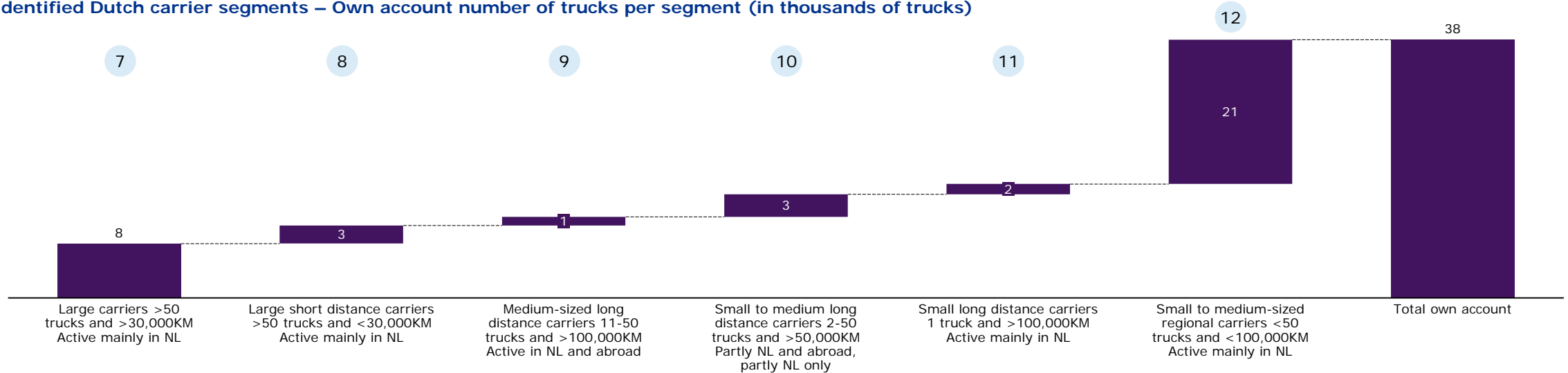
See next page for an estimated number of trucks per segment



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2 A significant share of the trucks in the own account segment is operated by a group of small- to medium-sized transporters with a relatively high mileage, who drive mainly within the Netherlands. Otherwise the own account market in the Netherlands appears fragmented and mainly focused on transport with a local character

Identified Dutch carrier segments – Own account number of trucks per segment (in thousands of trucks)



- Graphs shows the break-down of the total truck base of own account carriers in the Netherlands, in segments based on the previously discussed characteristics: fleet size, average mileage and national or international character of the activities.
- Example: the largest segment (nr. 12) consists of all own account carriers with a fleet size of less than 50 trucks, driving on average less than 100,000 km mainly on Dutch roads. This group of carriers has a combined total of approximately 21,000 trucks.

Note: Numbers are based on calculated totals per fleet size category. Refer to page 34 and 35 for methodology and limitations
 Source: CBS, RDW, NIWO



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The segmentation of foreign carriers active in the Netherlands was made based on available data on foreign carriers active in Belgium, which was applied to the Netherlands. The first segment relates to carriers served by EETS, which for the Belgian market was ~30%. No data was available on the characteristics of those carriers. Analysis of the other segments focuses on the top-3 countries (Germany, Poland and Romania). The segmentation of carriers was made based on the fleet size (1 OBU = 1 truck) and the payment method used by the carrier

Identified carrier segments – Foreign

 Fleet size

 Payment method

1	EETS OBUs	<i>The data on foreign OBUs in the Belgian market covers approximately 70% of total OBUs in Belgium, the other 30% is served by EETS providers. The share of EETS was determined per origin country and translated into a number of EETS OBUs⁽¹⁾</i>	
2	Larger carriers	Carrier operates a minimum ⁽²⁾ of 10 trucks in at least one foreign country	>90% of these carriers pays for the toll with a fuel card account, indicating a limited credit risk
3	Smaller fuel card users	Carrier operates at least ⁽²⁾ 2-10 trucks internationally	~75% of these carriers linked its OBU accounts with its fuel card in order to pay for the toll
4	Smaller non-fuel card users	Carrier operates at least ⁽²⁾ 2-10 OBUs but does not use integrated toll and other mobility services (i.e. fuel card)	~25% these carriers pays for the toll using a credit card, a business partner or prepaid
5	Small fuel card users	Carrier operates at least ⁽²⁾ 1 truck internationally	~60% of these carriers have linked its OBU account with its fuel card in order to pay for the toll
6	Small non-fuel card users	Carrier operates at least ⁽²⁾ 1 truck internationally but does not use integrated toll and other mobility services (i.e. fuel card)	~40% of these carriers pays for the toll using a credit card, a business partner or prepaid
7	Anonymous accounts	<i>In Belgium approximately 22% of the foreign carriers use anonymous accounts. These accounts are linked to one OBU, which is not linked to customer information. The carrier behind the account and its characteristics are therefore unknown, however the nature of trips is likely to be incidental</i>	

Note: (1) When applying the data on the Belgian market to the Netherlands, the share of EETS OBUs was kept equal, while in reality the share of EETS OBUs in the Netherlands is likely to be different

(2) This number is based on data from the Belgian market which only shows characteristics of the trucks which are being used in Belgium; it does not give any insights on the real total fleet size of the carriers

Source: Data on foreign OBUs in the Belgian market



1. Introduction

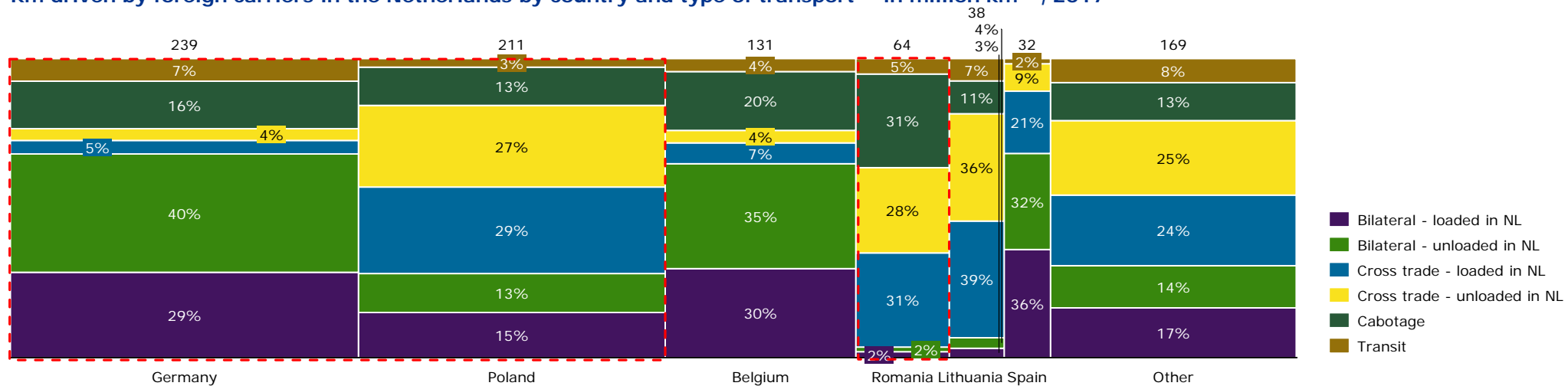
2. Dutch segmentation

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3

Segmentation of foreign carrier km in the Netherlands by country and type of transport shows that Germany, Poland, Belgium and Romania account for a majority share (~73%). This is the rationale for focusing on the top-3 in further detailed analysis. Belgium is excluded in the detailed foreign analysis as Belgian data was used to analyse the foreign transport sector, which includes nationals movements of Belgian trucks. This would lead to pollution of data when transposing to the Dutch situation

Km driven by foreign carriers in the Netherlands by country and type of transport⁽¹⁾ in million km⁽²⁾, 2017



East European km are predominantly cross-trade and cabotage transport due to East European drivers working in West European countries in the transport sector

- Bilateral transport with Germany, Belgium and Spain is relatively high (>50%), likely indicating higher levels of trade between these West European countries and the Netherlands
- Cross-trade transport from East European countries to and from the Netherlands includes Dutch transport companies with a subsidiary in Eastern Europe, which work with foreign drivers (at lower labour costs) and trucks with foreign license plates. It was not possible to isolate these carriers from 'genuine' foreign carriers in the analyses

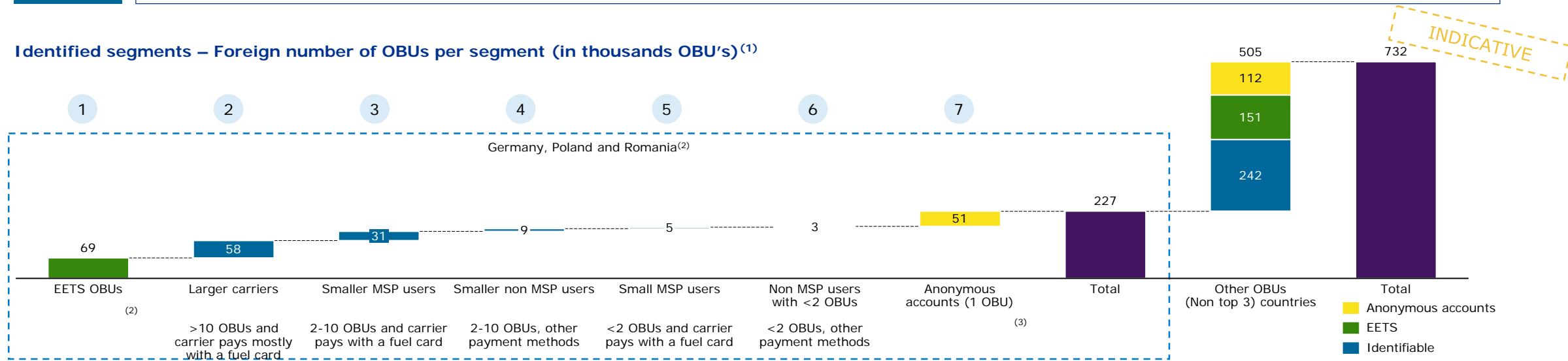
Key: Scope for country deep dives
 Note: (1) Eurostat data on transported weight per transport type per country has been applied to CBS KM data to come to a split in km. See appendix for explanation of transport types
 (2) Number of km is the total number of km driven by foreign carriers in the Netherlands
 Source: Eurostat, CBS, BBGV



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3 Based on the available data, it was not possible to identify characteristics of carriers served by EETS providers or using anonymous accounts. Of the analysed accounts, a significant share is owned by carriers operating a sizeable fleet (>10 trucks) internationally. The majority of larger international carriers uses a fuel card to pay for tolling, which likely indicates regular usage and lower credit risk than carriers using other payment methods. As mentioned in the basis of preparation, the analysis used for the identification of international carriers has limitations⁽¹⁾ and as such outcomes are indicative

Identified segments – Foreign number of OBUs per segment (in thousands OBU's)⁽¹⁾



— The detailed segmentation focuses on the top 3 countries: Germany, Poland and Romania. For the top-3 ~50% of the market has been analysed and segmented, ~20% of the data is anonymous and can be seen as one OBU which is equal to one truck. The remaining ~30% of the market is (in most cases) served by EETS providers, for which no carrier data was available

— The second segment represents carriers with more than 10 OBUs (trucks) and which mostly pay with a fuel card. This segment accounts for ~58,000 trucks in 2018

— Due to data limitations no analysis could be conducted on the frequency of driving on Dutch roads or the number of km driven by those trucks

Note: (1) Analysis is based on data on OBUs in the Belgian market, applied for the Netherlands. Due to data limitations mentioned in note 2 and 3 and the transposition of Belgian data on the Dutch market, analysis is indicative
 (2) Top-3 based on data on foreign OBUs in the Belgian market. Visibility on the foreign segment is reduced due to the fact that the data on foreign OBUs in the Belgian market covers approximately 70% of foreign OBUs in Belgium (on a total level, share varies per country). The other 30% is serviced by EETS providers. This group of OBUs was not further analysed. Refer to page 36 for more details
 (3) During the research the data on foreign trucks included a large number of anonymous accounts which are not linked to carriers and are always linked to one single OBU. Visibility on the number of carriers behind those accounts and their driving behaviour is limited. (Since July 2019 all accounts have been matched with at least an (email) address or VAT number). OBUs related to anonymous accounts are applied from the Belgian data to the indicative situation in the Netherlands to take into account data limitations. In reality, anonymous accounts may be non-existent in the Netherlands in the future. Refer to page 36 for more details

Source: Foreign carrier data is based on an analysis of Satellic, Viapass, Statbel and Eurostat data



Supporting analysis



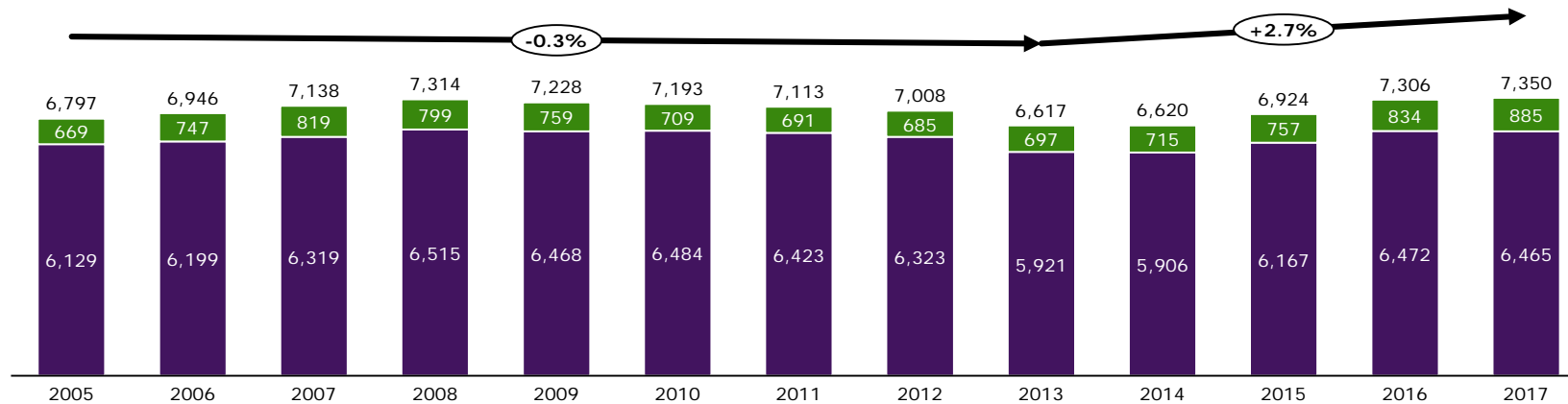
1

Introduction



~12 % of the freight road transport km is driven by foreign carriers, and the increase in share of km by foreign carriers has accelerated between 2013 and 2017

Freight road transport in the Netherlands, in million km⁽¹⁾, 2005-2017



	CAGR	
	'05-'13	'13-'17
■ KM driven by Dutch carriers	(0.4%)	2.2%
■ KM driven by foreign carriers	0.5%	6.2%
Total	(0.3%)	2.7%

Total km driven on Dutch roads by foreign and Dutch carriers have increased in the last years mainly driven by economic growth in the Netherlands and abroad

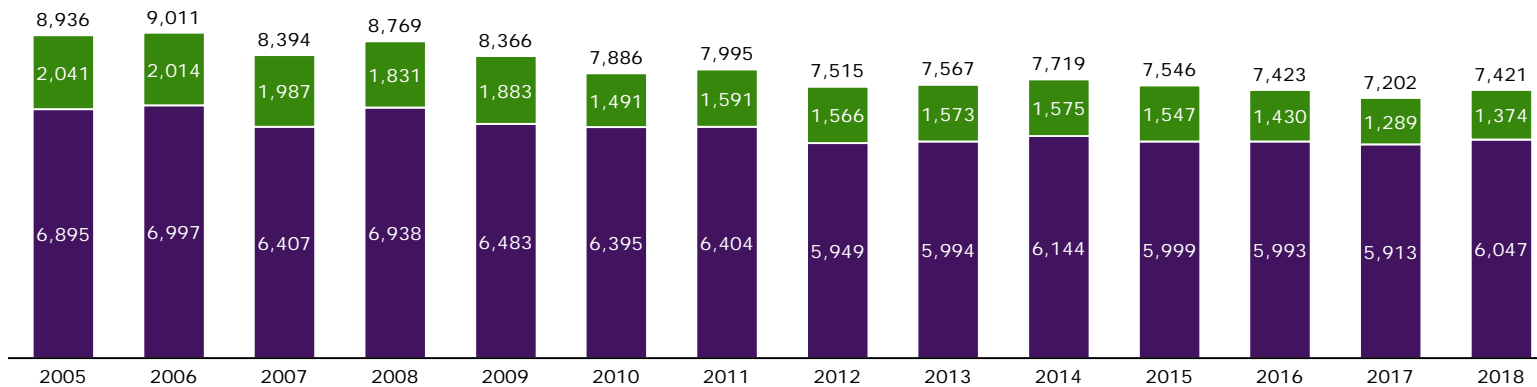
- Km driven by Dutch carriers have increased in line with growth in the construction, food and agricultural sectors
- Km driven by foreign carriers increased strongly over the past five years due to a personnel shortage in the Netherlands and large discrepancies in wages between countries, however Dutch carriers are still responsible for the majority of the km driven

Note: (1) Number of km is the total number of km driven by Dutch and foreign carriers (in the Netherlands only)
 Source: CBS



Km driven by own account carriers are decreasing over time in line with the development towards outsourcing of non-core activities and an overall decline in Dutch carrier km

Freight road transport by Dutch carriers in million km⁽¹⁾ by professional and own account carriers, 2005-2018



	CAGR	
	'05-'13	'13-'17
■ KM driven by professional carriers	(1.7%)	0.2%
■ KM driven by own account carriers	(3.2)%	(2.7)%
Total	(2.1%)	(0.4)%

Total km driven by Dutch professional carriers and own account carriers in both the Netherlands and abroad have decreased in the last years mainly driven by an increase in the activity of foreign carriers (mainly Eastern European) in the Netherlands and abroad

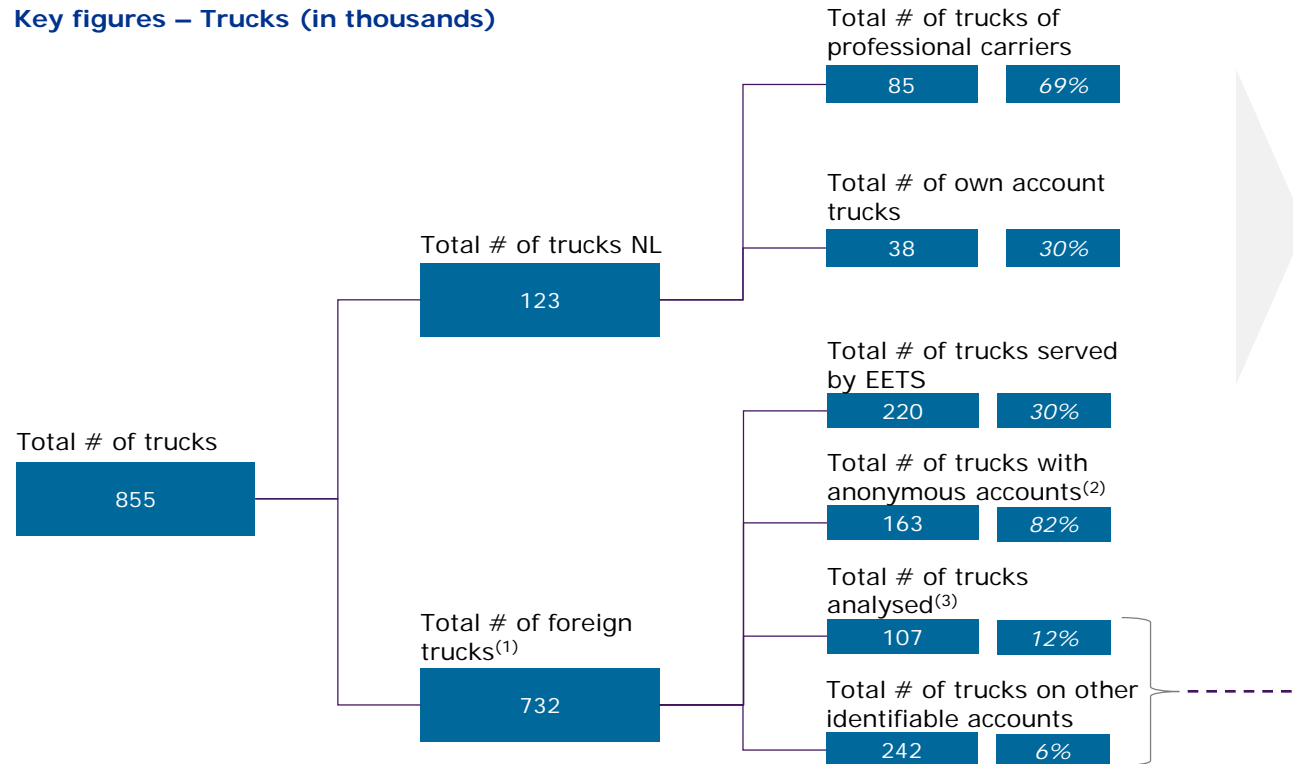
- Km driven by Dutch professional carriers have increased slightly from 2013 onwards driven by economic growth and a trend towards outsourcing, resulting in a shift from own account towards professional carriers

Note: (1) Number of km is the total number of km driven by Dutch carriers (in the Netherlands and abroad)
 Source: CBS



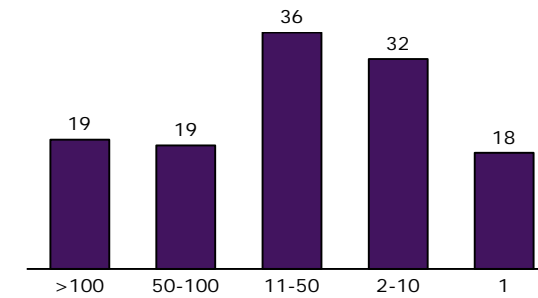
Detailed split of the total number of trucks active on Dutch roads

Key figures – Trucks (in thousands)



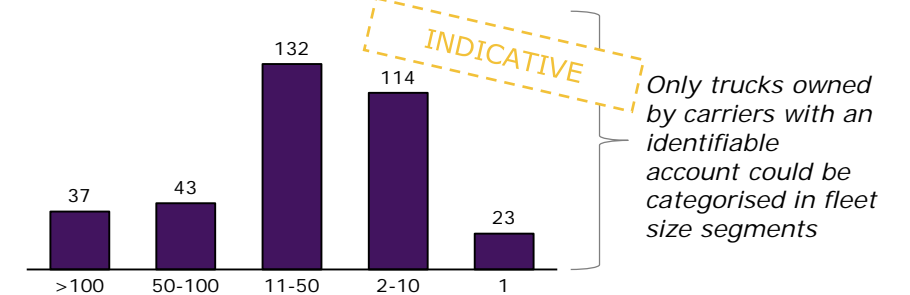
Note: (1) Trucks are OBUs in the Belgian market applied to the Dutch market. See main report for methodology
 (2) OBUs related to anonymous accounts are applied from the Belgian data to the indicative situation in the Netherlands to take into account data limitations. In reality, anonymous accounts may be non-existent in the Netherlands in the future
 (3) Germany, Poland, Romania
 Source: CBS, RDW, NIWO, Data on Belgian OBUs

Number of trucks (in thousands) per fleet size segment – NL 2018



Source: CBS, RDW, NIWO

Number of analysed trucks (in thousands)⁽¹⁾ per fleet size segment – Foreign 2018

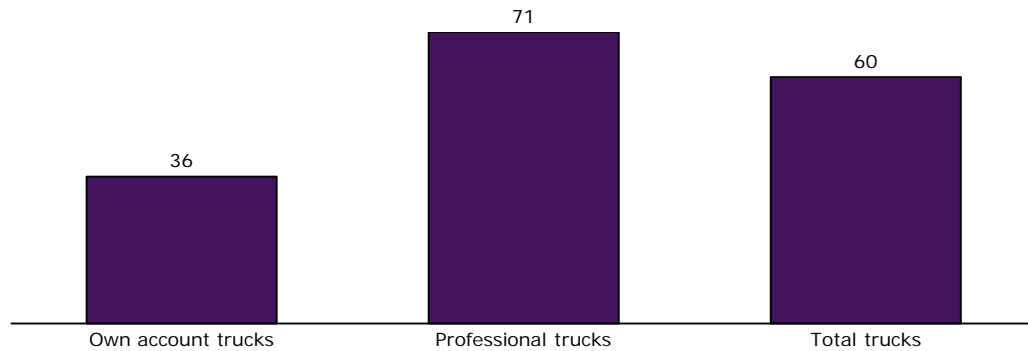


Note: [1 = (1)] Indicative analysis of foreign OBUs in the Belgian market applied to the Dutch market. See main report for methodology
 Source: Data on Belgian OBUs



Details on the average number of km driven by the different type of carriers in 2018 indicate that professional carriers drove substantially more km compared to own account carriers

Average annual mileage per truck (in thousands of km) – Dutch trucks per type of carrier, 2018



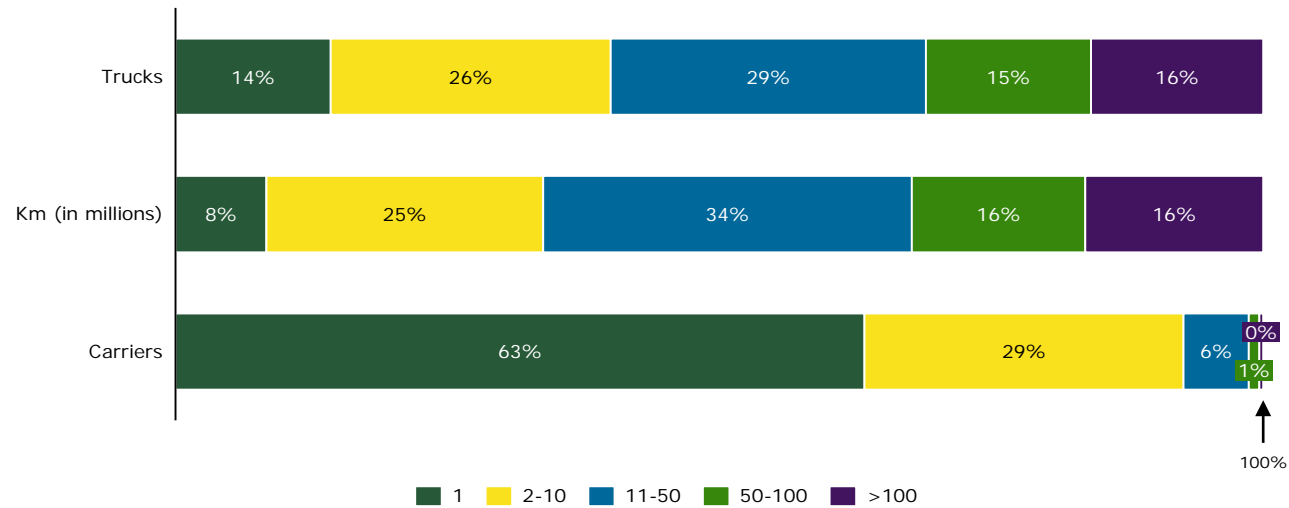
Note: Calculated based on 7,421 million km driven by Dutch carriers (in NL and abroad; CBS) divided by number of trucks in data set

Source: CBS, RDW, NIWO



The majority of km are being driven by a small group of carriers with large fleets

% of Dutch trucks, km⁽¹⁾ and carriers per fleet size segment, 2018

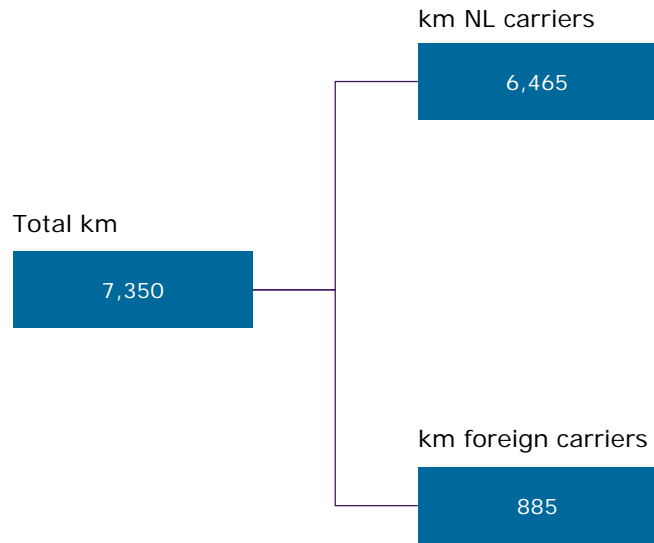


Note: (1) Million km driven by Dutch trucks in NL and abroad
 Source: CBS, RDW, NIWO

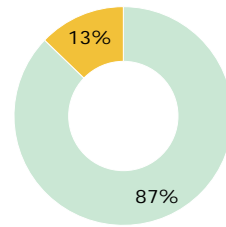
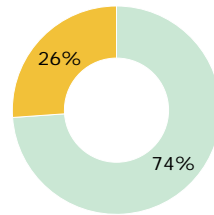


Dutch carriers are responsible for a substantial part of the km driven on Dutch roads; foreign carriers appear to drive primarily on toll roads

Key figures – km driven on Dutch roads (in millions)

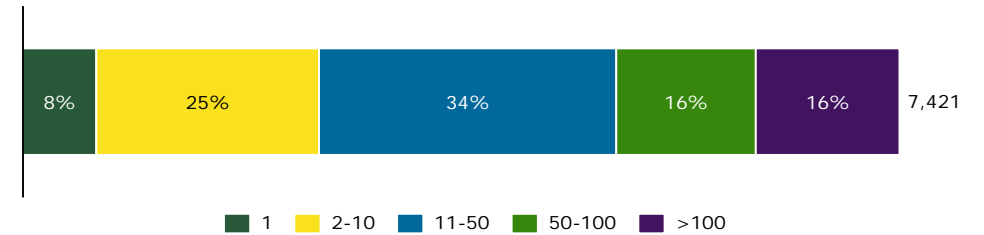


Type of road



■ Toll-roads
■ Non-toll roads

Km (in millions) driven by Dutch trucks in NL and abroad per fleet size segment – within a 12-month period between 2017-2018



No data available on mileage per foreign carrier

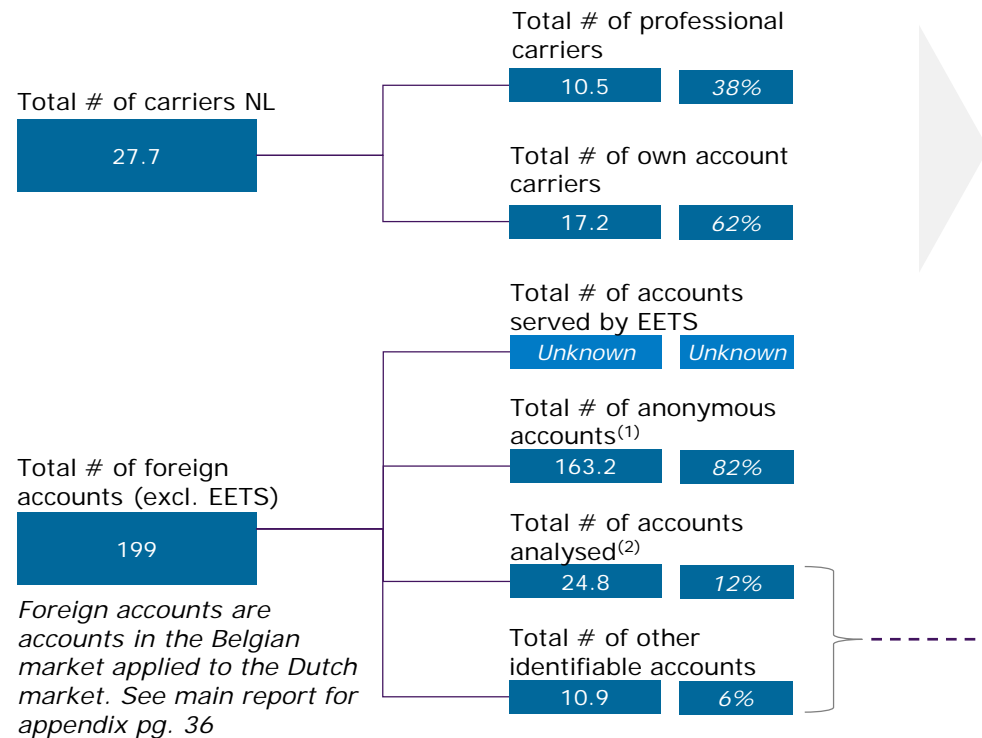
Source: CBS, RDW, NIWO, Significance report

Source: CBS, RDW, NIWO



A substantial number of carriers active on Dutch roads have a small fleet size

Key figures – Carriers (in thousands)

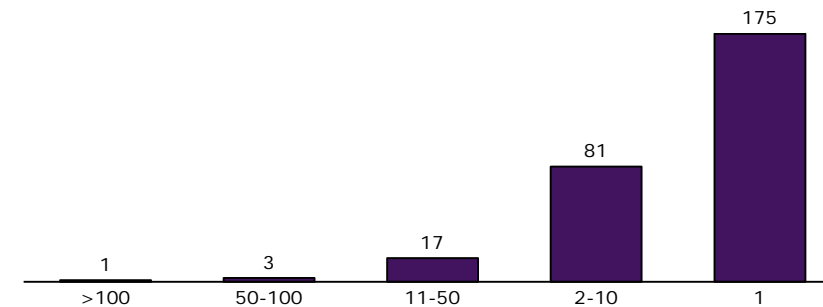


Note: 1 Anonymous accounts are applied from the Belgian data to the indicative situation in the Netherlands to take into account data limitations. In reality, anonymous accounts may be non-existent in the Netherlands in the future

2 Germany, Poland, Romania

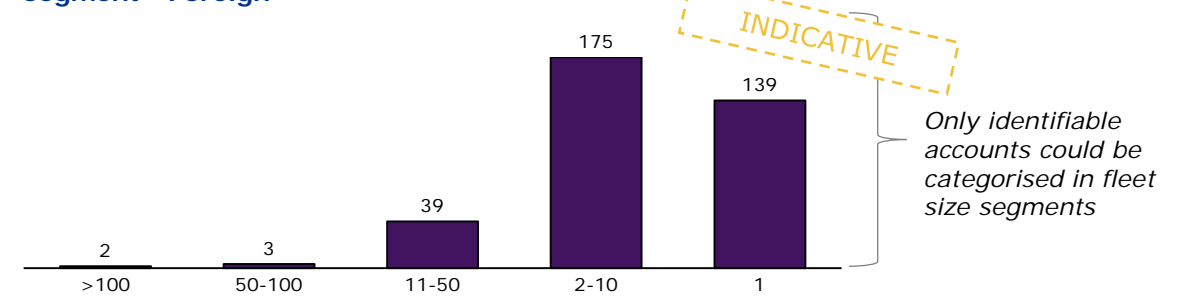
Source: CBS, RDW, NIWO, Data on Belgian OBU

Distribution of carriers per fleet size segment - NL



Source: CBS, RDW, NIWO

Distribution of identifiable accounts per fleet size segment - Foreign



Note: [1 = (1)] Indicative analysis of foreign accounts in the Belgian market applied to the Dutch market. See main report for methodology

Source: Data on Belgian OBU



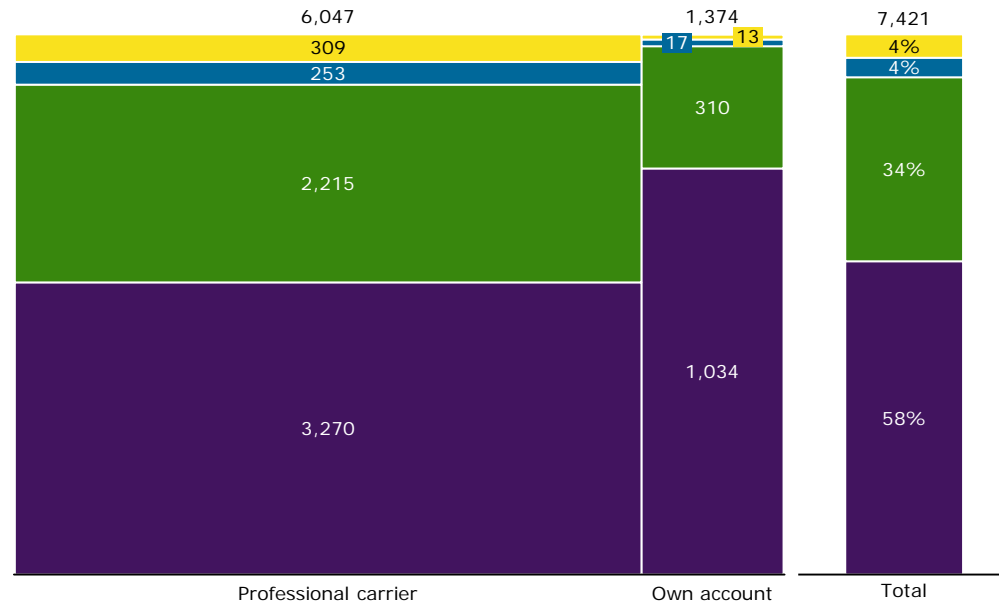
2

Dutch segmentation supporting details



~58% km driven by Dutch carriers is domestic. Own account carriers contribute less than professional carriers due to a lower mileage and they make mostly national trips (~75% domestic km)

Type of freight road transport⁽¹⁾ by Dutch carriers in million km⁽²⁾ by type of carrier, 2018

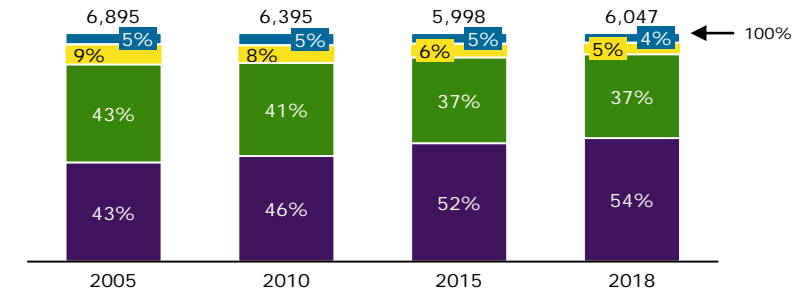


■ Domestic transport ■ Cabotage transport
■ Bilateral transport ■ Cross trade

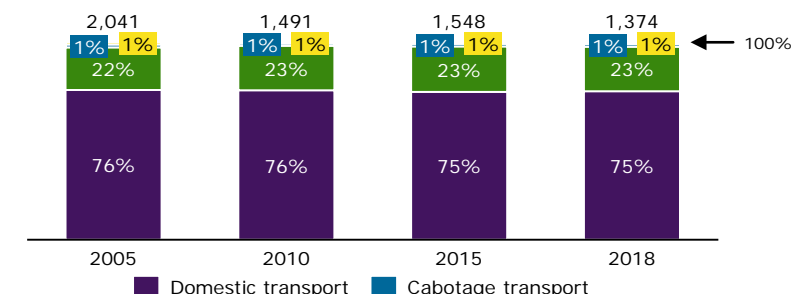
Note: (1) Eurostat data on transported weight per transport type has been applied to CBS KM data to come to a split in km. See appendix for an explanation of transport types
 (2) Number of km is the total number of km driven by Dutch carriers (in the Netherlands and abroad)

Source: Eurostat, CBS

Type of freight road transport⁽¹⁾ by Dutch professional carriers in million km⁽²⁾, 2005-2018



Type of freight road transport⁽¹⁾ by Dutch own account carriers in million km⁽²⁾, 2005-2018



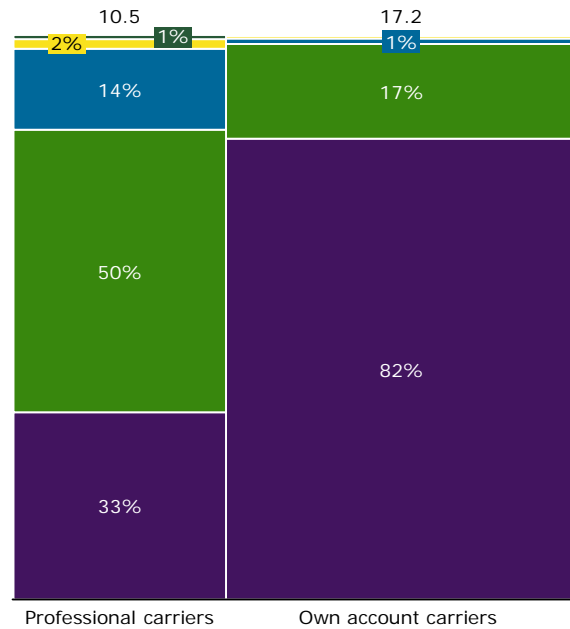
Note: (1) Eurostat data on transported weight per transport type has been applied to CBS KM data to come to a split in km. See appendix for explanation of transport types
 (2) Number of km is the total number of km driven by Dutch carriers (in the Netherlands and abroad)

Source: Eurostat, CBS



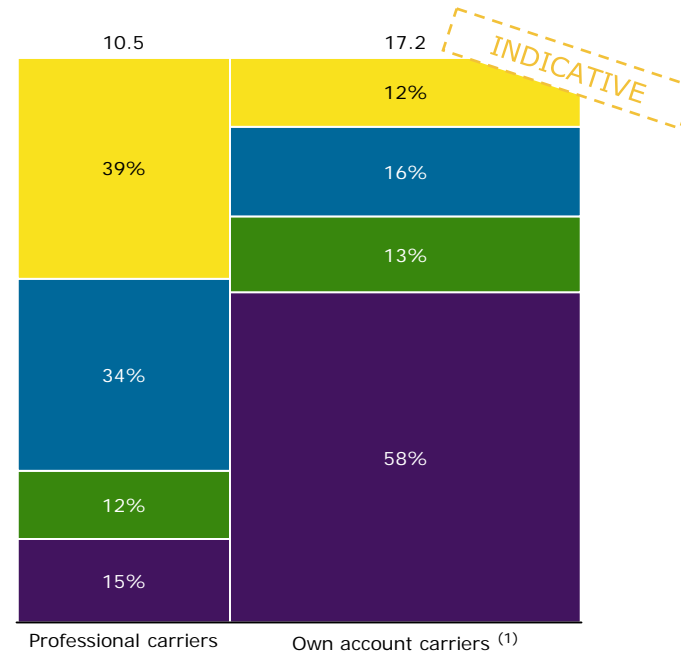
Significant differences exist between professional and own account carriers in terms of fleet size, mileage and (inter)national activity

Dutch carriers (in thousands) by fleet size of carrier and type of carrier, 2018



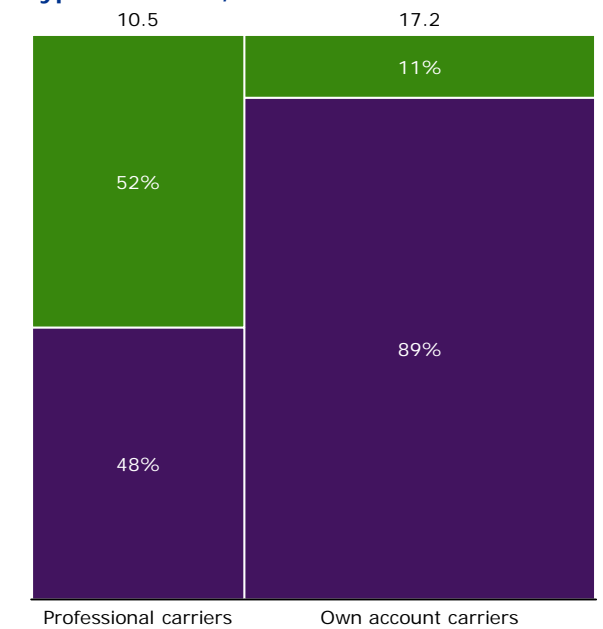
■ >100 trucks ■ 11-50 trucks ■ 1 truck
■ 50-100 trucks ■ 2-10 trucks

Dutch carriers (in thousands) by mileage and type of carrier, 2018



■ >100,000 KM ■ 30,000 - 50,000 KM
■ 50,000 - 100,000 KM ■ <30,000 KM

Dutch carriers (in thousands) by share active in NL only or NL and abroad(2) by type of carrier, 2018



■ Active in NL and abroad
■ Mainly active in NL

Note: (1) The mileage distribution for own account carriers is indicative because it is based on a group of carriers that consists largely of own account carriers but also includes a group of professional carriers. See pages 34 and 35 for explanation

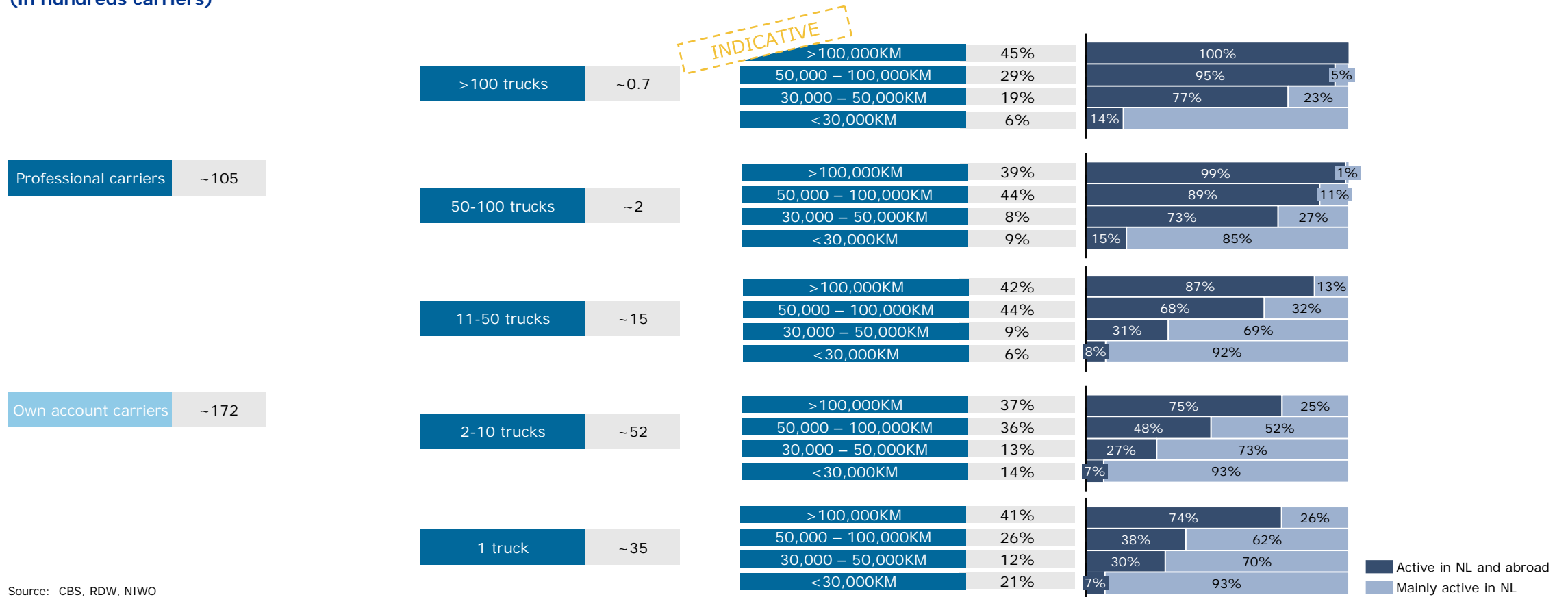
(2) There is no segment of Dutch carriers that only drives internationally

Source: CBS, RDW, NIWO



The landscape of Dutch professional carriers is fragmented with ~250 large carriers (~2.5%) operating more than 30% of the trucks

Characteristics of Dutch professional carriers, over a 12-month period between 2017-2018 (in hundreds carriers)

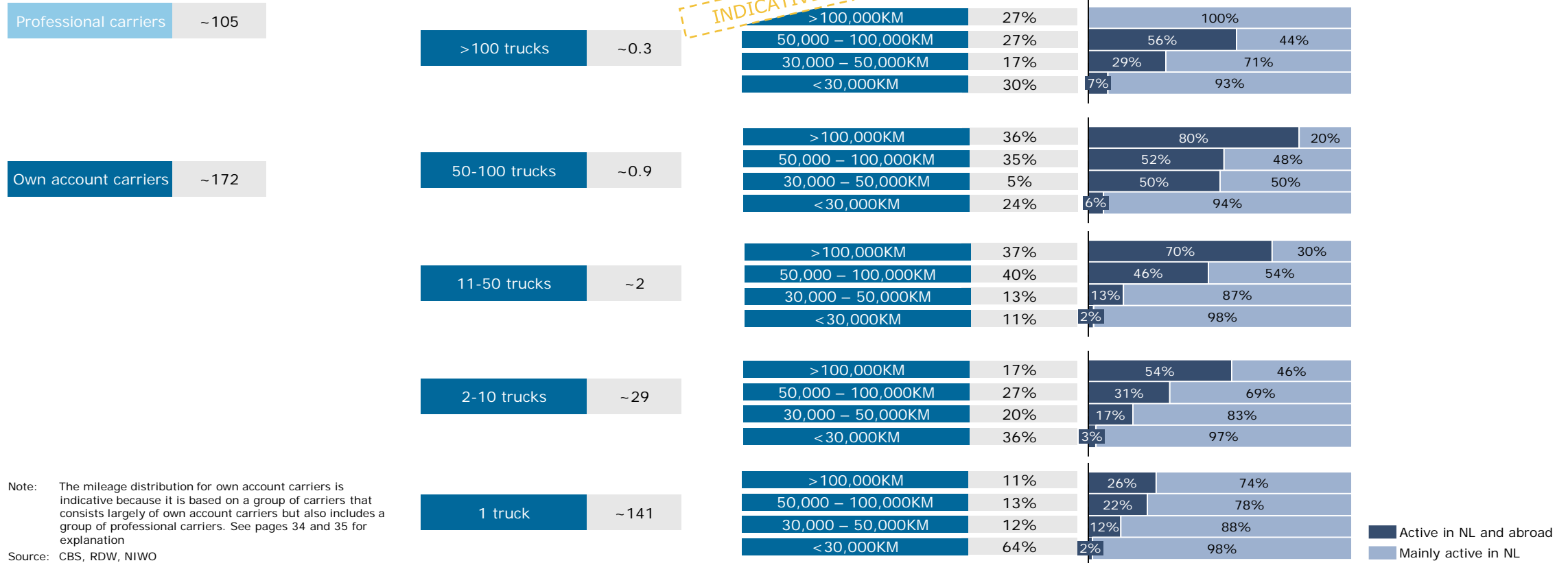


Source: CBS, RDW, NIWO



The landscape of Dutch own account carriers is fragmented, national in character and a lower annual mileage than professional carriers

Characteristics of Dutch own account carriers, over a 12-month period between 2017-2018 (in hundreds carriers)



Note: The mileage distribution for own account carriers is indicative because it is based on a group of carriers that consists largely of own account carriers but also includes a group of professional carriers. See pages 34 and 35 for explanation

Source: CBS, RDW, NIWO



Appendix



The segmentation of the Dutch market is based on a combined dataset, which was compiled using RDW, CBS and NIWO data (1/2)

Dutch carrier segmentation methodology

Data on mileage per truck per carrier
(RDW datasets)

1 2



Annual mileage per truck per carrier
(Data exempted for unused trucks and outliers)

3



Carriers categorised in segments
(Professional/own account, fleet size)

4 5 6

1. RDW data sets covering mileage in recent years per truck
2. RDW data on truck level was cleaned in several iterations by:
 - Leaving out buses or other non-regular trucks
 - Eliminating trucks with a status that indicates that the truck is not in use (suspended, exported, destroyed, etc.)
 - Removing rows that contain no data on the km status, or when no mileage were recorded in 2017 and 2018
 - Removing items with outlier values with an annual mileage higher than 850,000km (e.g. a carrier with +9m annual km was eliminated)
3. The number of km per truck in the last 12 months was calculated by taking the difference between the oldest and newest measurements of the mileage (in the last 3 years). The difference is divided by the number of months between both measurements. This monthly number is multiplied by 12 months to come to an annual mileage. This resulted in a list with carriers, their fleet sizes and the average annual mileage per truck
4. Carriers were subsequently categorised into fleet size buckets.
5. To isolate the professional carriers, NIWO data was matched to the carrier list. Part of the NIWO data couldn't be matched as a result of truck types <3.5t and incorrect data
6. As a result, a cross check with CBS data indicated that the number of professional carriers in the list was too low (~50%). Assuming that the distribution across fleet size buckets in the professional carrier population was correct (which was supported by interview feedback from TLN), the number of professional carriers was increased and additional carriers were proportionally distributed across the fleet size buckets. The own account carriers were reduced with a corresponding number per fleet size bucket, but it was not possible to identify the wrongly classified carriers in own account on a carrier level. As a result, although the total carrier numbers are correct, the mileage distribution in own account carriers is distorted because it is based on a group of carriers that consists largely of own account carriers but also includes a group of professional carriers



The segmentation of the Dutch market is based on a combined dataset, which was compiled using RDW, CBS and NIWO data (2/2)

Dutch carrier segmentation methodology

**Enriched, categorised,
dataset of carriers**
*(Incl. survey data on carrier
behaviour)*

7 8

7. CBS data, based on surveys with carriers, was used to triangulate the RDW outcomes (number of carriers and distribution of fleet size buckets). For this, the number of carriers in the CBS data with a fleet size of <30 was extrapolated as these carriers are not obliged to share their data with CBS (an estimated 30% responded to this voluntary survey)
8. The CBS survey data includes information on carriers' national/international activity. This data is combined with the categorised carrier list by creating the same fleet size buckets and applying a proportionate amount of national/international shares from the CBS to the carrier list



The segmentation of the foreign OBUs active in the Netherlands is based on data on foreign OBUs active in Belgium, which was applied for the Netherlands

Foreign market segmentation methodology

Data on OBUs active in the Belgian market
(Origin country, fleet size, weight, payment method, EU class) 1 2

x

Ratio tonnages for Belgium/NL
(Tonnages transported to/from/in Belgium vs. NL per origin country) 3 4

1. The data on the OBUs in the Belgian market covered approximately 70% of the total number of foreign OBUs in the Belgian market. The other 30% is serviced by EETS providers. In addition to that, the data on foreign trucks includes a large number of anonymous accounts (since July 2019 all accounts have at least an (mail) address or VAT number). Both the EETS accounts and anonymous accounts consist of 1 OBU and cannot be related to carriers and therefore could not be further analysed. The remaining number of OBUs could be related to carriers and were segmented based on carrier characteristics
2. Additional data was available on the presence of foreign OBUs in Belgium (% of time in year active on Belgian roads). However this data cannot be related to carriers to determine a relationship between fleet size and presence on Belgian roads and therefore this information was not used in the segmentation analysis
3. To translate the number of foreign OBUs active in Belgium to the number of foreign OBUs active in the Netherlands, the ratio between the tonnages transported by foreign carriers (per country) in Belgium and in the Netherlands was used to adjust the Belgian data to the Dutch market. These tonnages are based on Eurostat data on the total tonnage per country for all types of transport (bilateral, cabotage, etc.). OBUs related to anonymous accounts are also applied from the Belgian data to the indicative situation in the Netherlands to take into account data limitations. In reality, anonymous accounts may be non existent in the Netherlands in the future
4. An underlying assumption for the translation of data between the Belgian and Dutch markets is that tonnage per OBU is roughly equal in the Netherlands and Belgium for all foreign countries active within these two markets

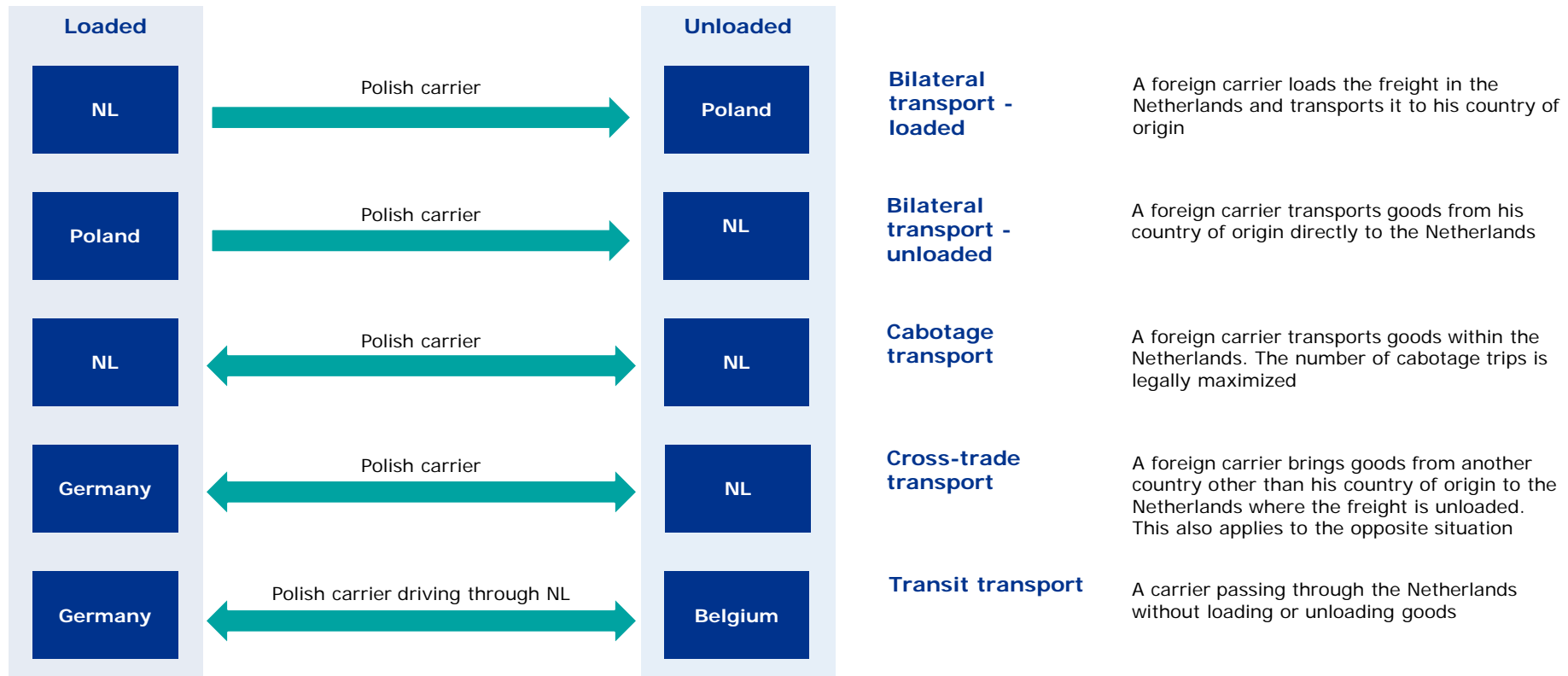
Comments and assumptions

- Data on the distribution of fleet size, mileage and other characteristics of foreign carriers behind those OBUs in Belgium was applied to the Dutch figures to come to a segmentation of foreign OBUs/carriers active in the Dutch market. Hence, it was assumed that the characteristics of German, Polish and Romanian carriers active in Belgium are similar to the characteristics of carriers from these countries that are active in the Netherlands
- OBU numbers for other foreign countries have also been applied to the Netherlands to come to a total number of foreign OBUs. No further analyses have been done to make a segmentation of accounts and carriers for these countries
- Due to the data limitations mentioned in the first point above (1.) (EETS and OBUs related to anonymous accounts) and the transposition of Belgian data on the Dutch market, analyses for foreign segmentation are marked as indicative
- The data on Belgian carriers active in Belgium could not be used for the foreign carrier segmentation, as they are domestic carriers in Belgium and the subset of those carriers which are also active in the Netherlands could not be isolated. As such, Belgium is not included in the segmentation analysis of foreign carriers



Explanation of transport types

Overview of the different types of transport used for KM segmentation



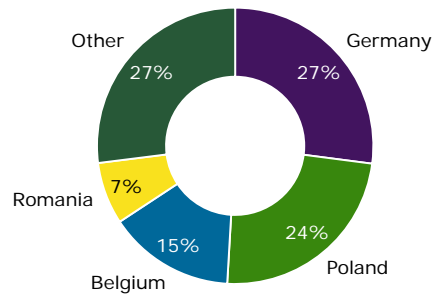
Source: Eurostat



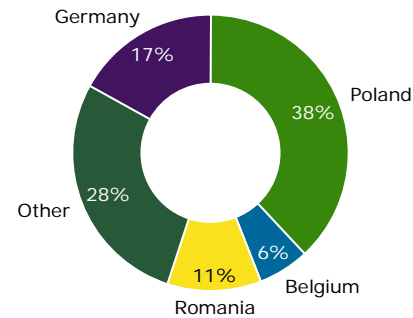
Cross-check: Top-4 foreign countries across various data sources

Contribution of top-4 countries to foreign transport segment

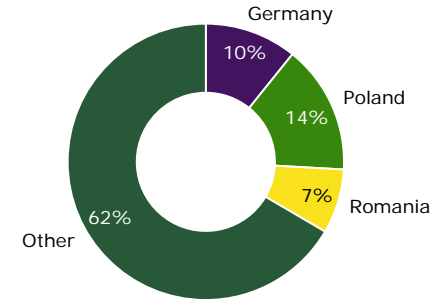
Km (CBS NL, 2017)



License plates (GVO NL, 2016)



OBUs (Data on Belgian OBUs)



The difference between the split in km, the GVO license plate observations and the data on Belgian OBUs can be explained by the high number of occasional trips by foreign trucks from non-top-3 countries

- For countries that are further away from Belgium (included in other) the share of incidental trips to Belgium is higher. This is supported by the data on Belgian OBUs, which shows a high proportion of anonymous accounts for these countries. Poland and in particular Germany have a relatively low share of anonymous accounts
- Since an OBU is required for occasional as well as regular trips, trucks that have only been to Belgium once also count as an OBU in the OBU distribution between countries. Because the frequency and distance of trips per truck is not taken into account, the share of other countries (more incidental countries) appears to be relatively high compared to the share of trucks from Poland, Germany and Romania
- For the same reason, observations from the GVO research are not comparable to the OBU data, because trucks from countries that drive more frequently in the Netherlands have a higher number of license plate observations on a particular day, but are included as one OBU in the OBU data regardless of their frequency of trips and therefore have the same weight as a truck that only makes one incidental trip for which it needs an OBU

Source: CBS, GVO, data on Belgian OBUs

