

Research for TRAN Committee: Transport and tourism in Belgium, France and the Netherlands

1. INTRODUCTION

Belgium has an area of 30,528 km² and the country is inhabited by 11.4 million people making it the ninth country in the EU in terms of population. One of the Belgium's trade advantages is its central geographic location in the European Union (EU). In 2017, the country's GDP reached EUR 439 billion at market prices¹. In the same year, Belgium recorded an exports value of EUR 381 billion, imports worth of EUR 360 billion². The majority of Belgium's trading partners are the EU Member States led by Germany, France, the Netherlands and the United Kingdom and the United States of America. The top three export goods of Belgium are motor vehicles and parts, pharmaceuticals and organic chemicals, while the top three imports goods include motor vehicles and parts, oil and mineral fuels, and pharmaceuticals³.



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With a territory of 551,695 km² and 67 million inhabitants, **France** is ranked the largest country in the EU in terms of area and the second in terms of population⁴. In 2017, France's economy grew by 2.2% compared to 2016 (the best result since the financial crisis in 2008)⁵. The economy of France is highly developed and competitive. The country is one of the global leaders in the automotive (this sector accounted for 10.4 % of the country's exports of goods in 2016⁶, aerospace and railway sectors, as well as in cosmetics and luxury goods. In 2017, France's exports amounted to EUR 474 billion and its imports reached EUR 553 billion. In the same year, Germany was the country's closest trading partner in both import and export. It was followed by the United States of America, Belgium and Italy in France's exports of goods, and by China, Italy and Belgium in the country's imports⁷.

¹ Eurostat database - [GDP and main components](#).

² Eurostat database - [International trade, by reporting country](#).

³ World Bank - World Integrated Trade Solutions - [Belgium trade summary 2016 data](#).

⁴ Eurostat database - [Population by age and sex on 1 January 2018](#).

⁵ International Monetary Fund database - [Real GDP growth](#).

⁶ Statista - the statistics portal - [Share of the automotive sector in the export of goods in France from 2012 to 2016](#).

⁷ World Bank - World Integrated Trade Solutions - [France trade summary 2016 data](#).



France's most important export goods are planes, helicopters and spacecrafts, packaged medicaments, cars and vehicle parts and gas turbines, while cars, aircraft parts, crude petroleum and packaged medicaments constitute the most significant categories of goods imported by France⁸.

The **Netherlands** has an area of 41,543 km² (the 23rd place in the EU) and a population of 17 million people, ranking the country on the eighth position in the EU in terms of population. Three island territories in the Caribbean (Bonaire, Sint Eustatius and Saba) belong to the Netherlands. Being a neighbour of Belgium, the Netherlands benefits from a central geographic location in the EU, which is one of the country's most important trade advantages. Presently, the economy of the Netherlands is ranked the 28th in the world by purchasing power parity GDP⁹. In 2017, the country's GDP at market prices reached EUR 737 billion¹⁰. The country enjoys a high level of economic freedom and it was ranked the second worldwide in the Global Enabling Trade Report in 2016¹¹. The Netherlands, like Belgium has a positive trade balance. In 2017, the Netherlands exports amounted to EUR 577 billion, while imports totalled EUR 509 billion¹². The most important export partners of the Netherlands comprise Germany, Belgium, the United Kingdom, France and the United States of America. The most important import partners of the Netherlands are Germany, Belgium, China, the United States of America and the United Kingdom¹³.

According to the **Global Competitiveness Report 2017-2018**, the three above countries have highly competitive economies¹⁴, the Netherlands being the fourth, Belgium the 20th and France the 22th worldwide.

2. GENERAL INFORMATION ON TRANSPORT

Transport plays an important role for the economies of the three countries, although in a different way in each of the above states, particularly when analysing the sector's modal split or its impact on the employment and the whole economy. In 2015, transport was responsible for 4.3% of employment in the Netherlands, 5.5% in Belgium and 5.6% in France. At the same time, the share of value added by the transport sector ranged from 4.7% in France, 5.3% in the Netherlands to 5.4% in Belgium¹⁵.

Road transport is the dominant mode in **freight inland operations** in Belgium and France (in tonne-kilometres). It represents the highest share in France (86%), while going down to 73% in Belgium, where inland waterways and railways jointly have more than one-fourth of the total inland freight volume. In the Netherlands, the freight market is influenced by a strong position of inland waterway transport, which has the market share comparable to that of the road transport (please see Figure 1 below).

Concerning the **passenger transport**, cars constitute a prevailing mode of travelling in the three countries, with their market shares spanning from 81% in Belgium to 86% in the Netherlands in 2015. The share of railway transport in the three countries remains stable with, one-tenth of each passenger-kilometres on average being performed by trains. Motor coaches and buses play an important role only in Belgium. Recent deregulation of long distance bus market in France (which was possible thanks to the August 6th 2015 Act) led to the increase of intermodal competition. Main competitor to rail passenger long distance services are inter-city coaches with high dynamics of growth (17% in 2016)¹⁶.

⁸ Observatory of Economic Complexity - Country profile - [France](#).

⁹ International Monetary Fund database - [Real GDP growth](#).

¹⁰ Eurostat database - [GDP and main components](#).

¹¹ [Global Enabling Trade Report 2016](#), a joint publication of the World Economic Forum and the Global Alliance for Trade Facilitation. The Report features the Enabling Trade Index, which evaluates 136 economies based on their capacity to facilitate the flow of goods over borders and to their destination.

¹² Eurostat database, [EU International trade by reporting country](#), 2006-2017.

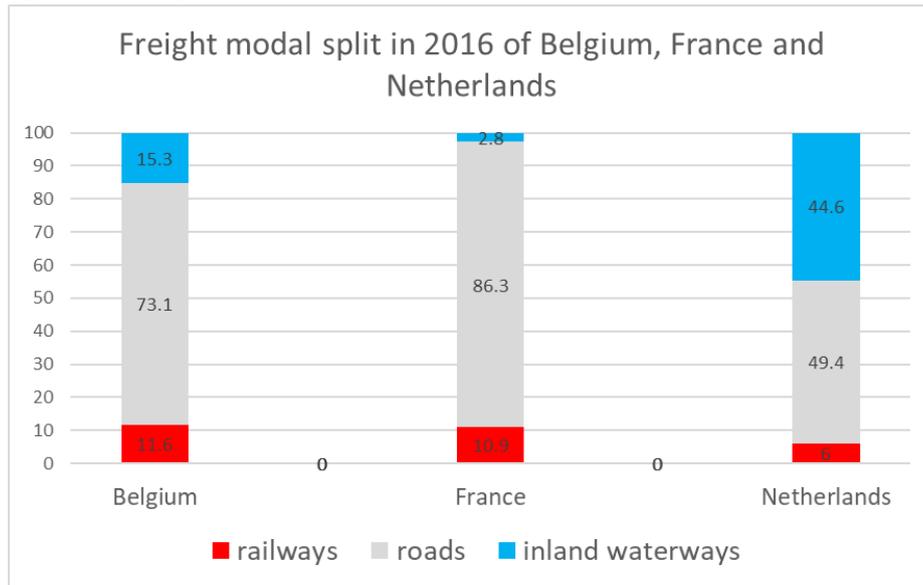
¹³ World Bank database, www.wits.worldbank.org.

¹⁴ World Economic Forum - [Global Competitiveness Report 2017-2018](#), Geneva 2018. The Report includes 137 countries and measures national competitiveness defined as the set of institutions, policies and factors that determine the level of productivity.

¹⁵ Organisation for Economic Co-operation and Development (OECD) - Statistics on transport - Performance indicators. Indicators: [Economic and social](#).

¹⁶ The French Passenger Rail Transport Market 2015-2016. Observatory of Transport and Mobility, Arafer, p. 5.

Figure 1: Freight modal split, 2016 (% of total inland tkm)



Source: Eurostat¹⁷

2.1 Transport infrastructure

Land transport infrastructure (road, rail and inland waterways) is well developed in the three countries discussed in this briefing. The density of transport network is very high in the case of Belgium and the Netherlands, whereas in France it is much more diversified.

The quality of the transport network in **Belgium** is affected by the low level of public investment especially in the road, waterways and rail networks. Another negative factors influencing mobility in Belgium are distortive tax incentives and lack of competition in transport services, both causing major congestions and hindering productivity growth. Belgium remains Europe’s most congested country in terms of hours wasted in traffic and delays, in particular around Brussels and Antwerp (impacting the port activity, a major source of the country trade in- and outflows). Several transport services markets are also not really open to competition¹⁸, including domestic passenger railway services and in long-distance coach services. The quality of Belgium's port infrastructure is rated the third best in the EU. The infrastructure for the country’s other modes of transport is also rated highly, but less for the quality of roads. In addition, Belgium is among the EU top performers in terms of the **timeliness of shipments**.

Both the **Netherlands** and **France** continue to receive excellent ratings for its road, port, rail and air infrastructure, putting the countries among the EU top performers for these indicators.

Worldwide, the Netherlands ranks fourth on the list of countries with the best infrastructure¹⁹. Total expenditures for transport infrastructure set by the Government in the Netherlands amount to EUR 6.2 billion in 2018 (of which 42% are allocated to main road network, 35% to rail network and 16% to inland waterways)²⁰.

The quality of public infrastructure in France is considered only second to the Netherlands, among EU Member States, and eighth in the world²¹.

¹⁷ Eurostat database - [Modal Split of inland freight transport 2016](#).

¹⁸ Country Report Belgium 2018 Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Central Bank and the Eurogroup 2018 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011 {COM(2018) 120 final}, pp. 1-2 and p. 44.

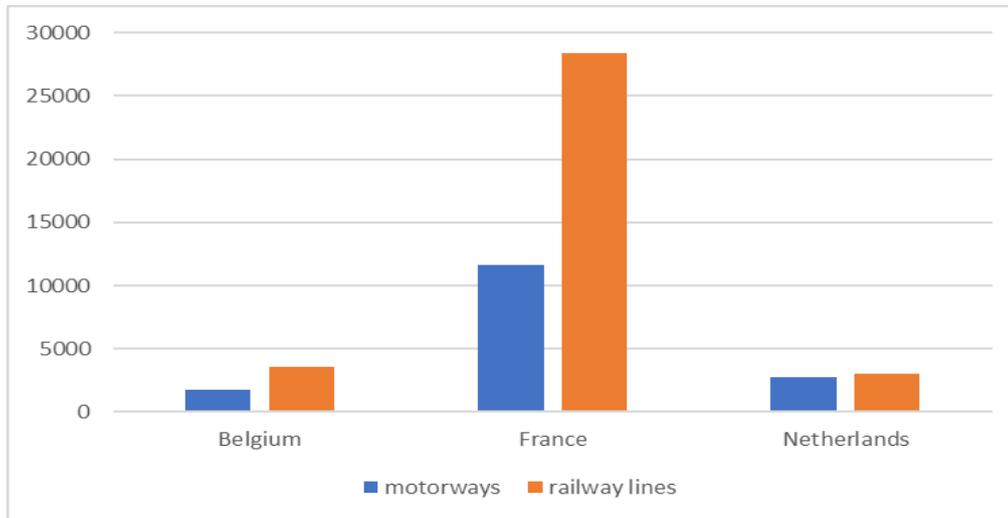
¹⁹ World Economic Forum - [Global Competitiveness Report 2018](#), Geneva 2018, p. 229.

²⁰ Government of the Netherlands - [Increasing mobility in a more sustainable country](#), 19 September 2018.

²¹ World Economic Forum - [Global Competitiveness Report 2018](#), Geneva 2018, p. 425.

The completion of the **TEN-T Core Network** is advanced for all modes of transport in the three countries analysed with the exception of the high-speed railways in France, which is 47% complete as the country plans to double its length²². Between 2007 and 2013, global expenditure on the TEN-T network was EUR 8.23 billion in Belgium, EUR 47.2 billion in France and EUR 18.3 billion in the Netherlands²³.

Figure 2: Length of motorways and railway lines in Belgium, France and the Netherlands (km)



Source: Eurostat²⁴

2.2 The Core Network Corridors

In 2013, the new Regulation (EU) No 1315/2013 on TEN-T²⁵ introduced the concept of the „core network“ and the nine “Core Network Corridors” (CNCs) representing the most strategic transport routes for the EU²⁶. There are six CNCs crossing described countries (please see Map 2 below), which include:

- the **Rhine-Alpine Corridor** connecting the North Sea ports of Antwerp, Rotterdam and Amsterdam along the Rhine valley via Switzerland to Italy. It is one of three busiest freight routes in the EU. The key projects are the Alpine base tunnels Gotthard and Lötschberg and their access lines. One of the most needed actions is to improve rail connection between the Belgian and the Dutch networks with the German ones, particularly between Emmerich and Oberhausen²⁷. An important project within the corridor was the Betuwe Line, which was completed in 2007. It is a 143 km long, two-track freight-dedicated railroad linking the Rotterdam harbour to the German border. This railway line provides an additional capacity much necessary to accommodate an increased freight volumes resulting from the further investments in the port of Rotterdam (project Maasvlakte 2²⁸).
- the **Atlantic Corridor** linking the Spanish and the Portuguese ports through the western France and, with a link from Le Havre and Rouen, to Paris and further east to Mannheim and Strasbourg. Newly opened high-speed railway line Tours-Bordeaux received significant financial support from the EU budget and the EIB. It is the first PPP agreement on the high-speed railway infrastructure and includes a 50-year concession contract that covers the financing, design, construction, operation and maintenance of the high-speed line²⁹.

²² European Commission - DG MOVE (Mobility and Transport) - EU Transport Scoreboard - Investments and Infrastructure in [France, Belgium](#) and the [Netherlands](#).

²³ European Commission - DG MOVE (Mobility and Transport) - EU Transport Scoreboard - Country fact sheets: [Belgium](#), [France](#) and the [Netherlands](#).

²⁴ Eurostat database - Length of [motorways](#) and [railways](#) by country.

²⁵ [Regulation \(EU\) No 1315/2013](#) of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU.

²⁶ Conference of the European Directors of Roads (CEDR) - [Trans-European Road Network, TEN-T \(Roads\) 2015 Performance Report](#), 2016/04 ISBN: 979-10-93321-21-9, p. 15.

²⁷ European Commission - DG MOVE (Mobility and Transport) - [Rhine-Alpine Corridor](#).

²⁸ Port of Rotterdam website - [Maasvlakte2 project](#).

²⁹ European Commission - DG MOVE (Mobility and Transport) - [Atlantic Corridor](#).

Map 2: The TEN-T Core Network Corridors - focus on the central part of the EU

Source: European Commission³⁰

- the **North Sea-Mediterranean Corridor** stretching from Ireland and the UK through Belgium, with a branch from Amsterdam and Rotterdam, via Luxembourg to Strasbourg and Basel and via Lyon to the southern French ports of Fos/Marseille. The biggest challenge within this corridor are inland waterways, especially missing links and bottlenecks between the Seine and the Scheldt (Escault in French), and between the Rhine and the Rhone³¹. The key project in this corridor is the Seine-Scheldt inland waterway, with the total cost estimated at EUR 8.9 billion³²
- the **Mediterranean Corridor** linking the Iberian ports of Spain through southern France, with link to Marseille, and Lyon to northern Italy, Slovenia and a branch (via Croatia) to Hungary and the Ukrainian border. Among the key projects is the Lyon –Turin railway tunnel.
- the **North Sea – Baltic Corridor**, which is situated in the northern Germany, Belgium and the Netherlands. It provides access to the major ports on the North Sea coast in the west (Hamburg, Bremen, Bremerhaven, Amsterdam, Rotterdam, Moerdijk and Antwerp). The corridor has branches to Ventspils in Latvia, and to Klaipeda, and Vilnius in Lithuania and to Terespol on the Polish/Belarussian border. One of the challenges within the corridor is construction of a new large sea lock at the Port of Amsterdam - a major bottleneck on the corridor³³. The completion of the corridor is expected to generate 2.06 million jobs until 2030³⁴.
- the **Rhine-Danube Corridor** connecting only part of France (Strasbourg) and Mannheim via two parallel axes in southern Germany and with a branch to the Czech Republic, to the Slovak-Ukrainian border and to the Romanian ports of the Black Sea.

2.3 Financing of the transport infrastructure

Financing of inland infrastructure shows well-balanced division of expenses between road and rail, especially in Belgium. However, a relatively poor efficiency of public spending on transport and a comparatively low level of public expenditure are the main reasons for lower scores for the quality of Belgian road and railway network³⁵.

³⁰ European Commission - DG MOVE (Mobility and Transport) - Trans-European Transport Networks - [TENtec - Maps](#).

³¹ European Commission - DG MOVE (Mobility and Transport) - [North Sea-Mediterranean Corridor](#).

³² European Commission - DG MOVE (Mobility and Transport) - [Delivering TEN-T. Facts and Figures](#), September 2017, p. 44.

³³ European Commission - DG MOVE (Mobility and Transport) - [North Sea-Baltic Corridor](#).

³⁴ European Commission - DG MOVE (Mobility and Transport) - [Delivering TEN-T. Facts and Figures](#), September 2017, p. 16.

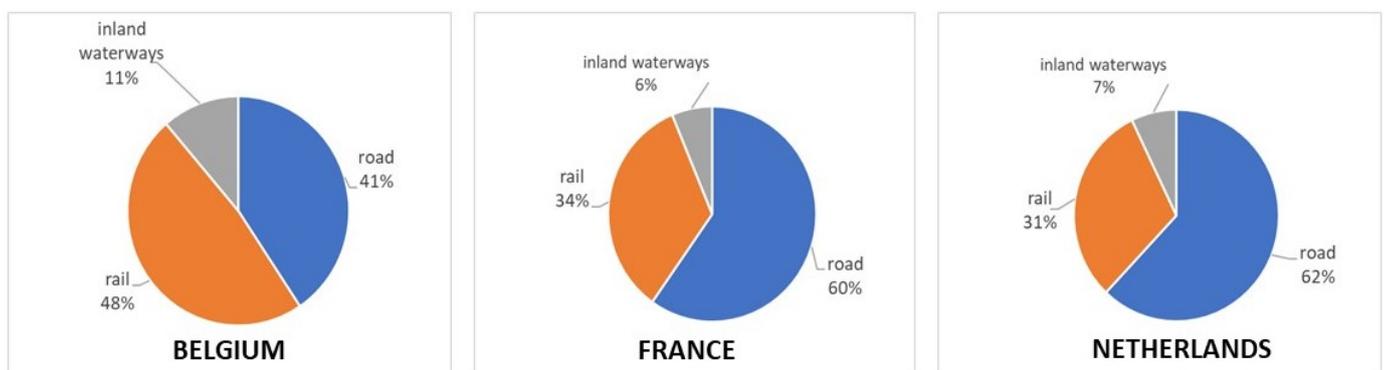
³⁵ European Commission - 2018 European Semester - Country report - [Belgium](#), March 2018.

According to OECD data, over the period 2000-2014 Belgium had one of the lowest investment rates in inland transport infrastructure in the EU, reaching 0.44 % of GDP (below the EU average of 1.01 %) ³⁶.

Investments in the new inland transport infrastructure reached almost EUR 2 billion in Belgium (2016), EUR 1.6 billion in France (2016) and EUR 3.7 billion in the Netherlands (2011). The structure of spending on new transport infrastructure is presented in Figure 3 below. In France and in the Netherlands, the largest share of financing was dedicated to the road infrastructure, however rail represented around one-third of the total investment expenditure on inland transport infrastructure in these two countries. In Belgium, investments on rail constituted almost half of the total value of inland transport investments in 2016.

Expenses related to **infrastructure maintenance** amounted to EUR 311 million in Belgium, 3.3 billion in France (both values for 2016) and to 1.8 billion in the Netherlands (2011).

Figure 3: The structure of investments in inland transport infrastructure in Belgium, France and the Netherlands



Source: prepared by the author based on OECD data ³⁷

Between 2014 and 2017, **Belgian** beneficiaries received EUR 509 million of the CEF Transport funding, and invested a total of EUR 1.3 billion in 54 projects ³⁸. Over the same period, the CEF Transport co-financing amounted to EUR 2.2 billion in **France** and the country invested a total of EUR 5.5 billion in 89 projects ³⁹. One of the biggest projects for both countries is Seine-Escaut, which aims at removing the waterway bottlenecks between France and Belgium and at completion of the missing links between the Seine and the Scheldt ⁴⁰. At the same time, **Dutch** beneficiaries received around EUR 439 million of CEF Transport funding and invested a total of EUR 1.3 billion in 56 projects. One of them is focused on removing the bottleneck on the rail freight corridor between the port of Rotterdam and its hinterland by realising the Theemsweg railway section. Its value is EUR 200 million and the project is expected to improve the functioning of the three CNCs (Rhine Alpine, North Sea-Mediterranean and North Sea-Baltic) ⁴¹.

2.4 Transport and logistics services

In the three countries analysed, transport and logistic services are well developed having attractive and diversified market environment. In 2016, the Logistics Performance Index ⁴² for these countries was high, placing the Netherlands on the third position in the EU (after Germany and Luxembourg), Belgium on the 4th place, while France was ranked the 9th (please see Figure 4 for more details).

³⁶ European Commission - 2018 European Semester - Country report - [Belgium](#), March 2018, p.44.

³⁷ Organisation for Economic Co-operation and Development (OECD) - Statistics on transport - [Transport infrastructure investment and maintenance spending](#). Data for the Netherlands: 2011, for Belgium and France: 2016.

³⁸ European Commission -Connecting Europe Facility- Transport grants 2014-2017 - [Belgium Key Facts and Figures](#).

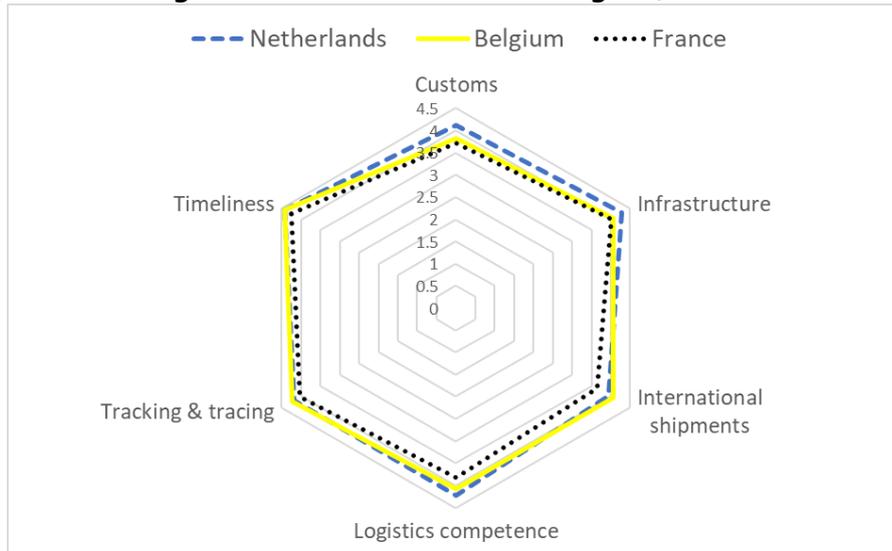
³⁹ European Commission -Connecting Europe Facility- Transport grants 2014-2017 - [France Key Facts and Figures](#).

⁴⁰ European Commission - [Seine-Escaut 2020 Project](#).

⁴¹ European Commission -Connecting Europe Facility- Transport grants 2014-2017 - [Netherlands Key Facts and Figures](#).

⁴² The World Bank - [Logistics Performance Index](#). The scores demonstrate comparative performance (lowest score to highest score) from 1 to 5. Concerning the global LPI, it is worth adding that there are 23 Member States ranked in the top 50 out of the 160 countries compared by the World Bank. According to the European Commission, this shows that despite increasing challenges, Member States are still performing relatively well.

Figure 4: Components of Logistic Performance Index for Belgium, France and the Netherlands in 2016



Source: author's own elaboration based on the World Bank's data⁴³

The most important challenges identified across the EU28, including Belgium, France and the Netherlands are rising logistics costs, the negative environmental footprint of the sector and an increasing shortage of qualified staff⁴⁴.

3. ROAD TRANSPORT

Between 2001 and 2016, the number of **road fatalities** (measured as number of killed per 100,000. inhabitants) decreased substantially in Belgium, France in the Netherlands⁴⁵. The lower dynamics for the Netherlands is explained by the „low level base“ factor. Indeed, at the beginning of the monitoring period, the number of road fatalities per 1 million inhabitants was the lowest in the Netherlands. Fatalities in road accidents in Belgium, France and the Netherlands constituted for less than 20% of the whole EU28 victims in 2016 (please see Figure 5 below).

The **Netherlands could set one of the world's most ambitious climate goals** if the draft new law passes through the Dutch parliament. The proposal presented to its parliament in June 2018 - aims at setting a 49% greenhouse gas emission (GHG) reduction target by 2030 compared to 1990 levels and a 95% reduction goal by 2050, with a carbon neutral electricity system⁴⁶. It would also have strong impact on mobility and transport sector, i.e. new cars are to be emission-free by 2030 at the latest. The number of electric cars in the Netherlands has grown dramatically in the past few years and it could reach 200,000 by 2020, although in 2017, an average of 1.8% of new vehicle purchases were electric or hybrid cars⁴⁷.

Belgian cities are ordering mainly hybrid buses (i.e. Namur and Charleroi have together ordered 90 Volvo 7900 Electric Hybrid buses as well as 12 charging stations⁴⁸). Introduction of seven electric buses in Brussels in June 2018 is the first step towards a completely electric fleet by 2030⁴⁹.

The **France's National Low-Carbon Strategy** (SNBC), established in August 2015, sets the country's roadmap for a low emission economy. For transport sector, the target is to reduce emissions by at least 70% by 2050 (in comparison to 2013 level)⁵⁰. In July 2017, the Government's Climate Plan was presented, which aims at the

⁴³ Ibidem.

⁴⁴ European Commission - [Fact-finding studies in support of the development of an EU strategy for freight transport Logistics](#). Final report. Ecorys, Fraunhofer, TCI, Prognos and AUEB-RC/TRANSLOG, January 2015.

⁴⁵ Eurostat database - [People killed in road accidents](#).

⁴⁶ Dutch Ministry of Economic Affairs and Climate Policy - [Government kicks off climate agreement efforts](#), February 2018. and Climate Home News - [Netherlands proposes 95% emissions cut by 2050 in draft climate law](#).

⁴⁷ Nderlandelektrisch - [Gateway-to-Europe](#).

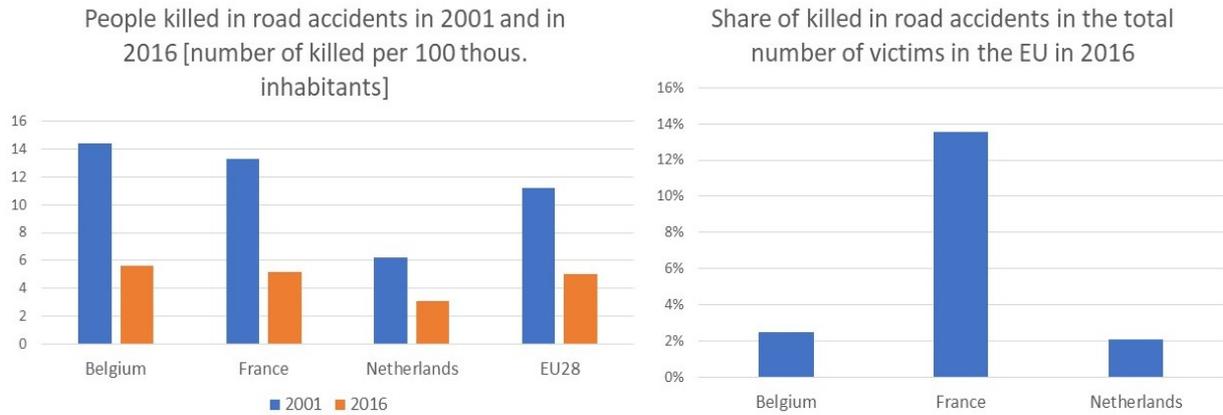
⁴⁸ Bus and Coach Travel - [Electric bus fleets for Belgian cities](#).

⁴⁹ The Brussels Times - [STIB puts in its first electric bus line, through the centre of Brussels](#), June 2018.

⁵⁰ United Nations Framework Convention on Climate Change - [Stratégie Nationale Bas-Carbone](#). Summary for Decision Makers, December 2017.

implementation of the Paris Agreement in the five-year term. One of its important parts is developing clean mobility that is accessible to everyone⁵¹. Moreover, the French Ministry of Ecology and Solidary Transition launched a strategic plan to support the deployment of hydrogen in June 2018. Its goal is to make France the world leader in this sector. One of the three axis of the plan is development of zero emission solutions for transport sector⁵².

Figure 5: Number of fatalities in road accidents in Belgium, France and the Netherlands in 2001 and in 2016



Source: prepared by the author based on Eurostat data⁵³

4. RAILWAY TRANSPORT

France was the first country on the European continent that created the high-speed **railway network** in 1981 and now, with 2030km, the country has the second longest high-speed railway network Europe⁵⁴. Interestingly, the first conventional railway in the continental Europe was built in **Belgium** (section between Brussels and Mechelen) in 1835, which by now has developed to be the densest railway system in the world.

France is characterised by a high level of public ownership in the railway sector. The French domestic **rail passenger market** remains a monopoly of a State-owned incumbent (SNCF Mobilité), although the market opening to competition is planned in 2019. The French **freight rail market** is open to competition, with SNCF Mobilité holding a majority share in the market (i.e. approximately 70%). The long-term challenge is the growing debt of the **railway infrastructure manager**, SNCF Réseau, which reached EUR 46.6 billion in 2017⁵⁵. Further loss in rail modal share due to competition from other modes of transport (by the way, actively promoted by the State, notably with the reform of the coach sector) may have a negative impact on the evolution of the debt of SNCF Réseau⁵⁶. In France, rail transport, which accounts for 10% of traffic (freight and passengers), emits less than 1% of all **GHG emissions** from transport sector. Rail transport is a key contributor to France's low carbon transition with central role of SNCF Réseau. SNCF Réseau is one of the leading investors in France with EUR 3.2 billion invested in 2017. SNCF Réseau issued a total of EUR 2.65 billion of Green Bonds in 2017, making it one of the 15 largest Green Bonds issuers in the world⁵⁷. Modern forms of shared mobility are gaining popularity in France, as well as domestic low-cost airlines are capturing market share mainly from rail. Carpooling has reduced the number of domestic long distance railway passengers in France by 6% in 2015⁵⁸.

⁵¹ France's Government - [Climate Plan](#).

⁵² FuelCellsWorks - [A national plan for hydrogen launched in France](#), June 2018.

⁵³ Eurostat database - [People killed in road accidents](#).

⁵⁴ Autorité de régulation des activités ferroviaires et routières (Arafer) - Observatory of Transport and Mobility - [The French Passenger Rail Transport Market 2015-2016](#), p. 4.

⁵⁵ SNCF Group Press Release - [2017 annual results](#), February 2018.

⁵⁶ Country Report Belgium 2018 Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Central Bank and the Eurogroup 2018 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011 {COM(2018) 120 final}, p. 51.

⁵⁷ SNCF Réseau - [Green Bonds Reporting 2017](#), pp. 8-14.

⁵⁸ Finger M., Bert N., Kupfer D., Montero J.-J., Wolek M.: Research for TRAN Committee - [Infrastructure funding challenges in the sharing economy. European Parliament](#), Policy Department for Structural and Cohesion Policies 2017, p. 10.

Rail transport is also an important element of the low emission strategy for **the Netherlands**. As of 2017, the State-owned passenger rail operator, NS, stopped running diesel trains and the electricity needed to run electric trains is generated by wind farms⁵⁹.

The railway infrastructure in the **Netherlands** is the most intensely used in the EU (140 train-kms per 1 km of railway line, almost three times higher than the EU average of 55 train-kms per 1 km of railway line), while the intensity of use of the rail network in **Belgium** (73 train-kms per 1 km of line) is slightly higher than the EU average. The **French** rail system is on average less intensively used (48 train-kms per 1 km of line)⁶⁰, although the rail network's intensity presents large disparities since 50% of passenger train operations is concentrated on 9% of the rail network⁶¹.

5. MARITIME TRANSPORT INLAND WATER NAVIGATION

Among ten largest **sea ports** on the European continent, four are located in the three countries discussed in this briefing, namely Rotterdam and Amsterdam in the Netherlands, Antwerp in Belgium and Marseille-Fos in France. Outside Asia, only two ports, Rotterdam and Antwerp, are among the top 20 ports in the world⁶². Ports of Amsterdam, Rotterdam and Antwerp also form the largest energy port cluster in Europe⁶³. For hundred years ports of northern Europe were important drivers of economic growth and social development.

The **Port of Rotterdam** is Europe's largest sea port and the tenth largest in the world. It is an intermodal node, vital for the European economy (180,000 of employees and EUR 21 billion of direct and indirect seaport-related added value in 2017 – around 3% of the Dutch GDP) and industrial area⁶⁴. It handled about 467 million tonnes of cargo in 2017, of which around 46% was liquid bulk. The cargo volume also included 13.73 million of TEUs in 2017⁶⁵.

The **Port of Antwerp** (Flanders, Belgium) is Europe's second largest port and the 15th largest in the world. It handled about 224 million tonnes of cargo and more than 10.4 million of TEUs in 2017⁶⁶. The port is not only the European market leader for the handling of steel and fruit, but also the largest port in the world for the storage of coffee.

The **Port of Amsterdam** is the fourth European sea port that handled about 101 million tonnes of cargo in 2017. Its wider economic impact (calculated for the North Sea Canal Area) includes nearly 70,000 employees and EUR 6.8 billion of added value. It is the world's largest import port for cocoa. The port set out ambitious environmental goals, one of them is to become a coal-free port by 2030⁶⁷.

All French sea ports handled total cargo of 330 million tonnes⁶⁸. The **Port of Marseille-Fos**, the largest port in France, which moved some 81 million tonnes of cargo (including 1.25 million of TEUs) in 2016. The containerised goods, LNG and cruises were the main growth drivers of the Port of Marseille-Fos making it the leading cruise port in France⁶⁹. Activity linked to the Port of Marseille-Fos generates over 43,500 jobs⁷⁰.

⁵⁹ NS Annual Report 2017 - [Energy](#).

⁶⁰ Autorité de régulation des activités ferroviaires et routières (Arafer) - L'ouverture à la concurrence du transport ferroviaire de voyageurs en France. Les enseignements européens, March 2018, p. 7.

⁶¹ Autorité de régulation des activités ferroviaires et routières (Arafer) - Observatory of Transport and Mobility - [The French Passenger Rail Transport Market 2015-2016](#), p. 4.

⁶² United Nations Conference on Trade and Development - Review of Maritime Transport 2018, New York 2018, p. 73.

⁶³ [Port of Amsterdam](#) website.

⁶⁴ Port of Rotterdam - [Top 20 European container ports](#), 2009-2014.

⁶⁵ Port of Rotterdam Authority - [Facts and Figures for the Port Authority and the Port of Rotterdam](#).

⁶⁶ Port of Antwerp - [2018 Facts and Figures](#).

⁶⁷ Port of Amsterdam - Business - Cargo - [Cocoa](#) and [Annual Report 2017](#), pp. 24-36.

⁶⁸ [Cluster Maritime Français 2017-2018](#), p. 8.

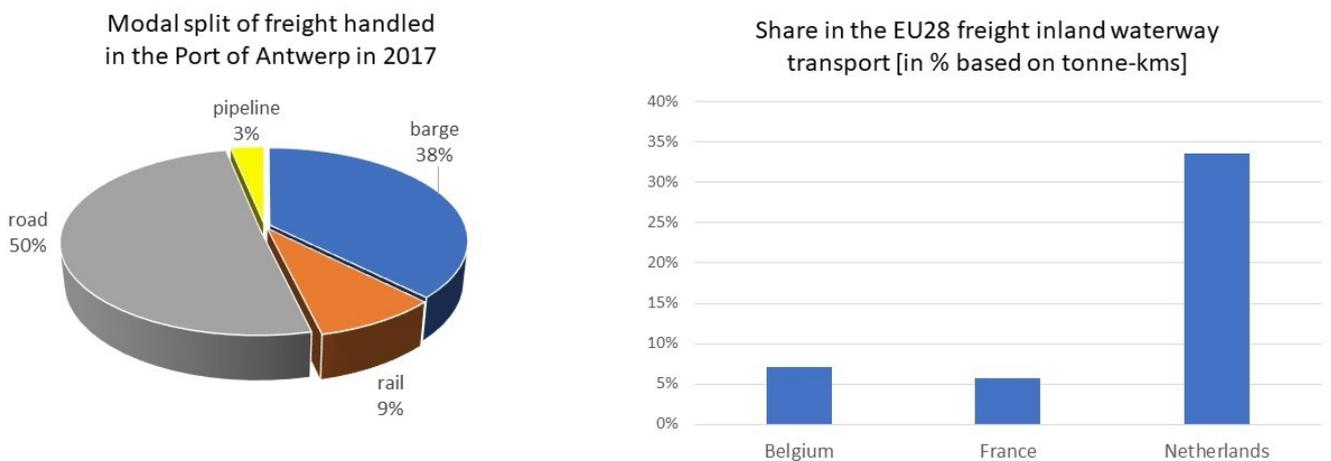
⁶⁹ Port of Marseille-Fos - [Annual Report 2016](#).

⁷⁰ Cluster Maritime Français - [Ports, Activities and Services](#).

The **Port of Le Havre** is the second biggest French port with 70 million tonnes of goods handled in 2017. It is crucial part of so-called HAROPA, the leading French port system that includes ports of Le Havre, Rouen and Paris connected with each other by a multimodal infrastructure system. Together, the three ports of the HAROPA network form the largest French cluster of ports for containers (more than 3 million of TEUs in 2017) and the largest grouping of ports worldwide for wine and spirit exports. HAROPA ports account for some 64,000 direct jobs and for EUR 6 billion of added value generated annually. One of the discussed investment for the future is the development of the river transport of sea containers along the Seine corridor⁷¹.

Inland water transport plays a crucial role in the transport system of Netherlands (it moved one-third of all tonne-kms in inland waterway transport in the EU28). In Belgium, its role is less important, but the sector's role is particularly vital in handling cargo at the country's sea ports (please see Figure 6 where example of the Port of Antwerp is presented).

Figure 6: Modal split in Port of Antwerp (Belgium) and share of Belgium, France and the Netherlands in the EU28 freight inland waterway transport in 2016



Source: Port of Antwerp⁷²

6. AIR TRANSPORT

The **Paris Charles de Gaulle** (Paris CDG) and the **Amsterdam Schiphol** are among the largest airports in Europe. The Amsterdam Schiphol was the fastest growing airport (+7.7% passengers, year-on-year) of the top ten European airports in 2017⁷³. However, the airport faces serious challenges of congestion and immediate need for additional capacity to meet growing demand. The Paris CDG is a crucial part of the Paris Aéroport including also Orly and le Bourget components. Together, the three airports moved 101 million passengers in 2017. Employment associated to functioning of the Paris CDG exceeded 90,000 people in 2017. The employment of the whole Paris Aéroport stands for 7.9% of total jobs in Paris and generates 3.9% of the GDP of the Paris Region⁷⁴. Roissy-pole, the airport city of Paris CDG is Europe's largest airport city. It offers more than 340,000 sq. m. of office space, hotels and services. Although **Brussels Airport** is smaller than either Amsterdam or Paris (yearly number of passengers about 25 million), it is the second most important economic growth pole in Belgium with a 1.8% share in the country's GDP and an added value for Belgium of EUR 3.2 billion⁷⁵.

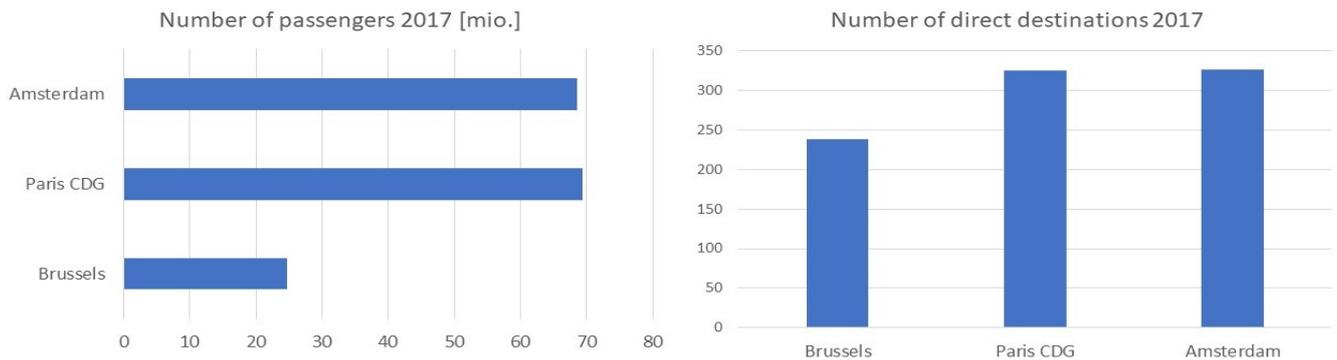
⁷¹ Haropa Ports - [General Information on Ports Activities, Activity Report 2017](#) and [More than M€ 500 for Le Havre Port Development](#), April 2018.

⁷² Port of Antwerp - [2018 Facts and Figures](#) and the Eurostat database.

⁷³ Amsterdam Airport Schiphol - [Annual Traffic Review 2017](#), p. 34.

⁷⁴ Groupe Aéroporté du Paris - [Report on Activities and Sustainable Growth 2017](#).

⁷⁵ Brussels Airport - [Brussels Airport: Belgium's economic power house](#).

Figure 7: Number of passengers and number of destinations for the largest airports of Belgium, France and the Netherlands in 2017

Source: Amsterdam Airport⁷⁶

France is an important place on a world map of **aircraft industry** as it has 8% share in world's total aerospace production worth of USD 838 billion⁷⁷. Among the largest companies are multinational *Airbus* with headquarters in Toulouse (turnover of EUR 66.8 billion), *Safran* (EUR 16.5 billion) and *Thales* (EUR 15.8 billion)⁷⁸. France was ranked the second in the world in terms of the value of exports of aerospace products in 2017 (USD 51.6 billion and 15.8% market share)⁷⁹. The main area of the aerospace industry and development in France (and one of the most important in the EU) is „The Aerospace Valley cluster“. The total number of workplaces in this cluster amounts to some 132,500 people. „These numbers constitute around one third of the total French aerospace workforce, and the scientists carrying out research and development (R&D) activities in this area represent 45% of French national R&D potential in the aerospace sector“⁸⁰. The most important components of the Aerospace Valley in Toulouse are universities and Airbus Industrie consortium established in 1971, being the main anchor firm, attracting a wide number of small and medium enterprises (SMEs) along its supply chain⁸¹.

7. TOURISM

Tourism is strongly associated with other branches and services, including transport. The highest direct **contribution of travel and tourism sector**⁸² to GDP was noted in France (3.6%), then in Belgium (2.2%) and in the Netherlands (1.9%) with the EU28 average of 3.7%⁸³. Contribution of travel and tourism sector to labour market differs among described countries, from 2.4% for Belgium, 4.2% for France and to 6.1% for the Netherlands with the EU28 average of 5% (please see Figure 8).

Strong links between tourism and transport could be best described on the example of France. Non-urban transport services presented 30% share (and value of EUR 27.7 billion) in the expenditures on tourism characteristic⁸⁴ services in France in 2016⁸⁵. The dominant mode of transport among non-urban transport services

⁷⁶ Royal Schiphol Group - [Annual Traffic Review 2017](#), Groupe Aéroporté du Paris - [Report on Activities and Sustainable Growth 2017](#) and Brussels Airport - [Brussels Airport: Belgium's economic power house](#).

⁷⁷ Aero Dynamic Advisory - [Global Aerospace Industry Size and Country Rankings](#), July 2018.

⁷⁸ [Airbus Annual Report 2017](#), p. 30, [Safran Annual Report 2017](#) and Thales Group - [2017 Registration Document Including the Annual Financial Report](#), p. 4.

⁷⁹ World's Top Exports - [Aerospace Exports by Country](#), May 2017.

⁸⁰ French Aerospace Valley - [Competitiveness Cluster for Aeronautics, Space and Embedded Systems](#).

⁸¹ M. Paone, N. Sasanelli: [Aerospace Clusters - World's Best Practice and Future Perspectives](#). An Opportunity for South Australia, September 2016, p. 27.

⁸² This includes employment by hotels, travel agents, airlines and other passenger transportation services (excluding commuter services). It also includes, for example, the activities of the restaurant and leisure industries directly supported by tourists.

⁸³ World Travel & Tourism Council - Travel and Tourism - Economic Impact 2017 - [Netherlands, Belgium](#) and [France](#), 2018.

⁸⁴ Tourism characteristic services include market tourist accommodation, restaurants and cafés, non-urban transport services (air, rail, coach, inland water and sea transport), short-term equipment rental, tour operator and travel agency services, cultural, sports and leisure services.

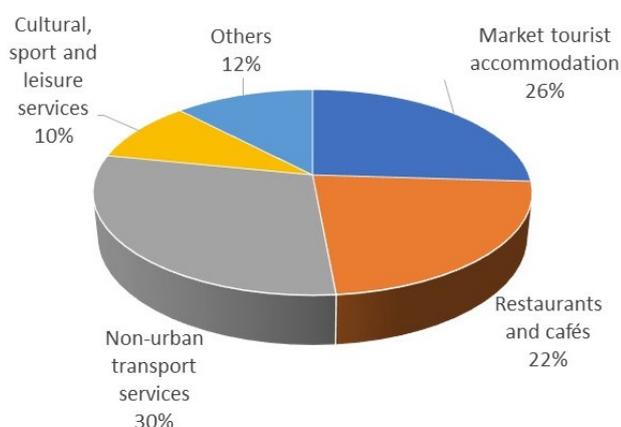
⁸⁵ Ministère de l'économie et des finances - [Internal tourism consumption in France stable in 2016](#), Études Économiques 2017 nr 78, p. 3.

in France was aviation, being responsible for 58% of total transport-related expenditures (please see Figure 8 below). Coach transport is growing in importance, although its share is still relatively low at 11% in 2016.

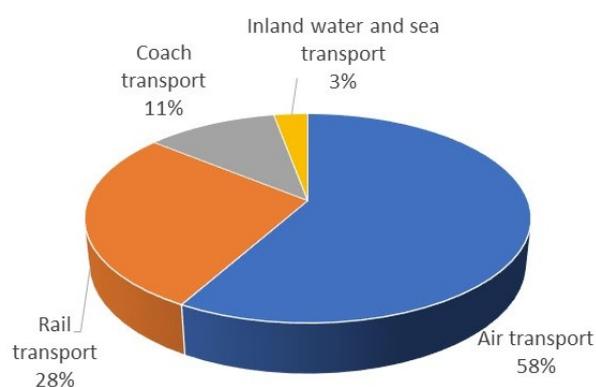
Total **number of bed places in tourist accommodation establishments** in France (5.1 million) represents 16% of the whole supply of the EU28, while shares of the Netherlands and Belgium are much lower (respectively 1.2% and 4.4%). The **number of nights spent** at tourist accommodation establishments by non-residents makes France the second country in the EU28. „The Paris region is the world’s most popular tourist destination, with 47 million visitors per year, including nearly 20 million from outside France”⁸⁶.

Figure 8: Structure of expenditure on tourism characteristic services and structure of expenditures on non-urban transport services in France in 2016

Structure of expenditures on tourism characteristic services in France in 2016



Structure of expenditures on non-urban transport services in France in 2016



Source: Ministère de l'économie et des finances⁸⁷

Further Information

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⁸⁶ Groupe Aéroporté du Paris - [Report on Activities and Sustainable Growth 2017](#), p. 28.

⁸⁷ Author’s own calculation based on report of Ministère de l'économie et des finances - [Internal tourism consumption in France stable in 2016](#), Études Économiques 2017 nr 78.