# PASSENGER TRAFFIC AND FREIGHT HANDLING IN PORTS OF EUROPEAN UNION

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Summary: This paper informs about latest statistical data of passenger traffic and freight handling in ports of European Union, covering the transport of goods between EU ports. It also presents maritime transport flows with individual results to main European ports. Information is based on data collected within the frame of the EU maritime transport statistics Directive. The content refers to the 23 of total maritime Member States.

Key words: throughput, port, goods, cargo, passengers, European Union

#### **INTRODUCTION**

Europe is on the top of the most dense port areas worldwide. There are more than 1 200 ports on 70 thousands kilometres of coastline of the EU. More than two thirds of the frontiers of the European Union are maritime frontiers. Geography, since ancient, created the perception that oceans have an important role in the development of European cultural identity and history. With increasing trade, ports were transformed from a safe place to handle ships to a place generating prosperity.

Nowadays, trade and internal market of the EU is highly dependent on ports that provide maritime transport at local and regional level. Ports as transport hubs are parts of the Trans-European Transport Network. Water transport significantly relieves land transport modes and reduce energy consumption.

### 1. TOP EUROPEAN PORTS

Based on statistics of EUROSTAT, in 2013 eight of the top 20 ports were located on the North Sea and nine were located on the Mediterranean coast. On the Atlantic coast, there were located two of the top ports, while the only one is situated on the Black Sea coast. Format of the port infrastructure can sometimes determine whether a country belongs to the top 20 cargo ports or not. For example, Denmark has a lot of medium size ports, but none is above 39 million tonnes threshold required to the top 20 list.

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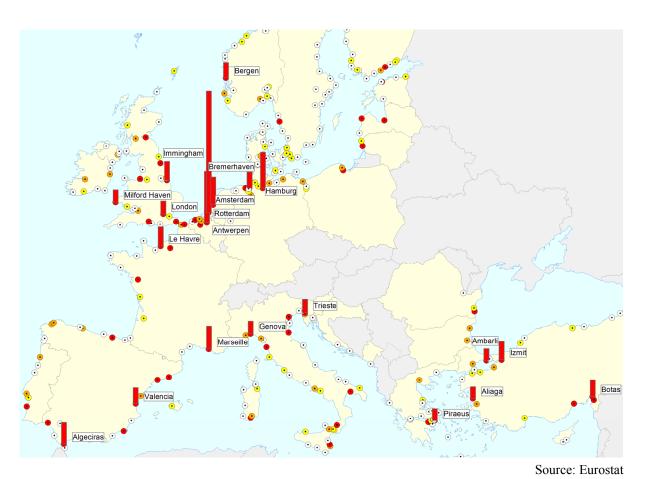


Fig. 1 – Map of the 20 main cargo ports by volume of handled goods

# 2. VOLUMES OF SEABORNE GOODS IN EU PORTS

The volume of goods transfer to EU ports remained relatively stable between years 2012- 2013. There was recorded only minimal change -0,6% decrease in total gross weight of goods. The total amount of goods handled in ports of European Union in 2013 was approximately 3,7 billion tones.

Ports of Rotterdam, Antwerp and Hamburg retain their positions as the three largest ports. In the twenty largest ports is handled about 38% of the total tonnage of goods, while Rotterdam alone handled more than 9% of the total tonnage.

The Netherlands has been the largest maritime freight transport country in Europe since 2010. There were handled 548 million tonnes of goods, that represented 14,8% of total volume of goods handled in the European Union. The Netherlands is followed by the United Kingdom and Italy, that handle 13,5 % and 12,3 % of the EU total. Fourth and fifth places belong to Spain and France.

Increase of port activities recorded the following countries (compared with 2012):

- Portugal (+ 15,3%),
- Cyprus (+15%),
- Bulgaria (+10,9%),

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• Romania (+ 10,3%).

The largest decrease were recorded in:

- Latvia (-7,7%),
- Sweden (-6,6%).

In the majority countries of European Union, there are more seaborne goods unloaded than loaded in ports. In 2013, Malta and the Netherlands recorded that more than 70% of the total tonnage of seaborne goods were unloaded in their ports. On the other hand, Romania and Bulgaria, three Baltic countries and the countries of EFA had high shares of outward movements of goods.

Liquid goods presented 38% of the total volume of cargo handled in the main EU ports in 2013. It was followed by dry bulk goods, goods in containers and Ro-Ro mobile units. Most of liquid goods was handled in Netherlands (262 million tonnes) and Italy (193 million tonnes). Netherlands was the major European port for the tonnage of dry bulk goods in EU in 2013.

The main type of cargo handled in Germany and Belgium was containerised cargo. Germany recorded 44% and Belgium 40% of manipulated containers. The share of Ro-Ro units of the total tonnage was highest in Denmark (27%), Sweden (27%) and Ireland (26%).

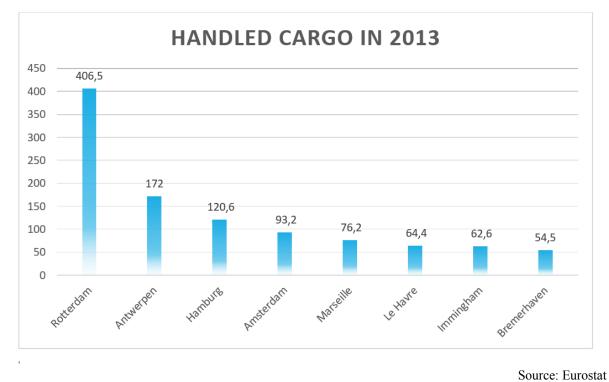


Fig. 2 – Top 10 cargo ports of EU in 2013 (in million tons)

North Sea ports – Rotterdam, Antwerp and Hamburg confirmed their positions as top European's ports for handled goods in 2013. They also consolidated their positions as the biggest European's ports in volume of containers handled. Compared with 2012, the total

tonnage of goods handled in Rotterdam has increased of 0,3%. Port of Rotterdam recorded increases in the tonnages of dry bulk goods (+17%), while the tonnage of other types of cargo recorded degreases. Rotterdam is also the European largest container port with its 11 million twenty-foot equivalent units (TEU) handled in 2013.

Port of Hamburg strengthen its position as the second largest container European port, that handled more than 9 million of TEU in 2013, followed by Antwerp that handled more than 8 million of TEU.

#### 3. NUMBER OF SEABORNE PASSENGERS

In 2013 the total number of embarking and disembarking passengers in EU ports was circa 400 million, that means rise of 0,5% compared with 2012. In contrast to the movement of goods, (where 40% of goods are loaded and 60% of goods are unloaded in European ports) is the difference between the number of passengers embarking and disembarking routinely small. This represents the fact that passengers are mainly carried by national or intra-EU ferry services, with the same passengers counted twice in the statistics – once they embark the ferry in one port and then when they disembark in another port.

There is only a small change in the number of seaborne passengers compared with 2012 – only 0,5% increase. Figure 3 shows that EU ports handled circa 400 million passengers in 2013. Italy and Greece are the leading seaborne passenger transport countries.

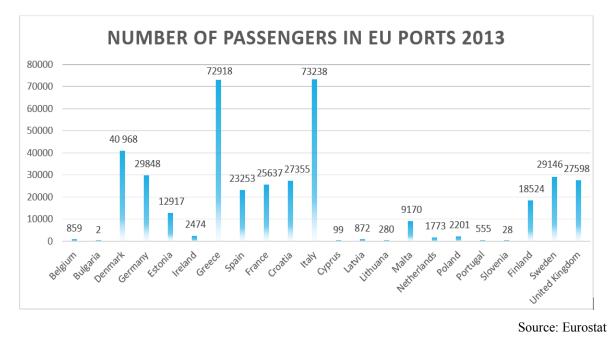


Fig. 3 – Top 12 passenger ports in 2013 (in thousands)

In the present some ports recorded quite substantial decreases in the number of seaborne passengers. This is due to the opening of new bridge or tunnel connections, which may result closure of ferry links. The quick growth in low cost flights in last 5 years might be another cause of decreasing number of seaborne passengers.

#### CONCLUSION

Ports are historic, commercial and infrastructural assets and they form the backbone of national and regional economies. Supporting efficient port operations and management is vital for national prosperity.

Importance of the ports is in volume of handled goods. The higher the throughput of goods and passenger's year on year, the more infrastructure, provisions and services are required. Ports are also important for the support of economic activities in the inland, because they provide a connections between maritime and inland transport.

Port of Rotterdam, Antwerp and Hamburg strengthen their position of as the three ports with the biggest volume of handled goods in 2013. The total amount of cargo handled in the EU ports in 2013 was circa 3,7 billion tones and the total number of handled passengers was 400 million. The leading seaborne passenger transport countries are Italy and Greece.

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#### REFERENCES

- EUROSTAT, 2015. Maritime ports freight and passenger statistics, <u>http://ec.europa.eu/eurostat/statistics-explained/index.php/Maritime\_ports\_freight\_and\_passenger\_statistics</u>,
- (2) EUROSTAT, 2015. Maritime economy statistics coastal regions and sectoral perspective, <u>http://ec.europa.eu/eurostat/statistics-explained/index.php/</u> Maritime economy statistics - coastal regions and sectoral perspective,
- (3) Communication from the Commission Ports: an engine for growth COM(2013) 295 final,
- (4) Proposal for a Regulation of the European Parliament and of the Council establishing a Framework on market access to port services and financial transparency of ports COM(2013) 296 final,
- (5) JURKOVIC, M., DAVID, A.,: Operational planning and transhipment process in the port [Plánovanie prevádzkových a prekládkových činností v prístave]. In: Ekonomickomanazerske spektrum:scientific journal of Faculty of Operation and Economics of Transport and Communications, Univerzity of Zilina. ISSN 1337-0839. – Vol. 8, nr. 2 (2014), p. 20-25