This article presents the main annual and quarterly statistics on inland waterways goods transport in the European Union (EU) in 2017. It includes quarterly and annual data for total transport and container transport, and annual data for transport by type of goods, type of transport, type of vessel and type of dangerous goods.

Inland waterways freight transport performance remains stable in 2017 compared with 2016

Activity in inland waterways transport has been volatile in the period 2009-2015. Measured in tonne-kilometres, activity increased sharply in the first months of 2010 but this improvement was not sustained in 2011. A recovery took place from 2012 until mid-2013 and a further decline took place until mid-2015. A slight fall can also be observed in 2016 (-0.5 %) followed by a slight rebound in 2017 (Figure 1). The comparison of 2017 and 2016 figures reveals a decrease of -0.9 % and -1.5 % in national and transit transport, respectively, and a +1.8 % increase in international transport, leading to a slight overall increase of +0.4 % at the total level in 2017 (Table 1). The same trend can be observed in terms of tonnes with increases of +1.2 % for national and +1.0 % for international transport, resulting in a rise of +1.1 % at the total level (Table 2).

Figure 1: Inland waterways freight transport performance, EU-28, 2009-2017 (billion tonne-kilometres) Source: Eurostat - (iww_go_atygo)
At quarterly level, movement was more erratic and no seasonal pattern can be identified (Figure 2). The second half of 2015 showed a sharp fall (-12.5% in the third quarter compared with the second quarter). An upturn was observed in the first semester of 2016 with increases of +8.7% and +2.3% in the first and second quarters, respectively. A decrease was registered in the last quarter of 2016 (-6.0%, compared with the third quarter). Year 2017 also started with a decline of -3.1% in the first quarter but was immediately followed by a steady rebound (+14.5%) in the second quarter. The year ended on a downward trend with -2.1% and -0.7% in the third and fourth quarters.

Figure 2: Quarterly inland waterways freight transport performance, EU-28, 2010-2017 Source: Eurostat - (iww_go_qnave)

The main contributors by far to the EU inland waterways transport (in tonne-kilometres) were Germany and the Netherlands. Transport on inland waterways in these two countries accounted for more than 71% of the EU inland waterways transport in 2017 (Table 1). In nine countries, the volume of transport (in tonne-kilometres) decreased in 2017. The largest decrease was observed for Lithuania by -92.5%, followed by Sweden by -71.5% and Czechia by -30.0%. In absolute values, France registered the highest reduction of -0.8 billion tonne-kilometres in 2017 compared with 2016. In contrast, Belgium and Poland registered the largest increases in 2017 of +7.4% and +6.3%, respectively. In absolute values, Germany recorded a rise of almost +1.2 billion tonne-kilometres in 2017 compared with 2016.
When looking at the transport of freight in tonnes, the picture is only slightly different (Table 2). Seven countries recorded decreases. The largest falls in 2017 were in Lithuania and Czechia (-71.5 % and -38.6 %, respectively) while the highest increase was in Sweden (+12.2 %). It should be noted that while Sweden, Italy and the United Kingdom registered a large decrease in transport in tonne-kilometres, a substantial increase was observed in the transport of goods in tonnes. On the contrary, Poland registered a substantial increase in transport in tonne-kilometres and a large decrease in the transport of goods in tonnes. At EU level, national and transit transport in tonne-kilometres decreased in 2017 (-0.9 % and -1.5 %, respectively) while international transport increased by +1.8 %. When looking at tonnes, both national and international transport increased by +1.2 % and +1.0 %, respectively (Table 2).

### Table 1: Inland waterways freight transport performance by type of transport, 2014-2017 (million tonne-kilometres)

<table>
<thead>
<tr>
<th>Country</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>157,844</td>
<td>156,526</td>
<td>152,545</td>
<td>152,593</td>
</tr>
<tr>
<td>Euro-28</td>
<td>156,807</td>
<td>152,545</td>
<td>152,593</td>
<td>152,593</td>
</tr>
<tr>
<td>National</td>
<td>156,807</td>
<td>152,545</td>
<td>152,593</td>
<td>152,593</td>
</tr>
<tr>
<td>Transit</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Change 2017/2016 (%)</td>
<td>+1.2</td>
<td>+1.2</td>
<td>+1.2</td>
<td>+1.2</td>
</tr>
</tbody>
</table>

### Table 2: Inland waterways freight transport by type of transport, 2014-2017 (thousand tonnes)

<table>
<thead>
<tr>
<th>Country</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>210,125</td>
<td>204,584</td>
<td>198,366</td>
<td>198,366</td>
</tr>
<tr>
<td>Euro-28</td>
<td>209,125</td>
<td>204,584</td>
<td>198,366</td>
<td>198,366</td>
</tr>
<tr>
<td>National</td>
<td>209,125</td>
<td>204,584</td>
<td>198,366</td>
<td>198,366</td>
</tr>
<tr>
<td>Transit</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Change 2017/2016 (%)</td>
<td>+1.0</td>
<td>+1.0</td>
<td>+1.0</td>
<td>+1.0</td>
</tr>
</tbody>
</table>

(1) not available
(2) not applicable

EU-28 = all EU-28 countries except Croatia and Iceland.

For full list of the EU-28 countries and their national codes, see Eurostat code list.

For more information see documentation on EurodataBank.

The data for each country includes goods transported on inland waterways for all types of transport.}

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Table 1: Inland waterways freight transport performance by type of transport, 2014-2017 (million tonne-kilometres) Source: Eurostat - (iww_go_atygo)

When looking at the transport of freight in tonnes, the picture is only slightly different (Table 2). Seven countries recorded decreases. The largest falls in 2017 were in Lithuania and Czechia (-71.5 % and -38.6 %, respectively) while the highest increase was in Sweden (+12.2 %). It should be noted that while Sweden, Italy and the United Kingdom registered a large decrease in transport in tonne-kilometres, a substantial increase was observed in the transport of goods in tonnes. On the contrary, Poland registered a substantial increase in transport in tonne-kilometres and a large decrease in the transport of goods in tonnes. At EU level, national and transit transport in tonne-kilometres decreased in 2017 (-0.9 % and -1.5 %, respectively) while international transport increased by +1.8 %. When looking at tonnes, both national and international transport increased by +1.2 % and +1.0 %, respectively (Table 2).

Table 2: Inland waterways freight transport by type of transport, 2014-2017 (thousand tonnes) Source: Eurostat - (iww_go_atygo)
Looking at the volume of freight transported per inhabitant, at EU level, 1.1 tonnes were transported on inland waterways in 2017 (Figure 3). The Netherlands had the highest volume with 21.4 tonnes per inhabitant, followed by Belgium (17.7 tonnes per inhabitant) and Luxembourg (10.3 tonnes per inhabitant). All other countries registered less than 3 tonnes per inhabitant in 2017; for seven countries, less than 100 kilograms per inhabitant were transported.

Figure 3: Inland waterways freight transport, EU-28, 2017 (tonnes per inhabitant) Source: Eurostat - (iww_go_atygo) and (demo_gind)

'Metal ores’ is the largest individual goods category transported

At EU level, the main types of goods (according to NST_2007 classification) transported in 2017 were ‘metal ores’, ‘coke and refined petroleum products’ and ‘products of agriculture’, similar to 2016. These top-three categories accounted for more than half of all goods transport on EU inland waterways (Figures 4 and 5).
Compared with 2016, the share of 'metal ores' in total transport performance increased by +1.3 percentage points, while the shares of 'coke and refined petroleum products' and 'products of agriculture' fell by -0.4 and -1.1 percentage points, respectively.

**Figure 5: Evolution of inland waterways freight transport performance for main types of goods, EU-28, 2016-2017 (% based on tonne-kilometres) Source: Eurostat - (iww_go_atygo)**

Self-propelled barges accounted for more than half of total EU transport performance in 2017

In 2017, the 'self-propelled barge' was the predominant type of vessel used for goods transport on EU inland waterways, carrying more than half the total EU transport of goods (Figure 6). The volume of goods transported with self-propelled barges remained stable compared with 2016 (+0.3 %). The second most used type of vessel was 'barge not self-propelled', a category with slightly increased use in 2017 compared with 2016 (+0.7 %).
These two vessel categories accounted for the largest volumes transported for all countries with the exception of Slovakia (Figure 7). Together with 'self-propelled tanker barges', they accounted for over 94% of all types of vessels used by 11 out of 13 countries. The two exceptions, France and Slovakia, recorded substantial use of 'other goods carrying vessels' (20% and 91%, respectively).

Figure 7: Inland waterways freight transport by type of vessel, 2017(%, based on tonne-kilometres) Source: Eurostat - (iww_go_atyve)

Main nationalities of freight transport vessels on EU inland waterways

In 2017, half of the freight transport vessels on EU inland waterways was registered in the Netherlands (Figure 8). The other half was composed of 56 different vessel nationalities of which Germany and Belgium have the highest shares (16% and 11%, respectively).
When looking at the top 3 freight transport vessel nationalities in each Member State, in 2017, Dutch vessels were in the top 3 nationalities for 6 countries out of 13 and are first place in Germany, Luxembourg and the Netherlands (Table 3). Five more countries have their own nationality as the most represented: Belgium, Czechia, France, Poland and Romania. In particular in Czechia, almost all vessels were registered (99.8 %) and the only other freight transport vessels were German registered. A similar situation could be seen in Poland with a large share of Polish vessels (93.7 %). On the contrary, Bulgaria, Croatia, Hungary and Slovakia did not have vessels registered in their own country in the top three places. All countries had a cumulated share of the top three vessel nationalities higher than 50 %, 6 countries had a cumulated share of the top three nationalities higher than 80 % and 4 countries had a cumulated share of the top three nationalities higher than 90 %.

Table 3: Top three nationalities of vessel performing inland waterways freight transport in each Member State, 2017(%, based on tonne-kilometres) Source: Eurostat - (iww_go_anave)
Container transport performance rebounded in 2017

The inland waterways transport of freight containers in the EU-28, measured in twenty-foot equivalent unit-kilometer (TEU-kilometres), showed a consistently upward trend until 2014. The levels remained relatively stable in 2015 and 2016 and an increase can be observed in 2017 (+4.9% compared with 2016), reaching a new peak in container transport (Figure 9).

![Figure 9: Inland waterways transport performance of containers, EU-28, 2009-2017 (billion TEU-kilometres) Source: Eurostat - (iww_go_actygo)](image)

At quarterly level, a global increase in trend is visible from 2010 to 2017. Strong increases were recorded in the third and fourth quarters of 2017 when comparing with the same quarters of 2016 (+7.9% and +12.9%, respectively). This led to a new peak in the third quarter of 2017 (Figure 10). A seasonal pattern can be observed with increases in the first three quarters when compared with the previous quarter and a substantial fall in the fourth quarter. Exceptions are 2014 and 2015, where a drop in the third quarters was registered.

![Figure 10: Inland waterways transport performance of containers, EU-28, 2009-2017 Source: Eurostat - (iww_go_qcnave)](image)

When looking at the loading status of containers, EU freight container transport in TEU-kilometres grew by +6.3% in 2017 for loaded containers and by +2.3% for empty containers (Table 4).
Table 4: Inland waterways transport performance of containers, 2014-2017 (thousand TEU-kilometres) Source: Eurostat - (iww_go_actygo)

In 2017, loaded containers accounted for almost two thirds of total container transport (Table 4). The largest contribution came from the Netherlands, closely followed by Germany. Together, the two countries accounted for almost 90% of the EU container transport. Five countries recorded a drop in container transport in 2017 compared with the previous year. The main decreases were observed for Bulgaria, Croatia and Romania (-46.2%, -38.5% and -35.0%, respectively). For Slovakia, very few containers were transported in 2015 and 2016 and they did not report any container transport in 2017. Four countries strongly increased their container transport performance in 2017: Austria (+69.2%), Hungary (+47.8%), Luxembourg (+35.2%) and Belgium (+13.0%).

’Flammable liquids’ is the most transported dangerous goods category in EU inland waterways

The transport of dangerous goods is a voluntary data collection. Only 9 countries of 13 reported data in 2017 (Table 5). While it is still difficult to identify the types of dangerous goods transported at EU level, it can be observed that ’flammable liquids’ was the main category in all the countries reporting such data. Overall, “flammable liquids” accounted for almost 75% of reported total dangerous goods transport. Czechia and Slovakia reported no transport of dangerous goods in 2017.

Table 5: Inland waterways transport of dangerous goods by type of dangerous goods, 2017 (thousand tonnes) Source: Eurostat - (iww_go_adago)
Source data for tables and graphs

- Inland waterways freight transport - quarterly and annual data: tables and figures

Data sources


Regulation (EU) 2018/974 states that data must be supplied by all Member States for which the total volume of goods transported annually by inland waterways exceeds one million tonnes. Currently, eighteen Member States provide data on mandatory or voluntary basis: Belgium (BE), Bulgaria (BG), Czechia (CZ), Germany (DE), France (FR), Croatia (HR), Italy (IT), Lithuania (LT), Luxembourg (LU), Hungary (HU), the Netherlands (NL), Austria (AT), Poland (PL), Romania (RO), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK). The legal act requires only the provision of a reduced annual dataset for countries exceeding the one million tonnes threshold but where no international or transit traffic exists. In this regard, the United Kingdom reports only a reduced dataset on a mandatory basis.

Definitions

**National inland waterways transport**: Inland waterways transport between two ports of a national territory irrespective of the nationality of vessel.

**International inland waterways transport**: Inland waterways transport between two ports located in different national territories.

**Transit inland waterways transport**: Inland waterways transport through a national territory between two ports both located in another national territory or national territories provided that in the total journey within the national territory there is no transshipment.

**Calculation of EU aggregates**: In Table 3, the EU-28 international and total goods transport in tonnes is calculated excluding double counting. In order to achieve that, the EU-28 total international transport is calculated by adding the international unloadings declared by the EU countries plus the international loading for which the unloading country is not in the EU-28. Then, the EU-28 total transport is calculated by adding the national transport and the total international transport.

For transit transport measured in tonnes, an EU-28 aggregate equal to the sum of the country figures is not valid because volumes of freight transported are reported by all transit countries through which the transport takes place before reaching the unloading destination. Therefore the same volume may be reported two, three, or more times without the possibility to eliminate multiple counting. At the same time, figures for transit transport are included in the EU-28 national or international transport as they are reported not only by the transit countries but also by the loading and unloading countries. So for the EU-28 total volume of freight, it is enough to sum the total national and international figures.

Country specific notes

Bulgaria: Transit data supplied include Romanian national IWW transport data equivalent to Bulgarian transit transport.

Croatia: Quarterly transit transport is not available.

Italy: Data are delivered on a voluntary basis. Only a simplified annual dataset is provided.

Lithuania: Data are delivered on a voluntary basis. Only a simplified annual dataset is provided.

Hungary: Due to a methodological change, transit data are underestimated for the third quarter 2013 and
are not comparable with the other quarters.

Romania: Transit data supplied include Bulgarian national IWW transport data equivalent to Romanian transit transport.

Finland: No data available for 2017. Data are delivered on a voluntary basis. Only a simplified annual dataset is provided.

Sweden: Data are delivered on a voluntary basis. Only a simplified annual dataset is provided.

United Kingdom: Regulation (EU) No 2018/974 states that a reduced annual dataset must be provided by countries exceeding the one million tonnes threshold but have no international or transit traffic. In this regard, the United Kingdom reports only a reduced annual dataset on a mandatory basis.

**Breakdown by group of goods** The NST 2007 classification is available on [RAMON](#).

**Symbols**
- ":." not available
- ":." not applicable
- "0" real zero

**Context**
The content of this statistical article is based on data collected within the framework of Regulation (EU) No 2018/974 of the European Parliament and of the Council on statistics of goods transport by inland waterways.

**Other articles**
- Inland waterway transport statistics
- Inland waterways - statistics on container transport
- Freight transport statistics - modal split
- Freight transport statistics
- Inland transport infrastructure at regional level

**Tables**
- [Transport](#), see table under 'Inland waterways transport':
  
  Inland waterways transport (t_iww)

  Goods transport by inland waterways (ttr00007)

**Database**
- [Transport](#), see datasets under the following categories:

  Inland waterways transport (iww)
  
  Inland waterways transport infrastructure (iww_if)
  Inland waterways transport equipment (iww_eq)
  Inland waterways transport - Enterprises, economic performances and employment (iww_ec)
  Inland waterways transport measurement - goods (iww_go)
  Inland waterways - accidents (iww_ac)
Dedicated section

- Transport

Publications

- All transport publications on line

Methodology

- Inland waterways transport (ESMS metadata file)
- Reference manual on inland waterways

Legislation

- Regulation (EC) No 1365/2006 on statistics of goods transport by inland waterways
- Regulation (EU) No 2016/1954 (amending regulation)