

Inland waterway transport statistics

Statistics Explained

*Data extracted in October 2017
Planned article update: November 2019*

This article presents [inland waterways goods](#) transport in the [European Union \(EU\)](#) and other countries connected to the EU inland waterways network. It focuses on the main products transported, based on annual data for 2016 and comparisons with the previous year.

In 2016, the total volume of goods transported on European inland waterways was 554 million tonnes, an increase of 0.9 % compared to the previous year. However, the total transport performed reached 147 billion tonne-kilometres (TKm), down 0.2 % from the previous year, reflecting a slight decrease in the distances performed. The main product categories transported by inland waterways were 'Metal ores and other mining and quarrying products' and 'Coke and refined petroleum products'. The European countries with the largest inland waterways transport were the Netherlands and Germany.

Goods transported

“Metal ores and other mining and quarrying products’ together with ‘Coke and refined petroleum products’ were the main product categories transported in 2016

Metal ores and other mining and quarrying products (NST2007 division '03') was the main product category transported on EU inland waterways in 2016, both in terms of TKm (Table 1) and in terms of tonnes (Table 2). This product category accounted for 23 % of the TKm performed in total for all products and 31 % of total tonnes transported. A rise of the metal ores transport performance in TKm was recorded in 2016 compared to 2015 (+2.0 %), as well as in the volume of tonnes (+1.2 %). When looking into different types of transport in detail, transit transport showed a substantial increase with respect to TKm (+9.5 %). National transport also registered a growth of 3.2 %, while international transport dropped by 1.2 %, respectively. When analysing the tonnes transported, the situation looks similar. While international transport decreased by 0.6 %, national transport increased by 2.7 % in 2016 compared with 2015.

| | 2015 | | | | 2016 | | | | Growth rates 2015-2016 (%) | | | | |
|---|--------|----------|----------------|---------|--------|----------|----------------|---------|----------------------------|----------|----------------|---------|-------|
| | Total | National | Inter-national | Transit | Total | National | Inter-national | Transit | Total | National | Inter-national | Transit | Total |
| 03 Metal ores and other mining and quarrying products; peat; uranium and thorium | 33 108 | 10 966 | 16 790 | 6 000 | 33 756 | -3.2 | -1.2 | -9.5 | +2.0 | | | | |
| 07 Coke and refined petroleum products | 23 297 | 6 510 | 12 369 | 4 445 | 23 325 | +1.8 | -0.2 | -1.4 | +0.1 | | | | |
| 01 Products of agriculture, hunting, and forestry; fish and other fishing products | 20 485 | 4 340 | 8 839 | 5 259 | 18 438 | -5.5 | -10.3 | -12.6 | -9.9 | | | | |
| 08 Chemicals, chemical products, and man-made fibers; rubber and plastic products; nuclear fuel | 14 811 | 2 752 | 10 083 | 3 521 | 16 336 | +0.1 | +11.7 | +15.2 | +10.3 | | | | |
| 02 Coal and lignite; crude petroleum and natural gas | 15 455 | 1 208 | 10 585 | 1 851 | 13 645 | -12.7 | -9.1 | -23.8 | -11.7 | | | | |
| 19 Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16. | 11 974 | 2 954 | 5 509 | 4 229 | 12 692 | -1.7 | +4.5 | +14.4 | +6.0 | | | | |
| 10 Basic metals; fabricated metal products, except machinery and equipment | 8 728 | 1 379 | 4 749 | 3 323 | 9 451 | +9.6 | +1.4 | +19.2 | +8.3 | | | | |
| 14 Secondary raw materials; municipal wastes and other wastes | 4 593 | 2 044 | 2 043 | 1 397 | 5 484 | +31.6 | +7.4 | +22.5 | +19.4 | | | | |
| 04 Food products, beverages and tobacco | 6 302 | 1 435 | 2 722 | 1 188 | 5 325 | -18.3 | -16.8 | -8.4 | -15.5 | | | | |
| 09 Other non metallic mineral products | 2 791 | 1 195 | 1 310 | 258 | 2 762 | -1.8 | -5.5 | +11.6 | -1.0 | | | | |
| 16 Equipment and material utilized in the transport of goods | 1 998 | 1 233 | 727 | 253 | 2 213 | +29.4 | -7.2 | -3.5 | +10.7 | | | | |
| 06 Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media | 1 501 | 106 | 896 | 207 | 1 210 | -19.3 | -25.4 | +23.4 | -19.4 | | | | |
| 20 Other goods n.e.c. | 676 | 3 | 14 | 806 | 824 | +78.4 | +108.8 | +20.9 | +21.9 | | | | |
| 12 Transport equipment | 615 | 87 | 466 | 72 | 626 | +3.1 | -1.3 | +23.3 | +1.6 | | | | |
| 18 Grouped goods: a mixture of types of goods which are transported together | 383 | 154 | 250 | 96 | 507 | +83.6 | +23.2 | +6.3 | +32.5 | | | | |
| 11 Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks | 463 | 132 | 223 | 89 | 423 | +18.2 | -19.1 | -10.8 | -8.7 | | | | |
| 05 Textiles and textile products; leather and leather products | 114 | 83 | 37 | 16 | 136 | +17.5 | +1.6 | +154.4 | +19.7 | | | | |
| 13 Furniture; other manufactured goods n.e.c. | 131 | 36 | 38 | 16 | 90 | -52.1 | -17.3 | +65.2 | -31.3 | | | | |
| 17 Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non-market goods n.e.c. | 4 | 0 | 1 | 5 | 6 | - | -54.5 | +57.1 | +29.2 | | | | |
| 15 Mail, parcels | 0 | 0 | 0 | 0 | 0 | - | -100.0 | - | -100.0 | | | | |

Note: Data for Italy and Sweden are not included.

Table 1: EU-28 transport performance by type of goods and type of transport - Mio TKmSource: Eurostat - (iww_go_atygo)

| | 2015 | | | | 2016 | | | | Growth rates 2015-2016 (%) | | | | |
|---|---------|----------|----------------|---------|---------|----------|----------------|---------|----------------------------|----------|----------------|---------|-------|
| | Total | National | Inter-national | Transit | Total | National | Inter-national | Transit | Total | National | Inter-national | Transit | Total |
| 03 Metal ores and other mining and quarrying products; peat; uranium and thorium | 167 387 | 95 818 | 73 600 | - | 169 418 | +2.7 | -0.6 | - | +1.2 | | | | |
| 07 Coke and refined petroleum products | 88 608 | 50 000 | 43 414 | - | 93 414 | +3.0 | +8.4 | - | +5.4 | | | | |
| 19 Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16. | 65 744 | 22 476 | 41 628 | - | 64 304 | -7.0 | -0.6 | - | -2.2 | | | | |
| 08 Chemicals, chemical products, and man-made fibers; rubber and plastic products; nuclear fuel | 42 427 | 17 498 | 27 276 | - | 44 774 | +5.5 | +5.6 | - | +5.5 | | | | |
| 02 Coal and lignite; crude petroleum and natural gas | 47 650 | 8 393 | 35 149 | - | 43 542 | -26.8 | -2.9 | - | -8.6 | | | | |
| 01 Products of agriculture, hunting, and forestry; fish and other fishing products | 41 154 | 19 399 | 20 654 | - | 40 653 | -1.4 | -3.8 | - | -2.7 | | | | |
| 10 Basic metals; fabricated metal products, except machinery and equipment | 22 216 | 7 084 | 15 178 | - | 22 262 | +2.1 | -0.6 | - | +0.2 | | | | |
| 04 Food products, beverages and tobacco | 23 659 | 11 112 | 7 851 | - | 18 963 | -17.5 | -23.0 | - | -19.8 | | | | |
| 16 Equipment and material utilized in the transport of goods | 15 222 | 14 909 | 3 519 | - | 18 428 | +31.9 | -10.2 | - | +21.1 | | | | |
| 14 Secondary raw materials; municipal wastes and other wastes | 13 251 | 11 379 | 5 051 | - | 16 430 | +22.6 | +27.2 | - | +24.0 | | | | |
| 09 Other non metallic mineral products | 12 102 | 7 719 | 4 288 | - | 12 006 | +2.3 | -5.9 | - | -0.8 | | | | |
| 06 Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media | 3 936 | 875 | 2 875 | - | 3 750 | -13.2 | -1.8 | - | -4.7 | | | | |
| 18 Grouped goods: a mixture of types of goods which are transported together | 1 718 | 1 322 | 912 | - | 2 234 | +58.2 | +3.4 | - | +30.0 | | | | |
| 12 Transport equipment | 1 275 | 620 | 705 | - | 1 325 | -2.2 | +10.0 | - | +3.9 | | | | |
| 11 Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks | 835 | 542 | 271 | - | 813 | +2.9 | -12.0 | - | -2.8 | | | | |
| 20 Other goods n.e.c. | 400 | 153 | 589 | - | 742 | +79.9 | +87.2 | - | +85.7 | | | | |
| 05 Textiles and textile products; leather and leather products | 550 | 494 | 246 | - | 740 | +55.4 | +5.8 | - | +34.4 | | | | |
| 13 Furniture; other manufactured goods n.e.c. | 461 | 214 | 72 | - | 286 | -43.9 | -9.5 | - | -38.0 | | | | |
| 17 Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non-market goods n.e.c. | 3 | 0 | 1 | - | 1 | - | -55.2 | - | -55.0 | | | | |
| 15 Mail, parcels | 0 | 0 | 0 | - | 0 | - | -100.0 | - | -100.0 | | | | |

Note: Data for Italy and Sweden are not included.

Table 2: EU-28 transport by type of goods and type of transport - 1 000 tonnesSource: Eurostat - (iww_go_atygo)

Coke and refined petroleum products (NST2007 division '07') made up the second most important product category transported on EU inland waterways in 2016, both in terms of TKm and tonnes. It represented 17 % of the total tonnes transported and 16 % of the TKm performed. Compared with 2015, transport of 'coke and refined petroleum products' showed a substantial increase for tonnes (+5.4 %), while TKm remained stable (+0.1 %). This reflects a slight reduction in the distances over which the goods in this product category were transported in 2016.

For both of these large product categories for EU inland waterways transport, national transport accounted for the majority in terms of tonnes (57 % for 'Metal ores and other mining and quarrying products' and 54 % for 'Coke and refined petroleum products'). The situation is reversed when looking at TKm, where international transport accounted for more than 49 % of total TKm travelled for both product categories. This is a reflection of the fact that the journey lengths in international journeys are generally longer than for national transport.

There was a substantial decrease by 11.7 % from 2015 to 2016 for 'coal and lignite' in terms of TKm (NST2007 division '02'). As a result, this product category fell behind 'chemical products' (NST2007 division '08') in the ranking of TKm by main product categories compared to 2015.

Transport of metal ores and other mining and quarrying products by country

The Netherlands and Germany continued to rank as the two most significant countries for the transport of 'metal ores and other mining and quarrying products' by inland waterways

The main country involved in the transport of 'metal ores and mining and quarrying products' was the Netherlands, which on its own accounted for almost 41 % of the tonnes transported and more than 38 % of the TKm performed (Figure 1). Germany came second on both measures, with 21 % of the tonnes and 26 % of the TKm. This is not surprising, as both countries have extensive inland waterways networks that play an important role in their national transport systems. The networks are also connected to major ports such as Rotterdam and Hamburg, which are key hubs for imports to and exports from the European Union.

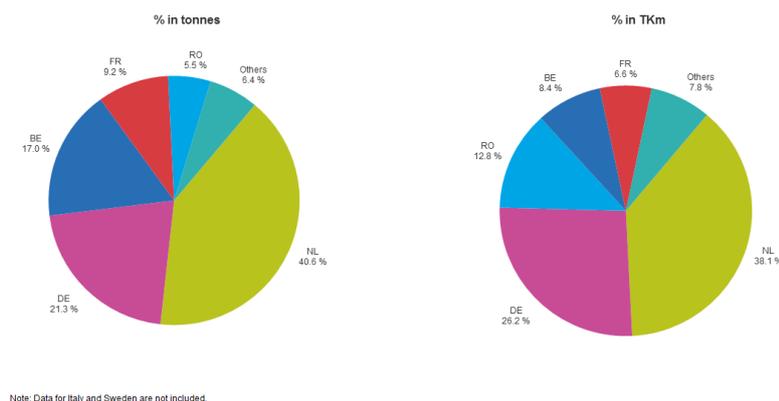


Figure 1: EU-28 transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) by main reporting countries in 2016 Source: Eurostat - (iww_go_atygo)

The next three countries in the top 5 were Belgium, France and Romania. However, the ranking of these three countries was different when looking at tonnes or TKm. In terms of tonnes transported, Belgium came third with a share of 17 %, followed by France (9 %) and Romania (5 %). In terms of TKm performed, Romania, with a share of 13 %, was in third place, followed by Belgium (8 %) and France (7 %). This situation reflects the fact that inland waterways journeys recorded by Romania operate over longer distances than for the other two countries.

In terms of TKm performed, the main route for inland waterways transport of 'metal ores and other mining and quarrying products' is between the Netherlands and Germany, accounting for 41 % of the EU total (Table 3). The main flow is the one from the Netherlands to Germany (29 %), while the second most important is the same route in the opposite direction, from Germany to the Netherlands (12 %). Germany and the Netherlands were either the loading or the unloading country in eight of the top ten country-to-country flows for 'metal ores and other mining and quarrying products'. Belgium was the loading or unloading country in four of the top ten flows. Both Austria and the Ukraine made two appearances in the top ten flows. The flows from the Ukraine to Serbia and Austria are in fourth and fifth places, indicating a quite high level of transit through the European Union and covering long distances. The flow from the Netherlands to Austria appeared in tenth place in terms of TKm because of the long distances covered, even though the volume of goods was relatively small.

| Loading country | Unloading country | Total | Share on total (%) |
|------------------------|--------------------------|--------------|---------------------------|
| Netherlands | Germany | 6 721 | 29.5 |
| Germany | Netherlands | 2 728 | 12.0 |
| Netherlands | Belgium | 2 356 | 10.3 |
| Ukraine | Serbia | 2 074 | 9.1 |
| Ukraine | Austria | 1 516 | 6.7 |
| Belgium | Netherlands | 1 385 | 6.1 |
| Germany | Belgium | 1 166 | 5.1 |
| France | Germany | 632 | 2.8 |
| Belgium | Germany | 538 | 2.4 |
| Netherlands | Austria | 464 | 2.0 |
| Other routes | | 3 211 | 14.1 |

Note: Data for Italy and Sweden are not included.

Table 3: Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) in 2016 - Mio TKmSource: Eurostat - (iww_go_atygoft)

When looking at volumes in tonnes, the main route observed is also between the Netherlands and Germany, accounting for over 52 % of the EU total (Table 4). The main country-to-country flow is not surprisingly the one from the Netherlands to Germany (41 %). The top 10 flows in terms of tonnes is dominated by four countries: the Netherlands and Belgium (with 5 appearances each), Germany and France (with 4 appearances each). The picture is completed by the flow from Slovakia to Austria in ninth place.

| Loading country | Unloading country | Total | Share on total (%) |
|-----------------|-------------------|--------|--------------------|
| Netherlands | Germany | 27 066 | 40.8 |
| Netherlands | Belgium | 12 481 | 18.8 |
| Belgium | Netherlands | 7 491 | 11.3 |
| Germany | Netherlands | 7 290 | 11.0 |
| France | Germany | 2 167 | 3.3 |
| Germany | Belgium | 2 131 | 3.2 |
| France | Netherlands | 1 527 | 2.3 |
| Belgium | France | 1 231 | 1.9 |
| Slovakia | Austria | 1 168 | 1.8 |
| France | Belgium | 692 | 1.0 |
| Other routes | | 3 165 | 4.8 |

Note: Transit transport reported by countries is not taken into account. The loading country is also the reporting country. Data for Italy and Sweden are not included.

Table 4: Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) in 2016 - 1 000 tonnes Source: Eurostat - (iww_go_atygofl)

Transport of coke and refined petroleum products by country

For transport of coke and refined petroleum products also, the Dutch and German waterways dominate inland waterways transport

The main countries involved in the inland waterways transport of 'coke and refined petroleum products' were, as in previous years, the Netherlands and Germany (Figure 2). The Netherlands ranked first with more than 55 % of the total tonnes transported in Europe, and 44 % of the TKm performed. Germany appears in second place with 41 % of the TKm performed but only 25 % of the tonnes transported. This reflects the longer distances performed by vessels passing through German inland waterways. Belgium came third when looking at tonnes transported (9.4 %) but fourth when looking at TKm performed (3.8 %). France followed Belgium with 5 % of tonnes transported but overpassed Belgium in terms of TKm performed (4.4 %).

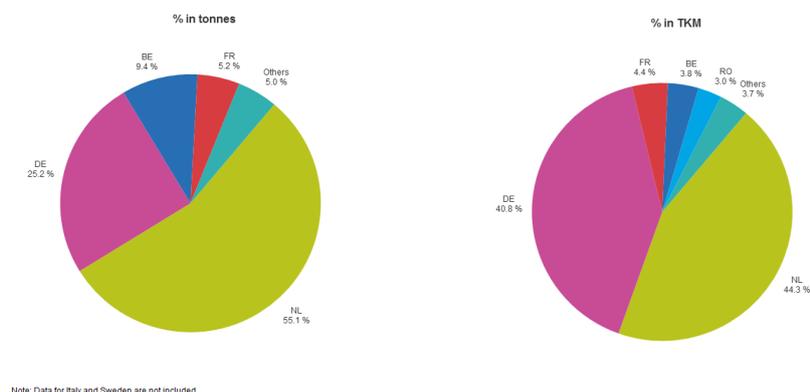


Figure 2: EEU-28 transport of coke and refined petroleum products (07) by main reporting countries in 2016Source: Eurostat - (iww_go_atygo)

In terms of TKm performed for 'coke and refined petroleum products', the flows between the Netherlands, Germany and Belgium occupied the first five of the top ten country-to-country flows and accounted for almost 65 % of total TKm performed on inland waterways in Europe (Table 5). The main flow is from the Netherlands to Germany, accounting for almost 23 % of the total TKm performed. Switzerland and France also appear in the top ten as unloading countries receiving goods loaded in the Netherlands, Germany and Belgium.

| Loading country | Unloading country | Total | Share on total (%) |
|-----------------|-------------------|-------|--------------------|
| Netherlands | Germany | 3 837 | 22.8 |
| Netherlands | Belgium | 1 939 | 11.5 |
| Belgium | Germany | 1 873 | 11.1 |
| Belgium | Netherlands | 1 684 | 10.0 |
| Germany | Netherlands | 1 543 | 9.2 |
| Netherlands | France | 877 | 5.2 |
| Netherlands | Switzerland | 695 | 4.1 |
| Belgium | Switzerland | 621 | 3.7 |
| Germany | Switzerland | 498 | 3.0 |
| Germany | France | 498 | 3.0 |
| Other routes | | 2 750 | 16.4 |

Note: Data for Italy and Sweden are not included.

Table 5: Top 10 international country flows for transport of coke and refined petroleum products (07) in 2016 - Mio TKmSource: Eurostat - (iww_go_atygo)

When looking at volumes of 'coke and refined petroleum products' transported in tonnes, the picture is quite similar (Table 6). There is a predominance of the Netherlands, Germany and Belgium in the top ten flows. All flows in the top ten involve one of these countries. However, the top two flows are reversed compared to the top two flows for TKm performed. The main flow is from the Netherlands to Belgium, accounting for almost 36 % of the total tonnes transported, a reflection of the shorter journey lengths.

| Loading country | Unloading country | Total | Share on total (%) |
|-----------------|-------------------|--------|--------------------|
| Netherlands | Belgium | 14 014 | 35.6 |
| Netherlands | Germany | 11 608 | 29.5 |
| Germany | Netherlands | 4 536 | 11.5 |
| Germany | Belgium | 1 219 | 3.1 |
| Belgium | Germany | 1 105 | 2.8 |
| Netherlands | France | 1 036 | 2.6 |
| Germany | France | 987 | 2.5 |
| Belgium | Netherlands | 705 | 1.8 |
| Germany | Switzerland | 704 | 1.8 |
| Netherlands | Switzerland | 619 | 1.6 |
| Other routes | | 2 853 | 7.2 |

Note: Transit transport reported by countries is not taken into account. The loading country is also the reporting country. Data for Italy and Sweden are not included.

Table 6: Top 10 international country flows for transport of coke and refined petroleum products (07) in 2016 - 1 000 tonnes Source: Eurostat - (iww_go_atygo1)

Source data for tables and figures (MS Excel)

[Inland waterway transport statistics 2016](#)

Data sources

All figures presented in this article have been extracted from the [Eurostat](#) online inland waterways transport database. The related datasets are collected according to the [Regulation \(EC\) No 1365/2006](#) on statistics of goods transport by inland waterways implemented by the [Regulation \(EC\) No 425/2007](#) and amended by the [Regulation \(EC\) No 1304/2007](#) and by [Regulation \(EU\) No 1954/2016](#)

Data coverage

Fourteen Member States are required by the EU Regulation to deliver data to Eurostat: Belgium (BE), Bulgaria (BG), the Czech Republic (CZ), Germany (DE), France (FR), Croatia (HR), Luxembourg (LU), Hungary (HU), the Netherlands (NL), Austria (AT), Poland (PL), Romania (RO), Slovakia (SK) and the United Kingdom (UK). Following the requirements of [Regulation \(EC\) No 1365/2006](#) (article 2, point 3), the United Kingdom delivers only the reduced annual dataset E1 (annex E of the Regulation 1365/2006).

On a voluntary basis, Italy (IT), Lithuania (LT), Finland (FI) and Sweden (SE) provide the reduced dataset E1 (annex E of the Regulation (EC) No 1365/2006).

Definitions

EU-28 includes data for all Member States providing data. Italy has not been included in 2015 for comparability reasons with 2014. Sweden has not been included because data by type of goods is not available.

Calculation of EU aggregates : In Table 2, EU-28 international and total goods transport in tonnes is calculated excluding double counting. EU-28 total international transport is calculated by adding the international unloadings 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 national transport and the total international transport.

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.

Inland waterways transit : 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 country flows : In Tables 3 and 5, presenting the TKm results, international and transit transport reported by the Member States are taken into account. In Tables 4 and 5, presenting the results in tonnes, only international transport reported by the Member States is taken into account in order to avoid double counting. In addition, the loading country in these two tables also corresponds to the reporting country. Data from Italy, Lithuania, Finland, Sweden and the United Kingdom are not included in these tables.

Country-specific notes

Italy : No data available for 2016. 2015 data are not taken into account for comparability reasons with 2016. 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.

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

Sweden : Data are not available for type of goods; only total transport is available and is not taken into account in this article. Data are delivered on a voluntary basis. Only a simplified annual dataset is provided.

United Kingdom : Following the requirements of Regulation (EC) No 1365/2006 (article 2 point 3), a simplified annual dataset is provided.

Breakdown by group of goods

The NST 2007 classification is available on [RAMON](#) .

Symbols

- ":" not available
- "-" not applicable or real zero
- "0" less than half of the unit used and thus rounded to zero

Context

The content of this statistical article is based on data collected within the framework of the [Regulation 1365/2006](#) on statistics of goods transport by inland waterways implemented by the [Regulation \(EC\) No 425/2007](#) and amended by the [Regulation \(EC\) No 1304/2007](#) and by [Regulation \(EU\) No 1954/2016](#)

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Main tables

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Goods transport by inland waterways (ttr00007)

Database

- [Transport](#) , see:

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Inland waterways transport equipment (iww_eq)

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Inland waterways transport measurement - goods (iww_go)

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Dedicated section

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Publications

- [All transport publications on line](#)
- [Energy, transport and environment indicators - 2016 edition](#)
- [Illustrated Glossary for Transport Statistics - 4th edition](#)

Methodology / Metadata

- [Inland waterways transport measurement - goods](#) (ESMS metadata file — iww_esms)
- [Reference Manual on Inland Waterways Transport Statistics](#)

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