# **EUROSTAT**

# Inland waterway transport statistics

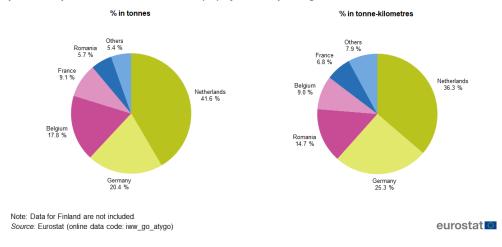
Data extracted in November 2019 Planned article update: November 2020

### **Highlights**

In 2018, the total volume of goods transported on European inland waterways was 544 million tonnes, a decrease of 2.6 % compared to the previous year.

Metal ores and other mining and quarrying products was the main product category transported on EU inland waterways in 2018, accounting for 25.5 % of the tonne-kilometres performed in total for all products and 30.7 % of total tonnes transported.

Inland waterways transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) by main reporting countries, 2018



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Inland waterways transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) by main reporting countries, 2018

Source: Eurostat - (iww\_go\_atygo)

This article presents <u>inland waterways goods</u> transport in the <u>European Union (EU)</u> and other countries connected to the EU inland waterways network. It focuses on the main products transported, based on annual data for 2018 and comparisons with the previous year.

In 2018, the total volume of goods transported on European inland waterways was 544 million tonnes, a decrease of 2.6 % compared with the previous year. The total transport performed reached 135 billion

tonne-kilometres, down 8.3 % from the previous year, reflecting a 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.

#### Full article

#### Goods transported

### Goods transported

'Metal ores and other mining and quarrying products' together with 'Coke and refined petroleum products' were the main product categories transported in 2018'

Metal ores and other mining and quarrying products (NST2007 division '03') was the main product category transported on EU inland waterways in 2018, both in terms of tonne-kilometres (Table 1) and in terms of tonnes (Table 2). This product category accounted for 25.5 % of the tonne-kilometres performed in total for all products and 30.7 % of total tonnes transported. A fall of the metal ores transport performance in tonne-kilometres was recorded in 2018 compared to 2017 (-3.5 %), as well as in the volume of tonnes (-1.9 %). When looking into different types of transport in detail, national transport showed a substantial increase with respect to tonne-kilometres (+6.1 %), while international and transit transport registered a decrease by 8.4 % and 6.2 %, respectively. When analysing the tonnes transported, the situation looks similar. While international transport decreased by 12.6 %, national transport increased by 6.6 % in 2018 compared with 2017.

# Inland waterways transport by type of goods and type of transport, EU-28, 2017-2018 (million tone-kilometres)

		2017			Change 2018/2017 (%)					
		Total	National	Inter- national	Transit	Total	National	Inter- national	Transit	Total
03	Metal ores and other mining and quarrying products; peat; uranium and thorium	35 714	11 563	16 419	6 466	34 448	+6.1	-8.4	-6.2	-3.5
07	Coke and refined petroleum products	22 841	5 988	11 047	3 547	20 582	-5.1	-12.0	-10.8	-9.9
80	Chemicals, chemical products, and man-made fibers; rubber and plastic products; nuclear fuel	16 054	2 821	9 000	2 984	14 805	+2.0	-9.4	-10.9	-7.8
01	Products of agriculture, hunting, and forestry, fish and other fishing products	16 838	4 028	6 760	3 907	14 695	+2.8	-16.8	-18.5	-12.7
19	Unidentifiable goods; goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	13 024	3 023	5 3 1 6	3 438	11 776	-1.7	-7.4	-18.3	-9.6
02	Coal and lignite; crude petroleum and natural gas	13 255	1 289	8 774	1 269	11 333	+12.0	-13.7	-34.6	-14.5
10	Basic metals; fabricated metal products, except machinery and equipment	9 292	1 393	4 569	2 694	8 656	-3.7	-5.3	-10.9	-6.8
04	Food products, beverages and tobacco	5 706	1 715	2 781	900	5 396	-0.4	-4.5	-15.9	-5.4
14	Secondary raw materials; municipal wastes and other wastes	5 141	1 698	1772	1 208	4 677	-1.9	-12.9	-12.2	-9.0
09	Other non metallic mineral products	2 951	1 263	1 388	158	2 809	+0.4	-6.0	-27.1	-4.8
16	Equipment and material utilized in the transport of goods	2 302	1 154	745	189	2 088	-10.9	-1.5	-24.6	-9.3
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	1 504	136	1 031	170	1 338	-15.4	-10.1	-13.2	-11.1
20	Other goods n.e.c.	874	14	23	728	766	+55.0	+36.1	-14.1	-12.4
12	Transport equipment	675	38	508	52	598	-32.6	-9.4	-11.3	-11.5
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	443	83	283	78	443	-33.0	+9.1	+29.8	+0.1
18	Grouped goods: a mixture of types of goods which are transported together	362	112	197	54	364	+7.3	-3.1	+0.4	+0.4
05	Textiles and textile products; leather and leather products	96	43	40	3	86	-24.5	+11.9	+2.5	-9.9
13	Furniture; other manufactured goods n.e.c.	111	61	22	2	85	-6.2	-35.8	-82.0	-23.3
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.	21	6	1	7	14	-	-81.1	+232.3	-34.8
15	Mail, parcels	0	0	0	0	0	-	-100.0	-	-100.0

Note: Data for Finland are not included.

Source: Eurostat (online data code: iww\_go\_atygo)

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Table 1: Inland waterways transport by type of goods and type of transport, EU-28, 2017-2018 (million tonne-kilometres)

Source: Eurostat - (iww go atygo)

Inland waterways transport by type of goods and type of transport, EU-28, 2017-2018 (thousand tomes)

	2017 201			18		Change 2018/2017 (		18/2017 (%)	%)
	Total	National	Inter- national	Transit	Total	National	Inter- national	Transit	Total
Metal ores and other mining and quarrying products; peat, uranium and thorium	170 356	101 278	65 823		167 101	+6.6	-12.6		-1.9
7 Coke and refined petroleum products	93 458	47 430	37 909		85 338	-3.6	-14.3	_	-8.7
Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	66 809	22 996	46 248		69 244	-1.8	+6.6		+3.6
Chemicals, chemical products, and man-made fibers; rubber and plastic products; nuclear fuel	46 577	19 385	27 159	-	46 544	+8.4	-5.4		-0.1
Coal and lignite; crude petroleum and natural gas	41 388	9 359	26 615		35 974	-5.1	-15.6		-13.1
1 Products of agriculture, hunting, and forestry; fish and other fishing products	37 944	18 529	14 873		33 402	+4.7	-26.6	_	-12.0
Food products, beverages and tobacco	22 169	13 223	10 554	-	23 777	-0.8	+19.4		+7.3
Basic metals; fabricated metal products, except machinery and equipment	23 021	7.312	15 874		23 185	-17	+19		+0.7
Equipment and material utilized in the transport of goods	19 633	14 716	2 675	-	17 391	-8.2	-25.7		-11.4
4 Secondary raw materials; municipal wastes and other wastes	14 766	10 917	5 087		16 004	+6.7	+12.1		+8.4
Other non metallic mineral products	12 664	8 399	6 025	_	14 424	+3.1	+33.5	_	+13.9
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	3 979	1 108	3 248		4 356	-8.7	+17.5		+9.5
Grouped goods: a mixture of types of goods which are transported together	1798	1 119	790		1 909	+6.9	+5.0		+6.1
Other goods n.e.c.	740	401	1 166	-	1 567	+55.1	+142.1		+111.7
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	880	517	881		1 398	-8.9	+182.3		+58.9
2 Transport equipment	928	230	1 012	-	1 242	-31.0	+70.3		+33.8
Textiles and textile products; leather and leather products	574	290	117		407	-17.8	-46.9		-29.0
3 Furniture; other manufactured goods n.e.c.	385	329	17	_	346	-1.8	-66.0		-10.2
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.	229	134	1		135		-98.7		-40.9
5 Mail, parcels	0	0	0		0		-100.0		-100.0

Note: Data for Finland are not included.

Source: Eurostat (online data code: iww\_go\_atygo)

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Table 2: Inland waterways transport by type of goods and type of transport, EU-28, 2017-2018 (thousand tonnes)

Source: 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 2018, both in terms of tonne-kilometres and tonnes. It represented 15.7 % of the total tonnes transported and 15.3 % of the tonne-kilometres performed. Compared with 2017, transport of 'coke and refined petroleum products' showed a substantial decrease for tonnes (-8.7 %) and tonne-kilometres (-9.9 %).

For both of these large product categories for EU inland waterways transport, national transport accounted for the majority in terms of tonnes (60.6 % for 'Metal ores and other mining and quarrying products' and 55.6 % for 'Coke and refined petroleum products'). The situation is reversed when looking at tonne-kilometres, where international transport accounted for more than 47 % of total tonne-kilometres 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 of 12.7 % from 2017 to 2018 for 'products of agriculture' in terms of tonne-kilometres (NST2007 division '01'). As a result, this product category fell behind 'chemical products' (NST2007 division '08') in the ranking of tonne-kilometres by main product categories compared with 2017.

# 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 41.6 % of the tonnes transported and 36.3 % of the tonne-kilometres performed (Figure 1). Germany came second on both measures, with 20.4 % of the tonnes transported and 25.3 % of the tonne-kilometres. 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.

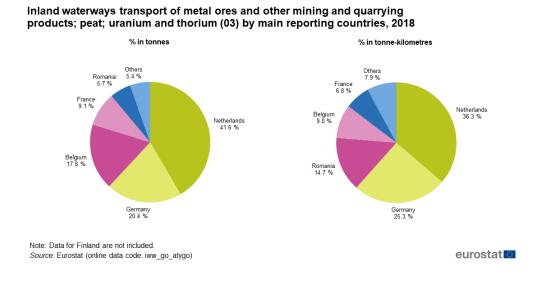


Figure 1: Inland waterways transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03) by main reporting countries, 2018

Source: Eurostat - (iww\_go\_atygo)

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The next 3 countries in the top 5 were Belgium, France and Romania. However, the ranking of these 3 countries was different when looking at tonnes or tonne-kilometres. In terms of tonnes transported, Belgium came third with a share of 17.8 %, followed by France (9.1 %) and Romania (5.7 %). In terms of tonne-kilometres performed, Romania, with a share of 14.7 %, was in third place, followed by Belgium (9.0 %) and France (6.8 %). This situation reflects the fact that inland waterways journeys recorded by Romania operate over longer distances than for the other 2 countries.

In terms of tonne-kilometres 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 40.3 % of the EU total (Table 3). The main flow is the one from the Netherlands to Germany (29.3 %), while the same route in the opposite direction, from Germany to the Netherlands, was on the third place (11.0 %). Germany and the Netherlands were either the loading or the unloading country in 7 of the top 10 country-to-country flows for 'metal ores and other mining and quarrying products'. Belgium was the loading or unloading country in 4 of the top 10 flows. Both Serbia and Ukraine made 2 appearances in

the top 10 flows. The flow from Ukraine to Serbia and Austria are in the second and fifth places, indicating a quite high level of transit through the European Union and covering long distances.

Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03), 2018

(million tonne-kilometres)

Loading country	Unloading country	Total	Share on total (%)
Netherlands	Germany	6 697	29.3
Ukraine	Serbia	2 612	11.4
Germany	Netherlands	2 521	11.0
Netherlands	Belgium	2 276	9.9
Ukraine	Austria	1 590	6.9
Belgium	Netherlands	1 498	6.5
Germany	Belgium	886	3.9
Belgium	Germany	615	2.7
France	Germany	611	2.7
Romania	Serbia	459	2.0
Other routes		3 119	13.6

Note: Data for Finland are not included.

Source: Eurostat (online data code: iww\_go\_atygofl)



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Table 3: Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03), 2018 (million tonne-kilometres)

Source: Eurostat - (iww go atygofl)

When looking at volumes in tonnes, the main route observed is also between the Netherlands and Germany, accounting for 50.6 % of the EU total (Table 4). The main country-to-country flow is not surprisingly the one from the Netherlands to Germany (40.2 %). The top 10 flows in terms of tonnes is dominated by 4 countries: Germany, the Netherlands and Belgium (with 5 appearances each) and France (with 3 appearances). The picture is completed by the flow from Slovakia to Austria in ninth place.

Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03), 2018

(thousand tonnes)

Loading country	Unloading country	Total	Share on total (%)	
Netherlands	Germany	25 780	40.2	
Netherlands	Belgium	11 851	18.5	
Belgium	Netherlands	8 934	13.9	
Germany	Netherlands	6 693	10.4	
France	Germany	2 080	3.2	
Germany	Belgium	1 661	2.6	
Belgium	France	1 355	2.1	
France	Netherlands	1 006	1.6	
Slovakia	Austria	921	1.4	
Belgium	Germany	616	1.0	
Other routes		3 290	5.1	

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

Source: Eurostat (online data code: iww\_go\_atygofl)



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Table 4: Top 10 international country flows for transport of metal ores and other mining and quarrying products; peat; uranium and thorium (03), 2018

(thousand 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 almost 55.9 % of the total tonnes transported in Europe, and 46.6 % of the tonne-kilometres performed.

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Germany appears in second place with 38.1 % of the tonne-kilometres performed but only 24.1 % of the tonnes transported. This reflects the longer distances performed by vessels passing through German inland waterways. Belgium came third with 10.9 % of tonnes transported and 4.4 % of tonne-kilometres performed. France followed Belgium with 3.7 % of tonnes transported but was overpassed by Romania which counted 3.9 % of tonne-kilometres performed.

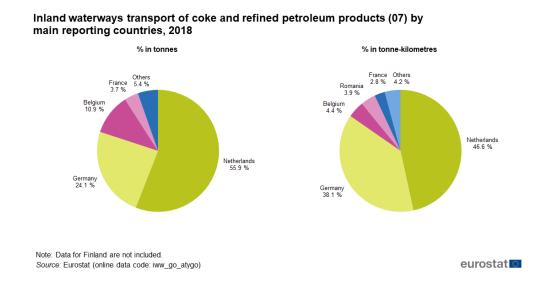


Figure 2: Inland waterways transport of coke and refined petroleum products (07) by main reporting countries, 2018

Source: Eurostat - (iww\_go\_atygo)

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In terms of tonne-kilometres performed for 'coke and refined petroleum products', the flows between the Netherlands, Germany and Belgium occupied the first 5 of the top 10 country-to-country flows, as well as the seventh flow, and accounted for 71.5 % of total tonne-kilometres performed on inland waterways in Europe (Table 5). The main flow is from the Netherlands to Germany, accounting for 19.2 % of the total Tonne-kilometres performed. Switzerland and France also appear in the top 10 as unloading countries receiving goods loaded in the Netherlands and Germany. The 10th main flow is from Romania to Serbia.

Top 10 international country flows for transport of coke and refined petroleum products (07), 2018

(million tonne-kilometres)

Loading country	Unloading country	Total	Share on total (%)
Netherlands	Germany	2 800	19.2
Belgium	Germany	2 260	15.5
Netherlands	Belgium	1 836	12.6
Belgium	Netherlands	1 585	10.9
Germany	Netherlands	1 482	10.2
Netherlands	Switzerland	555	3.8
Germany	Belgium	465	3.2
Germany	France	441	3.0
Netherlands	France	418	2.9
Romania	Serbia	346	2.4
Other routes		2 405	16.5

Note: Data for Finland are not included.

Source: Eurostat (online data code: iww\_go\_atygofl)



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Table 5: Top 10 international country flows for transport of coke and refined petroleum products (07), 2018

(million tonne-kilometres)

Source: Eurostat - (iww\_go\_atygofl)

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 10 flows. All flows in the top 10 involve one of these countries, with the exception of the 10th which is from Austria to Hungary. The main flow is from the Netherlands to Belgium, accounting for 39.4 % of the total tonnes transported, which was only third for tonne-kilometres, a reflection of the shorter journey lengths.

# Top 10 international country flows for transport of coke and refined petroleum products (07), 2018

(thousand tonnes)

Loading country	Unloading country	Total	Share on total (%)	
Netherlands	Belgium	13 895	39.4	
Netherlands	Germany	8 350	23.7	
Germany	Netherlands	4 300	12.2	
Germany	Belgium	1 187	3.4	
Germany	France	975	2.8	
Belgium	Netherlands	874	2.5	
Belgium	Germany	851	2.4	
Germany	Switzerland	821	2.3	
Netherlands	Switzerland	649	1.8	
Austria	Hungary	504	1.4	
Other routes		2 896	8.2	

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

Source: Eurostat (online data code: iww\_go\_atygofl)



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Table 6: Top 10 international country flows for transport of coke and refined petroleum products (07),

2018

(thousand tonnes)

Source: Eurostat - (iww\_go\_atygofl)

## Source data for tables and figures (MS Excel)

Inland waterway transport statistics 2018

### Data sources

All figures presented in this article have been extracted from the <u>Eurostat</u> online inland waterways transport database. The related datasets are collected according to <u>Regulation (EU) No 2018/974</u> of the

European Parliament and of the Council on statistics of goods transport by inland waterways.

Regulation (EU) No 2018/974 consolidated the initial Regulation (EC) No 1365/2006 on statistics of goods transport by inland waterways and all its implementing and amending legal acts: Commission Regulation (EC) No 425/2007 (implementing regulation), Commission Regulation (EC) No 1304/2007 (amending regulation) and Regulation (EU) No 2016/1954 (amending regulation).

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 1 million tonnes. Currently, 18 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 1 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.

**EU-28** includes data for all Member States providing data. Finland 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. 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.

Calculation of country flows: In Tables 3 and 5, presenting the tonne-kilometres 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**

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

**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.

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

**Finland**: No data available for 2017 and 2018. Data are delivered on 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**: 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 Regulation (EU) No 2018/974 of the European Parliament and of the Council on statistics of goods transport by inland waterways.