Market observation report on river-sea transport

56th session of the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation,
February 13th 2020
Geneva

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Chapters of the report

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   b) Methodology and data reporting at EU level

2. Chapter 2 - Seagoing vessels navigating on inland waterways
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   b) Legal and economic aspects related to river-sea transport performed by seagoing ships
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Methodology and scope of the report
1. a) Definitions and scope of the report

**River-sea transport** can be performed by **seagoing ships** that can navigate on inland waterways.

River-sea transport can be performed by **inland vessels** which have the appropriate authorization to operate at sea.
1. a) Terminology

4.1.6 Fluvio-maritime transport

A transport operation partly by inland waterways and partly by sea, without transhipment.

It can be operated by inland waterway vessel or seagoing ships.

Any inland waterway vessel undertaking such transport will need to have the appropriate authorisation permitting it to operate at sea.

E.V-02 FLUVIO-MARITIME TRANSPORT (SEE C.V-07)

A transport operation partly by inland waterways and partly by sea, without transhipment. It can be operated by inland waterway vessel or seagoing ships.

Any inland waterway vessel undertaking such transport will need to have the appropriate authorisation permitting it to operate at sea.

Also known as Sea-river transport in Inland waterways transport chapter.

C.V-07 SEA-RIVER TRANSPORT (SEE E.V-02)

A transport operation partly by inland waterways and partly by sea, without transhipment. It can be operated by inland waterway vessel or seagoing ships.

Any inland waterway vessel undertaking such transport will need to have the appropriate authorisation permitting it to operate at sea.

Also known as fluvio-maritime transport in the Maritime chapter.

C.II-04 FLUVIO-MARITIME (SEA-RIVER) VESSEL

Any IWT vessel designed and authorised to operate also as a sea going vessel.

BUT IN FRENCH we usually refer to a fluvio-maritime ship (navire fluvio-maritime) which are seagoing ships adapted to navigate on inland waterways...

Fluvio-maritime transport performed by a seagoing vessel should be reported in the maritime transport statistics and not in the IWW statistics.

Eurostat ref manual IWT stats, should it be seagoing ships?
1. b) Methodology used for the report

- **No centralised** data reporting in place at EU level
- Data mainly gathered directly from **national statistical offices**, other national statistical sources, stakeholders
- Different methodologies for data collection applied: **maritime vs IWT database**
- Different methodologies for identifying river-sea transport on a national basis
Seagoing vessels navigating on inland waterways
2. Overview (a) and legal aspects (b)

River-sea shipping takes place on all major rivers in Europe having a connection to open sea.

<table>
<thead>
<tr>
<th>Country</th>
<th>Transport volume River-Sea (mio. t)</th>
<th>Transport volumes inland waterway transport (mio. t)</th>
<th>Most important goods segment within river-sea-transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain (2017)</td>
<td>47.6</td>
<td>4.1</td>
<td>Crude petroleum and petroleum products</td>
</tr>
<tr>
<td>Russia (2018)</td>
<td>25</td>
<td>115</td>
<td>Oil and Oil products, grain, coal, timber, metals, fertilizers</td>
</tr>
<tr>
<td>Sweden (2018)</td>
<td>6.62</td>
<td>0</td>
<td>Timber and oil products</td>
</tr>
<tr>
<td>Romania (2018)</td>
<td>4.50</td>
<td>29</td>
<td>Agricultural products</td>
</tr>
<tr>
<td>The Netherlands (2018)</td>
<td>4.48</td>
<td>359</td>
<td>Iron and Steel</td>
</tr>
<tr>
<td>Belgium (2017)</td>
<td>1.9</td>
<td>205</td>
<td>Iron and steel</td>
</tr>
<tr>
<td>Finland (2018)</td>
<td>1.3</td>
<td>0.4</td>
<td>Timber and raw minerals</td>
</tr>
<tr>
<td>Germany (2018)</td>
<td>0.76</td>
<td>198</td>
<td>Iron and steel</td>
</tr>
<tr>
<td>France (2018)</td>
<td>0.75</td>
<td>60</td>
<td>Ores, metallurgical scraps and metal products, agricultural products</td>
</tr>
</tbody>
</table>

River-sea transport allows to connect the hinterland of these countries with marine basins such as the North Sea, the Mediterranean sea the Baltic Sea.

Sources: CCNR analysis based on national statistical offices of the countries mentioned in the table, TrafikAnalys, Rijkswaterstaat, Russian Chamber of Shipping
2. c) The United Kingdom

**River-sea transport:** all seagoing traffic crosses into inland waters. It comprises:
- **Foreign traffic**
- **Coastwise traffic**
- **One-port traffic**

**R-S transport volumes in 2017** (in mio. t):
- River Thames: 24.3
- River Forth: 8.8
- Manchester Ship Canal / River Mersey: 4.8

**River-Sea-Transport in the UK by type of goods in 2018** (in %)

- Crude Petroleum and Petroleum products: 39%
- All other goods: 34%
- Unitised Cargo *: 17%
- Forestry products: 2%
- Iron and steel products: 3%
- Agricultural Products...

**Source:** UK Department of Transport
RUSSIA AND UKRAINE
Russia

Number of river-sea transport ships in 2019: **1,190**
- **849** motorized
- **341** non-motorized

Trading areas: the Baltic Sea, the North Sea, the Azov-Black Sea, the Mediterranean Sea, the Caspian Sea, north and far eastern regions of Russia.

R-S transport volumes in 2018 (in mio. t): **25**

Main trading partners: Germany, Sweden, the Netherlands, Denmark, Norway, Greece, France and Croatia.

R-S transport in Russia by type of goods:
- Within Russia: **cereals, fertilizers, steel and wood products**;
- Main export commodities: **oil and oil products, grain, coal, timber, metals and fertilizers**

Ukraine

Number of river-sea ships in 2019: **139** of which
- **18** motorized
- **76** non-motorized
- **25** tugs and pushers

The Kilia-Bystroe Canal, in the Danube Delta, registered **1.5 mio. t of river-sea traffic in 2017** (+ 362.1% compared to 2016)

Sources: Russian Chamber of Shipping, Register of ships with class of the Shipping Register of Ukraine, Register Book of vessels with the Russian River Register class
2. c) Sweden

River-sea shipping in Sweden:
- 6.62 mio t. in 2018
- Overall river-sea transport increased by 5% between 2017 and 2018
- Goods segments: timber and paper products, oil products, chemicals, steel

No detailed data regarding river-sea transport can be published, in particular related to the type of goods, the main trading partners and the ports of loading and unloading.

Source: TrafikAnalys
2. c) Romania

River-sea ports of Galati, Braila & Tulcea

Extra-EU trade:
- important role for river-sea traffic in those ports;
- mainly with countries located in the Mediterranean Sea

Sulina Canal
- Runs from Tulcea to the Black Sea and is mainly used by seagoing vessels.
- River-Sea-Transport on Sulina-Canal linking the Black Sea with the Danube (in mio. t):

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.66</td>
<td>3.85</td>
<td>3.76</td>
<td>4.31</td>
<td>4.44</td>
</tr>
<tr>
<td>Danube (\rightarrow) Black Sea</td>
<td>3.24</td>
<td>3.26</td>
<td>3.25</td>
<td>3.61</td>
<td>3.67</td>
</tr>
<tr>
<td>Black Sea (\rightarrow) Danube</td>
<td>0.42</td>
<td>0.58</td>
<td>0.51</td>
<td>0.70</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Danube-Black Sea Canal
- Runs between the seaport Constanza and the Danube
- River-sea transport in 2017: 57,000 t
- Total amount of cargo in 2017: 13.8 mio. t

Source: CCNR based on Danube Commission, Romanian Statistical office, Viadonau
River-sea traffic: trips made by seagoing ships partly by inland waterways and partly by sea between:

- region/city of loading along an inland waterway and region of unloading along an inland or a maritime waterway/port*
- region/city of loading along a maritime waterway/port and a region/city of unloading along an inland waterway

Most important countries of loading and unloading in 2018:
- Belgium (Ghent is the most important port for loading and unloading)
- UK
- the Netherlands
- Romania

Source: CCNR analysis based on data from Rijkswaterstaat

**River-Sea-Transport in the Netherlands by type of goods in 2018 (in mio. t):**

- iron and steel: 0.15
- fertilizer: 0.43
- unknown goods: 1.38
- agribulk: 0.50
- animal fodder and foodstuff: 0.58
- sands, stones, building materials: 0.58
- chemicals: 0.50
- ores and metal waste: 0.75
- machines: 0.62
- coal: 0.75
- mineral oil and oil products: 0.62

**Total volume of R-S transport in 2018 (in mio. t): 4.48**

R-S T by type of transport in 2018:
- Transit traffic: 68.6%
- Import traffic: 14.7%
- Export traffic: 11.5%
- National traffic: 5.2%
R-S transport identified according to **vessel type** used for the journey and by country of **loading and unloading** of the cargo.

R-S transport by type of transport in 2017 (in mio. t):
- Export: **0.52**
- Import: **0.82**
- National: **0.55**

In Belgium, there are also **estuary vessels**: inland vessels which partly cross into maritime waters (not identified within the IWW statistics).

**Main trading partners:** the **UK, Spain, Norway and Morocco**.

Source: CCNR based on Statbel
2. c) Finland

- **R-S-T**: all traffic going through Saimaa canal
- **Divided in 3 categories:**
  - **Cross-border traffic** (import and export = 94%);
  - **Domestic traffic** (from national inland port to national seaport, on the coast);
  - **Timber floating** (only until 1992).

**River-sea transport in Finland by type of goods in 2018 (in 1,000 t):**

- Timber, wood chips: 583
- Raw minerals: 171
- Forest industry products: 371
- Chemicals, fertilizers: 105
- Coal, coke: 42
- Other goods: 21
- Metal, metal products: 11

**Global trend of R-S T:**
- **Increase from 1971 to 2004**
- **Decrease until 2016** (2009 = lowest volumes, financial crisis)
- **Increase between 2016 and 2018**
- **Main trading partners**: RUS, NL, EE, DE

Source: CCNR analysis based on EMMA project, Traficom
2. c) Germany

River-Sea-Transport in Germany by type of goods in 2018 (in %)

- Pig Iron and Steel: 46.3%
- Gaseous, liquefied or compressed petroleum products: 34.0%
- Non-ferrous metals and semi-finished products thereof: 22.4%
- Stones, sands, gravel, clay: 12.7%
- Products of plant origin: 7.2%
- Salt and sodium chloride; seawater: 1.6%
- Chemical raw materials: 29.5%
- Waste and secondary raw materials: 57.9%
- Cereals: 41.1%
- Tubes and hollow sections: 2.2%
- Other goods: 0%

Total volume: 481.8

R-S traffic defined according to **port of loading and unloading**.

River-Sea by type of transport in 2018:
- Export: 65%
- Import: 33%
- National: 2%

Trading partners (import): Norway, Lithania, France, Great-Britain

River-Sea exports by Germany: most important routes in 2018 (in 1000 t):

<table>
<thead>
<tr>
<th>Region of loading</th>
<th>Region of unloading</th>
<th>Goods segment</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Düsseldorf</td>
<td>Great Britain</td>
<td>Crude Iron, steel</td>
<td>270</td>
</tr>
<tr>
<td>Düsseldorf</td>
<td>Great Britain</td>
<td>Non-ferrous metals and semi-finished products</td>
<td>38</td>
</tr>
<tr>
<td>Düsseldorf</td>
<td>Norway and Sweden</td>
<td>Crude Iron, steel</td>
<td>86</td>
</tr>
<tr>
<td>Total exports by river-sea-transport from Germany</td>
<td></td>
<td></td>
<td>494</td>
</tr>
</tbody>
</table>
FRANCE
2. c) France

**Total imports by river-sea-transport to France in 2018 (in 1000 t):** 243
- Metal products
- Raw minerals & building materials
- Fertilizers

**Total exports by river-sea transport from France in 2018 (in 1000 t):** 510
- Ores and metallurgical scrap
- Agribulk
- Metal products

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**Rhône**
- **Goods segments:** ores, metallurgical scrap, agribulk, metal products, raw minerals & building materials.
- **Trade with Mediterranean basin**
- **21 river-sea ships in 2018**
- **Flags:** Antigua and Barbuda, Belize, Lithuania, Malta, the Netherlands and St Vincent.

**Seine**
- **Goods segments:** metal products, agricultural products, fertilizer
- **Trade with Manche/Mer du Nord basin.**
- **20 river-sea ships in 2018.**
- **Flags:** the Netherlands, St Vincent, Antigua and Barbuda, Lithuania and the Bahamas.

Source: CCNR based on VNF
Inland navigation
vessels navigating on maritime waters
3. a) Introduction and general classification rules

**Most common case of river-sea transport performed by an inland navigation vessel**

- Inland port
- Maritime port

- Inland waters
  - Navigation allowed

- Domestic maritime waters (or equivalent inland waterway zones)
  - No transhipment
  - Appropriate certificate
  - Authorised to operate at sea (in a restricted manner)
  - No certificate
  - Not authorised to operate at sea

Can be observed mainly in BE, FR, IT and outside the EU in India, Russia and China

**No harmonisation in the requirements for inland vessels to navigate at sea**

+ Inland vessels are not allowed to navigate at sea in several EU countries

**Directive 2016/1629:** calls Member States to better harmonise the conditions for the issuing of supplementary Union inland navigation certificates for operations of inland vessels in zones 1 and 2.

Source: EU Directive 2016/129 laying down technical requirements for inland waterway vessels
From Port of Zeebrugge, a limited sea trajectory has to be performed by an inland vessel to reach the mouth of the western Scheldt estuary, giving access to the European inland navigation network.
3. b) Inland vessels navigating at sea – Estuary traffic in Belgium

**Estuary traffic**: performed by estuary vessels holding a certificate allowing them to navigate at sea (non-international voyage)

**Royal Decree of 2007**: enforces set of regulations allowing an inland vessel to navigate at sea between Belgian coastal ports.

- The estuary fleet in Belgium: **12** (8 tankers, 1 Ro-Ro, 3 container carriers)
- The container vessels carry **160,000 TEU/year**
- **Age** (average):
  - Tankers: 12
  - Ro-Ro: 15
  - Containers: 12
- **Building dates**: between 2003 and 2011

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**Port of Zeebrugge in 2018**

- **2.1 Mio. t of goods** via estuary traffic at port of Zeebrugge:
  - 58% liquid bulk
  - 41% container
  - 1% ro/ro.
- **1047** estuary vessels called (+47 compared to 2017).

Source: 2018 annual report Port of Zeebrugge, Koninklijk besluit betreffende binnenscheepen die ook voor niet-internationale zeereizen worden gebruikt
FRANCE

Alternative connections: Sea trajectories to historic port of Le Havre (north access)
OR
Sea trajectories to mouth of river Seine (S)
Future developments (2022): Creation of direct river access with the building of a new dike (accès fluvial direct = “chatière”)

2005: construction container terminal Port 2000 BUT no direct river access to container terminal

Existing inland connection to river Rhône in the Golfe de Fos area from Martigues and the Etang de Berre
Sea trajectory alternative

3. c) Inland vessels navigating at sea – The case of France

Two main areas where “adapted” IWT vessels can navigate at sea in France:

- Port du Havre area in the Seine estuary
- the Golfe de Fos.

Possibility extended to other areas in France following the adoption of a national regulation in October 2018 (inland vessels must meet requirements to obtain the appropriate authorisation depending on the relevant route)

Why? When connection between IWWs and maritime ports not sufficient.

BUT ability for IWT vessels to navigate at sea is always dependent upon meteorological conditions impact on reliability.

Alternative route involving transhipment = useful complementary option.

Port of Le Havre

Inland vessels navigating at sea are the only direct way (without transhipment) to reach the container terminal Port 2000

8 adapted IWT vessels:

- 6 container inland vessels amounting to 137,500 TEU in 2016
- 2 bunker vessels.

EU co-funding of 25 million euros in 2018 to create direct inland access to Port 2000 → may impact river-sea traffic in the Port area

Sources: Connect, Annual magazine of the port of Zeebrugge 2019, Arrêté du 2 octobre 2018 relatif au classement des zones de navigation des bateaux de commerce, des bateaux de plaisance et engins flottants et aux compléments ou allégements des prescriptions techniques applicables sur certaines de ces zones de navigation, Arrêté du 15 décembre 2014 relatif à la navigation de bateaux porte-conteneurs fluviaux en mer pour la desserte de Port 2000 et des quais en Seine à Honfleur
ANY QUESTIONS?
THANK YOU VERY MUCH FOR YOUR ATTENTION

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5.1 Eurostat interpretation of legal definitions

The legal basis clearly indicates that the type of vessel used is one of the key elements for selecting the traffic to report. In particular if a seagoing vessel is used, the transportation has to be reported only if the traffic is performed wholly in navigable inland waterways.

In other words:

- If an inland waterways vessel, including fluvio-maritime vessels, makes a journey partly at sea, it should be reported in inland waterways statistics.
- If a seagoing vessel makes a journey entirely on navigable inland waterways, it should be reported in inland waterways statistics.
- If a seagoing vessel makes a journey partly on navigable inland waterways, it should be reported in maritime statistics.
- If an inland waterways vessel, including fluvio-maritime vessels, makes a journey entirely at sea, it is not covered by the definitions.
5.2 Fluvio-maritime transport

During Maritime Working Group meeting on 21-22 May 2014, Eurostat presented recommendation about how fluvio-maritime should be reported, whether in inland waterways or maritime, or both. This recommendation was agreed by the Maritime Working Group and should be applied for the maritime data collection (and is already applied by most of countries).

The recommendation is:

1. All fluvio-maritime transport should be reported in the maritime transport statistics (as required by Directive 2009/42).

2. Fluvio-maritime transport should also be reported in the inland waterways statistics by the country in which the inland waterways part of the journey is undertaken (as required by Regulation 425/2007).

These recommendations were discussed in the meeting of the Working Group on Inland Waterways Transport Statistics on 5-6 September 2015. A number of objections were raised to the proposal as it stood and Eurostat agreed to reconsider and redraft the proposal to take account of the views expressed.

Eurostat’s latest recommendations are as follows:

- **Fluvio-maritime** transport performed by a **IWW vessel** should be reported in the IWW statistics and **not in** the maritime statistics

- **Fluvio-maritime** transport performed by a **seagoing vessel** should be reported in the maritime transport statistics and **not in** the IWW statistics

- If type of vessel information is unavailable in the source data, related information (such as port of loading/unloading) could be used to determine whether the fluvio-maritime transport is likely to be carried out by IWW or seagoing vessels

- If necessary, in order to compile relevant and coherent IWW statistics at national level, specific cases of fluvio-maritime transport performed by seagoing vessels could be included in both the maritime and the IWW data reported to Eurostat. However, any such deviations from the main recommendations in points 1 and 2 should be clearly communicated to Eurostat in order to be specified in the metadata of the IWW statistics