

Special Report

# Inland Waterway Transport in Europe: No significant improvements in modal share and navigability conditions since 2001



EUROPEAN  
COURT  
OF AUDITORS

EUROPEAN COURT OF AUDITORS  
12, rue Alcide De Gasperi  
1615 Luxembourg  
LUXEMBOURG

Tel. +352 4398-1

E-mail: [eca-info@eca.europa.eu](mailto:eca-info@eca.europa.eu)  
Internet: <http://eca.europa.eu>

Twitter: @EUAuditorsECA  
YouTube: EUAuditorsECA

More information on the European Union is available on the Internet (<http://europa.eu>).

Luxembourg: Publications Office of the European Union, 2015

Print	ISBN 978-92-872-2004-2	ISSN 1831-0834	doi:10.2865/824058	QJ-AB-15-001-EN-C
PDF	ISBN 978-92-872-1948-0	ISSN 1977-5679	doi:10.2865/158305	QJ-AB-15-001-EN-N
EPUB	ISBN 978-92-872-1999-2	ISSN 1977-5679	doi:10.2865/578733	QJ-AB-15-001-EN-E

© European Union, 2015

Reproduction is authorised provided the source is acknowledged.

For any use or reproduction of figure 2, permission must be sought directly from the copyright holder.

*Printed in Luxembourg*

## Special Report

**Inland Waterway  
Transport in Europe:  
no significant  
improvements in modal  
share and navigability  
conditions since 2001**

(pursuant to Article 287(4), second subparagraph, TFEU)

# Audit team

The ECA's special reports set out the results of its performance and compliance audits of specific budgetary areas or management topics. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was produced by Audit Chamber II — headed by ECA Member Henri Grethen — which specialises in the structural policies, transport and energy spending areas. The audit was led by ECA Member Iliana Ivanova, supported by Tony Murphy, head of private office; Mihail Stefanov, attaché of private office; Pietro Puricella, head of unit; Enrico Grassi, team leader; Christian Wieser, auditor; Erika Soveges, auditor; Erki Must, auditor; Di Hai, auditor.



From left to right: E. Soveges, M. Stefanov, P. Puricella, C. Wieser, I. Ivanova, E. Must, E. Grassi, D. Hai, T. Murphy.

## Paragraph

### Abbreviations

### Glossary

## I–VII Executive summary

## 01–13 Introduction

01–06 The characteristics of EU inland waterway freight transport

07–10 The main policy objectives and obstacles with regard to inland waterway freight transport in the EU

11–13 The role of the European Commission and the Member States

## 14–16 Audit scope and approach

## 17–49 Observations

17–27 The modal share of IWT did not significantly increase and EU-funded projects did not effectively contribute to improving overall navigability conditions

18–19 There was no significant increase in the modal share of inland waterway freight transport

20–24 Only a few isolated bottlenecks were addressed, without consideration for corridor and maintenance aspects

25–27 Implementation delays, partly due to lengthy administrative procedures

28–49 EU strategies for IWT were not based on a comprehensive and robust analysis

29–32 EU strategies not based on robust analysis

33–40 EU strategies did not fully address important key obstacles to their implementation at Member State level

41–45 Insufficiently focused approach in selecting projects

46–49 Member States do not pay sufficient attention to river maintenance

## 50–54 Conclusions and recommendations

- Annex I — Classification of European inland waterways according to Resolution No 92/2 of the European Conference of Ministers of Transport**
- Annex II — List of projects examined by the Court**
- Annex III — Modal share of inland waterway transport of all land transport modes in the Member States (MS) on the main inland waterway corridor from 2001 until 2012 (in %)**
- Annex IV — The different variants for the elimination of the bottleneck in the section Straubing-Vilshofen**
- Annex V — Cost of eliminating bottlenecks according to the Platina inventory of bottlenecks and missing links of 31.3.2010**

## **Reply of the Commission**

**CEF:** Connecting Europe Facility

**DG Environment:** Directorate-General for the Environment

**DG Mobility and Transport:** Directorate-General for Mobility and Transport

**DG Regional and Urban Policy:** Directorate-General for Regional and Urban Policy

**ERDF:** European Regional Development Fund

**IWT:** Inland waterway transport

**MS:** Member State

**TEN-T:** Trans-European network for transport

**UNECE:** United Nations Economic Commission for Europe

**Boatlift:** construction for lifting or lowering vessels between two levels of water.

**Bottleneck:** According to United Nations Economic Committee for Europe (UNECE) Resolution No 49 of 2005, the term is used for inland waterway sections with 'parameter values being substantially lower than target requirements'.

**Bridge clearance:** the distance between the water surface and the lowest point of the bridge.

**Comprehensive network:** Part of the TEN-T network that Member States have the legal obligation to complete by 2050.

**Core network:** Part of the TEN-T network that Member States have the legal obligation to complete by 2030.

**Draught:** The height of the immersed part of a vessel. The more cargo is loaded, the higher is its loaded draught.

**Inland waterway (IWW):** Waters located on the mainland capable of being used by ships with a minimum 50 t carrying capacity when normally loaded. These include navigable rivers, lakes and canals.

**Lock:** A device for raising and lowering boats between stretches of water at different levels on river and canal waterways.

**Modal share:** This (also called mode split, mode-share or modal split) is the share of total journeys, volume, weight, vehicle performance or transport performance (vehicle, ton- or passenger-kilometres) of alternative modes of transport, such as road, rail, inland water, maritime and air transport, including non-motorised transport. In this report, modal share refers to the three main land transport modes: road, rail and inland waterways.

**Natura 2000:** A network of nature protection areas in the territory of the European Union.

**Operational programme:** A Commission-approved programme of EU-funded investments by Member State, which takes the form of a coherent set of priorities comprising multiannual measures under which projects are co-financed.

**RIS:** River information services are modern traffic management systems enabling swift electronic data transfer between water and shore through in-advance and real-time exchange of information.

**TEU:** The twenty-foot equivalent unit is used to describe the capacity of container ships and container terminals, based on the volume of a 20-foot-long (6.1 m) intermodal container, a standard-sized metal box which can be easily transferred between different modes of transportation, such as ships, trains and trucks.

**tkm:** Tonne kilometres: unit of measure for recording transport output, corresponding to the carriage of 1 tonne over 1 km calculated by multiplying the quantity carried in tonnes by the distance covered in kilometres. Only the distance on the national territory of the reporting country is taken into account for national, international and transit transport.

## I

Inland waterway transport is, together with road and rail transport, one of the main three land transport modes. Goods are transported by ships via inland waterways, such as canals, rivers and lakes, between inland ports and wharfs. The EU aims at shifting traffic from roads to more environmentally friendly transport modes, including inland waterway transport, as there are potential benefits in terms of cost savings, reduced pollution and increased transport safety. The EU strategies identified the elimination of infrastructure bottlenecks as a key requisite for the development of inland navigation in Europe.

## II

The Court examined whether inland waterway freight transport strategies have been implemented effectively by the Commission and the EU Member States. In particular, it assessed two main audit questions:

- (i) Have the projects co-funded by the EU budget contributed effectively to increasing the modal share of inland waterway freight transport and improving navigability conditions?
- (ii) Were the EU inland waterway transport strategies coherent and based on relevant and comprehensive analyses?

## III

The audit covered the policy and strategy papers from 2001 onwards and reviewed the main policy and strategy documents, information made available by the Commission, the United Nations Economic Commission for Europe (UNECE) and other third parties, as well as relevant financial, transport and navigability indicators. In addition, on-the-spot audit visits were carried out to 12 EU-funded projects in Belgium, the Czech Republic, Germany and Hungary financed under both the trans-European network for transport (TEN-T) and the Structural Funds (SF) budgets during the 2007–13 programming period.

## IV

Overall, the Court found that the policy objective of shifting traffic from roads to inland waterway transport and of improving navigability had not been achieved. Between 2001, when this objective was set, and 2012, the year for which the latest statistical information is available, the modal share of inland waterway transport did not increase substantially, fluctuating around 6 %. Thus the Court considers that the EU inland waterway transport strategies have not been effectively implemented.

## V

The EU-financed projects examined were not always consistent with the inland waterway freight transport objectives and only a few of them improved navigability conditions. In particular, isolated bottlenecks were eliminated but these were still surrounded by other bottlenecks. As a result, the impact of these projects on inland waterway transport was low.

## VI

This was partly due to weaknesses in the EU strategies for inland waterway transport (which were not based on sufficiently robust and comprehensive analysis) and to the unfocused use of limited resources at EU and Member State levels. In addition, Member States' approaches to inland waterway transport were inconsistent along the main corridors. The EU strategies did not give sufficient consideration to environmental aspects and to the attention that Member States paid to river maintenance.

### VII

The Court recommends the following.

#### Recommendation 1

In order to improve the effectiveness of the EU funding of inland waterway transport and to ensure better project performance:

- (a) the Member States should prioritise inland waterway projects which are on the corridors, rivers or river segments that provide the greatest and most immediate benefits for improving inland waterway transport;
- (b) the Commission should focus its funding on those projects that are most relevant for inland waterway transport and for which there are already advanced plans in place to eliminate nearby bottlenecks when selecting project proposals for financing.

#### Recommendation 2

As regards the future development of the EU's strategy for inland waterway freight transport, and with a view to achieving better coordination between Member States:

- (a) the Commission should carry out in-depth analyses of the potential market and benefits of inland navigation on different river segments and coordinate across Member States the implementation of the core TEN-T network, taking into account their potential for developing inland waterway freight transport corridors;
- (b) the Commission and Member States should agree during the corridor implementation on specific and achievable objectives and precise milestones to eliminate bottlenecks on corridors within the framework of the Connecting Europe Facility — this should take due account of the TEN-T objective of completing the core network by 2030, the availability of funds at EU and Member State levels and the political and environmental considerations in relation to building new (or upgrading existing) inland waterway transport infrastructures;
- (c) the Commission should, in the context of the next revision of the TEN-T regulation, propose the strengthening of the legal base in order to
  - (i) broaden the reporting requirements in relation to the navigation status of the waterways and
  - (ii) require Member States to elaborate national inland waterway maintenance plans in a coordinated way.

## The characteristics of EU inland waterway freight transport

### 01

Inland waterway transport is, together with road and rail transport, one of the three main land transport modes. Vessels transport goods via inland waterways, such as canals, rivers and lakes, between inland ports and wharfs.

### 02

Half of Europe's population lives close to the coast or to inland waterways and most European industrial centres can be reached by inland navigation. The main international inland waterway network is the Rhine-Danube network, which, with its length of 14 360 km, represents nearly half of the inland waterways of international importance<sup>1</sup>. The most important basins are:

- (i) The Rhine basin, which is the most developed, maintained and utilised waterway for goods transportation purposes. It is characterised by the highest population and waterway density. Around 80 % of the overall inland waterway freight transport is carried on this river.
- (ii) The Danube basin, which has the potential to guarantee river navigation between the North Sea and the Black Sea. Around 9 % of the overall inland waterway transports are carried out on the Danube and the Rhine-Main-Danube canal.

### 03

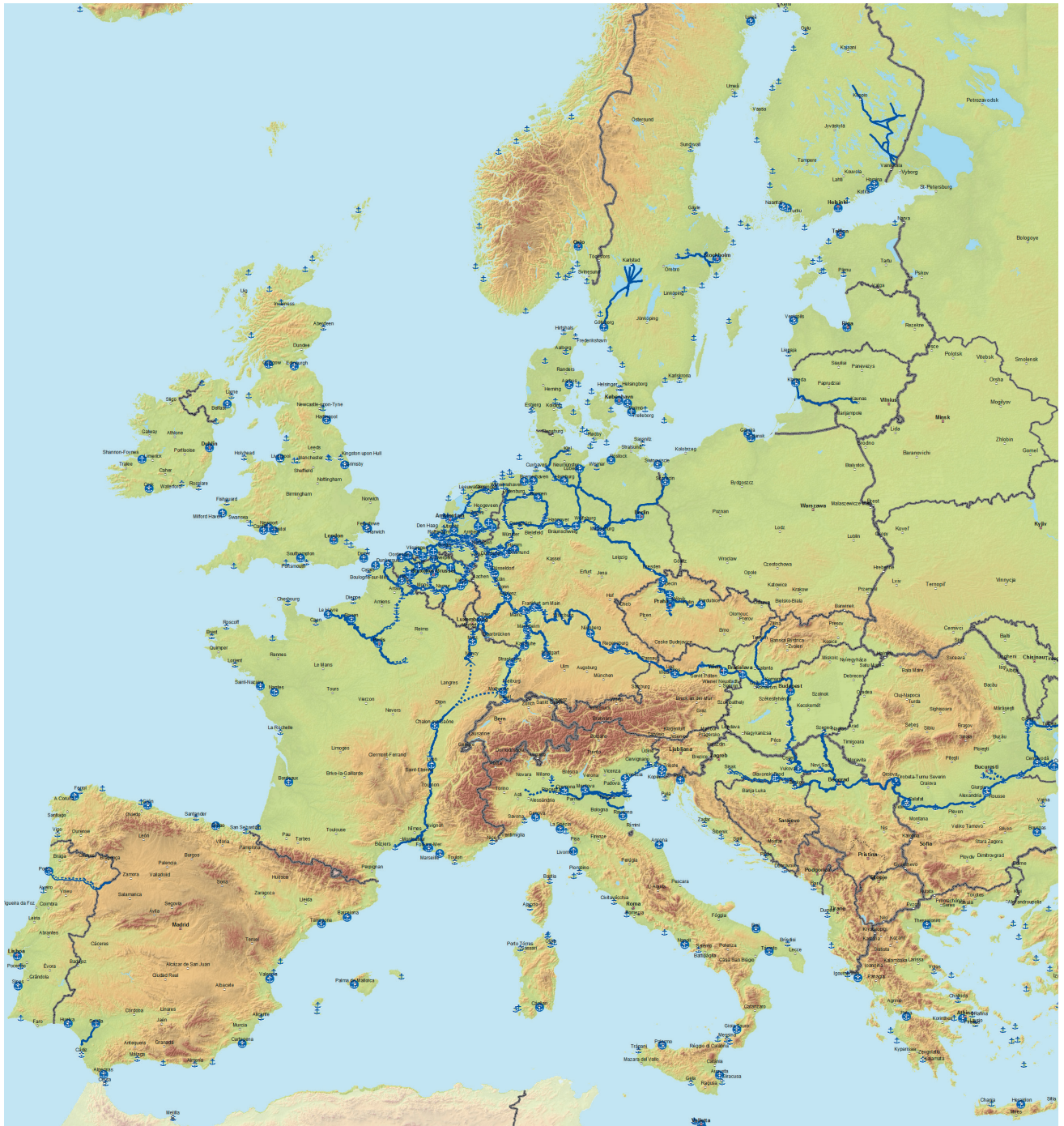
More than one third of the Rhine-Danube basin waterways do not meet the standards established for waterways by the European Conference of Ministers of Transport<sup>2</sup> (see **Annex I**) and there are substantial differences in the quality of the infrastructures east and west of the Bavarian watershed<sup>3</sup>. The European Union aims at achieving these standards for its entire trans-European network (see **Figure 1**).

### 04

Transporting goods on inland waterways can be advantageous, as compositions of pushed barges can transport more goods per distance unit (tkm) than any other type of land transport and could help to reduce road traffic. Inland navigation vessels have a loading capacity that is equivalent to hundreds of trucks, which could help to save transport costs, reduce emissions and decongest roads (see **Figure 2**). In addition, inland vessels have very good safety records.

- 1 UNECE, *White Paper on efficient and sustainable inland water transport in Europe*, New York and Geneva, 2011.
- 2 Resolution No 92/2 of the European Conference of Ministers of Transport.
- 3 An area or ridge of land that separates waters flowing to different rivers, basins or seas.

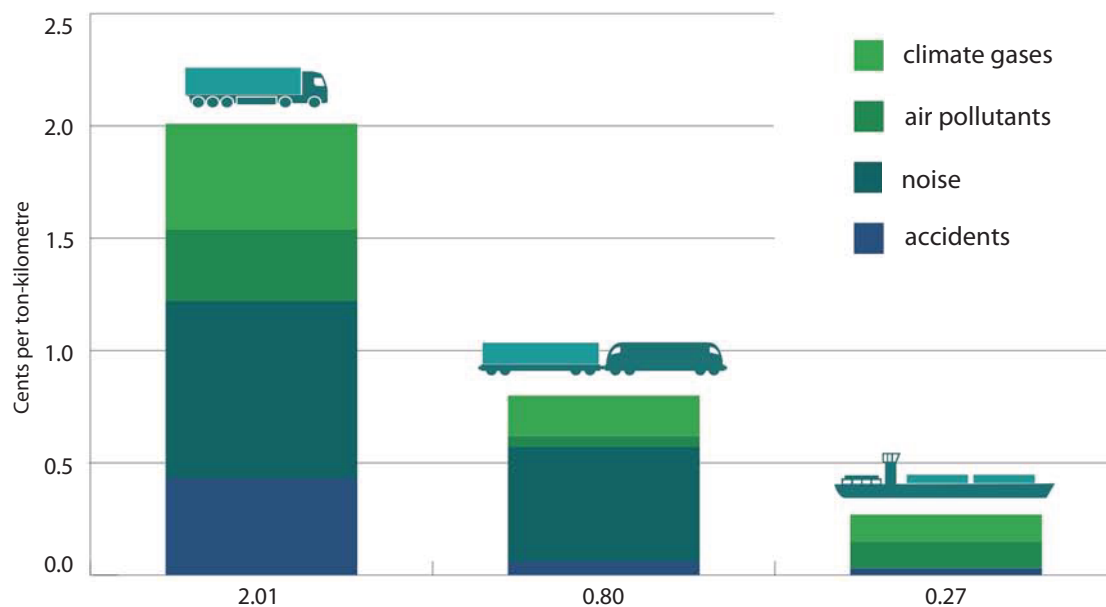
Figure 1

**Main inland waterways in the EU (TEN-T comprehensive and core network)**

Source: European Commission.

Figure 2

### Potential advantages of inland navigation in terms of external costs (cents per tonne-kilometre) and transport capacity



The sum of external costs for inland vessels is by far the lowest (average values for selected transports of bulk goods)

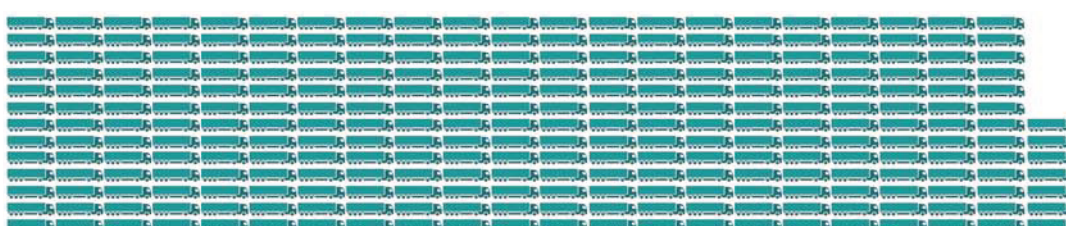
**1 convoy with four pushed lighters: 7 000 net tonnes**



**175 railway wagons at 40 net tonnes each**



**280 trucks at 25 net tonnes each**



Inland vessels beat road and rail in terms of transport capacity

Source: PLANCO Consulting & Bundesanstalt für Gewässerkunde 2007

Source: via donau

05

Inland waterway transport is energy efficient, as an inland vessel is able to transport one tonne of cargo almost four times further than a truck using the same consumption of energy (370 km against 300 km by rail and 100 km by truck). Also the transport cost is competitive and the unit cost decreases over long distances (see **Table 1**). However, as inland waterway transport is slower than road transport, it is commonly used for goods that do not require fast delivery times, such as metal ores, agricultural products, coke and refined petroleum products, coal and crude petroleum. In the last few years there has also been an increase in container transport, especially in the Rhine basin.

06

However, waterways have a limited geographical scope. Moreover, in the event of problems along the route, such as accidents, bad weather conditions or excessively low or high water levels, vessels can rarely be rerouted. In addition, cost advantages can only materialise under certain circumstances, depending on the distance goods are transported on waterways and on the distance of the consignor or consignee from the transshipment point, where the goods are transferred from or to the vessels.

Table 1

Examples of transport cost per tonne-km in euro cents for transport distances of 200 km and 1 000 km

Freight transport mode	200 km	1 000 km
Road	14.30	8.80
Rail	16.04	7.40
Inland waterway	2.73	1.95

Source: PLANCO Consulting GmbH, *Economical and ecological comparison of transport modes: road, railways and inland waterways*, November 2007.

## The main policy objectives and obstacles with regard to inland waterway freight transport in the EU

### 07

In June 2001, the European Commission issued a White Paper on the European transport policy<sup>4</sup>, in which it proposed shifting the balance between modes of transport, revitalising the railways, promoting transport by sea and inland waterways and controlling the increase in air transport. In 2006, the mid-term review of this White Paper<sup>5</sup> added the strategic objective to fight against road congestion. These objectives were confirmed in the White Paper on transport of 2011<sup>6</sup>, which envisaged shifting freight from road to rail and waterborne transport.

### 08

In order to achieve its policy objectives, the European Commission adopted the Naiades programme<sup>7</sup> to promote Inland waterway transport via actions in five interdependent areas (see **Box 1**).

### 09

Both the 2001 and the 2011 White Papers and the 2006 and 2013 Naiades programmes pointed to the need to eliminate bottlenecks in order to improve navigability conditions on rivers and thus to eliminate the main infrastructure obstacles to the development of inland navigation in Europe.

- 4 COM(2001) 370 of 12 September 2001, 'White Paper — European transport policy for 2010: time to decide'.
- 5 COM(2006) 314 final of 22 June 2006, 'Keep Europe moving — Sustainable mobility for our continent — Mid-term review of the European Commission's 2001 transport White Paper'.
- 6 COM(2011) 144 final of 28 March 2011, 'White Paper — Roadmap to a single European transport area — Towards a competitive and resource-efficient transport system'.
- 7 COM(2006) 6 final of 17 January 2006 on the promotion of inland waterway transport 'Naiades' — An integrated European action programme for inland waterway transport.

## Box 1

### The Naiades action programmes

Naiades stands for 'Navigation and inland waterway action and development in Europe'. The Naiades action plan was drafted in 2006. It was an initiative of the European Commission to enhance the use of inland navigation as part of intermodal freight solutions in order to create a sustainable, competitive and environmentally friendly Europe-wide transport network. It provided policy orientation for a joint approach to strengthen inland waterway transport and proposed actions in five areas of intervention: market, fleet, jobs and skills, image and infrastructure.

The Naiades II<sup>8</sup> programme, which was published in 2013, succeeded the Naiades programme. Its objective is to promote inland navigation through: (i) new infrastructure, including filling missing links, clearing important bottlenecks and port development; (ii) innovation; (iii) smooth functioning of the market; (iv) environmental quality through low emissions; (v) a skilled workforce and quality jobs; and (vi) integration of IWT into the multimodal logistic chain.

8 COM(2013) 623 final of 10 September 2013, 'Towards quality inland waterway transport — Naiades II'.

## Introduction

### 10

In this context, the Commission had identified inadequate infrastructure (i.e. bottlenecks and missing links) as a major obstacle to inland navigation. The most common types of river bottlenecks and missing links are as follows.

- (i) **Bridges.** Bridge clearance and the width of the passages between the supports determine the size of inland vessels and the number of container layers they can

transport. The bridges' vertical clearance diminishes with high water levels and increases with low water levels (see **Picture 1**).

Picture 1

### Inland vessel passing under a bridge

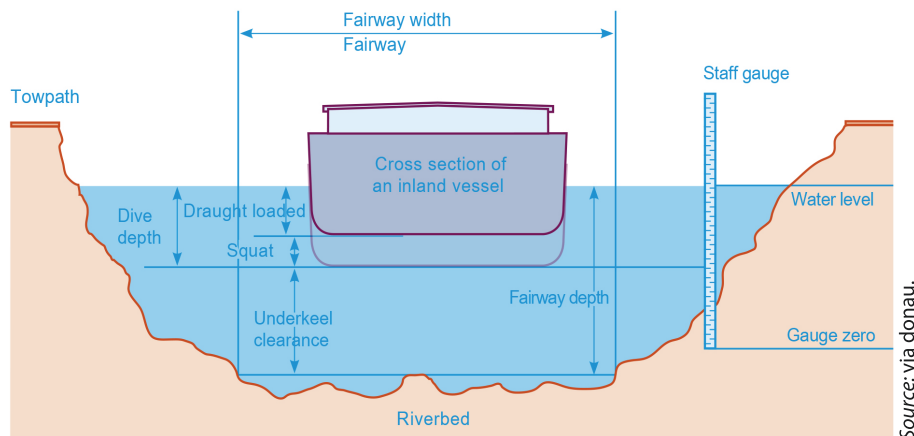


Source: European Commission.

- (ii) **Fairways.** The width and shape of the fairway determine whether vessels navigating upstream and downstream can pass simultaneously and the speed of navigation. The water depths available in the fairway determine how many tonnes of goods may be carried on an inland vessel. The draught loaded has a decisive influence on the cost-effectiveness of inland waterway transport (see **Figure 3**).

Figure 3

## Terminology used for fairway dimensions



Fairway parameters (schematic presentation)

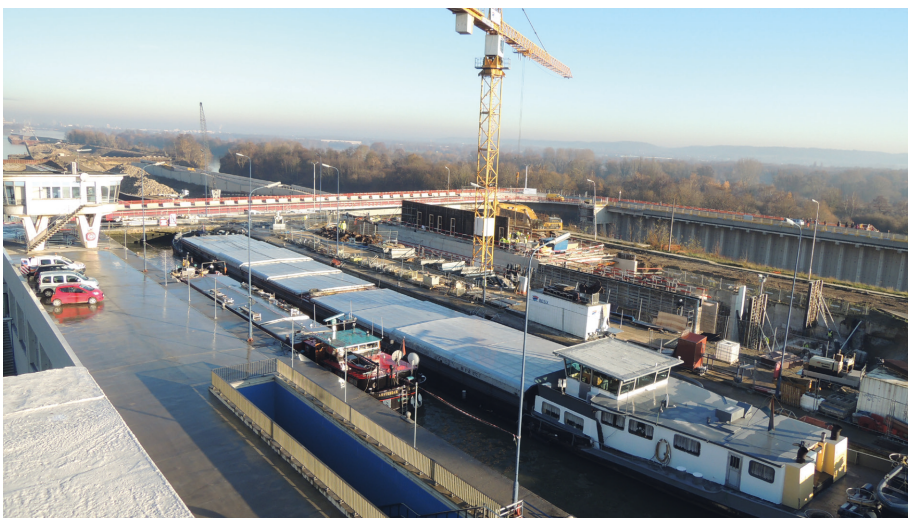
Source: via donau.

(iii) **Locks.** Lock capacity can lead to prolonged travel times because of waiting times due to the size of the vessel or convoys that can pass through the chamber(s). Single

chamber locks risk blocking inland navigation on the entire river if just one is closed for maintenance (see **Picture 2**).

Picture 2

## Inland vessel at the lock in Lanaye

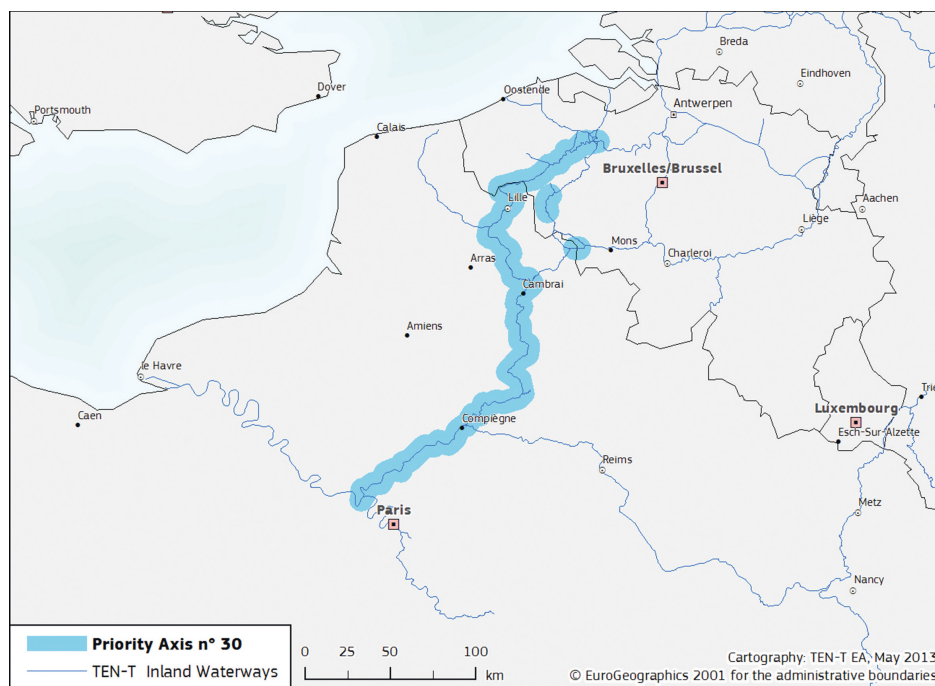


Source: European Court of Auditors.

- (iv) **Missing links.** These are parts of the future network of inland waterways of international importance that do not exist at present. An example of a relevant missing link is the Seine-Scheldt connection between France and Belgium, which is currently being addressed by the Member States concerned and by the TEN-T (see **Figure 4**).

Figure 4

### The missing link between the Seine and the Scheldt



Source: European Commission.

## The role of the European Commission and the Member States

### 11

The European Commission implements its transport policies mainly through two Commission directorates-general: DG Mobility and Transport, which sets the transport policies and finances transport infrastructure projects under the TEN-T programme; and DG Regional and Urban Policy, which provides financial support to Member States and regions through the ERDF and Cohesion Funds (CF) that can be used for transport development.

### 12

The EU funding provided under the TEN-T instrument is directly managed by the Innovation and Networks Executive Agency (INEA)<sup>9</sup>. The Commission publishes annual and multiannual calls for proposals and Member States submit project proposals that the Commission then selects according to pre-defined project selection criteria. The trans-European network guidelines<sup>10</sup> require the completion of a TEN-T comprising rivers and canals with a minimum draught of 2.50 metres, a minimum bridge clearance of 5.25 metres and a minimum length of vessels of 80 metres (see **Annex I**). The inland waterway transport projects financed by the INEA under the 2007–13 framework amount to 747 million euro, which corresponds to 7.9 % of the total TEN-T funding. Projects consisted of studies, generally funded at 50 %, or works that were funded mostly at 10 %–20 % by the TEN-T budget. Most infrastructure projects consisted of improving the fairways to improve navigability, increasing bridge heights and constructing lock chambers.

### 13

As regards IWT projects funded under the European Regional Development Fund (ERDF) and the CF, Member States are responsible for selecting and implementing the specific projects. The Commission and the Member States have to ensure that assistance from the funds is consistent with the activities, policies and priorities of the European Union and complements the Commission's other financial instruments<sup>11</sup>. With regard to the field of transport, the ERDF and the CF regulations<sup>12</sup> provided for the funding of transport investments, including improvements to the trans-European network, and supported the aim of achieving a more balanced distribution of freight across the various modes of transport (modal split). At the time of the audit, the budget allocated to inland waterways for the 2007–13 period was 531 million euro, which corresponds to 0.2 % of the total SFs allocated to Member States and to 0.7 % of the 76 674 million euro allocated for transport. Projects financed under the ERDF/CF operational programmes for transport consisted mainly of works. Projects financed under regional or transnational operational programmes consisted generally of smaller-sized works, such as bridges to connect two Member States, and projects aimed at strengthening the cooperation of national authorities from different Member States.

- 9 INEA is the successor of the Trans-European Network for Transport Executive Agency (TEN-T EA), from which it took over the implementation of the legacy of TEN-T. It is also in charge of the Marco Polo programmes that were previously implemented by the former Executive Agency for Competitiveness and Innovations (EACI).
- 10 Article 15 of Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (OJ L 348, 20.12.2013, p. 1).
- 11 Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999 (OJ L 210, 31.7.2006, p. 25).
- 12 Regulation (EC) No 1080/2006 of the European Parliament and of the Council of 5 July 2006 on the European Regional Development Fund and repealing Regulation (EC) No 1783/1999 (OJ L 210, 31.7.2006, p. 1) and Council Regulation (EC) No 1084/2006 of 11 July 2006 establishing a Cohesion Fund and repealing Regulation (EC) No 1164/94 (OJ L 210, 31.7.2006, p. 79).

## 14

The objective of the Court's audit was to examine whether the inland waterway freight transport strategies have been implemented effectively by the Commission and the Member States. The following main audit questions were assessed.

- (i) Have the projects co-funded by the EU budget contributed effectively to increasing the modal share of inland waterway freight transport and improving navigability conditions?
- (ii) Were the EU inland waterway transport strategies coherent and based on relevant and comprehensive analyses?

## 15

The audit covered the policy and strategy papers from 2001 onwards, when for the first time the Commission set out in a White Paper the need for developing environmentally friendly modes of transport. The audit examined relevant documents made available by the Commission, the UNECE and other third parties, performed

interviews, analyses of reports, reviews of evaluations and assessments of project data. Moreover, the audit reviewed the main indicators for modal share and navigability and based its review on information provided by the Commission, by other relevant organisations such as the UNECE and by third parties. It also involved on-site verification of the achievements of 12 projects co-financed by the SFs and the TEN-T budget in Belgium, the Czech Republic, Germany and Hungary during the 2007–13 programming period. Two of these projects concerned studies, nine projects related to infrastructure works and one project was mixed, as it included both of these (see **Annex II**). When the audit was planned, the countries audited covered 88 % of the expenditure for mature IWW infrastructure projects, i.e. projects that were likely to be completed by the end of 2013 (see **Table 2**).

## 16

The Court also analysed the information provided by DG Regional and Urban Policy, DG Mobility and Transport and the INEA.

Table 2

### Amounts (in million euro) of mature TEN-T, ERDF and Cohesion Funds projects at the date of the audit planning

	Total	AT	BE	CZ	DE	EU <sup>1</sup>	FR	HU	IT	NL	PL	RO	SK
Works	253.2	0.0	3.3	138.0	93.5	0.0	6.8	0.0	0.0	2.0	9.6	0.0	0.0
Studies	47.9	3.4	7.4	0.0	16.5	4.5	7.4	5.1	2.9	0.0	0.0	0.1	0.6
Both	5.5	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>306.7</b>	<b>3.4</b>	<b>16.2</b>	<b>138.0</b>	<b>110.0</b>	<b>4.5</b>	<b>14.2</b>	<b>5.1</b>	<b>2.9</b>	<b>2.0</b>	<b>9.6</b>	<b>0.1</b>	<b>0.6</b>

<sup>1</sup> EU stands for international projects that involve more than one Member State.

Source: ECA analysis based on Commission data.

**The modal share of IWT did not significantly increase and EU-funded projects did not effectively contribute to improving overall navigability conditions**

## 17

The Court assessed whether the modal share of IWT increased and whether navigability conditions improved significantly. In addition, it analysed whether EU-financed projects supported the inland waterway transport objectives, i.e. whether the project objectives were consistent with the inland waterway transport objectives, whether projects were implemented according to the plans and whether they improved the navigability conditions and had the expected impact on inland waterway transport.

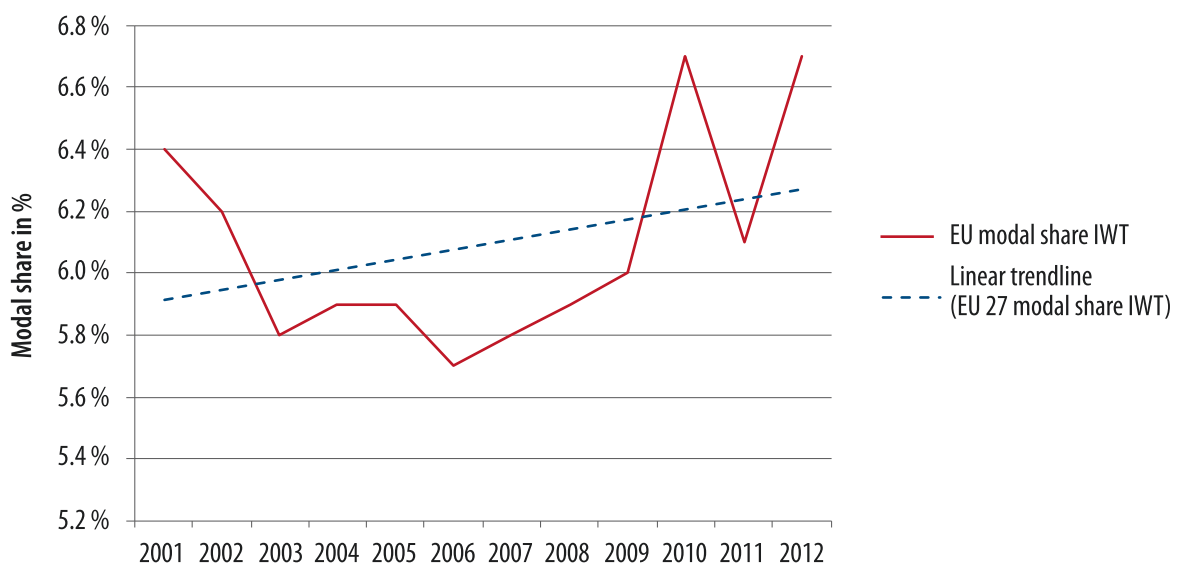
**There was no significant increase in the modal share of inland waterway freight transport**

## 18

In 2001, the Commission set out the objective of shifting traffic from roads to environmentally friendly modes of transport (see **Box 7**). Since then, the modal share of inland waterway has not increased substantially and fluctuated around 6 %. While inland waterway transport accounted for 6.4 % of all land transport modes in 2001, it dropped to 5.7 % in 2006 and increased until the year 2012, when the modal share accounted for 6.7 % (see **Figure 5**).

Figure 5

**Inland waterway transport modal share (EU 27) since 2001**



Source of data: Eurostat.

## 19

The Court, however, noted an exception to this situation in Belgium, the Netherlands and France, where the modal share showed a noticeable increase<sup>13</sup>. In other Member States modal share basically remained steady or declined (see **Annex III**).

### Only a few isolated bottlenecks were addressed, without consideration for corridor and maintenance aspects

## 20

The Court examined whether bottlenecks were addressed during the period under review. Neither the Member States nor the Commission have issued a progress report on the elimination of bottlenecks, with the exception of TEN-T priority projects 18 (Waterway axis Rhine/Meuse-Main-Danube) and 30 (Inland Waterway Seine-Scheldt). Therefore the Court made a comparative analysis of the reports published by the UNECE in the years 2006 and 2012 that included an inventory of the existing bottlenecks.

### Too few bottlenecks were eliminated

## 21

Since 2006, only a small number of bottlenecks have been eliminated. The analysis of the list of bottlenecks published by the UNECE in different years, i.e. in 2006 and 2012, indicates that only five of the 47 bottlenecks listed in the 2006 list were removed by 2012<sup>14</sup>. Based on this rate of progress, it would take around 60–70 years to eliminate all the listed bottlenecks.

## 22

This poor progress was mainly due to the fact that Member States paid little attention to this mode of transport, as illustrated by the Court's review of national strategy papers. The Court also compared the modal share and percentage of funds allocated to IWT to assess the priority level given to this mode of transport. Following the Commission's calls for proposals, relatively few IWT projects were proposed for TEN-T financing. Compared to other transport modes, the project proposals focused on rail transport. For IWT they were less than proportional to its modal share (see **Table 3**) in most Member States with substantial TEN-T expenditure on IWT, except for the Netherlands, and for France and Belgium, which absorbed most of the multinational actions for the Seine-Scheldt connection.

13 In Belgium, there is clear evidence that traffic was moved from road to IWW, as there was a decrease in road transport and a simultaneous increase in IWT.

14 The UNECE list of bottlenecks of 2012 also included 20 additional bottlenecks that were not included in the 2006 list.

Table 3

### Total cost of TEN-T project proposals in the Member States with highest transport volumes and comparison with the IWT modal share

Member State	Project proposals for roads (million euro) A	Project proposals for rail (million euro) B	Project proposals for IWW (million euro) C	Percentage of IWT project proposals $C/(A+B+C)$	Modal share of IWT (year 2012)
EU <sup>1</sup>	170.8	9 866.8	5 399.5	35.0 %	
Belgium <sup>2</sup>	209.4	2 712.4	414.0	12.4 %	24.3 % <sup>3</sup>
Bulgaria	0.0	9.9	0.0	0.0 %	16.4 %
Czech Republic	105.2	768.0	0.0	0.0 %	0.1 %
Germany	448.4	9 482.2	218.3	2.2 %	12.3 % <sup>4</sup>
France <sup>2</sup>	0.0	21 302.7	347.3	1.6 %	4.2 %
Luxembourg		811.1	0.0	0.0 %	3.4 %
Hungary	0.0	39.3	8.0	16.9 %	4.4 %
Netherlands	229.4	496.7	561.4	42.3 %	38.7 %
Austria	785.7	9 552.3	175.5	1.7 %	4.6 %
Romania	0.0	0.0	0.5	100.0 %	22.5 %
Slovakia	27.7	51.4	2.8	3.4 %	2.6 %

1 International projects that involve more than one Member State.

2 Project proposals for this Member State do not include the proposals listed under 'EU' for the completion of the Seine–Scheldt IWW connection.

3 Provisional figure.

4 Figure estimated by Eurostat.

Source of data: European Commission — INEA and Eurostat.

## Most projects examined did not achieve freight transport results

### 23

Overall, the Court found that the impact of the projects examined on freight transport was limited, as other bottlenecks on the corridor were not eliminated nor planned to be eliminated in the near future. Of the projects examined by the Court, 10 related to works and the situation was as follows:

- (a) Only one project, the lock in Lanaye (Belgium), had the potential to contribute to the development of inland waterway transport after its completion (see **Box 2** and **Picture 2**).

#### Box 2

### The lock in Lanaye (Belgium)

The lock in Lanaye (Belgium) had a total cost of 151 million euro, of which 27 million euro was financed by the Commission. It was a good example of cross-border cooperation to eliminate an internationally relevant bottleneck. The project was partly co-financed by the governments of Belgium and the Netherlands and the river is navigated by inland vessels transiting between different Member States.

The project is not completed yet. As the average size of vessels has increased over the past years, the increased size of the lock chamber will improve navigability conditions by reducing waiting times and enabling the transit of larger vessels.

(b) Six projects could not make full use of the improvements resulting from the works because of nearby bottlenecks limiting their effectiveness. This was the case for the railway bridges in Deggendorf

(DE) and in Kolín (CZ), but also for the bridges at the Albert Canal (BE), the lock in Fankel (DE) and the boat lift in Niederfinow (DE) (see for example **Box 3** and **Picture 3**).

## Box 3

### The boat lift in Niederfinow

A boat lift in Niederfinow, between Berlin and the Polish border, had to be renewed because the old boat lift had become obsolete. The new boat lift had a cost of 284 million euro, of which 48.5 million euro was financed by the ERDF. It was planned with a deeper draught in order to cope with vessels carrying heavier loads. The project was designed on the assumption that the remaining part of the channel would be dredged in order to increase its draught accordingly. However, according to a recent prioritisation of rivers carried out by the German authorities, this channel is of such low priority (category 'C') that no further major improvements will be carried out on that river. Therefore, the improved draught of the boat lift will not be exploited.

The project is still ongoing. However, the limited fairway depth will limit the profitability of inland navigation and thus reduce the potential increase in transport capacity.

## Picture 3

### Construction of the new boat lift in Niederfinow



Source: European Court of Auditors.

- (c) Although classified under inland waterways projects for transport, three projects were not relevant to the improvement of navigability conditions on IWW (see for example **Box 4**).

## Box 4

### Project that did not aim at improving inland waterway freight transport

The completion of the Vltava waterway in the section České Budějovice–Hluboká (Czech Republic) cost 32 million euro, of which 20.5 million was financed by the ERDF under the operational programme for transport. Although classified as an inland waterway transport project, it was mainly a tourism-related project. The waterway is only of regional importance and is not part of the European transport network. Moreover, the bottleneck is not listed in the lists of bottlenecks published by the UNECE and by the Platina project (see **Picture 4**).

## Picture 4

### Port for small passenger and private boats, part of the ERDF co-funded project on the Vltava waterway



Source: European Court of Auditors.

## Two studies did not result in the elimination of relevant bottlenecks

### 24

Two projects consisted of studies which, although potentially addressing bottlenecks, were not followed by the relevant works to eliminate the bottlenecks (see **Box 5**).

#### Box 5

### Ineffective studies for the elimination of bottlenecks on the Danube

The Danube section between Straubing and Vilshofen in Germany is critical for the entire inland waterway network. As various stakeholders, including environmentalists, had disputed the previous studies analysing alternative variants to eliminate the bottlenecks, the European Commission and the German authorities decided to carry out a new in-depth variant-independent study to analyse the possible cost and impact of two plausible variants. These were a variant 'A' aimed at a slightly lower environmental impact but less extensive improvements to navigability conditions, and a variant 'C 2.80' aimed at better navigability conditions with a slightly higher environmental impact (the ecological compensation areas were 1 360 ha for variant 'A' and 1 415 ha for variant 'C 2.80' (see **Annex IV**)). The level of detail of the study was such that detailed technical plans for the implementation of both variants were produced.

The study cost 30 million euro, of which 50 % was financed by EU funds.

While according to the study variant 'C 2.80' resulted in better navigability conditions and a higher benefit-cost ratio (see **Annex IV**), the German authorities decided to implement variant 'A', which is not going to provide the necessary navigability conditions for the durable development of inland waterway transport in Europe.

Similarly, an 8 million euro project, 50 % of which was financed from EU funds, consisting of a study on the improvement of navigability conditions on the Hungarian section of the Danube involved obtaining environmental permits for 31 intervention sites by the end of the project. However, although the environmental authorities had granted some of the permits, these were then revoked. Currently, court cases are still pending and no works have been initiated or planned to improve navigability on the Hungarian section of the Danube (see paragraph 40).

## Implementation delays, partly due to lengthy administrative procedures

### 25

Furthermore, the Court assessed whether projects were implemented according to the plans. It based its assessment on the analysis of the TEN-T multiannual programme's project portfolio mid-term review and of 10 inland waterway infrastructure projects financed under the ERDF or the TEN-T budget.

### 26

According to the TEN-T multiannual programme's project portfolio mid-term review, 60 % of the TEN-T projects were delayed, 40 % by more than 1 year. According to the review, many delays were due to the fact that projects were not yet mature, as Member States proposed projects for which environmental permits had not yet been issued.

### 27

Also, most of the projects examined by the Court faced delays. Some were due to the lack of environmental or construction permits, such as the Briegden and Oelegem bridges in Belgium, or due to lengthy environmental or public procurement disputes (Fankel lock in Germany (see **Box 6**) and Lanaye lock in Belgium).

## Box 6

### Completion of the project in Fankel took more than 20 years

The Fankel lock project had been included in the German transport strategy of 1992 among the higher-priority projects. The project planning stage started in 1993, but the works were not inaugurated until 13 years later, in June 2006, due to the fact that its implementation was systematically postponed.

The project implementation, which started in 2006, was planned to be finalised by 2011, but was completed in 2014. The delays were mainly due to public procurement disputes and to changes in the project design after the implementation had started.

### EU strategies for IWT were not based on a comprehensive and robust analysis

#### 28

The Court assessed:

- (a) whether the Commission, together with the Member States, had developed or designed coherent strategies with regard to inland waterway transport, based on assessments of the current situation, of the transport needs and of inadequate infrastructure to address;
- (b) whether these strategies took the issue of river maintenance sufficiently into account.

### EU strategies not based on robust analysis

#### 29

The Court analysed the White Papers of 2001 and 2011, which proposed the EU transport policy for each decade, and the EU and national transport strategies and action programmes (of the Member States audited), including the TEN-T guidelines and the Naiades action programme, to analyse whether the policy and strategy papers were based on robust analyses and had precise objectives.

#### 30

The European policy and strategy papers did not clarify whether investments in upgrading the river infrastructure could lead to the expected shift in traffic from roads to inland waterways.

#### 31

None of these papers assessed whether the elimination of bottlenecks in the various corridors would impact market demand for IWT to provide benefits in terms of reduction of road traffic, pollutant emissions and transport costs<sup>15</sup>. The potential market demand for inland waterway transport in the different corridors was not assessed. Therefore, the costs and benefits of investing in different networks, rivers or river stretches were not known.

#### 32

The policy and strategy papers also lacked precise objectives with regard to inland waterway transport (see **Box 7**).

<sup>15</sup> According to the Commission-financed report 'Medium and long-term perspectives of inland waterway transport in the European Union', the modal share of inland waterway transport is going to decline in a low- or medium growth scenario, whereas in a high-growth scenario the modal share will not decline further and will end up at approximately 6.0 % in 2040.

### Strategy papers lacked precise objectives with regard to the increase of modal share for IWT

The White Papers of 2001 and of 2011 were the Commission's key policy papers in the transport area, but they were not legally binding. The first envisaged the generic objective of shifting traffic from roads to more environmentally friendly transport modes, which include both rail and inland waterway transport. The more recent White Paper of 2011 quantified this by setting a target of 30 % of medium-distance freight journeys to be shifted from road to rail and waterborne transport by 2030. However, none of the papers specified the extent to which inland waterway transport was supposed to contribute to this objective.

The TEN-T guidelines of 2010, which took the form of a decision of the European Parliament and of the Council, had set the strategy objective of completing the TEN-T network by 2020. The TEN-T guidelines of 2013, which took the form of a regulation and therefore imposed legal obligations on Member States, introduced the requirement of completing the 'core' and the 'comprehensive' networks respectively by 2030 and 2050.

The only document that has set a quantitative target for inland waterway transport is the 'Danube strategy'<sup>16</sup>, which took the form of a communication from the Commission and has a more limited geographical scope. It envisaged the target of increasing the cargo transport on the river by 20 % in 2020 compared to 2010.

<sup>16</sup> COM(2010) 715 final of 8 December 2010, 'European Union strategy for the Danube Region'.

### EU strategies did not fully address important key obstacles to their implementation at Member State level

#### Member States' approaches were inconsistent

### 33

Bottlenecks in one Member State may affect inland waterway transport in neighbouring countries. Therefore it is important that Member States' transport strategies are consistent and coordinated. The Court found however that Member States' strategies showed different approaches with regard to inland waterway transport and their attention towards this mode of transport varied considerably.

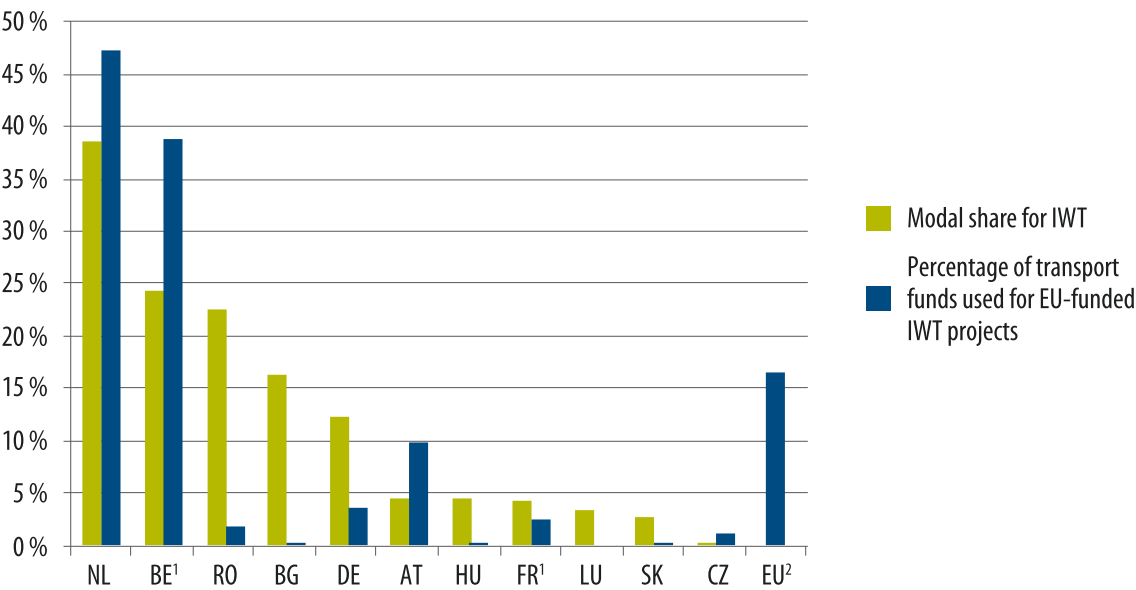
### 34

For example, the Court found that the share of the budget allocated for EU-financed inland waterway transport projects varied considerably between Member States. While the Netherlands allocated around 47 % of EU transport funds to IWT (with a modal share of 39 %) and Belgium allocated around 39 % of EU transport funds to IWT (with a modal share of around 29 %), most other Member States allocated a significantly lower percentage of funds compared to the modal share of IWT (see **Figure 6**)<sup>17</sup>. In all Member States except for Austria, Belgium, the Netherlands and France, funds were concentrated on other transport modes, especially rail transport (see also **Table 3**). This resulted in less ambitious goals and in low budgetary allocations for implementing projects that could improve the navigability conditions of inland waterways.

<sup>17</sup> As a term of comparison, the Netherlands was the Member State that allocated most funds to IWT (more than 40 % of its total funds for TEN-T projects while having a modal share of around 39 %).

Figure 6

**Comparison between modal share of IWT and percentage of EU funds allocated to IWT in the 2007–13 period in MS on the main inland waterway corridors. Funds include TEN-T, ERDF and Cohesion Funds for local, regional and TEN-T waterways**



- 1 Project proposals for this Member State do not include the proposals listed under 'EU' for the completion of the Seine–Scheldt IWW connection.  
2 International projects that involve more than one Member State.

Source of data: European Commission.

35

For those inland waterway corridors that cross different Member States, the Court noted that the different approaches by Member States hindered the smooth development of this mode of transport on the main European rivers, as investments in upgrading rivers' navigability conditions require coordination to be effective.

## Box 8

### Different approaches by Member States — examples of the Elbe and Danube rivers

The performance of inland waterway transport in the Czech Republic depends, among other factors, on the performance of inland waterway transport on the Elbe in the German section. However, despite a recent classification of rivers by the German authorities according to their priority levels, the Elbe has not yet been classified. According to a recent agreement between the federal government and the affected *Länder*<sup>18</sup>, the current navigability conditions should be kept but Germany will limit its maintenance efforts and is not going to invest further in the upgrading of its navigability conditions.

Although the Danube flows through Hungary for more than 400 km, this Member State has a limited inland waterway fleet and only a few ports that could benefit from inland waterway transport. Therefore, it had no direct interest in developing the works necessary to improve navigability conditions.

18 Beschlussfassung der 6. Bund-Länder-Sitzung of 23.5.2013 in Berlin — Eckpunkte für ein Gesamtkonzept Elbe des Bundes und der Länder.

### The cost of eliminating all bottlenecks exceeds by far the available funding

#### 36

Until 2006, the Commission had not provided any estimate of the cost of developing the inland waterways within the trans-European network. In 2006, the Naiades programme identified the cost for the two IWT priority projects (see paragraph 42) at around 3.7 billion euro<sup>19</sup>. In 2010 the

Platina project estimated the cost for eliminating bottlenecks in Europe at more than 16 billion euro (see **Box 9**).

#### 37

The estimated costs for eliminating all identified bottlenecks exceed by far the limited available funding from the EU budget for IWT infrastructures. Therefore, to address this gap there is a need for additional financing from national and/or private sources.

19 Annex to the Naiades programme (COM(2006) 6 final).

## Box 9

### The Platina project and the inventory of bottlenecks

In order to accelerate the achievement of the Naiades objectives, the Commission created, together with a consortium of 23 different partners, the **Platina** project. This consisted of a multidisciplinary knowledge network, financed under the European Union's seventh framework programme for research (FP7) that aimed at creating the momentum necessary to achieve the Naiades objectives.

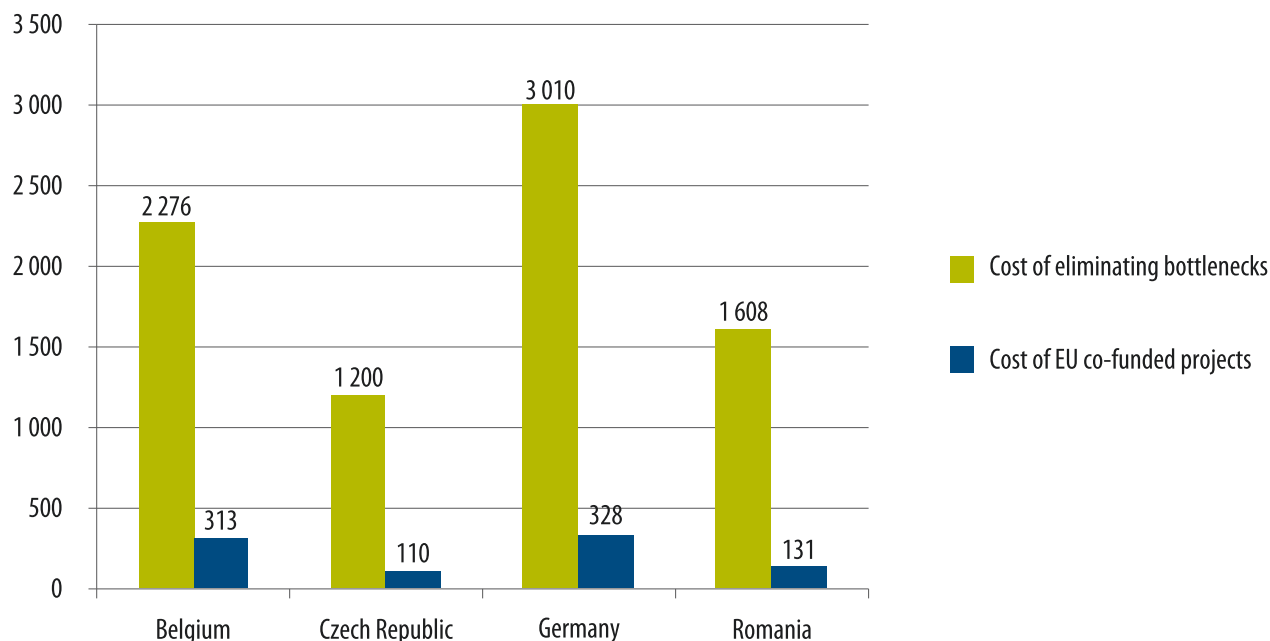
In 2010, the Platina project quantified the approximate cost of eliminating many of the inland waterway bottlenecks identified in Europe (see **Figure 7**). According to this list, the cost of eliminating bottlenecks and filling missing links in countries on relevant IWT corridors<sup>20</sup> was estimated to be more than 16 billion euro<sup>21</sup> (see **Annex V**).

20 Belgium, Bulgaria, Czech Republic, Germany, France, Hungary, the Netherlands, Austria and Romania.

21 This figure does not include the cost for removing bottlenecks in Hungary, as this was not quantified, and the Saône–Moselle and Rhine link in France, which was estimated at around 10 billion euro.

Figure 7

**Cost of eliminating bottlenecks (in million euro) vs. cost of Commission co-funded projects implemented in the 2007–13 period in the countries visited during the audit**



The cost of eliminating bottlenecks in Hungary was not quantified.

Source of data: Platina inventory of bottlenecks and European Commission.

### Environmental protection needs collided with inland waterway transport development needs

#### 38

Rivers offer a natural habitat to a number of species which can be affected by the implementation of infrastructure projects<sup>22</sup>. Therefore, environmental permits are required in order to start the implementation of such projects. The Court examined whether delays were caused by difficulties in obtaining environmental permits.

#### 39

Inland waterway transport projects faced many difficulties due to the need to ensure an adequate level of environmental protection on the one hand, and the need to ensure an adequate development of this transport mode on the other. Projects were often subject to political and environmental considerations and to disputes among the different stakeholders and with civil society that delayed or blocked their implementation. In addition, obtaining the relevant environmental permits often required time-consuming administrative procedures and implied costly environmental compensation measures.

22 Many rivers' sites are part of nature protection areas that form the so-called 'Natura 2000' network.

## 40

This led in some Member States to fewer projects being implemented or to the funding of lower priority projects.

- (a) At the beginning of the 2007–13 programming period, 75 million euro from the CF had been allocated to IWT in Hungary. However, this amount was then reduced to only 3.2 million euro, i.e. a reduction of almost 96 % of the initial allocation. The initial allocation was based on the assumption that, following a TEN-T financed study with an 8 million euro budget, the subsequent works for the improvement of navigability on the Hungarian section of the Danube would have followed in a timely manner and been completed by 2015. However, the necessary environmental permits were not issued. As the budget allocated to inland waterway transport in Hungary was part of the same priority axis as rail transport, the funds were shifted to the latter, for which no prior consultation with the Commission was required.
- (b) In the Czech Republic, the ERDF funds allocated to inland waterways for the 2007–13 period were based on the assumption that a relevant bottleneck in Děčín would have been removed, at an estimated total cost of 142 million euro, by 2015. However, the environmental permits could not be delivered in time to enable the project implementation within the period in which such projects could be financed. Therefore, in order not to withdraw these funds from the operational programme, a number of other projects, far less relevant for freight transport, were implemented. This led to the consumption of the allocated funds without any significant improvement of inland waterway freight transport.

## Insufficiently focused approach in selecting projects

## 41

The two main EU sources of funds for the implementation of the inland waterway transport strategy were the TEN-T budget on the one hand, and the ERDF and the CFs on the other (see paragraphs 12 to 13):

- (a) The funding from the TEN-T budget is in principle aligned with the EU transport policy objectives. Projects co-financed by this budget are submitted by Member States to the Commission following annual or multiannual calls for proposals and the Commission selects the projects among all project proposals submitted by Member States for different modes of transport.
- (b) The ERDF and CF objectives are considerably wider than the transport objectives. Projects are selected directly by Member States following the approval of operational programmes that established priority axes and allocated a budget to each of these. Only major projects, i.e. projects costing more than 50 million euro, have to be specifically assessed by the Commission.

## 42

The TEN-T regulation and guidelines of 2010<sup>23</sup> had identified a TEN-T network of more than 30 000 km in length. It also included two priority projects in the field of inland waterway transport, which had already been approved by the Commission in 2007: priority project 18 (waterway axis Rhine/Meuse–Main–Danube) and priority project 30 (inland waterway Seine–Scheldt). There were however no criteria to prioritise bottlenecks within these corridors. The only priority mentioned for bottlenecks was the Danube section between Straubing and Vilshofen in Germany, which was listed in the White Paper of 2001 as an example of bottlenecks to be eliminated.

## 43

In order to prioritise waterways within the TEN-T network, the new Connecting Europe Facility and TEN-T guidelines of 2013<sup>24</sup> established a core and a comprehensive network, which Member States have a legal obligation to complete by 2030 and by 2050 respectively (see **Figure 1**). However, for inland waterways there is no difference between the core and the comprehensive network, which does not help with prioritisation within the waterways.

## 44

Inland waterway transport projects financed by the ERDF were generally not located on inland waterways with high freight transport volumes and often did not target the inland waterway freight transport needs (see paragraphs 23 and 24). This was due to the fact that not all eligible countries and regions were on waterways with high transport volumes<sup>25</sup> and that Member States decided to allocate ERDF/CF to IWT projects on rivers with low traffic volumes.

## 45

To maximise their impact, limited resources should be focused on the highest priority needs. A prioritisation of rivers or river segments would be pertinent, as most of the benefits following the elimination of a bottleneck would materialise only once the entire river section is upgraded accordingly (see also paragraph 23 (b)). The Court found that EU strategies did not prioritise the envisaged activities, nor did they prioritise the rivers on which to invest the limited resources.

23 Decision No 661/2010/EU of the European Parliament and of the Council of 7 July 2010 on Union guidelines for the development of the trans-European transport network (OJ L 204, 5.8.2010, p. 1).

24 Regulation (EU) No 1315/2013.

25 Eligible countries for 2007–13 CFs are Bulgaria, Czech Republic, Estonia, Greece, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovenia, Slovakia and Spain (transitional support). Regions eligible for ERDF funds under the convergence objective are in Belgium, Bulgaria, Czech Republic, Germany, Estonia, Greece, Spain, France, Italy, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovenia, Slovakia, and United Kingdom.

## Member States do not pay sufficient attention to river maintenance

### 46

Despite its importance, maintenance is often neglected, and Member States did not allocate sufficient funds for maintenance leading to a considerable maintenance backlog<sup>26</sup>. The Court therefore analysed whether EU strategies covered the aspect of river maintenance. This was done by comparing relevant studies and reports on river maintenance in order to assess whether maintenance activities were in line with the EU strategies in place.

### 47

The Court found that river maintenance is a crucial aspect of inland navigation, as the lack of maintenance could result in the deterioration of the existing navigability conditions and the formation of new bottlenecks, reducing the effectiveness of inland waterway infrastructure projects. Therefore, it is very important that the Commission receives assurance about the effectiveness of the maintenance carried out by all Member States that are relevant for inland navigation.

### 48

The Court also observed that not all Member States have ratified the declaration on effective waterway infrastructure maintenance (see **Box 10**).

### 49

Currently, with the exception of the Danube<sup>27</sup> there is no evidence of systematic reporting by Member States to the Commission on the navigability status, the maintenance needs, the actual maintenance efforts and possible gaps. Therefore, the Commission itself is unaware of whether its co-financed projects are going to be sustainable in the medium and long term and whether navigability conditions are going to be kept at satisfactory levels in all sections of the main European rivers.

26 The report 'Medium and long-term perspectives of inland waterway transport in the European Union' confirmed that poor maintenance of waterways by several Member States is a problem, in particular on the East–West and Danube corridors.

27 As regards the Danube river, systematic reporting by Member States on the navigability status of the Danube takes place in the framework of the EUSDR Steering Group on PA1A (Inland Waterway Transport). This is organised and coordinated by Austria and Romania (the transport ministries and viadonau), together with the Commission (DG Regional and Urban Policy and DG Mobility and Transport) and the coordinator for the corridor.

## Box 10

### Hungary has not signed the 'Declaration on effective waterway infrastructure maintenance on the Danube and its navigable tributaries'

On 7 June 2012, the ministers for transport of the countries in the Danube basin met in Luxembourg in order to sign a declaration on effective waterway infrastructure maintenance. This declaration committed these countries inter alia to ensuring that the regular fairway maintenance work on the Danube and its tributaries was executed and to maintaining adequate fairway parameters for a good navigation status.

The declaration on effective waterway infrastructure maintenance was signed in 2012 by all relevant Member State, except for Hungary.

## 50

The Court found that, despite the objective of shifting traffic from roads to environmentally friendly transport modes, overall the modal share of inland waterway transport has not significantly increased since 2001 within the EU. The Court therefore considers that the European IWT strategies have not been effectively implemented, as the policy objective of shifting goods transport from roads to inland waterways has not been achieved and overall navigability conditions have not improved. Moreover, the audited projects co-funded from the EU budget were not effective in improving navigability and increasing traffic volumes on inland waterways.

## 51

The Court also notes that developing inland waterway transport requires considerable coordination among Member States and that, as for other larger infrastructure projects, political and environmental considerations may affect the implementation of inland waterways projects.

## 52

The Court considers that the failure to improve modal share and overall navigability conditions was due to the very limited number of projects proposed and executed by the Member States, to the fact that frequently the implemented projects were not the most relevant ones to eliminate bottlenecks, and to bottlenecks eliminated in an isolated manner.

## Recommendation 1

In order to improve the effectiveness of the EU funding of inland waterway transport and to ensure better project performance:

- (a) the Member States should prioritise inland waterway projects which are on the corridors, rivers or river segments that provide the greatest and most immediate benefits for improving inland waterway transport;
- (b) the Commission should focus its funding on those projects that are most relevant for inland waterway transport and for which there are already advanced plans in place to eliminate nearby bottlenecks when selecting project proposals for financing.

## 53

The Court found that the EU strategies lacked some important analyses. They did not identify the overall benefits of inland navigation in different corridors and did not assess the extent to which IWT should contribute to the policy objective of shifting traffic from roads to environmentally friendly transport modes. Member States adopted different approaches and gave different levels of priority to this mode of transport, which led to an uncoordinated approach along the IWW corridors. Member States where inland waterway transport plays a significant role in the transport mix paid it greater attention, whereas Member States that expected fewer direct benefits gave it a considerably lower priority.

## Conclusions and recommendations

### 54

Funding efforts for inland waterway freight transport were not concentrated and prioritised effectively. All riparian Member States were supposed to contribute to the strategy implementation, although the direct interest of some of them was low. Moreover, insufficient attention was given to river maintenance on the main inland waterway transport corridors. Therefore, there is scope to tackle the problem and to provide the necessary added value at the European Union level.

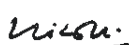
### Recommendation 2

As regards the future development of the EU's strategy for inland waterway freight transport, and with a view to achieving better coordination between Member States:

- (a) the Commission should carry out in-depth analyses of the potential market and benefits of inland navigation on different river segments and coordinate across Member States the implementation of the core TEN-T network, taking into account their potential for developing inland waterway freight transport corridors;
- (b) the Commission and Member States should agree during the corridor implementation on specific and achievable objectives and precise milestones to eliminate bottlenecks on corridors in the framework of the Connecting Europe Facility — this should take due account of the TEN-T objective of completing the core network by 2030, the availability of funds at EU and Member State levels and the political and environmental considerations in relation to building new (or upgrading existing) inland waterway transport infrastructures;
- (c) the Commission should, in the context of the next revision of the TEN-T regulation, propose the strengthening of the legal base in order to (i) broaden the reporting requirements in relation to the navigation status of the waterways and (ii) require Member States to elaborate national inland waterway maintenance plans in a coordinated way.

This report was adopted by Chamber II, headed by Mr Henri GRETHEN, Member of the Court of Auditors, in Luxembourg at its meeting of 28 January 2015.

*For the Court of Auditors*



Vítor Manuel da SILVA CALDEIRA  
*President*

Annex I

Classification of European inland waterways according to Resolution No 92/2 of the European Conference of Ministers of Transport

Type of inland waterways	Classes of navigable waterways	Motor vessels and barges					Pushed convoys					Minimum height under bridges	
		Type of vessel: General characteristics					Type of convoy: General characteristics						
		Designation	Maximum length	Maximum beam	Draught	Tonnage		Length	Beam	Draught	Tonnage		
1	2	3	4	5	6	7	8	9	10	11	12	H(m)	
Of regional importance	I	Barge	38.5	5.05	1.80–2.20	250–400							4.0
	II	Kampine-Barge	50–55	6.6	2.50	400–650							4.0–5.0
	III	Gustav Koenigs	67–80	8.2	2.50	650–1 000							4.0–5.0
	I	Gross Finow	41	4.7	1.40	180							3.0
	II	BM–500	57	7.5–9.0	1.60	500–630							3.0
	III		67–70	8.2–9.0	1.60–2.00	470–700		118–132	8.2–9.0	1.60–2.00	1 000–1 200		4.0
	IV	Johann Welker	80–85	9.5	2.50	1 000–1 500		85	9.5	2.50–2.80	1 250–1 450		5.25 or 7.00
Of international importance	Va	Large Rhine vessels	95–110	11.4	2.50–2.80	1 500–3 000		95–110	11.4	2.50–4.50	1 600–3 000		5.25 or 7.00 or 9.10
	Vb							172–185	11.4	2.50–4.50	3 200–6 000		
	Vla							95–110	22.8	2.50–4.50	3 200–6 000		7.00 or 9.10
	Vlb		140	15.0	3.90		185–195	22.8	2.50–4.50	6 400–12 000		7.00 or 9.10	
	Vlc							270–280	22.8	2.50–4.0	9 600–18 000		9.10
	VII							285	33.0–34.2	2.50–4.50	14 500–27 000		9.0

## List of projects examined by the Court

MS	Project/OP reference	Fund	Description	River/corridor	Total cost (in million euro)	EU funding (in million euro)	Complete
BE	2009-BE-00049-E	TEN-T	Rebuilding the Noorderlaanbridge on the Albert Canal	Albert Canal	13.42	1.34	yes
BE	2010-BE-92214-P	TEN-T	Rebuilding the Briegden and Oelgem I bridges on the Albert Canal	Albert Canal	15.72	1.57	no
BE	2010-BE-18070-P	TEN-T	Construction of a navigation lock chamber and a pumping station on the Albert Canal at Lanaye	Albert Canal	151.22	26.93	no
CZ	CZ. 1.01/6.2.00/09.0131	ERDF	Reconstruction of the railway bridge Kolin	Elbe river	41.06	28.86	yes
CZ	CZ 1.01/6.2.00/09.0130	ERDF	Completion of Vltava waterway in the section České Budějovice–Hluboká	Vltava river	31.91	20.52	yes
CZ	CZ 1.01/6.2.00/08.0081	ERDF	Public port Ústí nad Labem–Vaňov, modernisation of port quay with flood protection of vessels	Elbe river	5.22	3.99	yes
DE	2007-DE-18050	TEN-T	Independent variant research on the development of the Danube between Straubing and Vilshofen	Priority project 18 (Danube)	26.7	13.35	yes
DE	2007-DE-18030	TEN-T	New construction of the rail bridge above the Danube at Deggendorf	Priority project 18 (Danube)	35.05	7.01	yes
DE	2007-DE-90602-P	TEN-T	Construction of the second lock basin in Fankel (Mosel)	Moselle	49.14	4.91	yes
DE	2009-DE-161-PR003 (SF)	ERDF	Construction of the boat lift Niederfinow	Havel-Oder-Canal (HVO)	284.00	48.52	no
DE	2007-DE-161P0002 (SF)	ERDF	Partial refurbishment of the Hohenbruch lock	Ruppiner Canal	0.49	0.35	yes
HU	2007-HU-18090S	TEN-T	Studies for the improvement of the navigation on the Danube, Hungarian section of priority project No 18	Priority project 18 (Danube)	8.00	4.00	Yes
TOTAL					661.93	161.35	

### Modal share of inland waterway transport of all land transport modes in the Member States (MS) on the main inland waterway corridors from 2001 until 2012 (in %)

MS	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU	6.4	6.2	5.8	5.9	5.9	5.7	5.8	5.9	6.0	6.7	6.1	6.7
BE	11.3	11.8	12.5	13.1	14.1	14.7	14.9	15.6	14.3	17.6	18.5	24.3 <sup>2</sup>
BG <sup>1</sup>	3.1	4.0	4.0	3.9	3.7	3.9	4.8	12.6	20.7	21.0	15.0	16.4
CZ	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
DE	15.0	15.0	14.0	14.0	14.0	12.8	12.0	12.3	12.1	13.0	11.2	12.3 <sup>3</sup>
FR	3.1	3.1	3.1	3.2	3.5	3.4	3.4	3.5	4.1	4.3	3.9	4.2
LU	3.8	3.7	3.0	3.5	3.6	4.0	3.3	3.8	3.1	3.9	3.2	3.4
HU	4.0	5.2	5.5	6.1	5.8	4.5	4.6	4.7	4.1	5.3	4.0	4.4
NL	34.0	33.0	32.0	31.0	32.0	32.1	35.0	34.7	31.3	36.0	36.7	38.7
AT	4.5	4.9	3.9	2.9	3.0	3.0	4.2	4.0	4.1	4.7	4.2	4.6
RO <sup>1</sup>	7.3	8.2	7.1	11.0	11.0	10.0	9.8	10.8	20.6	27.0	21.7	22.5
SK	4.0 <sup>3</sup>	0.4	0.3	0.3	0.3	0.3	2.7	2.8	2.5	3.2	2.4	2.6

1 In 2009, Bulgaria and Romania changed method for recording inland waterway traffic. Therefore, data from 2009 onwards cannot be compared with previous years' data.

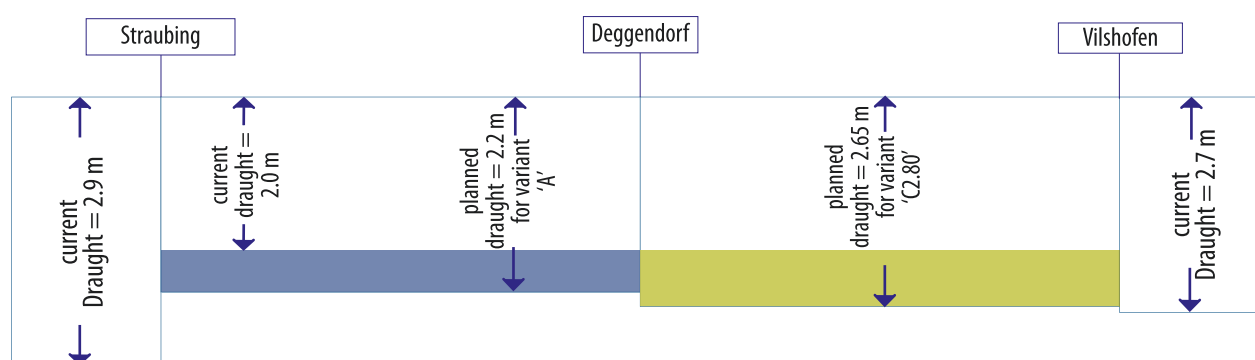
2 Provisional figure.

3 Figure estimated by Eurostat.

Source of data: Eurostat.

## The different variants for the elimination of the bottleneck in the section Straubing–Vilshofen

Figure - Bottleneck between Straubing and Vilshofen and alternative variants for its elimination



Danube draught between Straubing and Vilshofen

Source: European Court of Auditors.

Table — Comparison between variant 'A' and variant 'C 2.80'

	Variant 'A'	Variant 'C 2.80'
Modal shift from road and train towards IWT	1.17 million t	3 million t
Yearly number of vessels	9 742 (+336 yearly)	10 896 (+ 1 490 yearly)
Annual transport cost savings	33.9 million euro	78.6 million euro
Differences of average waiting times on this stretch	From 4.11 to 4.20 hours	Despite higher transport volumes, decrease from 4.11 to 2.65 hours
Total transport capacity	11.02 million t	12.83 million t
Accident rate: No of accidents/(length of section × No of vessels) × 1 000 000	82.9 to 62.2	82.9 to 30.4 (in comparison to the Rhine between 10 and 25)
Benefit–cost — difference in euro	722 million euro	1 728 million euro
Benefit–cost — ratio	6.6	7.7
Expenditures for flood protection measures	ca 300 million euro (net)	ca 280 million euro (net)
Expenditures fairway — works	ca 160 million euro (net)	ca 320 million euro (net)
Ecological compensation areas for flood protection measures and fairway works (all interventions can be compensated)	ca 1 360 ha	ca 1 415 ha
Draught of 2.5 m (currently on 144 days/year)	200 days/year	301 days/year

### Cost of eliminating bottlenecks according to the Platina inventory of bottlenecks and missing links of 31.3.2010

Member State	Stretch	Works/problems to solve	Planning horizon	Estimated costs (in million euro)
France	Saône–Moselle (E 10-02) and Rhine link (E 10)	In order to open up the Rhône basin — linking Lyons, Marseilles, the Rhône river and the Mediterranean basin to the northern network — the connection of the Saône/Rhône–Northern network has been debated for a long time.	finalised before 2025	10 000.00
	Seine–Moselle link (E 80)	To link Paris, the port of Le Havre and Rouen and the Parisian basin more directly to the northern network.	finalised before 2025	to be determined
	Seine–Schelde link (E 05)	To link Paris, the port of Le Havre and Rouen and the Parisian basin to the northern network. Canal will be 106 km long.	finalised before 2025	4 000.00
	Rhône–Rhine Canal (E 10)	No priority to French government		
	Oise (E 80) from Conflans to Creil. Section to be extended up to Compiègne	Part of the Seine–Escaut project — 75 km long. Project ongoing.	finalised before 2025	130.00
	Oise (E 80) Creil and Conflans	Project to be considered inside the previous bottleneck. Increasing the water draught up to 4 m between Creil and Conflans-Sainte-Honorine.	finalised before 2025	budget included in Seine–Scheldt project
	Dunkerque–Escaut link and Escaut (E 01) up to Condé	Canal is silted up. No navigation is possible. Canal has to be dredged, thus allowing for new traffic with Belgium.	finalised before 2025	budget included in Seine–Scheldt project
	Moselle (E 80) Metz and Apach	Lifting of six bridges between Metz and Apach — 59 km — enabling three-layer container transport.	finalised before 2025	10.00
	Deûle Canal (E 02) — lock at Quesnoy sur Deûle	Lock too small forcing pushed convoys to be separated before the lock can be crossed. The result of this separation is a significant amount of time lost.	finalised before 2025	40.00
	Port of Le Havre (E 80-02)	No direct access to the Port 2000 container terminals for inland waterway vessels.		166.00
	Seine (E 80-04) — section Bray and Nogent-sur-Seine	Improvement of the river transport service is envisaged, linking the Paris area to agricultural industries and products, as well as quarries supplying building material from the Champagne region.	finalised before 2025	250.00
	Rhône to Sète canal (E 10-04) Rhône to Sète	Restoration of the banks and lifting of bridges (to 5.25 m) enabling convoys 120 m long, 11.40 m wide and two-layer containers to navigate (between class IV and Va).	finalised before 2025	130.00
Total France				14 726.00

Member State	Stretch	Works/problems to solve	Planning horizon	Estimated costs (in million euro)
<b>Luxembourg</b>	<b>Total Luxembourg</b>	<b>None</b>		<b>0.00</b>
<b>Netherlands</b>	Zuid–Willemsvaart (E 70-03)	Insufficient accessibility in the waterway stretch between Den Bosch and Veghel. Planned activities are the construction of a class IV bypass around Den Bosch and upgrading of Zuid–Willemsvaart up to Veghel to class IV.	finalised before 2025	469.00
	River IJssel (E 70)	Class Va vessels have navigation problems due to dimensions and curves on the section between Arnhem and Zutphen.	finalised before 2025	43.00
	Meppel–Ramspol (E 12-02)	Due to low/high water levels, the lock at Zwartsluis is blocked for 16 days/year on average, preventing inland navigation during this period.	finalised before 2025	47.00
	Lemmer–Delfzijl route (phase 1) (E 15)	The northern part of the Netherlands is not accessible for vessels with four layers of containers. Six bridges on the route cause problems for four-layer container transport.	finalised before 2025	205.00
	Lemmer–Delfzijl route (phase 2) (E 15)	Insufficient waiting areas	finalised before 2025	to be determined
	Twente Canal (E 70)	Insufficient lock capacity	finalised before 2025	125.00
	Lek Canal (E 11-02)	Fairway depth and lock capacity	finalised before 2025	225.00
	Maasroute (E 01)	Fairway depth and lock capacity	finalised before 2025	1 600.00
	Maasroute — Albert Canal (E 01)	Lock capacity	finalised before 2025	10.50
	Juliana Canal (part of Maas route) (E 05)	Fairway depth and lock capacity	finalised before 2025	79.00
	Rotterdam–Gent Corridor (including Canal Gent–Terneuzen) (E 03, E 06)	Fairway depth and width and lock capacity	finalised before 2025	to be determined

Member State	Stretch	Works/problems to solve	Planning horizon	Estimated costs (in million euro)
Netherlands	IJsselmeer–Meppel (E 12)	Fairway depth and/or width (shallow water)	finalised before 2025	43.00
	Amsterdam–Rhine Canal (E 11)	Lock capacity	finalised before 2025	17.00
	Amsterdam–Lemmer (E 11)	Fairway depth and/or width (shallow water)	finalised before 2025	16.00
	Amsterdam–Lemmer (E 15)	Fairway depth and/or width (shallow water)	finalised before 2025	7.00
	River Zaan (E 11-01)	Fairway depth and/or width, bridge clearance	finalised before 2025	to be determined
	Rhine–Scheldt connection (E 06)	Insufficient waiting areas	finalised before 2025	to be determined
	Burgemeester Delenkanaal (E01)	Small curves	project is executed	
	Wilhelmina Canal (E 11)	Fairway width, lock capacity	finalised before 2025	83.00
	River IJssel (E 12)	Insufficient waiting areas	finalised before 2025	36.00
	River Waal (E 10)	Fairway depth and width	finalised before 2025	187.00
	Gouwe (E 10)	Lock capacity	finalised before 2025	to be determined
	Merwede (E 10)	Insufficient waiting areas	finalised before 2025	to be determined
	North Sea Canal (E 01)	Lock capacity and accessibility	finalised before 2025	to be determined
	<b>Total Netherlands</b>			<b>3 192.50</b>
Austria	Danube–Oder–Elbe connection (E 20)	Construction of a navigation canal (500 km) connecting the Danube with the Oder and the Elbe, featuring more than 30 locks.	unknown	to be determined
	Danube (E 80) km 2 037.0 – 2 005.0	Fairway depth and/or width (shallow water).	finalised before 2025	65.40
	Danube (E 80) km 1 921.0 – 1 872.7	Fairway depth and/or width (shallow water).	finalised before 2025	220.00
	<b>Total Austria</b>			<b>285.40</b>

Member State	Stretch	Works/problems to solve	Planning horizon	Estimated costs (in million euro)
Romania	Danube–Bucuresti Canal (E 80-05)	According to the draft 'General transport master plan' (GTMP) the construction of a canal linking the Romanian capital Bucharest to the Danube (at km 430.5) via waterway had already been started in 1986. Construction works were stopped in 1990 when earthworks and dams were about 70 % complete, bank protection about 40 % complete and only a part of hydro-mechanical equipment installed. Since then no maintenance work has been carried out to preserve these investments, which have been eroded by natural and human actions.	finalised before 2025	900.00
	Olt (E 80-03)	The river Olt is a Danube tributary that is planned to be made navigable up to Slatina.	finalised before 2025	unknown
	Prut (E 80-07) km 407.0–0.0	Fairway depth and/or width (shallow water)	finalised before 2025	to be determined
	Bega Canal (E 80-01-02) km 65.6–109.6	Fairway depth and width and lock capacity	finalised before 2025	to be determined
	Danube (E 80) km 863.0–175.0	Fairway depth and/or width (shallow water)	finalised before 2025	160.00
	Danube (E 80) km 170.0–0.0	Fairway depth and/or width (shallow water)	finalised before 2025	143.00
	Danube–Black Sea Canal (E 80-14) km 64.4–0.0	Fairway depth and/or width (shallow water), canal bank reinforcement, lock rehabilitation	finalised before 2025	230.00
	Poarta Albă–Midia-Năvodari Canal (E 80-14-01) km 27.5–0.0	Fairway depth and/or width (shallow water), canal bank reinforcement, lock rehabilitation	finalised before 2025	175.00
Total Romania				1 608.00

## Executive summary

### IV

The Commission considers that use of inland waterway transport depends on its relative competitiveness as compared to road transport, and therefore on many factors including the price of fuel, labour costs and taxation. Furthermore, the Commission highlights that the policy objective of shifting traffic from roads to inland waterway transport is an indicative, broad objective of which the materialisation is not under the full control of the Commission, and one which should also be seen against the baseline scenario which identified the risk of road haulage enjoying a virtual monopoly for goods transport if no action is taken. Moreover, the modal share of inland waterway transport grew between 2006, the year of the adoption of the Naiades programme<sup>1</sup>, and 2012. Overall, inland waterways still have important transport capacities available that, if implemented in a sustainable manner, could contribute to alleviating the congestion on the roads, reducing at the same time the overall impact on the environment.

### V

The Commission considers that the EU-financed projects were consistent with the objectives of the respective financing programmes. When many bottlenecks need to be tackled, it is inevitable that, in the initial phases, the surrounding bottlenecks will limit the impact of these first projects. However, given the legal obligation of implementing the core network by 2030, the Commission considers that there is a perspective for lifting the surrounding bottlenecks within a reasonable timeframe and for increasing the impact of these projects over time.

<sup>1</sup> For further details on the Naiades programme, refer to Box 1.

### VI

The Commission considers that the EU strategies were underpinned by appropriate analysis. For instance, the White Paper was accompanied by an impact assessment and the Naiades programme was based upon a study on the medium- and long-term perspective of the inland waterway transport sector. The EU financing resources have been used in line with the priorities of the respective financing programmes, and prioritisation and coordination of Member States' approaches to corridors will be strengthened under the new TEN-T framework. River maintenance has been strengthened recently under the new TEN-T framework and guidance for river maintenance is being developed within the framework of the Platina II project. Environmental considerations have been addressed through the Commission's guidance document on inland waterway transport and Natura 2000, adopted in 2012.

### VII — Recommendation 1 (a)

The Commission supports this recommendation.

### VII — Recommendation 1 (b)

For TEN-T funding instruments, the Commission accepts this recommendation and considers that this approach will be further improved through the implementation of the core network corridor, as provided for in Regulation (EU) No 1315/2013. The first call for proposals under the newly established Connecting Europe Facility concentrates on removing bottlenecks and bridging missing links in the core network corridors. It should be noted that, by 2030, all bottlenecks on the core network shall be addressed by the Member States. This provides a perspective of significant benefits for all projects addressing these bottlenecks.

As for the European Structural and Investment Funds, the Commission partially accepts this recommendation. In the period 2014–20, projects on IWT will have to contribute to the thematic objective ‘promoting sustainable transport and removing bottlenecks in key network infrastructures’. In addition, an *ex ante* conditionality linked to the disbursement of funds is the existence of a transport strategy and a section on inland waterways within that strategy. However, the decentralised nature of project selection does not allow the Commission to prioritise among eligible projects selected by the Member States.

### VII — Recommendation 2 (a)

The Commission accepts this recommendation.

The Commission has already carried out a first analysis, which has been done for each of the individual core network corridors (corridor studies) following the entry into force of the new TEN-T regulation. The corridor studies contain not only transport market analyses but also a thorough analysis of the whole corridor, including compliance of the infrastructure with the TEN-T requirements. The analyses will be further refined in 2015–16. For TEN-T, European coordinators have been nominated for each of the TEN-T corridors.

### VII — Recommendation 2 (b)

The Commission accepts this recommendation.

The core network corridors are the main tool for implementing the core network within the agreed timeline. For all nine core network corridors the European coordinator is preparing a work plan, which will contain the objectives of the corridors, including those related to IWT, as provided for in Regulation (EU) No 1315/2013. This will be sent to the Member States for approval. They will present their comments, taking into consideration the projects’ feasibility and budgetary constraints.

Once the final work plans are approved by the Member States, implementation decisions may be agreed with them.

### VII — Recommendation 2 (c)

The Commission accepts this recommendation.

As far as the Danube River basin is concerned, riparian states are committed to periodically reporting on river status and maintenance to the Danube Commission. At EU level, no such commitment exists.

## Introduction

### 12

The Commission would like to add that rivers and canals with lower standard characteristics can also be included for financing their upgrading to the TEN-T requirements.

## Observations

### Common reply to paragraphs 18 and 19

The Commission considers that this conclusion is due to the choice of 2001 as the base date for the comparison. The Commission started to actively support inland waterway transport only in 2006 with the adoption of the Naiades programme, and only since then has substantial EU funding started to flow to inland waterway projects.

### 21

The ongoing exercise of the corridor analysis will provide a benchmark for the future monitoring of the elimination of bottlenecks for IWT infrastructure.

### 23 (c)

The Commission notes that the projects were eligible and in line with the objectives of their respective programmes.

### Box 5 — Third alinea

Concerning the German project linked to the elimination of bottlenecks at the Danube, the competent national and regional authorities decided to choose Variant A despite fewer advantages for navigation purposes. This decision was taken on a unilateral basis without consultation with the European Commission services. In 2013, the German and Bavarian authorities launched an additional study to improve the Variant A solution.

### Box 5 — Fourth alinea

Similarly, after the study on improving navigability conditions in the Hungarian section of the Danube, the Hungarian government unilaterally decided to halt the developments without consultation or taking into account the recommendations of the study.

### Common reply to paragraphs 26 and 27

The Commission recognises the problem with the maturity of past TEN-T project proposals and has taken measures to improve the situation for the next programming period, as reflected in the new approach of the Connecting Europe Facility. The Commission's guidance document on inland waterway transport and Natura 2000, adopted in 2012, should also help to address environmental considerations.

### Common reply to paragraphs 30 and 31

The purpose of upgrading river infrastructure was indeed to increase the attractiveness of inland waterways, even if the link was not explicitly stated in all the policy and strategy papers. However, the Naiades II communication makes a clear link between fulfilling the IWT potential and the upgrading of infrastructure.

Furthermore, the relationship between market demand for IWT and elimination of bottlenecks is not clear cut, as too many factors beyond the upgrading of infrastructure affect market demand.

The Commission has engaged in a detailed analysis of the nine TEN-T transport corridors identified in the Connecting Europe Facility regulation, which is the right level to assess the contribution of inland waterways in the multimodal corridors and the costs and benefits of improving inland waterways.

### Box 7

The White Papers express non-binding political objectives. Where possible and appropriate, the objectives are also illustrated with quantitative targets. However, (non-binding) political targets for this length of time and for such broad policies are usually not under full Commission control, e.g. population growth and movements, economic development, people's preferences, business choices, etc. all play a role. Making the targets more specific (e.g. in this case relating it to Inland waterway transport only) would not resolve this issue.

The Commission highlights that the guidelines from 2013 represent a fundamentally new approach, with the creation of a core and a comprehensive network, with specific infrastructure requirements for the whole network, with legally binding target dates for implementation and with a multimodal corridor approach to support the implementation. None of these elements were present in the 2010 guidelines. In 2013, the Commission replaced a focus on indicative quantitative targets — the achievement of which is not under the control of EU transport policy — with a focus on legally binding targets set at EU level with respect to enabling factors in support of inland waterway and rail transport.

### 33

The Commission agrees with the importance of coordinated and consistent inland waterways transport strategies.

This is the spirit of the new TEN-T regulation, which envisages the creation of an EU-wide network. The aim of the tools for implementing the core network — the multimodal core network corridors — led by European coordinators is to provide for a concerted and coordinated implementation of the core network. This will allow exploiting potential synergies and complementarity between actions undertaken at national levels and within different programmes.

### 35

See the Commission's reply to paragraph 33.

### Box 9 — Second alinea

The Platina analysis has contributed to the identification of the priorities under the new TEN-T/CEF regulations, for which the EU funding has been substantially increased, in particular when the use of financial instruments is also taken into consideration. National funding remains nevertheless the most important source of funding, and the Member States have legally committed to the implementation of the core network and hence also to its financing.

### 40 (a)

See the Commission's reply to box 5.

### 40 (b)

In the Commission's view, proceeding with other projects to achieve the desired objectives is normal in programme implementation when a key project faces implementation difficulties. Furthermore, it considers that the other implemented projects did make an impact and improved navigability to varying extents.

### 41 (b)

Cohesion policy focuses its investments on regions in need and lagging behind in their economic development. Therefore, freight transport objectives have been taken into account correspondingly to their potential for regional development.

### 42

The two Priority projects 18 and 30 were identified in the legislation adopted by the Parliament and the Council. The Commission decided in 2007 to designate a European coordinator.

Since then, the European coordinator has issued a yearly report to the Parliament indicating the progress made during each year in solving the bottlenecks concerned. As each bottleneck hampers good navigability conditions, all are considered important, and the Commission has supported progress where this was politically, technically and financially feasible.

The Commission coordinated the development of a 'Rehabilitation and maintenance master plan for the river Danube and its navigable tributaries' within the framework of the EU strategy for the Danube Region. This document, finished in October 2014, identifies all bottlenecks and was endorsed by the ministers of the riparian countries. The work at this stage is to prioritise the bottlenecks to determine the most urgent ones.

### 43

The European Commission points out that the identification of the core network derives from the methodology applied for all transport modes. Almost all waterways of international importance coincided with the core network thus defined. Hence, prioritisation for IWW within the TEN-T core network will be made at the level of the implementation of the network through the corridor work plans.

### 44

See the Commission's reply to paragraph 41(b).

### 45

All rivers and canals of international importance as classified in Regulation (EU) No 1315/2013 are of high priority. The coordination of the implementation of projects is ensured within the framework of the TEN-T corridors.

### 46

The Commission agrees that river maintenance is a crucial aspect of inland navigation.

The issue of 'maintenance' of waterways was brought up for the first time in the Naiades programme in 2006. Until then it was considered a matter of the Member States' exclusive competence. Furthermore, the regional policy put in place the Danube strategy, which strongly focused on the problem of fairway maintenance.

The Commission would like to stress that maintenance activities are under the responsibility of each riparian country and can in principle not be financed from the EU budget.

As regards the Danube river, the Commission facilitated the signing by the transport ministers of the ministerial conclusions on the application of the maintenance and rehabilitation master plan.

The new TEN-T regulation requires the IWW infrastructure to be properly maintained (Art. 15.3(b)) and provides for the possibility of financing of the acquisition of maintenance equipment.

### 47

The Commission considers that receiving assurance about the effectiveness of maintenance carried out at Member State level would require a proper legal basis, which is currently not provided for in the new TEN-T regulation.

### Box 10 — First alinea

Since the first meeting mentioned by the Court, a second Danube riparian states ministerial meeting was held in Brussels on 3 December 2014. All riparian states, including EU Member States and non-EU countries, were present. All signed the conclusions towards coordinated maintenance and rehabilitation activities, except Serbia (indicating to join the conclusions at a later stage) and Hungary.

### 49

See the Commission's reply to paragraph 47.

## Conclusions and recommendations

### 50

The Commission considers that the effectiveness of strategies has been assessed against indicative broad political targets which are not under the full control of the Commission. Indeed, the 2001 White Paper expresses non-binding political objectives. Where possible and appropriate, the objectives are also illustrated with quantitative targets. However, (non-binding) political targets for this length of time and for such broad policies are usually not under full Commission control, e.g. population growth and movements play a role, economic development, people preferences, business choices, etc. The use of IWT depends on its relative competitiveness as compared to road transport, and therefore on many factors including the price of fuel, labour costs and taxation.

When considering the evolution since the adoption of the strategy papers, the Commission points out that overall progress should be measured against baseline scenarios. As a baseline scenario, the 2001 White Paper highlighted the 'risk of road haulage enjoying a virtual monopoly for goods transport' in the EU in the future, if no action is taken. Against this background, the increase in the modal share of inland waterway transport can be seen as a positive development.

Moreover, the Commission wants to highlight that the overall modal share of IWT has increased since 2006, which was a turning point in the Commission's inland waterway policy, with the adoption of the Naiades programme and the increased financial support for inland waterway projects from the TEN-T programme.

### 51

The Commission considers that coordination among Member States is vital for the development of inland waterway transport. It is for this reason that the multimodal core network corridors have been set up by the Connecting Europe Facility, in conjunction with the new TEN-T regulation, to support the coordinated implementation of the TEN-T core network.

### 52

Until 2013, the Commission concentrated its support on those projects that are most important for IWT, such as the Seine–Scheldt canal or the upgrading of the Straubing–Vilshofen section of the Danube.

From 2013 onwards, the new set-up based on core network corridors, as provided for in Regulation (EU) No 1315/2013, will allow for increased emphasis on corridor benefits.

See also the Commission's reply to paragraph 50.

### Recommendation 1 (a)

The Commission supports this recommendation.

### Recommendation 1 (b)

For TEN-T funding instruments, the Commission accepts this recommendation and considers that this approach will be further improved through the implementation of the core network corridors, as provided for in Regulation (EU) No 1315/2013. The first call for proposals under the newly established Connecting Europe Facility concentrates on removing bottlenecks and bridging missing links on the core network corridors. It should be noted that by 2030, all bottlenecks on the core network shall be addressed by the Member States. This provides a perspective of significant benefits for all projects addressing these bottlenecks.

As for the European Structural and Investment Funds, the Commission partially accepts this recommendation. In the period 2014–20, projects on IWT will have to contribute to the thematic objective 'promoting sustainable transport and removing bottlenecks in key network infrastructures'. In addition, an *ex ante* conditionality linked to the disbursement of funds is the existence of a transport strategy and a section on inland waterways within that strategy. However, the decentralised nature of project selection does not allow the Commission to prioritise among eligible projects selected by the Member States.

### 53

The Commission considers that the EU strategies were underpinned by an appropriate analysis conducted at EU level. An analysis corridor per corridor is outside the scope of EU-wide strategy documents. Furthermore, the potential role of inland waterway transport in the shifting of traffic between transport modes is dependent on too many factors outside the direct control of EU transport policies to set quantitative targets for a modal shift towards inland waterway transport.

The Commission agrees that some Member States adopted a differing approach to IWT, which is one of the reasons why the Commission has proposed a strengthened TEN-T policy.

### 54

The concentration on the priorities put forward by the Commission was partly ineffective due to a lack of commitment from Member States.

Under the new TEN-T guidelines, Member States agreed to commit to the implementation by 2030 of all core networks, including inland waterways.

The first call for proposals under the newly established Connecting Europe Facility allows the funding of the acquisition of the maintenance equipment, although the maintenance activities remain under the Member States' responsibilities and budgets.

### Recommendation 2 (a)

The Commission accepts this recommendation.

The Commission has already carried out a first analysis for each of the individual core network corridors (corridor studies), after the entry into force of the new TEN-T regulation. The corridor studies contain not only transport market analyses but also a thorough analysis of the whole corridor, including compliance of the infrastructure with the TEN-T requirements. The analysis will be further refined in 2015-16. For TEN-T, European coordinators have been nominated for each of the TEN-T corridors.

## Reply of the Commission

### Recommendation 2 (b)

The Commission accepts this recommendation.

The core network corridors are the main tool for implementing the core network within the agreed timeline. For all nine core network corridors the European coordinator is preparing a work plan, which will contain the objectives of the corridors, including those related to IWT, as provided for in Regulation (EU) No 1315/2013. This will be sent to the Member States for approval. They will present their comments, taking into consideration the projects' feasibility and budgetary constraints.

Once the final work plans are approved by the Member States, implementation decisions may be agreed with them.

### Recommendation 2 (c)

The Commission accepts this recommendation.

As far as the Danube River basin is concerned, riparian states are committed to periodically reporting on river status and maintenance to the Danube Commission. At EU level, no such commitment exists.



## HOW TO OBTAIN EU PUBLICATIONS

### Free publications:

- one copy:  
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:  
from the European Union's representations ([http://ec.europa.eu/represent\\_en.htm](http://ec.europa.eu/represent_en.htm));  
from the delegations in non-EU countries ([http://eeas.europa.eu/delegations/index\\_en.htm](http://eeas.europa.eu/delegations/index_en.htm));  
by contacting the Europe Direct service ([http://europa.eu/europedirect/index\\_en.htm](http://europa.eu/europedirect/index_en.htm)) or  
calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (\*).

(\*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

### Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

Inland waterway transport is one of the three main land transport modes in Europe. The significant loading capacity of inland navigation vessels, which is equivalent to hundreds of trucks, could contribute to reducing transport costs and emissions and decongesting roads.

With this report, the Court assessed whether the EU inland waterway strategies were coherent and based on relevant and comprehensive analysis. In addition, the Court examined whether the projects co-funded by the EU budget contributed effectively to increasing the modal share of this mode of transport and helped in improving navigability conditions.



EUROPEAN  
COURT  
OF AUDITORS



Publications Office