



**Integrating Danube Region into Smart & Sustainable Multi-modal
& Intermodal Transport Chains**

D.T1.1.1. Report on the selected Core & Comprehensive Network Sections and Nodes of the transport corridors on the Danube Region

Version 6.0

Date: 30/11/2020

Final

DIONYSUS_Report_final_2.0

Document History

| Version | Date | Authorised |
|-------------|------------|---------------|
| 0.1 | 13/11/2020 | FTTE, iC, PGA |
| 1.0 | 17/11/2020 | EHOO |
| 2.0 | 19/11/2020 | USPA |
| 3.0 | 24/11/2020 | BRCCI |
| 4.0 | 26/11/2020 | AAOPFR |
| 5.0 | 27/11/2020 | VPAS |
| 6.0 - Final | 30/11/2020 | FTTE |

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3 Abbreviations

| Abbreviation | Explanation |
|--------------|----------------------------------|
| A/SK | Austria/Slovakia |
| D/A | Deutschland/Austria |
| DR | Danube region |
| IWT | Inland Waterway Transport |
| RO/HU | Romania/Hungary |
| SK/HU | Slovakia/Hungary |
| TEN-T | Trans-European Transport Network |

4 Introduction

4.1 Project objectives and WPT1 overview

The project's overarching goal is to facilitate DR's integration into multimodal and intermodal freight and passenger transport systems. In this context, Danube ports must be seen as key elements of the extensive DR transport system (which consists of a range of corridors, each with specific characteristics in terms of scale, trade, transport modes used, price and service quality), which are essential to help achieve this overarching goal.

WPT1 aims to provide a substantial knowledge basis regarding ongoing and future transport corridor developments in the Danube region as well as regarding their potential connections to transport corridors and networks in the Black Sea region. The analyses and assessments carried out in this work package shall identify gaps in corridor planning and transport infrastructure of the DR.

To achieve this, four activities have been planned. Activity A.T1.1 will identify and label gaps that are relevant for a better functioning transport system and for a higher share of waterborne transport considering the enabling role of ports. It will include:

- the assessment of the TEN-T Core as well as Comprehensive network sections and nodes (T.T1.1.1),
- a status quo analysis of the DR infrastructure (T.T1.1.2),
- an analysis of on-going and planned corridor projects for selected sections and nodes (T.T1.1.3),
- traffic flows analysis at DR transport corridor level involving all transport modes (T.T1.1.4).

Activity A.T1.2 investigates the current market situation and identifies alternative cargo volumes in growing markets. It will encompass:

- definition of trade flows and economic development scenarios (T.T1.2.1),
- analysis and forecasts of the main cargo flows for all modes of transport (T.T1.2.2),
- identification and quantification of the cargo flows that represent a potential for IWT (T.T1.2.3),
- evaluation of the high impact of available fairway depth on transport efficiency and competitiveness (T.T1.2.4)
- analysis of the prospects of containerized cargo development on the Danube (T.T1.2.5)
- investigation of the development of transport of passengers on the Danube waterway with a special focus on river cruise passengers (T.T1.2.6).

Activity A.T1.3 will investigate new cargo opportunities for Danube IWT that the transport of containers may offer. It will be done through the following tasks:

- analysis of the market framework conditions, as well as failed past operations (T.T1.3.1),
- studying potential routes and modelling of the potential services (T.T1.3.2),
- organization of the three stakeholder meetings that will identify potential partners for such a service as well as to inquire into the necessary market and regulatory pre-conditions (T.T1.3.4),
- based on the market analysis and the stakeholder feedback, elaboration of the recommendations for the conditions to set-up a successful service (T.T1.3.4),
- performing support activities for the implementation of these recommendations as well as undertaking preparatory measures to raise a container liner service on the Danube river (T.T1.3.5).

Activity A.T1.4 will analyze potential new cargo flows due to connections of the Danube waterway with transport corridors in the adjoining Black Sea region. It is especially related to the Middle Corridor comprising Georgia, Azerbaijan, Kazakhstan and reaching out to western provinces in China, as well as Connections via the Black Sea linking the Danube seaports with destinations in the Russian Federation as well as in Turkey. This will be achieved through:

- analysis of the these socio-economic benefits and costs of increased cargo flows on the Danube waterway (T.T1.4.1),
- elaboration of the strategic concept for the promotion of Danube waterway transport in the European transport policy framework and towards the transport & logistics markets (T.T1.4.2),
- development of an Action plan detailing the measures to connect the Danube corridor with EU Eastern Partnership (EaP) corridors, the Russian Federation and Turkey (T.T1.4.4).

4.2 Objectives of Deliverable D.T1.1.1

The report will deliver a detailed definition of the corridor alignment, carried out as the first major element of the analysis work. Transport routes, corridor nodes and their access links, TEN-T connections in nodes or correlations with other roads, rail and IWT freight corridors will be investigated. This work will lead to a clear and common understanding of the infrastructure basis in the DR and will determine both the existing and planned infrastructure underlying the TEN-T Guidelines as well as corresponding transport infrastructure networks in third countries.

5 Scope of the report

5.1 Selection of ports

This report will encompass major issues important for the assessment of current status and development plans of corridor links between ports in the DR. Due to the huge number of Danube ports and infrastructure parameters needed for corridor analysis, the project team agreed to provide high-quality analysis of 20 selected ports along the Danube, including the most important “gate” for the Danube ports – the seaport of Constanta.

Based on consultation with relevant partners, the following ports are selected for detailed analysis in this report:

- Austria: Ennshafen and Vienna;
- Slovakia: Bratislava and Komarno;
- Hungary: Budapest, Dunaújváros and Baja;
- Croatia: Vukovar;
- Serbia: Bogojevo, Bačka Palanka and Prahovo;
- Romania: Drobeta Turnu-Severin, Giurgiu, Galati and Constanta.
- Bulgaria: Lom and Ruse;
- Moldova: Giurgulesti;
- Ukraine: Reni and Izmail.

5.2 Adopted approach

The applied methodology, which is adjusted to the needs and goals of this research, is based on the analysis of the connectivity of selected Danube ports in the TEN-T network of corridors. It encompasses road, rail and inland waterway connections between each two ports. The term "connectivity", in this context, refers to the existing TEN-T connections between ports. Considering the position of the Danube region, as well as the directions of TEN-T corridors, this research evaluates the connections between the Danube ports on the following TEN-T corridors:

- Rhine-Danube;
- Orient/East –Med;
- Mediterranean;
- Baltic–Adriatic.

The methodology itself consists of the following steps:

1. The connections between each two ports in the downstream direction is analysed;
2. Direct and indirect (alternative) connections between ports is considered;
3. Direct connection refers to links (by inland waterways, roads and railways) between each two neighbouring ports in the downstream direction (e.g. Ennshafen Port - Port of Vienna, Port of Vienna – Port of Bratislava, etc.);

4. Indirect (alternative) connection refers to the evaluation of existing TEN-T corridor connections between ports, which do not follow the order of ports in the downstream direction (e.g. Enns-Bratislava, Enns-Budapest, Budapest-Dorbeta Turnu Severin, etc);
5. Research of existing TEN-T corridor connections between ports, whether in the case of direct or indirect links, refers to the identification of all sections on road, rail and inland waterway TEN-T corridors between each two analysed ports;
6. Identification of the section includes:
 - Section description - start and end points;
 - Determining the type of section (Conventional, High-speed, Motorways, ...);
 - Defining the TEN-T corridors to which the section belongs;
 - Defining the TEN-T network to which the section belongs (Core, Comprehensive network)
 - Status of the section (Completed, To be upgraded, New construction, ...)
7. Identification of sections is realized for each transport mode (inland waterways, roads, railways);
8. The collected data is entered in tables, which have the following form:

| Port B | | | | | | |
|--------|-------------------|----------------------|------|----------|---------|--------|
| Port A | IWW / Road / Rail | | | | | |
| | Option | Section- description | Type | Corridor | Network | Status |
| | 1 | | | | | |
| | 2 | | | | | |

Table 1: Structure of the Table to be used for presentation of TEN-T sections

Port A refers to the starting port, while Port B refers to the first analysed port in the downstream direction, in the case of a direct connection, or any other downstream port, in the case of an indirect connection.

Number of options refer to the existence of one or more variants of connections between considered ports, through TEN-T network, either by direct or indirect links.

A table is formed separately for each of the three modes of transport. Accordingly, one of the three determinants (IWW / Road / Rail) is kept.

9. Based on the data collected through this approach, conclusions are drawn on the connections between any two, among selected, ports in the Danube region. The conclusions refer to the possibilities of connecting each two ports by road, rail and inland waterway, reviewing the status of all sections on these corridors, as well as defining and describing the existing infrastructure base and existing and planned infrastructure projects.

6 Corridor alignment

6.1 Ennshafen Port

6.1.1 Hinterland connections

The whole port area has six road entrances, each with double lines. There are also two main rail entrances accessing the port area from two different sides. Within the port area, there is a system of internal rail network with about 30 km total length.

The Ennshafen Port is the main trimodal transport hub for the west to east and east to west arriving international cargo in the Rhine-Main-Danube waterway region and south to north and north to south arriving international cargo in the North Sea-Adriatic region by the railways. With its 6 road entrances, there is possibility of direct accesses to motorways and main roads that can boost international logistics operations and local businesses.

The Ennshafen Port has the access to the most important seaports through the river Danube. It is connected with the A1 west expressway (Wien-St. Pölten-Linz-Salzburg), A9 (Graz-Wels-Passau), B1 federal highway (Wien-Amstetten-Linz-Salzburg) and B309 (Enns-Steyr) federal highway, what allows outstanding access to the international road network. The railway connections are directly derived from one of the most important Austrian lines – the West Railway (both normal line and high speed line).

6.1.2 TEN-T corridor links (Annex 1)

TEN-T Connection with Port of Vienna, as the next Core Node downstream port, is achieved directly over inland waterways corridors, railways corridors and roads corridors (Figure 1).

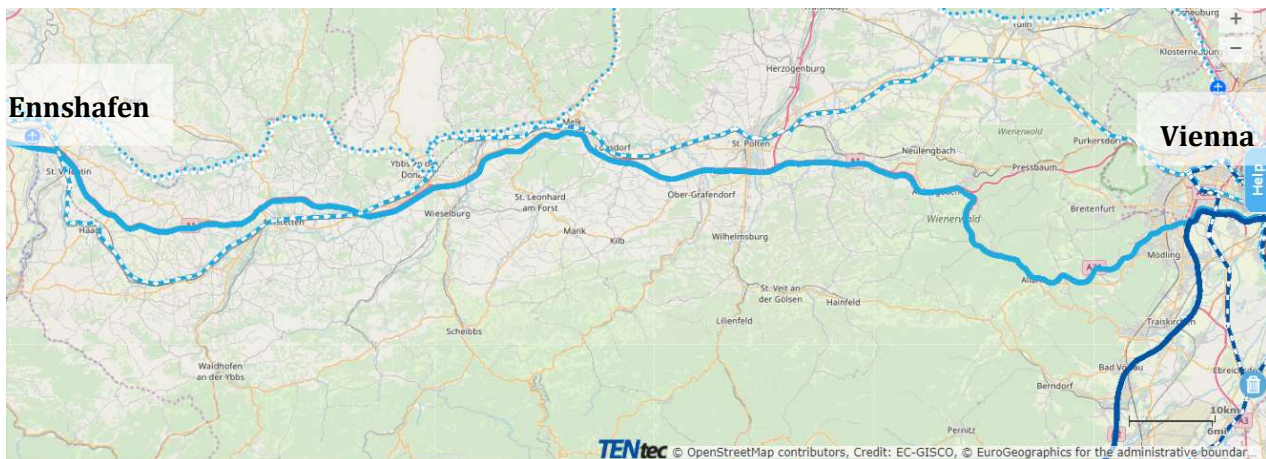


Figure 1. TEN-T network links between Ennshafen Port and Port of Vienna

Within the inland waterways corridor, there are the following 8 sections (Table 2):

- Passau (border D/A)-Melk (part 4),
- Passau (border D/A)-Melk (part 3),
- Passau (border D/A)-Melk (part 2),

- Passau (border D/A)-Melk (part 1),
- Melk - Krems (part 1),
- Melk - Krems (part 2),
- Krems - Wien (part 1),
- Krems - Wien (part 2).

These sections are completed and belong to the TEN-T core network. All inland waterway sections are situated in Rhine - Danube corridor suggesting that Ennshafen Port is connected with seaports in the Black sea region as well as with the sea ports in Western Europe region.

Ennshafen Port and Port of Vienna are also connected with one road corridor including three sections, belonging to the two TEN-T corridors - Baltic-Adriatic and Rhine – Danube (Table 3). All sections are completed and are part of the core TEN-T network.

One railway corridor connects Ennshafen Port and Port of Vienna with 13 sections (Table 4). All sections belong to the core TEN-T network and have been completed, except one from Amstetten to Sarling which is to be upgraded. Railway corridor network belongs to the following two 2 TEN-T corridors: Baltic-Adriatic and Rhine - Danube.

6.2 Port of Vienna

6.2.1 Hinterland connections

The Port of Vienna functions as a trimodal hub covering rail, road and river links. This hub is located at the western bank of the Danube River.

Connection via road between Port of Vienna and other freight terminals includes B14 Freudenauer Hafenstraße along the port, A4 Ost Autobahn (East Highway connection), S1 Wiener Außenring Schnellstraße; East and South and 3 km of A23 Südosttangente; North and West. Total number of road entrances to port is four (including a passenger terminal), with eight road lanes in total.

The Port of Vienna has freight rail tracks in use and provides transportation connections to Austrian railway network and therefore to other freight centers. Port location is accessed by rail through connection to shunting stations Donaukaibahnhof (3 km, through Donauuferbahn) and Kledering (8km, through Winterhafenbrücke) and the main Austrian railway network, all providing 3 railway accesses to the port with minimum three railway tracks.

6.2.2 TEN-T corridor links (Annex 2)

The port is located on the Danube River which is a part of the Rhine-Danube Core Network Corridor.

Within the inland waterways corridor, there are inland waterways sections that belong to the core TEN-T network and are all completed (Table 5). These include the following three sections linking Vienna with Bratislava (Figure 2):

- Wien - Devin (border A/SK) (part 2),
- Wien - Devin (border A/SK) (part 2) and
- Devin (border A/SK) - Bratislava.

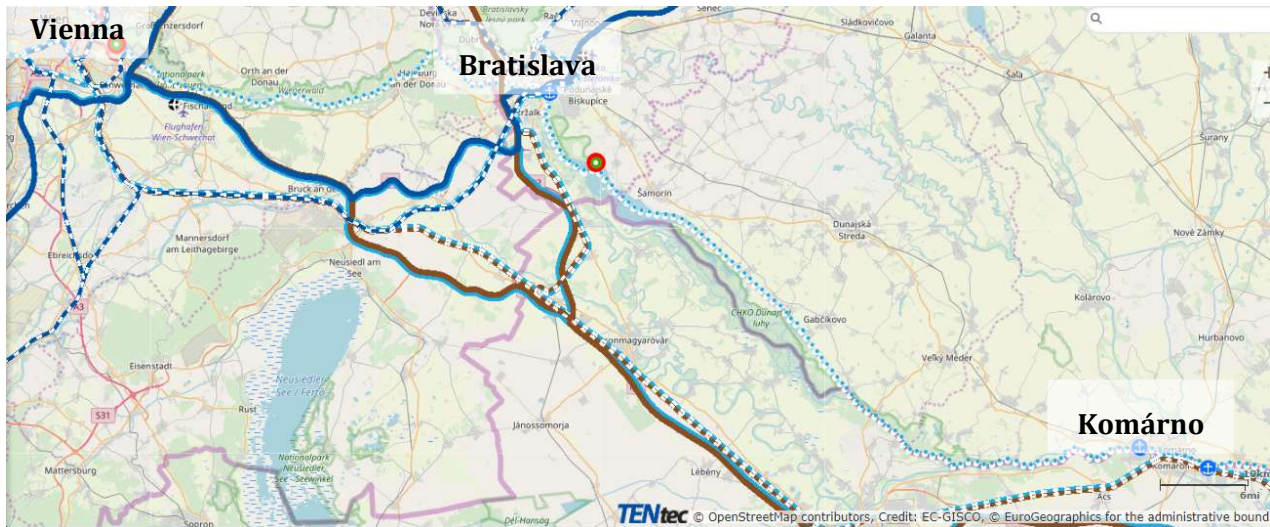


Figure 2. TEN-T network links in the direction Vienna – Bratislava – Komárno

All inland waterway sections are situated in the Rhine - Danube corridor suggesting that Port of Vienna is connected with seaports in the Black sea region as well as with the sea ports in Western Europe region.

Port of Vienna and Bratislava port are connected with a road corridor network including five sections that are part of the three TEN-T corridors, i.e. Baltic-Adriatic, Orient/East – Mediterranean and Rhine - Danube. All sections are completed and belong to the TEN-T core network (Table 6). All road types are Motorways except one, named “Petržalka/Berg (border SK/A) -Border (SK/A)” which is rural two-lane road.

There is also a railway corridor connecting Vienna and Bratislava with several sections overall from Port of Vienna to Bratislava port (Table 7). One railway section passes north of the Danube River, while other sections are located south of the river Danube. Majority of the sections belong to the TEN-T core and completed networks, but there are five sections, which should be upgraded. Railway corridor network around the Port of Vienna belongs to the following three corridors: Baltic-Adriatic, Orient/East – Mediterranean and Rhine - Danube. The railway type is conventional for all sections.

6.3 Port of Bratislava

6.3.1 Hinterland connections

Port of Bratislava is the biggest port in Slovakia. Bratislava’s position on the Danube River (from rkm 1867.290 to rkm 1862.000) gives the access to Austria, Germany and through the Danube-Main-Rhine Canal to The Netherlands and Belgium (ports of Amsterdam, Rotterdam and Antwerp) as well as to Hungary, Croatia, Serbia, Bulgaria, Romania, Moldova and Ukraine.

Starting from the Road-rail terminal in the port of Bratislava, one can access other major hubs in the Rhine –Danube, Orient/East – Mediterranean and Baltic Sea – Adriatic Sea corridors through the following road and rail connections: multimodal transport corridors No. IV and V, with parts of the highways D1, D2 starting from Bratislava (direction Žilina , direction Kúty - CZ), Bratislava - Berlin - Hamburg, Bratislava - Žilina - Warsaw, Bratislava - Košice - Kyjev / Moskva, Bratislava - Štúrovo - Budapest – Bucharest.

6.3.2 TEN-T corridor links (Annex 3)

Its excellent geographical location at the strategic intersection of the Rhine –Danube, Orient/East – Mediterranean and Baltic Sea – Adriatic Sea corridors of TEN-T transport networks means that the port is connected to the other major European ports outside the Rhine –Danube corridor as well as to the nearby ports on the river Danube like Vienna or Budapest. Currently it is a universal inland port consisting of two parts, a cargo port and a passenger port. Bratislava is the core inland port and has the core road-rail terminal.

There are four sections (Table 8) within the inland waterway network from the port of Bratislava to the ports of Komarno, Komarom and Budapest (Figure 2). All four sections belong to Rhine – Danube corridor and are located on the river Danube. These sections have been completed and belong to the TEN-T core networks.

Road sections that connect Port of Bratislava and Port of Gyor have also been completed and are part of the TEN-T core networks. These are five such sections (Table 9). They are all of type “motorway” and belong to Rhine –Danube, Orient/East – Mediterranean and Baltic Sea – Adriatic Sea TEN-T corridors.

Railway networks that connect port of Bratislava and ports of Gyor, Komarno and Komarom include seven sections belonging to the TEN-T core network (Table 10). They are all conventional type of railways and are part of the Rhine –Danube, Orient/East – Mediterranean and Baltic Sea – Adriatic Sea TEN-T corridors. Only one section has been completed, while other are to be upgraded.

6.4 Port of Komárno

6.4.1 Hinterland connections

The Port of Komárno is the second most important port in Slovakia after port of Bratislava. It is located at from the km 1767 to km 1765.80 of the left bank of the Danube River and represents the entry point to the Váh waterway. Currently port of Komarno is not as important as the Port of Bratislava, but there is the prospect to become a crucial logistics center for cargos moving from the Danube to the Váh River and further upstream to industrial zones in central and northern Slovakia. Port location include the bank of the river and partially both a common port basin and shipyard. The port area covers more than 20 hectares on a relatively narrow stretch of land near the centre of the city and a housing estate.

Freight is transhipped between rail, road and waterway transport directly to or between intermediate storage areas. One of the characteristics of the port is its shelter prospect for ships in emergencies like high water, flooding and ice. The port is an important reloading point for the trade in coal and oil between central and south-eastern Europe.

6.4.2 TEN-T corridor links (Annex 4)

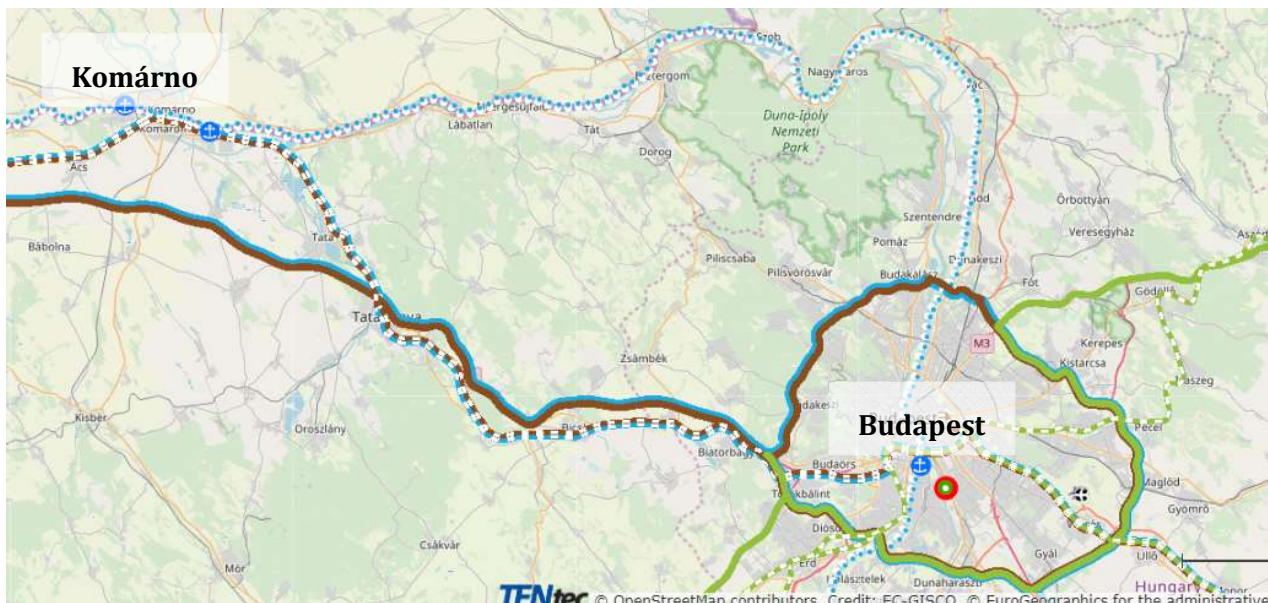
Transport of cargoes in all directions is possible due to port connection with other major European hubs through Orient/East - Mediterranean and Rhine - Danube corridors.

Inland waterway section named "Szap - Budapest (part 3)" is part of the TEN-T core network and links the Port of Komarno and Port of Budapest. It belongs to the Rhine-Danube corridor linking the port with other Danube ports as well as other European ports (Figure 3).

Two major roads no. I/63 and no. I/64 pass through port of Komarno linking it with cross-border bridge over the Danube river between Slovakia and Hungary as well as with the port of Komarom and port of Budapest.

It has three road entrances. With its three entrances it is possible to make connection with road section motorway "Gyor - Tatabánya (M1)" which leads to Komarom and Budapest. The section has been completed and belongs to the TEN-T core network. It is a motorway that is a part of the Orient/East - Mediterranean and Rhine - Danube TEN-T corridors.

Port rail tracks leads their way to the Gyor - Komarom railway section through Slovakian railways making it possible to connect with Komarom or rather with Budapest port. Gyor - Komarom section is part of the TEN-T core network and belongs to Orient/East - Mediterranean and Rhine - Danube corridors. It is conventional type railway that needs to be upgraded.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 3. TEN-T network links between Port of Komárno and Port of Budapest

6.5 Freeport of Budapest

6.5.1 Hinterland connections

Freeport of Budapest is located at the 1,640 km of the Danube riverbank and also have road-rail terminal in Soroksár district of Budapest. Freeport is located on the north part of the Csepel Island, accessible on water on the right branch.

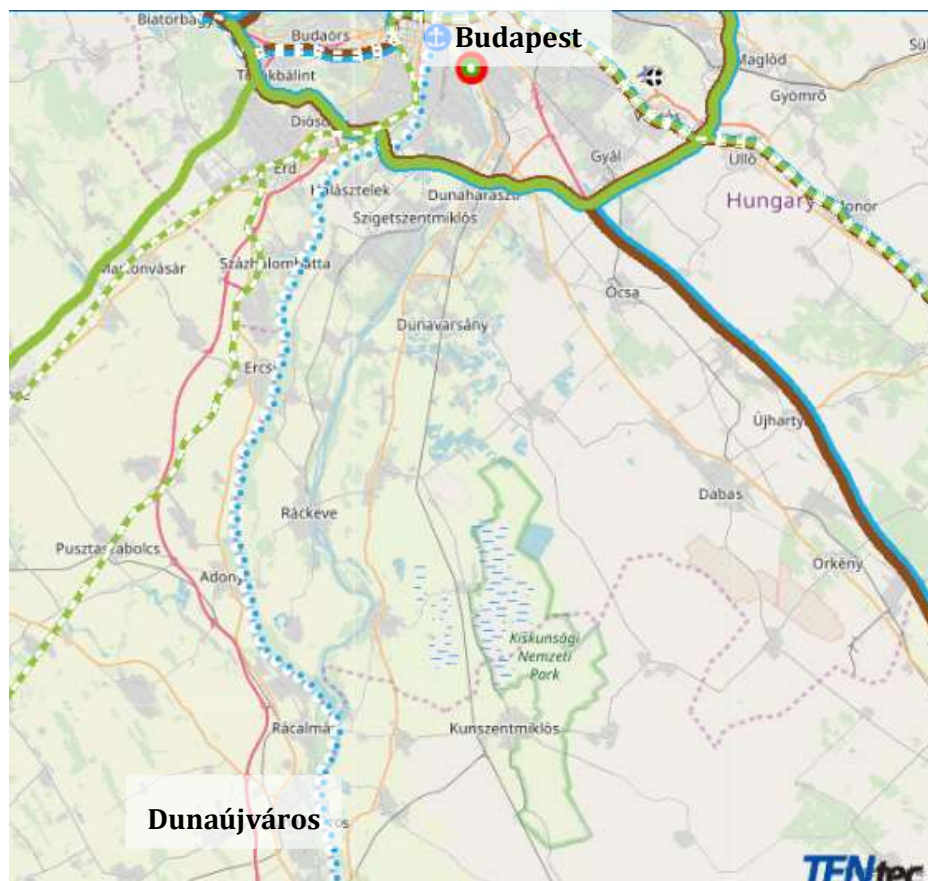
The Freeport and Csepel Island are linked into the national railway networks by the Gubacsi bridge located on the north-eastern part of the island.

As regards road connections, Freeport is accessible on highways M1 from Austria, M7 from Croatia, Slovenia, M6 from the south, M5 from Serbia, Romania and M3 from the east, using the ring-road, M0 as well. Trucks can approach the port from the highways via either M0–M51–Ócsai Road/Grassalkovics Road/Helsinki Road (on the Pest side by the river) – Gubacsi bridge, or M0 – II. Rákóczi Ferenc Road (through Csepel downtown) – Weiss Manfréd Road, or from the city through Kvassay Jenő Bridge.

6.5.2 TEN-T corridor links (Annex 5)

Freeport of Budapest is situated at the Rhine-Danube TEN-T corridor with which it has access to the all major European hubs.

South of the Freeport of Budapest and along the Danube River, there is Dunaújváros port (Figure 4). These two ports are connected through the Budapest - Mohacs port / Batina section of the Rhine - Danube corridor (Table 14). Section is completed and is part of the TEN-T core network. With the Baja, Bogojevo, Vukovar and Bačka Palanka ports, there is no direct connection from the Freeport of Budapest as one should go through Dunaújváros port first.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 4. TEN-T network links between Port of Budapest and Port of Dunaújváros

As regards to road networks there are also two options for connecting the Freeport of Budapest and Dunaújváros and Baja ports. Neither of them includes only sections belonging to the TEN-T corridors (Table 15). Moreover, only one section per option belongs to TEN-T road corridors and they are the first in row of sections starting from Budapest in both options. Other sections are A and M motorways or local roads.

Connections between the Freeport of Budapest and Bogojevo, Vukovar and Bačka Palanka ports is made, among others, of the three road sections belonging to Mediterranean, Orient/East – Mediterranean and Rhine – Danube TEN-T corridors. The first section match up with the first section of Budapest-Dunaújváros connection while the rest belong to Mediterranean corridor. Other sections on the way from Freeport of Budapest towards Bogojevo, Vukovar and Bačka Palanka ports are not associated with any TEN-T corridor. The majority of all sections (being a part of corridors or not) are to be upgraded.

Baja, Bogojewo, Vukovar and Bačka Palanka ports as well as Dunaújváros port are not directly connected with the Freeport of Budapest by TEN-T railway sections. Instead, they are directly connected to the Freeport of Budapest only to a certain extent meaning that there are just a few sections that belong to the TEN-T corridors along this way. Of course, there is more than one option heading from the Freeport of Budapest, but not towards the Dunaújváros port.

TEN-T railway corridor sections include (Table 16): Budapest Kelenfold - Budapest Ferencvaros, Pustaszabolcs - Budapest Kelenfold (part 2), Pustaszabolcs - Budapest Kelenfold (part 1) and Dombovar - Pustaszabolcs, all of conventional type. Budapest Kelenfold - Budapest Ferencvaros belongs to Mediterranean, Orient/East – Mediterranean and Rhine – Danube TEN-T corridors. It is a new Construction, and belongs to the TEN-T Core Network. Other three sections belong to Mediterranean corridor and are to be upgraded. All three sections are also part of the Core Network.

6.6 Port of Dunaújváros

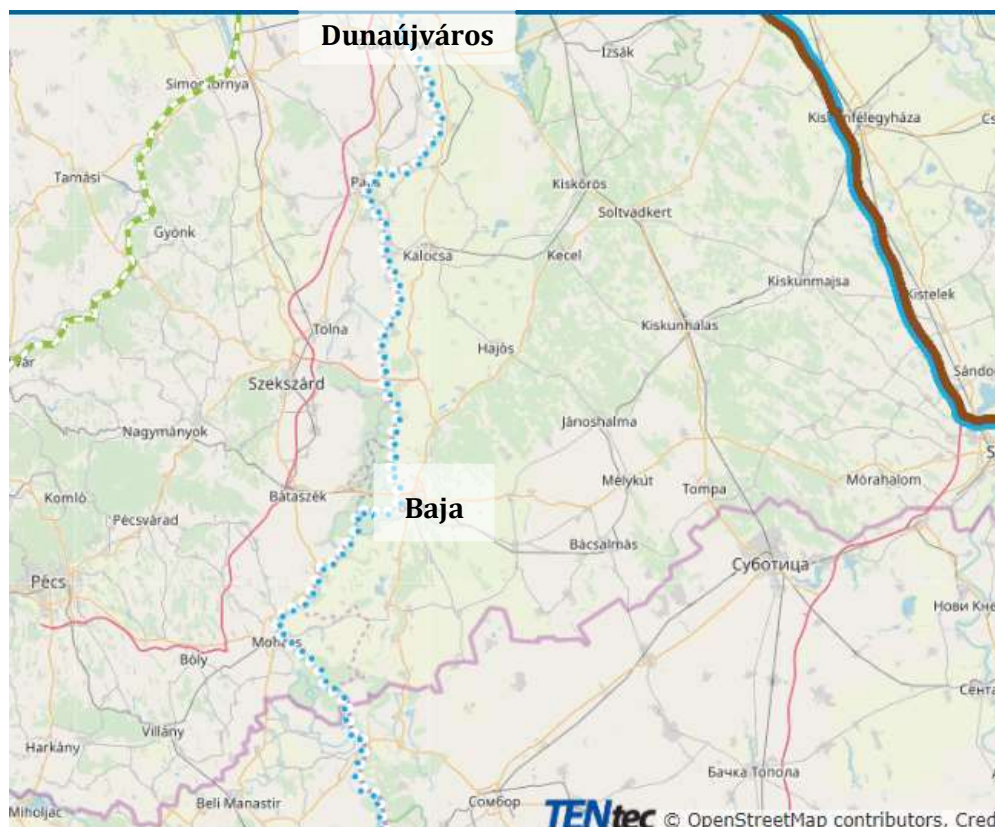
6.6.1 Hinterland connections

Port of Dunaújváros is located at km 1579,00 - km 1580,00, right bank of the Danube. It is one of the most important Hungarian ports.

There are several motorways connecting the Port of Dunaújváros with other parts of the country. The M8 motorway connects the western part of the country, near the Austrian border to Szolnok in the central part of the country. It is partially concurrent with the European route E66 (Graz – Veszprem – Szekesfehervar). The M9 motorway connects M6 with route 51 near Szekszárd. It is a route from Szombathely to Szekszárd. The M6 motorway is a north-south motorway running along the Danube connecting Budapest to the seat of Barany county Pecs, and further south to the Croatian border.

6.6.2 TEN-T corridor links

Downstream Danube, towards Port of Baja (Figure 5), there are no railway and road links that belong to any of the TEN-T corridors. Port of Dunaújváros and Port of Baja are connected by inland waterway through the Budapest - Mohacs port / Batina section of the Rhine - Danube corridor (Table 14). Section is completed and is part of the TEN-T core network.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 5. TEN-T network links between Port of Dunaújváros and Port of Baja

6.7 Port of Baja

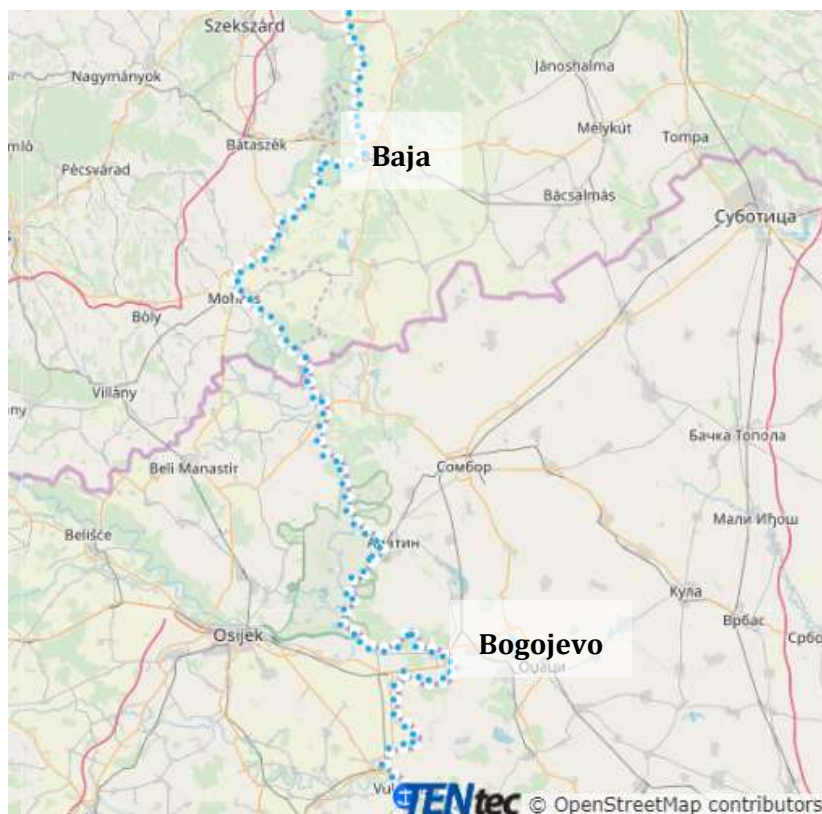
6.7.1 Hinterland connections

Port of Baja is considered the second most important Hungarian port of the Main-Rhine-Danube waterway system. The port is composed of the Public Port of Baja, located on the left bank of the Danube between Km 1479 and Km 1480 and four private ports that operate 4 terminals. It is designated as a National Public Port and has railway and road connections.

6.7.2 TEN-T corridor links (Annex 6)

By following the TEN-T corridor alignment and our adopted methodology, there are no railway and road corridor links between the Port of Baja and the next downstream port, i.e. Port of Bogojevo (Figure 6).

On the other side, there are four inland waterway sections belonging to the Rhine - Danube corridor that are running from the Port of Baja to the Port of Bogojevo. Therefore, all these sections belong to the Core TEN-T network and are considered to be completed. Details about these sections is given in the Table 17.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 6. TEN-T network links between Port of Baja and Port of Bogojewo

6.8 Port of Bogojewo

6.8.1 Hinterland connections

The port of Bogojewo is located on the left bank of the Danube at km 1366.

This port is located at a distance of 4 km from the village of Bogojewo and 34 km downstream from the town of Apatin. The port complex is surrounded by the main road Bogojewo-Erdut in the east, regional road Bogojewo-Senta in the north and local road in the west. The port is connected with the regional road Bogojewo-Apatin-Sombor-Subotica, as well as with the section Bogojewo-Odzaci-Sombor of the main road No. 3, which passes through Serbia.

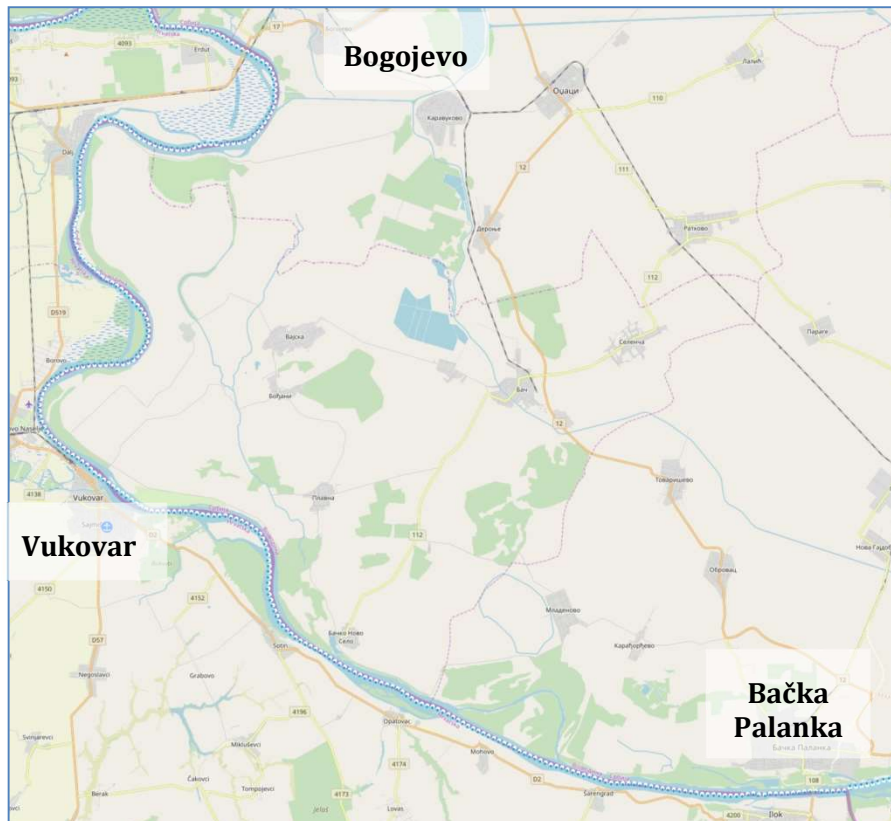
Across the road bridge, the Port is connected to the section of road No. 3 Erdut-Dalj-Osijek in Croatia. The main road corridor is the main road that turns from the bridge from Croatia to the narrower city zone of Bogojewo, enters the center as a city road and then exits again as a main road in the northeast direction towards Odzaci.

The port is 40 km away from the E75 highway, in the direction Belgrade-Budapest, and is not connected to the national railway network.

6.8.2 TEN-T corridor links (Annex 7)

The port of Bogojewo is connected with the Port of Vukovar by inland waterway, by one section of the Rhine - Danube TEN-T corridor (Table 18, Figure 7). This section goes from the Kopački rit, upstream of Bogojewo,

passes by Port of Vukovar, and stretches up to the Ilok and Port of Bačka Palanka. There are no railway and road corridor connections between these two ports.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 7. TEN-T network links between Port of Bogojevo, Port of Vukovar and Port of Bačka Palanka

6.9 Port of Vukovar

6.9.1 Hinterland connections

The port is connected to the cities of Županja, Vinkovci and Brčko (Bosnia and Herzegovina) via M55 road. The same road connects the port to the highway E-75, connecting Zagreb and Belgrade. Road M2 connects the port with the city of Osijek and thereafter with the road corridor Vc (Budapest – Osijek – Sarajevo – Ploče). With the short distance to Osijek and Vinkovci, the port is connected to the national and international railroad systems.

6.9.2 TEN-T corridor links

There are no direct railway and road TEN-T corridor links with the next downstream port, i.e. Port of Bačka Palanka (Figure 7). These two ports are connected with one inland waterway section that is part of the Rhine - Danube TEN-T corridor. Details about this section can be found in the Table 18.

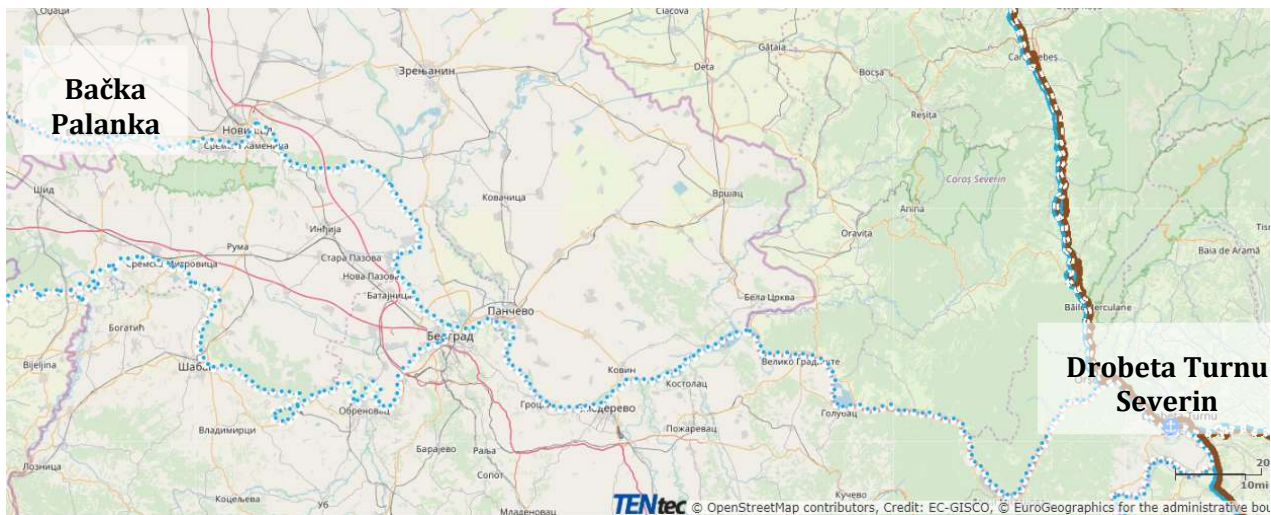
6.10 Port of Bačka Palanka

6.10.1 Hinterland connections

The port of Bačka Palanka is located on the left bank of the Danube River, km 1295. It is basin type port, with an water area of 5.2 ha and a minimum depth of 3.5 m at a low navigation level. The port is 30 km away from the E70 highway, direction Belgrade-Zagreb, and 45 km from the E75 highway, direction Belgrade-Budapest. The port is not connected to the national railway network.

6.10.2 TEN-T corridor links (Annex 8)

The port of Bačka Palanka is connected with the port of Drobeta Turnu Severin (Figure 8), as the next downstream port, by inland waterway, by six sections of the Rhine - Danube TEN-T corridor. These sections belong to the Core Network and have been completed. These are no direct TEN-T road and rail corridor links between these two ports.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 8. TEN-T network links between Port of Bačka Palanka and Port of Drobeta Turnu Severin

6.11 Port of Drobeta Turnu Severin

6.11.1 Hinterland connections

Port of Drobeta Turnu Severin is located on the left bank of Danube river, at km 927-934.

The Drobeta Turnu Severin Port has a strategic location as a transshipment point on the Danube for traffic to west and northwest Romania and cities like Craiova, Târgu Jiu, Reșița.

The port is connected by two roads with single line per way to the city. Drobeta Turnu-Severin is connected to the national roads DN6, DN56, DN 56A, DN67 and the European road E70.

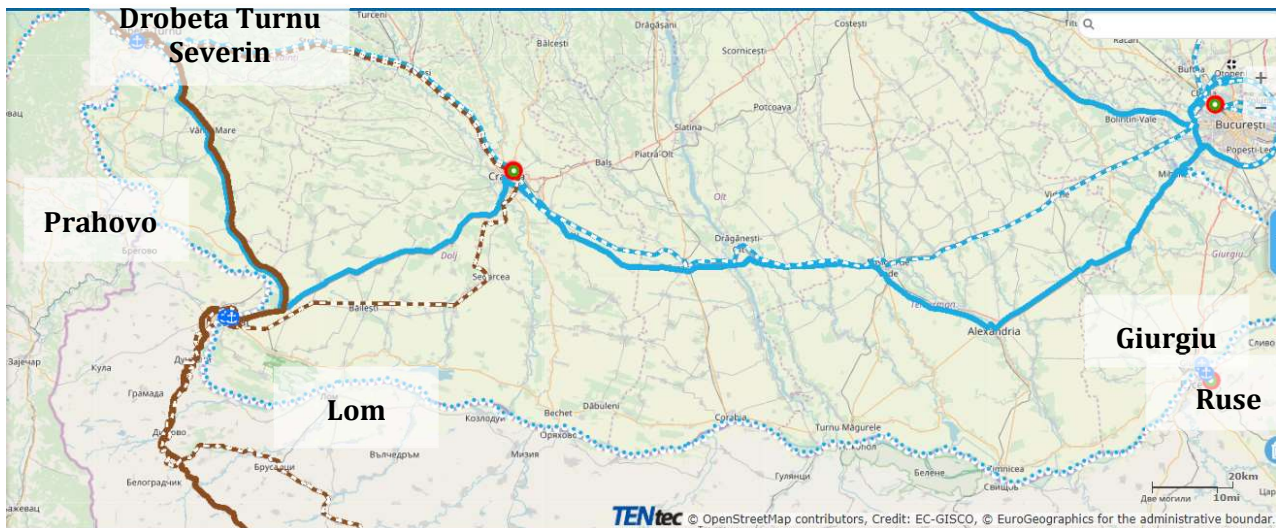
There are rail connections to the towns station and railway corridor 900 Bucuresti-Caransebes-Timisoara, which is the basis of the hinterland of this port.

There are no expressways or highways in this region.

6.11.2 TEN-T corridor links (Annex 9)

Drobeta Turnu-Severin is located on the TEN-T Orient-East Med and Rhine-Danube corridors.

The port of Drobeta Turnu Severin is connected with the port of Prahovo, as the next downstream port, by inland waterway, by two sections of the Rhine - Danube corridor that belong to the TEN-T Core Network (Figure 9). These sections are classified as completed.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 9. TEN-T network links in the direction Drobeta Turnu Severin – Prahovo – Lom – Giurgiu/Ruse

6.12 Port of Prahovo

6.12.1 Hinterland connections

The port of Prahovo is located on the km 861, right bank of the Danube. This is an open type port, and the apron area is 560 m long. The 971 m long industrial and railway track is connecting the port with the national railway network.

6.12.2 TEN-T corridor links (Annex 10)

The waterway connection between the Ports of Prahovo and Lom follows the Rhine - Danube corridor and is made of the two sections (Figure 9). These sections belong to the Core TEN-T Network and have a status of completed sections (Table 21).

6.13 Port of Lom

6.13.1 Hinterland connections

The port of Lom is connected to the national railway network and the national road network. However, the highway and the first-class road do not pass through the municipality of Lom.

The first-class road, which is at the service of the provinces of Vidin and Montana - E-79, does not pass through the city of Lom. Second and third class roads form the state road network.

The second-class road II-81 connects Lom with the city of Montana and the first class road. This is the most important road connection that links Lom with the rest of the state.

The second-class road II - 11 (Vidin - Dimovo circular road) - Simeonovo - Botevo - Archar - Lom - Kozloduy - Oryahovo - Gigen - Brest - Guljanci - circular road (Debovo - Nikopol), connects cities along the Danube.

Main railway line № 7 Mezdra – Vidin from the National railway network is single, electrified line (including the line to the Danube Bridge 2 towards Romania) and with normal track rut (1435 mm). It is almost 192 km long. The Brusartsi - Lom deviations connect the port with the Bulgarian railway network.

6.13.2 TEN-T corridor links (Annex 11)

The waterway connection between the ports of Lom and Ruse (the first considered downstream port) is part of the Rhine - Danube corridor and is composed of three sections (Table 22, Figure 9). These sections have the completed status and belong to the Core/Comprehensive Network.

Roads and railways on the TEN-T network of corridors do not directly connect the ports of Lom and Ruse. However, the port of Lom is located near the section Craiova - Calafat, which belongs to the railway part of the corridor Orient / East - Med, as well as the section Maglavit - Craiova, which is part of the road network on the Rhine-Danube corridor. The mentioned sections are directly connected with Bucharest, which is located near the Port of Ruse, as well as Port of Giurgiu. Therefore, the ports of Lom and Ruse are not connected by road and rail TEN-T corridors, but due to their proximity to above mentioned sections, it is necessary to consider this way of connecting these ports. In other words, the road and railway connection between Lom and Ruse, as well as Port of Giurgiu, implies the initial and final usage of roads and railways that do not belong to the TEN-T network of corridors. The sections that are connected to these roads, which belong to the TEN-T corridors and enable links between the ports of Lom and Ruse, are given in the Table 23 (road) and Table 24 (railway).

6.14 Port of Giurgiu

6.14.1 Hinterland connections

Port of Giurgiu is located on the left bank of the Danube, km 489-497. The port belongs to the TEN-T Core network. It is located at the intersection of the Danube River and the north-south route between the Baltic countries and Bulgaria, Greece and Turkey.

Over the years, the Giurgiu-Ruse (Bulgaria) bridge has been a basic connection for rail and road transport services. Significant traffic of cargos and foreign trucks has been noticed at this crossing point, representing one of the first four Romanian border crossings for railway freight transport. Port of Giurgiu has geographical advantages as well, as it is located 60 km from Bucharest, at the intersection of some important road and rail networks.

The European road E70 is connection to national network. The connected roads in this area are DJ 504, DJ 507, DN 5, DN 5B, DN 5C.

Two specialized stations are part of the railway network in Giurgiu: Giurgiu City Railway Station (the main passenger station on Bucharest-Videle line) and Giurgiu Nord (transport of cargoes and passengers and control of the border crossing with Bulgaria). These stations are connected to the Port of Giurgiu.

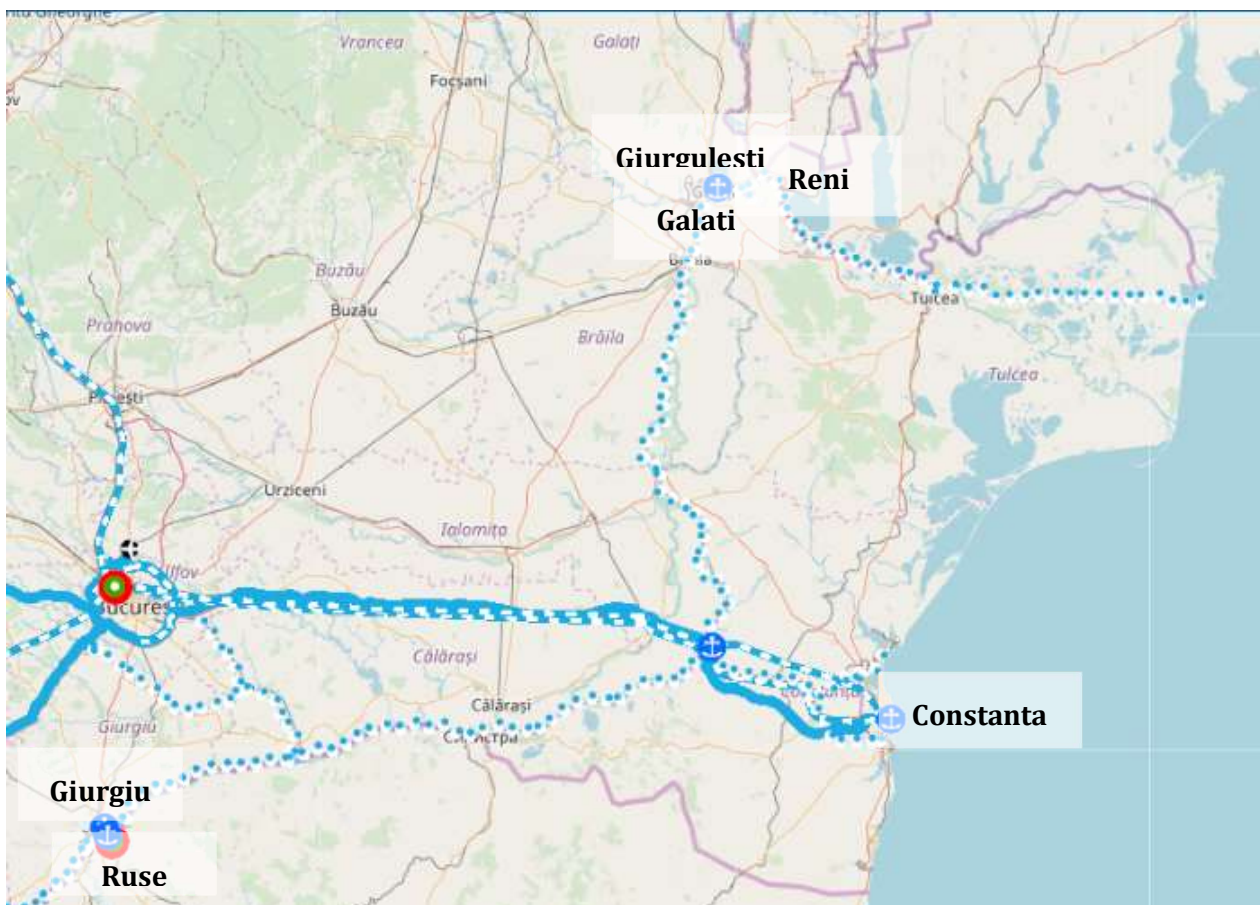
6.14.2 TEN-T corridor links (Annex 12)

The Port of Giurgiu is connected to the Port of Galati as well as the Port of Constanta by inland waterway sections that belong to the Rhine-Danube TEN-T corridor (Figure 10). The sections are considered as completed and are part of the TEN-T Core Network (Table 25).

The port of Giurgiu is not directly connected to the next considered, downstream Danube port, i.e. Port of Galati, or the Port of Constanta, on the Cernavoda-Constanta canal. However, given the vicinity between the Port of Giurgiu and Bucharest, we can analyse the connection of this port with the Port of Constanta through the Romanian capital. This connection implies the usage of road and railway links, between the Port of Giurgiu and Bucharest, which do not belong to the road and rail TEN-T network of corridors.

The road connection from Bucharest to the Port of Constanta belong to the TEN-T Rhine-Danube corridor and its Core network (Table 26). It consists of three completed sections that are part of National RO A2 Motorway, as well as a motorway Cernavoda – Constanca, a completed section belonging also to the TEN-T Core network.

There are two railway links (options) between Bucharest and the Port of Constanta (Table 27). The first option, Bucharest - Fetesti – Constanta, is composed of two sections of the conventional type that have to be upgraded and belong to the Rhine - Danube corridor (Core network). The other option is the direct high-speed line Bucharest-Constanta that belong to the Rhine-Danube corridor and have the status of a new construction. It is also part of the TEN-T Core network.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 10. TEN-T network links between Giurgiu/Ruse and Black Sea

6.15 Port of Ruse

6.15.1 Hinterland connections

Two European roads – E70 and E85 pass by Ruse. There are no highways passing through the city. A highway between Ruse and Veliko Tarnovo is in the course of construction, which will connect the region with the “Hemus” highway. Two I-st class roads connect Ruse with the country – I2/ E-70/ from the border line with Romania to Varna and I5 /E-85/ from Ruse towards the border line with Greece on Makaza. Three II-class roads also go through the city.

Two main railway lines start from Ruse – Line № 4 in south direction to Podkova and Line № 9 Ruse - Varna. The railway on the Danube Bridge connects Ruse directly with Romania. The railway lines Ruse-Varna (link between the Danube and the Black Sea) and Ruse-Gorna Oryahovitsa (crossing point of all major railway lines in Northern Bulgaria) are of primary importance for the economic connectivity. For its part, the railway transport in Ruse is of strategic importance for the combined transport of corridors №7 and №9.

6.15.2 TEN-T corridor links

Having in mind the positions of the ports of Giurgiu and Ruse, the explained TEN-T corridor connections for the Port of Giurgiu also apply to the Port of Ruse. This relates to both the direct connection by inland waterways to the Ports of Galati and Constanta, as well as to road and rail connections via Bucharest (Figure 10). There are no other connections and sections, which belong to the TEN-T network of corridors, near the Port of Ruse.

6.16 Port of Galati

6.16.1 Hinterland connections

One of the biggest commercial hubs in Romania, connected to main European transport networks, is Port of Galati. It is located close to the border line with Moldova and Ukraine. Railways enable the transfer from the European standard gauge to the broad gauge used in the former URSS countries, while the access to the Rhine-Main-Danube waterway, which connects the North Sea to the Black Sea, is done through the Danube.

6.16.2 TEN-T corridor links (Annex 13)

The connection to the Port of Giurgulesti follows also the Rhine-Danube corridor. There is one completed section belonging to the TEN-T Core Network (Table 28).

From the Port of Galati to the Port of Constanta, there are five inland waterway sections belonging to the Rhine-Danube corridor (Figure 10). All these sections are part of the Core network and have been classified as completed (Table 28).

There are no road and rail links from the TEN-T corridor network connecting the Port of Galati with other ports considered in this study.

6.17 Port of Giurgulesti

6.17.1 Hinterland connections

Port of Giurgulesti is located on the river Danube, left bank at km 133.80, at the intersection of the Danube and Prut Rivers, 72.2 NM from the sea and adjacent to the border with Romania and the Ukraine.

Advantage of the port is its access to the road, rail, river and sea links, thus having the great potential of becoming a logistics hub on the national level, as well as for the Black Sea region in general.

6.17.2 TEN-T corridor links

Port of Giurgulesti and the Port of Reni are connected by one inland waterway section that is part of the Rhine-Danube corridor (Figure 10). That section, Ceatalul Ismail –Braila, belongs to the Core TEN-T network. Details can be found in the Table 28.

Port of Giurgulesti is a node in the TEN-T Comprehensive network.

6.18 Port of Reni

6.18.1 Hinterland connections

The Port of Reni is located along the left Danube bank, from 123.6 to 128.3 km. The depths of the water area vary (from the bank to the middle of the river) from 2 m up to 25 m. Port of Reni can accept any vessel passing Danube-Black Sea Canal (with a draft up to 7 m). This port is also a seaport and represents multipurpose transport hub in Ukraine where sea, river, railway and road transport means are closely interrelated.

The port of Reni is located in the south-western part of Ukraine at the interface of Ukrainian, Romanian and Moldavian borders and on the crossing of four transport corridors:

- TEN-T Rhine-Danube;
- Pan-European corridors 7 and 9;
- corridor Europe – Asia.

6.18.2 TEN-T corridor links

Inland waterway section, Ceatalul Ismail –Braila, belonging to the Rhine-Danube TEN-T corridor and its Core network, connects the Port of Reni with the Port of Izmail (Table 28, Figure 10). There are no road and rail links from the TEN-T corridor network connecting the Port of Reni with other ports considered in this study.

Port of Reni is a node in the TEN-T Comprehensive network.

6.19 Port of Izmail

6.19.1 Hinterland connections

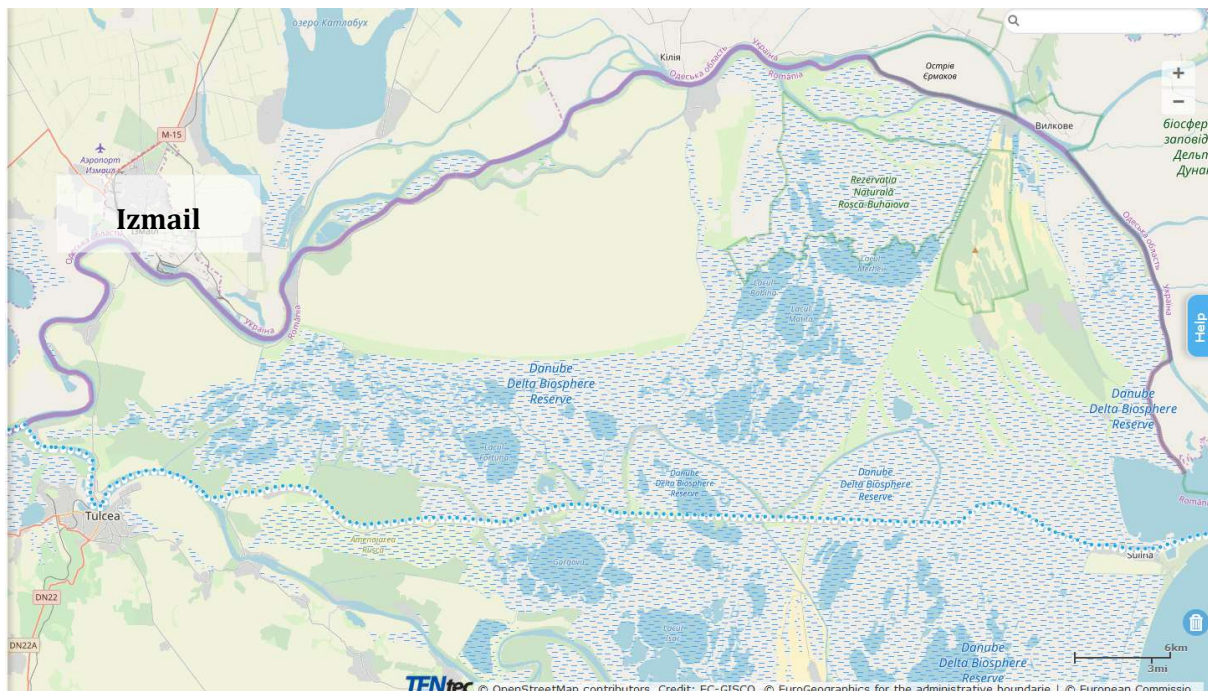
Port waters include the water area in the Kiliya mouth of the Danube River, from 81 up to 97 km counting from the left bank, up to the Ukrainian border, which passes along the Danube fairway. Due to its favorable geographical location, this port is a European gateway of Ukraine. It is an important transportation link, connecting countries of Central and Northern Europe with the countries in the Black and Mediterranean Seas. This port is a great transport hub, in which different types of maritime, river, railway and road transport links are interconnected.

6.19.2 TEN-T corridor links (Annex 14)

Three inland waterway sections belonging the TEN-T Rhine-Danube corridor link the Port of Izmail with the Port of Sulina and Black Sea (Table 29, Figure 11). All of them have been completed and are part of the Core Network. Port of Izmail is a node in the TEN-T Comprehensive network.

There are no road and rail links from the TEN-T corridor network connecting the Port of Izmail with other ports considered in this study.

A section of Danube river E 80-09 (according to the Blue Book of UNECE classification) – Ukrainian deep water navigation route “Danube – Black Sea” through Izmail Chatal Cape - Vylkove - Bystre mouth - Sea approach channel links Izmail and Reni ports with the Black sea from Ukrainian side. Total length of this navigation route is 172.36 km. Navigational services are provided with modern specialized ships, GPS coastal stations, RIS stations, AIS coastal navigation as well as radar automated posts. This navigation route provides 24-hours two-way navigation traffic (except for navigation at Bystre mouth). Together with Sulina channel (the Danube – Black Sea canal) Ukrainian navigation channel create an alternative route for navigation in Lower Danube (as well as for the case of emergency).



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 11. Location of the Port of Izmail and links with the Black Sea through Sulina (TEN-T, blue dots) mouth and Kilia mouth

6.20 Port of Constanta

6.20.1 Hinterland connections

The Port of Constanta is located on the Western coast of the Black Sea, at 179 nautical miles from the Bosphorus Strait. The connection of the port with the Danube river is made through the Danube-Black Sea Canal, ending the Rhine-Danube Corridor, which provides the main east-west connection across Continental Europe.

The Port of Constanta is located at the crossroads of the trade routes connecting the markets of the European countries without access to the sea to Transcaucasus, Central Asia and the Far East. The port has connections with the Central and Eastern European countries.

The rail lines in the Port of Constanța are connected to the Romanian and European railway network. The total length of railways in the Port of Constanta amounts to 300 km.

The Port of Constanta is connected with the hinterland by the Danube – Black Sea canal. The entrance to the channel is on the South part of the Port and connects the Black Sea with the European inland waterway network.

The canal has a length of 64.4 km and connects the river Danube with the Port of Constanta. The main southern branch, runs from Cernavodă, on the Danube (km 300), to Constanta. The major opportunity offered by the Danube is made up of potential dry and liquid bulk cargo transport between land-locked countries on the Danube, like Serbia, Hungary, Slovakia, Austria and the Black Sea.

The access to the port and the internal road network were designed before 1989 and is connected to the city road network, on which heavy traffic was allowed. The total length of roads in the port Constanta is 100 km.

The highway A2 connects Port of Constanta with national road network.

6.20.2 TEN-T corridor links

Details about direct TEN-T inland waterway, road and rail links between the Port of Constanta and other Danube ports can be found in the following tables:

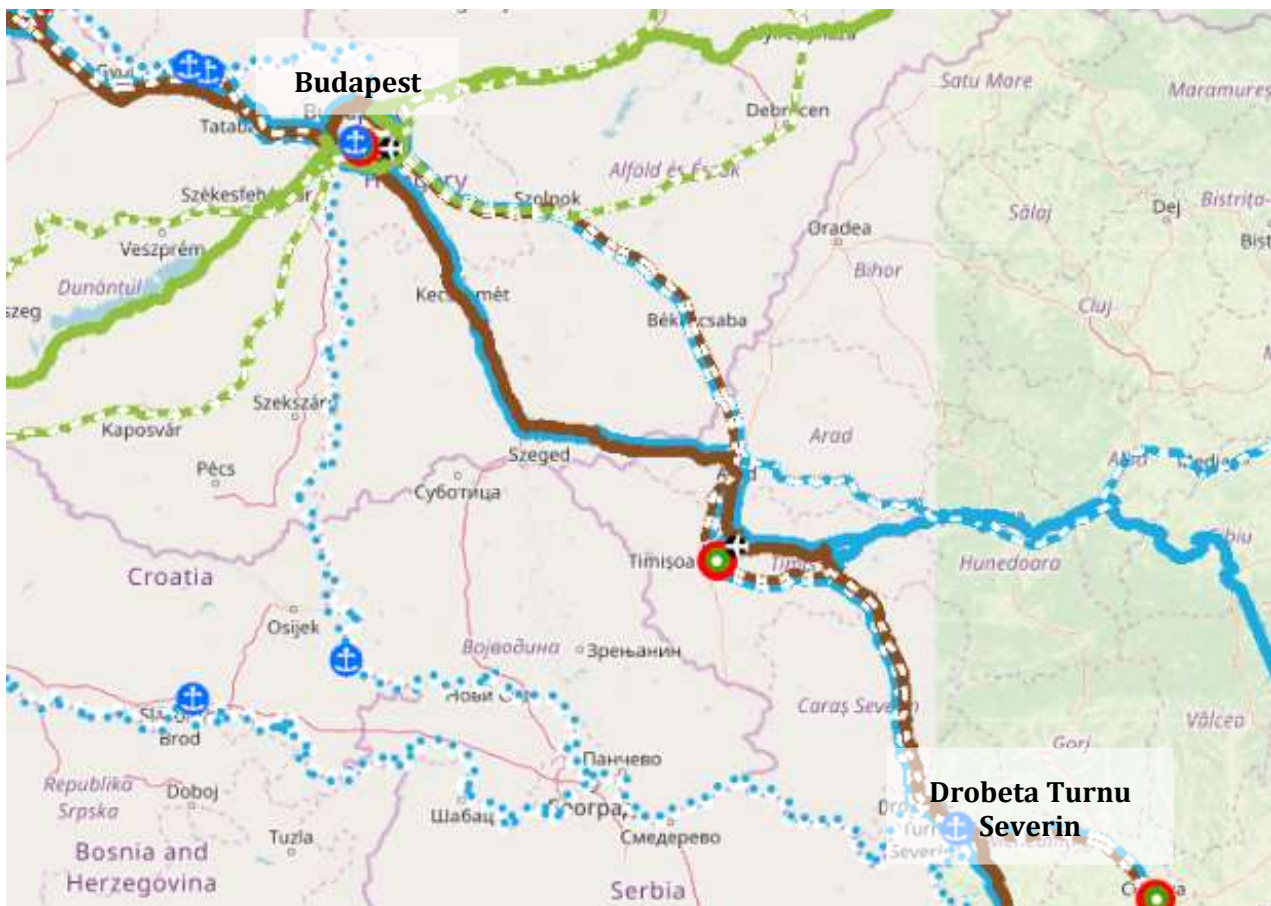
- Table 25 (Port of Giurgiu – Port of Constanta by inland waterway),
- Table 26 (Port of Giurgiu/Bucharest – Port of Constanta by road),
- Table 27 (Port of Giurgiu/Bucharest – Port of Constanta by rail) and
- Table 28 (Port of Galati – Port of Constanta by inland waterway).

7 Alternative corridor connections

7.1 Budapest – Drobeta Turnu Severin

Budapest and Drobeta Turnu Severin are connected by inland waterway sections on the Danube river, following TEN-T Rhine-Danube Corridor. This connection is achieved through the Danube ports in Hungary, Serbia and Croatia. There are no road and rail TEN-T corridor connections between Budapest and Drobeta Turnu Severin following this direction.

On the other hand, Budapest and Drobeta Turnu Severin are TEN-T corridor-connected, by both road and rail links (Figure 12), via Kecskemét, Szeged, Arad and Timisoara (road), i.e. Szolnok, Bekescsaba, Arad, Timisoara and Orsova (rail). These connections belong to the following TEN-T corridors: Mediterranean, Orient / East - Med, Rhine - Danube. All road sections connecting alternatively (not following Danube river) Budapest and Drobeta Turnu Severin are given in Table 30, while the railway sections are shown in Table 31.



Source: <https://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html>

Figure 12. Alternative TEN-T connections between Budapest and Drobeta Turnu Severin

7.2 Drobeta Turnu Severin – Giurgiu

By analyzing the TEN-T corridor network, it can be easily determined that there is no direct road or rail corridor connection between these two places. As already pointed out, the ports of Drobeta Turnu Severin

and Giurgiu are connected by Danubean inland waterway sections, which belong to the TEN-T corridor Rhine-Danube (via the ports of Prahovo and Lom).

However, looking at the network of corridors, it can also be seen that there is a direct, both road and rail, TEN-T corridor connection between Drobeta Turnu Severin and Bucharest. Although the connection between Bucharest and Giurgiu does not belong to the TEN-T corridor network, this route should be taken into account due to the obvious possibility of connecting the port of Giurgiu through the Bucharest with the TEN-T corridor network (Figure 9). The corridor sections, connecting Drobeta Turnu Severin and Bucharest, as well as the connections between Bucharest and Giurgiu, which do not belong to the TEN-T network, are given in Annex 15 – Table 32 and Table 33.

8 Conclusions

Deliverable D.T1.1.1. “Report on the selected Core & Comprehensive Network Sections and Nodes of the transport corridors on the Danube Region” is intended for the analysis of Danube region transport routes, corridor nodes and their access links, TEN-T connections in nodes or correlations with other roads, rail and IWT freight corridors. To do this, we applied an approach based on the analysis of road, rail and inland waterway connections, i.e. sections on TEN-T corridors between selected ports on Danube. Such alignment between TEN-T Core network and Danube region was done for the corridors running through the Danube region:

- Rhine-Danube;
- Orient/East –Med;
- Mediterranean;
- Baltic–Adriatic.

Our analysis encompassed elaboration of TEN-T links between 20 selected ports along the Danube, including the most important “gate” for the Danube ports – the seaport of Constanta. Following ports were chosen for detailed analysis in this report:

- Austria: Enns-shafen and Vienna;
- Slovakia: Bratislava and Komarno;
- Hungary: Budapest, Dunaújváros and Baja;
- Croatia: Vukovar;
- Serbia: Bogojovo, Bačka Palanka and Prahovo;
- Romania: Drobeta Turnu-Severin, Giurgiu, Galati and Constanta.
- Bulgaria: Lom and Ruse;
- Moldova: Giurgulesti;
- Ukraine: Reni and Izmail.

The analysis of the TEN-T sections included:

- defining start and end points of the section;
- determining the type of section (Conventional, High-speed, Motorways, ...);
- defining the TEN-T corridors to which the section belongs;
- defining the TEN-T network to which the section belongs (Core, Comprehensive network)
- status of the section (Completed, To be upgraded, New construction, ...).

This approach has enabled us to clearly understand the transport infrastructure basis and determine both the existing and planned infrastructure needs in the Danube region. In total, 172 sections were analyzed. The status of most sections is defined as completed. Around 25 % of sections have to be upgraded. It can also be concluded that almost 90 % of these “to be upgraded” sections belong to the railway TEN-T network. Most of the them are located on the route Budapest – Arad – Timisoara – Drobeta Turnu Severin, as well as in Romania and Bulgaria. Type of all these sections is defined as conventional railway.

The results presented can have very different applications. They can be analyzed and used in accordance with the specific tasks of different studies. In our case, such an overview of the TEN-T corridor alignment in the Danube region will be helpful for the identification and labeling of gaps that are relevant for a better functioning transport system and for a higher share of waterborne transport.

Annex 1 – Ennshafen port

| Vienna | | | | | | |
|--------|--------|-----------------------------------|------|----------------|--------------------|-----------|
| Enns | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Passau (border D/A)-Melk (part 4) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Passau (border D/A)-Melk (part 3) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Passau (border D/A)-Melk (part 2) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Passau (border D/A)-Melk (part 1) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Melk - Krems (part 1) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Melk - Krems (part 2) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Krems - Wien (part 1) | - | Rhine - Danube | Core/Comprehensive | Completed |
| | | Krems - Wien (part 2) | - | Rhine - Danube | Core/Comprehensive | Completed |

Table 2: IWW TEN-T corridor links between Ennshafen Port and Port of Vienna

| Vienna | | | | | | |
|--------|--------|-------------------------|-----------|----------------|--------------|-----------|
| Enns | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Linz – Steinhäusl | Motorways | Rhine - Danube | Core Network | Completed |
| | | Steinhäusl – Voesendorf | Motorways | Rhine - Danube | Core Network | Completed |

| | | | | | |
|--|------------------------|-----------|--------------------------------|--------------|-----------|
| | Voesendorf – Schwechat | Motorways | Baltic-Adriatic Rhine - Danube | Core Network | Completed |
|--|------------------------|-----------|--------------------------------|--------------|-----------|

Table 3: Road TEN-T corridor links between Ennshafen Port and Port of Vienna

| Vienna | | | | | | |
|--------|---------|---|--------------|-----------------------------------|--------------|----------------|
| Enns | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Linz Ebelsberg – Amstetten | High speed | Rhine - Danube | Core Network | Completed |
| | | Amstetten – Sarling | High speed | Rhine - Danube | Core Network | To be upgraded |
| | | Sarling - Gross Sierning | High speed | Rhine - Danube | Core Network | Completed |
| | | Gross Sierning - St. Poelten | High speed | Rhine - Danube | Core Network | Completed |
| | | St. Poelten - St. Poelten (east) | High speed | Rhine - Danube | Core Network | Completed |
| | | St. Poelten (east) - Bahnhof Tullnerfeld | High speed | Rhine - Danube | Core Network | Completed |
| | | Bahnhof Tullnerfeld - Wien Handersdorf | High speed | Rhine - Danube | Core Network | Completed |
| | | Bahnhof Tullnerfeld - Wien Handersdorf (part 2) | High speed | Rhine - Danube | Core Network | Completed |
| | | Wien Handersdorf (part 2) - Wien Meidling | High speed | Rhine - Danube | Core Network | Completed |
| | | Wien Meidling - Wien Inzersdorf | Conventional | Baltic-Adriatic Rhine - Danube | Core Network | Completed |
| | | Wien Inzersdorf – Kledering | Conventional | Rhine - Danube | Core Network | Completed |
| | | Kledering - Wien Freudenau Hafen (part 2) | Conventional | Baltic-Adriatic | Core Network | Completed |
| | | Kledering - Wien Freudenau Hafen (part 1) | Conventional | Baltic-Adriatic | Core Network | Completed |

Table 4: Railway TEN-T corridor links between Ennshafen Port and Port of Vienna

Annex 2 – Port of Vienna

| Bratislava | | | | | | |
|------------|--------|-------------------------------------|------|----------------|----------------------------|-----------|
| Vienna | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Wien - Devin (border A/SK) (part 2) | - | Rhine - Danube | Core/Comprehensive Network | Completed |
| | | Wien - Devin (border A/SK) (part 1) | - | Rhine - Danube | Core/Comprehensive Network | Completed |
| | | Devin (border A/SK) - Bratislava | - | Rhine - Danube | Core/Comprehensive Network | Completed |

Table 5: IWW TEN-T corridor links between Port of Vienna and Port of Bratislava

| Bratislava | | | | | |
|------------|--|---------------------|--|--------------|-----------|
| Road | | | | | |
| Option | Section | Type | Corridor | Network | Status |
| Vienna | 1 | | | | |
| | Schwechat - Bruckneudorf | Motorways | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | Completed |
| | Bruckneudorf - Bratislava / Kittsee | Motorways | Baltic - Adriatic Rhine - Danube | Core Network | Completed |
| | Petržalka/Berg (border SK/A) -Border (SK/A) | Rural two-lane road | Baltic - Adriatic Rhine - Danube | Core Network | Completed |
| | Petržalka/Berg (border SK/A) - Jarovce/Kittsee (border SK/A) | Motorways | Baltic - Adriatic Orient/East - Med | Core Network | Completed |
| | Ivanka pri Dunaji - sever - Petržalka/Berg (border SK/A) | Motorways | Baltic - Adriatic | Core Network | Completed |

Table 6: Road TEN-T corridor links between Port of Vienna and Port of Bratislava

| Bratislava | | | | | |
|------------|---|--------------|--|--------------|----------------|
| Railway | | | | | |
| Option | Section | Type | Corridor | Network | Status |
| 1 | Kledering - Wien Freudenau Hafen (part 1) | Conventional | Baltic - Adriatic | Core Network | Completed |
| | Kledering - Wien Freudenau Hafen (part 2) | Conventional | Baltic-Adriatic | Core Network | Completed |
| | Wien ZVB Nord - Kledering | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | Completed |
| | Wien Landstrasse - Wien ZVB Nord | Conventional | Baltic - Adriatic Orient/East - Med | Core Network | Completed |
| | Wien Stadlau - Wien Landstrasse | Conventional | Baltic - Adriatic Orient/East - Med | Core Network | Completed |
| | Wien Stadlau - Marchegg | Conventional | Baltic - Adriatic | Core Network | To be upgraded |
| | Marchegg - Devinska Nova Ves | Conventional | Baltic - Adriatic | Core Network | To be upgraded |
| | Devinska Nova Ves -Bratislava (part 1) | Conventional | Baltic - Adriatic Orient/East - Med | Core Network | To be upgraded |
| | Bratislava -Petrzalka (part 1) | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | To be upgraded |

| | | | | | |
|---|---|--------------|--|--------------|----------------|
| 2 | Kledering - Wien Freudenau Hafen (part 1) | Conventional | Baltic - Adriatic | Core Network | Completed |
| | Kledering - Wien Freudenau Hafen (part 2) | Conventional | Baltic-Adriatic | Core Network | Completed |
| | Kledering - Gramatneusiedl | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | Completed |
| | Gramatneusiedl - Goetzendorf | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | Completed |
| | Goetzendorf - Parndorf | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | Completed |
| | Parndorf - Kittsee | Conventional | Baltic - Adriatic Rhine - Danube | Core Network | Completed |
| | Kittsee - Petrzalka | Conventional | Baltic - Adriatic Rhine - Danube | Core Network | Completed |
| | Bratislava - Petrzalka (part 2) | Conventional | Baltic - Adriatic Rhine - Danube | Core Network | To be upgraded |
| | Bratislava -Petrzalka (part 1) | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | To be upgraded |

Table 7: Railway TEN-T corridor links between Port of Vienna and Port of Bratislava

Annex 3 – Port of Bratislava

| Komarno | | | | | | |
|------------|--------|---------------------------|------|----------------|----------------------------|-----------|
| Bratislava | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Bratislava - Sap (part 2) | - | Rhine - Danube | Core/Comprehensive Network | Completed |
| | | Kalinkovo - Gabčíkovo | - | Rhine - Danube | Core/Comprehensive Network | Completed |
| | | Gabčíkovo - Sap | - | Rhine - Danube | Core/Comprehensive Network | Completed |
| | | Szap - Budapest (part 3) | - | Rhine - Danube | Core/Comprehensive Network | Completed |

Table 8: IWW TEN-T corridor links between Port of Bratislava and Port of Komarno

| Komarno | | | | | | |
|------------|--------|---|-----------|--|--------------|-----------|
| Bratislava | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Petržalka/Berg (border SK/A) - Jarovce/Kittsee (border SK/A) - D2 | Motorways | Baltic - Adriatic Orient/East - Med | Core Network | Completed |
| | | Jarovce/Kittsee (border SK/A) - Cunovo/Rajka (border SK/HU) (D2) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Cunovo/Rajka - Hegyeshalom (M15) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Hegyeshalom - Mosonmagyarovar (M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Mosonmagyarovar - Gyor (M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Gyor - Tatabanya (M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |

Table 9: Road TEN-T corridor links between Port of Bratislava and Port of Komarno

| Komarno | | | | | | |
|------------|---------|--------------------------------|--------------|--|--------------|----------------|
| Bratislava | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Bratislava -Petrzalka (part 1) | Conventional | Baltic - Adriatic Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Petrzalka - Rajka | Conventional | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Rajka - Hegyeshalom | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Hegyeshalom - Gyor (part 2) | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Hegyeshalom - Gyor (part 1) | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Hegyeshalom - Gyor (part 3) | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Gyor - Komarom | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |

Table 10: Railway TEN-T corridor links between Port of Bratislava and Port of Komarno

Annex 4 – Port of Komarno

| Budapest | | | | | | |
|----------|--------|---------------------------------|------|----------------|--------------|-----------|
| IWW | | | | | | |
| Komarno | Option | Section | Type | Corridor | Network | Status |
| | 1 | Sap - Szob (part 2) | - | Rhine - Danube | Core Network | Completed |
| | | Szap - Budapest (part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Szap - Budapest (part 2) | - | Rhine - Danube | Core Network | Completed |
| | | Budapest - Mohacs port / Batina | - | Rhine - Danube | Core Network | Completed |

Table 11: IWW TEN-T corridor links between Port of Komarno and Port of Budapest

| Budapest | | | | | | |
|----------|--------|---|-----------|--|--------------|------------------|
| Komarno | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Tatabanya - Budapest (J. M0/M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Budapest (J. M0/M1) - Budapest (J. M0/M7) | Motorways | Mediterranean Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Budapest (J. M0/M7) - Budapest (J. M0/M6) | Motorways | Mediterranean Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Budapest (J. M0/M6) - Budapest (J. M0/M5) | Motorways | Mediterranean Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Gyor - Tatabanya (M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | 2 | Tatabanya - Budapest (J. M0/M1) | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | Budapest (J. M0/M1) - Budapest (part 2) | - | Orient/East - Med Rhine - Danube | Core Network | New Construction |
| | | Budapest (J. M0/M1) - Budapest (part 1) | - | Orient/East - Med Rhine - Danube | Core Network | New Construction |

Table 12: Road TEN-T corridor links between Port of Komarno and Port of Budapest

| Budapest | | | | | | |
|----------------|---------------|---|--------------|--|----------------|------------------|
| Railway | | | | | | |
| | <i>Option</i> | <i>Section</i> | <i>Type</i> | <i>Corridor</i> | <i>Network</i> | <i>Status</i> |
| Komarno | 1 | Komarom - Tatabanya | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Tatabanya - Budapest Kelenfold | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Budapest Kelenfold - Budapest Ferencvaros | Conventional | Mediterranean Orient/East - Med Rhine - Danube | Core Network | New Construction |

Table 13: Railway TEN-T corridor links between Port of Komarno and Port of Budapest

Annex 5 – Freeport of Budapest

| Dunaujvaros | | | | | | |
|-------------|--------|---------------------------------|------|----------------|--------------|-----------|
| Budapest | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Budapest - Mohacs port / Batina | - | Rhine - Danube | Core Network | Completed |

Table 14: IWW TEN-T corridor links between Freeport of Budapest and Port of Dunaujvaros

| Dunaujvaros | | | | | | |
|-------------|--------|---|-----------|--|--------------------------|----------------|
| Budapest | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Budapest (J. M0/M5) - Kecskemet | Motorways | Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | not directly linked with the port of Dunaujvaros | | | | |
| | | Dunavecse - kecskemet (M8) | Motorways | | Comprehensive Network | To be upgraded |
| | | Dunaujvaros - Dunavecse (M6) | Motorways | | Comprehensive Network | Completed |
| | | Dunaujvaros - Budapest (J. M0/M6) (part 1) (M6) | | | Comprehensive Network | Completed |
| | 2 | Budapest (J. M0/M6) - Budapest (J. M0/M5) | Motorways | Mediterranean Orient/East - Med Rhine - Danube | Core Network | Completed |
| | | not directly linked with the port of Dunaujvaros | | | | |
| | | Dunaujvaros - Budapest (J. M0/M6) (part 2) (M6) | | | Comprehensive Network | Completed |

Table 15: Road TEN-T corridor links between Port of Budapest and Port of Dunaujvaros

| Dunaujvaros | | | | | | |
|-------------|-------------------------------|--|--------------|--|----------------|------------------|
| Budapest | Railway – not directly linked | | | | | |
| | <i>Option</i> | <i>Section</i> | <i>Type</i> | <i>Corridor</i> | <i>Network</i> | <i>Status</i> |
| | 1 | Budapest Kelenfold - Budapest Ferencvaros | Conventional | Mediterranean Orient/East - Med Rhine - Danube | Core Network | New Construction |
| | | Pusztaszabolcs - Budapest Kelenfold (part 2) | Conventional | Mediterranean | Core Network | To be upgraded |
| | | Pusztaszabolcs - Budapest Kelenfold (part 1) | Conventional | Mediterranean | Core Network | To be upgraded |

Table 16: Railway TEN-T corridor links between Port of Budapest and Dunaujvaros

Annex 6 – Port of Baja

| Bogojevo | | | | | | |
|----------|--------|---------------------------------|------|----------------|--------------|-----------|
| Baja | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Budapest - Mohacs port / Batina | - | Rhine - Danube | Core Network | Completed |
| | | Batina - Ilok (part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Batina -Ilok (part 2) | - | Rhine - Danube | Core Network | Completed |
| | | Batina -Ilok (part 3) | - | Rhine - Danube | Core Network | Completed |

Table 17: IWW TEN-T corridor links between Port of Baja and Port of Bogojevo

Annex 7 – Port of Bogojevo

| Vukovar | | | | | | |
|----------|--------|-----------------------|------|----------------|--------------|-----------|
| Bogojevo | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Batina -Ilok (part 3) | - | Rhine - Danube | Core Network | Completed |

Table 18: IWW TEN-T corridor links between Port of Bogojevo and Port of Vukovar

Annex 8 – Port of Bačka Palanka

| Drobeta Turnu Severin | | | | | | |
|-----------------------|--------|---|------|----------------|--------------|-----------|
| Bačka Palanka | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Bačka Palanka – Novi Sad | - | Rhine - Danube | Core Network | Completed |
| | | Novi Sad – Tisza mouth | - | Rhine - Danube | Core Network | Completed |
| | | Tisza mouth - Belgrade | - | Rhine - Danube | Core Network | Completed |
| | | Belgrade – Serbia/Romania border | - | Rhine - Danube | Core Network | Completed |
| | | Bazias - Portile de fier (Iron Gate) (part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Bazias - Portile de fier (Iron Gate) (part 2) | - | Rhine - Danube | Core Network | Completed |

Table 19: IWW TEN-T corridor links between Port of Bačka Palanka and Port of Drobeta Turnu Severin

Annex 9 – Port of Drobeta Turnu Severin

| Prahovo | | | | | | | |
|-----------------------------|--------|--|------|----------|----------------|--------------|-----------|
| Drobeta Turnu Severin | IWW | | | | | | |
| | Option | Section | Type | Corridor | Network | Status | |
| | 1 | Bazias - Portile de fier II (Iron Gate) (part 2) | | - | Rhine - Danube | Core Network | Completed |
| | | Bazias - Portile de fier II (Iron Gate) (part 3) | | - | Rhine - Danube | Core Network | Completed |

Table 20: IWW TEN-T corridor links between Port of Drobeta Turnu Severin and Port of Prahovo

Annex 10 – Port of Prahovo

| | | | Lom | | | | | |
|---------|--------|--|---------|--|------|----------------|--------------|-----------|
| Prahovo | IWW | | | | | | | |
| | Option | | Section | | Type | Corridor | Network | Status |
| | 1 | Bazias - Portile de fier II (Iron Gate) (part 3) | | | - | Rhine - Danube | Core Network | Completed |
| | | Timok mouth - Lom port | | | - | Rhine - Danube | Core Network | Completed |

Table 21: IWW TEN-T corridor links between Port of Prahovo and Port of Lom

Annex 11 – Port of Lom

| Ruse | | | | | | |
|------|--------|------------------------------|------|----------------|--------------|-----------|
| Lom | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Lom port - Somovit port | - | Rhine - Danube | Core Network | Completed |
| | | Somovit port - Svishtov port | - | Rhine - Danube | Core Network | Completed |
| | | Svishtov port - Ruse port | - | Rhine - Danube | Core Network | Completed |

Table 22: IWW TEN-T corridor links between Port of Lom and Port of Ruse

| Ruse | | | | | | |
|------|--------|-----------------------|-------------------------------------|----------------|--------------|-----------|
| Lom | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Maglavit - Craiova | - | Rhine - Danube | Core Network | Completed |
| | | Craiova - Alexandria | Rural road with separate directions | Rhine - Danube | Core Network | Completed |
| | | Alexandria - Bucurest | Rural road with separate directions | Rhine - Danube | Core Network | Completed |
| | | Bucurest - Giurgiu | Rural road with separate directions | - | | |

Table 23: Road TEN-T corridor links between Port of Lom and Port of Ruse

| Ruse | | | | | | |
|------|---------|---------------------|--------------|-------------------|--------------|----------------|
| Lom | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Craiova - Calafat | Conventional | Orient/East - Med | Core Network | To be upgraded |
| | | Craiova - Caracal | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Caracal - Rosiori | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Videle - Bucharest | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Bucharest - Giurgiu | Conventional | - | | To be upgraded |
| | | Giurgiu - Ruse | Conventional | - | | Completed |

Table 24: Railway TEN-T corridor links between Port of Lom and Port of Ruse

Annex 12 – Port of Giurgiu

| Galati/Constanta | | | | | | |
|------------------|--------|----------------------------------|------|----------------|--------------|-----------|
| Giurgiu | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Ruse port - Silistra port | - | Rhine - Danube | Core Network | Completed |
| | | Calarasi - Braila (Part 2) | - | Rhine - Danube | Core Network | Completed |
| | | To Port of Galati | - | Rhine - Danube | Core Network | Completed |
| | | Calarasi - Braila (Part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Braila - Ceatalul Ismail | - | Rhine - Danube | Core Network | Completed |
| | | To port of Constanta | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 2) | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 3) | - | Rhine - Danube | Core Network | Completed |

Table 25: IWW TEN-T corridor links between Port of Giurgiu and Port of Galati/Constanta

| Constanta | | | | | | |
|-----------|--------|-----------------------|----------------------------|----------------|--------------|-----------|
| Giurgiu | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Bukurest - Drajna | National RO A2 - Motorways | Rhine - Danube | Core Network | Completed |
| | | Draina - Fetesti | National RO A2 - Motorways | Rhine - Danube | Core Network | Completed |
| | | Fetesti - Cernavoda | National RO A2 - Motorways | Rhine - Danube | Core Network | Completed |
| | | Cernavoda - Constanca | Motorways | Rhine - Danube | Core Network | Completed |

Table 26: Road TEN-T corridor links between Port of Giurgiu/Bucharest and Port of Constanta

| Constanta | | | | | | |
|-----------|---------|-----------------------|--------------|----------------|--------------|------------------|
| Giurgiu | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Bukuresti - Fetesti | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Fetesti - Constanca | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | 2 | Bukuresti - Constanta | High speed | Rhine - Danube | Core Network | New Construction |

Table 27: Railway TEN-T corridor links between Port of Giurgiu/Bucharest and Port of Constanta

Annex 13 – Port of Galati

| Giurgulesti/Constanta | | | | | | |
|-----------------------|--------|--|------|----------------|--------------|-----------|
| Galati | IWW | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | To Port of Giurgulesti Braila - Ceatalul Ismail | - | Rhine - Danube | Core Network | Completed |
| | | To port of Constanta Braila - Ceatalul Ismail | - | Rhine - Danube | Core Network | Completed |
| | | Calarasi - Braila (Part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 1) | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 2) | - | Rhine - Danube | Core Network | Completed |
| | | Cernavoda port – Agigea (Part 3) | - | Rhine - Danube | Core Network | Completed |
| | | | | | | |

Table 28: IWW TEN-T corridor links between Port of Galati and Port of Giurgulesti/Constanta

Annex 14 – Port of Izmail

| Sulina/Kilia/Black Sea | | | | | | | |
|-------------------------|--------|--|------|----------|----------------|--------------|-----------|
| Izmail | IWW | | | | | | |
| | Option | Section | Type | Corridor | Network | Status | |
| | 1 | Trough Sulina mouth | | - | Rhine - Danube | Core Network | Completed |
| | | Braila - Ceatalul Ismail | | | | | |
| | | Ceatalul Ismail – Ceatalul Sf. Gheorge | | - | Rhine - Danube | Core Network | Completed |
| | | Ceatalul Sf. Gheorge - Sulina | | - | Rhine - Danube | Core Network | Completed |
| | 2 | Trough Kilia mouth | | | | | |
| | | Ceatalul Sf. Gheorge – Kilia mouth | | - | - | - | - |
| Kilia mouth – Black Sea | | - | - | - | - | | |

Table 29: IWW TEN-T corridor links between Port of Izmail and Port of Sulina/Kilia/Black Sea

Annex 15 Alternative corridor connections – sections

Budapest – Drobeta Turnu Severin

| Drobeta Turnu Severin | | | | | | |
|-----------------------|--------|---|-------------------------------------|---|------------------------|----------------|
| Budapest | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Budapest (J. M0/M7) - Budapest (J. M0/M6) | Motorways | Mediterranean, Orient/East - Med Rhine -Danube | Core Network | Completed |
| | | Budapest (J. M0/M6)- Budapest (J.M0/M5) | Motorways | Mediterranean, Orient/East – Med, Rhine -Danube | Completed Core Network | Completed |
| | | Budapest (j. M0/M5) - Kecskemet | Motorways | Orient/East - Med, Rhine - Danube | Core Network | Completed |
| | | Kecskemet - Kiskunfelgyhaza | Motorways | Orient/East - Med, Rhine - Danube | Core Network | Completed |
| | | Kiskunfelgyhaza - Szeged | Motorways | Orient/East - Med, Rhine - Danube | Core Network | Completed |
| | | Szeged (Jn. M5/M43) - Mako | Motorways | Orient/East - Med, Rhine - Danube | Core Network | Completed |
| | | Mako - Nagylak/Nadlac | Motorways | Orient/East - Med, Rhine - Danube | Core Network | To be upgraded |
| | | Cenad - Arad - Timisoara | Motorways | Orient/East - Med, Rhine - Danube | Core Network | Completed |
| | | Timisoara - Lugoj | Motorways | Orient/East - Med, Rhine - Danube | Core Network | To be upgraded |
| | | Lugoj - Drobeta Turnu Severin | Rural road with separate directions | Orient/East - Med, Rhine - Danube | Core Network | Completed |

Table 30: Road TEN-T corridor links between Port of Budapest and Port of Drobeta Turnu Severin (alternative)

| Drobeta Turnu Severin | | | | | | |
|-----------------------|---------|--|--------------|---|--------------|------------------|
| Budapest | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Budapest Ferencvaros - Budapest Rakos (part 2) | Conventional | Mediterranean, Orient/East - Med , Rhine - Danube | Core Network | New Construction |
| | | Budapest Ferencvaros - Cegled | Conventional | Mediterranean, Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |
| | | Cegled-Szolnok | Conventional | Mediterranean, Orient/East - Med, Rhine - Danube | Core Network | To be upgraded |
| | | Szolnok - Szajol | Conventional | Mediterranean, Orient/East - Med, Rhine - Danube | Core Network | To be upgraded |
| | | Szajol-Mezotur | Conventional | Orient/East - Med , Rhine - Danube | Core Network | Completed |
| | | Mezotur - Gyoma | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |
| | | Gyoma - Bekescsaba | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |
| | | Bekescsaba - Lokoshaza | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |

| | | | | | |
|--|----------------------------------|--------------|---------------------------------------|--------------|----------------|
| | Border (CURtici RO/HU) - Curtici | Conventional | Orient/East - Med , Rhine - Danube | Core Network | Completed |
| | Curtici - Arad (part 1) | Conventional | Orient/East - Med , Rhine - Danube | Core Network | Completed |
| | Curtici - Arad (part 2) | Conventional | Orient/East - Med , Rhine - Danube | Core Network | Completed |
| | Arad - Timisoarqa | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |
| | Timisoara - Orsova | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |
| | Orsova -Filiasi (Part 1) | Conventional | Orient/East - Med , Rhine - Danube | Core Network | To be upgraded |

Table 31: Rail TEN-T corridor links between Port of Budapest and Port of Drobeta Turnu Severin (alternative)

Drobeta Turnu Severin – Giurgiu

| Giurgiu | | | | | | |
|-----------------------|--------|----------------------------------|--|-------------------------------------|--------------|----------------|
| Drobeta Turnu Severin | Road | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Drobeta Turnu Severin - Maglavit | Rural road with separate directions | Baltic - Adriatic Orient/East - Med | Core Network | Completed |
| | | Maglavit - Craiova | National RO56 | Rhine - Danube | Core Network | Completed |
| | | Craiova - Alexandria | National RO6 - Rural road with separate directions | Rhine - Danube | Core Network | Completed |
| | | Alexandria - Bukuresti | National RO6 - Rural road with separate directions | Rhine - Danube | Core Network | Completed |
| | | Bukuresti - Giurgiu | National RO5 - Rural road with separate directions | | | To be upgraded |

Table 32: Road TEN-T corridor links between Port of Drobeta Turnu Severin and Port of Giurgiu (alternative)

| Giurgiu | | | | | | |
|-----------------------|---------|---------------------|--------------|-------------------------------------|--------------|----------------|
| Drobeta Turnu Severin | Railway | | | | | |
| | Option | Section | Type | Corridor | Network | Status |
| | 1 | Orsova - Filasi | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Filasi - Craiova | Conventional | Orient/East - Med Rhine - Danube | Core Network | To be upgraded |
| | | Craiova - Caracal | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Caracal - Rosiori | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Rosiori - Videle | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Videle - Bucuresti | Conventional | Rhine - Danube | Core Network | To be upgraded |
| | | Bucuresti - Giurgiu | Conventional | - | | To be upgraded |

Table 33: Railway TEN-T corridor links between Port of Drobeta Turnu Severin and Port of Giurgiu (alternative)