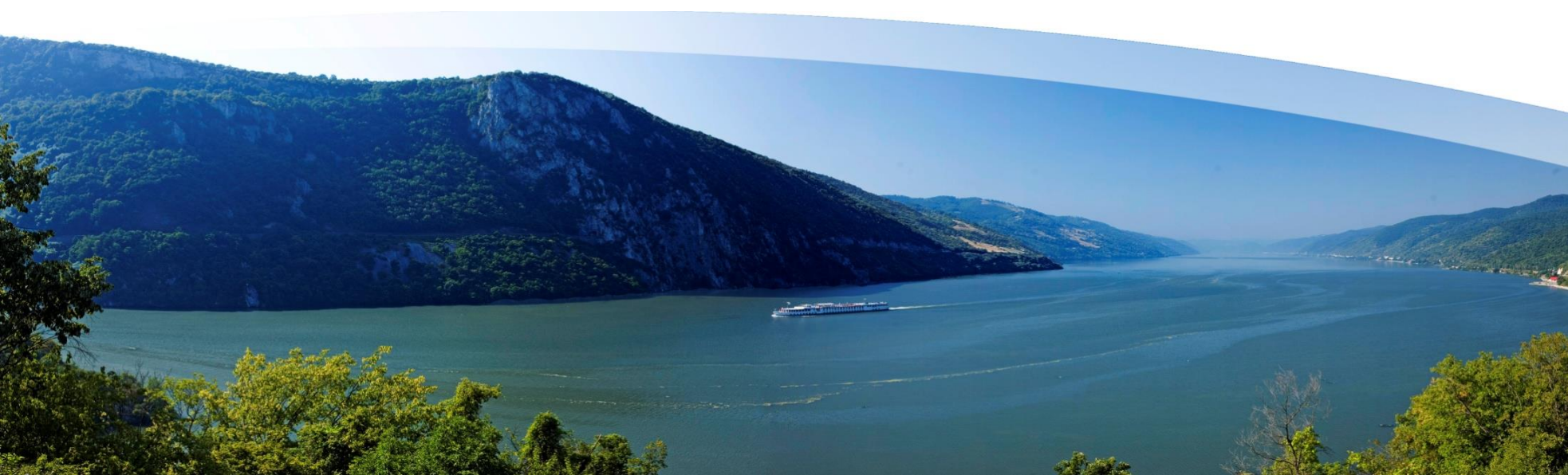


# EUSDR PA1a Joint Meeting PA1a+PA1b

Vienna | 12<sup>th</sup> June 2019




# Welcome and introduction

# PA1a coordinators



**Austria**

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Verkehr, Innovation  
und Technologie

**viadonau**

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**Romania**



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# Current 5 targets for EUSDR Priority Area 1a

1. Increase the cargo transport on the river by 20% by 2020 compared to 2010.
2. Solve obstacles to navigability, taking into account the specific characteristics of each section of the Danube and its navigable tributaries and establish effective waterway infrastructure management by 2020.
3. Develop efficient multimodal terminals at river ports along the Danube and its navigable tributaries to connect inland waterways with rail and road transport by 2020.
4. Implement harmonised River Information Services (RIS) on the Danube and its navigable tributaries and ensure the international exchange of RIS data preferably by 2020.
5. Solve the shortage of qualified personnel and harmonize education standards in inland navigation in the Danube region by 2020, taking duly into account the social dimension of the respective measures.

# PA 1a working group structure



WG 1 – Waterway infrastructure & management



WG 2 – Ports & sustainable freight transport



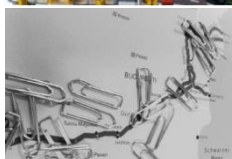
WG 3 – Fleet modernisation



WG 4 – River Information Services



WG 5 – Education & jobs



WG 6 – Administrative processes



# Objective of today's Working Group

- Identify specific issues and policy recommendations for Danube ports, based on
  - previous and ongoing project work > work within scope of DAPhNE and Rhine-Danube Corridor
  - inputs from public and private stakeholders
- Summarise Danube-specific policy recommendations on port development to overcome the current back log
- Provide solid arguments to create funding opportunities in
  - Cohesion Funds
  - Horizon Europe
  - Connecting Europe Facility
  - National/regional instruments

# Possible added value of EUSDR: Opening funding opportunities

- Ensure coverage of relevant headings in strategic framework for Cohesion policy post-2020
  - Provide input to Partnership Agreements negotiated between EC and Member States
  - Inform on opportunities in Operational Programme
- > For this we need your inputs on required funding topics

# Transport Analysis for the Danube Region and the study on the intermodal transport in the Danube Region

Franc Žepič (PA1b)



The EU Strategy for the Danube Region  
Priority Area 1b: To improve mobility and Multimodality - road, rail and air links

# A snapshot on Transport in the Danube Region Countries

Franc Žepič, PAC 1b  
Ministry of Infrastructure, Slovenia



Joint PA1a and PA1b meeting  
12 June 2019 | Port of Vienna,  
Vienna, Austria

Co-financed by the EU (ERDF and IPA)

# The Danube Region ...

EUSDR - **11 Priority areas:**  
- 24 June 2011: endorsed by  
the European Council!

## PA 1: To improve Mobility and Multimodality

✓PA 1a: inland  
waterways - Austria  
and Romania

✓PA 1b : rail, road and  
air links - Slovenia and  
Serbia



- **14 States:** Germany, Austria, Czech Republic, Croatia, Slovakia, Hungary, Slovenia, Romania, Bulgaria, Bosnia and Herzegovina, Serbia, Montenegro, Moldova, Ukraine
- **Population:** 115 million (EU27: 502 mio) **Area:** 1,092.591 km2 (EU27: 4,324,782)

# Understanding the Region

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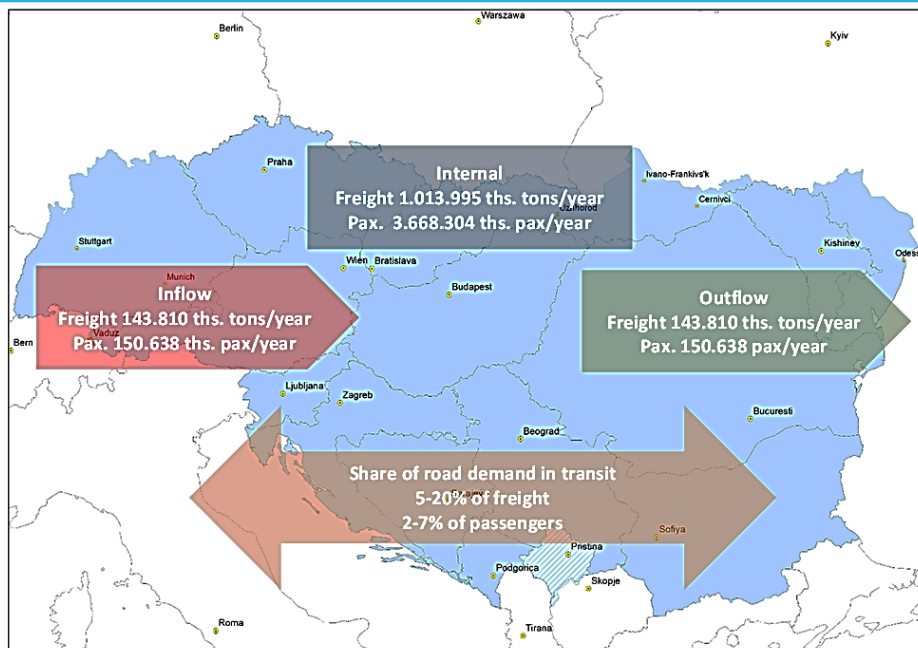
**STUDIES for the Danube macro-region  
supported and facilitated by PA1b:**

- 1) Transport Analysis for the Danube Region (TAD);  
completed June 2017**
- 2) Transport Infrastructure – Road links;  
completed at end March 2018 ([www.danube-transport.eu](http://www.danube-transport.eu))**
- 3) Study of Intermodal transport Users' Needs in the Danube Region;  
completed in September 2018**

Available at PA1b Web site: [www.danube-transport.eu](http://www.danube-transport.eu)

# Road and Rail Transport

## Current transport demand



Road and rail transport flows:

- mostly domestic
- short/medium distance
- modal split in favour of the road

Transport mode	Unit of measurement	Road		Rail		Total	
		2010	2015	2010	2015	2010	2015
FREIGHT	thousand tonnes	937.657	989.476	220.147	224.764	1.157.804	1.214.240
	modal share (%)	81,0	81,5	19,0	18,5	100,0	100,0
	variation (%)		+ 5,5		+ 2,1		+ 4,9
PASSENGERS	thousand passeng.	3.613.646	3.725.783	204.995	229.496	3.818.679	3.955.280
	modal share (%)	94,6	94,2	5,4	5,8	100,0	100,0
	variation (%)		+ 3,0		+ 12,0		+ 3,5

Source: TRT elaborations on TRUST transport model and Eastern Partnership regional transport study ([www.danube-transport.eu](http://www.danube-transport.eu))



# Air Freight Transport

## Total volumes of air freight transport in the Danube Macro-Region [tonnes]

Source: Eurostat (2016), National Statistics (2016), Airport Statistics (2016)

Country	2010	2014	2015
Austria	257.983	251.139	<b>246.613</b>
Bulgaria	21.184	23.101	<b>31.720</b>
Czech Republic	65.506	58.207	<b>58.360</b>
Croatia	8.448	7.534	<b>7.701</b>
Germany (2 Laender)	362.050	380.645	<b>415.816</b>
Hungary	65.303	61.945	<b>65.740</b>
Romania	24.741	31.143	<b>33.434</b>
Slovakia	17.831	18.499	<b>21.222</b>
Slovenia	7.645	8.606	<b>8.901</b>
Bosnia and Herzegovina	n. a.	3.010	<b>10.097</b>
Serbia	9.946	11.763	<b>15.392</b>
Montenegro	n. a.	n. a.	<b>n. a.</b>
Moldova	2.400	2.869	<b>0</b>
Ukraine (4 regions/oblast)	n. a.	n. a.	<b>n. a.</b>
<b>Total</b>	<b>843.037</b>	<b>858.461</b>	<b>914.996</b>

## Total volumes of air freight transport handled in the main airports of the Danube Region [tonnes]

Source: Eurostat (2016), National Statistics (2016), Airport Statistics (2016)

Airport	2010	2014	2015
<b>Vienna</b>	<b>250.733</b>	<b>239.418</b>	<b>235.794</b>
Sofia	15.343	17.729	18.801
Prague	58.129	50.757	50.440
Zagreb	7.442	6.852	7.057
<b>Munich</b>	<b>317.899</b>	<b>337.015</b>	<b>376.250</b>
Budapest	65.303	61.945	65.740
Bucharest	22.988	27.860	29.193
Bratislava	17.719	18.421	20.978
Ljubljana	7.645	8.606	8.901
Sarajevo	n. a.	2.460	4.598
Belgrade	8.391	11.479	14.839
Podgorica	n. a.	n. a.	n. a.
Chisinau	2.400	2.869	n. a.
Odesa	n. a.	n. a.	n. a.
<b>Total of the main airports</b>	<b>773.992</b>	<b>785.411</b>	<b>832.591</b>
% of the total of the Danube Macro-Region	92%	91%	91%

# Maritime Freight transport

Total volumes of freight maritime transport in the Danube Macro-Region [thousand tonnes]

Country	2010	2015
<b>Slovenia</b> (Adriatic Sea)	14.591	19.931
<b>Croatia</b> (Adriatic Sea)	19.033	15.287
<b>Montenegro</b> (Adriatic Sea)	441	52
<b>Bulgaria</b> (Black Sea)	22.946	27.166
<b>Romania</b> (Black Sea)	36.528	43.648
<b>Ukraine</b> (Black Sea)	39.754	42.843
<b>Total</b>	<b>133.293</b>	<b>148.928</b>

Source: Eurostat (2016), Ports Statistics (2016), Ukrainian Sea Ports Authority (2016)

Total volumes of freight maritime transport in the main seaports of the Danube Region [thousand tonnes]

Country	Port	2010	2015
<b>Slovenia</b>	<b>Koper</b>	14.591	19.931
<b>Croatia</b>	Bakar	2.441	3.186
	Omislalj	5.931	4.668
	Ploce	4.486	2.697
	Rasa	1.935	0
	Rijeka	2.095	2.916
<b>Montenegro</b>	Bar	441	52
<b>Bulgaria</b>	<b>Burgas</b>	12.822	16.076
	Varna	10.125	11.090
<b>Romania</b>	<b>Constanta</b>	30.396	36.277
	Galati	1.783	1.357
	Midia	4.349	6.016
<b>Ukraine</b> (4 provinces)	<b>Odessa</b>	24.700	25.586
	<b>Illichivsk</b>	15.054	17.258
<b>Total of main seaports</b>		131.149	147.110
% of the total of the Danube Macro-Region		98%	99%



# The Future Road, Rail and Air Freight

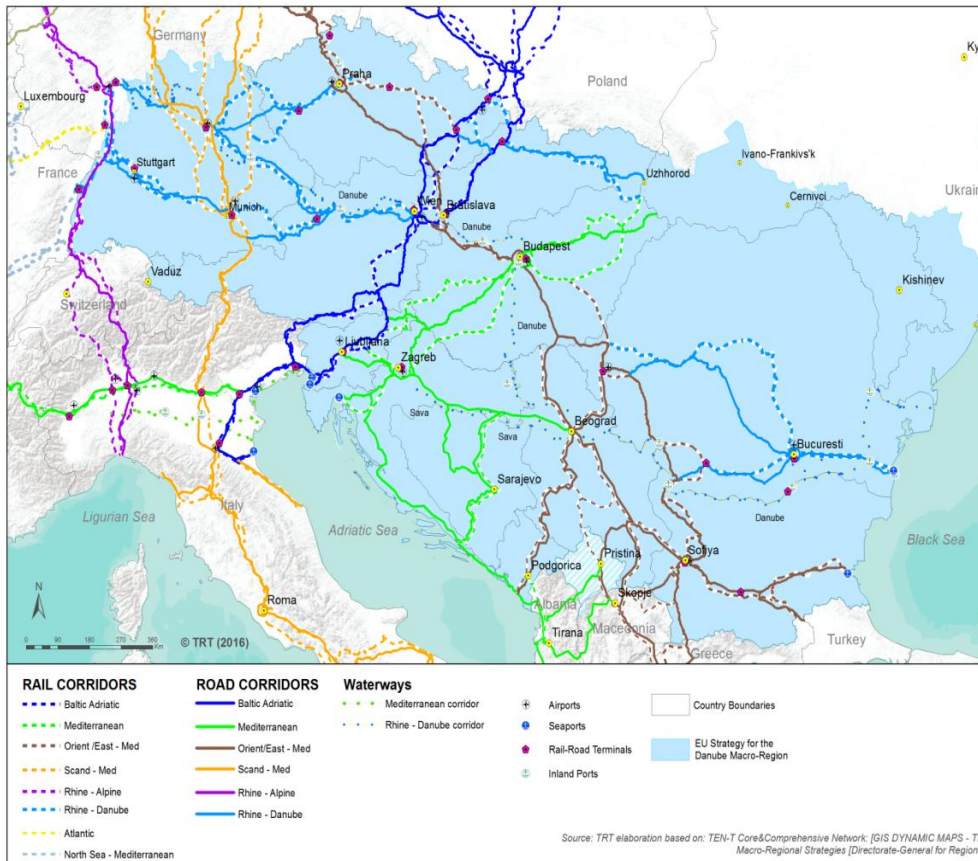
## Indicative projections up to 2030 [thousand tonnes]

Source: TRT elaborations on Capros et al. (2016), EC (2014), National Transport Plans and Strategies

Danube Macro-Region	2015	2030		Indicative projection of annual growth rate [%]		Total growth [%]	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
RAIL Freight	333.816	410.530	492.497	1,56	2,58	22,98	47,54
ROAD Freight	842.983	1.033.223	1.150.159	1,50	2,47	22,57	36,44
AIR Freight	918	1.106	1.251	1,39	2,56	20,50	36,28

# TEN-T CNC crossing the Danube macro-region

CNCs, including indicative extensions to the Western Balkans



**1. Scandinavian-Mediterranean Corridor** (FI, SE, DK, DE, AT, IT, MT) – Mr. Pat Cox (IE); Since 12 March 2014

**2. Baltic-Adriatic Corridor** (PL, SK, CZ, AT, SI, IT) – Mr Kurt Bodewig (DE); Since 12.3.2014 and Ms Anne Elisabeth Jensen (DK); Since 16 September 2018

**3. Orient/East-Med Corridor** (DE, CZ, SK, AT, HU, RO, BG, GR, CY) – Mr. Mathieu Grosch (BE); 1 July 2014

**4. Mediterranean Corridor** (ES, FR, IT, SI, HR, HU) – Mr L. J. Brinkhorst (NL); Since 12.3.2014 until 16.9.2018, Ms Iveta Radičová (SK); Since 16 September 2018

**5. Rhine-Danube Corridor** (FR, DE, AT, CZ, SK, HU, HR, RO, BG) – Ms Karla Peijs (NL); Since 12 March 2014

**6. Rhine-Alpine Corridor** (NL, BE, DE, FR, IT) – Mr Paweł Wojciechowski (PL); Since 27 May 2015

**7. Atlantic Corridor** (PT, ES, FR, DE) – Mr Carlo Secchi (IT); Since 12 March 2014

**8. North Sea-Baltic Corridor** (NL, BE, DE, PL, LT, LV, EE, FI) – Ms Catherine Trautmann (FR); Since 12 March 2014

**9. North Sea-Mediterranean Corridor** (IE, UK, FR, NL, BE, LU) – Mr Peter Balazs (HU); Since 12 March 2014

# Selection of projects

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Stepwise approach conceived to screen the **list of projects** identified reviewing documents and reports

- Preparation of the long list: application of preliminary criteria
  - Not yet financed, estimated investment cost > € 25 million, completed project removed, adjacent sections merged
  - **279 projects**
- Preliminary selection from existing studies: application of general and relevant criteria
  - Available information on investment cost and timing, estimated investment cost > € 50 million, estimated starting date before 2023
  - **85 projects**
- Preliminary stakeholders consultation and other projects suggested by the key experts of the team
  - **108 projects**

# Selection of projects (2)

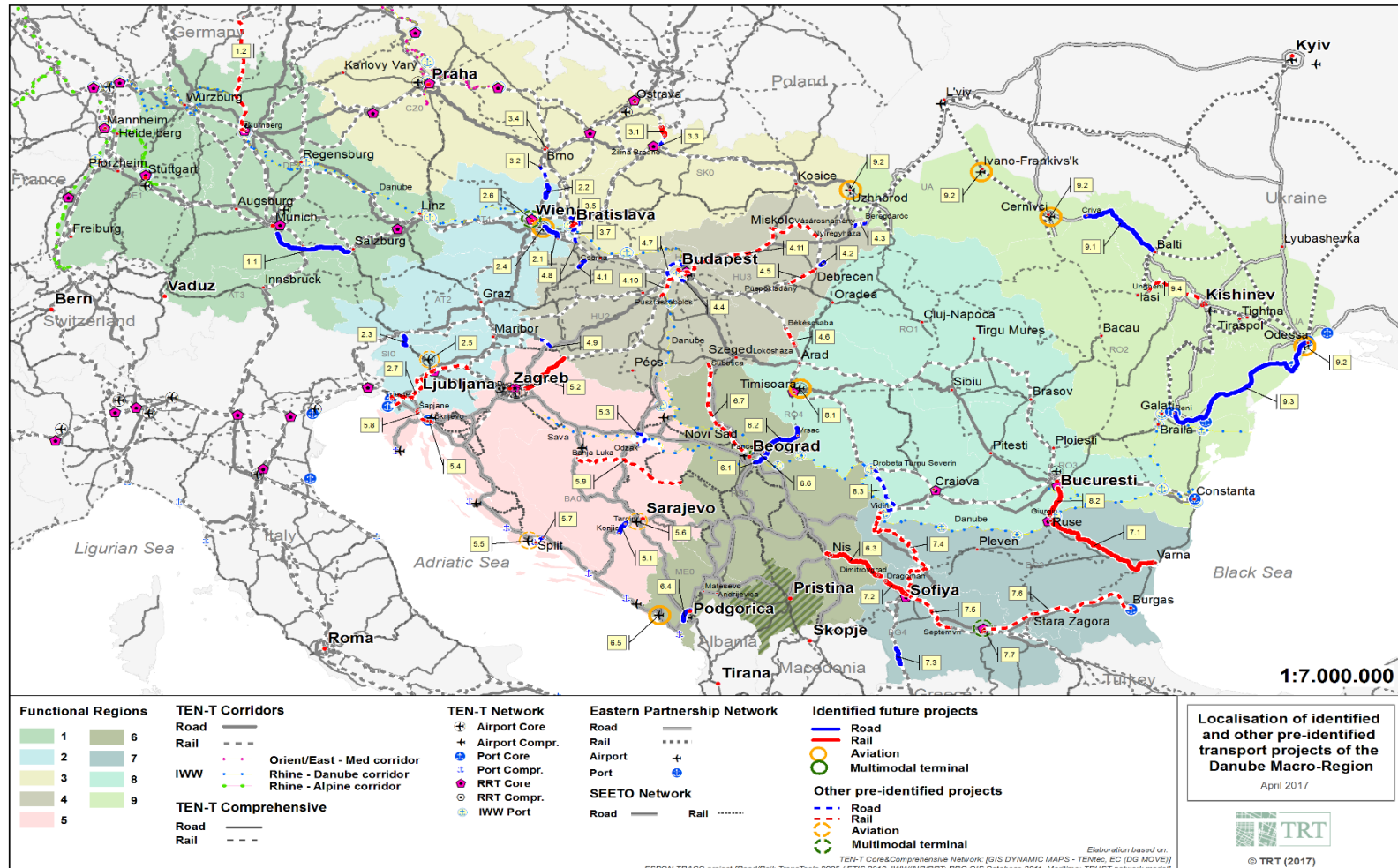
- Criteria for selection
  - Addressing bottlenecks, sections where TEN-T CNCs overlap, estimated investment cost > € 50 million, estimated starting date before 2023, relevance for the Danube Macro-Region, part of national transport plans, maximum geographic coverage and modal balance
  - Application of criteria not homogeneous across Functional Regions. Adaptations to address geographical and modal balance

List of 51 pre-identified projects starting point for stakeholders consultation (34 main and 17 reserve)

**Minimum target of 20 projects!**

Functional Region	RAIL	ROAD	Combined	AIR	Total
Southern Germany and Western Austria	1	1	0	0	2
Eastern Austria and Slovenia	3	1	1	2	7
Czech Republic and Slovakia	4	3	0	0	7
Hungary	4	5	0	0	9
Croatia and Bosnia and Herzegovina	3	4	0	2	9
Montenegro and Serbia	2	1	1	1	5
Bulgaria	1	4	1	0	6
Western Romania	1	1	0	0	2
Eastern Romania, Moldova and Ukraine	2	1	0	1	4
<b>Total</b>	<b>21</b>	<b>21</b>	<b>3</b>	<b>6</b>	<b>51</b>

# The pre-identified and new transport projects





# Pre-identified Strategic Projects

## EXAMPLES OF PRE-IDENTIFIED STRATEGIC PROJECTS: SHORT – MEDIUM TERM

Country	PROJECT
<b>Germany (Bavaria)</b>	<b>ROAD: Motorway A8</b> AS Rosenheim – Border DE/AT; <b>6 lane widening</b> Rosenheim-Achenmühle Achenmühle-Bernauer Berg
<b>Austria</b>	<b>TERMINAL:</b> Planning and construction of the expansion of the <b>trimodal Port of Freudenau/Vienna</b>
<b>Slovenia/Austria</b>	<b>TUNNEL:</b> Construction of a <b>second tube for the Karawanks motorway tunnel</b>
<b>Czech Republic</b>	<b>RAIL:</b> Brno junction <b>modernisation/new main station</b> (Studies, Works)
<b>Slovakia</b>	<b>RAIL:</b> Bratislava junction modernisation / Development of <b>Rail Node Bratislava, incl. Airport Rail Link</b> (Works)
<b>Hungary</b>	<b>AIR:</b> Construction of the <b>railway connections of Budapest Liszt Ferenc Airport</b>
<b>Croatia</b>	<b>RAIL:</b> Construction of the <b>second track on the railway line</b> section Križevci – State border with HU, ERTMS 1
<b>Bosnia and Herzegovina</b>	<b>RAIL: Modernization of railway</b> Banja Luka-Doboj-Tuzla-Zvornik-Srbija - Action (1)
<b>Serbia</b>	<b>RAIL:</b> Reconstruction and <b>Modernization of the railway line</b> Belgrade - Novi Sad - Subotica - border with HU
<b>Montenegro</b>	<b>AIR:</b> Tivat <b>Airport</b>
<b>Bulgaria</b>	<b>TERMINAL:</b> Construction of a <b>new intermodal terminal</b> in Plovdiv area
<b>Romania</b>	<b>ROAD:</b> Drobeta-Turnu Severin – Maglavit/Calafat <b>Road upgrade</b> (Works): part of Orient/East-Med Core Network Corridor
<b>Moldova</b>	<b>ROAD:</b> A) Rehabilitation of National road M14 - Section Balti - Criva
<b>Ukraine</b>	<b>ROAD:</b> Construction of a new Odessa-Reni road



# Main findings

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- **Demand mostly domestic** (short/medium distance nature)
- **Road dominant mode.** High-level estimation of road long distance demand (in transit through the region)
- Localisation of relevant flows patterns in the region
- Three main **transport systems to merge** (six CNCs, SEETO comprehensive and Eastern Partnership strategic)
- **Physical bottlenecks** due to non-compliance with technical standards or localised at urban agglomerations
- **Non-physical bottlenecks** due to border crossing waiting time, customs and administrative procedures, low interoperability
- **Environmental aspects** to be addressed **project-by-project**
- Specific **safety issues** exist where networks are deteriorated or with low standards

# Thank you very much!

Please visit:  
[www.danube-transport.eu](http://www.danube-transport.eu)



## PAC Serbia

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## PAC Slovenia

**Mr. Franc Žepič**, Secretary  
Ministry of Infrastructure  
Ljubljana  
[franc.zepic@gov.si](mailto:franc.zepic@gov.si)

**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

# **Transport study for the Danube Region - Study of intermodal transport users' needs in the Danube Region**

**University of Belgrade**  
**Faculty of Transport and Traffic Engineering**  
**Logistics Department**



*PA1a and PA1b Joint Working Group for Ports and  
Sustainable Freight Transport, Vienna, 12/06/2019*



## Purpose of the study

Defining **recommendations and guidelines** based on user needs in order to establish adequate decision making system concerning intermodal transport (IT) development in the Danube Region (DR).

In order to analyze the current situation, the study included **the questionnaires for users and service providers** in intermodal transport chains (ITC).

- Identification of problems in the functioning of the ITC
- Determine the existing quality of the IT services.





EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

# Phases of the study

**Phase 1:** Forming a team and contacting experts from the Danube Region.

**Phase 2:** Defining the methodology, timetable, communication and reporting.

**Phase 3:** Collection and analysis of existing documentation and facts.

Defining the questionnaires and selecting survey samples.

**Phase 4:** Survey of users and service providers (filling in the questionnaires)

Statistical analysis of questionnaires.

Expert assessment of problems and needs at the national level.

Expert opinion with recommendations and guidelines for development of IT.

**Phase 5:** Preparation of final reports and flyers.

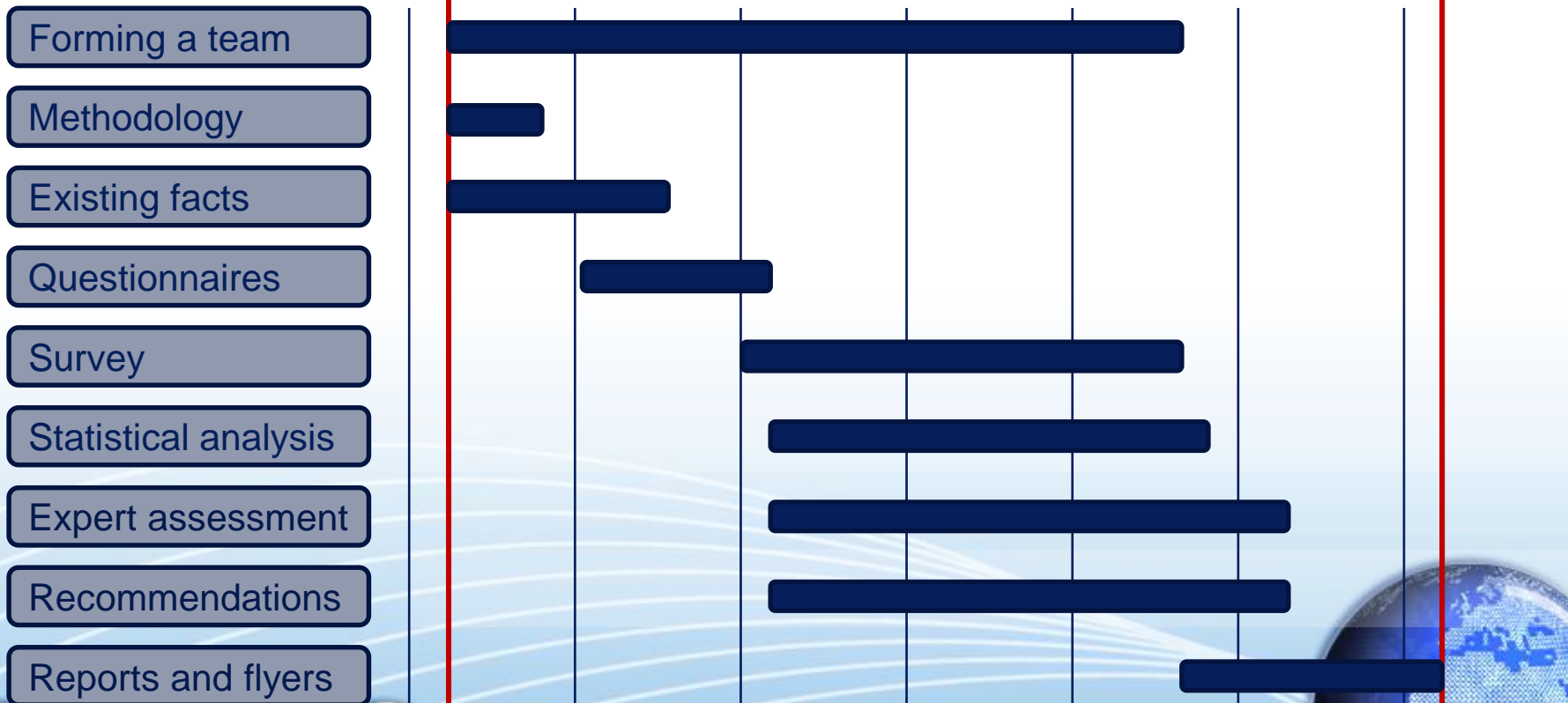


EUSDR Priority area 1b:  
 To improve mobility and multimodality: rail, road and air transport

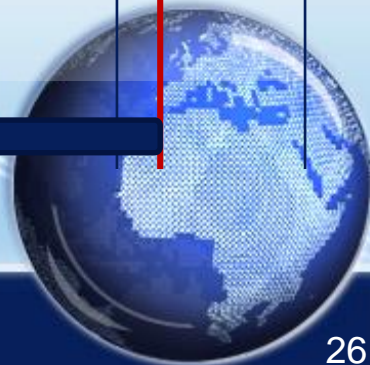
# Research timetable

December 7, 2017

June 6, 2018



**PA1a and PA1b Joint Working Group for Ports and Sustainable Freight Transport,** Vienna, 12/06/2019





# Analysis of existing documentation and facts

- Basic characteristics of the countries:
  - area, population, gross domestic product - GDP.
- Intensity of intermodal transport:
  - regression-correlation analysis.
- Terminals of intermodal transport:
  - network density and terminal status.
- Treatment of IT in strategic documents:
  - level of importance, coverage of intermodal transport subsystems, objectives and defined measures.
- Logistic Performance Index.
- Basic groups of the intermodal transport problems.



# Intermodal transport intensity

- Data on IT intensity is not available.
- The share of IT in freight transport:
  - 0.05% to 4% in less developed DR countries
  - over 15% in more developed DR countries.
- Estimation of IT intensity:
  - participation of ITUs in the different transport modes and participation of transport modes in the total freight transport of the country
  - regression-correlation analysis (interdependence between IT intensity and GDP/capita).





# Intermodal transport terminal



29

EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Result: Identification of the Danube micro regions

### Danube micro region 1 (DMR-1):

Germany  
Austria  
Slovenia

### Danube micro region 2 (DMR-2):

Czech Republic  
Slovakia  
Hungary  
Romania  
Ukraine  
Moldova

### Danube micro region 3 (DMR-3):

Croatia  
Bosnia &  
Herzegovina  
Serbia  
Montenegro  
Bulgaria



EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Identified IT problems

Area	Number of problems (all countries)
<b>Business</b>	45
<b>Transport infrastructure</b>	36
ICT	22
Finance	20
Ecology	14
Projects	13
Terminal	11
Border crossings	9
Terminal network	9
Vehicles	8
Workforce	6
Law	6
Institutions	4
International cooperation	3
Politics	3
Flows of goods	2

- Almost 40% of all problems are related to business and infrastructure.
- Business problems:  
The non-liberalized market, bad practice in companies, poor resource utilization and non-transparent business, primarily of the national railway operator.
- Infrastructure problems:  
The lack of the railway and river infrastructures, capacity of railway networks, bad maintenance plan, very poor connections between terminal etc.



## Defining the questionnaires and survey samples

- Two questionnaires for each country are defined:
  - Questionnaire for intermodal transport users
  - Questionnaire for intermodal transport service providers.
- Pre-defined minimum sample for the survey:
  - 70 providers and 70 users, at least 2 per country
- The survey was based on non-probability sample:
  - Company's importance (market share): For each country 10 to 40 major users (senders and receivers of goods) and 10 to 40 important service providers.
  - Company's ownership: Private companies had a priority
- Sample verification: the members of the SG PAb1





**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

# Questionnaire for intermodal transport users

**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

**Project:** Transport study for the Danube Region  
(Study of intermodal transport users' needs in the Danube Region)

## QUESTIONNAIRE – INTERMODAL TRANSPORT USERS

Company name \_\_\_\_\_  
Street Address, City, State \_\_\_\_\_

- Rate the level of quality of intermodal transport services in country**  
Very high High Medium Low Very low  
☐ ☐ ☐ ☐ ☐
- Rate the offer of intermodal transport services in country (how well it satisfies your demand)**  
Very good Adequate Poor  
☐ ☐ ☐
- How do you rate the lead time (transport and delivery time) in intermodal transport chains?**  
Very short Short Medium Long Very long  
☐ ☐ ☐ ☐ ☐
- Compared to other means, how would you rate the prices of intermodal transport services?**  
High Medium Low  
☐ ☐ ☐
- How well the large economic centers of the Danube Region are connected with intermodal transport chains?**  
Very good Adequate Poor Very poor  
☐ ☐ ☐ ☐
- Rate the level of development of intermodal transport network and market coverage in country**  
Very high High Medium Low Very low  
☐ ☐ ☐ ☐ ☐
- Rate the availability of intermodal transport services in country**  
High availability Medium availability Low availability  
☐ ☐ ☐

The project is co-financed by the European Union (ERDF and IPA-II funds)

- Rate the quality of intermodal transport services on corridors to:**  
High Medium Low Not in use Nonexistent  
**Corridor 1** ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐

- Rate the lead time (transport and delivery time) in intermodal transport on corridors to:**  
Very short Short Medium Long Very long Not in use Nonexistent  
**Corridor 1** ☐ ☐ ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐ ☐ ☐  
**Corridor 1** ☐ ☐ ☐ ☐ ☐ ☐ ☐

- Name one or two missing links of intermodal transport with economic centers in the Danube Region**  
\_\_\_\_\_  
\_\_\_\_\_

- Specify the place for loading/unloading of intermodal transport units (containers, swap bodies, etc.)**  
☐ At company's premises mainly  
☐ It depends: at company's premises or at nearby terminal  
☐ At nearby terminal

The project is co-financed by the European Union (ERDF and IPA-II funds)

- What are the main obstacles of intermodal transport development and realization in country?**  
☐ Terminals (lack of terminals and poor connection between them, low capacity, old technology, etc.)  
☐ Infrastructure (incomplete and types of transport are poorly connected)  
☐ Intermodal transport units (insufficient number of containers/swap bodies/semi-trailer...)  
☐ Longer lead time  
☐ Organization (lack of intermodal transport lines)  
☐ Information (users are informed poorly, it is impossible to track the shipment)  
☐ Regulations (lack of regulations, extensive amount of paperwork, procedures)  
☐ Intermodal operators (lack of operators, inadequate offer of services)  
☐ Investments (insufficient financial investments in intermodal transport)

- What are the main benefits from using intermodal transport services?**  
☐ Inclusion in international goods flows and markets  
☐ Lower transport and manipulation costs  
☐ Shorter lead time duration  
☐ Full and high level service quality  
☐ Reliability of service  
☐ Transport safety  
☐ Higher level of goods protection  
☐ Lower environment pollution level

- Please add any further comments or suggestions about the problems or development of intermodal transport in the country and/or the Danube Region**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Thank you for taking the time to complete our questionnaire. Your input is important to us and we value your comments and contribution.

Please, click on the button "Submit" to verify and send Your answers.

The project is co-financed by the European Union (ERDF and IPA-II funds)

**EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport**

# Questionnaire for service providers

**Interreg** **DANUBE REGION strategy** **European Union**

**EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport**

**Project: Transport study for the Danube Region  
(Study of intermodal transport users' needs in the Danube Region)**

**QUESTIONNAIRE – INTERMODAL TRANSPORT PROVIDERS**

Company name \_\_\_\_\_  
Street Address, City, State \_\_\_\_\_

- Rate the potential of intermodal transport market in the Danube Region**  
Very high ☐ High ☐ Medium ☐ Low ☐ Very low ☐
- Rate the level of development of intermodal transport system in country**  
Very high ☐ High ☐ Medium ☐ Low ☐ Very low ☐
- Rate the level of development and connectivity of transport infrastructure needed for development of intermodal transport system in country**  
Very good ☐ Adequate ☐ Poor ☐ Very poor ☐
- Rate the level of development of network of intermodal terminals and market coverage in country**  
Very high ☐ High ☐ Medium ☐ Low ☐ Very low ☐
- How well the large economic centers of the Danube Region are connected with intermodal transport chains?**  
Very good ☐ Adequate ☐ Poor ☐ Very poor ☐
- Rate the competition presence in intermodal transport in country**  
Strong ☐ Average ☐ Weak ☐
- Rate the quality of intermodal transport system in:**  

	Very high	High	Medium	Low	Very low
Danube region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Country	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project is co-financed by the European Union (ERDF and IPA-II funds)

**Interreg** **DANUBE REGION strategy** **European Union**

- Rate the quality of intermodal transport services on corridors to:**  

	High	Medium	Low	Not in use	Nonexistent
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Rate the lead time (transport and delivery time) in intermodal transport on corridors to:**  

	Very short	Short	Medium	Long	Very long	Not in use	Nonexistent
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corridor 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Name one or two missing links of intermodal transport with economic centers in the Danube Region**  
 \_\_\_\_\_  
 \_\_\_\_\_
- Specify the place for loading/unloading of intermodal transport units (containers, swap bodies)**  
☐ At company's premises mainly  
☐ It depends: at company's premises or at nearby terminal  
☐ At nearby terminal
- Rate the level of use of different intermodal transport technologies in country**  

	High	Medium	Low	Not in use
Container technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Piggyback/huckepack technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bimodal (semi-rail) technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ro-Ro technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
River-Sea (LASH) technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project is co-financed by the European Union (ERDF and IPA-II funds)



**EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport**

# Questionnaire for service providers

**Interreg** **DANUBE REGION strategy**   
Danube Transnational Programme Mobility | Rail-Road-Air

**13. Please name an example of good intermodal transport chain practice** (write key points: place of loading, terminal of origin, transit terminal, terminal of destination, place of unloading)

\_\_\_\_\_

**14. As an example of good practice, especially stands out**

<input type="checkbox"/> Lead time	<input type="checkbox"/> Technology
<input type="checkbox"/> Reliability	<input type="checkbox"/> Container track and trace and IT solutions
<input type="checkbox"/> Costs	<input type="checkbox"/> Services offered within chain
<input type="checkbox"/> Organization, connection	<input type="checkbox"/> _____

**15. What are the main obstacles of intermodal transport development and realization in country?**

☐ Terminals (lack of terminals and poor connection between them; low capacity; etc.)

☐ Infrastructure (incomplete and types of transport are poorly connected)

☐ Intermodal transport units (insufficient number of containers/swap bodies/semi-trailer...)

☐ Rate of use of technologies (Piggyback/tuckpack, Ro-Ro, etc.)

☐ Transport means (lack of freight wagons and vessels for container conveyance)

☐ Organization (lack of intermodal transport lines)

☐ Regulations (lack of regulatory documents on both national and international level, extensive amount of paperwork)

☐ Stimulating measures (lack of measures stimulating intermodal transport development)

☐ Investments (insufficient financial investments in intermodal transport)

☐ \_\_\_\_\_

**16. What are the main benefits from using intermodal transport services?**

☐ Inclusion in international goods flows and markets

☐ Lower transport and manipulation costs

☐ Shorter lead time

☐ Full and high level service quality

☐ Reliability of service

☐ Transport safety

☐ Higher level of goods protection

☐ Lower environment pollution level

☐ \_\_\_\_\_

The project is co-financed by the European Union (ERDF and IPA-II funds)

**Interreg** **DANUBE REGION strategy**   
Danube Transnational Programme Mobility | Rail-Road-Air

**17. Please specify top five priorities needed for intermodal transport development in country**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**18. Please add any further comments or suggestions about the problems or development of intermodal transport in the country and/or the Danube Region**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Thank you for taking the time to complete our questionnaire. Your input is important to us and we value your comments and contribution.

Please, click on the button "Submit" to verify and send Your answers.

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# Surveying users and service providers

- Duration of the survey: three months
- Questionnaires have been sent to over 800 mail addresses.
- Problems with the realization of the survey:
  - More repeated e-mails with a request for filling in questionnaire - the result was very poor.
  - Participate in several professional, business conferences - limited result (about 15 completed questionnaires).
  - Most of the completed questionnaires are the result of personal contacts (more than half of the questionnaire).
  - Limited support from the members of SG PAb1 - Ukraine and Moldova.





EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Result: 147 completed questionnaires

- The survey was completed on April 20, 2018:
  - 71 by the users,
  - 76 by the service providers.
- The number of completed questionnaires varies by country, mostly due to personal contacts of project team members.





**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

COUNTRY	USERS	PROVIDERS	SUM
Austria	4	4	8
Bosnia & Herzegovina	10	6	16
Bulgaria	4	5	9
Croatia	5	8	13
Czech Republic	4	5	9
Germany	4	5	9
Hungary	4	5	9
Moldova	2	2	4
Montenegro	6	6	12
Romania	5	5	10
Serbia	13	11	24
Slovakia	4	6	10
Slovenia	5	7	12
Ukraine	1	1	2
<b>Total</b>	<b>71</b>	<b>76</b>	<b>147</b>

EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

# Statistical analysis of questionnaires

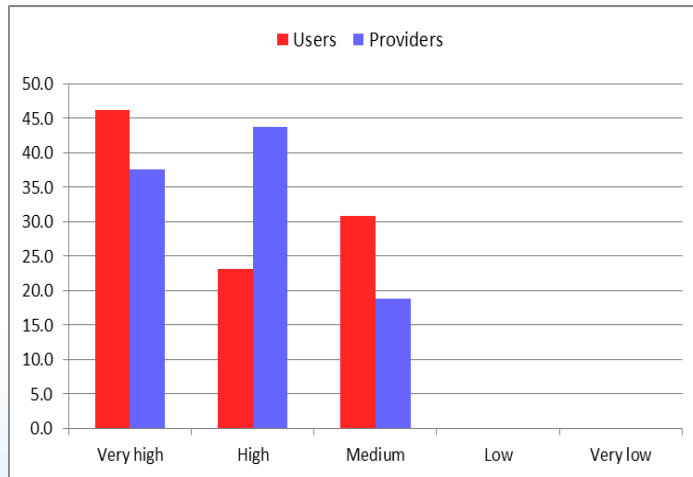
- Statistical analysis of responses was done at three levels, for both groups - users and service providers:
  - national level
  - level of the micro region
  - level of the Danube region
- Comparative analysis and overall assessment of the IT service quality.



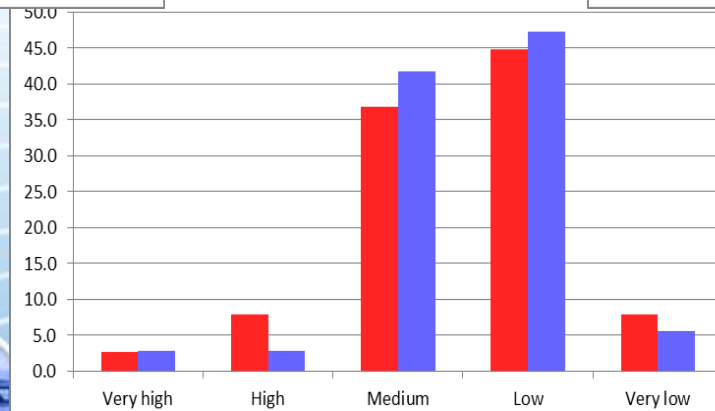
**EUSDR Priority area 1b:**  
To improve mobility and multimodality: rail, road and air transport

# Result: Level of micro region

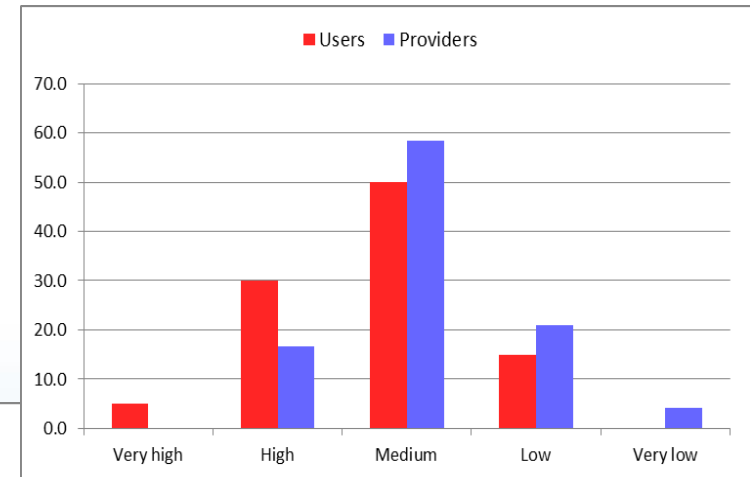
## Assessment of intermodal transport quality



**DMR 1**



**DMR 3**

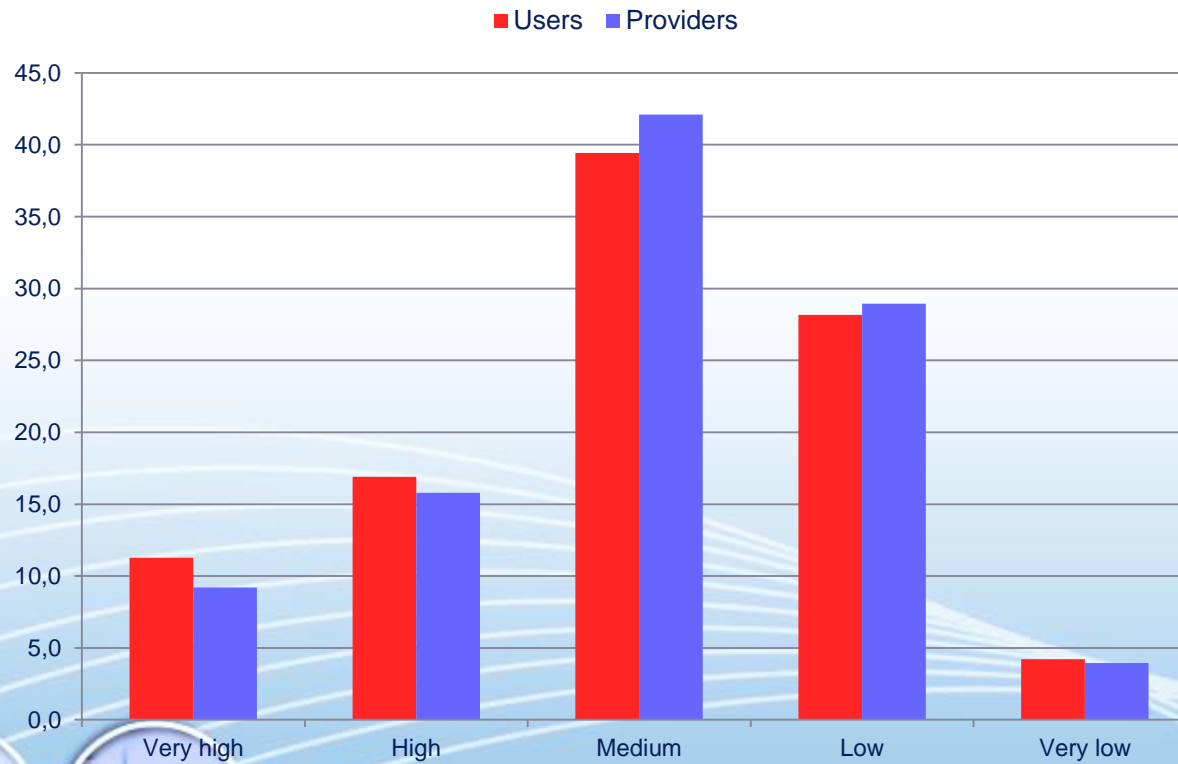


**DMR 2**

EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

# Result: Level of Danube region

## *Assessment of intermodal transport quality*



**PA1a and PA1b Joint Working Group for Ports and Sustainable Freight Transport, Vienna, 12/06/2019**





## Expert assessment of IT quality

- By analyzing the questionnaires, we have determined:
  - The main problems of IT,
  - The quality of IT service,
  - The quality of IT system and
  - The overall rating of IT quality.
- Rating of the intermodal transport service quality:
  - The quality of whole IT service and
  - The quality of certain service parameters.
- Rating of the intermodal transport system:
  - The quality of national IT system
  - The quality of system elements.

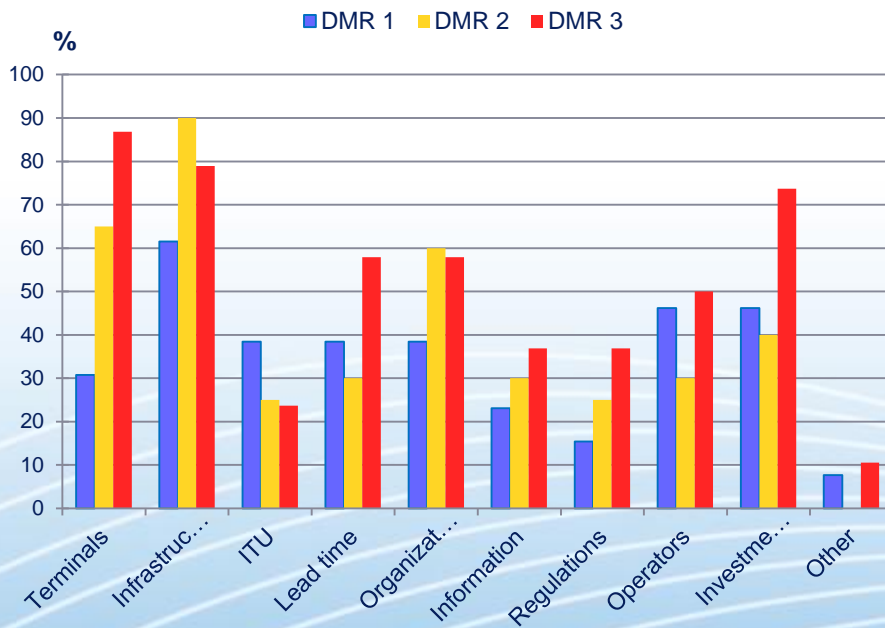




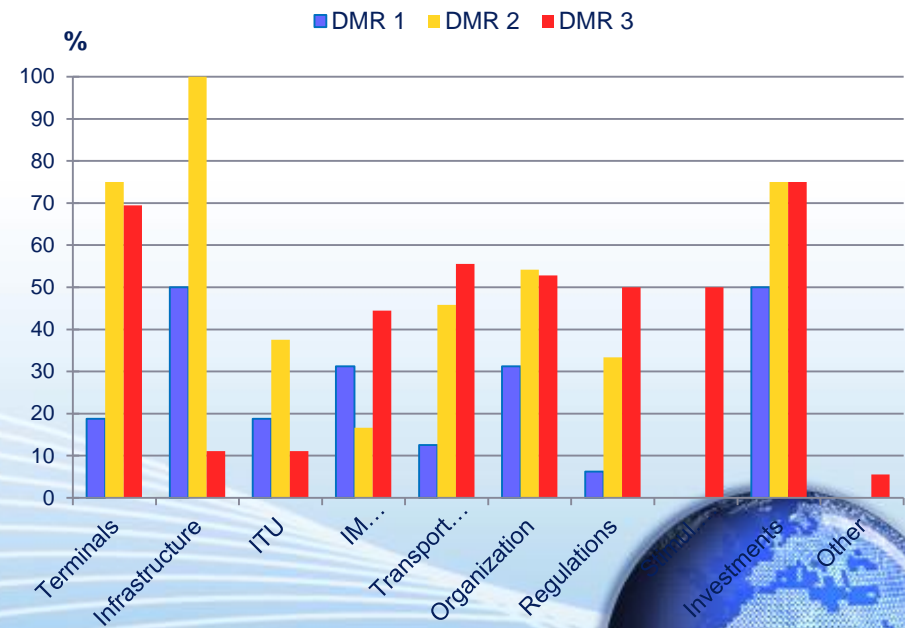
**EUSDR Priority area 1b:**  
To improve mobility and multimodality: rail, road and air transport

# Result: Main problems of IT development

**user ratings**



**provider ratings**



**EUSDR Priority area 1b:**  
To improve mobility and multimodality: rail, road and air transport

	Austria	Germany	Slovenia	Czech Republic	Slovakia	Hungary	Romania	Ukraine	Moldova	Bulgaria	Bosnia & Herzegovina	Croatia	Montenegro	Serbia	DMR 1	DMR 2	DMR 3	DR
<b>Quality of IT</b>	<b>9.4</b>	<b>9.4</b>	<b>6.0</b>	<b>8.3</b>	<b>6.7</b>	<b>5.6</b>	<b>5.1</b>	<b>5.6</b>	<b>4.4</b>	<b>5.0</b>	<b>3.6</b>	<b>6.0</b>	<b>5.6</b>	<b>4.0</b>	<b>8.1</b>	<b>6.1</b>	<b>4.5</b>	<b>5.6</b>
Offered services	8.1	10.0	6.3	9.1	6.3	8.1	5.5	6.3	4.4	4.4	5.1	7.0	6.9	5.1	8.0	6.8	5.6	6.4
Lead time	8.3	8.3	5.1	7.8	6.7	6.7	3.8	7.8	3.3	5.0	5.1	5.1	5.6	4.2	7.1	5.9	4.9	5.6
Service price	5.3	7.2	6.3	7.2	8.1	5.3	5.5	6.3	4.4	6.3	6.6	6.3	3.1	7.7	6.3	6.3	6.4	6.3
IT connections	5.9	6.5	6.7	6.5	5.9	6.5	5.6	7.1	4.7	4.7	5.8	5.2	5.9	5.1	6.4	6.0	5.4	5.7
IT terminals	7.2	7.8	5.6	7.8	4.4	6.7	5.1	5.6	3.3	5.6	2.4	4.2	4.1	3.2	6.8	5.7	3.5	4.7
Availability of IT	10.0	8.1	5.5	6.3	6.3	6.3	5.5	6.3	4.4	6.3	4.0	4.0	5.0	4.2	7.7	5.9	4.5	5.5
IT on corridors	7.2	7.9	6.1	6.8	6.7	5.4	3.5	0.0	3.4	5.0	5.7	3.4	4.8	5.1	6.9	5.4	4.9	5.5
Lead time on corridors	6.5	6.9	3.6	6.4	6.0	5.7	4.4	0.0	4.7	4.8	4.9	3.5	4.0	4.7	5.2	5.6	4.5	4.9
Door to door service	7.2	8.1	9.3	8.1	8.1	7.2	4.8	6.3	10.0	6.3	9.3	7.8	6.9	8.8	8.3	7.2	8.2	7.9
<b>Overall estimation</b>	<b>7.3</b>	<b>7.9</b>	<b>6.0</b>	<b>7.3</b>	<b>6.5</b>	<b>6.4</b>	<b>4.9</b>	<b>5.0</b>	<b>4.7</b>	<b>5.4</b>	<b>5.4</b>	<b>5.2</b>	<b>5.1</b>	<b>5.3</b>	<b>6.9</b>	<b>6.1</b>	<b>5.3</b>	<b>5.8</b>
<b>Difference</b>	<b>2.1</b>	<b>1.6</b>	<b>0.0</b>	<b>1.0</b>	<b>0.2</b>	<b>-0.9</b>	<b>0.3</b>	<b>0.5</b>	<b>-0.3</b>	<b>-0.4</b>	<b>-1.9</b>	<b>0.8</b>	<b>0.4</b>	<b>-1.3</b>	<b>1.2</b>	<b>0.0</b>	<b>-0.8</b>	<b>-0.2</b>

**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

## Result: Ranking of countries and division into MRs

Quality Score	Austria	Germany	Slovenia	Czech Republic	Slovakia	Hungary	Romania	Ukraine	Moldova	Bulgaria	Bosnia & Herzegovina	Croatia	Montenegro	Serbia
Quality of IT	9.4	9.4	6.0	8.3	6.7	5.6	5.1	5.6	4.4	5.0	3.6	6.0	5.6	4.0
Quality of parameters	7.3	7.9	6.0	7.3	6.5	6.4	4.9	5.0	4.7	5.4	5.4	5.2	5.1	5.3
<b>Average</b>	<b>8.4</b>	<b>8.7</b>	<b>6.0</b>	<b>7.8</b>	<b>6.6</b>	<b>6.0</b>	<b>5.0</b>	<b>5.3</b>	<b>4.6</b>	<b>5.2</b>	<b>4.5</b>	<b>5.6</b>	<b>5.3</b>	<b>4.7</b>
<b>Rang</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>11</b>	<b>8</b>	<b>13</b>	<b>10</b>	<b>14</b>	<b>7</b>	<b>9</b>	<b>12</b>
<b>Micro region</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>4</b>



**EUSDR Priority area 1b:**  
To improve mobility and multimodality: rail, road and air transport

	Austria	Germany	Slovenia	Czech Republic	Slovakia	Hungary	Romania	Ukraine	Moldova	Bulgaria	Bosnia & Herzegovina	Croatia	Montenegro	Serbia	DMR 1	DMR 2	DMR 3	DR
<b>Quality of IT system</b>	<b>9.4</b>	<b>9.1</b>	<b>6.8</b>	<b>5.6</b>	<b>5.6</b>	<b>6.9</b>	<b>4.2</b>	<b>5.6</b>	<b>2.2</b>	<b>6.4</b>	<b>2.6</b>	<b>4.7</b>	<b>4.4</b>	<b>4.3</b>	<b>8.2</b>	<b>5.3</b>	<b>4.5</b>	<b>5.5</b>
Infrastructure	9.3	8.2	6.5	7.6	6.3	7.1	5.6	7.1	4.7	6.7	4.2	5.0	5.5	5.1	7.7	6.5	5.2	6.1
IT terminals	9.4	9.1	5.6	6.9	4.8	5.6	3.8	5.6	2.2	6.0	3.3	3.9	3.7	4.3	7.6	5.0	4.2	5.2
IT connections	6.5	7.1	5.8	5.2	6.3	5.6	5.2	7.1	4.7	6.2	4.7	5.5	5.5	5.7	6.4	5.6	5.5	5.7
Competition	10.0	10.0	8.4	7.8	8.8	7.0	5.5	6.3	2.5	7.0	2.5	5.3	5.0	5.2	9.3	6.9	5.0	6.5
IT on corridors	8.7	8.2	7.0	6.0	6.4	7.4	4.3	2.8	2.9	6.6	3.2	4.3	4.7	5.5	7.9	5.8	4.8	5.9
Door to door serv.	9.1	9.3	4.6	7.0	8.1	8.5	7.0	6.3	10.0	5.5	9.4	5.3	7.5	6.9	7.2	7.8	6.9	7.2
IT technologies	9.3	9.4	8.3	7.6	6.1	7.3	6.1	10.0	5.1	7.2	4.8	4.9	4.8	5.5	8.9	6.7	5.4	6.5
<b>Overall estimation</b>	<b>8.9</b>	<b>8.8</b>	<b>6.6</b>	<b>6.9</b>	<b>6.7</b>	<b>6.9</b>	<b>5.4</b>	<b>6.4</b>	<b>4.6</b>	<b>6.5</b>	<b>4.6</b>	<b>4.9</b>	<b>5.2</b>	<b>5.5</b>	<b>7.9</b>	<b>6.3</b>	<b>5.3</b>	<b>6.2</b>
<b>Difference</b>	<b>0.6</b>	<b>0.4</b>	<b>0.2</b>	<b>-1.3</b>	<b>-1.1</b>	<b>0.0</b>	<b>-1.1</b>	<b>-0.9</b>	<b>-2.4</b>	<b>0.0</b>	<b>-2.0</b>	<b>-0.2</b>	<b>-0.8</b>	<b>-1.1</b>	<b>0.3</b>	<b>-1.1</b>	<b>-0.8</b>	<b>-0.7</b>

**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

## Result: Ranking of countries and division into MRs

Quality Score	Austria	Germany	Slovenia	Czech Republic	Slovakia	Hungary	Romania	Ukraine	Moldova	Bulgaria	Bosnia & Herzegovina	Croatia	Montenegro	Serbia
Quality of IT system	9.4	9.1	6.8	5.6	5.6	6.9	4.2	5.6	2.2	6.4	2.6	4.7	4.4	4.3
Quality of elements	8.9	8.8	6.6	6.9	6.7	6.9	5.4	6.4	4.6	6.5	4.6	4.9	5.2	5.5
<b>Average</b>	<b>9.2</b>	<b>9.0</b>	<b>6.7</b>	<b>6.3</b>	<b>6.2</b>	<b>6.9</b>	<b>4.8</b>	<b>6.0</b>	<b>3.4</b>	<b>6.5</b>	<b>3.6</b>	<b>4.8</b>	<b>4.8</b>	<b>4.9</b>
<b>Rang</b>	1	2	4	6	7	3	10	8	14	5	13	11	12	9
<b>Micro region</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>





EUSDR Priority area 1b:  
 To improve mobility and multimodality: rail, road and air transport

## Result: Overall rating of intermodal transport

Quality Score	Austria	Germany	Slovenia	Czech Republic	Slovakia	Hungary	Romania	Ukraine	Moldova	Bulgaria	Bosnia & Herzegovina	Croatia	Montenegro	Serbia
Quality of IT service	8.4	8.7	6	7.8	6.6	6	5	5.3	4.6	5.2	4.5	5.6	5.3	4.7
Quality of IT system	9.2	9	6.7	6.3	6.2	6.9	4.8	6	3.4	6.5	3.6	4.8	4.8	4.9
Previous research	8.5	9	7	8	8	5.5	5.5	2.5	1.5	2.5	1.5	4.5	2.5	2.5
<b>Overall rating</b>	<b>8.7</b>	<b>8.9</b>	<b>6.6</b>	<b>7.4</b>	<b>6.9</b>	<b>6.1</b>	<b>5.1</b>	<b>4.6</b>	<b>3.2</b>	<b>4.7</b>	<b>3.2</b>	<b>5.0</b>	<b>4.2</b>	<b>4.0</b>
<b>Rang</b>	2	1	5	3	4	6	7	10	14	9	13	8	11	12
<b>Micro region</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>4</b>

## Result: Danube micro regions

- DMR 1:
  - Germany and Austria;
- DMR 2:
  - Czech Republic, Slovakia and Slovenia;
- DMR 3:
  - Hungary, Romania and Croatia;
- DMR 4:
  - Bulgaria, Ukraine, Montenegro, Serbia, Bosnia and Herzegovina and Moldova.



EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Recommendations and guidelines for IT

- Four groups of recommendations and actions are proposed:
  - Institutional – organizational (IO),
  - Designing & planning (DP),
  - Technical - structural (TS) and
  - Financial and legal (F).
- The importance of recommendations varies by micro-regions.



*PA1a and PA1b Joint Working Group for Ports and Sustainable Freight Transport, Vienna, 12/06/2019*



EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Result: Key recommendations for IT quality

Group	Institutional – Organizational	DMR 1	DMR 2	DMR 3	DMR 4
IO1	Establishment of national agencies for the intermodal transport quality	●	●	●	●
IO2	Development of a strategic document for improving the IT quality at the national and international level	●	●	●	●
IO3	Improving coordinated action to reduce waiting times and the duration of customs procedures at border crossings	●	●	●	●
IO4	Intermodal transport should be institutionally removed from railway transport. Reduce the impact of the national rail operator.	●	●	●	●
IO5	Stimulate the regulation of business in intermodal transport at the micro regional and international level	●	●	●	●
IO6	Improving the institutional framework at the international level regarding the quality of IT.	●	●	●	●
IO7	Stimulate the efforts of railway operators in the intermodal transport market	●	●	●	●
IO8	The proactive role of the railways in the market of intermodal services. Efforts to increase rail participation in freight transport.	●	●	●	●
IO9	Offer full package of services in the “door-to-door” intermodal chain	●	●	●	●
IO10	Coordination of the offer and quality of IT service using more efficient measures for organizational linking of users and operators in ITC.	●	●	●	●
IO11	Promotion of knowledge about quality in intermodal transport and logistics.	●	●	●	●
IO12	Promotion of career in intermodal transport and logistics	●	●	●	●



EUSDR Priority area 1b:  
To improve mobility and multimodality: rail, road and air transport

## Result: Key recommendations for IT quality

Group	Designing & Planning	DMR 1	DMR 2	DMR 3	DMR 4
DP1	Development of Action Plans for improving the quality of IT for each micro region	●	●	●	●
DP2	Identification and improvement of key intermodal corridors for each micro region, improvement of quality in accordance with specific needs of intermodal transport chains	●	●	●	●
DP3	Defining a national action plan for the development of intermodal terminals, especially in countries with underdeveloped terminal networks.	●	●	●	●
DP4	Improving the research of terminal location problems and their allocation to logistics centers. Creation of integrated intermodal logistics networks.	●	●	●	●
DP5	Improvement of spatial plans in logistics and intermodal transport as one whole	●	●	●	●
DP6	Study of spatial coverage of users by intermodal logistics network	●	●	●	●
DP7	Completion of development plan regarding regular intermodal lines at the level of micro regions and the Danube Region.	●	●	●	●
DP8	Studies of implementation of intermodal transport chains in city logistics solutions of larger economic centers in the micro- regions.	●	●	●	●
DP9	Development of intermodal transport quality performances in order to expand services for some industries (e.g. agro-industry).	●	●	●	●
DP10	Development of a plan for connecting intermodal and air transport within micro regions and the Danube Region for some industries	●	●	●	●
DP11	International projects for improving the quality of intermodal transport on certain corridors within and between the micro regions.	●	●	●	●

**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

## Result: Key recommendations for IT quality

Group	Technical – structural	DMR 1	DMR 2	DMR 3	DMR 4
TS1	Defining a classification of performance for monitoring of the intermodal transport quality , at the level of the region and the micro regions.	●	●	●	●
TS2	Establishing a database of IT service quality performance at the national and micro-regional level, for the purpose of continuous monitoring, harmonization and improvement of IT quality.	●	●	●	●
TS3	Innovation of the fleet of vehicles for the transport of intermodal units in accordance with the requirements of the goods flows on the directions and corridors within micro regions.	●	●	●	●
TS4	Expansion of container fleet and introduction of new solutions (smart containers)	●	●	●	●
TS5	Increase availability of loading / unloading of containers at the start / end points of the transport chain, at the sender / receiver of goods.	●	●	●	●
TS6	Stimulating the use of available resources	●	●	●	●
TS7	Implementation of information systems with more efficient algorithms for IT problems and their connection	●	●	●	●
TS8	Technological integration of logistics centers into intermodal supply chains	●	●	●	●
TS9	Introducing a cross docking terminals for ITUs. Selection of HUB terminal location, in function of flows structure.	●	●	●	●
TS10	Introducing the Dry ports in the function of intermodal transport.	●	●	●	●



**EUSDR Priority area 1b:**  
**To improve mobility and multimodality: rail, road and air transport**

## Result: Key recommendations for IT quality

Group	Technical – structural	DMR 1	DMR 2	DMR 3	DMR 4
TS11	Connecting intermodal terminals with logistics centers in the large economic centers	●	●	●	●
TS12	Increasing the availability of intermodal logistics nodes to users of intermodal transport services	●	●	●	●
TS13	Development and introducing of centralized ITS as a support to intermodal transport and logistics	●	●	●	●
TS14	Development of ECO hub terminals in intermodal transport chains	●	●	●	●
TS15	Stimulate the use of eco vehicles, especially in the pre and post haulage activities of the intermodal transport chains.	●	●	●	●
TS16	The inclusion of IT chains in the chain of VAL services (in a network of logistics centers that provide VAL services)	●	●	●	●
TS17	Improvement of intermodal terminals and elimination of restrictions: length of tracks and allocation, additional functions and implementation of ITS, innovative technologies etc.	●	●	●	●



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EUSDR Priority area 1b:  
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## Result: Key recommendations for IT quality

Group	Financial and legal	DMR 1	DMR 2	DMR 3	DMR 4
F1	Development of PPP model for financing infrastructure on the certain directions into the micro regions and their Interregional linking	●	●	●	●
F2	Introduction of procedures for reducing differences in performance monitoring and requirements for the IT quality.	●	●	●	●
F3	Stimulate the development of a container fleet owned by an intermodal service provider.	●	●	●	●
F4	Market liberalization. IT versus the monopoly of the certain railway operators	●	●	●	●
F5	Increasing the representation of the PPP business model. The development of a partnership of different financing and business structures	●	●	●	●
F6	Defining the targeted financing plan - the priority financing measures for the key IT quality performance, on the principle of profitability.	●	●	●	●





## Conclusion

- What should be done to improve IT in DR?
  - Define the IT strategy for the Danube Region,
  - Define national IT strategies in accordance with the IT strategy for the DR,
  - Identify key issues in each country (detailed research at the national level, using a face-to-face interview)
  - Solving problems in accordance with financial capabilities and goals of the IT strategies.
  - From an institutional aspect, IT should be separated from the railways transport.



# Thank you for your attention!!!

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*PA1a and PA1b Joint Working Group for Ports and Sustainable Freight Transport, Vienna, 12/06/2019*



# **DAPhNE project – results on Danube Ports Development (analysis of infrastructure, SWOT analysis) promotion of Danube Ports Network**

**Saša Jovanović, IC Consultenten**

# Ongoing project initiatives - monitored in Priority Area 1a



## Relevant project activities (selection)

- 21 port-related projects reported to PA1a
- Port modernisation projects in Regensburg, Linz, Komarom, Komárno, Vukovar, Drobeta Turnu Severin, Ruse, Moldova Veche, Oltenița, Călărași, Calafat, Giurgiu, Cernovoda
- Overarching projects such as LNG Masterplan, INWAPO, DAHAR and DAPhNE

Complete project overview:

[www.danube-navigation.eu/projects](http://www.danube-navigation.eu/projects)

# Large group discussion

# Challenges and needs

- What are the main challenges for ports development in the Danube Region?
- Which specific challenges does the modernisation of the Danube ports face and how can they be overcome?
- What would need to change in order for positive business cases to emerge?

# Capitalisation of results

- How can the results of the DAPhNE and Intermodal Strategy project be further used and implemented –
- How could PA1a/PA1b support?
- Which financing programmes are most suitable to accommodate these needs?



# Public greening policy

- What are the most important lessons learnt from previous port investment programmes?
- Which types of public programmes are considered as most effective?
- What to do first under practical and financial limitations?

# Conclusions and next steps