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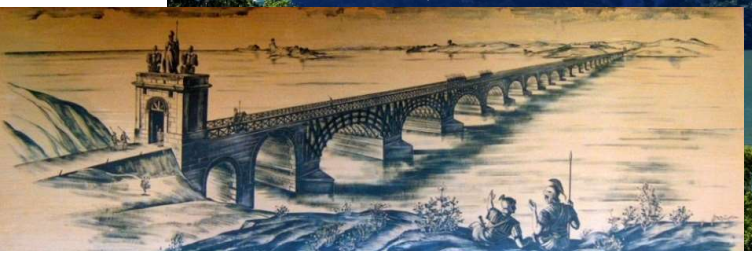
The EU Strategy for the Danube Region
Priority Area 1b: To improve mobility and Multimodality – road, rail and air links

Challenges of multimodal connectivity and rail interoperability in the Danube macro-region



Session:
Interoperable rail infrastructure and services to increase the rail connectivity in the Adriatic-Ionian Region

Franc Žepič, Secretary PA1b team member
- Ministry of Infrastructure, Slovenia

9th EUSAIR Annual Forum
16 May 2024 | ŠIBENIK
Croatia

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The Danube macro-region

EUSDR: Communication and Action Plan
- 8 December 2010: adopted by the EC
- 24 June 2011: endorsed by the European Council!
- ***6 April 2020: Revised Action plan***

4 thematic pillars, backbone is „Connecting the Danube region"

EUSDR - **11 Priority areas** (24 coordinators – PACs)

PA 1: To improve Mobility and Multimodality

✓**PA 1a: Inland Waterways - Austria and Romania**

✓**PA 1b : Road, Rail and Air links - Slovenia and Serbia**

- **14 States: Austria, Bulgaria, Croatia, Czech Republic, Germany** (Baden Wuerttemberg, Bavaria), **Hungary, Romania, Slovakia, Slovenia, Bosnia and Herzegovina, Moldova, Montenegro, Serbia, Ukraine** (Odessa, Ivano Frankivska, Chernovitsi, Zakarpatya)
- **Population: 115 million (EU27: 448 million)**
- **Area: 1.092.591 km2 (EU27: 4,225,134)**

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PA1b Targets

(Revised targets: Approved March 2016)
Priority Area 1B "TO IMPROVE MOBILITY AND INTERMODALITY - ROAD, RAIL AND AIR"

I. Support **efficient freight railway services** and **improved travel times** for competitive railway **passenger connections** between major cities in the Danube Region (DR) by 2030.

II. Support fully functional **multi-modal TEN-T Core Network Corridors** by 2030.

III. Support the development of efficient **multimodal terminals** at sea, river and dry ports in the Danube Region and ensure their connectivity and access through the integration of all modes of transport and efficient **logistics** services by 2030.

IV. Support improvement of the **regional air connectivity** and the implementation of the Single European Sky initiative.

V. Facilitate the improvement of **secondary and tertiary roads** in the DR.

VI. Support **safe and sustainable transport and mobility** in the Danube Region.

Challenges: Unbalanced Road Networks & Services

ROADS:

- Total lengths: **880.000 km**,
- Motorways: **12.592 km**
- Main or national roads: **105.593 km**

Solutions and challenges:

- **Vienna Convention on Road Traffic** (1986) = establishing standard traffic rules that benefits also for cross-border,
- **EU:** maximum authorised **dimensions** and **weights** (Dir. 96/53/EC, 1996 and amanded)
- **EU: ITS deployment** (Dir. 2023/2661 amending Directive 2010/40/EU)
- **Europe: No common categorisation!**

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Challenges: Unbalanced Transport Networks & Services

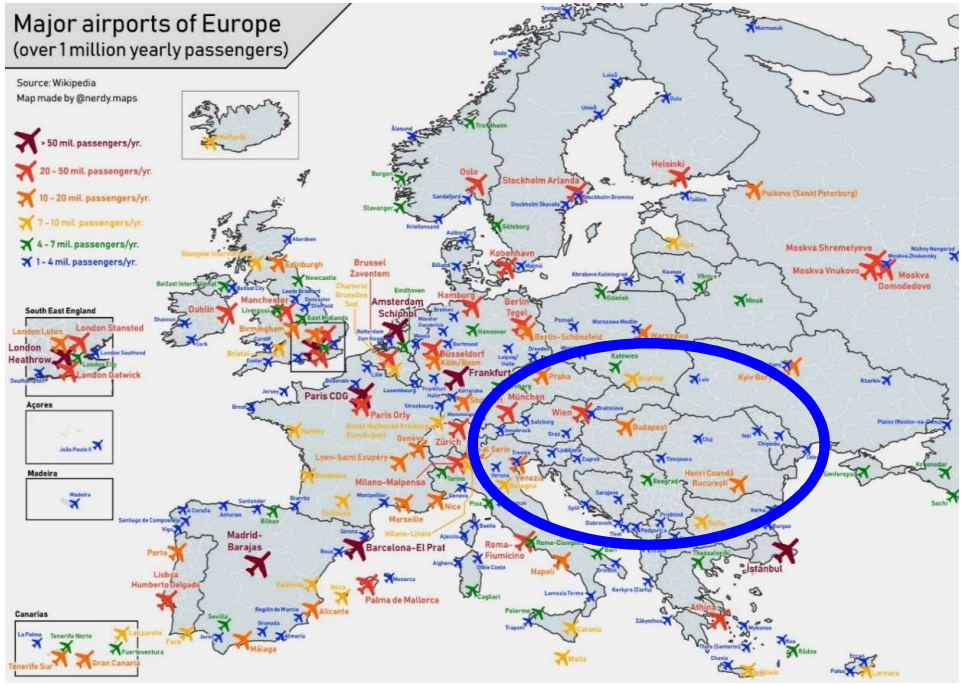
RAILWAYS:

- Lengths: **66.874 km,**
- Double-track: **16.908 km**
- Electrified: **47 %**

Solutions and challenges:

- EU: **4 Rail Packages** (safety, ERA, interoperability) and **Interoperability of locos**
- The different gauges between the EU and Moldova and Ukraine (a major obstacle, since it means goods need to be reloaded at the border or change carts)

Challenges: Air Connectivity



AIRPORTS (estimation):

- **1.300** all (international, regional, general, airfields)
- around 50 international (?)

- Danube region air connectivity remains poor – meaning that travellers from most of Danube region airports continue to see fewer options while air fares have increased (in the last couple of years)
- The performance gap between direct connectivity and indirect connectivity remains significant, except in the Upper Danube region (Munich, Vienna)

Interoperability:

- ATM implementation (SESAR project)

Our Objectives in a Nutshell

Merging the EU and non-EU transport systems while following as much as possible approaches of:

- **Co-modality** and **full modal integration**, while paying special attention to cross-border infrastructure and services and secondary and tertiary transport networks linking with TEN-T;

Bridging the transport gap between the EU and Non-EU countries, as well as between upper Danube and lower Danube countries, such as:

- quality of transport infrastructure, quality of services (e.g. logistics), road safety, sustainable transport development, etc.

1. Challenges of multimodal connectivity

*The multi-modal connectivity provides **integrated and seamless connectivity** for movement of people, goods and services from one mode of transport to another. And above all, it **facilitates the first and the last mile** connectivity.*

Key Components of transport network connectivity:

- **Network completeness** – How much of the transportation network is available?
- **Network density** – How dense are the available links and nodes of the transport network?
- **Access to destinations** – What destinations can be reached using the transportation network?
- **Network quality** – How does the network support users of varying levels of experience, ages, abilities, and comfort with different means of transport?

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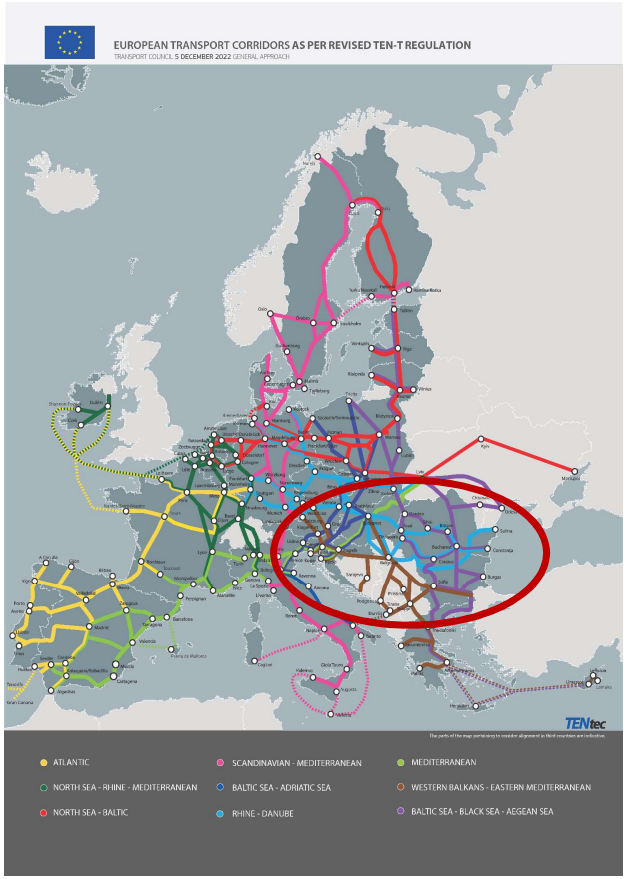
Multimodal ongoing story „TEN-T Core corridors"



New TEN-T Guidelines (Revised Reg. 1315/2013 on TEN-T) to be published in 2024

2024 - 2030 (2040):
9 TEN-T ETC (European Transport Corridors) and 11 EU COORDINATORS

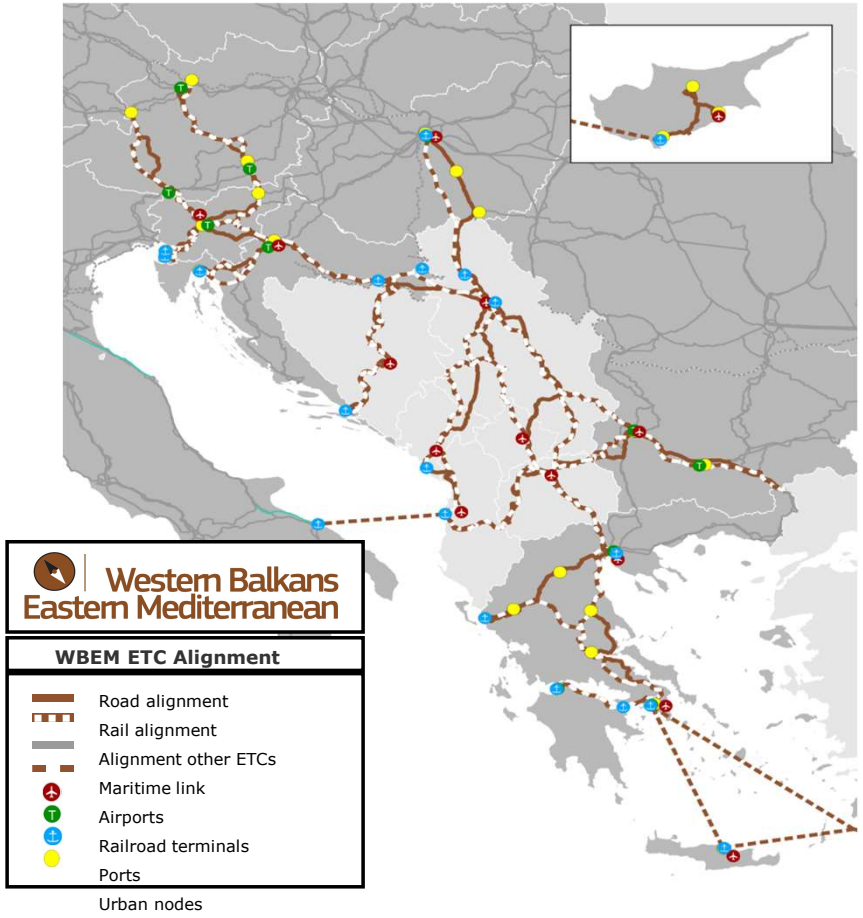
Five, out of nine, ETCs are part of the Danube region transport network.

Important also horizontal:

ERTMS (Mr. Matthias Ruete (DE))
and
European Maritime space (ex-**MoS**) (Ms. Gesine Meissner (DE))

1. **Baltic Sea-Adriatic Sea ETC** (PL, **SK, CZ, AT, SI, HR**, IT) Ms. Anne Elisabet Jensen (DK), 2024
2. **Mediterranean ETC** (ES, FR, IT, **SI, HR, HU**) - Mr. Mathieu Grosch, 2024
3. **Baltic Sea-Black Sea-Aegan Sea ETC** (**BG**, EL, **HU**, PL, **RO, SK, MD, UA**) - Mr. Péter Balázs (HU); 2024
4. **Wetern Balkans-Eastern Mediterranean ETC** (**AT, SI, HR, BG,** EL, CY | **Western Balkans**) – Mr. Marian-Jean Marinescu (RO); since 2024
5. **Rhine-Danube ETC** (FR, **DE, AT, CZ, SK, HU, HR, RO, BG**) **-** Ms Inés Ayala Sender (ES)
6. **North Sea-Rhine-Mediterranean ETC** (IE, UK, FR, NL, BE, LU) – Mr. Paweł Wojciechowski (PL); 2024
7. **Atlantic ETC (PT, ES, FR, DE)** – Mr. Carlo Secchi (IT); Since 12 March 2014
8. **North Sea-Baltic ETC** (NL, BE, DE, PL, LT, LV, EE, FI) – Ms Catherine Trautmann (FR), Since 12 March 2014
9. **Scandinavian-Mediterranean ETC** (DK, DE, IT, MT, **AT,** FI, SE | NO) – Mr. Pat Cox (IE); Since 12 March 2014

New Multimodal corridors



- New network structure:

✓ **core, extended core and comprehensive network** together forming the trans-European transport network (TEN-T)

- **2030, 2050 and new** intermediary **deadline** of 2040

- **European Transport Corridors** (ETC):

✓ integration of **CNC and RFC**

✓ composed of **most strategic parts** of core network and of **the extended core network**

IMPORTANT: ***NEW MOMENTUM FOR EUSDR, EUSAIR, WB and SEE***

Motorways	**5750 km**
Railways	**5 853 km**
Seaports	21 locations
Airports	14 locations
Multimodal Freight Terminals	13 locations
Urban nodes	24 locations

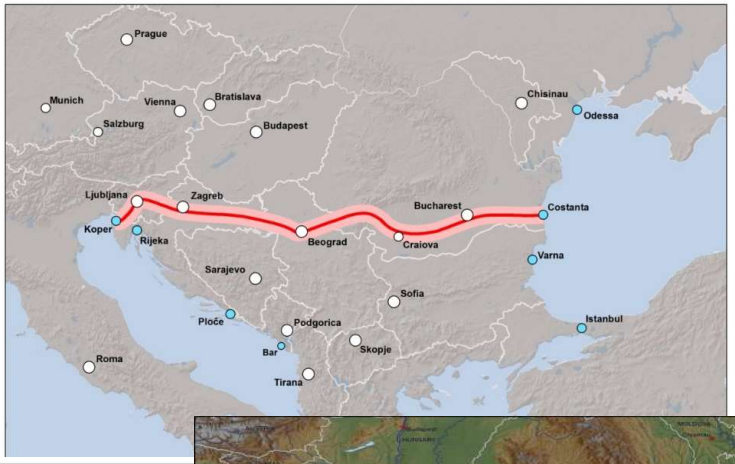
Corridors: what's next for PA1b?

Corridors: Missing links and/or bottlenecks ?

Proposals supported by PA1b SG:

b) „Traianus" Rail Freight Corridor (Constanta – Bucharest – Craiova - Turnu Severin – Belgrade – Zagreb – Ljubljana – Koper/Rijeka):

a) Multimodal „Adriatic-IonianCorridor": *From Italy, …via Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, Albania, … to Greece!*



Way forward:

- *Enhanced cooperation*
- *Enhanced coordination*
- *Agreement on common priorities (Project prioritisation)*
- *Jointly supported financing initiatives*

2. Challenges in rail interoperability in EUSDR

- **„Hard" - physical (infrastructural)**
  - TEN-T network, extended TEN-T (e.g. track gauge, electrification)
  - Regional/National network, in particular cross-border

Dual Gauge (1435mm-1520 mm); Railway Track on the Hungary-Ukraine Border *(source: internet)*

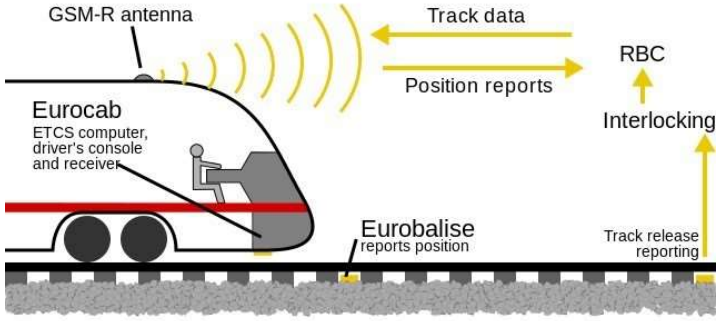
- **"Soft" - operational connectivity**
  - access to railway services, interoperability,
  - facilitation of cross-border railway operations, regulatory controls of border crossings (Customs, Police, Veterinary, Sanitary and Phytosanitary border controls)

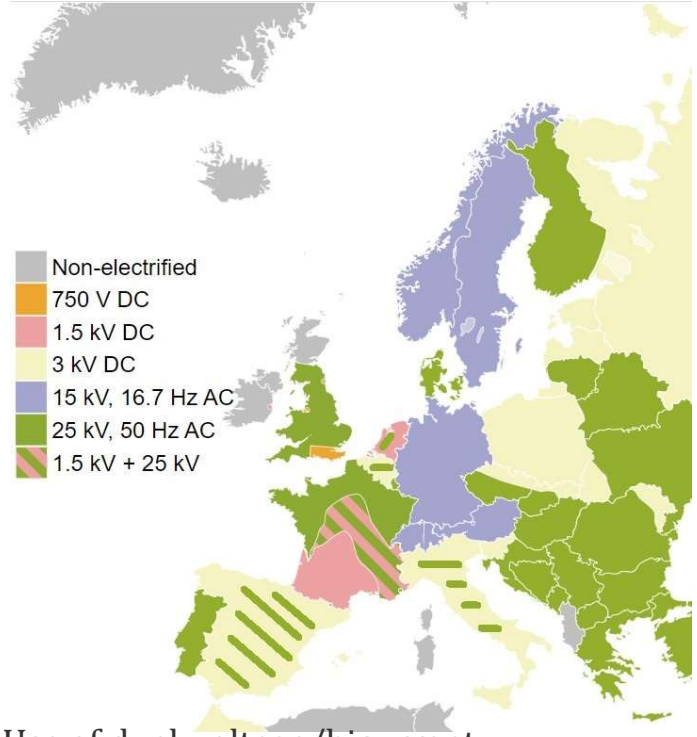
Challenges in rail interoperability in EUSDR

- **ERTMS:** the European Railway Traffic Management System, a comprehensive solution comprising two key components:

✓ ***ETCS*** *(European Train Control System) and*

✓ ***GSM-R*** *(Global System for Mobile Communications – Railway)*





Traction power: Use of dual-voltage/bicurrent locomotives or even three or four-voltage locomotives

In the face of Russia's war of aggression against Ukraine, the EU, together with Ukraine and Moldova launched the **EU-Ukraine Solidarity Lanes** in May 2022, establishing new tran

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Rail Interoperability– what's next for PA1b?

Follow progress on EU legislation & Guidelines to be transposed in all the Danube Region countries:

- ***TSIs*** *(technical specifications for interoperability (EU rail legislation; 1st (2001), 2nd (2004), 3rd (2007), 4th package (2016))*
- ***CCS*** *(Control command and signalling) TSI*

Support:

- ***GREEN LANES (****March 2020,Coronavirus): Commission's practical guidance to ensure continuous flow of goods across EU via green lanes (max 15 minutes)*

- ***SOLIDARITY LANES*** *(May 2022): establishing new transport routes to keep Ukraine's imports and exports flowing via rail, road and inland waterways.*

The Solidarity Lanes are also laying the ground for the longer-term connectivity between Ukraine and the EU.

Conclusion:

The Priority Area 1b (PA1b) Steering Group (SG) under the process of implementation of the EU Strategy for the Danube Region (EUSDR) provides **a regional platform for the member countries to discuss persistent and emerging issues in road, rail and air transport** in order to contribute to improved multimodality and mobility.

Among many topics dealt with since 2011, the SG has put a lot of attention to the macro-regional railway transport network. Within **29 SG meeting** the members focused on number of challenges in supporting and facilitating safe, attractive and competitive railways for freight and passengers. Similar goes for **events organised** by the PA1b. E.g.

- **TIL 2014: "Bridging the Gap in Logistics between the Danube Region Countries"** (April 2014, Belgrade)
- **WS „How to develop resilient infrastructure?"** (November 2017, Ljubljana)
- **WS on „Attractiveness and Competitiveness of Railways"** (November 2016; Ljubljana),
- **WS on „Regional Rail Connectivity",** (October 2019, Belgrade)
- **WS on „Impact of coranovirus pandemic on Danube Region railways"** (September 2020, online)
- **DRTD 2022: Towards energy efficient and sustainable transport in the Danube Region** (2022, Ljubljana)
- **29th SG meeting:** item **ERTMS: the national implementation plans - exchange on the different approaches and challenges** (May 2024, Ljubljana)

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Thank you very much!

Please visit:
https://transport.danube-region.eu/

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