



PERSPECTIVES ON SUSTAINABLE TRANSPORT AND MOBILITY PRICIPLES AND CONCEPTS

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- ⇒ *Multimodal, Intermodal and Co-modal Freight Transport,*
- ⇒ *Co-modality and modal shift,*
- ⇒ *The Corridor concept.*

- **Transport activity** continues to raise concerns about its **negative externalities**, notably **GHG emissions, air pollution, noise, congestion, safety**.
- **Road** remains a **predominant mode of transport** and source of emissions.
- **Aging and urbanisation** remain major **demographic trends** for transport and mobility.
- **New societal developments and technological advancements** have gained on pace and shaping the functioning of transport and mobility services.
- **New technologies** are rapidly changing the **transport and logistics landscape**. This requires transport and logistics supply chains actors, including inland and sea ports, to be more innovative and embrace digitalisation.

- **Safe, Smart, Clean and Integrated Transport System** are preconditions for maintaining an efficient and competitive Danube Region Transport System -- enabling the region to remain part of a fully integrated EU economy and **Single European Transport Area**.
- We need **less congestion**, fewer emissions, more employment, **better connectivity and accessibility, ICT services and facilities**.
- DTP has recognised these needs and the 3rd Call is supporting **integrated transport approaches** where environmental benefits can be made, and will, in turn, produce economic benefits to the Danube Region as a whole.
- **Efficient multimodal transport corridors** could play an important role in increasing the region's competitiveness.

❑ *Multimodal freight transport*

- **Multimodal transport** is defined as operations where
 - ✓ **more than one mode of transport** is used in a supply chain.
 - ✓ one operator assumes **liability for the carriage of goods by a route involving a number of different modes of transport.**
- Typically, this **might include road as well as rail or inland waterways transport** -- most commonly road and sea, road and rail, or road and air.

□ *Intermodality*

- **Intermodality** is a characteristics of a transport system that **allows at least two different modes to be used in an integrated manner in a door-to-door transport chain.**
- The door-to-door approach of intermodal transport entails a strong consideration of the transport user's requirements.
- The integration between modes needs to take place at the levels of :
 - ✓ **Infrastructure & other hardware (e.g. loading units, vehicles, telecommunications)**
 - ✓ **Operations & Services**
 - ✓ **Regulatory conditions**

❑ *Where multimodal differs from intermodal ?*

- **It is in the operational specifics.**
- **“Intermodal”** can use one or more modes, but essentially, the goods being transported are not handled each time they change vehicle or mode.
- The term “intermodal” is often associated with international container traffic. For example, where containers are being transported inland from a sea port via rail, inland navigation, the goods in the container are not handled, therefore the operation is inter-modal.

□ *Intermodality*

- By improving the connections between all modes of transport and integrating them into a single system, **intermodality allows a better use to be made of rail, inland waterway transport -- which by themselves in many cases do not allow door-to-door delivery.**
- **Interoperability and interconnectivity** will enhance the **efficient and effective use of transport infrastructure and capacity and the overall efficiency of the transport system.**

□ *Co-modality and modal shift ?*

- **Co-modality** can be defined as "the efficient use of different modes on their own and in combination which will result in an optimal and sustainable utilisation of resources" -- to the benefit of the environment.
- In contrast to modal shift, co-modality strives for different transportation modes to complement each other, rather than substitute for each other to the benefit of sustainable transport and logistics sector.
- In case of co-modality, a modal shift can be achieved in which the less-intensive carbon modes are used in an optimal way.

❑ *The Corridor concept - brief overview*

- When discussing corridors, one encounters a plethora of definitions (e.g. Eurocorridor, megacorridor, TEN-T corridor) and meanings (e.g. infrastructure axis, urbanisation axis, economic development axis) of the concept.
- Corridors are perceived as a structuring concept for infrastructure development and urban development plans, as a network structure in freight and passenger transportation, as a policy concept in the European cohesion discourse, or as a vehicle to trigger economic development.
- The crucial factor is the multidimensional and multi-scalar nature of present-day corridors. In this sense, the concept refers to corridors not only as infrastructure axes, but also as economic development and urbanisation axes.

□ Brief overview of the Corridor concept

- Essentially, corridors can be viewed as narrow bundles of infrastructure which are connecting two or more urban regions dispersed over a certain physical space.
- These bundles usually exist in three modes: motorways, railway links and inland navigation or short sea connections. One can also include ICT infrastructure such as power lines, cables and oil pipes to arrive at a broader definition of a corridor.
- In general, however, corridors concern connections that use one or more of the three previously mentioned modes (road, rail and inland waterway) and include both passenger and freight transport.

Eurocorridor or Pan European corridor - definition

- ❑ *Category of space of linear nature connecting large agglomerations over various national borders. They are areas of rapid and large-scale spatial dynamics within a Europe of vanishing national borders. Four interrelated dimensions can be distinguished in Eurocorridors: **infrastructure** and **transport** (mainly the Trans-European Networks), **urbanisation**, **economic development** and **environmental sustainability**.*

http://inspire.ec.europa.eu/codelist/SupplementaryRegulationValue/7_1_4_9_EurocorridorOrPanEuropeanCorridor

Characteristics of the Corridor Concept

LEVEL	ASPECTS
	- Freight
SCOPE	- Passenger
	• Road
MODE	• Rail
	• Inland Waterways
	- Local
SCALE	- Regional
	- National
	- Transnational
	• Transport
DIMENSION	• Spatial
	• Institutional
	• Economic

- ❑ **A definition of Corridors** should not only be concerned with the **different scopes** (freight and passengers) and **modes** (road, rail, and inland waterways) **involved in the corridor development**, but the **different scales** (local, regional and trans-national) and **dimensions** (transport, spatial, institutional and economic) **are also of relevance.**

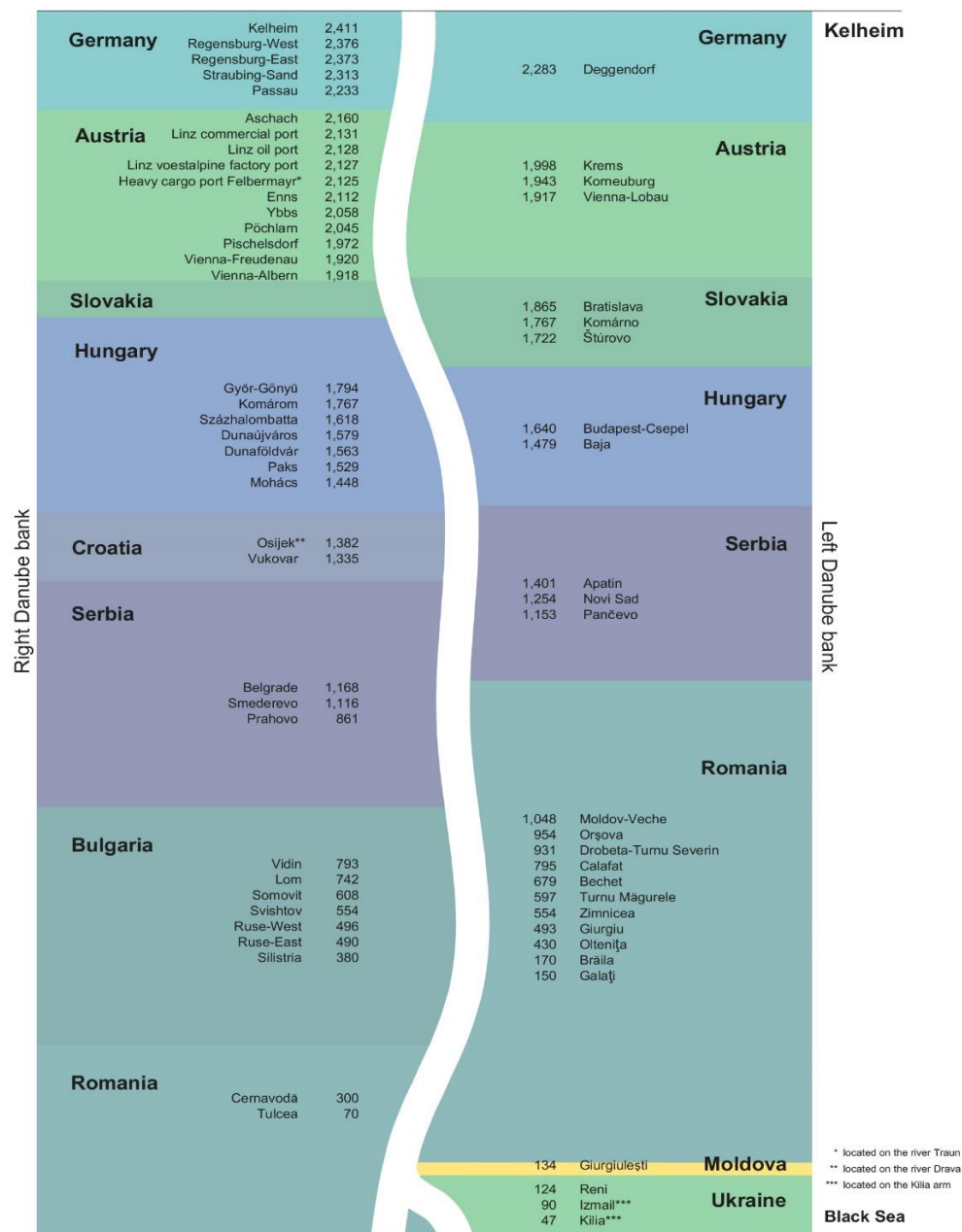
- Corridors are thus perceived to incorporate multi-modal infrastructure connections that serve both freight and passenger transport, operate on multiple scales and impact on multiple dimensions.
- **Inland ports** are considered crucial linkages for efficient global freight transport and corridor development. They are important to the general efficiency of corridor development.
- Thus, attention must be paid to the challenges that may exist in the context of inland ports development.
 - ✓ Good accessibility, capacity and level of service,
 - ✓ space for expansion of port activities, etc.

Physical, technical & institutional challenges

Approx. 70 ports along 2.414 km of navigable river; Average distance c.175 km - by comparison to the Rhine River i.e. c.35 km;

- Outdated & aging port infrastructure & superstructure;
- Poor access & hinterland connections (road, rail);
- Limited resources *i.e.* human & financial;
- Lack of know-how & weak institutional capacity;
- Insufficient waterway maintenance;
- Poor public investments – no public funding schemes like in Western Europe;
- Low capacity to absorb of EU funding;
- Limited cargo volumes & service quality;

DANUBE INLAND PORTS | Challenges



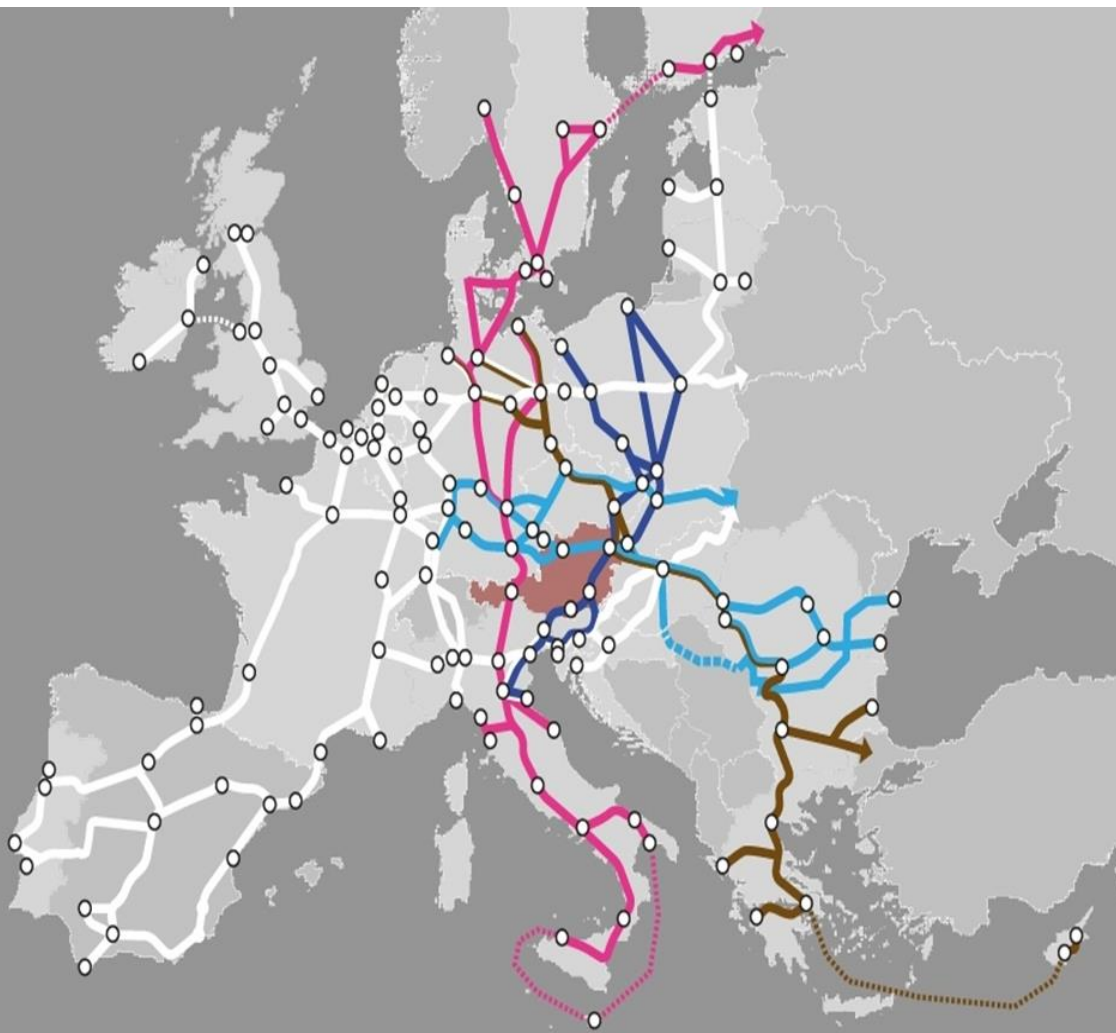
* located on the river Traun
** located on the river Drava
*** located on the Kilia arm

- Present day corridor development is concerned with a complex interrelation between transport capacity, economic benefits and spatial structures.
- The aims of economic development and transport improvement on an interregional level must be accompanied by the aims of environmental protection and social integration on local to regional scale.
- Some examples.....

TEN-T Core Network Corridors crossing the Danube Region



- Baltic Adriatic CNC
- Orient East Med CNC
- Scan Med CNC
- Rhine Danube CNC



3 Rail Freight Corridors at the Heart of the Danube Region

Rhine-Danube Corridor RFC 9
operational by November 2019



Connecting the Black Sea with Western Europe via Constanta and including inland ports along the River Danube

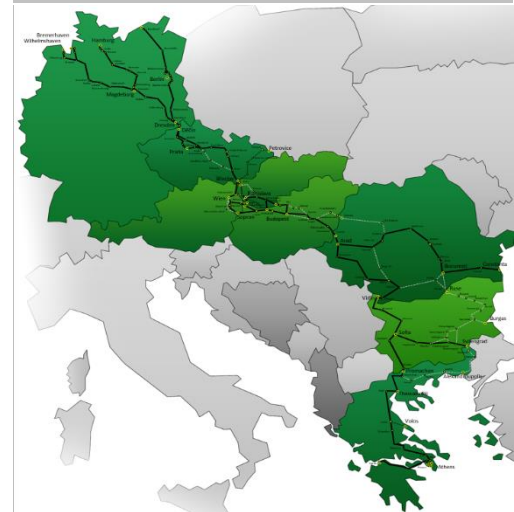
Danube Region

Alpine – Western – Balkan Corridor RFC 10
operational by November 2019



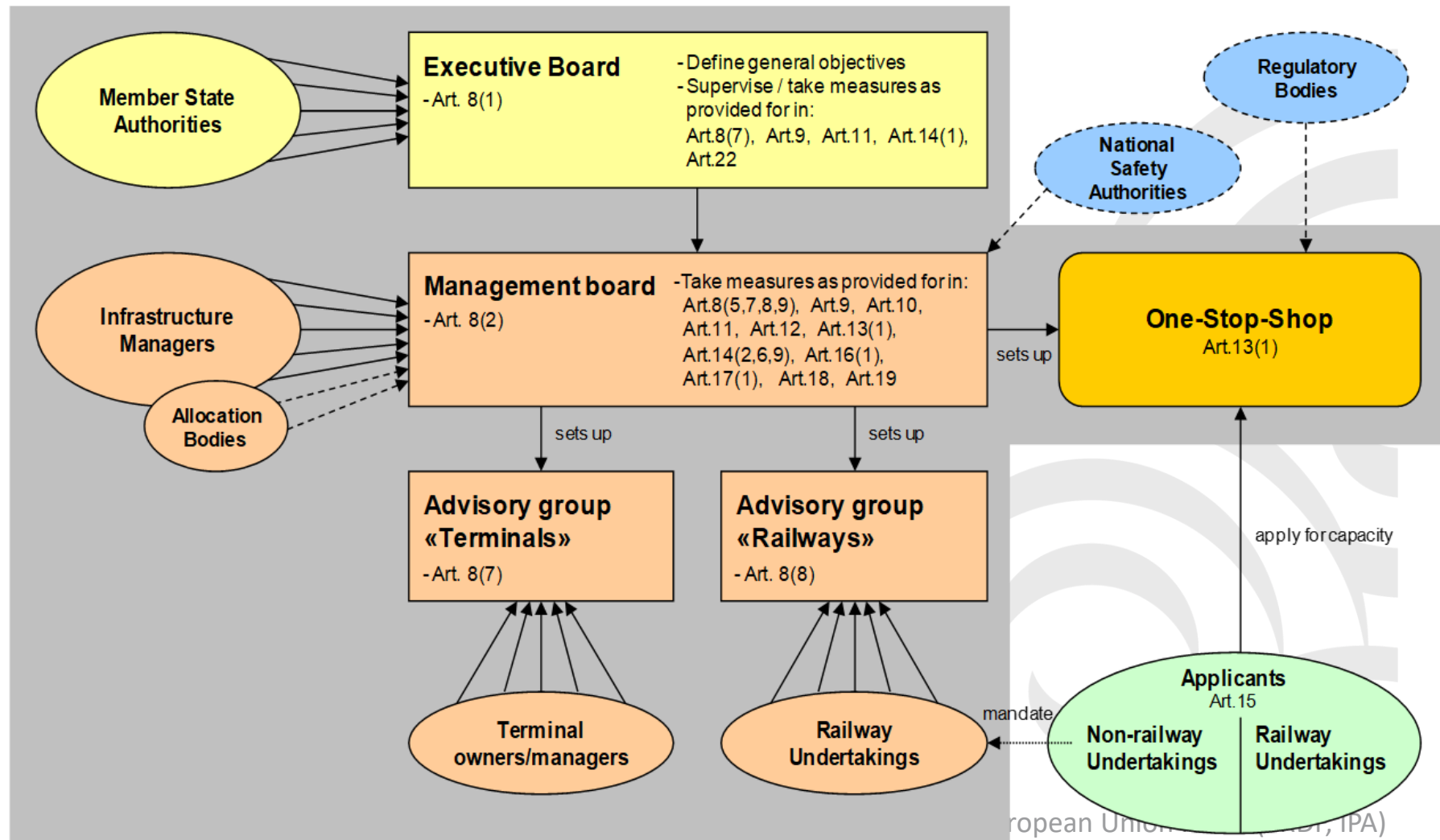
Connecting the Western Balkans via Slovenia, Croatia, Serbia, Bulgaria with Western Europe

Orient East Med Corridor RFC 7



Connecting the Mediterranean and Black Sea with Northern and Western Europe via Piraeus and Constanta

Rail Freight Corridors – Organization according to EU Regulation 913/2010



PROJECTS – SCOPE & FOCUS



MARKET INTELLIGENCE STUDIES

- Trade corridors, volume of trade, cargo flows intra region and across DR, DR-based trade flows etc.
- Preparation of transnational transport planning and infrastructure financing needs
- Appraisal of transport infrastructure capacity in the Danube Region;
- Understanding of the regulatory framework that is in place in the EU/Danube Region with regard to multi-modal /Intermodal transport and trade facilitation;
- Understanding the transport usage in the Danube Region;
- Examining the factors affecting modal choice (both freight and urban mobility);

MARKET INTELLIGENCE STUDIES

- Exploring and quantifying the various multimodal transport corridors that are available to shippers and consignees in the Danube Region when trading intra – DR and intra-EU internationally;
- Assessing alternative scenarios for corridor selections;
- Assessing freight cost structure, transit time and reliability of multimodal transport corridors in the region within an international supply chain context;
- Assessing the reliability of these multimodal transport corridors;
- Define and implement framework conditions for definition and corridor management, standardisation, interoperability and data exchange, etc.

PROJECTS – SCOPE & FOCUS

Sustainable urban mobility

- **Changing mobility habits & behaviour** -- the behaviour of transport users is key to the development of a more sustainable transport system; **explore possible initiatives that motivate and enable users**, especially young people, to use safer and more sustainable means of transport (**walking, cycling, including bike sharing and renting, public transport, car sharing, carpooling**).
- Support the **development of Sustainable Urban Mobility Plans (SUMP)** as a tool to help cities make more efficient use of transport infrastructure and services and improve integration into the urban area of the different mobility modes in a sustainable manner,

WHAT DOES THE DTP LOOK FOR IN A PROJECT PROPOSAL ?



- ***General aspects***
- ***Pro Danube International's approach to developing projects***

WHAT DOES THE DTP LOOK FOR IN A PROJECT PROPOSAL ?

❑ EUSDR Strategic Relevance

- Contribution to the EUSDR (one or more Priority Areas (PAs) as set in the EUSDR Action Plan);
- Added value regarding the achievement of targets defined for one or more EUSDR PAs (PA1a, PA1b) including horizontal priorities (PA11, PA2, PA8, PA9, PA10);
- Contribution to an EU Policy/Strategy (other than EUSDR) in the thematic field addressed by the project i.e. White Paper for Transport, Europe 2020, Ports Policy, NAIADES II, the Digital Single Market Strategy etc.
- The link between the project objectives and expected results and relevant EU policy and strategy has to be clear, logic and comprehensive.

WHAT DOES THE DTP LOOK FOR IN A PROJECT PROPOSAL ?

- ☐ Macro-Regional scope (problem areas to be addressed) & impact (policy impact/policy change)
- ☐ Transparency & Stakeholders involvement
- ☐ Public-Private transnational partnerships
- ☐ Capacity to implement the project
- ☐ Clear Objectives, Activities & budget defined for achieving the envisaged change.

Pro Danube International as major facilitator for Danube IWT

- **Pro Danube International** is recognized as important driving force for Danube development
 - *Initiatives for improvement of fairway conditions*
 - *Promotion of infrastructure investment in waterway and ports*
 - *Promotion of modernization of Danube fleet*
- Gained reputation as key promotor for LNG in IWT due to its coordination of LNG Masterplan Rhine-Main-Danube
- **Contributes to major policy initiatives such as EUSDR, FRMMP, NAIADES**
- **Observer member of the EUSDR PA1a Steering Group**
- Facilitates project platforms and supports individual projects of members supporting strategic transport and regional development policy goals
- Presented the guiding **strategy document - Danube Industry Declaration** in June 2014 during the EUSDR Annual Forum in Vienna and in updated version in October 2018 for Danube Business Talks
- Proposes a new **policy initiatives** which unites interests of public & private sector: **“Green Deal for Danube River Transport”**, which shall pave the way from successful individual initiatives and projects to a continuous pipeline of innovation projects from 2016 to 2023.

Pro Danube – Structure & Objectives

Platform of private companies with strategic economic interest in better framework conditions and higher public investment in the Danube transport & logistics system

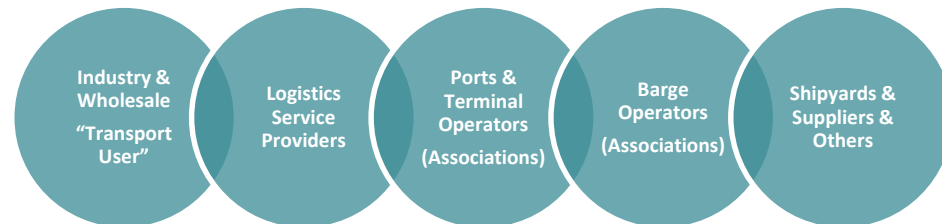
In a nutshell

- Established autumn 2011 by a group of companies & associations
- Non-profit association based in Vienna
- Network of currently more than 180 companies
- More than a lobbying organisation as it initiates and executes projects
- Service company: Pro Danube Management GmbH
- Local representations: Pro Danube Romania, Pro Danube Serbia
- Initiator & coordinator of policy initiatives & projects in IWT, port development & LNG
- More info at: www.prodanube.eu

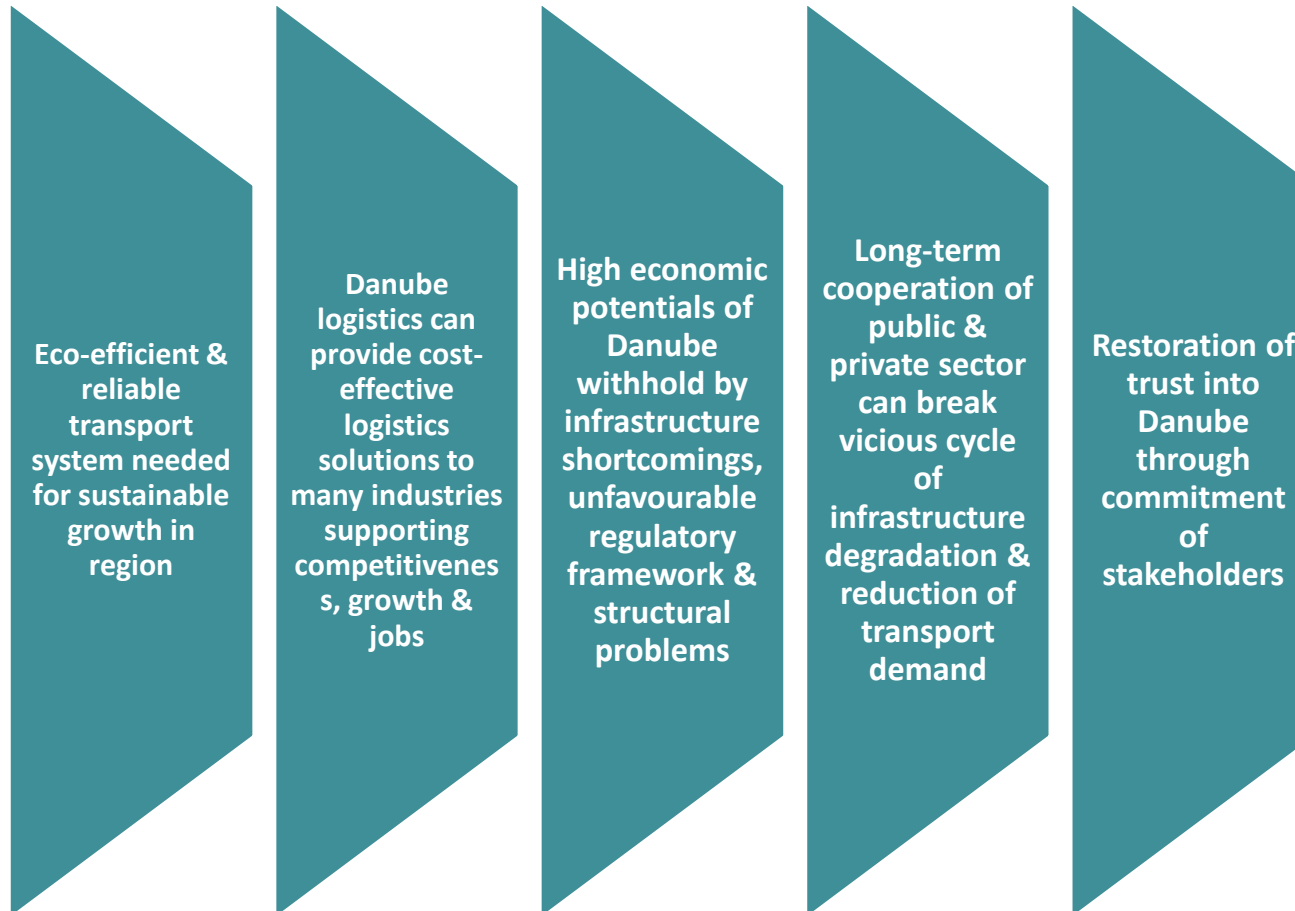
Priorities

- Engagement for better waterway maintenance & execution of TEN T bottleneck projects
- Promotion of investment in Danube ports
- Support to modernization of Danube fleet
- Elimination of administrative barriers
- Active involvement in EC initiatives & programs

Partners



Green Deal: Rationale & Concept



“Green Deal for Danube river transport”

- intensive, coordinated cooperation of public and private
- Improved efficiency & environmental performance of Danube logistics
- tangible results supporting sustainable economic growth

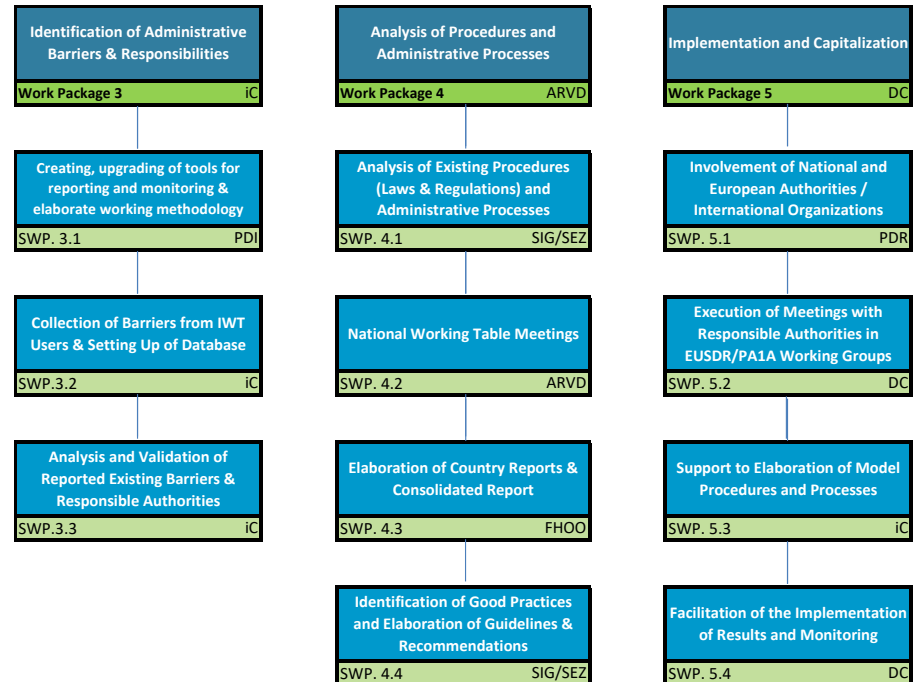
<< The roll-out of the Green Deal is done with the help of **INDanube - Centre for Innovation Transfer in the Danube Region** / EIBIP - European Inland Barging Innovation Platform; Project funded by EC/DG MOVE >>

The Green Deal Structure



DANTE – Improving Administrative Procedures and Processes for Danube IWT

- **Improve administrative procedures** and reduce bureaucratic processes as well as related charges and fees for IWT on Danube and navigable tributaries
- **Reduce time losses and costs** caused by unnecessary administrative regulations and processes for Danube businesses
- **Eliminate / reduce red tape** and abuse of administrative power
- Harmonize regulations and administrative processes for transport and transshipment operations (“**Same River-Same Rules**” concept)
- **Five thematic areas:**
 - Border Police and Tax & Customs authorities
 - Navigation authorities
 - Port authorities
 - Waterway and Canal administrations
 - Other authorities



Quick facts:

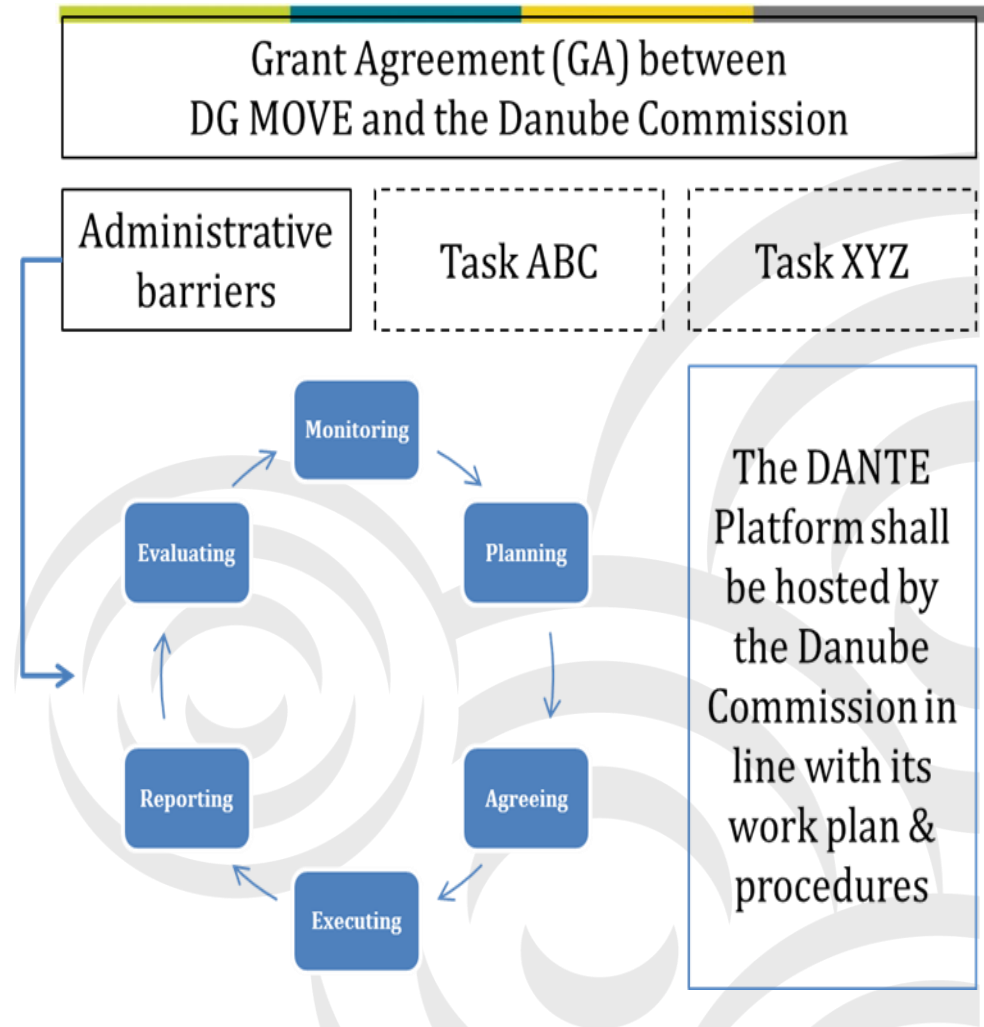
- Project duration: January 2017 – June 2019
- Budget: 2M EUR
- 28 partners from 11 countries incl. the Danube and Sava River Commissions

Project co-funded by:  **Interreg** 
Danube Transnational Programme

Improving Administrative Procedures and Processes for Danube IWT – DANTE beyond 30 June 2019.

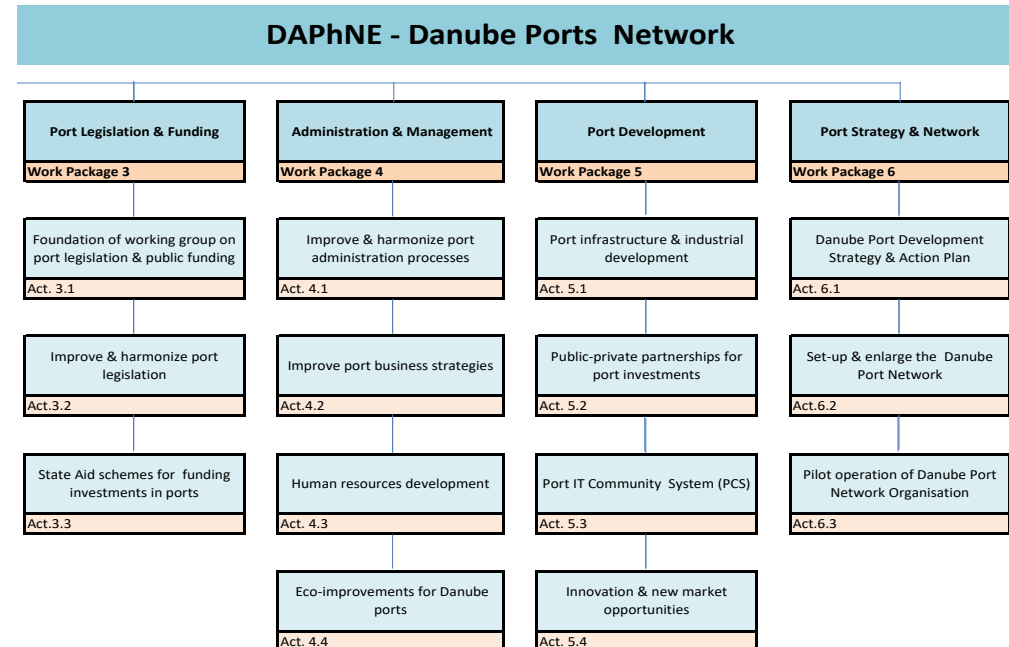
The DANTE project ends on 30 June 2019. Nevertheless, unlike other projects funded through the Danube Transnational Programme, DANTE will, under the auspices of the Danube Commission, continue to exist in the form of the DANTE Facilitation and Monitoring Platform.

DANTE Facilitation & Monitoring Platform



DAPhNE – Danube Ports Network

- **Improve the balanced development** of Danube Ports as eco-friendly, well accessible multimodal hubs for the transport system of the region
- **Turn Danube Ports into buzzing economic centers** functioning as catalysts for economic growth and creation of high value jobs
- **Produce guidelines, recommendations and concrete pilot activities** based on best practices and leading into an overall development strategy and action plan
- **Set-up a Port Network** to eliminate gaps between stakeholders
- **Improve the eco-performance of the ports** in order to contribute to the ecological balance of the river and to improve the situation of the port municipalities



Quick facts:

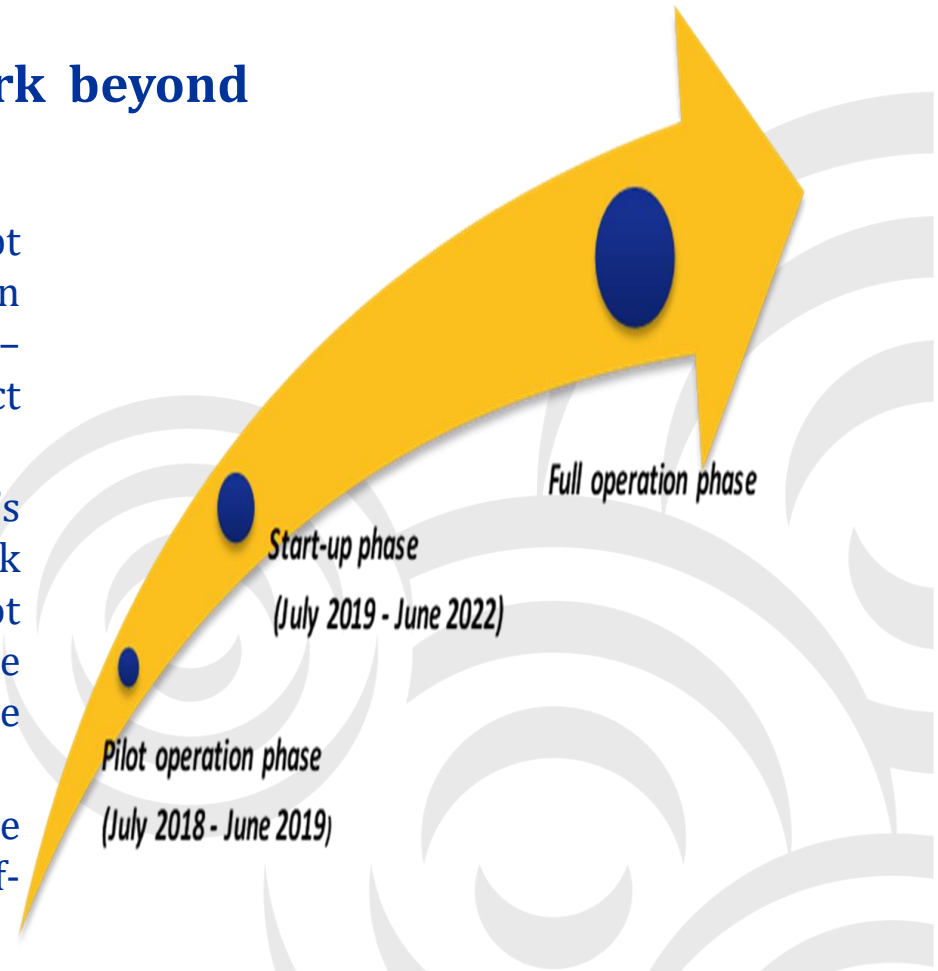
- Project duration: January 2017 – June 2019
- Budget: 2,985 M Euro
- 23 partners from 9 countries

Project co-funded by:



DAPhNE -- Danube Ports Network beyond 30 June 2019

- The “Danube Ports Network” concept and pilot have been initiated within the framework of the “DAPhNE – Danube Ports Network” project (January 2017 – June 2019).
- As part of the DAPhNE Project’s ongoing activities, the DPN’s work undertaken throughout its pilot operation phase (July 2018 – June 2019) is financially supported by the DAPhNE project.
- The DPN is expected to become financially and operationally self-sustaining as of June 2022.



❑ Service Portfolio

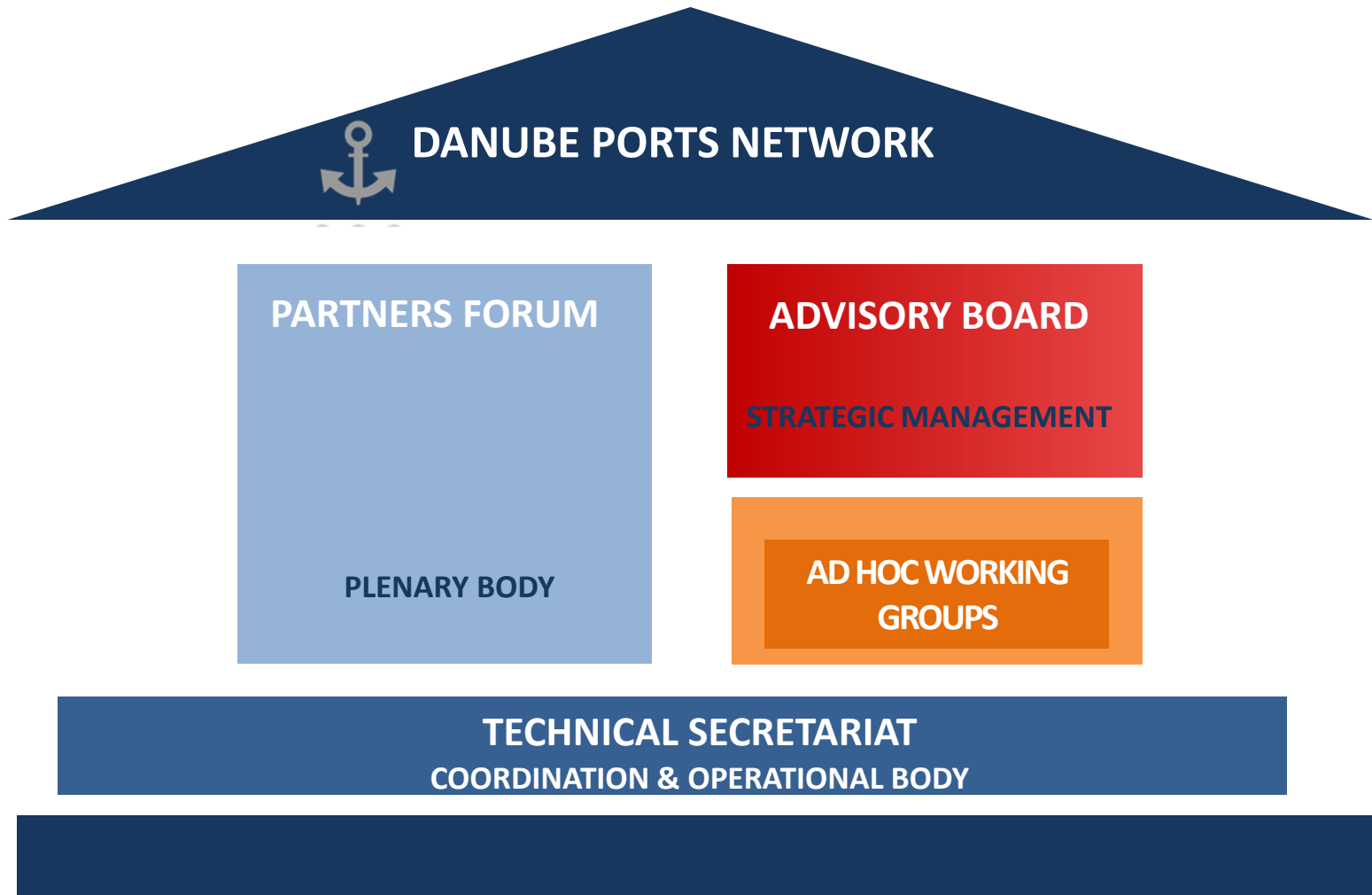
- Developing & implementing common interest projects & strategic initiatives,
- Initiating port policy & network awareness activities,
- Fostering active cooperation, strategic alliances & partnerships to benefit the network,
- Facilitating network collaboration & support activities.

❑ The focus of our work

- Good port governance, sustainable port development & operations,
- Environment, renewable energy, climate change mitigation,
- Port digitalisation, RTD & Innovation,
- Ports' connectivity & logistics,
- Port training & education.

- ❑ DPN is a network of autonomous organisations (public & private port organisations) governed by a Cooperation Agreement.
- ❑ The one -tier governance structure of the DPN consists of:
 - ❖ **Partners Forum** (*the plenary body*),
 - ❖ **Advisory Group** (responsible for the strategic management),
 - ❖ **Technical Secretariat** (TS) (co-ordination & operational body).
 - ✓ Depending on the issues tackled, **ad-hoc working groups** comprising selective partners, academia representatives *etc.* shall be constituted.

DPN | governance & coordination structure



Conclusion



- The role of the DTP in financing soft measures aimed at strengthening the competitiveness of the Danube Region transport system has been instrumental *i.e.* best practices, pilot operations, upskilling the labour force in the IWT transport sector, sharing best practices and knowledge, removing administrative barriers (as illustrated by the PDI project examples).
- The role of the DTP in filling the gaps in financing feasibility and pre-design studies for large infrastructure -- Trans-European transport networks projects -- financed under the Connecting Europe Facility – must be exploited.
- Ensuring complementarity and synergies with the National Transport Infrastructure Plans and other EU Funding Programmes needs to be ensured.