

## O 6.1 Danube Ports Development Strategy and Action Plan

Final Event Vienna, 12.06.2019.



a member of iC group

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### **Analysed ports**

#### **Individual SWOT analyses**

- Austria: Enns and Vienna
- Slovakia: Bratislava and Komarno
- Hungary: Budapest, Baja,
   Dunaújváros and Győr-Gönyű
- Croatia: Vukovar and Slavonski Brod
- Serbia: Belgrade and Novi Sad
- Bulgaria: Lom, Ruse and Vidin
- Romania: Drobeta Turnu Severin, Giurgiu, Galati, Braila, Tulcea and Constanta.





### Why the common strategy?

- Common waterway (navigability, capacities, infrastructure...)
- Common cargo flows
- Common supply chains (inter/mulit-modal connections, integration)
- Common market (hinterland and foreland)
- Common goals (development, rehabilitation, modernisation, capacity utilisation and optimisation, efficiency enhancement)
- Common problems and challenges (infrastructure, administration, financing...)
- Common supranational regulations (EU)



# Why now? (CEF 2 financing period 2021-2027)

Based on just a sample 19 ports - overall needs are much higher!

|         | Port project costs in MEUR |          |          |          |  |
|---------|----------------------------|----------|----------|----------|--|
| Country | Completed                  | On-going | Planned  | Total    |  |
| AT      | 72.65                      | 162.21   | 9.02     | 243.88   |  |
| SK      | 0.00                       | 7.67     | 414.34   | 422.01   |  |
| HU      | 13.47                      | 27.63    | 0.00     | 41.10    |  |
| HR      | 0.00                       | 31.90    | 25.77    | 57.67    |  |
| RS      | 0.00                       | 0.00     | 343,00   | 343.00   |  |
| RO      | 213.75                     | 259.88   | 4,699.98 | 5,173.60 |  |
| BG      | 2.70                       | 42.73    | 25.60    | 71.03    |  |
| Total   | 302.57                     | 532.02   | 5,517.70 | 6,352.30 |  |

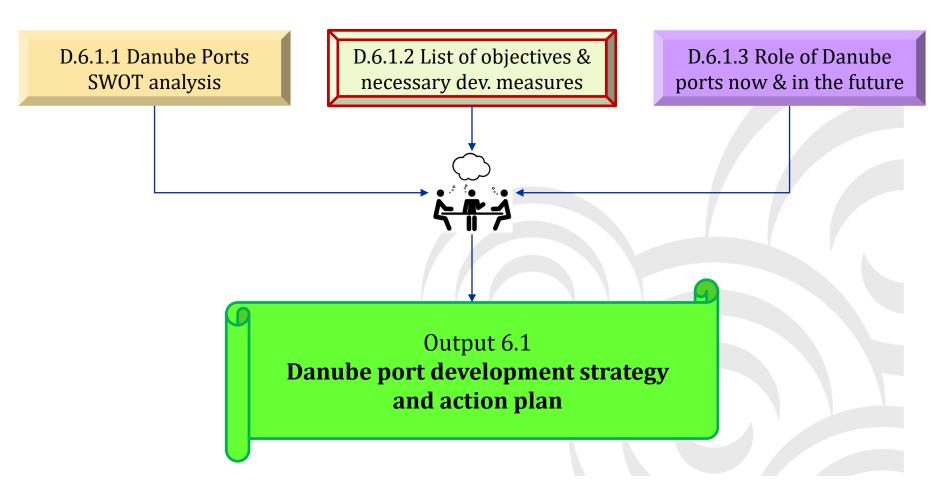


### Strategy step by step





## Studies as building blocks of the port development strategy



### **Inputs for the SWOT analysis**

#### **Internal factors**

#### **Strengths**

**Internal factors** 

Resources or capacities the port (or port industry) may use effectively to achieve its objectives

#### Weaknesses

Limitations, faults or defects in the port preventing it to achieve its objectives

Inputs for the **Strategy** 

#### **Opportunities**

Any favorable situations in the port's environment (hinterland, foreland, country, region, community...)

#### **Threats**

Negative sides

Any unfavorable situation in the port's environment that is potentially damaging to its current operations or development plans

#### **External factors**

#### **External factors**



### Feeding of the strategy inputs

Individual port SWOT analyses (21 ports)

National SWOT analyses of port industries of riparian countries Cumulative SWOT

Common SWOT analysis for the port industry of the entire Danube region

National port development strategies and action plans

Common (comprehensive)
port development strategy and
action plan for the port
industry of the entire Danube
region



# Common strengths and weaknesses (extract)

#### **Internal factors**

#### **Strengths**

- Connections with the maritime transport
- Experienced and flexible Port Operators and logistic competence
- Multimodal facilities
- Proactive management for promoting the development projects and applying the principle of partnership at the Port Community level
- Experience in demand driven development
- Good planning of inland ports development
- The availability of a wide range of ship/freight services
- Experience for development of projects and ongoing measures for ports development
- Qualified personnel
- Consolidated port management models (includes: Port management model; The use of corporatized port management model, which allows for development in accordance with market requirements)

#### Weaknesses

- Low capacity utilization of available facilities in ports
- Old infrastructure and superstructure in many ports; old handling equipment and many ports do not have equipment for container handling
- Needs for investments in the rail and road connections
- Lack of inventory of realistic development needs and plans
- Lack of long term port policies and port development strategies
- Unsatisfactory coordination between different modes of transport and lack of integrated transport systems;
- Lack of Port Community Systems (PCS)
- Insufficient lobbying for ports
- Lack of resources for maintenance and repair.
- Insufficient investment in port infrastructure and new handling technologies.



# Common opportunities and threats (extract)

## Danube Transnational Programme DAPhNE

#### **External factors**

#### **Opportunities**

#### • Introduction of businesses/industries in ports

- Existence of European funds available for the development of transport infrastructure
- Modal split shift
- New industrial clusters / Development of clusters to boost competitiveness
- Alternative fuels / Eco-footprint philosophy /Decarbonizing strategy
- Regional European policies regarding the Danube and Black Sea
- "Belt Road Initiative" new transport routes to/from Far East
- New markets (biomass, LNG, high & heavy, Ro-Ro, containers, etc.)
- Improving shipping conditions (Danube waterway, CEF projects)
- Exploitation of the opportunities for cooperation with the port of Constanta as a gate seaport for all Danube ports.
- Research and design of modern equipment for handling in ports and for container traffic
- Modern standards and technology for transhipment in Austria and Hungary as an opportunity for know-how transfer to other countries.
- Co-opetition between ports

#### Threats

- Problems with Danube navigability / hydrological conditions
- Occurrence of bottlenecks on the fairway (insufficient depths) or in the road / railway connections
- The direct competition of rail transport, as well as of the road transport
- Competition between ports
- Unstable market and demand for port services
- Low predictability for traffic demand and economic framework
- Bureaucracy
- Dislocation of heavy industry
- Emigration of industry / Decline in industrial production on the region
- Economic situation in the Eastern Europe and global economy
- Economic situation of the port operators and service providers
- Stricter environmental regulations for ports / Potential new cost of implementation environmental legislation,
- Insufficient investment in port infrastructure and new handling technologies
- Lack of labour supply



## Inputs for the strategy objectives and implementation measures (actions)

Basic input for the future port development strategy and action plan

SWOT-based design of SMART objectives

Objectives followed by multiple development/implementation measures (actions)

- <u>Specific</u> (simple, sensible, significant).
- <u>M</u>easurable (meaningful, motivating).
- <u>A</u>chievable (agreed, attainable).
- <u>R</u>elevant (reasonable, realistic and resourced, resultsbased).
- <u>T</u>ime bound (timebased, time limited, time/cost limited, timely, timesensitive).



# Identification of the strategy objectives – making use of the SWOT inputs

#### **DAPHNE**

|                                   | Opportunities (external, positive)   | Threats (external, negative)  |
|-----------------------------------|--|---|
|                                   | 01:<br>02:<br>03:  | T1:<br>T2:<br>T3:   |
| Strengths<br>(internal, positive) | On Strength-Opportunity strategies (objectives)  | Tn Strength-Threat strategies (objectives)  |
| S1:<br>S2:<br>S3:<br><br>Sn       | Which of the port industry strengths can be used to maximize the opportunities that were identified?                       | How can the port industry's strengths be used to minimize the identified threats?         |
| Weaknesses (internal, negative)   | Sx0y:  Weakness-Opportunity strategies (objectives)  | SxTy: Weakness-Threat strategies (objectives)   |
| W1:<br>W2:<br>W3:<br><br>Wn       | Which actions can be taken to minimize the port industry's weaknesses using the opportunities that were identified?  WxOy: | How can the port industry's weaknesses be minimized in order to avoid the threats?  WxTy: |



#### From diagnostics to healing treatment

Danube Transnational Programme

**DAPHNE** 

**Making use of SWOT** 

What we want? (Objective)

How do we do it? (Measure)

S1: Dense network of ports and transport infrastructure – ports, roads, railways in the region O9: "Belt Road Initiative" – new transport routes to/from Far East

S1 + 09 =
Connect Danube ports
with "Belt Road Initiative"

- Investigate options of connecting the Danube ports to the China–Central Asia–West Asia Corridor will run from Western China to Turkey (or other branches including the Port of Constanta as the Danube regionhub)
- Present the possibilities of Danube ports to the relevant Chinese partners

W1: Low capacity utilization of available facilities in ports O3: Taking advantage of free capacity

W1 + 03 = Create redevelopment policies to optimize the facilities and available space.

- Diagnose and locate overcapacities and optimize available space for diverse port and logistic functions
- Optimize and/or modernize handling equipment
- Investigate options for land recovery (e.g. unused port basins)



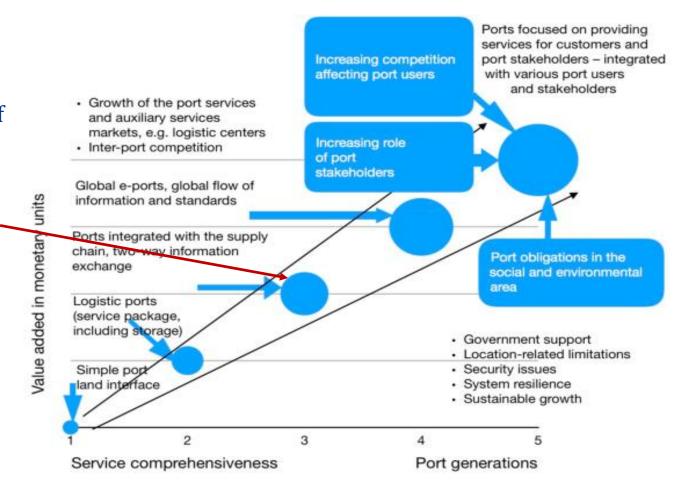
## Mirror, mirror on the wall, who's the prettiest of us all...

And where are we?

(On the average)

If we are very, very self –generous and optimistic...

We are about here...



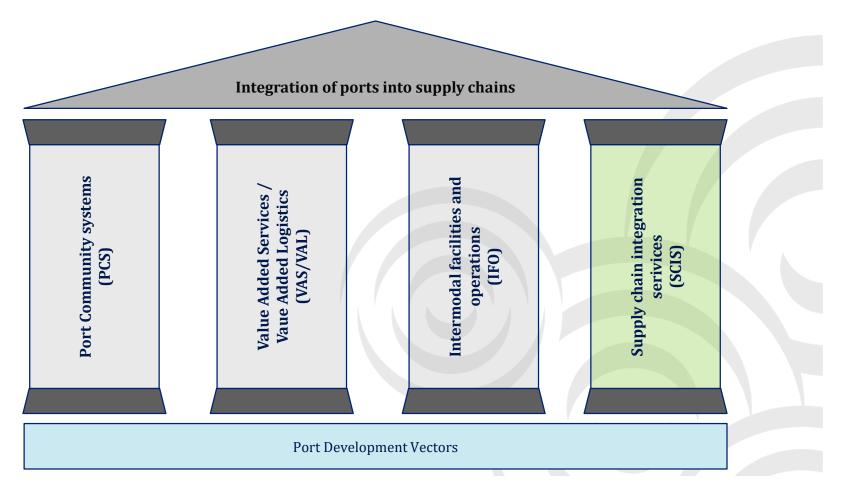


# Well then, so what should be the new roles of the Danube region ports?

- Multimodal hubs with varying levels of intermodal facilities, serving at least as the basic interface between the various transport modes.
- Port-centric and sustainable hybrid logistic zones attracting port-related services, and, wherever possible, industrial facilities for the manufacturing, processing and logistic industries.
- Convenient regional business platforms for the trade and industry. Danube region ports
  have a vast but heavily underused potential to be the focal points of the regional
  economy.
- Specialised centres for handling of specific cargoes, including not just ship-to-shore transfer facilities and services, but also a full spectrum of logistic and industrial activities for specific cargoes.
- Engines of growth through spatial concentration of cargo flows, services, businesses, manufacturing, processing and distribution processes
- Facilitators of supply chains (and integration into supply chains)



# **New trends – integration of ports into supply chains**





# What are the supply chains integration services?

- Activities, processes and procedures *beyond the port area* which the port (port authority and/or port operator) plans, organizes and monitors in supply chains
- Participation of ports in rail/road shuttle lines to/from hinterland
- Participation in cargo consolidation and distribution activities in the hinterland
- Establishing of dry cargo terminals deep inland for the above purposes (for larger ports)
- Provision of logistic and forwarding services beyond port areas, for the cargo flowing in/out ports
- Organisation of collection of empty containers in the hinterland



# Resulting objective and measures (actions)

| Country        | #Objectives | #Measures |
|----------------|-------------|-----------|
| Austria        | 8           | 16        |
| Slovakia       | 8           | 11        |
| Hungary        | 15          | 25        |
| Croatia        | 6           | 19        |
| Serbia         | 7           | 21        |
| Romania        | 14          | 22        |
| Bulgaria       | 9           | 17        |
| Total national | 67          | 132       |
| Common         | 20          | 41        |
| Overall total  | 87          | 172       |



# Sample strategic objectives and implementation measures (actions)

| Strategic objectives (WHAT?)                         | Necessary development measures (HOW?)  |
|--|--|
| Increase competitive position in respect to road     | Facilitate development of hybrid logistic zones in or adjacent to ports          |
| and rail by attracting new markets and fostering     |  |
| multimodality  |  |
| (SWOT Ref.: W1303010)                                |  |
| Attract industrial facilities in or adjacent to port | Create joint commissions of port authorities with spatial planning institutions  |
| areas  |  |
| (SWOT Ref.: S90305)                                  |  |
| Focus on multimodality (by offering a wide           | Attract road and rail operators to use ports as their hubs by incentivizing them |
| range of road and rail services in port areas)       | or through attractive pricing schemes  |
| (SWOT Ref.: S6S10T3)                                 | Make infrastructure adjustments facilitating intermodal operations               |
| Prepare mitigation measures to combat market         | Diversify services and focus on multipurpose terminals for non-sensitive goods   |
| volatility, seasonal effects and unpredictability    | Develop a concept of "flexible inland port"                                      |
| (SWOT Ref.: S8T5T6)                                  | Develop a concept of "flexible" concessions                                      |
|  | Explore advantages of mobile cranes instead of quay-track mounted cranes         |
| Optimize port development and capacity               | Investigate and assess the impact of different pricing systems as tools for port |
| through pricing                                      | and hinterland development and capacity optimisation                             |
| (SWOT Ref.: W1T3)                                    |  |
| Rehabilitation of port facilities (in order to       | Reconstruct sloped quay walls into vertical ones                                 |
| lower the logistic costs and keep the industries     | Facilitate the unused "second row" land for industrial and/or logistic use       |
| in or near ports)                                    |  |
| (SWOT Ref.: W3T8T9)                                  |  |





