

# EUSDR PA1a Kick-Off Event and 12<sup>th</sup> Steering Group Meeting

Vienna | 11 May 2017



# P1a Kick-Off: welcome and introduction

Austrian and Romanian Priority Area Coordinators

# Statement of Ms Désirée Oen

Policy Advisor to the European Coordinator Rhine-Danube  
/ DG MOVE



***12th meeting of the EU Danube Region Strategy of Priority  
Area 1a (inland waterways)  
11 May 2017 - Vienna***

# **Developments in the EU Inland Navigation Policy**

**Désirée OEN**  
**Transport Networks Unit**

**European Commission - DG MOVE**



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# Inland Waterways

Small, but crucial mode for the EU:

- 4.5% of freight
- 6.7% of inland transport

21 out of 28 Member States have inland waterways, of which 13 have interconnected waterway networks.





# EU action in the inland navigation sector

- I. Promotion of IWWs in the context of the Trans-European Transport Networks and Connecting Europe Facility; **the "Rhine-Danube Corridor"**
- II. Establishment of a regulatory framework for inland navigation based on EU internal market principles (fair level playing field, open market access, respect of social and environmental rules); promotion of IWWs, **the "NAIADES II Action Plan"**
- III. Cooperation with International Institutions (e.g. River Commissions) and Neighbouring Countries, promoting convergence to internationally agreed standards. **Cooperation also in the broader scope of the EU Danube Strategy**



# Inland Navigation in the EU Danube Strategy

## Green transport mode

- **with the potential to contribute to sustainable economic growth and revitalisation of cities and regions**
- **With low noise levels that make it convenient for freight transport in the densely populated areas**
- **With IWW modern infrastructures to contribute to the environmental recovery of rivers, prevention of flooding and natural disaster and quality of life of citizens**





# Danube River: the core element of the EU Rhine-Danube Core Network Corridor

- **Rhine-Danube Corridor:** *"with the Main and Danube waterway as its backbone, connects the central regions around Strasbourg and Frankfurt via Southern Germany to Vienna, Bratislava, Budapest and finally the Black Sea, with an important branch from Munich to Prague, Zilina, Kosice and the Ukrainian border"*
- **Economic significance:** *"the corridor plays a crucial role for the Internal Market, connecting Europe's industrial heartland with the Black Sea region serving the economic development needs of a macro-region with extremely high growth potential"*





# Rhine-Danube Core Network Corridor





## Main outputs so far

- **European Coordinator for the Rhine-Danube Corridor, Ms Karla Peijs**
- **Corridor study** with detailed analysis of the corridor, including a multi-modal transport market study
- **TENtec maps** illustrating compliance of corridor infrastructure with TEN-T standards (TEN-T Days 2016 Rotterdam)
- **List of projects** planned to be implemented along the corridor by 2030

...which led to:

- A **corridor work plan** presented by the European Coordinator and unanimously approved by all Member States in May 2015, and updated in June 2016 (next update 2018)



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## Corridor Work Plan: Agreed Priorities

- Improve **compliance with TEN-T requirements**, mostly for rail and IWT
- Implement the large **rail cross-border projects**
- Invest in **ERTMS** along the corridor (currently 12% rate of deployment)
- Reduce **external effects of transport**, in particular rail noise pollution
- Promote **innovative solutions** (RIS, ITS, deployment of LNG infrastructure)
- Finally, **maintain existing infrastructure in good condition**, in particular road and inland waterways

# Danube River contribution to the Corridor (initial assessment)

- Freight transport on the Danube is only 10%-20% of that on the Rhine
- However, the river basin has much potential for sustainable inland navigation, and the river is central
- Improving water management will help to improve navigation conditions, address risks of flooding and achieve also good ecological status
- Physical capacity of the Danube and its tributaries should be improved, and existing bottlenecks removed, to ensure the proper level of navigability





# Danube River contribution to the Corridor (initial assessment)

- There is need for greater multi-modality and better interconnection with other river basins
- Improvements are also required in management, equipment and availability of qualified staff.
- We also need to address environmental issues with an smart approach: "good navigation status" and "good ecological status"
- Road, rail and air infrastructure is often inefficient or simply missing, especially cross-border connections.



## EU Danube Strategy: concrete IWWs goals

- “Increase the cargo transport on the river by 20% by 2020 compared to 2010”.
- “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”
- “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”.





## EU Danube Strategy: concrete IWWs goals

- “Implement harmonized River Information Services (RIS) on the Danube and its navigable tributaries; prepare the next stage to the Digital Inland Navigation Area (DINA)”
- “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”



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# Important IWW legislative developments in 2016

- **Approval and entry into force in October 2016 of the new EU Directive 1629/2016 on Technical Standards of Inland Navigation Vessels;**
  - The new rules are intended to improve legal certainty, avoid differing safety levels, and reduce administrative burdens for the sector.
  - Rules based on best technological expertise (CESNI)
  - They will also help to avoid distorting competition and make it easier and quicker to introduce innovations across Europe.
  - Member States have to adopt now implementing measures in their national laws;
  - Industry has to take account and adapt to technological progress (safety standards, innovation, engine emissions....)







# Important IWW legislative developments in 2016

- **Advanced state of discussion by European Parliament and Council of the **new Directive on IWT Professional Qualifications**:**

- It sets up a common system of certificates for the entire crew, from apprentices to boat-masters.
- Holders of such a certificate will be able to practice their profession on inland waterways across Europe
- To ensure a high level of safety, the initiative bases the recognition of the professional qualifications on the competences, which are needed for the operation of the vessels
- The new Directive could come into force early 2017. EU Member States will proceed then to approve the implementing measures under national law by mid-2018



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# Mixed Environment Transport External Expert Team (METEET)

- **Support to cooperation between ICPDR and Danube Commission foreseen in the grant agreement**
- **Important to promote conciliation of navigation and environmental requirements: good navigation status and good ecological status (WFD)**
- **Needed in terms of "capacity building": knowledge of applicable environmental rules, identification of best practices, creation of expertise and know-how for all stakeholders involved**
- **Starts as a "pilot project", for 1-year duration: important to show the added value of the initiative**
- **DC, ICPDR and partners to structure their cooperation (as agreed in the MoU); DC Sec remains in control of administrative procedures, in line with grant agreement conditions**
- **European Commission, DGs MOVE, REGIO and ENV to contribute to the capacity building effort**





## Good navigation status

- Substantiate the concept of "**Good Navigation Status**" referred to in article 15 paragraph 3(b) of Regulation 1315/2013:
- *"Rivers, canals and lakes are maintained so as to preserve Good Navigation Status while respecting the applicable environmental law"*
- Article 38: For inland navigation infrastructure within the **TEN-T core network**, **Good Navigation Status has to be achieved (and thereafter preserved) by 31 December 2030**
- Study on support measures for the implementation of the TEN-T core network related to seaports, inland ports and inland waterway transport  
Jan 2016 – Dec 2017, cost 500 k €, workshops, reports
- Main challenge is to develop a broadly accepted concept, most likely with goal based standards and a common methodology that allows for a sufficient level of differentiation to the various corridors and specific demand requirements and transport characteristics



# Pilot implementation of Master Plan

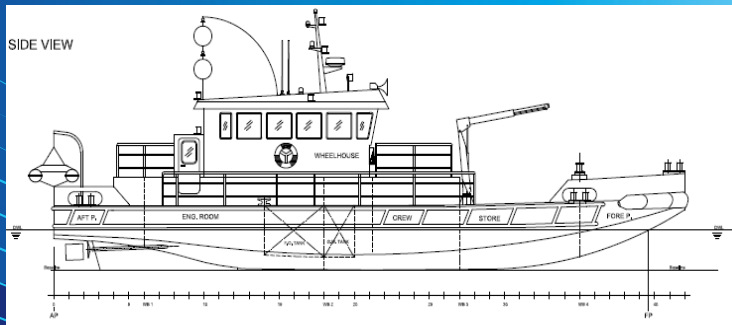
**5 surveying vessels**



**37 gauging stations**



**4 marking vessels**

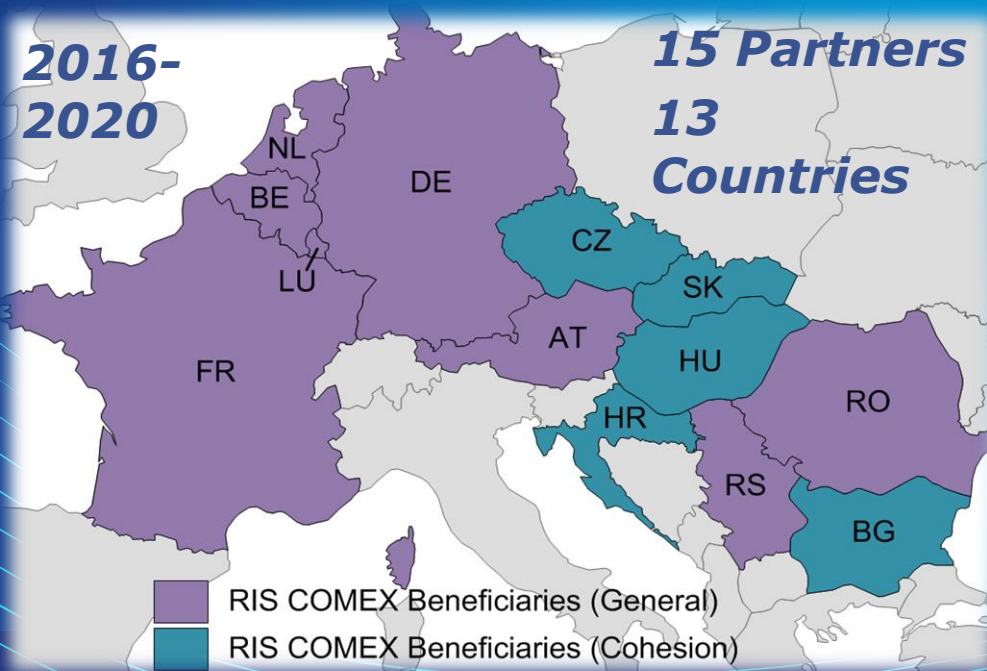


**Harmonised pilot operations in order to gain experience for full implementation of the Master Plan**



## RIS Corridor Management Execution

**Vision: Establish stable frameworks for sustainable operation of RIS enabled Corridor Management within Inland navigation**



- ***Strong cooperation with inland navigation Stakeholders***
- ***Definition and implementation of Corridor Services***
- ***Transfer of Corridor Services into sustainable operation***

## Final remarks: need to unlock the "hidden market potential of the Danube... (1)

- Large loading capacity compared to trucks and railway wagons. Better environmental performance
- No time restrictions (no weekend driving ban, traffic jams, accidents)
- No costly transit permits in international transport
- No complex route planning (traffic lights, tunnels, bridges)
- Sustainable transport mode: EU supports achievement of "Good Navigation Status" and "Good Ecological Status" (TEN-T Guidelines, Water Framework Directive)







## ...and because... (2)

- The Danube has to become again an "engine of growth" for all Riparian countries; it has significant impact for regional development, for small and medium enterprises and for a large cluster of activities (yards, ports, maintenance, cargo-handling, tourism...)
- With a relatively modest amount of investments it is possible to recover the potential of the Danube as hotbed for river activities providing sustainable transport solutions
- It has promising markets: high and heavy cargoes, renewable resources and recycling products
- There are reliable partners in Danube navigation sector with many years of experience in transport, trans-shipment and storage of these products
- There is a high loading capacity of Danube vessels and high density of Danube ports with efficient handling and storage facilities
- The Danube has a positive socio-economic impact for people, villages and cities all over the Danube region





**Thank you for your attention**

**desiree.oen @ ec.europa.eu**



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# PA1a project presentation and Work Plan

Gert-Jan Muilerman

# Targets of PA1a

- **Increase the cargo transport on the river by 20% by 2020**
  - 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
  - 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
  - Implement **harmonised River Information Services (RIS)** on the Danube and its navigable tributaries and ensure the international exchange of RIS data preferably by 2020
  - 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

# Summary of PA1a Work Plan 2017-2019

## WP2 Policy development

- **Monitoring policy landscape (RoMT)**
  - Policy monitoring report
- **Policy implications and recommendations (VIA)**
  - Policy input papers
- **Outputs:**
  - Policy recommendation on administrative barriers
  - Policy recommendation on fairway maintenance
  - Strategy on fleet modernisation



# WP3 Cooperation and Coordination

- **Cooperation with EU institutions and PA1a stakeholders (VIA)**
  - Participation in coordination meetings organised by DG REGIO, DTP-JS, centrally managed European programmes or relevant EUSDR stakeholders
- **Cooperation with other PAs (RoMT)**
  - Reports on coordination activities with other PAs

# WP4 EUSDR strategic projects

- **Monitoring of projects (RoMT)**
  - Online project database
- **Support to projects (VIA)**
  - Gap analysis report to define need for further project development
  - Project support report
- **Outputs:**
  - PA1a supported projects

# PA1a Cooperation with EU institutions, PA1a stakeholders and other PAs

## Working Structures

# Working Groups



- **Scope:** Stakeholders contribution on different actions/documents for PA1a implementation
- **Meetings:** 2x per year
- **Main topics:**
  - Waterway infrastructure & management
  - Ports & sustainable freight transport
  - Fleet modernisation
  - River Information Services
  - Education & jobs
  - Administrative processes

# Steering Group

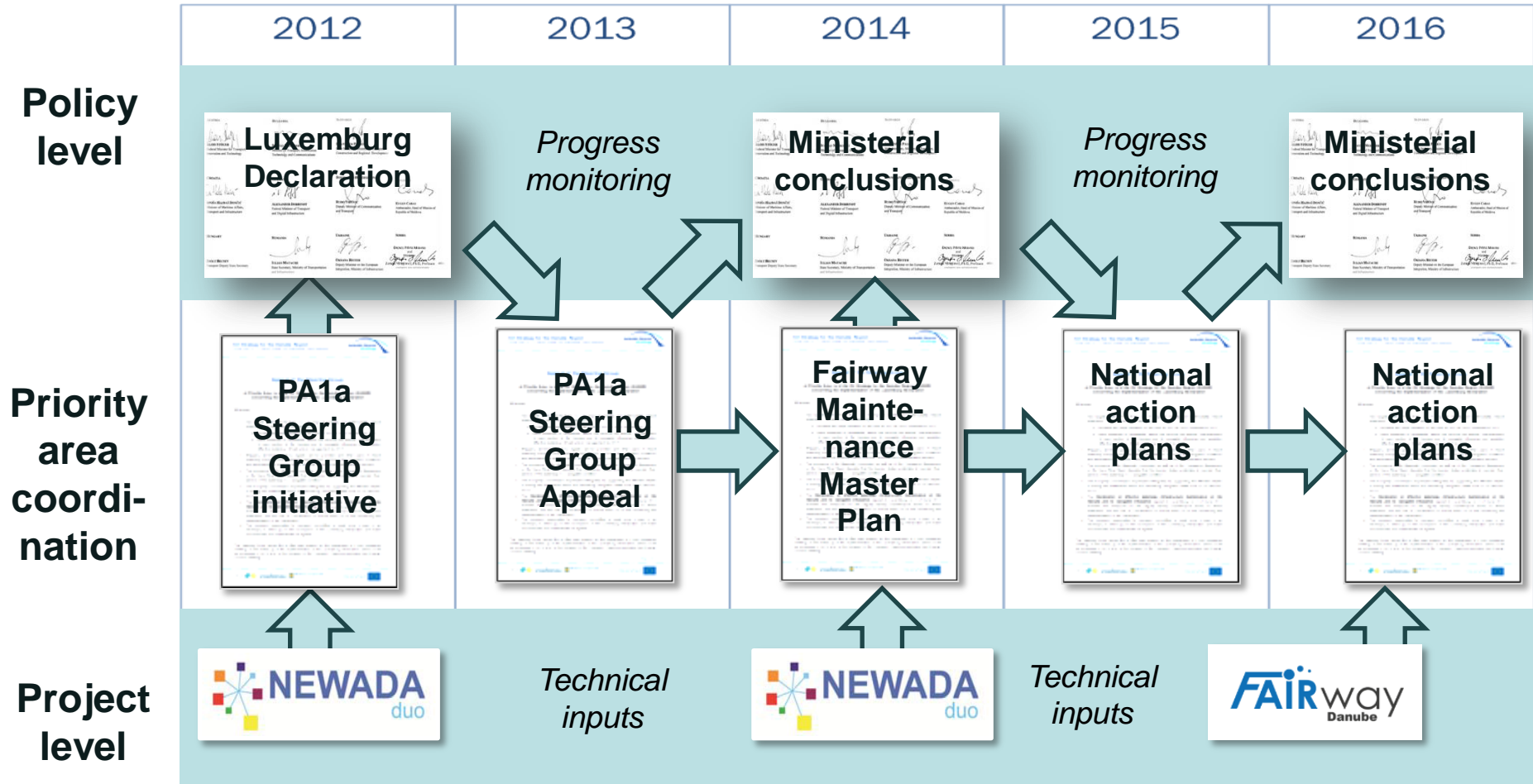


- **Scope:** support for PACs on implementing PA1a activities
- **Meetings:** 2x per year
- **Decisions on:**
  - Updating the targets and action plan
  - Approving Progress reports
  - Release of policy input papers
  - Projects labelling and issuing Letters of Recommendations
  - Monitoring Working Group activities:
    1. Waterway infrastructure & management
    2. Ports & sustainable freight transport
    3. Fleet modernisation
    4. River Information Services
    5. Education & jobs
    6. Administrative processes

# PA1a Policy-Projects connection



# Successful interplay between policy and projects



# Success factors for our coordination work

- Involve stakeholders that have a genuine interest in our focus themes
- Organize a pool of implementation projects to reach the targets
- Establish a close interconnection between policy and project level
- Close coordination with involved DGs of the Commission (REGIO, MOVE, ENV)

# PA1a coordinators



**Austria**

**bm**  = Coordinator

**viadonau** = Technical  
Secretariat

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# Your feedback

- Do the PA1a working group themes match your national policy priorities?
- Are there any other themes that you consider as important for the achievement of the the PA1a targets?

# Introduction and adoption of today's agenda

Gert-Jan Muilerman



# Waterway infrastructure and management

- Status of Fairway Rehabilitation and Maintenance Plan

*Viktoria Weissenburger, viadonau*

# National Action Plans – Update May 2017

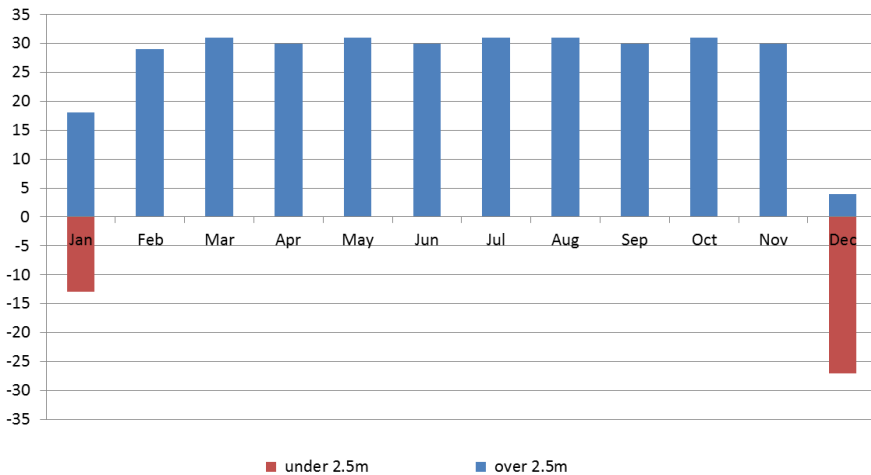
- **EUSDR PA1a** developed first version of the National Action Plans (called national roadmaps) based on the Fairway Rehabilitation and Maintenance Master Plan as asked for in the Ministerial Conclusions (Dec 2014)
- **Status and outlook** on:
  - critical locations/sections
  - hydrological conditions
  - rehabilitation and maintenance activities
  - environmental impacts
  - budget needs
- **Updates** twice per year (May and October)



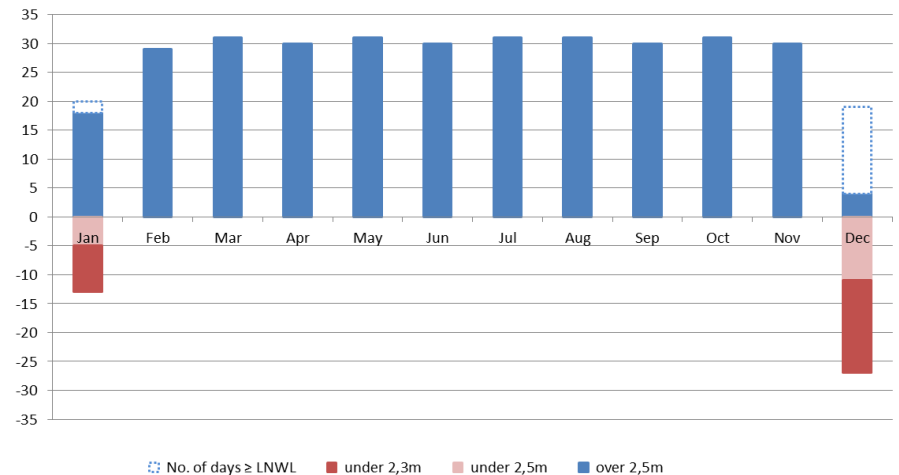
- **May update:**  
all riparian states
- **October update:**  
only FAIRway Danube consortium

# Austria

Available fairway depths and water level information (in days),  
East of Vienna



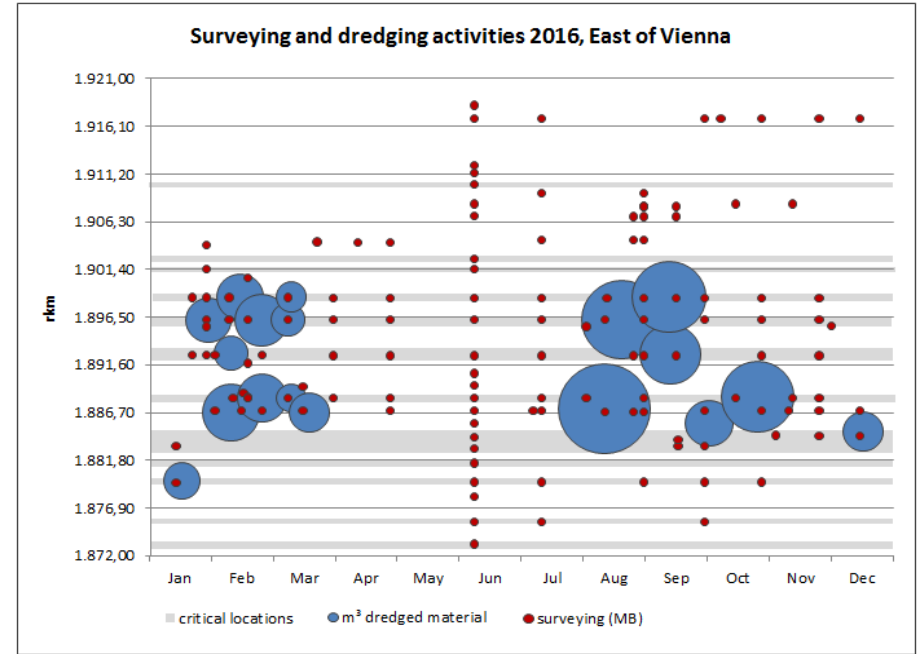
Available fairway depths and water level information (in days),  
East of Vienna



Fairway availability in relation to the hydrological conditions

# Austria

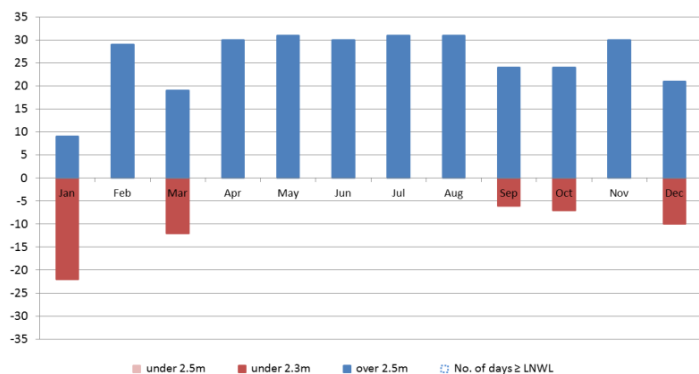
River-km (from-to)	Frequency of surveying	Type of survey (single-/multi-beam)
<i>Free-flowing sections:</i>		
1921.00 to 1872.70	February + March September + October	Single-beam + multi-beam Single-beam
1921.00 to 1872.70*	June	Single-beam + multi-beam
2038.00 to 1997.30	March + April October + November	Single-beam Single-beam
2038.00 to 1997.30*	June	Single-beam + multi-beam
<i>Shallow section monitoring on entire Austrian stretch:</i>		
2223.40 to 2096.02	Monthly	Single-beam
2094.21 to 1949.57	Monthly	Single-beam
1948.88 to 1872.70	Monthly	Single-beam
<i>Sections in reservoirs of river power plants:</i>		
2223.20 to 2203.40	January	Single-beam
2146.60 to 2119.70	January	Single-beam
2060.10 to 2038.50	May	Multi-beam
1998.00 to 1980.50	May	Single-beam
2162.60 to 2147.40	July	Multi-beam
1979.80 to 1949.40	July	Single-beam



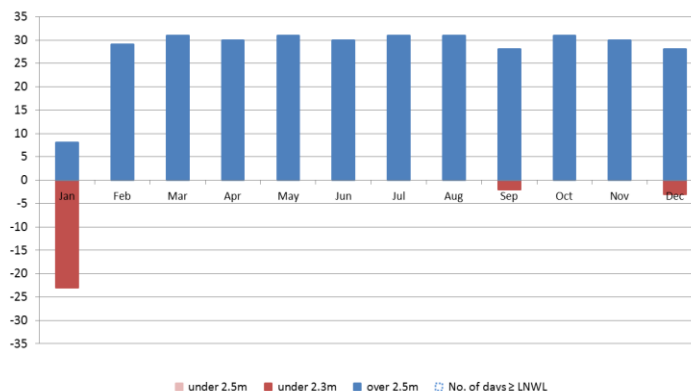


# Slovakia

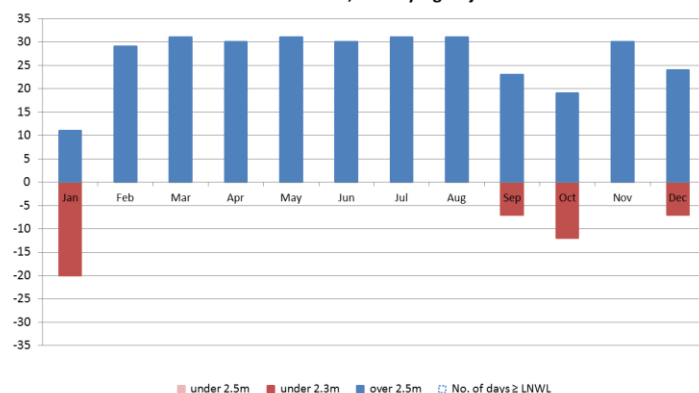
Available fairway depths and water level information  
(in days), rkm 1880 - 1863



Available fairway depths and water level information (in days),  
rkm 1810 - 1785

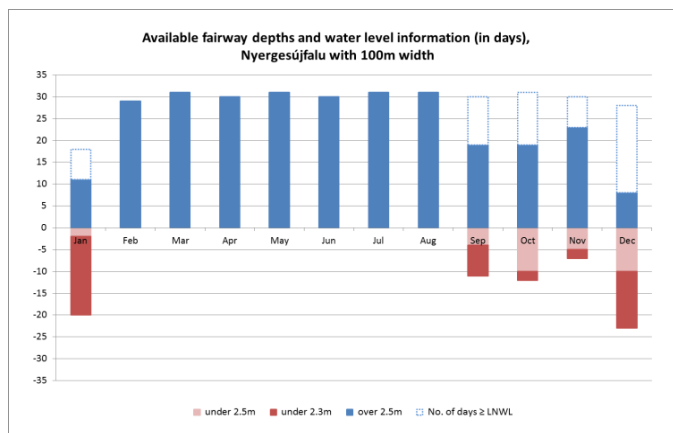


Available fairway depths and water level information (in days),  
rkm 1740 - 1710, incl. Nyergesújfalu

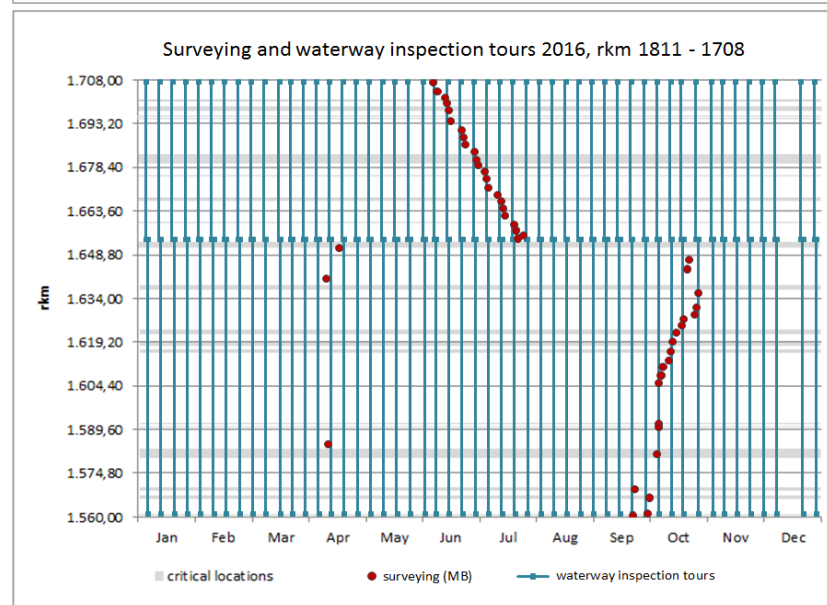
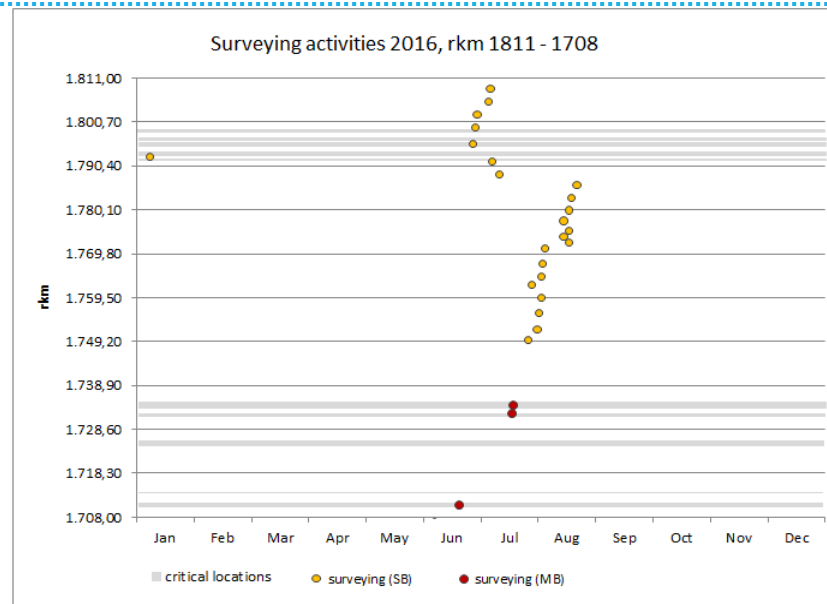
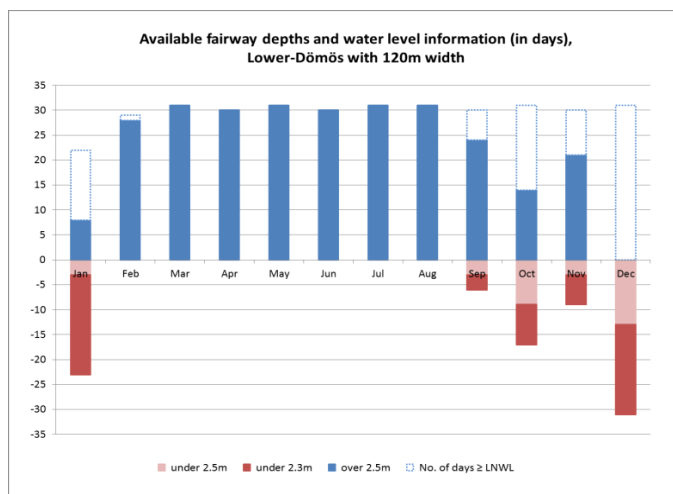


# Hungary

rkm (1811-1708) - ÉDUVIZIG

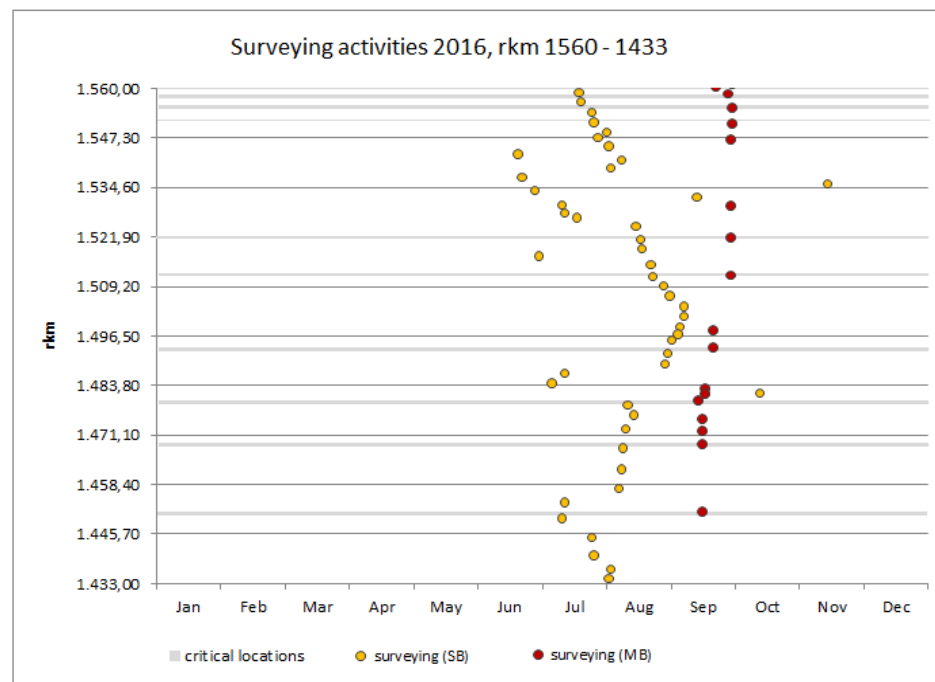
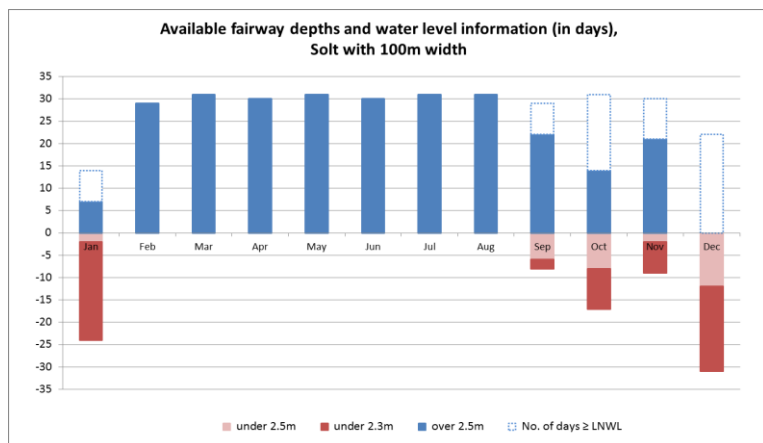


rkm (1708-1560) - KDVVIZIG



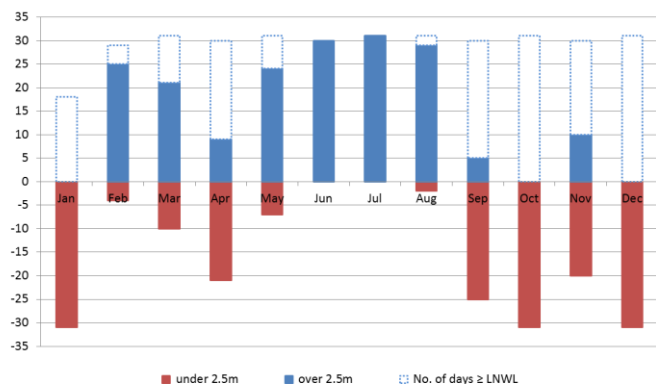
# Hungary

rkm (1560-1433) - ADUVIZIG

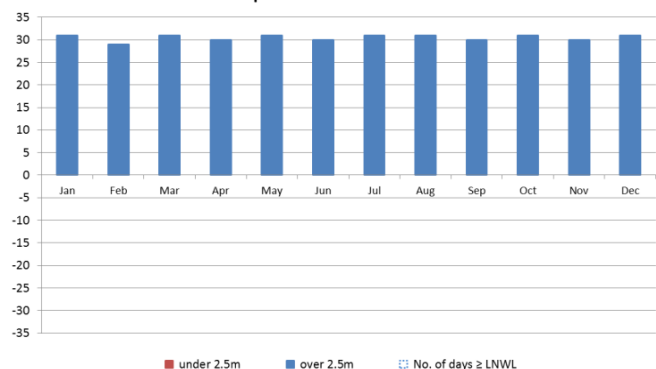


# Croatia

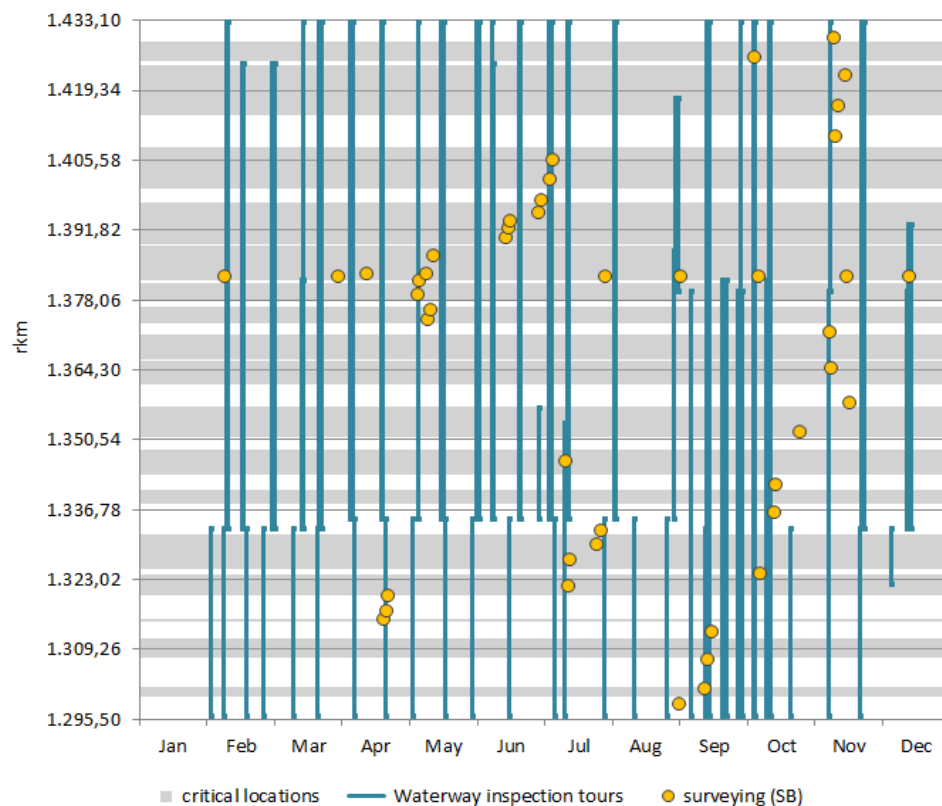
Available fairway depths and water level information (in days),  
Apatin with 120m width



Available fairway depths and water level information (in days),  
Apatin with 100m width

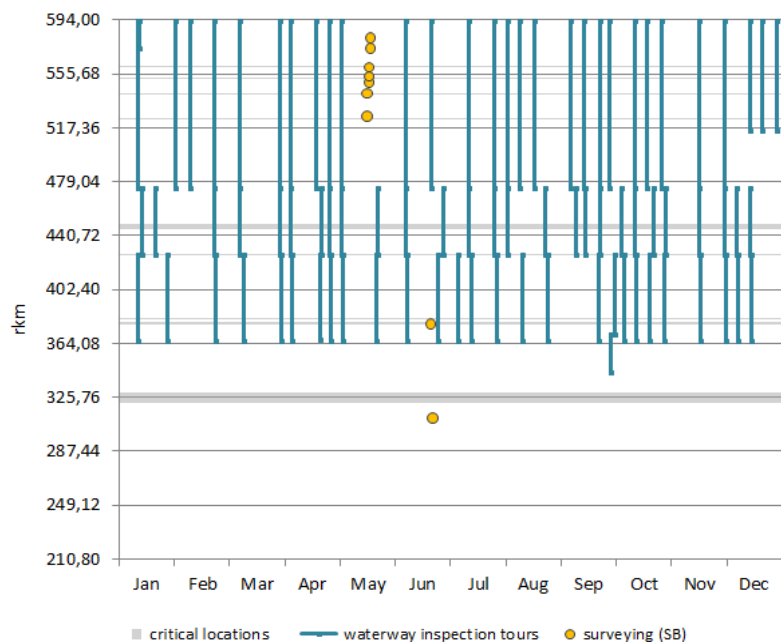


Surveying and waterway inspection tours 2016, rkm 1433.1 - 1295.5

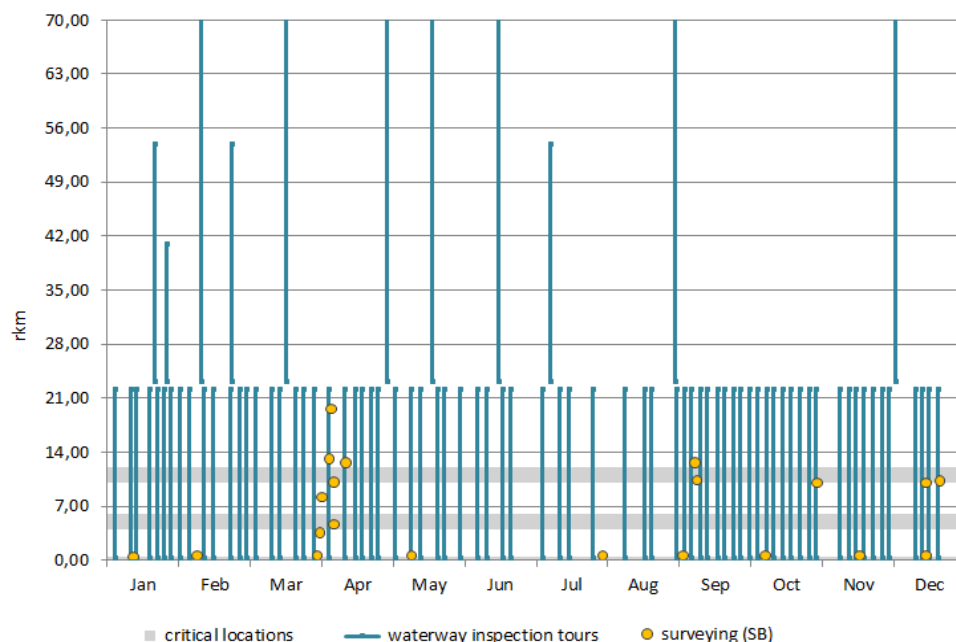


# Croatia

Surveying and waterway inspection tours 2016, Sava

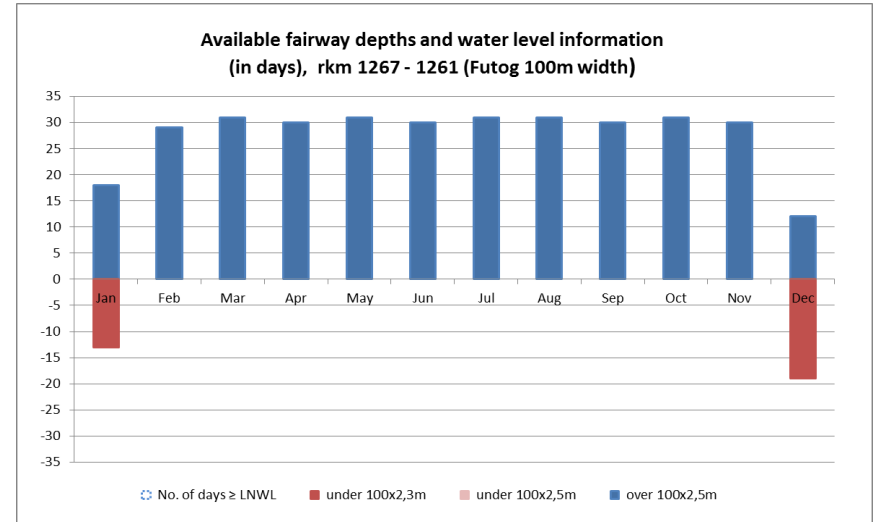
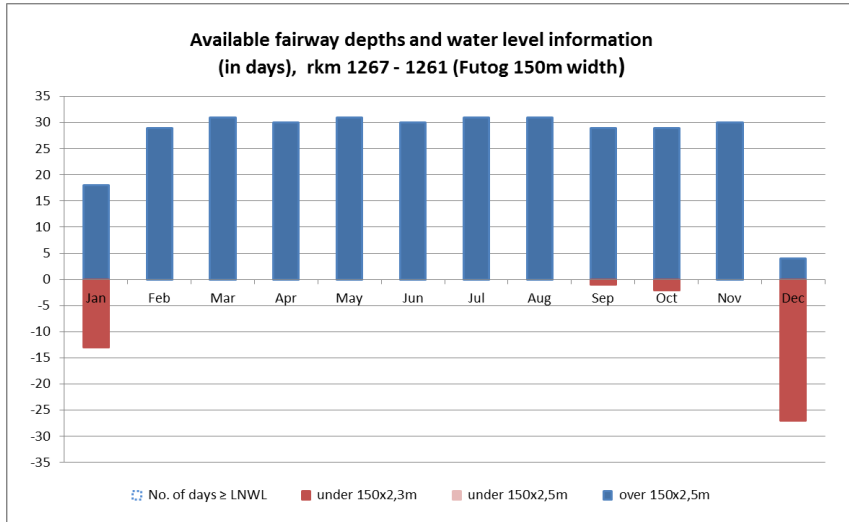


Surveying and waterway inspection tours 2016, Drava





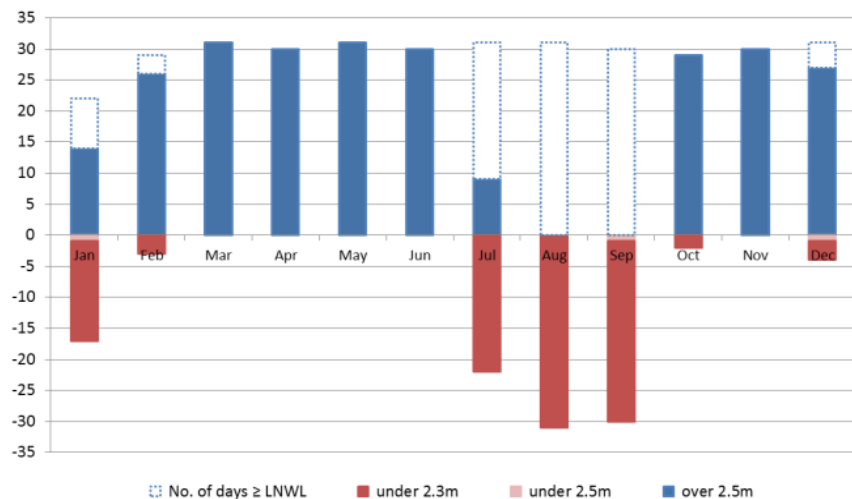
# Serbia



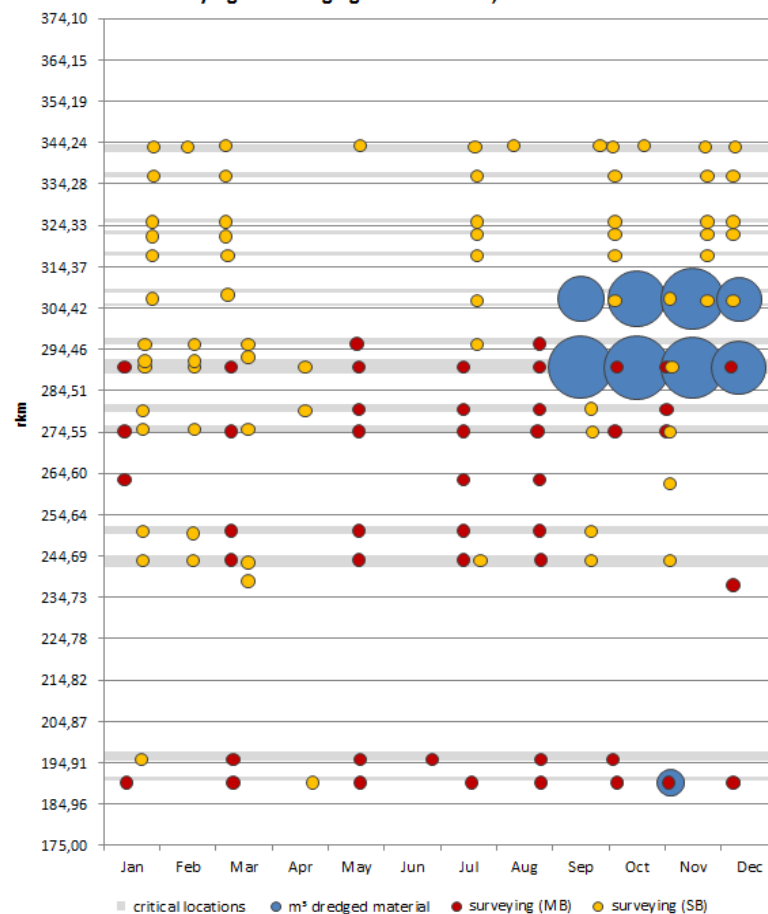
- **Surveying:** whole stretch with single-beam equipment (200m cross-profiles)
- **Relocation:** reduction of width at Futog
- No dredging activities

# Romania (AFDJ)

**Available fairway depths and water level information  
(in days), rkm 309-308 (Cochirleni)**

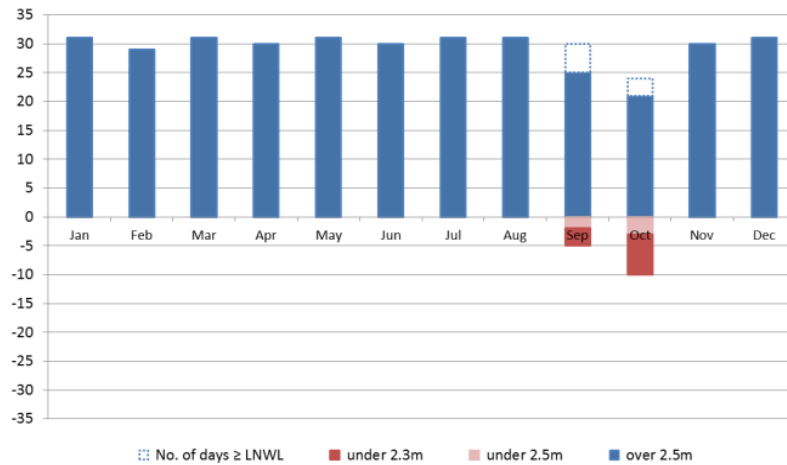


**Surveying and dredging activities 2016, rkm 374.10 - 175.00**

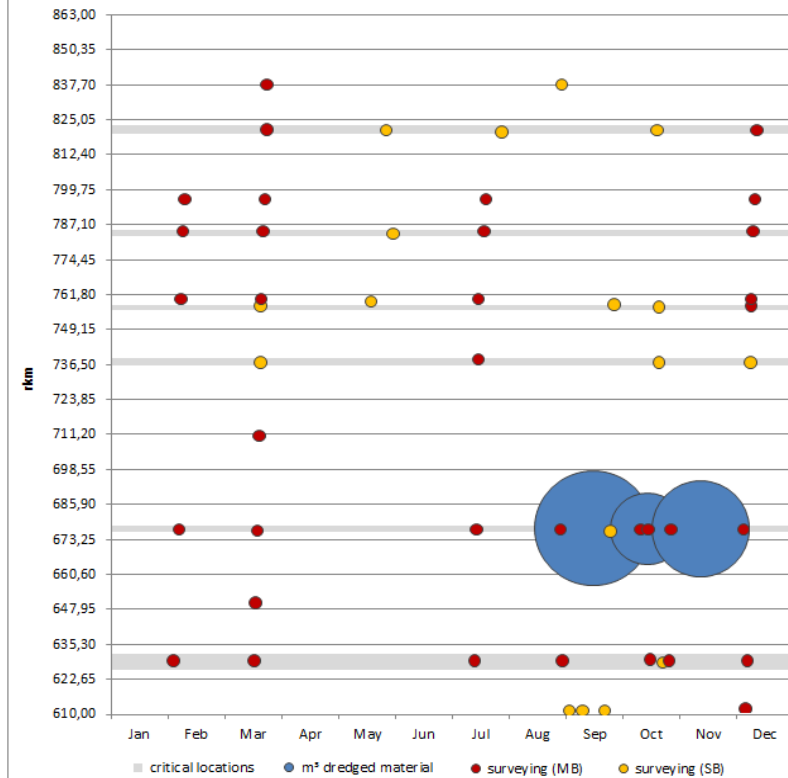


# Romania (AFDJ)

Available fairway depths and water level information  
(in days), rkm 678-676 (Bechet)

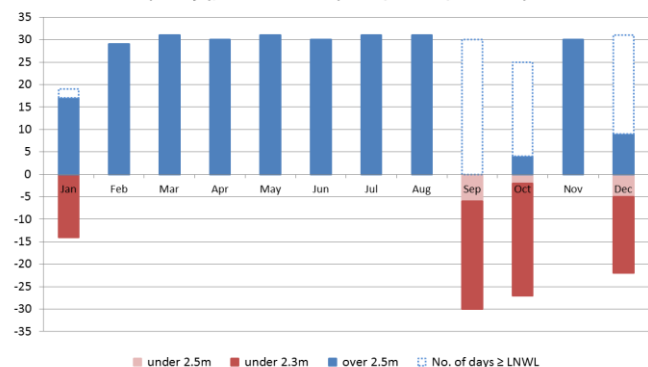


Surveying and dredging activities 2016, rkm 863.00 - 610.00

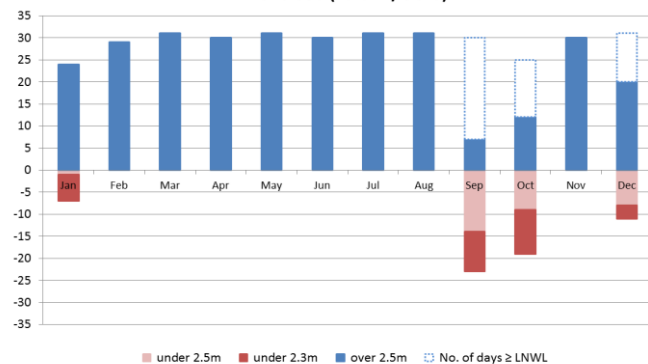


# Bulgaria

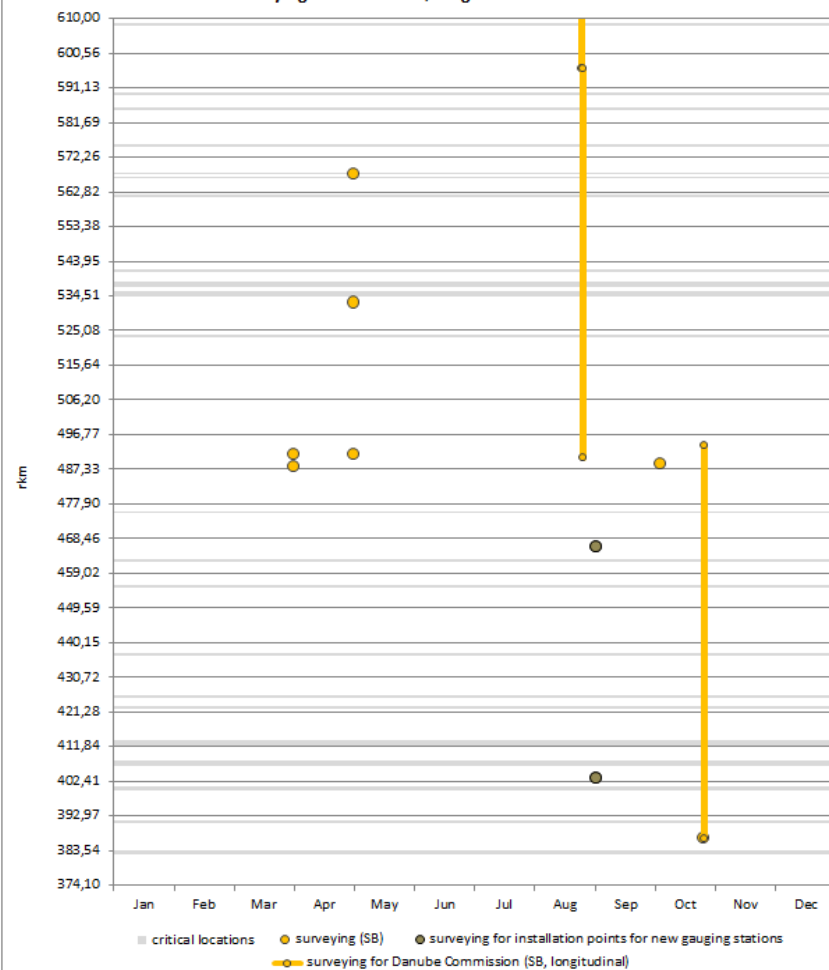
Available fairway depths and water level information  
(in days), rkm 568 - 561 (Milka/Belene/Coandur)



Available fairway depths and water level information (in days),  
rkm 548-536 (Vardim/Giska)

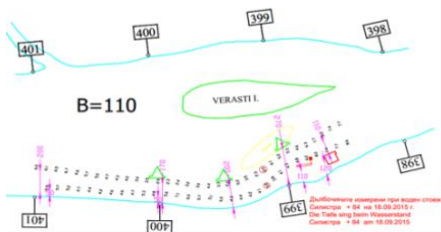


Surveying activities 2016, Bulgarian stretch

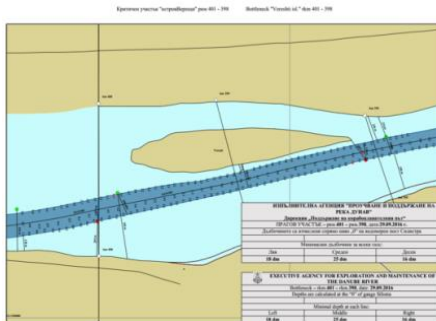


# Bulgaria

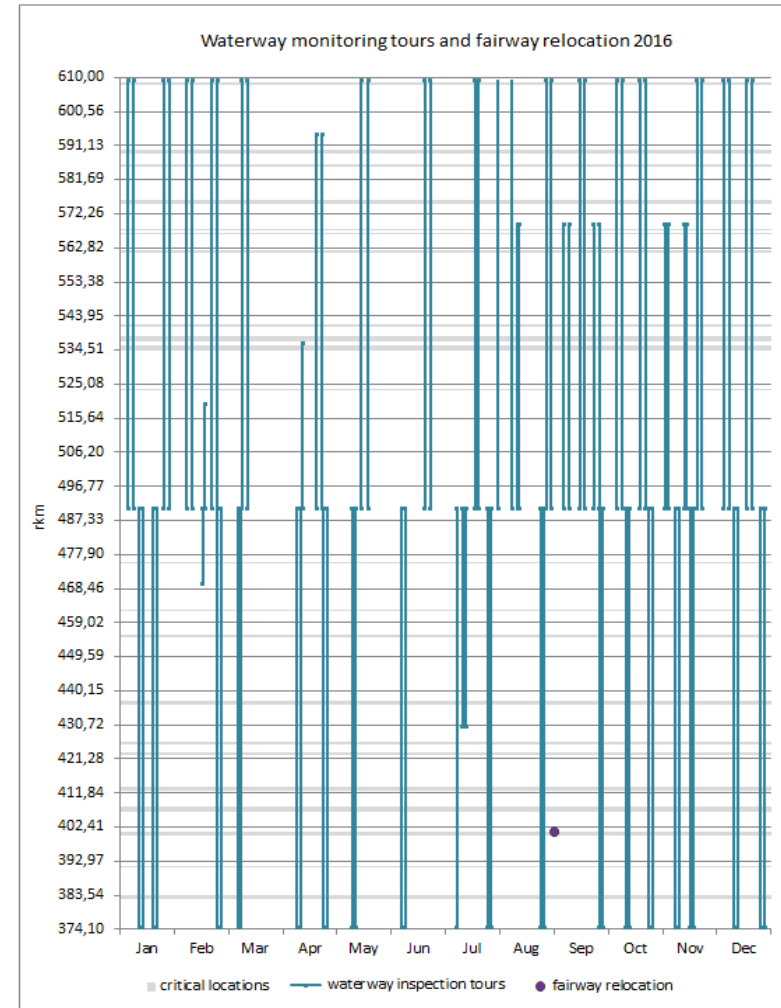
Прагов участък км. 401.000-398.000  
Schwellestelle km. 401.000-398.000



Fairway trajectory 2015



Fairway trajectory 2016



# Next steps

- **Consolidation of partner inputs**
- **National Action Plan Update will be provided for Approval by the EUSDR Steering Group in June**



# Waterway infrastructure and management

- Summary of concept „Good Navigation Status“

*Gert-Jan Muilerman, viadonau*

# Waterway infrastructure and management

- FAST Danube + SWIM project

*Romeo Soare, AFDJ*



## ***FAST DANUBE***

***Technical Assistance for Revising and Complementing the Feasibility Study***

***Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian Common Sector of the Danube and Complementary Studies***



Co-financed by the European Union  
Connecting Europe Facility



Administrația Fluvială a Dunării de Jos R.A. Galați

# FAST DANUBE

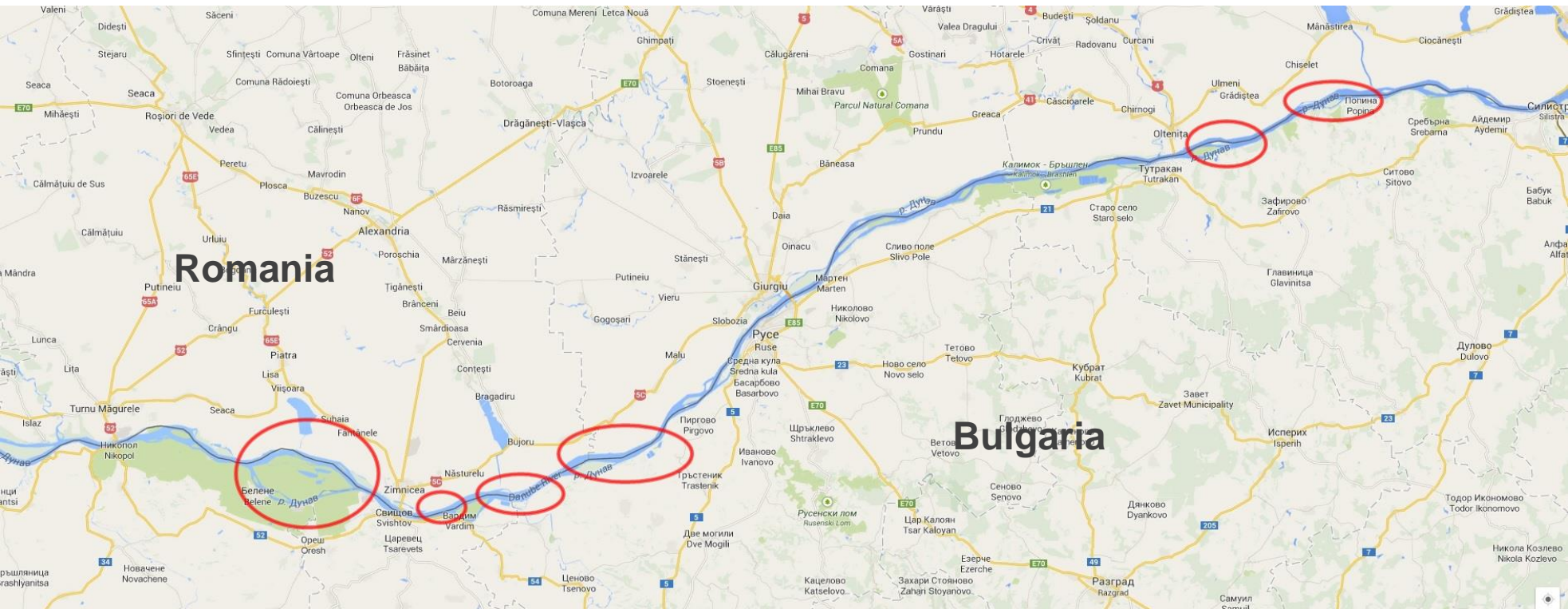
→ Current Status of the project

Romeo SOARE  
11.05.2017, Vienna



# Basic Project information

- Project number: **2014-EU-TMC-0297-S**
- Budget: **5.252.000 euro**
- Period: **11.2014 – 12.2019**
- Partners: **RO – AFDJ (leader), BG – EAEMDR;**
- Contract: **07.03.2017, Halcrow Romania**

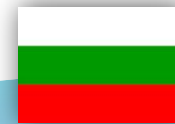


**Critical locations map**

**rkm 375 – rkm 610**



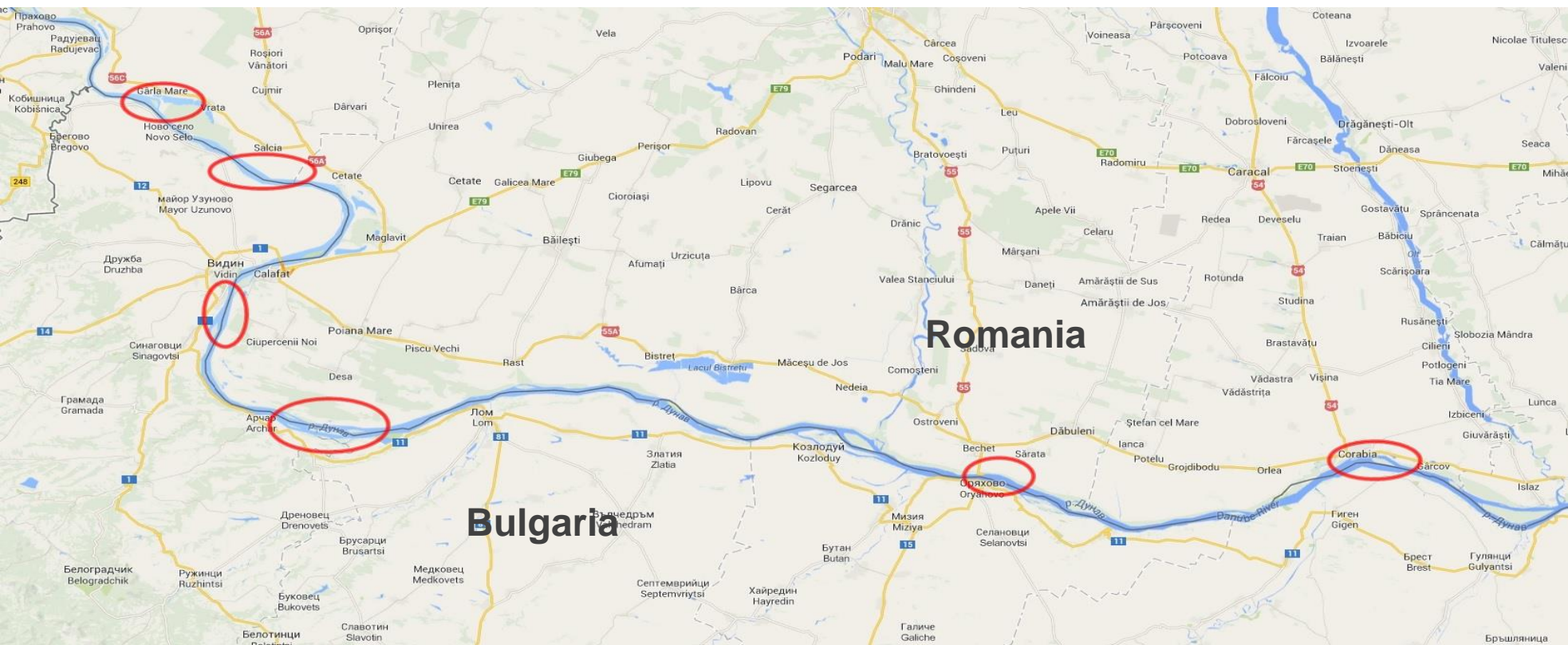
Co-financed by the European Union  
Connecting Europe Facility







# Romanian sector

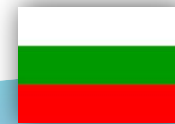


Critical locations map

rkm 610 – rkm 845



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- Feasibility Study
- Environmental Impact Assessment
- Preparation of the procurement procedure for the final designs and the works actions
- Project management and communication

# Environmental Activities - Progress

- **Started collection of data** – all environmental components need updated information – to update the former Environmental Impact Assessment (EIA) and Appropriate Assessment (AA).
- Contacted and met with specialists from main NGOs previously involved (IAD and WWF) and JASPERS to hear their **initial Concerns** regarding the potential impact.
  - Investigate also the possibility to have joint field visits, share data, meet regularly on **thematic workshops**, a **continuous dialogue** based on trust is desired to accomplish the objectives of the project as scheduled and protect the environment.
- Collected **case studies information** (in particular Calarasi-Braila, downstream from our sector), to learn from the experience/impact of other similar projects implemented.

# Environmental Activities - Progress

- Performed an initial **field evaluation** of the Danube sector (from the waterway) to verify/note changes (vs, former EIA/AA) in the state of environment/bank activities between Calarasi to Giurgiu, (also, a trip between Calafat to Giurgiu is currently scheduled to be completed in the first two weeks in May).
- Initiated the Multi-Criteria Analysis of main options:
  - Prepared for comment/discussions with Jaspers/workshops
  - Includes the **Initial Technical Options** versus **Significant Environmental Impacts** (i.e. priority species and habitats)
  - Developed environmental criteria and sub-criteria (including evaluation parameters) based on:
    - Results of meetings with Stakeholders
    - Previous comments/concern – JASPERS and authorities on former EIA/AA
    - Risk workshop
    - Case studies
    - Guidelines and other literature – ICPDR publications



# Current Status – contract Survey activities

Two measurement campaigns, each including:

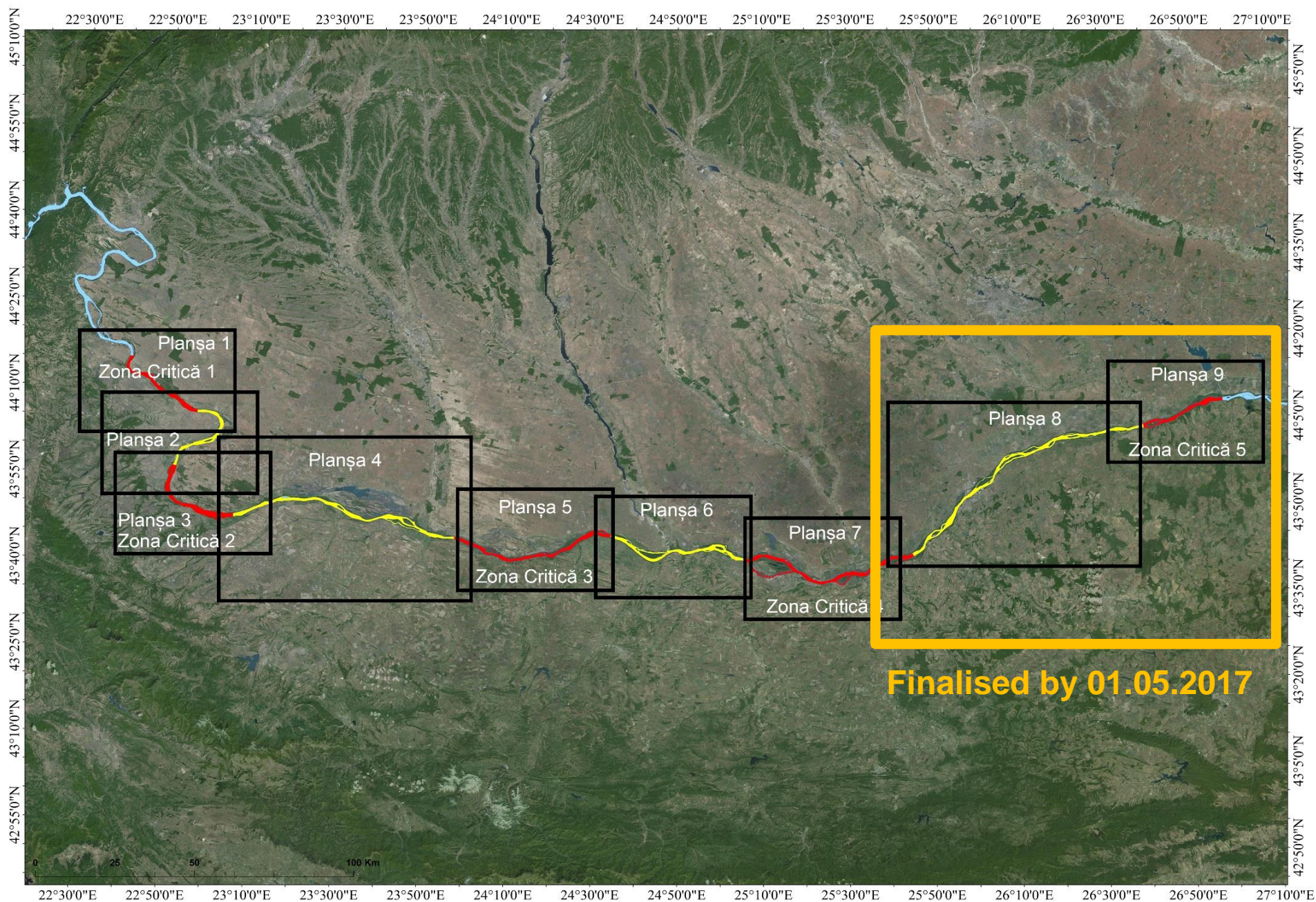
- Hydrography (multibeam surveys)
- Hydrology (ADCP hydrodynamic profiling)
- Sampling of suspension and riverbed sediments

12 navigation bottlenecks, grouped together in five critical zones

Estimation of workload/campaign:

- Hydrography: 224 km<sup>2</sup> + 600 km of transverse profiles
- Hydrology: 550 profiles with 1100 transects
- Sediments: approx. 1500 riverbed and 7200 suspended samples









# Current Status – contract Survey activities

**Date of start: 06.04.2017**

Works has been completed from the Chiciu-Silistra section to Batin critical point (km 531)

The general conditions for survey were bad in the last weeks:

- Low water discharge (with around 1000 m<sup>3</sup>/sec less than multiannual average of April) with low water levels as a consequence, hindering hydrographic survey;
- A very severe weather episode in the 3<sup>rd</sup> week of April.

All of these lead to a delay : 3 - 6 days.

The delay is recoverable since water discharges will increase in May.



# Boats for hydrographic measurements







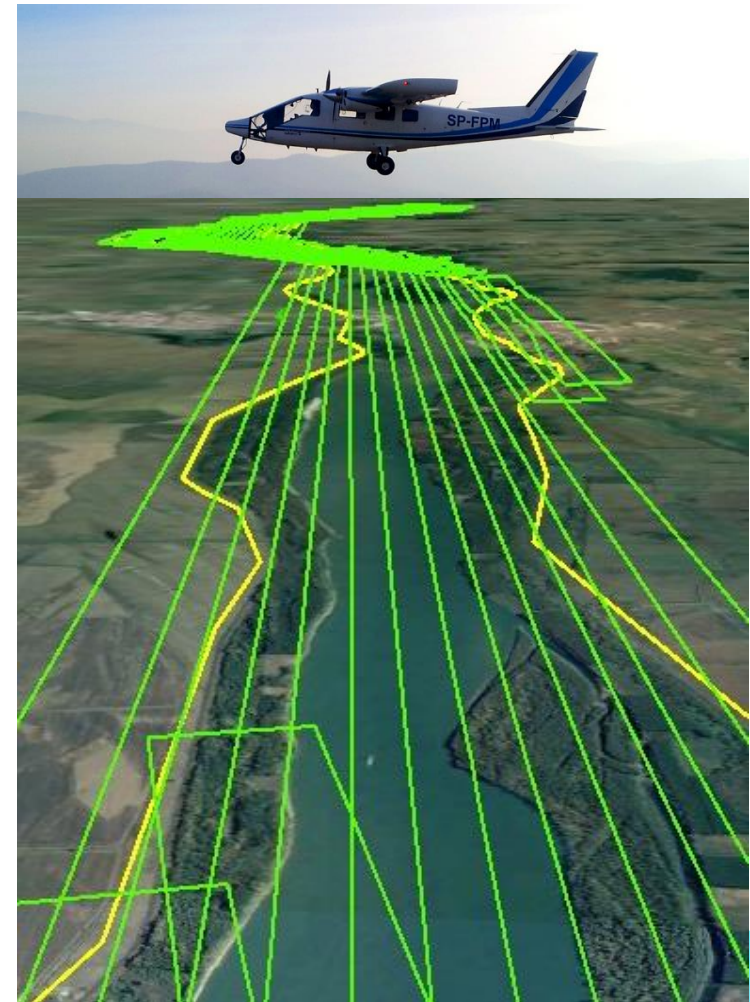


# Field surveying by aerial LiDAR scanning

The characteristics of the area of interest imposed the selection of aerial LiDAR scanning instead of classical topographic survey: rich vegetation, slopes, islands, difficult access, short time for execution, the requested continuous DTM grid (50cm/50cm)

## Main stages

1. Obtaining all approvals for flights and scanning
2. Flight plans creation
3. Ground control base creation
4. Flight and aerial LiDAR scanning missions
5. Data processing and DTM production





# Field surveying by aerial LiDAR scanning

## Current status:

- Aerial data acquisition for first campaign is complete
- Ground control planes field measurements are complete (valid for both campaigns)
- Data checking and first processing stages for first campaign are ongoing
- Second campaign is under preparation (flight plans, approval requests)



# Hydrodynamic Mathematical Modelling

## Model software packages

### 1D modelling:

- **Flood Modeller Pro** software package
- free surface flow Saint-Venant equations
- modules: incl. sediment transport

### 2D modelling:

- **MIKE 21 Flow FM** software
- free surface flow integrated Navier-Stokes equations, using a flexible grid
- modules: hydrodynamic module, cohesive/non-cohesive sediment transport, morphology

### Navigation simulation modelling:

- **SHIPMA** (v7) software developed by MARIN and Deltares
- fast-time simulator uses autopilot algorithm to simulate control of the vessel

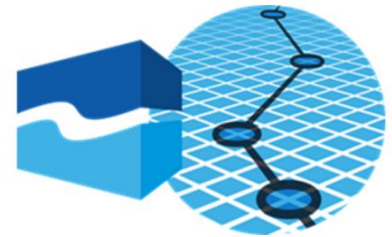
### Flood Modeller Suite

Developing software for over **40** years

Over **25,000** registered users

Used across over **150** countries

Located in more than **120** countries  
with over **200** offices



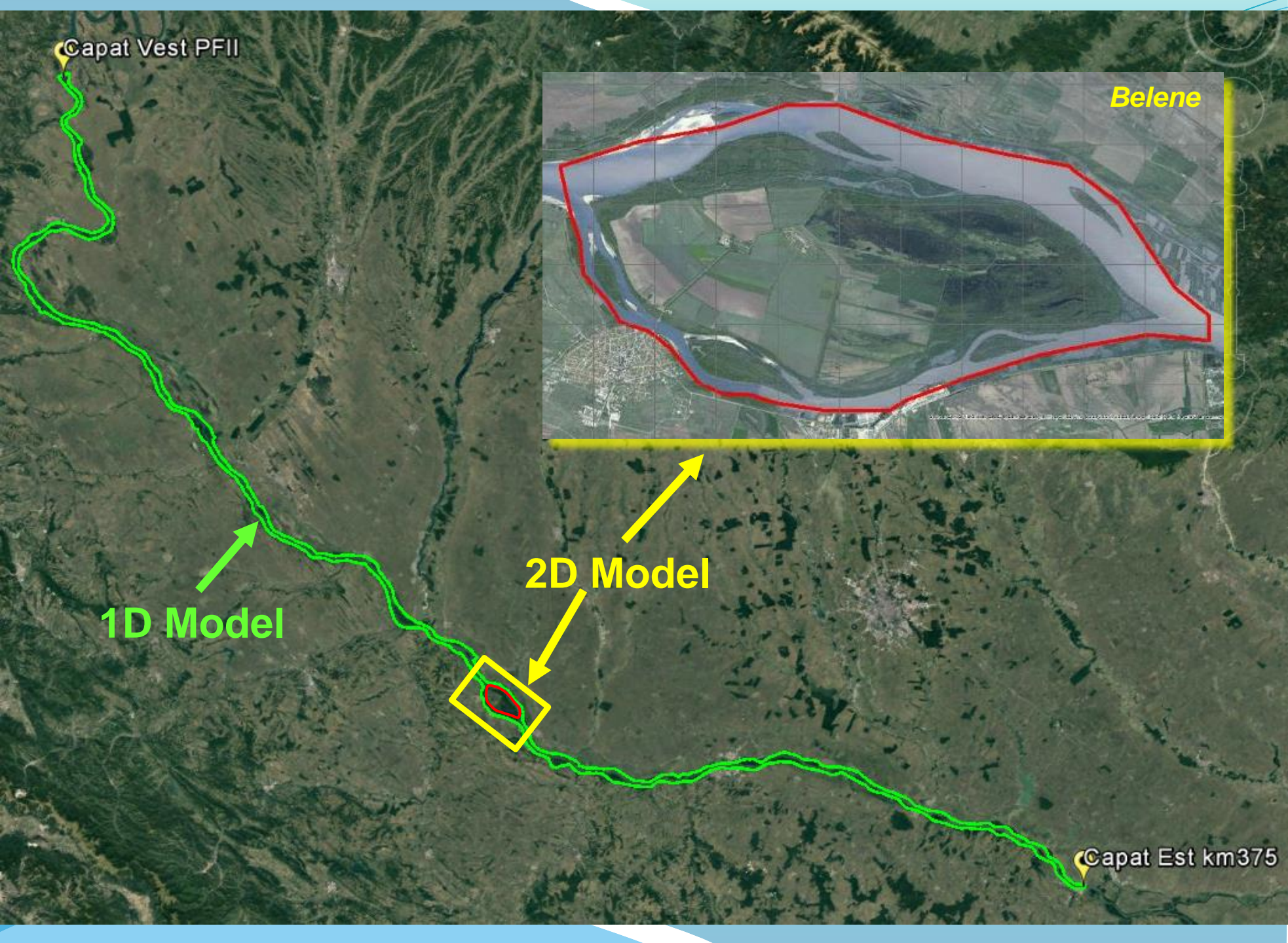
Capat Vest PFII

Belene

1D Model

2D Model

Capat Est km375





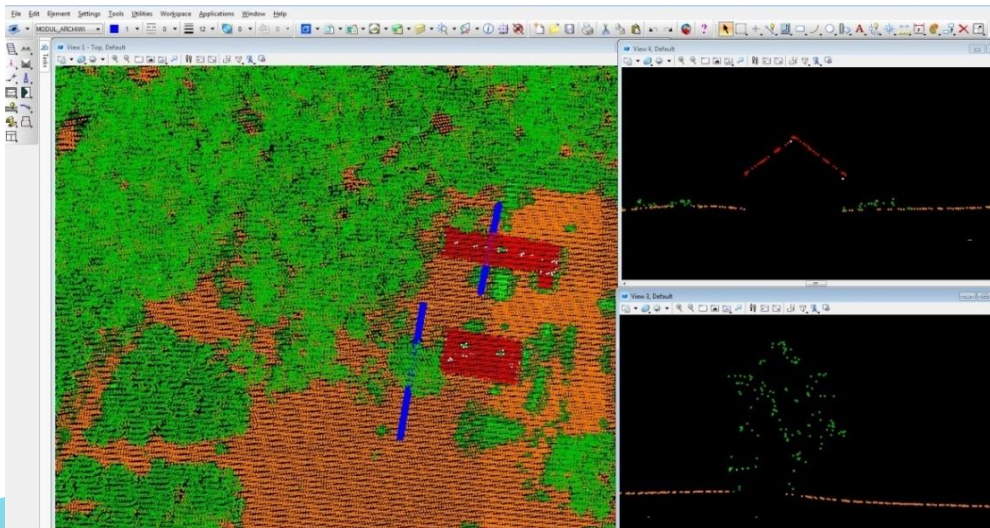
# Field surveying by aerial LiDAR scanning



Plane equipped for LiDAR scanning



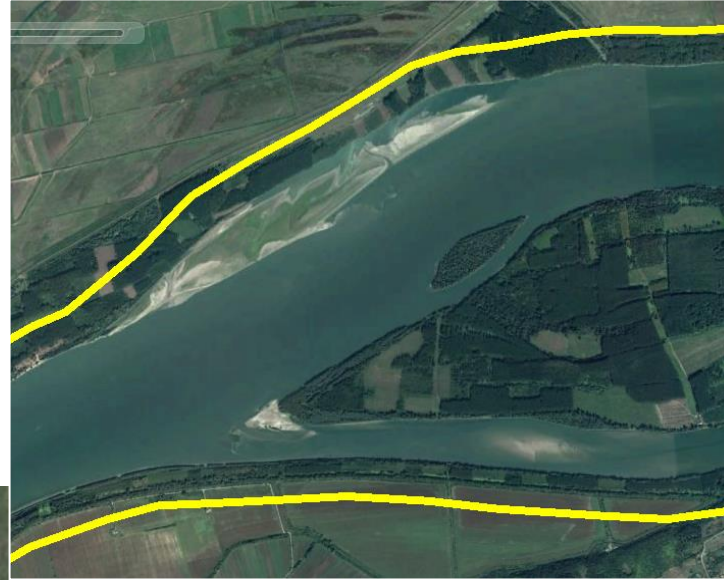
LiDAR platform inside the plane



LiDAR point cloud  
classification

# Field surveying by aerial LiDAR scanning

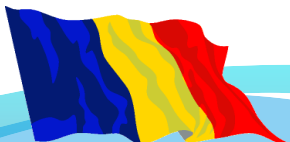
**The Area of Interest (Aoi)**  
[250m buffer from first firm ground, islands included]





Administrația Fluvială  
a Dunării de Jos R.A. Galați

**<Romeo Soare>**  
**<AFDJ Galati>**  
**<romeo.soare@afdj.ro>**



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Co-financed by the European Union  
Connecting Europe Facility



Good Navigation Status  
with  
**SWIM**

# SWIM PROJECT

General information – current  
status



# GENERAL INFORMATION



- Project title: SMART Waterway Integrated Management
- Project ACRONIM: SWIM
- Project number: 2015-RO-TM-0366-S
- Partners: AFDJ Galati
- Budget: 12.222.200 euro
- Period: 01.07.2016 - 31.12.2020
- Connection with FAST Danube:
  - environmental permits, for pilot sectors, will be obtain from **FAST Danube project**



# DESCRIPTION OF PILOT SECTORS

- Dredging works will be performed in following areas:

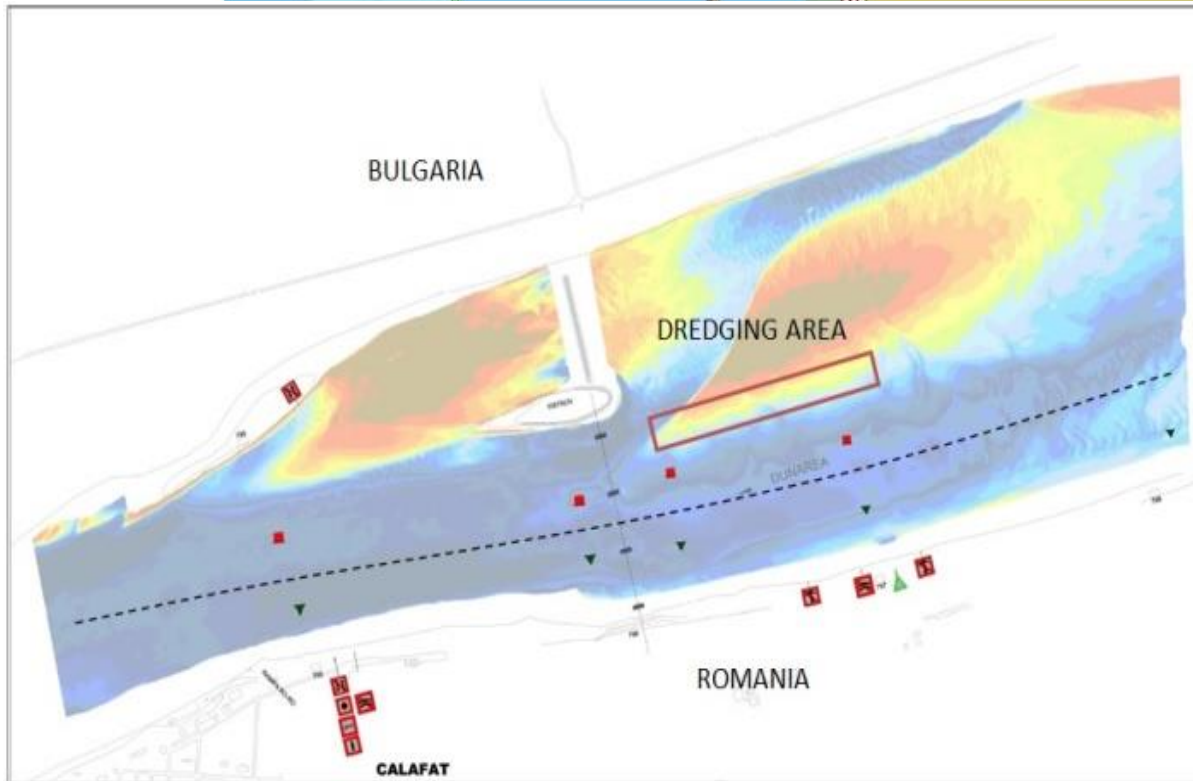
1. Calafat / km 796 - km 797  
*crossing pass bridge*
2. Bechet / km 675 - km 676  
*reinstatement fairway*
3. Corabia / km 632 - km 633  
*port acces operating berths*



- CORABIA / rkm 630 |
- BECHET / rkm 677
- CALAFAT / rkm 796

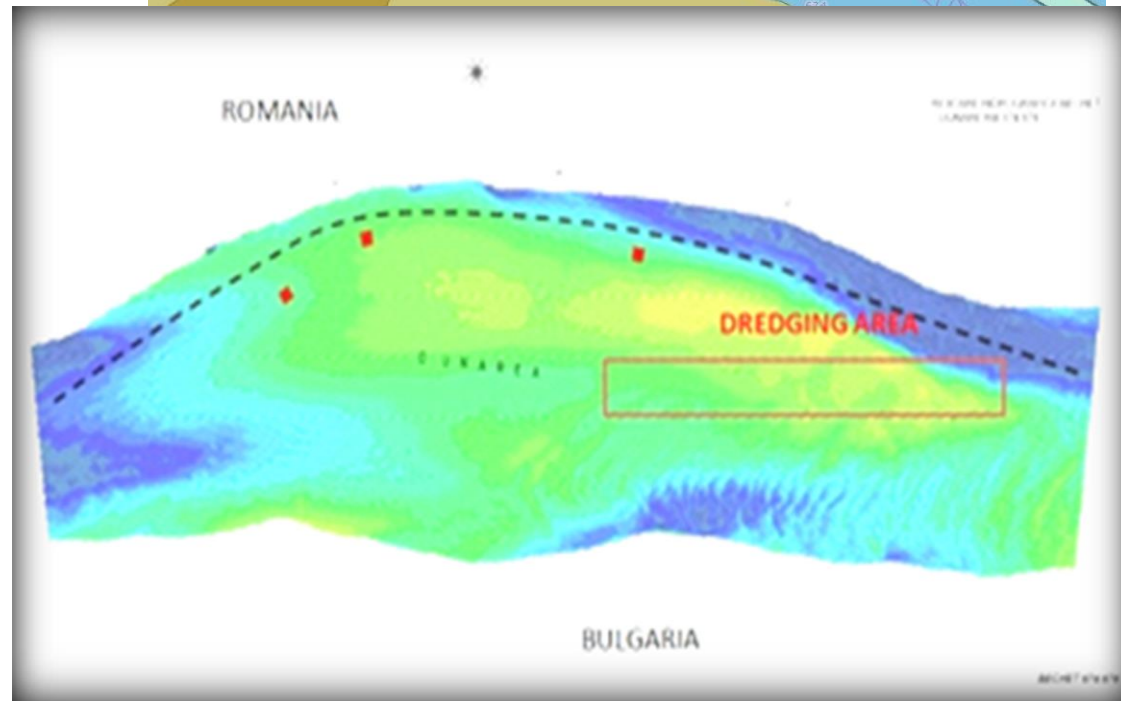
# PILOT DESCRIPTION - CALAFAT THE CROSSING PASS BRIDGE

- Calafat - Vidin bridge is located at rkm 796 on the Danube River and links (road-rail) between Romania and Bulgaria.
- Thus, since the design phase of the bridge, through the bridge safety were provided two assists for passing under the bridge.
- The measurements results, (km 796.5 - km 797.0) lead to an estimated amount of sediment to be removed (about 190.000m<sup>3</sup>).



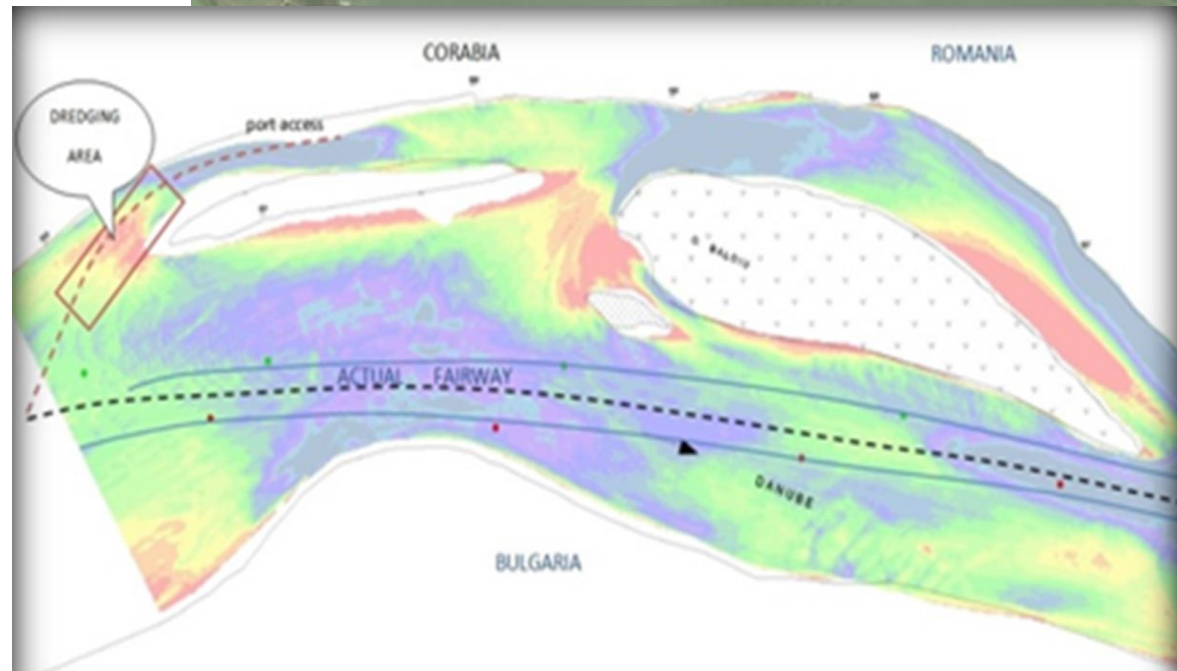
# PILOT DESCRIPTION - BECHET THE CRITICAL POINT

- Bechet sector is located on the Danube, rkm 678.
- Hydrological situation, - frequently recorded days (80-100 days / year)
- The old fairway, from DC maps;
- Current fairway in Bechet area;
- Pilot sector (km 674.0-km 675.5);
- The measurements results estimate an quantity of the material to be removed ( $257.000\text{m}^3$ ).



# PILOT DESCRIPTION - CORABIA THE PORT ACCESS

- Corabia sector is located near the port area, (rkm 626 to 633).
- The hydrological situation, (about 60-80 days / year);
- From DC maps, old position of fairway and access to the port;
- The old fairway, in the area;
- The current fairway;
- The measurements results, an estimated quantity of material to be removed (175.000m<sup>3</sup>).





# PROJECT ACTIVITIES

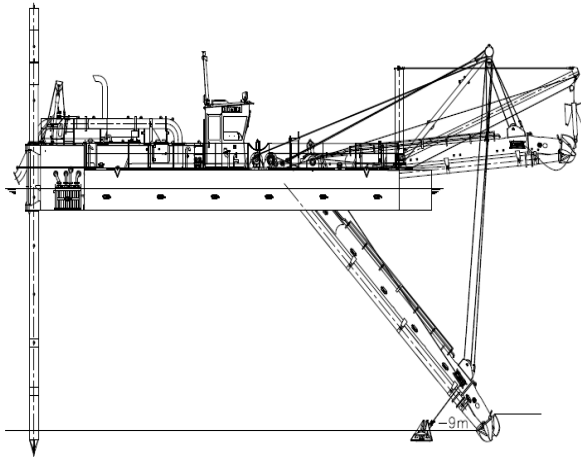


- Project Management and Communication
- Integrated Concept to ensure a good navigation status;
  - Deliverable: Integrated Concept to ensure a good navigation status
- SWIM SMART-IT platform;
  - Deliverable: Implementation and testing the SMART-IT platform

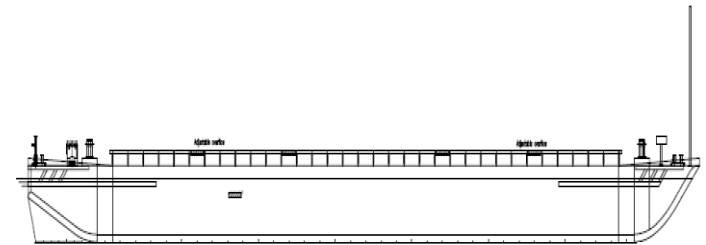


# TECHNICAL DREDGING VESSELS

Capital dredging vessel

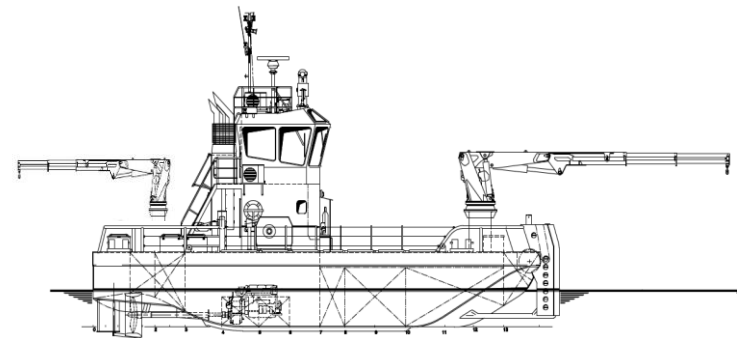
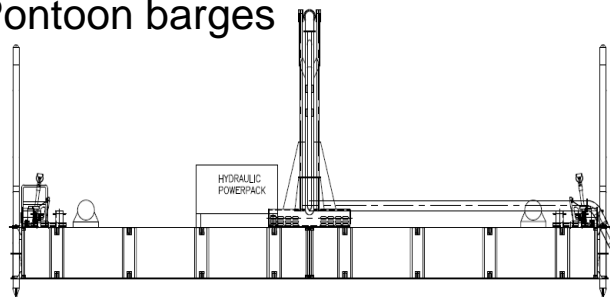


Pipeline



Split hopper barges 500  
m3

Pontoon barges



Assistant work  
vessel

# DREDGING PROCEDURE USING SPLIT HOPPER BARGES

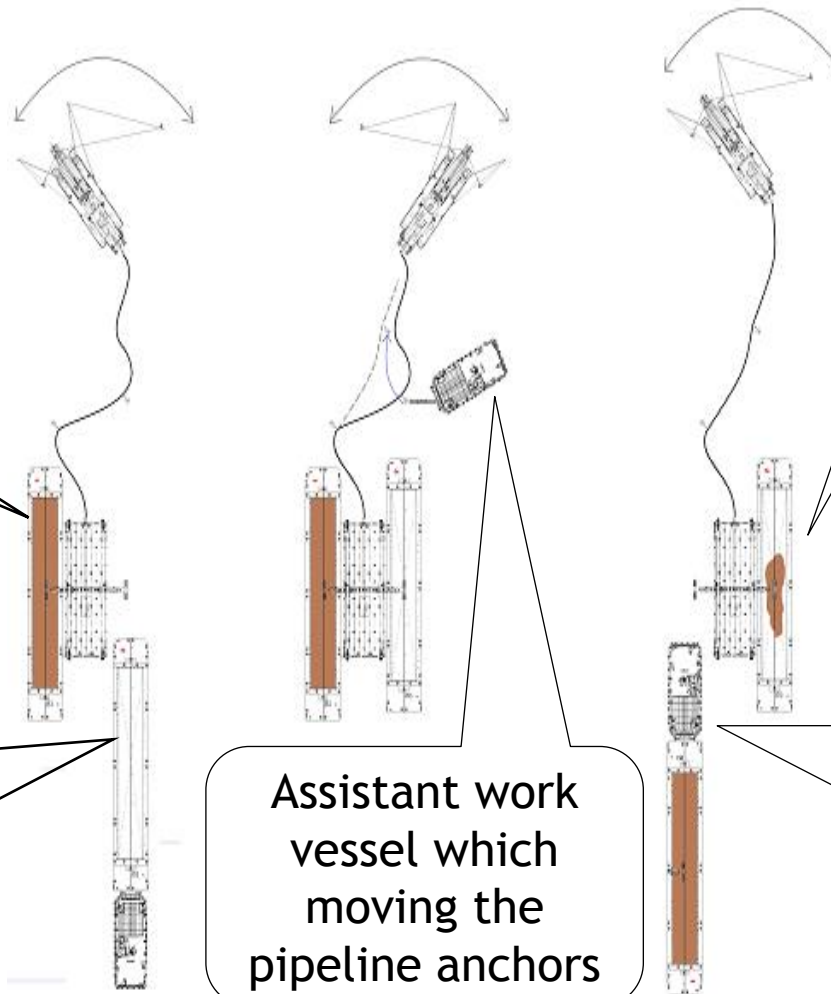
Split hopper barge loaded near to the pontoon barges

Split hopper barge returning - empty

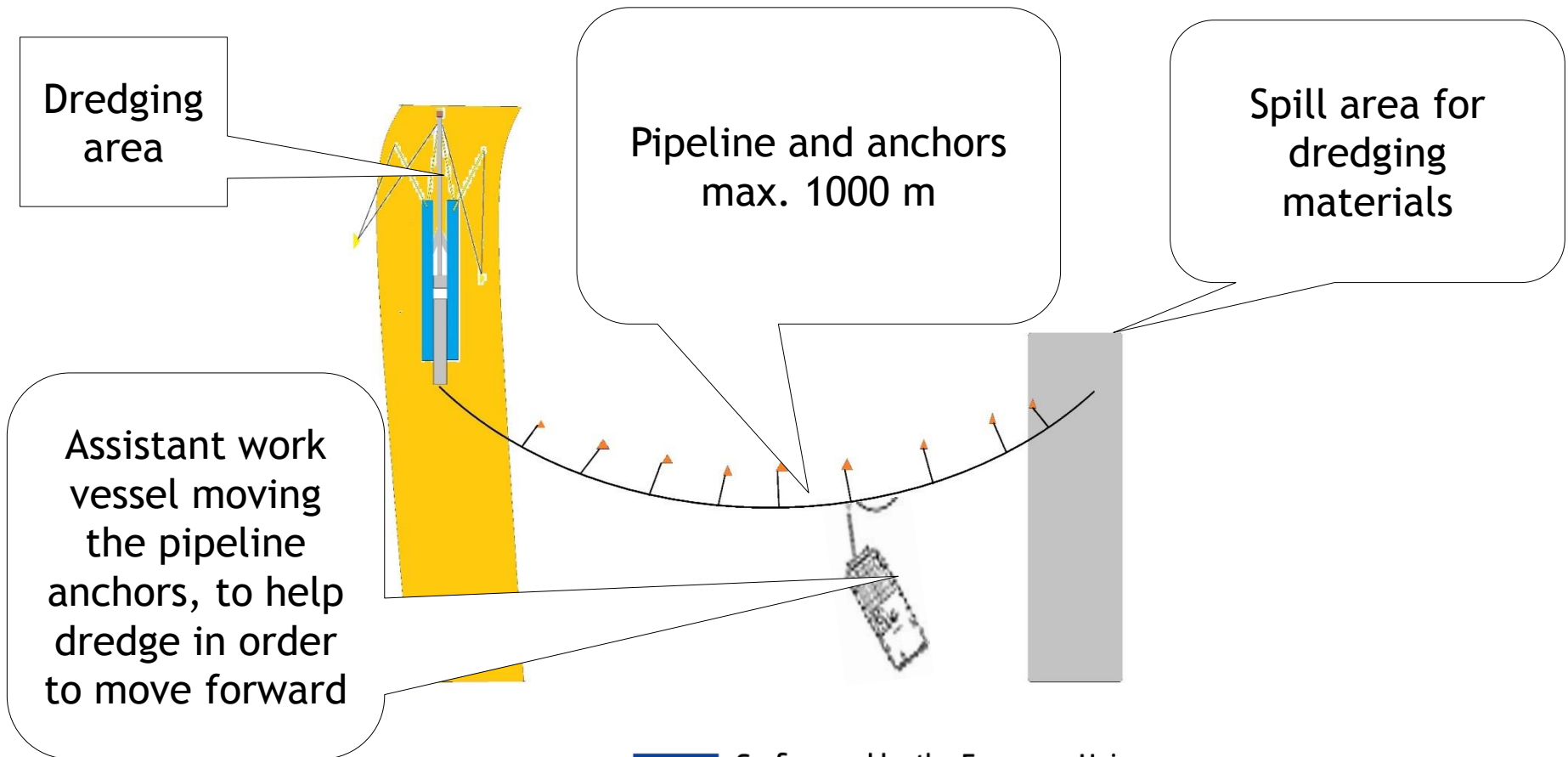
Assistant work vessel which moving the pipeline anchors

The second split hopper barge to be loaded near to the pontoon.

Assistant work vessel with loaded split hopper barge



# DREDGING PROCEDURE USING PIPELINE



# THANK YOU FOR YOUR ATTENTION !

- Contact: AFDJ Galati : [romeo.soare@afdj.ro](mailto:romeo.soare@afdj.ro)



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# Port and sustainable freight transport

- DAPhNE project

*Róbert Rafael, Pro Danube International*



# **DAPhNE Goals & Structure**

## **Project Environment**

**Pro Danube International**  
**12th Steering Group Meeting of PA1a**  
**of the Danube Region Strategy,**  
**11<sup>th</sup> May 2017, Vienna**

# Contents

- Danube Programme details  
*(1st call & capitalization strategy)*
- Policy & strategic background
- DAPhNE facts & figures
- Project goals
- Main result



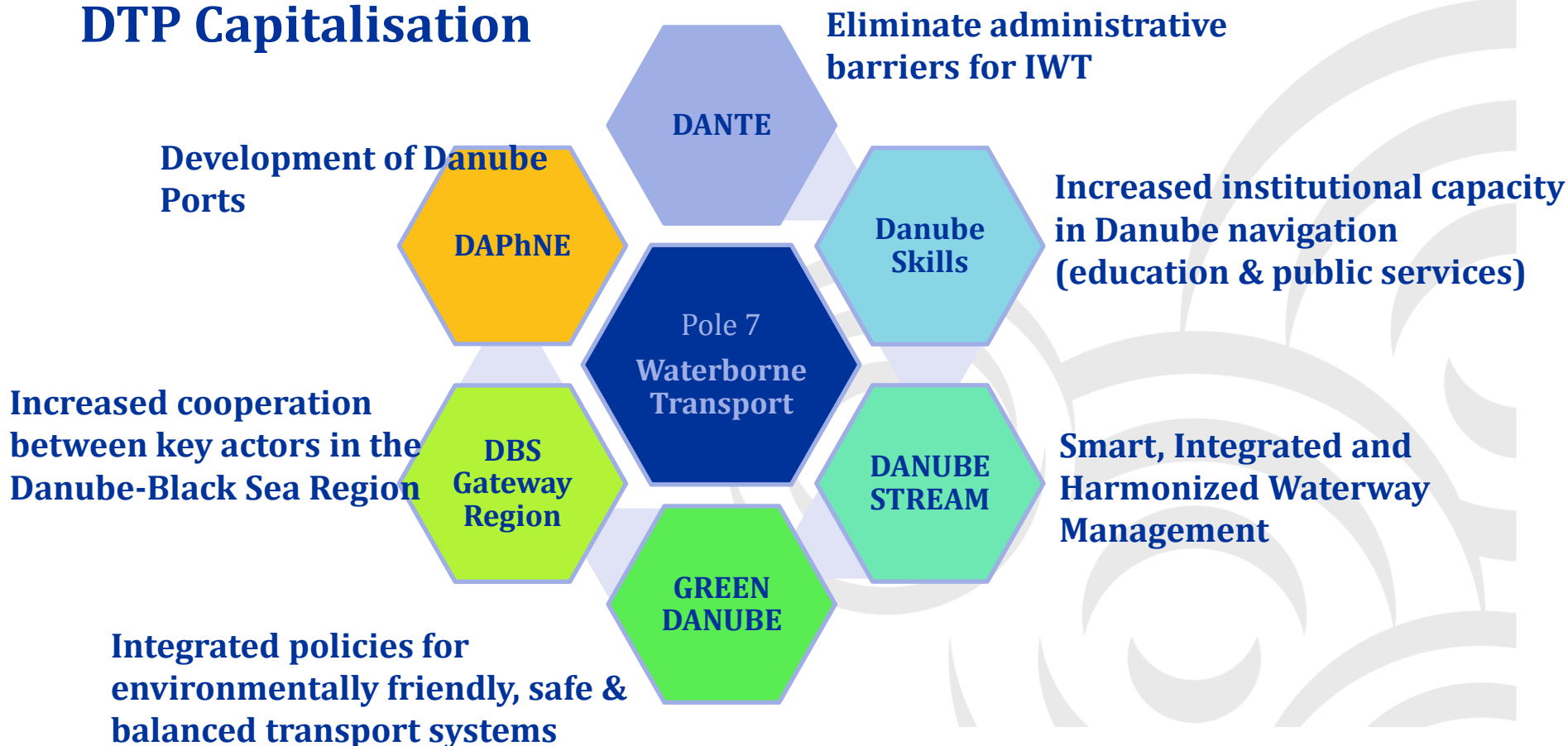
## 1st call of the Danube Transnational Programme

Submitted EoIs (step 1)	SO 3.1 Transport	Invited for 2 <sup>nd</sup> step	SO 3.1 Transport	Approved	SO 3.1 Transport
547 valid	<b>39</b>	100	<b>15</b>	54	<b>11</b>



- 10<sup>th</sup> among the 54!
- **3<sup>rd</sup> among the 11!**

## DTP Capitalisation



## Danube Waterway: High Potential – Numerous Challenges

### Strengths

- Danube serves an economic area of circa 90M inhabitants
- Connects CE & SEE with growing markets in Black Sea Region
- Environmentally friendly transport corridor
- Can provide cost-effective logistics for land-locked industries ensuring competitiveness and jobs

### Challenges

- Ensure standards for waterway maintenance
- Elimination of infrastructure bottlenecks
- *Promotion of investment in Danube Ports and unlocking their economic potential*
- Modernize Danube fleet
- Reduce logistics costs by elimination of administrative barriers



- Quality infrastructure
- Environmental quality through low emissions
- Skilled workforce and quality jobs
- Integration of inland navigation into the multimodal logistics chain

**NAIADES II**

- Increasing cargo transport on the Danube by 20%
- Develop efficient multimodal terminals at river ports along the Danube
- Solve shortage of qualified personnel

**EUSDR  
Priority  
Area 1.A**

**DAPhNE  
Danube  
Ports  
Network**

**Europe  
2020  
Strategy**

- Combine private & public investment to reach 3% of EU's GDP

**R&D &  
Innovation  
Policy**

- Port & IT Management concepts addressing the Physical Internet & Logistics 4.0, pilot port community systems

**White  
Paper on  
Transport  
2030/2050**

- Develop appropriate infrastructure – shift road freight to other modes (rail, waterway)

## Same River – Same Rules & DAPhNE

**Lead Partner:** *Pro Danube International/ AT*

### ERDF Partners:

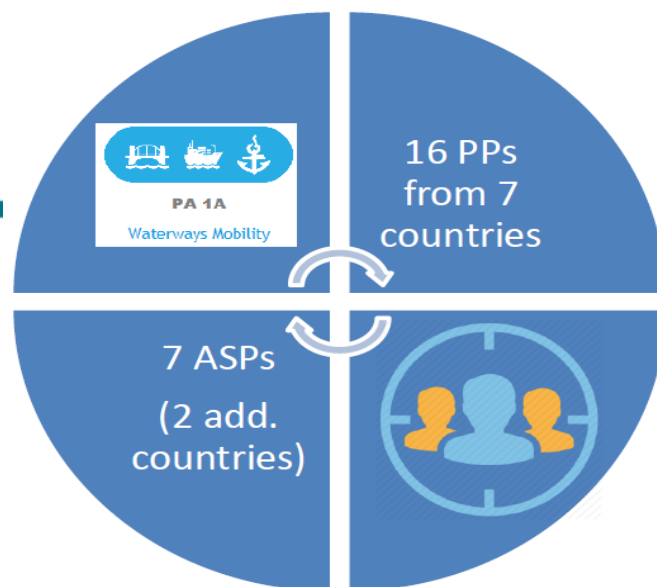
Ennshafen Port/ AT  
iC consulenten ZT GesmbH/ AT  
University of Applied Sciences Upper Austria/ AT  
National Company Maritime Danube Ports Administration Galati/ RO  
National Company Maritime Ports Administration SA Constanta/ RO  
Ovidius University of Constanta/ RO  
Pro Danube Romania/ RO  
Ministry of Transport/ RO  
Bulgarian Ports Infrastructure Company/ BG  
Public Institution Port Authority Vukovar/ HR  
RGO Communications Ltd./ HR  
ILR Logistica Romania SRL/ RO  
Hungarian Federation of Danube Ports/ HU  
Public Ports jsc/ SK

### IPA Partner:

Port Governance Agency/RS

### Associated Strategic Partners:

Container Terminal Enns/ AT  
Giurgiu Municipality/ RO  
Port of Vienna/ AT  
Ministry of the Sea, Transport and Infrastructure/HR  
Ministry of Transport, Information Technology & Communications/BG  
Danube Logistics SRL/ MD  
State Enterprise Ukrainian Sea Ports Authority/UA





## Same River – Same Rules & DAPhNE

- Need for strategies, guidelines & tools to eliminate the gaps between Upper, Central & Lower Danube Ports
- Start Date: 1 January 2017
- End Date: 30 June 2019

<b>Overall budget</b>	<b>2.985.406,15 EUR</b>
ERDF Contribution	2.415.219,42 EUR
IPA Contribution	122.375,77 EUR
Own contribution	447.810,96 EUR

## DAPhNE Goals

**Guidelines for green port policy**  
**Concepts for alternative energy provision & distribution**

Strategies & best practices for **human resources development** in the Danube ports

Know-how transfer for a **common port development strategy**

**Danube Ports Network**

Intersectoral & transnational cooperation for **better port services**

**Innovative IT solutions** for the Danube Port Community

**Harmonized instruments** to stimulate public & private port investments  
**State Aid Model Schemes**  
**Port legislation Recommendations**

**Pilot action for a model architecture for a Danube port IT community system**  
PCS implemented in min. 3 ports (AT, SK, RS)  
Logistics 4.0  
The Physical Internet

## DAPhNE Main Result

### *Improved cooperation due to the set-up of the Danube Ports Network*

- Open to any interested party:
  - Port administrations
  - Port users
  - National & local authorities from the Danube Region
- Operational by June 2019 & including approx.120 members
- Free access of members to all project outputs & deliverables
- The Danube Ports Network will continue to run as an independent entity
- Facilitate interaction of members via dedicated events organized:
  - **Port Policy Days: policy & management issues**
    - 1st Port Policy Day Event: 6th EUSDR Annual Forum – 18-19 October 2017 Budapest/HU
  - **Port Info Days: promote Danube ports as logistics & services hubs**
    - 1st Port Info Day Event: 11 May 2017 Munich Transport Logistic Fair/DE





**Thank you for your attention!**

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**Raluca Danila**

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+43 1 890 66 47 23

<http://www.interreg-danube.eu/approved-projects/daphne>

**More project news is available if you subscribe to our newsletter!**

# Port and sustainable freight transport

- ENERGY BARGE project

*Christa Dißbauer, Bioenergy 2020+*

# **ENERGY BARGE**

## **Building a Green Energy and Logistics Belt**

Vienna, 2017-05-11

**Christa Dißbauer**

BIOENERGY 2020+ GmbH





## Project scope and definition

★ Participating countries

■ Danube Transnational Programme area



## Project overview

**Start date:** 01/01/2017

**End date:** 30/06/2019

### **Budget**

**Overall:** 2,323,519.65 Euro

**ERDF Contribution:** 1,974,991.67 Euro

**15 Project partners**

**8 Associated partners**

# Project Consortium

## Bioenergy Partners:

- FNR - Agency for Renewable Resources
- BCG - Biocampus Straubing GmbH
- DIT - Deggendorf Institute of Technology
- BE2020 - Bioenergy2020+ GmbH
- ICARST - International Centre of Applied Research and Sustainable Technology
- NARIC - National Agricultural Research and Innovation Center
- SWEDES Centre - Intern. Centre for Sustainable Dev. of Energy, Water and Environment Systems
- TCS - Technology Center Sofia Ltd.
- ARBIO - Romanian Association of Biomass and Biogas
- Nostra Silva - Federation of owners of forests and grassland in Romania

## Logistic Partners:

- VIA - viadonau Austrian Waterway Company
- PoVi - Port of Vienna
- PoVu – Port of Vukovar
- MAHART - MAHART Freeport Co. Ltd.
- SPaP – Slovak Shipping and Ports JSC

# Objective

## Main objective:

→ Increase the use of biomass for energy production in the Danube region

## Challenges:

- 1) Regional and national disparities
- 2) Support the EU2020 climate goals
- 3) Improve energy security and reduce dependency on fossil fuels



## Specific Objectives

- 1)** Map value chains and facilitate market uptake of biomass for energy production
- 2)** Sustainable and secure distribution of biomass
- 3)** Provide practical solutions and policy guidelines (→ market actors, public decision-makers)

Source: FNR

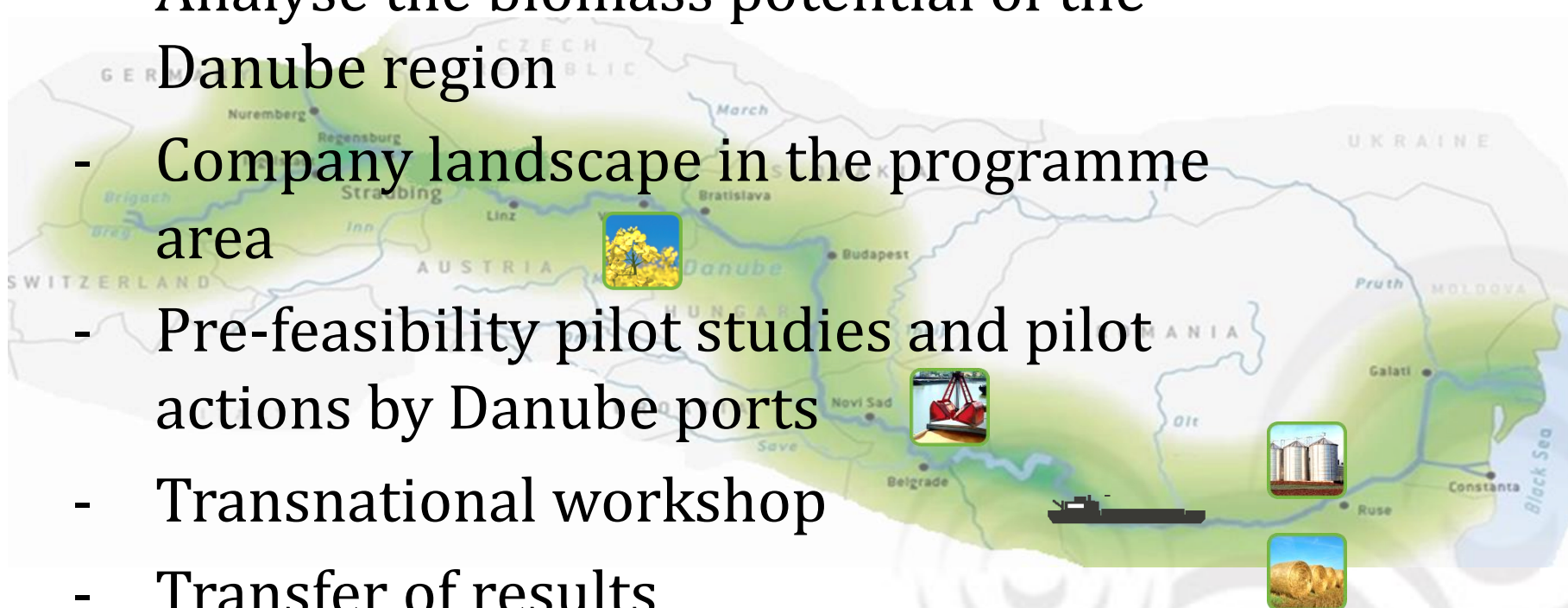


## Strategic Relevance

- Support to evaluate market potentials
- Improved transportation of biomass
- Cargo transport on the Danube +20% until 2020
- Better environmental performance along the entire value chain
- Transnational learning interactions
- Addressing PA 2 “Sustainable Energy” & PA 1a “Waterways Mobility” of the EUSDR

# Methodology

- Analyse the biomass potential of the Danube region
- Company landscape in the programme area
- Pre-feasibility pilot studies and pilot actions by Danube ports
- Transnational workshop
- Transfer of results





**Thank you for your attention!**

[www.interreg-danube.eu/energy-barge](http://www.interreg-danube.eu/energy-barge)

Facebook: [www.facebook.com/energybarge](https://www.facebook.com/energybarge)

Twitter: @Energy\_Barge

LinkedIn: Energy Barge



# Coffee break

# Fleet modernisation

- PROMINENT project

*Juha Schweighofer, viadonau*

## Project outline

- Promoting Innovation in the Inland Waterways Transport Sector
- Funding: H2020 (budget: ca. 6.5 Mill EUR)
- Duration: 1.5.2015 – 30.4.2018
- In total: 17 beneficiaries
- Danube: NAVROM (RO), Univ. of Craiova (IMST, RO), DST (DE), BAW (DE), FHOO (AT), Pro Danube (AT), viadonau (AT)
- Lead: STC-Group (NL)
- More information:
  - [http://cordis.europa.eu/project/rcn/193260\\_en.html](http://cordis.europa.eu/project/rcn/193260_en.html)
  - <http://www.prominent-iwt.eu/>

## Objectives

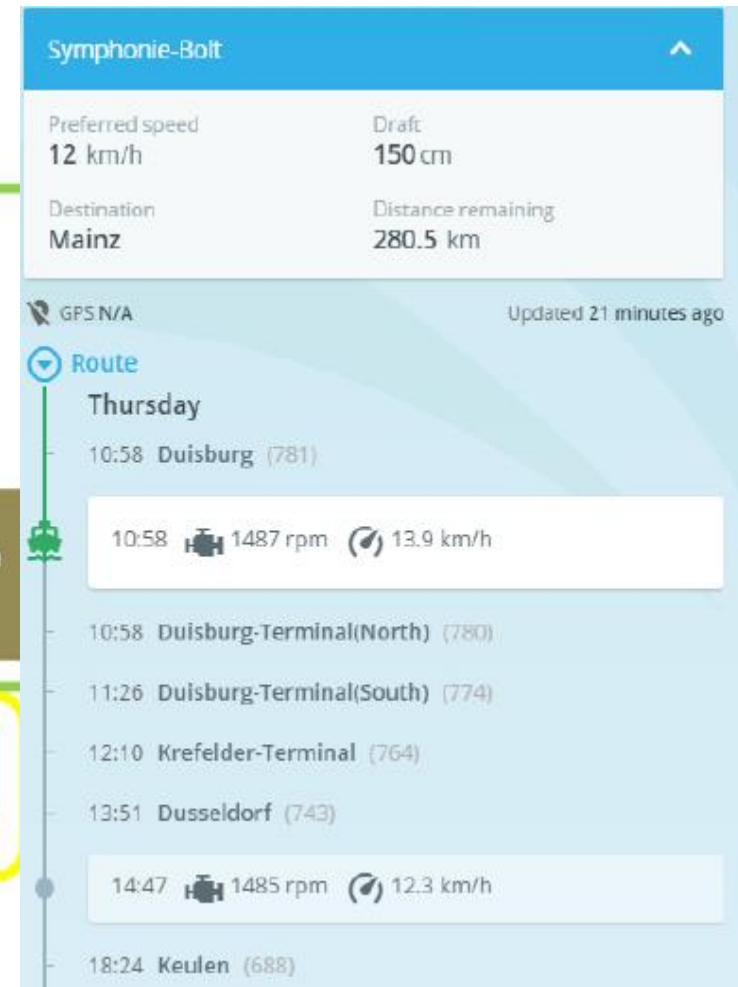
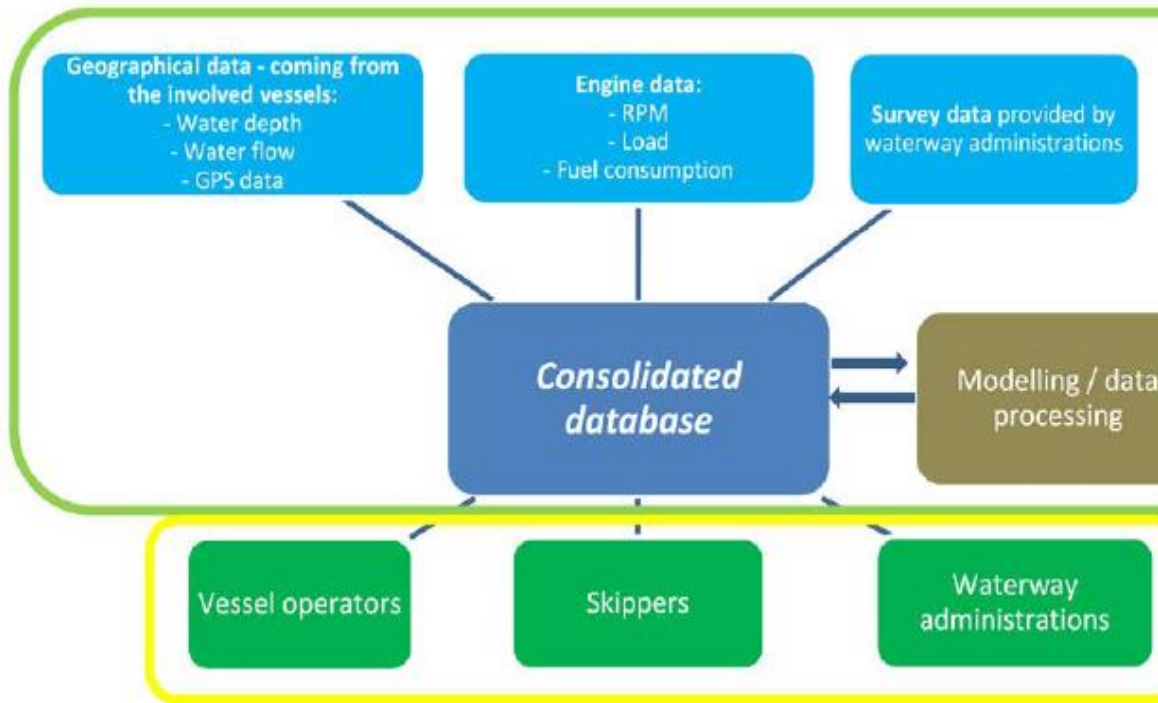
- Inland waterway vessels: energy efficient and clean
- Monitoring and certification: exhaust gas emissions
- Harmonisation and modernisation:
  - Professional education, qualification
- Integration of inland waterway transport in logistics chains
- Solutions:
  - 70 % EU Fleet
  - 30 % reduction of implementation costs
- Stakeholder involvement
- Removal of barriers till 2020



# Shortlist of promising technologies

Type of measure	Area	Measure	NOx	PM	CO2 only	GHG (CO2 & CH4)	Applicability on the fleet	Economic feasibility (ship owner)	Technical maturity	Non-techn. maturity (barriers)
			% of fuel consumption in Europe							
			%	%	%	%		+++ / ---	TRL level	+++ / ---
Ship-related technical measures	Fuels, standardised solutions	Use LNG (Liquefied Natural Gas) - single fuel/ spark ignition	70-80	up to 95	20-25	0-10	10 - 50%	++	6	---
		Apply dual fuel (LNG and diesel)	50-65	50-90	20-25	0-10	10 - 50%	++	6	--
		Apply GTL fuel	10	20	0	0	> 50%	-	9	0
	Propulsion system, standardised solutions	Apply SCR	70-90	0-20	≈ 0	≈ 0	10 - 50%	--	8	-
		Wall flow DPF	0	90	≈ 0	≈ 0	10 - 50%	---	7	-
		Combine SCR and DPF	80-90	90	≈ 0	≈ 0	10 - 50%	---	7	-
		Exchange of main diesel engine (CCR I by CCR II engine)	15-35	40-60%	0	0	> 50%	0/-	9	0
		Exchange of main diesel engine (by Stage V engine)	65	80-90	0	0	> 50%	-	5	--
		Right sizing	0-10	0-10	0-10	0-10	100%	++	9	0
		Diesel-hybrid prop. (no buffer batt.)*	0-10	0-10	0-10	0-10	10 - 50%	+	9	0
		Diesel-hybrid prop. (+ buffer batt.)*	0-10	0-10	0-10	0-10	10 - 50%	+	9	0
Infrastructure	Waterway Information	Real time info on fairw. data	14 (3-25)				>50%	+	5/7	-
Ship-operational measures	Sailing behaviour	Speed adaption					>50%	+	5	-
		Optimised track choice					>50%	+	5	-

# Energy-efficient sailing



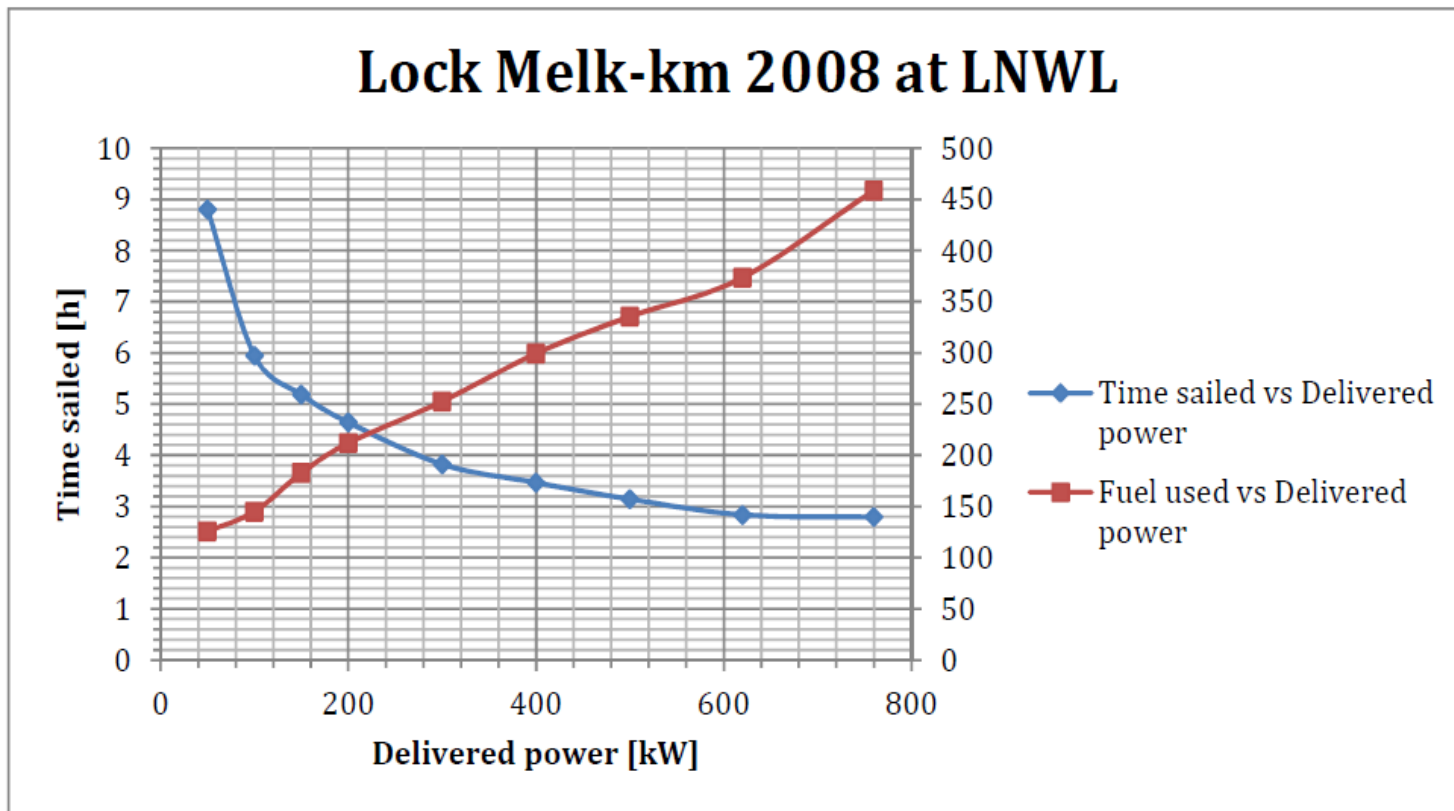
## Energy-efficient sailing - Danube

	LNWL		MWL		HNWL	
	time increase	fuel saved	time increase	fuel saved	time increase	fuel saved
Option 1 upstream + 15 km/h downstream	2.7%	5.3%	4.6%	9.5%	5.4%	5.6%
Option 2 upstream + 15 km/h downstream	3.7%	6.7%	6.0%	11.2%	8.0%	7.4%
Option 3 upstream + 15 km/h downstream	6.6%	10.4%	9.5%	15.4%	8.0%	7.4%
Option 1 upstream + 14 km/h downstream	5.7%	15.0%	7.6%	15.6%	7.7%	8.0%
Option 2 upstream + 14 km/h downstream	6.7%	16.4%	9.0%	17.1%	10.4%	9.9%
Option 3 upstream + 14 km/h downstream	9.6%	20.1%	12.5%	21.4%	10.4%	9.9%

Table 26: Increase in sailing time vs. fuel savings per round trip for different operation modes

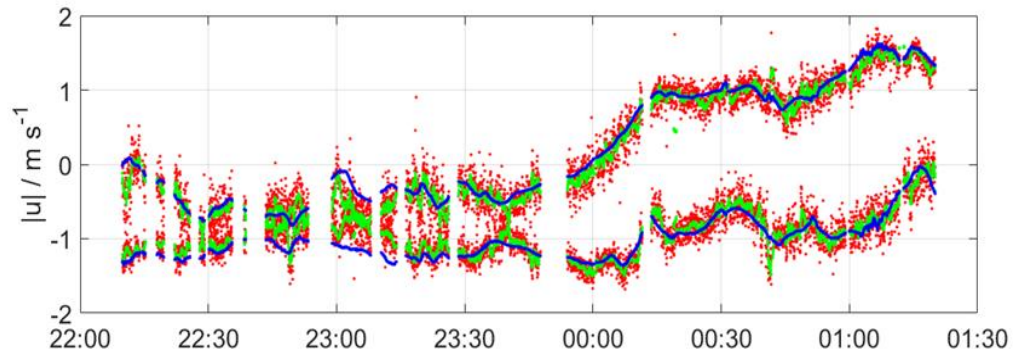
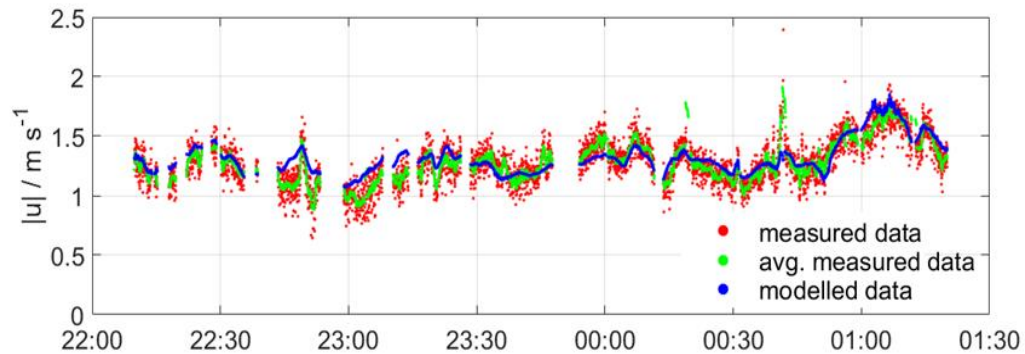
Source: viadonau

# Energy-efficient sailing - Danube



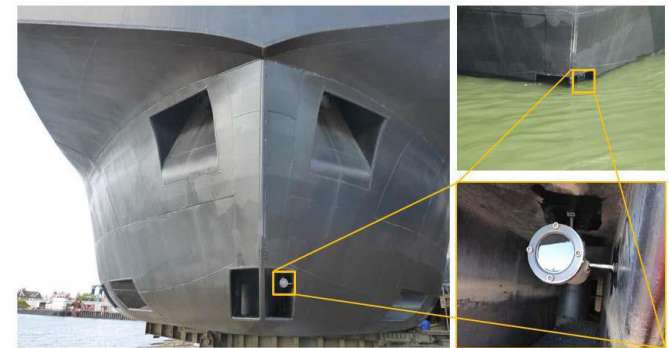
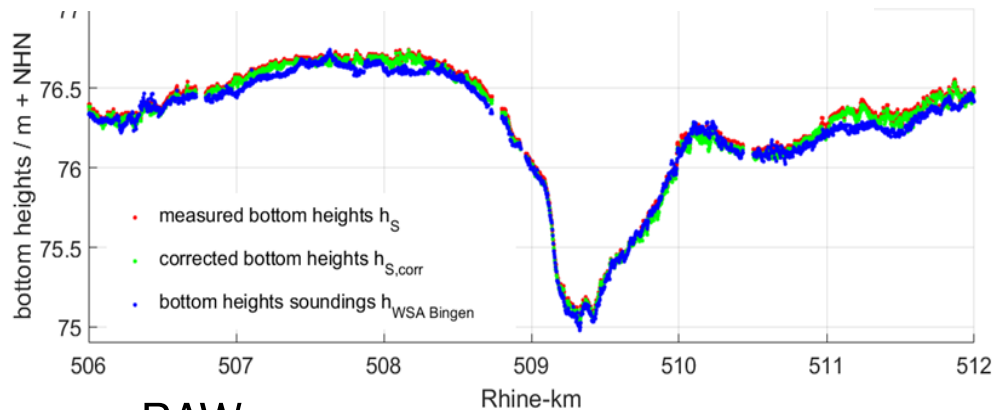
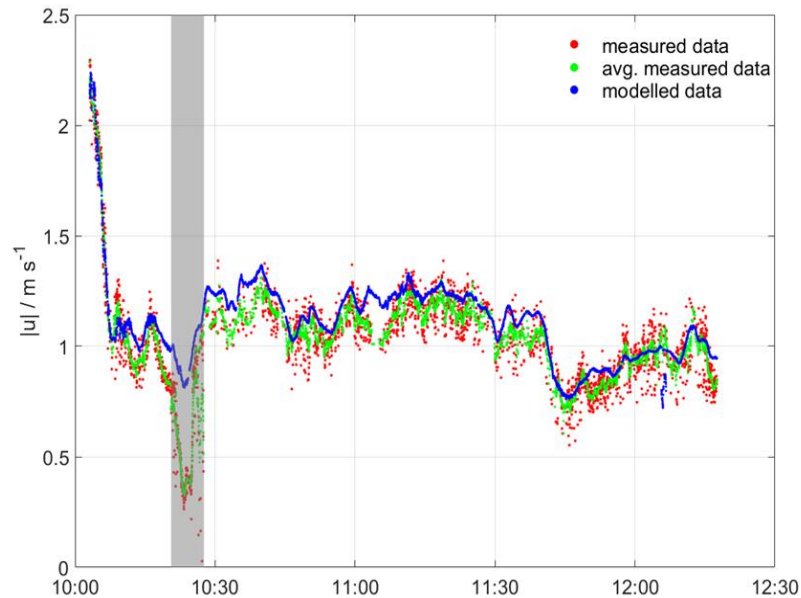
Source: viadonau

# ADCP-measurments – passenger vessel



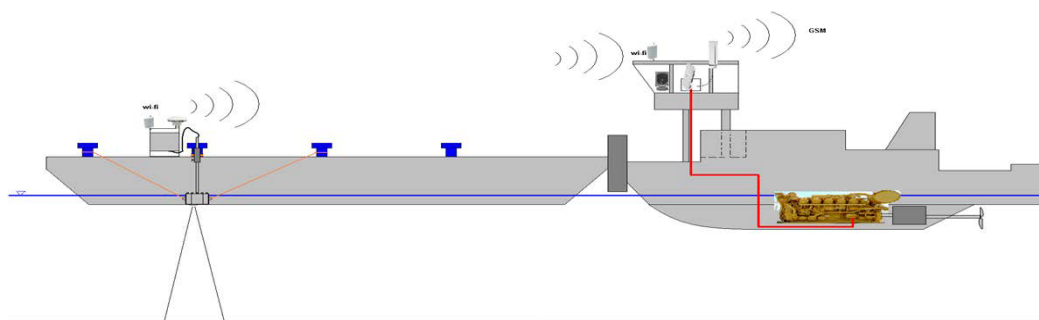
Source: BAW

# ADCP – echosounder measurements MCV





# NAVROM vessels (source NAVROM)



Vessel Mercur 305

Positions	Timelines	Events	Time[+02:00]	Lat[°]	Lon[°]	Location	SOG[km/u]	WS [m/s]	WD [m]	EngPS.Speed [RPM]	EngPS
			02/11/2016 15:39:21	43°47'39"N	023°47'14"E	DUNAREA-	5.7	1.0	6.8	1275	
			02/11/2016 15:38:21	43°47'37"N	023°47'18"E	DUNAREA-	5.7	0.7	6.1	1266	
			02/11/2016 15:37:20	43°47'35"N	023°47'21"E	DUNAREA-	5.6	0.4	5.6	1270	

# Monitoring of engine parameters and emissions (source TNO)

Ship Name	Vessel ID	Operation area	Cargo	Length	Load capacity	Drivetrain features	Rounded power main engine	Number of engines	Power generator	Number of generators
Desmar	Vessel 1_Dry Bulk_67m	Belgium and Netherlands	Dry Bulk	67	900	CCNR 2	550	1		
Baden Wurttemberg	Vessel 2_Dry Bulk_105m	Rhine and Neckar	Dry Bulk	105	2500	CCNR 2	1150	1		
Nadorias*	Vessel 3_Container_110m	Rotterdam – Groningen (NL)	Containers	110	3300	CCNR 2 + Hybrid diesel-electric motor	1250 + 385 e-	1	220	2
Fides	Vessel 4_Container_110m	Rotterdam – Groningen (NL)	Containers	110	3300	CCNR 2 + SCR	1250	1		
Aqua-Myra	Vessel 5_Container_110m	Antwerp - Rotterdam	Containers	110	3200	CCNR 1 + SCR / DPF	1500	1	70	2
Jura	Vessel 6_Container_135m	Antwerp – Rotterdam - Cologne	Containers	135	5200	CCNR 1/2 + SCR	1050	2		
Monika Deymann	Vessel 7_Container_135m	Antwerp to Mainz	Containers	135	5600	CCNR 2	1150	2		
Arese	Vessel 8_Dry Bulk_135m	Antwerp - Rotterdam + Rhine + Danube	Dry Bulk	135	4400	CCNR 2	850	2	56	1
Delta	Vessel 9_Dry Cargo_110m	Rhine	Dry Cargo	110	3100	CCNR 1/2 + SCR	1600	1		3
Intermezzo	Vessel 10_Liquid Bulk_110m	Antwerp – Rotterdam	Liquid Bulk	110	3200	CCNR 1/2 + SCR / DPF	1250	1		
Atlantis	Vessel 11_Liquid Bulk_135m	Belgium and Netherlands	Liquid Bulk	135	5800	CCNR 1 + SCR	1100	2	85.6	1
Anina and Rovinari 8	Vessel 12_Push boat_300 kW	Danube	Push Boat	20	-	?	300	2	36	1
Donau	Vessel 13_Push boat_750 kW	FARAG + Rhine	Push Boat	23	-	CCNR 2	750	2	65	1
Mercur 205	Vessel 14_Push boat_950 kW	Danube	Push Boat	35	-	?	950	2	70	2
Mercur 206	Vessel 15_Push boat_950 kW	Danube	Push Boat	35	-	?	950	2	70	2
Mercur 207	Vessel 16_Push boat_950 kW	Danube	Push Boat	35	-	?	950	2	77	2
Mercur 301	Vessel 17_Push boat_1250 kW	Danube	Push Boat	35	-	?	1250	2	77	2
Mercur 303	Vessel 18_Push boat_1250 kW	Danube	Push Boat	35	-	?	1250	2	77	2
Mercur 304	Vessel 19_Push boat_1250 kW	Danube	Push Boat	35	-	?	1250	2	77	2
Mercur 305	Vessel 20_Push boat_1250 kW	Danube	Push Boat	35	-	?	1250	2	77	2
Mercur 306	Vessel 21_Push boat_1250 kW	Danube	Push Boat	35	-	?	1250	2	77	2
Veerhaven XI	Vessel 22_Push boat_1350 kW	NL + Rhine	Push Boat	40	-	CCNR 2	1350	3	221	2
Symphonie	Vessel 23_Passenger_110m	Rhine	Passengers	110	-	?	450	3		

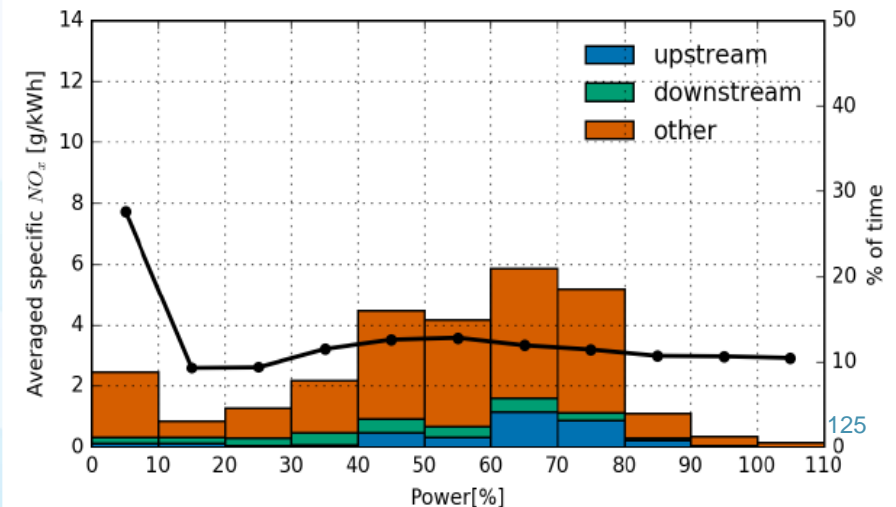
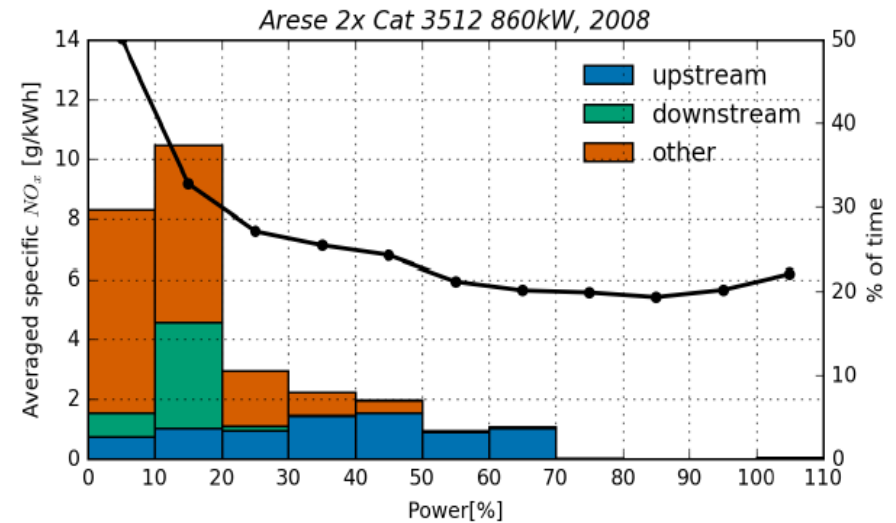
23  
VESSELS

# Monitoring of engine parameters and emissions

## Processed data

- Arese: measured NOx
- Symphonie:
  - Simulated after cat NOx using engine specs and temperature
  - Unknown: broken gps signal?

Source: TNO

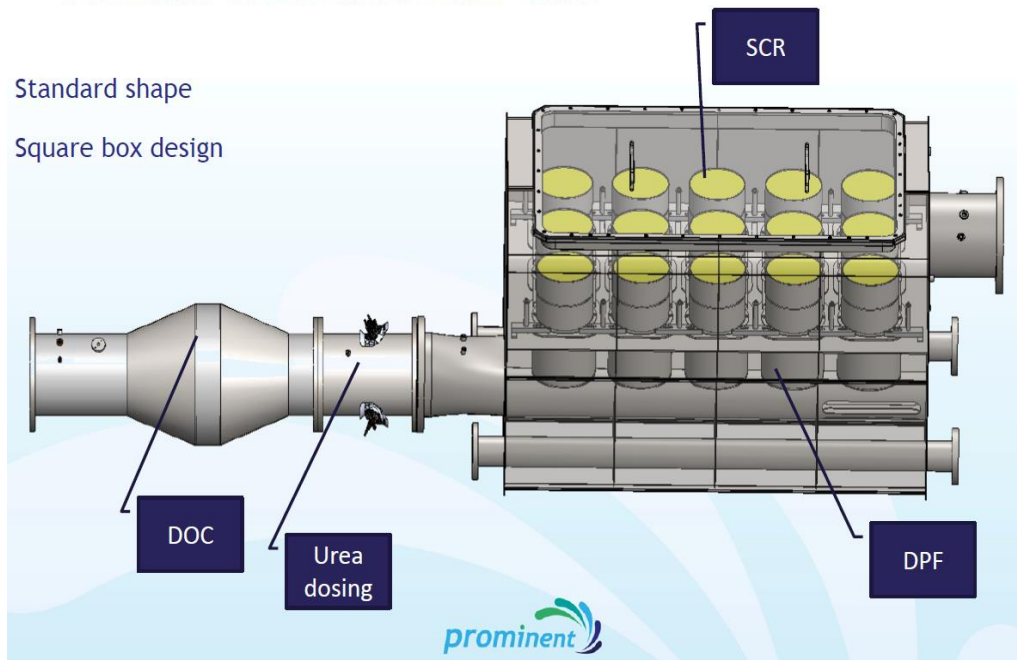


# Standardised solutions for exhaust-gas after-treatment

- B : Standard shapes / volumes and module # in function of exhaust flow rate

Standard shape

Square box design

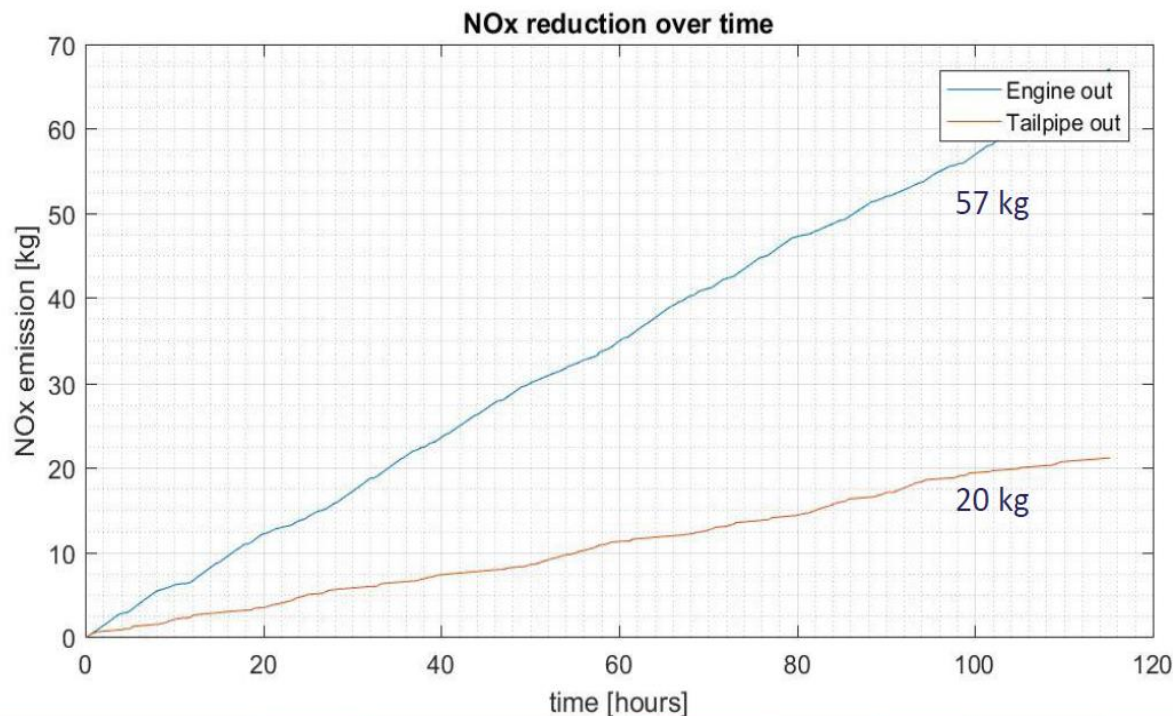


Source: Multronic



# Standardised solutions for exhaust-gas-after-treatment –first results

## Reductions first results: SCR + DPF



Effective NOx reduction of 65 %

Further improvement is expected from fine tuning



# Fleet modernisation

- Green Danube project

*Robert Rafael, Pro Danube International*



# GREEN DANUBE

**Integrated transnational policies and practical solutions  
for an environmentally-friendly Inland Water Transport system  
in the Danube region**



**GREEN DANUBE**

**Robert Rafael - PDM**

*11 May 2017, Vienna  
EUSDR PA1a – Steering Group Meeting*



Project co-funded by European Union Funds (ERDF, IPA)

# PERSPECTIVES



- Inland Waterways Transport (IWT) will grow with about 80% until 2040 compared to 2010
- In the year 2020 the average emission level of air pollutants of inland navigation vessels will in many cases be higher than that of trucks
- It is imperative to control the negative impact of emissions

**GREEN DANUBE** addresses  
the issue of  
**Inland Waterways Transport  
( IWT) pollutant emissions**  
along the Danube



# GENERAL INFORMATION

- **GREEN DANUBE DTP 1-043-3.1**
- **Priority Axis 3:** Better connected and energy responsible Danube region
- **Specific Objective 3.1:**  
Support environmentally-friendly and safe transport systems and balanced accessibility of urban and rural areas
- **Duration:** 30 months (January 2017 – June 2019)
- **Total Budget:** 1.586.244 EURO
- **ERDF Contribution:** 1.267.897,40 EURO
- **IPA Contribution:** 80.410 EURO



[www.interreg-danube.eu/green-danube](http://www.interreg-danube.eu/green-danube)

## Danube Transnational Programme



*Priority Area 3: Better connected and energy responsible Danube region*

**Project: GREEN DANUBE**  
**Total Budget:** 1 586 244 EURO  
**ERDF:** 1 267 897,40 EURO  
**IPA:** 80 410 EURO  
**ENI:** 0 EURO  
**Co-finance:** 237 936,60 EURO

*Start date*  
01-01-2017  
*End date*  
30-06-2019

*A stream of cooperation*

 **Interreg**   
Danube Transnational Programme  
GREEN DANUBE

Programme co-funded by the European Union

Integrated Transnational policies and practical solutions for an environmentally-friendly inland Water Transport system in the Danube region

# CONSORTIUM: 10 PPs+6 ASPs of 7 countries



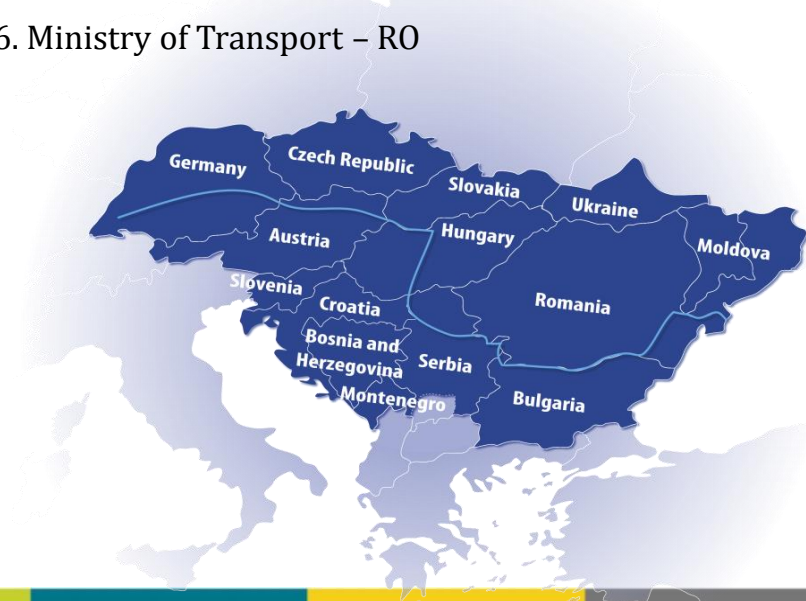
## Partners (PPs)

LP- CERONAV – Romanian Maritime Training Centre,

1. Pro Danube Management GmbH – AT
2. Black Sea - Danube Association of Research and Development – BG
3. Inland Navigation Development Centre Ltd – HR
4. Development Centre for Ship Technology and Transport Systems – DE
5. National Association of Radio Distress-Signalling and Infocommunications – HU
6. The Regional Environmental Centre for Central and Eastern Europe – HU
7. Danube Delta National Institute – RO
8. Association of Cross Border Cooperation „Lower Danube” – RO
9. Danube Competence Centre – RS

## Associate Strategic Partners (ASPs)

1. Danube Delta Biosphere Reserve Authority – RO
2. General Directorate for Water – HU
3. Directorate for Inland Waterways – RS
4. Danube Commission – HU
5. Executive Agency Maritime Administration – BG
6. Ministry of Transport – RO



■ Danube Transnational Programme area

Project co-funded by European Union Funds (ERDF, IPA)

# CHALLENGES and APPROACHES:



## Challenges:

**Air pollution** in the Danube Region

**Different emissions** due to different **technologies, fuels** and environmental **policies**

**Inadequate information** on environment protection

## Approaches:

**Contribution** to limit impact of IWT on the Danube ecosystem by measurements of emissions level and impact analysis

**Deploying** research focused on green technologies, alternative fuels and sailing behaviour by providing solutions and Policy Agenda

**Contribution** to raise public awareness on the impact of IWT on the nature by developing Environmental Information Centres



# GREEN DANUBE – SPECIFIC OBJECTIVES



SO 1- Contribute  
to limit impacts of  
IWT on the  
Danube ecosystem

SO 2 - Contribute  
to emissions  
reduction in the  
Danube ecosystem

SO 3 - Raise public  
awareness



## WORK PACKAGE 1 – Project Management

- ✓ *D 1.1.1 Project Handbook – final draft ready, only updates regarding contact details will be made if necessary.*

## WORK PACKAGE 2 – Project communication

- ✓ *D 2.1.2 Communication Plan – final draft ready*



# GREEN DANUBE Kick-off Event – Constanta, Romania

- ✓ 70 participants from relevant organizations and bodies, project partners and associated strategic partners.
- ✓ Representatives of Romanian Ministry of Transport, Romanian Naval Authority, local universities, environmental bodies and NGOs expressed their interest in fighting the environmental pollution in the inland waterways sector.



Danube Transnational Programme  
**GREEN DANUBE**

Project co-funded by European Union Funds (ERDF, IPA)

# WORK PACKAGE 3 - AIR EMISSIONS ASSESSMENT



- **Act. 3.1** Set up assessment criteria for selection of the critical environment areas on the Danube
  - ✓ *4 critical areas along the Danube were selected:*
    - ✓ Danube Delta - Sulina Channel (RO) Mm 0 - 34
    - ✓ Iron Gates I (RO-RS) Km 930 - 947
    - ✓ Gemenc (HU) Km 1475 - 1480
    - ✓ Engelhartzell - Confluence of the Danube and Inn river (DE-AT) Km 2200 - 2224
- **Act. 3.2:** Performance of measurements of air pollutant emissions in the selected areas
  - ✓ *work on measurement methodology is in progress*
- **Act. 3.3:** Analysing, interpreting and reporting of the measurements results

❖ *activity will start on 1st January 2018*

# WORK PACKAGE 4 - GREEN TECHNOLOGIES



- **Act. 4.1** Survey on characteristics and operating regimes of IWT vessels passing monitored areas
  - ✓ *collection of data started after having identified the sources*
- **Act. 4.2** Inventory of innovative technologies and best practices for emission reduction on the Danube
  - ✓ *collection of relevant information in progress*
- **Act. 4.3** Inventory of existing facilities and future option for supply of alternative fuels
  - ✓ *collection of relevant information in progress*
- **Act. 4.4** Strategy for emissions reduction by using green technologies
  - ❖ *activity will start in March 2018*

# WORK PACKAGE 5 -EU POLICY SUPPORT



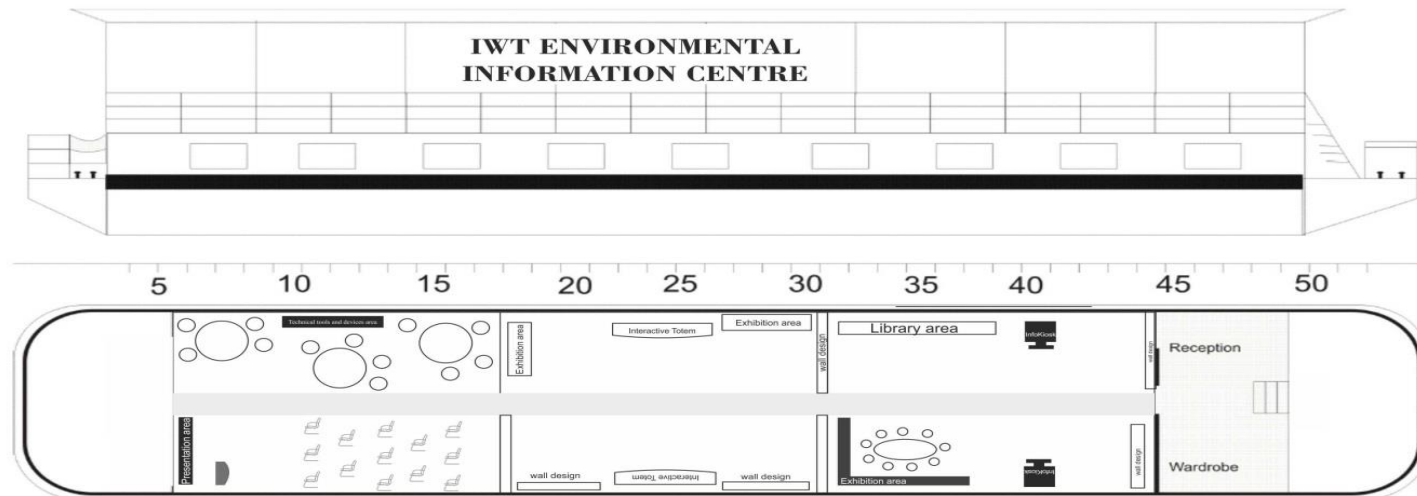
- **Act. 5.1:** Analysis of the existing policy and legislative framework
  - ✓ *preparation of inception report in progress*
  - ✓ *activity started on 1st May 2017*
- **Act. 5.2:** Development of policy agenda on integration project outputs into existing legislative framework
- **Act. 5.3:** Policy Agenda transnational validation



# WORK PACKAGE 6-RAISING PUBLIC AWARENESS



- **Act. 6.1:** Joint development of an IWT Environmental Information Centre (EIC) concept
  - ✓ *IWT EICs will be located in Romania, Croatia, Serbia*
  - ✓ *Mobile centre in Hungary will cover also Austria, Germany and Bulgaria*
  - ✓ *Existing ITC – InfoDanube developed in NELI and HINT projects will be adapted and equipped for environmental issues*



# WORK PACKAGE 6-RAISING PUBLIC AWARENESS



- **Act. 6.1:** Joint development of an IWT Environmental Information Centre (EIC) concept

## *6.1.2 Equipment and multimedia elements*



InfoKiosk



Interactive presentation system

# WORK PACKAGE 6-RAISING PUBLIC AWARENESS



- **Act. 6.2:** Set up of IWT Environmental Information Centres within existing ITCs
  - ✓ *Procurement of equipment in progress*
- **Act. 6.3:** Transnational pilot actions and campaign with newly developed IWT EICs
- **Act. 6.4.** Strategy for set up of a IWT EICs platform

❖ *Activities will start later this year*

# NEXT GREEN DANUBE PARTNERS MEETING



- ❖ *Will take place at Danube Competence Centre office in Belgrade, Republic of Serbia.*
- ❖ *Project Partners and Associated Strategic Partners will be present.*
- ❖ *All stakeholders will be informed regarding the results of the meeting and actions to be taken.*





## FURTHER READING:

<http://www.interreg-danube.eu/green-danube>  
<https://www.facebook.com/GreenDanube/>  
<https://www.facebook.com/InfoDanube>  
<http://www.infodanube.ro>  
<https://www.facebook.com/INDanube/>  
<https://www.linkedin.com> Danube Knowledge Network



**Thank you!**



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CERONAV

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Project co-funded by the European Union Funds (ERDF, IPA)



# Education & Jobs

- Danube SKILLS

*Anton Edtmeier, FH Oberösterreich*

**Danube Transnational Programme**  
**Danube SKILLS**

*Increased institutional capacity in Danube navigation by boosting joint transnational competences and skills in education and public development services*

# **Danube SKILLS Project**

**Anton Edtmeier**

University of Applied Sciences Upper Austria (FH00)

EUSDR PA1a Steering Committee Meeting

*11 May 2017, Vienna*

## ***Danube SKILLS***

### **Funding programme** Danube Transnational Programme (DTP)

**Priority Area** PA 4  
Well governed Danube Region

**Specific Objective** SO 4.1  
Improve institutional capacities  
to tackle major societal challenges

**Project duration** 30 months  
(January 2017 – June 2019)

**Project budget**  
2,023,100  
EURO



**Funding rate**  
85% (ERDF, IPA)

# Danube region today



### Challenges addressed:

- Fragmented legal framework governing professional qualifications in inland navigation;
- Lack of transparency and knowledge on how to integrate green Danube Navigation into sustainable transport solutions.



# Danube region of tomorrow








### Project results

- Harmonized education, training and certification of inland navigation personnel → increased mobility of work force;
- Public institutions responsible for Danube navigation development acting as 1-stop-shops for Danube logistics → raise of modal share of Green Danube transport;
- Set-up of institutional (= sector-wide) Capacity Building cooperation for improving legal and policy frameworks on nautical qualifications and Danube transport promotion.

# Danube SKILLS Consortium

Lead Partner and 14 partners from 8 Danube riparian countries:

Serbia	Croatia	Germany	Romania	Austria	Slovakia	Bulgaria	Hungary
							
SBBH PGA	CRUP FPZ	DST	CER RoMT UPIR	VIA FHOO	MSB ARVD	BMA FBTI	RSOE

7 Associated Strategic Partners from 7 countries:

Croatia	Germany	France	Netherlands	Czech Republic	Belgium	Hungary
						
SC	VBW	CCNR	EDINNA	CzMT	ETF	DC





# Kick off Event

Details: 21 February 2017 in Capital Plaza Hotel, Bucharest, Romania

## Highlights

- 82 participants, including representatives of national and European administrations, public authorities, social partners
- a visit to the Parliament House and discussions with a member of the Romanian Chamber of Deputies
- high interest in project activities and expected results.



# First Partners Meeting



Details: 22 February 2017 in Capital Plaza Hotel, Bucharest, Romania

## Highlights

- Participants: all project partners, including representatives of Associated Strategic Partners (Danube Commission, Sava Commission, EDINNA), representatives of national and European administrations, public authorities and social partners
- successful planning of project activities



# Harmonized IWT education system

## Goals

- Promotion of the EU Directive on recognition of professional qualifications in inland navigation
- Investigation of state of play of legislative framework governing IWT professional qualifications

## Actions

- National workshops in all 8 countries disseminating the new Directive and taking stock of current legal framework (*January 2017 – September 2017*);
- Analysis of state of play in the Danube education, training and certification system (*final report – September 2017*)

# Ongoing activities

**National workshops** carried out in:

- Romania – Galatz, 30 March 2017
- Austria – Vienna, 3 April 2017
- Bulgaria – Rousse, 19 April 2017
- Hungary – Budapest, 20 April 2017



## Highlights

- a large number of participants in attendance and/or filling out questionnaires under the public consultation
- interpretation of questionnaires in progress, a first preliminary report to be submitted to CESNI/QP today, 11 May in Budapest.

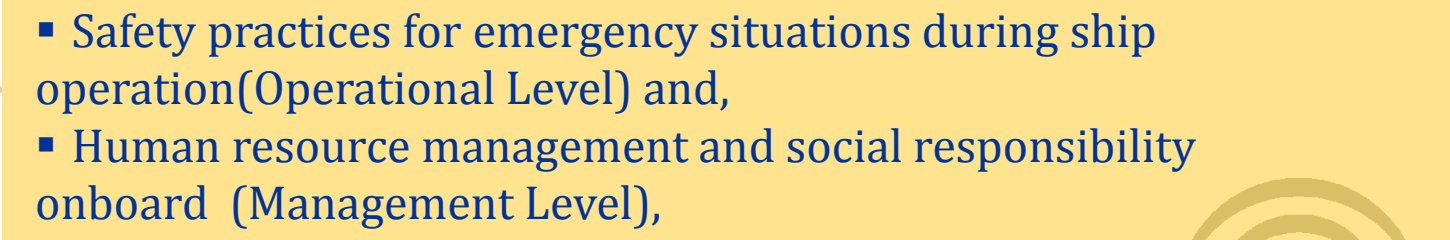


# Transnational learning tools

## Goals

Fostering capacity building of education and training institutions by supply of new transnational innovative learning tools and associated implementation method including:

- **development of two model courses:**

- 
- Safety practices for emergency situations during ship operation (Operational Level) and,
  - Human resource management and social responsibility onboard (Management Level),

based on Standards of competences established by CESNI  
(October 2017 – May 2019)

- **development of associated implementation method**





# Capacity building of partners



## Goals

Acquisition of skills and competences by the public inland navigation education and training institutions within the consortium by:

- **organisation of train-the-trainer sessions for partners:**
  - Constanta (February 2018) Safety practices for emergency situations during ship operation
  - Bratislava (September 2018) Human resource management and social responsibility onboard
- **development of an evaluation report whose findings shall be used for subsequent pilot actions**





# Capacity building of stakeholders

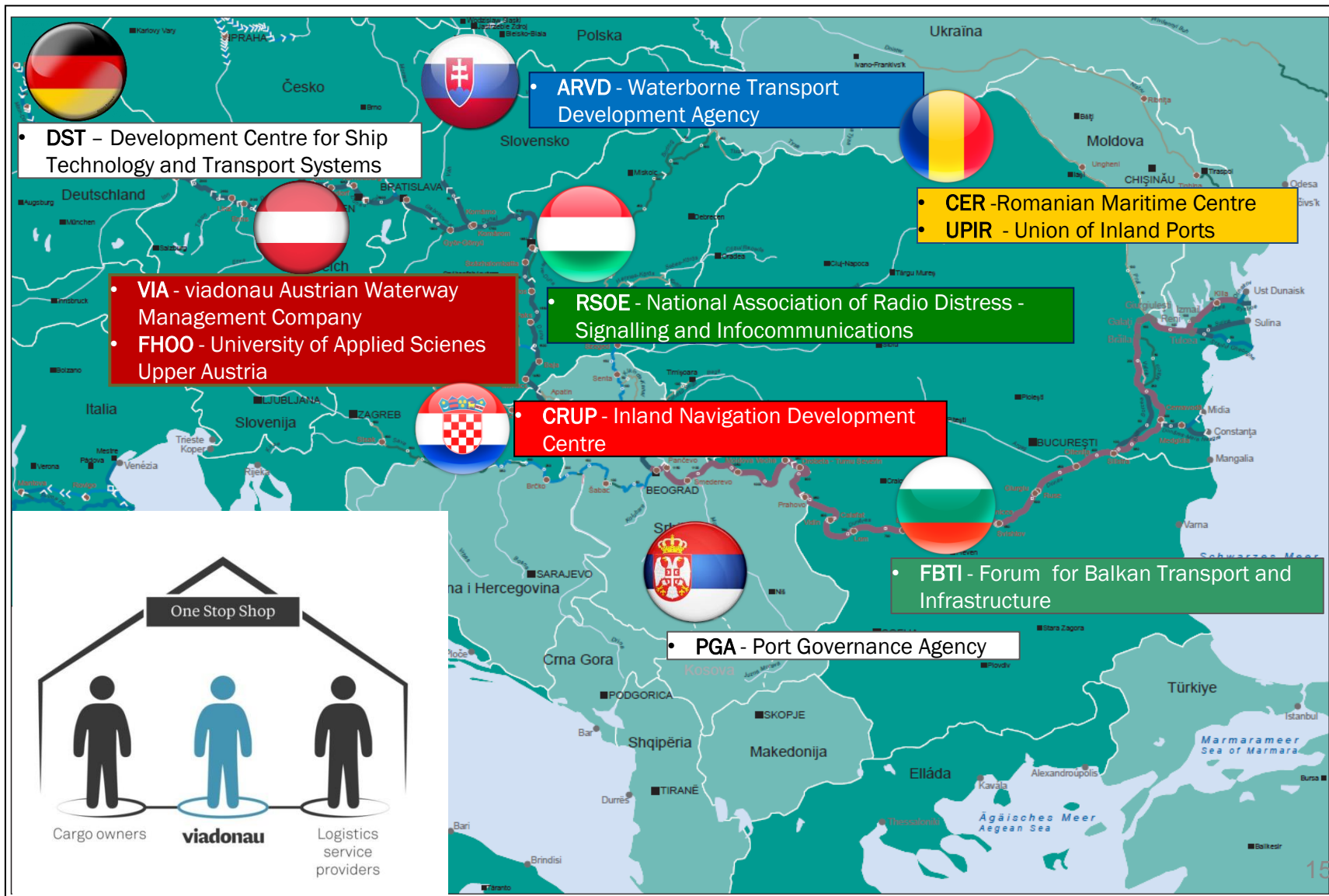
## Goals

Acquisition of competences and skills by public and private stakeholders outside the consortium *by*:



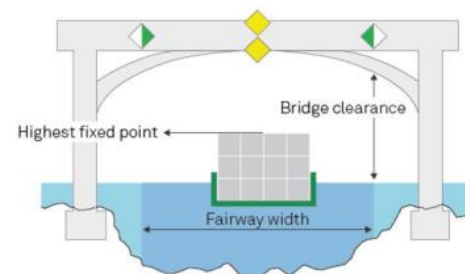
- pilot actions organized by all project partners in RO, AT,SK, HR, HU, DE and RS with representatives of public and private education and training institutions, inland shipping companies, certification authorities and individual crew members. Attendance of relevant stakeholders from UA and MD to pilot courses organized in RO (*September 2018 – May 2019*) also planned;
- preparation of national (8) and consolidated evaluation report (1) summarizing the results of the pilot actions

## Danube SKILLS -One-Stop-Shops on modal share competences in the Danube region



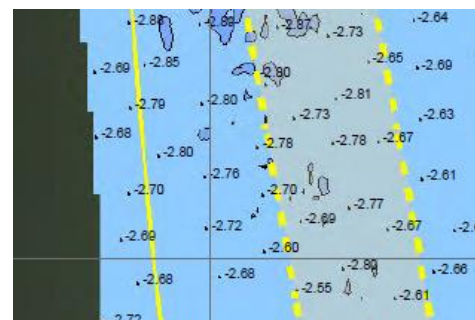
### General information on the Danube Transport Axis

- Navigability
- Types of vessels
- Locks, bridges, list of public berths



### Information on the Danube fairway

- Water levels, shallow sections
- Interactive maps
- Inland Electronical charts
- Danube FIS, NtS (entire Danube Region)
- Analysis of navigability



### Ports and Terminals

- Danube Ports ([www.danube-logistics.info/danube-ports/](http://www.danube-logistics.info/danube-ports/))
- List of High&Heavy ports in Danube Region
- List of Danube logistics service providers for H&H



# Analysis of state of play in the Danube modal share promotion, as a first step to „One-Stop-Shops“:

- **Supply side**
  - *(Supply = Current offered information and promotion services of existing potential operators)*
  - Analysis of existing services, Best practices etc.
- **Demand side**
  - *(Demand = Desired information and promotion services by stakeholders & users)*
  - Survey (DE till RO), based on expert interviews (transport and cargo owners)
- **Working Programme**
  - Joint transnational agreement among all Danube SKILLS „One-Stop-Shops“ to become these in their countries and regulations on the transnational exchange and collaboration with others.



### Goal

Set-up of institutional cooperation for improving policy frameworks in Danube navigation (*May 2017 – June 2019*), by development and validation of:

- a policy support strategy for the integration of Danube navigation in overall European nautical education legal framework
- a policy support strategy for long-term institutional capacity building of public institutions responsible for Danube navigation development implementing the goals of EUSDR
- a joint transnational action plan for implementation of Danube SKILLS policy support strategies



Involvement of EUSDR PA1a Steering Group is crucial for successful development and validation of project outputs!



Please follow progress of activities on:

[www.interreg-danube.eu/danube-skills](http://www.interreg-danube.eu/danube-skills)

[www.facebook.com/Danube-Skills](https://www.facebook.com/Danube-Skills)







# Interreg



Danube Transnational Programme  
**Danube SKILLS**

## Thank you for your attention!



■ Danube Transnational Programme area

**Anton Edtmeier**

*FH00*

anton.edtmeier@fh-steyr.at:

[www.interreg-danube.eu/danube-skills](http://www.interreg-danube.eu/danube-skills)

Project co-funded by European Union funds (ERDF, IPA)

# Administrative processes

- PA1a/PA11 Working Group on administrative processes

*Gert-Jan Muilerman, viadonau*

# Improvement of border controls along the Danube



## Administrative Processes



"Promote sustainable freight transport"

- Initiative of **PA 1a** (Danube logistics sector) in cooperation with **PA11** (border control authorities) → establishment of a joint working group
- Urgent need for **simplification**, **harmonisation** and **digitalisation** of border control processes along the Danube – confirmed by control authorities and shipping companies
- First **know-how exchange** and analysis of **framework conditions** concluded
- Now is the time to switch **from analysis to implementation**

# Recommendations for improved border controls along the Danube - 3 measures coordinated by PA11

M04. Provide **transnational training and know-how exchange** for control bodies to ensure harmonised control mechanisms (special focus on ADN)

M10. **Limit the number of officials entering the ship**, as they intrude upon the privacy of the ship's crew

M11. Review **control processes and forms** to evaluate the purpose of all requested data and information

# Recommendations for improved border controls along the Danube - 5 measures coordinated by PA1a

M01. Draft a set of **templates for selected control forms** to be unified and elaborate multilingual versions

M05. Update and disseminate the **“Practical Manual on Border Controls along the Danube”**

M06. Monitor the observance of officially published **opening hours** at all control points

M14. Review **Practical Manual** and provide feedback to the Technical Secretariat of the EUSDR PA1a

M15. Discuss issues addressed by **multiple/repeated complaints** in the EUSDR PA1a working group

# Danube Navigation Standard Forms (DAVID)

## Arrival and departure report – FIRST PROPOSAL

ARRIVAL AND DEPARTURE REPORT (based on IMO FAL Form 1)			
		<input type="checkbox"/> Arrival	<input type="checkbox"/> Departure
1.1 Name and type of ship (main vessel)		1.2 Ship number (main vessel)	
1.3 MMSI number - if applicable		1.4 Vessel certificate valid until (main vessel)	
2. Port of arrival/departure		3. Date and time of arrival/departure	
4. Nationality of ship (country/area of registration)	5. Name of master	6. Control point	
7. Total length [m]/Total width [m]		8. Name and contact details of ship operator	
9. Actual Draught [m]	10. Maximum tonnage [t]/ Total quantity of cargo [t]		
11. Position of the ship in the port (berth or station) - if applicable			
12. Brief particulars of voyage (previous and subsequent ports, underline where cargo will be discharged)			
13. Brief description of the cargo			
14. Number of crew	15. Number of passengers - if applicable	16. Remarks	
Attached documents - if applicable (indicate number of copies)			
17. Cargo Declaration	18. Ship's Stores Declaration	21. The ship's requirements in terms of waste and residue reception facilities	
19. Crew List	20. Passenger List		
22. Crew's Effects Declaration (only on arrival)	23. Declaration of Health (only on arrival)		
24. Date and signature by master, authorized agent or officer			

For official use

To replace the following national documents

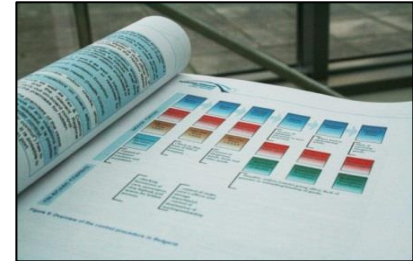
- HU: Érkezési – Indulási Jelentés
- RS: Dolazni / Odlazni Raport
- HR: Entree / Departure Rapport
- BG: Ship Arrival/Departure Notice
- RO: adapted IMO General Declaration
- MD: IMO General Declaration
- UA: no draft control forms provided





# Update: Practical manual for border control procedures along the Danube

- PA1a and PA11 contacted control authorities with a request to provide, update and confirm the information:
  - detailed information on specific control points
  - opening hours, contact information of control authorities, place of controls etc.
  - steps of the control process including control forms
- Special focus on countries that did not provide any or insufficient data (e.g. Croatia, Serbia, Ukraine) and countries, where major changes were implemented in the control system (e.g. Bulgaria/Single Window)
- **PA1a and PA11 published the updated Practical Manual on the EUSDR PA1a website: [www.danube-navigation.eu/wg-6-administrative-processes](http://www.danube-navigation.eu/wg-6-administrative-processes)**



# Administrative processes

- DANTE project

*Róbert Rafael, Pro Danube International*

# DANTE

Improving Administrative Procedures and Processes for Danube IWT



## PROJECT INTRODUCTION

*11<sup>th</sup> May 2017, Vienna  
EUSDR PA1a Steering Group Meeting*



Project co-funded by European Union Funds (ERDF, IPA)



# Danube Waterway: High Potential – Numerous Challenges

## *Potentials*

- Danube serves an economic area of circa 90 mio. inhabitants
- Connects CE & SEE with growing markets in Black Sea Region
- Environmentally friendly transport corridor
- Can provide cost-effective logistics for land-locked industries ensuring competitiveness and jobs

## *Challenges*

- Ensure standards for waterway maintenance
- Elimination of infrastructure bottlenecks
- Promotion of investment in Danube Ports and unlocking their economic potential
- Modernize Danube fleet
- ***Reduce logistics costs by elimination of administrative barriers***

# How to deal with administrative barriers?



- Identify administrative barriers for IWT on Danube and tributaries and responsible authorities
- Set up an efficient and permanent monitoring system for collecting users experiences (supported by online tools)
- Set up and operate a working platform with responsible authorities in order to adapt administrative procedures and processes with the objectives to reduce administrative efforts and costs for waterway users
- Identify good practices and guidelines for effective administration of IWT activities
- Promote stronger harmonized procedures and processes of authorities effecting IWT transport on Danube and navigable tributaries



**→ Set-up of the DANTE project in the DTP's 1<sup>st</sup> Call in line with the objectives of the EU Strategy for the Danube Region**



# Green Deal for Danube River Transport – Rationale & Concept



1. Eco-efficient & reliable transport system needed for sustainable growth in region
2. Danube logistics can provide cost-effective logistics solutions to many industries supporting competitiveness, growth & jobs
3. High economic potentials of Danube withheld by infrastructure shortcomings, unfavourable regulatory framework & structural problems
4. Long-term cooperation of public & private sector can break vicious cycle of infrastructure degradation & reduction of transport demand
5. Restoration of trust into Danube through commitment of stakeholders

## "GREEN DEAL FOR DANUBE RIVER TRANSPORT"



## Existing EU Programs / National Programs / Lead Projects / Financing Schemes

## EUSDR PA1A & Danube Corridor Plan & Danube Innovation Centre (INDanube / EIBIP)

# Green Deal official launching event

## Danube Transport Day European Parliament

7 September 2016, 16:00-18:00



**pro DANUBE**



### Policy makers



Com. Corina Cretu



Herald Ruijters / DG MOVE



Ionut Mosteanu / RO MT

### MEPs



Georgi Pirinski / BG



Gessine Meissner / DE



Ismail Ertug / DE

### Key industry representatives from the Danube Region



W. Lüftner / Lüftner Cruises



M. Viefers / Rhenus Logistics



A. Stoean / TTS SA



## Objectives of the DANTE project

- Improve administrative procedures and reduce bureaucratic processes as well as related charges and fees for IWT on Danube and navigable tributaries
- Cooperate with public authorities to develop and implement simplified administrative procedures and processes
- Reduce time losses and costs caused by unnecessary administrative regulations and processes for Danube businesses
- Eliminate/Reduce red tape and abuse of administrative power
- Strengthen the competitive position of companies, support economic growth and the creation of jobs in the region by increased efficient public administration
- Introduce stakeholder consultation procedures and processes in legal and regulatory acts of public administration relevant for IWT
- Harmonize regulations and administrative processes for transport and transshipment operations (“Same River-Same Rules” concept)

# Thematic areas



	GOOD PRACTICES								TRANSNATIONAL MEETINGS
	Germany	Austria	Slovakia	Hungary	Croatia	Serbia	Romania	Bulgaria	
Border Police and Tax & Customs authorities	Proposed Action holder: Danube Commission								
	External peer expert for each country to be selected during the roll-out								
Navigation authorities (traffic control authorities)	Proposed Action holder: Austria – PDI								
	External peer expert for each country to be selected during the roll-out								
Port authorities (Harbor master) /administrations	Proposed Action holder: Hungary – MAHOSZ								
	External peer expert for each country to be selected during the roll-out								
Waterway and Canal administrations	Proposed Action holder: Romania – PDR								
	External peer expert for each country to be selected during the roll-out								
Other authorities	Proposed Action holder: Bulgaria – BRCCI								
	External peer expert for each country to be selected during the roll-out								
	NATIONAL WORKING TABLES								
	REQUIRED CHANGES								

TRANSNATIONAL MEETINGS

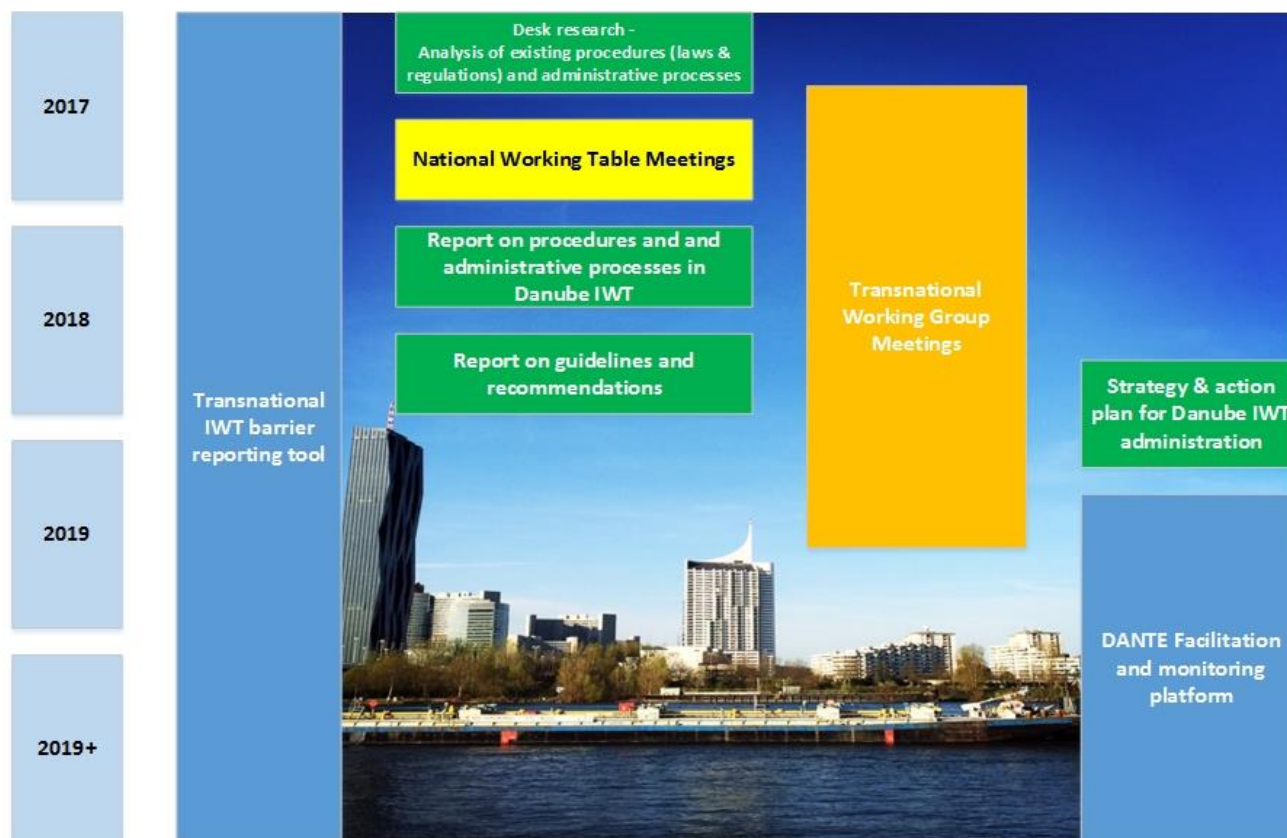


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# Work approach



## DANTE - IMPROVING ADMINISTRATIVE PROCEDURES AND PROCESSES FOR DANUBE IWT

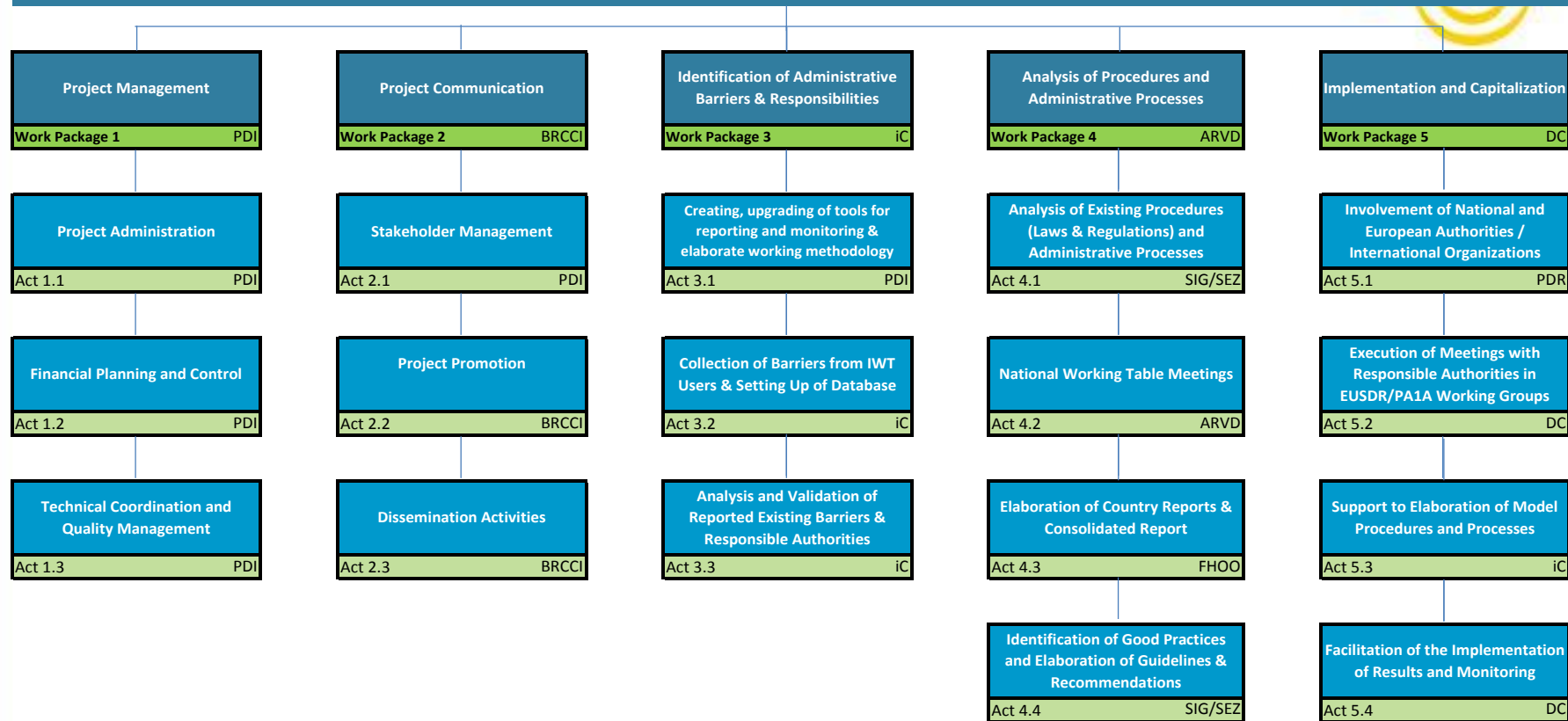




# Work breakdown structure - overview



## Improving Administrative Procedures and Processes for Danube IWT (DANTE)



# Project properties



## ERDF Partners:

- Pro Danube International
- Danube Commission
- Steinbeis Innovation gGmbH, Steinbeis-Europe-Center / DE
- iC consulenten ZT GesmbH / AT
- University of Applied Sciences Upper Austria (FHOO)
- Waterborne Transport Development Agency (ARVD) / SK
- Slovak Shipping and Ports JSC / SK
- Hungarian Shipping Federation (MAHOSZ)
- Hungarian Federation of Inland Waterway Freight Forwarders (MBFSZ)
- Romanian Ministry of Transport
- Romanian River Ship Owners and Port Operators Association (AAOPFR)
- Pro Danube Romania
- Constanta Port Business Association
- Port Authority Vukovar
- Bulgarian-Romanian Chamber of Commerce and Industry

## IPA Partner:

- Shipmasters Association of Serbia

## Associated Strategic Partners:

- International Sava River Basin Commission
- Rhénus Logistics Austria GmbH
- Hungarian Federation of Danube Ports
- BRODOKOMERC NS d.o.o. / RS
- Port BULMARKET EAD / BG
- Union of Romanian Inland Ports
- Danube Cruises Romania srl
- Danube Logistics SRL / MD
- Ministry of Maritime Affairs, Transport and Infrastructure
- Ministry of National Development / HU
- State Enterprise Ukrainian Sea Ports Authority
- Ministry of Transport, Construction and Regional Development of the Slovak Republic
- **Duration of the project:** January 2017 - June 2019
- **Total budget:** 1,982,786 EUR
- **ERDF Contribution:** 1,650,134.75 EUR
- **IPA Contribution:** 35,233.35 EUR

# Administrative barriers – Electronic Reporting Tool



- Objectives in line with the vision of “Same River – Same Rules”
  - To provide a tool for the stakeholders of Danube navigation:
    - » to report administrative barriers that they have experienced
    - » to name positive experiences
  - Sound database is pre-condition for putting lights on barriers
  - Will be the basis for interventions / further actions



[www.prodanube.eu/administrativebarriers](http://www.prodanube.eu/administrativebarriers)

# Cooperation between PA1a and DANTE



- **EUSDR PA1a** provides an implementation platform for targeted measures to improve administrative processes along the Danube
  - definition of thematic priorities: currently border controls
  - work programmes & concrete measures to eliminate administrative barriers
  - working groups including public authorities, shipping sector and interest representations to monitor implementation
  - permanent consultation with the governmental stakeholders
- **DANTE** will feed PA1a with practical sector inputs by
  - identifying administrative barriers and proposing viable solutions for their elimination
  - organising and focusing the shipping sector's support for the implementation of measures
  - claiming and monitoring improvements of specific administrative processes towards public authorities including feedback on the existing procedures
  - defining the Danube IWT Administration Strategy





# Thank you for your attention!



**Alexandru Capatu**  
**Manfred Seitz**  
**Robert Rafael**

Pro Danube International

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<http://www.interreg-danube.eu/dante>

# Summary

- Summary of PA1a project landscape
- Information on Seed Money Facility



# Seed Money Facility

- Direct financial scheme that the DTP offers to support the EU Strategy for the Danube Region (EUSDR) in reaching its targets
- This instrument is meant to provide support the development of complex strategic transnational projects in the thematic fields of the EUSDR, regardless the financial instrument to be addressed afterwards (e.g. Interreg, Horizon2020, national or regional funds etc.).
- The DTP will launch a call on the Seed Money Facility in autumn 2017 and it will organise a launching event in Vienna (Austria) on 27th September 2017.

# Key dates

- Co-financing rate 85% and max. 40.000 EUR (tbd)
- Lump sum contracts
- Expenditures will be reimbursed after the completion of the project.
- Duration of the projects is expected to be 12 months.
- Eligible project partners: are bodies that have legal personality and belong to one of the following types of organisation:
  - National, regional and local authorities
  - bodies governed by public law
  - international organisations and
  - private bodies (including private enterprises from EU countries of the programme area)
- Eligible project partners are from the partner countries and regions of the Danube Transnational Programme (which is identical with the area of the EUSDR).
- Managing body: DTP Joint Secretariat (Budapest)

# Seed Money Facility: List of topics PA1a

<b>Improvement of fairway conditions along the Danube and its navigable tributaries</b>	Stable fairway conditions are the basis for profitable Danube navigation. Measures to achieve such a situation have been summarised in the Fairway Rehabilitation and Maintenance Masterplan, which was endorsed by the Danube Ministers of Transport in 2014. Although the PA1a Working Group on Waterway infrastructure & management is continuously active, all additional project initiatives to solve bottlenecks or improve waterway management procedures are most welcome. The transnational impact of projects in this thematic area is inherent, as they improve the entire transport axis.
<b>Modernisation of the inland waterway fleet</b>	All projects and studies that aim to raise the operational efficiency of vessels and reduce emissions contribute to the environmental and economic performance of inland navigation. Thereby, they enhance competitiveness of the sector and contribute to the achievement of the PA1a targets.
<b>Reduction of administrative barriers in Danube navigation</b>	This thematic cluster aims at improving border control procedures. All measures to reduce waiting times at border crossings as well as the duration of controls are beneficial for the inland waterway industry. This would contribute to the target set for PA1a to increase cargo transport on the river. The involvement of control authorities and decision-makers at EU-level is crucial. The transnational impact of projects in this thematic area is inherent.

# Request for Letter of Recommendation

- DTP-project proposal MEASURES

# Key dates „MEASURES“ project

- To be submitted in the 2nd call of the Danube Transnational Programme (Interreg) under Specific Objective 2.3 ‘**Foster the restoration and management of ecological corridors**’.
- The main objective of MEASURES is to **enhance and protect aquatic bio-corridors for migratory fish** in the Danube River Basin: Identify, map and connect migratory fish habitats to contribute to an enhancement of aquatic ecological corridors within the Danube network and develop and test conservation measures.
- Involved stakeholders: **ICPDR** as superordinate organization in charge of preparing the River Basin Management and Flood Management Plans is involved on basin-scale, as well as relevant **PAs of EUSDR (PA1a, 4, 6)**. On European level, exchange involves **DG ENV** and **DG MOVE**.
- **Lead partner:** Institute of Hydrobiology and Aquatic Ecosystem Management at the University of Natural Resources and Life Sciences, Vienna (BOKU) / Austria

# Decision on Letter of Recommendation

- Written procedure until 30th May 2017



# Next Steering Group meeting: 29th November 2017 in Brussels