

3rd Working Groups and 4th Steering Group Meetings

EU Danube Region Strategy
Priority Area 1a
to improve mobility and intermodality: inland
waterways

November 07th – 08th 2012, Belgrade, Serbia



Vladimír NOVÁK



CONTENT

- a) New projects (not in progres)
- b) Changes in actual projects (MreNa project in progress)
- c) New relevant information
(new plenipotentiary for the Gabčíkovo – Nagymaros Water Works System)
- a) Ideas for the future (to ensure progress in planed and approved actions)
- b) Common actions from relevant WP point of view
(see next relevant slides)



NEW PROJECTS

At the moment not in preparation

CHANGES IN ACTUAL PROJECTS

- MreNa project in progress
„Feasibility study – Morava river, recreational navigation, r.km 0,00 – 69,30“
- Data sheet for MreNa project available
- Letter of Recommendation is required at 4th Steering Group



New relevant information

- Mr. Ladislav Lazár was nominated by the Government of the Slovak Republic for a new plenipotentiary for the Gabčíkovo – Nagymaros Water Works System
- Date of nomination – October 25th 2012
- Mr. Lazár is also Director General of the Watermanagement Construction, s.e. – operator of the Water Work Gabčíkovo



New relevant information

source: Waterborne Transport Development Agency
Watermanagement Construction, s. e.

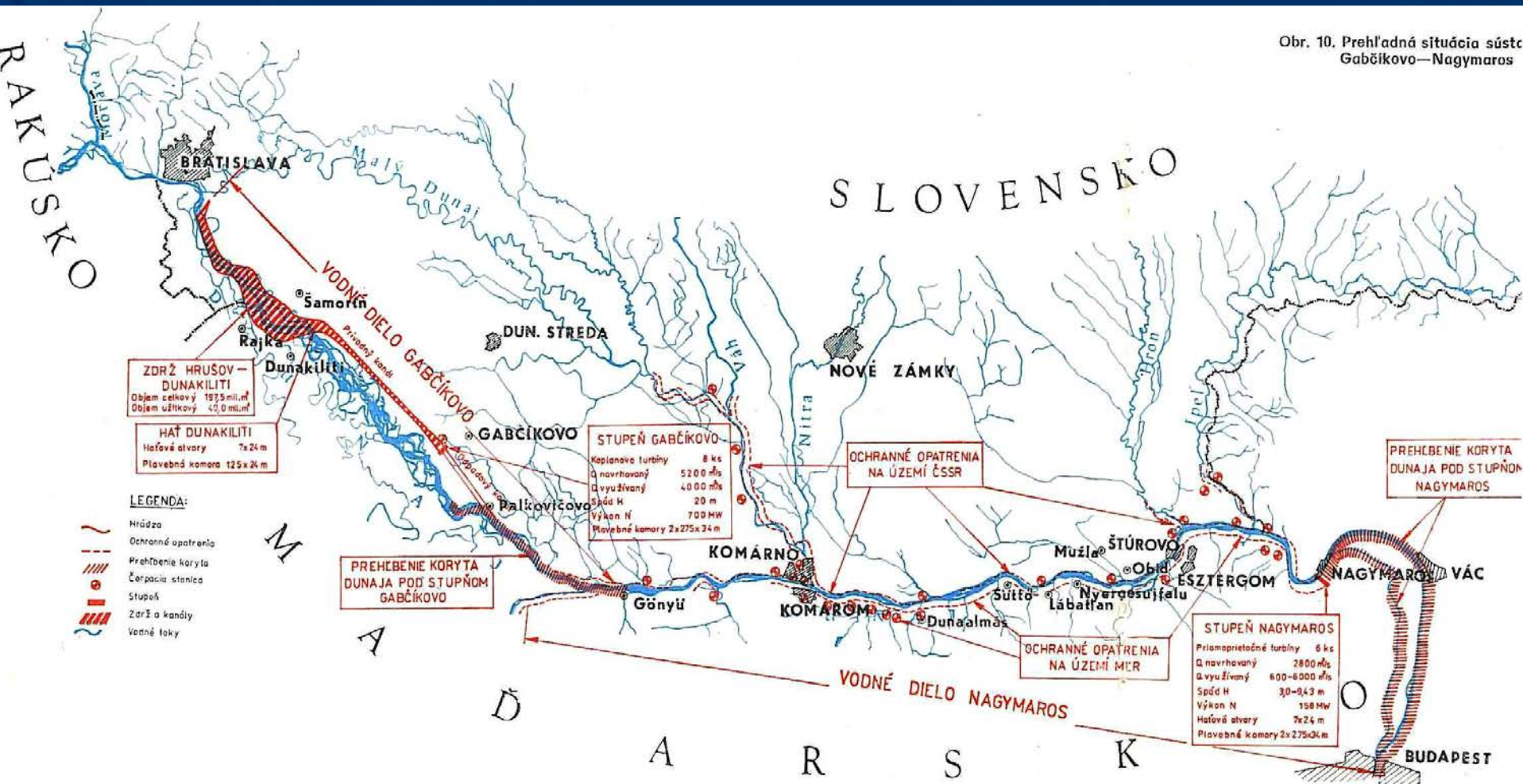


- 20. years of Danube damming (24.10.1992) in Čunovo area;
- start of so called „Variant C“ realisation of the Water Work Gabčíkovo as a part of designed common Slovak-Hungarian Water Works System Gabčíkovo – Nagymaros;
- 20 years of operation – very important Water Work from navigation conditions point of view;
- 35 years by „Treaty 1977“ (Common Czechoslovak-Hungarian Treaty on Construction and Operation of SVD G-N) signing. Water Work Nagymaros not yet built / Water Works Gabčíkovo – Nagymaros System not yet completed.
- 15 years (in the year 1997) after Judgment of the International Court of Justice in The Hague decision

source: Watermanagement Construction, s. e.

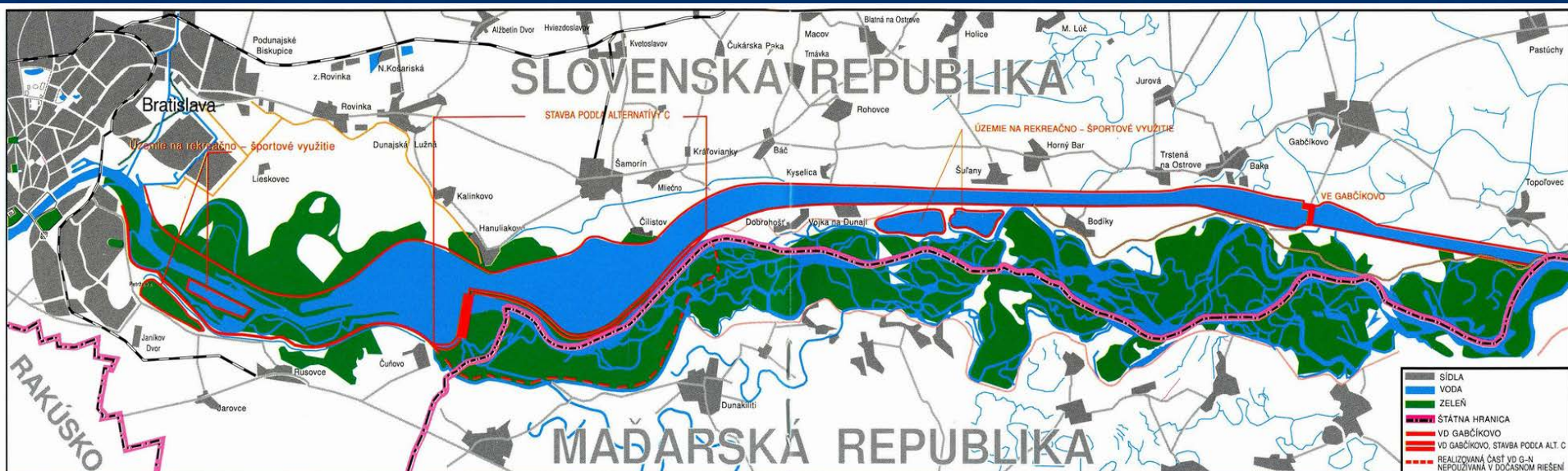
Scheme of Water Structure System Gabčíkovo - Nagymaros








Obr. 10. Prehľadná situácia sústavy
Gabčíkovo—Nagymaros



source: Watermanagement Construction, s. e.

Scheme of Water Structure Gabčíkovo



-  settlements
-  water
-  forests
-  state border
-  water structure system G-N
-  water structure system G-N, alternative variant „C“
-  built part of water structure system G-N - unused

source: Watermanagement Construction, s. e.

Lock Chambers Čunovo



Parameters:

Length 130,7 m; 55,7 m;

Width 24,00 m;

upper segment height 9,8 m,

lower 11,6 m,

difference of water level 7,6 m

source: Watermanagement Construction, s. e.

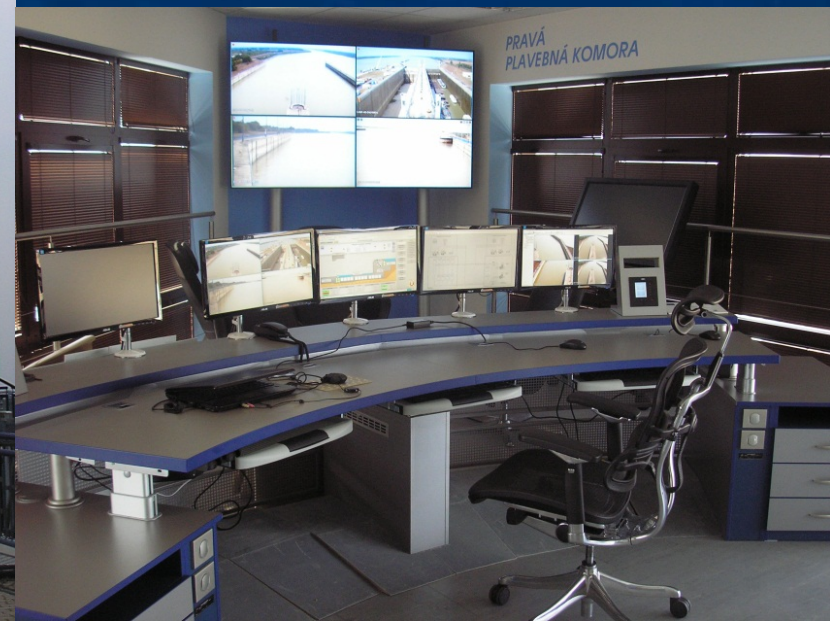
Lock Chambers Gabčíkovo

- 275 m length, 34 m width, upper segment height 8,6 m, lower gate 21,1 m, difference of water level 23 m
- from the year 1992 - 304 409 vessels through chambers, it means 116 499 thousands of ton
- 5,3 mil. passengers.



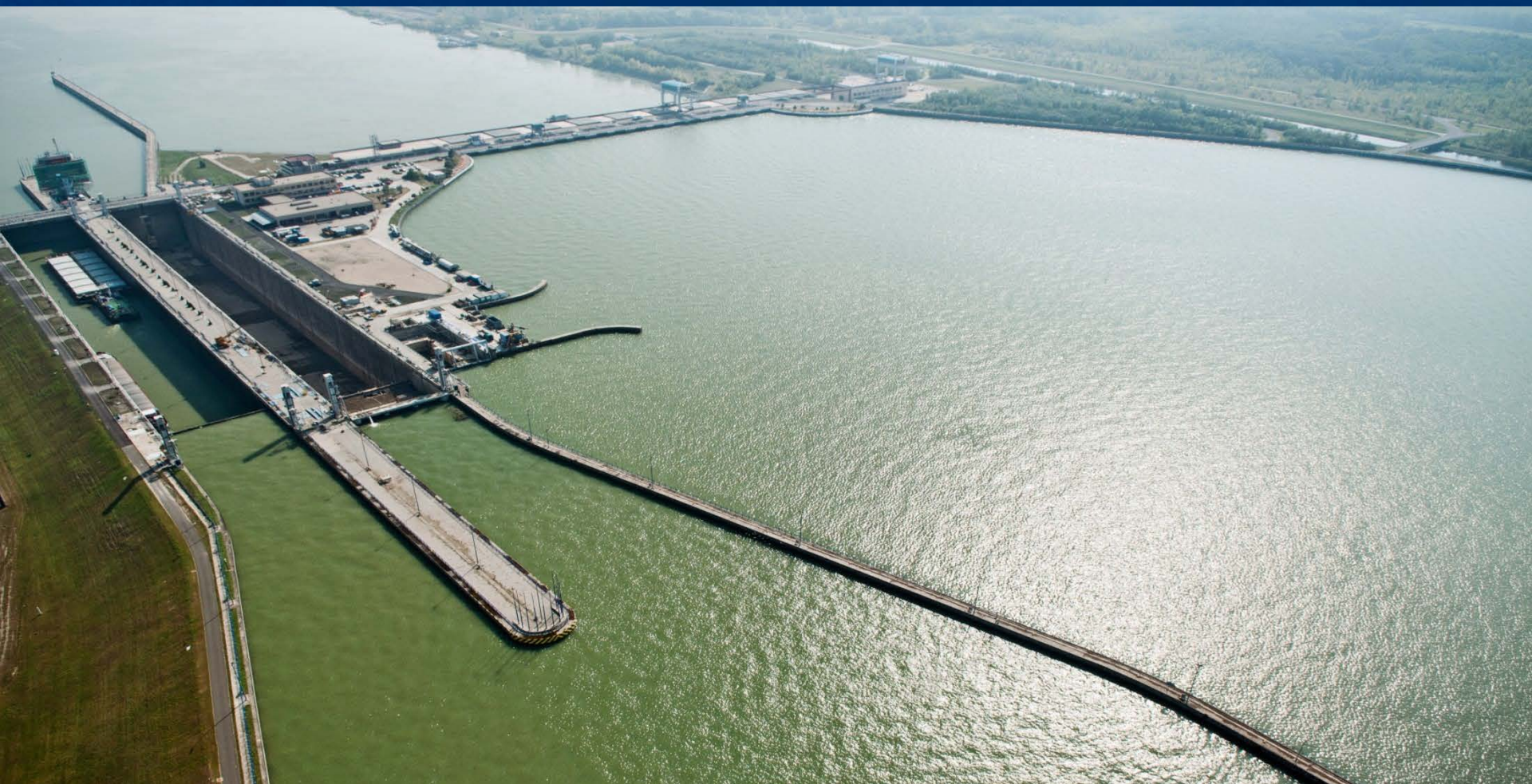
source: Watermanagement Construction, s. e.

Lock Chambers Gabčíkovo Control Tower



source: Watermanagement Construction, s. e.

Water Structure Gabčíkovo – DOWN STREAM VIEW



IDEAS FOR THE FUTURE

- actually no new ideas
- to ensure progress in planed and approved actions and projects



CONTENT

WG 1 – Waterway infrastructure & management

Effective waterway maintenance

Integrated waterway infrastructure projects:

WG 2 – Multimodal river ports & sustainable freight transport

WG 3 – Danube fleet

Modernised Danube fleet and ports

WG 4 – River Information Services

WG 5 – Qualified personnel & education standards

Educations and jobs

Facilitated administrative procedures



WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

1) Riverbed measurement

Measures taken in the year 2012

Frequency:

Riverbed is measured annually,
each stretches are rotated
between Slovak and Hungarian side
(on the slovak–hungarian stretch of Danube)

Emplacement:

- rkm 1750,000 - 1708,000
- rkm 1880,200 - 1853,000

Equipment:

To measure is used a specialized vessel,
single.

Costs:

Estimated costs achieve approximately 100
thousand Euros.

Measures planned in the year 2013

Frequency:

During the year 2013 will be based on the
measurements, that are enclosed with each
other country. The idea is to focus on an
annual basis the entire flow, while specific sub-
sections are rotated at yearly intervals.

Emplacement:

- rkm 1811,000 – 1750,000
- rkm 1880,200 - 1853,000

Equipment:

In the year 2013 will be used the same technic
as in the year 2012

Costs:

Estimated costs achieve approximately 100
thousand Euros in the year 2013.

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

2 Dredging of bottlenecks	
Measures taken in the year 2012	Measures planned in the year 2013
<p>Frequency: Dredging in the fairway of Danube water way was from April to November 2012.</p> <p>Emplacement: Dredging localizations in the year 2012:</p> <ul style="list-style-type: none"> - r.km 1865,000 – 1864,200 from April to September - Hrušov reservoir, r.km 34.200– 31.300 from May to December - r.km 1790,00 – 1788,45 from August to September - r.km 1725,80 – 1724,70 from September to October - r.km 1732,55 – 1732,15 in November - r.km 1779,80 – 1789,10 in November 	<p>Proactive measures: Range and location of dredging for the year 2013 will be known after Regulatory dredging project approving.</p>

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

2 Dredging of bottlenecks	
Measures taken in the year 2012	Measures planned in the year 2013
Equipment: To ford dredging were used : -KDB 500 Podbansko; KDB 160 Vtáčnik; KDB 160 Turiec; KDE Branisko; KDE Šariš; Mep 120	Equipment: In the year 2013 will be used for the most part the same mechanisms. The new additional technics we don't have.
Costs: Budget for the year 2012: 1 555 645 Euros To September 30 were spent: 1 280 642 Euros.	Costs: For the year 2012 we expect similar budget i.e. 1 500 000 Euros.

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

3) Staking (Signalling) of fairway

Measures taken in the year 2012

Frequency:

Staking (Signalling) of fairway was carried out by staking vessels for 2 days in every week, control of coastal navigation features and navigation control signaling on bridges was doing generally 1 x per week throughout the year

Measures planned in the year 2013

Frequency:

In 2013 the frequency of fairway staking will be the same as in 2012.



WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

3) Staking (Signalling) of fairway

Measures taken in the year 2012

Emplacement:

The setting (Signalling) of Danube fairway was realized on Danube stretch rkm 1873 – 1791, coastal navigation features on the left bank of Danube rkm 1880.2 – 1708, on the right bank of Danube from rkm 1873 – 1811 and also navigational staking of bridges: The Lafranconi bridge, The SNP bridge, The Old bridge, The port bridge, The Medvedov bridge and Komarno railway bridge

Measures planned in the year 2013

Emplacement:

Coastal delineation will be the same as in 2012, the setting of Danube fairway will be in stretch rkm 1880.2-1811 and in the stretch rkm 1791-1708. Staking of the bridge remains the same as in 2012.

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

3) Staking (Signalling) of fairway

Measures taken in the year 2012

Type:

Staking (Signalling) vessels control condition and location of the floating signs, in case of loss or damage are exchanged for new, control the functionality of illuminating characters exchange damaged mechanisms and empty batteries.

The purpose the staking (signaling) of fairway is checking the location and navigation signs under the current Project of staking (signaling), re-staking (re-signalling) of fairway after regulatory dredging, re-measure of fairway depth, alternatively reporting new fords.

Coastal features are also checked, defective are exchanged, on bridges are mainly cares for the functionality of night signaling.

Measures planned in the year 2013

Type:

In 2013 will be the staking (signaling) in the section carried out by the same activities as in 2012

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

3) Staking (Signalling) of fairway

Measures taken in the year 2012

Costs:

The costs for staking (signaling) of fairway (Center Operations of waterways) for 2012 are 570 thousands Euros.

To September 30 were the costs for staking (signaling) 370 thousands Euros.

Measures planned in the year 2013

Costs:

Planned budget for 2013 will be approximately the same i.e. 570 thousands Euros

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

4) Information for waterway users

Measures taken in the year 2012

Type:

For some fords (shallow sections) and bottlenecks is given the following:

- stationing
- width and length of ford (shallow sections)
- water depth in ford (shallow sections)
- water level in the relevant water gauging station

Information about fords (shallow sections) provides the administrator of waterway daily to State Navigation Administration, which are available for vessels operators.

Measures planned in the year 2013

Type:

The same information will be published in 2013, any new information will be published

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

4) Information for waterway users

Measures taken in the year 2012

Frequency:
Information about ford sections (shallow sections) were published every day
In connection with the limited depth the “Navigation measures” have not yet issued in 2012

Measures planned in the year 2013

Frequency:
Information about ford sections (shallow sections) will be published every day in 2013



WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

4) Information for waterway users

Measures taken in the year 2012

Media:
Summary reports about fords (shallow sections) daily processes and forwards by the Water management dispatching Bratislava (by e-mail or fax) for each branch of the State Navigation Administration and also of Slovak Water Management Enterprise, branch Bratislava. State Navigation Administration inform about these facts to skippers.
If the “Navigation measures” were issued, than as Notices to Skippers within the River Information Services.

Measures planned in the year 2013

Media:
It is expected that this system of informing about ford (shallow) sections will be used also in 2013
If the “Navigation measures” will be published as Notices to Skippers.

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

5) Procedures for Exceptional Circumstances

Measures taken in the year 2012

Type of circumstances:

Ice, floods and immediate threats of safe navigation

State:

Ongoing implementation of project CARES in corporation with HZ SR (Fire Force of the Slovak republic) and Austrian partner. Reaction activities are within national coordination controlled (managed) by Integrated Rescue System.

Measures planned in the year 2013

Implementation :

Nationally within the Integrated Rescue System and internationally within the project CARES

WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Effective waterway maintenance - Declaration / Questionnaire

Other information:

Fairway maintenance of the Slovakia-Hungarian joint section,
r.km 1811.000 to 1708.200:

1. Judgment of the International Court of Justice in The Hague in 1997 inter alia decided on ineligibility of Hungary to interrupt works and to non-construct of the Nagymaros Water Work (Part of Gabčíkovo – Nagymaros Water Works System)
2. It is necessary to followed the contractual obligations of the 1977 Treaty
3. Slovak republic applies the costs, inter alia, for fairway maintenance as damages for non-completion of Water Work Nagymaros;

The short - term activities planned (required measures)

- dredging the fairway in sections with insufficient navigation parameters (depth and width of fairway),
(Figure shown above)

Required measures for long-term solutions

- to build a required water structures on Danube (after international agreements)



The cost of maintenance of the fairway (regulating dredging etc.) for the years 2007-2011

2007	2 110 336,-
2008	5 238 166,-
2009	3 349 107,-
2010	2 673 817,-
<u>2011</u>	<u>3 032 280,-</u>
totally	16 403 706,- Eur

Total losses, of largest slovak shipping company, caused by low water level and ice in the years 2011/12

2011	811 491,- Eur
2012	1 110 874,- Eur



WG 1 – Waterway infrastructure & management

Source: Slovak Water Management Enterprise

Integrated waterway infrastructure projects:

1. Váh River Water Way (Danube r.km 1 766,000)
(Váh river = Slovak left side Danube tributary)
 - to complete low stretch of Váh River Water Way – E81
 - part of the TEN-T core network
2. Danube river Water Way – E80 (to remove 3 main obstacles)
 - downstream Gabčíkovo,
 - upstream Bratislava,
 - Bratislava Old bridge

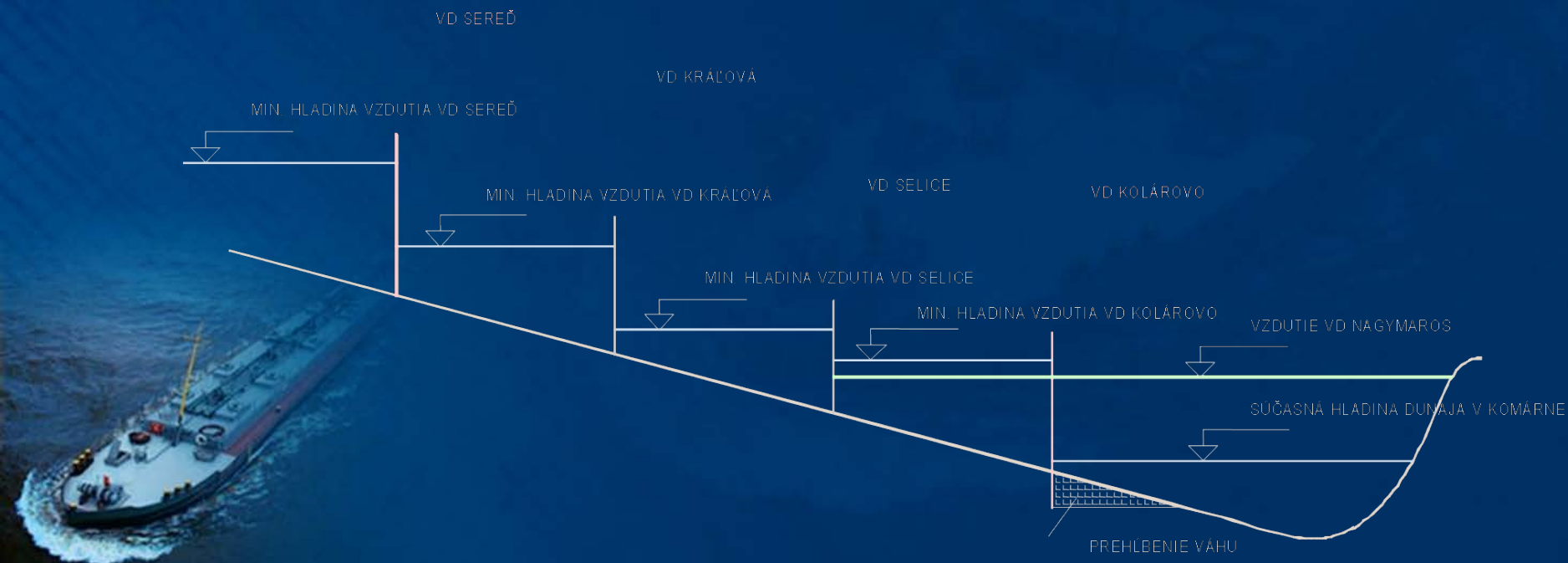


Slovak republic priorities for the near future

- to complete Low section of Váh River Waterway (2 locks is planned – Kolárovo and Sered')
- reconstruction and modernization mid and upper section of Váh river Water Way (need 8 locks modernization and reconstructions and 4 lock to build on existing Water Structures)



DOLNÝ VÁH - SCHÉMATICKÝ POZDĹŽNY PROFIL





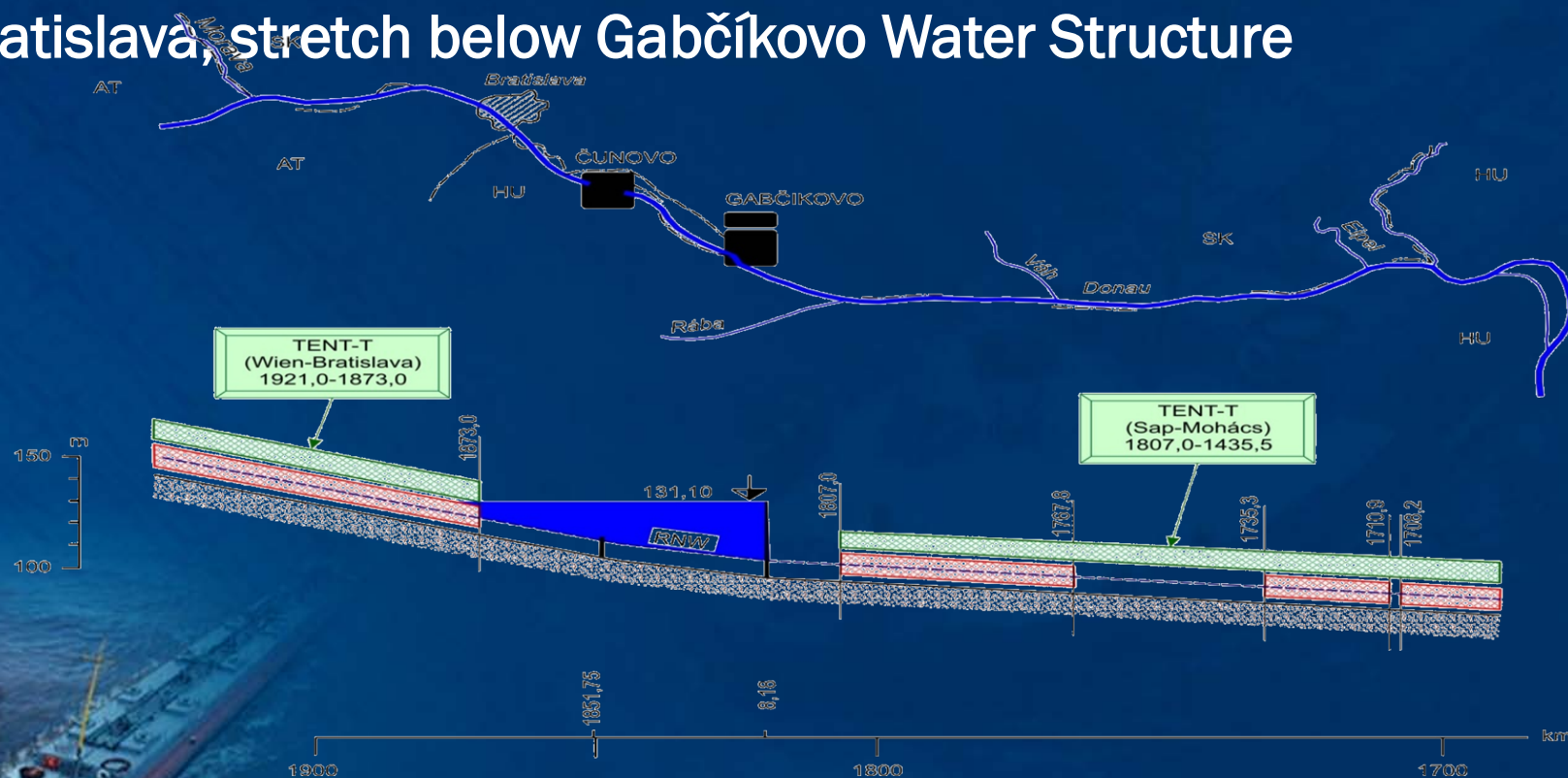
Ortophoto of section near to mouth of Nitra river and near Zemné Village
rkm 35,00 – 32,00

- huge local sedimentation in river bed after flood activities



Slovak Danube r.km 1880,260 – r.km 1708,200 (172 km)

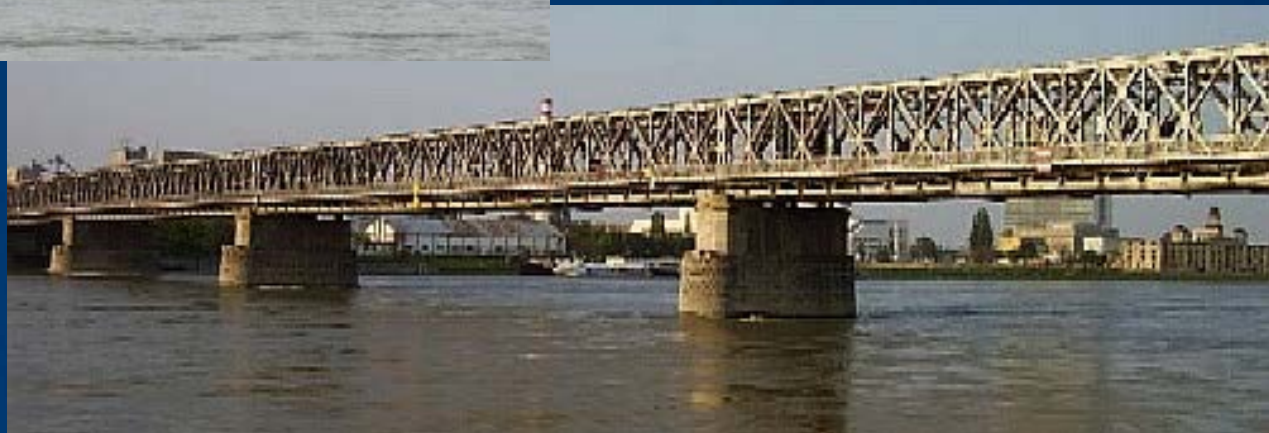
3 main Danube bottlenecks: Bratislava „old“ bridge, stretch above Bratislava, stretch below Gabčíkovo Water Structure



Bratislava „OLD“ Bridge

to ensure fairway required parameters by relevant Agreements

- height under the bridge;
- width between pillars of the bridge





Ortophoto of section in rkm 1714,000 – 1708,000

- ford stretch (maintenance - dredging, cross-directional structures)

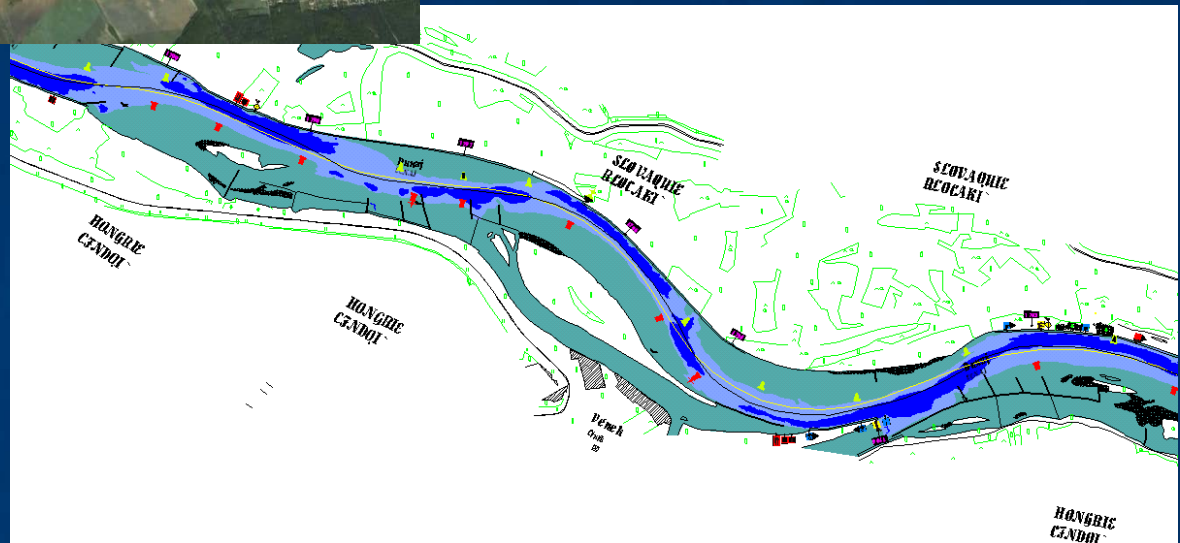




Ortophoto of Danube section
rkm 1799,000 – 1792,000

ford stretch
(maintenance - dredging,
cross-directional structures)

Navigation map

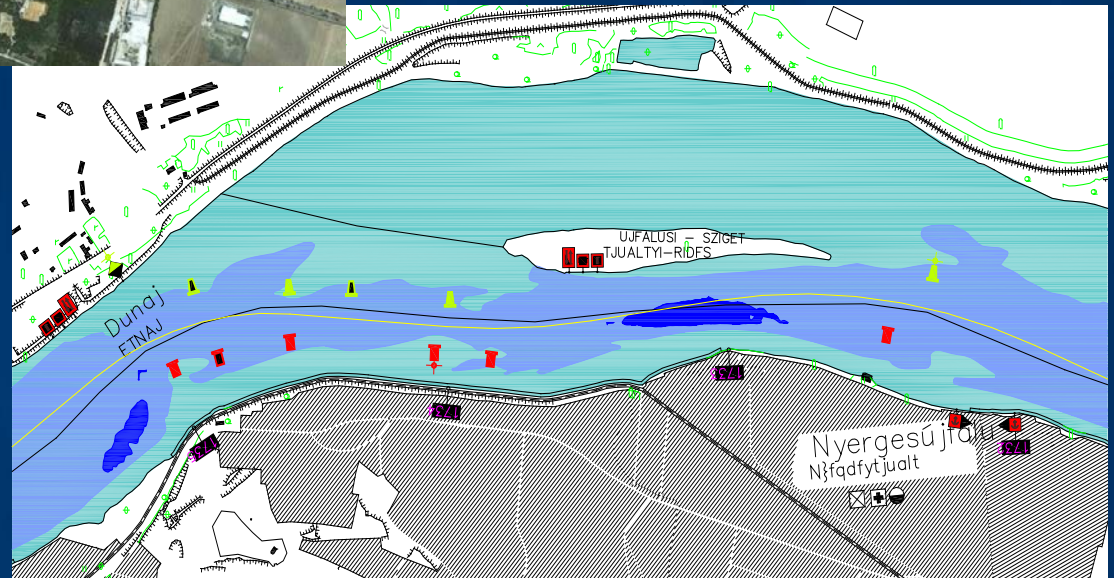




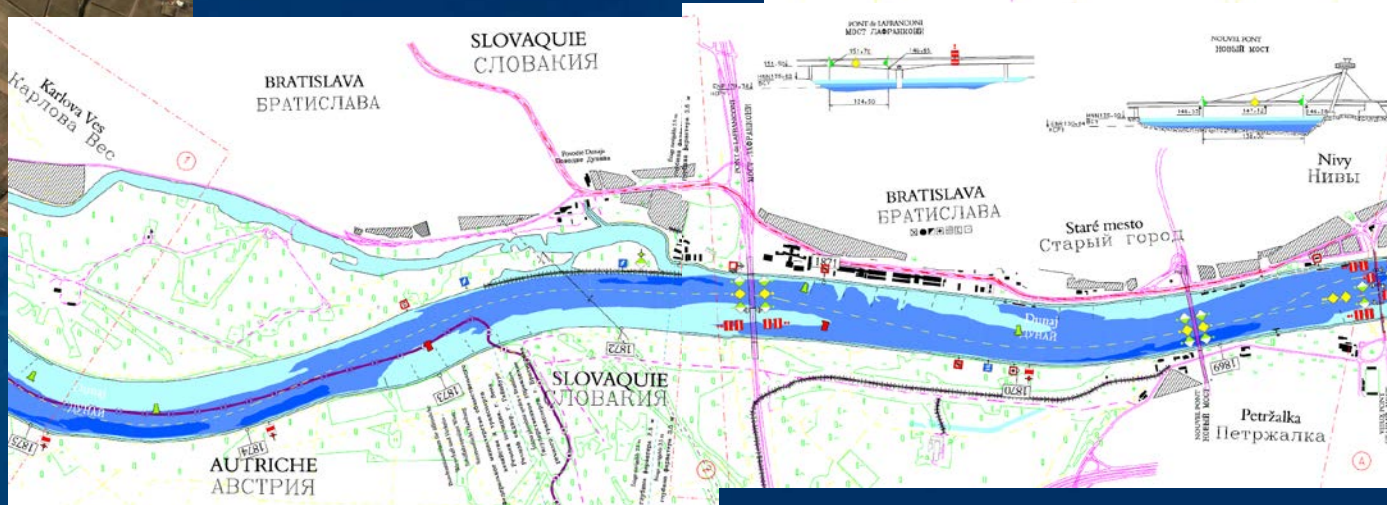
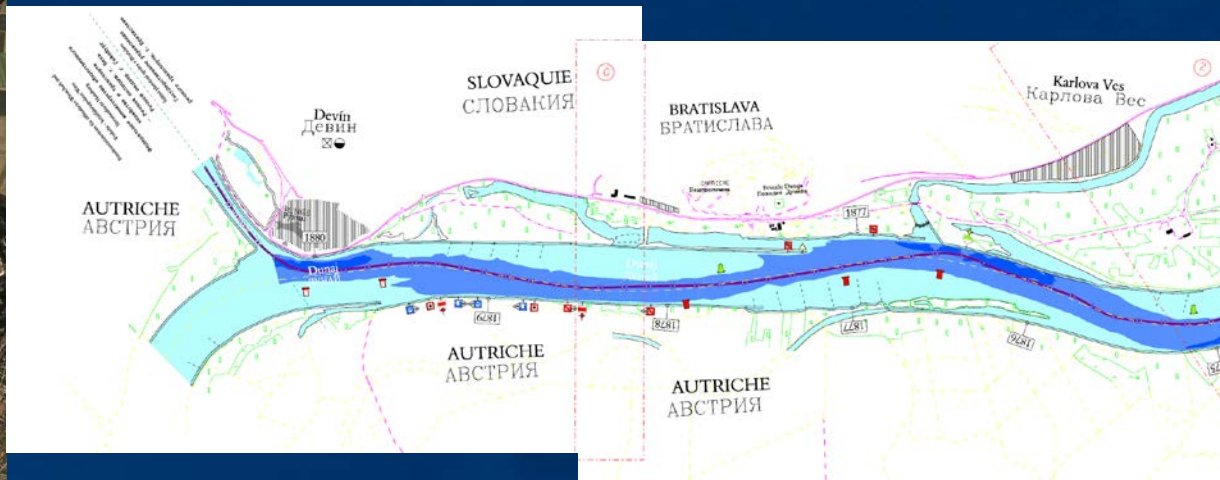
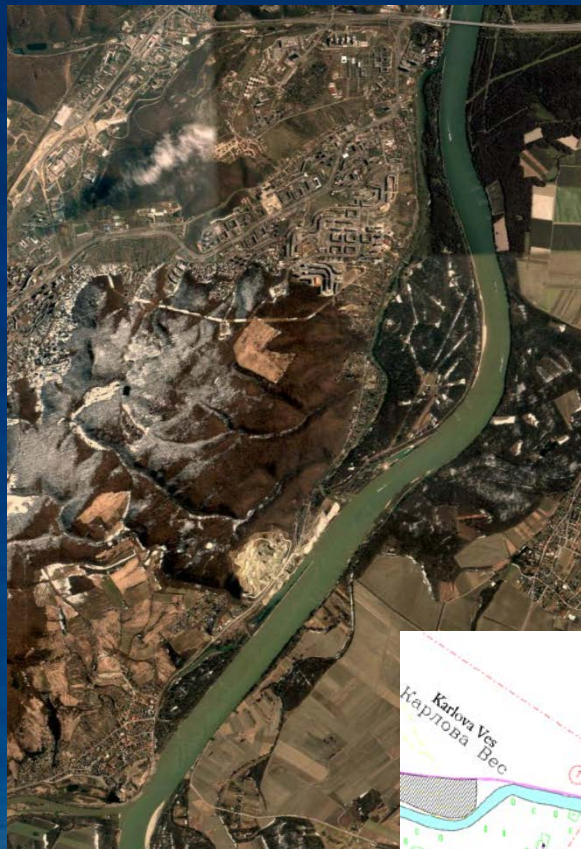
Ortophoto of Danube section
rkm 1736,000 – 1731,000
critical ford stretch
maintenance

- rock threshold (dredging not possible)
- cross-directional structures

Navigation map



Ortophoto of Danube between Morava and bridge Lafranconi (r.km 1880,260 – 1871,300)



WG 2

Multimodal river ports & sustainable freight transport

source: Public Ports, Joint-stock company

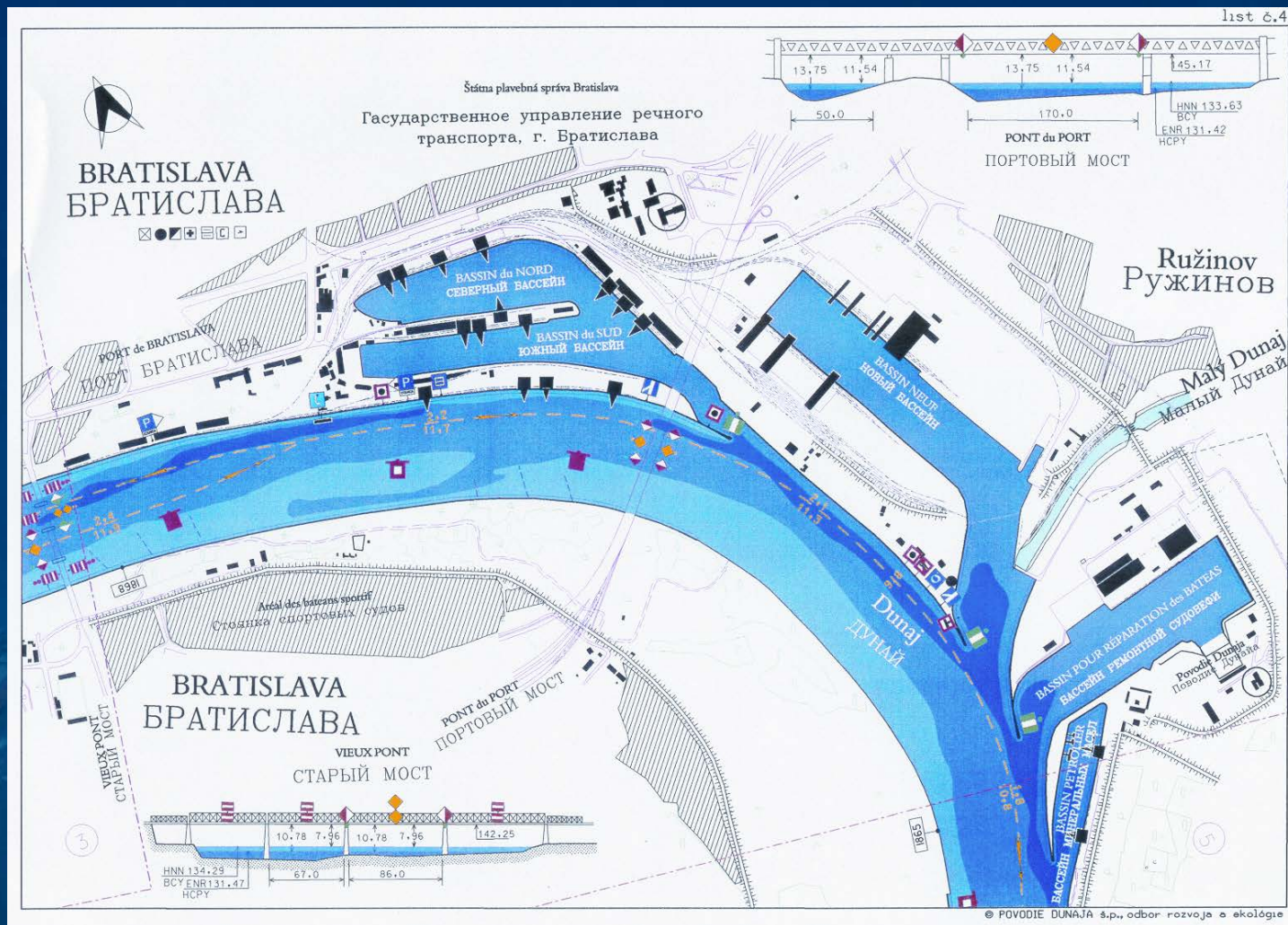
Modernised Danube fleet and ports

CURRENT SITUATION

- Public Port Bratislava – construction preparation of new intermodal terminal
- Completion and modernization of infrastructure in public ports (Bratislava, Komárno, Štúrovo)



Public Port Bratislava



Public Port Bratislava (today)



Public Port Bratislava

(visualization of the new intermodal terminal)



WG 3 – Danube fleet

source: Ministry of Transport, Construction
and Regional Development of the Slovak republic

Modernised Danube fleet and ports

Required funds from the state budget

REQUIRED ACTIONS - GENERAL PROGRAMME OF IMPLEMENTATION OF THE NAIADES IN THE SLOVAK REPUBLIC		2013 (EUR)	2014 (EUR)	2015 (EUR)
1.	increase tolerance of vessels with the environment - a program exchange of propulsion and auxiliary aggregates	320.000	320.000	320.000
2.	constructional changes of vessels - a program of preventive measures to protect against accidents vessels	750.000	750.000	750.000



WG 4 – River Information Services (RIS)

Implementation of RIS in Slovakia – the current status

source: State Navigation Administration

1. Legislative framework

Transposition of the **Directive 2005/44/EC** in 2008 by amendment of the **Inland Navigation Act No. 338/2000**.

2. Organisational framework

The **RIS provider** in Slovakia is **State Navigation Administration** (Štátna plavebná správa), based on the amended of Inland Navigation Act No. 338/2000.



WG 4 - RIS

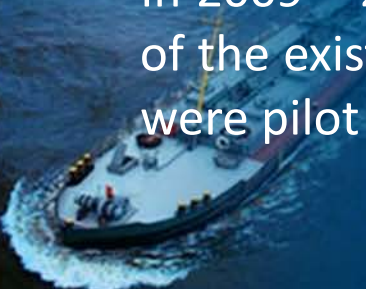
source: State Navigation Administration

3. Implementation

The implementation of RIS in Slovakia started in 2006 in the EU project „IRIS Europe“. In this project the basic infrastructure for RIS on the Danube waterway in Slovakia (including the joint sections with Austria and Hungary) was built; the system is named „SlovRIS“ (Slovak RIS).

The national RIS centre was established at the State Navigation Administration in Bratislava.

In 2009 – 2011 the IRIS Europe II project was running. In this project some of the existing RIS services / technologies were enhanced and new services were pilot implemented.



WG 4 - RIS

source: State Navigation Administration

4. Vessel Tracking & Tracing (Inland AIS)

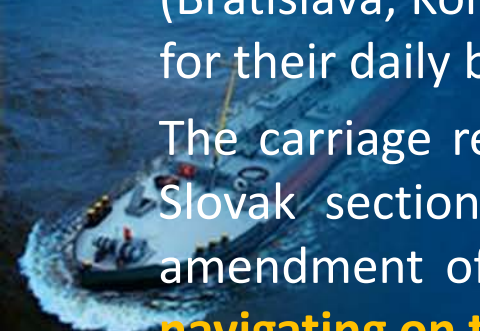
Status: implemented, in pilot operation

The **infrastructure consists of four shore AIS base stations** located in Bratislava, Gabčíkovo, Komárno and Štúrovo. These four base stations make the Danube waterway in Slovakia from r.km 1880,2 to r.km 1708,2 covered with AIS signal.

The **central segment is situated in Bratislava**. It **receives, processes, stores and distributes the AIS data received from vessels**..

The AIS data are used by the captaincies of State Navigation Administration (Bratislava, Komárno, Štúrovo) and the control centre of the Gabčíkovo lock for their daily business.

The carriage requirement for AIS transponders is still not in force on the Slovak section of the Danube. It is under preparation within another amendment of the Inland Navigation Act. However, **most of the vessels navigating on the Slovak Danube are equipped with AIS transponders**.



WG 4 - RIS

5. Notices to Skippers

Status: implemented, in pilot operation

source: **State Navigation Administration**

Implemented in line with the standard **according to** the foreseen amendment of the **EC Regulation no. 416/2007**. XSD version 3.0 and web services interface are implemented.

The notices are publicly available at <http://nts-pilot.slovris.sk>, for the Danube waterway.

Available message types:

FTM (fairway and traffic related messages)

WRM (water level related messages)

ICEM (ice messages)

WERM (weather messages)

Distribution of messages:

displayed on the website

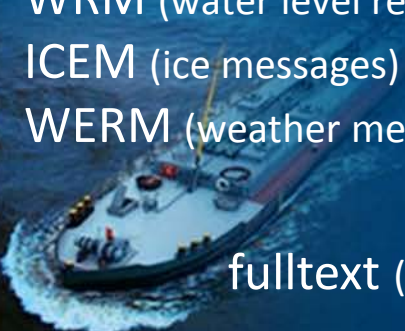
sent by e-mail (after registration for subscription)

exchange by means of web services interface

Available formats and languages:

fulltext (EN, DE, FR, NL); coded format (SK, EN, DE, NL, FR, BG, HR, HU, RO, RU, SR, CZ);

XML format



WG 4 - RIS

source: State Navigation Administration

6. Electronic reporting

The infrastructure is implemented in line with the standard (EC Regulation No. 164/2010), ERINOT and ERIRSP messages are supported. The users (skippers) can provide the reports by using a web application, the system is also able to process reports provided by the BICS software.

7. Inland ECDIS

Available for the Danube r.km 1880,2 – 1708,2 in Inland ECDIS v1.02, on the website of SVP (www.svp.sk)

or at <http://www.slovris.sk/en/electronic-navigational-chart/download/>

8. Reference data

RIS Index for the Danube waterway (r.km 1880,2 – 1708,2), version 1.1, published as of 1.6.2011. It is available at

http://www.slovris.sk/fileadmin/slovris/RefData/ris_index_sk_2011_06_01_v1_1.xls

WG 5 – Qualified personnel & education standards

Educations and jobs

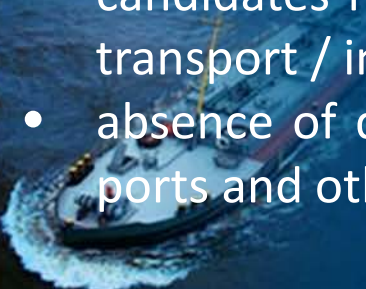
source: Department of Water Way Transport, University of Žilina

CURRENT PROBLEMS:

1. for study of Water Ways Transport is from year to year less interest,
2. to Žilina University comes from year to year less population years,

"Vicious circle" in Water Way Transport area:

- low general awareness / need to improve the image of the waterway transport
- candidates need to see a real possibility of application in the field of waterway transport / increased interest in the study and growth the number of students
- absence of qualified staff to management and to executive branch of shipping, ports and other institutions active in the field of waterway transport in Slovakia



WG 5 – Qualified personnel & education standards

Educations and jobs

source: Department of Water Way Transport, University of Žilina

Topics to deal with:

1. In the field of common training of the screw members, it is necessary to specify their professional knowledge, their skills and abilities:
 - for doing experts screw job, and
 - to pass the examination professionally by experts examining board

Actually it is shown only in general in relevant Decree of the Slovak republic and under EDINNA association activities.

Notice: accredited learning activity „Training of candidates to fill job positions in the inland navigation crew “

WG 5 – Qualified personnel & education standards

Educations and jobs

source: Department of Water Way Transport, University of Žilina

2. Department of Water Way Transport (University of Žilina) offers theoretical and partly practical expertise in selected areas, in particular training on the ship simulator including:
 - management of pushed convoy on the waterway with various maneuvers,
 - navigation through a lock,
 - radar operator training, its practical use in navigation in poor visibility.

NOTICE: project „Completion of the prototype simulator shipping operations,, finalizing work on the creation of a specialized department laboratory



WG 5 – Qualified personnel & education standards

Educations and jobs

source: Department of Water Way Transport, University of Žilina

3. In case of interest, in cooperation with the staff of the shippowners:
 - to prepare and process the selected part of the learning materials, specifically designed for the individual members of the crew, which would serve to prepare the testing capabilities to include implementation vessel crew in place.



THANKS FOR YOUR ATTENTION

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