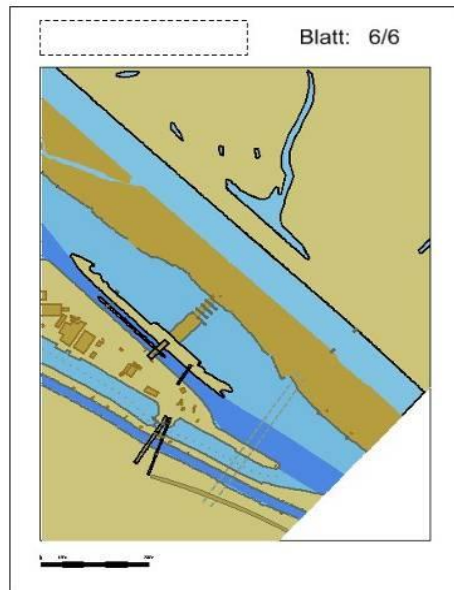


Sava Commission Activities



KICK-OFF MEETING DANTE, February 17, 2017, Budapest

Establishment of the ISRBC

- **Decay of SFRY – a challenge to WRM in the Sava river basin**
 - Sava river used to be the biggest **national river** of former SFRY
 - Activities related to WRM in the SRB were regulated by **national regulation, plans and programs**
 - Appropriate institutional framework for implementation of water policy in the SRB existed **until decay of SFRY**
 - Upon establishment of independent countries in the basin, Sava river was turned into **international river**
 - **New, international framework required** for exploitation, protection and control of the Sava river, i.e. for **the TWRM**

- **From different priorities to Integrated TWRM approach**
 - Rehabilitation and development of **navigation**
 - **Flood protection**
 - Utilization of potentials for **tourism development**
 - Utilization of potentials for **energy production**
 - Maintenance of **water quality and quantity**

FRAMEWORK AGREEMENT ON THE SAVA RIVER BASIN

- **The first development-oriented multilateral agreement** in the region signed after the Dayton Peace Agreement (1995)
- **Parties:**
 - **Bosnia & Herzegovina**
 - **Croatia**
 - **Serbia** (formerly FR Yugoslavia, Serbia & Montenegro)
 - **Slovenia**

(**Montenegro** – ongoing contacts on their possible approach)
- Implementation coordinated by the **ISRBC**, with the **Secretariat** as its executive and administrative body

- **Key objective:**

**Transboundary cooperation
for sustainable development of the region**

- **Particular objectives – to establish:**

- International regime of **navigation**
- Sustainable **water management**
- Sustainable **management of hazards**
(floods, droughts, accidents, etc.)

- Provides the ISRBC with **the broadest scope of work** among European basin organizations (i.e. river/lake commissions)

Activities of the ISRBC

- **General info (cont.)**
 - Given the international **legal capacity**, for:
 - Making **decisions** in the field of **Navigation**
 - Providing **recommendations** in all other fields,
i.e. **Water Protection and Hazard Management**
 - **Decisions and recommendations** are adopted by unanimous vote
 - On **sessions**
 - In **written procedure** (in urgent cases)

- **Coordination of:**
 - Development of **joint / integrated plans** for the SRB
 - River Basin Management Plan (according to EU WFD)
 - Flood Risk Management Plan (according to EU Flood Directive)
 - Establishment of **integrated systems** for the SRB
 - GIS (according to EU INSPIRE Directive and WISE)
 - RIS (according to EU RIS Directive)
 - Meteorological and Hydrological Data Exchange System
 - Flood Forecasting and Warning System
 - Accident Emergency Warning System (use of the ICDPR's system)
 - Preparation of **development programs** for the SRB
 - Navigation
 - (River) Tourism
 - Other water uses

- **Coordination of (cont.):**
 - Harmonization of **regulations**
 - Creation of additional **protocols to the FASRB**
 - Navigation regime
 - Prevention of water pollution caused by navigation
 - Flood protection
 - Emergency situations
 - Sediment management
 - Transboundary impacts

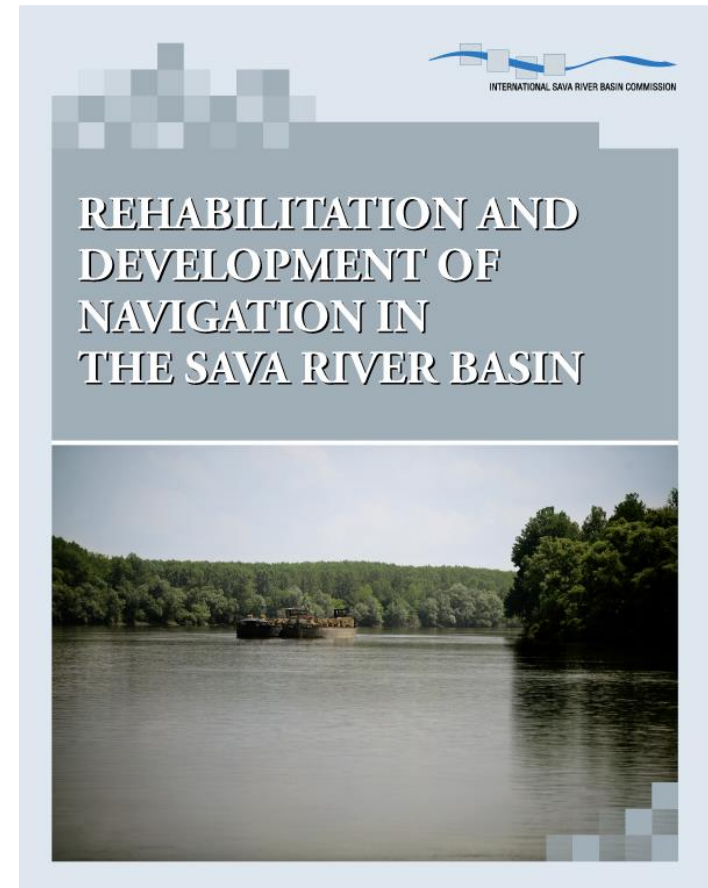
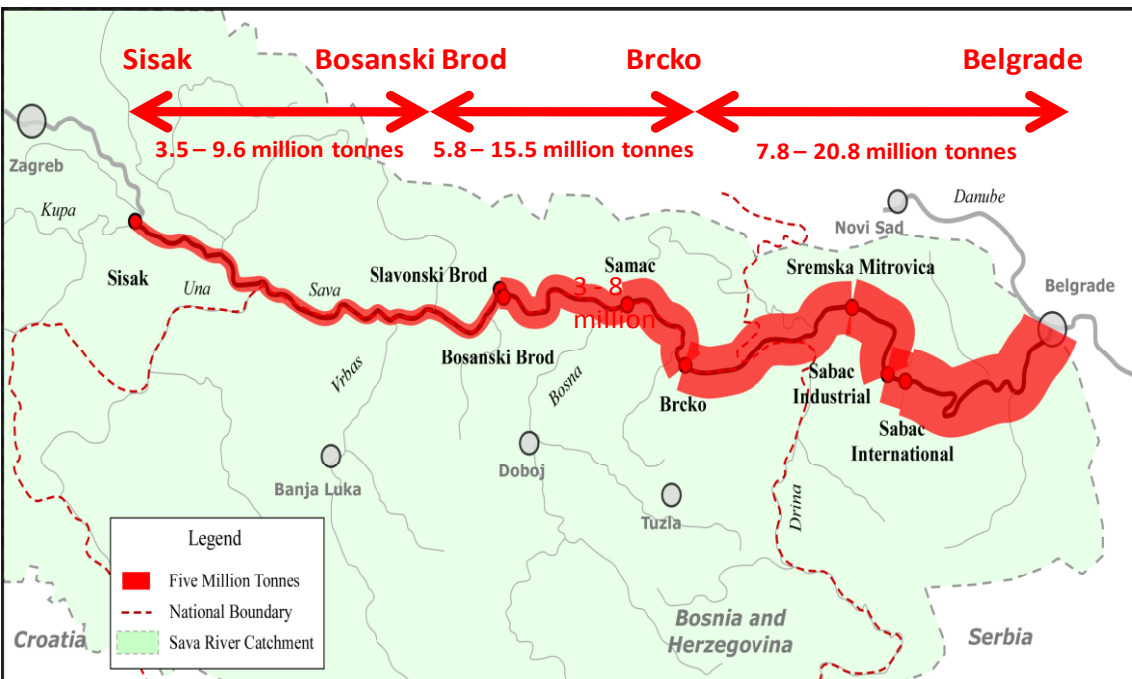
- **Cooperation / stakeholder involvement / public participation**

(Performed according to the **Strategy, Action Plan** and **Work Plans**)

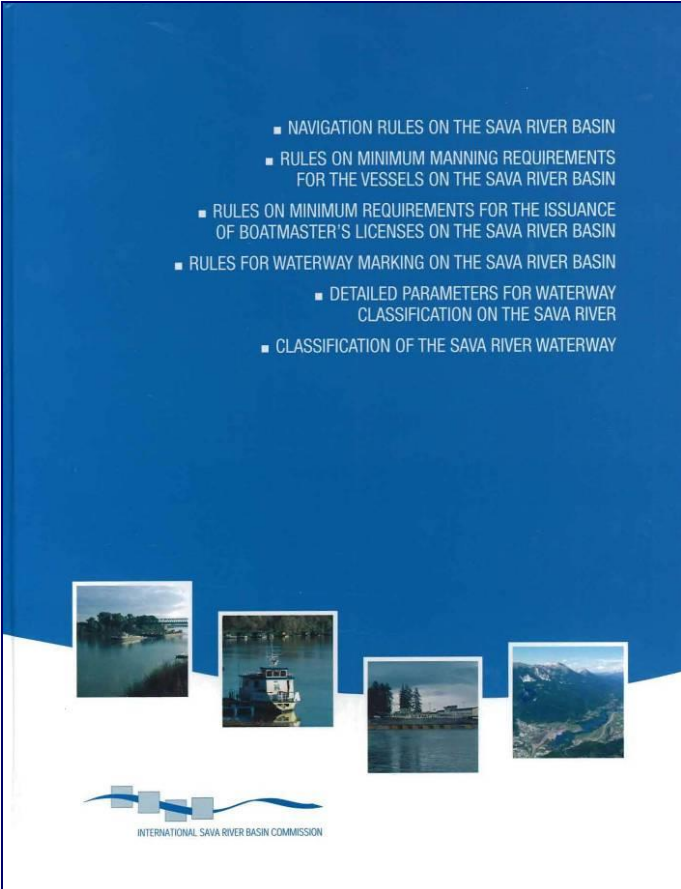
Navigation development

- **Rehabilitation of the waterway infrastructure**



- **Planning phase** under finalization (studies, design)
- **Waterway marking system** restoration



- **Improvement of navigation safety and technical standards**
(reduction of the risk of water pollution due to navigation)
 - **Rules** harmonized with the EU and UNECE regulation
 - Protocol on **Prevention of Water Pollution caused by Navigation** to the FASRB
 - Development of **RIS**



- NAVIGATION RULES ON THE SAVA RIVER BASIN
- RULES ON MINIMUM MANNING REQUIREMENTS FOR THE VESSELS ON THE SAVA RIVER BASIN
- RULES ON MINIMUM REQUIREMENTS FOR THE ISSUANCE OF BOATMASTER'S LICENSES ON THE SAVA RIVER BASIN
- RULES FOR WATERWAY MARKING ON THE SAVA RIVER BASIN
 - DETAILED PARAMETERS FOR WATERWAY CLASSIFICATION ON THE SAVA RIVER
- CLASSIFICATION OF THE SAVA RIVER WATERWAY



INTERNATIONAL SAVA RIVER BASIN COMMISSION

Good Practices...

- **Integration with environmental protection**
 - Involvement in processes / projects on **Danube and EU level**
 - The issue considered within other **ISRBC** activities
 - **RBM** Plan
 - **Climate** Adaptation Plan
 - **Sediment** Management Plan



RIS PROJECT

RIS Project

- **In September, 2009 ISRBC launched a project called *"Detailed Design and Prototype Installation for the RIS on the Sava River"***
- **Final Report adopted 24.06.2010.**
- **Final Report presented and delivered to the Sava countries for the implementation.**

Follow up to the RIS Project

Implementation:

- Finished in Serbia
- Finished in Croatia

Adopted Decisions

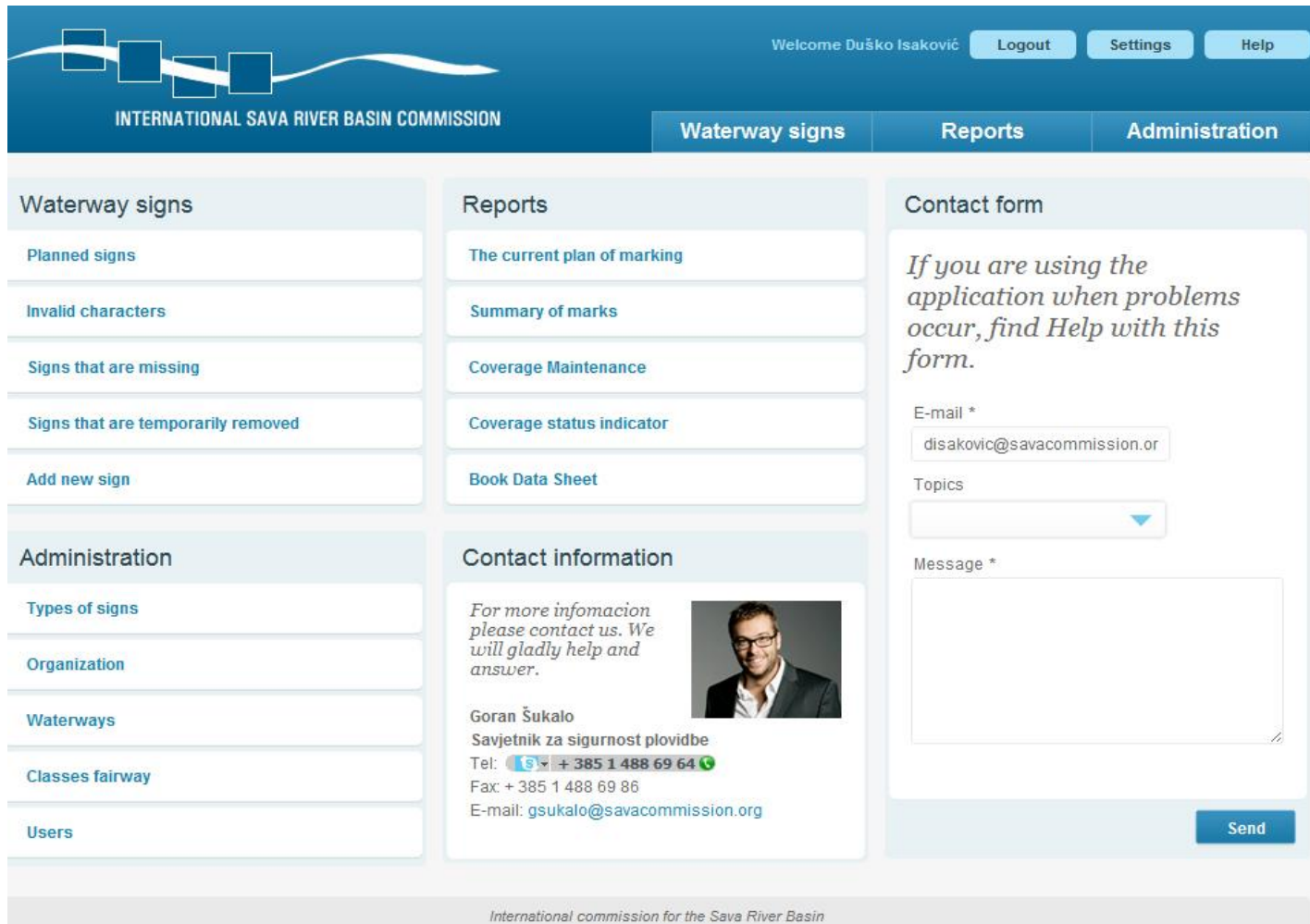
- Vessel Tracking and Tracing Standard
- Inland ECDIS (Electronic Chart Display and Information System) Standard
- Rules on Harmonized River Information Services (RIS) on the Sava River Basin
- Production and Update of the Inland Electronic Navigational Charts (IENC) for the Sava River Basin

Web application

Marking Plan on the Sava River and its navigable tributaries

- **Adoption and publication of the Marking Plan at the beginning of the year**
- **Separate Marking Plans for the summer and winter periods**
- **Introduction of the latest changes in the Marking Plan to the waterway users**

























Web application Home Page



The screenshot shows the home page of the International Sava River Basin Commission web application. The page has a dark blue header with the commission's logo and name on the left, and a welcome message, user name, and navigation buttons (Logout, Settings, Help) on the right. Below the header is a secondary navigation bar with three tabs: Waterway signs, Reports, and Administration. The main content area is divided into three columns. The left column contains a 'Waterway signs' section with links for 'Planned signs', 'Invalid characters', 'Signs that are missing', 'Signs that are temporarily removed', and 'Add new sign'. Below this is an 'Administration' section with links for 'Types of signs', 'Organization', 'Waterways', 'Classes fairway', and 'Users'. The middle column contains a 'Reports' section with links for 'The current plan of marking', 'Summary of marks', 'Coverage Maintenance', 'Coverage status indicator', and 'Book Data Sheet'. Below this is a 'Contact information' section featuring a photo of Goran Šukalo, his title 'Savjetnik za sigurnost plovidbe', and contact details: Tel: +385 1 488 69 64, Fax: +385 1 488 69 86, and E-mail: gsukalo@savacommission.org. The right column contains a 'Contact form' section with a message: 'If you are using the application when problems occur, find Help with this form.' Below the message are input fields for 'E-mail *' (containing 'disakovic@savacommission.or'), 'Topics' (a dropdown menu), and 'Message *' (a text area). A 'Send' button is located at the bottom right of the contact form.

Current marking plan

SAVA

RIGHT BANK	Distance rkm	LEFT BANK	RIGHT BANK	Distance rkm	LEFT BANK
	594.0			583.3	
	593.0			583.0	
	592.0		  	582.0	
	591.1			582.0	
	591.0			581.6	
	590.0			581.4	
	589.0			581.1	
	588.0			581.0	
	587.8	  		580.7	
	587.0			580.0	

River sectors

Sava (9)

Add new





Save

ID	Channel	Country	Side	Start	End	Length	Shaft fairway	
1	0.001-210.8 rkm	Srbija	Left	0.001	210.8	210.8		 
2	0.01-178 rkm	Srbija	Right	0.01	178	178		 
4	178.01-343 rkm	Bosna i Hercegovina	Right	178.01	343	165		 
3	210.81-343 rkm	Hrvatska	Left	210.81	343	132.2		 
5	343.01-467.99 rkm	Hrvatska	Left	343.01	467.99	125		 
6	343.01-467.99 rkm	Bosna i Hercegovina	Right	343.01	467.99	125		 
7	468-594 rkm	Hrvatska	Left	468	594	136		 
8	468-515.3 rkm	Bosna i Hercegovina	Right	468	515.3	47.3		 
9	515.31-594 rkm	Hrvatska	Right	515.31	594	78.7		 

Kupa (2)










Add new

Save

ID	Channel	Country	Side	Start	End	Length	Shaft fairway	
10	0.01-5.4 rkm	Hrvatska	Left	0.01	5.4	5.4		 
11	0.01-5.4 rkm	Hrvatska	Right	0.01	5.4	5.4		 

Section's status report

River Sava
 Scope chainage 588 rkm – 594 rkm
 Rank date –
 Status sign Actual,Planned,
 Statistics Actual: 1 |

Sign	Name	Code	RKM	Side	Current status	Date, status, description
	Kilometer mark	KM	594	Right	Actual	
	Kilometer mark	KM	593	Right	Actual	
	Kilometer mark	KM	592	Left	Actual	
	Bifurcation buoy with light	3.A	591.1	Right	Actual	
	Bifurcation buoy with light	3.A	591.1	Right	Archived	2011-10-21 - Actual:
	Kilometer mark	KM	591	Right	Actual	
	Kilometer mark	KM	590	Left	Actual	
	Kilometer mark	KM	589	Left	Actual	
	Kilometer mark	KM	588	Right	Actual	

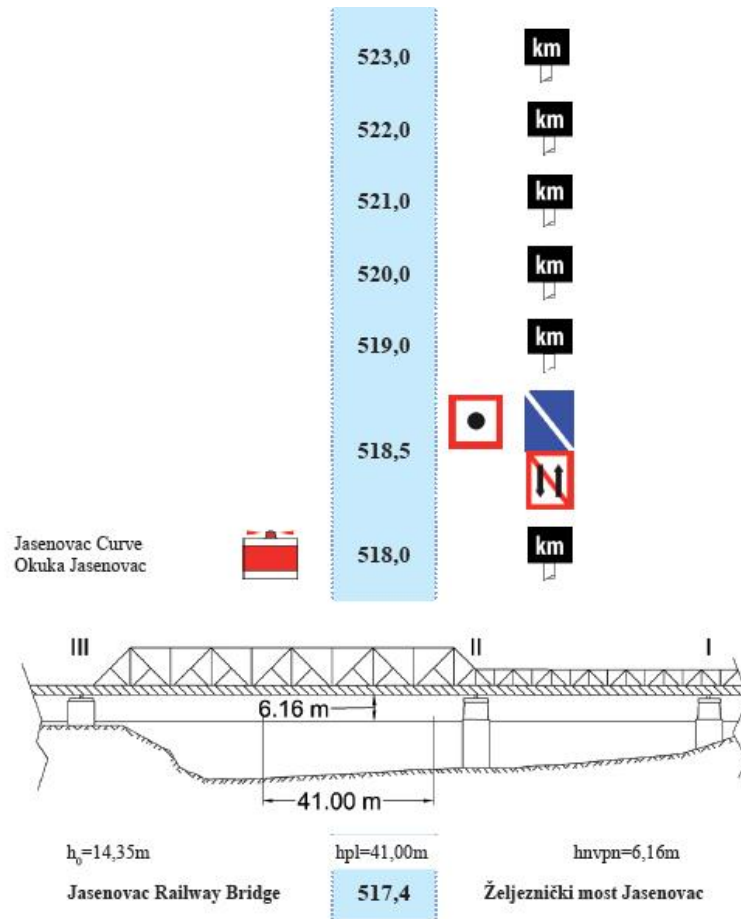
Summary of marks (for the whole WW)

Sava		rkm 594.0 - rkm 0.0
Type of sign	Sum	
Signs for waterway marking (Prohibitory, mandatory, restrictive, recommendatory, informative signs)	266	
Buoyage of Fairway limits in the waterway (buoys with light, buoys without light, floats and spars)	90	
Marks on land indicating the position of the Fairway (with light and without light)	86	
Signs for marking danger points and obstacles (on the water, banks, with lights and without lights)	9	
Additional marking for navigation by radar (radar reflectors on the bridge piers)	0	
Signs on the water for marking broad waterways and lakes	0	
Extraordinary signs (kilometer signs)	600	
	Σ	1051

Further development

- **Inclusion of the Album of bridges;**
- **Inclusion of the Indicator of river kilometers**

Indicator of river kilometers



Web Application for Navigation Safety Inspection

Inspection Report



Inspection Report : Edit entry

[Back to the list](#)

Record successfully created

Date, inspection body and location

Date of inspection 22.04.2016 10:15

Report language English

Visibility All

Inspector Duško Isaković

Authority International Sava River Basin Commission

Search for location



[+ Add new location](#)

Location name

Waterway

Location RKM

Vessel

Search existing vessels by name, eni or ais



[+ Add new vessel](#)

Vessel name

Vessel ENI

National identification number

Vessel type

Vessel operator



Vessel destination



Checklist

[Save changes](#)

[Save and complete report](#)

[Back to the list](#)

Statistics Report

Statistics report: General

General

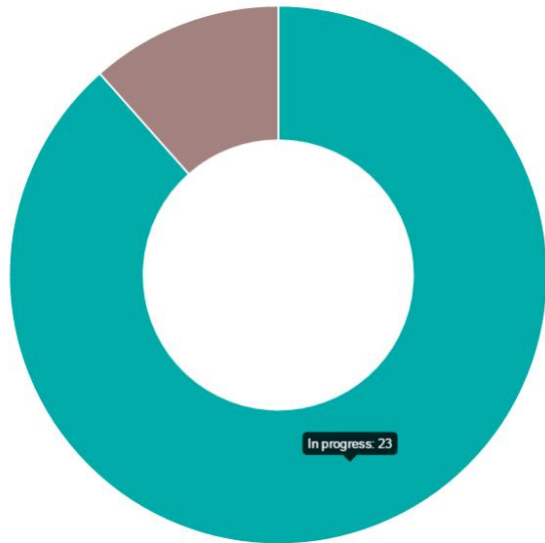
Vessels

Vessel operators

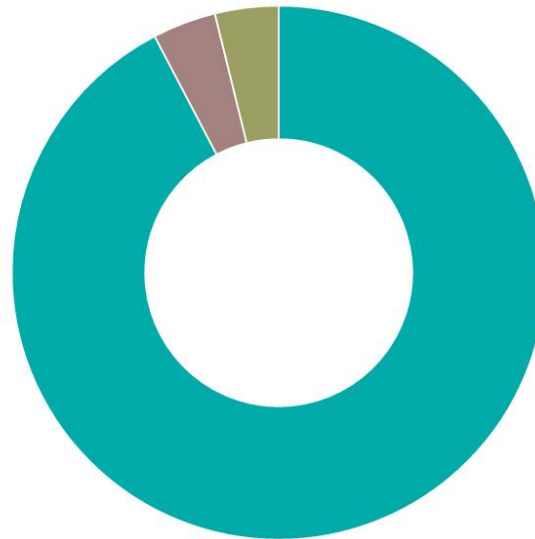
Inspectors

Date from Date until

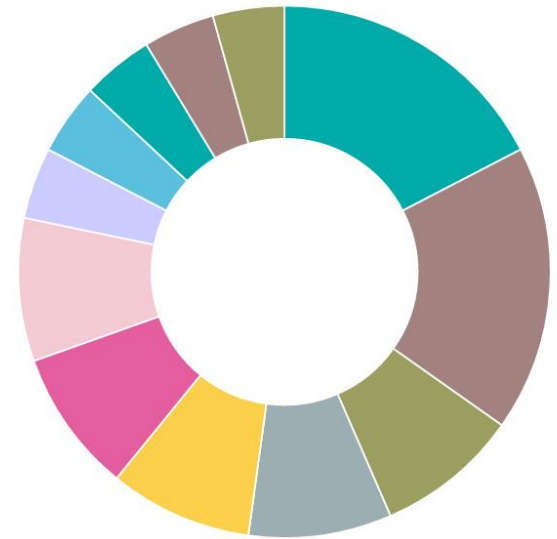
Total number of inspection reports



By ship type



Failed checklist



Status	Total (26)
In progress	23

Vessel type	Total (26)
Not set	24

Title	Total (23)
Svjedodžba plovila unutarnje plovidbe	4

Vessel List

Vessel : list (6)

[+ New vessel](#)

Search existing vessels by name, eni or ais Any vessel type

ID or ENI	Vessel name	Vessel type	Country of origin	Year of construction	Updated	
XXXXX		motor tanker			March 22, 2016 12:44	Edit
ENI:36000XXX	718XX	motor tanker			March 22, 2016 13:00	Edit
ENI:578888888888	Sisak	motor tanker	HR		April 6, 2016 10:42	Edit
RA-159		day-trip vessel			April 7, 2016 12:00	Edit
RA-159	-	day-trip vessel			April 7, 2016 12:00	Edit
ENI:123456	Sisak 2	motor cargo vessel	HR		April 7, 2016 12:33	Edit

Geographical & Hydrological Information System of the Sava River Basin Sava GIS & Sava HIS

Sava Geographical Information System

• Overall objectives

- common platform of **the ISRBC community** to enable sharing and disseminating of information and knowledge about protection of the water resources and water management activities in the Sava River Basin
- support to **the ISRBC community** in sharing and disseminating of hydrologic and meteorological data, information and knowledge about the water resources in the Sava River basin
- enable an **effective common channel** for exchanging and viewing the hydrologic and meteorological data and information in emergency situations, primarily those related to flood events

According to *Implementing Documents for Establishment of the Sava GIS* – 2010, establishment of the Sava GIS is focused in following benefit areas:

Modules

1. Int. River Basin Management

2. Flood Management

3. Accident Prevention and Control

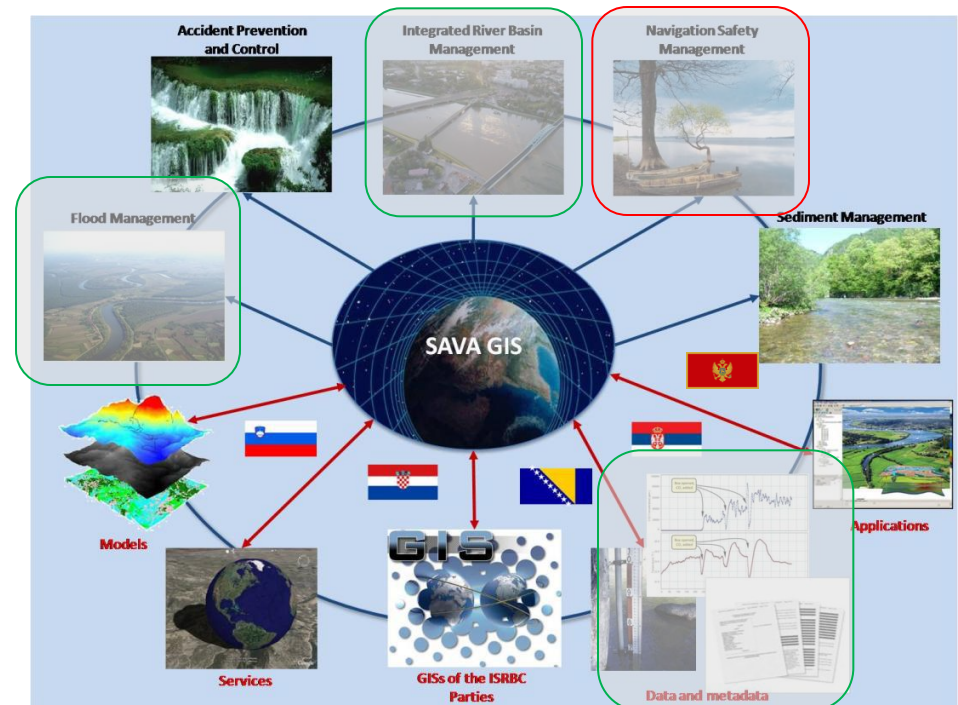
4. Navigation Safety Management

5. Sediment Management

Submodules

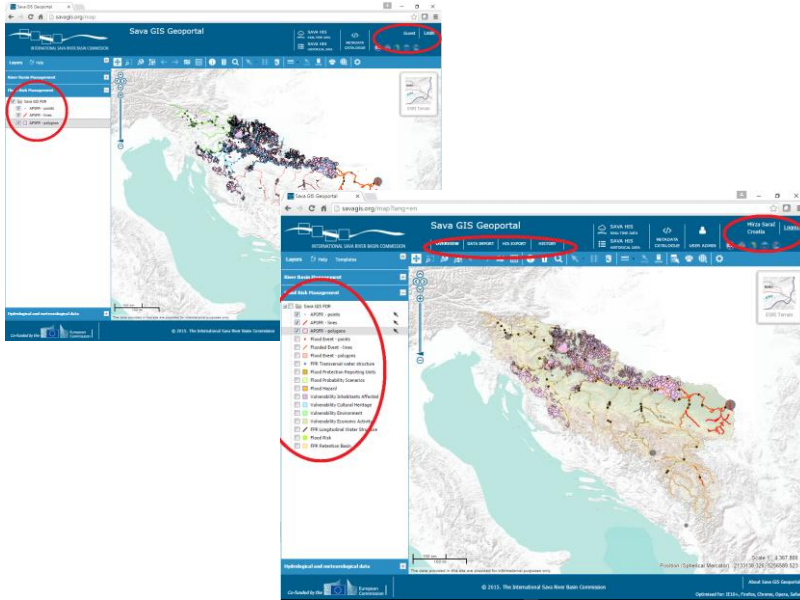
Time-Series Data Management

Metadata Management



SavaGIS project products

SavaGIS Geoportal <http://savagis.org/>



Public users

- Overview of public spatial data
- Viewing attributes and features
- Filtering by attributes or spatial data
- Exporting areas of map to PDF or PNG format
- ...

Registered users

web application for data management

Data and metadata upload

- FGDB
- XLS
- XML
- WFS of GML format
- Harvesting
- Manually

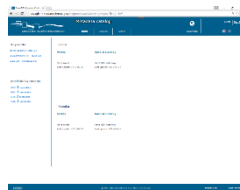
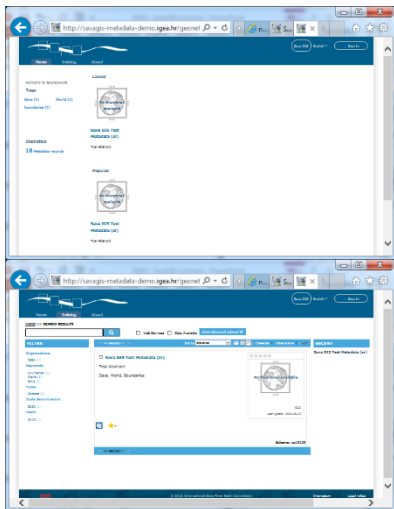
Data and metadata download

Spatial formats

- SHAPE file
- GeoJSON file
- KML file
- GML2 file
- WFS & WMS services

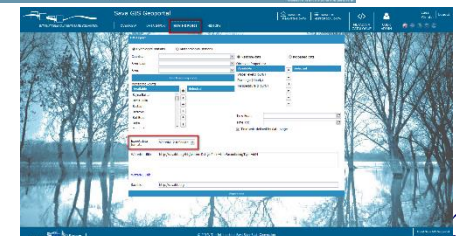
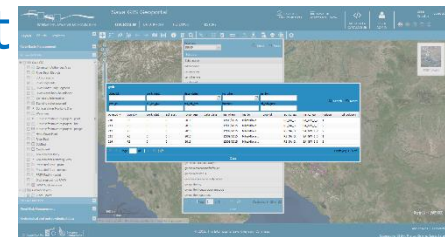
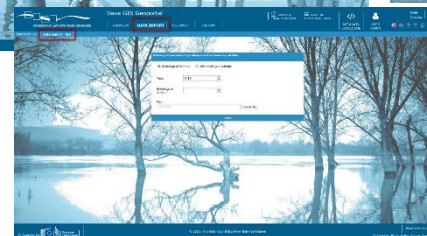
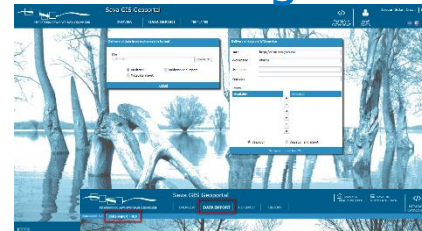
Attribute formats

- CSV
- XLS
- MSAccess2010
- DBF
- XML
- WATER ML 2.0 service



Metadata catalogue

Data management

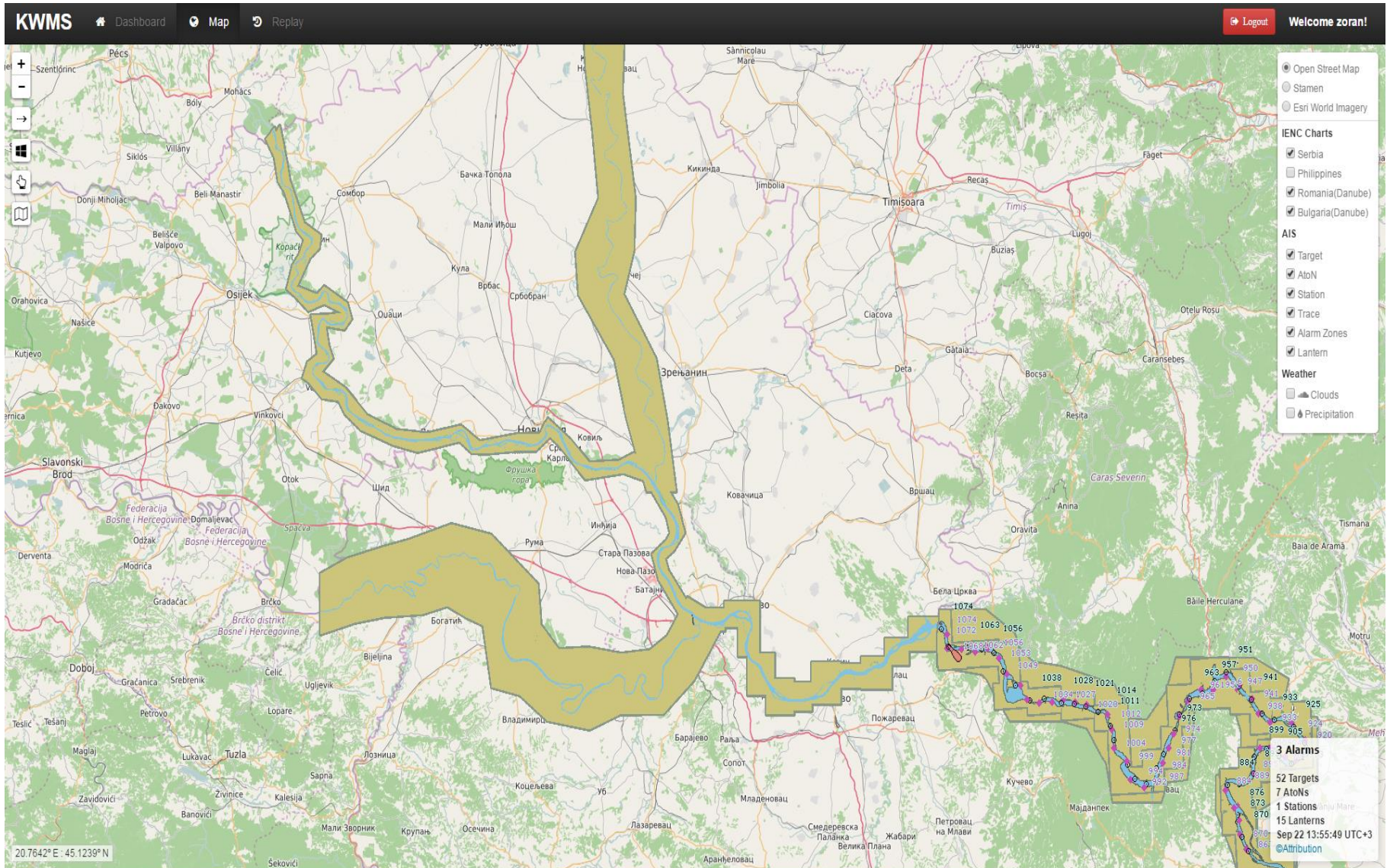


New Pilot System

Launched by ISRBC and Kentron Technologies SRL

- ***Fairway Information Services,***
- ***WEB mapping,***
- ***GIS information on the Sava River and region***

ENCs





Thank you for your attention!!!

Duško Isaković

ISRBC