

Priority Area 1a - To improve mobility and multimodality: Inland wa

# Working Group 1 Waterway Infrastructure & Management

Bucharest, 27 October 2011 Romeo Soare

AFDJ - River Administration of the Lower Danube







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### River Administration of the Lower Danube

>autonomous state control and is the waterways authority

for the Romanian sector of Danube;

- >provisions of the Governmental Decision No. 492/2003;
- > main object of activity to assurance the navigation conditions on the Romanian Danube sector.





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### **Main activity**

The topo-hydrographic surveys include data collection, systematisation and processing for the monitoring of the evolution of the hydrological situation on the Danube. providing the data for the realization of the geomorphological model of the Danube bed



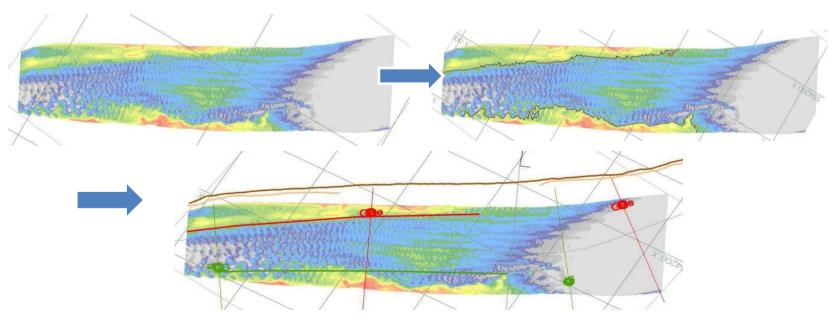






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The result of survey with multibeam is more complex and is more easy to determine the bathymetric line witch is the base for fairway determination







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Main activity - signalisation the signalling activity consists in installing the necessary costal and floating signs.

- monitoring the buoys and lighthouses:
- Sulina: 39 buoys and 23 lighthouses
- Galati: 22 buoys and 34 lighthouses
- Calarasi: 14 lighthouses
- Giurgiu: 27 lighthouses
- Tr. Severin: 21 lighthouses







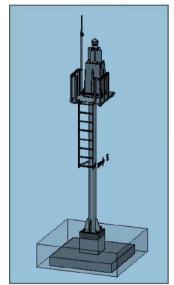
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CoDeSy,MKII,CMS System represents a monitoring and control instrument of the process devices for navigation such as: lighthouses and buoys, retransmission relays

Program permits the visualization, archiving and analysis of the process values of the navigation aids. The access to the process values of the navigation aids is given by VHF, UHF or communication modems via satellite



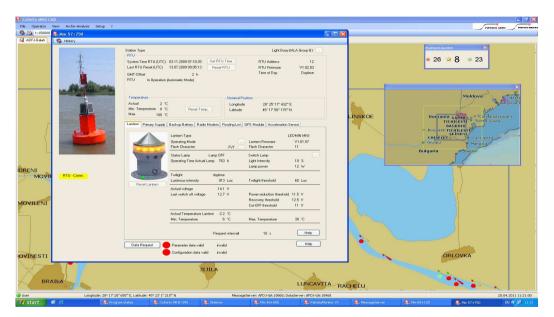


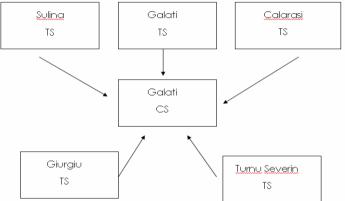




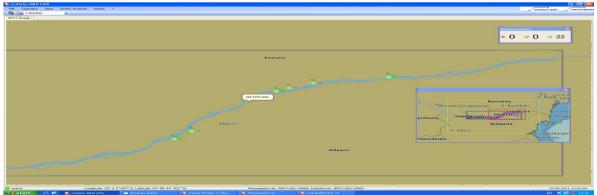
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### **Territorial Servers** and The Central







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### The dredging activity

- assures the required depths for the safe navigation of the ships on the navigable fairway of the Danube.





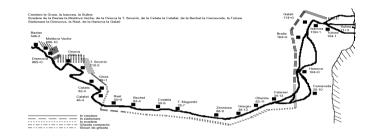


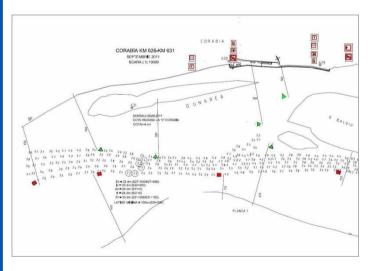
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### www.afdj.ro water levels

Minimum dephs

IVIIII acpiis										
			Cota			Adâncimi efective sondate (m)*				
Poziție km	Punct critic	Port referinţă	apei 26.1 0.20 11	Data Sondajului	Lăţimea şenalului (m)	EV	IV	с	IR	ER
824	Salcia	Cetate	86	03.08.2011	240	2.70	4.00	4.50	4.20	3.20
785	Bogdanu	Calafat	50	04.10.2011	160	2.70	3.10	3.80	3.60	3.10
759	Pietrişu	Calafat	50	04.10.2011	160	3.20	3.70	3.90	4.30	4.50
738	Linovo	Rast	50	03.10.2011	190	3.10	3.40	3.70	3.40	3.00
677	Păpădia	Bechet	87	02.10.2011	140	3.10	3.60	3.80	3.60	3.70
630	Băloiu	Corabia	56	28.09.2011	150	2.90	2.90	3.00	3.00	2.90
345	Turcescu	Călăraşi	47	14.09.2011	200	2.90	3.10	2.60	2.60	2.30
344	Caragheorghe	Călăraşi	47	14.09.2011	160	2.30	2.50	2.50	1.90	2.00
337	Lebăda	Călăraşi	47	14.09.2011	150	2.30	3.30	3.70	4.00	4.80
326	Mârleanu	Cernavodă	30	14.09.2011	150	2.10	2.60	2.60	2.90	2.00
322	Fermecatu Amonte	Cernavodă	30	14.09.2011	150	2.00	3.00	3.60	2.50	2.00
318	Fermecatu Aval	Cernavodă	30	14.09.2011	150	1.80	2.20	3.10	4.00	4.40
297	Cernavodă Aval	Cernavodă	30	12.10.2011	80	4.40	4.50	4.80	4.30	3.80
292	Seimeni	Cernavodă	30	12.10.2011	80	3.70	-	4.40	-	3.90
276	Albăneşti	(Hârşova+C- vodă)/2	67	12.10.2011	110	3.80	3.90	4.10	3.80	3.30
251	Hârşova Aval	Hârşova	104	13.10.2011	130	3.50	5.20	4.90	4.60	3.80
243	Giurgeni Vadu Oii	Hârşova	104	13.10.2011	120	3.70	5.00	5.10	4.80	3.70



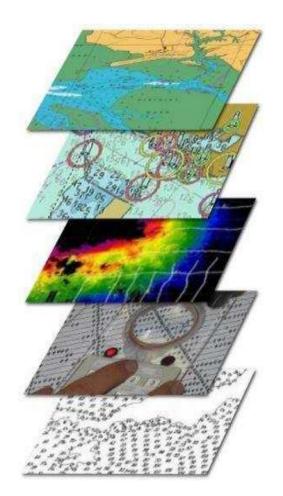




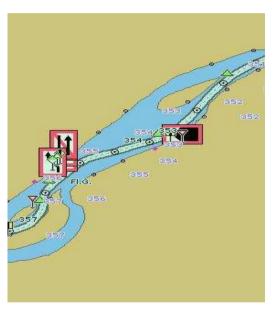


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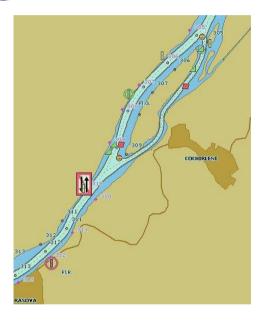
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## **ENC**







1.02 IENC convert 2.1







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### TECHNICAL ASSISTANCE FOR THE IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE DANUBE

#### >ISPA 1

- Improvement of the navigation conditions on the Danube between Calarasi and Braila, and accompanying measures

#### ➤ISPA 2

-Technical Assistance for the improvement of navigation conditions on the Romanian-Bulgarian common sector and accompanying studies





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### -ISPA 1

The proposed works will balance the flow distribution which will increase to 40% the flow going on the Old Danube branch, close to the natural distribution on high water levels situation, with negligible influences on flood situations.





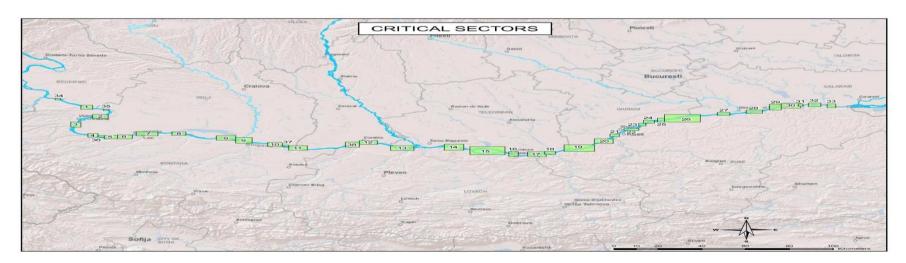


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### -ISPA 2

The project is part of the more global Danube navigability project to improve the Pan European Corridor no. VII, which aims to improve the navigability of the Danube River to answer to the needs of the national transport policy of Romania as well as the countries international commitments.

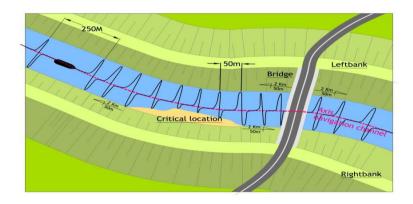




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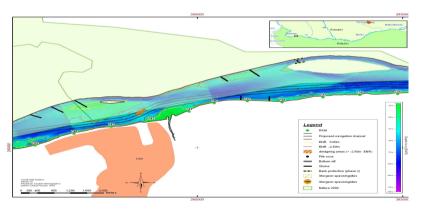
- Topo-bathymetry measurements



- Hydrological and sedimentological additional studies

### **Numerical model**









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Scenarios

**Training Works Scenario** 

(TWS)

ENR-2.5m and foresee an over-depth of 0.50m

**Traditional engineering measures** 

**Minimum Scenario** 

(MS)

ENR-2.5m and no over-depth of 0.50m

Minimum engineering measures

**Enhanced Engineering Scenario** 

(EES)

ENR 2.5m and foresee an over-depth of 0.50m

Alternative engineering measures

**Green Engineering Scenario** 

(GES)

Measures will be designed as a complex set of measures, locally increasing the natural value of the site and improving the navigability







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### Projects NEWADA,

➤ In December 2010, D4D has uploaded IENC`s on <a href="http://ro.d4d-portal.info">http://ro.d4d-portal.info</a> from the whole Romanian Danube sector.



- >FIS portal
- >WLAN in Iron Gates 1





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### **IRIS Europe II**

Pilot implementation of selected Fairway Information Services (FIS)

- Actual depth data provision to fairway users
- Provision of water level information based on water level models to fairway users
- Enhanced Notices to Skippers
- Wireless RIS Services for fairway users based upon wireless broadband tech

Pilot implementation Traffic and Transport related RIS Services Standardisation

Enhancement the AIS infrastructures (on shore, on board)

Romania: already installed 250 Inland AIS transponders (mobile), 20 Inland AIS transponders (portable); - 100 ECDIS viewers;







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### Thank you for your kind attention!

### Romeo Soare,

dipl. eng.

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