## Danube Business Talk 2024

# Waterway infrastructure achievements in Romania





15/05/2024, Carmen Manescu ACN, Romeo Soare AFDJ

#### Locks modernization: Equipment and installations

#### Cernavoda Lock





## Locks modernization: Equipment and installations

Agigea Lock



Locks modernization: Equipment and installations Ovidiu Lock and high water galleries of Ovidiu and Navodari Locks



Locks modernization: Equipment and installations Cernavoda Pumping Station and pumping stations for defense against floods



## Modernization of Navodari Lock in order to increase navigation safety (2024 - 2028)



Modernization of mooring places in Port Basarabi



#### Modernization of mooring places in Port Medgidia



#### Overview of upgrading measures

	Basarabi	Medgidia upstream	Medgidia downstream		
Danube Black Sea Canal km	25,450 – 25,150	38,407-37,798	37,010 -36,701		
Length	approx. 301 m	approx. 609 m	approx.309 m		
Duc d'Albi	2 and new superstructure	4 and new superstructure	2 and new superstructure		
Mooring / docking system	16 bollards; 64 quay fenders	30 bollards; 120 quay fenders	16 bollards; 64 quay fenders		
Access facilities	2 bridges for crew	9 bridges for crew	2 bridges for crew		
Shore-side electricity	Yes	Yes	No		

Modernization of Danube navigable canals: Danube Black Sea Canal and Poarta Alba Midia Navodari Canal in order to increase navigation safety (2024- 2030)













#### Maintenance activities in common sector RO – BG

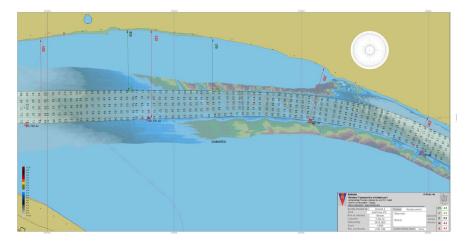
Surveying activity in Critical locations: Calnovat, Calnovat upstream, Corabia, Bechet, Dobrina, Bogdan-Secian, Salcia and Garla Mare,

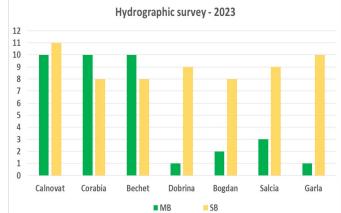
- 63 surveys (SB),
- 37 surveys (MB),
- 13 survey (discharge).

The marking activity was performed by vessels Concordia EU 2019, Semnal 1 and Donaris 3 covering the entire sector, in 30 marking trips

#### The dredging activity was performed as follow:

Framework contract Own resources **2023** (2023 – 300,000 mc) (2023 – 23,000 mc)





#### **2024** (2024 – 210,000 mc) (2024 – under preparation)

Diagnoza pentru 08.05.2024	ora 7 <sup>00</sup> și prognoza hidrologică a debitelor medii zilnice pentru
intervalul 09.05.2024	-15.05.2024 pentru Dunăre la intrarea în țară și pentru
princip	alele secțiuni de pe sectorul românesc

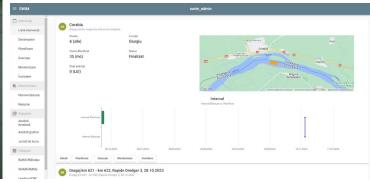
Secțiunea		08.05.2024	09.05.2024	10.05.2024	11.05.2024	12.05.2024	13.05.2024	14.05.2024	15.05.202
Baziaș	Q(mc/s)	4600	4600	4600	4600	4600	4600	4600	460
P.D.F. II	Q(mc/s)	4865							
Calafat Faza   = 550	H(cm) Q(mc/s) +ΔH(cm)	142 4210	162 4440	166 4490	163 4450	159 4400	152 4320	148 4280	14 424
Faza II= 550 Faza II= 600	Gheata								
Bechet	H(cm) Q(mc/s)	180 4430	197 4650	210 4820	212 4850	211 4830	207 4780	202 4720	19 465
Faza I= 550 Faza II= 600	+∆H(cm) Gheata								
Corabia	H(cm) Q(mc/s)	128 4469	133 4535	149 4750	159 4886	159 4886	156 4845	152 4790	14 472
Faza I = 500 Faza II = 550	+∆H(cm) Gheata								
Tr .Mågurele	H(cm) Q(mc/s)	151 4370	152 4380	160 4500	171 4670	175 4730	174 4710	169 4640	16 459
Faza I= 500 Faza II= 550	+∆H(cm) Gheata								
Zimnicea	H(cm) Q(mc/s)	187 4770	180 4690	188 4780	200 4930	207 5030	207 5030	204 4990	20 493
Faza I= 530 Faza II= 610	+∆H(cm) Gheata								
Giurgiu	H(cm) Q(mc/s)	146 4850	133 4680	135 4710	146 4850	155 4970	158 5000	156 4980	15 493
Faza I= 570 Faza II= 640	+∆H(cm) Gheata								
Oltenița	H(cm) O(mc/s)	172 5070	157 4860	152 4790	157 4860	167 5000	172 5070	172 5070	16 503
Faza I= 550 Faza II= 630	+∆H(cm) Gheata								
Călărași	H(cm) Q(mc/s)	152 5180	134 4950	123 4810	123 4810	131 4910	139 5010	142 5050	14 502
I - EEO	1.411/								

#### SWIM - SMART Waterway Integrated Management SWIM project Results

- Integrated Concept to ensure a Good Navigation Status;
- Technical equipment to carry out capital dredging works and enhanced safety of navigation;
- Dredge, pontoon, technical assistance vessel, pipeline, 2 hopper barges
- SWIM IT Platform for capital dredging;







#### New dredgers, CALAFAT and CERNAVODA

#### **Budget state – financed 2 new Self-propelled suction hopper dredger**





**Self-propelled suction hopper dredger,** with its own warehouse for transporting dredged material,

- capacity 460 mc,
- dredging pump capacity 2000 mc/h,
- Length 64m,
- width 12m,
- max draft 2.48m,
- Speed 10 km / h.



### **FAST Danube**

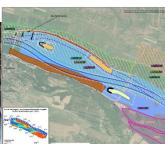


#### Danube common sector, between Romania and Bulgaria



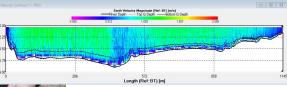
- 2 field trip study (bathymetry, hydrodynamics, sediment, LIDAR, geotechnical drilling)
- Modeling 1 D and 2D, navigation simulation modeling ٠
- Technical solutions, different scenario;
- Migratory fish habitat assessment;
- Natura 2000 Forum;
- EIA and AA procedure, Romania and Bulgaria;
- **Public debates;**



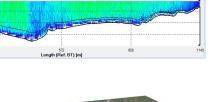














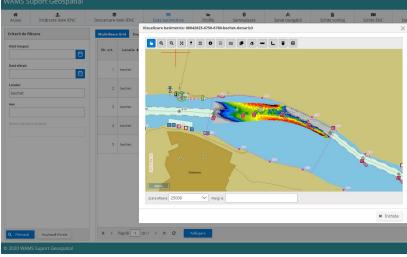
#### **FAIRway Danube**

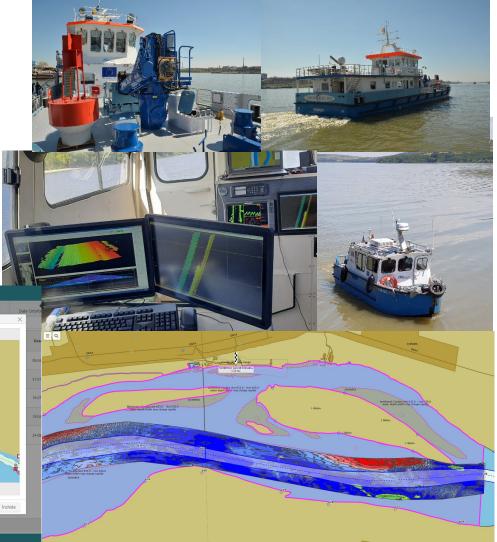


#### **FAIRway Danube project Results**

New marking vessel – CONCORDIA EU 2019;

- New surveying vessel ARES ;
- National platform WAMS, as a source of RO data for transnational platform WAMOS;



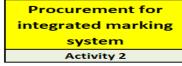


#### **DISMAR - Danube Integrated System for MARking**

#### DISMAR – Danube Integrated System for MARking

National plans for waterway management actions Activity 1

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Pilot actions and evaluation Activity 3



DANUBE RIVER

National plans for waterway management actions Activity 1

LOTA

Procurement for integrated marking system Activity 2

- Developing the integrated marking plan;
  - Integrated marking plan jointly developed
- Developing the Testing and Evaluation Plan for Integrated Marking System Quality;
  - Testing and evaluation plan for integrated marking system quality jointly developed;
  - Procurement of the marking vessels 2 (RO and BG);
- Procurement of the floating marking
  - 300 buoys
  - 80 LED lantern AIS AtoNS, type 1 / 60 LED lantern AIS AtoNs, type 3
  - 100 LED lantern
- Procurement of the coastal marking
  - 2040 pieces of coastal signs and kilometre indicators;
  - 40 LED lantern;
- Procurement of the IT Platform

Pilot actions and evaluation

Activity 3

- Pilot operation for marking system;
- Evaluation of the integrated marking system;







#### **PRIMUS project**

- Procurement of 2 marking vessels;
- Procurement of the maritime pilotage for pilots transfer;
- Procurement and field installation of the marking system, consisting of:
  - 235 pcs. Lanterns with incorporated AIS and solar panels,
    - 40 pcs. for beacons
    - 195 pcs. for buoys;
  - 2 pcs. Precision lights for navigation (PELs)
- Procurement of 20 portable pilotage units (PPUs)
- Developing an IT platform for RO-UA-MD data exchange;
- Field installation of 4 weather stations measuring;
- Field installation of 4 AIS base stations.



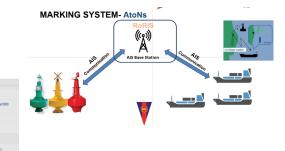
System for pilotage service - IT Platform Maritime Single Window Modul

SHIP PARTICULARS											
Flag PA - PANAMA	Ship Type: Chemical tanker	r, coaster Gross Tonnage: 2108 t	Net Tonnage: 1147 t		PORT OF CALL						
Propulsion power: 2000 KW Inmarsat Call Numbers: 437401531; 437401530;					Port of Call: ROSUL-Sulina Transit	ETA: 14.09.2023 15:00	ETD: 25.09.2023 10:00				
CERTIFICATE OF REGISTRY	RTIFICATE OF REGISTRY	COMPANY			Master's Name: CEMAL KALENDER	Port Operator in port of call:	Part facility LOCODE: R (Port et Zone Franche)	09UL-Sulina	Port facility at a		
Date METV, Dames Carlot de		Company Name: VV SHIPPING COLTD 009	02122023105		Position in port of call - Brief description of onboard cargo and quantities: BALLAST						
Number: 53530-22 Date of losse: 09.09.2022		Company MAIN: VY SHIPPING COLLEG UNDER 25 92:00 Company IMO: 5584600 Phone: +902165500961 Fac: +902165500958 Email: Infr@wrdaibhipping.com			Purposes of Call: Means of transport customs clearance;						
DRED BUS VIVIENCE		TEL TREINING	Cher and a cher and a cher		NAME AND CONTACT DETAILS OF SHIPS AGENT						
Year of built: 1914 Deady	velght: 3216.91 t Len	11 Leigth overalt 84.35 n Beart 14 n Summer draught 5.33 n Company Name: Company Fac		Company Phone: Agent Name:		Company Email: Agent Phone:					
					Fore draught: 2.1 m	Mid-ship draught: 2.9 m	Aft draught: 3.7 m		Air draught: 20.		









### Thank you for your attention!

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