

# ***The JS system for information exchange and developement at the Danube Commission***

---

---



Ivana Kunc, Horst Schindler  
Danube Commission, Budapest

Vienna, April 6, 2011

# ***1. Ship waste management along the Danube***



Ivana Kunc  
Danube Commission, Budapest



## **Content:**

- 1. Development and implementation of a sustainable and transnational coordinated approach in ship waste management along the Danube**
- 2. Cooperation with WANDA project in common interests of DC Member-States**
- 3. WANDA - General Information**
- 4. Outcome of the DC Expert Working Group “Ship Waste Collection”**
- 5. Recommendations and Conclusions of the DC expert meeting on February 24-25, 2011 and next steps**

# 1. Development and implementation of a sustainable and transnational coordinated approach in ship waste management along the Danube

## Motivation:

- Recognition the ship waste management along the Danube as a common navigation and ecological needs based on the general guidelines of the Joint Statement
- Protection of Danube water resource from pollution caused by IWT and implementing preventive measures as a high priority for all riparian states in Danube region
- Support the Inland Navigation as environmentally friendly and sustainable transport mode for cargo and passengers



# 1. Development and implementation of a sustainable and transnational coordinated approach in ship waste management along the Danube

## Common objectives of the DC Waste Management Expert Group and WANDA project:

- Evaluating significant differences in Danube riparian countries regarding collection and treatment of ship waste
- Clarifying the broad political and legal framework
- Establishment of a cross-border coordinated ship waste management system along the Danube!



# 1. Development and implementation of a sustainable and transnational coordinated approach in ship waste management along the Danube

- **Relevant legal framework regarding ship waste of int'l scale:**
  - **Basel Convention; EC 1013/2006 Regulation, etc.;**
  - **Danube-related documents: Belgrade Convention, CEVNI/DFND, Recommendation on collection of waste caused by vessels on the Danube – DC publication 2007/ update version 2009/**
  - **Danube & Environment: 2000/60/EC Directive – EU WFD, 1994/ICPDR – Danube River Protection Convention**
  - **1996/CDNI – Convention on the collection, deposit and receipt of waste produced during navigation on the Rhine and on inland waterways (Strasbourg 1996 Waste Convention came into force on 1 Nov 2009)**
  - **Sava Protocol**

## 2. Cooperation with WANDA

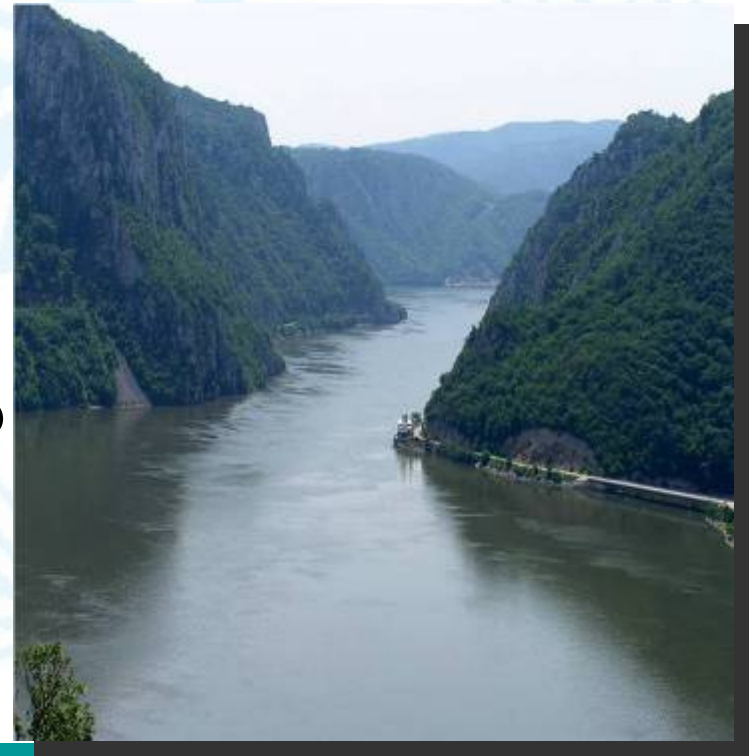


**Project WANDA is a multi-disciplinary planning process from the beginning on the general guidelines of the Joint Statement!**

**The project WANDA aims at establishing a sustainable, environmentally sound and trans-nationally coordinated approach in ship waste management along the Danube!**

**Key activities in the DC on 2010/2011/2012:**

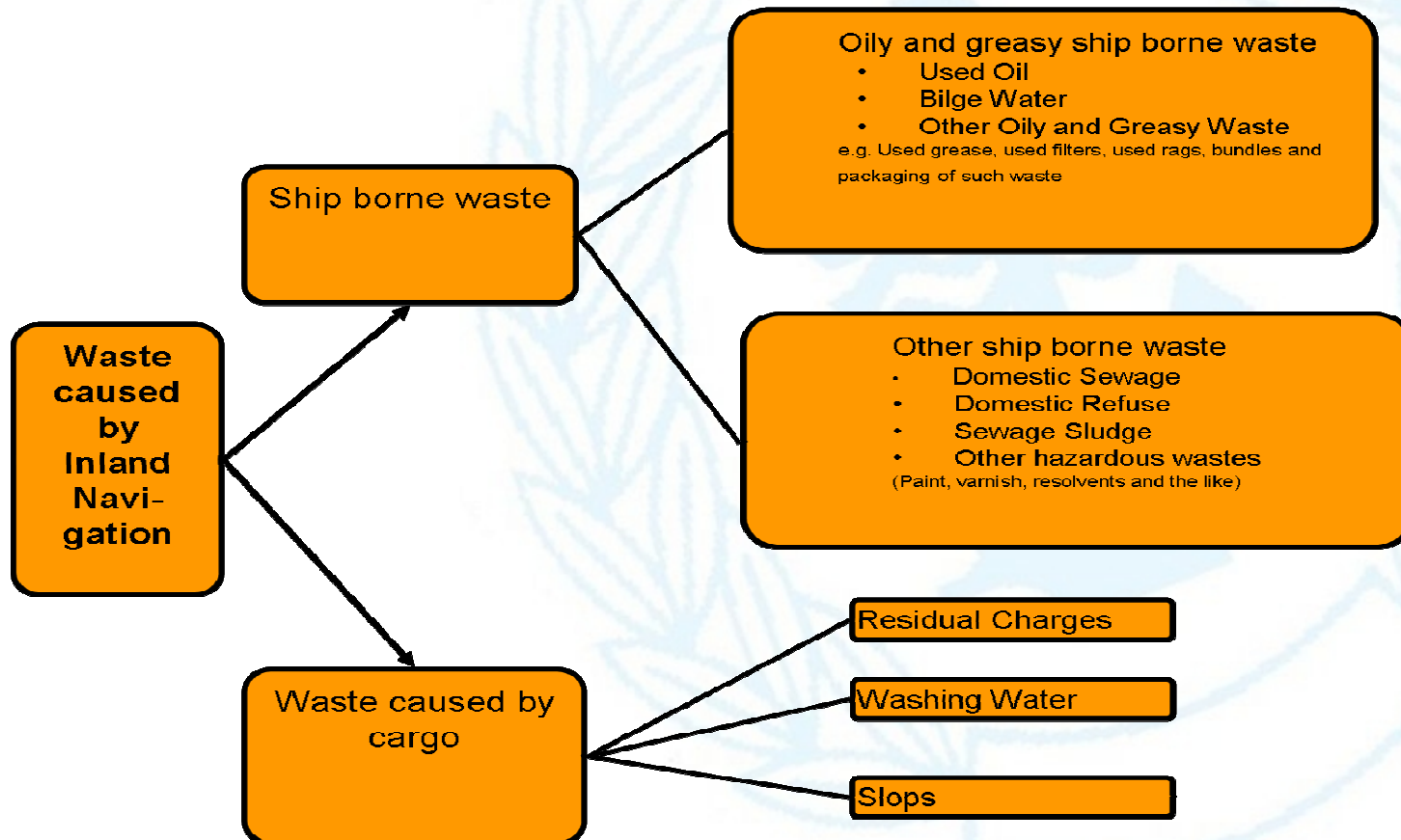
- **Harmonization and coordination activities with WANDA project**
- **Coordinated elaboration of national ship waste management concepts**
- **Guidelines for national concepts**
  - **Non-EU-member states**
  - **Non-WANDA states**



## 2. Cooperation with WANDA



### Scope of DC Recommendations on collection of waste caused by vessels on the Danube and WANDA project - Classification of Ship Wastes



Scheme based on CCNR, 1996: edited by Via Donau



## 2. Cooperation with WANDA



### Expected results of WANDA project :

- **Ship Waste Management Concepts**
- **Implementation concepts and results of pilot action in the frame of WANDA on the Upper and Lower Danube focus on: ship borne waste!**
- **Financing Model for oily and greasy ship waste on the Danube**
- **Coordinated Joint Action Plan including follow up activities and possible funding sources**

## 2. Cooperation with WANDA

### Common interests of the DC Member States:

#### •Network of facilities & infrastructure development

- Upper Danube Region / Schengen Area (DE, AT, SK, HU)
- Middle Danube Region (HR, RS)
- Lower Danube Region / new EU-member states (BG, RO)
- Lower Danube Region / Danube Delta (RO, MD, UA)

a) Stationary waste reception facilities (...green terminal...)

b) Mobile collection service

#### •Principles for the financing-related part of national concepts:

- Polluter pays
- Indirect payment



## 2. Cooperation with WANDA



### Common interests of the DC Member States :

- **Involving and providing information to countries not listed among members of WANDA and Non-EU-member states**
- **Discussions regarding future processes of integration**
- **Adaptation of the DC Recommendation in accordance with results of WANDA project**

**Option:**

**Legal and administrative preparation of the international treaty/ convention regarding ship waste management along the Danube!**



# 3. WANDA General Information

## Basic facts



### Programm:



### 1st Call

**Priority 2:** Protection and Improvement of Environment

**Measure 2.2:** Improve prevention of environmental risks

**Funded by the European Regional Development Fund (ERDF)**

### Partner

9 Institution out 7 countries



### Duration

04/2009 – 03/2012

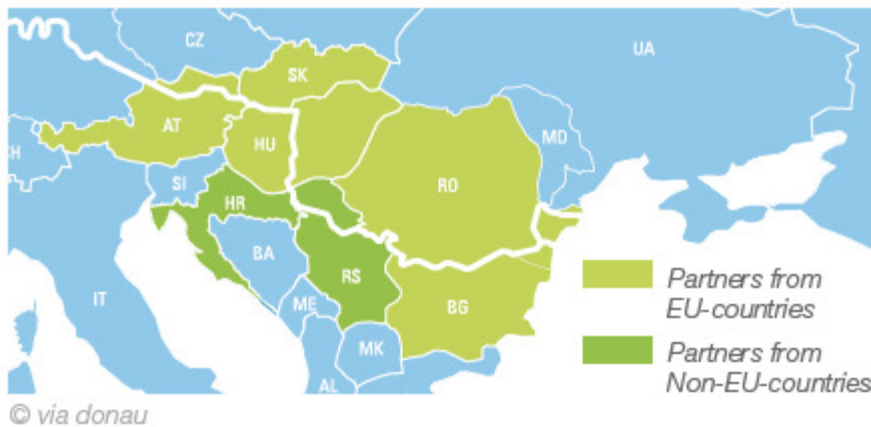
### Total budget

1.667.240 Mio. EURO

EU Funding rate: 85%

Information provided by Mr. Harald Beutl  
WANDA Project manager , Via Donau

# 3. WANDA General Information Project Partner



**AT via donau**  
Austrian Waterway Company



**SK VUVH**  
Water Research Institute Bratislava



**HU KTI**  
Institute for Transport Sciences Non Profit Ltd



**HU RSOE**  
National Association of Radio Distress-Signaling and Infocommunications



**RO APDF**  
National Company The Administration of River Ports on the Danube J.S.Co Giurgiu



**RO APDM**  
Maritime Danube Ports Administration



**BG EAEMDR**  
Executive Agency for Exploration and Maintenance of the Danube River - Ruse



**HR PAV**  
Public Institution Port Authority Vukovar



**RS PLOVPUT**  
Directorate for Inland Waterways

## WANDA Project Region



Information provided by Mr. Harald Beutl  
WANDA Project manager , Via Donau

### 3. WANDA General Information Project Organization



WANDA is structured in 6 working packages!

WP– No.	Title	Responsibility
1	Project Management	via donau
2	Internal and external communication	via donau
3	Development of ship management concepts along the Danube	KTI
4	Implementation of pilot activities	APDM
5	Development of a Financing Model for the collection and treatment oily and greasy ship waste	via donau
6	International Coordination	APDM

Information provided by Mr. Harald Beutl  
WANDA Project manager , Via Donau

# 3. WANDA General Information Project Map



© via donau

- Pilot activities
- National ship waste concept
- Financing model

Information provided by Mr. Harald Beutl  
WANDA Project manager , Via Donau

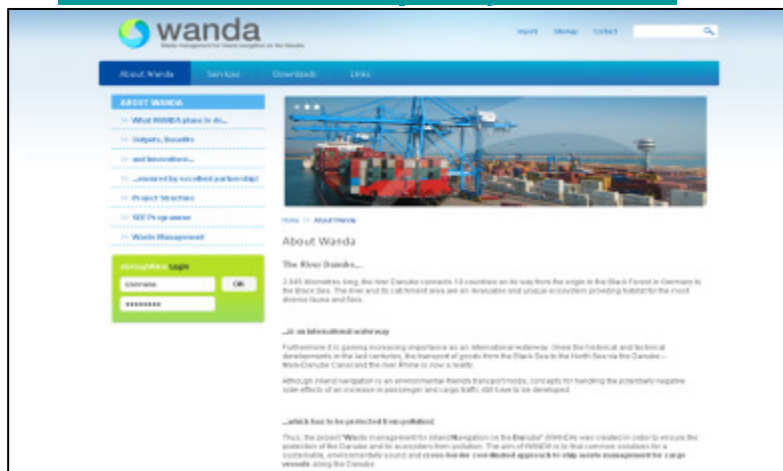
# 3. WANDA General Information



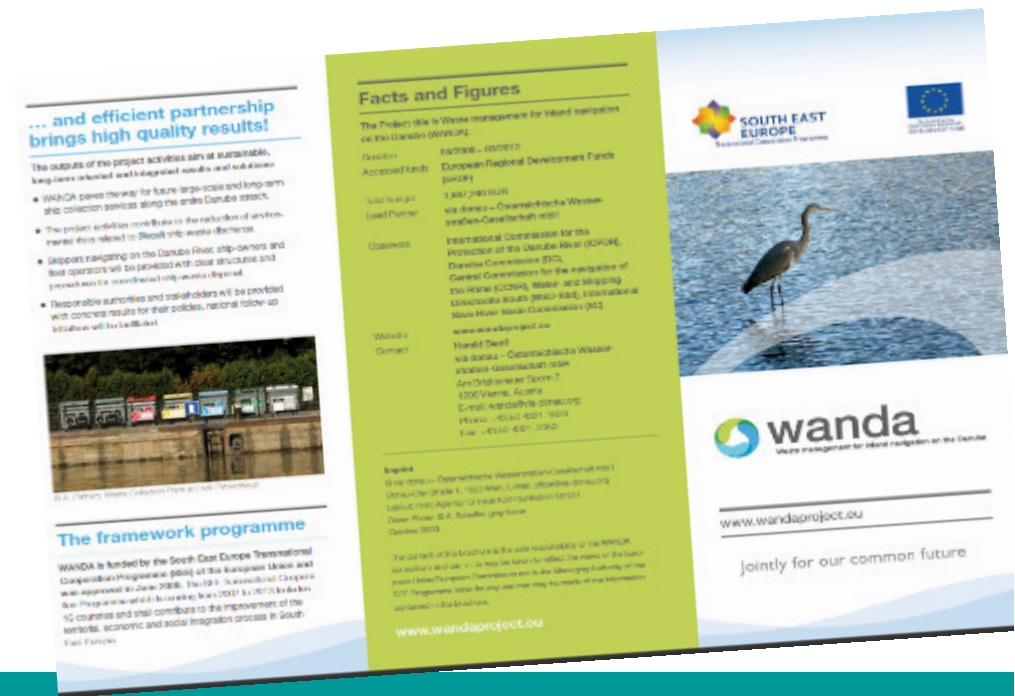
Co-funded by the EUROPEAN REGIONAL DEVELOPMENT FUND

## Communication and involvement of stakeholders and the public from the beginning in line to general guidelines of the JS!

[www.wandaproject.eu](http://www.wandaproject.eu)



- about 1000 visits/months
- Wanda Internet Platform
- Stakeholders Database



- Production of Flyers in all PPs languages
- Newsletters are produced periodically
- Press Releases on demand

DANUBE COMMISSION  
Joint Statement Follow Up Meeting `11

Information provided by Mr. Harald Beutl  
WANDA Project manager , Via Donau





## 4. Outcome of the DC Expert WG “Ship Waste Collection”

- Leaders of Wanda Project Packages – representatives of via donau, KTI and APDM from Austria, Hungary and Romania have participated on the meeting DC Expert WG “Ship Waste Collection” of on 24-25 February 2011 and presented all activities from 2010
- Outputs 2010 of different WANDA WP are completely adopted as a good base for activities 2011/ 2012 in common interests of all DC Member States
- Legal framework regarding oily and greasy ship waste disposal system has detailed discussed and interpreted from national authorities and experts; staying some open legal questions-  
”transport” of waste beyond borders!



## 4. Outcome of the DC Expert WG “Ship Waste Collection”

- **Principals for a Financing Model have been identified:**
  - encourage the prevention of ship waste
  - split the disposal costs according to the Polluter Pay Principle
  - follow the principle of Indirect Financing
- **Progress on the elaboration of the financial models: final solution has to be applicable for the all Danube on the context of the own national condition**
- **Representative of Germany has presented the Financing Model of CCNR regarding CDNI Convention( Charge on gas oil)) which came into force on 1.January 2011 and already has implemented along the German part of the Danube!**

## 4. Outcome of the DC Expert WG “Ship Waste Collection”

- Adoption of the Marking System for some kind of the ship borne waste as a first step for future international waste symbolic along the Danube!

WASTE PAPER, PLASTIC PACKAGING, METAL PACKAGING, CLEAR GLASS, COLOURED GLASS AND REZIDUALS (non hazardous):



Altpapier  
Макулатура  
Maculature



Weissglas  
Бесцветное стекло  
Verre blanc



Kunststoffverpackungen  
Упаковки из синтетических  
материалов  
Emballages en matières synthétiques



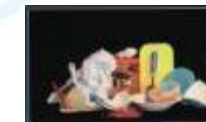
Buntglas  
Цветное стекло  
Verre coloré



Metallverpackungen  
Металлические упаковки  
Emballages métalliques



Restmüll  
Иные отходы  
Autres déchets





## 5. Recommendations and Conclusions of the DC expert meeting on February 24-25, 2011 and next steps

- **Strong support to WANDA project on 2011/2012**
- **Preparation and development of different financing models for the Danube - WANDA Financing Model:**

**Study must describe essential aspects :**  
**evaluation of the legal framework, calculation method for determining the size of payments, modality of indirect payment and control mechanisms, administrative bodies, implementation concept for the financing models;**  
**Focus on: collection, storage and disposal of oily and greasy ship waste!**





## **5. Recommendations and Conclusions of the DC expert meeting on February 24-25, 2011 and next steps**

➤ **Discussions regarding future processes of ship waste management integration on the Danube**

**Aim: Legal and administrative preparation of the international treaty/ convention regarding ship waste management in the Danube!**

➤ **Adaptation of the DC Recommendation in accordance with the concrete results of WANDA project, as a bases of a possible treaty!**





## **5. Recommendations and Conclusions of the DC expert meeting on February 24-25, 2011 and next steps**

**Follow-up tasks and time frame:**

➤ **September 2011 ( responsible: Germany and DC)**

Preparation of similarity and difference of CDNI – CCNR  
Strasbourg Waste Convention and DC Recommendation on  
collection of waste caused by vessels on the Danube

➤ **October 2011 (responsible : WANDA)**

Presentation of the different financing models of collection,  
storage and disposal of oily and greasy ship waste  
applicable for the Danube on the next Technical WG of the  
DC

➤ **February 2012 (responsible: DC)**

Proposal for disposal of waste caused by cargo ( Residual  
charges, Washing Water and Slops)

➤ **2012 : Identify the follow - up projects related to the WANDA!**

# Thank you for your attention!



All presentations relating to the Ship Waste  
Management along the Danube:  
[www.danubecommission.org](http://www.danubecommission.org)

DANUBE COMMISSION

Joint Statement Follow Up Meeting `11

## ***2. Infrastructure - Fairwayparameters***

---

---



Horst Schindler  
Danube Commission, Budapest



## Infrastructure

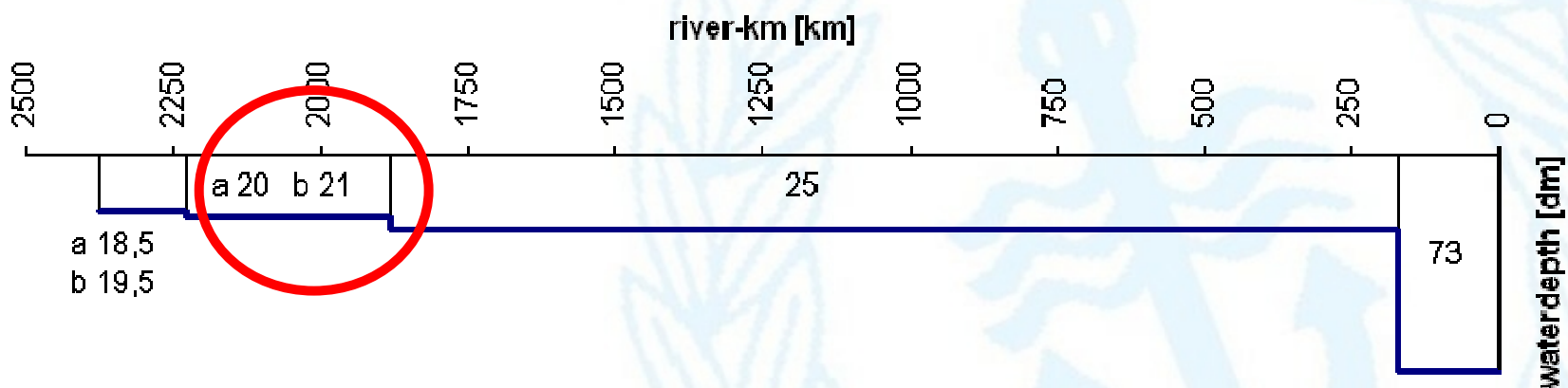
### Decisions of the DC:

- CD/SES 18/22-1 (1960)
- CD/SES 20/27 (1962)
- CD/SES 20/54 (1962)

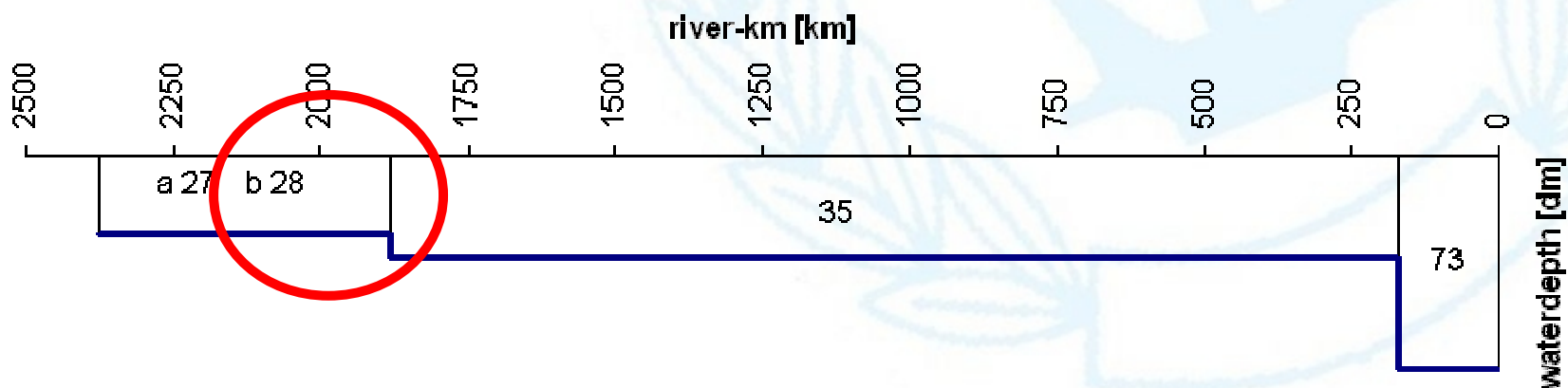
# Minimum Fairwaydepth

freeflowing sections

CD/SES 20/54 (1962)



backwater sections



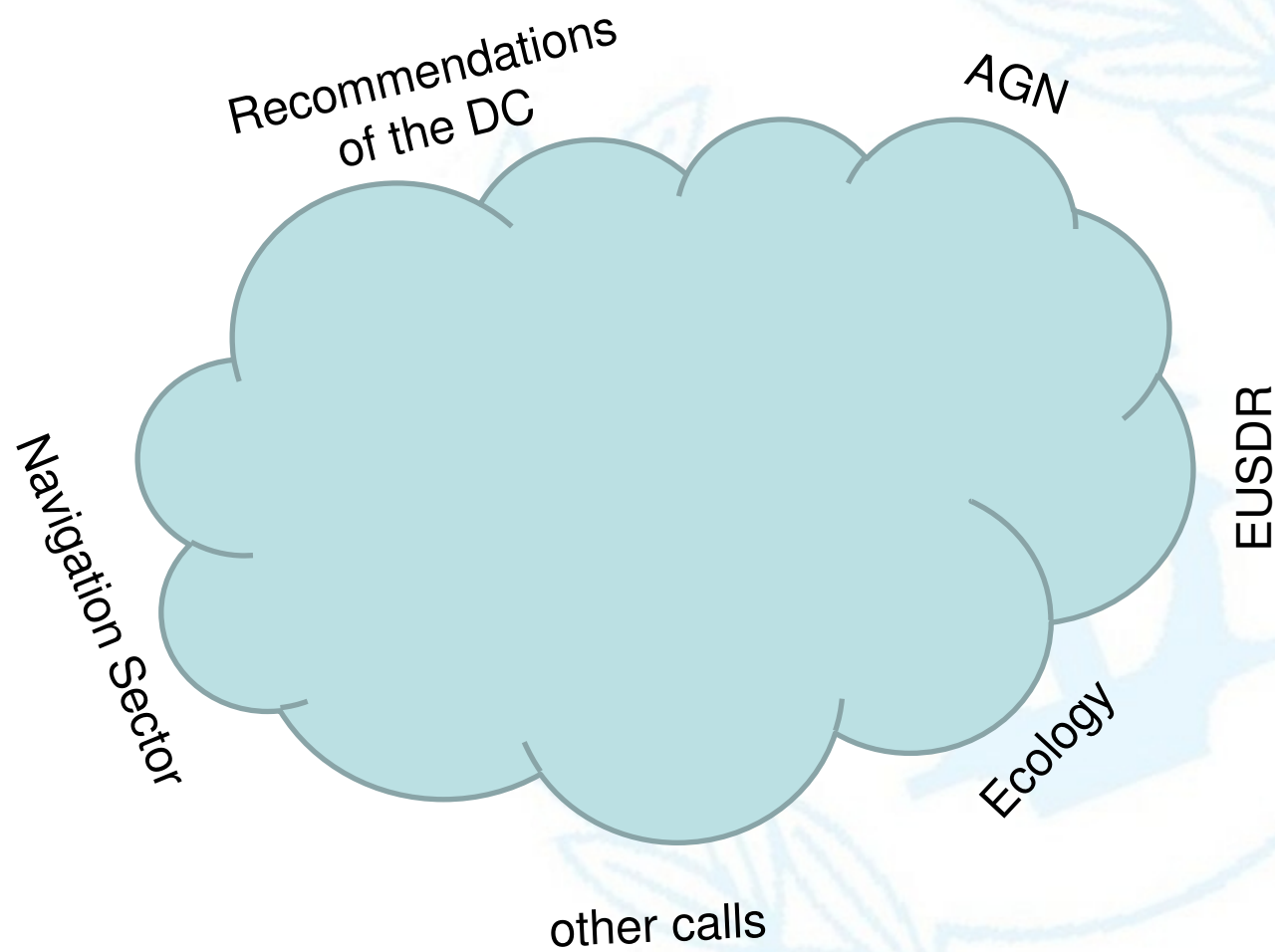
## ***some possible Interests of 1962***

- Navigation
- Floodprotection
- Energy production
- drinking water, irrigation

## ***Today's Interests***

- Navigation
- Floodprotection
- Energy Production
- Drinking Water
- Irrigation
- Ecology
- Pleasureboats
- Recreation
- Fishing
- Residents
- Tourism
- Culture
- Politics, ...

## ***Future Parameters***



## ***Excursus***

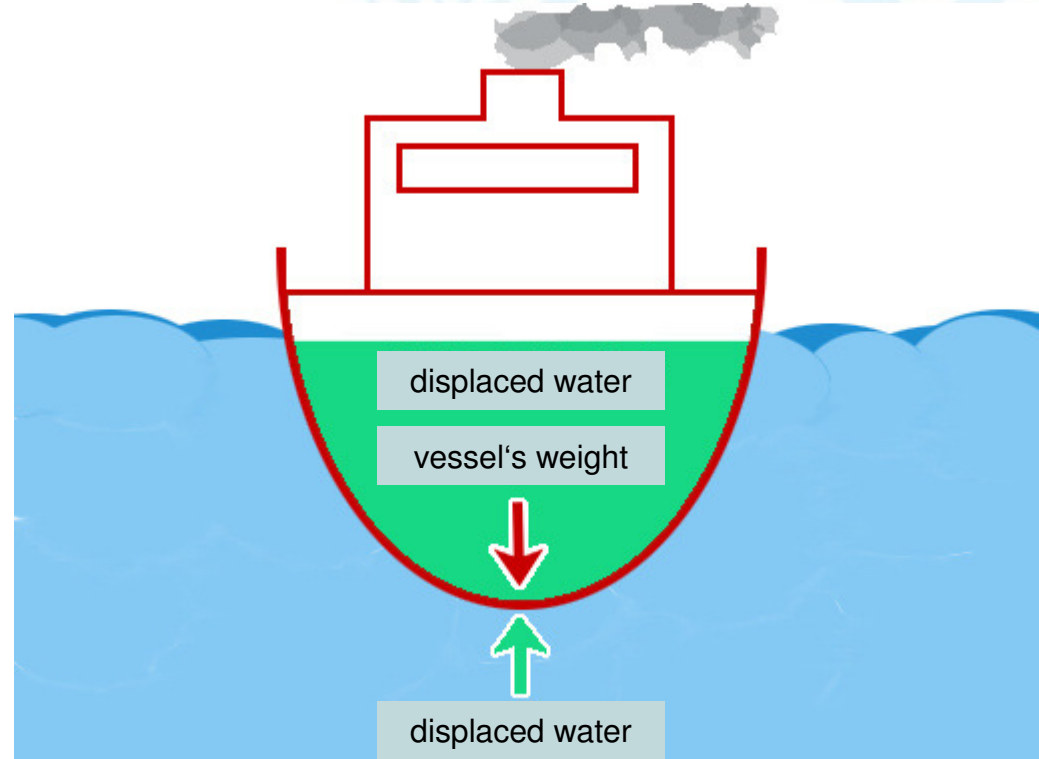
### ***Physical laws***

***Why a ship made of steel is floating?***



## ***Archimedes' principle***

- Buoyancy is equal to the weight of the displaced water (Displacement)
- Displacement = Length x Width x Draught x Solidity
- Displacement – Vessel's Mass = Load Capacity



## ***additional physical laws***

- Drag of a vessel is proportional to the square of velocity  
double speed = fourfold drag
- Power needed is equal to the cube of velocity  
double speed = eightfold power



## ***Consequences due to Physics***

- preferably large measurements (dimensions)  
(Length and Width modular variable – Vessel Formations)
- preferably low velocities
- Today's vessels are already adapted to our rivers
- nostrums like „lightships“, „shallowships“ or „speedboats“ are against Nature

***End of Excursus***

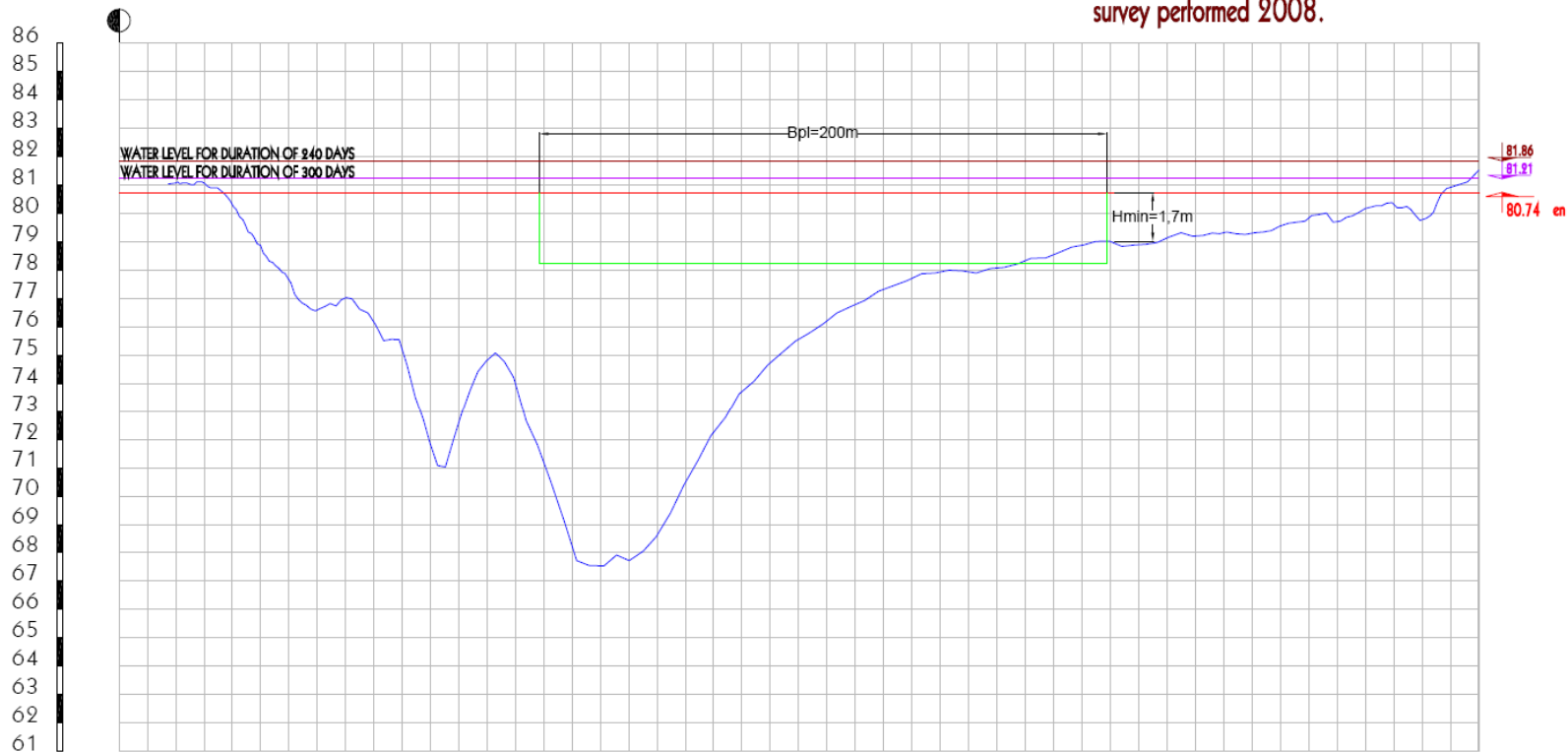


DANUBE COMMISSION

Joint Statement Follow Up Meeting `11

# Minimum Fairwaydepth

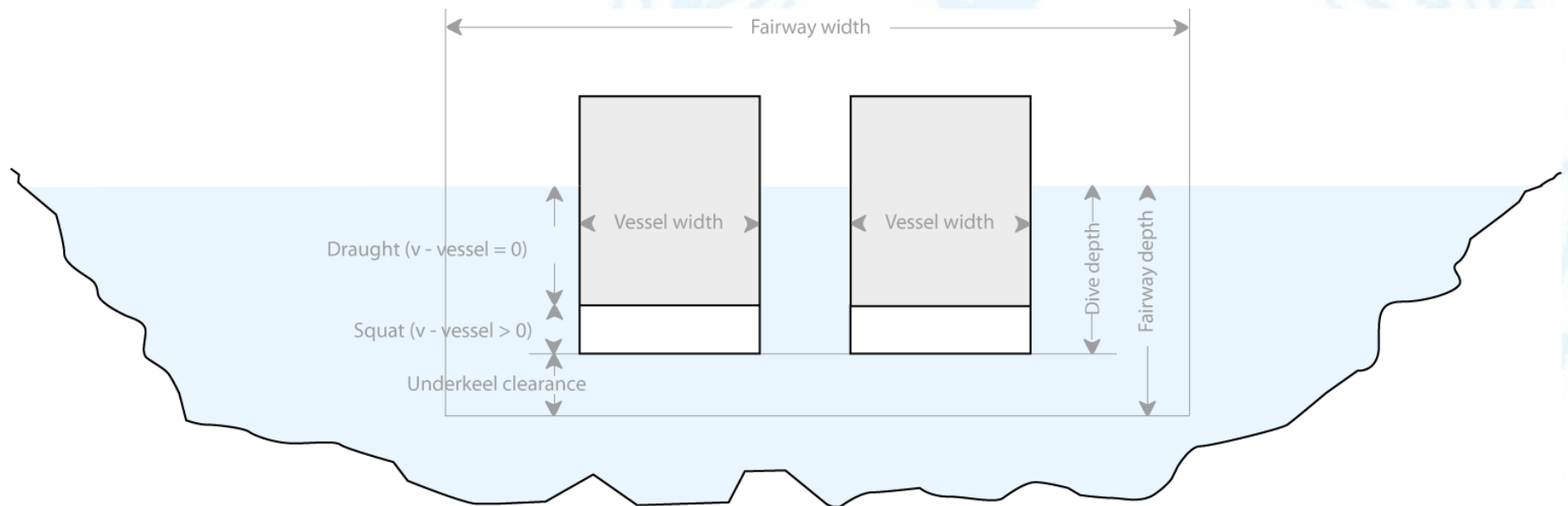
Gauging station Bezdán  
 km1425+590  
 survey performed 2008.



Kote terena	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00
Odstojanja		81.08	81.08	80.32	78.85	77.66	76.59	77.02	76.17	75.19	71.81	79.60	74.83	74.00	71.19	68.22	67.54	67.73	68.61	70.47	72.26	73.72	74.74	75.56	76.21	76.79	77.32	77.72	77.94	77.94	78.08	78.34	78.55	78.88	79.01	78.90	79.14	79.81	79.32	79.30	79.55	79.83	79.71	80.18	80.33	79.77	80.92	81.51	

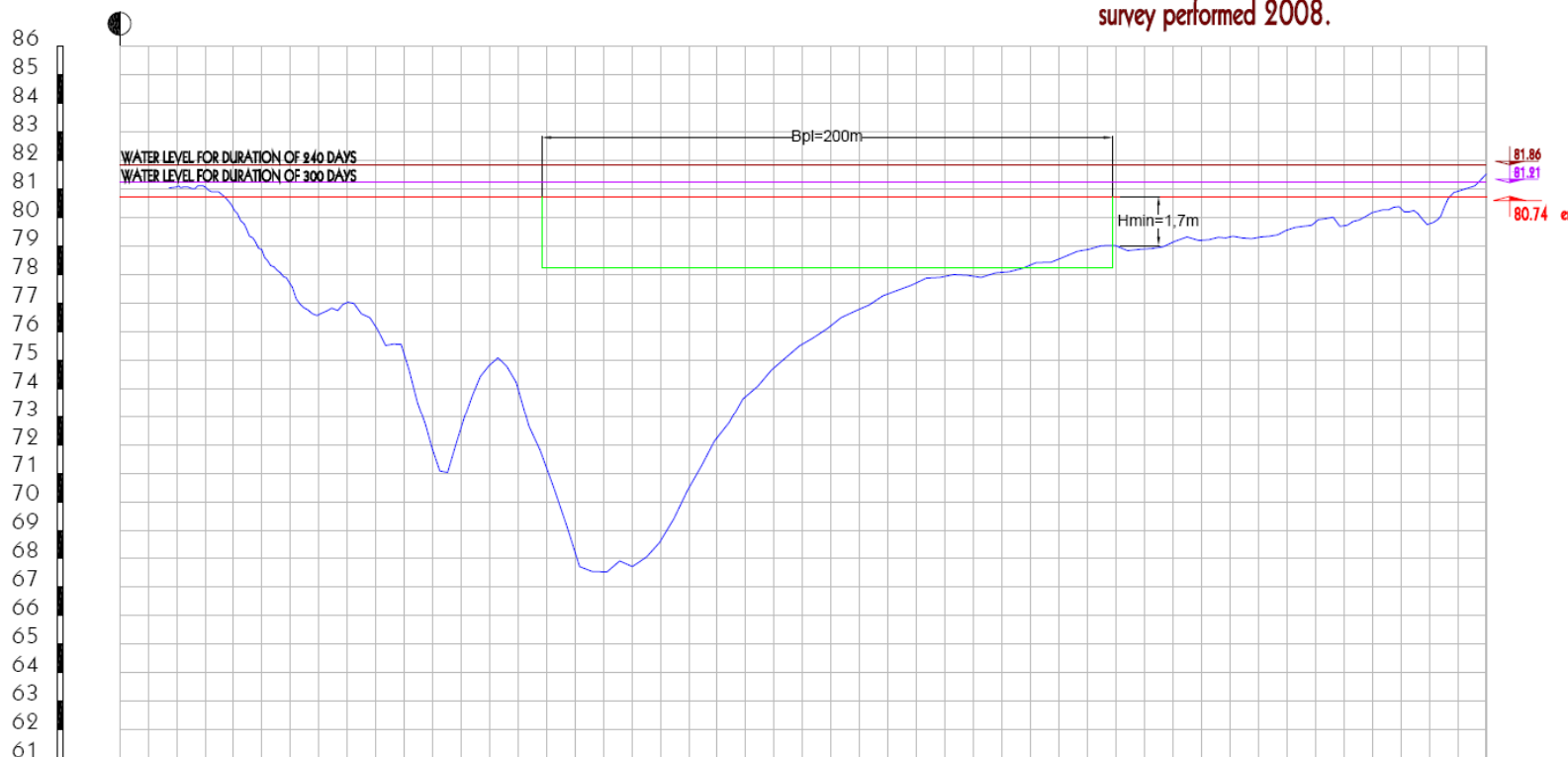
Muskatirovic, Schindler, 2011

## some Definitions



# Minimum Fairwaydepth

Gauging station Bezdán  
km1425+590  
survey performed 2008.



Kote terena	0.00	10.00	81.08	81.08	81.08	80.32	80.32	78.85	77.66	76.59	77.02	76.17	75.19	71.81	79.60	74.83	74.00	71.19	68.22	67.54	67.73	68.61	70.47	72.26	73.72	74.74	75.56	76.21	76.79	77.32	77.72	77.94	77.94	78.08	78.34	78.55	78.88	79.01	78.90	79.14	79.81	79.32	79.32	79.30	79.55	79.83	79.71	80.18	80.33	79.77	80.92	81.51
Odstojanja	0.00	10.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00	410.00	420.00	430.00	440.00	450.00	460.00	470.00	480.00				

Muskatirovich, Schindler, 2011

***possible Solution?***



# Thank you for your attention

## **Ivana Kunc**

Counsellor for issues related to IW-  
Exploitation and Environment

[ivana.kunc@danubecom-intern.org](mailto:ivana.kunc@danubecom-intern.org)

## **Horst Schindler**

Counsellor for issues related to the  
maintenance of the fairway

[horst.schindler@gmail.com](mailto:horst.schindler@gmail.com)

Danube Commission  
Benczúr utca 25  
1068 Budapest

**DANUBE COMMISSION**

Joint Statement Follow Up Meeting `11