

# **Methodology for preparing the PoM as part of the RBM Plan – Romanian experience**



**2<sup>nd</sup> Annual Meeting and the 3<sup>rd</sup> Screening Workshop at  
Pilot – Drina River Basin  
10-12 March 2015**

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National Administration "Romanian Waters"**

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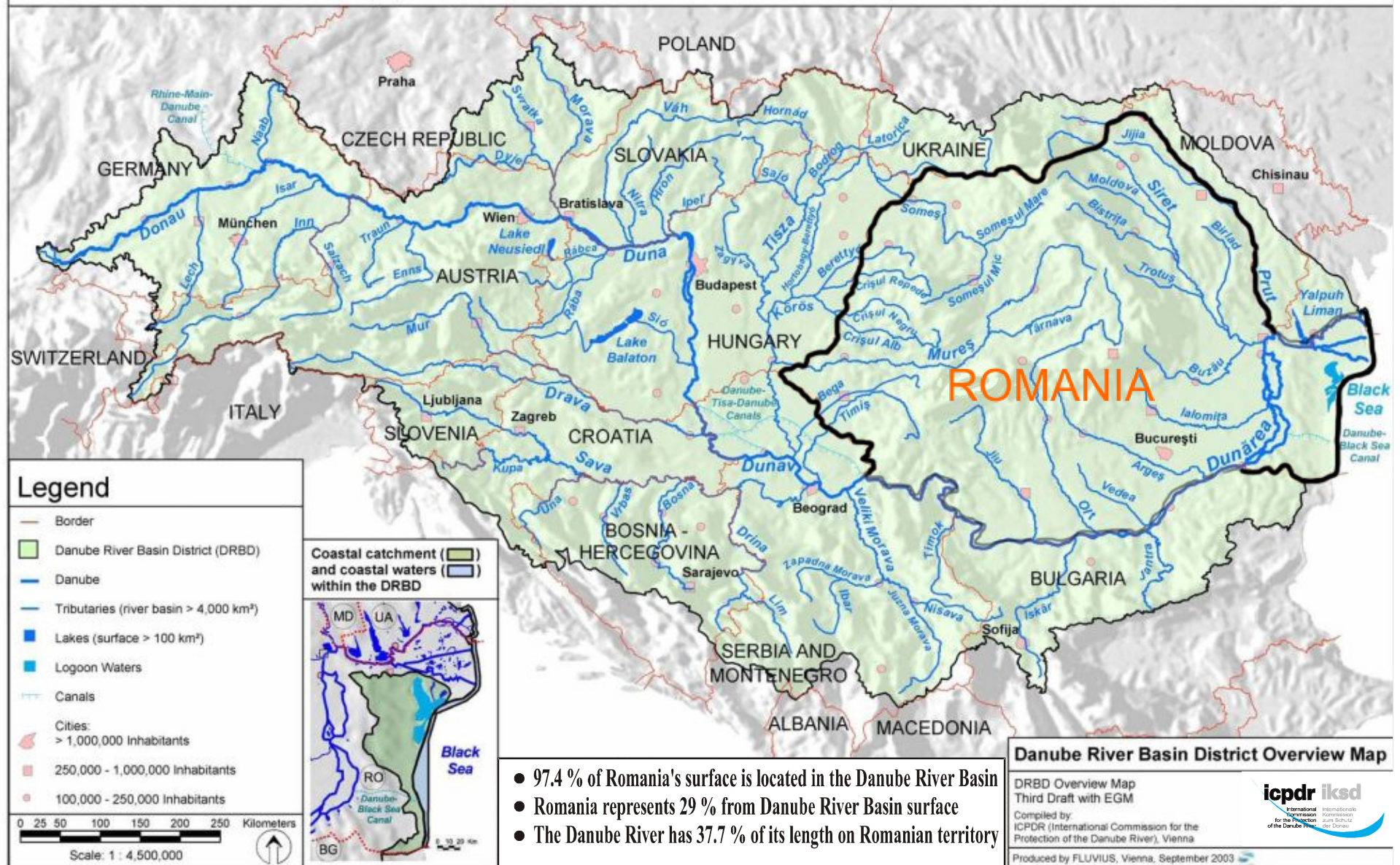
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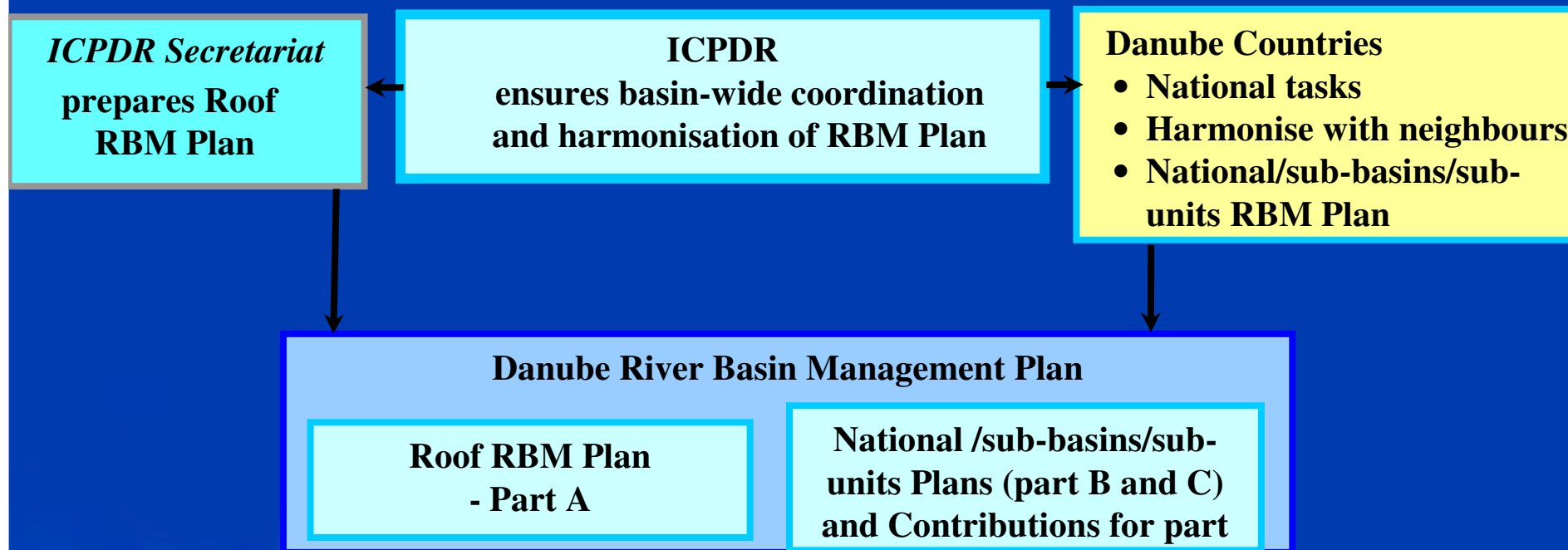


## Danube River Basin District. Overview map



# EU Framework of RO PoM

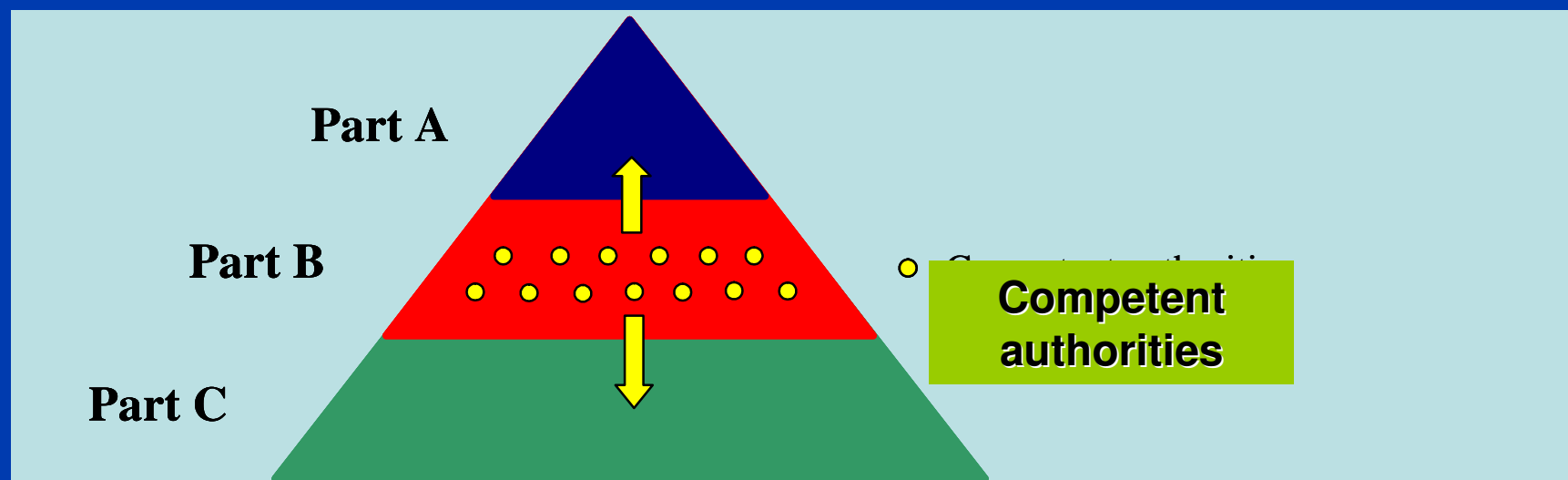
## Development of the Danube RBM Plan



# EU Framework of RO PoM

## Development of the Danube RBM Plan

### Structure of the Danube River District Management Plan



**Part A – District (international) level**

**Part B – National level and/or internationally coordinated sub-basin level for selected sub-basins (Tisza, Sava, Prut, Danube Delta)**

**Part C – Sub-basin/sub-unit level (11 in Romania)**



# Programm of measures

## General overview

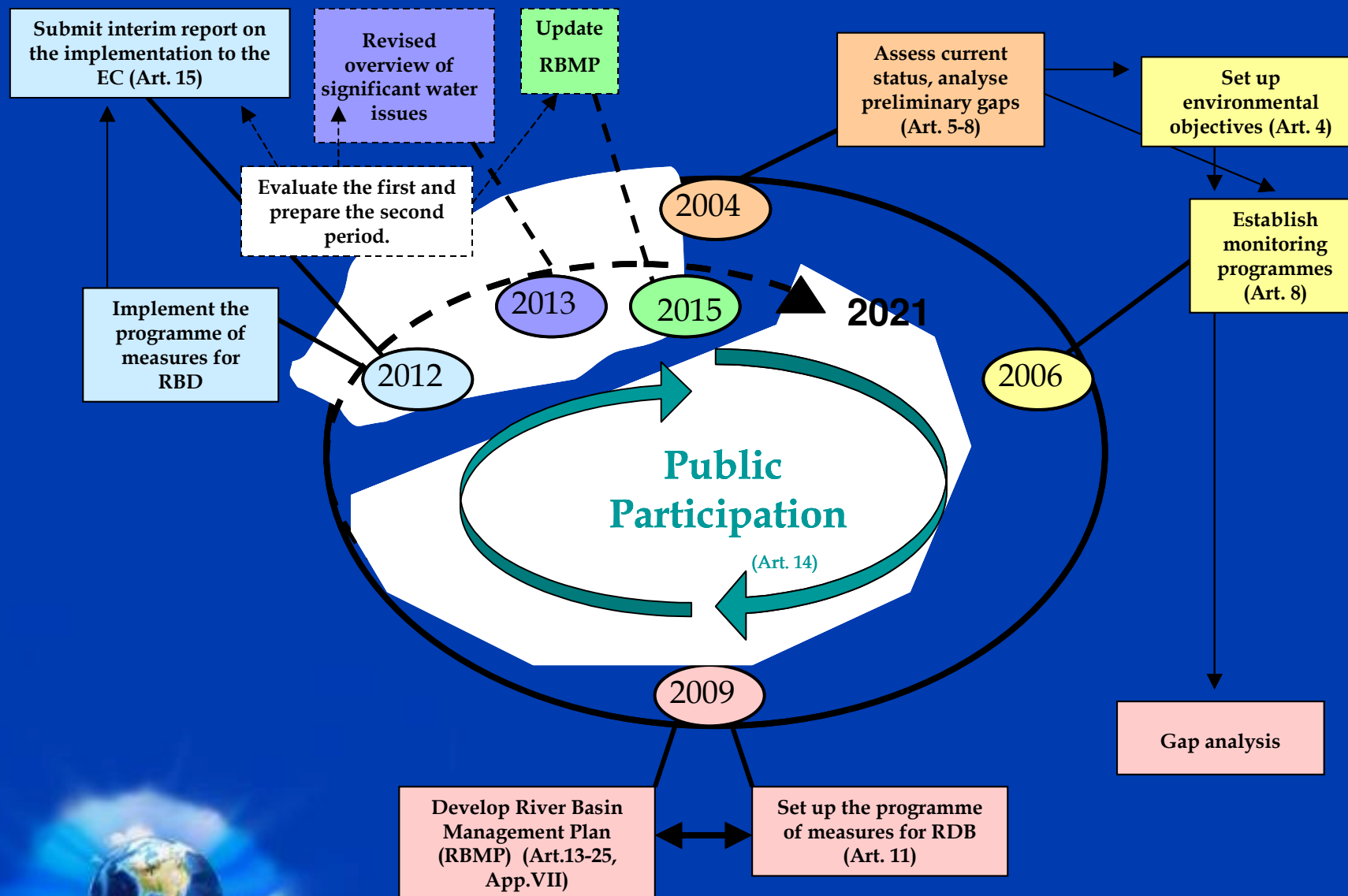
### Requirements :

**Article 11** WFD states the need to build a **programme of measures**:  
“Each member state shall ensure the establishment for each river basin district, or for a part of an international river basin district within its territory, of a programme of measures, taking into account the results of the analysis required under article 5, in order to achieve the objectives established under article 4.”

**POM → tool to reach the environmental objectives**







## TIME TABLE FOR PREPARING RIVER BASIN MANAGEMENT PLAN

## Objectives defined in the WFD for the PoM

**PoM** → fulfil the environmental objectives described in article 4 WFD:

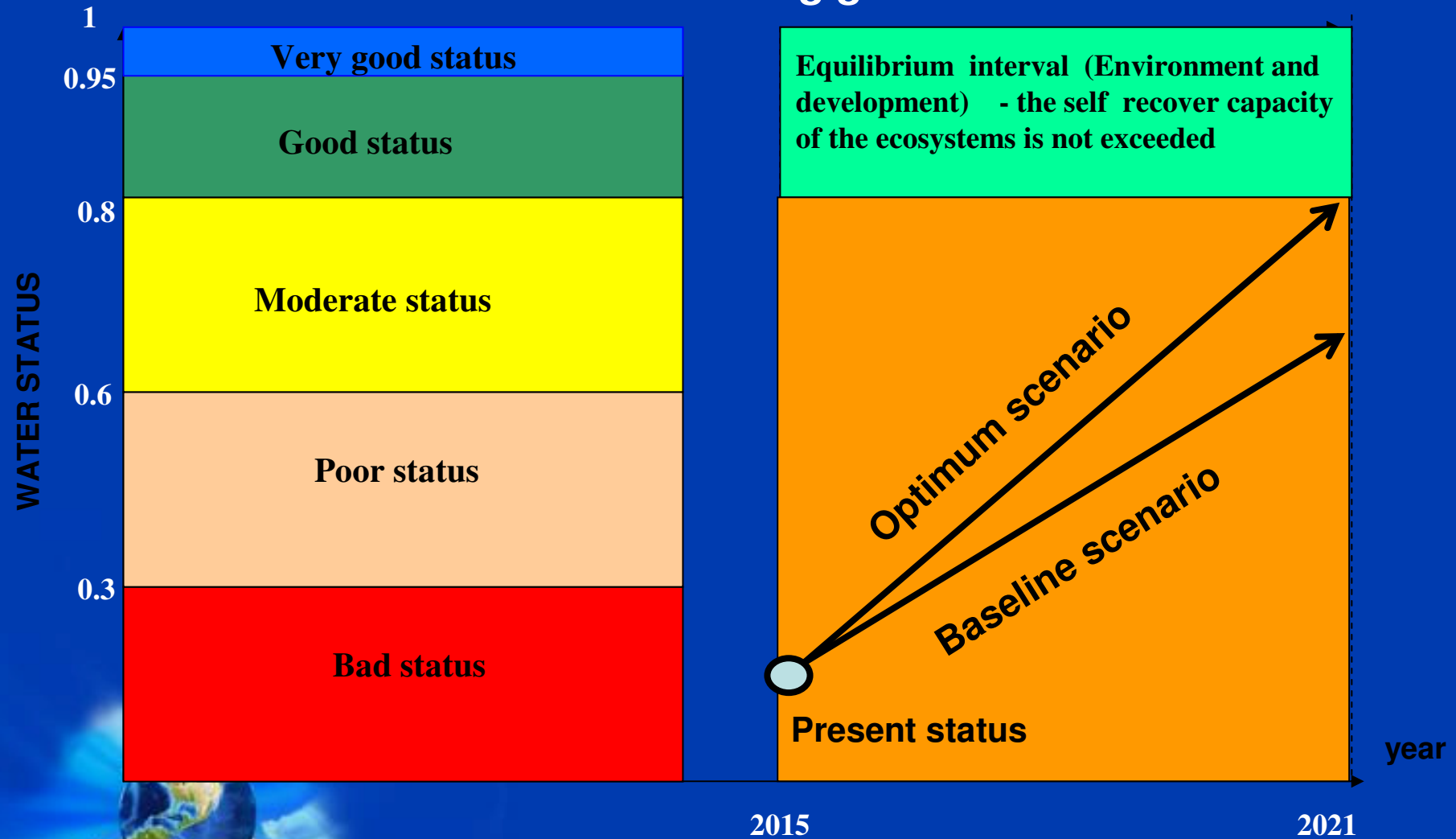
- Preventing the further deterioration of water bodies;
- Improving the status of water bodies;
- Preventing pollution from hazardous substance sources;
- Achieving all of the norms and objectives related to protected areas





# Objectives defined in WFD for the PoM

## Scenarios for reaching good status



# Role of the PoM in the frame of RBMP (1)

In the WFD process, the definition of necessary measures is a key issue and an important intermediate step in the preparation of a River Basin Management Plan (RBMP) at district level on the basis of article 5 characterisation

The **programme of measures** must provide the **means to fill important gaps** identified during the initial status at district level. In the spirit of the DPSIR scheme, the programme of measures would represent the R of response

Driving forces → Pressures → State → Impact → Response



## Role of the PoM in the frame of RBMP (2)

- ✓ PoM establishes a hierarchy of actions by evaluating the potential effects of those actions and defining a calendar for their implementation;
- ✓ The involvement of interested parties (article 14) should ensure transparency throughout the preparation of the programme of measures;
- ✓ The proposed responses should reduce the pressures and associated impacts and, at the same time, influence the driving forces;
- ✓ The response should be considered as a combination of measures rather than as a single measure, the effect of which on the state is expected to be more limited.



# River Basin Management Plan Content

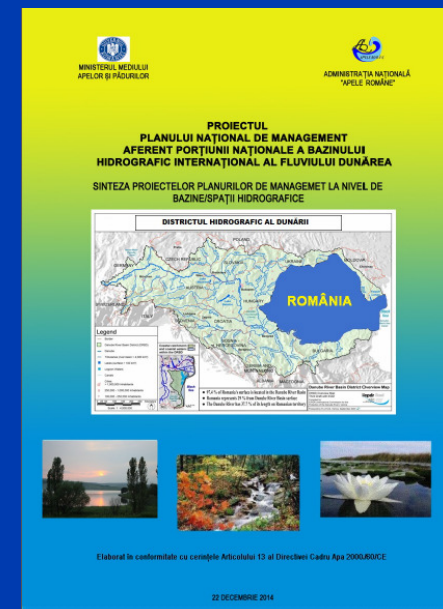
**Draft of the 2-  
nd RBMP**

**December 2014**

**2-nd RBMP**

**December 2015**

- General presentation of the river basin
- Characterization of the surface waters
- Characterization of the groundwaters
- Identification and mapping of protected areas
- Monitoring and water status characterization
- Environmental objectives
- Economic analysis
- Program of measures
- Exemptions from environmental objectives
- Quantitative aspects and climate changes
- Public information, consultation and participation
- Problems and uncertainties
- Conclusions





# Approach on the selection the measures

## Measures under Water Framework Directive

drinking  
water

bathing water

urban  
waste  
water

nitrates

IPPC &  
other  
industry  
discharges

chemicals

pesticides

biocides

landfills

sewage  
sludge

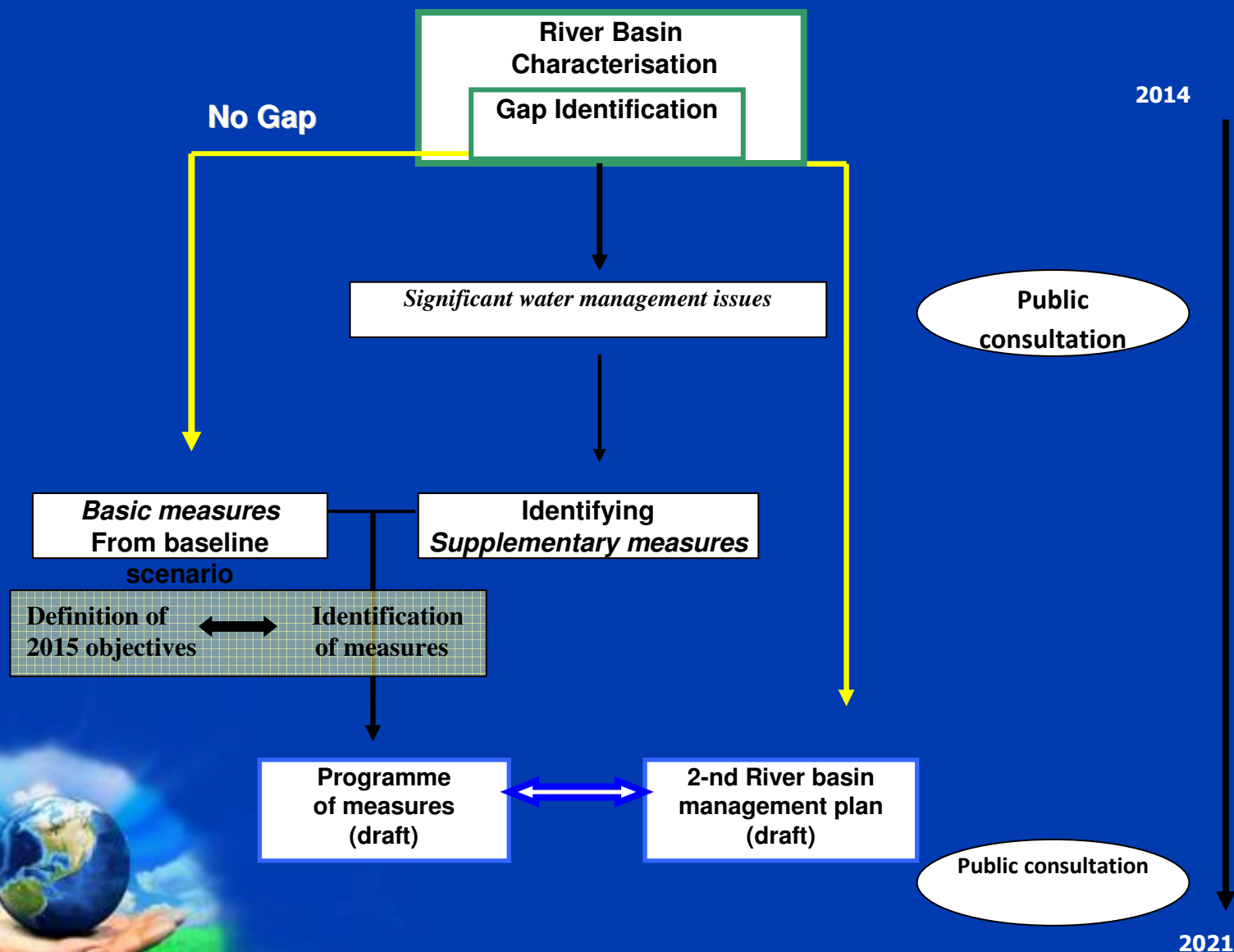
Coordination of all other measures

# Approach on the selection of the measures

- ❑ The measures need to be precise tasks that are clearly relevant to the final goal;
- ❑ A measure is not to be considered as a general concept, but as a pragmatic action established with the purpose of reaching an environmental objective;
- ❑ Other actions coming from different sectorial policies can also be considered as measures and implemented (urban plans, best agricultural practices, and risk plans for floods may be measures regarding achieving environmental objectives.



# Approach on the selection the measures



# Approach on the selection of the measures

## ⇒ BASIC MEASURES:

- ⇒ minimum set of obligatory measures
- ⇒ WFD Art. 11/3 and Annex VI part A
  - UWWT-Directive
  - IPPC-Directive
  - Nitrates Directive incl. Action Programme etc.

## ⇒ SUPPLEMENTARY MEASURES:

- ⇒ set of additional measures to reach the environmental objectives
- ⇒ WFD Art. 11/4 and Annex VI part B
  - Legislative, administrative, economic instruments
  - educational projects, research etc.





# Approach on the selection of the measures

## BASIC MEASURES

- ❑ Water supply infrastructure;
  - *rehabilitation the water supply sources*
  - *new or rehabilitation water supply treatment plants*
  - *extend the water supply centralized network*
- ❑ Waste water infrastructure (UWWTD);
  - *construction and modernization of UWWTP*
  - *extend the water sewerage centralized network*
- ❑ Water uses under the requirement of IED Directive
  - *water use regulation from water management point of view*



# Approach on the selection the measures

## BASIC MEASURES

- ❑ *Reducing the pressures caused by industrial activities;*
  - *waste water treatment efficiency control;*
  - *rehabilitation and isolation of mining sites*
- ❑ *Dangerous waste management ;*
  - *post closing monitoring*
- ❑ *Reducing the effect of agriculture pressures (farms, agro zoo technical units)*
  - *GAP Code and Action Program according to the Nitrates Directive*
- ❑ *Hydro morphological pressures*
  - *Ecological flow*



# Approach on the selection the measures

## SUPPLEMENTARY MEASURES

- ❑ *Restoration of longitudinal and lateral connectivity*
- ❑ *Waste water infrastructure for human agglomeration less than 2000 p.e*
- ❑ *Ecological agriculture*
- ❑ *Regulatory actions (stringent limits for pollutants discharge)*



## Assessment of the costs of PoM

In order to elaborate an efficient programme of measures for both the environment and the concerned parties of a river basin, it is clearly necessary to consider the costs of the different measures which will be taken to achieve good status

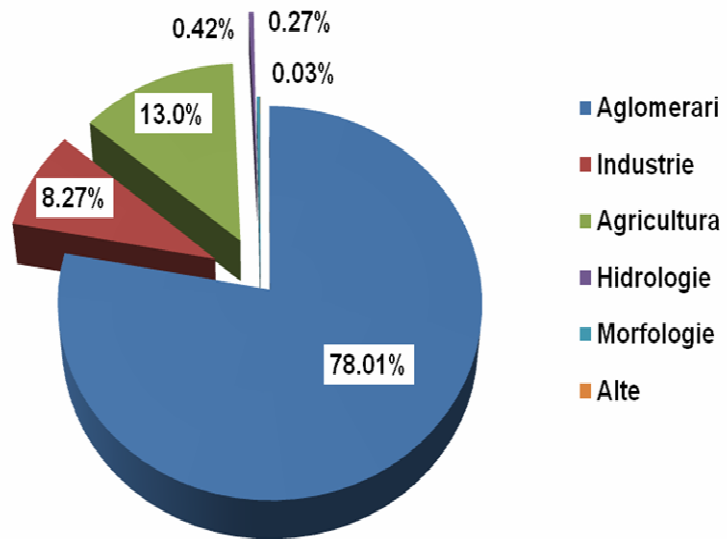
The different types of cost to be evaluated include:

- Operating, maintenance, renewal, etc;
- Fixed and variable:
- Marketable and non-marketable.



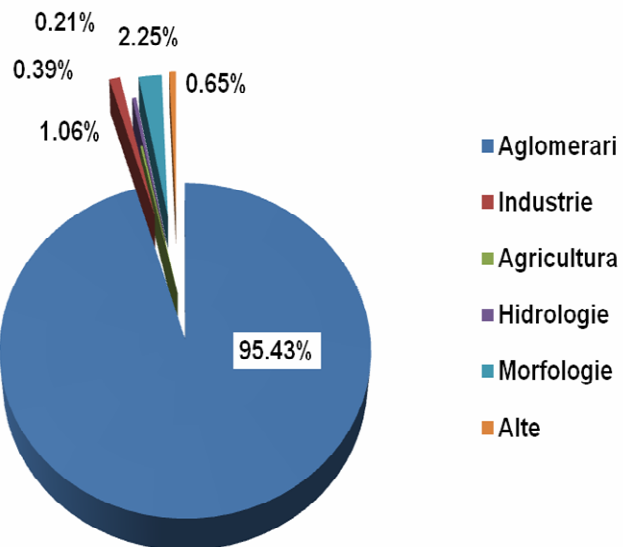


**Total costs 2010-2027**  
**21 billions Euro**

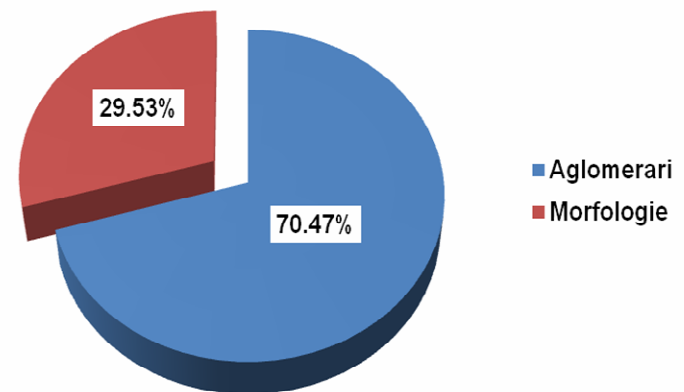


**1-st Planning cycle 2015 15,82 billions Euro**

**B.M . 97%**  
**S.M 3%**



**2-nd Planning cycle 2021 5,15 billions Euro**



**3-rd Planning cycle 2027 14,683 millions Euro**

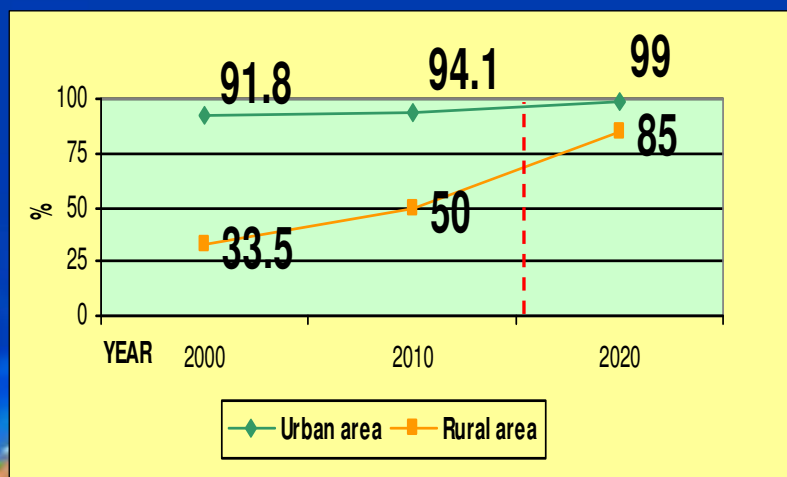
# Basic measure for reducing the effect of chemical pressure in relation with the effluents from human agglomerations

## Example

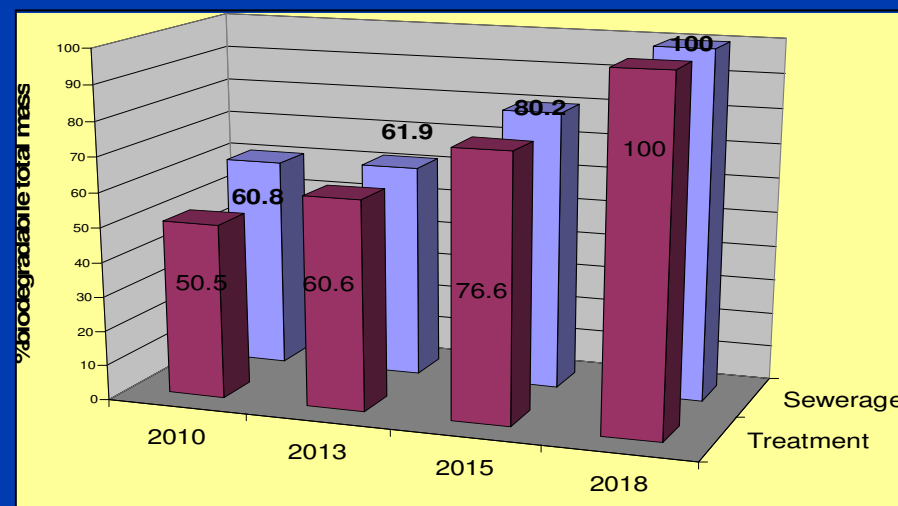
### Implementation period

EU Directive	Transition period	Associated costs (billion EURO)
<i>Drinking Water Directive 98/83</i>	2015	5.6
<i>Waste Water Directive 91/271</i>	2018	12,2

### Connecting rate to water infrastructure



Water supply infrastructure



Waste water infrastructure

## Financing PoM

The costs of measures have been identified and the financing sources are planned and detailed at sub-basin levels:

- 25.33% European funds (cohesion, POIM, ISPA, PHARE, SAPARD, SAMTID),
- 46.22% funds from the local and state budgets
- 28.56% are own resources and loans of water users.

From the total cost of PoM (€22.992 billion), for around 29% (€6 billion) of the costs, financing sources remains to be identified .



## EXEMPTIONS

- ❑ Art.4.4 – ...Time derogation
- ❑ Art 4.5-.....Less stringent objectives
- ❑ Art 4.6-.....Natural conditions
- ❑ Art 4.7-.....New infrastructure structure





# Considerations on CBA

- ☐ the analysis of costs and benefits remains in most cases the basis for deciding on cost disproportionality and implicitly on exemptions
- ☐ Focus on - in which proportion the costs of POM related to different economic sectors could be considered disproportionate ? (which is the threshold for disproportionality ?) – 2-nd RBMP
- ☐ Whether social and distributional impacts, including ability to pay should be considered or not in the justification for exemption due to disproportionate costs



# Approach on DCA

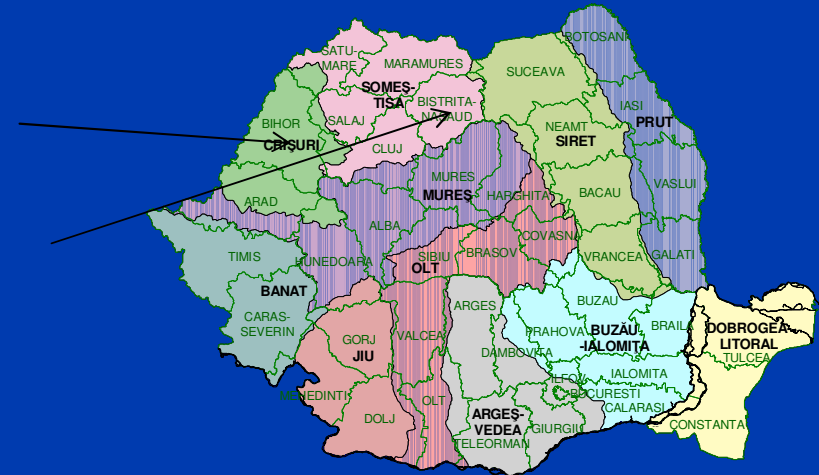
Scale of analyze: *sub basin level*

3 steps :

☐ CBA

☐ Sharing the costs between sectors (without transfers

☐ Affordability and alternative financing mechanisms



# Results of 1-st RBMP

RBD	Global <sup>14</sup>					
	Technical feasibility		Disproportionate costs		Natural conditions	
	Article 4(4)	Article 4(5)	Article 4(4)	Article 4(5)	Article 4(4)	Article 4(5)
RO1000	1211	7	66	5	22	-

Table 11.2.1: Numbers of Article 4(4) and 4(5) exemptions  
Source: WISE

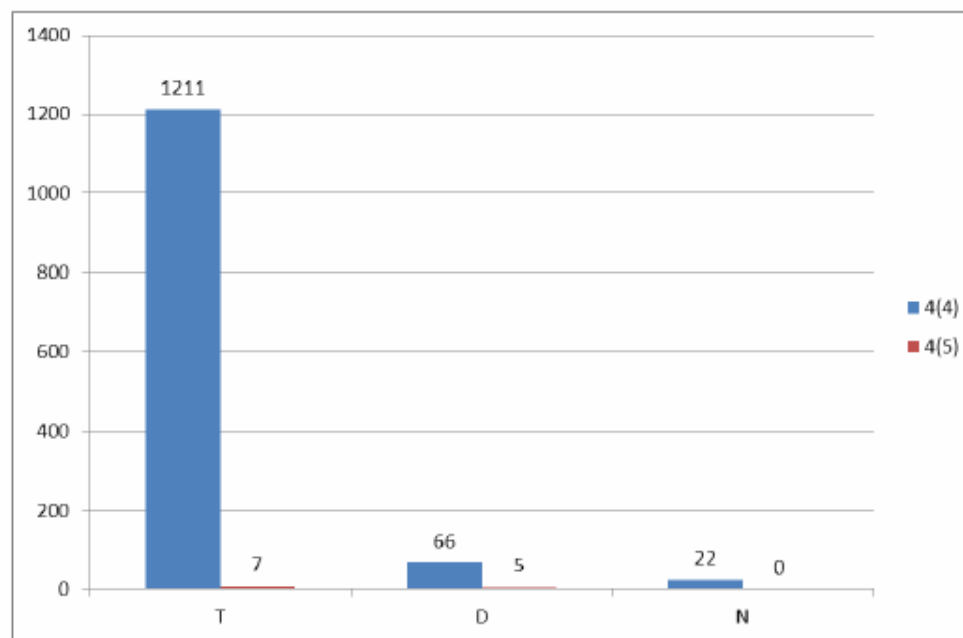


Figure 11.1.1: Numbers of Article 4(4) and 4(5) exemptions  
T = Technical feasibility  
D = Disproportionate costs  
N = Natural conditions  
Blue = Article 4(4) exemptions  
Red = Article 4(5) exemptions  
Source: WISE

# THANK YOU !

