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EUSAIR FACILITY POINT

EU Strategy for the Adriatic and Ionian Region
EUSAIR

Workshop: **"What can EUSAIR do to enable the blue and green sustainable growth in EUSAIR: MSP in EUSAIR state of the art"**

Approach of river basin management in North Macedonia

9. November 2021

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- General figures
- Legislation
- Institutional set up
- Planning
- RBMPs
- Challenge

General figures
related water management

- surface waters: 477 km2 (1,88 % of the territory)
- RNM about: 35 rivers, 53 natural and artificial lakes and 1.100 larger sources of water
- sufficient water resources but their distribution is quite unequal
- landlocked country
- All 4 river basins in the country are international, shared with neighbouring countries

- Population, persons:2,082,958
- Area, sq km:25,220
- GDP per capita, US$:6,084
- precipitation around 619 mm/y
- precipitation volume around 15.9 billion cubic meters/y
- volume of surface water produced around 5.4 billion cubic meters.
- internal renewable water resources per capita was 2,592 cubic meters.
- surface water entering the country at around 1 billion cubic meters per year
- surface water leaving the country around 6.4 billion cubic meters per year

LEGISLATION

WATER QUALITY										
2000/60 /EC Water Framework									92%	
91/271/EEC UWWT										100%
98/83/EC Drinking Water										100%
91/676/EEC Nitrates						59%				
2006/7/EC Bathing Water		22%								
80/68/EC Groundwater					50%					
2006/118/EC Groundwater		20%								
2008/105/EC Water Quality Standards						63%				
2007/60/EC Floods	14%									
2006/44/EC Fish Water				44%						

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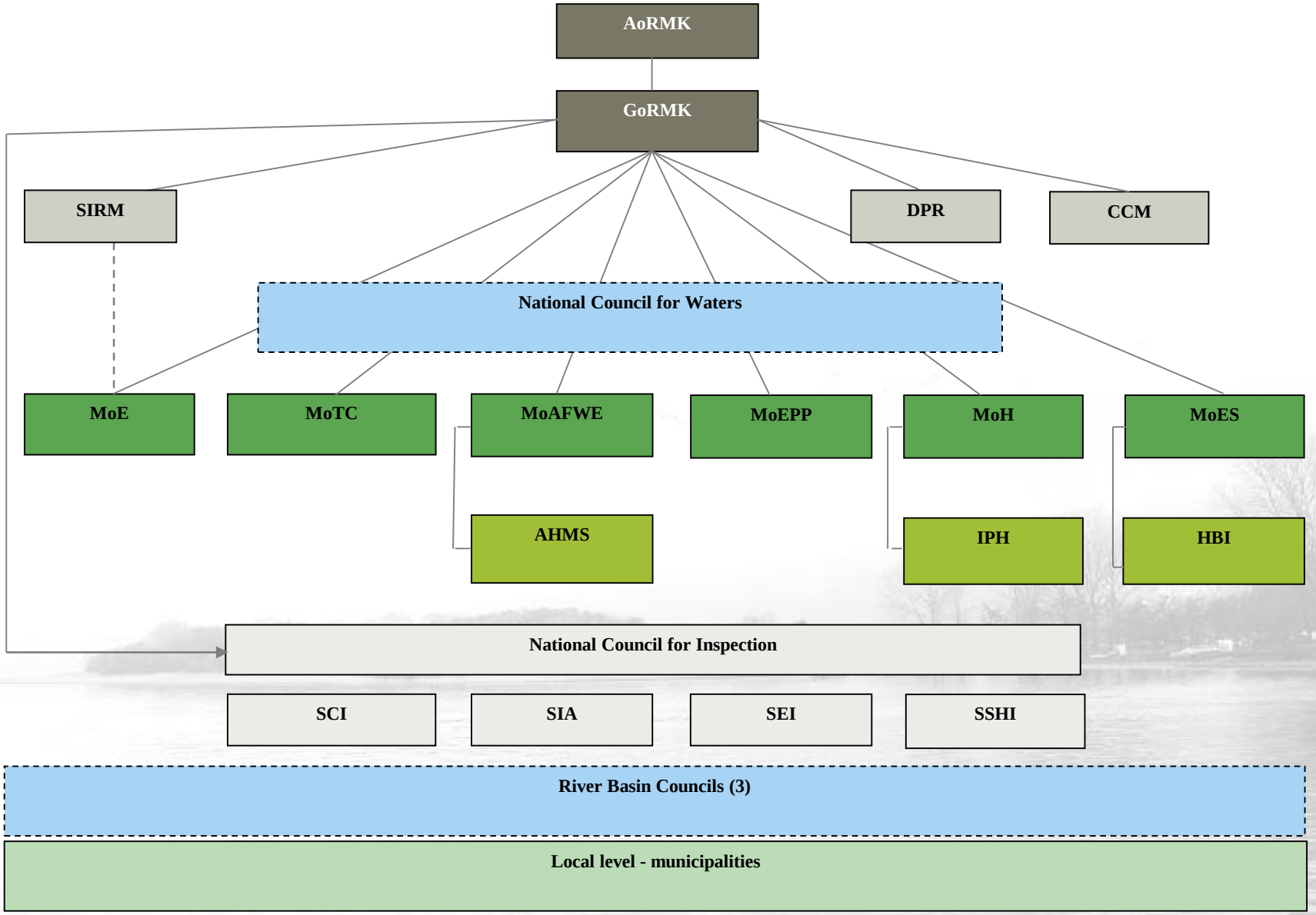
l e obligations from EU and its legislation in the field of water management

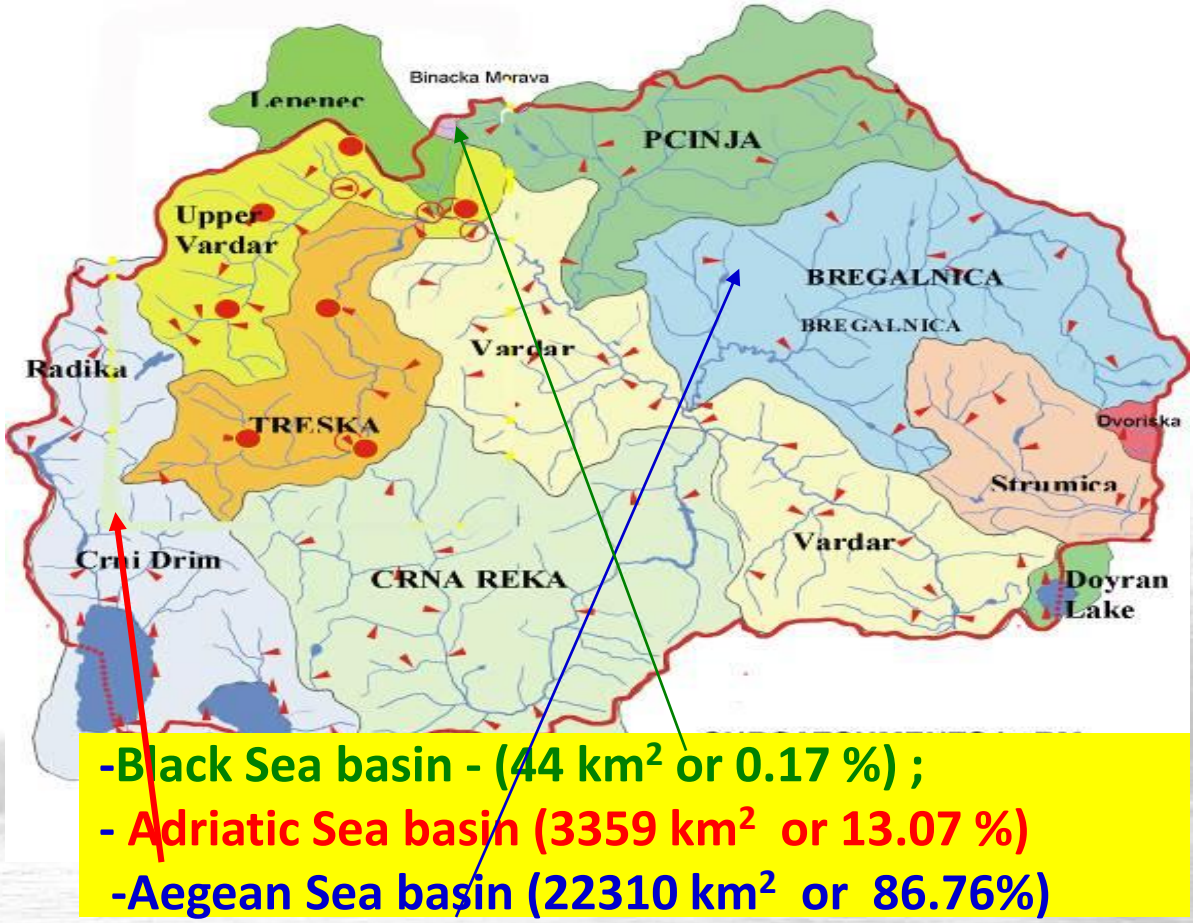
Institutional set up



PLANNING

The three basic documents for water management planning and development in the Republic of N. Macedonia are:

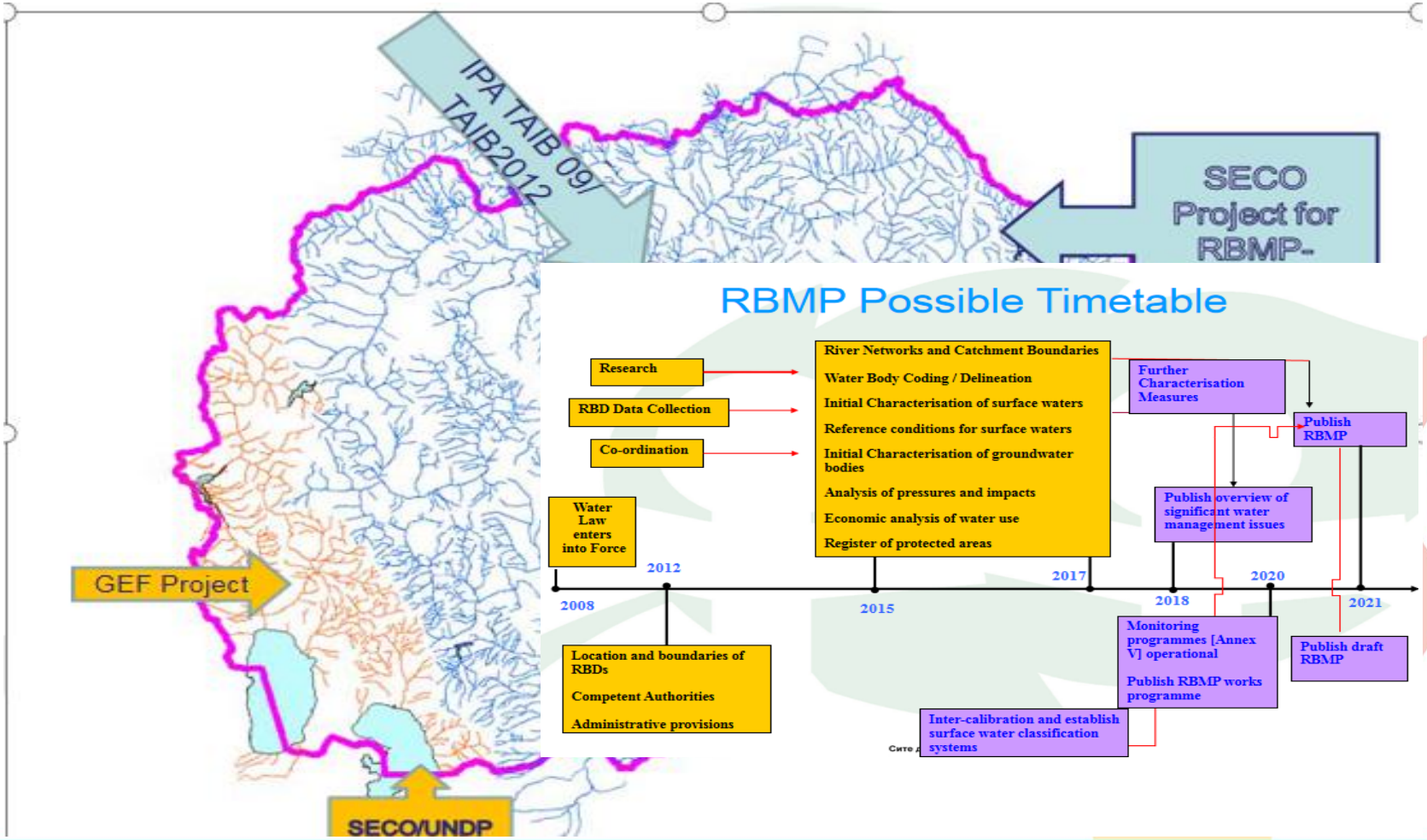
- **National Water Strategy,**
- **Water Master plan and**
- **River Basin Management Plans**



-Black Sea basin - (44 km² or 0.17 %) ;
- Adriatic Sea basin (3359 km² or 13.07 %)
-Aegean Sea basin (22310 km² or 86.76%)

The country is divided hydrographically into four river basins:
- Vardar
- Strumica
- Crni Drim and a small part of the
- South Morava river basin.

RBMPs


IPA TAIB 09/
TAIB2012
SECO
Project for
RBMP-
GEF Project
SECO/UNDP
RBMP Possible Timetable
Research
RBD Data Collection
Co-ordination
Water Law enters into Force
2008
2012
Location and boundaries of RBDs
Competent Authorities
Administrative provisions
River Networks and Catchment Boundaries
Water Body Coding / Delineation
Initial Characterisation of surface waters
Reference conditions for surface waters
Initial Characterisation of groundwater bodies
Analysis of pressures and impacts
Economic analysis of water use
Register of protected areas
2015
2017
Further Characterisation Measures
Publish RBMP
Publish overview of significant water management issues
2018
2020
2021
Monitoring programmes [Annex V] operational
Publish RBMP works programme
Publish draft RBMP
Inter-calibration and establish surface water classification systems

RBMPs

WHY A RIVER BASIN MANAGEMENT PLAN ?

- To describe the water resources and water uses, the protected zones in the RIVER BASIN DISTRICT
- To analyse to which level the water resources and ecosystems are endangered or well preserved (main issues presented to public)
- To design the system of monitoring to assess the progress regarding water ecosystem recovery or the balance between resources and water abstraction
- To agree on a « contract » setting how to achieve « good status » of each water ecosystem or protect the well preserved resources : environmental objectives achieved at which deadline ? (feasibility/ costs/economic analyses)
- To agree upon measures to be taken to achieve objectives consultation of stakeholders

CONTENT:

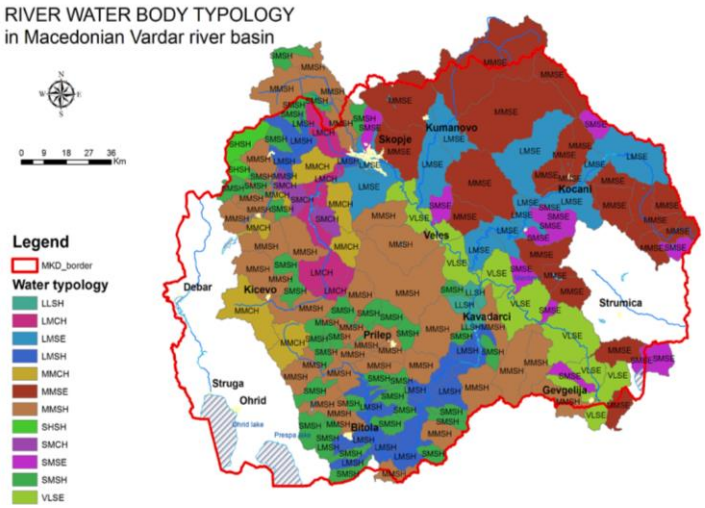
- Chapter 1 - A general description of the characteristics of the river basin district
- Chapter 2 - A summary of significant pressures and impact of human activity on the status of surface water and groundwater
- Chapter 3 - Identification and mapping of protected areas
- Chapter 4 - Map of the monitoring networks established
- Chapter 5 - A list of environmental objectives
- Chapter 6 - A summary of the economic analysis of water use
- Chapter 7 - A summary of the programme or Programs of measures
- Chapter 8- A register of any more detailed Program mes and management plans for the river basin district dealing with particular sub-basins, sectors, issues or water types, together with a summary of their contents
- Chapter 9 - A summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence
- Chapter 10 - A list of competent authorities
- Chapter 11 - The contact points and procedures for obtaining the background documentation and information.

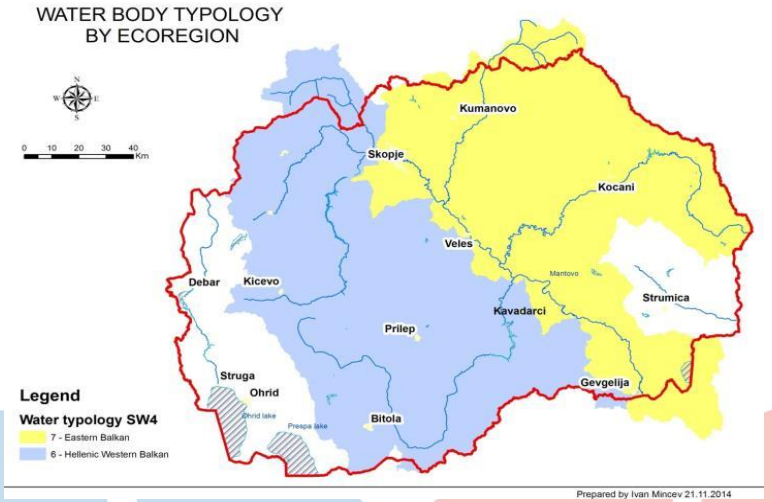
RBMPs

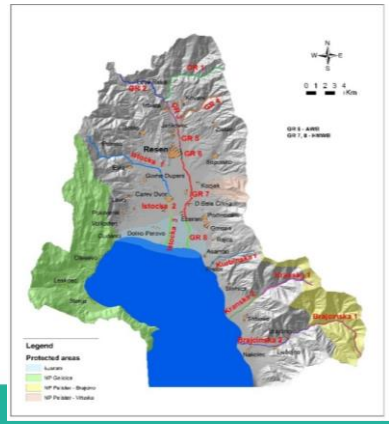
A general description of the characteristics of the river basin district

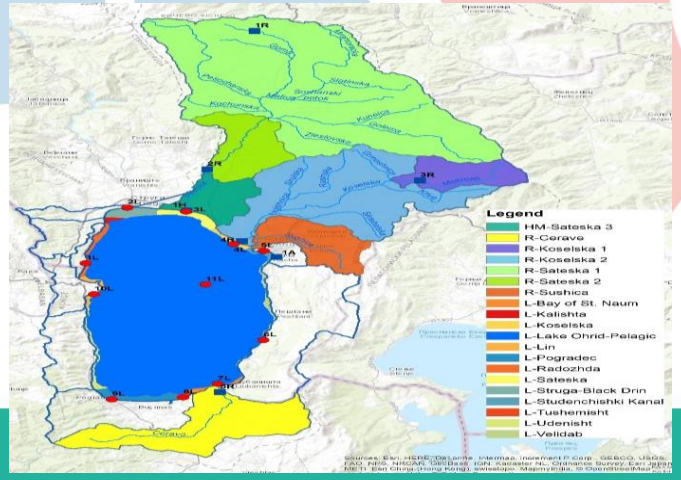
The System was applied to delineate

Water Body catchments in the North Macedonian , around 250 WBs in 12 type



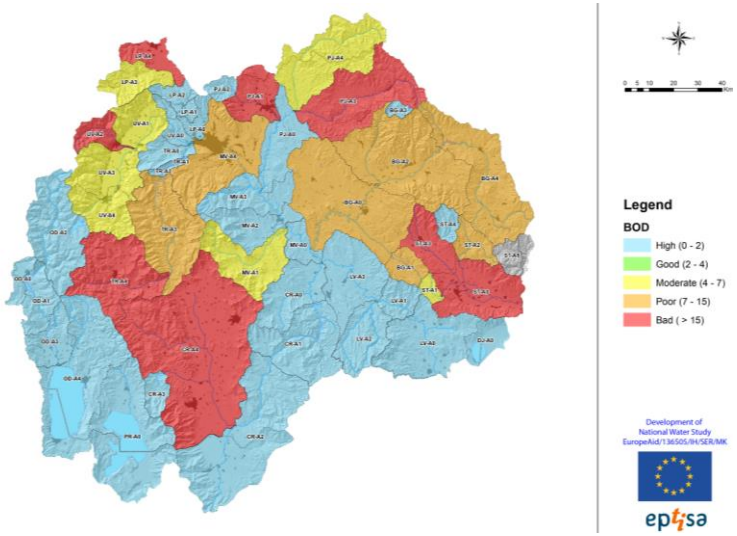


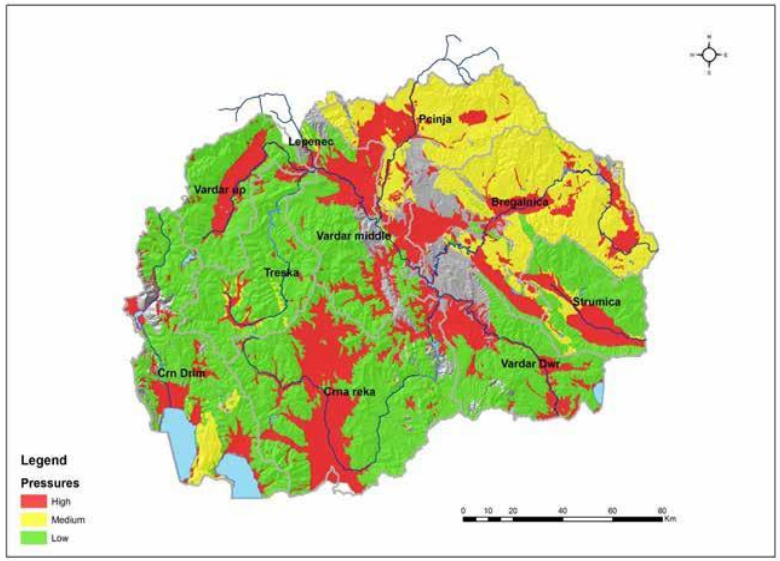


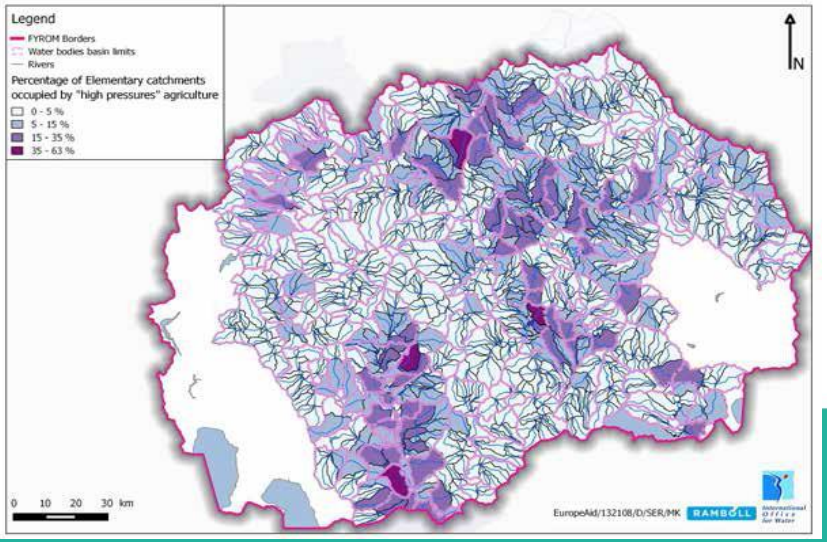


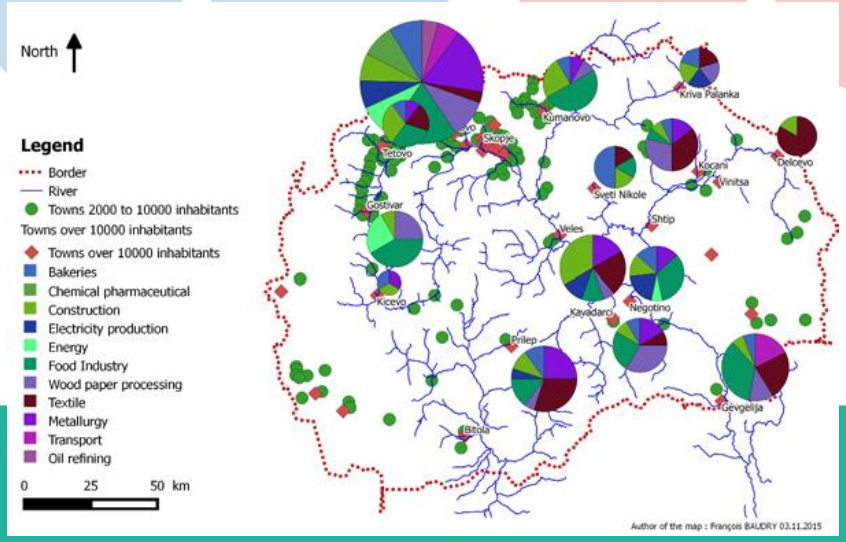
RBMPs

A summary of significant pressures and impact of human activity on the status of surface water and groundwater





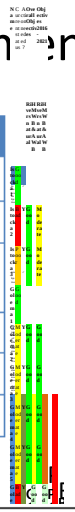




RBMPs

A list of environmental objectives

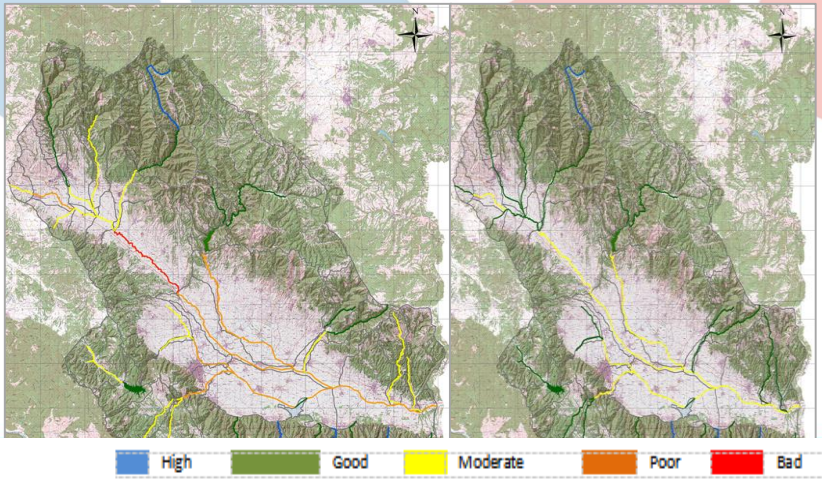
Type	Surface waters	Ground waters
No deterioration objective	✓	✓
Status objective	✓	✓
Cessation/reduction of pollution from priority substances and priority hazardous substances objectives	✓	
Prevention or limitation of input of pollutants objective		✓
Trend reversal objectives		✓
Protected areas objectives (aquatic parts of areas only)	✓	✓



Name	Current status	Action needed?	Overall Objectives		Objectives 2016-2021	
			Rivers natural	HMWB & AWB	Rivers natural	HMWB & AWB
Istocka 1	Good					
Istocka 2	Bad	Y	Good		Moderate	
Istocka 3	Poor	Y	Good		Moderate	
Golema 1	Good					
Golema 2	Moderate	Y	Good		Good	
Golema 3	Moderate	Y	Good		Good	
Golema 4	Moderate	Y	Good		Good	
Golema 5	Moderate	Y	Good		Good	
Golema 6	Bad	Y		Good potential		Good potential
Golema 7	Bad	Y	designation as HMWB	Good potential		Good potential
Golema 8	Poor	Y	designation as HMWB	Good potential		Good potential
Kurbinska	Moderate	Y	Good		Good	
Kranska 1	High					
Kranska 2	Moderate	Y	Good		Good	
Brajcinska 1	High					
Brajcinska 2	Poor	Y	Good		Moderate	

The Strumica RBMP establishes core environmental objectives to be achieved generally by 2027:

- 1)Restore good status of surface and ground water bodies
- 2)Prevent deterioration of water bodies already having good or high status
- 3)Reduce chemical pollution



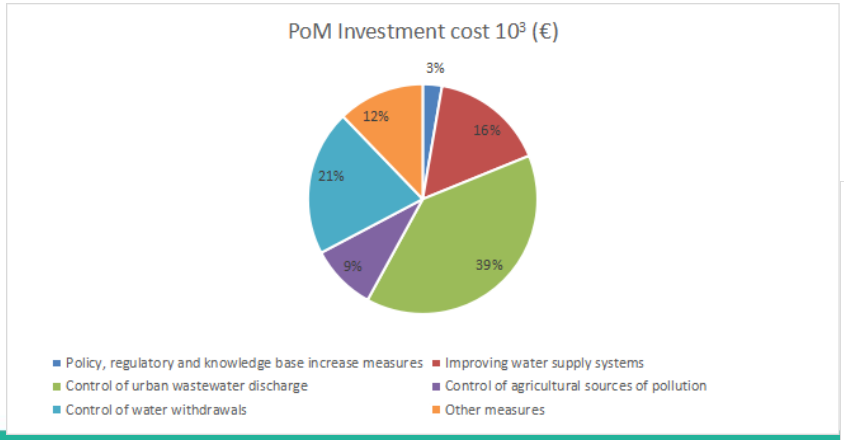
Expected ecological status of SWB in 2021 Expected ecological status of SWB in 2027

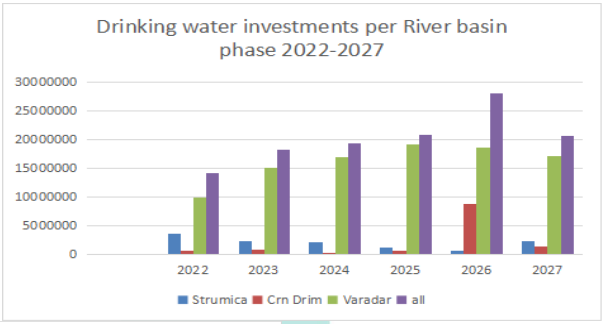
RBMPs

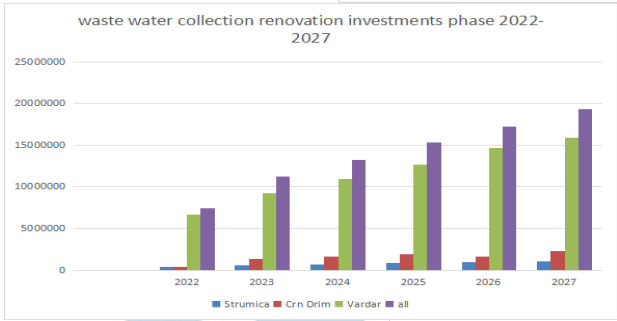
PoMs

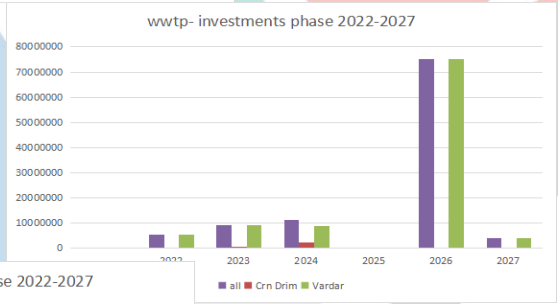
Proposed programme is divided in the following groups of measures:

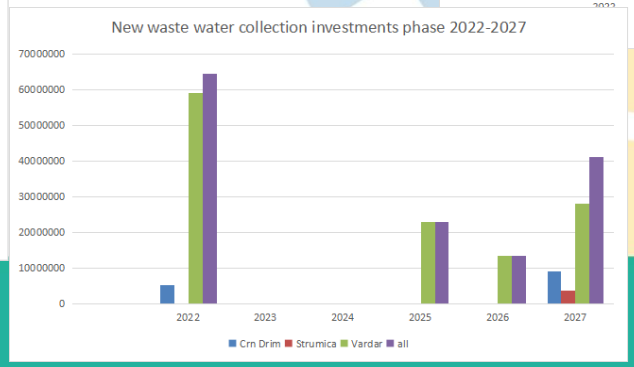
- a.Policy, regulatory and knowledge base increase measures
- b.Improving water supply system
- c.Control of urban wastewater discharges
- d.Control of agricultural sources of pollution
- e.Control of water withdrawals
- f.Other measures





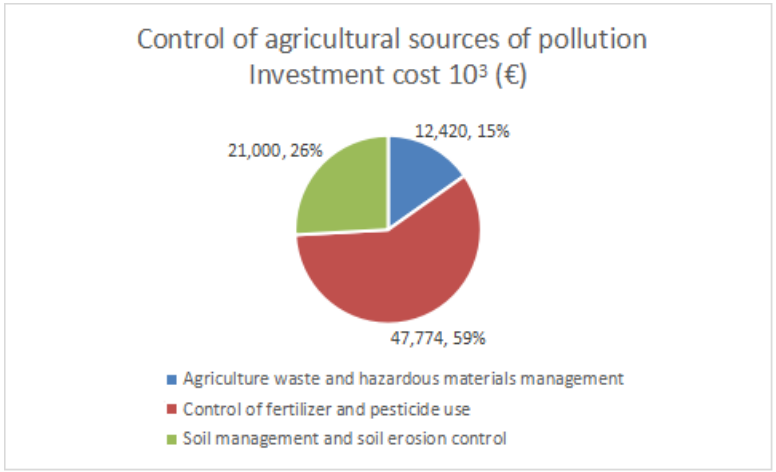


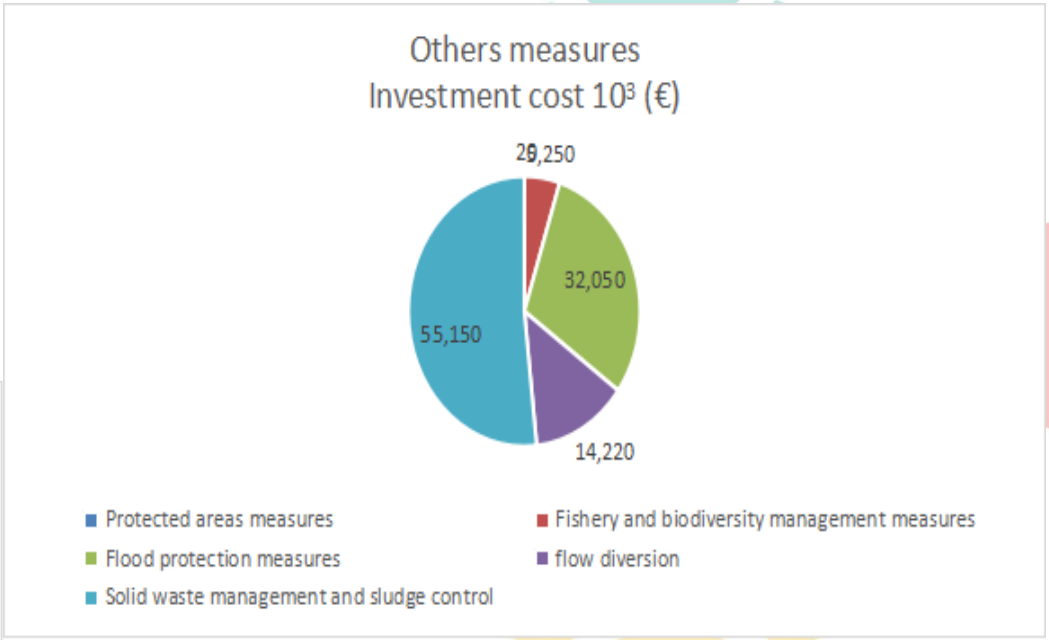


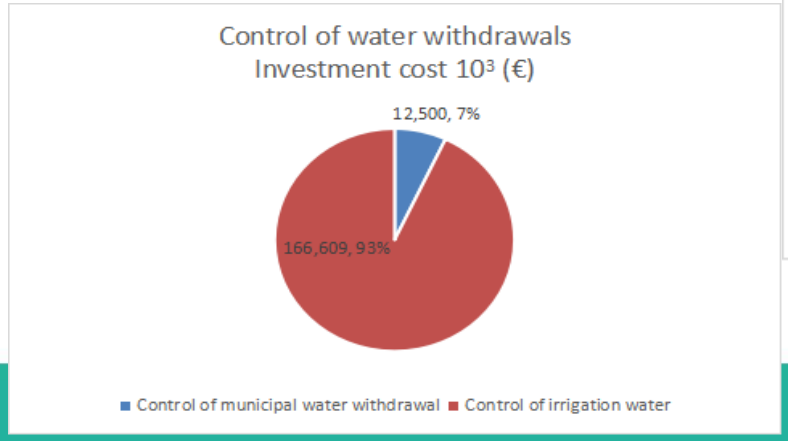


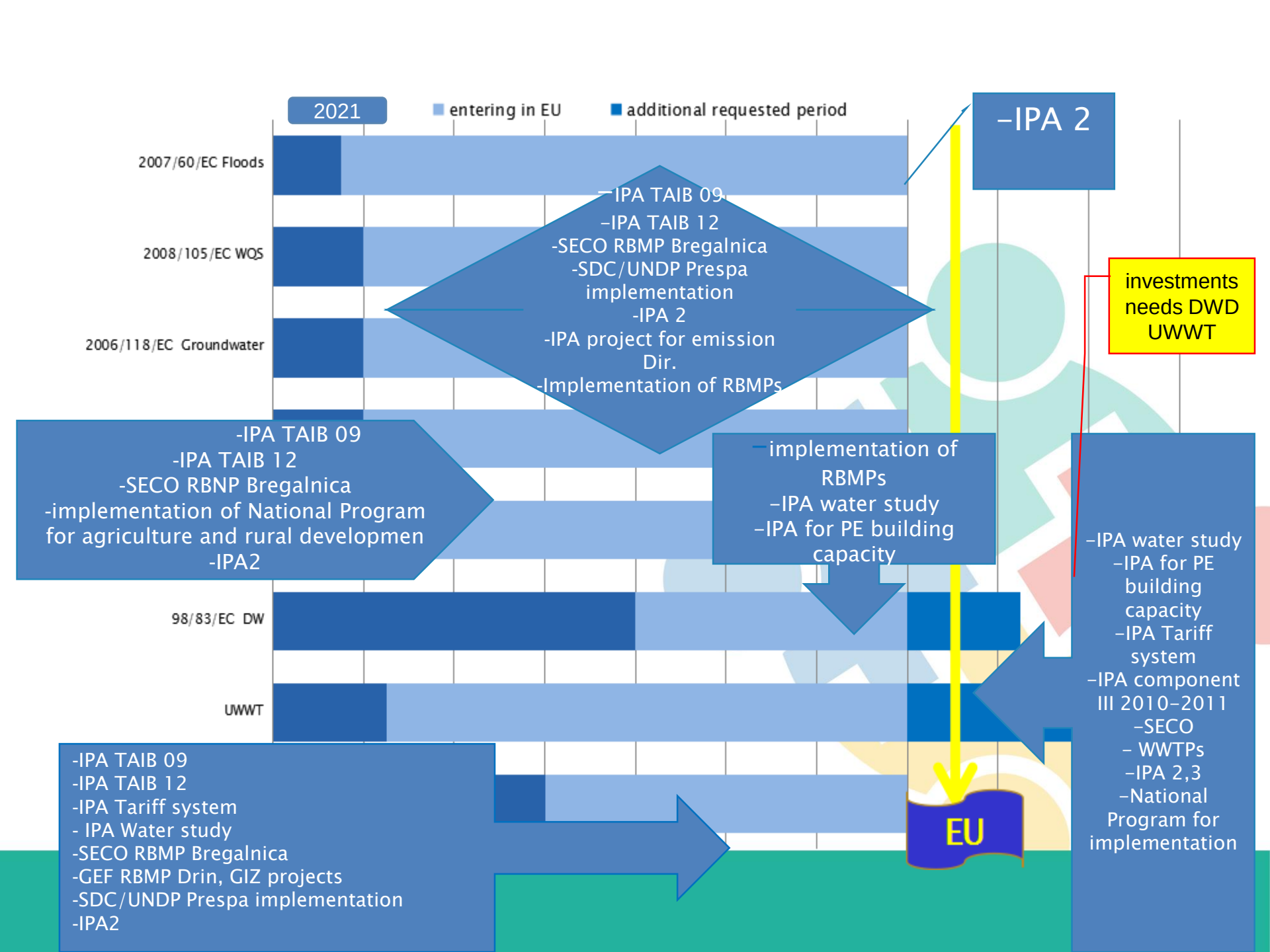
RBMPs

PoMs


Control of agricultural sources of pollution
Investment cost 10³ (€)
12,420, 15%
21,000, 26%
47,774, 59%
Agriculture waste and hazardous materials management
Control of fertilizer and pesticide use
Soil management and soil erosion control


Others measures
Investment cost 10³ (€)
29,250
32,050
55,150
14,220
Protected areas measures
Fishery and biodiversity management measures
Flood protection measures
flow diversion
Solid waste management and sludge control


Control of water withdrawals
Investment cost 10³ (€)
12,500, 7%
166,609, 93%
Control of municipal water withdrawal
Control of irrigation water


2021
entering in EU
additional requested period
2007/60/EC Floods
2008/105/EC WQS
2006/118/EC Groundwater
98/83/EC DW
UWWT
-IPA 2
-IPA TAIB 09
-IPA TAIB 12
-SECO RBMP Bregalnica
-SDC/UNDP Prespa implementation
-IPA 2
-IPA project for emission Dir.
-Implementation of RBMPs
investments needs DWD UWWT
-IPA TAIB 09
-IPA TAIB 12
-SECO RBNP Bregalnica
-implementation of National Program for agriculture and rural developmen
-IPA2
-implementation of RBMPs
-IPA water study
-IPA for PE building capacity
-IPA water study
-IPA for PE building capacity
-IPA Tariff system
-IPA component III 2010-2011
-SECO
- WWTPs
-IPA 2,3
-National Program for implementation
-IPA TAIB 09
-IPA TAIB 12
-IPA Tariff system
- IPA Water study
-SECO RBMP Bregalnica
-GEF RBMP Drin, GIZ projects
-SDC/UNDP Prespa implementation
-IPA2
EU

Challenge

- to transpose the requirements of the Marine Strategy into national regulation
- in RBMP to determine comprehensive measures that will ensure the implementation of the Marine Strategy
- to incorporate climate proof measures in RBMPs
- active involvmnet in EUSAIR process.

Thank You