

# A Blueprint to Safeguard Europe's Water Resources



# What is the Blueprint?

## ■ A policy response at European level

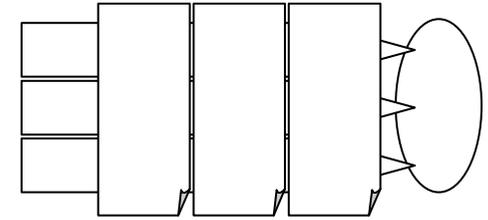
- to address the implementation issues related to the current EU policy framework with a focus on water quality
- to develop measures to tackle in particular water availability and water quantity problems

## ■ The Blueprint will:

- Look into gaps and shortcomings of the current policy and ways to address them
- Look at the evolving vulnerability of the water environment to identify measures and tools in several EU policy areas
- Examine the balance between water demand and supply, taking into account the needs of both human activities and natural ecosystems
- Explain how the Blueprint objective should be supported by data collection, scientific and technological development

**Objective:**  
*to ensure  
sufficient  
supply of good  
quality water for  
sustainable and  
equitable water  
use*

# 3 types of action



## ■ Better Implementation

- The assessment of the River Basin Management Plans delivered by the Member States
- The Fitness Check of EU water policy

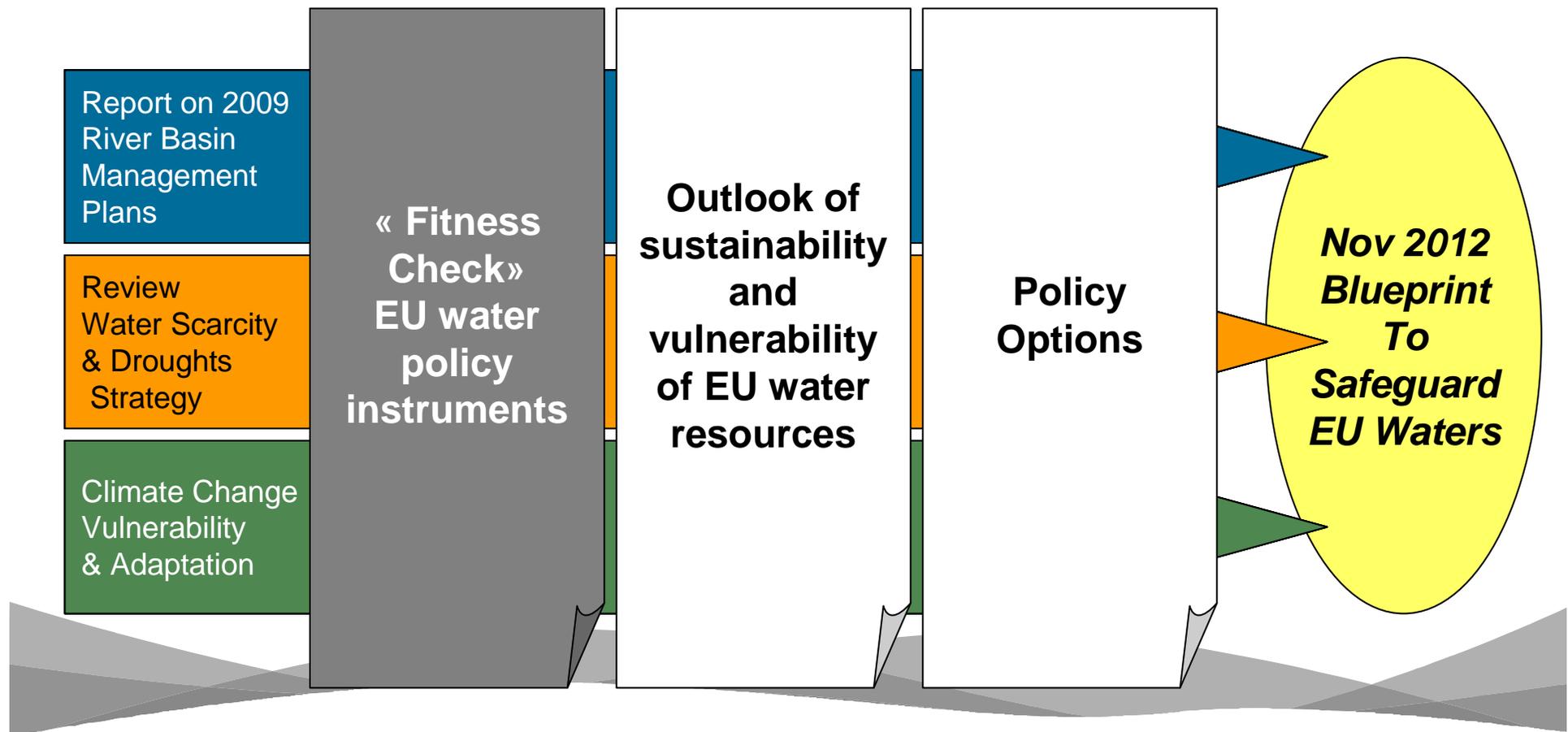
## ■ Better integration

- In particular: Agriculture, Energy , Regional and Cohesion policy, Research& Innovation, Transport

## ■ Completion

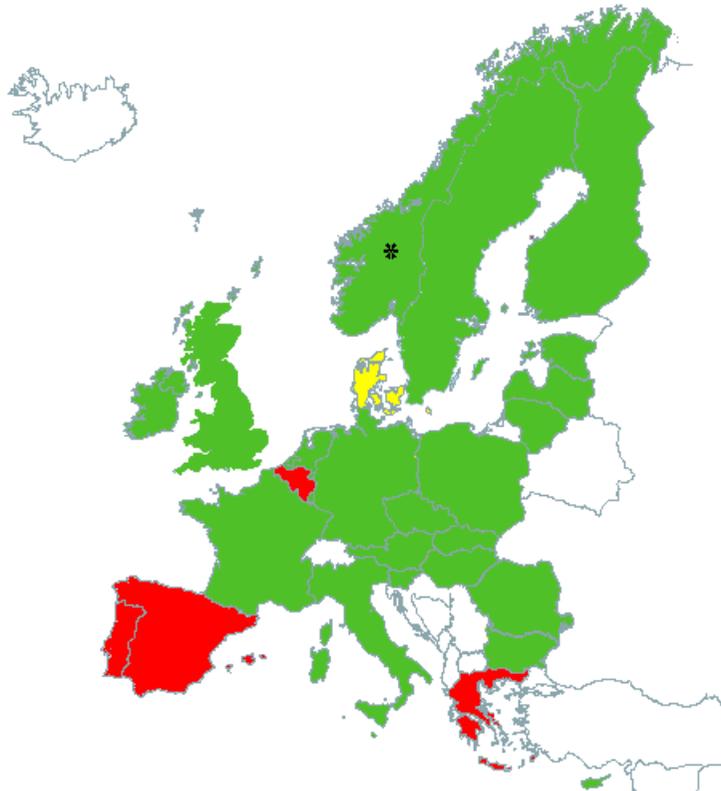
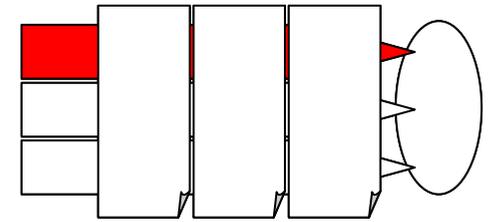
- The review of the EU policy on Water Scarcity and Drought
- The assessment of the vulnerability of water resources to climate change and other man made pressures

# Synthesis of policy recommendations building on on-going assessments





# River Basin Management Plans (RBMPs) 2009-2015

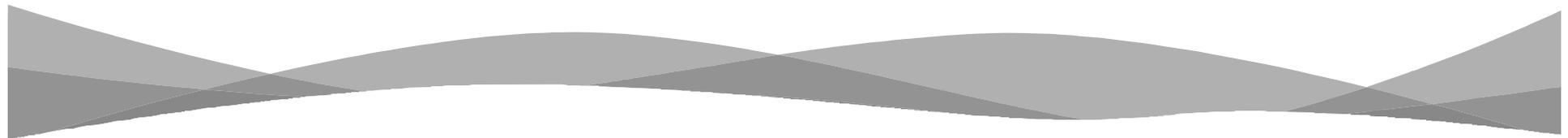
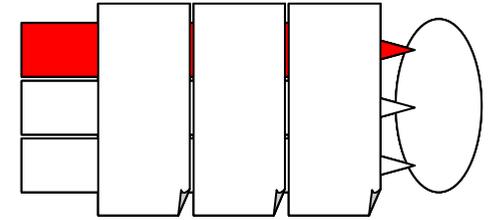


(In red, MS that have not yet delivered their plans, updated 1/09/2011)

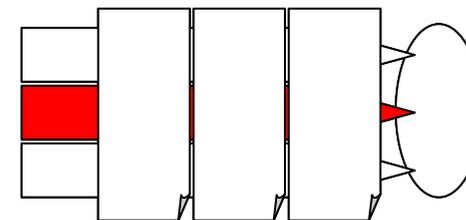
## ■ In-depth assessment topics include:

- Governance (administrative arrangements, public participation, international cooperation)
- Characterisation of the river basin district
- Monitoring of surface waters and groundwater
- Classification of surface water status
- Designation of heavily modified water bodies and definition of good ecological potential
- Assessment of groundwater status
- Environmental objectives and exemptions
- Programme of measures
- Strategy to deal with water scarcity and droughts
- Adaptation to climate change in RBMP

# Insert slides on preliminary results assessment RMBP



# Water Scarcity & Droughts (WS&D) Policy Review 2012



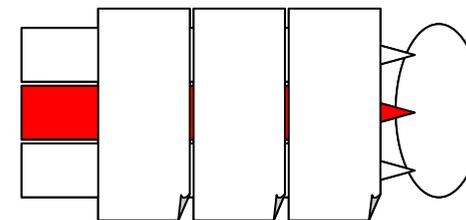
## ■ Communication 2007 and follow-up:

- Council conclusions - review & further develop WS&D policy by 2012
- EP report – new initiatives incl. pilot projects and preparatory actions
- Annual follow up reports

## ■ GAP Analysis

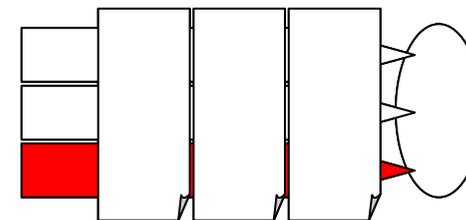
- Overview of problem & existing measures
- Identification of gaps
- Proposal of new measures
- Assessment of impact of new measures

# Water Efficiency Building blocks



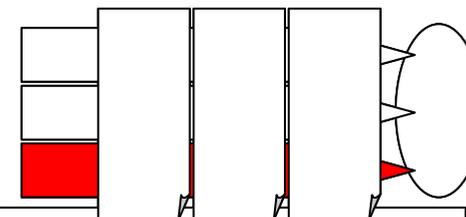
- **All sectors: possibilities for re-use & recycling of waste water**
- **Water Supply Infrastructure**
  - Estimate water & economic loss caused by leakage + impact
  - Study best practices for minimising water-losses
  - Provide recommendations on the possibilities to reduce losses
- **Buildings**
  - Up to 30% of the volume of water consumed in buildings could be saved
  - Analysis of available information & identification of gaps
  - Identification & analysis of regulatory and non-regulatory options for water performance requirements for buildings – link with energy consumption
  - Assessment of the social, economic and environmental impacts
- **Agriculture**
  - How can agriculture contribute to water savings and to reducing unsustainable water abstraction
  - Water pricing in agriculture
- **Industry**
  - further introduction of low-water use industrial processes (e.g. in energy production)

# Water & Climate Change Adaptation

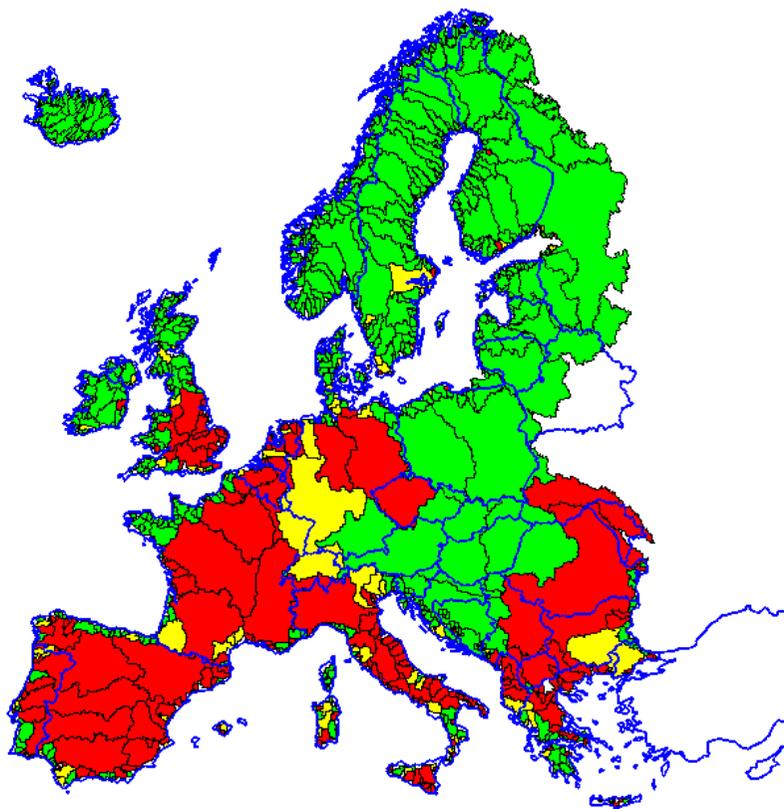


- **Objective: contribute to 2013 EU adaptation strategy (lead DG CLIMA)**
- **First building block, ClimWatAdapt project:**
  - Building of **vulnerability indicators**, integrating **socio-economic** and **climate scenarios**
  - Catalogue of adaptation measures: identification of priority action at EU level
  - Final report still being drafted
  - Integration results into EU Clearinghouse on CC Impacts Vulnerability and Adaptation
- **Next steps**
  - Filling gaps: input from FP7 research projects
  - Focus on Water Efficiency and on Natural Water Retention Measures

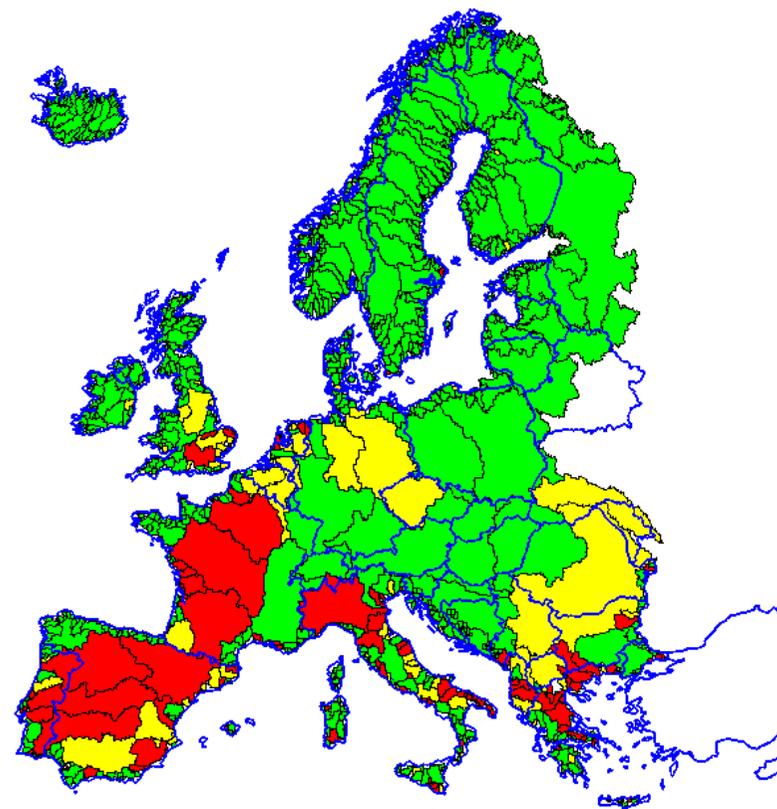
# Example of ClimWatAdapt results: Summer Water Exploitation Index (excl. cooling water)



FP6 SCENES Scenario  
«Economy First» 2050



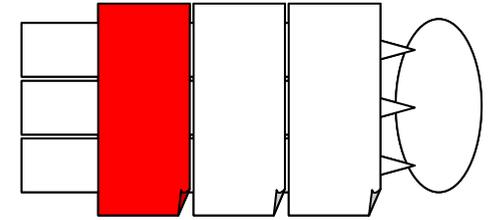
FP6 SCENES Scenario  
«Sustainability Eventually» 2050



Source: DG Environment,  
ClimWatAdapt database, 2011

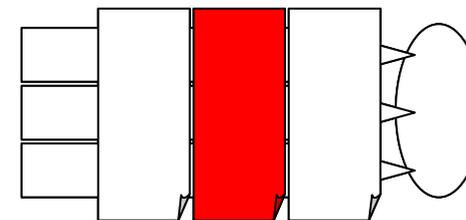
- Low stress (WEI < 20%)
- Medium stress (20% < WEI < 40%)
- High stress (WEI > 40%)

# “Fitness Test” EU Water policy framework



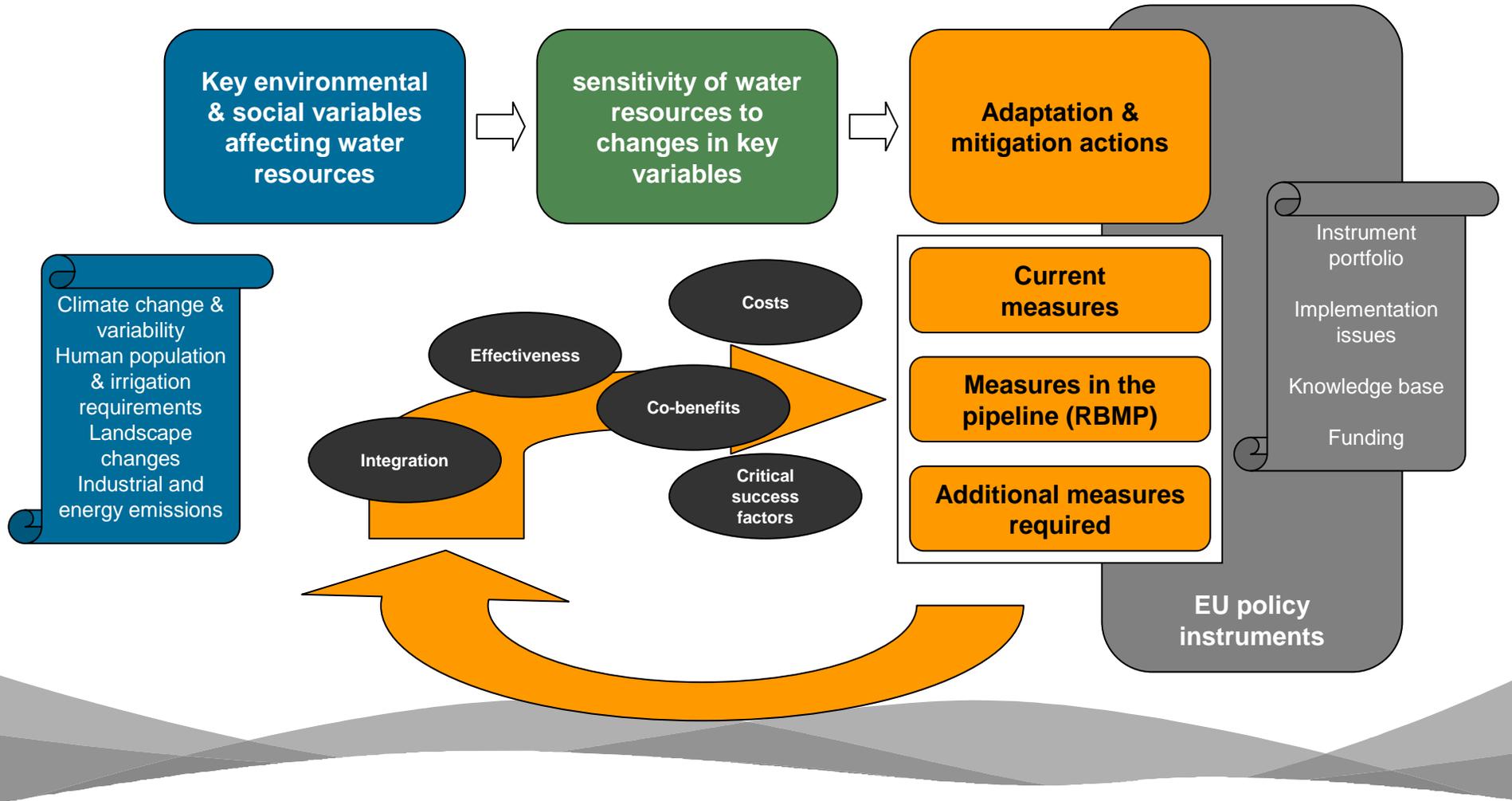
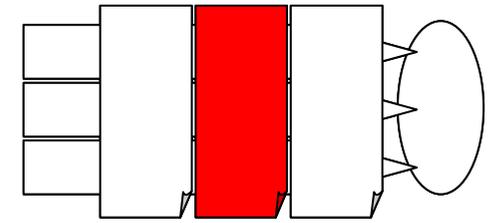
- **Part of European Commission Smart Regulation policy**
  - identify excessive burdens, overlaps, gaps, inconsistencies and/or obsolete measures which may have appeared over time
- **Objective:**
  - Assess the relevance, coherence, effectiveness and efficiency of the EU freshwater policy.
  - Scope: Water Framework, Groundwater, Priority Substance, Floods, Urban Waste Water and Nitrates Directives + Water Scarcity & Droughts policy
- **Preliminary findings for public consultation and discussion with stakeholders**
  - [http://ec.europa.eu/environment/water/blueprint/pdf/safeguard\\_fitness\\_freshwater.pdf](http://ec.europa.eu/environment/water/blueprint/pdf/safeguard_fitness_freshwater.pdf)
- **Stakeholder workshop in January 2012.**
- **The Commission will publish a final report, early 2012**

# Outlook for EU water resources

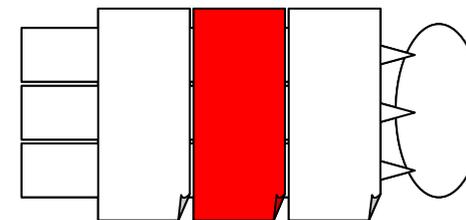


- **The Blueprint impact assessment identify the broad range of pressures on water resources:**
  - ➔ Organic/Nutrient pollution, dangerous substances
  - ➔ Hydromorphology/ Sediments
  - ➔ Disruption water cycle, droughts, floods
  - ➔ Over-exploitation water resources
- **It will build on the EEA State Of the Environment Report (SOER 2010), complemented by the EEA « State of Water » report to be published at the same time as the Blueprint**
- **Cross-sectoral / cross-policies assessment (drivers, responses)**
- **Common baseline, medium (2020-30) and long-term (2050) scenarios, sensitivity analysis.**

# Impact Assessment Framework



# From problem description to objectives



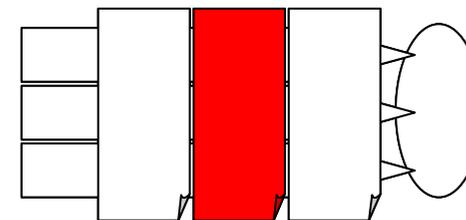
## ■ Problem description

- Identification of the **key challenges**
- Which **measures** are needed as a **priority**
- Analysis of the need to act at EU level: **policy options**

## ■ Objectives

- **General:** A water (and resources) efficient society (link to Europe 2020)
- **Specific:** Indicative targets at EU level on natural water retention, water savings, water reuse/recycling, water quality
- **Operational:** link to policy options

# Scenarios and targets for the protection of water resources



**Water resource balances** (quantity, quality) for relevant European river basins - SEEAW framework - monthly resolution - ECRINS reference system

Disaggregated information on the **use of water** for the base year by the different economic activities, including estimates on its environmental impact.

Information on technical, non technical or structural **measures** affecting water availability and water use by the different economic activities, including estimates on their environmental impact.

**Scenarios** for land-use changes, hydrological parameters and use of water by the different economic activities

**optimisation model**, maximization of net social benefits from the use of water by economic sectors

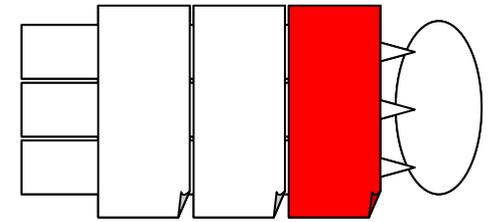
baseline scenario / sensitivity analysis

Selection of measures

**Blueprint Specific Objectives**

**indicative targets** at EU level for reducing the vulnerability of water resources

# Policy options



Land-use management

Economic Incentives

Target to protect water resources

Governance of water policy

Knowledge Base

Innovation

Global Dimension

Problem description

Specific objectives

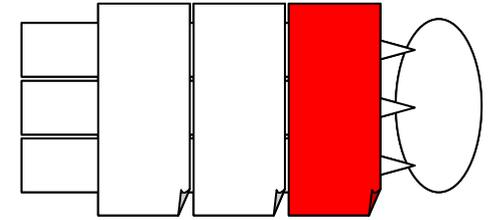
Identification policy options

Assessment policy options

Stakeholder consultation

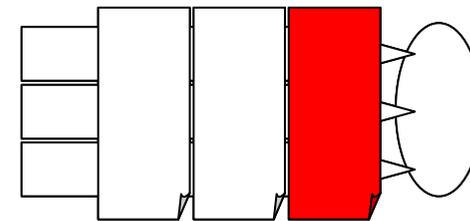
evaluation and implementation of existing policies  
necessity and added value of EU action  
Monitoring reporting

# Policy options (1/7): Develop a positive role for land-use



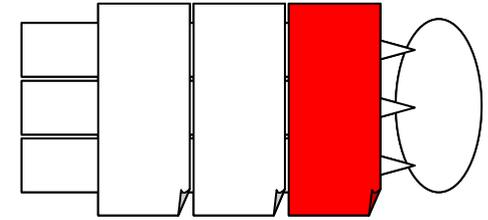
- **Land use change is one of the main drivers of the degradation of water resources and vulnerability to extreme events**
- **Identify and analyse natural water retention measures that could be widely implemented at EU level**
  - Reforestation, soil management, sustainable urban drainage systems, floodplain restoration, etc.
  - Assessment of co-benefits and barriers to implementation
- **Define the policy instruments that can accelerate the implementation of those measures**
  - Guidelines for RBMP
  - Integration into territorial management instruments (CAP, Cohesion Policy, local planning)
  - Payment for Ecosystem Services

# Policy options (2/7): Economic incentives for a more efficient water resources management



- **Develop a consistent approach for the internalisation of costs from water use and water pollution**
- **The options to be developed include:**
  - ➔ More concrete criteria for pricing, taxation, removal of harmful subsidies, etc.
  - ➔ Setup of water allocation schemes (including tradable permits) in water scarce areas
  - ➔ Payment for ecosystem services
  - ➔ Certification schemes
  - ➔ Water efficiency in buildings and distribution networks

# Policy options (3/7): Water efficiency targets and measures to protect water resources



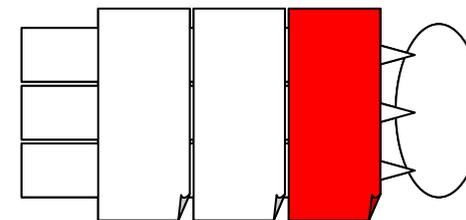
## ■ Water accounts developed by the European Commission and EEA

- As support for a policy aiming at a more resource efficient use of water (quantity + quality)
- As support for a policy promoting implementation of ecosystem based approaches for water provision
- As a tool for demand management at river basin level

## ■ Policy Options:

- Development of targets for water efficiency (and quality improvement) in the MS at sectoral and river basin level
- Provide a framework for the development of water efficiency measures, in particular reuse and recycling

## Policy options (4/7): Governance



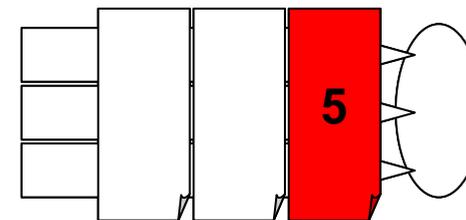
### ■ Input from the Fitness Check:

→ A set of specific suggestions to improve the governance system stemming from EU water policy

### ■ On that basis, and building on the RBMPs assessments, options to be developed will aim at:

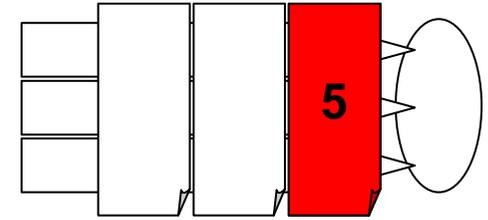
- Improving the **administrative setup** (at both national and trans-boundary level, e.g. enhancing the role of River Basin Authorities)
- Improve the **efficiency of the implementation** (e.g. reporting requirements) while providing the reactive capacity needed to face emerging challenges (e.g. climate change adaptation)

# Policy options (5/7): Knowledge base



- On-going knowledge mapping
- Fitness Check / Assessment RBMP: Identification of gaps, administrative burden, areas for improvement
- Trans-boundary river basins: need for coherence/transparency on water allocation
- Possible options
  - Stronger statistics activity on pressures on water resources
    - River basin, seasonal focus
  - Increased use of satellite and land GMES observations
  - Enhanced Water Information System for Europe (WISE) to include policy relevant indicators
  - Development of a roadmap for water research under the next Framework Programme

# « Water Science meets Policy » : Key research needs identified (1/2)



## ■ Ecological Status, Hydromorphology:

- new bio-assessment tools: fill the gaps, extrapolation
- Interaction sediments / flow / connectivity + links with biodiversity and ecosystem services

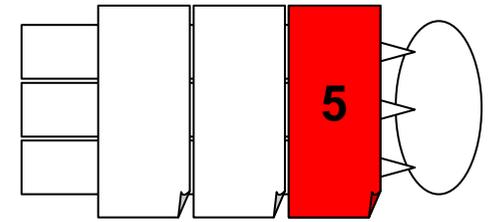
## ■ Groundwater

- fate and behaviour of pollutants
- Groundwater dependent ecosystems and groundwater as an ecosystem
- impacts of climate change
- interactions between energy policy

## ■ Chemicals:

- Improvement/development of chemico-analytical methods consistent with EQS Directive
- Evaluation interactions between substances and effects on environment

# « Water Science meets Policy » : Key research needs identified (2/2)



## ■ Floods

- Ecosystem-based approach
- Climate change adaptation.

## ■ Water Scarcity and droughts

- Indicators
- Impacts of climate change and adaptation

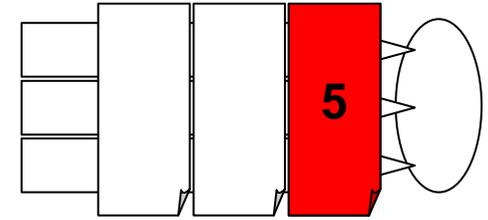
## ■ Agriculture

- evaluation cost-effectiveness of water resources protection measures
- up-tacking of measures by farmers

## ■ Horizontal needs for RB managers:

- Scale-specific indicators (e.g. river basin-wide indicators)
- Social approach with uncertainties and model inputs
- Ecosystem services (e)valuation
- Water Cycle/ Land use
- Measures
- Synergy between Directives

# The Blueprint will just be the starting point.



## ■ The Blueprint will :

- make use of all relevant scientific knowledge
- identify the gaps and set a research agenda for the next 10 years,
- facilitate the implementation of an integrated and adaptive management approach for water resources.

## ■ Interaction with policy making should happen both:

- at EU level to support a strategic vision for EU Water policy,
- at river basin level, for the next generations of RBMP (2015, 2021).

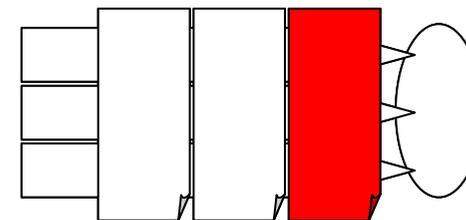
## ■ Need to improve the interaction, not only between science and policy makers, but also with end water users:

- Need for targeted communication of scientific evidence, as they will have to implement and bear the cost of the measures.

## ■ Transform WISE in a real knowledge sharing platform

- Access to results of research projects, demonstration studies, etc. in a structured way
- Link with data from monitoring and indicators, and guidelines for policy making.

# Policy options (6/7): Innovation



## ■ Plans for an Innovation Partnership (IP) on Water Efficiency:

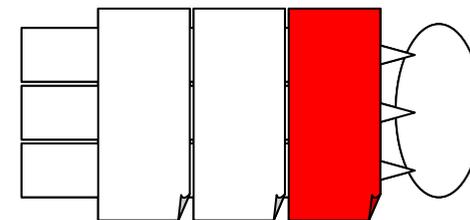
- To identify barriers to innovation in water resource management and ways to overcome them
- Multidisciplinary and multi-stakeholder approach to develop innovative solution for water challenges

## ■ The IP is being defined with stakeholders

## ■ 3 work packages: Urban areas, Rural areas and Industrial users

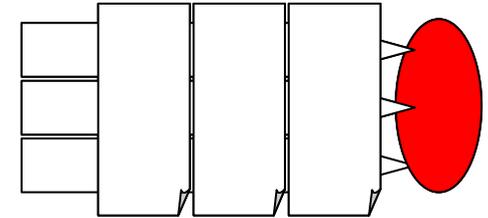
- Up to 30 Innovation sites to be established across Europe to test innovative solutions (technology, management practices, etc.)
- Focus on disseminating solutions and integrating the gradual output of the partnership into DG ENV policy development and implementation cycle

# Policy options (7/7): Global aspects



- Millennium Development Goals (MDGs) on access to drinking water and sanitation
- Relevant outcomes of the Rio+20 Conference
- Supporting integrated water management in developing countries
- Trade implications (water footprint)

# Calendar towards Blueprint adoption in November 2012



	2011-III	2011-IV	2012-I	2012-II	2012-III	2012-IV
	Assessment RBMP – Pressures & Measures					
	Water Efficiency in Buildings					
	WSD Gap Analysis					
	ClimWatAdapt					
	Natural water retention measures					
		Fitness Check 2				
		Water resources balances				
		Scenarios & Targets				
		Impact Assessment Policy options				
Public Consultations		FC		Options		
Key Events			FC	WWF	GW	END
Adoption				IAB	ISC	15/11

# Thank you for your attention!

More information:

[http://ec.europa.eu/environment/water/blueprint/index\\_en.htm](http://ec.europa.eu/environment/water/blueprint/index_en.htm)

