



# Implementing the WFD

## The research challenges for a national 'Water Agency'

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**1) WFD in France: current status and future challenges**

**2) Water research in France**

**3) Challenges for a national agency on water and aquatic environments**

**4) Initiatives at the EU level**

# Water quality in France: current status and objectives

## current status

- Good ecological status: 46% for surface waters bodies;
- Good chemical status: 45% for SWB;
- Good chemical status: 59% for groundwaters bodies
- Good quantitative status: 89% for GWB
- 7% are HMWB of which 14% are in good ecological potential

## objectives (by 2015)

- Good ecological status : 64 % of SWB
- Good chemical status: 83% of SWB
- Good chemical status: 64% of GWB
- Good quantitative status: 98% for GWB

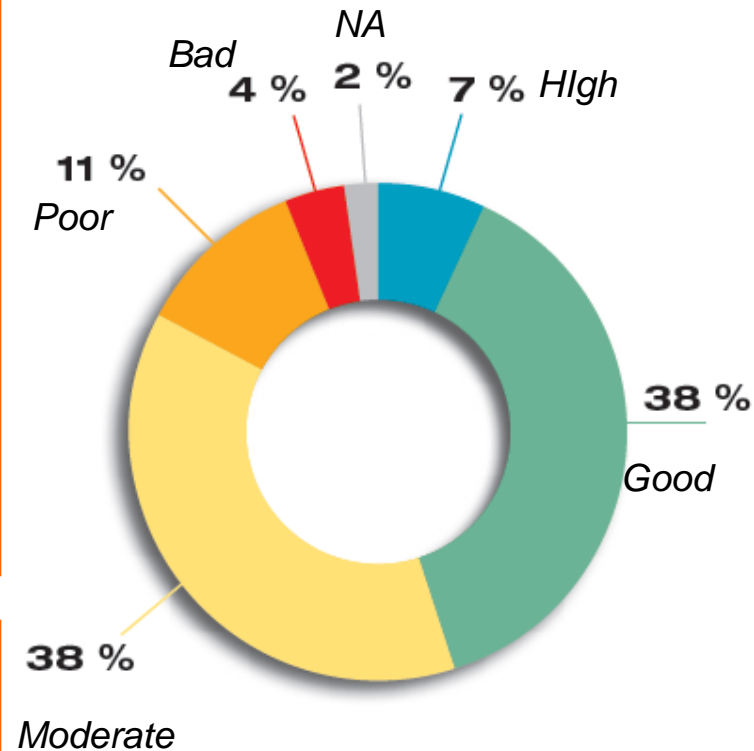
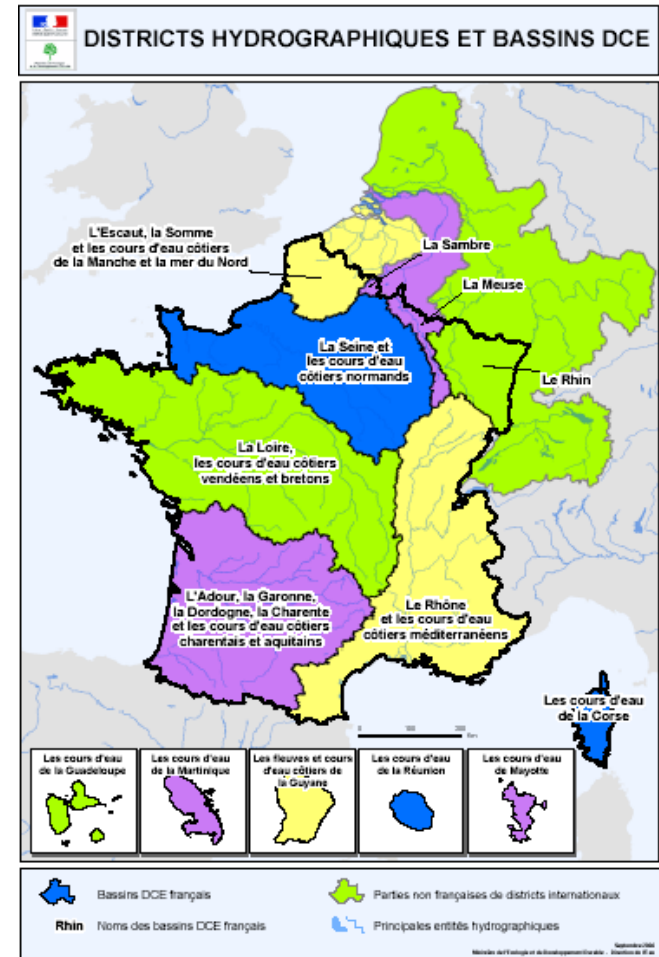


Fig 1: Current ecological status of the 11 523 surface water bodies in France

# River basin management plans (SDAGE) and programmes of measures

- 14 districts
- SDAGE established for each river basin district
- Published in December 2009
- 4 main parts:
  - Knowledge, Governance and land-use planning
  - Aquatic environments and biodiversity preservation and restoration
  - Quality (point and nonpoint pollution, household, agricultural and industrial)
  - Quantity (drought - flooding)
- Global cost of the 7 Programs of measures estimated around 25 billions EUR by 2015.



# Future challenges for the next cycle

- Less qualitative expertise and more quantitative data :
  - Pressures: water abstractions, hazardous substances emissions, geomorphologic data...
  - Pressures/impacts : modeling, experiences feedbacks
  - Social and economic analysis: unit costs, benefits, avoided costs...
- High benefit linked to a process organised at the local level with the different stakeholders involved in water policy : to be maintained
- A more specific work on the impact of the basic and complementary measures
- More specific work to guarantee an efficient implementation : involvement of the institutions, of the economic users, innovative economic tools testing ...
- Public information: beyond the legal obligation?
- More communication on the outcomes following the good status: to identify the good economic, political and social arguments to launch a concrete and ambitious implementation

**1) WFD in France: current status and future challenges**

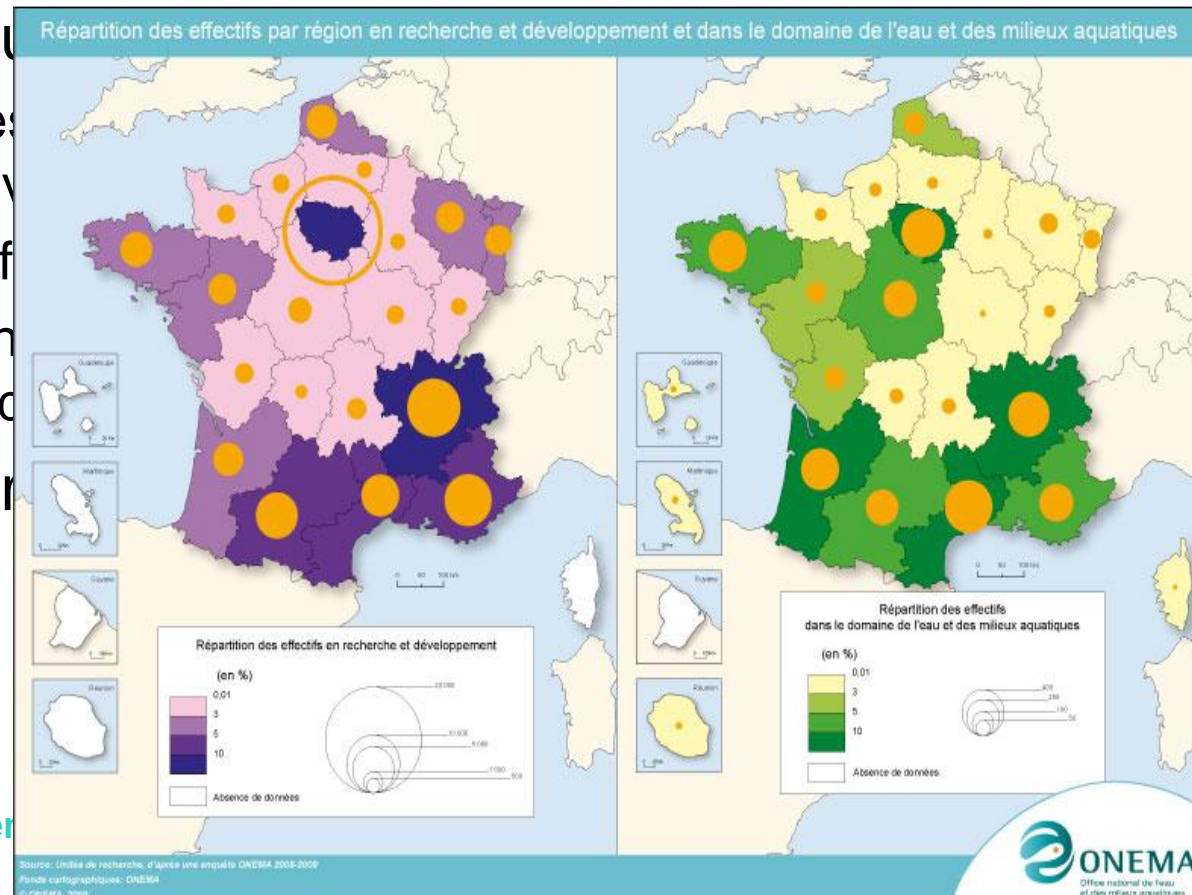
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# Mapping French R&D competences in the field of water and aquatic environments

- 200 R&D units
- 4300 staff = 2% of total R&D in France
- 75% staff in the public sector
  - More than 120 research institutes and universities
  - 45 % of total staff in the public sector
  - More than 50% in highly fragmented structures
- 25% staff in the private sector



# Mapping of Research programmes

- Basic research at national level (ANR)  
Around 12 millions euros per year on water
- Basic-applied research at EU level (FP7)  
Around 50 million euros per year (5 million for French teams)
- Applied research oriented to end-users at EU level (LIFE)  
Around 1,5 million euros per year for French teams
- Applied research at national level (ONEMA+ River basin agencies)  
Around 13 million euros per year

# French R&D strengths...

- There is a real potential: 4 300 Full Time Equivalent jobs in Research (public and private combined)
- World Industrial actors and professional associations
- Initiatives of R&D partnerships (alliances, clusters, ...)

## ... and water R&D Weaknesses

- Insufficiently active national programs
- Lack of visibility: many small units

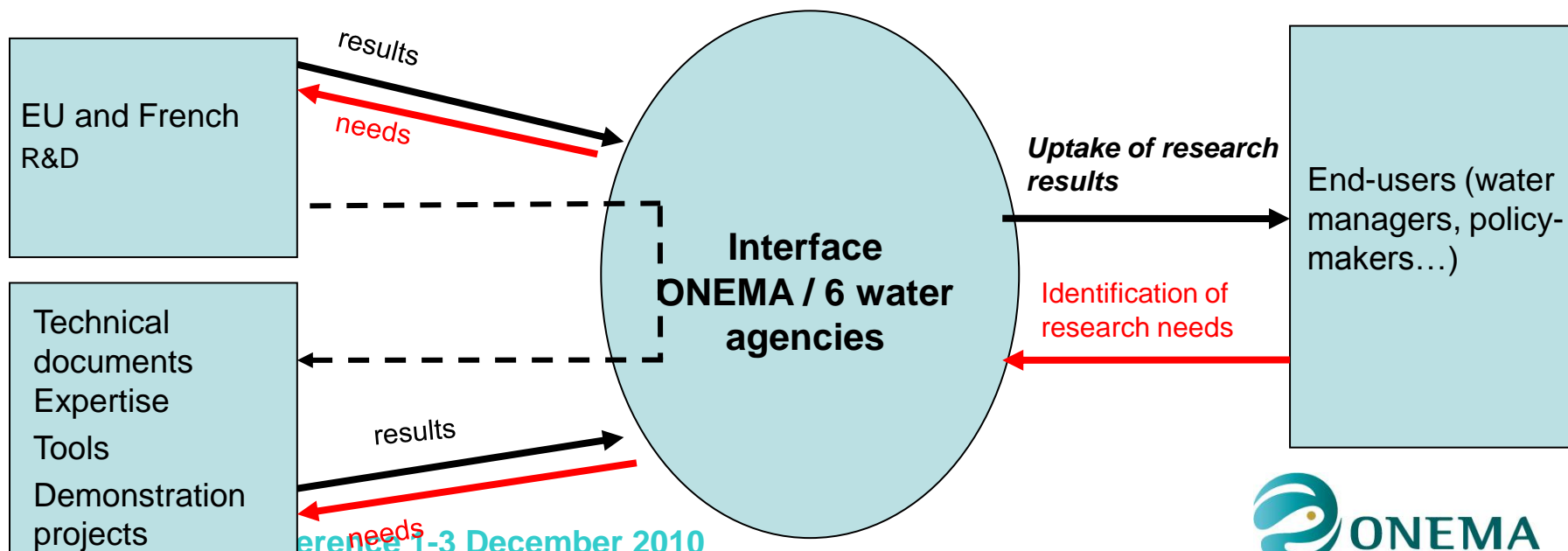
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# Role of ONEMA

- **National coordination** (river basin agencies, public services, private companies, NGOs...)
  
- **Reference agency for knowledge and management of water systems (fresh/marine; ground/surface)**
  - Stimulate research and development
  - Manage the French water information system and produce some data
  - Inspect uses and enforce regulations
  - Provide technical support to the management of water and restoration of environments
  
- **Budget : 135 Million Euros, 900 staff**  
*Workforce includes 600 on-the-field technicians (Water police)*

# Position of ONEMA in R&D : a science policy interface

- Forward-looking analysis, strategy and assessment
- Research programming and implementation (12 million Euros / year)
- Transfer and best use of research results, including training



Conference 1-3 December 2010

# Long-term strategies and forward looking analysis: The National Scientific Council on Water and Aquatic Environments

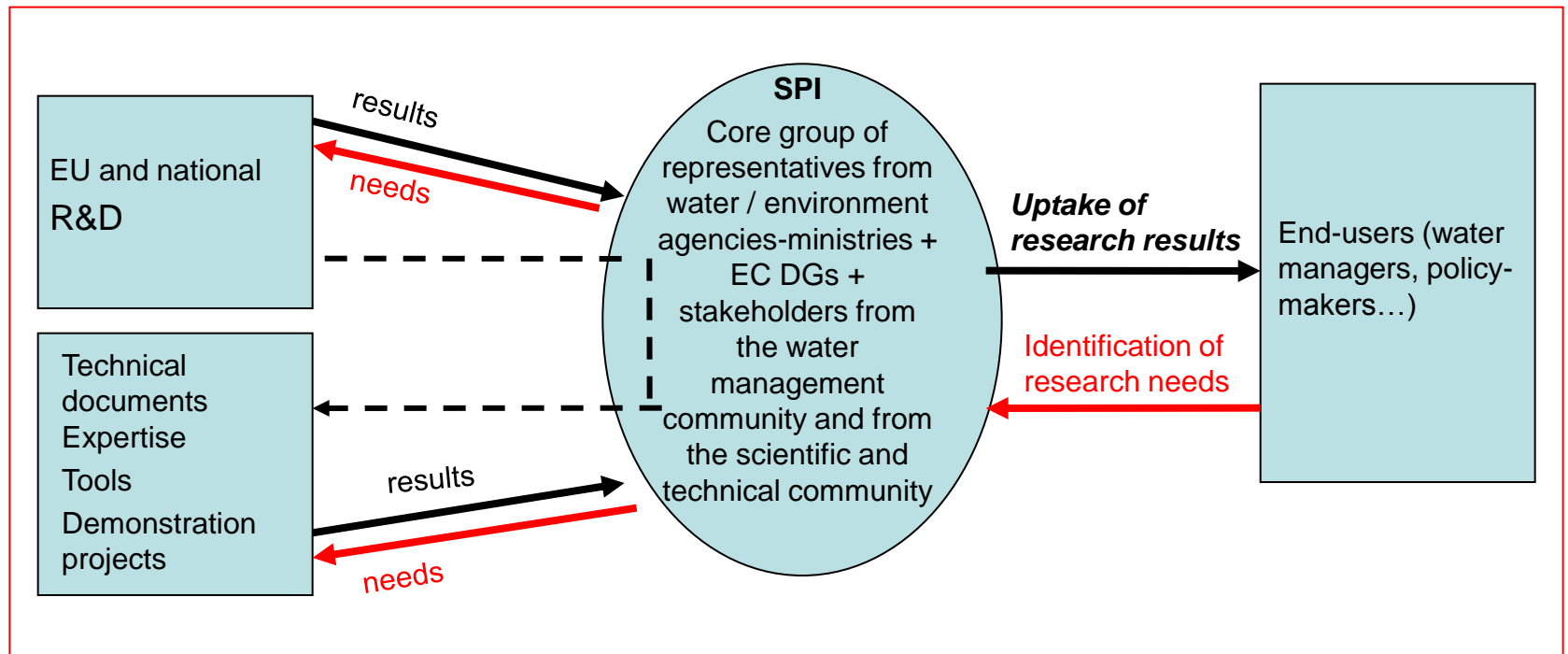
- **Public policies and European directives making and implementation:** Sectoral public policies integration (agriculture, energy...): How to develop innovative integrative approaches?
- **Integrated assessment of pollutants' dynamics and impacts on water resources and aquatic environments:** detecting emerging pollutants and assessing the associated risks in the long term
- **Climate change impacts on water resources and aquatic environments :** what are ecosystems' adaptation capacities in extreme disturbance contexts? How strong is the WFD response in view of these changes?
- **Quantitative and qualitative assessment of water and aquatic ecosystems' services**

# Research programming: R&D themes 2009-2012

- 1. Water cycle and resource availability in the context of climate change**
- 2. Physical dynamics of aquatic systems and restoration**
- 3. Biological and ecological dynamics of aquatic systems**
- 4. Chemical contaminants and ecotoxicological risks**
- 5. Environmental technologies and methods to reduce pollutions**
- 6. Social-economic value of water and aquatic environments**

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# Towards an operational science-policy interface (SPI) in support of water policies at the EUROPEAN LEVEL



# Science-Policy Interface at the European level: CIS-SPI

**Task 1:** Inventory of research and implementation needs from CIS groups.

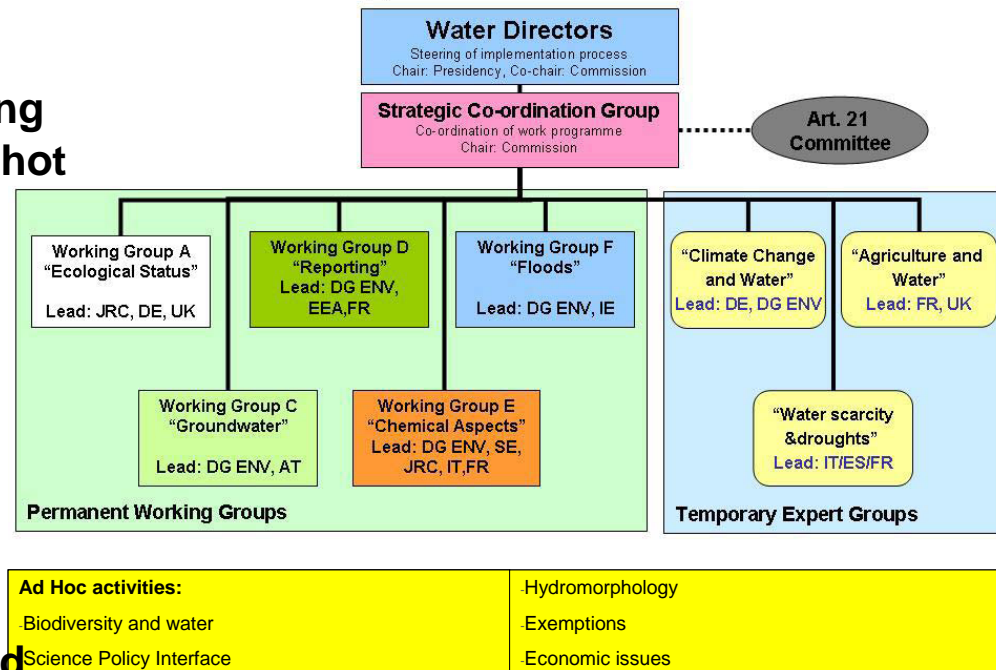
**Task 2:** Available research and research gaps

- Inventory of available research results relevant to CIS research and implementation needs.
- Discussion of research gaps on a yearly basis within each CIS Working Group or Activity to obtain a snapshot of needs as expressed by Member States policy makers.

**Task 3:** Improving transfer and usability of research outputs

- **3.1.** Organisation of Water Science meets Policy events
- **3.2.** “Science-Policy Briefs” of relevance to CIS needs
- **3.3.** Promote application by targeted users, in particular River Basin Organisations.

## CIS Organisation 2010-2012





**ONEMA**

Office national de l'eau  
et des milieux aquatiques

**THANK YOU FOR YOUR ATTENTION**