Water Information Systems:

Tools to support knowledge and management of water resources, aquatic environments and their uses

Side-event at the French Pavilion

18 March 2009

SYNTHESIS and RECOMMANDATIONS

5th World Water Forum- session 6.4.1.

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Office International de l'Eau

ONEMA
Office national de l'eau et des milieux aquatiques

pfe partenariat français pour l'eau french water partnership fwp

6 experiences of water information systems

Chaired by M. André Flajolet, Member of Parliament
Moderated, by Dr. Arthur Askew, AISH

Establishing a national framework for water data supporting water policies in France, Patrick Lavarde, French National Agency for water and Aquatic Environments – ONEMA –

The Water Information System for Europe – (WISE), Beate Werner, European Environment Agency – EEA –

Water information systems in the South and East Mediterranean, Eric Mino, Euro-Mediterranean Information System on know-how in the Water sector – EMWIS-

Brazilian National Water Information System (SNIRH), Mauricio Cezar Rebello Cordeiro, National Water Agency of Brazil

Towards a pan-African Water Information System – SADIEau, Tamsir Ndiaye, Organisation pour la mise en valeur du fleuve Sénégal – OMVS – Secrétaire technique permanent du réseau africain des organismes de bassin

Making water monitoring work for development: lessons and perspectives from the Global Water Monitoring Alliance, Stéphane Simonet, World Water Council – WWC –

MULTIPLE AIMS AND BENEFITS

- Inform citizens
- Facilitate public participation in decision making processes
- Analyse the water system (status, pressures, use….)
- Support decision making
- Assess efficiency of policies and check compliance with implementation requirements of these policies

Need to raise awareness of benefits of Water Information Systems as key features for water management and governance

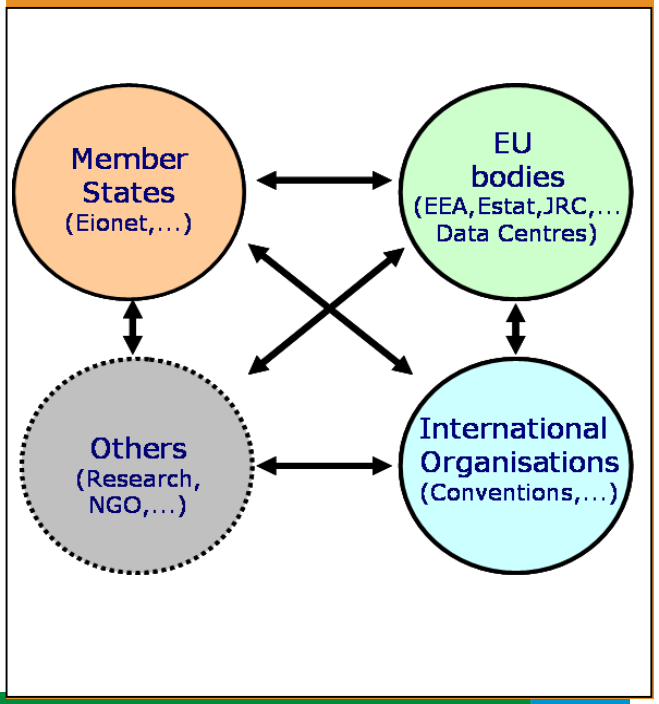
MULTIPLE ACTORS AND SCALES

Environmental objectives set at **International, regional and national levels**

Measures and monitoring implemented at the **local / basin level**

Applied at local, basin, national, regional and international levels

Example: Shared Environmental Information Systems in Europe



Need cooperation structures from local to national to regional levels

ESSENTIAL TO ANCHOR WIS IN HYDROLOGICAL UNITS

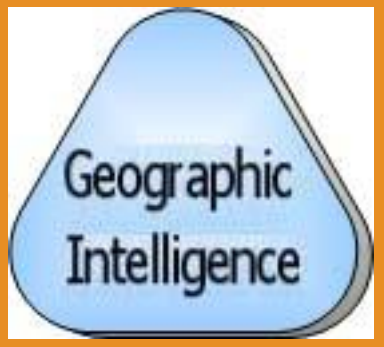
GIS reference layer ensures geographically relevant and correct assessments

Water relevant statistics (status + use) :

- Need to relate to hydrological units
- Need to be dissagregated to river basin districts/subunits
- Need to be comparable over transboundary river basins

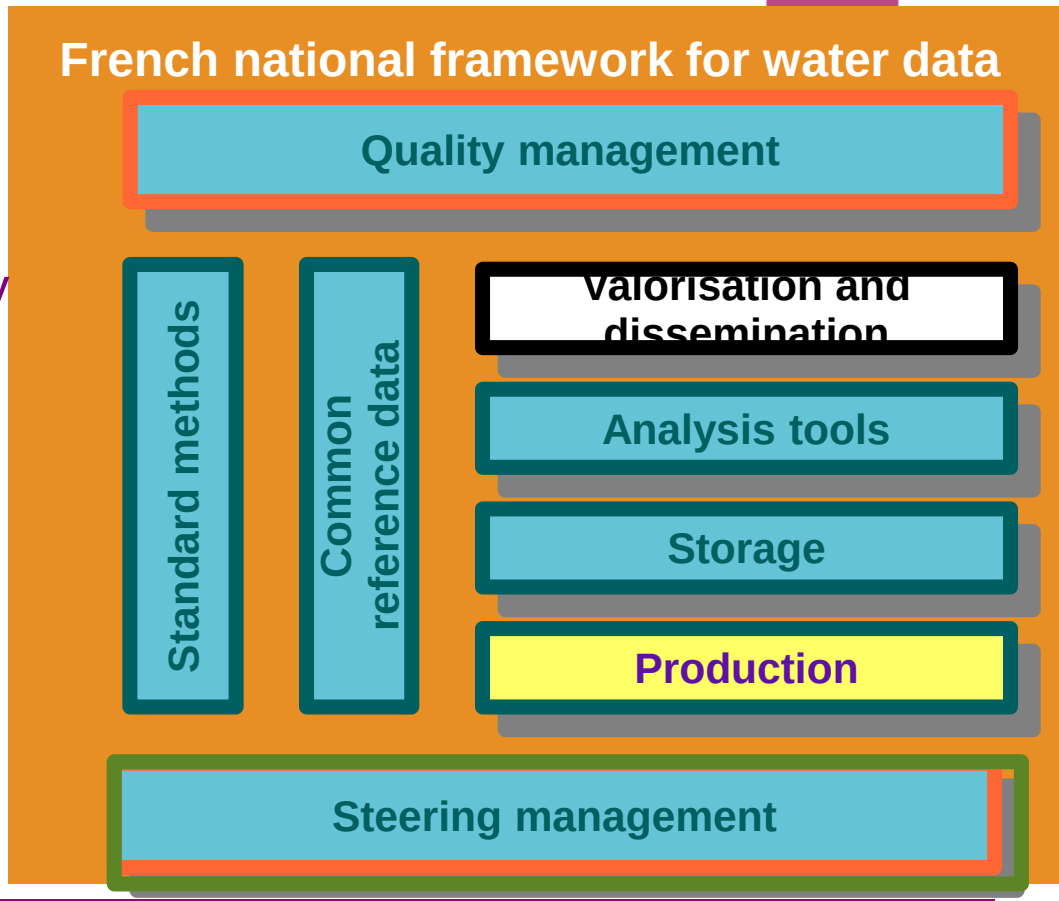
Leave data, information and basic quality assessment and control at source

Example: Brazilian National Water Resources Information System applies a hydroreferencing system; all the information is geographically indexed



STANDARDIZATION IS ESSENTIAL

- Objectives: reliable and comparable data
- Transparency and efficiency
- Shared definitions, tools, methodologies
- Inter-operability
- ….



Ensure harmonised format, streamlining of definition and methodologies at national/regional/international levels

LEGAL FRAMEWORKS AND RESOURCES

In every country, and especially in developing countries, there is a huge quantity of information on water, but a lot of it is not widespread and not accessible.

Main barriers identified are:

- Lack of legal framework for reporting/sharing water data
- Lack of resources (human, technical and financial)
- Lack of capacities

Supra-national and national legal frameworks

Examples:

- In 2003, the Brazilian National Water Resource Information System was estabilished by the Brazilian Water Bill as one of the five instruments for the management system.

- EU Directive INSPIRE on infrastructure for spatial information and EU WFD

Need political commitment to improve data management (from production to dissemination)

CAPACITY DEVELOPMENT

Need to develop national and local capacities and tools for data collection, analysis and dissemination to better inform policy making and to empower user communities and citizens

Take profit from new technological developments in data collection techniques (including remote sensing) and knowledge management tools

Examples:
-**EMWIS** = 16 national water information portals federated in a Mediterranean network using on common standards

- **Water Monitoring Alliance** of the WWC is a Global Knowledge Platform to Improve Accessibility, Exchange and Use of Water Monitoring Information & Data

Importance of networks to share best practices

Some key remarks and questions from the debate

- Need to distinguish data, indicators and knowledge: how to make best use of the data we collect?
- How to ensure adequate funding for long-term sustainable monitoring networks, especially in developing countries?
- Do we need regulatory and enforcement rules or can we develop incentives for voluntary use of shared information systems?
- How to ensure optimal coordination between the various information systems at the global level to create synergies and avoid duplications?

THANK YOU!