

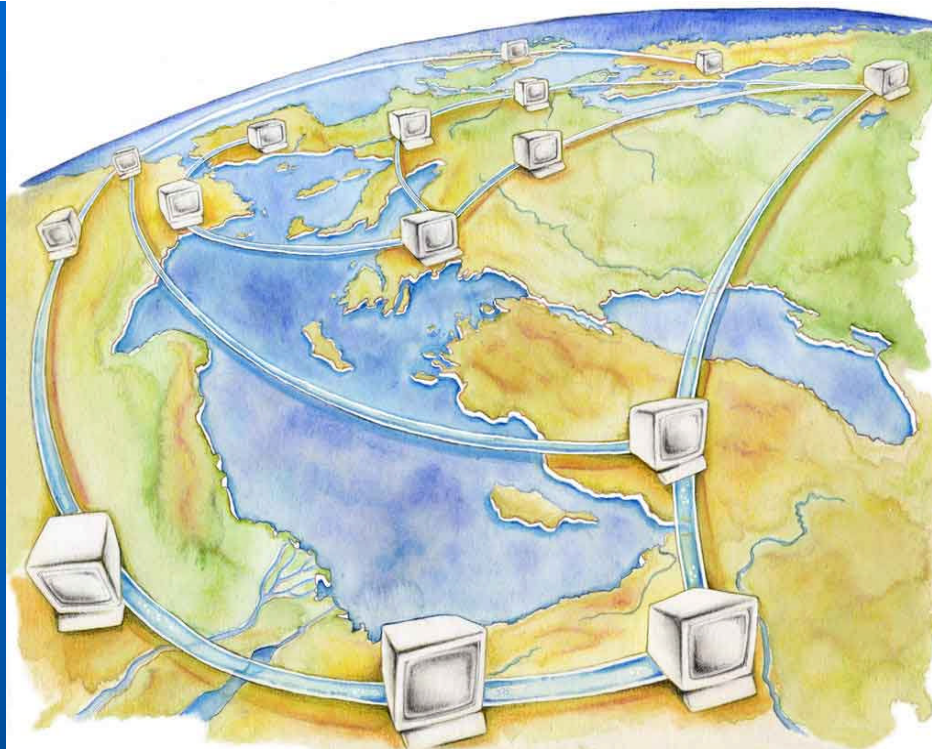
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Système Euro-
Méditerranéen
d'information sur les
savoir-faire dans le
domaine de l'Eau



EMWIS

www.emwis.net

Euro-Mediterranean
Information System
on know how in the
water sector

النظام المعلوماتي الأورومتوسطي
للمعرفة في مجال المياه

**Results of the feasibility study on
NWIS in the Mediterranean countries**

Jauad El Kharraz, Damascus – 20/12/2010

EURO-MEDITERRANEAN PARTNERSHIP





- *“An information system is a set of social stakeholders that records and transforms data representations via information technologies”*
 - ⇒ a National Water Information System should include all the stakeholders, directly or indirectly concerned by the water sector, who agree to exploit information technologies with common objectives.
 - ⇒ a Water Information System includes only one organisation and its subsidiaries around common objectives
- Two major components:
 - Quantitative data, including geographical information (water resources, consumption, dams, etc.)
 - Textual information (documents, contracts, directories, studies, etc.)
- Complementarity with existing initiatives



EMWIS started in late 1999 to “Facilitate access to the existing know-how in the water sector and develop the sharing of information along with preparation of common outputs and cooperation programs between the participating countries”.



Success factor: information provided & managed by participating countries



Countries input not as smooth, frequent or harmonized as expected



Unavailability of efficient NWIS



Feasibility study for NWIS development or enhancement



Motivate Countries and donor agencies to finance NWIS implementation



- Feasibility studies of National Water Information Systems (NWIS) in 10 voluntary Mediterranean Countries involved in EMWIS
- Nov'2005 – January 2006
- Algeria, Cyprus, Israel, Jordan, Lebanon, Malta, Morocco, Palestine, Tunisia, Turkey



- **Independent analysis of national needs and requirements**
 - Existing and planned water information systems
 - Collaboration with information providers
 - Knowledge of end-users
 - Organisation of the NFP and its information system as part of the NWIS
- **Defining a set of technical, financial and organisational recommendations and a roadmap for the implementation and operation of a NWIS**



Added value for countries

- To reduce maintenance costs and improve efficiency
- To provide themselves with information on the state and trends in the quality and quantity of their water resources
- To enable assessment of compliance with national legislation
- To fulfill obligations to international bodies
- To assess the effectiveness of policies implemented and to identify where additional measures may be required
- To provide information to the general public

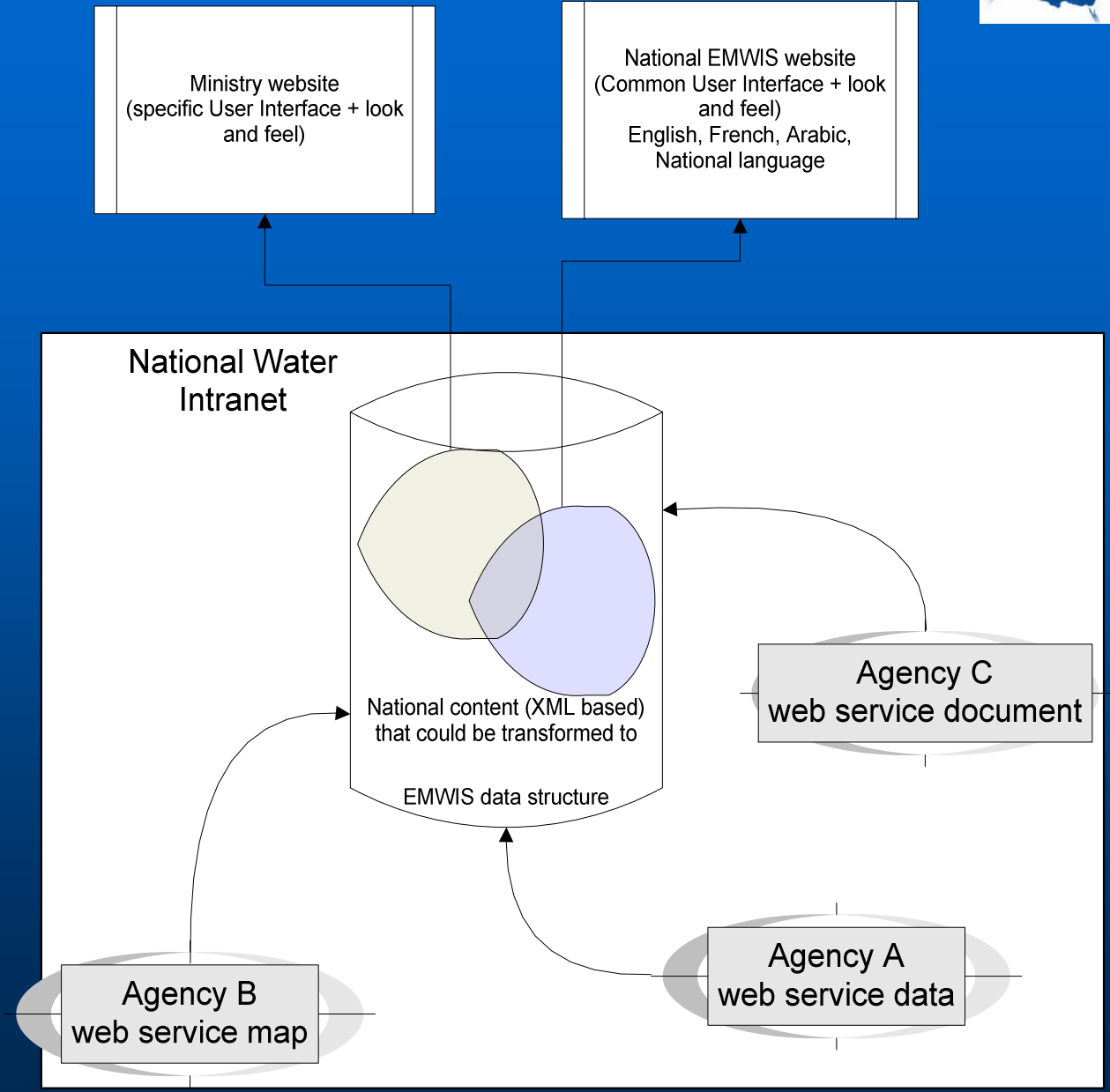
Importance of NWIS



- Water issues are global and concern, in most cases, a simultaneous combination of various levels of action: local, basin, regional, national, international, etc.
- Knowledge of the resource and of its status is a major issue for water policy planning and assessment
- A priority tool to support integrated water resources management and risk prevention with all stakeholders
- Essential for public information, awareness raising and participatory approaches

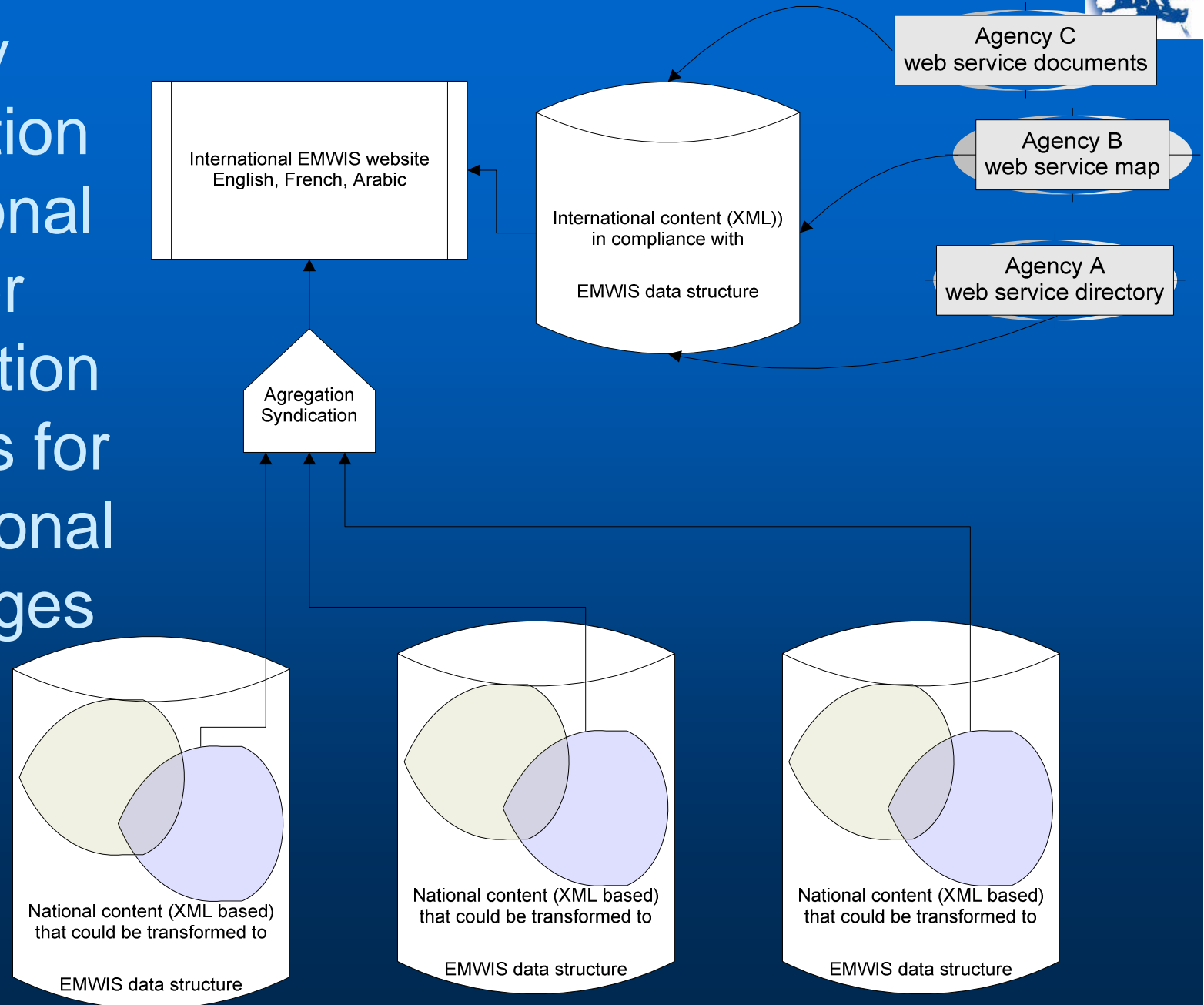


Vision for National Water Information System





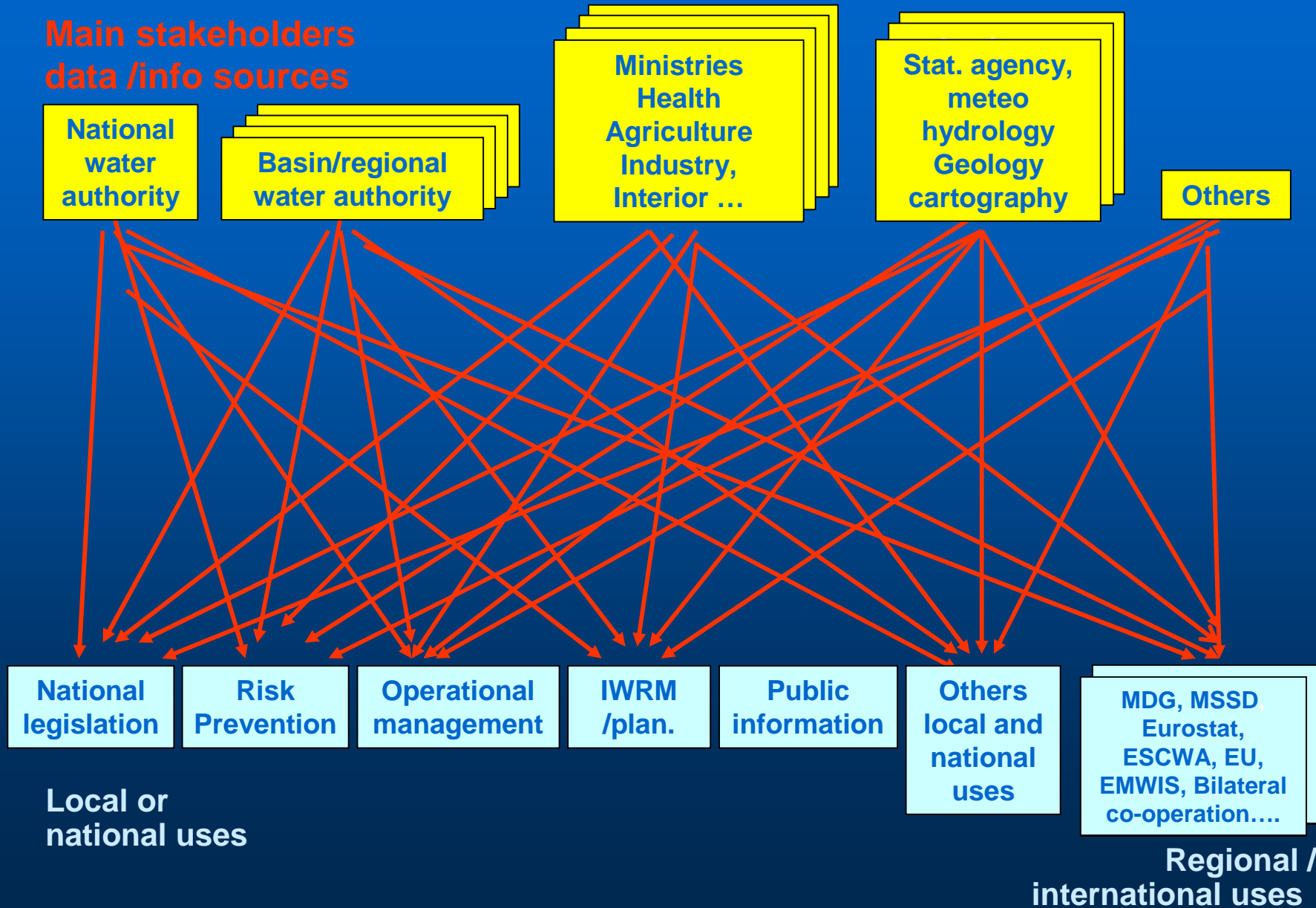
Easy integration of National Water Information Systems for international exchanges



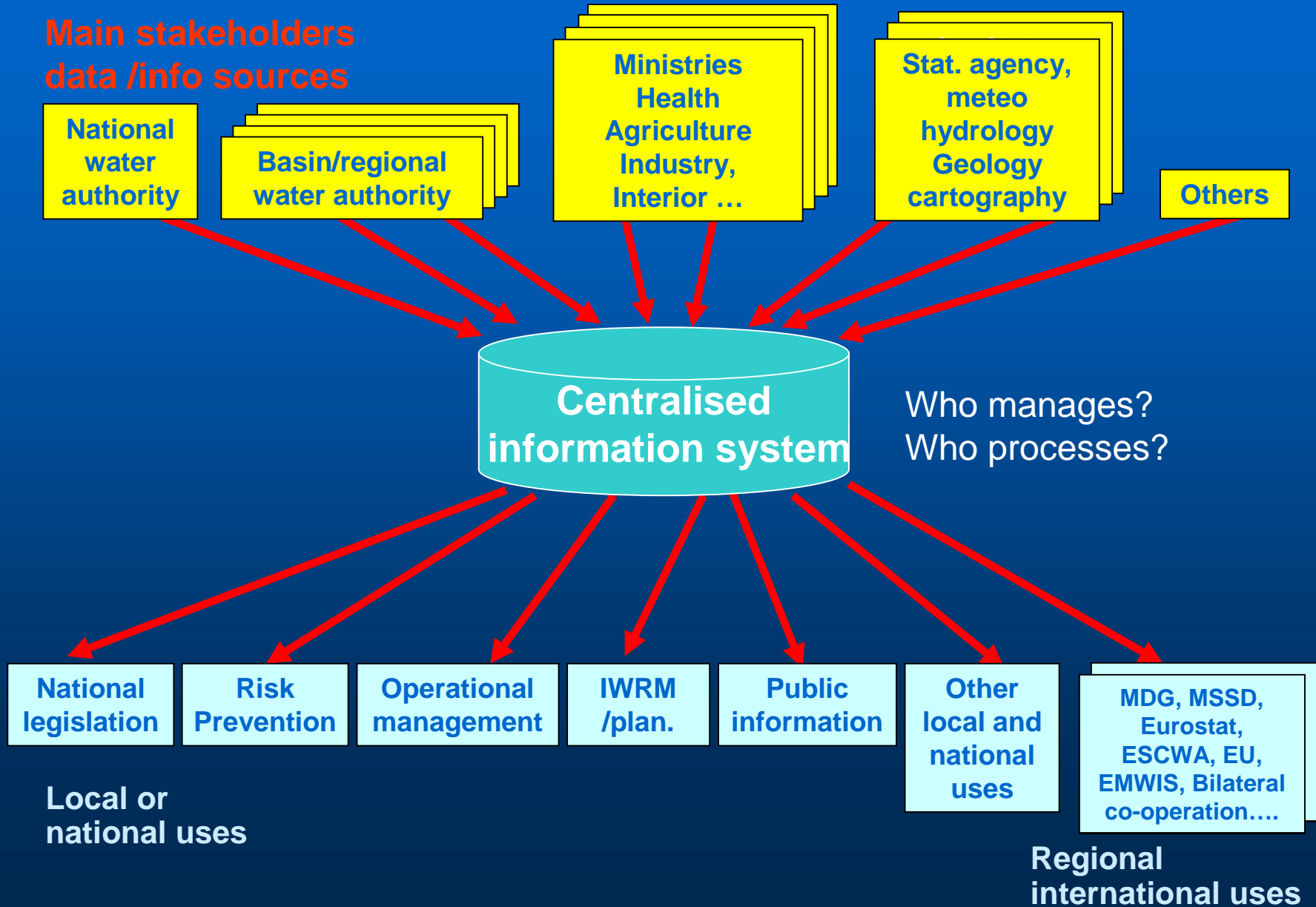


Responding to needs: scenario 1

Main stakeholders data /info sources



Responding to needs: scenario 2



Responding to needs: scenario 3



Main stakeholders data /info sources

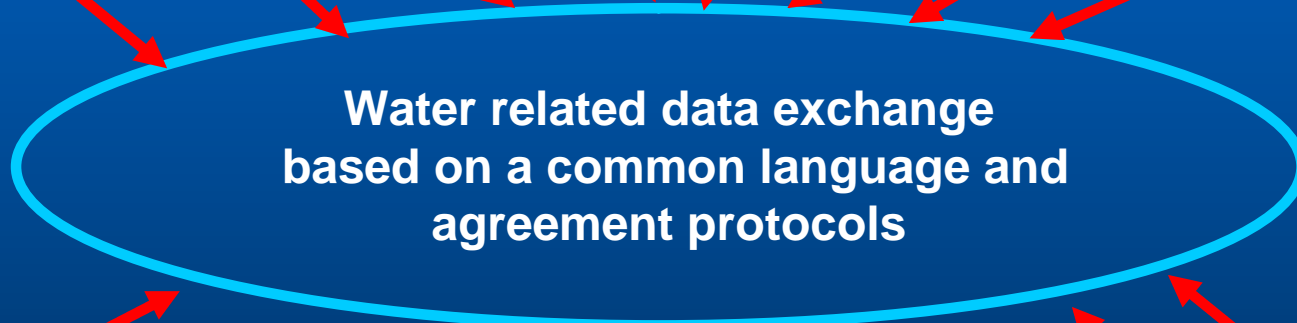
National
water
authority

Basin/regional
water authority

Ministries
Health
Agriculture
Industry,
Interior ...

Stat. agency,
meteo
hydrology
Geology
cartography

Others



Distributed approach

National
legislation

Risk
Prevention

Operational
management

IWRM
/plan.

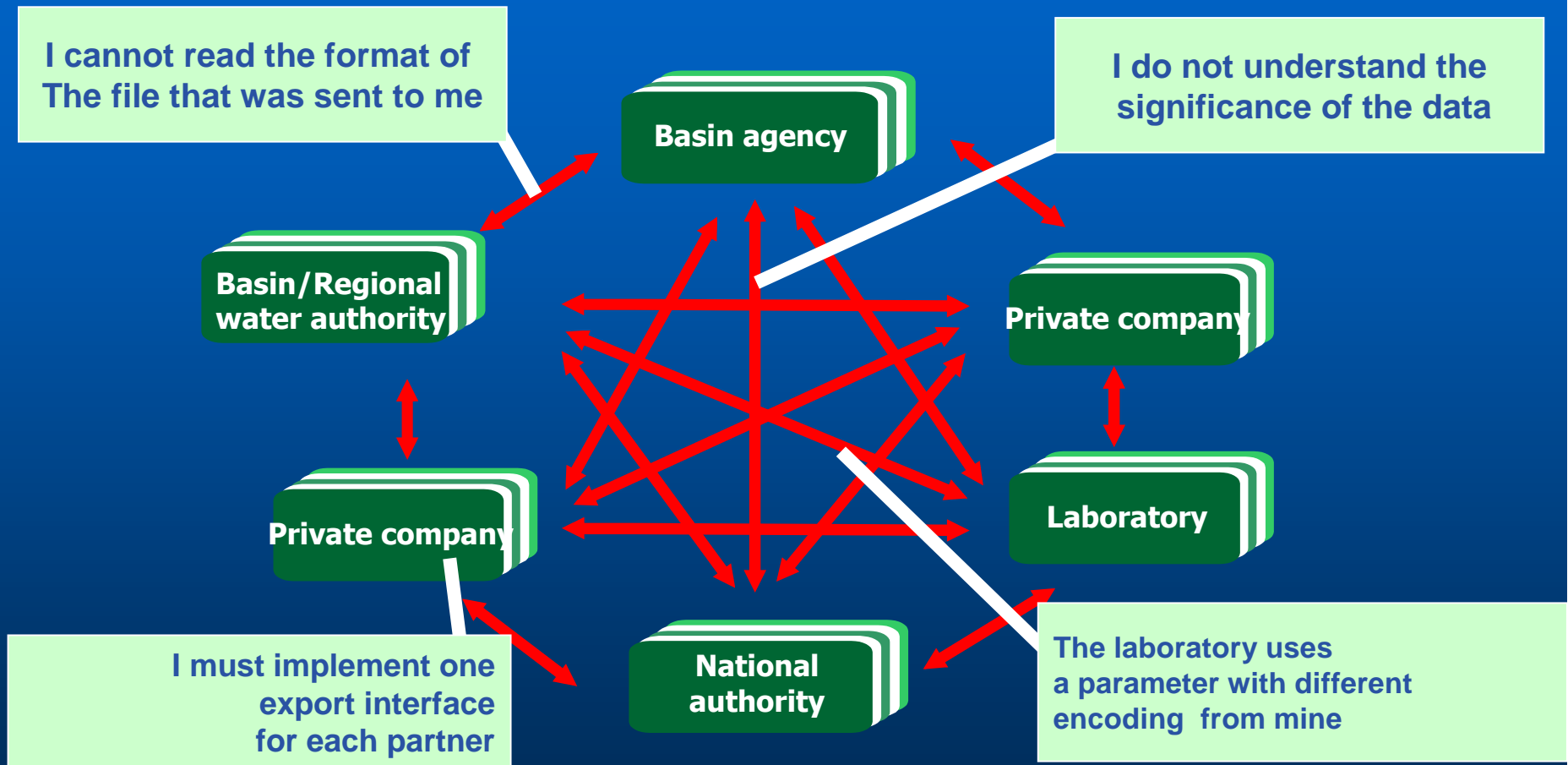
Public
information

Other
local and
national
uses

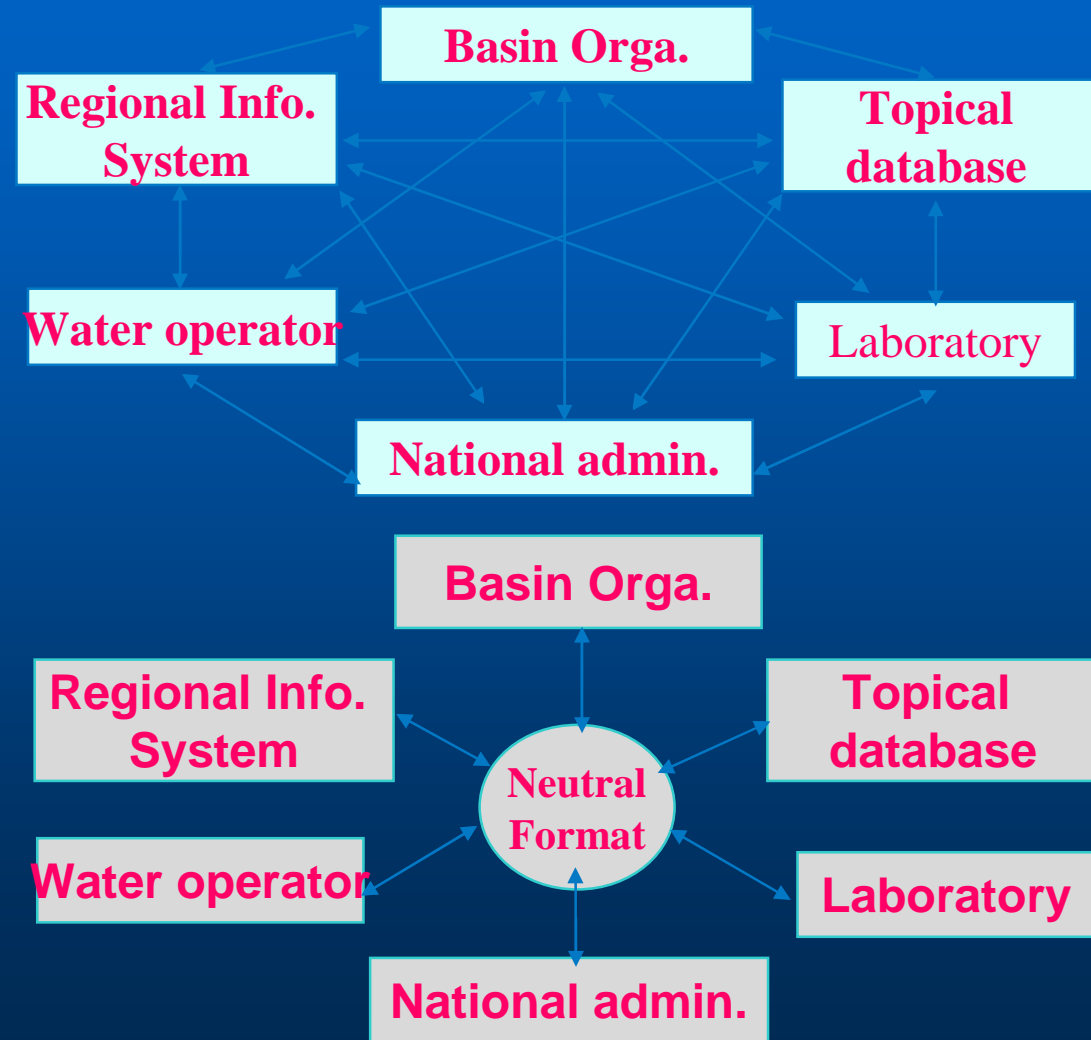
MDG, MSSD,
Eurostat,
ESCWA, EU,
EMWIS, Bilateral
co-operation....

Local or
national uses

Regional
international uses

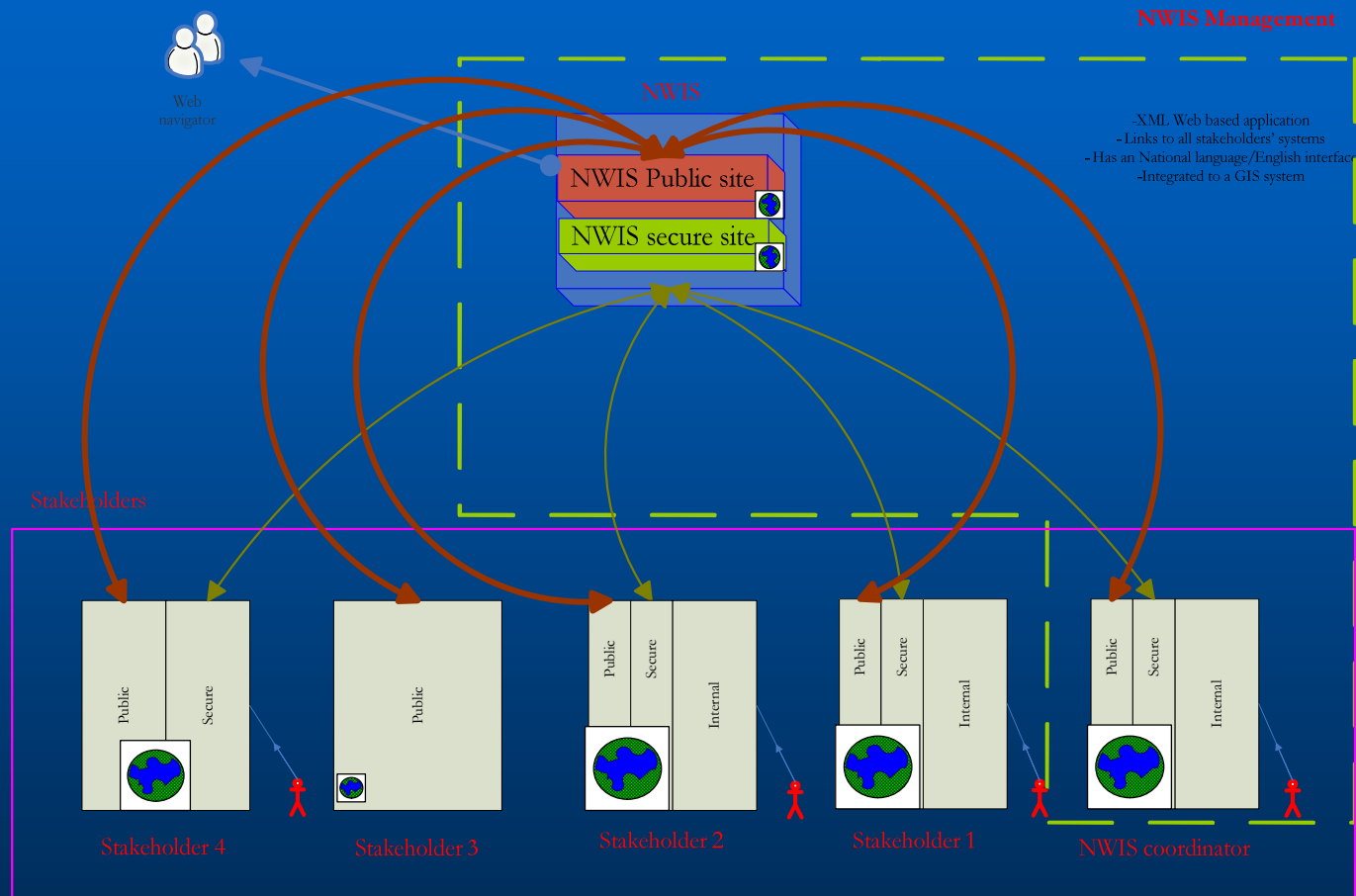


Neutral data exchange format





Exploitation of ICT by all water stakeholders based on agreed standards procedures





All countries are willing to establish or enhance their NWIS but...

Unavailability
of data

Lack of human &
technical resources

Lack of
financial resources

No policy for data
access & sharing

Lack of communication
between the stakeholders

Absence of a political decision

Lack of awareness
of NWIS benefits



Sharing data



- Losing power
- Divulging sensitive data
- Being criticised
- Centralised management



Sharing data



- Wider range of information
- Security & privacy control
- Better quality
- Mgt at the most appropriate level



Constraints

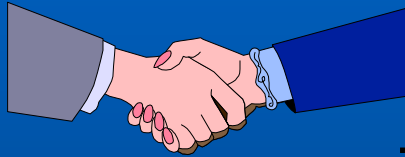
- Lack of legal framework for reporting water data
- Many international initiatives and political processes
- “Observation”/“monitoring” seen as intrusive for national water management

Opportunities

- Strong demand of international stakeholders
- Commitment to NWIS, but not yet developed
(information necessary for daily management)
- Common basic data used for the calculations of indicators
- Organisational problems rather than lack of data
- Union for the Mediterranean
(Mediterranean Water Strategy)



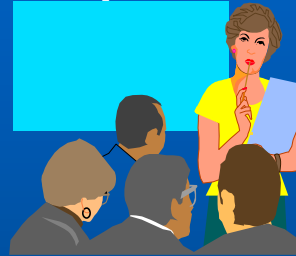
Policy Framework Agreement
(main objectives, priorities)



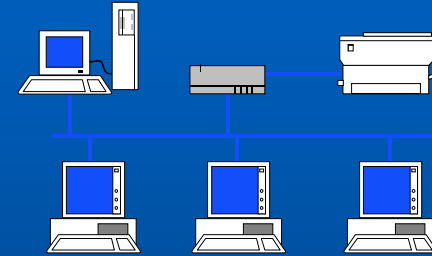
Common language



Specific need definition / agreements on procedures



System development
(e.g. interconnection capacities)



A specific legislation

can support sustainability, clarify responsibilities
but must be flexible

not necessary to launch the process

MoU or partnership agreements

more flexibles

can include MoU between sub-groups of actors



NWIS pre-development phase:

- Survey of all water data sources
- Analysis of needs and expectations
- Monitoring of Water resources
- Standard Operating Procedures for monitoring and data collection
- Availability of ICT infrastructure
- Qualified IT staff
- Specialized data collection and monitoring departments
- WIS available for some or all stakeholders.



NWIS development phase :

- Conduct awareness campaign.
- Political decision & strategy
- Partnership and coordination committee
- Roles & Responsibilities.
- Data Classification/sharing policy.
- Secure Funds.
- Study expectations & outline design
- Capacity Building.
- Detailed Technical Design Study.
- Develop/validate/test NWIS.
- Institutionalization & implementation.

**Ready for phase
2**



- **Algeria has almost finished the implementation of its NWIS (intranet funded by the EU)**
- **Tunisia will start the implementation thanks to funding from AWF**
- **Morocco has a WIS -> NWIS**
- **Jordan will start implementation of its NWIS (a possible funding under the twining framework: EU-Jordan)**
- **Palestine and Lebanon are in fund raising phase**
- **Egypt: Still difficulties in getting agreement between the national actors (but there is a will)**



NWIS Benefits

- **Data management:**
 - ❑ Supporting decision making (water and other sectors)
 - ❑ Better data accessibility
 - ❑ Better control on costs
 - ❑ Upgrade of existing (sub) systems
- **National referential data sets**
 - ❑ Comparability
 - ❑ Quality control & stability over time
 - ❑ Optimising monitoring networks
 - ❑ Agregating and combining data
 - ❑ Openness to add applications/services
 - ❑ Integration of water data with data from other sectors
- **Regional harmonisation**
 - ❑ Sharing experiences, existing guidelines
 - ❑ Use of international standards supporting data exchange
 - ❑ Sustainability of technical solutions
 - ❑ Easier reporting to international initiatives
 - ❑ Potential international support

Some lessons



- **Building confidence is a key issue when working on institutional data**
- **Activities/themes launched on voluntary basis with smaller groups of countries**
- **Giving priority to exchange standards, communication protocols and partnership agreements rather than on technology and systems**
- **Working with governmental NFP is a long term process**
 - Reflecting a strong commitment
 - Providing an institutional network suitable for transfer of results from innovative initiatives into the national water structures
 - **But limited openness to other stakeholders**

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Thank you for your attention



SEMIDE EMWIS CYPRUS Focal Point

Home | Up | Publications

Maps

SEMILOGICAL MAP OF CYPRUS | HYDRO GEOLOGICAL MAP OF CYPRUS | LAND USE OF CYPRUS | MAJOR WATER DEVELOPMENTS

SEMIDE EMWIS Turkey National Focal Point

National portals

INSTITUTIONS

A number of governmental and non-governmental organisations have developed and indirect interest in the development and conservation of water resources in the Mediterranean region.

There are both governmental and non-governmental organisations of the water users level for the operation and management of water resources in the region.

EMWIS Turkey National Focal Point

General Directorate of Water Affairs
General Directorate of Water Resources
General Directorate of Water Research and Studies
Administration of State Hydraulic Works
State Institute of Water Research

Culture de l'Eau

Introduction
Chimie et la maîtrise de l'eau en Tunisie
La maîtrise de l'eau à l'échelle agricole
L'urbanisme en eau de Tunisie: une eau salubre
Les ressources en eau, les conditions de l'eau
Techniques d'assainissement des eaux
Les basses agricoles à l'échelle: Les modes d'irrigation

Services Info: La maîtrise de l'eau en Tunisie

Les ressources en eau en Tunisie

Introduction

« who does what

SEMIDE EMWIS Euro-Mediterranean Information System on the know-how in the Water sector

EMWIS Thematic Directory

Contacts - Advanced Search

Country: ALGERIA | ARABIA SAUDITE | ARABIA SAUDITE | ARABIA SAUDITE
EMWIS position: Member of the EMWIS Steering Committee
Member of EMWIS Steering Committee
Co-ordinator of EMWIS Steering Committee
Exchange language: English | French

Common taxonomy (multilingual water thesaurus)

www.semide.net

SEMIDE EMWIS Euro-Mediterranean Information System on the know-how in the Water sector

SEMIDE thesaurus

Thematic Settings | Alphabetic Settings | Hierarchical Settings | Thesaurus search

aquifer
Definition: Permeable water-bearing formation capable of yielding appreciable quantities of water.
References sources: ECRF
Preferred label: aquifer
New source: OEDR ECRF UNESCO CODES
Alternative labels: n/a
Thesaurus: MEDIANET
Broader terms: n/a
Narrower terms: n/a
Related terms: n/a
Scope Note: n/a

Thematic forums/folders

Ground water, water scarcity
Water glossaries, satellite images, etc.

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Water scarcity

The Mediterranean region is one of the most arid regions in the world. The water resources are limited and the water demand is increasing. The water scarcity is a major problem in the region. The water scarcity is a result of the combination of natural factors and human activities. The water scarcity is a result of the combination of natural factors and human activities. The water scarcity is a result of the combination of natural factors and human activities.

Clearing house for EU programs and initiatives

Regional water projects

Monthly eNews Flash in Arabic, English and French

SEMIDE EMWIS النظام المعلوماتي الأورو متوسطي للمعرفة في مجال المياه

شبكة الأمانة والتنمية للتقوية 2006

أحدث هذه النشرة من طرف الوحدة الفنية لمصير بدعم من: **البحرين** و **الكويت** و **السعودية** و **الأردن**

آخر فورية الخطوط

في هذا العدد 28

الافتتاحية:

إلى القارئ الأورو متوسطي لشؤون المياه

مختصرات:

إلى القارئ حول المياه في لبنان
إلى القارئة الأورو متوسطي حول 17 مشروع استراتيجي في 17 دولة
إلى القارئة الأورو متوسطي حول مشروع المياه في تونس
إلى القارئة الأورو متوسطي حول مشروع المياه في تونس
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SEMIDE EMWIS Euro-Mediterranean Information System on the know-how in the Water sector

EU-MEDA-Water

MEDA Water: Euro-Mediterranean Regional Water Programme for Local Water Management

EU-MEDA-Water

Year	Title	Country	Programme	Link
2007/2008	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]
2008/2009	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]
2009/2010	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]
2010/2011	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]
2011/2012	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]
2012/2013	EU-MEDA-Water: Euro-Mediterranean Regional Water Programme for Local Water Management	Algeria, Armenia, Azerbaijan, Bulgaria, Cyprus, Egypt, Georgia, Greece, Jordan, Lebanon, Morocco, Palestine, Romania, Serbia, Slovakia, Spain, Syria, Tunisia, Turkey, Ukraine, Uzbekistan	EU-MEDA-Water	[Link]