



*International
Office
for Water*



FEASIBILITY STUDY ON THE DEVELOPMENT OF A REGIONAL WATER OBSERVATION MECHANISM IN THE MEDITERRANEAN REGION

**“Toward the establishment
of a Mediterranean water
information partnership”**

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Background elements

■ International

- Adoption by the international community of the **Millennium Development Goal (MDG7)** for access to sanitation and water supply (2000)
- **World Summit on Sustainable Development (WSSD - Johannesburg 2002)**: national efficiency and Integrated Water Resources Management plans
- **UN-CSD 13** decision to build a **global mechanism based on regional and national mechanisms** (April 2005)

■ Regional:

- Priorities of the Euro-Med Regional Programme for Local Water Management (Turin, 1999)
- Water and sanitation priorities of the UNEP-MAP Mediterranean Strategy of Sustainable Development (November 2005)
- Med component of the EU Water initiative
- EU Water Framework Directive linked to the EU Neighbourhood policy
- Euro-Med initiative Horizon 2020: Depolluting the Mediterranean Sea (November 2005)



Specific study background

- **EMWIS: Euro-Mediterranean Information System on know-how in the water sector**
 - Initiative of the Euro-Mediterranean Partnership adopted in 1997.
 - Steered by the Euro-Med Water Directors, it provides a strategic tool for exchanging general information on Institutions, training, research, documentation ...

- **Through a regional water observation mechanism based on a Mediterranean Water Information Partnership (MEDWIP)**
 - Euromed water directors conference, November 2005, Rome
 - Decision to study, with interested countries, the objectives and the feasibility of building up within EMWIS a **regional water observation mechanism** based on the information provided by the National Water Information Systems, whenever they exist

 - Euromed water directors conference, November 2006, Athens
 - Validation of phase I results and decision to launch the 2nd phase studying the feasibility of a **Mediterranean Water Information Partnership**



Organisation of the feasibility study

- **An open steering group**
 - National water authorities, EC, Eurostat, EEA, MAP-Medpol, MAP-Blue Plan, MAP-Info-RAC, IME, MENBO, OECD, Unesco/WWAP, AfDB-AWF, PSEau-Med, ...

- **Phase 1 – Proposal of a first vision**
 - July-December 2006
 - Diagnostic study with 4 volunteer countries: Jordan, Tunisia, France and Spain
 - Diagnostic study at the regional level
 - Synthesis, key orientations and recommendations for the 2nd phase - > validated by the Euromed water directors (Athens, Nov'06)

- **Phase 2 Broader validation of the vision & recommendations**
 - February-November 2007
 - National diagnostic studies in Cyprus, Libya, Malta and Morocco
 - Further concertation with regional initiatives
 - Detailed recommendations to set up the Partnership



Feasibility study- Phase 1

■ Objectives

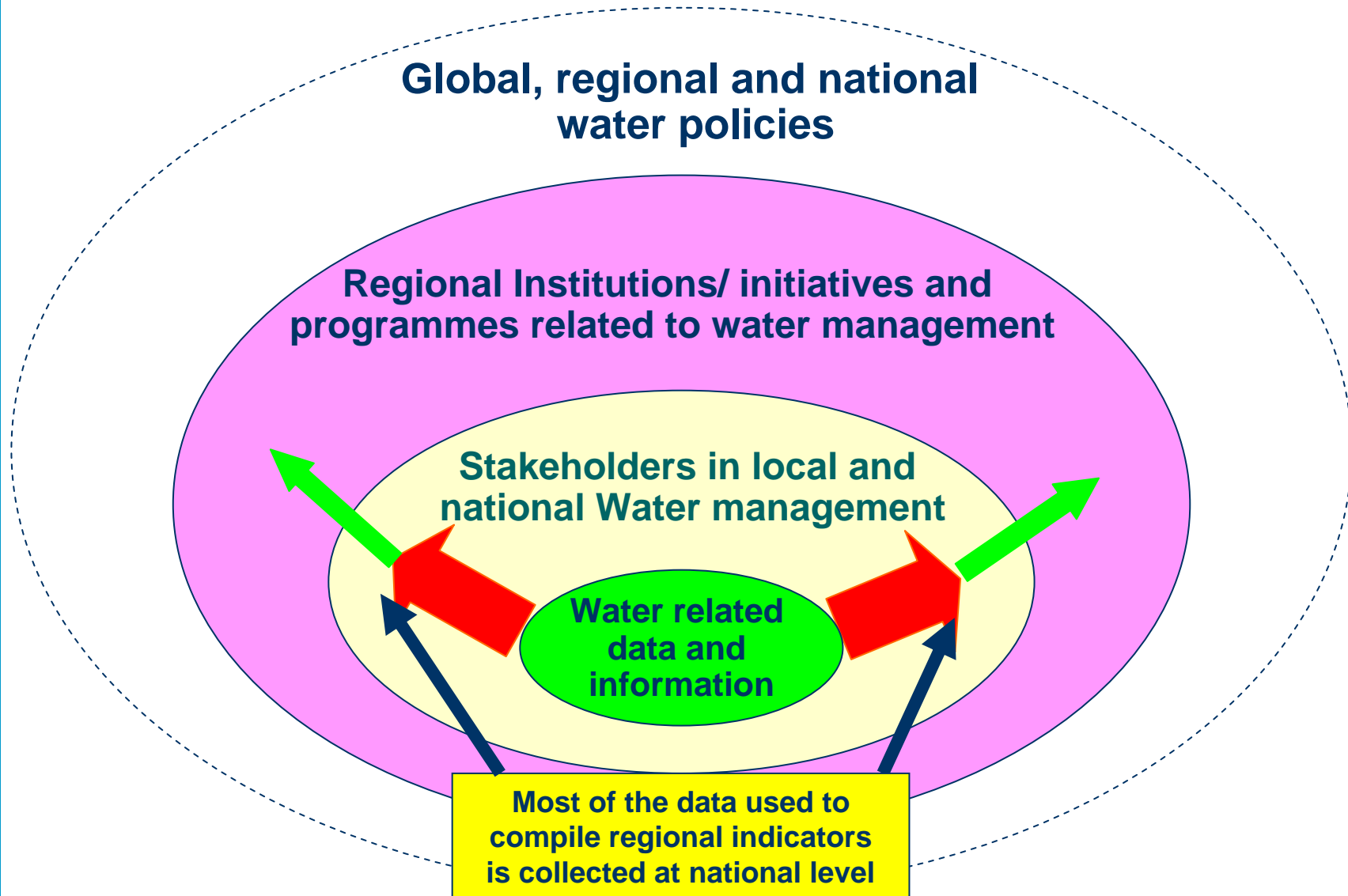
- “Formulating a first vision and main orientations which would be given to this observation mechanism”

■ Analysis of the situation and needs based on:

- A study of the collection and dissemination processes at international level:
 - EC/ DG Env, EEA, Eurostat/medstat, EUWI-med, FAO, GWP, IME, Info-RAC , JMP, MEDPOL, OSS, Blue Plan, UNEP/MAP, UNESCO/WWAP World bank, World Water Council, ...
- The assessment of the situation in 4 pilot countries:
 - France, Jordan, Spain, Tunisia.

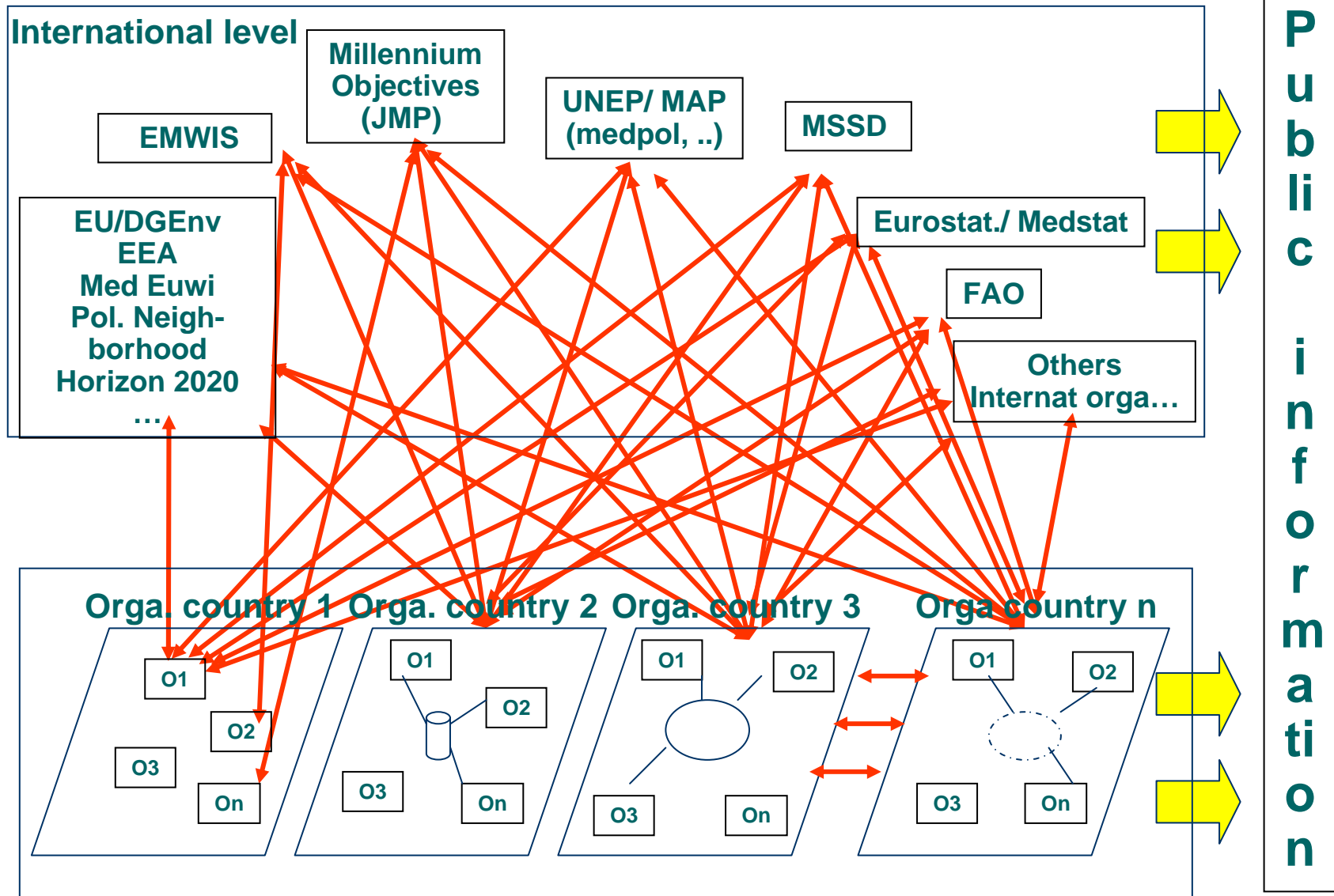


Global context overview





Global context overview: national/regional interface





Summary of the national context

- **Specific water management policy in each country**, with specific organisation of the monitoring and data management ;
- **Multiple information systems** (thematic, sub regional, local ..);
- **Data usually heterogeneous, dispersed and not very accessible** at the national level:
 - Little fluidity of exchanges between national institutions
 - Small data enhancement
- Few countries have a national water data management organisation, but **most of them wish to develop or are in phase of developing their own National Water Information System (NWIS)**



Specificities of the regional context

- **Various water policy framework** using data and information
- **Many regional stakeholders** intervening in action plans of the various regional political frameworks:
 - MDG : UNICEF/OMS/JMP, EUWI/ MED-EUWI, ...
 - MSSD : MAP unit, Blue Plan, ...
 - MAP : UNEP, MAP unit, Medpol, 6 RAC, ...
 - EU Water policy: EU DG Env, Eurostat, EEA, JRC,, ...
 - EU Pol with Med.: ENPI, Horizon 2020, EEA, RMSU, ...
 - EuroMed Partnership : EMWIS, Medstat, ...
 - African Vision : AMCOW, ADB/FAE, ...
 - Others: FAO, WWC, GWP med, MEMBO, WWAP, UNSD, GEF, BM, OECD, IME, CEDARE, OSS, ESCWA, EXACT group, IUCN, WWF....
- **Various information systems:** WISE, Eurowaternet, EIONET, INFO/MAP, EMWIS, JMP database, Monitoring water alliance website, AQUASTAT, IBNET,
- **Various groups** (think tanks) for improving the processes: UN-WATER, DGenv/EEA/JRC on Wise, EEA/UNEP on MAP, ...



Expectations at national level

- **Need for support to the development of the NWISs**
 - Organisation of inter-institutional co-operation
 - Organisation of monitoring
 - Development of a common language
 - Organisation of the access to data
 - Data enhancement

- **Specific expectations related to:**
 - **The support to the production of missing information at national and regional level**
 - **The promotion of common methods for analyses at the regional level** (in particular for assessing the resources and uses, socioeconomic impact , drought indicators, water accounting...)
 - **The strengthening of international co-operation between Mediterranean countries**



Problems at regional level

- **Difficulties in identifying and acceding to the data**
- **Difficulties in collecting** data even with established processes
- **Major problems of heterogeneity, completeness and quality of the received data**
 - Problems linked to the **lack of clear production processes and common technical language**
 - Problems linked to the **lack of metadata**
 - **Discontinuity in monitoring** over time or geographically
 - **Incomplete or not adapted data provided**
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Expectations at regional level

- **Lack of data adapted to the needs** especially on major topics, such as:
 - **Water resource** (Description of aquifers, Groundwater quality, Availability of the resources)
 - **Uses** (Water demand for the various uses, especially agricultural, self supply....)
 - **Socioeconomic aspects** (on on-going investments, on the investments necessary to achieve the MDGs, Impact of water shortages and drought, socio economy of the uses...)
 - **Drinking water supply and sanitation services** (WSS in rural areas, benchmarking, ...)
- **Need for key data allowing regroupings or studies at basin level, function of the kind, by eco-region ...**
- **Problems for sustainable financing of monitoring**
- **Need for a better structuring of IS (national and international) not adapted to the exchanges**



First conclusions

- **The need for a “regional water observation mechanism” (or equivalent) is expressed by the majority of the stakeholders, within the various water policy framework**
- **Different visions but unanimity for saying: “careful, not to duplicate what already exists (institutions and information systems)”**
- **Priority objectives of the mechanism:**
 - **Capacity building of the Mediterranean countries** in order to better meet the needs at the regional level, while each country keeps its own autonomy for organising its national water information system (NWIS)
 - **Developing a framework for dialogue between regional and national organisations** in order to better meet the expectations on reliable, comparable and quality information necessary for effective water resources management in the Mediterranean



Main recommendation from phase 1: Through a « Mediterranean water information partnership »

- Organising a « Mediterranean water data and information partnership » - MEDWIP (or equivalent)
- Objective :
 - Streamlining collection process of reliable information following needs
 - Promoting data identification (metadata), availability and enhancement
 - Supporting the countries in the development of their IS
 - Facilitating exchange of comparable and quality data and information, between national and regional organisations, especially through the promotion of common processes and language
 - Promoting the exchange of experiences between Mediterranean countries
 - Strengthening synergies and collaboration between organisations and regional think tanks regarding data management and enhancement
- Under the Political framework of Water Directors committee
- Topics covered: Priority topic of MDG and MSSD but also any topic on water and sanitation and on uses and associated socioeconomic aspects, following needs



2nd phase objectives

■ Objectives

The Water Directors recommend that this 2nd phase allow further analysis and first tests of the proposed regional water information partnership with linkages with related regional initiatives.

■ Organisation

1. Consolidating the country level studies with 4 new voluntary countries (Cyprus, Libya, Malta and Morocco)
2. How to organise and structure the MEDWIP as a framework for concertation?
3. Definition of MEDWIP outputs
4. Draft implementation scenario
5. Steering and coordination



Component 2: How to organise MEDWIP?

- Draft Partnership **charter** elaboration
- Definition of synergy with the main initiatives managing water related data (UN-Water, UNEP-MAP, EEA, MedStat/eurostat, WWC, ..)
- Assessment of potential MedWIP activities on key topics and proposals for working group organisations
 - General indicators on water supply and sanitation (MDG7)
 - Indicators related to water of the MSSD
 - Data on uses of water for agriculture
 - Data on water and sanitation services (as example of topic with dispersed information)
 - Data and indicators on drought
 - Climate change
- Prototype tools (Web portal, catalogue of data sources, Web mapping ...)



Main multilingual collaborative tools

- A Web portal
 - For exchange of information between partners of the study
 - For dissemination of first results
 - As a prototype for future MEDWIP portal

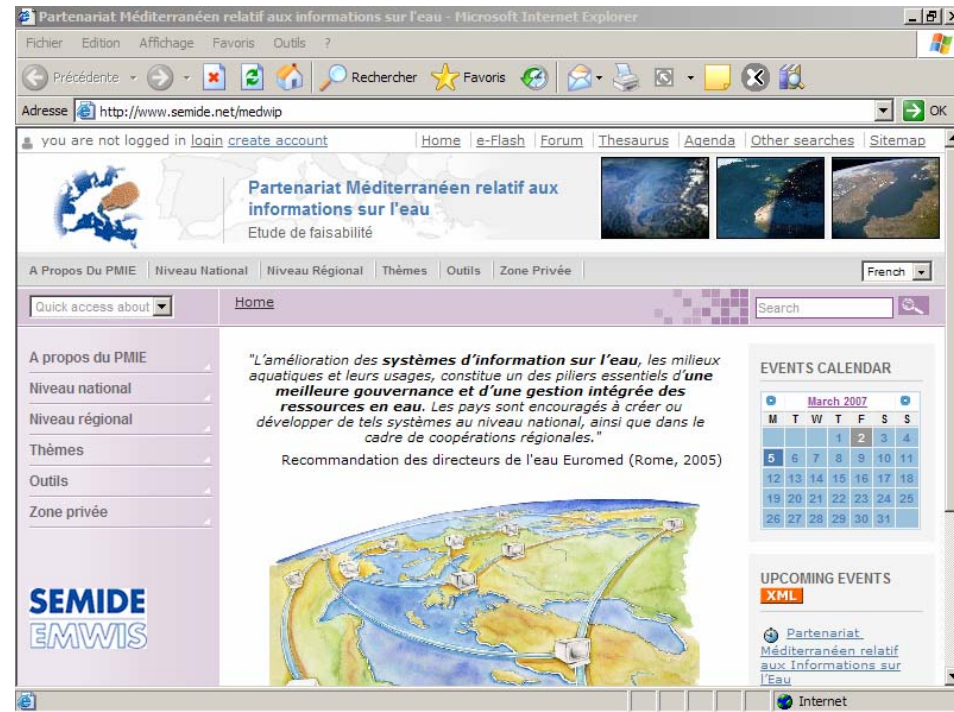
- A catalogue of data and information sources
 - A fundamental tool facilitating and structuring the analysis of the existing situation
 - A concrete output of the MEDWIP feasibility study
 - A catalogue that can be further developed at national level
 - Looking for a synchronisation with other existing catalogues
 - A future potential “**Google**” of water related data sources in the Mediterranean region

- An interactive map prototype
 - As a demo prototype of one of the future outputs of MEDWIP



Medwip Web portal

- Collaboration tool for information exchange and presentation of the study results, with chapters on:
 - National activities
 - Regional initiatives
 - Topical activities
 - Access to the catalogue of data source and to an interactive Web mapping tool
 - Agenda
 - Last news

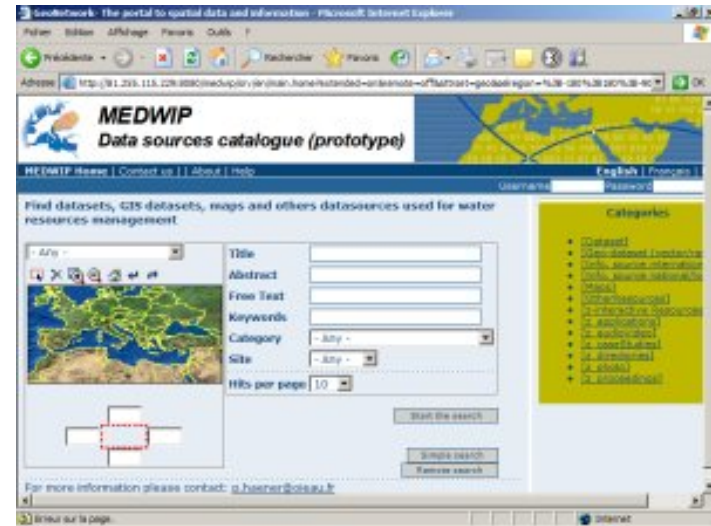


<http://www.semide.net/medwip>



Catalogue of data sources

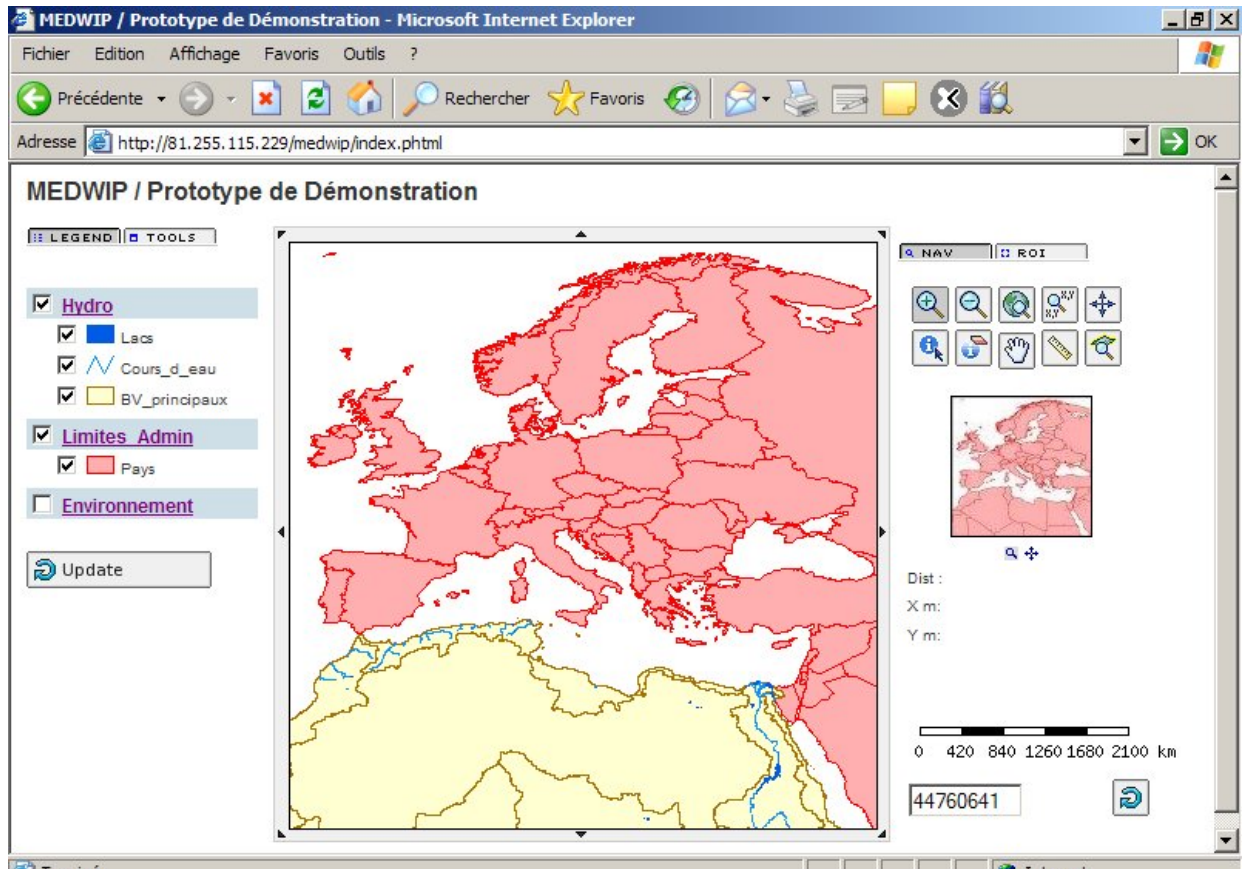
- Identification of available datasets and data sources with geographic and/or keyword research system
- Downloading or access to interactive maps possibilities following access right defined by the data producers
- Visualisation / capture of the data production procedures for data quality and data comparability control (metadata)





Web mapping (prototype)

- Prototype for demonstration under development
- Allows:
 - Selection of layers
 - Zoom (up to aerial photo as test)
 - Request for attributes information
 - Calculation of distance
 -





MEDWIP outputs related to spatial information

- MEDWIP is expected to provide:
 - Support to the national level
 - Support to regional/international programmes
 - Services of common interest at regional level

- In relation with geographic information it could:
 - **Facilitate identification and access to common spatial basic information** (satellite images, GIS layers...) following needs;
 - **Facilitate the exchange of comparable data** related to water by promoting a **semantic and technical interoperability** between their information systems (common metadata profiles, Web services)
 - **Promote the exchange of experience** between Mediterranean countries, and with regional organisations, **in terms of data acquisition and information production** (ex: common indicators enhancing spatial information ...)
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Importance of spatial information

- **Spatial tools and information is potentially of prime interest** for water monitoring and management at Mediterranean level on many topics like:
 - Agriculture and water uses
 - Water, soil occupation and territory management
 - Marine pollution impact studies
 - Drought and impacts climate changes
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- **MEDWIP** (Mediterranean Water information partnership) offers a good potential opportunity to **reinforce institutional cooperation and a coherent use of spatial information for a more efficient water resources/uses monitoring and management at Mediterranean level.**



Thank you for your attention

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