

## Information and Training Seminar for EMWIS IT Managers

**Sophia Antipolis – 14 - 18 March 2005**

### CONCLUSIONS

(2005-03-30)

The 11<sup>th</sup> seminar of EMWIS National Focal Points (NFP) was intended for their IT managers. It took place in Sophia Antipolis from 14 March till 18 March 2005. This was the 4<sup>th</sup> meeting of the IT managers since the operational launch of the Initiative at the end of 1999 (the last meeting of the IT managers took place in Rome, [June 2002](#)).

This seminar aimed at presenting various standards, techniques and technologies to permit NFPs analysing the opportunity to implement them. More specifically, the following topics were covered:

- Content sharing and syndication on the web
- Web services and distributed architectures
- Open source software : concepts, definitions, benefits
- Enterprise Applications Integration
- XML databases
- Common metadata management: progress on event and news management between volunteer NFPs (DZ, FR, SP) and the Technical Unit
- Presenting the new web application for consulting and updating of the EMWIS thematic directory;
- Overview of the potential of the Open Archive Initiatives protocol for exchanging metadata among a close group of users
- Discuss technical progress and possible implementation difficulties in each country:
  - o Implementation of the thematic directory by the NFP
  - o Progress of national web server implementation: technology used, difficulties faced, etc.
  - o Training and technical support needs
  - o Evolutions planned

12 countries of the Euro-Mediterranean partnership were represented: Algeria, Cyprus, Egypt, Israel, Italy, Jordan, Lebanon, Morocco, Palestine, Spain, Tunisia and Turkey.

The seminar was opened by a review of the EMWIS progress so-far: status of NFP websites, progress on phase II activities and direct support to NFP (equipment, local services, and content translation).

This was followed by a brief review of the new features of the online consultation and updating application of the EMWIS thematic directory:

- ☞ Ability to customize the interface in any language (including the Arabic),



- ☞ Possibility offered to the NFP (when logged) to prepare electronic mailing to the contact registered for regular updates of content,
- ☞ Automatic information of the NFP when a new entity is proposed for their country by the EMWIS Technical Unit, the NFP will then be able to validate the proposed record or to discard it. Only the validated records will appear for online consultation.

It has been commented that the help information related to ‘visualization problems’ for the thematic directory should be updated to resolve the problems of the latest versions of web browsers while maintaining a sufficient level of security (e.g. accepting cookies from EMWIS site, pop-up enabling).

The first training session was related to content syndication with a reminder on XML standards suite, an overview of ICE (Information and Content Exchange) and a detailed analysis of RSS (Rich Site Summary or Really Simple Syndication). Potential use within EMWIS could be for presenting NFP site summary (on the home page, such as <http://www.rnde.tm.fr/home-en.htm>), channels announcing NFP website updates or news or for publishing content from an over site (e.g. headlines from a Ministry website).

The following session allowed the participants to become more familiar with the web service principles (architecture, standards and benefits). Beyond potential applications within EMWIS framework (integration of existing national applications and international exchange of information), the NFP expressed a lot of interest for applications such as: e-government applications (data transfers, delivery of water data to the customers, provision of data to international bodies), on the field data collection with mobile terminals (e.g. mobile phones), sharing of data between several countries (e.g. observatory). All the participants recognized that the two most important pre-requisites for implementing web services within a community are: i) to jointly define common data models and ii) to put in place organisational procedure to produce quality data and information.

The participants were also informed about the free and open source software: licensing, existing products, benefits (mainly: lower capital investment, lower cost of ownership, better reliability), drawbacks and maintenance.

On Wednesday morning, the objectives of using meta-data within EMWIS were reminded: to describe the information resources available in each country and to facilitate internet search on these resources. The eight types of resources identified at the data manager seminar (Madrid, Nov’04) were briefly presented:

- ☞ News: press article, nomination (e.g. water director, Minister in charge of water), call for tender/proposal, publication, etc.
- ☞ Events: conference, seminar, etc.
- ☞ Texts of laws related to water
- ☞ Multimedia documents: video, photos, slide-show, electronic animations, etc.
- ☞ Websites,
- ☞ Projects: research, studies, realizations, etc. with International funding
- ☞ Full text documents, bibliographical references:
- ☞ Data sets: monthly rainfall (Tunisia), dams’ storage (Morocco and Cyprus), water consumption (Cyprus).



The progress made on sharing metadata related to news and events between the Technical Unit and the Algerian, French and Spanish NFP was presented and discussed in details.

The different solutions to store and search XML documents were presented (XML files, native XML databases, XML enabled databases and XML mapping with relational or object oriented databases) and compared with concrete examples based on the French National Water Data Network.

The benefits of these enabling technologies (XML, web services, and databases) were highlighted by the Enterprise Applications Integration (EAI) presentation based on the Ensemble product from InterSystems. The EAI were demonstrated through prototype services based on EMWIS applications: i) building a web service to access the EMWIS Thematic Directory, ii) events' metadata harvesting, workflow validation and web service provision.

A concrete application of XML to the Telemonitoring and Advanced teleControl of high yield wastewater treatment plants was presented (TELEMAC project coordinated by the INRIA, co-funded by the European Commission under the IST RTD programme).

The final presentation was dedicated to a presentation of the Open Archive Initiative (OAI) Protocol to exchange metadata. This protocol originally developed for libraries can also be used for harvesting other types of metadata (e.g; linguistic information in the example presented) and could be used by EMWIS. The main benefits in implementing this protocol are: reduced development cycle due to the used of an existing robust communication protocol, potential use of existing tools, and potential exposure of EMWIS metadata at the international level.

Finally, during the round-table, all the NFP have had the opportunity to express their views and needs for support from the EMWIS Technical Unit: training on open-source software such as PHP, My-SQL, APACHE, willingness to provide metadata, better exploitation of existing national databases. The NFP were also informed about the EC procurement rules and the necessity to finalize their national work-program ([template](#) available online) before the end of April 2005 to benefit from the budget allocated to local services and translation costs for each of them (i.e. a total of 38 000 EUR per NFP). It has been agreed to organize audio-conferences between the Technical Unit and each NFP by mid-April to discuss their work-program.

The seminar ended by the distribution of:

- ☞ donation certificates for the equipment to be delivered to most of the NFP (required for custom declaration)
- ☞ and a CD-Rom containing all the material used during the seminar: slides, background material and examples. The latest versions of the presentations are available online on the [seminar webpage](#).

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