OPEN-SOURCE WEB GIS COOPERATIVE INFORMATION SYSTEMS FOR TRANSBOUNDARY GROUNDWATER MANAGEMENT

by

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Διεθνές Έτος Συνεργασίας για το Νερό
HOW COOPERATION CAN BE EFFECTIVE ????

THE CASE OF TRANSBOUNDARY GROUNDWATERS: DATA-MODELING-MANAGEMENT
ENHANCING COOPERATION
HOW TO DEAL WITH THE COMPLEX REAL WORLD OF "COOPERATION"

Or how to resolve the Greek Debt
WHY OPEN-SOURCE SOFTWARE??

1. Open Software can be downloaded and used entirely free of any license fees.
2. Open development process means that anyone can enhance the software, report bugs, request new features.
3. Open Software is easy to learn, available and supported in your own language.
INWEB’s experience on map serving technologies

- **2002**: Extensible Markup Language (XML) for managing and publishing geographic data on the Internet.

- **2004**: Mapserver CGI program for interactive mapping applications on the Web. Creation of dynamic maps.
The proposed technology aims at combining databases, GIS and collaborative tools.

Based on the open source concept:

- **WEB mapping technologies** (Google maps)
- **Collaborative WEB services** (Google fusion tables)
- **WEB programming languages** (HTML 5, JavaScript)

Creation of interactive mapping applications on the Web.
INWEB’s Spatial Databases in SE Europe

Shared Surface Waters

Shared Aquifers

Shared Surface Waters in SE Europe

Shared Aquifers in South East Europe

Take a virtual tour in Google Earth

Select aquifers from the dropdown list or click on the map.

List of aquifers

Struma/Struyon

Neogene-Sarmatian

Descriptive Information

Bosna i Hercegovina

Lake Ohrid

Bulgaria

Montenegro

Romania

Bosnia and Herzegovina

Serbia

List of aquifers in Google Earth

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Map of shared aquifers in SE Europe.
LAND-BASED ACTIVITIES AND THREATS TO WATER AND ECOSYSTEMS
COASTAL AQUIFER OVEREXPLOITED
Application in coastal aquifers in the Mediterranean

Dynamic map and interactive database

Geo-referenced information system for coastal aquifers in the Mediterranean

Preliminary platform developed by the IWES/UNESCO Chair

1. Data catalog
2. View window
3. Information window
4. Search tool
Application in coastal aquifers in the Mediterranean

Information windows:
- Displays summary results and descriptive information for each aquifer
- Dynamic update of the values by the author!
Application in coastal aquifers in the Mediterranean

Dynamic update:
• Editing possibilities to the authors in order to enhance or renew the data which are presented in the “Information Window”

• Each partner will have access to a specific data set and any potential changes are automatically being transferred to the platform
COOPERATION FOR WATER: A VERY OLD STORY

COLLABORATIVE SCIENCE/KNOWLEDGE FOR GOOD GOVERNANCE
Danke schön!

Ευχαριστώ!