Knowledge Inventory for hydrogeology research

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 642047.

KINDRA

Knowledge Inventory for hydrogeology research

ict4water.eu

EIP Water Online Market Place

Matchmaking for water Innovation

Making Groundwater Visible: the KINDRA project and its role in raising awareness of groundwater importance

Workshop UNESCO-IHP & FREEWAT

September 30th 2016, Paris

Horizon 2020
Grant Agreement
m° 642047.

Marco Petitta, Balazs Bodo, Mariachiara Caschetto, Nicolò Colombani, Victor Correia, Adrienn Cseko, Maria Di Cairano, Isabel Fernandez, Eva Hartai, Klaus Hinsby, Clint Garcia Alibrand, Tamas Madarasz, Mikita Viktória, Mercedes Garcia Padilla, Peter Szucs, Peter van der Keur

KINDRA

THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION
HORIZON 2020

Project partners

SAPIENZA
UNIVERSITÀ DI ROMA

FEDERATION EUROPEENNE DES GEOLOGUES
EUROPEAN FEDERATION OF GEOLOGISTS
FEDERACIÓN EUROPEA DE GEÓLOGOS

MISKOLCI EGYETEM
UNIVERSITY OF MISKOLC

GEUS

JUNTA DE ANDALUCIA
REGIONAL MINISTRY OF AGRICULTURE, FISHERIES AND ENVIRONMENT

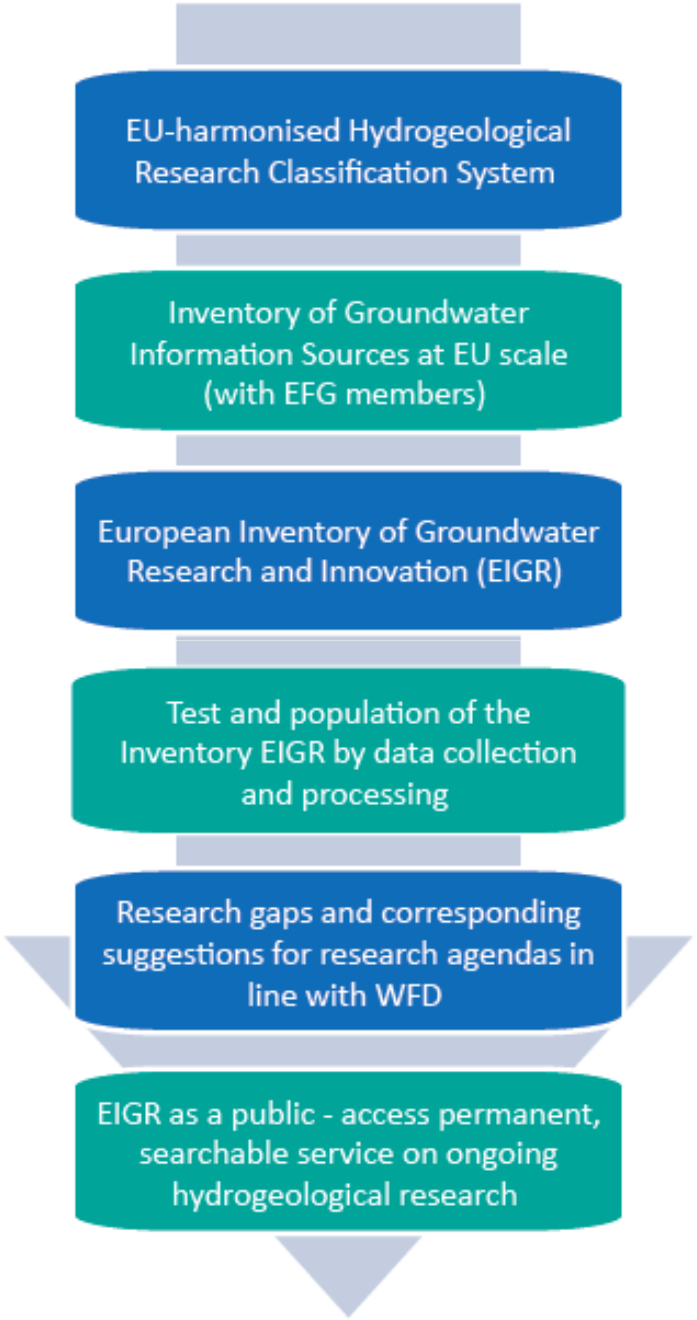
LPRC LA PALMA RESEARCH CENTRE

including:
- A Joint Panel of Experts (10 members)
- 20 third parties (associations acting as national members of EFG network)

Aims of the project (2015-2017)

To create an inventory of GW knowledge and use the inventory to identify critical research challenges in line with the implementation of the WFD and new innovation areas within integrated water resources management based on the latest research.

Classification	• Joint Panel of Experts
Inventory	• 20 third parties (national representatives of EFG network)
Dissemination	• EFG dissemination capacity • Collaboration with JPE, CIS WG-C, IAH, WssTP, ICT4water cluster, etc.



Project organisation

WP4 - Dissemination and communication (LPRC)

Dissemination and management

Dissemination and support services

Leveraging dissemination and dialogue

WP1 - Methodology framework development (SAPIENZA)

harmonised framework for reporting hydrogeology-related research and innovation (programmes, projects, results, agendas, etc) in Europe:

-Hydrogeological Research Classification System – HRC – SYS

-European Inventory of Groundwater Research- EIGR

2015 →

WP2 - Data collection and processing (EFG)

EU- wide assessment of existing practical and scientific knowledge on hydrogeology-related research and innovation in Europe:

- National workshops on Hydrogeology
- Data collection and processing
- country reports

2016 →

WP3 - Research gaps and recommendations (GEUS)

Identify research gaps in hydrogeology research that have relevance for the implementation of the Water Framework and Groundwater Directives (WFD and GWD)

-Hydrogeology research evaluated

-Research gaps identified

-Recommendations formulated

WP5 - Project management (SAPIENZA)

Quality Assurance and Risk Management

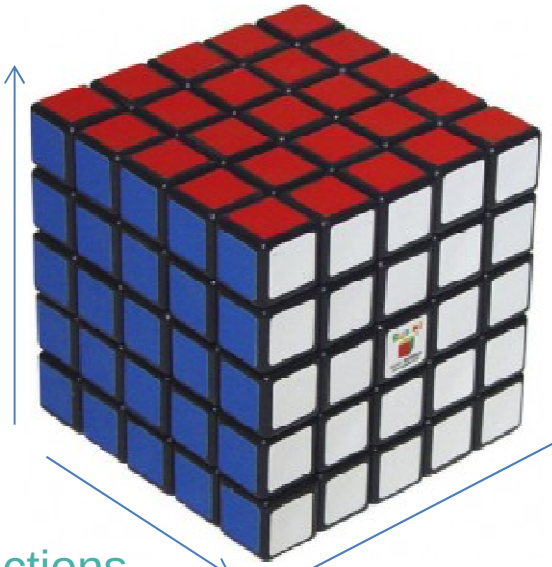
Project Coordination

Project management

Exploitation of results and IPR

How to classify groundwater research (in Europe)?

Horizon 2020 Societal challenges



Research topics (disciplines)

Activities/ operational actions (e.g. status assessment for WFD)

More than 200 main keywords were selected from:

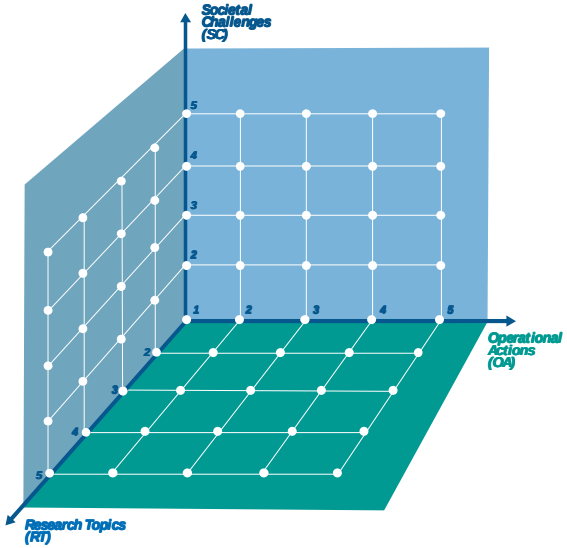
1. 20 key groundwater science journals

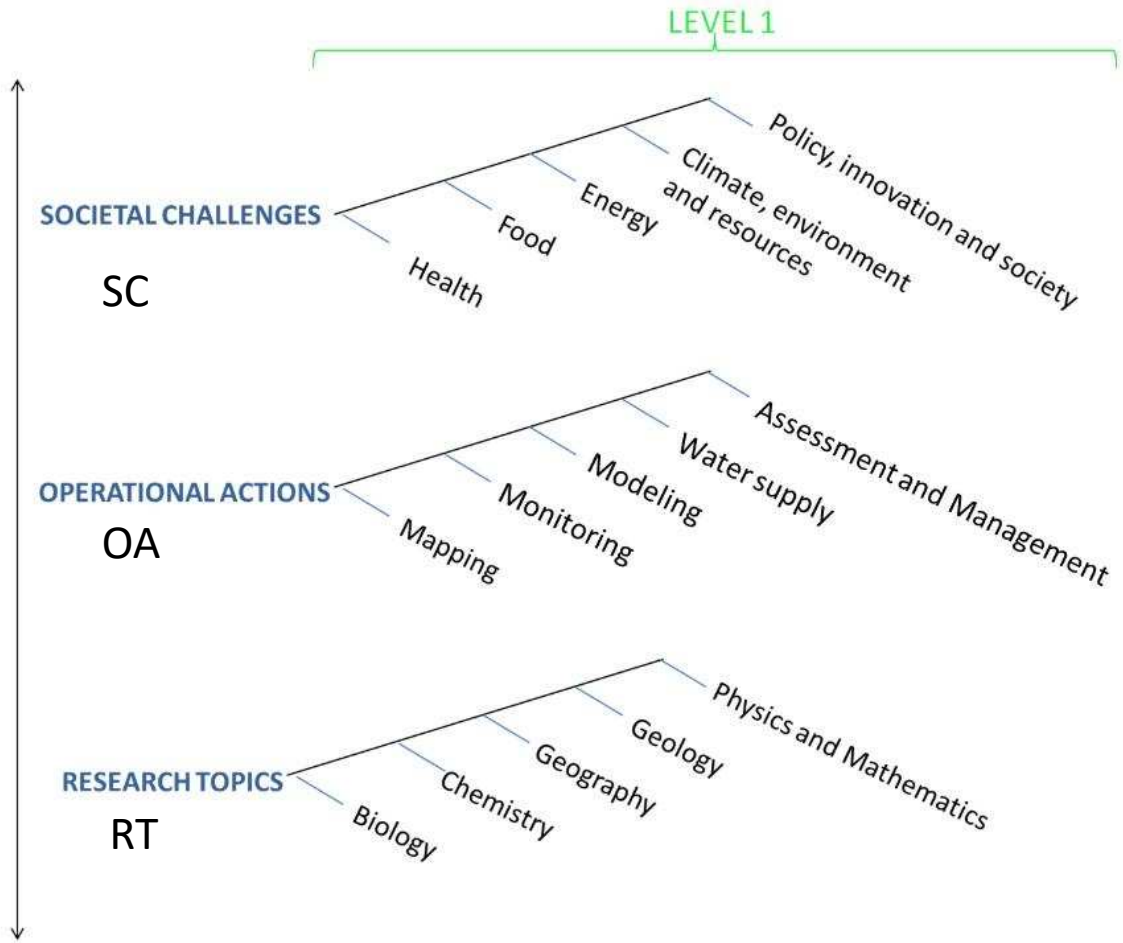
2. Search tools from Scopus / Web of Science / Google Scholar

3. EU policy documents (Water Framework and Groundwater directives, Blueprint to Safeguard Europe's Water Resources)

Definition of main categories for groundwater research classification

The keywords have been organized in a ***tree hierarchy***, identifying ***three main categories***: Societal Challenges (SC), Operational Actions (OA) and Research Topics (RT). In each of these three categories, ***5 overarching groups*** have been defined for easy overview of main research areas, representing level 1.





3D conceptual illustration of the Groundwater Research main categories classification and scientific output

Societal Challenges

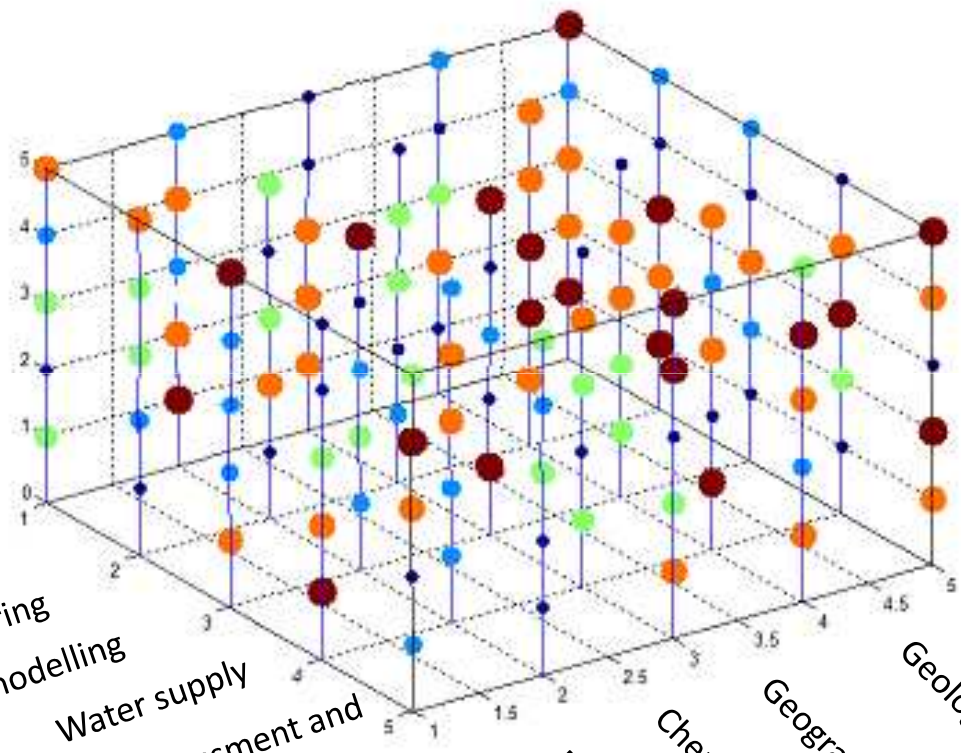
Policy & innovation

Climate & environ.

Energy

food

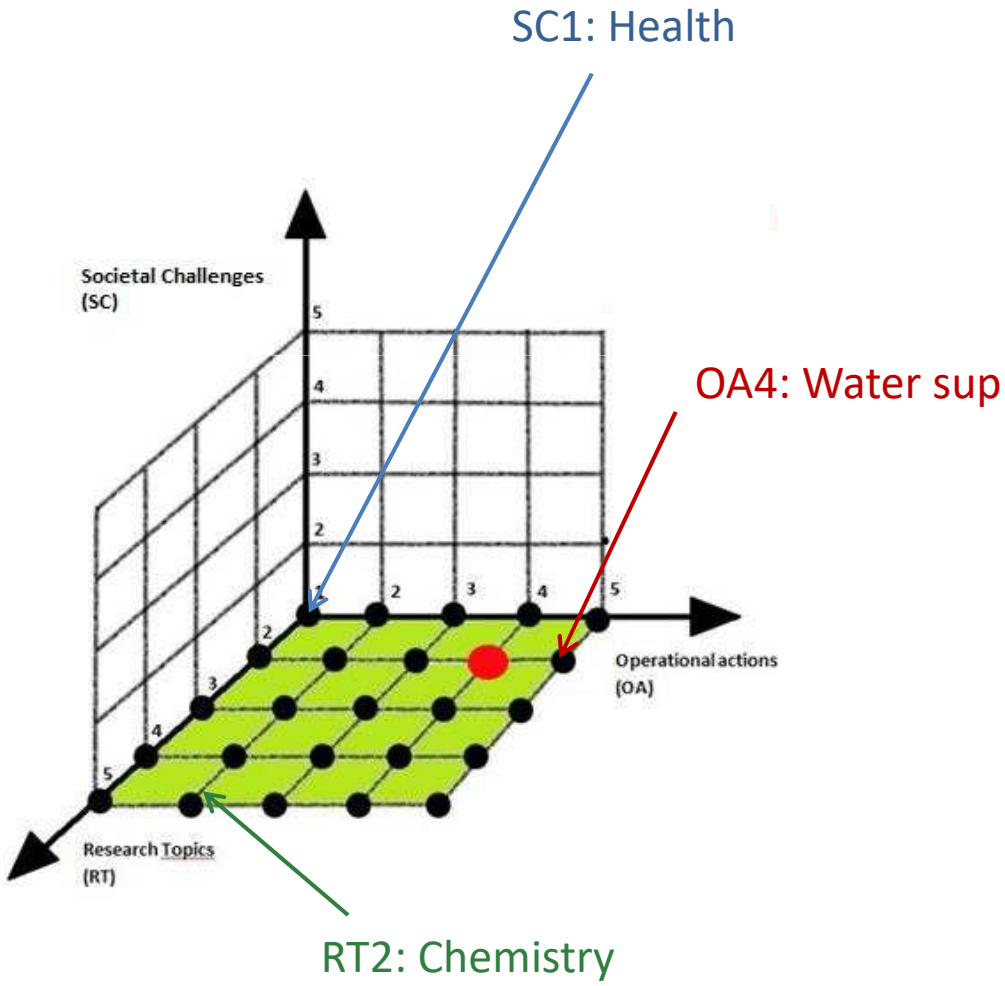
health

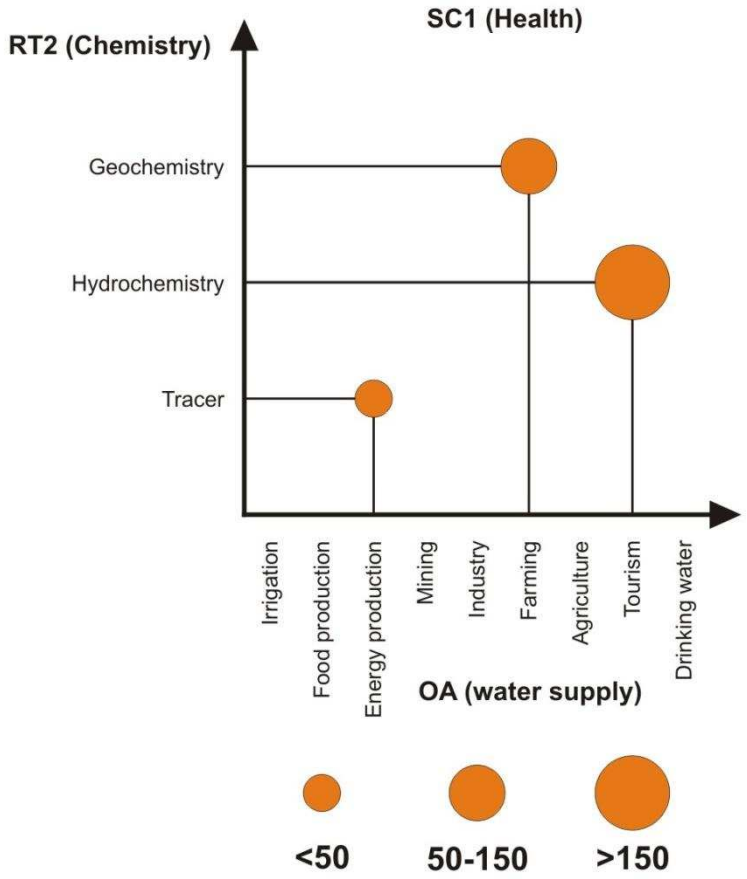


Operational Actions

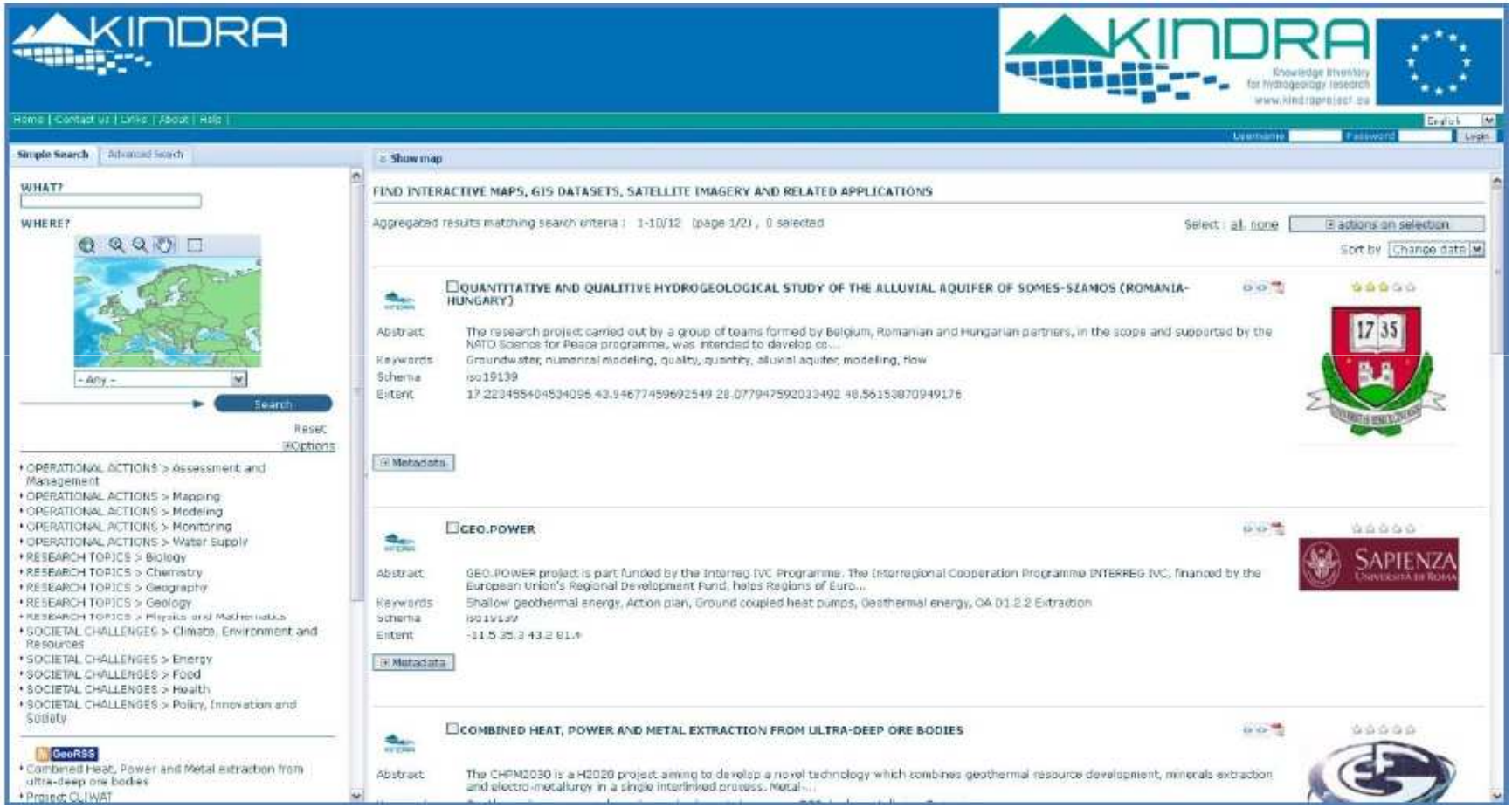
Research Topics

How to move from 3D to 2D classification: Example: 2D PLOT FOR SC1: HEALTH





EIGR User Interface: based on Geonetworks. EIGR user manual available



http://kindra.kindraproject.eu/geonetwork/srv/eng/main.home

Resources to be included in the EIGR (only metadata): Cooperation from 20 National Experts who populate the EIGR

- **Research and applied research projects (e.g. EU and Interreg projects)**
- **Technical reports and guidances**
- **Surveys including relevant data and maps**
- **Books and book chapters**
- **Consulting reports for ministries and other authorities**
- **Monographs etc., etc.,**

Added values of KINDRA EIGR:

The KINDRA inventory are **exclusively dedicated to groundwater**, differently from other databases

A **dedicated classification system** has been created to classify your research, papers, projects, reports, databases, etc.

It provides harmonised international access to information on national and European research and knowledge **before research is finally published**

Combining research and knowledge enables and ensures **access and relevance for academics, practitioners and policy makers**

It is developed **BY and FOR hydrogeologists and other "groundwater people", to promote networking** and enlarge our community

Database analyses will be used for **EU policy support** and to **increase the visibility and awareness of the importance of groundwater research in the societal challenges**

Dissemination synergies and strategies

✓ Raising awareness on the importance of groundwater is our priority. KINDRA will work together/or in close collaboration with the technical and scientific community, stakeholder groups and with the general public.

✓Our network is available for interacting with other groups, for dissemination and common initiatives (joint workshops, shared non-technical documents, etc.)

✓ KINDRA is participating to the ICT4water cluster and to the EIP water marketplace

✓ We are interested to have contacts with stakeholders, EIP water action groups, SPI researches, JRC water, water JPI, scientific associations (IAH, EGU), water networks (as WssTP and others), SMEs, etc.

✓ All technical content and results will be finally adapted into outreach materials that will help the general public to understand the relevance of groundwater in daily life.

✓ Knowing the results of past and on-going project on groundwater is necessary for us to build a successfull project

✓ We are looking for information to help us to build and populate our inventory: archives, monitoring databases, guidance and best practice documents, etc.

✓ We activated accounts on main social media networks

✓ The EFG and IAH communities are reached by their newsletters

Expected impacts:

- Create a more integrated community of researchers and users extending across disciplines, countries, organisations and sectors
- Take stock of existing practical and scientific knowledge and identify research gaps with a view to avoiding overlaps
- Improve the understanding of the relations between groundwater quantitative and chemical status and the ecological status according to the WFD & GWD.
- Assess the performance of key ongoing EU, national, regional, international and EU-third party hydrogeological scientific results
- Increase public-awareness by public-outreach
  Activity necessary because groundwater is “invisible”
- Review activities on EU and national levels and by collecting, classifying and evaluating available information and data collection

The KINDRA project EIGR can be accessed by registered users at:

http://kindra.kindraproject.eu/geonetwork/srv/eng/main.home

Thank You ☺

www.kindraproject.eu

Email: coordinator@kindraproject.eu

The KINDRA project EIGR can be accessed by registered users at:

http://kindra.kindraproject.eu/geonetwork/srv/eng/main.home

Thank You ☺

www.kindraproject.eu

Email: coordinator@kindraproject.eu

SAPIENZA UNIVERSITÀ DI ROMA

GEUS

FÉDÉRATION EUROPÉENNE DES GÉOLOGUES
EUROPEAN FEDERATION OF GEOLOGISTS
FEDERACIÓN EUROPEA DE GEÓLOGOS

LPRC LA PALMA RESEARCH CENTRE

JUNTA DE ANDALUCIA
REGIONAL MINISTRY OF AGRICULTURE, FISHERIES AND ENVIRONMENT

17 35

MISKOLCI EGYETEM
UNIVERSITY OF MISKOLC