

## Aims

Groundwater knowledge and research in the European Union is often scattered and non-standardised.

KINDRA is conducting an EU-wide assessment of existing groundwater-related practical and scientific knowledge based on a new **Hydrogeological Research Classification System** (HRC-SYS). This classification is supported by a web-service - the **European Inventory of Groundwater Research** (EIGR) - which acts not only as a knowledge repository but also as a tool to help identify **relevant research topics, existing research trends and critical research challenges**. These results will be useful for producing synergies, implementing policies and optimising water management in Europe.

## Added Values

**KINDRA gives you many reasons for being actively involved in the water community!**

- KINDRA and its on-line inventory (EIGR) are the only tools exclusively dedicated to groundwater research & knowledge
- KINDRA combines research and knowledge, merging academic and practitioner communities
- A dedicated classification system will allow you to classify your products, papers, projects, reports, databases, etc. for facilitating future searches and analyses
- The EIGR promotes networking and enlarge the community of geologists and "groundwater-people"
- The EIGR will represent an international access point to national knowledge sources
- Information about on-going activities would also made available before the end of a project
- The database analysis will be used at a later stage for EU policy support and implementation of water directives

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The KINDRA Partnership:

Project Coordinator: Sapienza University of Rome, Earth Sciences Department, ITALY

EFG - European Federation of Geologists, BELGIUM

EFG 20 National Associations

REDIAM - Enviroment and Water Agency of Andalusia, SPAIN

LPRC - La Palma Reseach Centre for Future Studies S.L., SPAIN

UM - University of Miskolc, Faculty of Earth Science and Engineering, HUNGARY

GEUS - Geological Survey of Denmark and Greenland, DENMARK

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MAKING GROUNDWATER  
VISIBLE

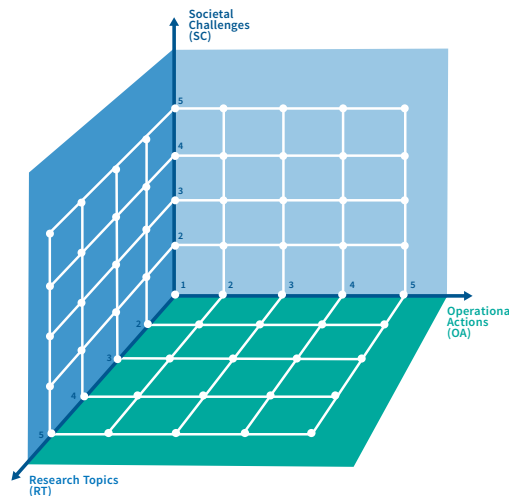


## How to classify groundwater research & knowledge

A new dedicated classification system has been created by KINDRA (HRC-SYS). To develop a common terminology for classifying results of hydrogeological activities, keywords characterizing research on groundwater have been selected:

- from the most important **EU directives and documents**, i.e. the Water Framework Directive, GWD and The Blueprint to Safeguard Europe's Water Resources,
- from **groundwater-related scientific literature**, by performing related searches via the most common search engines.

The complete list of keywords consisting of about 240 terms has been organised in a **tree hierarchy**, identifying **three main categories**: Societal Challenges (SC, starting from those included in Horizon2020), Operational Actions (OA, representing the activities related to groundwater) and Research Topics (RT, corresponding to the main groundwater related science sources). In each of these three categories, **5 overarching keywords** have been defined for easy overview of the main research areas. The classification system shows the interaction and the relationships between the three main categories through a **3D approach**.



## Fill the inventory!

Information sources related to Hydrogeological Research Knowledge, including papers, reports, maps, databases, etc., scattered around Europe and elsewhere at international and national levels, will represent the content of a new dedicated inventory (**EIGR: European Inventory of Groundwater Research**), where metadata identifying various information sources can be collected, added and stored, to be available as open access. In addition to the National Experts from 20 countries, selected by the European Federation of Geologists (EFG), everyone from the groundwater community will be able to add and retrieve information and records in the inventory.



The EIGR is a tool to include all possible information sources, following the principles defined by the proposed classification. The Inventory will serve multiple aims:

- insertion of information pertaining to **groundwater research and knowledge** (including non-scientific products);
- consultation during and after the project by individuals and organisations dealing with groundwater research, possibly also by non-experts;
- analysis of collected and stored information to identify **trends, challenges and gaps** in groundwater research, by the KINDRA partners, to produce recommendations for the implementation of the Water and Groundwater Directives.

## Raise the awareness of groundwater

KINDRA focuses simultaneously on the technical and scientific community, on stakeholder groups and on the general public too, while interacting with the wider "water-universe" in Europe, performing the following actions:

- participation in networks, groups and tables discussing the **role of "water" issues** in Europe, e.g. the water-food-energy-climate nexus, the smart cities concept, the role of water in the circular economy;
  - adaptation of results of the project into **outreach materials** helping the general public to understand the importance of groundwater in daily life;
  - involvement of the **"groundwater" scientific community**, by discussing the latest in groundwater research, highlighting the importance of knowledge from scientific and non-scientific studies, promoting interdisciplinary approaches;
  - dissemination of its activity at workshops, meetings, conferences, both at national and international levels.
- KINDRA is directly organising **20 National Workshops** in Europe within the frame of this project, under the EFG umbrella; we may be in your country too!

KINDRA is active at:



**EIP Water** Online Market Place  
Matchmaking for water Innovation