KINDRA DELIVERABLE D2.2

NATIONAL WORKSHOPS ON HYDROGEOLOGY

Summary:

In relation with the proposed investigation in the KINDRA project and to provide insight into past and ongoing hydrogeological research in Europe, project dissemination on national level is crucial. To facilitate this work, EFG Linked Third Parties participating in the project organized hydrogeology-related national workshops. The objective of the workshops was to facilitate interaction among stakeholders and come to a common understanding of the key research priorities in each particular country. Mapping the practical and scientific knowledge related to hydrogeology had already started before the event, while the workshops provided platforms for stakeholder interaction, the dissemination of project objectives and facilitated national-level networking. This deliverable highlights these workshops providing stakeholders' view on the project, but also on hydrogeological research in general.

Authors:

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Project acronym:	KINDRA
Project title:	Knowledge Inventory for hydrogeology research
Grant Agreement number:	642047
Call identifier:	H2020-WATER-2014-one-stage
Topic:	WATER-4a-2014
Start date of the project:	01/01/2015
Duration:	36 months
Website:	www.kindraproject.eu

This report has been produced with financial support from the European Union's Horizon 2020 research and innovation programme under grant agreement No 642047".
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DOCUMENT PREPARATION SHEET

Lead beneficiary:	EFG
Other beneficiaries:	SAPIENZA
Due date:	M20
Nature:	Other
Diffusion	PU

Revision history	*Delivery date*	*Author*	*Summary of changes*
Version a	28.11.2016	Vanja Bisevac	
Version b			
Version final	11.01.2017	Vanja Bisevac	Text formatting, improve of language
Updated	06.12.2017	Peter Müller	Included missing parts and general update

Approval status			
Function	*Name*	*Date*	*Signature*
Reviewer 1	Marco Petitta	03/01/2017	
Reviewer 2	Peter Szucs	03/01/2017	
WP leader	EFG		
Project leader	Marco Petitta	27/03/2018	

Diffusion List	
Name, partner-name	*e-mail*
All partners + Project repository	
Panel of Experts	

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1. INTRODUCTION

Presently, the practical and scientific knowledge related to hydrogeology research and innovation are scattered amongst various actors in Europe. One of the main objectives of the KINDRA project is the Europe-wide assessment and data collection of existing groundwater-related practical and scientific knowledge focusing on international (in EU dimensions), national and regional scientific activities. Additionally, creation of an inventory of knowledge-base will serve for identification of critical research challenges in line with the implementation of the WFD and new innovation areas within integrated water resources management.

The assessment and data collection have been implemented with support of the European Federation of Geologists Linked Third Parties (20 National Associations) participating in the project. To assure the assessment and quality of data, they were asked to organise the hydrogeology-related national workshops. The objective of the workshops was to facilitate interaction among stakeholders and come to a common understanding of the key research priorities in each particular country, while at the same time, workshops also served as platforms for stakeholder interaction, dissemination of project objectives and national-level networking.

The present deliverable (D2.2) summarises the content and outcome of the national workshops on hydrogeology.

1. COUNTRIES INVOLVED IN THE NATIONAL WORKSHOPS

The EFG National Associations from 20 European countries (EFG Linked Third Parties, LTPs), were asked to organise national workshops on hydrogeology. The European Federation of Geologists, as the leader of this task, informed the Linked Third Parties on their role as organisers, using standard communication channels (e-mail, web site, LTPs Google Drive). Administrative and organisational support of the EFG Office were available to LTPs in the process of workshop preparation as well as PowerPoint presentations for introducing the project to the audience (Annex 1).

The LTPs were encouraged to organise the workshop within the frame of a larger event (e.g. international conferences, NA annual meetings) or in co-organisation with other national and international organizations, if possible, in order to increase the visibility of the project and have higher dissemination impact. This was the case for 10 National Associations (Greece, Serbia, Hungary, Germany, France, Poland, Belgium, Croatia, Denmark and Portugal; Table 1). The rest of the workshops were organised in the National Associations headquarters. The national workshops of Switzerland, Ireland and UK organised their workshop in the first quarter of 2017 due to the technical difficulties and lack of human resources, as reported by those LTPs.

Although the overall scope was the same, the size of the workshops considerably varied as EFG covers small and large European countries as well. The total number of the participants in 19 European countries was higher than 560 (Table 1).

After the workshop, the LTPs were asked to provide all relevant information related to the event (programme, list of participants, some photos and a report on what have been discussed and concluded) which were used for preparing this deliverable. In Table 1, the National Associations, together with the workshops details and number of participants are indicated.

Table 1. EFG's KINDRA Linked Third Parties involved in the organisation of the National workshops together with relevant data on venue.

Country	Organizer	Date	Venue	No. of participants
Belgium/ Luxembourg	Belgo-Luxembourg Union of Geologists, with support of Vivaqua	12 October 2016	Vivaqua Centre	15
Croatia	Croatian Geological Society	20 October 2016	Conference - Current issues in water supply and sewage	32
Czech Republic	Czech National Kindra Expert Group	15 September 2016	Czech Association of Economic Geologists headquarters	14
Denmark	Danish Geological Society	27 October 2016	Annual Danish Hydrogeology Day	25

Finland	The Finnish Union of Environmental Professionals	27 September 2016	The Finnish Union of Environmental Professionals headquarters	5
France	French Geological Society	27 September 2016	43rd annual congress of the International Association of Hydrogeologists, Montpelier	750 (total number of conference participants)
Germany	Professional Association of German Geoscientists	16 September 2016	2nd Meggen Days of Mineral Resources	42
Greece	Geological Society of Greece and Association of Greek Geologists	26 May 2016	14th International Congress of the Geological Society of Greece	65
Hungary	Hungarian Geological Society	25 August 2016	Annual Field Meeting of the Hungarian Geological Society	26
Ireland	Institute of Geologists of Ireland	22 June 2017	Institute of Geologists of Ireland, Dublin, Ireland	7
Italy	Italian National Council of Geologists with support of Sapienza University	20 October 2016	Department of Earth Sciences, Sapienza University of Rome	66
Poland	Polish Association of Mineral Asset Valuators	11-14 October 2016	Polish Geothermal Congress	38
Portugal	Portuguese Association of Geologists	11 November 2016	6th Annual Conference of the Portuguese Association of Geologists	33
Serbia	Serbian Geological Society and University of Belgrade	28 June 2016 16 September 2016	Faculty of Mining and Geology of the University of Belgrade 15th Serbian Hydrogeological Symposium with international participation	22 33
Slovenia	SGS, Slovenian Committee of International Association; Association of Hydrogeologists and Chair of Applied Geology	27 October 2016	Department of Geology, University of Ljubljana	25

Spain	Spanish Association of Professional Geologists	15 September 2016	Spanish Association of Professional Geologists headquarters	31
Switzerland	Swiss Association of Geologists	-	-	-
The Netherlands	Geological Survey of the Netherlands	10 November 2016	TNO – Geological Survey of the Netherlands	39
UK	Geological Society of London	26 June 2017	Geological Society of London (HQ), London, UK	15
Ukraine	Ukrainian Association of Geologists	4 October 2016	Institute of Geology, National Taras Shevchenko University	29
TOTAL				>562

Before the end of the project, during the first three months of 2018, some additional workshops have been organized in five countries, to additionally disseminate the results of the project. These "second" workshops have been organized by the following LTPs:
- Germany (01.03.2018, GeoTHERM trade fair, Offenburg, Germany)
- Italy (26.03.2018, 2nd National Workshop KINDRA, Sapienza University, Rome, Italy)
- Netherlands (15.02.2018, Symposium "H2O past - present - future, VU Amsterdam, NL)
- Portugal (22.03.2018 APG General Assembly, Geological Survey of Portugal, Lisboa, Portugal)
- Serbia (07.12.2017 in Sofia, Bulgaria, and 13.02.2018 in Belgrade, Serbia).

2. PROGRAMME OF THE WORKSHOP

The timeframe of the workshops was approximately 2 hours. During the registration, participants frequently received information leaflets about KINDRA. The workshop programme started by a welcome note and a presentation of the workshop agenda, usually by the President of the National Association hosting the event or by a national expert. The short introduction was followed in terms of general overview of the KINDRA project and participants were provided with basic information about the Horizon2020 Programme with special focus on the aims and objectives of the KINDRA project together with the information related to the availability of hydrogeological data in the particular country. After the basic overview, the HRC-SYS groundwater research classification and the EIGR European Inventory of Groundwater Research including practical example of the EIGR entries were presented. The presenters frequently used the Power Point presentations provided by the EFG via LTPs Google Drive or sent directly to the experts via email on their request.

The Power Point presentations were followed by the discussion and opinion exchange between the audience and KINDRA team.

Annex 2 contains the detailed programme of the national workshops per country together with some photos from the event provided by the EFG LTPs.

3. OUTCOME AND FEEDBACK FROM THE PARTICIPANTS

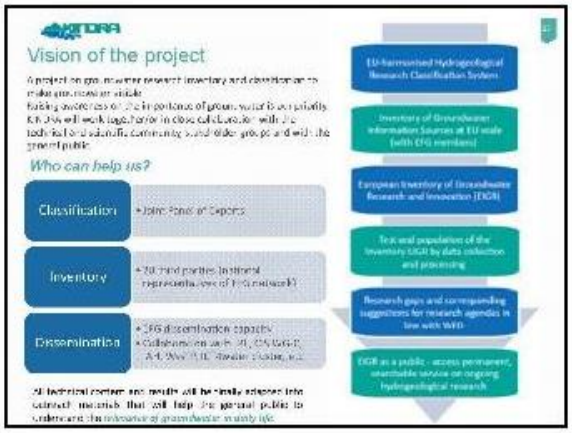
As mentioned in the introduction, the workshops served as a platform for disseminating the project at a national level and at the same time facilitate interaction and discussion between workshop participants and KINDRA national experts. All the participants were very interested in KINDRA project and pointed out the importance of establishing the database of hydrogeological researches and accessibility of data online on European, but also on national level. Some of them (Denmark) indicated that it would really nice if the EIGR would be THE database with all groundwater information in Europe, including material on Research Gate, Scopus and Web of Science. Some participants were concerned on the data and platform maintenance in the future (Greece, Belgium, Spain, Serbia) and pointed out that the platform should also be communicated to the general public as an access to reliable scientific information on hydrogeology. The importance of pursuing roadmaps aimed at supporting policies that will enable an access as simple as possible to hydrogeological knowledge by technicians, researchers and professionals was stressed out (Italy), since quality and effectiveness of interventions and scientific research (aimed at both use and protection of groundwater) rely on data availability and reliability.

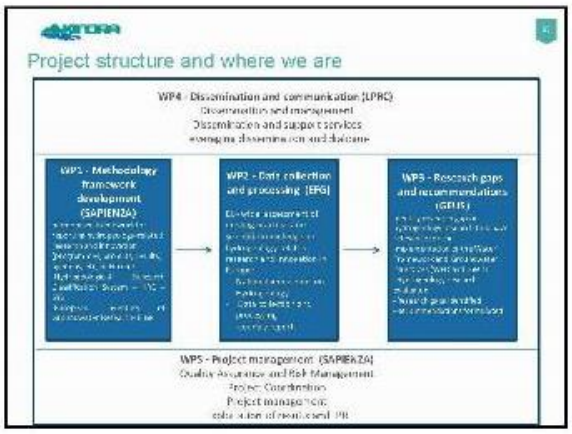
Participants discussed the involvement of the EU Member States related to the implementation policy according to recommendations of the Water Framework Directive in the field of works on the protection of groundwater resources and improvement of water quality. During discussion the degree of national involvement in the implementation of policy of sustainable development was also assessed.

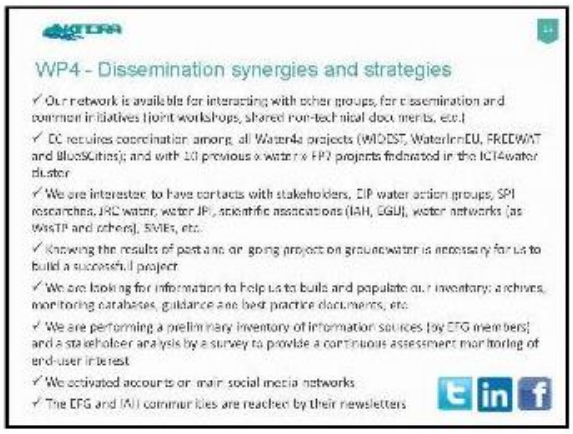
The general conclusions of the workshops were that the first two steps of the project (i.e. Classification and Inventory) were completed and that the upcoming months will be mainly dedicated to the dissemination, as all technical content and results will be finally adapted into outreach materials that will help the general public to understand the relevance of groundwater in daily life. In order to achieve this, the close cooperation between public and private sector is necessary.

ANNEX 1. POWERPOINT PRESENTATIONS FOR INTRODUCING THE PROJECT TO THE AUDIENCE

1.1. PROJECT OVERVIEW







WP1 – Classification (HRC-SYS): keywords selection

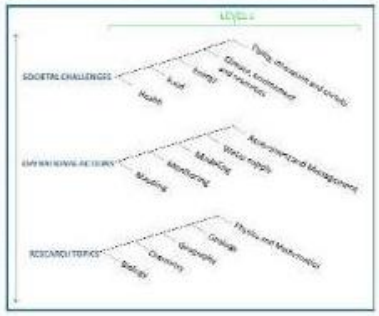
For developing the common terminology on which to base the EIGR through the HRC-SYS, keywords characterizing research on groundwater have been identified following two approaches: (1) from the most important ***EU directives and documents***, i.e. the ***WFD, GWD and The Blueprint to Safeguard Europe's Water Resources***, and (2) from ***groundwater related scientific literature***, which has been fundamental for identifying relationships and intersections between topics, themes and activities.

To assess the importance and pertinence of the keywords, these have been ranked by performing searches via the Web of Science, Scopus and Google Scholar search engines.

WP1 – Classification (HRC-SYS): hierarchy and categories

The complete merged list of keywords consisting of about 300 terms has been organized in a tree *hierarchy*, identifying three main categories: **Societal Challenges (SC), Operational Actions (OA) and Research Topics (RT).**

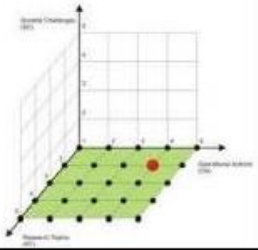
In each of these three categories, 5 *overarching* groups have been defined for easy overview of main research areas, representing level 1. All identified keywords have been categorized into one of these overarching groups in up to three levels where appropriate.

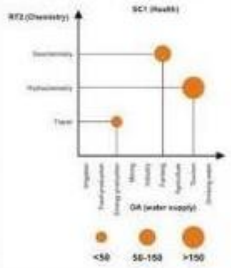


WP1 – Classification (HRC-SYS): CUBE & related 2D diagrams

The classification system produces the interaction among the three main categories through a 3D *approach* , where along each axis the 5 overarching groups are indicated.

This also results in a *2D representation* for each of the Societal Challenges, where Operational Actions and Research Topics intersect in a 5x5 matrix.





WP1 – Inventory (EIGR)

The scopes of the EIGR are the following:

i) for insertion of information pertaining to groundwater research and other available knowledge by the National Experts of the European Federation of Geologists (EFG);

ii) for consultation during and after the project by people and organizations dealing in groundwater research, but also possibly by non experts;

iii) for analysing collected and stored information to identify trends, challenges and gaps in groundwater research, by the KINDRA partners.

The EIGR is intended to be a permanent resource, publicly available after the end of the KINDRA project.

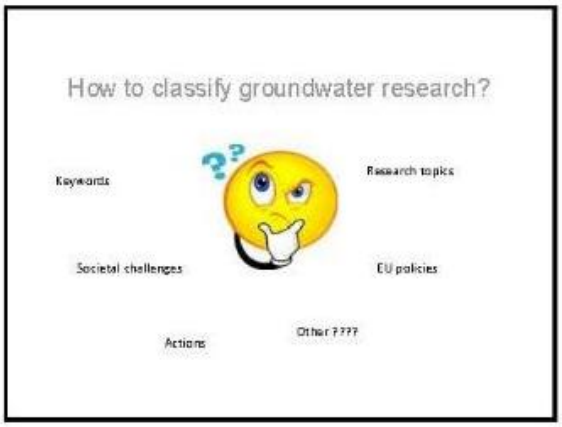
What are the "added values" of KINDRA?

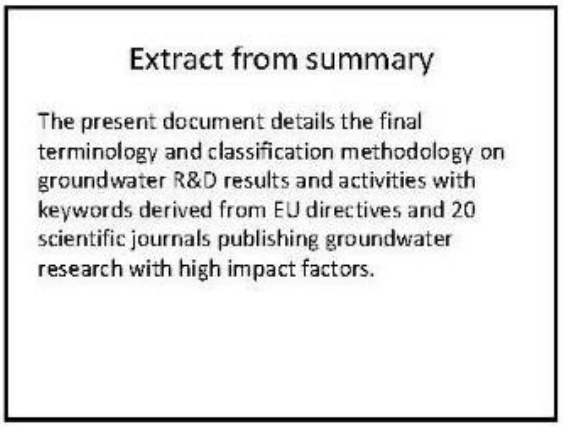
i) **KINDRA** and its inventory are exclusively dedicated to "groundwater", differently from other databases
ii) Combining research and knowledge it enables to merge academic and practitioner communities
iii) A dedicated classification system has been created to classify your product, paper, project, report, database, etc.
iv) Database analysis will be used for EU policy support
v) **It** is intended BY and FROM geologists and "groundwater" people, to promote networking and enlarge our community
vi) **It** will be a international access to national knowledge sources

1.2. HRC-SYS


KINDRA
Knowledge Inventory for hydrogeology research
A Harmonised Research Classification System (HRC-SYS) for groundwater and hydrogeology research – introduction and examples


KINDRA
KINDRA DELIVERABLE D1.2
HARMONIZED TERMINOLOGY AND METHODOLOGY FOR GROUNDWATER RESEARCH CLASSIFICATION


How to classify groundwater research?
Keywords
Research topics
Societal challenges
EU policies
Actions
Other ????


Extract from summary
The present document details the final terminology and classification methodology on groundwater R&D results and activities with keywords derived from EU directives and 20 scientific journals publishing groundwater research with high impact factors.

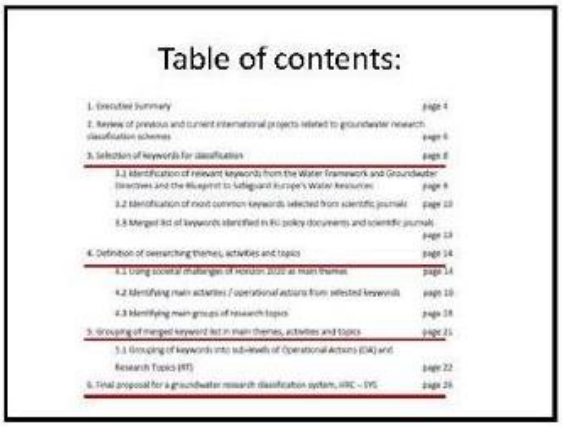
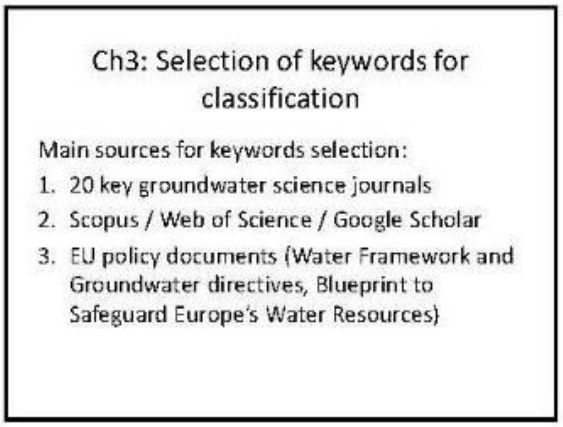


Table of contents:


Ch3: Selection of keywords for classification
Main sources for keywords selection:
1. 20 key groundwater science journals
2. Scopus / Web of Science / Google Scholar
3. EU policy documents (Water Framework and Groundwater directives, Blueprint to Safeguard Europe's Water Resources)

Ch3: Selection of keywords for classification

(based on keywords from journals, WFD, GWD and Blueprint to safeguard European Water Resources):

Table 5.2: List of keywords from Scientific Journals and their grouping.

Ch3. Selection of keywords - Web of science assessment of most popular groundwater research topics:

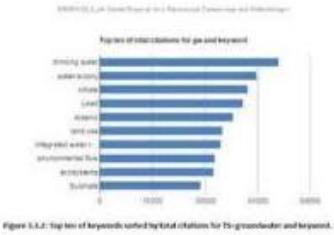
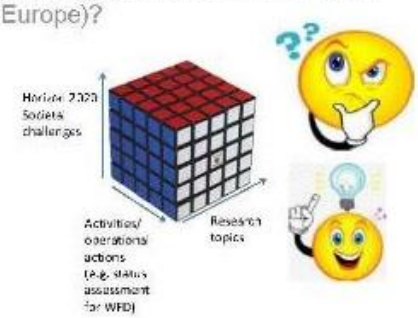


Figure 5.2.2: Top ten of keywords sorted by total citations for 'fit-groundwater and keyword.

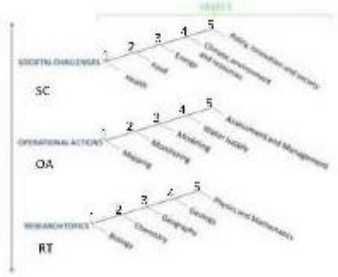
Ch3: Merged and grouped list of selected keywords

Grouping of 9200 keywords selected from peer-reviewed journals and EU policy documents:

How to classify groundwater research (in Europe)?



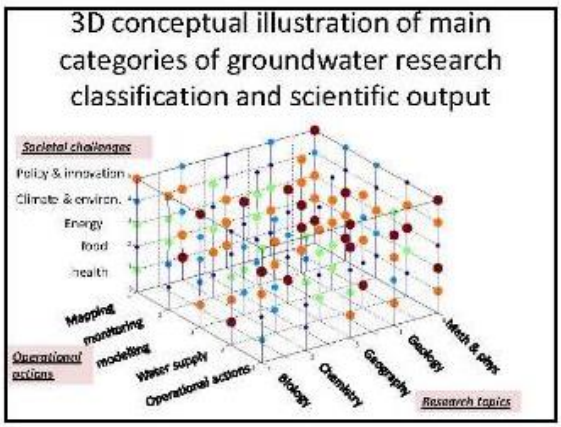
Definition of main categories for groundwater research classification

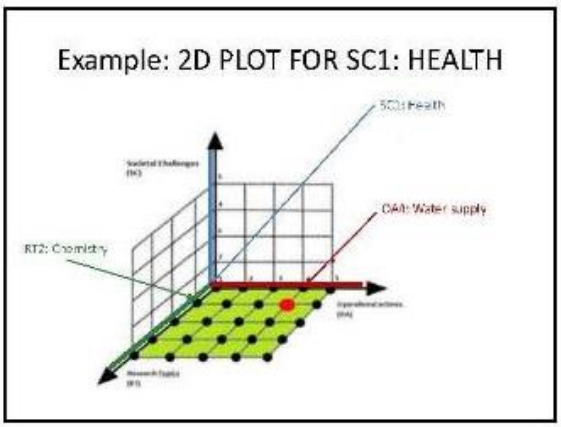


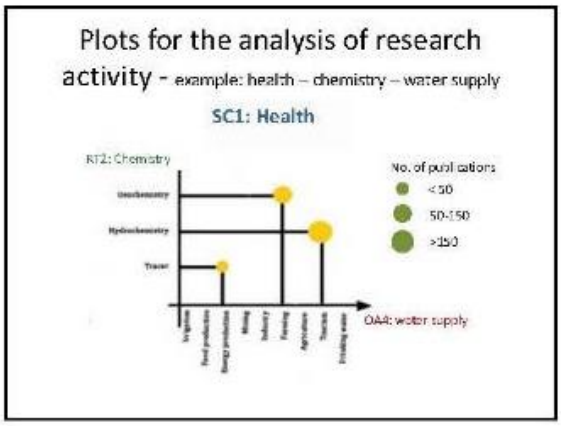
Main categories in HRC-SYS

Table 2.1 The overarching groups, for an easy overview of the main research dimensions:

Societal Challenges	Operational Actions	Research Topics
1. Health 2. Food 3. Energy 4. Climate, environment and resources 5. Policy, innovation and society	1. Mapping 2. Monitoring 3. Modelling 4. Water supply 5. Assessment and Management	1. Biology 2. Chemistry 3. Geography 4. Geology 5. Physics and Mathematics


3D conceptual illustration of main categories of groundwater research classification and scientific output
Societal challenges
Policy & innovation
Climate & environ.
Energy
food
health
Mapping
monitoring
modeling
Operational actions
Water supply
Operational actions
Biology
Chemistry
Geography
Geology
Mesh & phys
Research topics


Example: 2D PLOT FOR SC1: HEALTH
SC1: Health
OA4: Water supply
RT2: Chemistry


Plots for the analysis of research activity - example: health – chemistry – water supply
SC1: Health
RT2: Chemistry
No. of publications
<50
50-150
>150
OA4: water supply

1.3. EIGR

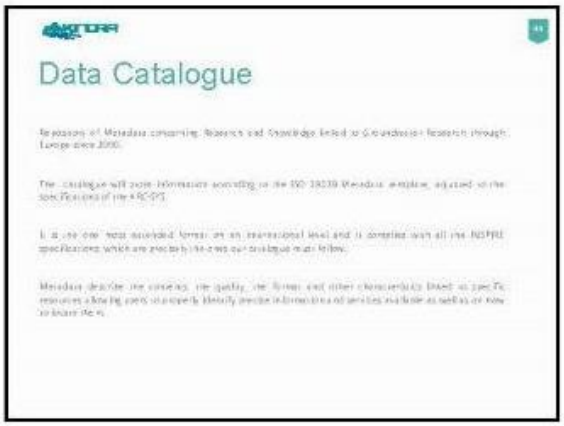

KINDRA
Knowledge Inventory for hydrogeology research


European Inventory on
Groundwater Research
"EIGR"


Concepts
Geoportal
Data Catalogues
Services
Viewers
Rules and Regulations


Geonetwork Open Source Platform
GeoNetwork


A quick overview of Geonetwork
Menu bar
User login and administration
Location Map
Simple Information Search Tool
Advanced Information Search Tool
Results Window


Data Catalogue

Metadata

The purpose for creating metadata is to organize and maintain the information assets owned by an organization and to improve the visibility and the use of data.

Metadata provide the answer to a Who, When, Where, Why and How by indicating:

- The title and brief description of the resources;
- The purpose of the resources and their use context;
- The date of creation of resource and, where it is applicable, the update process (frequency);
- The geographical extension of the resource;
- The owner of the resource;
- The criteria and conditions for restrictions, responsibilities or restrictive use and exploitation;
- The quality of the resource.

!!!!VERY IMPORTANT!!!!

The information inserted in the EIGR must be as complete as possible.

This will allow the search engines and future user consultations to carry out thorough information analysis.

The EIGR will serve as a repository of this knowledge, and as a tool that will allow for queries and searches by selecting keywords, generating statistics, diagrams and other functions to help support the exploitation of the catalogued information.

European Inventory on Groundwater Research: EIGR

European Inventory on Groundwater Research: EIGR

The inclusion of resources into the EIGR is carried out by completing a number of fields included in the EIGR Metadata template.

The EIGR Metadata template is divided into four Main Sections:

- RESOURCE IDENTIFICATION INFORMATION
- DISTRIBUTION INFORMATION
- DATA QUALITY INFORMATION
- METADATA INFORMATION

RESOURCE IDENTIFICATION INFORMATION

The title, acronym (when applicable), abstract, the authors and their contact details.

Collaborating organizations and/or programs, funding sources and amount.

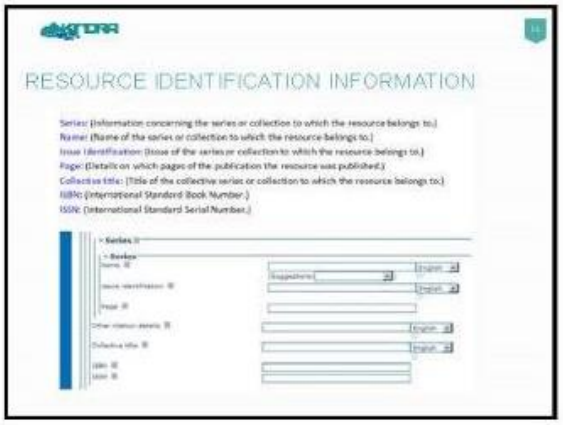
Geographical extent covered as well as other relevant identification details (e.g. GBN, GSN) and if there are any existing legal constraints related to the resource.

In this section is where the HRC-SYS keywords and overarching categories (within Societal Challenges, Operational Actions and Research Topics) are defined for each resource.

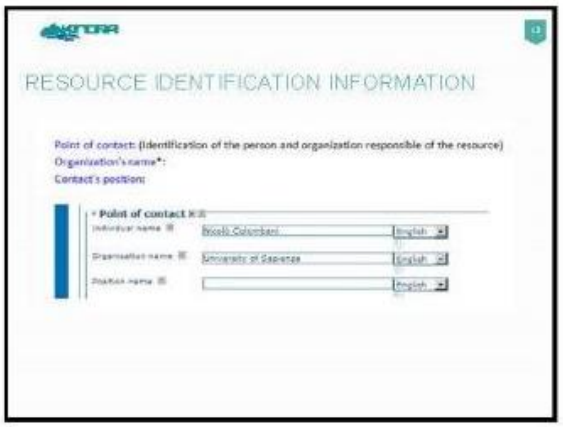
Fields indicated by * are to be considered as mandatory.

RESOURCE IDENTIFICATION INFORMATION

Title*: (Name by which the resource is known)
Alternative Title: (Acronym)
Date - creation*: (Reference date of creation of the resource)

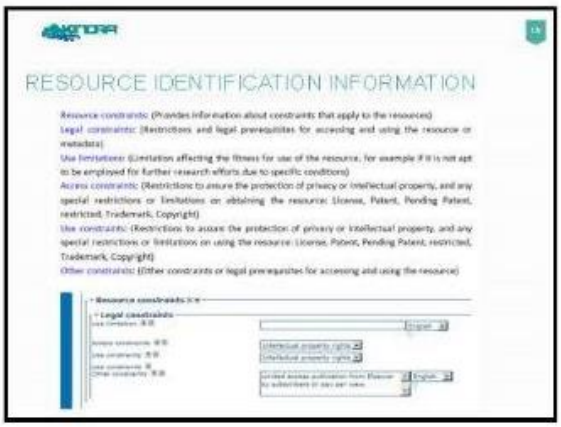

RESOURCE IDENTIFICATION INFORMATION

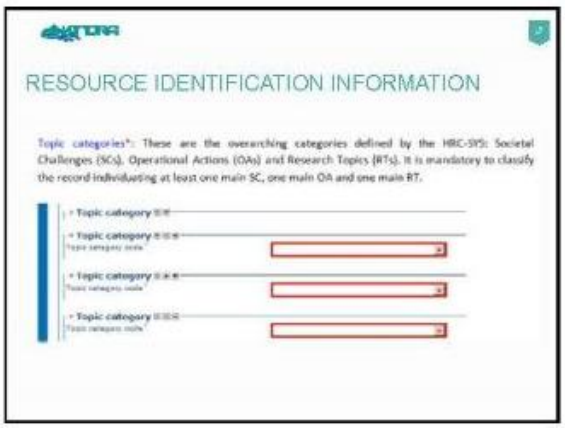

RESOURCE IDENTIFICATION INFORMATION


RESOURCE IDENTIFICATION INFORMATION
Point of contact: (Identification of the person and organization responsible of the resource)
Organization's name*:
Contact's position:


RESOURCE IDENTIFICATION INFORMATION

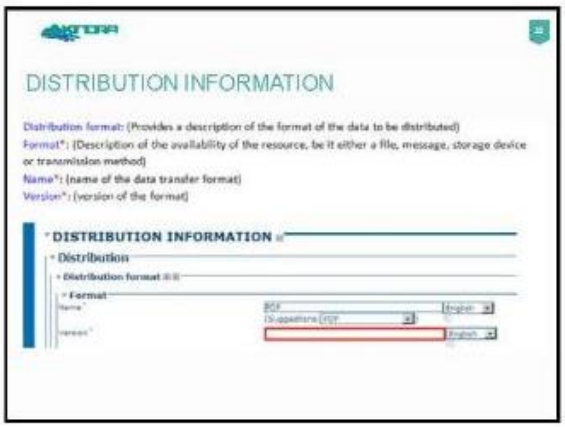

RESOURCE IDENTIFICATION INFORMATION


RESOURCE IDENTIFICATION INFORMATION

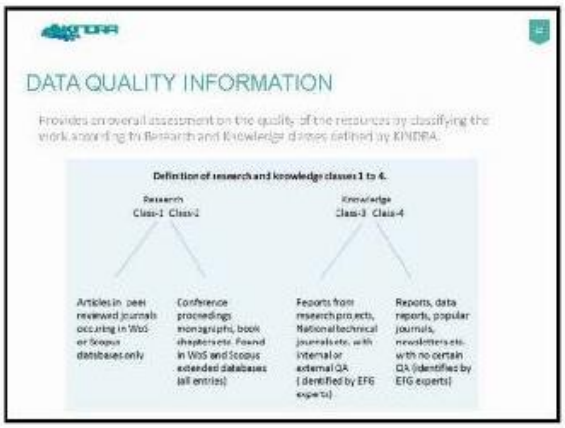

RESOURCE IDENTIFICATION INFORMATION
Topic categories*: These are the overarching categories defined by the HRC-SYS: Societal Challenges (SCs), Operational Actions (OAs) and Research Topics (RTs). It is mandatory to classify the record individuating at least one main SC, one main OA and one main RT.
* Topic category
* Topic category
* Topic category
* Topic category


RESOURCE IDENTIFICATION INFORMATION
Extent: (Spatial reference of the resource)
Geographic Element: (The geographic component of the extent referring to the resource)
Geographic bounding box: This is the geographic position of the resource given as a bounding box where the following items can be specified:
West longitude:
East longitude:
North latitude:
South latitude:

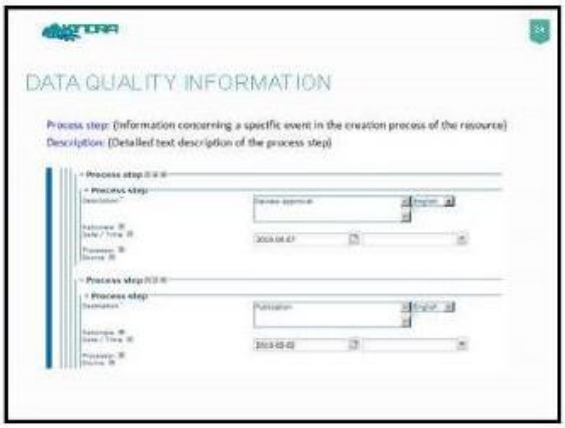

DISTRIBUTION INFORMATION
This section indicate users the delivery or distribution methods available for the resource.
It describes if there are any online or physical distribution methods that exist for the resource.
Contents distributed online may be downloadable.

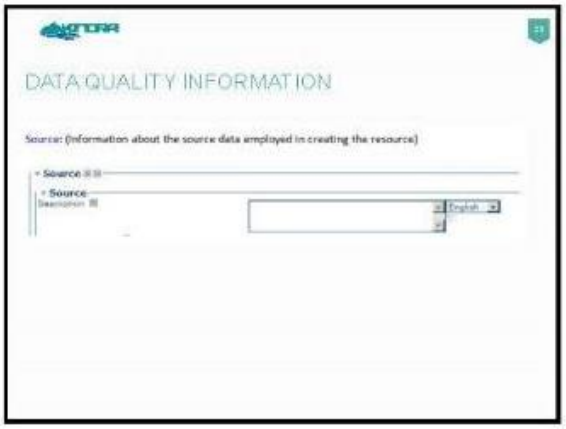

DISTRIBUTION INFORMATION
Distribution format: (Provides a description of the format of the data to be distributed)
Format*: (Description of the availability of the resource, be it either a file, message, storage device or transmission method)
Name*: (name of the data transfer format)
Version*: (version of the format)
* DISTRIBUTION INFORMATION
* Distribution
* Distribution format
* Format


DISTRIBUTION INFORMATION
Online resource: (defines the online sources or link(s) from which the resource can be obtained)
Linkage: (Location (address) for online access using a Uniform Resource Locator (URL) address)
Protocol: (Connection protocol to be used)
Name of the resource
Description: (Detailed text description of what the online resource is/does)
* Online resource
* Linkage


DATA QUALITY INFORMATION
Provides an overall assessment on the quality of the resources by classifying the work according to Research and Knowledge classes defined by KINDRA.
Definition of research and knowledge classes 1 to 4.
Research
Class-1 Class-2
Knowledge
Class-3 Class-4
Articles in peer reviewed journals occuring in WoS or Scopus databases only
Conference proceedings monographs, book chapters etc. Found in WoS and Scopus extended databases (all entries)
Reports from research projects, National technical journals etc. with internal or external QA (identified by EFG experts)
Reports, data reports, popular journals, newsletters etc. with no certain QA (identified by EFG experts)


DATA QUALITY INFORMATION
Lineage: (Information about the events and procedures to which the resource was subject)
Statement: (generic description from the resource producer's knowledge concerning the lineage)


DATA QUALITY INFORMATION
Process step: (Information concerning a specific event in the creation process of the resource)
Description: (Detailed text description of the process step)


DATA QUALITY INFORMATION
Source: (Information about the source data employed in creating the resource)


METADATA INFORMATION
Contact: (Identification of the party responsible for the metadata information)
Individual name*
Organization name*:
Position name: (Role or position of the responsible person)
Role: (Function performed by the responsible party)
Contact information: (Phone and/or Fax numbers)
Address: (Street, City, Administrative area, Postal code, Country)
E-mail address:
Website:

ANNEX 2: PROGRAMME AND PHOTOS OF THE NATIONAL WORKSHOPS PER COUNTRY

1.4. BELGIUM/LUXEMBOURG

- Registration
- Welcome note (Nuno da Silva)
- Project overview (Alain Dassargues)
- HRC-SYS ground water research classification (Alain Dassargues)
- EIGR European Inventory of Groundwater Research (Dirk De Coster)
- KINDRA outputs for Flanders and Brussels (Dirk De Coster)
- KINDRA outputs for Wallonia (including practical search query online) (Alain Dassargues)
- KINDRA outputs for Luxembourg (Dirk De Coster)
- Questions and feedback

1.5. CROATIA

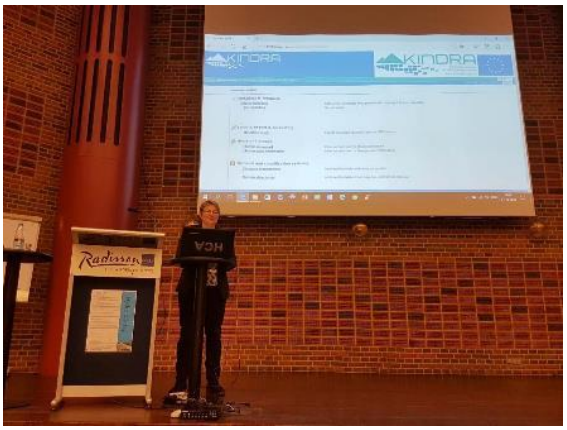
- Welcome note (Kosta Urumovic)
- Project overview (Kosta Urumovic)
  - HRC-SYS ground water research classification (Kosta Urumovic)
  - EIGR European Inventory of Groundwater Research (Kosta Urumovic)
- Discussion

1.6. CZECH REPUBLIK

- Horizont 2020 (prof. Mirko Vanecek)
- Current task and questions of the Czech hydrogeology (Josef V. Datel)
- Introduction to the KINDRA project – European groundwater information database (Michal Vaněček)
- HRC-SYS: Hydrogeology research classification (Petr Novák)
- EIGR (European Inventory in Groundwater Research) – an online tool for hydrogeology information inventory across Europe (Petr Novák)
- Discussion

1.7. DENMARK

- Project overview and HRC-SYS ground water research classification (Hinsby Klaus)
- EIGR European Inventory of Groundwater Research with examples from Denmark (Lisbeth Flindt Jørgensen)
- Discussion



1.8. FINLAND

- Welcome words (Pekka Ihalainen)
- Presentation of the latest groundwater research made by Uusimaa Centre for Economic Development, Transport and the Environment (Timo Kinnunen)
- Lunch
- Presentation of KINDRA project (Ulpu Väisänen)
- Presentation of the latest groundwater research in GTK (Nina Hendriksson)
- Presentation of the latest research in University of Helsinki (Mia Kotilainen)
- Discussion


1.9. FRANCE

- Hydrogeological Research Classification System (HRC-SYS) (Hinsby Klaus)
- Project- European Inventory of Groundwater Research (EIGR) (Van Der Keur Peter)
- End user requirements (Fernandez Isabel)
- Relevance for implementation of EU Water Directives (Marco Petita)
- Discussion


1.10. GERMANY

- KINDRA Project: classification and inventory of groundwater research and knowledge in Europe (Isabel Fernandez)
- Some Experiences in the Stress Field of Mining and Groundwater Management (Walter Lenz)
- Discussion


1.11. GREECE

- AGG role in the designation of geology and the active participation and collaboration with EFG (Xenophon Stavropoulos)
- Groundwater resources situation in Greece (Konstantinos Voudouris)
- KINDRA project overview: a knowledge inventory for hydrogeology research (Pavlos Tyrologou)
- EIGR (European inventory in groundwater research). A useful online tool for the inventory of the groundwater knowledge in Europe (introduction and examples) (Triantafyllos Kaklis)
- Discussion


1.12. HUNGARY

- The KINDRA Project. Knowledge Inventory for Hydrogeology Research (Éva Hartai)
- The HRC-SYS. A new approach to structuring the hydrogeological researches (Viktória Mikita, Péter Szücs, Éva Hartai)
- The European Inventory of Groundwater Research (EIGR), aims and structure (Viktória Mikita, Péter Scharek)
- The use of terrestrial heat in Hungary on the basis of an example in Debrecen (Endre Bitay, Tünde Gombos, Ferenc Pálfalvi, Anita Jobbik, Marianna Vadászi)
- The geological description of Tokaj Mountains and the possibility of thermal water research (Lajos Göőz)
- Water tracer tests in Haragistya – Szilice – Borzova carstic region (Péter Gruber, Dagmar Haviarová, Ilma Balázs, Tibor Mátrahalmi, Antal Serfőző, Magdolna Ambrus)

1.13. IRELAND

- KINDRA background, including Horizon 2020 (Henning Moe)
- HRC-SYS ground water research classification (Henning Moe)

- European Inventory of Groundwater Research (Henning Moe)
- Irish data entries to date (Emer O'Connor)
- Live demonstration of the EIGR (Emer O'Connor)
- Discussion

1.14. ITALY

Introduction session

- Welcome greetings (National Council of Geologists, Department of Earth Sciences)
- About the Horizon2020 KINDRA project (Marco Petitta, Univ. Of Rome Sapienza) -

Water research experiences funded at European level

- Water, technology transfer and SMEs (Fernando Nardi, SC5 Horizon 2020 Expert, University for Foreigners of Perugia)
- The Groundwater Working Group programme of the European Commission (Elisabetta Preziosi, Water Research Institute on National Research Council, IRSA-CNR)
- The Ctrl-Swan Action Group (Anna Di Mauro, Ctrl-Swan Secretariat)
- An Italian - Portuguese joint project for the definition of natural background levels (nbls) in groundwater (Daniela Ducci, University of Neaples Federico Ii)
  Coffee Break
- Open-Source Gis & modeling: The Freewat platform for water resource management (Rudy Rossetto, Scuola Superiore S.Anna, Pisa)
- Managed Aquifer Recharge: The Wadismar project (Giorgio Ghiglieri, University of Cagliari)
- The Biological component: The Aqualife project (Diana M.P. Galassi, University of L'aquila)
- Importance and effectiveness of dissemination activities of European projects dealing with groundwater (Barbara Cencur Curk, University Of Lubjiana, Slovenia)

Concluding Session

- Structure and interface of EIGR inventory (Andrea Del Bon, Cng Expert/Consultant)
- Debate (Led By Speakers): The water issue in the European agenda
- Conclusions


1.15. NETHERLANDS

- Welcome by Jan Stafleu, secretary of the board of KNGMG
- Introduction and presentation of the KINDRA project (Jan Stafleu)
- Introduction to the programme by chairman Gé van den Eertwegh
- Keynote by Roelof Stuurman (Deltares)
- Discussion round 1: identifying research gaps
- Break
- Keynote by Hans Peter Broers (TNO – Geological Survey of the Netherlands)
- Discussion round 2: possible solutions for the research gaps
- Plenary discussion and wrap-up


1.16. POLAND

- The Water Framework Directive - the role of the EU member states in achieving and maintaining good and the potential of water (B. Tomaszewska)
- Projekt Kindra. Availability of information about groundwater in Poland compared to other European countries (B. Tomaszewska, M. Dendys) Numerical modeling as a tool for hydrogeological and geothermal research (M. Dendys)
- Methodology of thermal water sampling - technical aspects (K. Korzec, E. Kmiecik, A. Mika, B. Tomaszewska, K. Wątor)
- Preliminary results of tests on obtaining a concentrate based on selected mineralized water (B. Tomaszewska, M. Bodzek, W. Bujakowski, M. Tyszer)
- Innovative research of the use of specific features of thermal waters Mszczonowa in the production of mineral water (B. Tomaszewska, W. Bujakowski, M. Tyszer)

1.17. PORTUGAL

- KINDRA project overview (Monica Sousa)
- HRC-SYS: Groundwater research classification (Monica Sousa)
- EIGR: European Inventory of Groundwater Research (Monica Sousa)
- Discussion

1.18. SERBIA

- Welcome and Key note (Zoran Stevanović)
- Project overview (Vesna Ristić Vakanjac)
    - HRC-SYS ground water research classification
    - EIGR European Inventory of Groundwater Research
- ICT4WATER Movie
- Discussion

28 June 2016

16 September 2016

1.19. SLOVENIA

- Welcome and Key note (Tadej Slabe)
- KINDRA Project overview and work already done (Mihael Brenčič)
- Presentation of the work done on the Slovenian hydrogeological dictionary (Mihael Brenčič)
- Discussion on the KINDRA project and terminology


1.20. SPAIN

- Welcome note and presentation of the workshop (Manuel Regueiro)
- Framework of the H2020 projects and the role of the EFG (Nieves Sánchez)
- Project overview (M.A. Bordallo)
  - HRC-SYS ground water research classification
  - EIGR European Inventory of Groundwater Research
- Discussion


1.21. UNITED KINGDOM

- Introduction and background of the KINDRA project (Nic Bilham)
- The research classification system of KINDRA and the UK dataset by Andy McKenzie (Ground Information Manager at the British Geological Survey, BGS)
- Hydrogeological research and challenges in the UK by Prof. Rob Ward (Director of Groundwater Science at the BGS)
- Work on groundwater-related topics in the Environment Agency by Ian Davey (Environment Agency)
- Discussion

1.22. UKRAINE

- International KINDRA Project: Aims and objectives of hydrogeological research direction, status of the project, the main operating results (O.Bobrov)
- The current status of hydrogeological, engineering-geological and ecological environment in Ukraine (E.Yakovlev)
- The state of hydrogeological work in Ukraine, which performed from the state budget" (M. Gejchenko)
- Creating the databases of the hydrogeological information in GIS as a basis for reforming the system of groundwater monitoring in Ukraine according the requirements of regulatory guidance documents of the EU (N. Lyuta)
- Tactics and strategy of the hydrogeological studies in Ukraine (N. Zaritovska)
- Discussion