

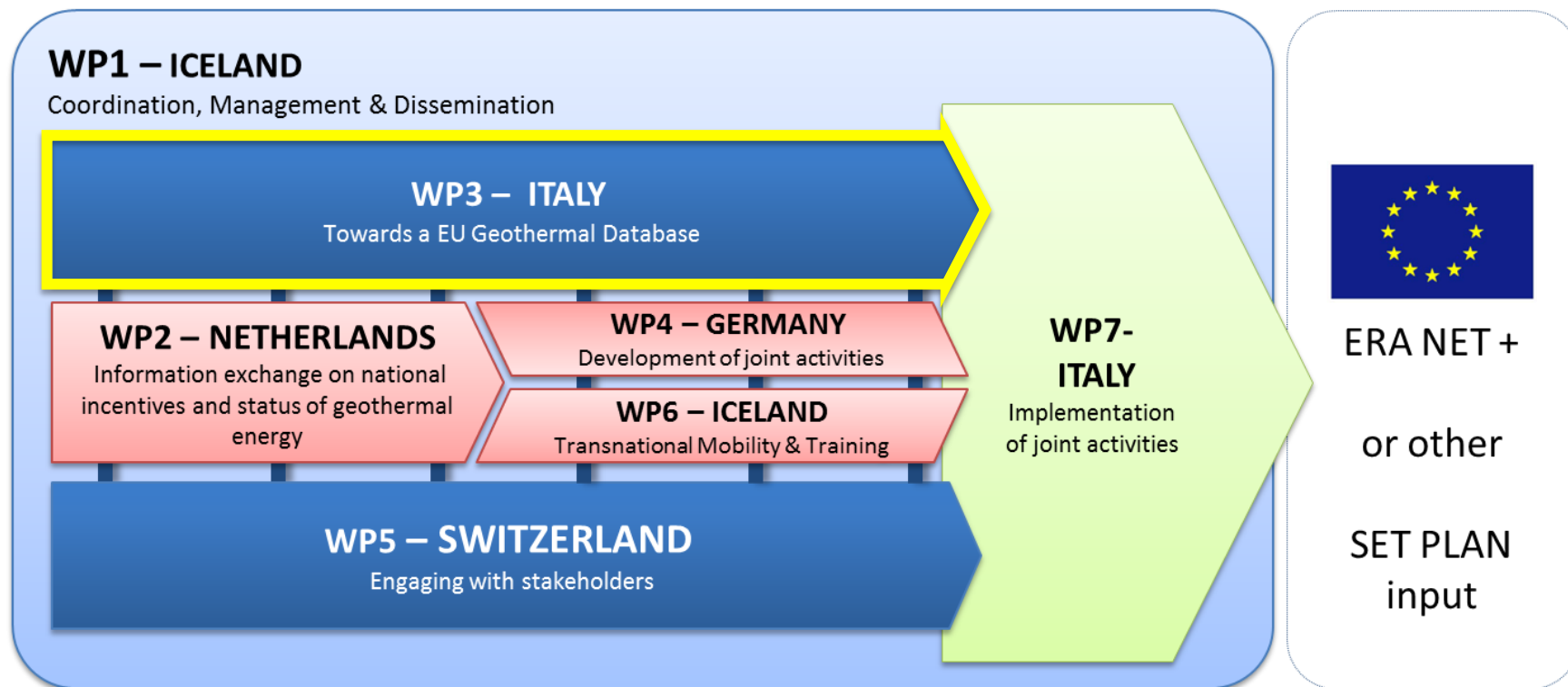
WP4/WP7 – Implementation of Joint Activities:



Eugenio Trumpy, Adele Manzella CNR



Organisational structure / work packages



WP3 Towards a European Geothermal Information Platform



EGIP: why?

1. Specifically mentioned in the EU Commission Call [Topic ENERGY.2011.10.2-2, FP7-ERANET-2011-RTD] which led to the current GEO ERA-NET Project
2. To foster geothermal energy development in Europe, the organization and sharing of geothermal data play an important role
3. To minimize data fragmentation, databases and data-sharing systems are mostly based at a national level, provided in the local language, and are suitable for local or specialized applications



WP3 Towards a European Geothermal Information Platform



EGIP: aims?

- ✓ reduce information fragmentation
- ✓ simplify data provision
- ✓ reduce project risks (economic aspects)
- ✓ Raise awareness about geothermal energy by providing an overview of its application at the European scale
- ✓ increase the focus on and investments in geothermal energy.



WP3 Towards a European Geothermal Information Platform



EGIP: for who?

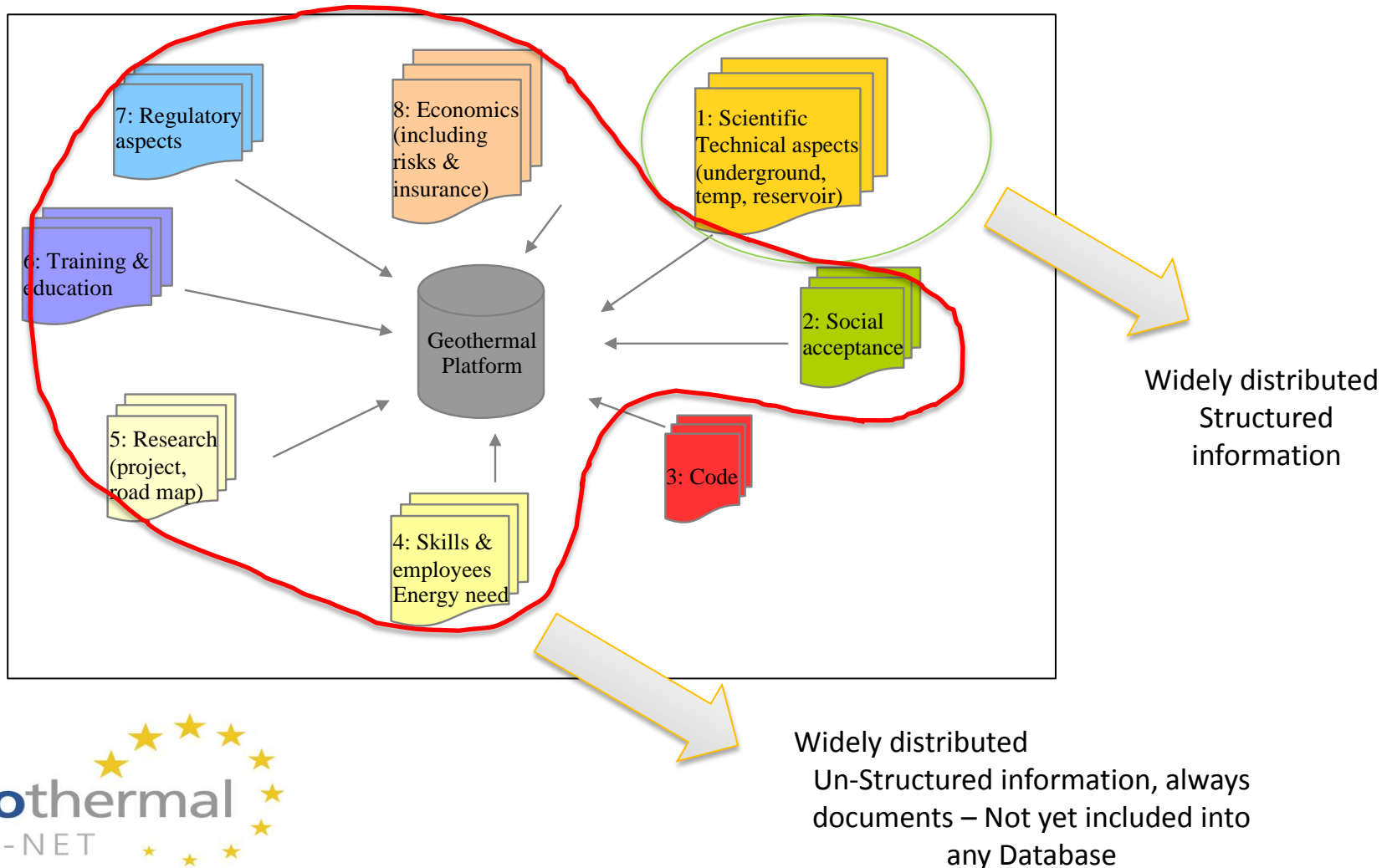
- ❑ potential international energy users (international operators and funding agencies interested in launching new geothermal projects)
- ❑ any geothermal stakeholder
- ❑ to respond to the increasing concerns of non-geothermal sector stakeholders that geothermal applications are too confusing and difficult to manage

EGIP: what is?

- distributed system: each (national) data provider delivers its data according to a common standard data model and common services
- Not only scientific data from underground
- Information are catalogued and served following the INSPIRE directives
- A EU portal will request all national service providers to deliver their part of the European puzzle



Towards a Geothermal European Information Platform EGIP – content



WP3 Towards a European Geothermal Information Platform



EGIP: how?

Step-by-step plan:

- *First step - **Stage 0***: map the links and documents where geothermal information is currently provided at a national level
- *Short term – **Stage 1***: implemented as Joint Activity in GEO ERA-NET
- *Medium term – **Stage 2***
- *Long term – **Stage 3***

EGIP: when?

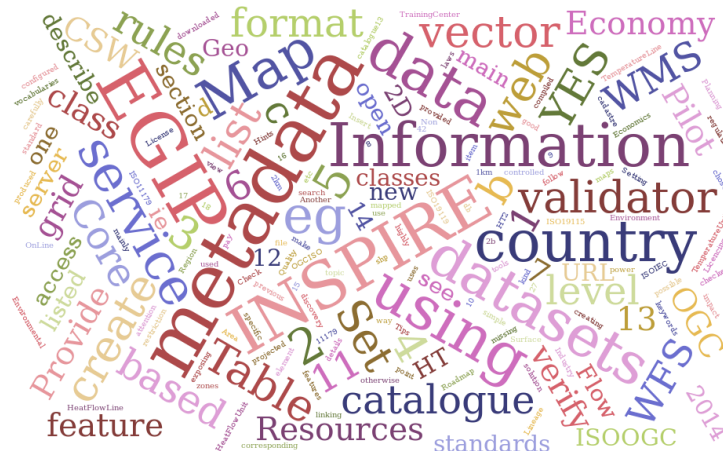


EGIP pilot concepts:

The aim of this early stage is to prove the **effectiveness** and **efficiency** of **EGIP**

The initial development of the pilot project involved setting up a geothermal **common data model** and the management and optimization of **services**

EGIP is designed to fully satisfy the end-user by providing easy and useful *data retrieval* and *cost containment*, in compliance with **INSPIRE** rules for building a (spatial) Data Infrastructure



EGIP Architecture overview I



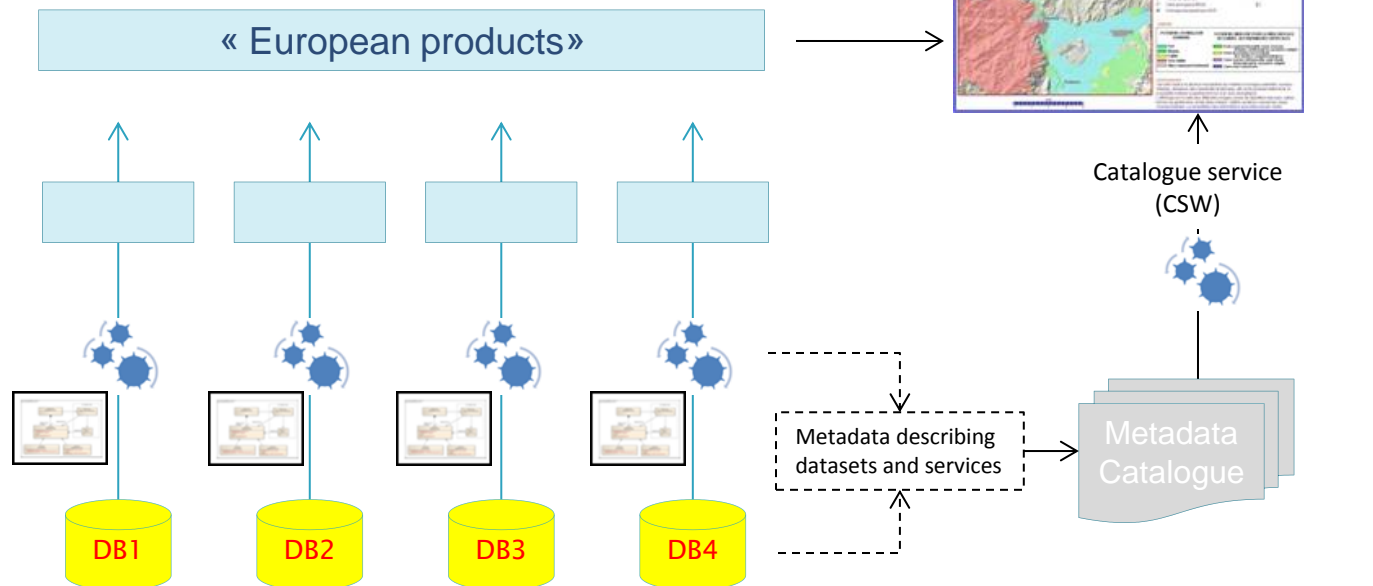
Common rules for:

1. Metadata (INSPIRE)

2. Web Services:

- View
- Access (download)
- Process

3. Common data model, used by services to deliver and process data



Each provider delivers a piece of the puzzle:

Which can be map



or data

8			4
20			20
20			20
25	55	30	20
10			10
25	13	30	20

For the services:

- View and access/download services are well specified in INSPIRE
- Process services have to be compliant with a general framework only

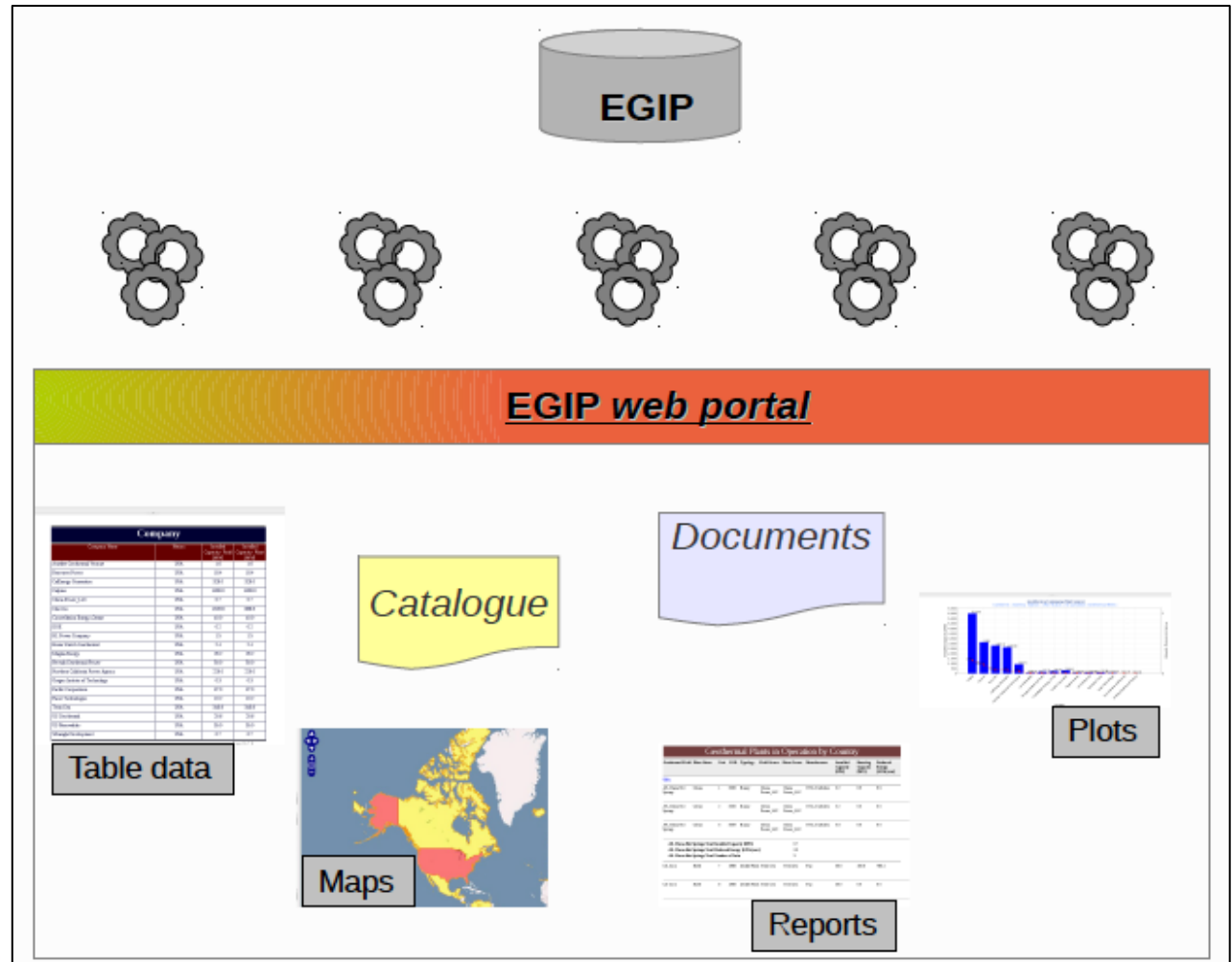
For the common data model to be used by the access, download and process services:

- to specify this data model : input from existing DB, and INSPIRE requirements
- Development of vocabularies (code-lists)



EGIP Functionalities overview II

EGIP tools have to guarantee a 360° data browsing (e.g., browsing from a catalogue to a document, from a document to a tabled info or spatial data) and **allowing a deep survey into the geothermal knowledge.**



Set-up EGIP pilot:

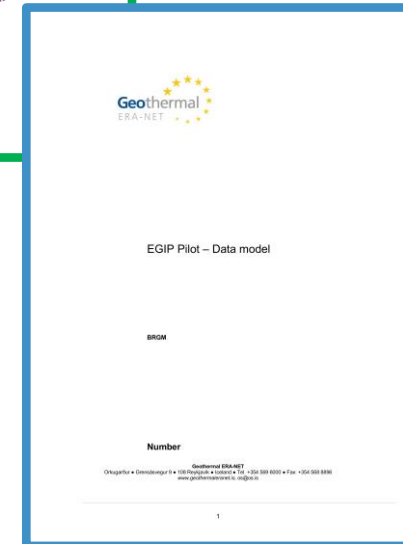
Startup conference call with BRGM 02/04/2014

Produced documents:

- [EGIP.xsd](#)
- [EGIP_Pilot_data_model_1.0.pdf](#)
- [EGIP-Pilot_Implementation_Games_Rules.pdf](#)

○ **Conference call minute with volunteer partners:**

- ✓ Conf #1 01/07/2014
- ✓ Conf #2 16/07/2014
- ✓ Conf #3 31/07/2014
- ✓ Conf #4 06/08/2014
- ✓ Conf #5 25/08/2014
- ✓ Conf #6 04/09/2014



EGIP Architecture overview II



The EGIP @ national level:

1. Collecting/preparing the data
2. Data mapping (if needed)
3. Creating catalogue of the metadata (following the INSPIRE rules)
4. Implementing discovery, view, download services



The EGIP @ EU level:

1. Preparation of the xsd file and EGIP data model documentation
2. Web portal implementation
3. Setting up the portal on web services retrieved from the confederate national portals
4. Checking the EU-portal functionalities



EGIP pilot – Stage 1: list of data

Table 1: List of information to include in EGIP Pilot.

Data number	Information	Format	Spatial	Typology Definition	INSPIRE topic category	INSPIRE theme category
1	Temperature maps	Structured	YES	Map coverage (i.e. 2D grid format. This is preferred) or vector format	Geoscientific information	Energy Resources
2	Surface Heat Flow	Structured	YES	Map coverage (i.e. 2D grid format. This is preferred) or vector format	Geoscientific information	Energy Resources
3	Exploration and production licenses and (projected) power production	Structured	YES	Map (vector)	Exploration and production licenses	Area management / restriction / regulation zones
4	Environmental impact laws	Un-Structured	NO Country	Document	Environment	-
5	Licensing regulations (exploration/exploitation)	Un-Structured	NO Country	Document	Planning cadastre	-
6	Legal conditions for grid access	Un-Structured	NO Country	Document	Structure	-
7	Geothermal roadmaps	Un-Structured	NO Country	Document	Economy	-
8	Insurance	Un-Structured	NO Country	Document	Economy	-
9	Royalties & taxes, support scheme (feed-in tariffs, grants, ...)	Un-Structured	NO Country	Document	Economy	-
10	List of education & research institutes	List	YES	Map (vector)	Structure	-
11	List of Industries	List	YES	Map (vector)	Structure	Production and industrial facilities

Step-by-step plan:

- First step - **Stage 0:**
- **Short term – Stage 1**
- Medium term – **Stage 2**
- Long term – **Stage 3**



The **EGIP** consortium:



The volunteers participating countries up to now:



National Research Council of ITALY



Bureau de Recherches Géologiques et Minières - FRANCE



Swiss Federal Office of Energy (with Swiss Geological Survey)



Magyar Foldtani és Geofizikai Intézet - HUNGARY

Coming soon:



OS Orkustofnun - ICELAND



Slovenia Geological survey



How does **EGIP** work?



pilot initiative deploy a **data infrastructure** aimed at facilitating open access, the sharing of data, collaborative analysis, processing and mining processing, as well as the dissemination of newly generated knowledge.

The EGIP pilot offers a flexible and secure **web-based, community-centric** platforms, so geothermal stakeholders can work together on common challenges

The EGIP platform uses a specific Virtual Research Environment (**VRE**) set-up exploiting some of the **D4Science** infrastructure capabilities, which are developed and operated employing the **gCube** technology

The EGIP follows the **INSPIRE** specification and deploy **OGC** standard services

Powered by:



D4SCIENCE.ORG



The EGIP apps



application in EGIP belongs three different domains



ConnectCube applications are a comprehensive suite of tools, which support a **collaborative**, standards-oriented data publication environment:

- Shared workspace
- Social Network facilities



GeosCube applications help practitioners dealing with geospatial information to properly **access** and **consume**:



Geospatial Data Discovery



Metadata catalogue

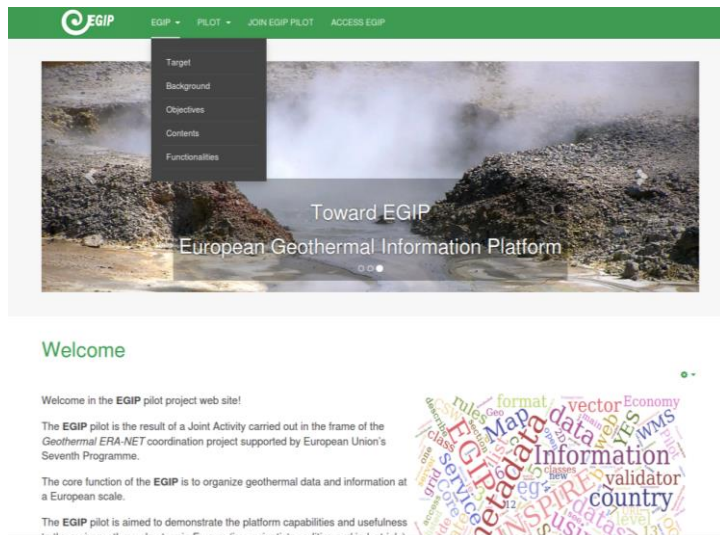


StatCube applications make up analytical tools:



Statistical manager





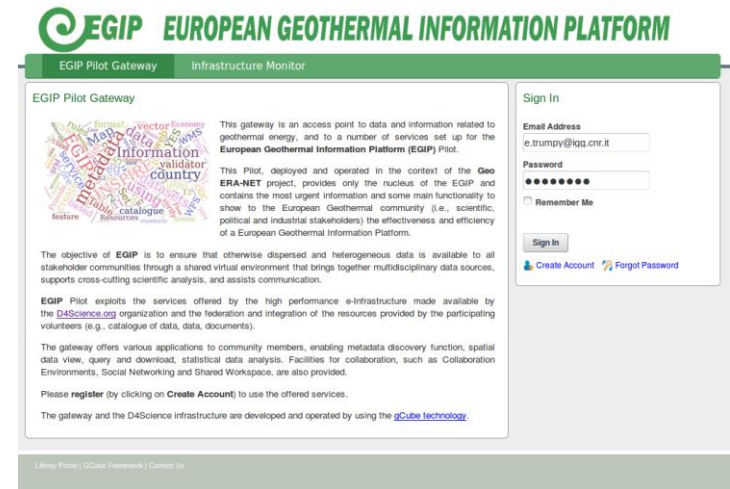
EGIP pilot website



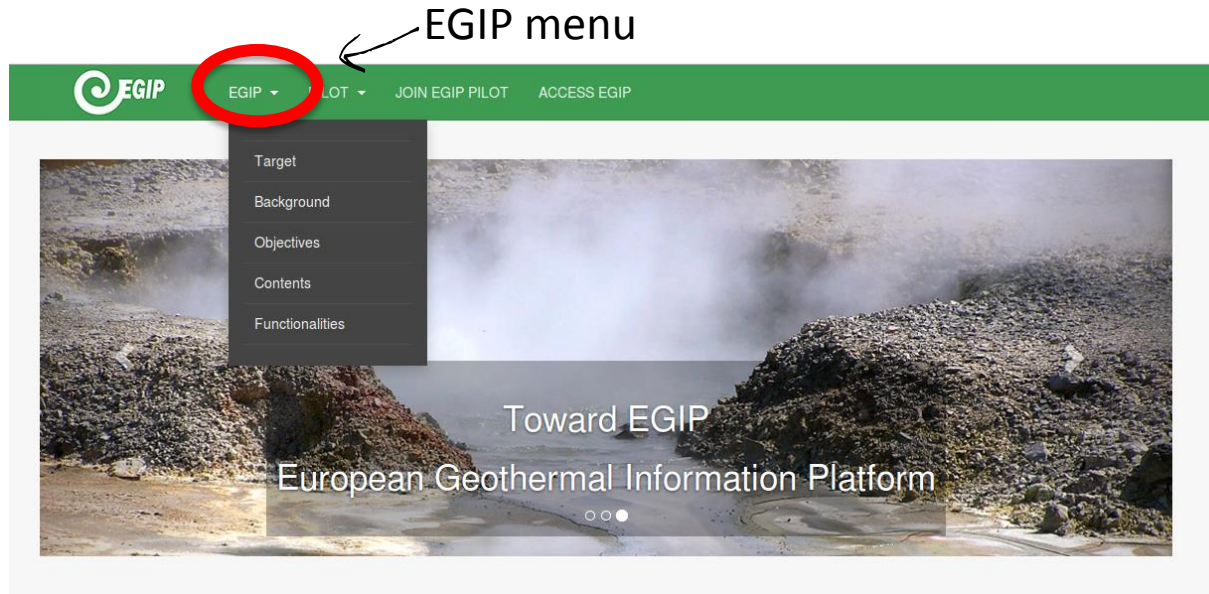
Access EGIP

Registration and access

EGIP pilot platform



EGIP web site I



EGIP menu:

- Target
- Background
- Objectives
- Contents
- Functionalities

Welcome

Welcome in the **EGIP** pilot project web site!

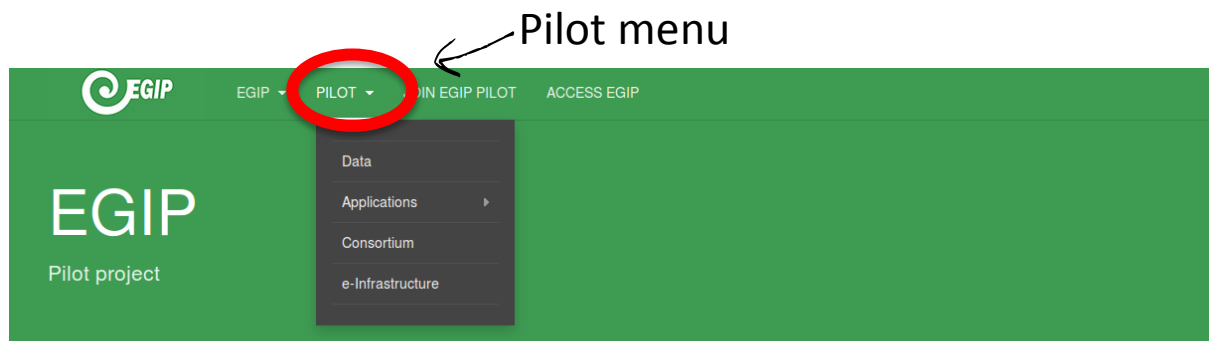
The **EGIP** pilot is the result of a Joint Activity carried out in the frame of the *Geothermal ERA-NET* coordination project supported by European Union's Seventh Programme.

The core function of the **EGIP** is to organize geothermal data and information at a European scale.

The **EGIP** pilot is aimed to demonstrate the platform capabilities and usefulness to the main geothermal sectors in Europe (i.e. scientists, politics and industrial).



EGIP web site II



Pilot project

This is the portal of the European Geothermal Information Platform (EGIP) pilot project, offering a number of services, information and data specially set up for the [Geothermal ERA-NET project](#). EGIP pilot exploits the services offered by the high performance e-Infrastructure made available by D4Science.org organization [see the detailed description] and the federation and integration of the resources provided by the participating volunteers (e.g., Catalogue of data, data, web services and documents).

This pilot provides only the nucleus of the EGIP and contains only the most urgent information and some main functionality to prove to the European Geothermal community the effectiveness and efficiency of a European Geothermal Information Platform.

When you **ACCESS** the available applications allow you to enable metadata discovery function; spatial data view, query and download, statistical data analysis. Facilities for collaboration, such as Collaboration Environments, Social Networking and Shared Workspace are also provided.

Please [register](#) to use the offered services

Pilot menu:

- Data
- Applications
 - connectCube
 - geosCube
 - statCube
- Consortium
- E-infrastructure



EGIP web site III



This are the instructions for preparing data, contact us for details:

National Research Council of Italy - CNR

1, G. Moruzzi street
56124 Pisa, Italy
P: (+39) 050 621 2324

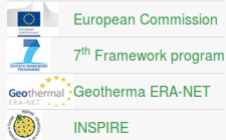
CNR - IGG

e.trumpy at igg.cnr.it

Title	Author	Hits
EGIP data model	Written by Super User	Hits: 23
Games rules	Written by Super User	Hits: 17
egip.xsd	Written by Super User	Hits: 17

You are here: [Home](#) / [Join EGIP pilot](#)

Links



Pilot consortium

CNR - National Research Council of Italy
BRGM - Bureau de Recherches Geologiques et Minieres
SFOE - Swiss Federal Office of Energy (with Swiss Geological Survey)
MFGI - Magyar Foldtani es Geofizikai Intezet

Powered by



Acknowledgement:

All the graphs have been realized by [Lorenzo Gori](#) - CNR

- Contact references
- Documents describing how to join in EGIP pilot



EGIP web site IV




search workspace

EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

Home Profile

Welcome to EGIP Pilot Gateway

EGIP VRE






The **EGIP** capabilities, as established for the **EGIP** pilot, are here provided within **EGIP** Virtual Research Environment (VRE). The **EGIP** VRE deploys services offered by the high performance e-Infrastructure D4Science and the federation and integration of resources provided by participating volunteers.

Up to now **EGIP** provides community members with different applications not only enabling metadata discovery function; spatial data view, query and download, statistical data analysis but also facilities for collaboration, such as Collaboration Environments, Social Networking and Shared Workspace.

Enter the EGIP Virtual Research Environment [Enter now](#)

The **EGIP** VRE supports by default two important applications: the **Virtual Workspace** and the **Social Network facilities**, which provide a collaborative, standard-oriented data publication environment, including semantic technologies.

Other available EGIP VRE applications are:

-  **Metadata Catalogue:** harvests geothermal metadata, via the OGC CSW protocol, from the EGIP pilot National volunteer partners. It shows the registered metadata according to the INSPIRE requirements. The catalogue allows users to search and discover the Geothermal information belonging to EGIP.
-  **Geo Explorer:** allows to insert all spatial layers registered in the Metadata Catalogue in a map. Geo Explorer has main webGIS functionalities such as zoom in, zoom out, pan, data selection and data interrogation. For each layer the user can: i) adjust the opacity, ii) setup a data filter and iii) see the legend. Both the assembled map and each layer can be exported and downloaded locally or saved in the workspace available in the EGIP VRE to be shared with other registered users.
-  **Statistical manager:** provides a large number of tools to analyse the available datasets. In EGIP VRE, as demonstration of this powerful tool, only a few and simple algorithms has been implemented, to examine the Geothermal Energy production trend in the Geothermal ERA-NET partner countries.

Click here to enter

Spatial data
discovery,
view and
download

Dataset
analysis

EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

EGIP Administration Data Catalog Geo Explorer Statistical Manager Calendar



Platform
home
page

Metadata
catalogue



EGIP platform: Data Catalogue

EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM



EGIP Administration Data Catalog Geo Explorer Statistical Manager

Data Catalog

Geothermal ERA-NET

Home | Administration | Contact us | Links | About | Help | English User: Eugenio Trumpp Logout

Simple Search Advanced Search

WHAT? WHERE?

Map of Europe with search filters: - Any - Search Reset Options

Applications
Audio/Video
Case studies, best practices
Conference proceedings
Datasets
Directories
Interactive resources
Maps & graphics
Other information resources
Photo
Physical Samples
Registers
Z3950 Servers

Find interactive maps, GIS datasets, satellite imagery and related applications

Aggregated results matching search criteria : 1-10/87 (page 1/9) , 0 selected
Select : all, none actions on selection
Sort by Relevance

TEMPERATURE AT 3 KM DEPTH, HUNGARY

Abstract Map of temperature at 3 km depth (below ground level), Hungary
Keywords geothermal energy, map, Hungary, Energy resources, EGIP, MFGI
Schema iso19139
Extent 16.1899332211423 45.7131597785264 22.9348095750262 48.5414018776899
2009-01-01T00:00:00 2014-01-19T00:00:00

Metadata Interactive Map Other actions

HEAT FLOW LINES

Abstract Heat flow line data for EGIP
Keywords geothermal energy, Energy resources, Switzerland, EGIP (European Geothermal Information Platform)
Schema iso19139
Extent 5.835 45.658 10.978 47.857

Metadata Interactive Map Other actions

CS-W catalogue:

- Harvests the metadata from partners metadata catalogues
- Metadata collection for spatial dataset
- Metadata collection for documents
- INSPIRE Standard ISO-19139
- Dublin-core
- Spatial search
- Text search



EGIP platform: GeoExplorer



EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

EGIP Administration Data Catalog Geo Explorer Statistical Manager Calendar

GisViewer

GeoExplorer Add Selected Layers Remove All Layers Add External WMS Layer

Search for Title enter a text

Layer Title	Abstract	Keywords	Layer Name
<input checked="" type="checkbox"/> TrainingCenter Publication Date: Tue Jul 22 19:28:11 GMT+200 2014 Scope Code: DATASET	List of education and research centres with geothermal course...	geothermal energy, D4Science, map, Italy, EGIP, TrainingCenter	IGG:TrainingCenter
<input checked="" type="checkbox"/> TrainingCenter Publication Date: Thu Aug 28 16:44:18 GMT+200 2014 Scope Code: DATASET	The class TrainingCenter was created to present a list of Educ...	France, Education, TrainingCenter, EGIP	TrainingCenter
<input checked="" type="checkbox"/> TemperatureUnit Publication Date: Thu Aug 28 16:44:16 GMT+200 2014 Scope Code: DATASET	The class TemperatureUnit presents a temperature map. Tem...	France, TemperatureUnit, EGIP	TemperatureUnit
<input checked="" type="checkbox"/> TemperatureLine Publication Date: Thu Aug 28 16:44:15 GMT+200 2014 Scope Code: DATASET	The class TemperatureLine presents a temperature map. Tem...	TemperatureLine, France, EGIP	TemperatureLine
<input checked="" type="checkbox"/> Temperature map at 3 km depth Publication Date: Wed Jun 25 11:31:37 GMT+200 2014 Scope Code: DATASET	Temperature map at 3km depth (below ground level) of Italy	geothermal energy, Energy resources, D4Science, map, Italy, ...	IGG:area_temp_3000
<input checked="" type="checkbox"/> Temperature map at 2 km depth Publication Date: Wed Jun 25 11:31:37 GMT+200 2014 Scope Code: DATASET	Temperature map at 2km depth (below ground level) of Italy	geothermal energy, Energy resources, D4Science, map, Italy, ...	IGG:area_temp_2000
<input checked="" type="checkbox"/> Temperature map at 1 km depth Publication Date: Wed Jun 25 11:31:35 GMT+200 2014 Scope Code: DATASET	Temperature map at 1km depth (below ground level) of Italy	geothermal energy, Energy resources, D4Science, map, Italy, ...	IGG:area_temp_1000
<input checked="" type="checkbox"/> Temperature at 3 km depth, Hungary Publication Date: Thu Aug 28 14:24:08 GMT+200 2014 Scope Code: DATASET	Map of temperature at 3 km depth (below ground level), Hungary	geothermal energy, MFGI, EGIP, map, Energy resources, Hun...	temp3000
<input checked="" type="checkbox"/> Temperature at 2 km depth, Hungary Publication Date: Thu Aug 28 14:24:07 GMT+200 2014 Scope Code: DATASET	Map of temperature at 2 km depth (below ground level), Hungary	geothermal energy, MFGI, EGIP, map, Energy resources, Hun...	temp2000
<input checked="" type="checkbox"/> Temperature at 1 km depth, Hungary Publication Date: Thu Aug 28 14:23:59 GMT+200 2014 Scope Code: DATASET	Map of temperature at 1 km depth (below ground level), Hungary	geothermal energy, MFGI, EGIP, map, Energy resources, Hun...	temp1000
<input checked="" type="checkbox"/> Temperature Isoline at 3 km depth Publication Date: Wed Jun 25 11:31:31 GMT+200 2014 Scope Code: DATASET	Temperature map at 3km depth (below ground level) of Italy	geothermal energy, Energy resources, D4Science, map, Italy, ...	IGG:iso_3000

Page 1 of 2 Displaying 1 - 12

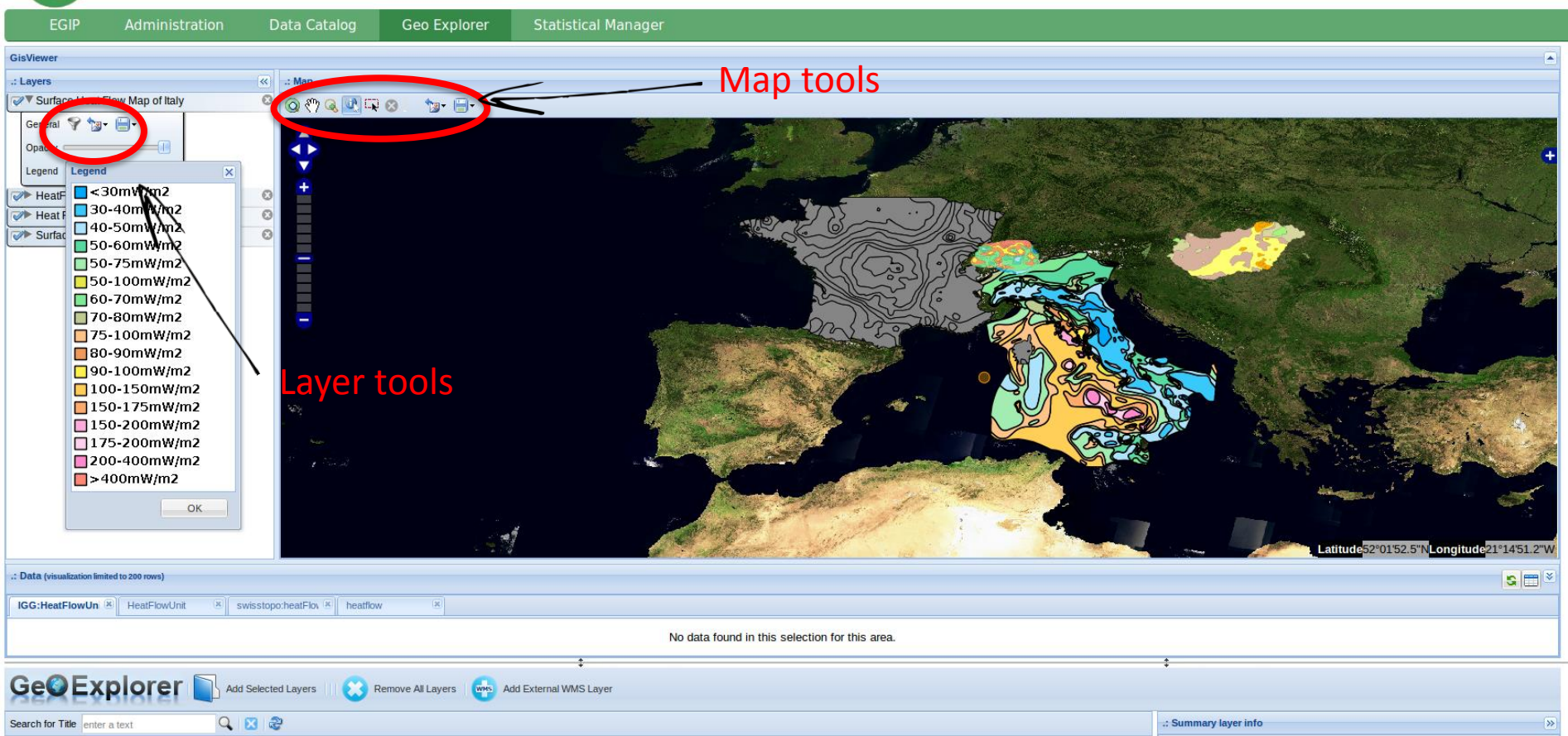
Geo-explorer capabilities:

- Harvest the spatial dataset from partners
- Show spatial layers
- Browse map: zoom, pan
- Query spatial layer
- Manage the layer opacity
- Save & Share the layers and maps
- Metadata outlook



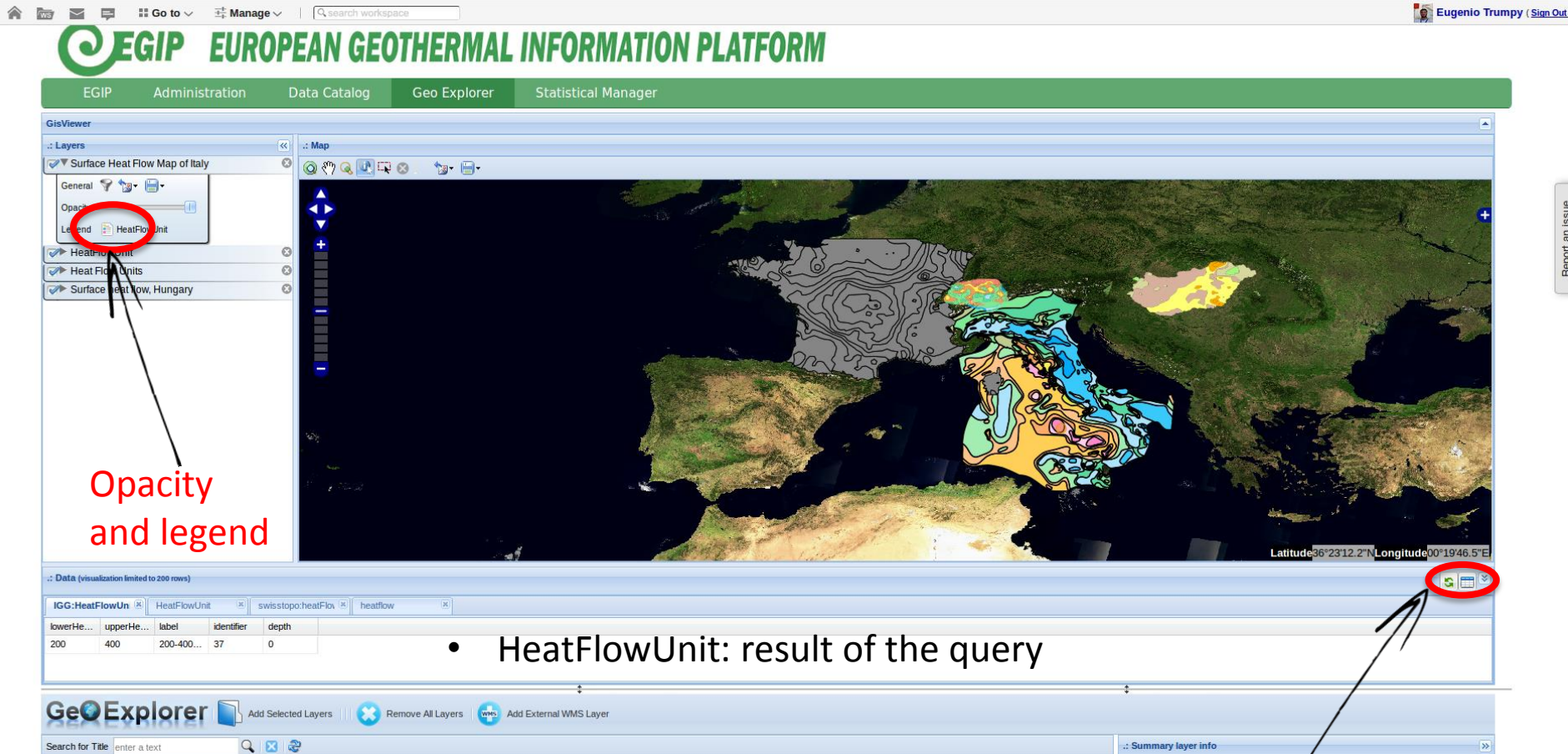
EGIP platform: GeoExplorer

- HeatFlowUnit among volunteers participants



EGIP platform: GeoExplorer

- HeatFlowUnit among volunteers participants



EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

EGIP Administration Data Catalog Geo Explorer Statistical Manager

Layers

- Surface Heat Flow Map of Italy
- HeatFlowUnit
- HeatFlowUnits
- Surface Heat Flow, Hungary

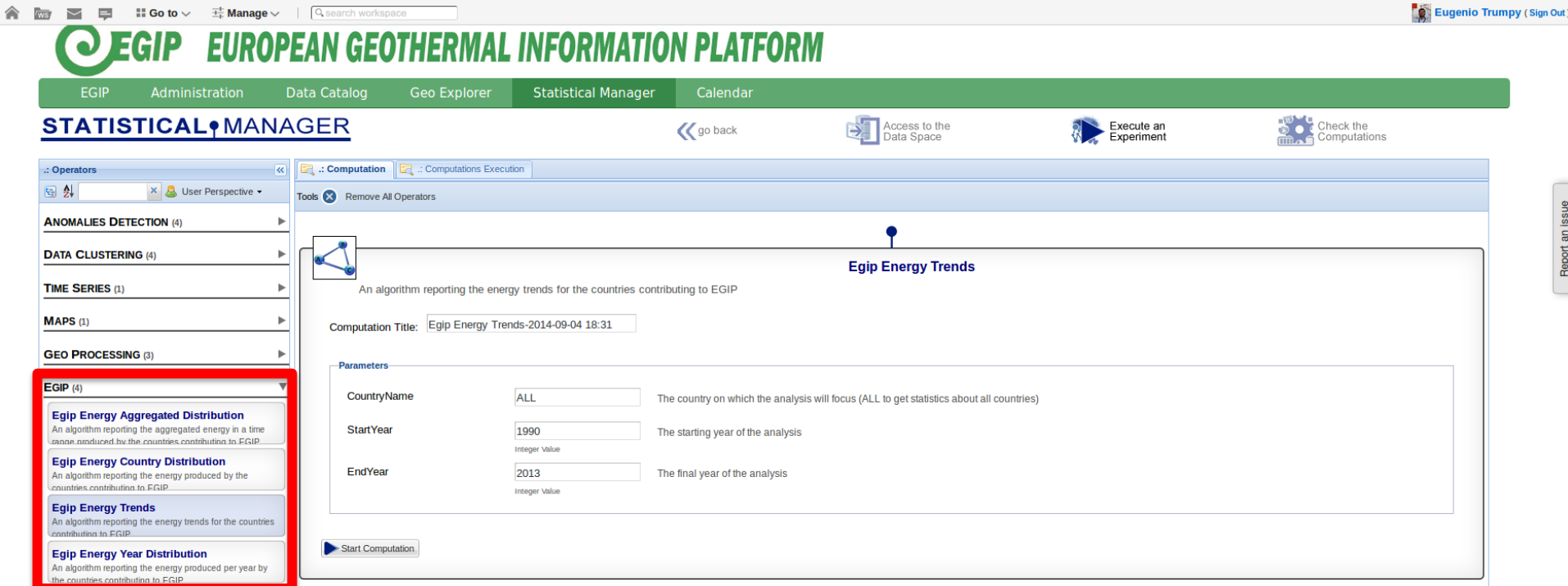
Opacity and legend

HeatFlowUnit: result of the query

Download dataset

lowerHe...	upperHe...	label	identifier	depth
200	400	200-400...	37	0

EGIP platform: Statistical Manager



The screenshot shows the EGIP Statistical Manager web interface. At the top, there's a navigation bar with links to EGIP, Administration, Data Catalog, Geo Explorer, Statistical Manager (selected), and Calendar. Below this is a header for 'STATISTICAL MANAGER' with a 'go back' button and icons for 'Access to the Data Space', 'Execute an Experiment', and 'Check the Computations'. The main area is divided into a left sidebar and a central workspace. The sidebar lists various operators: ANOMALIES DETECTION (4), DATA CLUSTERING (4), TIME SERIES (1), MAPS (1), GEO PROCESSING (3), and EGIP (4). The 'EGIP (4)' category is expanded, showing four sub-operators: 'Egip Energy Aggregated Distribution', 'Egip Energy Country Distribution', 'Egip Energy Trends' (highlighted with a red box), and 'Egip Energy Year Distribution'. The central workspace displays the 'Egip Energy Trends' configuration page. It includes a description: 'An algorithm reporting the energy trends for the countries contributing to EGIP'. Below this is a 'Computation Title' field with the value 'Egip Energy Trends-2014-09-04 18:31'. A 'Parameters' section contains three input fields: 'CountryName' (set to 'ALL'), 'StartYear' (set to '1990'), and 'EndYear' (set to '2013'). Each field has a description and a 'Integer Value' label. At the bottom of the workspace is a 'Start Computation' button.

Statistical analysis:

- Analysis served by WPS
- Import dataset
- Define analysis name
- Manage series
- Execute and get results as different chart & plot
- Share your analysis

EGIP platform: Statistical Manager

EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

EGIP Administration Data Catalog Geo Explorer Statistical Manager Calendar

STATISTICAL MANAGER

Access to the Data Space Execute an Experiment Check the Computations

Operators

- ANOMALIES DETECTION (4)
- DATA CLUSTERING (4)
- TIME SERIES (1)
- MAPS (1)
- GEO PROCESSING (3)
- EGIP (4)
 - Egip Energy Aggregated Distribution
 - Egip Energy Country Distribution
 - Egip Energy Trends
 - Egip Energy Year Distribution**

Computation Computations Execution

Tools Remove Computations Log

The computation Egip Energy Year Distribution finished.

The algorithm produced Multiple Results.

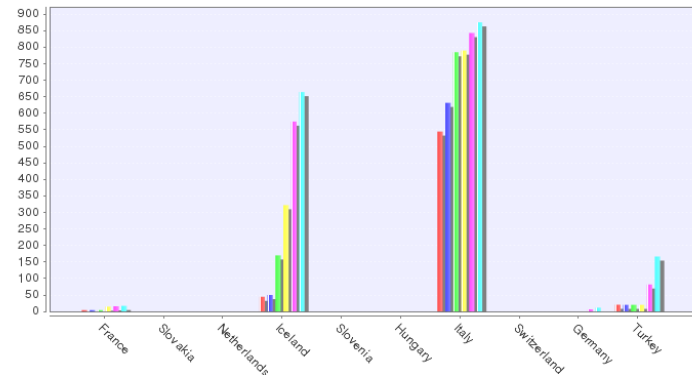
Images

Images

Save all images on the Workspace.

MegaWatt Electrical

Histogram Chart



MegaWatt Thermal

Statistical analysis:

- Execute and get results as different chart & plot
- Save the results of your analysis
- Share your results exploiting connectionCube apps (Workspace and Social)

EGIP platform: Collaborative environment



A single place to

- Manage all the portal extension

Notifications Page

Workspace

Search in your Workspace



Home Social

Messages

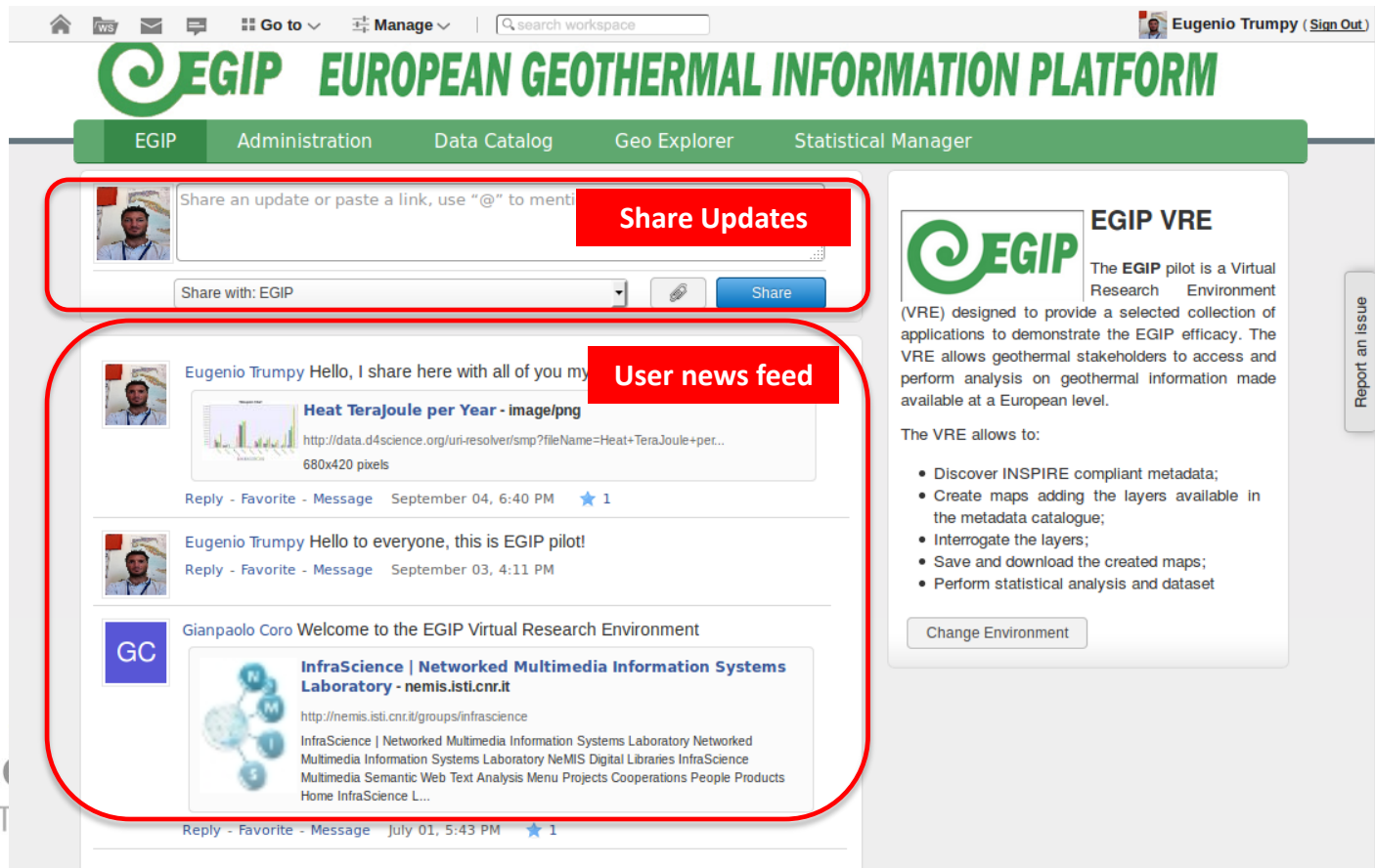
Manage user profile



EGIP platform: Collaborative environment, Social facilities

A single place to

- Get status and updates from applications and other users
- Get notifications about messages, jobs completion, new generated products, etc.



The screenshot displays the EGIP (European Geothermal Information Platform) web interface. At the top, the navigation bar includes links for EGIP, Administration, Data Catalog, Geo Explorer, and Statistical Manager. The main content area is divided into two primary sections. On the left, a 'Share Updates' section features a text input field for sharing updates or links, a 'Share with: EGIP' dropdown, and a 'Share' button. Below this is a 'User news feed' section, which displays a list of user posts. The first post is from Eugenio Trumpy, dated September 04, 6:40 PM, with a star icon and a '1' indicating one reply. The second post is also from Eugenio Trumpy, dated September 03, 4:11 PM, with a star icon and a '1' indicating one reply. The third post is from Gianpaolo Coro, dated July 01, 5:43 PM, with a star icon and a '1' indicating one reply. On the right side of the interface, there is a section titled 'EGIP VRE' (Virtual Research Environment). It describes the VRE as a tool designed to provide a selected collection of applications to demonstrate the EGIP efficacy. The VRE allows geothermal stakeholders to access and perform analysis on geothermal information made available at a European level. Below this description, a list of capabilities is provided: Discover INSPIRE compliant metadata; Create maps adding the layers available in the metadata catalogue; Interrogate the layers; Save and download the created maps; Perform statistical analysis and dataset. A 'Change Environment' button is located at the bottom of this section. A vertical sidebar on the far right contains a 'Report an issue' button.

EGIP EUROPEAN GEOTHERMAL INFORMATION PLATFORM

EGIP Administration Data Catalog Geo Explorer Statistical Manager

Share an update or paste a link, use "@" to mention a user

Share Updates

Share with: EGIP Share

Eugenio Trumpy Hello, I share here with all of you my

Heat TeraJoule per Year - image/png

http://data.d4science.org/uri-resolver/smp?fileName=Heat+TeraJoule+per...

680x420 pixels

Reply - Favorite - Message September 04, 6:40 PM ★ 1

Eugenio Trumpy Hello to everyone, this is EGIP pilot!

Reply - Favorite - Message September 03, 4:11 PM

GC Gianpaolo Coro Welcome to the EGIP Virtual Research Environment

InfraScience | Networked Multimedia Information Systems Laboratory - nemis.isti.cnr.it

http://nemis.isti.cnr.it/groups/infra-science

InfraScience | Networked Multimedia Information Systems Laboratory Networked Multimedia Information Systems Laboratory NeMIS Digital Libraries InfraScience Multimedia Semantic Web Text Analysis Menu Projects Cooperations People Products Home InfraScience L...

Reply - Favorite - Message July 01, 5:43 PM ★ 1

EGIP VRE

The EGIP pilot is a Virtual Research Environment (VRE) designed to provide a selected collection of applications to demonstrate the EGIP efficacy. The VRE allows geothermal stakeholders to access and perform analysis on geothermal information made available at a European level.

The VRE allows to:

- Discover INSPIRE compliant metadata;
- Create maps adding the layers available in the metadata catalogue;
- Interrogate the layers;
- Save and download the created maps;
- Perform statistical analysis and dataset

Change Environment

Report an issue

EGIP platform: Collaborative environment Workspace



A single place to

- Manage data, store and preserve them
- Share data
- Share your analysis & Maps

*EGIP documents
categories*

- Scientific and Technical aspects
- Social acceptance
- Code
- Skills, employees and Energy need
- Research
- Training and Education
- Regulatory aspects
- Economic aspects

The screenshot shows the EGIP workspace interface. At the top, there's a navigation bar with "Home" and "Profile". Below it, a breadcrumb trail shows "Workspace > VRE Folders > EGIP > Regulatory aspects > Italy > Grid access". A search bar is present. The left sidebar shows a tree view of the workspace structure, including "VRE Folders", "EGIP", "Code", "Economic aspects", "Regulatory aspects", "France", "Italy", "Environmental", "Grid access", "Licencing", "Research", "Scientific and Technical Aspects", "share_brgm_cnr", "Skills, employees and Energy need", "Social aspects", and "Training & Education". The main area displays a table of documents with columns for Name, Owner, Type, Last Update, and Size. The table lists several documents, including "Delibera ARG-et 33-08", "Delibera ARG-et 99-08", "Delibera n. 281-05", "Deliberazione 22 dicembre 2011 - ARG-et 187-11", "DELIBERAZIONE 26 LUGLIO 2012 328-2012-R-eel", and "Delibera n. 281-07 Obblighi di registrazione delle interruzioni d...". A black arrow points from the "Economic aspects" category in the list on the right to the "Economic aspects" category in the tree view on the left.



EGIP pilot benefit:

- Guaranteed data **interoperability**: retrieval, viewing and access of information from partners (via WMS, WFS e.g. TemperatureUnit, HeatFlowline, ...)
- Harmonized geothermal domain at a European level
- **Efficiency**, thanks to the multiplicity of data sources, the latter being directly related to national databases
- Guaranteed ownership: data **belong** to and **stay** in the country they are related to
- Durability and maintainability
- Economically viable, requiring only coordination with respect to what each country would need to develop independently
- Productivity, by covering all published data in the long term

WP4/WP7 Joint Activity



<http://egip.igg.cnr.it>



Thank you for your attention!!

