Demonstration of soft stimulation treatments of geothermal reservoirs

Deliverable [D7.1/D27]:
Set up of email, internal website and shared workspace completed

WP 7: Dissemination, communication and outreach

<table>
<thead>
<tr>
<th>Lead Beneficiary</th>
<th>ETH</th>
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| Type             | □ R - report, document etc.  
□ DEM - demonstrator, pilot etc.  
□ DEC - website, patent filing etc.  
□ OTHER - software, technical diagram etc.  
□ E - ethics |
| Status           | □ Draft  
□ WP manager accepted  
□ Project coordinator accepted |
| Dissemination level | x PU - Public  
□ CO - Confidential: only for members of the consortium |
| Contributors     | x 1-GFZ  
x 2-ENB  
x 3-ESG  
x 4-UoG  
x 5-GES  
x 6-TNO  
x 7-ETH  
x 8-GTN  
x 9-GTL  
x 10-UoS  
x 11-TUD  
x 12-NEX  
x 13-SNU  
x 14-KIC  
x 15-ECW  
x 16-WES |
| Creation date    | 1 June 2016 |
| Last change      | 30 August 2016 |
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| Submission date  | 31 August 2016 |
Executive summary

DESTRESS stands for an efficient and a successful cooperation and a smooth and transparent implementation of the project. Therefore, internal and external communication tools have been selected carefully after having reflected lessons learnt from the previews projects and having discussed proposed solutions in team.

As a result, an intense and engaged work on the successful launch of the project website and the internal working space was completed and both communication instruments went operational from August 2016.

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Annex 1: Manual for using EMDESK

Annex 2: First edition of the Internal Newsletter

The content of this document does not reflect the official opinion of the European Union and its Innovation and Networks Executive Agency (INEA). Responsibility for the information and views expressed here lies entirely with the author(s).
1 Project Website

1.1 Introduction

The DESTRESS website (www.destress-h2020.eu) acts as the main external communication tool, allowing access to project information and results. It addresses all target groups, in particular different stakeholders giving them a possibility to get acquainted with and involved in the project.

1.2 Objectives

In general: open and transparent communication about the project, its objectives and progress as well as a trustful and unbiased sharing of knowledge and best practices within geothermal energy research.

- comprehensible information about DESTRESS (who we are, what we do)
- background information on geothermal energy
- geothermal systems and the demonstration sites
- regular updates on the project’s progress (news, newsletter)
- relevant documents concerning best practice and information how to get physical and virtual access to demonstration sites resp. to the data

1.3 Structure

The following structure acts as a framework for the primarily information and can be extended and further specified along with project developments.

1.3.1 Main page

- Short introduction
- Reference to Site Access Programme
- News and events items
- Quick links to subpages

1.3.2 Who we are

Presentation of DESTRESS and its partners:

- About
- Objectives
- Partners
- Organisation
- Contact
- Emdesk

What is DESTRESS?
Why is DESTRESS needed / important?
Who is involved (presenting the partners)?
How is DESTRESS organized?
Whom can I ask for more information?
Log-in into the internal work area for DESTRESS partners only
1.3.3 What we do

Detailed description of the project providing information on the individual work packages and their deliverables.

Overview
WP1-WP7

1.3.4 Learn more

Background information on geothermal energy providing lay persons (authorities, politicians, interested public) a trustful and unbiased resource to strengthen their knowledge and understand the context.

Functionality How does it works?
Challenges and Opportunities What are the potential benefits and risks of geothermal energy?
State of the art What do we know?
Research What do we not know yet?

1.3.5 Demonstration sites

Warrant of apprehension for every demonstration site including a picture of the site and information like name, location, project status, and contact enabling virtual and real access to the demonstration sites.

Introduction
Visit demonstration site Site Access Programme
Klaipeda, Lithuania
Westland, Netherlands
Soultz-sous Forêts, France
Rittershoffen, France
Pohang, Korea
Haute-Sorne, Switzerland
Groß Schönebeck, Germany
Middenmeer, Netherlands
Technological Approach

1.3.6 Stay informed

Newsletter Current and archived external newsletters, possibility to subscribe
Results Publications and Deliverables
Materials Dissemination materials such as project flyer
News and events News and events archive
Stakeholder Network Information and Application
Links Link collection (related projects etc.)
1.4 Menu

Its design and content bases on the above described structure.

**Home**
- Who we are
  - About
  - Objectives
  - Partners
  - Organisation
  - Contact/ Emdesk

**What we do**
- Overview
- WP1
- WP2
- WP3
- WP4
- WP5
- WP6
- WP7

**Learn more**
- Functionality
- Challenges and Opportunities
- Results
- Research

**Demonstration Sites**
- Introduction
- Groß Schönebeck, Germany
- Haute-Sorne, Switzerland
- Klaipeda, Lithuania
- Middenmeer, Netherlands
- Pohang, Korea
- Rittershoffen, France
- Soultz-sous Forêts, France
- Westland, Netherlands

**Stay informed**
- Newsletter
- Results
2 Internal Workspace

2.1 Introduction

DESTRESS offers an internal working area via an external tool called EMDESK (www.emdesk.eu), which is tailored to suit the requirements of Horizon2020 projects and was internally selected as the preferred communication and project management tool compared with an intranet section on the DESTRESS website. Furthermore, to ensure a successful internal exchange of project updates, progress on activities performed in individual work packages and tasks as well as to share new knowledge and experience from project experiments, the dissemination team introduced an Internal Newsletter, which is to be issued on a regular basis.

2.2 EMDESK

EMDESK offers a wide array of internal communication features. However, it was jointly decided to put the focus on the following functions:

- Internal calendar including all project meetings at different levels (task, work package, general assembly, Executive and Advisory Board meetings etc.) and external events such as side events of DESTRESS or contributions to conferences.
- Timetable including deadlines for status/interim reports, official periodical reports, deliverables and milestones etc.
- File storage and sharing with set structure of files referring to work packages and tasks, deliverables, reporting, meetings, dissemination, publication and EC-requirements.
- Reporting, deliverable and milestone management enabling joint work on reports and controlling of partners’ contributions.
- Collaboration giving the partners a space for internal exchange and discussion.
- Mailing lists enabling a distribution of information to different groups with regard to e.g. individual task, work package, deliverable, demonstration sites and financial responsibilities.

EMDESK is considered as the main internal working instrument and to be used by every person involved in any DESTRESS activity. As the project stands for transparency and knowledge sharing, information and documents stored in EMDESK are made visible for every user, therefore all internal users are given reading and editing rights and the opportunity to contribute, save or post information. A manual for registering to and using EMDESK (see annex 1) was distributed among the partners and the tool started being used in August 2016.
2.3 Internal Newsletter

The Internal Newsletter offers important project information, progress reports and organizational matters in order to deliver an update on the latest news of the diverse project activities to all people involved in DESTRESS, regardless their location and participation in internal meetings. For first edition of August 2016 see the annex 2.

Annex 1

Annex 2
Manual for EMDESK

Get started “myEMDESK”

You received an invitation by email to join EMDESK. With the link to the registration you are able to create your own user account. Add your contact details and choose a username and password. The email address you enter will be the one the system uses to send you communications, e.g. project notifications or project messages. You’ll access the system at https://emdesk.eu/. After the successful log-in, you will see the following main page (“Desktop”):

Under Project Details (left panel) project and information related to the partner e.g. project duration, leading work packages and tasks are displayed. As you are assigned to an institution, under Project Details > You are Leader in every WP and task your institution is responsible for, is listed below. Unfortunately, it is not possible to individualize the data and to assign a WP or a task to an individual at this time.

As showed below in the figure, on the right side Upcoming events incl. Period, Event and Contractor are listed. You can arrange your individual settings and decide what you wish to see at first e.g. all events incl. dates, deliverables, milestones etc. for the next three months from all contractors or just deliverables your institution is leading scheduled for the next month. Just try it out and adapt it to your needs.
Underneath you can follow *Last Activities*. This tab displays the activities of your last personal messages, last updated documents and last posts in the shared project forum. And, the following *Message Wall* allows everyone within the project to post instant messages for all to see on the Project Overview screen and other project members can comment or create new posts in order to interact, as showed here:

In the upper menu (*Desktop > Project settings > Account Settings > Create new project*) the *Project settings* give you an overview of all DESTRESS users, assigned to every partner institution. On the right you can choose an institution and see, which persons have been registered and assigned, for e.g. to GFZ:

And, under *myEMDESK > Account Settings* you have the ability to update or change any of your profile or system information. In addition, the features located on the bottom of your screen incl. *Collaboration, Documents, Calendar* and *Support* are to be explained now:
Collaboration

*Collaboration* offers Contact Lists, Emails, Forums, Groups, Links and Wiki categories. DESTRESS will focus on the first four categories.

While clicking on Contacts you will view a list of all people involved in DESTRESS organized by partners. Email will enable us to send messages to a certain group e.g. Tasks, Work Packages, Deliverables via DESTRESS etc. These will be set by Justyna Ellis under Groups once every one has registered to EMDESK. And, an internal project discussion space is available for all project users under the Forum tab. You are able to start a new discussion or post replies on other threads there. All available discussion threads are listed on the left side panel. You can use the drop-down menu Sort by to sort the threads by Date Descending or Date Ascending.

Documents

*Documents Manager*, available under Documents next to Collaboration, gives you the opportunity to save and download files. We have already set a structure of the folders, which looks as follows:

Just click the button of the folder, which interests you to see the details.
Please note that changing the order or the names of the fixed folders is not permitted. The exception are the individual tasks. Every task team has the freedom to set its own structure/subfolders. We would like to ask every task group to assign a person in charge of it e.g. the task leader and inform us about it, so we can give him/her editing rights. This means that every user will be able to view the files and to download any documents, the document storage will go through the person responsible for the task file and she/he will decide what is to be saved on EMDESK. It means that only the assigned person will receive the editing rights for the documents management. Please also note, that deleting any documents saved on the platform is also not allowed! EMDESK offers daily backups and can retrieve information and files up to 5 days in the past just in case something goes wrong. Please inform Justyna Ellis immediately if this is the case.

Under Meetings you will find all information related to the general DESTRESS gatherings such as Kick-off and Progress meetings. Please store information about your WP- or task-internal meeting in your WP or Task file. Please open the other files on your own and check what we expect to be stored there.

Calendar

The Calendar is the shared project calendar, which provides an overview about DESTRESS related deadlines and additionally scheduled events e.g. conferences or meetings. Therefore, each user can schedule events and invite participants or make the event public to everyone. On the left side panel, the drop-down menu show, allows you to change the view to all upcoming events for the next 2 months, half year or year. Use the forwards/back buttons to move forwards or downwards through the time periods.

The project deadlines or events taking place in the selected period are also listed in the main area. To view details on an event, please click the button on the right side of the event entry. If you are the owner of the event, you can click “edit” to edit the event information or click “delete” to delete the event.

Please note that schedules project plan events, for example the deadline of Milestones or Deliverables, are shown in the project calendar related to the Contractor. Users can only view and edit events created by them and view events they are invited to. The Project Coordinator can view and edit all events scheduled in the calendar.
DoA

Next to myEMDESK you find a new part called DoA *(Description of Action)*, which is only available for the project coordinator allowing him to make corrections to the information on the project already saved in EMDESK, e.g. after some modifications of the finances or time tables. Please ignore this part of EMDESK.

Get started with “Implementation”

Please find the “Implementation” tap on the upper side next to “myEMDESK”. This part is about *Controlling, Reporting and Finances*, namely the actual implementation of DESTRESS, giving the exact information on the time table of work packages and tasks, the project progress, the budget and used resources.


As the main focus of DESTRESS is laid on the management of deliverables here, we will not describe all the tabs in details. Please feel free to get acquainted yourself with the individual features if wished.

Regarding *Deliverables*, persons responsible for the individual deliverables will receive more details on how to proceed here soon. The first two deliverables in responsibility of ETH and GFZ, which are due at the end of August, will be managed via EMDESK. We will report about our experience afterwards and give you tips how to manage them. An example of the status quo of one deliverable can be seen here:
At Implementation > Controlling > Report/Review Schedule, you can view the project’s reporting settings: levels like Interim/status and periodic, periods, schedule and each report’s due date. The information are managed by the coordinator and have been already included in the folder’ structure under Documents manager.

Reporting incl. Progress, Resources, Costs, Deliverables, Milestones, Risks, Dissemination, Publications, Cooperation

Every user can enter and review the narrative part of a report for each reporting period (Interim and Periodic reports) at Implementation > Reporting > Progress. As the first periodic report is scheduled for the month 18, we will give you more details on your involvement here at the beginning of 2017.
All contributions to the first interim report, scheduled for 1 September 2016, will be exposed after the progress meeting here:

In preparation of the second interim report due on 1 March 2017, every user will be contributing on the platform directly. Details will follow.

Get support

If you have any questions about EMDESK, just contact Justyna Ellis or go on Support in the bottom of your screen and use the Help Center or write a message to EMDESK to get a feedback:

Good luck and enjoy EMDESK!
Running hot and cold...?

Time flies by! Six months ago, DESTRESS has started. We hope, your tasks are progressing well, without preventing you from enjoying hot summer weather and cold refreshments (read more about such delights in the section "4 answers from")... Besides fun facts, our internal newsletter offers important project information, progress reports, and organizational matters.

This time Justyna starts with a short compilation of the most important functions of our internal workspace called "EMDESK". For detailed information, a comprehensive manual is linked. In addition, you can learn more about the challenges in Klaipeda (and why you should bring your swimsuit) and the recently opened geothermal plant in Rittershoffen.

Feedback and input are always welcome - enjoy reading!
Internal Workspace

I am happy to announce that EMDESK, our internal workspace, is operational now and can be used immediately. EMDESK offers a wide array of features. However, we decided to put the focus on the following functions:

- Internal calendar
- Timetable including deadlines
- File storage and sharing
- Reporting, deliverable and milestone management
- Space for exchange and discussion
- Distribution and group lists

EMDESK shall be considered as the main internal working instrument and actively used by every person involved in any DESTRESS activity. As our project stands for transparency and knowledge sharing, information and documents stored in EMDESK will be made visible for every user. Apart from some restrictions explained in the guidelines below, all internal users will be given reading and editing rights and the opportunity to contribute, save or post information. In order to especially protect our partners’ interest, we kindly ask you to refrain from transferring any “sensitive data” via EMDESK e.g. touching IPRs.

Please note that from now on, no more attachments will be sent via email. We will use this internal platform for the project related information transfer. In addition, we would like to prevent your mail boxes from filling up with DESTRESS-related emails, therefore also diverse mailing lists will be defined. In this regard, online invitations will be sent out to people included in the general mailing list asking you to register and log-in to EMDESK.

Guidelines for how to get started and acquainted with EMDESK can be found here and in the documents manager on EMDESK.

Wishing you a good start with EMDESK and looking forward to seeing you there!

Justyna
First Efforts to Address Challenges in Klaipeda Geothermal Site (WP4)

"How about a quick swim in our pool?" This question could come up when visiting the only running geothermal site in Lithuania. At the western coast of the Baltic state warm salty water is pumped from rocks 1000 m beneath the city of Klaipeda. Sigitas Petrauskas, Robertas Valickas and Antanas Petraitis from Geoterma, the local operator, are especially proud of the recently received certificate, which approves that the water is also clean and eligible for spa purposes. Therefore, guests at Geoterma are invited to enjoy the water of the in-house pool.

Although the team is happy about the strong discharge from the reservoir, at the same time they worry about low recharge into the underground: Running geothermal fluids in a subsurface loop is a main requirement for sustainable use of geothermal energy. Therefore, produced fluid has to be injected back into the reservoir formation. However, geothermal fields often face problems during injection, as the Klaipeda geothermal demonstration site does. Several treatments on site did not bring expected increase of injection rates. Reasons can be manifold and will be investigated with interdisciplinary methods within DESTRESS.

In March and July 2016 geochemists, reservoir engineers and rock mechanic experts from GFZ Potsdam visited the site to sample fluids, filter residual and core pieces for analysis in the laboratory. Discussions between local and visiting experts revealed interesting details, which will presumably help to solve the challenges at Klaipeda Geothermal Power Plant.

Spare time was spent together in the city, which has a nicely renovated old town with cobbled streets and restaurants along the Danes river. Klaipeda is located vis-à-vis the Curonian Spit with long white beaches facing the Baltic Sea to the west. The predominant sunny weather and the kindness of local people are understood as happy omen of work package 4!

Maren Brehme, GFZ Potsdam
On Tuesday, June 7th 2016, Ségolène Royal, the French Minister of the Environment, Energy and Marine Affairs, has inaugurated the brand new Rittershoffen geothermal plant located in Northern Alsace, France. The deep geothermal plant provides overheated steam to a starch factory located in Beinheim, 15 km away from the geothermal site. The geothermal brine (100g/L) is pumped from a fractured reservoir located at the interface between the sedimentary cover and the top crystalline basement. Two geothermal wells (production, injection) with depths of 2'600 m have been drilled from 2012 to 2014. Between the geothermal doublet and the starch factory, located along the Rhine river, a 15 km surface loop for transporting the heat to the industrial site, has been built in 2015. The production well discharges a very saline geothermal fluid on the surface with a temperature of 165 °C. After drilling operations, due to a low initial productivity index, the first geothermal well was successfully stimulated.
thermally, chemically and hydraulically. The post-stimulated injectivity index allows reaching an operational flowrate of 70 kg/s. Due to the high salinity of the geothermal fluid, the geothermal energy is transferred via a series of tubular heat exchangers to fresh water circulating within the horizontal loop. Thus, 24 MWth of geothermal energy are provided to the starch factory. It allows reducing annual CO₂ emissions by 39,000 tons.

Rittershoffen is now operational and has shown the maturity of the environmentally friendly Enhanced Geothermal System (EGS) technology developed by Électricité de Strasbourg (ÉS), with the help of its scientific and technical partners. The plant was built by ES, Roquette Frères and the Caisse des Dépôts with the financial backing of the French Agency for Energy and Environment (ADEME), and the Regional Council of Alsace. The three partners have formed a joint venture with a 40% share each held by ÉS and Roquette and 20% by the Caisse des Dépôts.

Albert Genter, ÉS Géothermie

The Rittershoffen inauguration: Segolène Royal, Minister for Environment, Energy and Marine Affairs and the public

4 Answers from...

Ernst Huenges

ONE sentence to describe your role/function in DESTRESS: I'm pleased to coordinate DESTRESS, ...

TWO linking points between DESTRESS and your current duties: ... because the work at international sites continues our national efforts in geothermal technology development and lead to a more economic access and utilisation of geothermal reservoirs.

THREE aspects of DESTRESS you are interested most in: The geological variety of the sites, the different treatment methods, and the close collaboration of science and industry are
The concept of EGS is focused on improving the extraction of hot fluids from and injection of cold fluids into a reservoir. What do you like best hot and cold?
Hot: Spicy food
Cold: Beer

Behind the Scenes

Help us! Quick Survey on Social Media and DESTRESS

At the moment we are thinking about social media channels which we might use for DESTRESS. Please help us deciding and take part in a quick survey (it'll take only 2 minutes - promised!).

Outreach

The DESTRESS communication activities have gained momentum too! Short after the release of this first internal newsletter our project website will go online. Check it out from 1st September on: www.destress-h2020.eu. Other communication materials like templates for reports, a project flyer and stakeholder leaflets will follow soon.

We need your input to successfully spread the word about DESTRESS. Therefore, we might contact you to provide input for upcoming newsletters (internal and external) or ask for small contributions for other activities. If you already have some ideas, do not hesitate to contact us. "Us" is Michèle Marti, head of communications at the Swiss Seismological Service at ETH Zurich, and Isabel Schlerkmann, communications manager.

Services

DESTRESS Activities

1.09.2016 Potsdam, Germany
First progress meeting for WP/task leaders and representatives

22.09.2016 Strasbourg, France
DESTRESS-side event at the European Geothermal Congress EGC2016

Conferences

12.-13.09.2016 in Celle, Germany
Celle Drilling 2016 at Congress Union
The Way Ahead - Drilling Innovation & Challenging Times
International Conference and Exhibition for Advanced Drilling Technology
Meeting for Executive and Advisory Board at the European Geothermal Congress

Call for Papers

8.-10.01.2017 Penang, Malaysia
The 2017 7th International Conference on Future Environment and Energy (ICFEE)
Submission: 5.09.2016

15.-16.02.2017 Offenburg, Germany
GeoTherm expo & congress

25.-26.06.2017 Paris, France
ICRERA 2017: 19th International Conference on Renewable Energy Resources and Applications
Submission: 25.10.2016

19.-23.09.2016 Strasbourg, France
European Geothermal Congress 2016 at Strasbourg

28.-29.09.2016 Melbourne, Australia
International Conference on Geo-Mechanics, Geo-Energy and Geo-Resources
Challenge the limits with knowledge. Advances in physical processes in subsurface earth materials to enhance deep Earth energy and mineral extractions, and greenhouse mitigation

23.-26.10.2016 Sacramento California, USA
40th GRC Annual Meeting & GEA Geothermal Energy Expo

DESTRESS is a Horizon 2020 supported programme aiming to demonstrate methods of EGS (enhanced geothermal systems) and thereby expanding knowledge and providing solutions for a more economical, sustainable and environmentally responsible exploitation of underground heat.

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