

Deliverable 7.2: DESTRESS Newsletter 1 published

WP7: Dissemination, communication and outreach

Lead Beneficiary	
Type	<input checked="" type="checkbox"/> R - report, document etc. <input type="checkbox"/> OTHER - software, technical diagram etc. <input type="checkbox"/> DEM - demonstrator, pilot etc. <input type="checkbox"/> E - ethics <input type="checkbox"/> DEC - website, patent filing etc.
Status	<input checked="" type="checkbox"/> Draft <input checked="" type="checkbox"/> WP manager accepted <input checked="" type="checkbox"/> Project coordinator accepted
Dissemination level	<input checked="" type="checkbox"/> PU - Public <input type="checkbox"/> CO - Confidential: only for members of the consortium
Contributors	<input checked="" type="checkbox"/> 1-GFZ <input checked="" type="checkbox"/> 5-GES <input checked="" type="checkbox"/> 9-GTL <input checked="" type="checkbox"/> 13-SNU <input checked="" type="checkbox"/> 2-ENB <input checked="" type="checkbox"/> 6-TNO <input checked="" type="checkbox"/> 10-UoS <input checked="" type="checkbox"/> 14-KIC <input checked="" type="checkbox"/> 3-ESG <input checked="" type="checkbox"/> 7-ETH <input checked="" type="checkbox"/> 11-TUD <input checked="" type="checkbox"/> 15-ECW <input checked="" type="checkbox"/> 4-UoG <input checked="" type="checkbox"/> 8-GTN <input checked="" type="checkbox"/> 12-NEX <input checked="" type="checkbox"/> 16-WES
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Introduction

DESTRESS introduces internal and external newsletters to its partners and an interested external public. After internal discussions, it was jointly decided to inform about the latest development and progress from DESTRESS at a regular basis. Available feedbacks proved the effectiveness and relevance of this communication means and will therefore be continued.

This explains the fact that in the last 12 months, four internal and two external newsletters instead of one mail have been published. Please see below explanations and attachments for more details and content.

Overview

	Internal Newsletter	External Newsletter
Objective	exchange of important information and internal news that concern all partners (top-down) and strengthen the community by providing informal insights of projects progresses (bottom-up)	in addition to the website as a “pull” tool (people need to visit our website), actively “pushed” insights and news of DESTRESS and its WP’s (we send the information)
Target audience	project members	project members stakeholders interested public
Distribution	project members	sign up on website project members
Promotion	none, sent to all project members	website, social media, other newsletters and websites (SED, ETH, SCCER, IGA-News, think geo energy)
Frequency	4 times a year, starting August 2016	4 times a year, starting September 2016
Schedule	all 12 weeks	all 12 weeks

Responsibilities

WP7 Dissemination	planning, coordination, writing, sending
WP1 Project management	information on organizational matters to disseminate
Executive Board	information on executive decisions to disseminate
Partners	providing content

Structure and content

Internal Newsletter	External Newsletter
<i>Greeting / overview / news in brief</i>	<i>Greeting / overview / news in brief</i>
<i>Organizational matters</i>	<i>Save the date</i> Upcoming DESTRESS-Events

important information from PM/COM/Executive board	
<i>Insights</i> Short reports from WP and demonstration sites	<i>News and progress</i> on research and demonstration sites (incl. event review)
<i>4 answers from...</i> <ul style="list-style-type: none"> • One sentence to describe your role/function in DESTRESS • Two linking points between DESTRESS and your current duties • Three aspects of distress you are interested most in • 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: / cold: 	<i>Did you know?</i> Facts about geothermal energy
<i>Behind the Scenes</i>	<i>Miscellaneous</i>
<i>Services</i> Events, links, papers, conferences	<i>Services</i> Events, links, papers, conferences – all open to the public
<i>Icons for website, email and LinkedIn</i>	<i>Icons for website, email and LinkedIn</i>
<i>Logos and disclaimer</i>	<i>Logos and disclaimer</i>

Coverage / Reach of mailing list

The email marketing service MailChimp allows to track the mailing lists changes. As the following table shows, both newsletters gained subscribers.

	Internal Newsletter	External Newsletter
No. of subscribers newsletter #1	91	115
No. of subscribers newsletter #2	100	130
No. of subscribers newsletter #3	118	<i>About 168 (coming in March 2017)</i>

Appendix: published newsletters between March 2016 and February 2017

	Internal Newsletter	External Newsletter
Newsletter #1	23 August 2016	6 October 2016
Newsletter #2	18 November 2016	14 December 2016
Newsletter #3	30 January 2017	
Special Edition General Assembly	31 January 2017	

Liability claim

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Korea Institute for Advancement of Technology (KIAT)
Swiss State Secretariat for Education, Research and Innovation (SERI)



Running hot and cold...?

Time flies by! Six month 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 swimwear) and the recently opened geothermal plant in Rittersshoffen.

Feedback and input are always welcome - enjoy reading!

Organizational Matters

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



Insights



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



Guido Blöcher and Harald Milsch while sampling campaign in July 2016
Ferry-boat leaving Klaipeda port for Germany
Main building of Klaipeda Geothermal Demonstration Plant
Antanas Petraitis from Geoterma while sampling campaign in March 2016



Geothermal Energy for Starch Production: Rittershoffen on Track (WP4)

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 ÉS, 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 exciting.

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 Schlerkman, 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](#)

22.09.2016 Strasbourg, France
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](#)
Submission: 9.09.2016

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

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

14.-16.09.2016 Belgrad, Serbia
[4th International Symposium on Environment Friendly Energies and Applications EFEA 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](#)





Demonstration of soft stimulation treatments
of geothermal reservoirs

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.

This project has received funding from the European Union's
Horizon 2020 research and innovation programme
under grant agreement No. 691728



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Website

DESTRESS community gaining grounds!

In September, about a third of the people involved in DESTRESS travelled from various European countries and Korea to Potsdam, Germany, for the first Progress Meeting. All presentations and the results of the fruitful discussions, which continued at the fantastic dinner, can be found on [Emdesk](#). Our thank goes to the GFZ team for the great organisation of this event!

We have just finished the first, but already the next meeting is in the planning phase. In spring 2017, the Klaipeda team will host our 2nd General Assembly from 2.-5. April. We are looking forward to having a swim in the pool mentioned in the last newsletter!

General Assembly in Klaipeda, 2.-5. April 2017

DESTRESS will held the next General Assembly with support from our Lithuanian partner GTL in Klaipeda. This event will include DESTRESS-

internal meetings and a joint workshop with the partner project SURE. We will start with the opening dinner on the 2nd of April and follow with different sessions and excursions to the GEOTERMA plant within the next days.

As there might be some additional offers at the plant with regard to our Site Access Programme between 6th and 7th of April, please refrain from planning your journey until we provide you with travelling instructions, meeting locations and the agenda in the next weeks.

Be Creative and Be Rewarded!

We are looking for a slogan describing the vision and aims of DESTRESS. As we believe that DESTRESS members are motivated and have great ideas, we decided to initiate a contest for the best DESTRESS slogan and of course honour the winner (a person or a team) with a prize! So please hand in a proposal by sending us an email. The best idea will be elected by the Executive Board. The winner will be rewarded in a small ceremony during the opening dinner in Klaipeda 2017. Go for it! It is definitely worth a try!

Organizational Matters

In this newsletter, we again offer some important organisational matters you should not miss. Read it carefully - and you will save time and hassle.

Mandatory Templates

DESTRESS provides Word and Powerpoint templates for a number of purposes. The use of these templates is mandatory for the submission of Milestones and Deliverables. Further, we provide a PowerPoint presentation and a documents for short and long reports. Please find the templates and a short guideline on how to use them on [Emdesk](#).

Obligations for Publications

According to the Model Grant Agreement of H2020, beneficiaries are obliged to make all scientific publications available in "open access". We provide you with a detailed description about the meaning of open access, obligations, funding and practical examples [here](#) and on Emdesk.

Calendar

Emdesk offers an internal [calendar](#). Check it regularly to stay informed about project related deadlines, meetings, site visits, workshops or telephone conferences. For details and information on how to schedule an event please read this [short description](#).

Mailing Lists

Different mailing lists e.g. individual work packages, tasks or sites were established on Emdesk. These groups are accessible via the *groups* tab through the *collaboration* menu on the bottom left of every page and, from now on, will be used for internal communication. So please make sure that you are subscribed to every group you are interested in. If you wish to be added to another group, just contact Justyna Ellis. For details read our short description or the Emdesk guideline.

Dissemination Material

Are you going to a conference and wonder how you could represent DESTRESS? Visit to our website and find a selection of dissemination materials such as a poster, a brochure, and a project presentation. If you need a printed brochures, please contact Potsdam or Zurich. We are happy to send you the requested number of flyers.

H2020 News: Revised Grant Agreement and Interim Evaluation

Please be aware of the clarifications, corrections and new rules in favour of the beneficiaries which are listed in the revised versions of model grant agreements.

Horizon 2020, the EU Framework Programme for Research and Innovation (2014-2020), is already in its third year. The European Commission asks researchers, entrepreneurs, innovators and all types of organisations that have participated in the programme, to fill in the online questionnaire. The results shall help to improve the functioning of the remainder of Horizon 2020, and will play an important role in the preparations of a successor programme.

Insights



1st Stakeholder Event at EGC Strasbourg

DESTRESS is establishing a stakeholder network to facilitate the exchange of good practices and to exploit project results. With that goal in mind, the management and dissemination team held its first side event for interested stakeholders at the EGC 2016 in Strasbourg. About 30 interested people, mostly representatives from the geothermal energy industry in Croatia, Hungary, Iceland, Finland, New Zealand and United States visited over lunch time. After a presentation from Ernst Huenges, a fruitful discussion arose. As we are eager to win more stakeholders in light of an upcoming midterm conference in 2017, please become involved and promote our stakeholder network. For details check out the [stakeholder network](#) section on our website. After the stakeholder event, the Advisory Board of DESTRESS held its kick off meeting at ES Headquarter. After the constitution and a project presentation, future expectations were addressed by the Advisory Board. The next Advisory Board conference will take place in April 2017.



Ernst Huenges presenting DESTRESS at the stakeholder event; interested audience at the event; Executive Board Meeting (clock-wise)



H2020 Workshop on Geothermal Research in Brussels

Early September, the project leaders and managers as well as the communication and dissemination managers gathered for a workshop on H2020 GeoThermal Research and Innovation Projects. The workshop focused on a better understanding of the projects' objectives and their communication activities. The aim was to recognize and benefit from synergies to base on joint actions. Among the numerous activities that emerged from the workshop are several communication related tasks as well as targeted improvements in technical data and knowledge exchange. DESTRESS was represented by Michèle Marti and Ernst Huenges. An overview of all geothermal projects supported by H2020 is available [here](#). DESTRESS will be responsible for an upcoming workshop about Joint Risk Assessment. More information will follow.



Representatives of EU energy projects in Brussels.

4 Answers from...



Albert Genter

ONE sentence to describe your role/function in DESTRESS:

I am the work package leader of risk management (WP3) and president of the executive board.

TWO linking points between DESTRESS and your current duties:

I am involved in many aspects of EGS projects in France. The main linking points are reservoir development (chemical treatment, hydraulic technique) combined with limited environmental issues (induced seismicity).

THREE aspects of DESTRESS you are interested most in:

- 1. Obtaining substantial progresses in enhancing reservoir permeability of hard rocks by soft stimulation techniques.**
- 2. Developing best practices about risk governance of a deep geothermal project by improving social acceptance.**
- 3. Limiting and reducing all the environmental impacts associated to reservoir development.**

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: **Chocolate**

Cold: **Ice cream**

Behind the Scenes

New Faces

A warm welcome to the newest DESTRESS project members:

Nima Gholizadeh Doonechaly, TU Delft

His main duty is to address the problems associated with heat extraction from geothermal reservoirs so as to improve the current state in energy harvesting from such reservoirs in WP6.

Francesco Grigoli, ETH Zurich / Swiss Seismological Service (SED):

His main tasks concern the development and/or improvement of the existing seismological methods for detection, location and source characterization of microseismicity in WP6.

Konstantinos G. Megalooikonomou, called "Kostas", at GFZ in Potsdam
As a research engineer he is responsible for seismic risk assessment for induced seismicity in WP3.



Services

DESTRESS Activities

11.-12.11.2016 Daejon, Korea
International Workshop on Hydraulic Stimulation & Microseismicity Monitoring in Pohang Geothermal Reservoir

23.11.2016 Strasbourg and Soultz Site, France
WP4.3 meeting between GFZ, Unistra (EOST), GEIE (Soultz) and ESG about reservoir sustainability related to Soultz and Rittershoffen sites.

12.-13.12.2016 Strasbourg, France
WP3.4 meeting between GFZ, Unistra (EOST) and ESG about non-standard risk monitoring. Site visits (Soultz, Rittershoffen) are planned to see how the operational non-standard risk monitoring could be installed and carried out in the coming months.

20.12.2016 Utrecht, The Netherlands
WP6 kick-off meeting

2.-5.4.2017 Klaipeda, Lithuania
General Assembly including Progress Meeting

Conferences

24.-25.11.2016 in Birmingham, United Kingdom
EERA Conference
Session on Earth Underground Systems

30.11.-1.12.2016 in Essen, Germany
German Geothermal Congress

5.12.2016 in Torino, Italy
Exploiting the Energy Below Us
Workshop



Mail us



Website



Demonstration of soft stimulation treatments
of geothermal reservoirs

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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Website



LinkedIn

Happy Sweet 2017!

Despite the fact that end of January is too late to wish you a happy New Year, we hope you started 2017 refreshed and de-stressed anyways!

In our 3rd internal newsletter we provide again some important organizational matters concerning upcoming deliverables, milestones and the interim report. Furthermore, we inform about the delays in Westland and Haute-Sorne. As planned are the proceedings of WP3 on "Non-standard risk monitoring" and the successful kick-off of WP6.

To sweeten the beginning of the year, don't forget to indulge yourself from time to time. Thomas Kölbl recommends vanilla ice cream with hot raspberries!

How to Join DESTRESS on ResearchGate

As you may have read in the external newsletter, DESTRESS is now present on [LinkedIn](#) and [ResearchGate](#). If you want to show your affiliation to the project, you can become a "collaborator" by following

Maren Brehme on ResearchGate. She will then add you to the project. Otherwise you may follow the project without being a collaborator. You are also welcome to become more active in promoting the project via LinkedIn and to post your news to make the project more lively!

Organizational Matters

Absence of Justyna Ellis in February

DESTRESS project manager, Justyna Ellis, will be on leave from 1 to 24 February 2017 for personal reasons, not having access to emails. In case of important matters, please contact her before 31 January 2017. Ernst Huenges will replace Justyna during her absence only in case of urgent issues. Thanks for your understanding and cooperation!

Upcoming Deliverables, Reports and Milestones

As we do not want to miss any deadlines, hereafter a friendly reminder of the upcoming dates and procedures to be considered:

Deliverables

- D2.1 "Risk and time/readiness maps of all relevant key factors" due on 28 February
- D5.1 "Description of individual completion elements required to segment EGS reservoir section" due on 28 February
- D7.2 "Newsletter 1 published" due on 28 February

Procedures for Deliverables:

- The deadlines are specified in the grant agreement and are published on EMDESK. No delays are acceptable!
- The use of the DESTRESS templates is mandatory (deliverable cover + report). There are stored under [Documents Manager > Dissemination > Templates](#).
- The deliverables can be prepared jointly via EMDESK: [Implementation > Reporting > Deliverables](#). The completion of the deliverable is expected within 7 weeks from the official start on EMDESK till the submission of the result.
- The final version of the deliverable is to be delivered to GFZ (Justyna and Ernst) 10 days before the actual deadline.
- Only GFZ submits the results to the EC and uploads them on the Participants Portal.

Report

Interim Report (Month 7-12) due on 1 March

The Interim Report is our internal solution to be updated on the flow and progress in the individual work packages and especially as a straightforward step to the first periodical report required by the EC in September 2017. It will be supported by EMDESK, which will consolidate all information reported by the individual work package and task leaders into one report and provide a basis for the upcoming workshop on reporting in Klaipeda.

Justyna will create a pattern on EMDESK and deliver a manual.

Contribution will be needed by all partners, however work package and task leaders will be responsible for the encouragement and input on EMDESK.

Milestones

M19 "External communication tools enabled" due on 1 March

M20 "First physical site access conducted" due on 1 March

Procedure for Milestones:

- Milestones do not count as an official report required by the EC. However, they are important for the monitoring process and their achievement must be communicated to the EC.
- Please provide a written proof for reaching the milestone by using the milestone template and send it three days before the actual deadline to the project management.
- After the internal review and approval of the result, the project management will report to the EC.

Please contact Justyna with any inquiries regarding these issues – the sooner the better!

Joint Cross-Topic Workshop "Geochemistry of Geothermal Fluids"

GFZ is in charge of planning and organising a cross-topic workshop on geochemistry of geothermal fluids for EU Horizon 2020-projects dealing with geothermal energy. The scope of the workshop is (1) to bundle synergies between the projects, (2) to agree on a common wording and classification of geothermal-geochemical terms, and (3) to define open questions and the required demand for research. The workshop is scheduled for 2017, a date has not been fixed yet. If you are interested in taking part, please contact Justyna for details.

Updated WP- and Task-List: Your Cooperation Is Needed

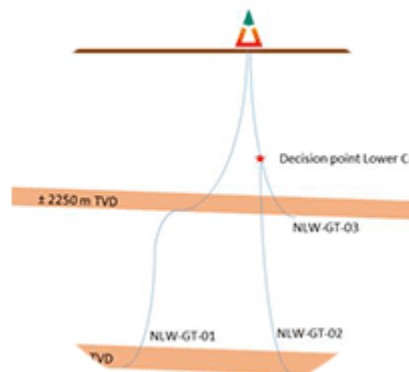
The composition of the individual work packages and tasks has been reviewed. The updated list of all responsibilities titled "work package and task teams 17.01.2017" was saved on EMDESK.

To ensure a transparent exchange and flow of information, we must count

on you. Please let us know if people are joining or leaving the project, keep us updated on changes within your work package and task and engaged teams as well as on meetings and events planned.

Please inform Justyna if there are additions to make.

Insights



Delays at Trias Westland and Haute-Sorne

The demonstration site Trias Westland has been delayed with the operational works due to a challenging tender process. Although the drilling was postponed for six months (start in October 2017 instead of March 2017), the planned activities are not negatively affected and the expected results are still to be met according to the official time table.

In addition, the site Haute-Sorne has faced delays. From today's point of view, the drilling planned for 2017 shall start in the second half of 2018, which still allows keeping the time table. Details will be explained during the General Assembly in Klaipeda.



WP3: List of Topics for Future Monitoring Has Been Compiled

In the framework of the WP3.4, entitled to "Non-standard risk monitoring",

teams from the Centre for Early Warning system (CEWS) at GFZ Potsdam and ESG met at the Soultz site on 12 December 2016. After ESG introduced the Soultz-sous-Forêts and Rittershoffen geothermal sites, GFZ presented an overview of their expertise in real-time monitoring capabilities, early warning systems for risk assessment and vulnerability studies. A list of relevant topics regarding future monitoring on site has been compiled. It includes the following tasks which could be tackled in early 2017: rapid characterization of the area, data acquisition with a google car, rapid map of exposure, new sensors, sensor deployment, site effects, permitting and information of city hall, selection of representative or critical structures (houses) and vulnerability models. A preliminary typology of the houses and buildings in this area has already been initiated by GFZ. In the following, we will focus on the deployment and installation of sensors in Northern Alsace around Soultz and Rittershoffen.

GFZ and ESG



GFZ and GES teams in Soultz



WP6: Kick-Off Meeting in Utrecht

A couple of days before Christmas, the members of work package 6 came together for their kick-off meeting on "Intelligent tools controlling performance

and environment” at the TNO headquarter in Utrecht (Netherlands). The group consists of researchers and experts with a broad background including seismology, geomechanics, geochemistry, reservoir engineering and applied geophysics. Among other topics, we talked about the required models and data needed to achieve the goals set. The main discussion of the meeting focused on the current activities and potential problems related to different test sites, such as Westland, Middenmeer (both the Netherlands) and Klaipeda (Lithuania). Further discussions concerned data availability, and the development of best practices on monitoring and managing induced seismicity related to geothermal energy exploitation.

Francesco Grigoli

4 Answers from...



Thomas Kölbel, EnBW

ONE sentence to describe your role/function in DESTRESS:

I am the leader of the WP2 team, in which we are dealing with the techno-economic evaluation of soft stimulation with a special focus on risk and uncertainty.

TWO linking points between DESTRESS and your current duties:

The question on how we can/want to develop geothermal resources and what the economic, technical and social consequences are, is already part of our daily work. DESTRESS is the perfect platform to improve existing concepts not only for us but also for the community.

THREE aspects of DESTRESS you are interested most in:

- 1. Results of practical application of soft stimulation.**
- 2. Is soft stimulation part of an economic business case?**
- 3. Which influence do risk and uncertainty have and how can the process of identification and evaluation be improved.**

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?

It's all in the mix: vanilla ice cream with hot raspberries...

Behind the Scenes

New Faces

A warm welcome to the newest DESTRESS project members:

David Banks, University of Glasgow

David is a hydrogeologist and hydrochemist. His main interests will be the interpretation of hydrochemical data from the DESTRESS project and the evaluation of the effects of acid and other chemical treatments of geothermal wells.

Márton Pál Farkas, GFZ Potsdam

The PhD student Márton deals with numerical modelling to reduce fluid-induced seismicity during stimulation and throughout the life cycle of Pohang geothermal project (WP6).

Antoine Jacquy, GFZ Potsdam

Antoine's main duty is to provide best practice workflow and numerical tools for modelling soft stimulation for one or two selected demonstration sites (WP6) and to give some insights into the development of a stimulator for modelling coupled processes as occurring during these stimulations in geothermal reservoirs (WP4).

Jahe Jung, KICT

The development and demonstration of cyclic hydraulic fracturing treatment in granites and tight sandstones are Jahe Jungs primary tasks in WP5.

Xiangzhao Kong, ETH Zurich

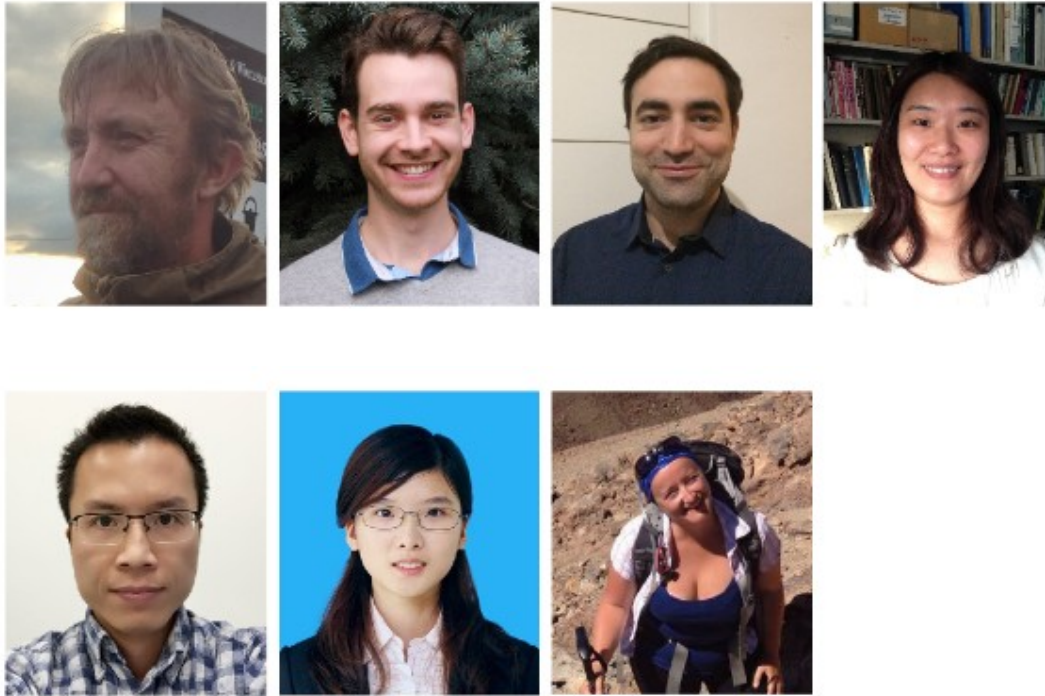
As a senior researcher, Kong's main tasks focus on the chemical stimulation at laboratory scale to improve the performance of injectivity enhancement in WP4 and WP6.

Jin Ma, ETH Zurich

Jin Ma's main task is to verify the effectiveness of acid stimulation for different conditions based on core sample characterization and reactive flow-through experiments in WP4 and WP6.

Helen Robinson, University of Glasgow

Helens responsibilities are to explore the medias influence on the public's perception of induced micro-seismicity in the UK (WP3).



First "DESTRESS-Baby" Born!

Congratulations to Dr. Zhuang Li (KICT): She gave birth to her pretty daughter on 12 December. We wish her all the best for this exciting time and are looking forward to welcome her back after the maternity leave in June 2017.



Services

DESTRESS Activities

26.-27.01.2017 Strasbourg, France
Social Science Meeting addressing media studies, sociological surveys as well as the theoretical framework and sociological analysis.

Conferences

13.-15.2.2017 at Stanford University/California, USA
[Stanford Geothermal Workshop](#)

3.5.2017 in Hannover, Germany

DESTRESS in Public

The December edition of the ThinkGeoEnergy newsletter published an update on Pohang with the title "[Innovative soft geothermal reservoir stimulation project started in Pohang](#)". We are happy that we gained through this a couple of new registrations for the DESTRESS newsletter!

[Norddeutsche Geothermietagung](#)

23.-24.5.2017 in Izmir, Turkey
[IGC Turkiye 2017](#)

Education

Gestion de projets en géothermie.
[Diplôme porté par l'université de Strasbourg, dans le cadre d'un partenariat entre l'engees, es Géothermie et L'EOST.](#)
Prochaine rentrée: 2.5.2017



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Demonstration of soft stimulation treatments
of geothermal reservoirs

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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under grant agreement No. 691728



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2nd General Assembly 2017 in Klaipeda

Our Second General Assembly (3 to 6 April 2017) in Klaipeda is coming closer. In this special edition newsletter we collected practical and organizational information to help you planning your trip. Please read it carefully as this newsletter will be the only information channel for the meeting!

More details to come in March.



Programme

Registration

We are aware that not everyone has the chance to stay with us from Monday till Thursday. Therefore, please indicate your duration in [foodle](#) by 16th of February at latest.

Representatives of every partner institution incl. work package and task leaders are obliged to attend the first slot on Monday morning about reporting issues as well as during the progress meetings on Monday and Tuesday.

As apparent in [foodle](#), there will be a chance to visit the geothermal site of our hosts on Wednesday, the 5th of April. We will offer three visiting tours for DESTRESS members, which are coordinated with the technical meetings. One tour will last about 1,5 h and is limited to 15 participants. We also need you to register for the tours in [foodle](#) (first come, first served).

Agenda

Monday, 3rd April

08.45-11.00 Project management, reporting issues and status quo of the sites
11.15-18.30 Progress and status quo of WP2-WP6
19.00-22.00 Opening dinner

Tuesday, 4th April

09.00-09.45 Progress and status quo of WP7
09.45-11.00 Workshop on communicating DESTRESS
11.00-12.00 Executive Board Meeting (members only)
13.00-14.00 Advisory Board/Executive Board Meeting (members only)
15.00-19.00 Klaipeda Site Access Programme / Joint Project Workshop
DESTRESS-SURE (and open for registered guests)

Wednesday, 5th April

09.00-10.30 First DESTRESS site tour (recommended for WP3, WP4, WP7)
10.30-12.00 Second DESTRESS site tour (recommended for WP5)
12.30-14.00 Third DESTRESS site tour (recommended for WP2, WP6)

parallel:

08.30-10.30 Technical meeting for WP6*
08.30-10.30 Technical meeting for WP2*
10.30-12.30 Workshop on economics within DESTRESS
10.30-12.30 and 14.30-16.30 Technical meeting for WP4*
14.30-18.30 Technical meeting for WP5*

Thursday, 6th April

09.00-14.00 Technical meeting for WP5*

Please note that, except from the Executive and Advisory Board meetings, the meetings are open to everyone. Templates for presenting the status quo and progress in their individual WP, task and sites will be provided. Please check [EMDESK](#) at beginning of March.

For details see the [preliminary programme](#).

**The technical meetings were included in the agenda upon request of the work package leaders who also take responsibility for the lead and discussion.*



Travelling and Lodging

If you have not made your travel arrangements yet, we recommend to fly to Klaipėda, as travelling by train or ferry from Germany or Sweden will take longer than a day.

The airports name is "Palanga" and there are direct flights to/from: Riga (Latvia), Copenhagen (Denmark), Oslo (Norway), London Luton / Stansted (UK) and Warsaw (Poland). Relating to good connecting flights from Palanga with SAS and AirBaltic, it is easy to reach a lot of other cities in Europe via Copenhagen and Riga. Alternatively you can choose Riga and Vilnius airports and travel by bus or train to Klaipėda.

Please be aware of the early programme start on Monday.

Hotel

We received a special group offer for 50€/night for a single room with breakfast at the

Amberton Hotel
Naujojo Sodo 1
92118 Klaipėda
Tel. +370 46 404 372

The hotel is located in the city center near the old town. The university can be reached by car or bus within 6 min or a walk of about 25 to 30 minutes.

Late check-in is possible.

To book a room with a special rate, please use this link for booking (Promo code "@GEOTERMA"). The special offer is valid till the end of February.

We will provide you with lunches and coffee/cakes from Monday till Wednesday during our sessions and invite you to join our official dinner on Monday, the 3rd of April. The venue will be announced soon.

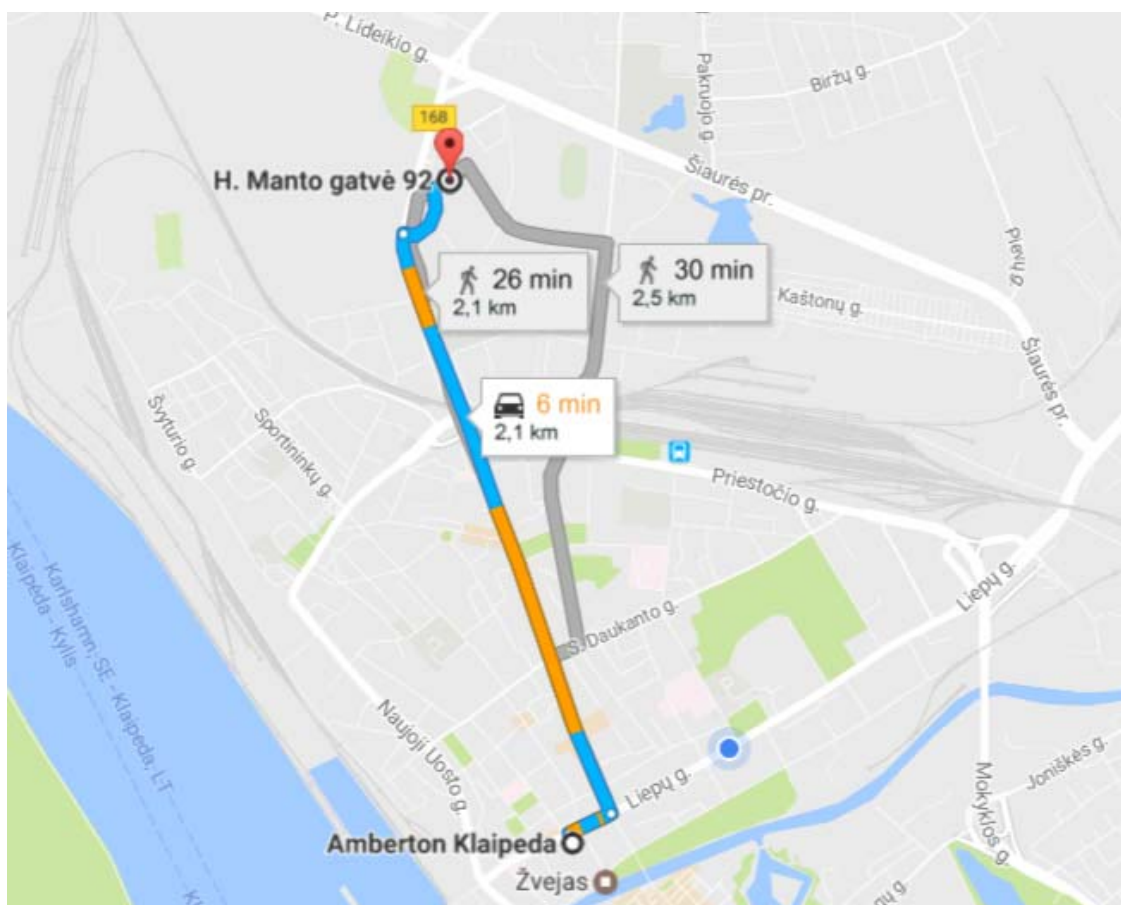
How to get from the airport Palanga to the hotel

As there are not many flights a day, we assume that you will meet other participants to share a taxi, which costs about 40 Euros. Taxis are usually on the spot. You can also use the app eTAKSI or book a airport pick up when you book your hotel room (30 Euros).

How to get from the hotel to the venue

All the meetings will take place at the Aula Magna at Klaipeda University, PC "Studlendas", H. Manto Str. 9 in Klaipeda. Room details will follow in March.

You can reach the Aula Magna by foot (25 minutes' walk), bus or taxi. The bus station close to the hotel is called "Atgimimo st". A one way ticket costs 0,80 €. Details about the bus trip from the hotel to the university are available here. The closest bus station to the Aula Magna is "Universiteto st."



How to reach the geothermal site on Wednesday

There will be a pick-up and drop-off service. People, who registered to take the first tour at 09:00 a.m. will be picked up from the hotel and dropped off at the university. The next tours scheduled for 10:30 a.m. and 12:30 a.m. will start from and end at the university.

More information coming up...

The next Special Edition Newsletter on Klaipeda informs you about venue details, some sightseeing options and places to eat.

Further questions and concerns? [Please let us know!](#)

DESTRESS Slogan Contest

We are still waiting for fantastic proposals for a slogan describing the vision and aims of DESTRESS. So please hand in a proposal by sending [us](#) an email. The best idea will be elected by the Executive Board. The winner will be rewarded in a small ceremony during the opening dinner in Klaipeda 2017.



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DESTRESS on Track

DESTRESS stands for a promising and future-oriented approach to demonstrate soft stimulation methods of EGS. We focus on solutions for the exploitation of underground heat which are economical, sustainable and environmentally responsible. Co-funded by the EU, we contribute to the European energy strategy, which targets renewable energy, greenhouse gas reduction and energy efficiency.

The primary objective of DESTRESS is to develop a comprehensive compilation of good practices for successful geothermal projects through demonstration and research. Since its start in March 2016, DESTRESS can already show a series of achievements and successful collaborative activities illustrating that the project is on track: In March and July 2016, geochemists, reservoir engineers and rock mechanic experts from GFZ Potsdam visited the [Klaipeda geothermal site](#) to sample fluids, filter residuals and core pieces for analysis in the laboratory. Our Korean partners conducted a first [stakeholder workshop](#), in which knowledge exchange on EGS was central, taking the Pohang site as an example. Furthermore, a [risk assessment meeting](#) in Germany compiled a top ten list of possible risks for soft stimulation

treatments. Last but not least, we held a successful side event at the European Geothermal Congress (EGC) in Strasbourg to identify and meet potential stakeholders. We experienced a strong interest in DESTRESS and held stimulating discussions.

By the way – have you ever wondered about the definition of soft stimulation? In the section [Did You Know...](#) we describe how we understand it within DESTRESS.

Stay on track with us: we publish latest news on our [website](#) and quarterly updates in this newsletter.



Ernst Huenges, Project Coordinator

Key Figures

DESTRESS involves **16** Partners (**8** academic institutions and **8** industrial companies) from **7** countries including France, Germany, Lithuania, the Netherlands, South Korea, Switzerland and the United Kingdom. About **90** participants work on **35** tasks organised in **7** work packages. The project is funded by the EU Horizon **2020** programme for the duration of **48** month and started on **1** March **2016**. The estimated project costs are about **25** Million Euro containing EU contribution in the amount of nearly **11** Million Euro.

News and Progress



First DESTRESS Workshop for Stakeholders: Korea-Europe Knowledge Exchange on EGS (4-8 July 2016)

In July 2016, researchers and experts in geothermal energy from Germany, France, Switzerland and Korea conducted the first DESTRESS stakeholder workshop. In Seoul they discussed recent progresses of different EGS projects. The workshop started with a guided tour at the EGS site in Pohang, conducted by the operator NexGeo Inc. Afterwards, the experts presented and discussed the monitoring system, the use of drilling fluids and hydraulic pumps, as well as initial stimulation results. A session of the DESTRESS work package 5 followed, addressing different EGS sites and research results.

Further, the participants had the opportunity to visit the Pohang headquarters of POSCO, one of the largest steel-producing companies in the world. The program continued with a seminar at the Korea Institute of Civil Engineering and Building (KICT). Günter Zimmermann, Arno Zang and Ove Stephansson (GFZ), Albert Genter (ÉS Géothermie) and Kwang Yeom Kim and Li Zhuang (both KIGAM) talked about hydraulic fracturing experiments in the laboratory and at test sites. A visit of the CT lab of the Korea Institute of Construction Technology (KICT) followed lunch. A second seminar, focusing on the Soultz Project and led by Albert Genter, took place at the Seoul National University the next day.

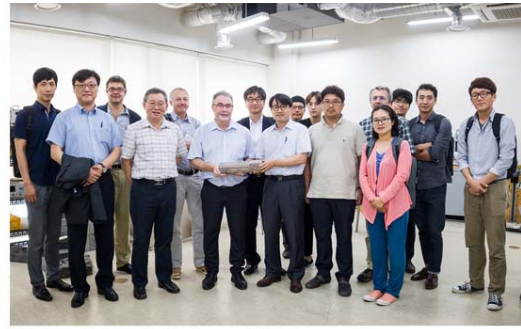
The programme was completed by the "Korea-Europe EGS Deep Geothermal Energy Workshop". The attendees' discussions focused on current project activities, new results in the field of hydraulic fracturing and induced seismicity including data monitoring and Discrete Element Modeling (DEM).

Peter Meier, Geo-Energie Suisse AG

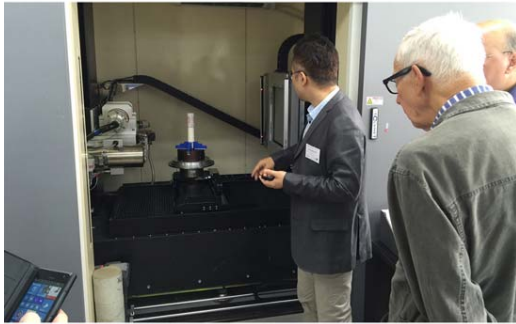
PS: For physical access, DESTRESS offers workshops for knowledge exchange and in-depth training courses combining them with a visit to a P&D site whenever possible. The next opportunity to participate will be in 2017. Detailed information will be published on our [website](#) at least two months in advance and advertised in the DESTRESS newsletter. The programme takes place in DESTRESS' partnering countries.



Visitors at the Pohang EGS site.



Visit of the CT lab at KICT.



Seminar on the Soultz project led by Albert.



SNU Lab visit after seminar: Albert Genter and Ki-Bok Min holding the core from Pohang deep EGS well 2.



Top Ten List of Possible Risks for Soft Stimulation (12-13 July 2016)

One aim of DESTRESS is to bring together social and economic challenges related to soft stimulation. An initial step for this task is to investigate possible risks: even though soft stimulation aspires to reduce the environmental impact of a reservoir enhancement, not every risk can be excluded. Therefore, thirteen experts from various DESTRESS project partners gathered at Energie Baden-Württemberg (EnBW) research campus in Karlsruhe, Germany. They identified and described 37 risks that were prioritized by conducting a worst case evaluation, in which different monetary and probability categories were assigned. As one of the main results, a preliminary list of the top 10 risks is available now consisting of blow out, fluid-fluid interactions (thermal brine and chemicals), fluid-rock interactions, induced seismicity (with time delay after injection), induced seismicity exceeding threshold, lack of information, loss in hole (measuring tool), political instability, public acceptance

and unwanted subsurface hydraulic connections. The risk assessment results will be further evaluated and serve to prioritize the research efforts in the years to come.

Sören Reith, EnBW



Glimpse into the risk assessment workshop in Karlsruhe.

Did You Know...

... How We Define Soft Stimulation?

Soft stimulation is a collective term for geothermal reservoir stimulation techniques. It aims to achieve enhanced reservoir performance while minimizing environmental impacts including induced seismicity. Soft stimulation includes techniques such as cyclic / fatigue, multi-stage, chemical and thermal stimulation.

Miscellaneous

Recommend the DESTRESS Newsletter!

The DESTRESS newsletter informs quarterly about news and project progresses aiming to reach a community interested in enhanced geothermal systems (EGS). To spread the word about our project, we invite you to forward and recommend this newsletter. Find the link to sign up for the newsletter on our [website](#).

Services

Talking about DESTRESS

Article about DESTRESS by Stefan Wiemer and Michèle Marti on the SCCER-SoE-Blog

How to use the Earth's interior heat in an environmentally friendly, economically successful and sustainable way? Switzerland is considering this question in its Energy Strategy 2050, and it's far from alone – the wider European community is also making sure geothermal energy is part of the future energy mix. The international project DESTRESS will evaluate methods and feasibility.

[Read article](#)

Call for Papers

25.-26.06.2017 Paris, France

[ICRERA 2017](#): 19th International Conference on Renewable Energy Resources and Applications
Submission: 25.10.2016

Conferences

16.-19.10.2016 in Antwerp, Belgium

[I-SUP2016](#) on sustainable industrial innovation

25.10.2016 London, United Kingdom

[5th UK Deep Geothermal Symposium](#)

17.-20.11.2016 Chiangmai, Thailand

The [11th Asian Geothermal Symposium](#) (AGS11)

23.-25.11.2016 Auckland, New Zealand

38th New Zealand Geothermal Workshop "[Innovat!on](#)"



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Demonstration of soft stimulation treatments of geothermal reservoirs

DESTRESS demonstrates methods of enhanced geothermal systems (EGS). The aim is to expand knowledge and to provide solutions for a more economical, sustainable and environmentally responsible exploitation of underground heat.

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Time to De-Stress!

As the year 2016 draws to an end, we would like to direct the spotlight on the centrepieces of DESTRESS: the demonstration sites. Six sites have been chosen to demonstrate soft stimulation methods of EGS. Meanwhile some of the sites are still in their planning phase or under construction others made considerable progresses and presented first successes. As described in the "Did you Know.." section, all beginnings are difficult. In the case of DESTRESS the close collaboration between various industry partners and researchers as well as fruitful scientific activities (see first DESTRESS paper published) help to overcome many challenges and will enable the establishment of good practices, one of the main objectives of the project. However, not only our sites and cooperation meaningfully contribute to reach our goals, but also the members of our Advisory Board that we proudly present in this newsletter.

Enjoy reading the news - we wish you happy, de-stressed holidays and are looking forward to reporting more in 2017!

News and Progress

Save the Dates: Events within the DESTRESS Access Programme

DESTRESS provides physical access to its sites, offering visits, various workshops and lectures. For 2017, we offer two opportunities for participation in the programme:

- 2nd Site Access Programme in Klaipeda, Lithuania, 4-5 April 2017
- 3rd Site Access Programme in Soultz-sous-Forêts and Rittershoffen, France, 18-20 September 2017

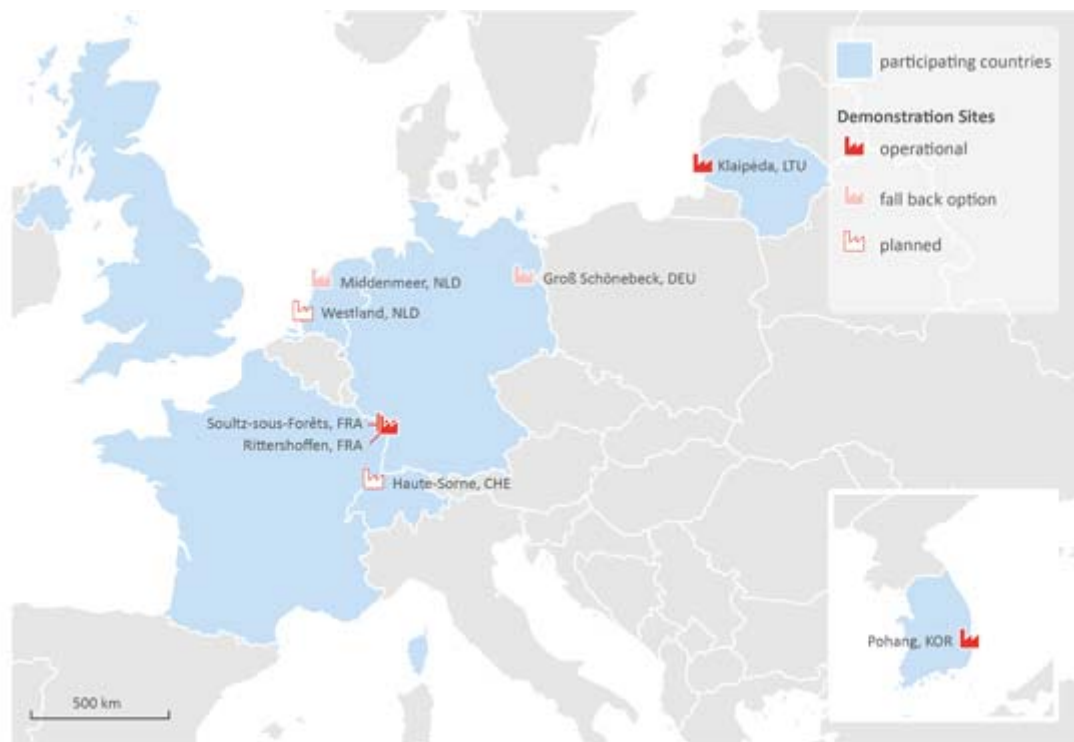
More information on the programmes and the application process will follow soon [on our website](#).

Join DESTRESS on LinkedIn and ResearchGate!

DESTRESS is now present on LinkedIn and ResearchGate. Join the [LinkedIn DESTRESS group](#) to stimulate discussions among project partners and stakeholders and follow the project on [ResearchGate](#) to exchange knowledge with other researchers.

DESTRESS Demonstration Sites

To demonstrate the DESTRESS concept, six different sites with access to a reservoir by means of geothermal wells have been chosen. About 9 months after the start of the project, we present here the first status quo report on the demonstration sites.



Participation countries and demonstration sites within DESTRESS.



Klaipėda, Lithuania

Several visits at Klaipėda by the involved partners targeted the investigation of the continuing injectivity challenges in Klaipėda. Due to the manifold reasons for those challenges, these analyses included laboratory experiments, the study of historical data and measurements in the field. Results show limited impact of former reservoir treatments and therefore suggest to focus on subsurface hydrochemical, biogeochemical and hydraulic transport processes. For final evaluations and decision making about further reservoir treatments the team of GFZ met GTN and Geoterma in mid November. The planned soft stimulation treatment for the Klaipėda site consists now of a combined chemical-mechanical conditioning. A detailed version of the strategy will be drafted by the end of the year and circulated for discussions between the partners at the beginning of 2017.

Maren Brehme, GFZ



Pohang, Korea

Following the first hydraulic stimulation in PX-2 at a depth of 4.35 km early this year, NexGeo has recently successfully completed the side-tracking of the PX-1 deep borehole in close consultation with GES for mud weight control and well completion. The second hydraulic stimulation in PX-1 at >4.2 km (TVD) will take place in December. Because of a large, natural earthquake (ML 5.8) occurring around 40 km away from the site last September, all consortium members, especially from GFZ and GES, are making every effort to minimize the seismic hazard through the soft stimulation strategy. In the first half of 2017, complementary hydraulic stimulation of PX-2, and circulation test between PX-1 and PX-2 are planned with eventual installation of a binary power plant on site.

Ki-Bok Min, Seoul National University



Rittershoffen, France

After the inauguration in June 2016, thermal, chemical and hydraulic reservoir treatments have been performed. The aim within DESTRESS is to interpret the hydraulic, thermal, logging and seismic data. In September 2016, more than 100 people visited the Rittershoffen site during the European Geothermal Congress. For the next six months, geothermal operations and technical maintenance are planned as well as continuous seismic monitoring.

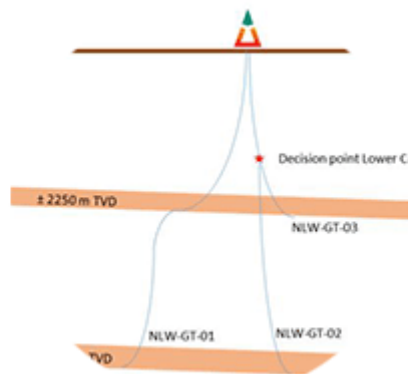
Albert Genter, és Géothermie, and Maren Brehme, GFZ



Soultz-sous-Forêts, France

After an extensive renovation, Soultz has been reopened in September 2016. Three wells are targeting now crystalline rocks in 5 km depth. A new ORC (Organic Rankine Cycle) plant has been erected and produces 1.7 MWe gross power from a deep post-stimulated fractured granite. After the set up of the down-hole production pump in June 2016, the geothermal operations started successfully. To improve the poor injectivity of the GPK4 well, the reservoir will be treated by soft chemicals. During the European Geothermal Congress, more than 100 people visited the Soultz site. In the upcoming months, non-standard risk monitoring (WP3.4) will be implemented around the Soultz power plant in the framework of DESTRESS and a feasibility study for chemical treatments at Soultz is due by the end of 2016.

Albert Genter, és Géothermie, and Maren Brehme, GFZ



Westland, The Netherlands

As the feasibility of the project in the Triassic aquifer is unclear, a fall-back scenario to a shallower (approx. 2.25 km) Cretaceous aquifer was developed. After drilling and testing the first Triassic well (NLW-GT-01), Trias Westland will decide about the drilling of the second Triassic well (NLW-GT-02) and decide if this well will be completed and tested in the Lower Cretaceous (NLW-GT-03). In case of the completion of the Lower Cretaceous aquifer, the deep part of the first Triassic well (NLW-GT-01) will be plugged and perforated at the Lower

Cretaceous depth. Recently, the tender for the mining installation has been granted and the tender for the drilling, services and materials is currently ongoing. The expected spud date for NLW-GT-01 is September 2017.

Floris Veeger, Trias Westland B.V.

Did You Know...

... When the First Geothermal Power Generator Was Built?

Four light bulbs have been lit through the first geothermal power generator in 1904 in Italy and it took another seven years to build the first commercial geothermal power station. In the 1920s Japan and the USA experimented with generators, but until 1958 Italy was the only industrial producer of geothermal electricity. New Zealand, the USA and Russia followed and with the development of binary cycle power plants (Russia in 1967, USA in 1981), it was possible to build geothermal electric stations in a much greater geographical range.

Source: Wikipedia.org

Miscellaneous

Publication of the First Article within DESTRESS

The paper "Hydrothermal characterization of wells GRT-1 and GRT-2 in Rittershoffen, France: Implications on the understanding of natural flow systems in the rhine graben" gives an extended description of the implementation of the deep geothermal wells in Rittershoffen (France), implemented in the framework of the ECOGI project. The wells GRT-1 and GRT-2 drilled in 2012, respectively in 2014, offer a unique opportunity to gather highquality datasets of a deep geothermal system in the Upper Rhine Graben at the transition between the Buntsandstein sandstone and the Palaeozoic granite basement.

[Link to publication.](#)

Advisory Board

The Advisory Board is an external group of experienced players in the field of geothermal energy. These high-level experts are a priori independent from the

participants and will advise and support the project, especially in case of major decision processes.

Its current members are:

- Hiroshi Asanuma
- Michael Feliks
- Jefferson William Tester
- Torsten Tischner
- Pierre Ungemach

Find out about the background of the Advisory Board's members [on our website](#).



Services

Education

Gestion de projets en géothermie.

Diplôme porté par l'université de Strasbourg, dans le cadre d'un partenariat entre l'engées, es Géothermie et L'EOST.

Prochaine rentrée: 2.5.2017

Workshop

14.-17. March 2017, in Davos, Switzerland

Schatzalp - 2nd induced seismicity workshop

Registration until 27.1.2017

Conferences

13.-15.2.2017 in Stanford, USA

Stanford Geothermal Workshop

1.-3.3.2017 Bochum, Germany

European PhD Day (EGPD)

Registration until 15.1.2017



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