



DESTRESS is moving into its final phase

As the end of the year is approaching, DESTRESS is now entering the final phase with the long-awaited operative highlights. The latest cyclic soft stimulation treatment in Geldinganes is finalized, the acid stimulation in Soultz-sous-Forêts is being prepared, and the seismic campaign in Bedretto can start after the completed drilling.

Furthermore, the multidisciplinary study on risk governance has been successfully concluded and the contributions to the World Geothermal Congress 2020 planned.

The final General Assembly will be held in January 2020, in Delft, the Netherlands, and focus on summarising DESTRESS results and preparing the final DESTRESS conference (to come in October / November 2020).

The DESTRESS community is grateful for your interest shown in the project in the last years, wishes you peaceful, restful holidays and a happy New Year!

News and Progress



Upcoming stimulation in Soultz-sous-Forêts, France

ESG and GFZ with the agreement of the power plant owner will supervise the chemical stimulation of the Soultz-sous-Forêts plant in Alsace (France). This stimulation, planned for week 51 of 2019, has been designed for improving the injectivity index of the GPK-4 well drilled in a deep fractured granite reservoir. The aim is to dissolve hydrothermal minerals filling the natural fractures. The soft stimulation of the GPK-4 injection well will be performed during geothermal exploitation of the Soultz site by injecting innovative chemicals through coiled tubing deployed at a depth of 5 km in the granite reservoir.



Finalized stimulation in Geldinganes

The DESTRESS-led cyclic soft stimulation treatment in Reykjavik, Iceland was finalized last Friday. During three weeks of field operations more than 20.000 m³ of fresh water were injected at different intervals of well RV-43. High-resolution real-time seismic monitoring performed by colleagues from GFZ, ETH Zurich and ISOR showed that only few seismic events were induced by these stimulations with local magnitudes ranging between -1.4 and 0.1. Additionally, the advanced traffic light system procedures were successfully applied for the first time in a field test.

The wealth of hydraulic, chemical, seismological, and borehole geophysical data gathered during this project is now analysed in full speed by the involved interdisciplinary group of scientists to learn more about the results of the different cyclic injection schemes applied, the variations between multiple stimulation stages and the hydraulic performance increase of the well.

In the end, a slotted liner was installed that allows future use of RV-43 as production and research well. The Geldinganes geothermal field will now be further explored by drilling additional wells in the coming years. Well designs and potential upcoming stimulations in the area will build heavily upon the results from this field experiment.



Deliverable on Risk Governance

The consortium involved in WP 3.3 of the DESTRESS project has submitted the Risk Governance Strategy report this November. The main objective was to account for the public uptake of geothermal energy and geothermal projects under various socio-economic conditions. Several countries and organizations were involved: the University of Strasbourg (UoS, France), the company Electricity of Strasbourg (EGS, France), the Netherlands Organisation for applied scientific research (TNO, the Netherlands), the University of Glasgow (UoG, United Kingdom), and ETH Zurich (Switzerland).

The technologies involved in deep geothermal projects, and in particular those implementing the Enhance Geothermal Systems (EGS) approach, require significant human, technical and financial resources for both project development and risk management. Yet, these projects are not always well perceived by local authorities and inhabitants and several controversies have arisen in European countries, and particularly in France, Germany and Switzerland. Additionally, social science research related to the field of geothermal energy can provide important insights to answer the need to establish Responsible Research and Innovation (RRI) at a European level.

The work carried out within this framework was multidisciplinary. A broad media study was conducted in France, Switzerland, and Great Britain, over a period ranging from the early 2000s to the present. Work has also been carried out on public engagement strategies as well as on devices fostering reflexive approaches among stakeholders. All these studies account for different contextual factors, i.e. cultural, social, or political factors.

This deliverable is structured in six chapters:

- a brief overview of the state of the art regarding EGS technologies and the risks involved, followed by a summary of the orientations of social science research on deep geothermal energy
- different case studies on which the work carried out under WP 3.3 of the DESTRESS program has focused, with references to national contexts
- Chapters 3 to 5 present the work and results of the research carried out under the DESTRESS program according to three main subjects, media studies, research on public perception of deep geothermal energy, and work on public engagement.
- The last chapter discusses different issues - e.g. the dynamics of social movements, the role played by the state and local authorities - and ends with a series of recommendations.

You can find the full text [here](#) under "D3.3 Risk governance strategy report".



DESTRESS at WGC 2020

DESTRESS is participating in the [World Geothermal Congress WGC 2020](#) in May of next year. A total of 22 contributions are being presented by the project members. Furthermore, a joint geothermal booth in cooperation with other H2020-funded projects, Geothermica projects and the Deep Geothermal Implementation Working Group is being prepared, details will follow soon. A summary of all DESTRESS contributions as well as the slots for the joint session can be found on the website beginning of next year.

The WGC takes place every five years in a different country and is organised by the International Geothermal Association IGA. In 2020, more than 3000 delegates from all over the world are expected to participate in the congress, sharing their experiences, and contribute to the shaping of the industry's future. Therefore, this event provides an excellent opportunity to present DESTRESS's main findings and make the project and its results more visible.



Characterization phase started in Bedretto

In the (now snowy) Bedretto Lab, Switzerland, the drilling of the boreholes is completed and the characterization phase has now begun. Additionally, some of the Bedretto project members participated in this year's AGU Fall Meeting in San Francisco. With three presentations and a poster, they seized the opportunity to tell their colleagues about this interesting project and make it more visible. For further information about the Bedretto Lab and current activities, have a look at its [website](#) or Instagram profile [@bedrettolab](#).



The first snow fell at Bedretto Lab.

Did You Know...

...how many pages of papers DESTRESS has released so far?

So far, DESTRESS members have published 30 papers, with a page total of 430. If we were to attach them all onto each other, they would cover a length of 127.71 meters or an area of 26.66 m². Even more papers are expected to be published as we come closer to the project's end.

Miscellaneous



MEET Geothermal Spring School

The Horizon 2020 project Multi-sites EGS Demonstration (MEET) will hold the MEET Geothermal Spring School from 16 to 20 March 2020 at University of Cergy-Pontoise. Its main topics cover deep geothermal systems in various geological settings, the increase heat production from existing plants and oil wells, and mapping the best locations for future installations in Europe. It is not a MEET-exclusive event, but is only open to students enrolled in EU-funded projects dealing with geothermal.

Find out more on their [flyer](#) or take a look at their [programme](#).



Final General Assembly in Delft, the Netherlands

The DESTRESS community will meet one last time before the Final Conference in November 2020. The event will be hosted by TUDelft and takes place from 20 to 22 January 2020.

This DESTRESS meeting will be very interesting and interactive as it will give the participants enough chance to present their work packages' efforts and highlights from the last years, discuss their scientific results and conclusions, and exchange about open research questions and lessons learnt.

Services

Activities

20 - 22 January 2020, Delft (The Netherlands)

DESTRESS Final Conference

Talking about DESTRESS

Conferences

18 - 19 February, Potsdam (Germany)

GEMex Final conference

[More information](#)

5 - 6 March 2020, Offenburg

**27 April - 1 Mai 2020, Reykjavik
(Iceland)**

World Geothermal Congress WGC
[More information](#)

(Germany)

GeoTHERM
[More information](#)

**27 April - 1 Mai 2020, Reykjavik
(Iceland)**

World Geothermal Congress WGC
[More information](#)

**10 - 12 November 2020, Essen
(Germany)**

Der Geothermiekongress DGK
[More information](#)



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.

This project has received funding from the European Union's
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