



The MEET project (Multidisciplinary and multi-context demonstration of Enhanced Geothermal Systems exploration and Exploitation Techniques and potentials) aims at demonstrating Enhanced Geothermal Systems (EGS) in different geological conditions throughout Europe at an economically sustainable level.

The MEET project is part of the H2020 programme Secure Clean and Efficient Energy, Call H2020 – LCE – 2016 – 2017 (competitive low carbon energy). MEET is an innovation action, grant agreement number 792037.



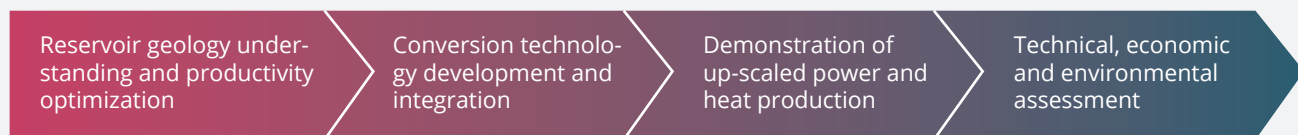
This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No. 792037

OBJECTIVES

THE MAIN OBJECTIVES OF THE PROJECT ARE:

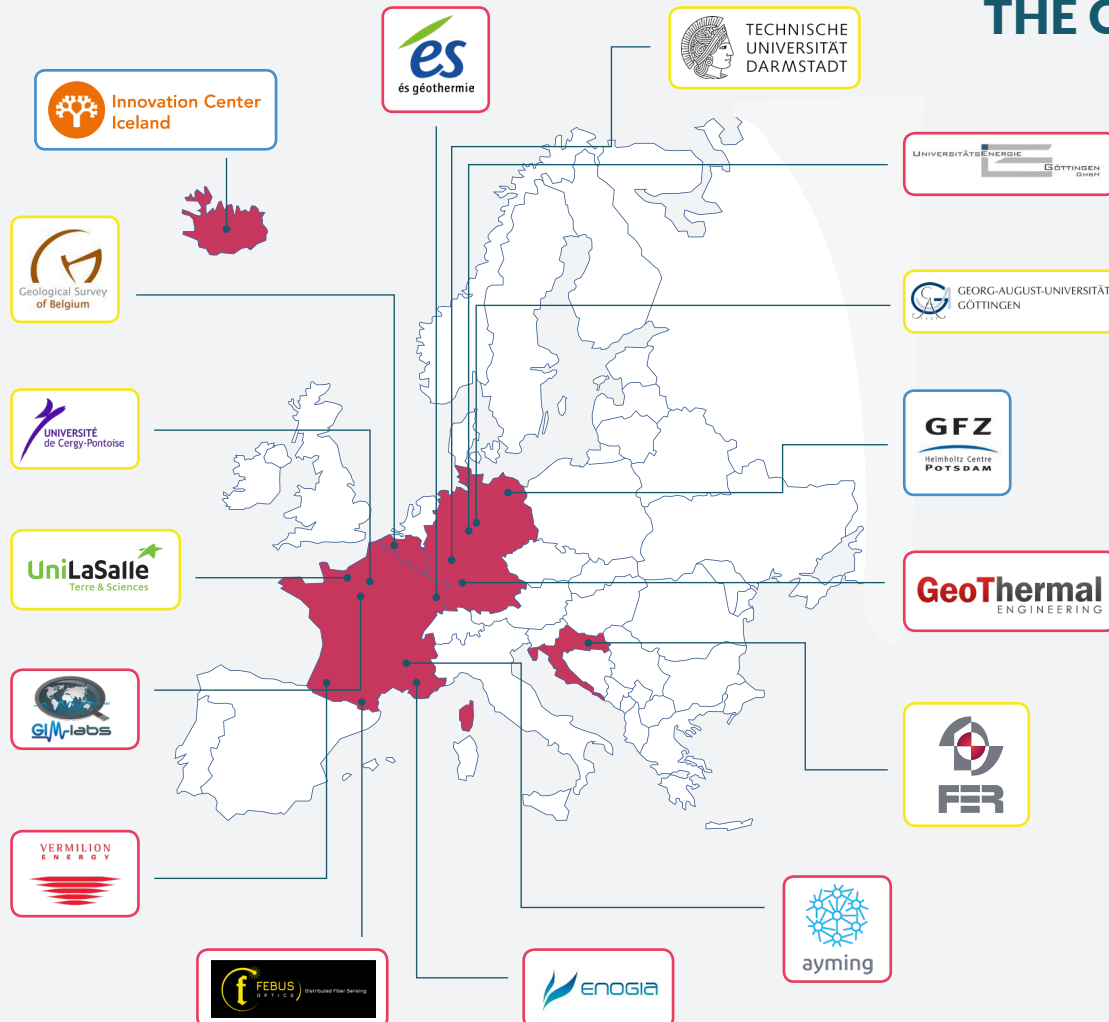
- To gather knowledge of deep geothermal heat and/or power production in various geological settings
- To increase heat production in various geological reservoirs by different means
- To enhance heat-to-power conversion at low temperature (<90°C) by using smart mobile Organic Rankine Cycle (ORC) units
- To improve penetration of geothermal power and heat plants by promoting the technology developed within MEET

THE MEET VALUE CHAIN



THE CONSORTIUM

The MEET consortium includes a total of 16 partners (8 industrials, 2 applied research institutes and 6 Universities) from five different European countries (France, Germany, Iceland, Belgium and Croatia).



INDUSTRIAL

Applied research institutes: RESEARCH & DEVELOPMENT

Universities: RESEARCH & EDUCATION

MEET DEMONSTRATION APPROACH

1 COLDER RE-INJECTION ON EXISTING DEEP GEOTHERMAL PLANTS

The exploitation of fluids in deep geothermal plants typically covers the thermal spectrum in the range of 160°C and 70° for EGS and 250°C – 100°C for high enthalpy plants. It is proposed to exploit the thermal spectrum below this limit for a higher energy production.

The power plants of Soultz sous Forêts (Northern Alsace, Upper Rhine graben, France) and Reykjanes (Iceland) have been chosen as test demonstration sites for fractured granitic basement and volcanic field respectively.

2 CO-PRODUCTION AND RECONVERSION OF OIL WELLS

MEET aims at minimizing geological risks and drilling costs related to the planning of new geothermal power plants. It is proposed to either coproduce geothermal water on active oil fields or reconvert oil wells at their end of exploitation phase where much more hot water than oil is produced (typically > 80-90%).

The MEET project aims at setting up demonstration sites in sedimentary basins using the large portfolio of an oil operator in France.

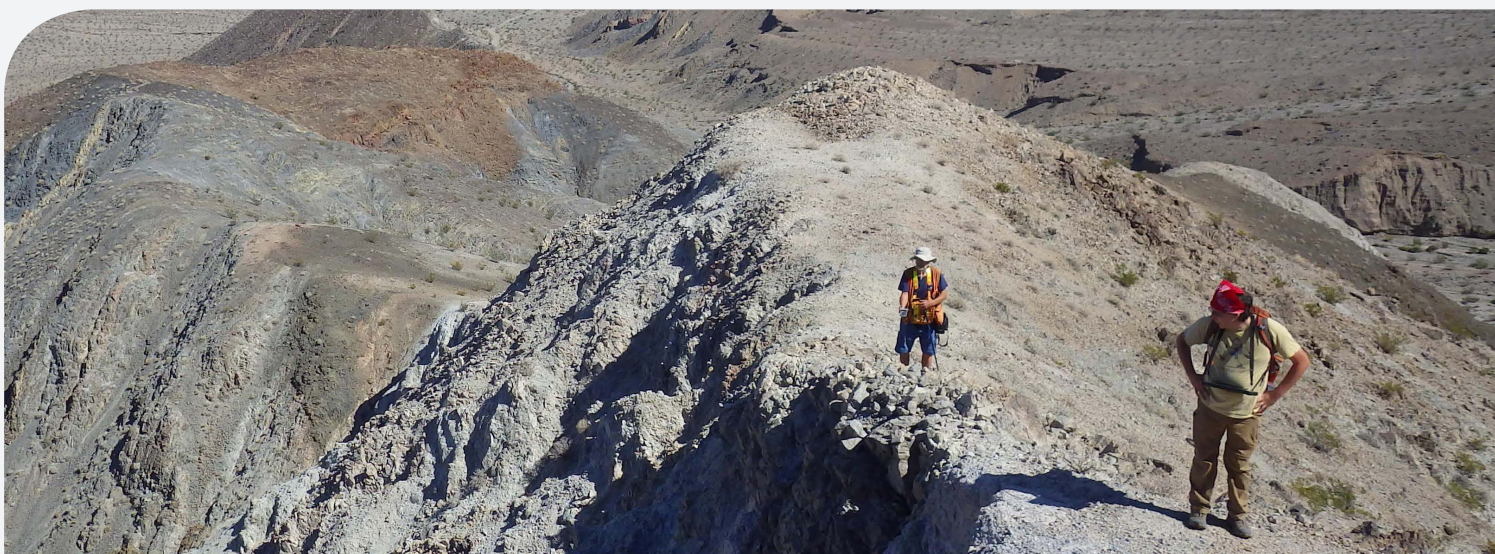
3 IMPROVEMENT OF EGS WELL PRODUCTIVITY BY TESTING INNOVATIVE CHEMICAL TREATMENT

MEET team aims at developing and testing new chemical treatment in naturally fractured crystalline basement. The selected test site is the United Down Deep Geothermal project in UK where deep wells are currently being drilled.

4 EGS TECHNOLOGY FOR METAMORPHIC BASEMENTS

Vast geographic domains densely populated of the European territory consist of Variscan metamorphic rocks largely unexploited at present. It is proposed that such units can be used for geothermal energy production by developing dedicated enhancement strategies.

The Campus of Göttingen University (Germany) has been chosen as a MEET demonstration site since it presents all necessary surface infrastructures in order to integrate a significant contribution of geothermal power in its energetic load.



KEY NUMBERS

& PROJECT EXPECTED IMPACTS

16

PARTNERS

5

COUNTRIES

€11,73M

TOTAL BUDGET
(€9,97M FUNDED BY EC)

42

MONTHS
MAY 2018 - OCT. 2021

ENLARGED MARKET FOR GEOTHERMAL ELECTRICITY AND HEAT PRODUCTION

70% of EU surface will possibly be able to perform geothermal exploitation

LOWERING CARBON FOOTPRINT

1,000 million tons of CO₂ saved per year

GAIN OF EXPERIENCE AND DATA COLLECTION IN SEVERAL GEOLOGICAL AND INDUSTRIAL SETTINGS

Ability to replicate the technology at European scale

PROMOTING JOB CREATION

The total number of geothermal power jobs between 2013 and 2030 is expected to grow from 10'000 to 100'000

DIVERSIFYING THE ACTIVITIES OF OIL INDUSTRIES WORLDWIDE

Coproduction and reconversion of thousands of active and mature oil wells through Europe

MAIN CONTACTS

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MEET EU PROJECT



With the support of Ayming

