Combined Heat, Power and Metal extraction from ultra-deep ore bodies

Fact Sheet

Project Information

CHPM2030

Grant agreement ID: 654100

Project website

Funded under
H2020-EU.3.3.2.4.
H2020-EU.3.3.2.2.
H2020-EU.3.3.2.1.

Start date
1 January 2016

End date
30 June 2019

Overall budget
€ 4 235 567,50

EU contribution
€ 4 235 567,50

Coordinated by
MISKOLCI EGYETEM

Hungary

This project is featured in...

RESULTS PACK
Geothermal Energy: A new and viable alternative energy source to help achieve Europe’s climate ambitions

27 March 2020

Objective
CHPM2030 aims to develop a novel and potentially disruptive technology solution that can help satisfy the European needs for energy and strategic metals in a single interlinked process. Working at the frontiers of geothermal resources development, minerals extraction and electro-metallurgy the project aims at converting ultra-deep metallic mineral formations into an “orebody-EGS” that will serve as a basis for the development of a new type of facility for “Combined Heat, Power and Metal extraction” (CHPM). In the technology envisioned the metal-bearing geological formation will be manipulated in a way that the co-production of energy and metals will be possible, and may be optimised according to the market demands at any given moment in the future. The workplan has been set up in a way to provide proof-of-concept for the following hypotheses:

1. The composition and structure of orebodies have certain advantages that could be used to our advantage when developing an EGS;
2. Metals can be leached from the orebodies in high concentrations over a prolonged period of time and may substantially influence the economics of EGS;
3. The continuous leaching of metals will increase system’s performance over time in a controlled way and without having to use high-pressure reservoir stimulation, minimizing potential detrimental impacts of both heat and metal extraction.

As a final outcome the project will deliver blueprints and detailed specifications of a new type of future facility that is designed and operated from the very beginning as a combined heat, power and metal extraction system.

The horizontal aim is to provide new impetus to geothermal development in Europe by investigating previously unexplored pathways at low-TRL. This will be achieved by developing a Roadmap in support of the pilot implementation of such system before 2025, and full-scale commercial implementation before 2030

Field of science
/natural sciences/chemical sciences/inorganic chemistry/metals

Programme(s)

Topic(s)

Call for proposal

H2020-LCE-2015-1-two-stage

Funding Scheme
Coordinator

**MISKOLCI EGYETEM**

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Website

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**SZEGEDI TUDOMANYEGYETEM**

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**FEDERATION EUROPEENNE DES GEOLOGUES**

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**ISLENSKAR ORKURANNSOKNIR**

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**UNITED KINGDOM RESEARCH AND INNOVATION**

United Kingdom

EU contribution

€ 0

Address: Polaris House North Star Avenue, SN2 1FL Swindon

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**Laboratorio Nacional de Energia e Geologia I.P.**

Portugal

EU contribution

€ 107,500

Address: Rua Da Amieira, 4466-901 S.mamede De Infesta

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**VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.**

Belgium

EU contribution

€ 940,717.50

Address: Boeretang 200, 2400 Mol

Website

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**LA PALMA RESEARCH CENTRE FOR FUTURE STUDIES SL**

Spain

EU contribution

€ 387,225

Address: Calle El Castillo El Fronton 37, 38787 Santa Cruz De La Palma

Activity type: Private for-profit entities (excluding Higher or Secondary Education)
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MINPOL GMBH
Austria
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Dreistetten 120/1
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Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

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