

CHPM2030



LCE-02-2015

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

Aim:

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-Enhanced Geothermal Systems (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.

Concept:

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-Technology Readiness Levels (TRL). This will be achieved by developing a Roadmap in support of the pilot implementation of such system before 2030, and full-scale commercial implementation before 2050.

Start date:

01/01/2016

End date:

30/06/2019