

The H2020 SURE Project

Novel Productivity Enhancement Concept
for a **S**ustainable Utilization of a Geothermal **R**esource

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The SURE project has received funding from the European Union's Horizon
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Project Consortium



Reinsch, T.; Zotzmann, J.: The H2020 SURE Project





Project Details

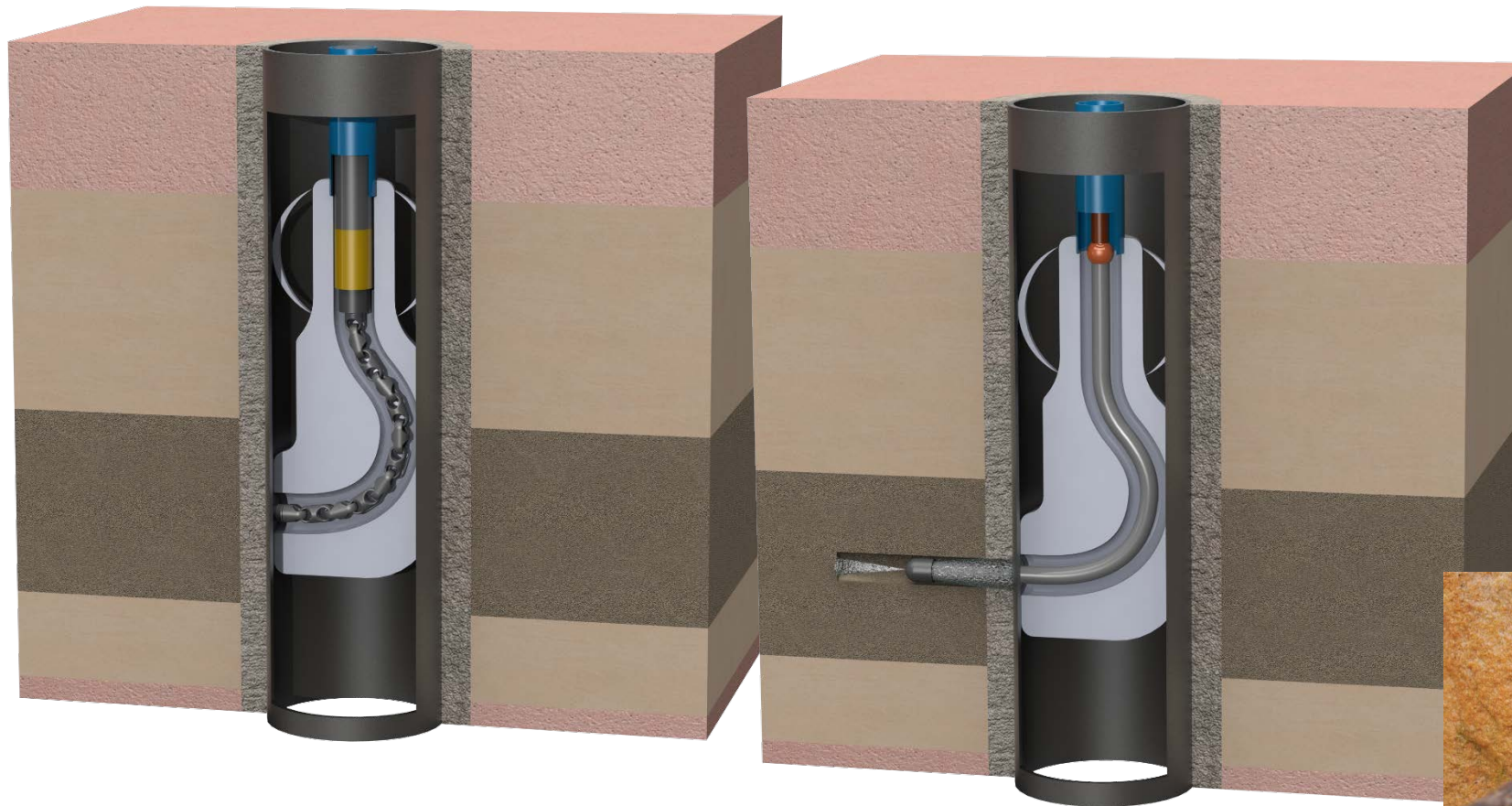
- Call: H2020-LCE2-2015-1-two-stage
- Funding Scheme: Research and Innovation Action - RIA
- Total Cost / EC contribution: 6.1M€ / 5.9M€
- Project Duration: start in March 2016, 42 months
- Technology Readiness Level: 3-4



Objectives – Main Idea

- Investigate and test the Radial Water Jet Drilling (RJD) technology for increasing the performance of geothermal wells with low productivity/injectivity across different spatial and temporal scales.
- Aim: connect high-permeable structures (faults/fractures, karst systems, high-permeable sedimentary structures) to main wellbore.

Objectives – RJD Technology



(GFZ, 2016)



(GZB, 2016)

Approach

State-of-the-Art

- Conventional stimulation technologies
- Radial water jetting technology

Micro-Scale Investigation (Sample-Scale)

- Mechanical and hydraulic sample characterization
- Fracture permeability characterization
- Stability of laterals

Meso-Scale Investigation (Rock Block-Scale)

- Jetting in lab with full scale equipment
- Jetting experiment in quarry
- Jetting at reservoir conditions

Macro-Scale Investigation (Field-Scale)

- Pre-operational survey
- Field tests
- Long term evaluation

Integration

Acknowledgement

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