



# Project Status

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 641202.

- Jetting tests under varying hydrostatic pressure (back pressure)
  - Improve bit design and define requirements for pressure generation tool
- Rock mechanical tests (indentation + scraping) with focus on the chosen bit type
  - Improve bit design
- Numerical simulation of the drill bit and the water jetting system
  - Improve bit design and define requirements for pressure generation tool

- Identification and performance testing of various nozzle types
  - Improve bit design and define requirements for pressure generation tool
- Integration of new test results for the optimization of the bit design
- Further improvement of properties of the drilling fluid
- Large scale laboratory drilling tests
  - Prove the operating principle under controlled conditions
  - Gain knowledge for final field testing

- Design and manufacturing of the downhole pressure generation tool
- Optimization of the bit design
- Set up of the large scale lab tests
- Field testing of the “ThermoDrill – mud” in cooperation with a company
- Final field test of the whole system
- Amendment of grant agreement