



The GEOTREF program, a new approach for geothermal investigation

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The GEOTREF is an R&D program supported by the ADEME, French environmental agency and by the «Investissement d’Avenir », a French government program to fund innovative projects. The GEOTREF program aims to develop an integrated analysis of high temperature geothermal reservoir in volcanic context. It is a collaborative program between nine research laboratories and two industrial partners. This program is supported for four years and funds 12 PhDs and 5 post–doctoral grants in various fields: geology, petrography, petrophysics, geophysics, geochemistry, reservoir modelling. The first three years are dedicated to the exploration phases that will lead to the drilling implantation.

The project has two main objectives.

1.- Developing innovative and interactive methods and workflows leading to develop prospection and exploration in per volcanic geothermal target. This objective implicates:

Optimization of the targeting to mitigate financial risks

Adapting oil and gas exploration methods to geothermal energy, especially in peri-volcanic context.

2.- Applying this concept to different prospects in the Caribbean and South America

The first target zone is located in Guadeloupe, an island of the active arc of the subduction zone where the Atlantic plate subducts under the Caribbean one. The GEOTREF prospect zone is on the Basse Terre Island in its south part closed to the Soufriere volcano, the active volcanic system. On the same island a geothermal field is exploited in Bouillante, just northward from the GEOTREF targeting area.