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GEOTeCH

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1. PUBLISHABLE EXECUTIVE SUMMARY

This document aims to investigate the applicability of GEOTECH technologies in Europe, with special focus on the integrated use of a hollow stem auger, spiral heat exchanger and dual source heat pump for residential applications.

The parameters chosen to map the potential of GEOTECH innovative systems reflect the specific technological issues and strategies involved.

Having identified the study target - drillability index, ground temperature at the neutral zone depth, and suitability index - the paper describes the methodology used to achieve this.

The different datasets collected are then presented, accompanied by a critical analysis of their quality.

Any lack of data for different parts of Europe was corrected by using geostatistical estimates.

The core of the document is the third part, which presents the deterministic and probabilistic methods used for calculation and estimation.

The last chapter gives the results of these calculations and estimations, geolocalized on appropriate maps and based on current shallow geothermal market requirements.

Five annexes with technical details complete the document.