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Project Title:

# **GEOthermal Technology for economic Cooling and Heating**



## **GEOTeCH**

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**Collaborative Project**

### **Ground Heat Exchanger Technical and User Documentation Executive Summary**

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Authors	UPV, UNIVLEEDS, KUL, GH, TEC, COMSA, COMSAIND
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CO	Confidential, restricted under conditions set out in Model Grant Agreement	<b>X</b>
CI	Classified, information as referred to in Commission Decision 2001/844/EC.	

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# 1. PUBLISHABLE EXECUTIVE SUMMARY

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The aim of work package 3 of the GEOTeCH project is to advance the readiness of the ground heat exchanger technologies so that their technical performance is further optimized and fully characterized for a range of applications and efficient and accurate design models and procedures are defined. This report is concerned with the work carried out to develop component models of the two ground heat exchanger technologies of interest: Spiral co-axial borehole heat exchangers, and; screen wall and pile foundation heat exchangers. Models of both heat exchanger technologies have been developed. These models are intended to be used in larger models of whole ground source heat pump systems. They are primarily used to calculate time-varying outlet temperatures and heat transfer rates given defined inlet and environmental conditions. The report provides a brief explanation of the basis of the models, documents the inputs, parameters and outputs of each model and provides example output.