

## Deliverable D.1.4

### List of the combination between building typologies, geological contexts and climatic classes

#### WP1

Grant Agreement number	657982
Project acronym	Cheap-GSHPs
Project full title	<b>C</b> heap and <b>E</b> fficient <b>A</b> pplication of reliable <b>G</b> round <b>S</b> ource <b>H</b> eat Exchangers and <b>P</b> umps
Due date of deliverable	31/05/2016 (M12)
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#### Dissemination Level

PU	Public	
CO	Confidential, only for members of the consortium (including the Commission Services)	X
CI	Classified, as referred to in Commission Decision 2001/844/EC	

## **Publishable summary**

The D1.4 is a confidential document delivered in the context of WP1, Task 1.4: Selection and energy assessment of building typologies.

The deliverable presents the set up of a database with the energy profile of a selection of buildings, representative of the residential typology of European buildings as well as some typical commercial buildings (a day care centre, office buildings and a municipal building), in different climatic conditions, in agreement with the examined geological contexts.

Climatic conditions and energy demands have been analysed and correlated, by the means of a simple linear regression, to obtain a general model capable of predicting the energy needs of buildings according to different climatic conditions, on the basis of the climatic classification and on the number of the seasonal Degree Days, DD. The classification of climates has been carried out simultaneously in Task 1.3.

The database will be used both by non-expert users, who want to know a first estimation of the GSHP suitable for their application, and by expert technicians that are interested in a rough sizing of the GSHP in a very brief way. The database will be used in the calculation tool for sizing the GSHP systems, which will be developed according to the project (WP4). The evaluated energy profiles will be used also in the DSS developed in the WP5.