

Deliverable D5.9

Evaluation of efficiency and viability of installations in individual retrofitted buildings

WP5

Grant Agreement number 792355

Project acronym GEO4CIVHIC

Project full title Most Easy, Efficient and Low Cost **Geothermal** Systems for Retrofitting **Civil** and **Historical** Buildings

Due date of deliverable 31/07/2021 (M40)

Lead beneficiary UPV

Other authors

Dissemination Level

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| 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

This deliverable will analyze, based on the data obtained from monitoring real demonstration sites and the simulated modifications carried out on virtual sites, the energy efficiency improvements in the proposed installations. In order to demonstrate the feasibility of the energy improvements of these new solutions, the specific implementation costs for each of them (in €/m² for residential buildings and/or €/m³ for non-residential buildings), the specific energy consumption before and after renovation, the percentage of extra-costs due to uncertainties (on the building envelope, on the H&C system, on the GSHP system) and average SCOP and SEER for each solution (high or low temperature terminal) will be evaluated in the report and organized into specific templates. For the analysis in the report, a distinction will be made between civil and historical buildings.

The evaluation was not yet possible for the delay due to the COVID-19 pandemic. This deliverable will be updated with the evaluations once the monitoring data become available.