



**Project Lead:** Thormer Solutions Ltd

**Funding:**

£1,595,738



## The problem: How to streamline the heat pump installation process

Installing a heat pump is not as straightforward as installing a gas or oil boiler; there are additional factors to consider when sizing and siting the unit and ancillary parts. There are also a number of data sets that need to be gathered, and contractors to work with to choose and fit a new heat pump system.

### The solution

The goal is to make the consumer's journey as uncomplicated as possible: by providing a one-stop suite of tools, both consumer and installer can easily be taken through the heat pump decision, selection and installation process.

Heatly is an all-encompassing integrated software package and app for installers to streamline the survey, installation, commissioning and quality assurance processes required when installing a heat pump.

The project will provide a digital survey platform that can complete a full typical house survey in under 10 minutes with no additional hardware required and seamlessly flow to a fully automated design and QA process, whilst also ensuring that all documentation is stored and logged against the installation in one easily accessible place.

Heatly is a really exciting project that has already seen us reducing the typical survey time to less than 10 minutes, with lots more exciting features to come. Heatly will be the single one stop platform for consumers and installers alike.

**Griff Thomas MIET**

MD, Thormer Solutions Ltd



## Streamlining the installation process

### What are we going to do?

The project will bring together the many disparate sources of information with which a householder must engage on the path to deciding whether to install a heat pump, and through the installation process. The web/app-based solution aims to replace the need for some property survey visits by incorporating cutting edge technology such as 3D modelling and augmented reality.

By centralising design tools, recommendations can be provided to the consumer as they progress through the journey, optimising decisions taken. The solution will also provide a platform for holding paperwork and certifications for the installed system.

### Why is this an improvement on the current solutions?

The current consumer journey requires a number of processes to be undertaken or permissions sought, which are all uncoordinated and cumbersome. Whilst mainly essential, these processes, coupled with overly complex and uncoordinated design tools, makes the journey unnecessarily burdensome on both consumer and installer.

The Heatly project aims to integrate all data entry, permissions and paperwork into a single tool which is accessible to both the consumer and the installer.

### What would success look like?

Provision of a platform which integrates all the currently fragmented processes that are required to take an initial enquiry through to installation, quality assurance and beyond.



### How will this project help towards the target of installing 600,000 heat pumps per year by 2028?

The complexity of the current heat pump installation journey is a deterrent to potential installers, while over 24,000 additional heat pump installers are required to meet the install target.

The Heatly project will provide a platform to enable easy and accurate data collection, streamline data handling and permissions, and store post-installation paperwork. This will also be of benefit to consumers, giving them better visibility of the route to installing a heat pump.

The Optimised solutions development stream of the Heat Pump Ready programme supports the development of innovative tools, technologies and processes to overcome specific barriers to heat pump deployment in the UK. This stream supports solutions aiming to reduce the life time cost and increase the performance of domestic heat pumps, minimise home disruption whilst providing high quality installations, develop and trial financial models to support heat pump deployment, improve the heat pump consumer journey and provide a smart and flexible home energy system.

Heat Pump Ready is funded by the Department for Energy Security and Net Zero through the NZIP programme. The Collaboration & Learning stream is managed by the Carbon Trust with support from Ipsos and Technopolis. We give no warranty and make no representation as to the accuracy of this document, and accept no liability for any errors or omissions.

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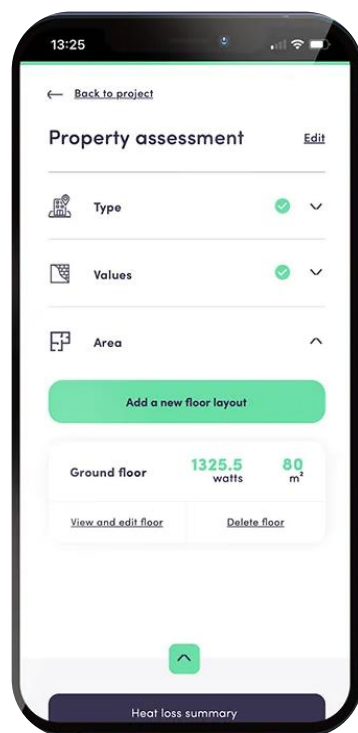


#### Supported by:



## Key Findings

- We are changing the way property heat loss data is gathered, moving away from an installer coming round to measure each room using a standard tape measure or LIDAR, to enabling the homeowner to record and upload video footage of their own property.
- We have met our objective of enabling the homeowner to simply survey a property for heat loss.
- We have learned that room-by-room heat loss calculations need to take account of adjoining rooms and the whole house layout.



## heatly

### Project Progress (Autumn 2023)

#### What progress have we made so far?

We have completed ten of our milestones, defined the heatly brand and have developed our prototype mobile room planner, which now means that an average 10 room property can be surveyed in 10 mins with volumetric accuracy of 98%.

The room planner, combined with data from the EPC register and other datasets has enabled us to achieve our goal of calculating the heat loss of a property, provide a layout schematic of the pipework and provide options for the heat pump.

#### What barriers have we identified and how has this changed our approach to delivering our project?

It has been challenging to engage installers to provide feedback on the app so by working with elemental's Installer newsletter and offering incentives, a workshop was set up to bring installers to site to walk them through the app and gather direct feedback. This proved to be highly useful for all.

Using LIDAR as originally planned wasn't possible for all phone models, so we moved to a simpler user experience whereby sizing is carried out after the homeowner records a short video walk through of their property.

Due to interest in the room planner app from potential investors and customers, we have brought forward some of the later work packages to expedite the commercialisation of the app. Incubation support from NZIP has been really useful to reconsider how we protect our intellectual property at this stage.

#### What are our next steps?

- User experience testing for installers and homeowners.
- Refining the modelling and verifying the results.
- Develop commercial opportunities with interested parties for the room planner app and the full heatly heat pump package.