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Picturing the invisible

What is the impact of thermal images on householder intentions to install thermal efficiency measures?

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Introduction

Addressing the **financial barriers** to energy efficiency has long been a focus of government policy. However low initial take-up of the Green Deal suggests that **non-financial barriers**, such as lack of attention to energy, uncertainty and lack of favourable attitudes towards energy efficiency measures may also hinder take-up.

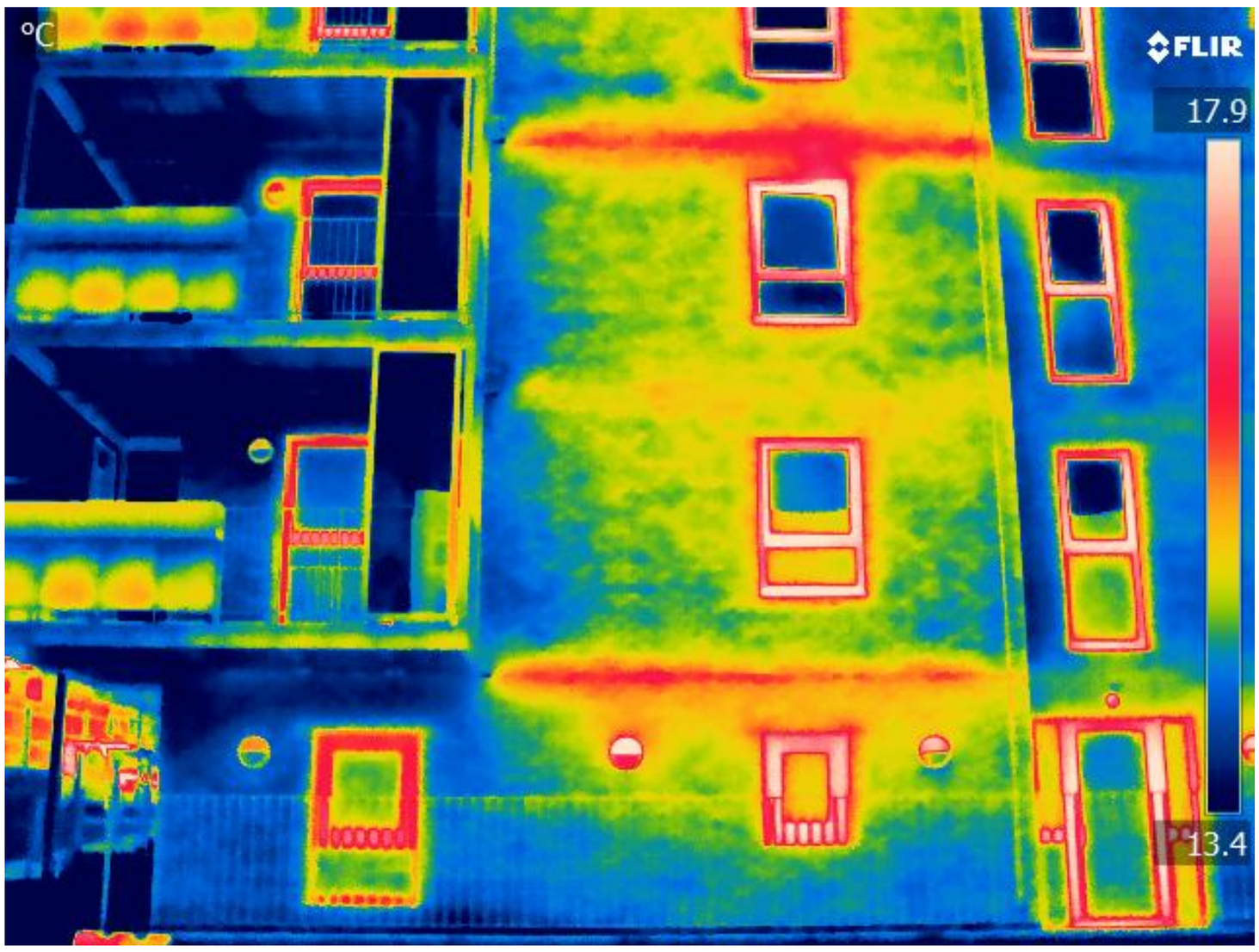
This research examines whether enabling householders to **visualise heat loss** through thermal imaging may increase householder attention to home heat loss, increase the perceived likelihood of positive outcomes and **increase intentions** to install thermal efficiency measures.

Thermal images

Thermal cameras are sensitive to infrared radiation. The images they produce therefore show **relative variations in temperature** which are invisible to the human eye

Energy invisibility stands in the way of decisions to invest in energy efficiency because "seeing is believing"

Stern & Aronson, 1984



Method

This research uses a **randomised control trial** experimental design to determine whether thermal images cause a change in householder attitudes and intentions to install energy efficiency.

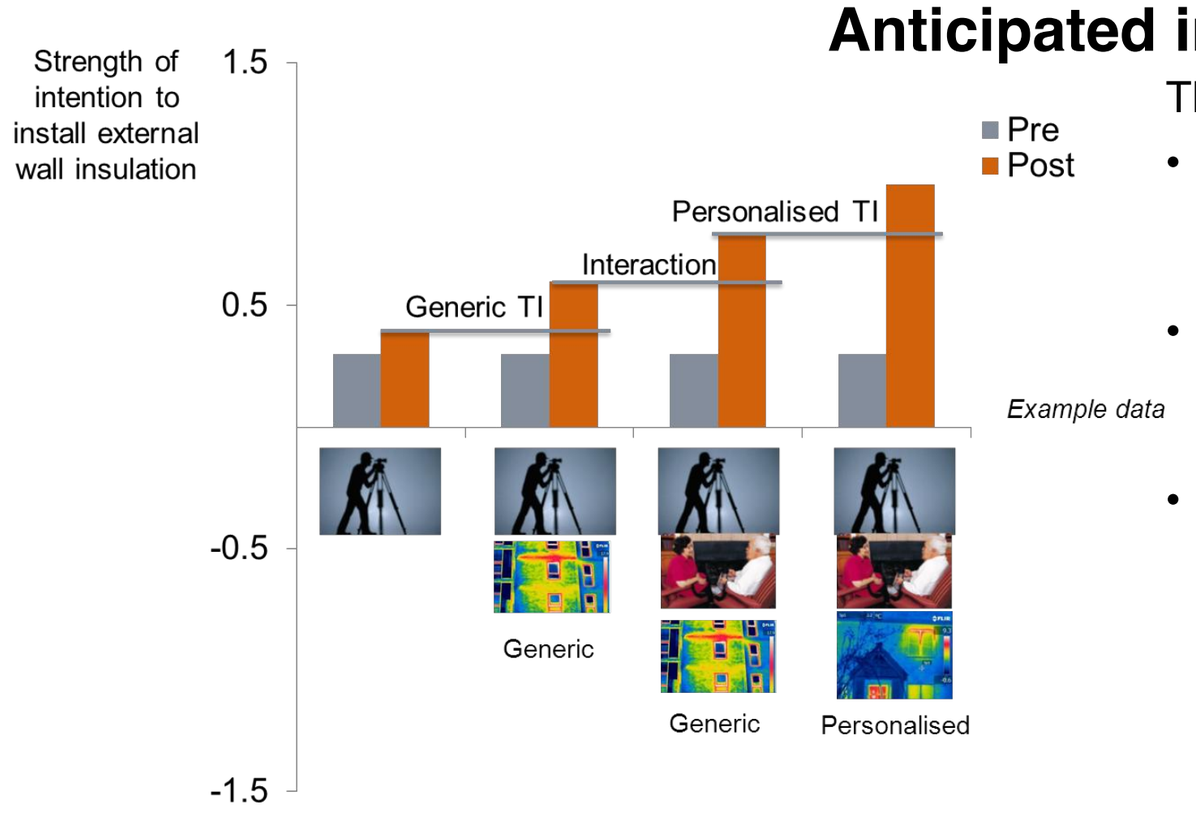
Selected householders will also be **interviewed** to help understand how the home assessment process could be improved to encourage householder take-up of thermal efficiency measures.

Experimental design

(control)	Q1		Q2
(intervention 1)	Q1	Generic	Q2
(intervention 2)	Q1	Generic	Q2
(intervention 3)	Q1	Personalised	Q2

Q1 Pre-intervention questionnaire
Q2 Post-intervention questionnaire
Home assessment
Interaction with householder
Generic: Non-personalised thermal image
Personalised: Personalised thermal image

Anticipated impact



Example data

The study aims to:

- Quantify the **influence of thermal images** on householder intentions to install thermal efficiency measures
- Suggest **improvements to the home assessment process** in order to strengthen intentions to install thermal efficiency measures and increase up-take
- Build theory around the **non-financial barriers** to energy efficiency such as lack of attention, lack of favourable attitudes and householder uncertainty.

The graph on the left shows example data indicating how the study will identify the impact of generic thermal images, interaction with the householder and personalised thermal images on intentions to install a specific thermal efficiency measure (external wall insulation)

Reference: Stern, P.C., Aronson, E. (Eds.), 1984. Energy Use: The Human Dimension. Freeman, New York

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