

Thermal Imaging Report '21-22



[Cambridge Carbon Footprint](#) (CCF) has provided [training and loans of Thermal imaging cameras](#) to reveal where homes are leaking heat, since early 2010.

We've had a record Thermal Imaging (TI) season, November 2021 to March 2022 -

"First time I have used thermal imaging camera - what an amazingly useful tool!" - camera borrower

A record season in numbers:

- 187 people trained in 4 online training sessions
- 114 camera loans booked, plus 3 cancelled due to covid

The nature of the project hasn't changed much over the years: we provide free training in the basics of using a thermal imaging camera and, more importantly, interpreting what its images reveal - like draughts, poor insulation, heating system problems and other reasons for wasted heat from homes, making them uncomfortably cold, with high bills and carbon emissions.

Research shows¹ that these images strongly motivate getting the problems fixed, whether by DIY or with professional help.

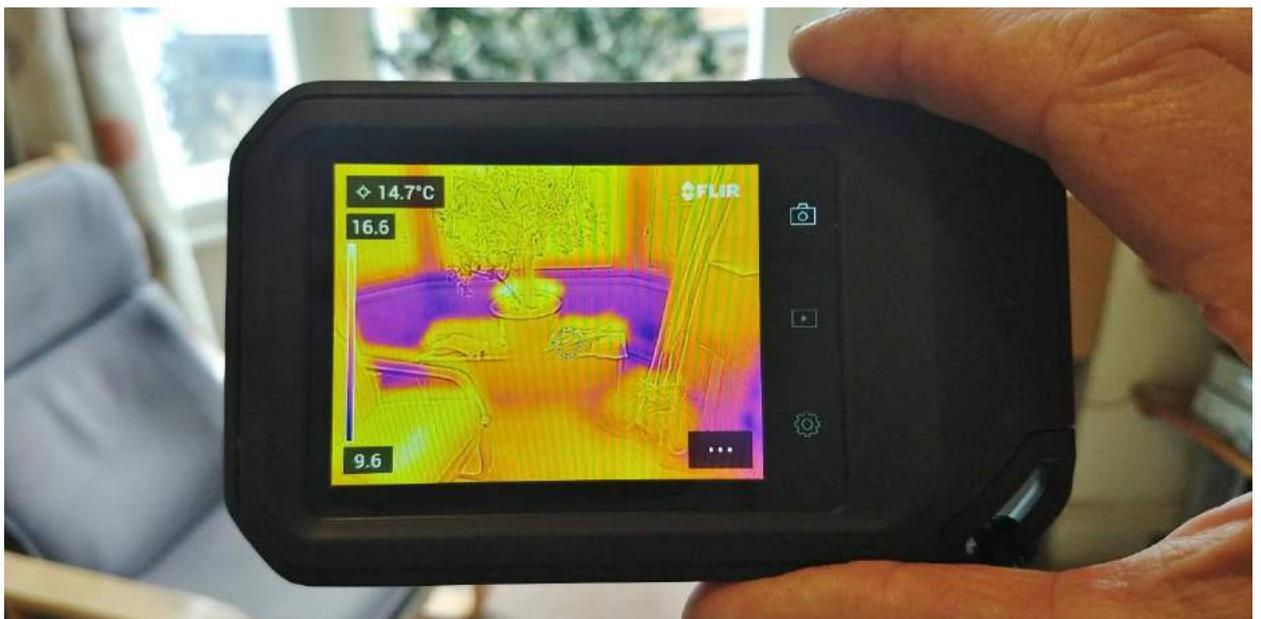
Only trained people can borrow our cameras, and often also investigate homes of neighbours, etc and other buildings like schools, community centres and churches.



Thermal imaging camera handover

Recent changes:

- Online training and videos, reaching more trainees than in-person
- Hosting each camera with a volunteer in different locations, for more convenient borrowing
- Collaboration with South Cambs TI project, with CCF hosting 3 of their cameras in villages



CCF's new Thermal Imaging camera in use

"I'll email my landlord to address insulation problems and draughts from downlights"

This TI season saw a welcome surge in demand. In October CCF bought an extra TI camera, a Flir C5 for £635, which matches the performance of our original Fluke TiR, bought for £2,800 in 2009, thanks to a grant from Cambridge City Council. So it's becoming more affordable.

In late January we found our three cameras were getting fully booked, with another training session still to come. So we reached out to South Cambs District Council, who also have a [TI Camera Lensing programme](#), which they had to pause due to covid. They kindly made 3 of their cameras available to this project, enabling the demand for cameras to be met..

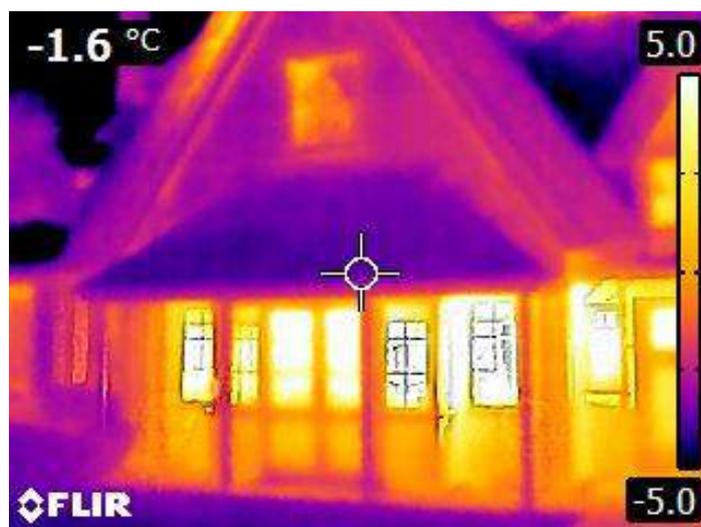
Steve Ellis from Eltisley, a South Cambs village, borrowed a CCF camera for a week and worked with 2 other volunteers to survey and report the problems they found in 17 homes in the village - a brilliant example of community action with strong practical benefits.

Examples of what was revealed:

- “Loft insulation is patchy”
- “Very cold ceiling in bedroom”
- “Cold areas on ceilings correspond to places where we've had problems with mould”
- “Cold walls in unexpected places”
- “Checks on work following previous TI good”

and some resulting actions:

- Insulate WC ceiling, repair loft insulation
- Contact faulty windows installers
- Look into how best to insulate under stairs.
Price up replacing front and side doors
- Get the warped window repaired
- Assessment for Eco Church status



Chris' 17th century cottage has a 1970s extension in front, leaking much more heat than the old gable wall above!

We're keen to extend the reach of this project next season and will be looking for sponsorship to help us improve our cameras, online resources, booking system, etc.

“Very fascinating exercise and really worth the effort. Lots of jobs to do now...”

Many thanks to the numerous volunteers, donors, funders and enthusiastic participants, who've made this all possible and so worthwhile.

From TI Team: Tom Bragg , Alana Sinclair, Bart Hommels, Chris Carter, Margaret Reynolds & Nicola Terry



¹ [Making Heat Visible](#), Plymouth University 2014