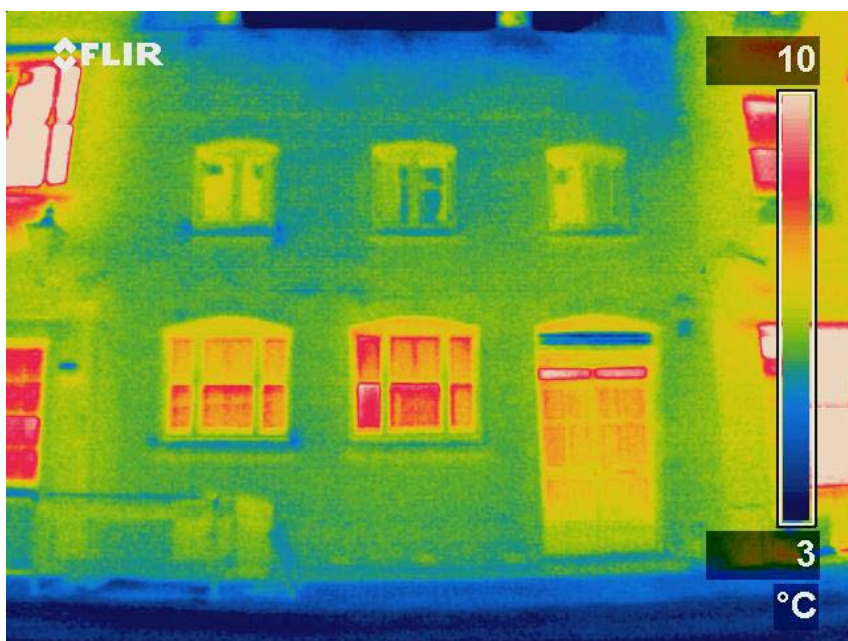




Home Front

The 21st Century Living Project Report
Executive Summary

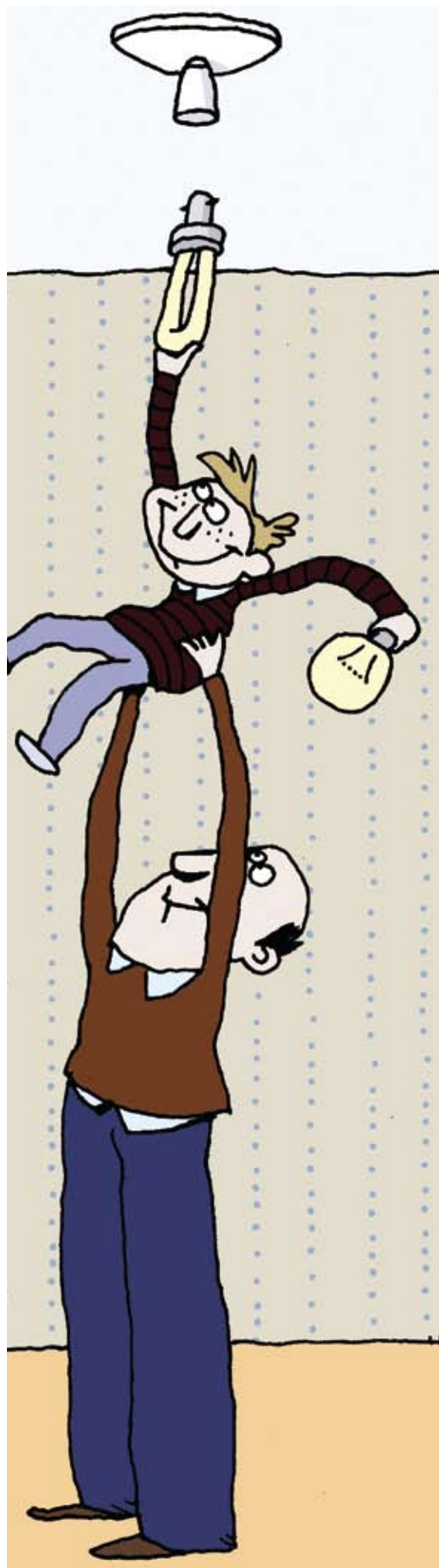
The case for environmental action - particularly on climate change - is clear, and a host of research demonstrates that public awareness of the problem is high. And yet the adoption of even simple solutions remains low. There is a disconnection between our knowledge and our behaviour.



The 21st Century Living Project was created to look rigorously and honestly into this gap. A unique group of project partners pooled its skills and resources, and close to 100 ordinary households spent 18 months finding out what they could achieve. Or - just as important - explaining frankly what got in the way.

The 21st Century Living Project is a collaboration between:

- The Eden Project, which wants to understand better what works and what doesn't when it comes to helping people green their homes;
- Homebase, which wanted to gain in-depth knowledge of customers' needs for green products - information that will let it develop new offerings to help customers live more sustainably; and
- Acona, which wanted to contribute to the thinking in this area, and particularly to ground it in down-to-earth practicality.





The project

A total of 100 households were challenged to do what they could to reduce their environmental footprint. They were selected to be nationally representative - including demographics, social groups and house types.

Each household received an initial environmental audit from a member of the project team and an attitudinal survey to understand their views on environmental matters. They were also given a project pack of information and 'green' equipment, along with £500 to spend in support of their environmental improvements.

There were four themes: energy, waste, water and other environmental behaviours like travel. Throughout the year the participants were contacted by email, via a website and via a limited number of targeted themed interventions to maintain their interest. In addition, 61 homeowners received a thermal image survey of their property.

After 12 months the environmental audit and attitudinal surveys were repeated and the results analysed. This report summarises the findings.

Changes in the households

By the end of the year, the participants had made hundreds of changes. Sixteen households didn't complete the project, usually because of changes of circumstances or house moves. Among the remaining 84 homes, the most common changes were as follows:

- 58% increased their use of low-energy light bulbs
- 55% increased or installed loft insulation
- 23% replaced white goods with more efficient models
- 12% replaced their boiler or upgraded the heating system
- 11% installed cavity wall insulation
- 10% increased or installed double glazing
- 14% installed compost bins or wormeries
- 21% installed a water butt
- average recycling rates rose from 58% at the start of the project to 63% by the end
- overall, 81% of households took at least one energy-saving measure, with an average saving of 10%.

People tackled energy with enthusiasm, waste and water half-heartedly and travel hardly at all. The priorities were confirmed by the participants, who ranked the effort put into energy saving far higher than waste management, waste higher than water and travel last of all.

The £500 project payment led to additional expenditure in 61% of homes, roughly at the rate of £1 for every £1 of grant. In fact, 24 homeowners spent more than £500 of their own money.

The attitudinal surveys showed that people's values were largely unchanged through the project year, and further that there was little or no correlation between the households with the strongest pro-environmental values and those that made the biggest improvements. One big shift, though, was in people's perceptions of how easy it is to make changes. At the beginning of the project most households expected to buy eco-items with their project payment but not to change their lifestyles. But by the end many had made noticeable behavioural changes - and the changes were easier than they first thought.

The thermal image reports of 61 homes also produced interesting results. Homeowners who received a thermal image report showed a measurable reduction in the perceived energy efficiency of their homes and - probably as a consequence - had more interest in draught-proofing and cavity wall insulation.

Headlines

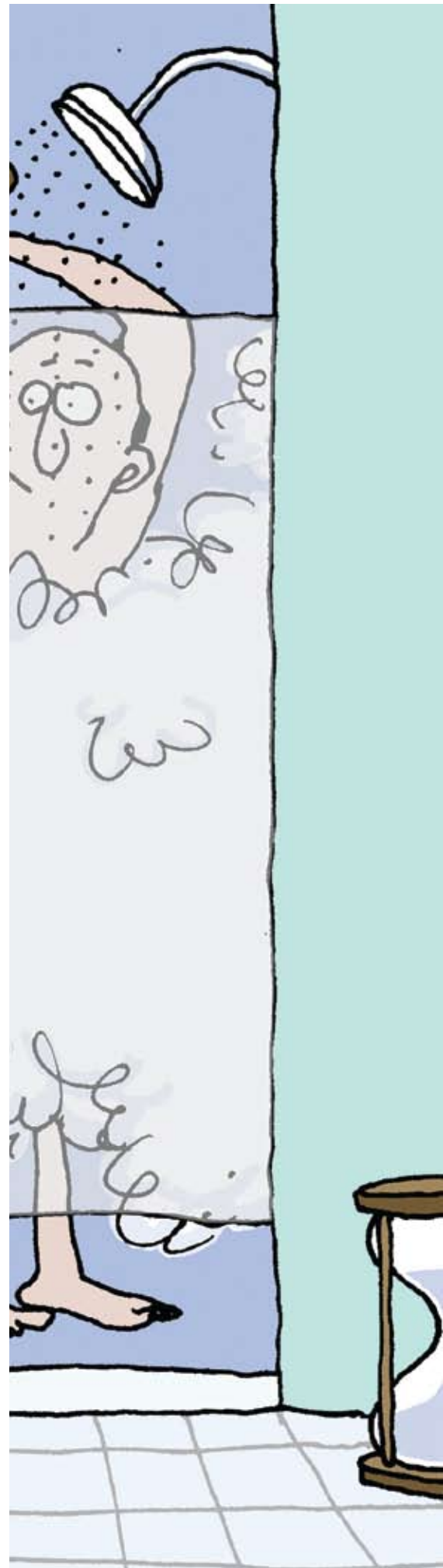
- **You don't have to be green to act green.** The data say clearly that environmental values are not a good predictor of action. With the right framing, everyone can improve - regardless of their level of environmental concern.
- **It's easier to change than people think.** The participating households thought almost everything was easier by the end of the project than at the beginning. From using less gas and electricity to travelling more by public transport, it's easier than people think to change behaviours.
- **It's not all middle class.** There is a myth that 'the environment' is mainly a middle-class obsession. But everyone got stuck in with real improvements, and the households from the C2 and D social groups did significantly better in the end.
- **This project worked.** Most of the sample improved measurably (81 out of 84 scoring more than 10 points on the improvement scale) - but almost everyone did something. Many made quite radical changes to their homes and lifestyles.
- **The leverage analysis is compelling.** Giving people money unlocks investment - in this project, at the rate of £1:£1. This rate should be attractive not just to policy-makers but also to manufacturers and retailers. Give people a voucher for £500 off, and they may well be tempted into spending an extra £1,000. Of course, the retailer has to have the right products.
- **Simple interventions work.** The thermal imaging and energy monitors both seemed to change attitudes and - more important - to drive behaviour. Neither costs much, and knowledge is power.
- **There's an insatiable demand for tailored services.** Very few of the households said they didn't receive enough money. But many wanted more information. In fact, they wanted specific recommendations rather than another generic leaflet. This is particularly true for the big-ticket items like boilers and small-scale renewables.
- **Information + money + deadline = action.** Based on this project, the hunch is that all three of these components are necessary to drive action in the real world. The auditors got a sense that families 'got round' to things just before their visits. There seems to have been a flurry of spending just before the project's end. Take away any piece from this magic formula and the blockages reappear.
- **The 'palette' of actions is quite limited.** The organisers didn't tell households what to do or where to buy. But most people settled on the same five changes: heating, insulation, energy-efficient bulbs, recycling and composting. Greening the home isn't sexy, but it isn't difficult either.
- **Where's the innovation?** This is the flip side of the point above: Where were the new technologies? The killer app products? The gas flow monitor? The project shows that cutting environmental footprints can be mass market - there is money to be made from the right solutions, as described here.
- **Utility billing needs radical reform.** This project was staffed by experts, working full time, but staff still couldn't get hold of simple data showing whether households were successfully cutting their consumption. The average householder stands no chance.
- **It's hard to make big savings in energy consumption.** The project's average energy saving was 10%. Even the best homes were unlikely to have bettered 25%. And yet the UK reduction target for greenhouse gas emissions is 80% by 2050.
- **Environment ≈ energy and waste.** Although the project was very careful not to steer households towards any particular set of issues, the results were stark. Energy use was perceived to be the highest priority, followed closely by waste. Water reduction and other green behaviours barely got a look in. Action was really only effective in household energy use.

Lessons for policy-makers

- The right framing can drive most people to change. The 21st Century Living Project engaged the majority of households in some way, with 81% cutting energy use via at least one method.
- Cash investment encourages people to invest, and a deadline is powerful. This study supports the Boiler Scrappage scheme and even suggests that the value of the scrappage payment (£400) is well pitched at about the optimal level. The country needs more such schemes.
- Tailored personal advice is the key to unlocking change. There is a huge need for tailored, authoritative, detailed recommendations, preferably made by some independent organization that householders can trust to have no commercial interest in their purchase. There is a real opportunity for policy-makers to facilitate the emergence of such schemes from either the public or the private sector. For emphasis: the market is well supplied (oversupplied?) with generic 'awareness-raising' information; what is needed is the specific and authoritative advice of an expert focused on one particular home.
- There is a lot of confusion, myth and disinformation about cavity wall insulation. Some 17 million homes in the UK have cavity walls, and over half are unfilled. Unless some action is taken to make that market work better, this will remain an unfulfilled potential to reduce energy use.
- A simple, urgent policy change is required in the regulation of utility bills. Utility providers should be compelled to provide information in a standard template that:
 - breaks information down into comparable like-for-like periods (quarters, months),
 - includes graphical comparisons of consumption with the same period in the prior year,
 - removes distortions created by estimated bill readings,
 - removes distortions or confusion from tariff arrangements (e.g., night consumption and day consumption reported separately) and
 - is 'owned' by the householder - that is, is portable from one utility company to the next so that long-term trends are not lost.

This is too important to wait for smart meters: the five points above can be largely achieved using current billing and meter-reading arrangements.

- The 21st Century Living Project was demographically representative and nationally replicable. The model of initial audit/ financial payment/ final audit is a powerful one. With more directive advice provided in the initial audit, it could be more powerful still. Cost-effectiveness is an important question, and a much larger-scale pilot would be required to test this, with fixed costs more effectively spread over a larger number of households and with the financial payment matched better to results.

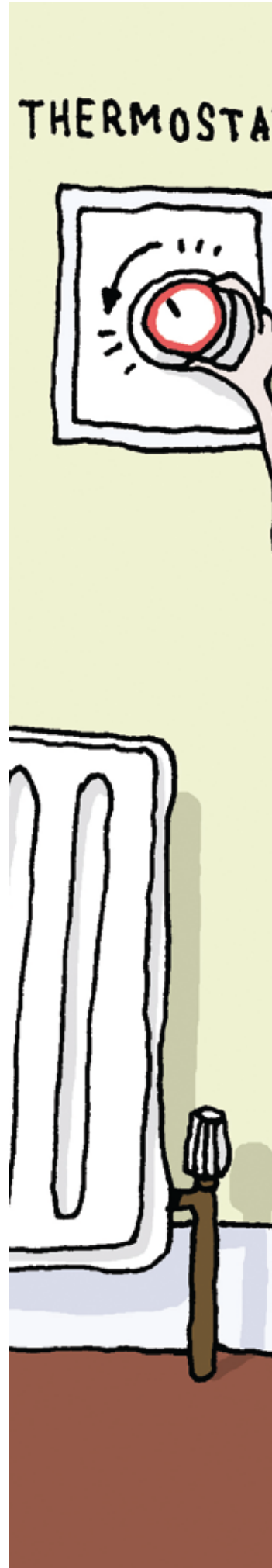


Lessons for retailers and manufacturers

- This is a mass market opportunity. The conventional wisdom is that green products are only of real interest to the green concerned, and most consumer surveys show this group to be a minority. The 21st Century Living Project shows that, with the right information and incentives, everyone will invest regardless of attitudes and social group. There is a big scale to develop new sales.
- Money and savings are strong motivators of action. This will come as no surprise to most retailers, who understand the attraction of savings, but it does suggest that retailers could do much more in the positioning and communication of these products. Can you demonstrate direct savings in the promotion of the product? Can you link the investment to helping home sellers 'climb the HIP ratings' as they renovate prior to sale? And so on ...
- Leverage is an opportunity to grow sales. At the £1:£1 leverage demonstrated by this project, carefully constructed price promotions and discounting have the potential to drive profitable sales growth, particularly for big-ticket items.
- Personal advice is very important. This has two implications for retailers. First, time spent on preparing detailed comparable product information will be repaid. But second, giving people answers and taking them directly to the solution creates an opportunity for new service models, something important to forward-looking retailers as they grapple with the importance of decoupling growth from consumption.
- It's the tried and trusted solutions that work - but they appear so dull. Can we change the way these products are marketed to make them more appealing? Look down the aisle at insulation foam or radiator panels - the branding is basic and designed for the days when these products were bought only by the trade. Where's the colour? The imagery?
- Thermal imaging changes the way people see their homes and helps them understand how heat is being lost. This could be a powerful service to offer and help drive change. Roughly a quarter of the people receiving a thermal image installed draught-proofing or tried to fill their cavity walls.
- Where is the innovation? Project participants struggled to know how to insulate a solid wall. To deal simply with draughty single-glazed sash windows. To segregate wastes for recycling. Retailers, manufacturers and house builders need to design for tomorrow and invest in product innovation and development to capture the latent market.

Lessons for campaigners and educators

- Campaigners should frame things in the language of 'wastefulness' rather than 'belief'. Pro-environmental attitudes are not a good predictor of behaviour. But highlighting 'waste' (of all types) has mass-market resonance, meaning that we can tackle behaviour without the need to change attitudes and values. Such a framing is likely to have appeal across all social groups, and it is only reinforced (rather than undermined) by economic recession and is relatively independent of political change.
- Make it easy to say 'yes' as well as hard to say 'no'. Social or values-based campaigning has a role in creating pressure, but the other side of the equation - making it simple for people to change - is equally if not more important.
- What's the key to take people to the next level? The changes seen during this project are a valuable start, but they amount only to a 10% cut in impact. The UK's targets in the Climate Change Act 2008 are 34% reductions in 2020 and 80% in 2050. Reaching them will clearly be about more than current behaviours and technologies. What is needed?





Product, services and information needs

One thing this project shows beyond a doubt is that - given the right framing - green is mass-market. There is a lively debate over whether 'the market' alone can solve the environmental challenges of the 21st Century. The project partners believe that it can certainly play a big part. But it's clearly not working properly yet. The 21st Century Living Project has shown at least some of the gaps:

- Small-scale renewable: Many households were interested in solar thermal, solar photovoltaic or even wind-generation technology. But they know these things are expensive and they wanted independent, authoritative advice before buying.
- Cavity wall insulation: This is a simple solution for millions of homes, but almost half of the households who tried to install it failed. Some providers didn't ring back or keep appointments. Other owners were advised that it would be difficult or make their house damp.
- General advice: People loved the detailed suggestions for improvement they received, and the more authoritative and independent the better. There is a market for domestic-scale environmental audits.
- Energy monitors: Electricity energy monitors work brilliantly and could easily be standard issue in all homes (leaving aside policy debates over smart meters). But the majority of energy used in UK homes is gas. Where is the equivalent technology for that?
- Thermal imaging: This makes heat loss real to people and changes their perception of energy efficiency in their homes. It should be feasible for external and internal thermal images of every UK home to be made available to its occupants.
- Draught-proofing and insulation: These are two very effective simple technologies, but they are presented in an uninspired and technical way. They could be made more attractive, easier and possibly bundled together (with other services).
- Solid wall insulation: The current solutions for heat loss through solid walls are expensive and disruptive.

A Final Word...

It seems clear to all the project partners that the 21st century must be much less wasteful than the 20th century was. Leaving aside questions of whether humankind is changing the climate (but, for the record, the partners all believe that we are), population growth, rising living standards and finite resources mean that an environmental crunch will come sooner or later, and we'll need to live more carefully.

None of the partners believe that this means donning a hair shirt. There's a huge amount of hidden waste in developed-world societies. We can start there - cut impact, make savings, be warmer and be better off while the argument rages over the long-term strategy. It's fun to grow food; OK, it may be a small contribution - but it's fulfilling and it connects us to nature in a really satisfying way. Insulation is really simple, and we get warmer houses and lower bills. Not catching rainwater - especially in this country - is just daft. The message is clear: we can get on with cutting our environmental footprint without having to win the battle for the long-term soul of the nation. Don't browbeat people, don't frighten them - just show them where they are wasting money and resources and they will change themselves. Frame the topic like this, and everyone's interested - young and old, wealthy and poor, green or not.

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