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Competition – Rapid measurement of wall heat losses

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27 March 2015

Part of the BRE Trust



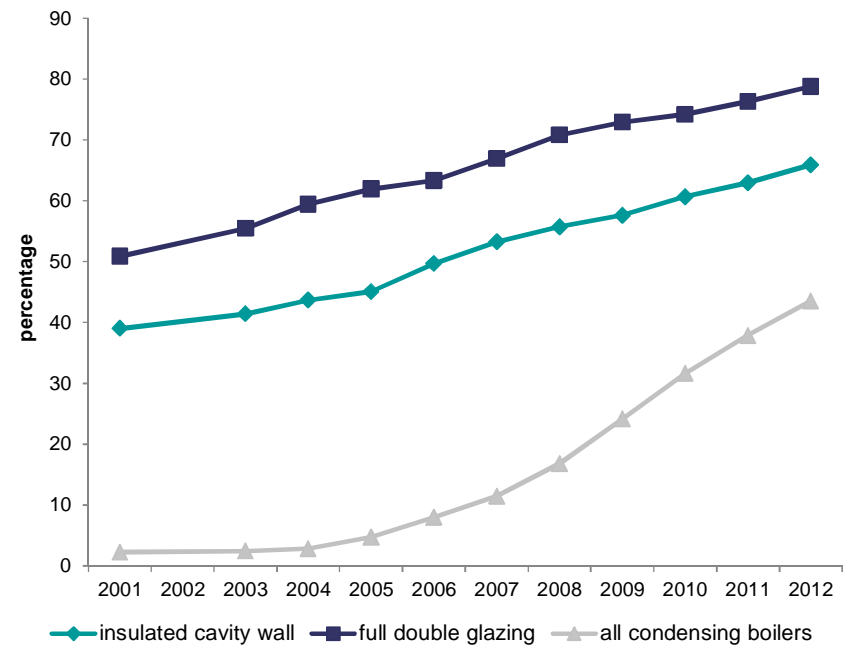
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Summary

- The solid wall challenge
- Accurate measurements
- Seeking innovative solutions
- Scope
- Key dates
- Competition rules
- Assessment procedure
- FAQs

The solid wall challenge

- The domestic building sector has an important part to play in reducing demand for energy



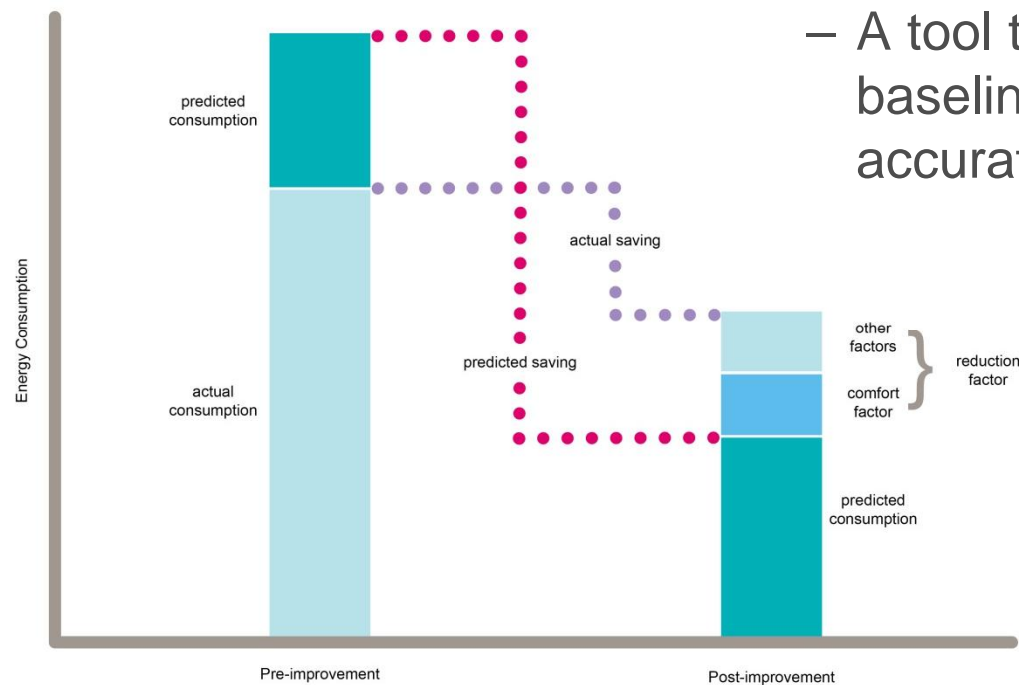


The solid wall challenge

- ~7 million of the ~27 million dwellings in the UK have solid walls
- These walls have some of the worst heat loss characteristics in the stock



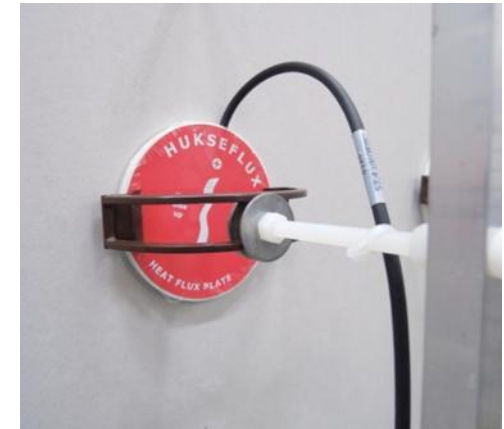
The solid wall challenge



- A tool that can accurately measure baseline performance will allow more accurate predictions to be made

Accurate measurements

- Current standard method for measuring U-values takes about 10 days to produce a reliable result
- Needs a large enough temperature difference
- A tool that enables energy assessors to provide more accurate estimates of heat losses would need to give a result within the duration of a normal visit



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Seeking innovative solutions

- This competition seeks to respond to that challenge
- U-value is the overall heat transfer co-efficient
- Depends on the properties of the components of the wall
 - Density
 - Moisture content
 - Dimensions
- A device that can use some other metric to determine U-value is a valid entry

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Scope

- Key judging criteria are:
 - Accuracy
 - Target +/- 15%
 - Speed of measurement
 - Target 1 hour
 - Simplicity
 - Financial viability

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Key dates

Competition opens	16 March 2015
Q and A webinar	27 March 2015
Competition closes	15 May 2015
Winner announced	15 July 2015
Testing	September to November 2015

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Assessment procedure

- Stage 1: Lab testing
 - Tool will be tested in a hot-box
 - Using a wall of known U-value

- Stage 2: Field testing
 - Tool will be tested in an occupied dwelling
 - It will be tested alongside the existing method

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Competition governance

- Rules can be found on website
 - <http://www.bre.co.uk/page.jsp?id=3603>
- All entries must be submitted using the online form
 - <https://breinnovar.typeform.com/to/EPONfE>
- The prize is a package of support to take the idea or product to the next stage of development

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FAQs

- Check the website
 - <http://www.bre.co.uk/page.jsp?id=3603>
- Contact BRE
 - nicholla@bre.co.uk

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Questions & Answers

- These will be added to the FAQs section of the website.