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RESEARCH QUESTIONS



- What drives the improvements in building performance...
- ... technical improvements or the behaviour change of building users as a result of building energy certificates such as Display[®]?
- Is it both





A technical improvement <u>is</u> the result of someone's behaviour being changed, be it the facilities manager, finance director, energy manager or mayor.



RESEARCH SAMPLE

- Detailed building surveys: 751 buildings are selected from 5586 buildings
- 383 responses
- Final 'cleaned' data: 286
- Pre & post communication surveys:

Pre-survey

Municipality	Country	No. of Respondents
Healthy Cities Inomerice	Czech	165
Healthy Cities Koprivnice	Czech	83
Kaunas	Lithuania	22
Milton Keynes	England	18
Bristol	England	115
Cork	Ireland	2.24
Helsin ki	limland	35
Salerno	Italy	844
Udine	Italy	484
Total		1990

Post-survey

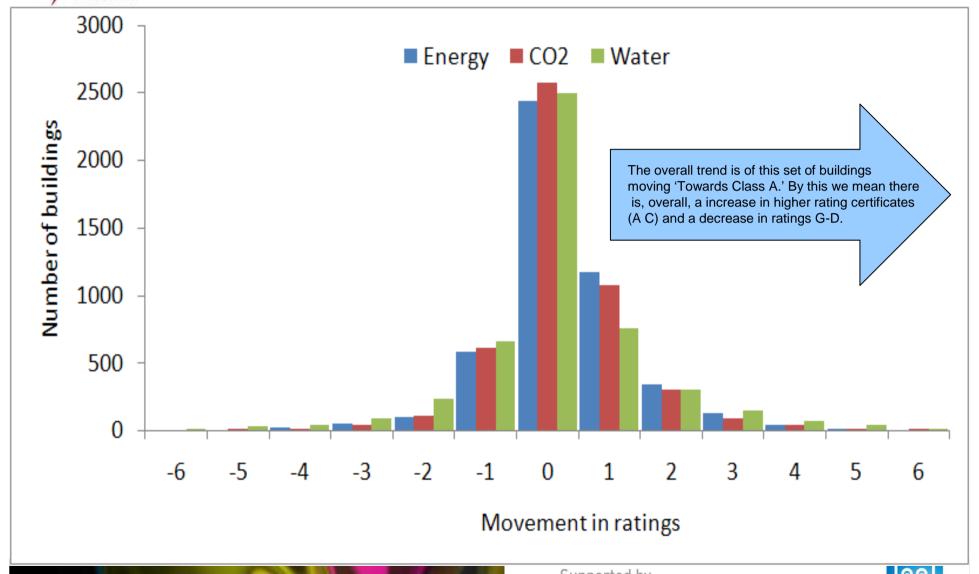
Municipality	Country	No. of Respondents
UK – Ireland	UK – Ireland	20
Helsin ki	Linland	10
Salerno	Italy	168
Udine	Italy	170
Total		368







IMPROVING BUILDING PERFORMANCE







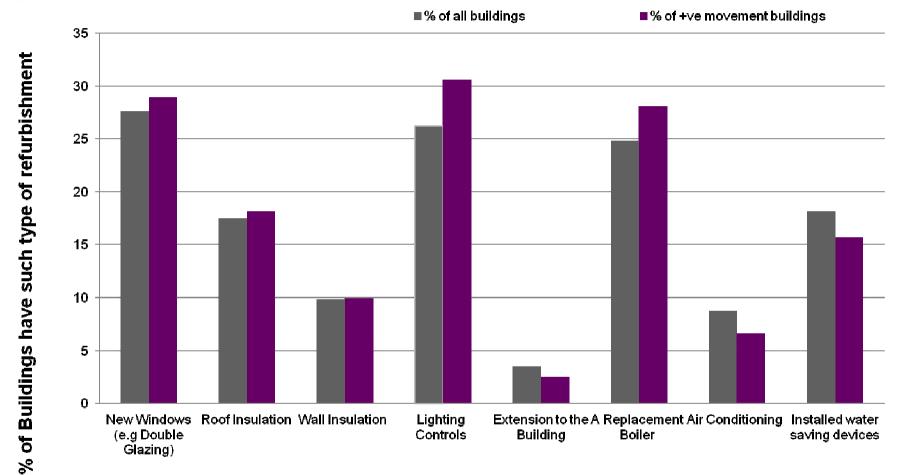
WHY BUILDINGS IMPROVE?

- The second phase of our analysis was to select a sample of buildings for closer inspection and to understand the specific reasons why some buildings have improved, and some deteriorated.
- Are there common factors that appear to lead to improved energy performance?
- This same sample was then analysed for its communication activities and a further set of common factors were identified that appeared to lead to improved energy performance





IMPROVING BUILDING PERFORMANCE — TECHNICAL IMPROVEMENTS

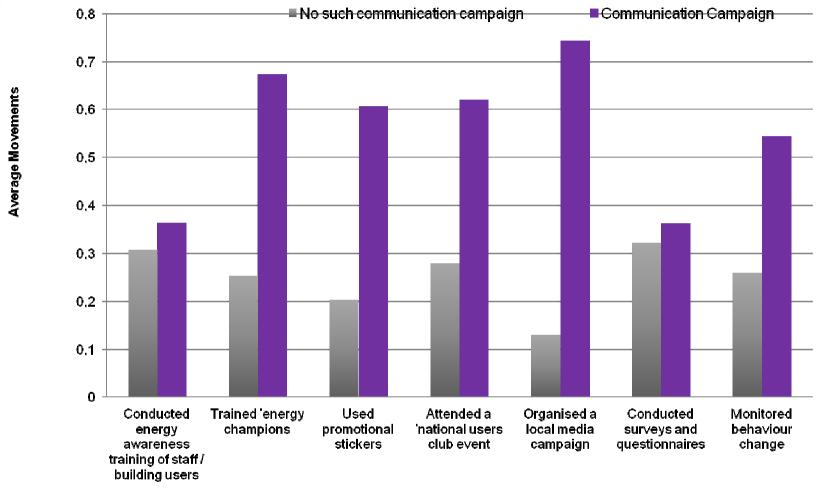








IMPROVING BUILDING PERFORMANCE Impact of communication campaign on buildings

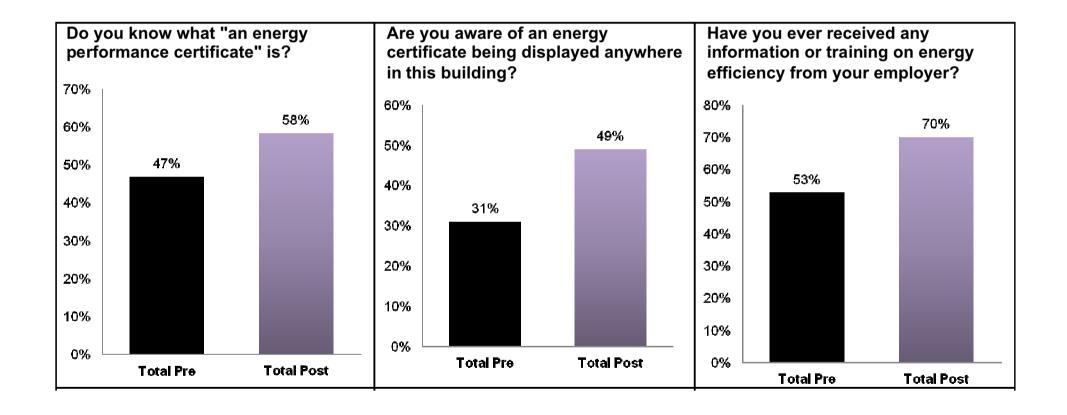








IMPROVING ENERGY AWARENESS









CONCLUSIONS

- Display® has led to demonstrable increases in building performance and energy awareness. But . . .
- There is no one single measure or 'quick-fix' for moving buildings 'Towards'
 Class A'.
- The importance and success of Display® is in recognizing that the poster is merely a beginning of the journey 'Towards Class A'.

Buildings in Display® that improve . . .

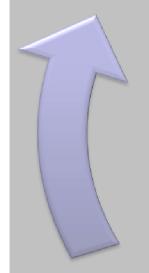
- 1. Invest in multiple refurbishments especially lighting controls and boiler replacement and avoid using air conditioning;
- 2. Invest in new types of building controls especially heating controls;
- Have a full time energy manager and voluntary environmental champion;
- 4. Organized local media campaigns and used creative promotional materials;
- Attended local and national networking events such as 'national users club event'

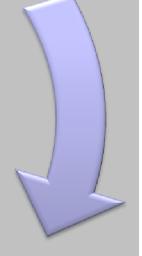






Energy awareness





Behaviour change

Building improvements



RECOMMENDATIONS (FOR MUNICIPALITIES AND POLICY

- 1. Appreciate the benefits a 'whole system' approach to energy management can have. Participation in Display® Campaign and producing posters is an important tool to be used by energy professionals to encourage behaviour change.
- 2. Clear guidance is required for what constitutes effective technical improvements not all interventions are equal.
- 3. Local, national and European engagement with stakeholders is vital.
- 4. A need for harmonization of national (and European) certification both in terms of calculation methodology and appearance.

Certification is just the start, not the destination. Not 'a box to be ticked' but a starting point to engaging building-users inc. decision-makers and facilities managers to teachers and schoolchildren.







Thank you, and congratulations to Display®

rbull@dmu.ac.uk

follow me on twitter: richbull





