Ecobuild seminar, 4 March 2014 WHAT NOW FOR THE PERFORMANCE GAP?

THE PERFORMANCE GAPS: Where are we now? What should we be doing?

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the Usable Buildings Trust

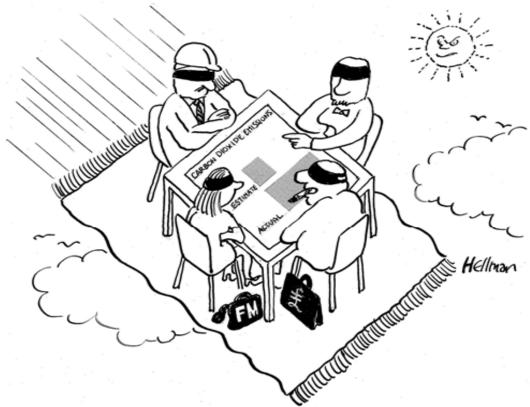
www.usablebuildings.co.uk

Our conclusion from work in the 1990s:

You may have seen this before. We produced it in 2001.

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Why have attitudes and practices taken so long to change?



SOURCE: Hellman cartoon for W Bordass, Flying Blind, Association for the Conservation of Energy & OXEAS (2001)

Now we all now know there are energy performance gaps. *However ...*

... the gaps are not only for energy and carbon. They also affect:

- Technical performance
- Usability, manageability and control systems
- Running costs
- Maintenance and repair requirements.

And so, not surprisingly:

Occupant satisfaction.

WHAT HAS GONE WRONG?

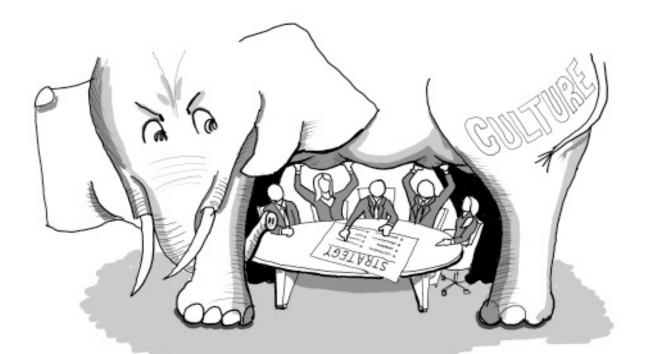
⁴ If you wanted to improve building performance in use, *what would you do ...*

- A. Focus on building performance in use? OR
- B. Do lots of other things and hope performance will improve ...?



Why have we been barking up the wrong tree? Why is actual performance not the proper target?

It's a cultural problem



The elephant isn't in the room, it is the room!

SOURCE: Bruce Flye, 2012, www.bruceflye.com/concept-graphics/illustrations/4092610

Why haven't we taken account of the evidence under our noses? "Any system without feedback is stupid." ... AMORY LOVINS

"... unlike medicine, the professions in construction have not developed a tradition of practice-based user research ... Plentiful data about design performance are out there, in the field ... Our shame is that we don't make anything like enough use of it"

FRANK DUFFY, PPRIBA, Building Research & Information, 2008

• Procurement routes are often salami-sliced

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- Most designers and builders hand over the keys and go away, they don't follow through and capture the feedback.
- By outsourcing and privatising, government has disconnected many of its feedback loops, and nothing has been put in their place. Where is the institutional memory?
- Too many people want to bury bad news ... or point the finger.
- Evidence from case studies has been dismissed as anecdotal, not used to provide feedback, insights and advance warnings.

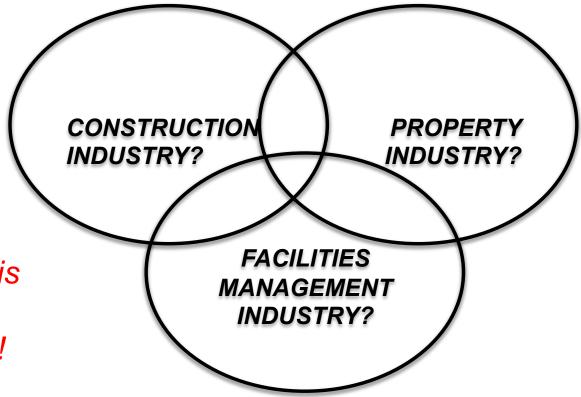
We need to get the virtuous circles going

SEE: B Flyvbjerg, Five misunderstandings about case study research, Qualitative Enquiry 12, 219-245 (2006),

Which industry and market is really responsible for building performance?

None of these: it's much more complicated than that.

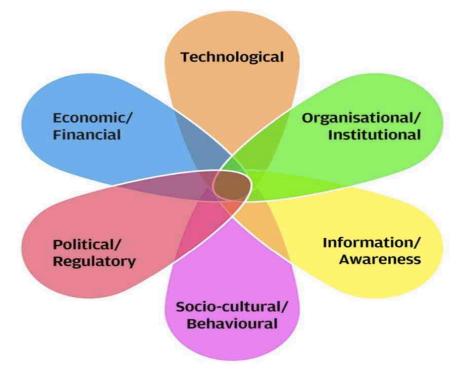
The lack of traction is not a market failure, but a category error!



Energy Efficiency in the Built Environment (EEBE - Cambridge) Barrier Categories

So many barriers to surmount ...

What would help people to come together in the middle, quickly?



SOURCE: Cambridge Centre for Sustainable Development, Barriers to energy efficiency in the built environment (2012)

A vision: where good performance becomes normal

Make actual performance in use the objective function:

- Everyone must own their bit of the problem and concentrate their efforts.
- Review everything. Benchmark its elements where practical.
- Develop effective methods of communicating the results clearly, transparent between design, operation and policy.
- Effective leadership, focusing on performance.

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With collective understanding that performance in use is the goal, systems used in producing, owning, occupying, using, managing, equipping, maintaining and altering buildings can measure their contribution to it, based on what actually works; and identify what needs attention.

SOURCE: W Bordass & R Cohen, Technical Platform Scoping Study Stage 1 report, Usable Buildings Trust (Dec 2011), unpublished

Sticky interventions:

seeding things with potential to snowball over time

Cultural adaptations, not just technical "solutions".

To create virtuous circles of continuous improvement.

MAKE IN-USE PERFORMANCE CLEARLY VISIBLE

In a way that motivates people to strive to improve it. This needs a well-informed technical infrastructure to help the plethora of different systems to converge, particularly for energy and carbon.

CONSOLIDATE THE KNOWLEDGE DOMAIN

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Develop building performance as an independent knowledge domain, to gain the evidence and authority to inform practice and policymaking.

REVIEW PROFESSIONAL ETHICS AND PRACTICES

Appeal to individual building-related professionals to work in the public interest and engage properly with outcomes: *NEW PROFESSIONALISM*

There is a lot we can build on already

- Many construction-related institutions require their members to understand and practice "sustainable development".
- How can members do this unless they understand the consequences of their actions? *The real outcomes.*

SO WHY NOT?

- Change attitudes to the nature of the job.
- Re-define perceptions of the professional's role, to follow-through properly and to engage with outcomes.
- Improve procurement systems, e.g. with Soft Landings champions.
- Close the feedback loop rapidly and efficiently.
- Seek to create much more immediate, direct and effective links between research, practice and policymaking.

Some things the Usable Buildings Trust has been doing

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SOURCE: downloadable from www.usablebuildings.co.uk, www.softlandings.org.uk and www.les-ter.org

Over now to the other speakers, who are putting all this into practice

RESEARCH INTO IN-USE PERFORMANCE Mat Colmer, Technology Strategy Board

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CONTRACTING AND FACILITIES MANAGEMENT Reid Cunningham, BAM

DESIGN, DELIVERY AND SOFT LANDINGS James Warne, BOOM Collective

www.usablebuildings.co.uk

¹⁵ ANNOUNCEMENT: Carbon Buzz Exchange CBx: Upcoming Events

BREAKFAST BRIEFINGS:

April 3rd – Making Energy Audits work May 1st – Making sense of meters

- June 5^{th} Benefitting from BIM
- July 3rd A Soft Landings approach

EVENING SESSIONS:

June 19th – Getting to grips with Energy Audits

W: <u>www.cbxchange.org</u> E: info@cbxchange.org A public forum for narrowing the performance gap

CBx Ocean House The Ring, Bracknell, RG12 1AX