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ACE Annual Conference 25 May 2011
Low carbon construction think tank

BE PROFESSIONAL:
*Get real about
building performance*

Bill Bordass

www.usablebuildings.co.uk

For most designers and builders, *building performance in use is another country ...*

“in theory, theory and practice are the same, in practice they aren’t.”

SANTA FE INSTITUTE

for research into complex systems

“designers seldom get feedback, and only notice problems when asked to investigate a failure.”

ALASTAIR BLYTH

CRISP Commission 00/02, UK

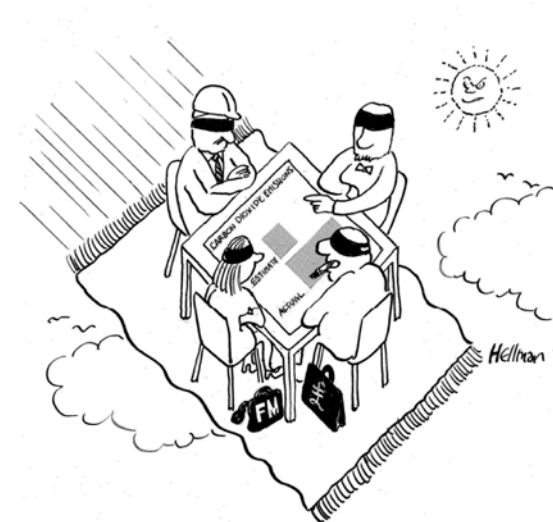
“I’ve seen many low-carbon designs, hardly any low-carbon buildings.”

ANDY SHEPPARD

Arup, 2009

FLYING BLIND

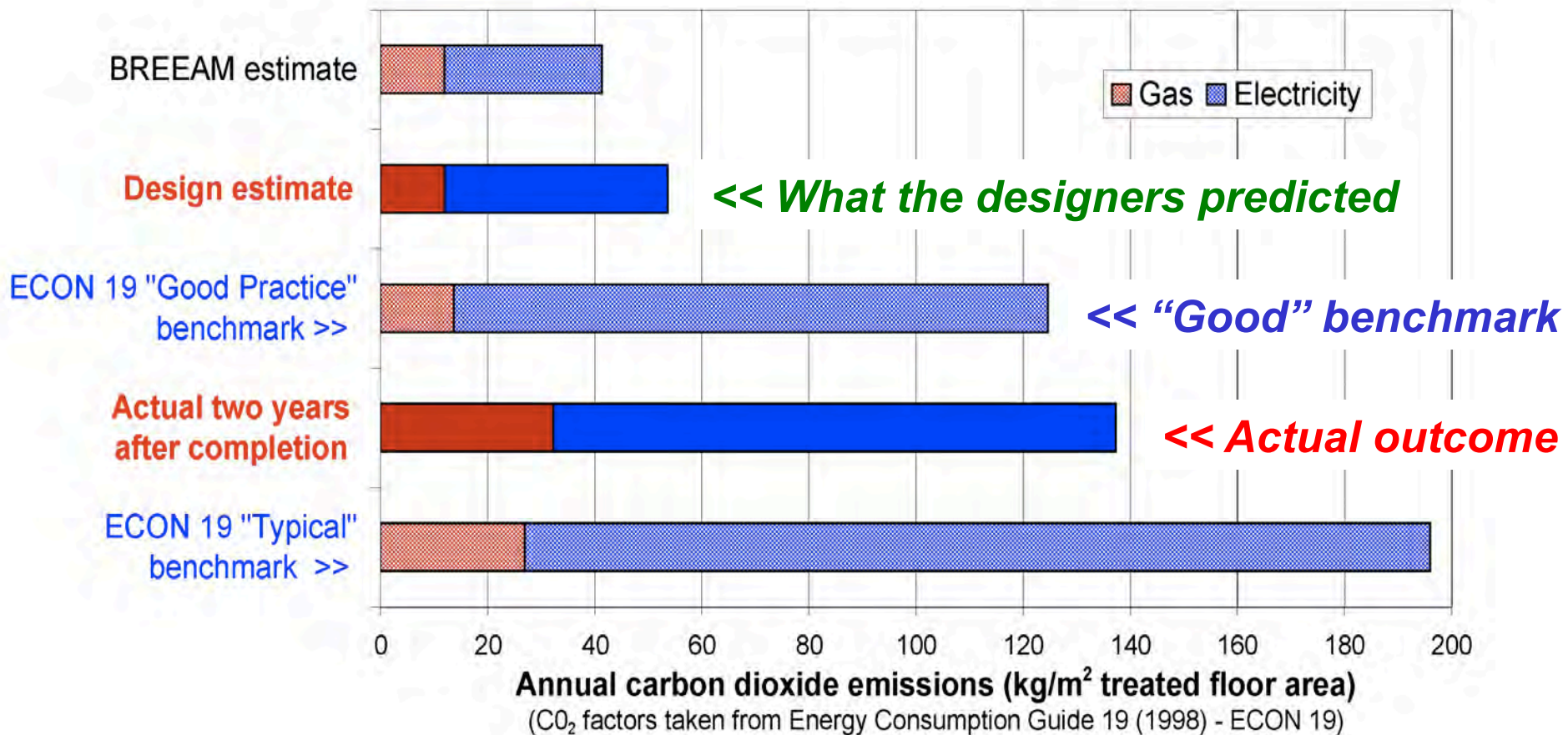
Everything you wanted to know about energy in commercial buildings but were afraid to ask



October 2001

The Credibility Gap: *We couldn't deliver low-energy and carbon performance reliably in the 1990s. We're still finding it difficult.*

Data from the winner of a Green Building of the Year Award



Recently-completed buildings: *What do we tend to find?*

- Often they perform much less well than anticipated, *especially for energy and carbon, often for occupants, and with high running costs.*
 - Unmanageable complication is the enemy of good performance. *So why are we being forced to make buildings more complicated in the name of sustainability, when we don't get simple things right?*
 - Buildings are seldom tuned-up properly and controls are poor. *So if we have more to do, what chance do we have?*
 - Design intent is seldom communicated well to users and managers, implicitly or explicitly. *Designers and builders tend to go away at handover.*
 - Good environmental performance and occupant satisfaction can go hand in hand, *but only where committed people have made it happen.*
 - Modern procurement systems make it difficult to pay attention to critical detail. *Not a good idea when promoting innovation.*
 - Facilities management services leave a lot to be desired.
 - **Hardly fit-for-purpose for a low-carbon built environment!**
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Why are these lights on
in a new university building?

Controls, manageability and usability need to receive much more attention



“An intelligent building is one that doesn’t make its occupants feel stupid” ... ADRIAN LEAMAN

“We sell dreams and install nightmares” ...BMS SUPPLIER

Why are we being encouraged to spend money on green bling when we aren't getting the fundamentals right?



Changing the way we do things: *A new professionalism?*

- 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?

SO WE NEED TO:

- Re-define perceptions of the building professional's role, to engage with outcomes.
 - Get to places that markets cannot reach.
 - Close the feedback loop – rapidly.
 - Make much more immediate and effective links between research, practice and policymaking.
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New professionals

follow design intent through into reality

- They understand what is needed *strategic briefing*
- Are clear what they want, and communicate it plainly *strategic design*
- Are ambitious, but realistic *question all assumptions, understand users*
- Follow things right through *e.g. using **Soft Landings** procedures*
- Review what they do *manage expectations, undertake reality checks*
- Make others aware of what they are after *specify: what, why and how*
- Check that things will work *technical feasibility, usability and manageability*
- Get things done well, with attention to detail *communicate, train, inspect*
- Finish them off *commission, operational readiness, handover, dialogue*
- Help users to understand and take ownership *provide aftercare support*
- Review performance in use *including **post-occupancy evaluation***
- Work with occupiers to make things better *monitoring, review and fine tuning*
- Anticipate and spot unintended consequences *revenge effects*
- Learn from it all *and share their experiences*

***TRY TO MAKE THINGS SIMPLER AND DO THEM BETTER ...
only making them complicated where this is essential.***

Soft Landings:

Helping to enable the new professionalism

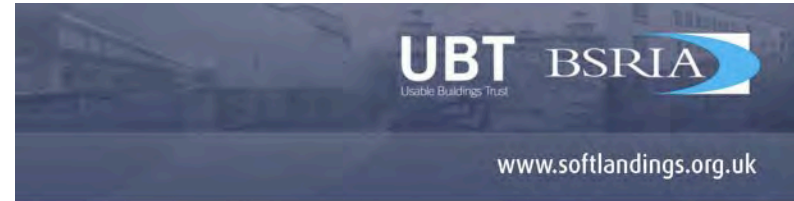
1. **Inception and Briefing**
*Appropriate processes.
Assigned responsibilities.
Well-informed targets.*
2. **Design and construction**
Including expectations management.
3. **Preparation for handover**
better operational readiness.
4. **Initial aftercare**
*Information, troubleshooting, liaison,
fine tuning, training.*
5. **Longer-term aftercare**
*monitoring, review, independent POE,
feedback and feedforward.*

Runs alongside any construction process

Downloadable free

*from www.usablebuildings.co.uk
and www.softlandings.org.uk*

BSRIA is hosting an industry group



the **SOFT LANDINGS FRAMEWORK**

for better briefing, design, handover and building performance in-use



www.usablebuildings.co.uk
