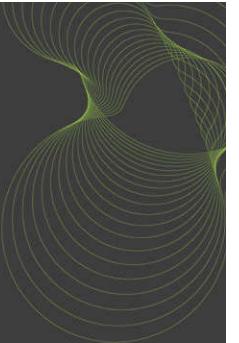


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Post-Occupancy Evaluation - Feedback for Better Buildings

Mindy Hadi BRE Sustainable Development Group
EAUC Annual Conference
April 11th 2011

BRE: Building a Better World...

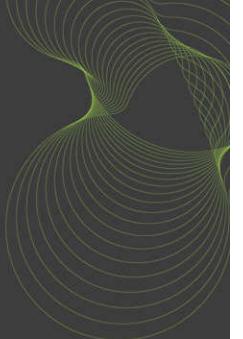


Research based consultancy, testing, certification and training,
tools and publications



Working in the built environment, but also transport, manufacturing,
electronics, agriculture...

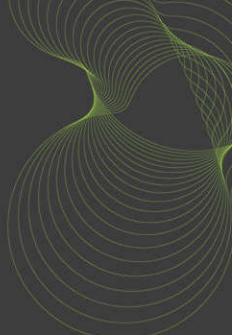
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Our POE experience

- Research experience
- Publications
- Multi-disciplinary POE team
 - Architects
 - Engineers
 - Psychologists
 - Sustainability experts
- Public and private projects include
 - SFC : 15 FE and HE projects
 - Educational Institutions: Schools, Universities and Colleges
 - M&S, Audi
 - Carbon Trust, Govt estate

Construction is an expensive business

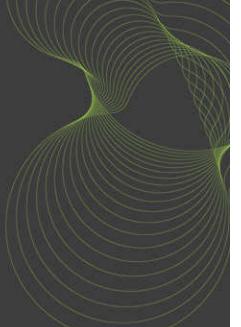


How do we know when we have got it right.....

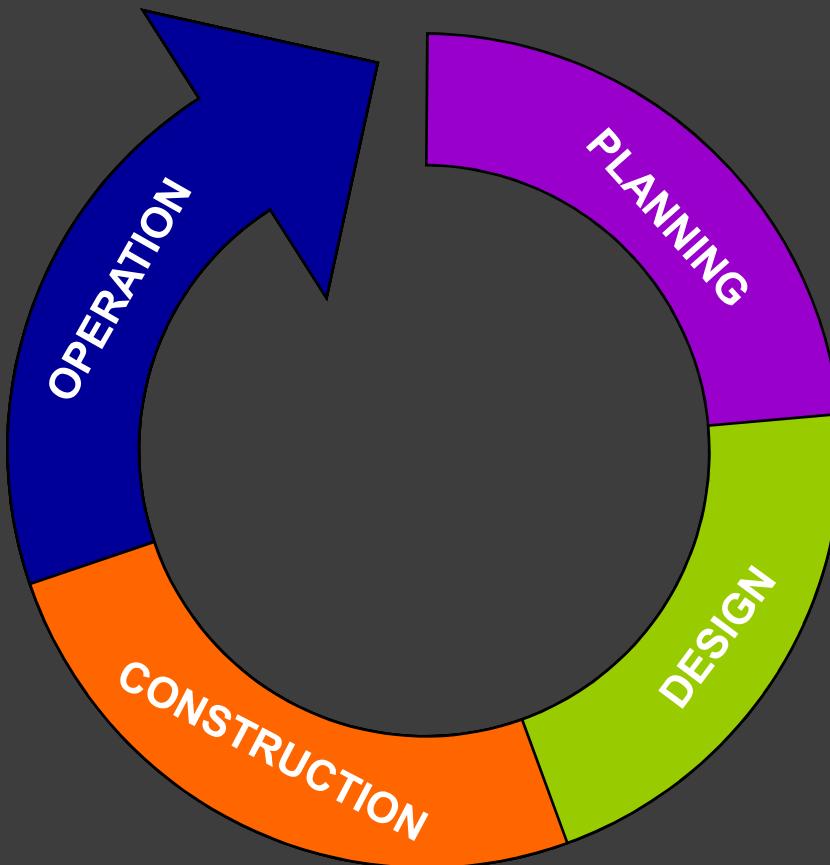
....or wrong?



Systems view of buildings

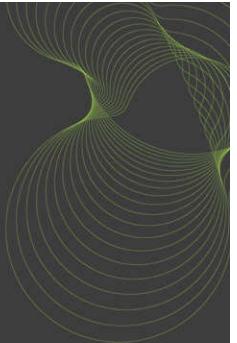


Virtuous
circle of
continuous
improvement



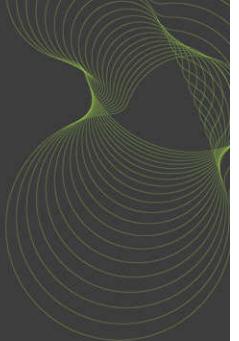
Throughout the
lifecycle of the
building

Our focus

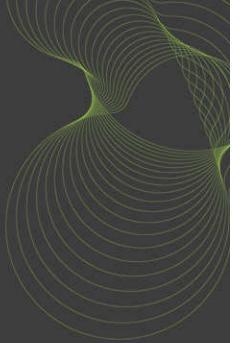


- Holistic focus
 - Performance of M&E systems
 - Energy/water usage performance and sustainability
 - Architectural elements inc materials' performance
 - Understanding of building operators
 - Occupant perceptions and behaviour
- Independence
- Refer back to the business case
- No 'one size fits all'- not prescriptive
- Breadth vs Depth

Main POE methodologies



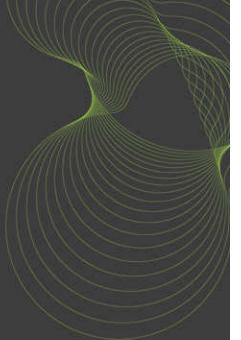
- Consultation methods:
 - Quantitative: electronic and paper questionnaires (BUS, OES)
 - Qualitative: interviews, workshops, focus groups
 - Mixed methods: DQI
- Auditing/monitoring methods:
 - Document review eg financial, design
 - Environmental conditions
 - BREEAM
 - Energy, water audits etc
- Expert methods: DQM, observation



SFC POE achievements to date

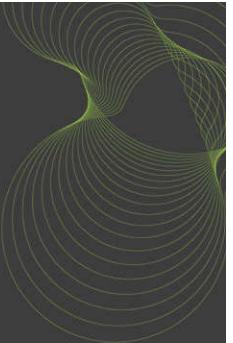
- Projects thought of highly by staff and students
- In the main, projects fulfilled the original business drivers
 - Impressive facilities that attract students, staff and research funding
 - State of the art equipment and premises
 - Increased opportunities for collaboration
- Ambiance: light, airy, spacious

Main issues from SFC POE (and others)

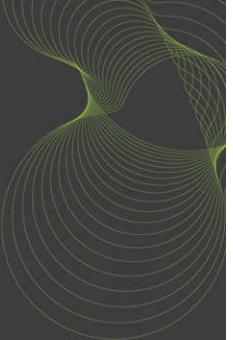


- Feedback from building ‘customers’ - opportunity to improve satisfaction
- Identification of performance and operational issues
- Assessment of sustainability performance
- Reducing risk – identifying potential health, safety and business risks

Are low carbon buildings performing better?

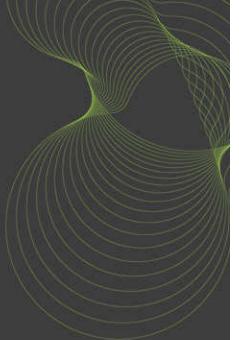


Success relates back to the process: address at key project stages

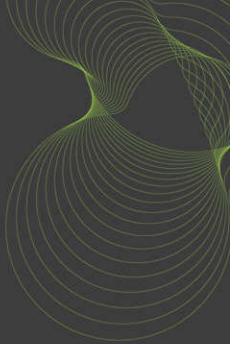


- Two types of feedback
 - Post project review: debriefing workshop for all those involved in the project from 'inception to completion'
 - Occupancy review: Feedback on the building in use
- Not mutually exclusive but interdependent
- Learning and sharing lessons
- Action planning

Top ten tips



- Involve FMs from start of the project
- Robust brief at the start of the project
- Knowledgeable, confident client
- Value engineering process vs WLC
- Use a Clerk of Works
- Procedures for collection of utility data
- Establish sustainability strategy at the concept stage
- Communication
- Robust initial budget estimates
- Stakeholder consultation

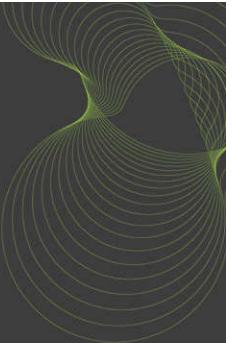


Thank You

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Discussion points



- **Should we be doing it?**
- **How do we get people to do it at all?**
- **Who should be paying?**
- **Breadth vs depth**
- **What do you do with the report?**