

NATIONAL  
ENERGY  
FOUNDATION

*Improving the use of  
energy in buildings*

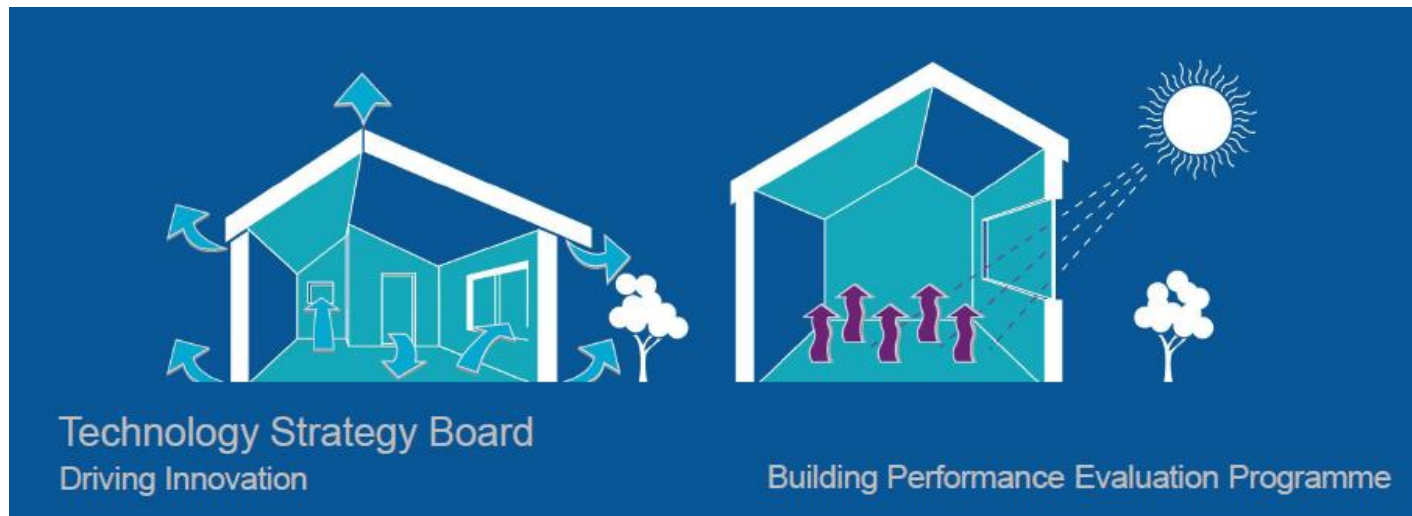
# Innovate UK BPE- Maximising the Outcomes

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**Ecobuild 2015**

# The BPE Programme

- Innovate UK (previously Technology Strategy Board) in last stages of 4 year BPE programme investigating over 100 new build and retrofit projects.



<https://connect.innovateuk.org/web/building-performance-evaluation>

# BPE programme objectives

- Embed BPE in professional practice
- Assemble a suite of ‘fit for purpose’  
BPE tools
- Better understand how to deliver high performing buildings

# InnovateUK – Building Performance Evaluation Programme



2010 - 2014

- Over 100 new build projects + 3 refurb
- 49 non-domestic studies, 56 buildings
- 366 dwellings (developments 3989 dwellings)
- Completion and early occupation / in-use
- Energy use typically 2.5- 4.5 times predicted

# Emerging themes – courtesy Innovate UK

- Fabric thermal performance – specification and construction; risky design details; thermal bridge and bypass; air tightness
- Modelling discrepancies - non-standard hours, unregulated loads, assumptions
- Commissioning – buildings not fully commissioned
- Sub-meters and reconciliation – poor metering tree; meters not functioning or understood
- BMS – training, complexity, functionality,
- User controls – complexity, operating instructions and labelling
- Lighting – too much, zoning deficiencies and lack of control
- HVAC – integration and control of multiple systems
- Renewables and MVHR – installation, operation and maintenance

.....so what?

# Beyond the BPE programme

- How can the BPE programme outputs be used to transform the market for new buildings? (motive, means and opportunity)
- What progress has been made in embedding BPE in professional practice? How can this be increased?
- BPE tools – what tools and techniques are suitable for which circumstances? Where are the gaps?

# Beyond the BPE programme

- Who could take action to deliver better performing buildings?
  - Professionals (architects, consultants and specialists)
  - Clients and developers
  - Contractors, builders and installers
  - Construction products manufacturers
  - Government
- How can they access, interpret and act on the findings?
- Why should they? (incentives and consequences)

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