

# Technology Strategy Board

Driving Innovation

Low Impact Building  
Challenge-led competition

## Non Domestic Buildings Invest in Innovative Refurb

Mr Mark Wray  
Lead Technologist



# Technology Strategy Board

Driving Innovation

## What's it all about?

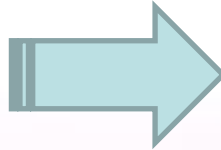
- What?
- Who?
- How does it work?
- How much?
- When?
- And then what?



## What is it?



SBRI Programme to develop technology & systems for use in energy efficient refurbishment of non domestic buildings.



Outcome:

A series of innovative energy efficient products or systems available which have been tried, tested & evaluated for performance

# What is it focused on?

- Non domestic buildings
- Innovative energy efficient technology & systems
  - building fabric
  - HVAC & thermal transmission
  - controls, monitoring and algorithms
  - out-of-hours energy use
  - lighting and small power (excluding portable appliances)
  - other areas with step-change energy efficiency potential
- Not renewables, behaviour or portable
- In use performance evaluation
- De-risk innovation and delivery



### What are we looking for?

- step change in energy efficiency
- potential for large roll-out
- defined and credible monitoring stage
- business case for roll-out & commercialisation
- defined marketing strategy
- committed team & engagement across the supply chain.

Projects must demonstrate innovation.

- technologies and techniques not used before in this building type
- innovative installation methods and refurbishment methodologies
- innovative controls, control algorithms and user interfaces.



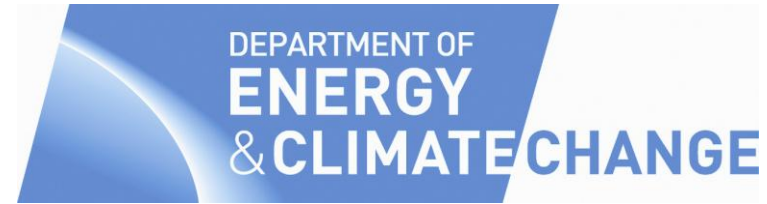
## Who is behind it?

Funding body is DECC

Delivery partner is TSB

Mechanism is SBRI

Promotional Partner is MBE KTN



Technology Strategy Board  
Driving Innovation





## Who is it for?

- Building owners and tenants
- Developers and main contractors
- Facilities managers and service engineering companies
- Product supply chain

*Collaborate to undertake joint product research and development with a building scale demonstrator*



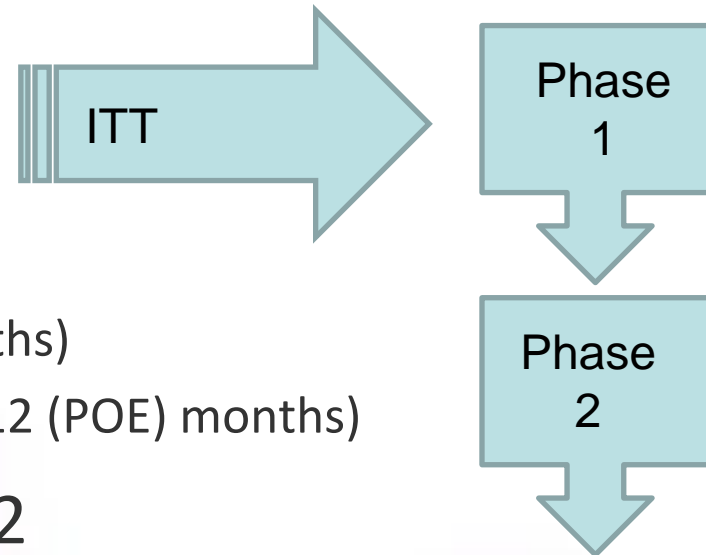
# Technology Strategy Board

Driving Innovation



## How does it work?

- SBRI – procurement
- Lead applicant + team
- Application & ITT
- Two phases per tranche
  - Phase 1: Design (<£20k & 2 months)
  - Phase 2: Delivery (<£1M & 12 + 12 (POE) months)
- Webinar – 19 October 2012



<http://www.innovateuk.org/competitions.ashx>





## How much?

- **Fund** – DECC £10M
- **Timing** -
  - Spring 2012 – March 2015
  - Two tranches of £5M
- **Contract** –
  - Phase 1 Design - £20k
    - Exp. 15 > 20 participants
  - Phase 2 Delivery £100k > £1M
    - Exp. 10 > 15 projects



## The timeline is....



### Tranche 1

2012

**Opens - 30 April**

Registration - 6 June

**Applications - 13 June**

Phase 1 Design 3 Sept > 31 Oct

2013

Phase 2 Delivery 14 Jan > 20 Dec

2014

Monitoring stage > December



6 months

### Tranche 2

2012

**Opens – 15 October**

Registration – 20 November

**Applications – 28 November**

2013 -4

Phase 1 Design 25 Feb > 24 Apr

Phase 2 Delivery 22 Jul > 26 May

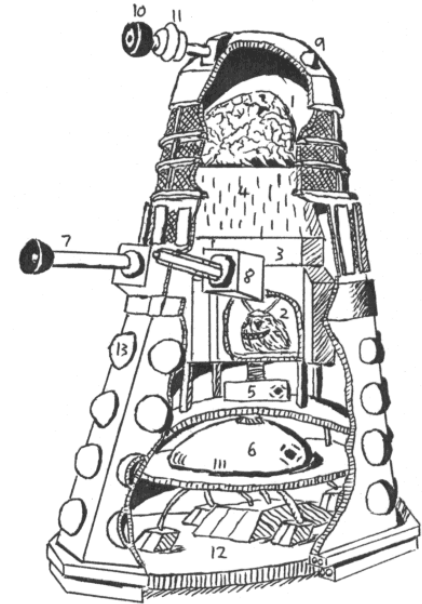
2014 - 5

Monitoring stage > March 2015

# And then what happens?

Disseminate / Disseminate / Disseminate

- Publish reports – case for refurb
- Conference / seminars
- Case studies
- Technical guide
- Promotional guide
- ???????



## Who was successful last time?

280 registrations

39 applications

13 successful > Phase 1

- Control system for supermarket chillers
- Aero gels for super insulated glazing
- Robotic measuring linked to a RefurbBIM
- Modelling design tool for heritage buildings
- Vacuum insulation with PCM panelling

**SKANSKA**

## Who was successful last time?

- Dynamic Insulation with heat recovery
- Holistic fabric insulation with heat recovery and cooling
- Data centre cooling and management
- Fabric improvement coupled with energy management system
- Super insulated heated glazing with ventilation control
- Thermal store and balancing for food ripening
- Voltage optimisation ??
- Chilled PCM system to replicate chilled beams

**jablite**

  
CASTLE ROCK EDINVAR  
HOUSING ASSOCIATION

## Technical Experts Wanted



### Assessors / Evaluators

*Assessors* – engaged by TSB

- Assessing the applications
- Attend panel meetings
- Ad Hoc – c. 4 days per year

*Evaluators* – engaged by applicants

- Assist in developing proposals
- Evaluate proposals
- Technical advice – TM22
- Ongoing role

Application – Mark Wray

### Project Monitoring

*Monitoring Officers & Liaison Officers*

- Engaged by TSB
- Undertake project monitoring
- Reporting on progress & PM
- Managing payment certification
- Ongoing role - depends on NR of projects

CV to Head of Programme Management



**Technology Strategy Board**

Driving Innovation

<http://www.innovateuk.org>

[mark.wray@tsb.gov.uk](mailto:mark.wray@tsb.gov.uk)

+44 (0)7825 112043

