

## Delivering better quality and performance through certification

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Quality; Performance; Value; Robust; Credible



1. Overview of BRE and Innovation Parks
2. BREEAM and HQM ONE
  - Principles and drivers
3. Quality and Performance
  - Improving performance
  - Better quality
4. Demonstrating value from investment



### BRE Group at a glance

**80**

Countries we work in

**16,000+**

Certified products and services

**35,000+**

People trained by BRE Academy

**26m+**

Data records held on UK housing stock

# BRE Innovation Parks Network

## Canada

Federal Sustainable Development Act in 2008  
Canada's Economic Action Plan 2013  
\$53 billion in new and existing funding for infrastructure projects  
\$0.5M initial funding secured

## China

Economy increasing by 9.5% a year  
Projected to become the world's largest economy by 2025  
240 new cities and 5 mega cities  
Half of the world's construction areas, until 2020

## UK

Climate Change Acts  
2020-Vision report on Future UK Construction  
Economic policy 'Investing in Britain's Future'  
Fastest growing population in Europe (2013)  
Skills shortages at outturn  
LCEGS 5-6% growth

## Brazil

One of the fastest-growing major economies in the world  
Balance between economic activity and preserving its natural environments  
'Minha Casa Minha Vida'  
£2.2M funding to CEPAC

# BRE Innovation Park @ Ravenscraig



**BREEAM**<sup>®</sup>  
delivered by bre

# Family of Standards

**BREEAM**<sup>®</sup>  
delivered by bre

**HOME  
QUALITY  
MARK**  
delivered by bre

**CEEQUAL**<sup>®</sup>  
delivered by bre

## Encourage

Continuous performance improvement and innovation by setting and assessing against a broad range of scientifically rigorous requirements that go beyond current regulations and practice

## Empower

Those who own, commission, deliver, manage or use buildings, infrastructure or communities to achieve their sustainability aspirations

## Build Confidence and Value

By providing independent certification that demonstrates the wider benefits to individuals, business, society and the environment

567,285

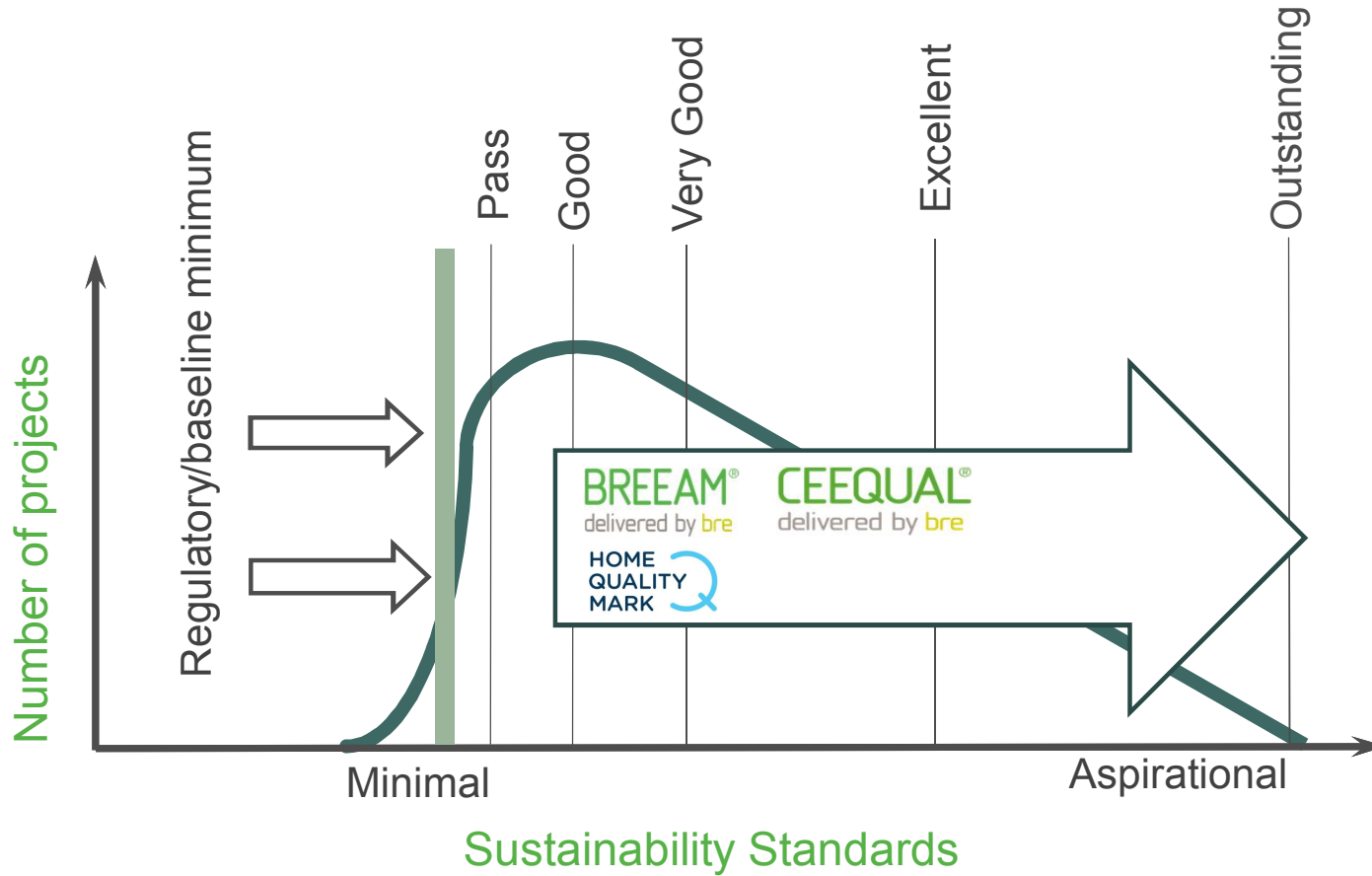
Certificates

2,277,174

Registered Buildings

81

Countries



**CM** Communities  
MASTER PLANNING

**IF** Infrastructure

**NC** New  
Construction

**IU** In-Use

**RF** Refurb &  
Fit-out





## Beyond minimum regulatory requirements

- Is there a need to continue to push standards for new communities, homes and buildings?



## Smart Cities

- Our buildings and communities will need to be ‘smart’ and responsive to technological change.



## Climate Resilience

- Our homes and communities will need to be climate resilient.



## Wellbeing

- Our buildings and communities will need to support wellbeing and be adaptable to changing lifestyles.

## **Robust, credible, independent certification**

- Holistic approach to sustainable development
- Enabling continuous performance improvement
- Lasting positive impact and valued outcomes
- Delivering sustainable, resilient, smart, healthy, homes and communities
- In a robust and credible way... through independent certification



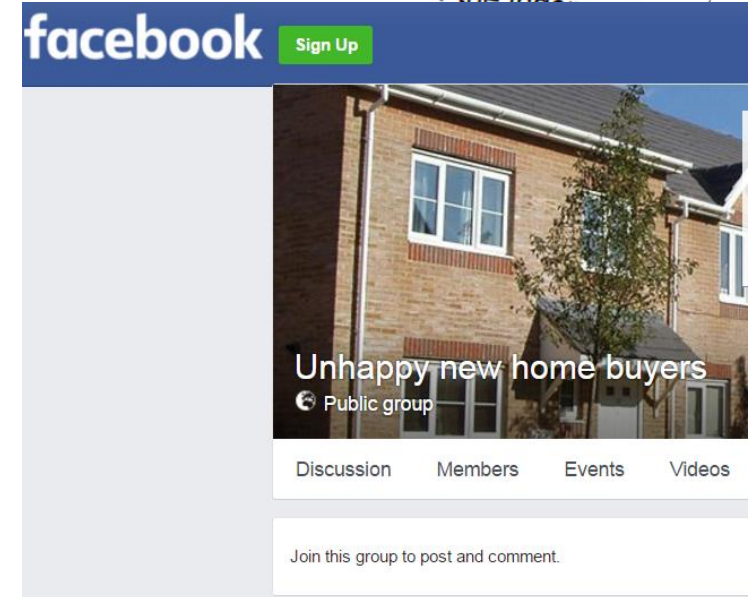


**Ombudsman needed for faulty homes**  
Calls for the creation of an ombudsman to protect homeowners from sub-standard new houses are intensifying after concerns emerged over the industry...  
thetimes.co.uk



theguardian

**New homes warranty firm pays millions to leading homebuilders**  
Construction standards and credibility questioned after it emerges National House Building Council pays developers up to £15m a year  
theguardian.com



...and we must build confidence in new homes.

Providing **consumers** with information to help make a **smart choice** when buying or renting a new home

Enabling **house builders** to **showcase** their quality and **differentiate** themselves

Provide assurance to **policy makers, planners and financiers** that homes will be **built to higher quality standards**

HOME  
QUALITY  
MARK  developed by  
**bre**



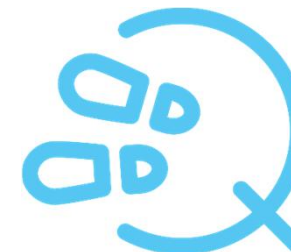
# Home Quality Mark Indicators



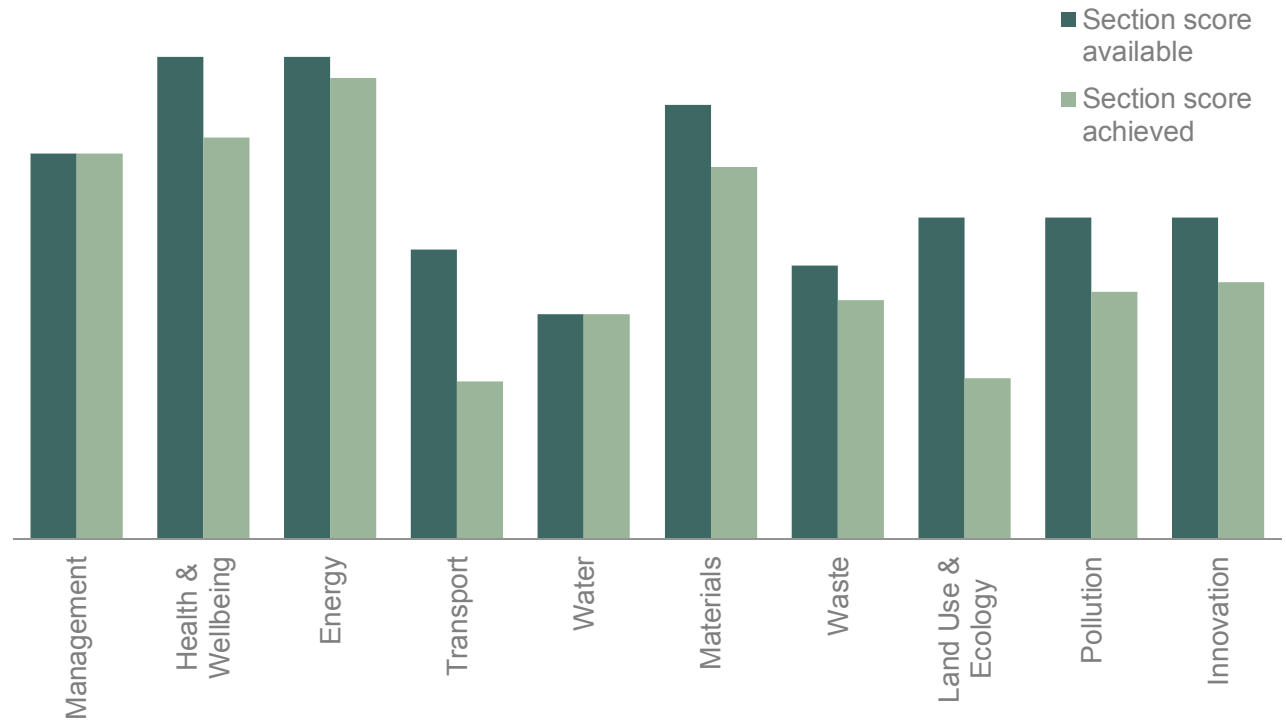
Running Costs



Health and Wellbeing



Environmental Impact



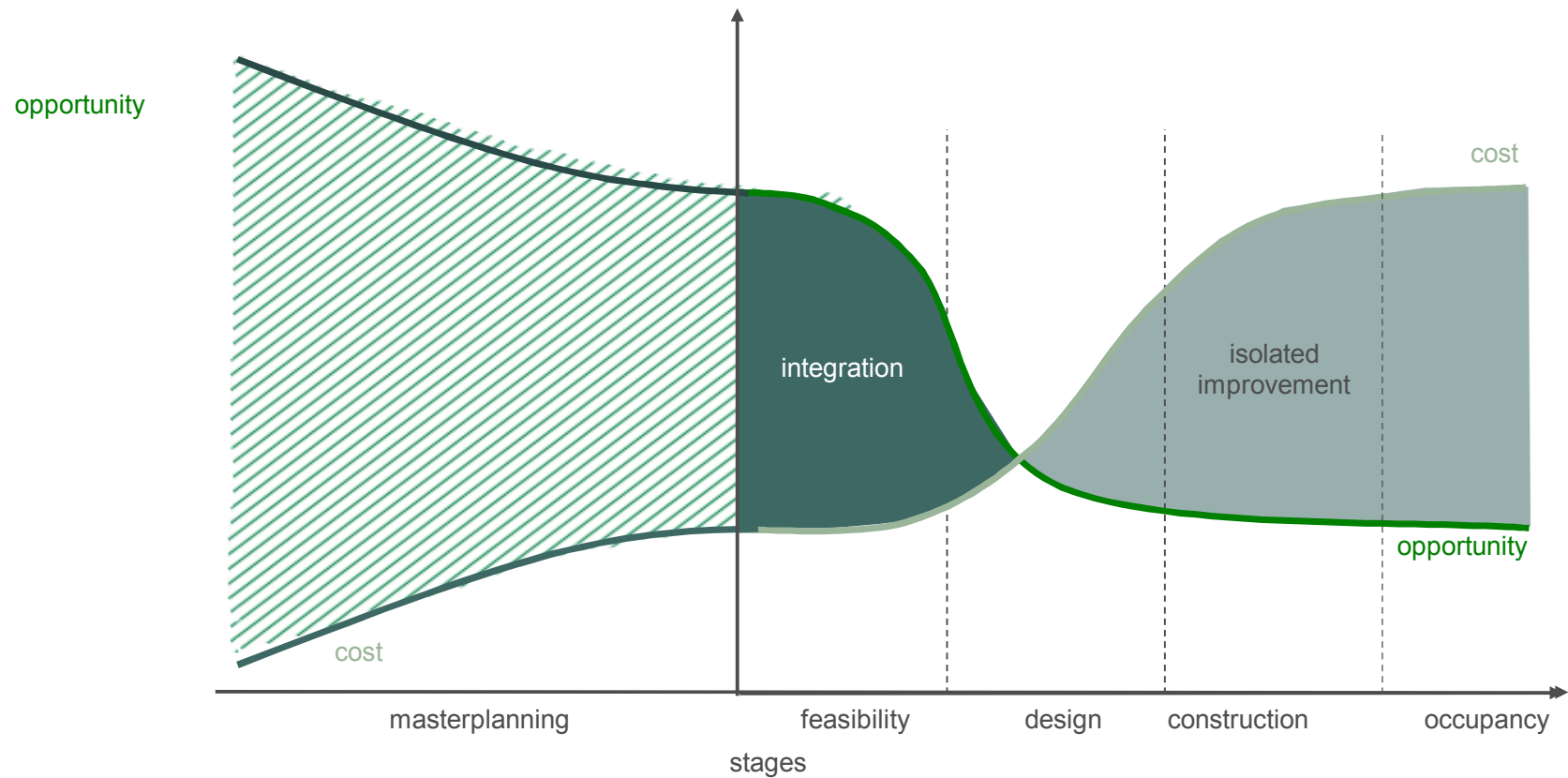


## Quality

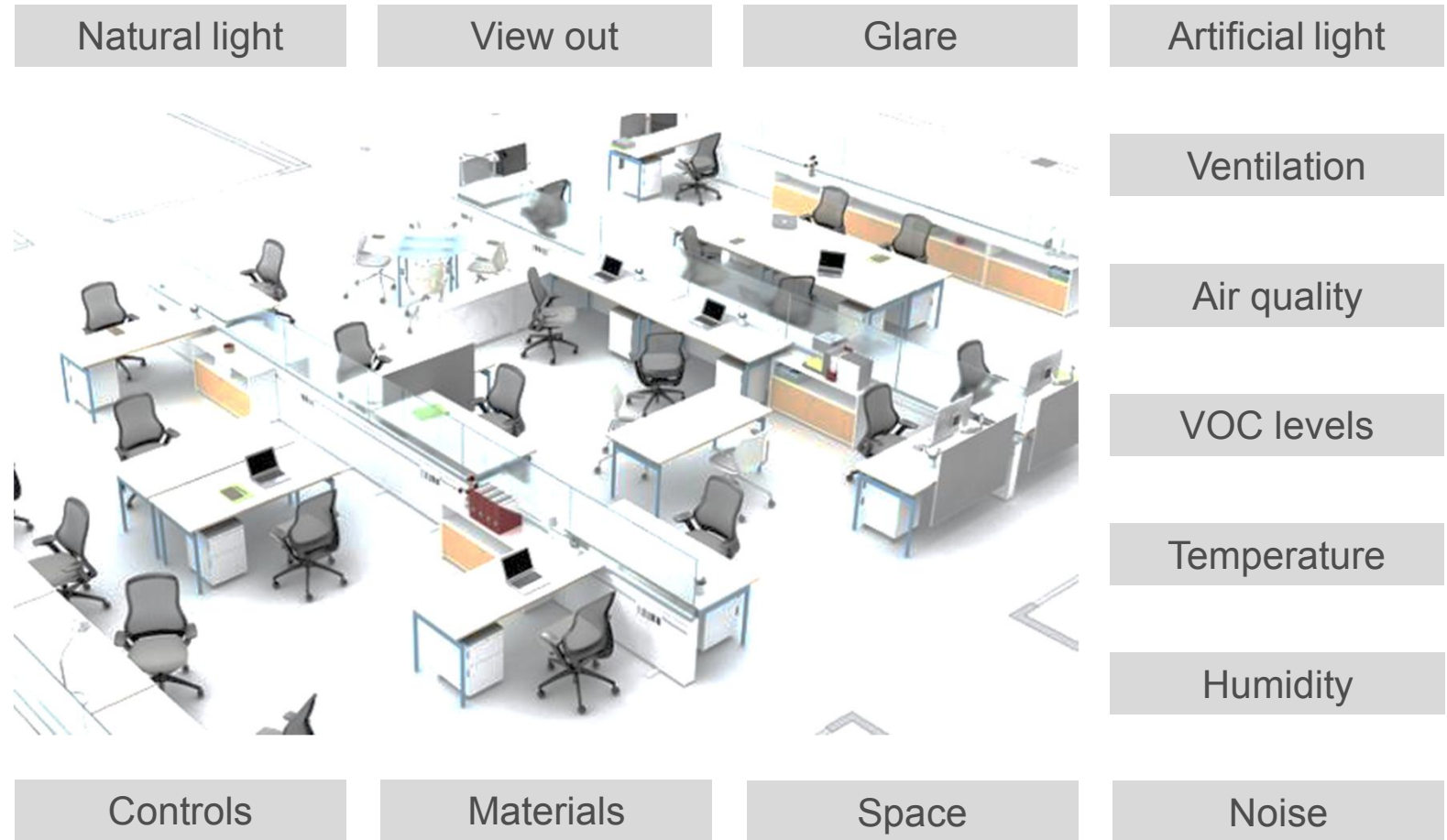
- Project preparation
- Commissioning, testing, inspection and quality assurance
- Aftercare
- Building information
- POE

ALL criteria written to focus on delivery and outcomes i.e. final certification

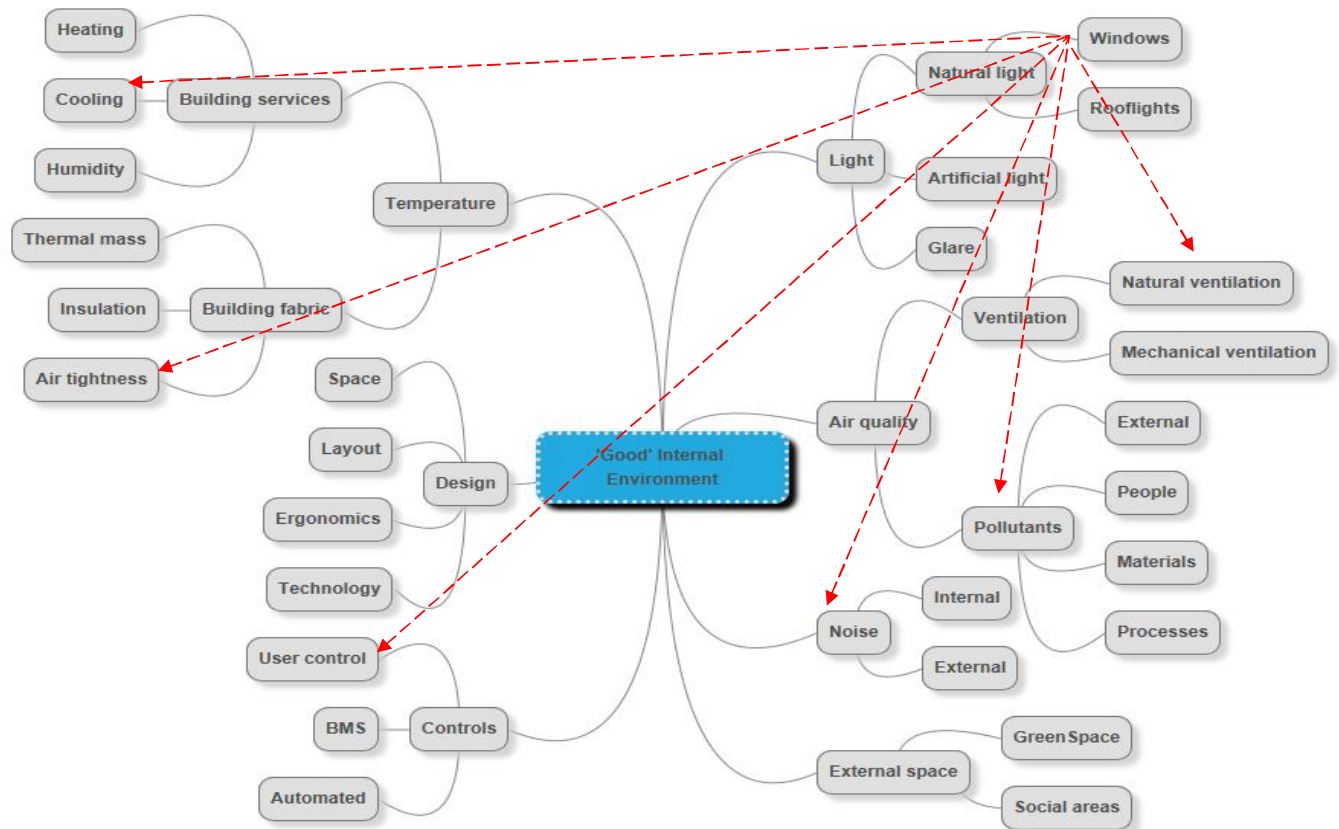
## Maximising potential and reducing cost



## Design Stage



## Design relationships

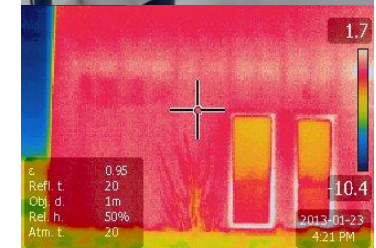
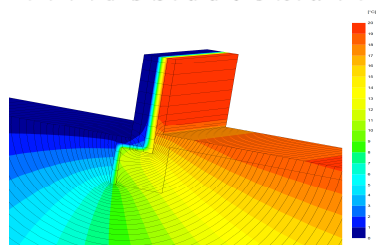
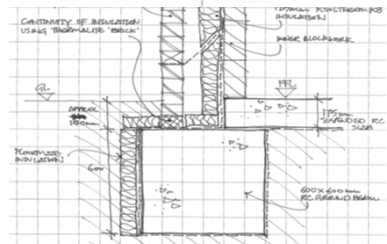
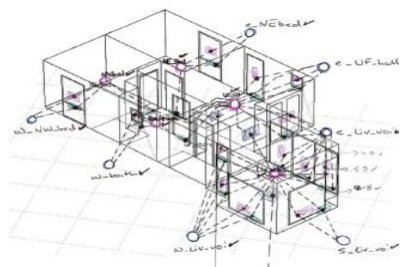




## Design relationships – occupant wellbeing

- **Thermal comfort**
  - Occupant performance and productivity
- **Air Quality**
  - Lethargy, productivity, concentration
- **Visual comfort**
  - Productivity, most valued attribute
- **Noise**
  - Productivity, stress, accidents, morale
- **Outdoor space**
  - Stimulation, health and behavioural benefits, productivity

## Design, construction and occupancy stages



## Forward thinking, increasing resilience

Criteria for:

- **Energy- refined model - every £1 spent reducing fuel poverty, the NHS saves 42p.** (Ulster Uni, 2008)
- Flood risk/rainfall impact
- Sustainable transport
- Embodied impacts materials
- Air Quality
- Ecology
- Water
- Construction site impacts
- Durability and adaptability
- Responsible sourcing
- +...



## Health, Wellbeing, Lifestyle

Criteria for:

- **Air quality**
- **Daylighting**
- **Ventilation**
- **Temperature**
- **Acoustics**
- Security
- Outdoor space
- Access and space
- Sustainable transport
- Ecology

+...

**Cost of poor housing to the NHS £1.4bn per year, and wider society £18.6bn** (BRE Trust, 2015)



## Occupancy - Post Occupancy Evaluation

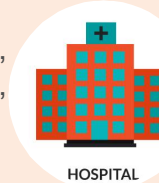
POE, the process of **obtaining feedback** on a **building's performance in use**.



The **value of POE is being increasingly recognised**, becoming mandatory on many public projects.



**POE is valuable in all construction sectors**, especially healthcare, education, offices, commercial and housing, where poor building performance will impact on **running costs, occupant well-being and business efficiency**.



POE will:

- **Highlight any immediate teething problems** that can be addressed and solved
- **Identify any gaps in communication** and understanding that **impact** on the **building operation**
- **Provide lessons** that can be used to **improve design** and procurement on future projects
- Act as a **benchmarking aid** to compare across projects and over time.



## Post Occupancy Evaluation





*.... As a result of the positive recognition...  
I've been asked regularly 'what is the cost of  
using BREEAM?', but for me the answer is  
another question – 'how much would it have  
cost the College not to?' ”*

Principal, South Lanarkshire College

# Thank You

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