BREEAM International Refurbishment and Fit-out 2015
BRE making a positive difference in the built environment since 1921

Our mission: To build a better world together

We use cutting edge research...

...to develop products, services standards and qualifications

...to bring about positive change to the built environment.

Our vision: To make an unmistakeable imprint on a highly regarded built environment
Our internationally recognised measure of a building’s sustainability helps drive sustainable performance and value.

www.breeam.com
The business case for Green Buildings

A growing body of evidence that Green Buildings pay

Examples:

– ‘Certificated buildings are definitely higher valued and create safer long-term investments’ NCC, Norway

– 71% of investors would accept higher costs for sustainable real estate.

– Rents are 21% higher and transactions are 18% higher

– 46 mins more sleep per night on average for office workers with windows
## Business case for Green buildings

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Social</th>
<th>Economic</th>
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<tbody>
<tr>
<td>Reduced CO₂</td>
<td>Occupant health</td>
<td>Lower risk for investment</td>
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<tr>
<td>Less waste</td>
<td>Occupant satisfaction</td>
<td>(resilience)</td>
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<td>Lower water consumption</td>
<td>Air quality</td>
<td>Increased return on investment</td>
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<td>Reduced pollution (air, water, land)</td>
<td>Thermal comfort</td>
<td>Higher value</td>
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<td>Improves biodiversity</td>
<td>Visual quality (light)</td>
<td>Lower running costs</td>
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<td>Resource efficiency</td>
<td>Acoustics</td>
<td>Reduced sick leave</td>
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<td></td>
<td>Access</td>
<td>Resource efficiency</td>
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<td></td>
<td>Responsible / ethical sourcing</td>
<td>Better retention of staff and tenants</td>
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<td></td>
<td>Economic prosperity</td>
<td>Staff productivity</td>
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<td>Reputation</td>
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BREEAM

- Driving sustainability in real estate
- Independent, third party certification, based on sound science
- Communities, Infrastructure, New Buildings, Refurbishment, Fit-out and Existing Assets
BREEAM International Refurbishment and Fit-out

- Draft scheme published 10\textsuperscript{th} March 2015
- Live for assessments in May
- Based on UK version, adapted for international/local standards and conditions
- E.g. precipitation zones, climatic zones, regulations
Piloting

- Identifying opportunities and limitations in refurbishing existing buildings
Structure

– Modular structure
– Clients can gain certification against the parts relevant to their scope of work
– Provides flexibility
– Provides comparability across the property market
How it works:

- The online assessment tool will **filter** the applicable criteria automatically based upon rules set out in the technical manual.
  - The criteria not applicable to an assessment part are filtered out from the assessment.
- The separate parts combine to provide a **single score** and rating e.g. a parts 2 & 3 assessment with an ‘Excellent’ rating.
- All assessments are capable of achieving a rating from ‘Pass’ to ‘Outstanding’ to recognise the performance of that project.
Shell

Part 1
Fabric and Structure: external envelope including walls, roof, windows & floor

Part 2
Core Services: centralised M&E plant including heating, cooling & ventilation

Fit-out

Part 3
Local Services: localised services including lighting, local heating, cooling & ventilation

Part 4
Interior Design: Interior Finishes, Furniture, Fittings & Equipment
Part 1 Fabric and structure

- Covers external fabric of the building
- Key issues include:
  - Daylighting
  - Energy performance
  - Passive design
  - Acoustics
  - Flood resilience
  - Materials and waste
  - Durability and adaptability
Part 2 Core services

• Covers core building services plant e.g. central boiler, AHU’s
• Key issues include:
  o Overall project management e.g. commissioning
  o Energy performance
  o Pollution issues e.g. GWP of refrigerants, NOx emissions etc.
  o Health issues e.g. indoor air quality, ventilation rates, thermal comfort
  o Resilience and adaptability
Part 3 Local services

- Covers local building services e.g. local cooling, heating, ventilation and lighting (as relevant) e.g.
  - Lighting efficiency & controls
  - Local metering of services
  - Other issues as applicable to core services but tuned to be more applicable to local services
Part 4 Interior Design

- Main focus on management, health, waste, materials including:
  - Overall project management
  - Measures to design out waste
  - Impact of work on health & wellbeing e.g. VOCs, thermal comfort
  - Use of sustainable materials e.g. LCA of products
  - Low use water fittings (where within scope of refurbishment zone)
Register and assess on www.breeam.com/projects
Understand

– Based on UK scheme, see here: www.breeam.com/ndrefurb

– Draft International version will be available here: http://www.breeam.com/resources
Create a pre-assessment

Pre-assessment: test1 (test1)

Initial Details

Stage 1 filtering: Scope of the assessment

Part 1: Fabric and structure
Yes

Part 2: Core services

Part 3: Local services

Part 4: Interior design
Yes
Explore BREEAM data: [www.breeam.com/projects/explore]
New paper: Sustainable refurbishment of heritage buildings

Key finding: Heritage buildings tend to out-perform standard refurbishment projects and almost perform as well as new build projects!

- Outlines the common challenges and solutions for heritage buildings in achieving high BREEAM ratings
- Includes example solutions from case study buildings
Benefits of BREEAM Refurbishment and Fit-out

• Flexible whilst being transparent about your scope of works
• Can be used for all building types (including mixed new build/refurb)
• Provides comparability between projects
• Empathetic with historic buildings e.g. grade 1, 2, 2* listed buildings
• Assists with Corporate Social Responsibility (CSR) obligations
Benefits of BREEAM Refurbishment and Fit-out

- Get ahead of your competition & showcase industry best practice
- Save operating costs and reduce risk
- Minimise water use, CO₂ emissions and waste
- Enhance occupant comfort and increase productivity
Thank you.

www.breeam.com/ndrefurb
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