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**Can retrofitting save energy?
- A Low Carbon Future for Existing Buildings**

**10 October 2008
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**BREEAM IN USE
The key to improvement**

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Sustainable Heritage



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So how do this?

- It is obvious to us that there is a cost to knocking a building down and reconstruct it
- It is obvious that there is a cost to refurbishing a building
- It is obvious that a new high spec unit will perform better than an old structure
- It is obvious that buildings have been built and people may like the buildings; aesthetically, emotionally, or purely economically reasons

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So how do we avoid this?

- What is NOT obvious is
 - The true impact of what we do to modify a building
 - The process of change and the social and physical impact
 - The measurement of change to the community and the environment
- And it is not obvious how many other questions there are
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The need

- There needs to be a process that can be
 - Nationally used
 - that sets standards
 - benchmarked
 - measures the delivery of change to an existing structure

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The need

- WHY
 - This will allow the process of evaluation and assessment to have a real value to the environment, the business community and the share holders whether social or economic.
 - Removing the unobtainable goal
 - It needs to be easily understood and developed over time
 - A need to show that the plan for change is being implemented
 - a key driver in the market place
 - assuring a plan has been put in place and worked on

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BREEAM IN USE

- What is it?

It is an Environmental Assessment (EAM) for existing commercial units, that does not re invent a wheel
- It uses clear criteria that has been developed over time
- It has some basic attributes that the industry will like.....

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It has some basic attributes

- Quick and simple
- Detailed information to be added over time
- Separates the physical characteristics from how the building is managed
- Integrates Energy Performance Certificates and Display Energy Certificates

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Basic Attributes

- Allows assessments of portfolios and / or individual buildings
- Supports and builds on existing reporting systems
- Flexibility to accommodate buildings internationally
- Independent certification
- link to other databases / benchmarking systems

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Basic Attributes

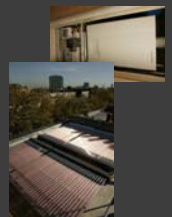
- It is quantifiable
- It is set from a start that will benchmark the future

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Commonly said:

- *It is a project that shows how, with the correct planning you can take an old stock structure and upgraded it to a cost efficient structure*

- This is a great comment but we need more:
 - Why is it better
 - Better than what
 - What impact does it have on the people in the structure
 - What is the building going to achieve in the future
 - The need to measure is becoming key....



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The need to benchmark

- BRE see that the start of this process is to deliver a service that measures where a structure is:
 - Environmentally
 - Energy performance
 - Usability
- This can be lost if you do not know the questions you need to answer
 - A simple program that asks you questions
 - A simple set of titles that allow the correct user to be commissioned
 - Maintenance
 - Facilities
 - HR
 - Energy
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 - All using the same product that give a joined process at each stage of the process

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Outputs

- Operational rating and asset rating
- Scores in each section
- Overall BREEAM in Use rating
- Allow users to generate bespoke reports/filters

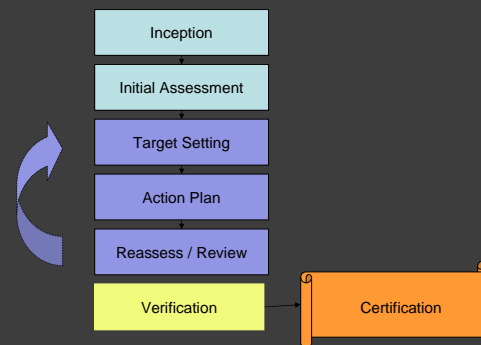
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So what is the starting point?

- Contact BRE consulting
 - This is where we can help the first part of the process
 - Evaluation and measurement of where the structure is
 - Hire a device that will give you an understanding of where your building stands using the BREEAM in Use process
 - Use the data to set priorities
 - Use the knowledge of BRE to improve quickly
 - Set goals that are achievable and quantifiable
 - Re visit the questions
 - Achieve the certification
 - Continue the improvement

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BREEAM in Use Assessment Process



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Ability to group structures

- Assess a total portfolio
- Assess a specific group of structures
- Prioritise
- Evaluate the asset
- Use as a tool to realign the assets of a portfolio
- Simple dashboard approach

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Assessment Process

- Tiered data entry makes it quicker and easier for user to calculate initial score
 - First tier information is easily available and allows the tool to make simple assumptions.
 - Second and third tiers build on tier 1 and refine assumptions
 - Fourth tier is full detail assessment
- Assumptions are predominantly against discreet criteria.
- As more people enter data the tool will be able to include more comparisons and positioning criteria

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Tiered data entry

- Tier 1 - Basic entry Level data
i.e. How old is the building?
- Tier 2/3 - Intermediate level data
*i.e. How is the building heated?
What type of lamps are used?*
- Tier 4 - Full assessment data
i.e. Energy/CO₂ monitoring, targeting, reduction

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BREEAM in Use

- We are in a pilot stage at this time with key stake holders
 - We would like more and will get more
 - Please contact us for inclusion
 - Existing commercial structures that need to be assessed
- Philip A Carney on 0777 222 8798

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- Thank you for listening

Philip A Carney on 0777 222 8798

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