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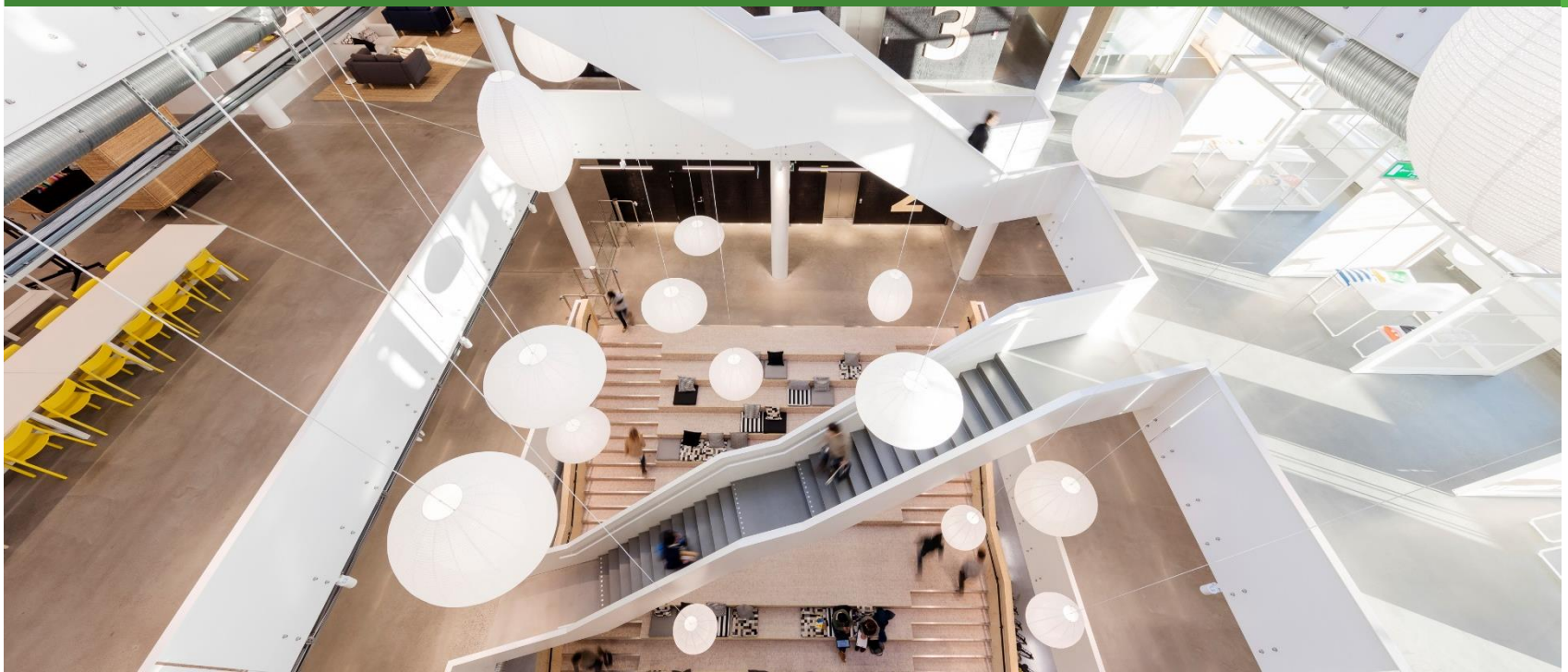
BREEAM UK New Construction 2018 launch

Charlotte Hardy, UK New Construction Scheme Manager



Agenda

- Introduction to BREEAM
- Background to the scheme update
  - Why
  - Timescales
  - External consultation
- Summary of key changes

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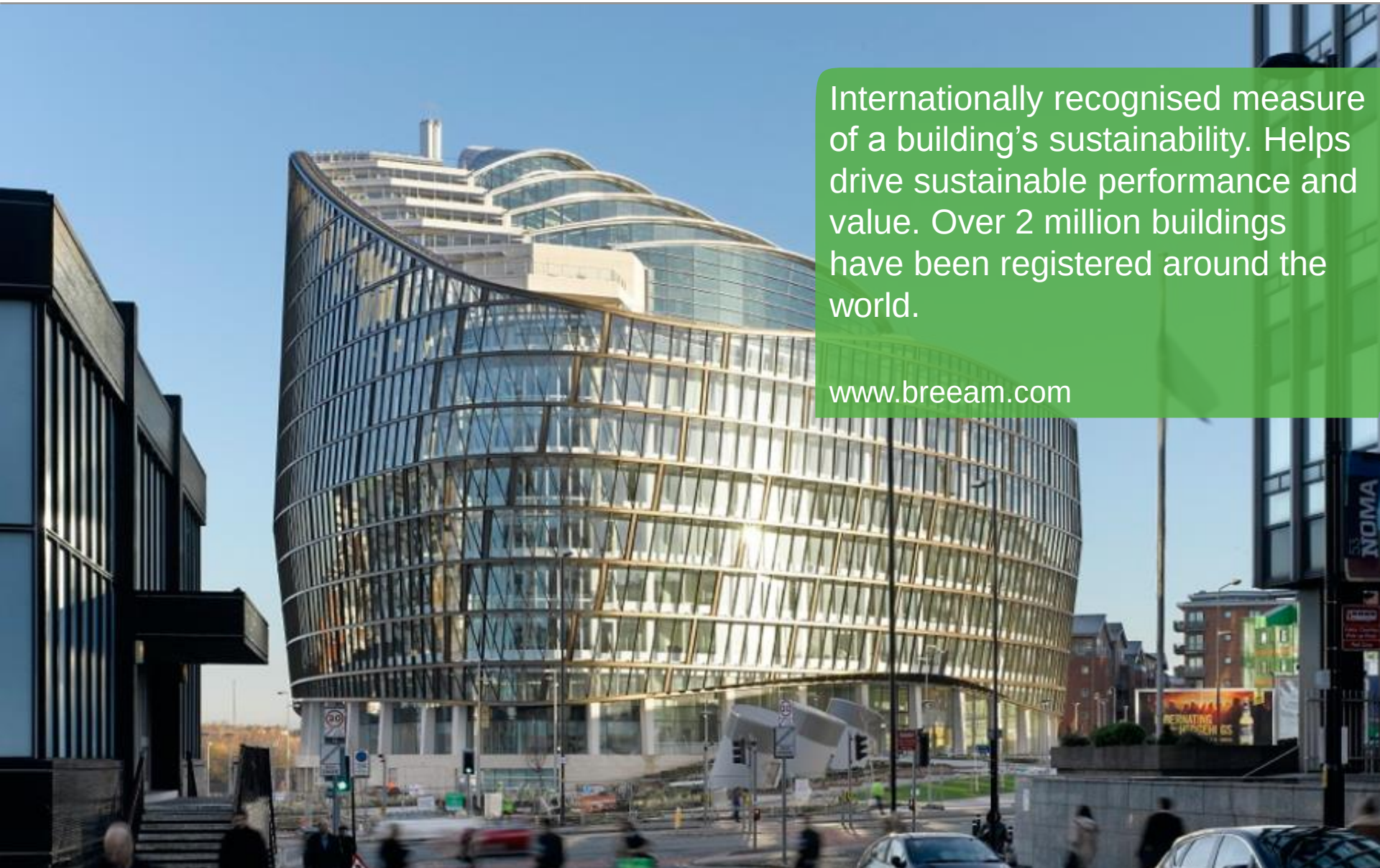
BREEAM



Internationally recognised measure of a building's sustainability. Helps drive sustainable performance and value. Over 2 million buildings have been registered around the world.

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Our 3rd party certification process

- Assurance for all stakeholders
- 1 step ahead of legislation & industry best practices
- Based on sound science and standards
- Independent 3rd party certification overseen by UKAS
- Owned by the BRE Trust: income & data fed back into research & development
- Exemplary global standard across all building types & countries

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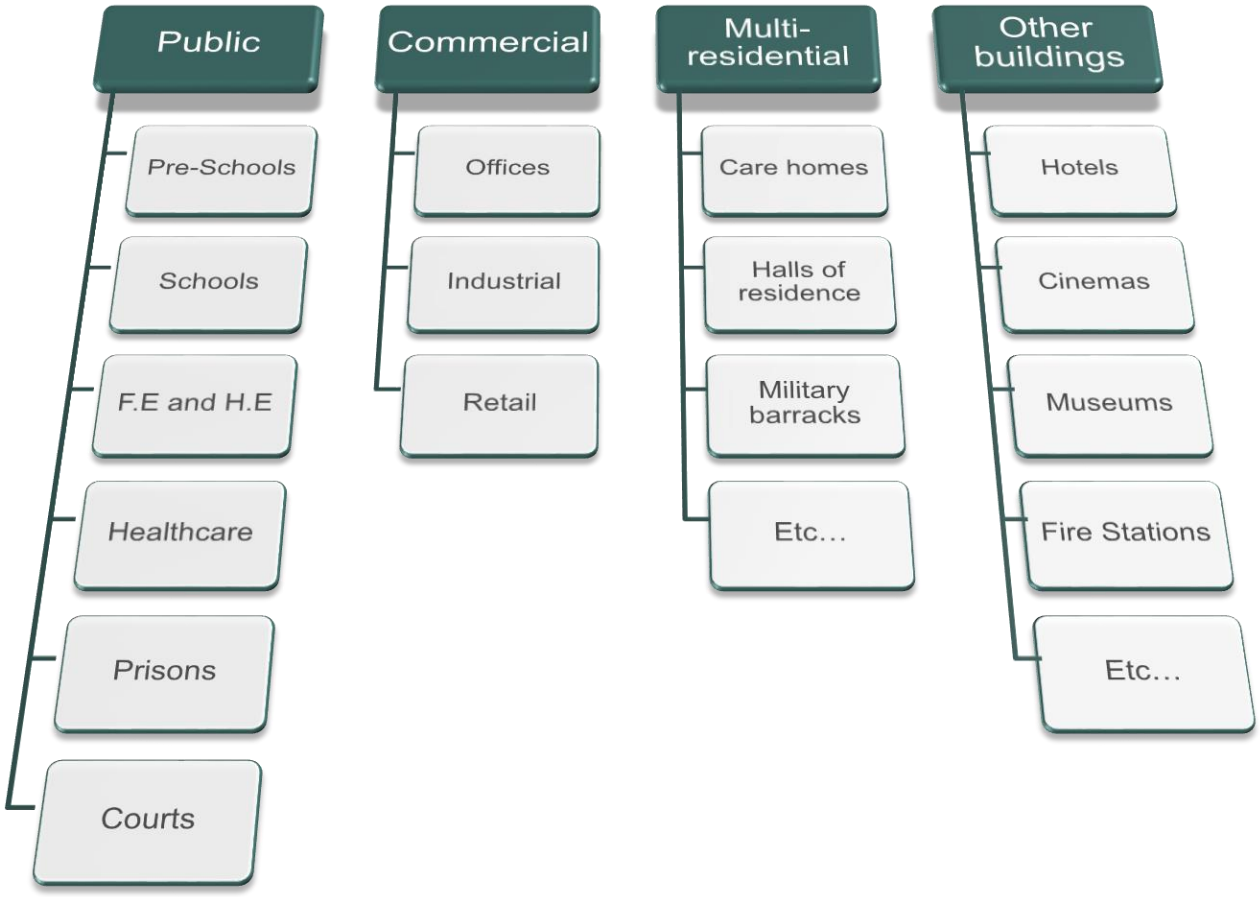
BREEAM family - Whole life cycle assessment

Scope of BREEAM New Construction



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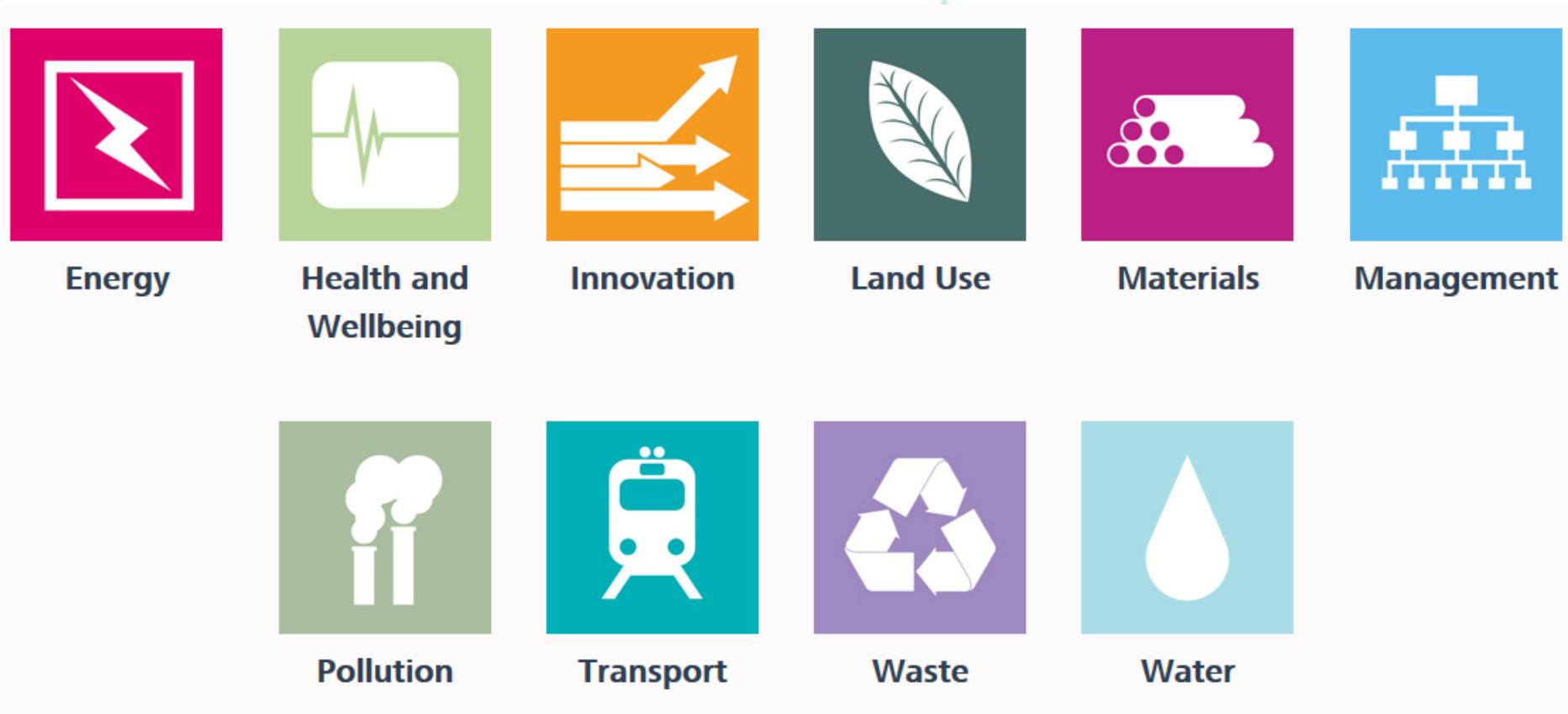
Asset elements we look at

Holistic & scientifically underpinned assessment



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Value

– Value of **BREEAM process - collaboration**
  - Communication within project team / developers / customers
  - Common language, standards, methods and data flows

– Value of meeting **BREEAM standards – better building**
  - Customer and staff experience
  - Whole life costs
  - Business continuity – anticipating flooding, wear, leaks, etc.

– Value of **BREEAM certification - assurance**
  - Assurance for clients, investors & other stakeholders
  - Ability to formally discharge obligations

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Update process

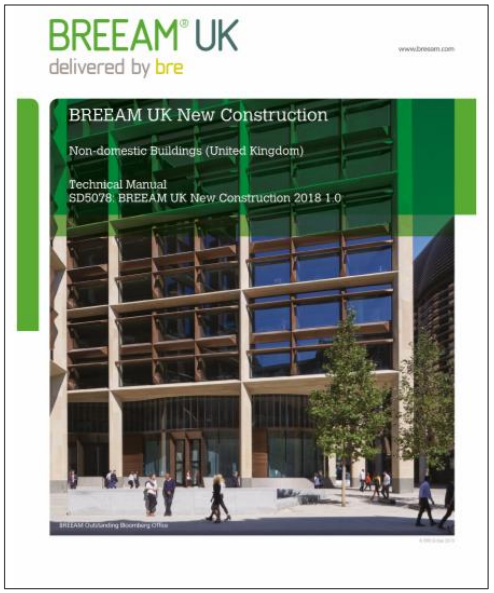
New Construction 2014

- Launched **27th May 2014**

- Set out new approaches for:
  - Shell only/shell and core projects
  - Integration of Simple buildings criteria
  - Evidence requirements
  - Three new issues
    - Adaptation to climate change
    - Functional adaptability
    - Material efficiency

- **Nearly 900 certified projects so far!**

Why update?



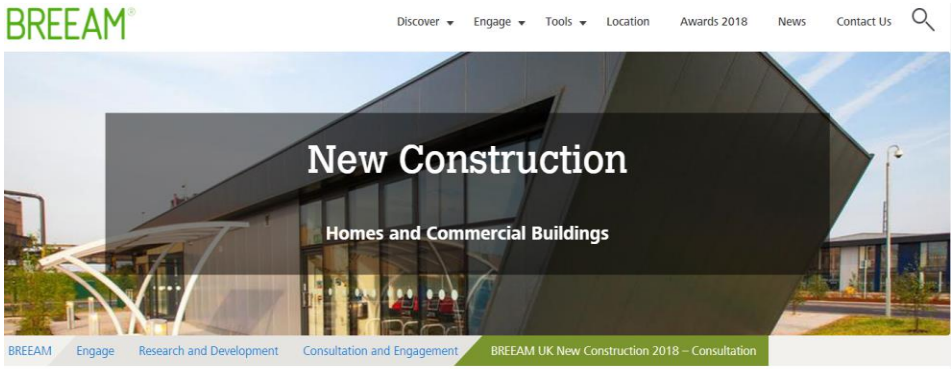
- General 3-4 year scheme lifecycle
- Changes to key regulations
- Accounting for new/updated standards e.g. BS's
- Maintain recognition and reward for 'Best Practice' in sustainable construction
- Feedback from assessors, clients and other stakeholders
- Structural / visual changes to the manual to support ease of assessment

BREEAM UK NC - Timeline

Stage	Timescales	
Carrying out issue by issue review	September 2016 – January 2017	✓
External consultation	December 2016 – March 2017	✓
Manual development	March 2017 – September 2017	✓
DRAFT BREEAM manual consultation	September 2017 – November 2017	✓
FINAL BREEAM manual – GO LIVE	March 2018	✓

Consultation

- Dedicated page on the website
- Webinars
- Online survey - Dec 16- March 17
- Assessor customer liaison workshop
- 2 x UK-GBC workshops – Feb & March 17
- Workshops with individual sectors



http://www.breeam.com/breeam-uk-new-construction-2018-consultation

- Consultation on the DRAFT manual **September 17– November 17**
- **Manual launch – 7th March 18**

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Non-technical changes

Non-technical changes

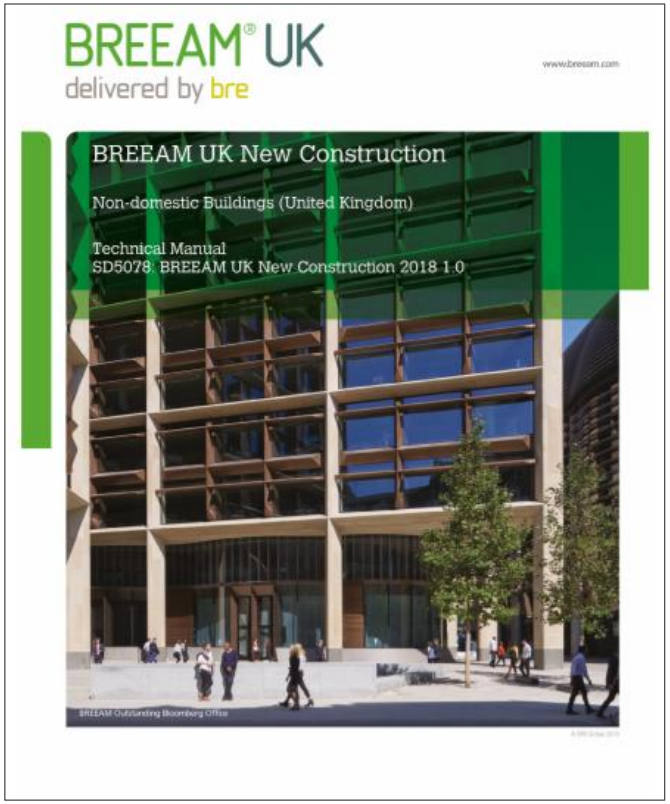
Value

– Introduction of ‘value’ and ‘context’ statements for each issue

Accessibility

– Reviewed layout / look and feel of manual (PDF and online)

– Outcome focused criteria



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Technical changes

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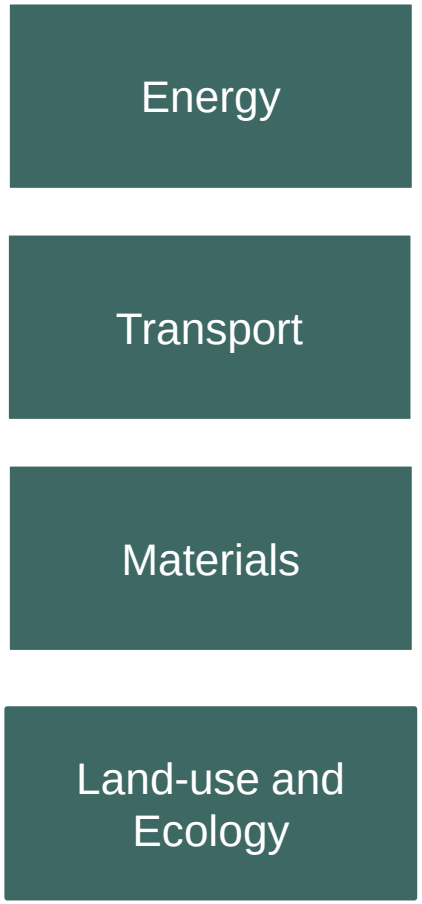
Categories

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land-use and Ecology
- Pollution

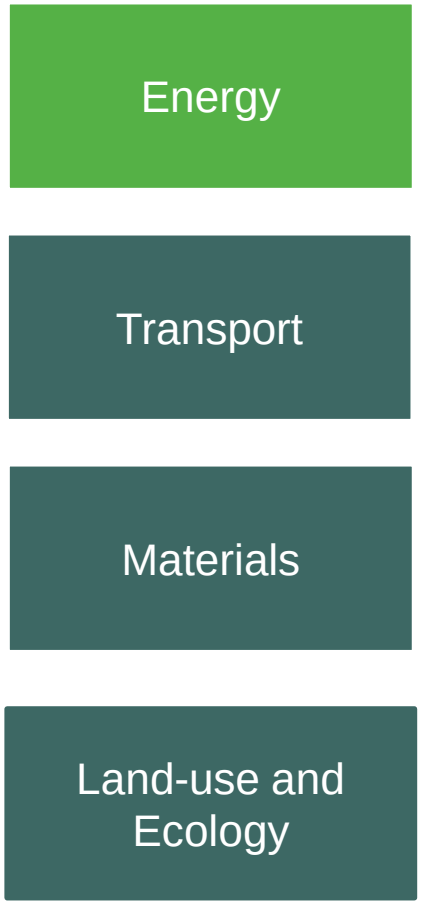
Categories – level of change

Management	Health and Wellbeing	Energy
Transport	Water	Materials
Waste	Land-use and Ecology	Pollution

Categories – Overview



Categories – Overview



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Performance gap

Aim

– Support reducing the 'Performance Gap' and accounting for unregulated energy

The issue

– Overall gap estimated at between 200–450%*

– Modellers estimate 50–70%** is the compliance gap-solved with more realistic modelling mirroring the conditions in operation more closely

*Innovate UK, January 2016, 'Building Performance Evaluation Programme: Getting the Best from Buildings — Findings from Non-domestic Projects
**Naghman Khan, 27th April 2016, 'IES Faculty: Intelligent Big Data in Building Services', CIBSE Building Simulation Group, IES, London.

Technical changes - Performance gap

- **Man 01** – Project brief and design
  - Energy strategy workshop

- **Man 05 - Aftercare**
  - Commissioning minimum standard (Excellent)

- **Ene 01** – Reduction of energy use and carbon emissions
  - Detailed energy modelling

- **Post-Occupancy stage**
  - Review performance of actual building

Technical changes - Energy modelling

Ene 01- Reduction of energy use and carbon emissions

- Maintain existing approach for nine of the available credits
- Four credits for carrying out detailed energy modelling
- Guidance on the parameters and scenarios for energy modelling detailed in separate document - GN32.

Energy

Technical changes – Post-Occupancy Stage

Optional third stage of certification – **Post-Occupancy stage**

- An assessment review carried out after occupation – 1 year after PC certification.
- Assess aspects of buildings actual performance compared with what was modelled at the completion stage. It will assess:
  - Energy consumption
  - Confirmation of POE and seasonal commissioning etc.
  - Water consumption

Energy

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Benefits

For the building / Client:

– Better understanding of the performance of the building

– Monitoring and reporting informs remedial actions – better performing building

Energy

For the wider Industry:

– Increased understanding of the performance gap

– Refinement of energy models

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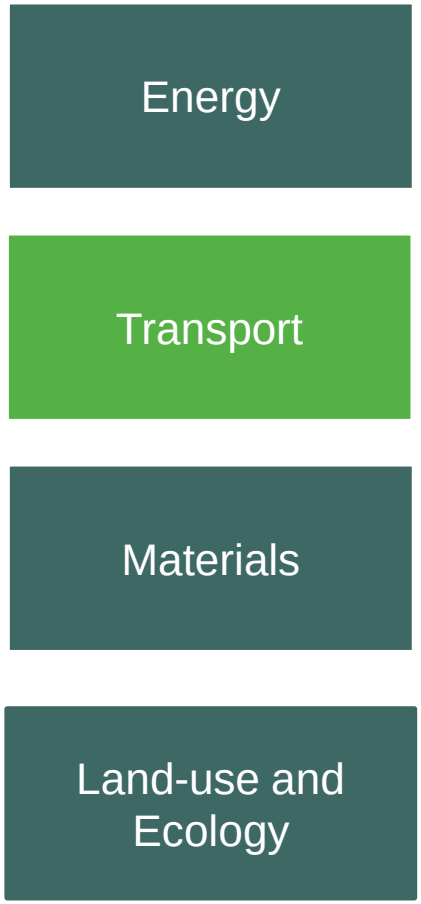
Categories – Overview



Context

Transport

- **Aim**: Encourage access to sustainable means of transport for building users.
- **Historically:** Transport category favoured site locations in urban or metropolitan areas
- **New approach**: Reward projects that implement sustainable transport measures recommended in the travel plan.

Technical changes

Transport

Consolidate Transport category into **2** issues:

Issue 1

– Understanding the baseline, e.g.
  – Travel plan, existing amenities, Accessibility Index etc

Issue 2

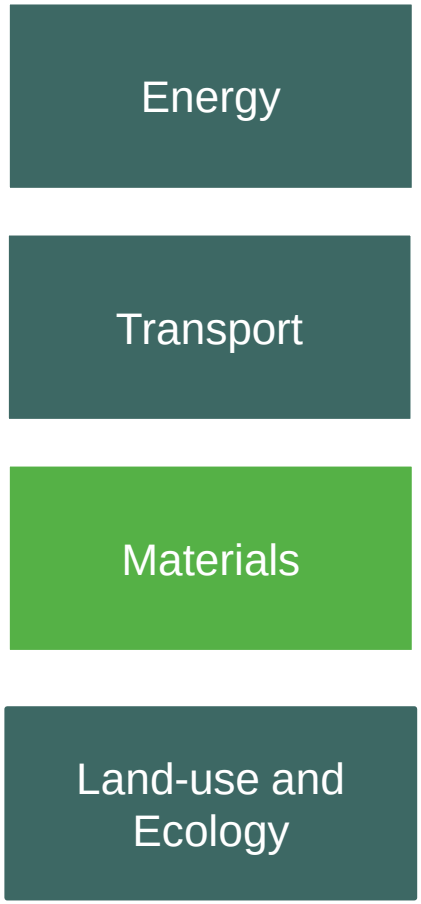
– Steps taken to improve upon the baseline e.g.
  – Improved accessibility, provision of cycle racks, electric car parking spaces, additional amenities etc

Benefits

Transport

- Recognition and reward for what is within the control of the developer
- Encourages incremental improvements
- Benefit local communities as well as occupants
- Rewards more unique solutions

Categories – Overview



Content changes

Mat 01 – Environmental impacts from construction products - Building life cycle assessment (LCA)

– Shift of emphasis to whole building life cycle assessment and away from elemental level approach

– LCA quantifies whole building embedded environmental impacts to influence the selection of materials and products.

– Encourages designers and procurers to make decisions on the basis of robust and credible environmental LCA data through the use of EN 15804 compliant EPD and LCA studies

Materials

Structural changes

- **Mat 02 –** Hard landscaping and boundary protection

- **Mat 04 –** Insulation
  –Removed

Materials

NEW ISSUE: **Mat 02** - Environmental impacts from construction products

Benefits

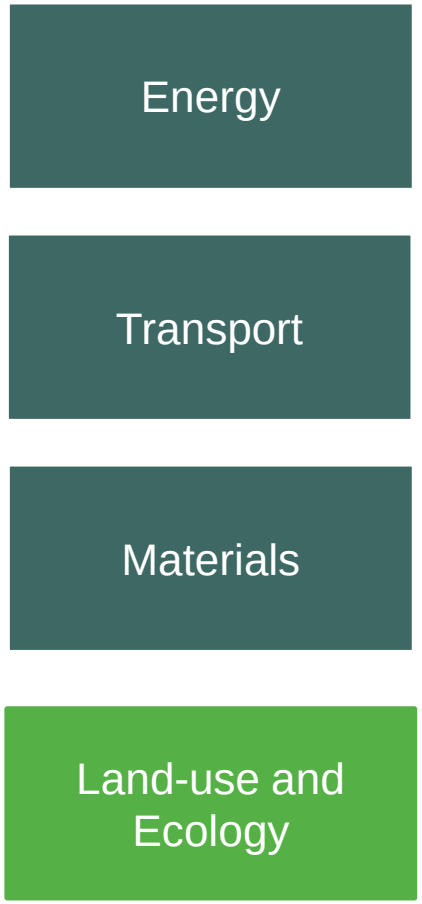
- Whole building consideration of materials through the design and procurement process

- Identifies significant environmental impacts and therefore areas for improvement

- Promotes demand for products that have fewer adverse environmental impacts

Materials

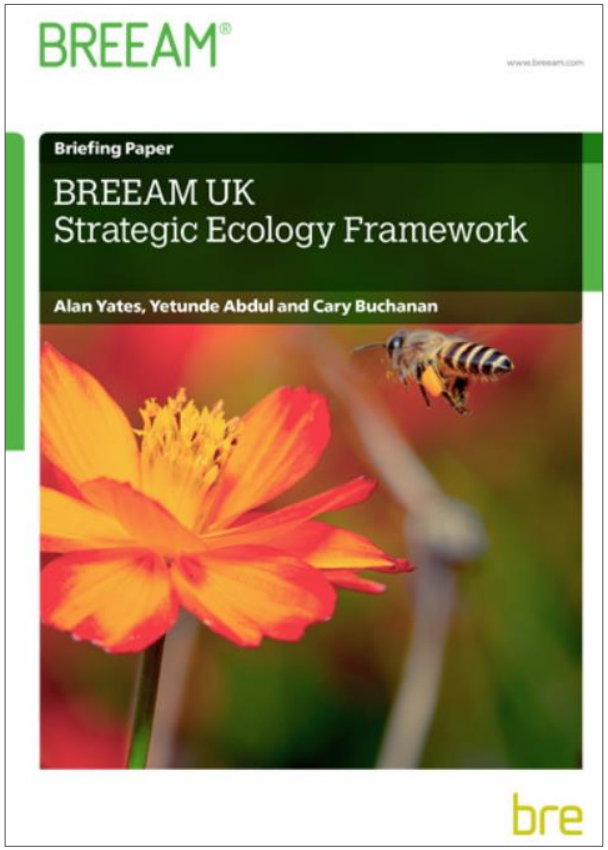
Categories – Overview



Background

- Alignment with the **‘Strategic ecology framework’** (published April 2016)
- Developed to help inform and guide future direction of ecological assessment criteria
- BREEAM’s reward mechanism had remained broadly consistent since 1998.

- Resulted in separate consultation for BREEAM wide criteria development



Land-use and ecology

Technical changes - Issues

- **LE 01 -** Site selection
- **LE 02 -** Identifying and understanding the risks and opportunities for the site
- **LE 03 -** Managing negative impacts on ecology
- **LE 04 -** Change and enhancement of ecological value
- **LE 05 -** Long term ecology management and maintenance

Land-use and ecology

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Technical changes - Approach

Project team member route (Route 1)	Suitably Qualified Ecologist route (Route 2)
- Where ecological opportunities & risks are limited - Level of ecological risk can practically be understood and addressed by a project team member (non-specialist)	- Where complex ecological systems likely to be present - More comprehensive - Higher level of reward than Route 1 - Mandatory for more sensitive sites

Benefits

- Holistic approach - embed ecology into the entire building lifecycle from design through to completion and operation
- Flexibility - different assessment routes to cater for different scopes/scales of project
- Aligning with future Government methodologies / approaches

Land-use and ecology

And many more …

Download the manual here:
https://www.breeam.com/discover/technical-standards/newconstruction/

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Questions

Thank you

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