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BREEAM 2008 and Beyond

Tom Saunders/Anna Surgenor BRE Global, Sustainability Group

What is BREEAM?

- Environmental Assessment Method
- Certification scheme
- Voluntary
- Independent & credible
- Holistic
- Customer focused
- Credits based

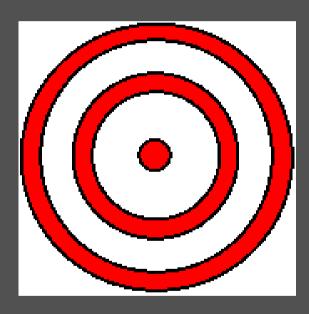
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breeam:ecohomes

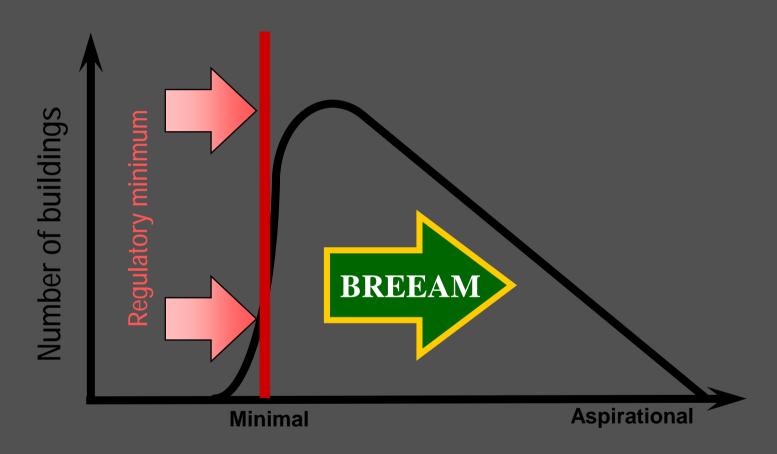


Aims

- Improve environmental performance of buildings
- Improve internal environment for occupants



Mass market



Environmental Standards



BREEAM Issue Categories



Management



Health & Wellbeing



Energy



Transport



Water



Materials

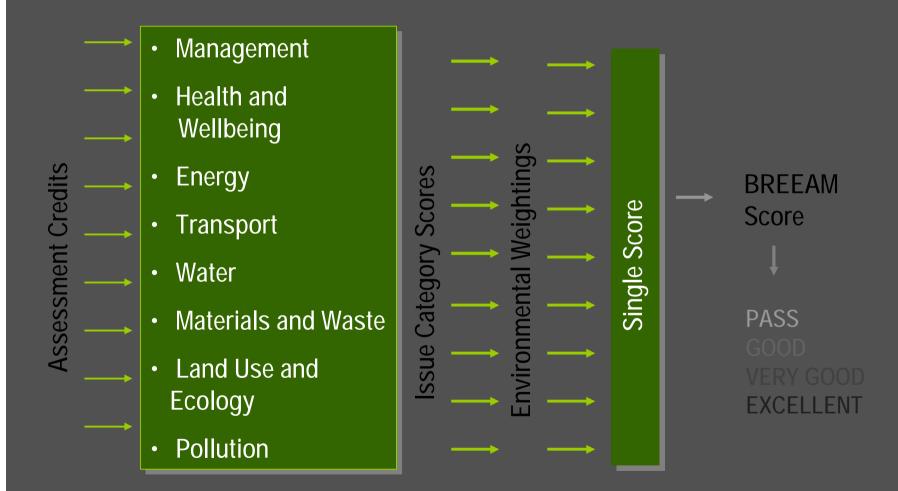


Land Use & Ecology



Pollution

BREEAM - Scoring





BREEAM 2008 and beyond

- The world's leading and most widely used environmental assessment method for buildings
- Over 100,000 buildings assessed and over half a million registered
- Has become the de facto measure of a building's environmental performance
- Copied (and respected) throughout the world
- Developed with industry stakeholders and with strong independent governance



STOP PRESS @ Ecobuild

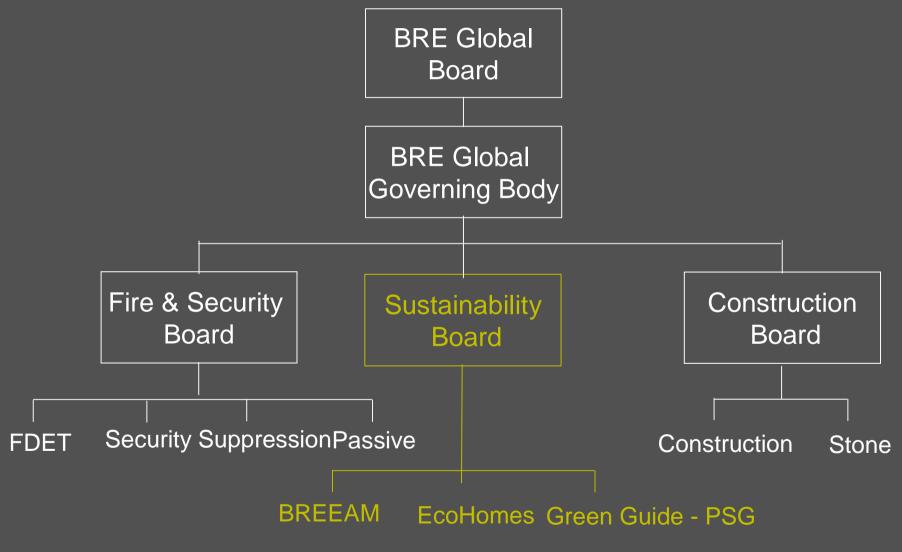
- BRE Global and UK-GBC to partner on BREEAM
- Accelerate and broaden the take up of BREEAM tools
- Capture and benchmark best practice and disseminate that learning
- Facilitate benchmarking of leading systems internationally





BREEAM Governance The BRE Global Sustainability Board

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BREEAM 2008 Update

 Why: Keep the schemes current in regard to legislation and changes in industry

When: Launch Summer 2008

How Often: Schemes are updated annually



BREEAM 2008 Update

- Change to environmental weightings
- Introduction of mandatory credits
- Two stage certification process: Design stage and Post construction
- Benchmarks set for CO₂ emissions to align with the new EPC (Environmental Performance Certificates)
- Shell only assessments
- The Nitty Gritty: changes to specific credits
- New Schemes
- BREEAM Outstanding



BREEAM 2008 Update Changes to Environmental Weightings

BREEAM Section	Current Weightings	2008
Management	15	12
Health & Wellbeing	15	15
Energy	25	19
Transport		8
Water	5	6
Materials	10	12.5
Waste	10	7.5
Land Use & Ecology	15	10
Pollution	15	10
Total	100	100

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BREEAM 2008 Update: In detail Shell only assessments

Increase in speculative commercial developments

 BREEAM introduced new methods for assessing shell only





BREEAM 2008 Update: In detail The Nitty Gritty

- More and changes to credits on:
 - indoor air quality
 - Provision of public transport
 - Proximity of amenities
 - Materials specification
 - Renewable and low emissions targets



breeam:healthcare





breeam:healthcare

- Commissioned by Department of Health
- Update to and will replace NEAT
- Can assess all Healthcare buildings containing medical facilities
- Can assess:
 - New build
 - Major refurbishment
 - Existing occupied buildings
- Launch Summer 2008



breeam:education





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breeam:education

Will include existing scheme BREEAM Schools and new scheme BREEAM Further Education

- BREEAM Further Education
 - Creation of a standard BREEAM Assessment Method for Further Education buildings
 - LSC set BREEAM "VERY GOOD" or "EXCELLENT" as funding requirement
 - Criteria will apply all further education/adult/vocational colleges



Research Study The Price of Sustainable Schools

- BRE and Faithful+Gould funded by BRE Trust and DCSF
- Information Paper IP 1/08: 'The price of sustainable schools'
- Summary of the capital cost implications of achieving BREEAM Schools ratings and low/zero carbon for:
 - Primary school
 - Secondary school
- IP now available from BRE bookshop £9

INFORMATION PAPER

THE PRICE OF SUSTAINABLE SCHOOLS

How much does it cost to achieve BREEAM Schools ratings?

Anna Surgenor, BRE and Ian Butterss, Faithful+Gould

One of the principal barriers to the wide adoption of more sustainable design and incur substantial additional costs.

Evidence collected by BRF and Faithful+Gould contradicts this assumption. This Information Paper identifies the additional capital costs associated with a range of sustainable and low- or zero-carbon solutions for a primary and secondary school. It demonstrates that significant improvements in the sustainability performance of a building can be achieved at little additional

These data will inform the industry about how to achieve the current Government requirements and also indicate what is required to enable the design and construction of low- and zero-carbon

The full results of this study undertaken by BRE and Faithful+Gould for the BRE Trust are published in a new report, 'Putting a price on sustainable schools' (see page 5 for details).

The cost of achieving BREEAM Schools ratings and low- or zero-carbon performance was investigated for a primary school and a secondary school. Case study schools were chosen to represent typical industry projects.

BREEAM Schools was used to determine the benchmark environmental performance for each case study. BREEAM was selected based on the current ements set by the Government and because it provides an internationally recognisable standard for





range of environmental standards.

The capital cost for each design or specification adjustment was assessed and compared with a Building Regulation compliant base case study school building. The case study school buildings are based on inform collated from outline design specifications, plans and the Bills of Quantities for a real primary and secondary school approaching completion.

The costs given reflect the additional capital cost ove and above the specification standard requirements, this is then converted to represent best value in terms of cost per BREEAM credit.

The most cost-effective options were favoured in relation to the number of BREEAM Schools credits that were achieved.

The whole life costs were not assessed in this study because specific information about the site, maintenant



bre press





Research Study The Price of Sustainable Schools Summary of results

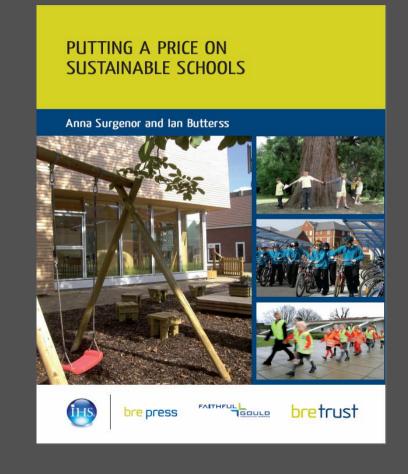
Percentage increase in capital cost to achieve a BREEAM rating:

	Pass	Good	Very Good	Excellent	Zero/low carbon
Primary school	0 – 0.2	0.5 – 0.8	1.4 – 2.5	4.5 – 7.6	2.1 – 9.8
Secondary school	0 — 0.1	0.2 – 0.7	1.0 – 2.6	4.1 – 5.6	2.7 – 15.3

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Research Study Putting a price on sustainable schools

- Publication FB15: 'Putting a Price on Sustainable Schools'
- Detailed outline of capital cost per BREEAM Schools credit and cost of low/zero carbon solutions for two case studies:
 - Primary school
 - Secondary school
- Available end of March 2008





- Higher overall score (approx 85%+)
- Mandatory credits
- Innovation section
- Exemplar performance in existing credit areas
- Recognition of new innovative solutions
- Post construction review
- To be followed up with 'In use' review



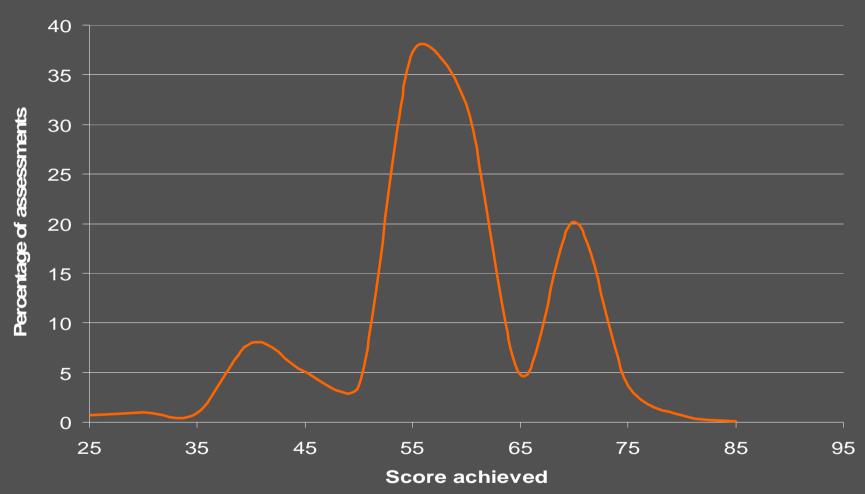


Figure 1 – Distribution of BREEAM scores indicating current rating boundaries

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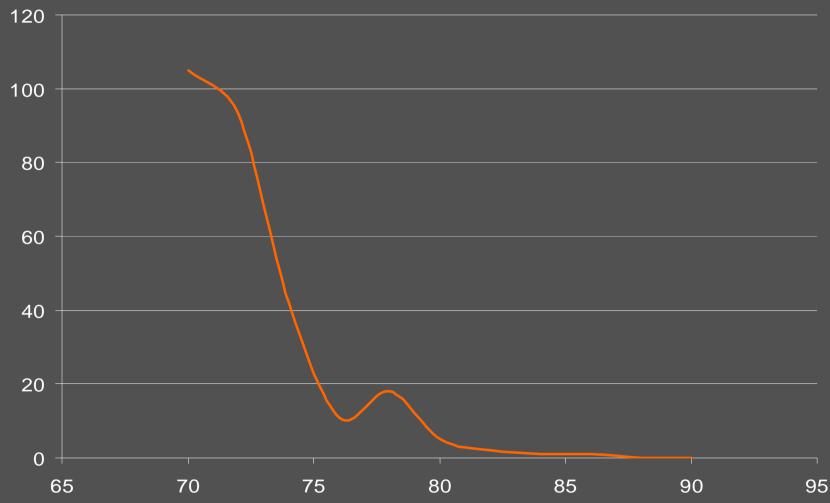


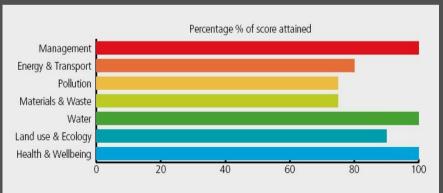
Figure 2 – Distribution of scores for buildings achieving BREEAM EXCELLENT

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- Highest Scoring BREEAM Building to date
- 2007 BREEAM Award Winner: BREEAM Offices
- BREEAM Rating: EXCELLENT
- Score: 87.55%
- Size: 4008m2
- Stage: Design
- BREEAM Version: Offices 2005
- Assessment Completed: Oct 2006
- Total Costs: £6m







breeam:international

- Buildings certified in:
 - Luxembourg
 - Hungary
 - United States
- BREEAM Assessments are currently underway in
 - Algiers, Dubai, France, Italy, Mauritius, Poland, Philippines, Qatar, Sweden, Turkey.





breeam:international

- Other Interesting Projects
 - Foreign and Commonwealth Office
 - UAE and the Gulf
 - Involved in International projects with organisations such as EU & UN





Olympics: Sustainable Development Strategy & Plan

BREEAM related targets:

- Permanent venues to achieve a BREEAM EXCELLENT rating.
- Olympic village to achieve Code Level 4
- Minimise embodied impact of materials through use of tools such as BRE Green Guide to Specification
- BRE SMARTWaste to monitor/minimise construction and demolition waste.







Olympic Park Venues

- Stadium
- Aquatics
- Water Polo*
- Velodrome
- IBC/MPC
- Handball
- Hockey*
- Fencing*
- Basketball*
- Olympic Village
- Athletes training area*





BREEAM In Use

Industry requires a tool that deals with existing buildings

BREEAM In use will

- Allow a quick assessment of existing buildings
- Allow more detailed building information to be added over time
- Separate the asset rating from the operation rating
- Allow assessment of portfolios and/or individual buildings
- Supports existing CSR and 14001 data and reporting





BREEAM Developments

- Certified sustainability assessment methodology for planning system
 - Based on the Regional Sustainability Checklist
 - Links to existing BREEAM Schemes (building permit stage)
 - Bridges gap between the planning and building permit stages
- Focuses on Multi-Residential & Mixed-Use Developments
- What will it do for sustainable development within the built environment?
 - Provides a consistent and transparent framework for both developers and planners
 - Provides certainty and verification on developers commitments for planners
 - Speeds up the planning process for developers
 - Educates both the local community and the development industry
- Direct links to specific planning policy requirements at:
 - Local Level (LDF)
 - Regional Level (RSS) &
 - National Level (PPS)



BREEAM Developments

• What does it cover?

Climate Change



Business



Resources



Community



Transport



Placemaking



Ecology



Buildings



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The Code for Sustainable Homes Update

- Producing a "How To Guide" for assessors
- On-line reporting and registration system to go live in April
- Compiling a list of issues for future consideration
- Better routes ensuring competence of BREEAM and Code for Sustainable Homes assessors
- Better guidance and tools
- Better data entry submission systems
- Pre approval of standard specifications



The Code for Sustainable Homes Update

Code for Sustainable Homes assessments

- 90% turnaround from submission of assessment to issuing certificate within 24 hours
- 100% within two weeks

this will be rolled out to all BREEAM schemes over the next year



2008 BREEAM Manuals to be freely available on the BREEAM Website



The Growth of BREEAM

BREEAM Statistics

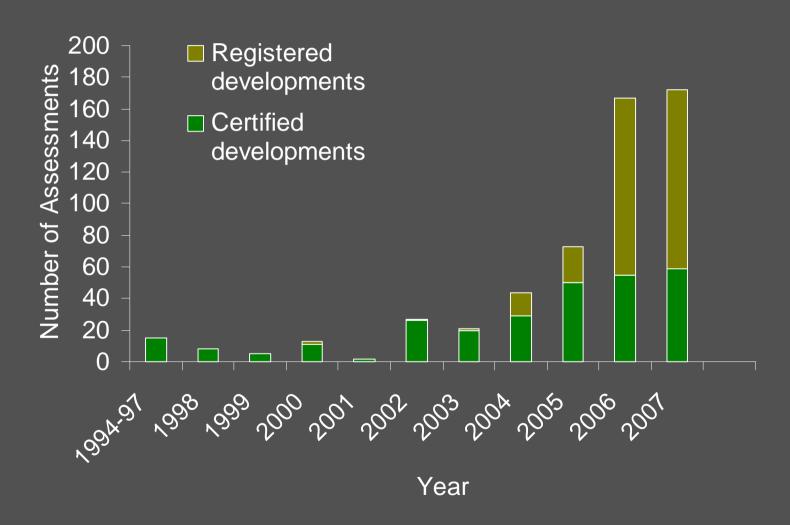


The Growth of BREEAM breeam:bespoke



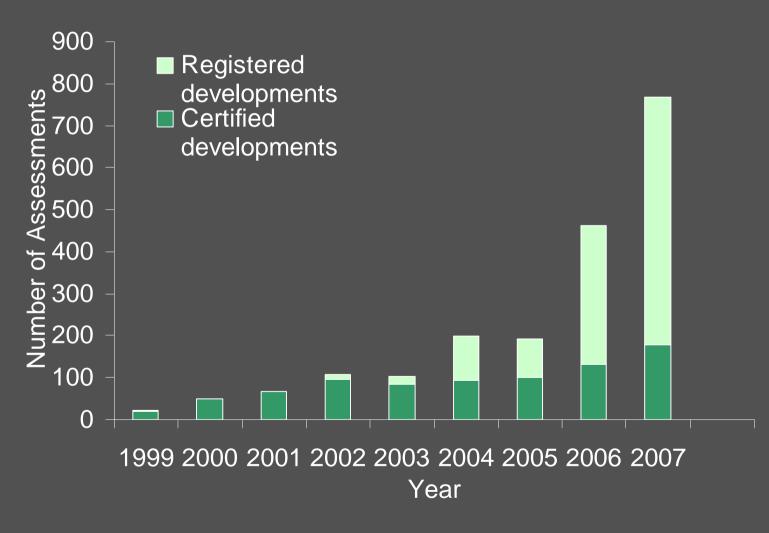
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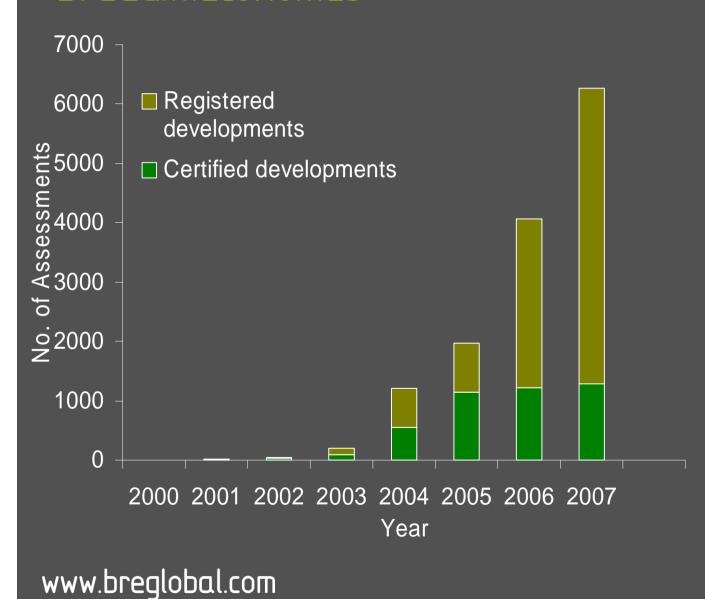


The Growth of BREEAM breeam:offices





The Growth of BREEAM breeam:ecohomes



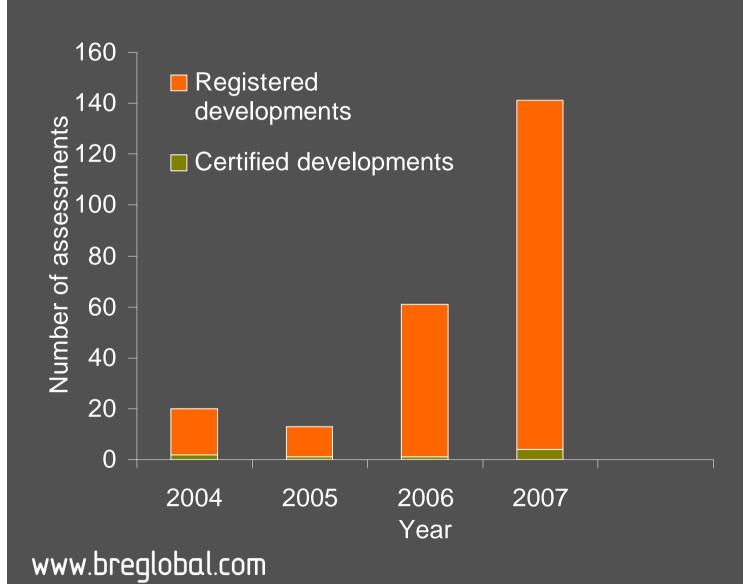


The Growth of BREEAM breeam:ecohomes



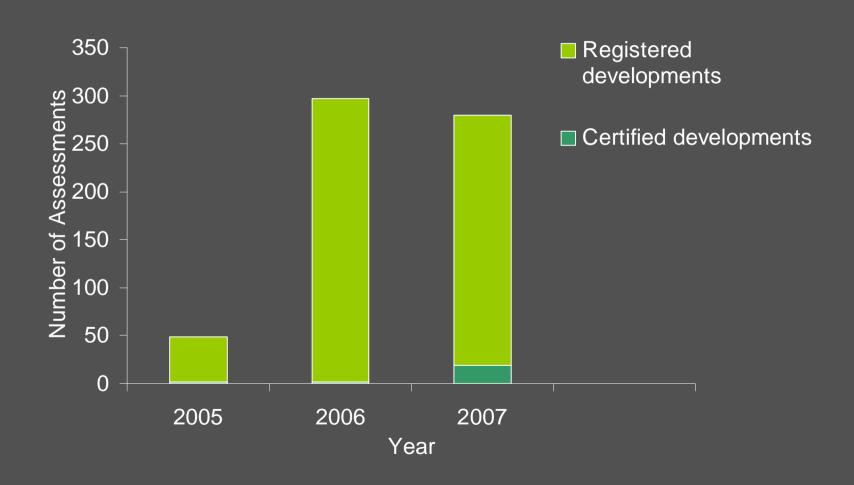


The Growth of BREEAM breeam:retail





The Growth of BREEAM breeam:schools





Future Projects

Comparison of international environmental assessment method for buildings

- BREEAM
- LEED
- CASBEE
- GREEN STAR



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