

Briefing Paper

The value of BREEAM

A review of latest thinking in the commercial building sector

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VALUE

Productivity

Economic

CSR Carbon

Wellbeing

Sales Design

RISK

Mitigation

Compliance

Environmental

COST

Rent

Construction

Asset Social

Wellbeing

Design Sales

Overview

The 'value' of sustainable buildings is a topic that receives close attention from a wide range of industry professionals. In response, numerous publications in recent years have sought to quantify this value in its various forms and what it means for different stakeholders including developers, owners and tenants of sustainable buildings. This document aims to bring together the findings of such publications and in doing so present the business case for maximising sustainability through BREEAM certification of non-domestic (commercial) buildings.

The content is organised under the business benefits categories identified by the World Green Building Council (WGBC) report on 'The business case for green building' and references other independent organisations including the Royal Institution of Chartered Surveyors (RICS), Building Services Research and Information Association (BSRIA) and the Urban Land Institute (ULI).



BREEAM leading the market for building sustainability

Launched in 1990, BREEAM is the world's first and foremost sustainability standard and rating system for the built environment. On a global level, there are over 540,000 buildings with certified BREEAM assessment ratings and more than two million registered for assessment.

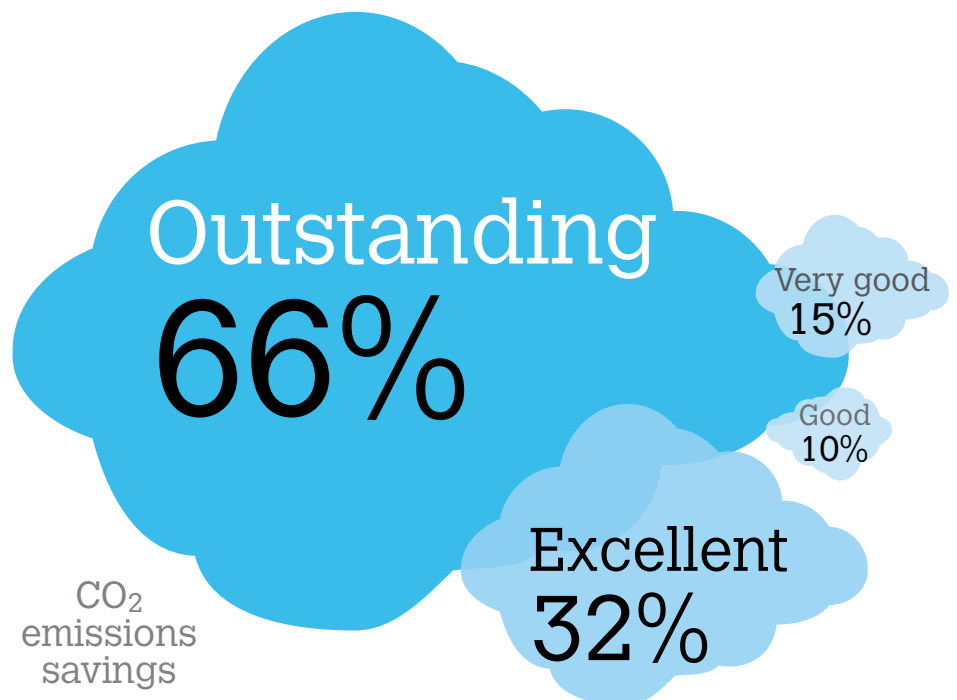
The 2015 RICS report 'Going for Green' found that BREEAM has an 80% market share across Europe for sustainable building certification¹. Moreover, the 2014 report by international law firm DLA Piper 'Towards a greener future', also highlights the leading position of BREEAM within the sector. Between the five principal standards investigated² BREEAM was the preferred certification, with 60% of respondents ranking it 1st. In the same survey, 83% of sustainability professionals placed BREEAM 1st.

Due to its long and pioneering presence in the sector, BREEAM pushes the boundaries of sustainability by aiming for zero carbon.

The briefing paper 'Assessing carbon emissions in BREEAM' published in 2016 demonstrated that the average CO₂ saving for a BREEAM assessed building is 22%, whilst a BREEAM Excellent building is expected to reduce carbon emissions by 33%.

BREEAM is highly recommended: A 2012 BSRIA report capturing the industry's perspective with regards to BREEAM, found that 96% of the survey respondents would use it again; 88% stated they would recommend its use to others.

The following paragraphs highlight the benefits of BREEAM from a business perspective. Benefits can be identified for three main categories of stakeholders; namely the developers, the owners and the building tenants.



Average CO₂ emissions savings associated with different BREEAM ratings

¹ This figure is based on certification data for the five certification schemes CASBE, DGNB, LEED, BREEAM and HQE in the period April 2013 to March 2015.

² The following standards were investigated: US based LEED, BREEAM, CASBE from Australia, the French HQE and the German DGNB.

Design and construction cost: dispelling myths about cost

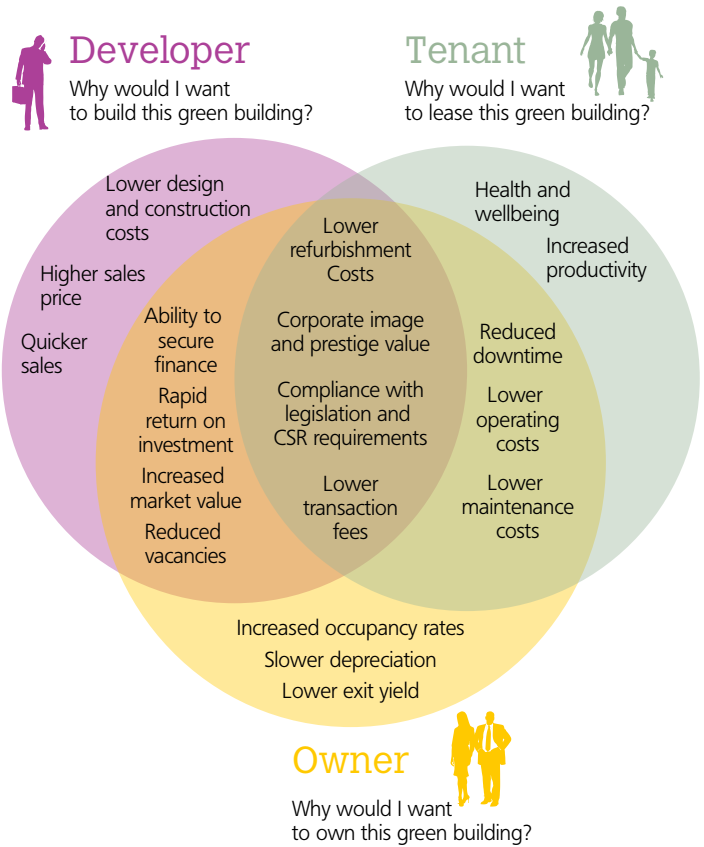
The developer's perspective: The 'Target Zero' report funded by Tata Steel and the British Constructional Steelwork Association in 2011 analysed the additional cost of achieving BREEAM ratings, based on the 2008 scheme available at the time. The increase in capital costs for different building types and certification levels is summarised in the table below.

The report notes the inclination to allocate all costs related to BREEAM credits to the cost of BREEAM but that a 'standard practice' baseline must be used to enable an accurate comparison. For example, the BSRIA report explains how installing building technologies and active energy management is becoming standard practice, with less than 30% of the survey respondents doing this solely to achieve BREEAM credits.

The more recent research by BRE and Sweett Group, 'Delivering sustainable buildings' has quantified the cost of achieving BREEAM certification, based on the 2011 scheme, for different sites and building types. It concludes that there are many sustainability measures that can be implemented for little or no additional capital cost, but with a positive effect on operational costs. Achieving BREEAM certification, ranging from a 'Pass' to an 'Excellent' rating, is shown to incur an increase in capital cost from 0% to 1.71% for office and school buildings, and up to 5.51% for a healthcare building in a 'poor' location to achieve an Excellent rating. The same research showed that due to the savings in operational costs, a 2% higher capital cost can be paid back within two to five years.






Finally, the 2016 update to the BRE and Sweett Group research revised the numbers for an office case study compliant with current Building Regulations (Part L 2a 2013) and achieving a BREEAM Excellent rating under the BREEAM UK New Construction 2014. The cost uplift due to BREEAM was found to be only 0.4%.

Although the aforementioned reports are independent works with different assumptions and case studies, they provide confidence that the cost of achieving BREEAM has reduced in recent years.



Source: World Green Building Council, 2013

Increase in capital costs for different building types and certification levels

	 Education	 Industrial	 Retail	 Office	 Mixed Use
Rating	School	Industrial	Retail	Office	Mixed Use
Very Good	0.2%	0.1%	0.2%	0.2%	0.15
Excellent	0.7%	0.4%	1.8%	0.8%	1.5%
Outstanding	5.8%	4.8%	10.1%	9.8%	4.8%

Source: Tata Steel, British Constructional Steelwork Association Limited, AECOM, Cyril Sweett, The Steel Construction Institute, Development Securities PLC, 2012.

Asset value: increase in rental/sale prices and preserving/increasing property value

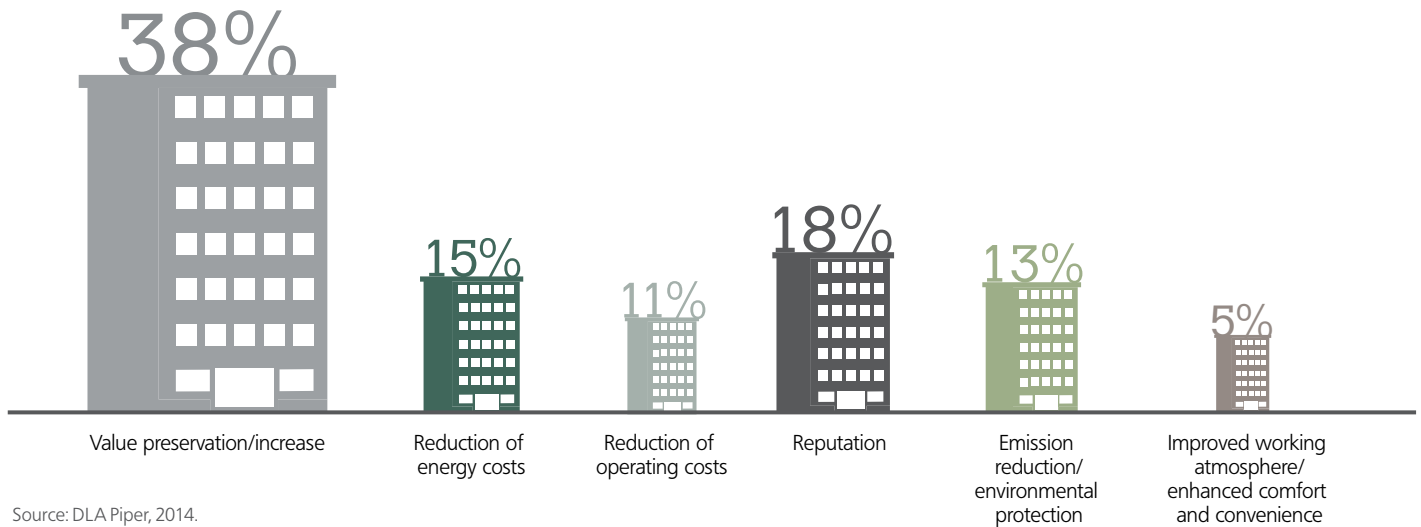
The developer's perspective: The 2013 report by the World Green Building Council making the 'Business case for green building', suggests that certified green buildings have sale prices increased by up to approximately 30% compared to conventional code-compliant buildings.

The owner's perspective: According to the same report, BREEAM certification can increase rental rates for buildings by up to 24.9% compared to conventional, code-compliant buildings. The 2014 DLA Piper report suggests that 38% of the survey participants identified value preservation or increase as the prime benefit of sustainable real estate, followed by reputation (18%) and reduction of energy costs (15%).

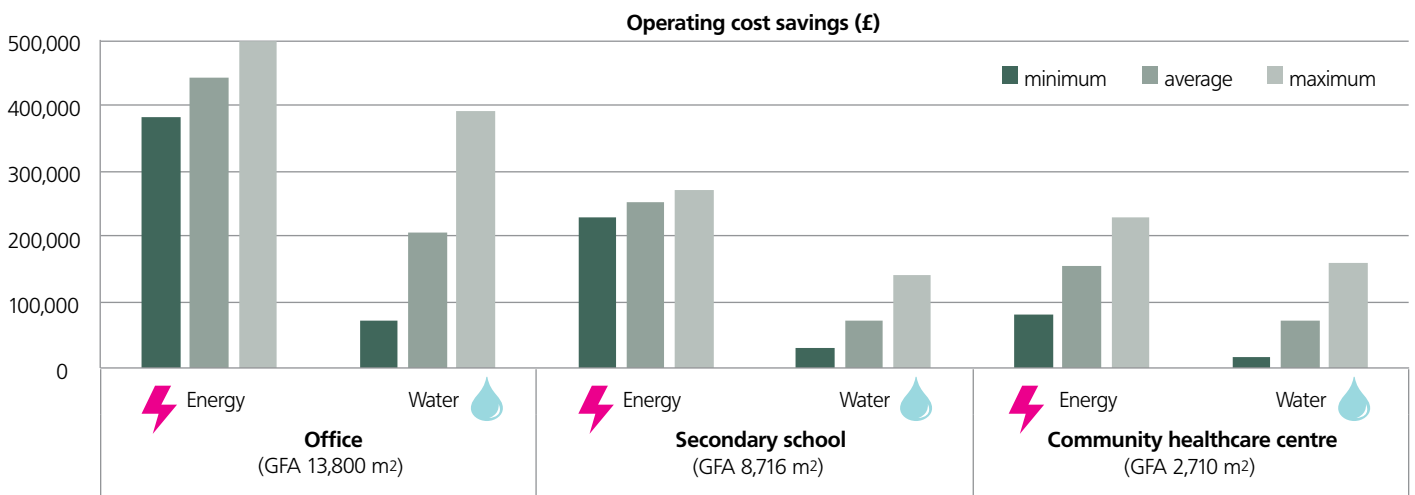
Operating costs: reducing lifecycle costs

The tenant's perspective: The research paper on 'Benchmarking energy use of building environmental assessment schemes' analyses the characteristics of different certification schemes and shows that BREEAM takes into consideration operation and performance data; this is a characteristic that differentiates BREEAM from its competitors. Moreover, BREEAM is the only one (amongst the five schemes considered) that addresses management with regards to functionality and controllability of building systems. 43% of the BSRIA Value of BREEAM survey respondents identified operational cost savings among the benefits of BREEAM. In particular, this report emphasises how BREEAM encourages the use of intelligent controls and smart metering, which can facilitate maintenance and performance and thus reduce associated costs.

What do you consider to be the prime benefit of sustainable real estate?



Source: DLA Piper, 2014.



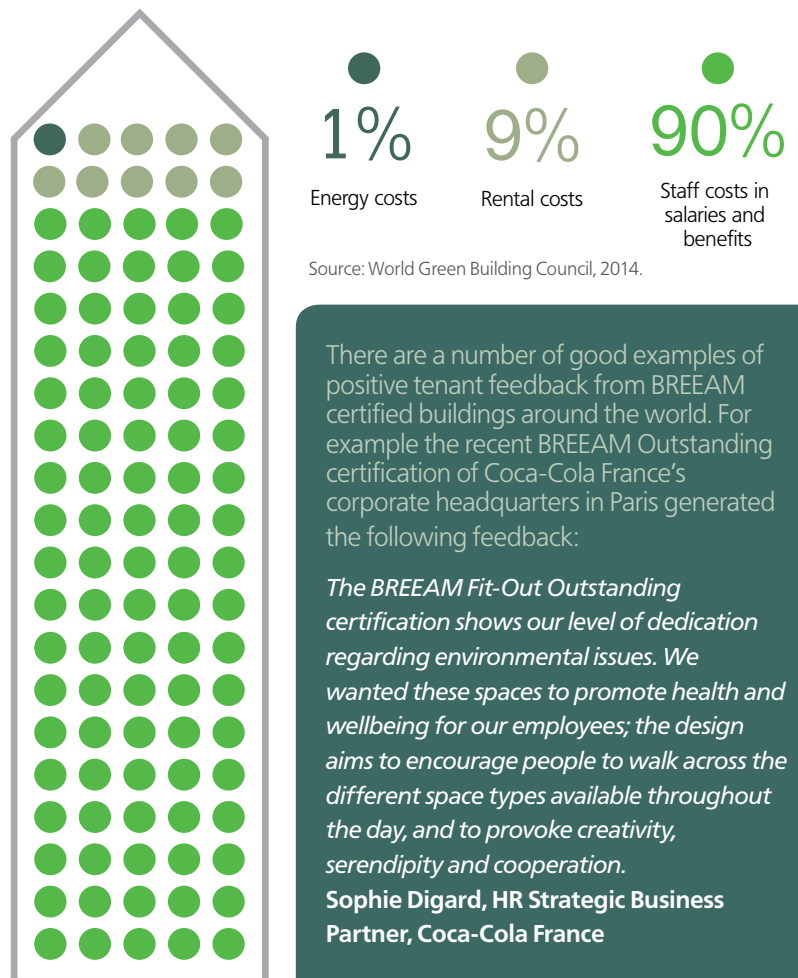
Workplace productivity, building user experience and health

The tenant's perspective: Some of the most important benefits associated with achieving specific BREEAM standards are relatively intangible and difficult to quantify, such as those associated with improved acoustic performance or daylighting. However, an increasing body of evidence points to the relationship between building design, occupant wellbeing and financial outcomes.

The World Green Building Council report on 'Health, Wellbeing and Productivity in Offices' cites factors such as indoor air quality, thermal comfort and lighting as having a significant financial implication for employers through their impact on staff productivity and absenteeism.

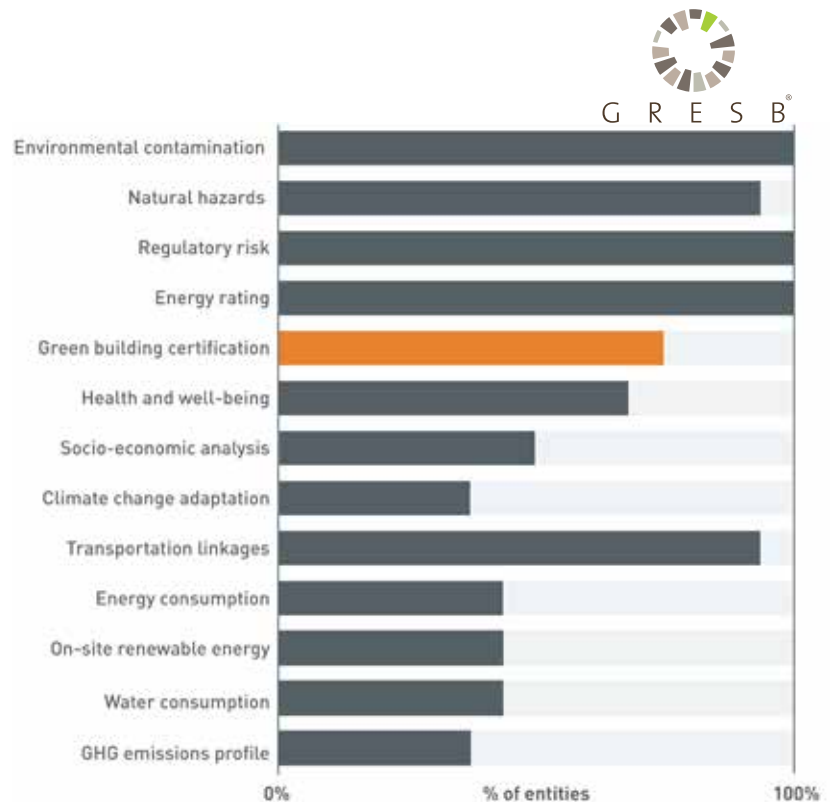
'Staff costs, including salaries and benefits, typically account for about 90% of a business' operating costs (as the diagram shows). It follows that the productivity of staff, or anything that impacts their ability to be productive, should be a major concern for any organisation.' (The World Green Building Council. *Health, Wellbeing & Productivity in Offices: The next chapter for green building*; 2014.)

Improving indoor environmental quality and occupant health has been one of the main objectives of BREEAM for over 25 years. According to the journal paper 'Develop an environmental assessment technique for human comfort requirements in buildings', which compared the approaches of multiple certification schemes, BREEAM highly prioritises human comfort requirements. An analysis of a sample of 554 projects registered under the BREEAM UK New Construction 2011 scheme, shows that 91%, 57% and 77% of those projects achieved credits for improving their internal and external lighting, the indoor air quality and the thermal comfort of their occupants respectively. Meanwhile, the BSRIA report 'The value of BREEAM' places improved occupant satisfaction among the most significant social benefits of BREEAM.



Risk mitigation

The developer's perspective: According to the Urban Land Institute, future-proofing assets, improving resilience and reducing risks is vital for the real estate industry. Their report highlights that the high insurance costs for vulnerable buildings provide a reason to invest in resilience and in climate change related risk mitigation. Issues within the BREEAM certification scheme for New Construction, such as 'Designing for durability and resilience' and 'Adaptation to climate change' address these concerns through encouraging the implementation of appropriate structural and fabric characteristics for resilience. The Innovate UK Technology Strategy Board has produced a report on 'The business case for adapting buildings to climate change' based on two expert panel meetings. The report recognised the 'explicit attention to climate change adaptation' introduced in the 2014 version of BREEAM New Construction, as well as the role of BREEAM in driving industry transformation by 'bridging the gap between innovative and mainstream practice'.



From the 2016 GRESB debt assessment participants, more than 90% consider natural hazards and energy ratings as part of their risk management process. Green building certifications also come at a very high place, with approximately 70% of the participants including them within risk management.

Source:

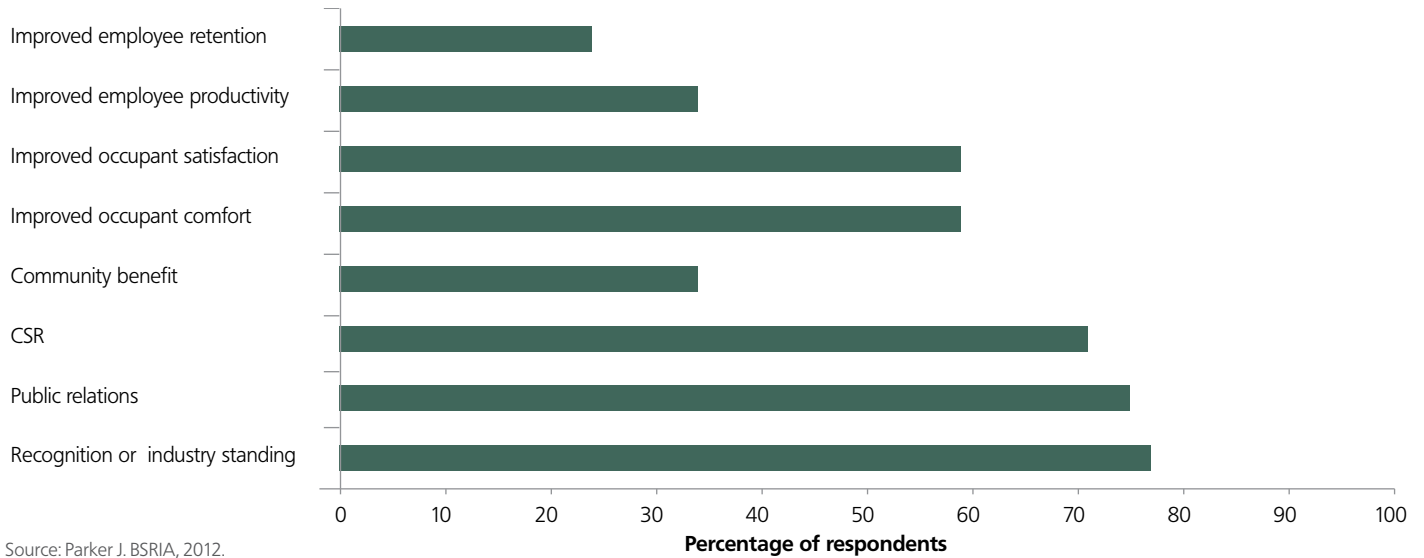
2016 GRESB Report: https://gresb-public.s3.amazonaws.com/2016/content/2016_Debt_Snapshot.pdf



Corporate image and compliance with CSR requirements

Developer, Owner, and Tenant: The Innovate UK Technology Strategy Board report, suggests that BREEAM gives clients 'a way to differentiate themselves in a competitive market with a highly visible, authoritative and internationally recognised quality mark'. More specifically, the survey conducted by BSRIA on the Value of BREEAM,

suggests that, from a 'social perspective', industry recognition is the most significant benefit, followed by advantages in public relations and Corporate Social Responsibility (CSR). In fact, approximately 40% of the developers surveyed considered CSR one of the main reasons to pursue a BREEAM certification.



Source: Parker J. BSRIA, 2012.

c.40%

of the developers surveyed considered CSR one of the main reasons to pursue a BREEAM certification

Achieving BREEAM in practice

Regardless of the perceived challenges related to the achievement of BREEAM certification, there are ways of facilitating its implementation in practice and therefore maximising the value gained from the certification process. Examples of key factors include early consideration, setting realistic targets and involving BREEAM experts. The following documents are some of the sources providing information in this area:

Parker J. The Value of BREEAM. London: BSRIA; 2012.

BREEAM Guidance Note 19. BRE; 2014.

Tata Steel, British Constructional Steelwork Association Limited, AECOM, Cyril Sweett, The Steel Construction Institute, Development Securities PLC. Target Zero: Guidance on the design and construction of sustainable, low carbon office buildings; 2012.

Future development

All BREEAM schemes are updated on a regular basis in response to stakeholder feedback and changes in industry practice. BREEAM certification will therefore continue to provide value in respect to the three pillars of sustainability; enabling improved environmental, economic and social outcomes for the built environment.



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- World Green Building Council. Health, Wellbeing & Productivity in Offices: The next chapter for green building; 2014.



BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's first sustainability rating scheme for the built environment. Through its application and use, BREEAM helps clients to measure and reduce the impacts of their buildings and in doing so, create higher value, lower risk assets that are better for people and the environment.



BREEAM25

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BREEAM is the world's leading sustainability assessment method for buildings and communities, with more than 530,000 certificates issued and a global reach encompassing more than 70 countries. Find out more about BREEAM's achievements over the last 25 years by visiting our dedicated microsite

www.breem.com/breem25

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