

The Digest of BREEAM Assessment Statistics Volume 01, 2014



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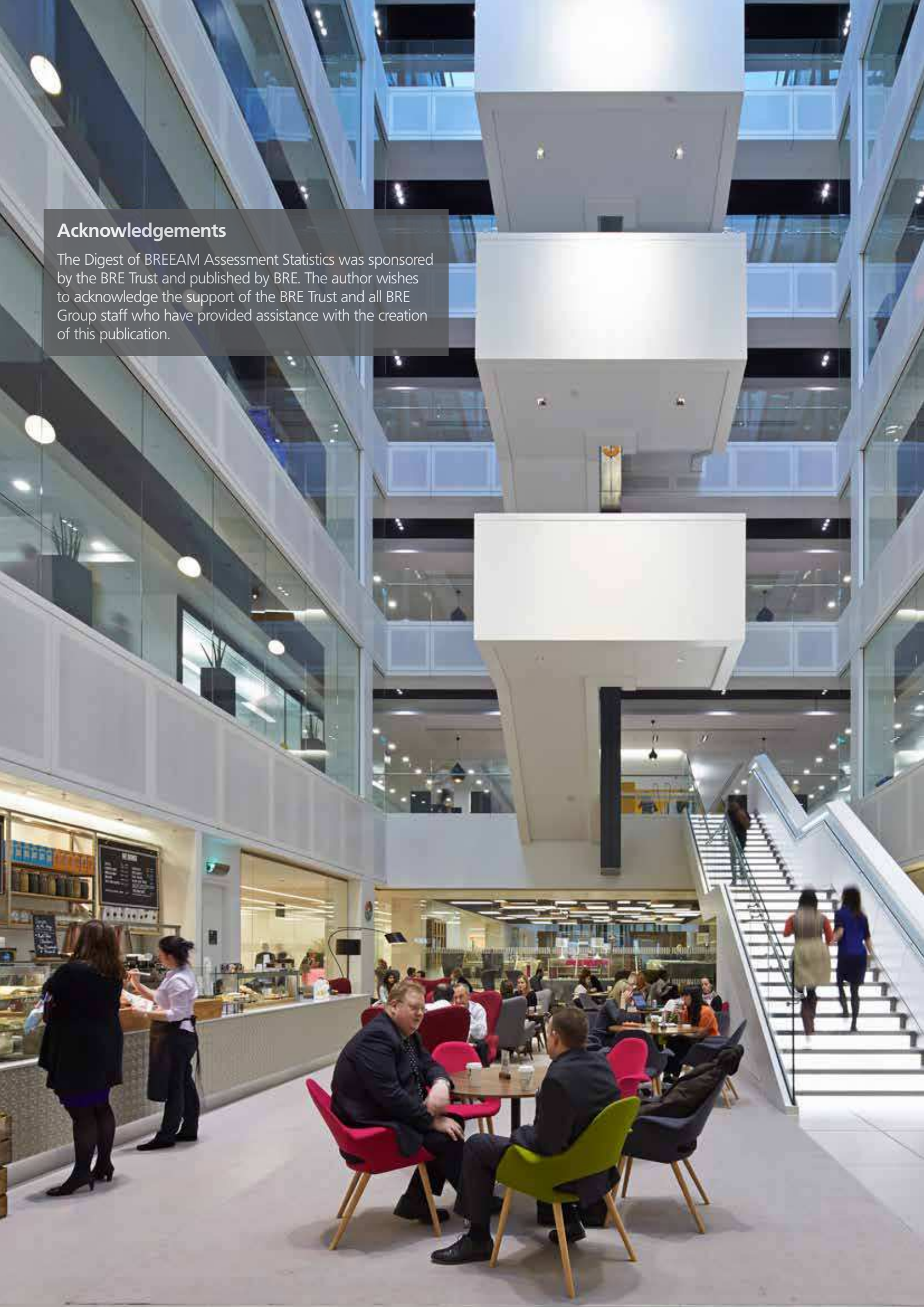
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Foreword

As a leader in the drive for a sustainable built environment since its launch in 1990, BREEAM has contributed much to the strong focus on sustainability in building design, construction and use that now exists in the UK.

Underpinned by sound science and an independent assessment and certification process, the scheme provides clients with a means of assessing the environmental performance and potential of their buildings, management policies, processes, and supply chains using a standard that is consistent, flexible and adaptable to local market drivers and opportunities.

As this publication demonstrates, BREEAM is more than just a UK produced and operated scheme, it is a successful UK export, with 25% of certified assessments under BREEAM occurring on buildings outside the UK in 2011 and 2012 and the scheme of choice for 80%^[1] of the buildings assessed in Europe. BREEAM is active in over 60 countries worldwide and has been used to rate the environmental performance of many thousands of buildings, as demonstrated through the issue of over 260,000 certificates for BREEAM assessments.

With an increasing number of international projects registered for assessment and achieving certification, coupled with the expansion of BREEAM National Scheme Operators, the international reach of the scheme is set to continue.

The growing international status of BREEAM and its use on some of the world's high profile buildings* is part of an emerging and increasingly influential economic success story for the UK. In a challenging economic climate with increasing global competition the Confederation of British Industry (CBI) reports that UK green business has continued to grow in real terms, carving out a £122 billion share of a global market worth £3.3 trillion and employing close to a million people. And in 2014/15, it is expected to roughly halve the UK's trade deficit^[2].

In its report on decoupling natural resource use and environmental impacts from economic growth^[3], the United Nations Environment Programme states that the way infrastructures and buildings are developed on scale could be the single biggest catalyst ever available to drive a long-term commitment to sustainable resource use that, in turn, frees up resources for poverty eradication.

According to the UNEP report, the certainty that resource shortages will eventually preclude business as usual ensures that any country that is 'ahead of the game' will reap the benefits when pressures mount for others to change rapidly.

Recognising these financial and reputational advantages and risks, many organisations view sustainability as part of creating and maintaining their brand value. This publication and others^[4] highlight that, when it comes to buildings, clients are increasingly adopting independent assessment through green building certification schemes such as BREEAM[†] to help identify and realise this value and manage these risks. In turn BREEAM, and more specifically the clients, project teams' and supply chains that deliver and maintain BREEAM rated buildings, are driving the export of UK expertise, opening new markets and promoting innovation in sustainable buildings.

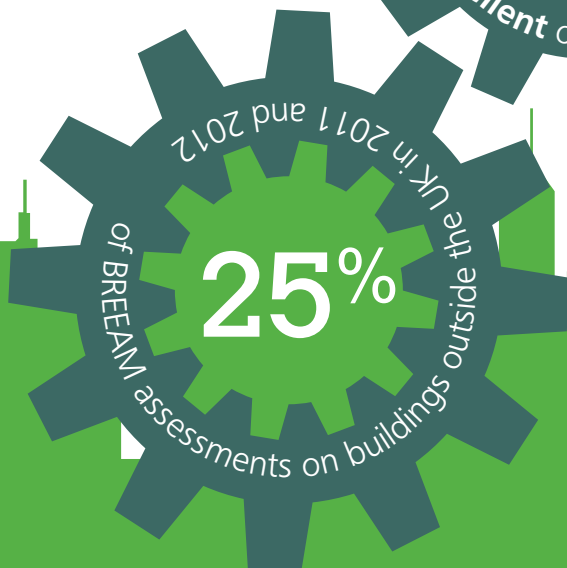
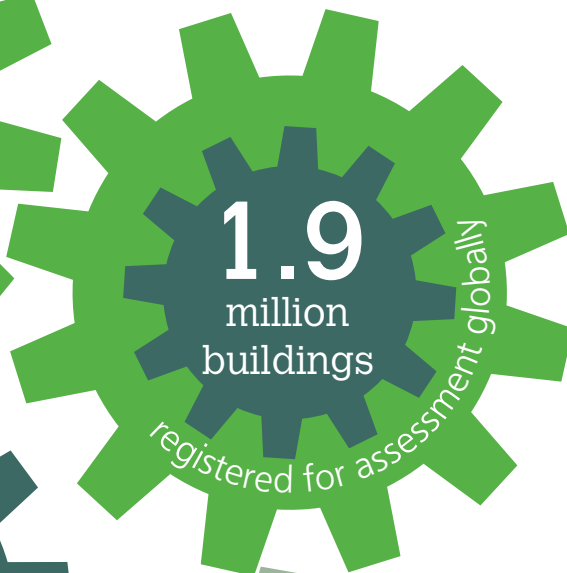
For the first time this publication presents a real picture of BREEAM take-up, from humble beginnings founded on principles that still hold today, to an internationally recognised and applied methodology. The data presented and trends highlighted should be viewed as more than just numbers on the market penetration of BREEAM. They are an increasingly valuable bank of knowledge that reflects the degree to which the buildings we design, construct, operate and occupy are sustainable and therefore lower risk, higher value assets.

Tim Bevan

Associate Director
BREEAM, BRE Global Ltd

* To view full listings of BREEAM certified projects visit www.greenbooklive.com. There are also case studies for a number of certified buildings at www.breeam.com

† Pike Research forecasts that cumulative green building certified space will grow from about 6 billion square feet in 2010 to about 53 billion square feet worldwide in 2020.



Introduction

This publication provides an authoritative and in-depth guide to the trends in the application and uptake of BREEAM, measured in terms of projects assessed and certified by type, life cycle stage and country. Whatever your built environment background and experience, this guide should hopefully have something to interest you.

The information should prove particularly useful, for example, to:

- anyone specifying or interested in specifying BREEAM to measure and validate the sustainability performance of buildings
- BREEAM Assessors and Accredited Professionals wanting hard facts for information and marketing materials
- BREEAM National Scheme Operators or representatives from countries who are interested in becoming a BREEAM National Scheme Operator
- universities and others studying sustainability issues.

This Digest presents detailed statistics covering the period from BREEAM's launch, 1990, up to and including 2012, along with similar data for dwellings certified by BRE Global Ltd under the Code for Sustainable Homes in England and Wales.

The Digest is split in to four main sections:

1. Overall BREEAM and BRE Global Ltd Code for Sustainable Homes statistics
2. New construction non-domestic assessment statistics
3. New construction domestic assessment statistics
4. Existing buildings in-use assessment statistics.

Each of these sections contains data split into the following key areas:

1. The number of certified assessments
2. The proportion of certified assessments by country
3. The number of registered assessments by country
4. Proportion of certified projects by BREEAM rating or CfSH level achieved
5. Proportion of certified projects by life cycle stage and type of assessment.

In total this Digest contains twenty two sections, each containing data presented in a clear graphical format highlighting the trends in growth and uptake over the period. Where appropriate, commentary is provided to assist the reader's interpretation and understanding of the trends.

Furthermore, Key Performance Indicators from BREEAM UK New Construction scheme assessments are included (see Appendix A). This section aims to provide the reader with a snapshot of UK new building performance across a range of environmental impacts and aspects including, environmental section scores, CO₂ emissions, water consumption, resource efficiency and responsible sourcing.

First in a growing data resource

This publication is not intended to be a one-off statistical snapshot of BREEAM achievements, but the first in a series of volumes, each adding further years of BREEAM data and achievements. It will build into an increasingly valuable resource, offering insights into progress and trends in sustainable development through certified assessments of buildings globally using BREEAM.

Subsequent volumes will also introduce new information. This will include dedicated sections for new and updated BREEAM schemes, such as BREEAM Refurbishment and BREEAM Communities. It will also take account of the growing number of BREEAM assessments certified by National Scheme Operators in other countries, using BREEAM schemes affiliated to the Code for a Sustainable Built Environment.

Overall BREEAM and Code for Sustainable Homes Assessment Statistics

The six datasets in this first section provide an overall picture of the numbers of assessments registered and certified by BRE Global Ltd under all BREEAM schemes, for all life cycle stages catered for, between 1990 and 2012 and the Code for Sustainable Homes (2008-2012). Data is also presented on certifications by country of assessment, in addition to BREEAM ratings achieved and assessments undertaken by life cycle stage.

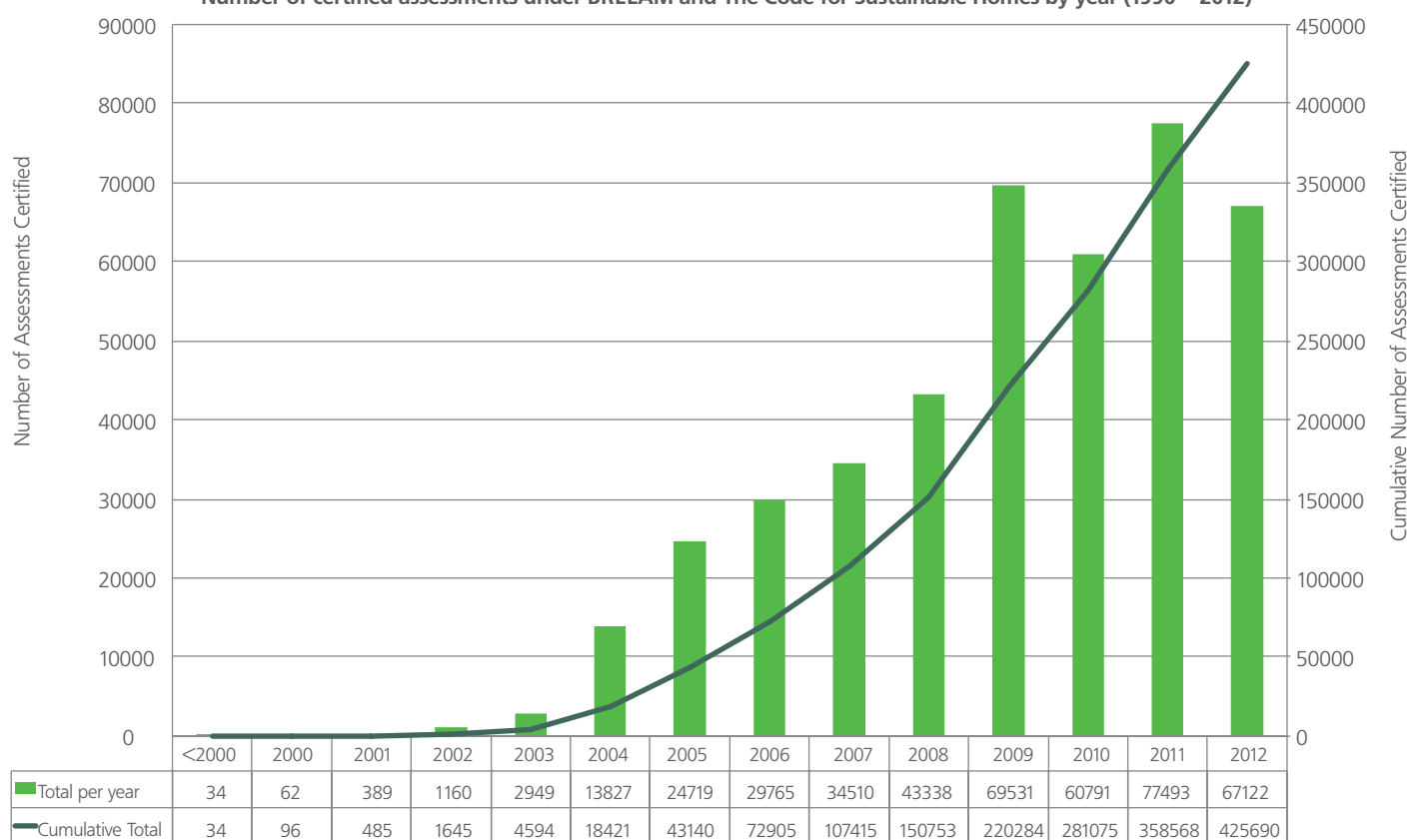


1. Number of certified assessments under BREEAM and the Code for Sustainable Homes by year (1990-2012)

- 1.1 The data presented includes all certificates issued by BRE Global Ltd in the UK and internationally for assessments of buildings using BREEAM, including EcoHomes, and the Code for Sustainable Homes (England, Wales and Northern Ireland only). In total, over 24,000 BREEAM and CfsH assessments have been completed by BRE Global Ltd licensed assessors and BRE Global Ltd have issued certificates for assessments covering over 425,000 buildings.
- 1.2 69% of the 24,000 assessments are domestic new construction projects, 27% non-domestic new construction projects (and some major refurbishment/fit-outs) and the remainder non-domestic existing buildings in-use.
- 1.3 In terms of the number of BREEAM assessments certified (excluding CfsH, but including EcoHomes), we find that over 16,000 assessments have been completed and BRE Global Ltd has issued certificates for the assessment of approximately 260,000 buildings, 52% of which were domestic buildings and 42% non-domestic (or commercial) buildings, 52% of are domestic projects and 42% non-domestic (or commercial) projects.

- 1.4 It is important to distinguish that a number of new buildings and major refurbishments of existing buildings will have achieved certification at both the interim and final stages of assessment and existing buildings may have been certified under more than one part of BREEAM In-Use or re-certified under the BREEAM In-Use scheme. Therefore the total number of certificates issued – which is presented in the graph – does not equate to the total number of individual buildings assessed (the latter will be less than the former).
- 1.5 The peak in certifications in 2009 is primarily due to growth in the number of certifications of assessments of domestic buildings (dwellings), as a result of the introduction of the Code for Sustainable Homes. This reflects the growth in the number of domestic project registrations between 2006 and 2008 (see section 15). Typically, the majority of projects registered for assessment are certified at either the interim and/or final stage within eighteen months to three years of registration.
- 1.6 The fall in certified assessments in 2012 is led by a drop in the number of dwellings assessed by over 10,000 units (see section 13). The number of New Construction non-domestic assessments certified under BREEAM continued to grow in 2012 (see section 7).
- 1.7 The graph does not include any certifications under BREEAM Domestic Refurbishment 2012 and BREEAM Communities 2012. Both of these schemes were launched in 2012 and no assessments were certified in the 2012 calendar year.

Number of certified assessments under BREEAM and The Code for Sustainable Homes by year (1990 – 2012)



2. Proportion of certified assessments under BREEAM and the Code for Sustainable Homes by country

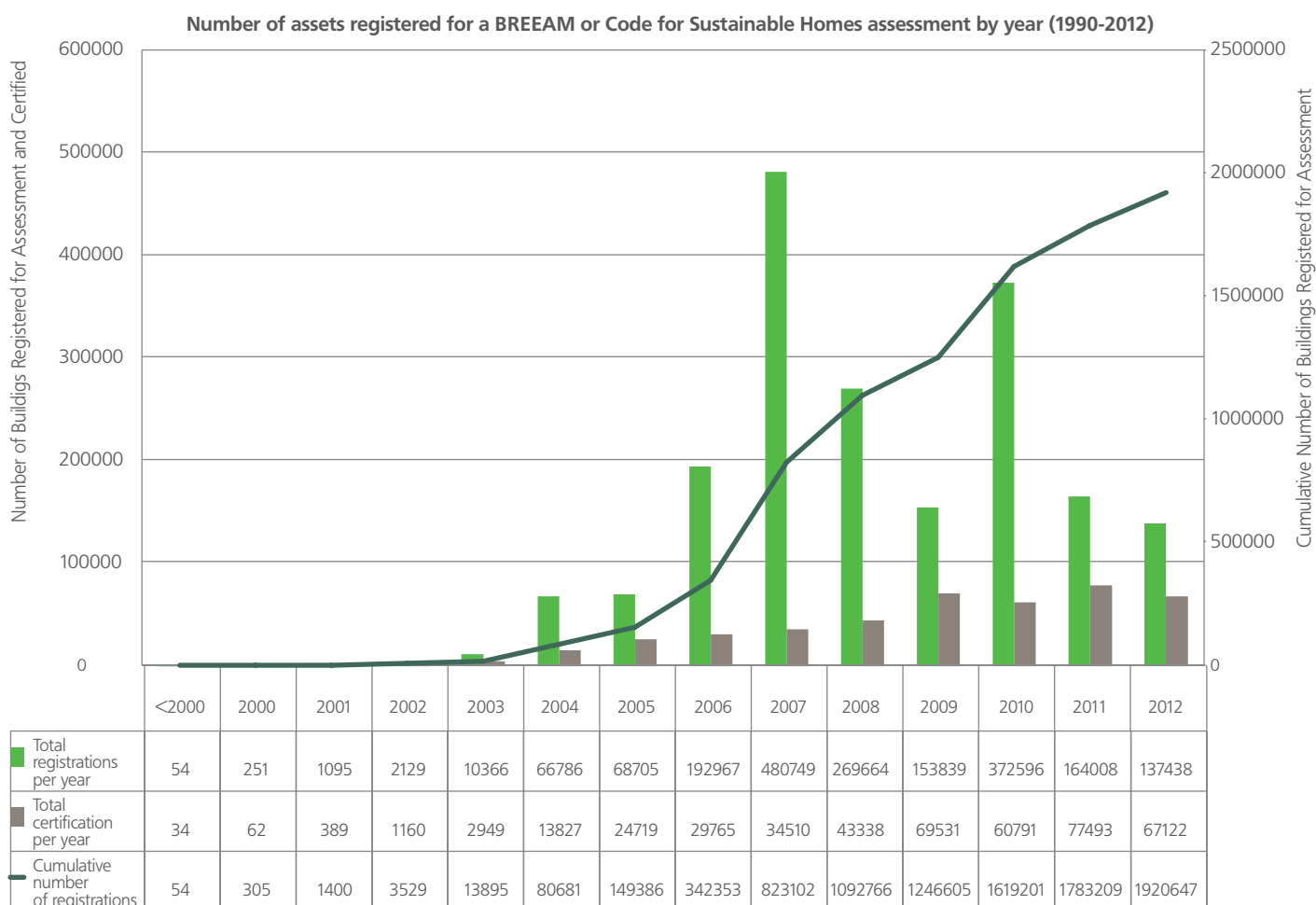
Country	Historical (1990 – 2012)	2011	2012
Argentina	0.01%	0.00%	0.09%
Austria	0.02%	0.00%	0.09%
Belgium	0.95%	2.88%	1.37%
Bulgaria	<0.00%	0.00%	0.03%
China	<0.00%	0.00%	0.03%
Czech Republic	0.12%	0.20%	0.40%
Denmark	0.01%	0.00%	0.00%
Finland	0.08%	0.18%	0.26%
France	0.47%	0.60%	1.63%
Germany	0.27%	0.44%	0.97%
Greece	<0.00%	0.00%	0.03%
Hungary	0.10%	0.15%	0.29%
Iceland	0.01%	0.00%	0.06%
Ireland	0.01%	0.04%	0.00%
Italy	0.08%	0.15%	0.20%
Lebanon	<0.00%	0.00%	0.03%
Lithuania	0.01%	0.04%	0.00%
Luxembourg	0.06%	0.13%	0.23%
Malta	0.00%	0.00%	0.03%
Mauritius	<0.00%	0.02%	0.00%
Netherlands	0.08%	0.22%	0.00%
Norway	0.01%	0.02%	0.03%
Poland	0.42%	0.31%	2.37%
Portugal	0.02%	0.02%	0.03%
Romania	0.06%	0.13%	0.14%
Russia	0.06%	0.00%	0.40%
Serbia	0.01%	0.00%	0.06%
Slovakia	0.02%	0.00%	0.11%
Slovenia	<0.00%	0.00%	0.00%
Spain	0.15%	0.38%	0.37%
Sweden	0.06%	0.04%	0.09%
Switzerland	0.02%	0.04%	0.06%
Turkey	0.12%	0.31%	0.23%
United Kingdom	96.74%	93.67%	90.41%
England	89.38%	85.91%	81.39%
Northern Ireland	1.99%	2.21%	2.03%
Scotland	1.95%	1.31%	2.91%
Wales	3.42%	4.25%	4.08%
Total	100%	100%	100%

- 2.1 The data presented accounts for all assessments certified under a BREEAM scheme (all life cycle stages) by BRE Global Ltd from inception up to and including 2012. It also includes assessments certified by BRE Global Ltd in England, Wales and Northern Ireland under the Code for Sustainable Homes.
- 2.2 Whereas the information presented in section 1 is based on the number of buildings assessed, the percentages in this dataset is based on the number of projects assessed. What this means is that the data for the CfSH is not derived based on the number of individual dwellings assessed, but the number of projects assessed (a single project will include multiple dwelling types and individual units). This has been done to present a more balanced picture of the proportion of developments assessed by country.
- 2.3 At present, BREEAM's core markets outside the UK are Belgium, France, Germany and Poland. In 2012 these countries represented 14%, 17%, 10% and 24% of the non-UK BREEAM certification market (measured in terms of projects certified) for BRE Global Ltd. To-date 98% of BREEAM certified assessments is for projects within Europe.
- 2.4 The first assessment certified outside of the UK was the European Central Bank in Luxembourg in 2005. It was a new build project assessed using a set of bespoke BREEAM criteria.
- 2.5 The first international scheme, BREEAM Europe (New Construction assessments), was developed by BRE Global Ltd and launched in 2008.
- 2.6 The first existing, non-UK building assessment to be certified under BREEAM In-Use was Pond Point Schumanplein 11 in Belgium. The assessment for this building was certified in 2010 to part 1 (asset performance), part 2 (building management) and part 3 (occupier management).
- 2.7 The first National Scheme Operator (NSO) outside of the UK was established in the Netherlands by the Dutch Green Building Council in 2010. This was followed shortly after by NSOs in Spain, Germany, Sweden and Norway (at time of publication). Certification data from other National Scheme Operators are not included in this volume of the digest, but the intention is to add this data to future versions to present a complete picture of BREEAM uptake across Europe.
- 2.8 Data^[1] for 2012/2013 shows that BREEAM has an 80% market share of green building certification in Europe, certifying over 7800 building assessments in 2012/2013 (this includes data from all European BREEAM National Scheme Operators).

3. Number of assets registered for a BREEAM or the Code for Sustainable Homes assessment by year (1990-2012)

- 3.1 The data presented represents the global number of new and existing domestic and non-domestic buildings and community level projects registered for assessment with BRE Global Ltd between 1990 up to and including 2012. The data therefore includes buildings registered that have subsequently been assessed and certified and buildings currently undergoing assessment, but not yet certified. The number of building assessments certified is also presented alongside the registration data for comparison. The data does not include registrations against BREEAM schemes operated by other National Scheme Operators in Europe.
- 3.2 The data is dominated by registrations for assessments of new domestic dwellings. Of the total number of buildings registered for assessment at the end of 2012, over 98% are for this building type. Of this proportion 54% are dwellings registered for assessment against the Code for Sustainable Homes, the remaining 46% are registered to BREEAM EcoHomes.

- 3.3 Using data on registered projects (and not dwellings in the case of domestic) we find that 59% of all projects registered for assessment are domestic projects and 41% are non-domestic projects. A domestic project registered for assessment will typically consist of 24 individual dwellings on average; a non-domestic project tends to represent a single building development.
- 3.4 Due to the nature of the procurement process for new assets, the same project may have been registered with BRE Global Ltd by two different assessor organisations, working for competing project teams. As such some repetition of project registration is to be expected. Furthermore, not all projects registered for assessment are certified. Some projects are put on hold and others are abandoned altogether. This, coupled with the fact that the registration data includes certified assessments and projects currently undergoing assessment, is why the number of certified assessments is lower than registered projects. Therefore certified assessments offer a more accurate picture of scheme take-up as they represent the number of buildings that have completed the formal assessment process and can claim a BREEAM rating.
- 3.5 The number and trend of project registrations are often as sensitive to updates in scheme versions as they are to wider market trends. For example the peak in registrations in 2007 (against the BREEAM EcoHomes scheme) was a direct result of the launch of the Code for Sustainable



Homes. Similarly, the launch of updated BREEAM New Construction scheme versions in 2008 and 2011 caused a spike in registrations of non-domestic projects in those years. Overall registrations decreased in 2008 and 2009 as a result of the drop in UK house building levels (new dwelling starts) over the same period, resulting from the impact of the global financial crisis.

- 3.6 Registrations in 2010 were substantially higher than previous or subsequent years due to a peak in domestic project registrations. This is believed to have been driven by the launch of an updated version of the Code for Sustainable Homes in November 2010.
- 3.7 Registrations were lower in 2012 due to a decrease in the number of new domestic projects being registered (see section 15), coupled with a fall in non-domestic new

construction registrations (see section 9). Non-domestic registrations fell as a result of an inflated rise the previous year, caused by the launch of the BREEAM UK New Construction 2011 scheme version, (as described above) and the introduction of a registration fee for BREEAM assessments. Given these factors, the number of projects registered in 2012 gives a more accurate reflection of current BREEAM and the CfSH uptake than previous years.

- 3.8 The data includes a small number of registrations against the BREEAM Communities and BREEAM Domestic Refurbishment schemes between 2009-2012 and 2012 respectively. At the time of writing, there are a total of 29 registrations against the BREEAM Communities scheme and 381 against the BREEAM Domestic Refurbishment scheme.



4. Number of assets registered for a BREEAM or the Code for Sustainable Homes assessment by country

Country	Total (1990 – 2012)	2011	2012
Argentina	0	0	0
Algeria	1	0	0
Australia	1	0	0
Austria	9	2	1
Azerbaijan	1	0	1
Belgium	343	196	72
Bosnia	0	0	0
Brazil	3	2	0
Bulgaria	6	4	0
Canada	1	1	0
Chile	12	2	10
China	4	0	1
Croatia	1	1	0
Czech Republic	54	23	19
Denmark	13	3	5
Estonia	3	1	2
Finland	50	15	19
France	401	138	163
Georgia	1	1	0
Germany	74	18	32
Guernsey	3	0	0
Greece	3	3	0
Hungary	36	16	9
Iceland	16	6	3
India	1	0	0
Indonesia	1	0	0
Iran	1	0	0
Ireland	101	7	4
Israel	1	1	0
Italy	21	2	9
Jersey	39	24	2
Latvia	1	0	1
Lebanon	9	5	1
Lithuania	6	5	1
Luxemburg	38	9	13
Malta	1	0	0
Mauritius	1	0	0
Monaco	3	2	1
Morocco	2	0	0
Netherlands	60	15	2
Nigeria	1	0	0
Norway	15	6	6
Pakistan	2	1	0

Country	Total (1990 – 2012)	2011	2012
Philippines	1	0	0
Poland	166	71	76
Portugal	10	0	4
Romania	36	9	18
Russia	56	19	20
Saudi Arabia	0	0	0
Serbia	3	0	2
Slovakia	20	15	5
Slovenia	0	0	0
South Korea	1	0	1
Spain	29	5	3
Sri Lanka	1	0	1
Sudan	1	1	0
Sweden	58	28	19
Switzerland	4	2	2
Turkey	54	14	12
UAE	4	1	1
Ukraine	2	0	1
UK	1918858	163334	136896
USA	2	0	0
Zimbabwe	1	0	0
Total	1920647	164008	137438

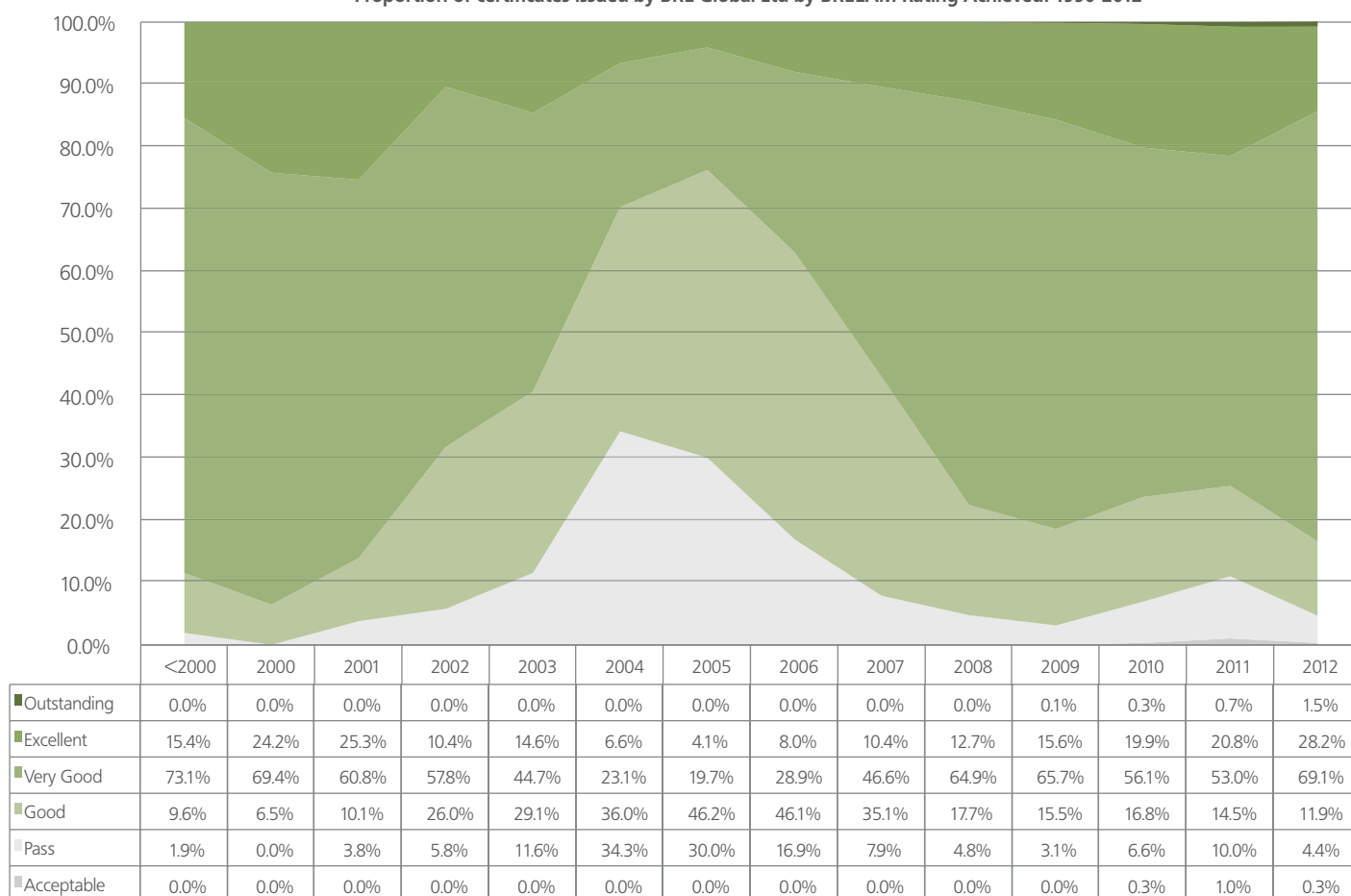
- 4.1 The data presented shows the number of assets registered for a BREEAM or Code for Sustainable Homes assessment by country (at all life cycle stages) with BRE Global Ltd from inception up to and including 2012. The data does not include registrations against BREEAM schemes operated by other National Scheme Operators in Europe.
- 4.2 The registration data is not surprisingly dominated by the UK and in particular registration of domestic units against the Code for Sustainable Homes, in England and Wales, and its predecessor BREEAM EcoHomes. Between 1990 and 2012 over 25,000 non-domestic buildings were registered for assessment against either the New Construction or In-Use version of BREEAM, over 20,000 of which have been registered since 2008, the year that also saw the one millionth registration. To view the number of registrations by life cycle stage of assessment see sections 9, 15 and 20 for new construction non-domestic, new construction domestic and existing non-domestic buildings respectively.
- 4.3 On record, the first project registered for assessment outside of the UK was in the Republic of Ireland in 2000, this was followed by projects in Luxembourg and the USA in 2005. Non-UK registrations began to grow significantly from 2008 onwards, following the launch of the first BREEAM International scheme in Europe.
- 4.4 Stripping out the number of domestic units registered in the UK to the CfSH and Ecohomes, in 2012 non-UK buildings represented 15% of all non-domestic buildings registered for assessment with BRE Global Ltd. This is up from 1% in 2008 and highlights the growing international demand for BREEAM, particular mainland Europe.

5. Proportion of certified assessments by BREEAM rating achieved by year (1990-2012)

5.1 The data presented in this section shows the proportion of certified assessments by BREEAM rating achieved. The graph includes data for all BRE Global Ltd BREEAM schemes, including dwellings assessed under BREEAM EcoHomes. The data does not include dwellings assessed under the Code for Sustainable Homes, which uses levels and not BREEAM ratings. Statistics on the number of dwellings that have been certified at each Code level are available from www.statistics.gov.uk

- 5.2 The peak in 2004 and 2005 is due to domestic certifications i.e. BREEAM EcoHomes assessed dwellings, which experienced rapid growth during this period and a large number of Pass ratings which subsequently declined from 2007 onwards (when the Code for Sustainable Homes was launched in England and Wales).
- 5.3 The 'Acceptable' rating is available under the BREEAM In-Use scheme only. The 'Outstanding' rating was not available in BREEAM prior to 2008.

Proportion of certificates issued by BRE Global Ltd by BREEAM Rating Achieved: 1990-2012

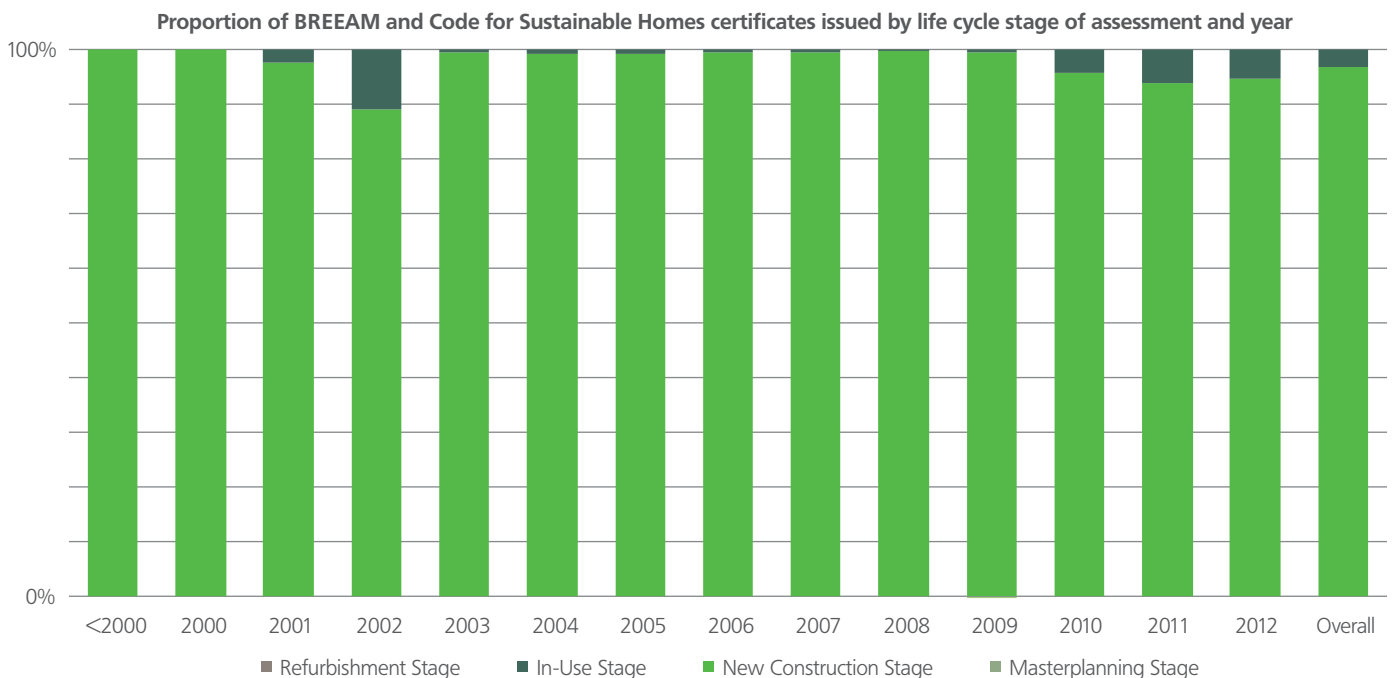


6. Proportion of BREEAM and the Code for Sustainable Homes certificates issued by life cycle stage of assessment by year (1990-2012)

- 6.1 The data presented here shows the proportion of BREEAM and Code for Sustainable Homes certificates issued by life cycle stage of assessment by year. The data is based on certificates issued by project and not certificates issued to individual dwellings or buildings. This is because the high number of certificates issued under BREEAM EcoHomes and the CfSH (see section 13) would distort the graph if presented as individual dwellings and not projects.
- 6.2 Given the relatively recent introduction of BREEAM schemes for the master-planning (communities), in-use (existing buildings) and refurbishment life cycle stages, it is not surprising that the assessment of buildings at the new construction stage dominant the graph.
- 6.3 Prior to the launch of the BREEAM Domestic Refurbishment scheme (2012) and BREEAM Non-Domestic Refurbishment scheme (scheduled for launch in October 2014), major refurbishment and fit-out assessments of domestic and non-domestic assets could be carried out using a BREEAM New Construction scheme (EcoHomes in the case of domestic dwelling refurbishments). Therefore the assessment of refurbishments of domestic and non-domestic assets, carried out under BREEAM New Construction and BREEAM EcoHomes, are included within

the New Construction data in the graph. Separate analysis of projects certified under the BREEAM New Construction non-domestic scheme (2008 version) shows that 13% of projects assessed under this scheme were refurbishment projects and 3% were a mix of part new-build part refurbishment project. So there is a sizeable number of refurbishment and fit-out projects that have been assessed using BREEAM, just not to a specific BREEAM Refurbishment scheme (to date).

- 6.4 At the time of writing a new, standalone scheme for BREEAM Non-Domestic Building Refurbishment is under development and due for launch at the end of October 2014. The BREEAM Domestic Refurbishment scheme was launched in 2012 and has already been used to certify over 500 dwellings (at the time of writing). Future volumes of this publication will include statistics for projects certified under these new BREEAM Refurbishment schemes.
- 6.5 In-Use stage assessments prior to 2009 were assessed under a scheme called BREEAM Management and Operation. BREEAM M&O was replaced by BREEAM In-Use in 2009. The increase in In-Use stage assessments in 2002 was due to a high number of certified assessments under the BREEAM Management and Operation scheme by a single client with a large property portfolio.
- 6.6 The effect of the launch of BREEAM In-Use can be seen between 2009 to 2012, as the proportion of assessments certified at the In-Use life cycle stage grew from 1% of all BREEAM certificates issue in 2009 to 5% in 2012. This growth in the proportion of In-Use assessments occurred alongside growth in the number of New Construction stage assessments i.e. the In-Use growth is not due to a decrease in assessments certified at other life cycle stages.



New Construction Non-Domestic Building Assessment Statistics

The six datasets in this second section focus on new non-domestic assets. Data is presented to give an overall picture of the numbers of assessments registered and certified by BRE Global Ltd under the BREEAM New Construction non-domestic buildings schemes between 1990 and 2012. Data is also presented on certifications by country of assessment, in addition to ratings achieved by asset type and assessment type.

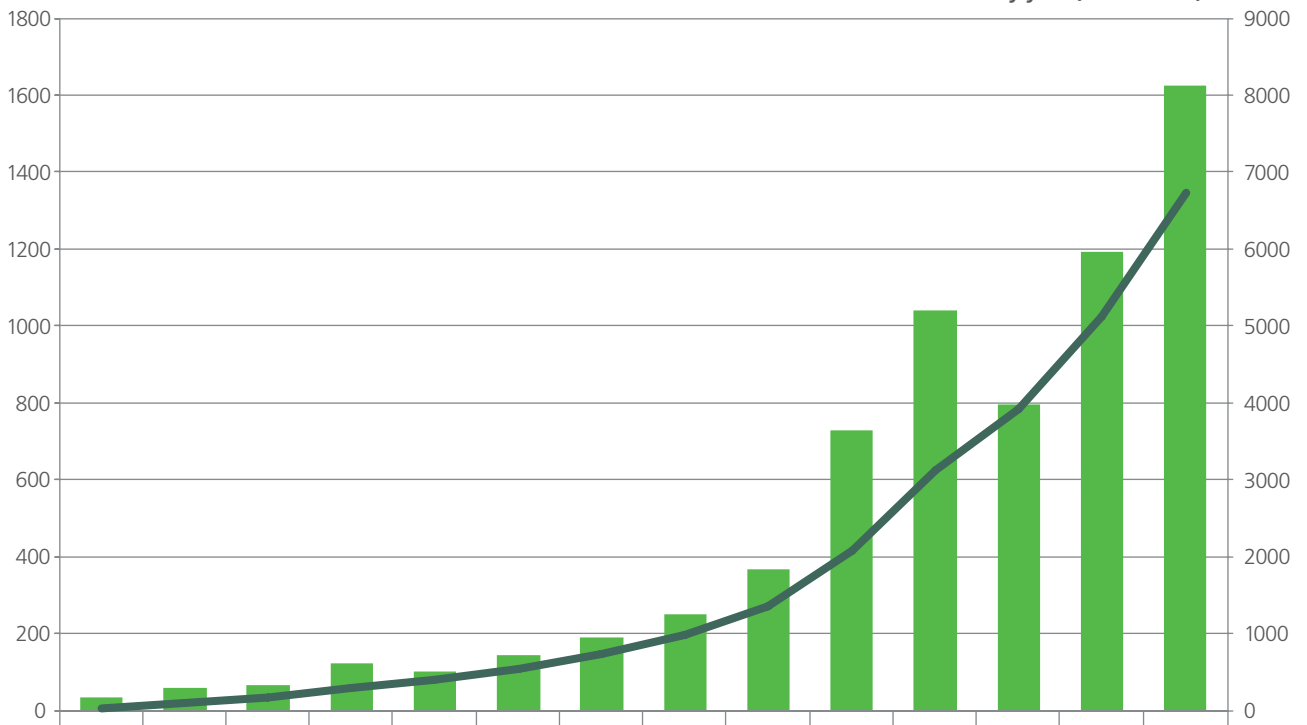


7. Number of certified assessments under the BREEAM New Construction non-domestic scheme by year and asset type (1990-2012)

7.1 The data presented includes all certificates issued by BRE Global Ltd in the UK and internationally for assessments using a BREEAM New Construction non-domestic scheme. It should be noted that a number of assessments will have achieved certification at both the interim and final stages of assessment. Therefore the total number of certificates issued does not necessarily equate to the total number of individual buildings assessed (the latter will be less than the former).

7.2 The two stage assessment and certification process was introduced in to the BREEAM New Construction scheme under the 2008 version. Therefore, prior to 2010 more than 90% of buildings were assessed at the design stage only (see section 12). It should also be noted that for some projects a single certificate may have covered more than one building or unit e.g. an industrial/office park or units or a retail park/shopping centre with multiple units.

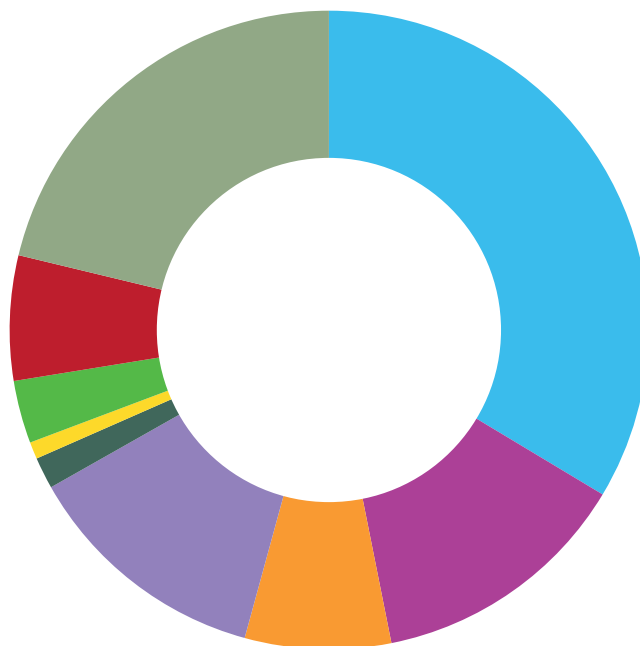
Number of certified assessments under the BREEAM New Construction non-domestic scheme by year (1990 – 2012)



	<2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total per year	34	61	68	123	104	145	192	250	370	729	1043	798	1194	1628
Cumulative Total	34	95	163	286	390	535	727	977	1347	2076	3119	3917	5111	6739

- 7.3 The 'Other building type' category includes prisons, courts, data centres and bespoke assessments. Bespoke assessment numbers will include building types assessed prior to the development of a standard BREEAM scheme for such types, including healthcare, higher and further education and multi-residential. For example, BREEAM Healthcare was launched in 2008, prior to this a new hospital would have been assessed using the BREEAM Bespoke scheme and therefore would fall within the 'Other Building type' dataset for the years before 2008.
- 7.4 Non-domestic building refurbishment and fit-out projects are included within the statistics for new construction. This is because new construction and refurbishment projects have to date been assessed and certified under the same scheme and version e.g. BREEAM 2008. A new BREEAM scheme for non-domestic building refurbishment and fit-out is schedule for launch at the end of October 2014. Refer also to the commentary on refurbishment projects in section 6.
- 7.5 BRE Global Ltd estimates that BREEAM New Construction has been applied to approximately 15%^[5] of new build projects in the UK between 2008 and 2012. The BREEAM New Construction non-domestic scheme was used to certify over 80% of all new and retrofit buildings assessed and certified in Europe in 2012/2013^[1].

Proportion of certified assessments under the BREEAM New Construction non-domestic scheme by building type (1990 – 2012)



- Office 34%
- Industrial 13%
- Retail 7%
- School 13%
- Further Education College 2%
- Higher Education Institution 1%
- Healthcare 3%
- Multi-residential 6%
- Other Building Type 21%

8. Proportion of certified assessments under BREEAM New Construction non-domestic by country

Country	Historical (1990 – 2012)	2011	2012
Austria	0.0%	0.0%	0.1%
Belgium	0.5%	0.9%	1.0%
Bulgaria	0.0%	0.0%	0.1%
China	0.0%	0.0%	0.1%
Czech Republic	0.1%	0.1%	0.4%
Finland	0.1%	0.0%	0.6%
France	1.0%	1.7%	2.0%
Germany	0.1%	0.2%	0.0%
Greece	0.0%	0.0%	0.1%
Hungary	0.2%	0.3%	0.4%
Iceland	0.0%	0.0%	0.1%
Ireland	0.0%	0.2%	0.0%
Italy	0.1%	0.1%	0.3%
Lebanon	0.0%	0.0%	0.1%
Lithuania	0.0%	0.0%	0.0%
Luxemburg	0.1%	0.4%	0.3%
Malta	0.0%	0.0%	0.1%
Mauritius	0.0%	0.1%	0.0%
Norway	0.0%	0.1%	0.1%
Poland	0.4%	0.8%	1.0%
Portugal	0.0%	0.1%	0.1%
Romania	0.1%	0.4%	0.2%
Russia	0.1%	0.0%	0.3%
Slovenia	0.0%	0.0%	0.0%
Spain	0.1%	0.3%	0.1%
Sweden	0.1%	0.0%	0.2%
Turkey	0.2%	1.0%	0.1%
United Kingdom	96.4%	93.1%	92.5%
England	82.9%	81.5%	80.8%
Northern Ireland	1.4%	1.5%	1.2%
Scotland	5.5%	4.0%	4.3%
Wales	6.5%	6.2%	6.3%
Total	100.0%	100.0%	100.0%

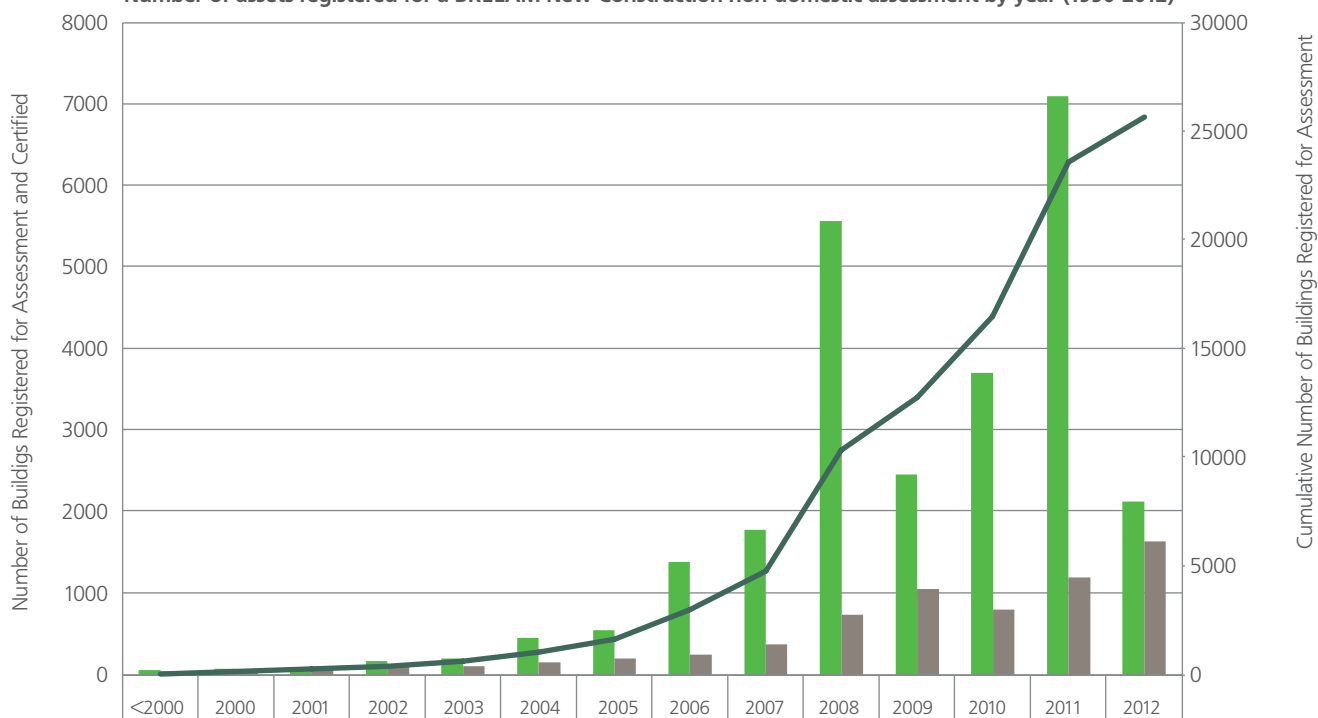
- 8.1 The data presented in this section is based on assessments certified using a BREEAM New Construction scheme between 1990 up to and including 2012. This includes assessments certified in the UK and internationally by BRE Global Ltd to either a BREEAM UK or BREEAM International New Construction non-domestic scheme.
- 8.2 The UK and in-particular England dominates the certification statistics with over 80% of all new construction non-domestic assessments certified in 2012. This is not surprising given that BREEAM has been operating in the UK since 1990 and the first international BREEAM scheme was launched in 2008.
- 8.3 In 2012 75% of all certified BREEAM New Construction non-domestic assessments were of buildings located outside the UK, rising from 7% in 2011 and 4% in 2010. BRE Global data (not presented in this publication) shows that the number of certified international (non-UK) assessments has doubled year-on-year since 2009.
- 8.4 Excluding the UK, France has the highest share of certified New Construction non-domestic assessments in 2012 with 27%. This was followed by Poland (14%), Belgium (13%), Finland (7%) and Hungary (5%).
- 8.5 2012 saw the first certified assessments of buildings in Bulgaria (Building 15, Trade Centre Europe, Sofia, BREEAM rating of Very Good), Greece (Greenstore Stamata, Athens, BREEAM Rating of Very Good) and Malta (MIA Sky Parks Business Centre, BREEAM rating of Good).

9. Number of assets registered for a BREEAM New Construction non-domestic assessment by year and type (1990-2012)

- 9.1 The data presented in this section represents the global number of new non-domestic building projects registered for assessment with BRE Global Ltd between 1990 up to and including 2012 and proportionally by building type.
- 9.2 The data includes buildings registered that have subsequently been assessed and certified and buildings currently undergoing assessment, but not yet certified. The number of assessments certified is also presented alongside the registration data for comparison.

- 9.3 Due to the nature of the procurement process for new assets, the same project may have been registered with BRE Global Ltd by two different assessor organisations, working for competing project teams. As such some repetition of project registration is to be expected in the data. Furthermore, not all projects registered for assessment are certified. Some projects are put on hold and others will be abandoned altogether. This, coupled with the fact that the registration data includes certified assessments and projects currently undergoing assessment, is why the number of certified assessments is lower than registered projects. Therefore the number of projects with certified assessments offers a more accurate picture of scheme take-up, as they represent the number of buildings that have completed the formal assessment process and can claim a BREEAM rating.
- 9.4 The number and trend of project registrations are as sensitive to updates in scheme versions as they are to wider market trends. For example the peak in registrations in 2008 and 2011 shown in the graph is a direct result of the launch of the updated BREEAM UK New Construction scheme versions in 2008 and 2011 respectively. A new scheme version inevitably leads to a spike in registrations prior to its launch, as project teams and clients seek to register their projects to the current scheme and its tried and tested requirements.

Number of assets registered for a BREEAM New Construction non-domestic assessment by year (1990-2012)



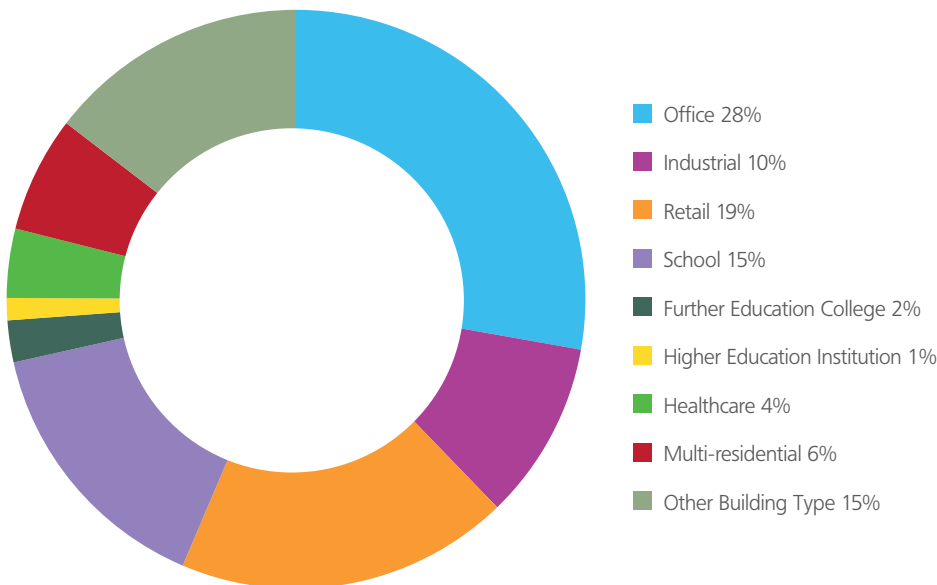
■ Total registrations per year	54	64	87	163	201	452	550	1378	1769	5561	2455	3710	7099	2127
■ Total certifications per year	34	61	68	123	104	145	192	250	370	729	1043	798	1194	1628
— Cumulative registrations per year	54	118	205	368	569	1021	1571	2949	4718	10279	12734	16444	23543	25670

9.5 Registrations were also lower in 2012 as a result of an inflated rise the previous year caused by the launch of the BREEAM UK New Construction 2011 scheme version, coupled with the introduction of a registration fee for BREEAM assessments (prior to 2011 there was no fee for registering a project). Given these factors the number of projects registered in 2012 provides a more accurate reflection of current levels of BREEAM New Construction scheme uptake.

9.6 The breakdown in building type tends to mirror that of the wider non-domestic construction industry over the last 20 years, with commercial buildings dominating, in particular office and retail developments with 47% share of all BREEAM registrations. The 15% 'Other Building Type' category includes prisons and courts and other building types assessed using the BREEAM Bespoke methodology i.e. sports, leisure and entertainment buildings etc.

9.7 In terms of a UK breakdown of new non-domestic building registrations, 88% are located in England, 6% in Wales, 5% in Scotland and 1% in Northern Ireland.

Number of assets registered for a BREEAM New Construction non-domestic assessment by type (1990-2012)



10. Number of assets registered for a BREEAM New Construction non-domestic assessment by country

Country	Total (1990 – 2012)	2011	2012
Argentina	0	0	0
Algeria	1	0	0
Australia	1	0	0
Austria	9	2	1
Azerbaijan	1	0	1
Belgium	122	44	39
Bosnia	0	0	0
Brazil	1	0	0
Bulgaria	6	4	0
Canada	1	1	0
Chile	0	0	0
China	4	0	1
Croatia	1	1	0
Czech Republic	28	9	10
Denmark	8	3	4
Estonia	3	1	2
Finland	34	7	16
France	228	62	102
Georgia	1	1	0
Germany	24	6	3
Guernsey	3	0	0
Greece	3	3	0
Hungary	23	7	7
Iceland	15	6	3
India	1	0	0
Indonesia	1	0	0
Iran	1	0	0
Ireland	95	3	4
Israel	1	1	0
Italy	13	2	5
Jersey	35	22	0
Latvia	1	0	1
Lebanon	9	5	1
Lithuania	3	2	1
Luxembourg	35	9	10
Malta	1	0	0
Mauritius	1	0	0
Monaco	3	2	1
Morocco	2	0	0
Netherlands	1	0	0
Nigeria	1	0	0
Norway	12	6	4

Country	Total (1990 – 2012)	2011	2012
Pakistan	2	1	0
Philippines	1	0	0
Poland	111	52	40
Portugal	8	0	4
Romania	27	6	13
Russia	53	17	19
Saudi Arabia	0	0	0
Serbia	2	0	1
Slovakia	7	2	5
Slovenia	0	0	0
South Korea	1	0	1
Spain	17	3	1
Sri Lanka	1	0	1
Sudan	1	1	0
Sweden	50	27	16
Switzerland	0	0	0
Turkey	40	12	6
UAE	4	1	1
Ukraine	2	0	1
United Kingdom	24,607	6768	1802
USA	2	0	0
Zimbabwe	1	0	0
Total	25,670	7099	2127

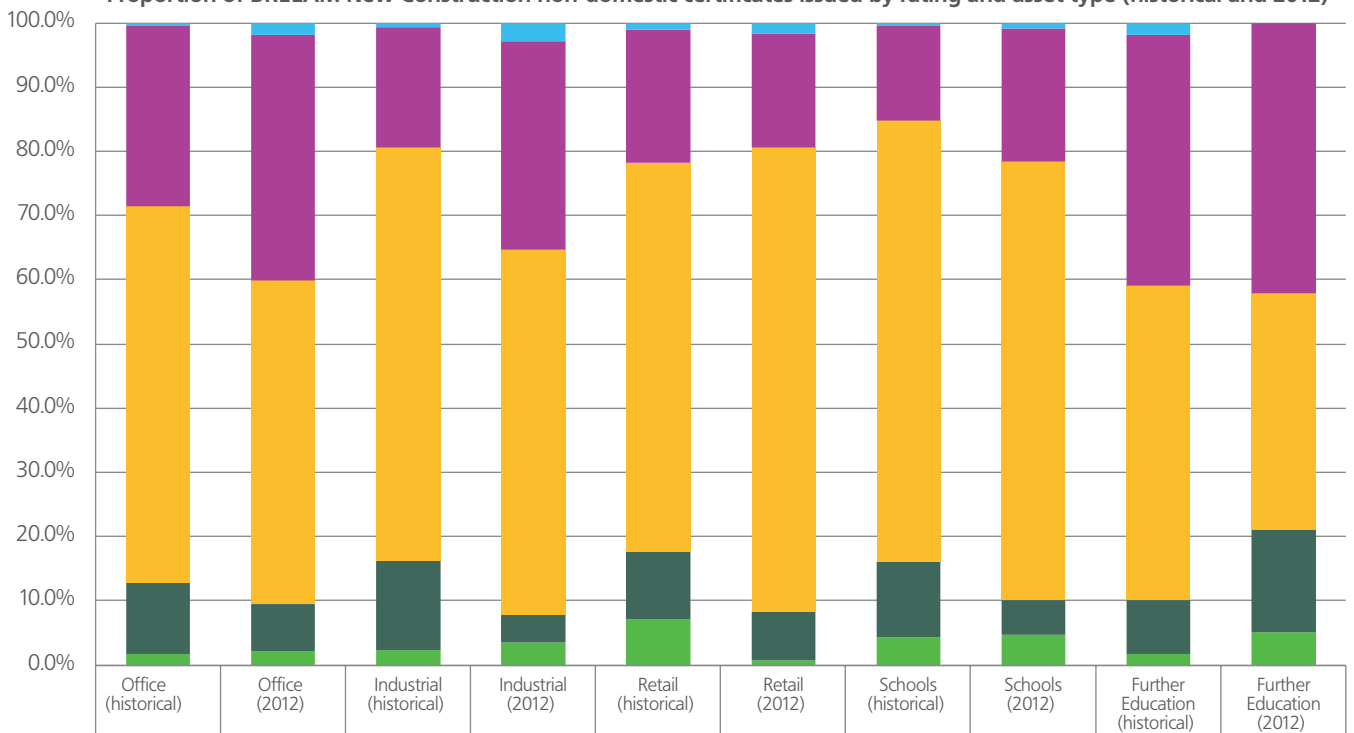
- 10.1 This section shows the number of buildings registered for a BREEAM New Construction non-domestic assessment by country. The registration data is not surprisingly dominated by the UK given that prior to 2008 there was no BREEAM International scheme (though some non-UK projects were assessed prior to 2008 using a bespoke version of BREEAM). Between 1990 and 2012 over 25,000 non-domestic buildings were registered for assessment against BREEAM New Construction, over 20,000 of which have been registered since 2008.
- 10.2 In 2012 non-UK buildings represented 15% of all non-domestic buildings registered for assessment with BRE Global Ltd. This is up from 1% in 2008.
- 10.3 Non-UK registrations began to grow significantly from 2008 onwards following the launch of the first BREEAM International scheme. Although European countries dominate the statistics at present with 95% of non-UK registrations occurring within Europe's borders (rising to 99% if you include the UK), the data highlights that there are projects registered for assessment in many countries across the globe.

11. Proportion of BREEAM New Construction non-domestic certificates issued by rating and asset type (historical and 2012)

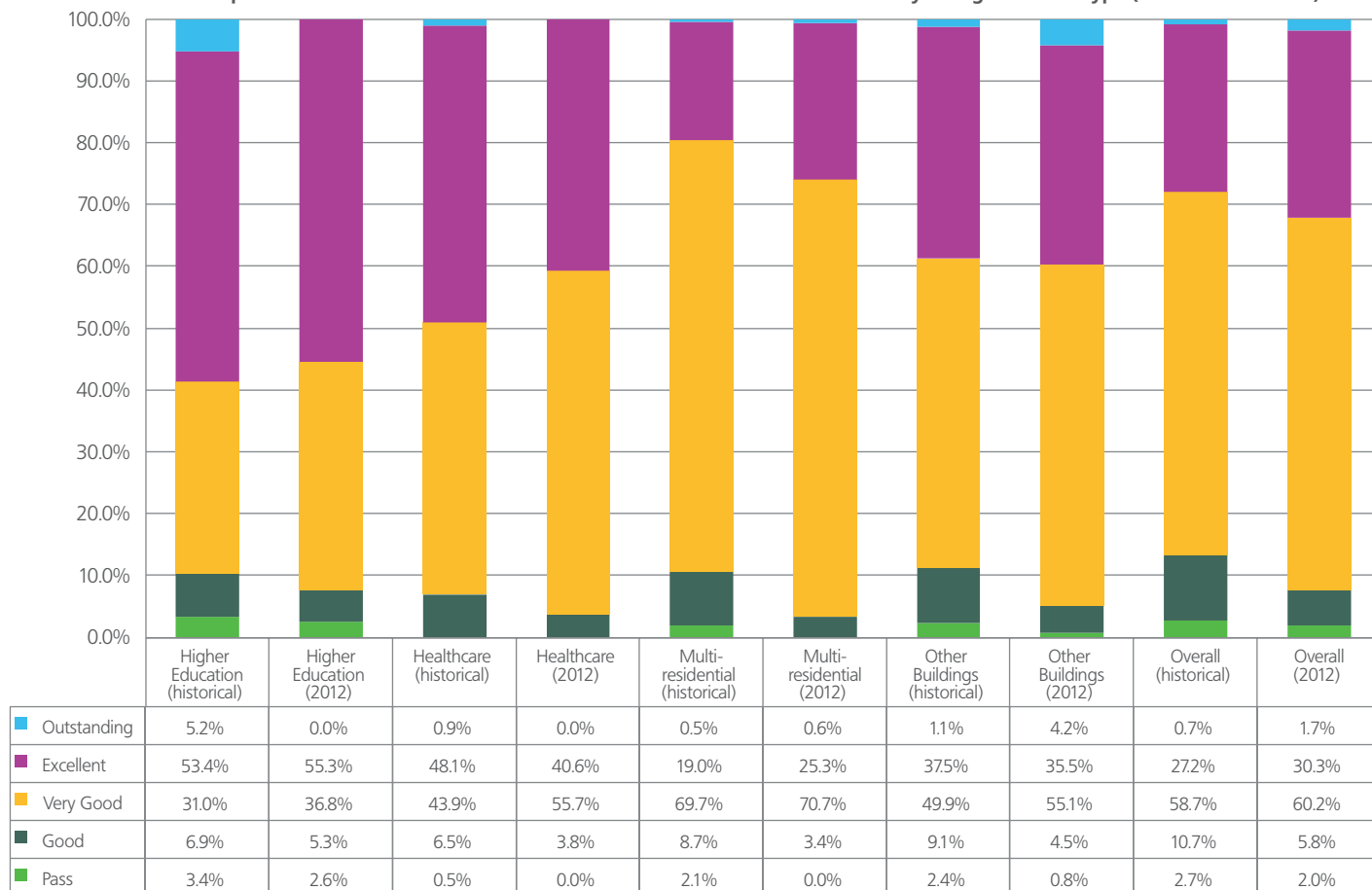
11.1 The graphs show the proportion of certificates issued by rating and asset type for non-domestic buildings assessed using a BREEAM New Construction scheme. Historical figures for each building type are from the inception of a BREEAM scheme for that building type to-date. For example, for offices this is 1990 onwards and for schools it is 2005 onwards. The dataset includes ratings from assessments certified in the UK and Internationally.

- 11.2 The majority of assessments achieve a BREEAM Excellent or Very Good rating. In many cases this is because BREEAM Excellent or Very Good is the rating level required by clients (private and public sector) or local government in their sustainability/building related policies or local plans (particularly in the UK).
- 11.3 The BREEAM Outstanding rating was introduced in the New Construction schemes in 2008. The first assessment certified to BREEAM Outstanding (at the final, post construction stage of assessment) was the Lancaster Institute for the Contemporary Arts at Lancaster University in June 2011, which achieved a score of 85%.

Proportion of BREEAM New Construction non-domestic certificates issued by rating and asset type (historical and 2012)



Proportion of BREEAM New Construction non-domestic certificates issued by rating and asset type (historical and 2012)



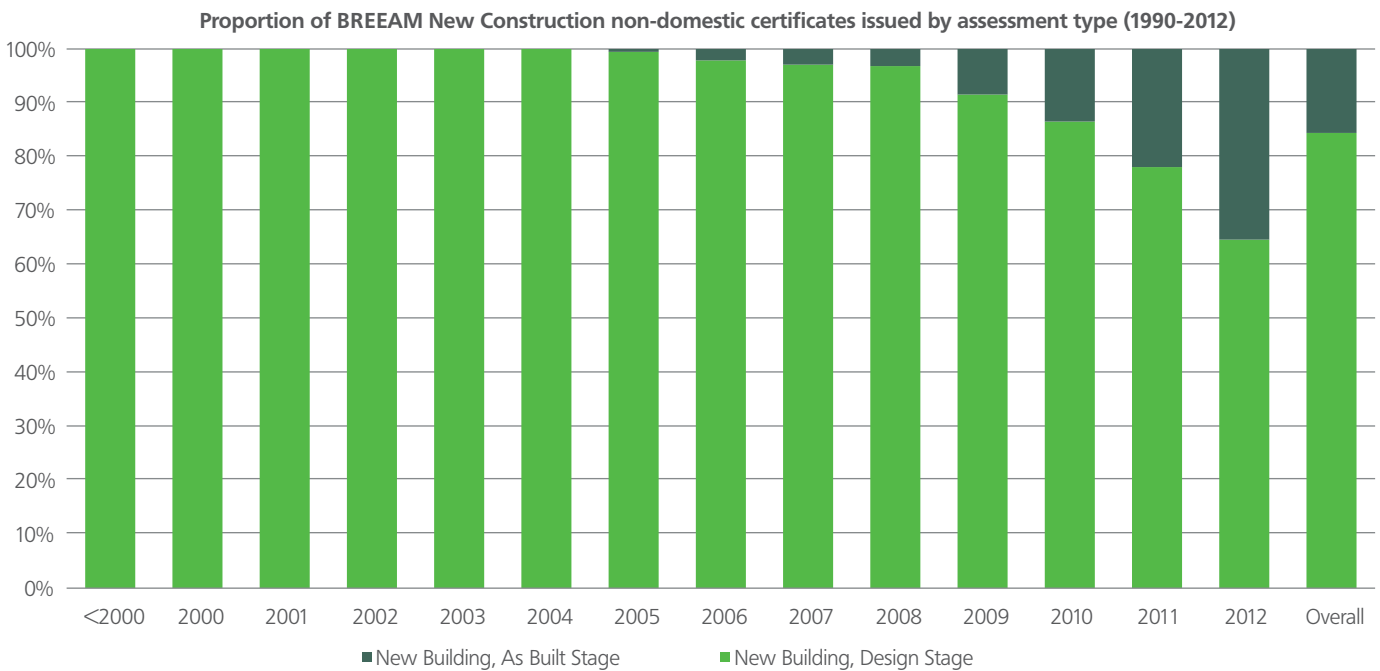
12. Proportion of BREEAM New Construction non-domestic certificates issued by assessment type (1990-2012)

12.1 This dataset shows the proportion of certificates issued by BRE Global Ltd by type of assessment and year for non-domestic buildings, assessed using a BREEAM New Construction scheme.

12.2 The final, 'as built' assessment and certification stage became a formal part of the BREEAM assessment process for new buildings in 2008. The effect of this can be seen in the above graph with the growth in final certificates from 2008 onwards. Prior to 2008, certification of assessments at the final 'as built' stage was not a mandatory part of the New Construction certification process.

12.3 Assessment and certification at the 'as built' stage represents 35% of all BREEAM New Construction certifications in 2012, up from 22% in 2011. This proportion is expected to continue to grow in the coming years.

12.4 For comparison, in 2012 the split between interim and final certified assessments for domestic buildings assessed using the Code for Sustainable Homes and BREEAM EcoHomes was 48% and 52% respectively (see section 17).



New Construction Domestic Building Assessment Statistics

The five datasets in this third section focus on new domestic buildings (dwellings). Data is presented to give an overall picture of the numbers of assessments registered and certified by BRE Global Ltd under the BREEAM EcoHomes scheme (2000-2012) and the Code for Sustainable Homes (2008-2012). Data is also presented on the number of certifications by UK region of assessment, assessment type and BREEAM EcoHomes rating and in the case of the Code for Sustainable Homes, CFSH Level achieved.

Please note; the Code for Sustainable Homes data in this publication is based on the number of assessments registered with and certified by BRE Global Ltd. It does not include data on assessments certified by other Code for Sustainable Homes service providers and therefore is not the total number of assessments registered and certified under the Code for Sustainable Homes. The Department for Communities and Local Government publishes statistics on the total number of Code for Sustainable Homes certificates issued at www.gov.uk/government/collections/code-for-sustainable-homes-statistics.



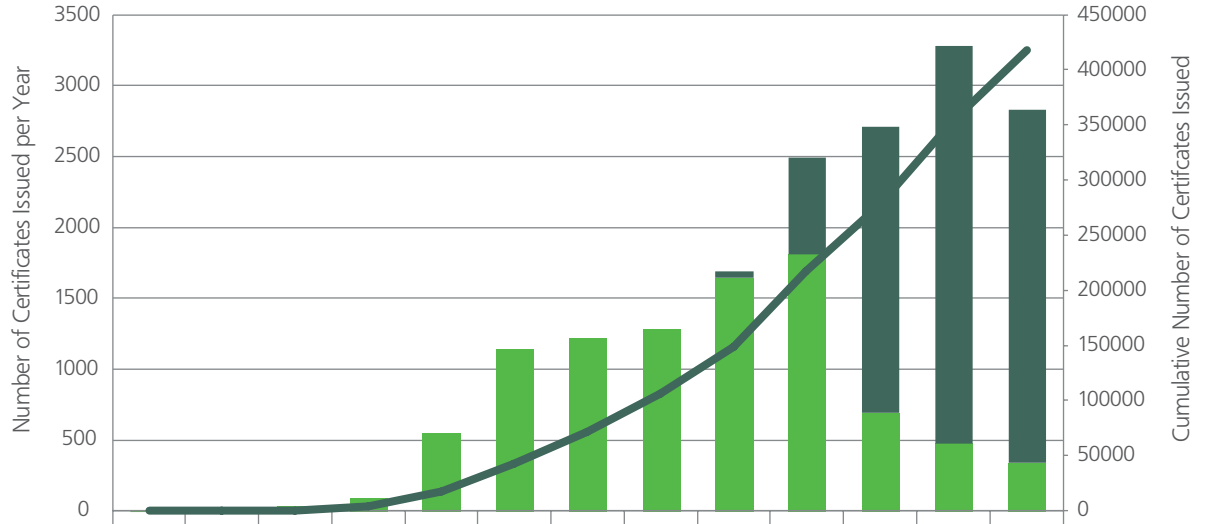
13. Number of certified new construction domestic assessments by scheme type and year (2000-2012)

- 13.1 Data on the number of certificates issued by year and domestic scheme type is presented in this graph along with the cumulative number of certified assessments. A single certificated assessment (project) will often include a number of individual dwellings; hence why the number of dwellings assessed is substantially larger than the number of projects assessed.
- 13.2 Comparing the number of dwellings assessed (at the design stage of assessment)* with the number of permanent new dwellings completed in the United Kingdom between 2000 and 2012 (using data sourced from the Office for National Statistics^[6]) we find that approximately 13.5% of all housing built in the UK during this period has been certified by BRE Global Ltd[†] under either the Code for Sustainable Homes or BREEAM EcoHomes. Making the same comparison between 2007 and 2012 this percentage rises to 25%. Using 2012 data on permanent dwellings completed and 2012 BREEAM EcoHomes and Code for Sustainable Homes post construction certificates (i.e. permanent completed homes assessed and certified) as a measure, this number increases and we find that 24% of new housing completed in the UK in 2012 has been assessed under the CfSH or BREEAM EcoHomes and certified by BRE Global Ltd.
- 13.3 The number of certificates issued dropped in 2012 compared with 2011. It is believed that this was due to the drop in the number of housing starts and completions between 2008 and 2011, which is borne out by the data on domestic project registrations (see section 15) and the subsequent time lag between registration and certification. This trend would suggest that domestic certifications will continue to decline in the immediate short term at least, before any future increase resulting from the recent return to growth in the UK economy.
- 13.4 As a measure of the number of certificates issued for all assessed projects, new housing represent the biggest sector with approximately 70% of all certificates issued to date by BRE Global Ltd.
- 13.5 The Code for Sustainable Homes was introduced in April 2007 and replaced the use of BREEAM EcoHomes in England, Wales and Northern Ireland for new dwellings at that time. The data presented highlights the decline in EcoHomes certification from 2010 onwards as the legacy of assessments registered to this scheme reduced, whilst the overall number of assessments certified continued to increase as a result of the introduction of the Code for Sustainable Homes.
- 13.6 Certification to BREEAM EcoHomes for new dwellings expired in England, Wales and Northern Ireland in April 2012 but remains a valid scheme for assessing new dwellings in Scotland.

* The design stage certificate numbers are used for the purpose of comparison across the 2000-2012 period, as prior to the launch of the CfSH few, if any new dwellings were assessed at the final stage. In making this comparison the reader should bear in mind that the issue of a BREEAM EcoHomes/CfSH certificate does not necessarily correspond with completion of that building in the same year. The data in the graph also represents the number of projects certified (a single project consists of a number of dwellings) and can be certified twice (at the design stage and final stage). In making comparisons with National data only certification data for a single stage is used, to avoid double counting and misrepresenting the share of actual dwellings certified. Given these factors the percentage share should be viewed as an approximation.

† The reader should bear in mind that there are other service providers who certify new dwellings under the Code for Sustainable Homes and whilst BRE Global certifies the majority of dwellings assessed, the figures presented do not represent the total share of new dwellings assessed under the CfSH.

Number of certified new construction domestic assessments by scheme type and year (2000 – 2012)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Code for Sustainable Homes - certified assessments	0	0	0	0	0	0	0	0	43	682	2015	2804	2493
BREEAM EcoHomes - certified assessments	1	9	32	94	550	1148	1222	1285	1651	1812	694	477	341
Number of dwellings certified - cumulative total	1	320	1338	4182	17858	42375	71881	106011	148614	217084	276913	352927	418178

14. Proportion of certified new construction domestic assessments by UK region

Region	Historical (2000-2012)	2011	2012
East Midlands	6.7%	7.8%	4.4%
East of England	14.1%	13.0%	11.9%
London	16.8%	19.8%	27.5%
North East	3.2%	3.1%	1.7%
North West	6.3%	7.3%	4.7%
Northern Ireland	2.3%	2.6%	3.1%
Scotland	0.6%	0.5%	2.0%
South East	27.2%	23.2%	24.8%
South West	10.2%	8.9%	8.6%
Wales	2.4%	4.1%	2.6%
West Midlands	6.4%	5.2%	5.4%
Yorkshire & the Humber	3.8%	4.4%	3.4%
Totals	100.0%	100.0%	100.0%

14.1 This graphic shows the proportional split by region of assessments of dwellings under the Code for Sustainable Homes and BREEAM Ecohomes, certified by BRE Global.

14.2 In terms of a comparison with Government data^[7] on total permanent dwellings completed in the UK between 2000 and 2012 we find that the proportion of dwellings certified by region is greater than the proportion of dwellings completed by region in London (16.8% share of certified dwellings compared to 10.2% share of UK new dwellings completed) the East of England (14.1% compared to 9.8%), South East of England (27.2% compared to 13.4%) and South West of England (10.2% compared to 9%).

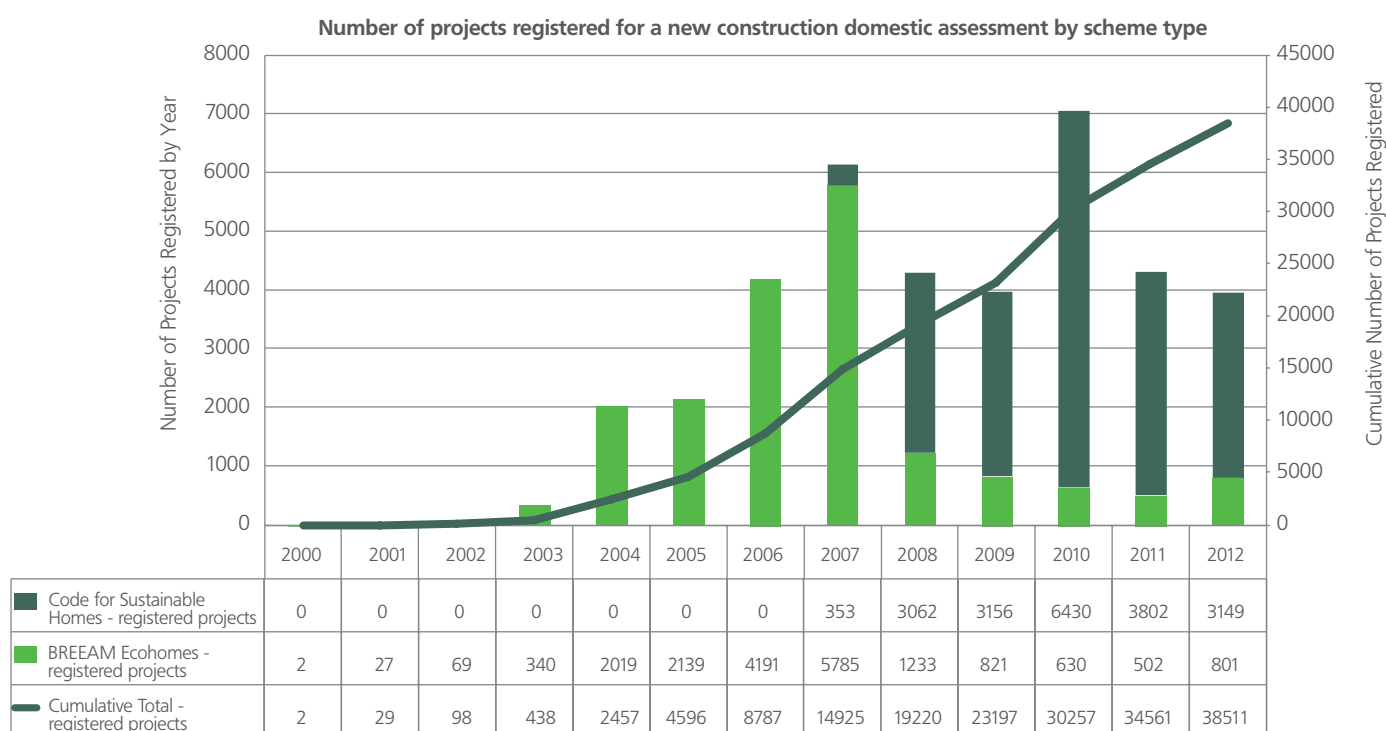
14.3 This regional comparison highlights that the Code for Sustainable Homes and BREEAM EcoHomes is used on a relatively higher proportion of new dwellings in the south and east of England compared with other regions of the UK. The same is true for new dwellings completed in 2012, with the exception of the South West of England (8.6% share of certified assessments compared to 11.3% share of total UK new dwellings completed). However, the difference between the two figures has decreased in 2012 for the East of England (11.9% certified share compared to 10.7% share of total completed dwellings) and South East (24.8% compared to 15.3%). The difference has risen in London (27.5% compared to 13.7%).

14.4 Between 2000 and 2012, 95% of all projects assessed (and certified by BRE Global Ltd) were developments of new dwellings in England. This compares to England's share of approximately 75% of all new dwellings constructed in the same period. The proportion of all dwellings assessed in Scotland (0.6%), Northern Ireland (2.3%) and Wales (2.4%) between 2000 and 2012, is substantially lower than those countries share of the number of UK dwellings constructed in the same period, approximately 12%, 7% and 4% respectively.

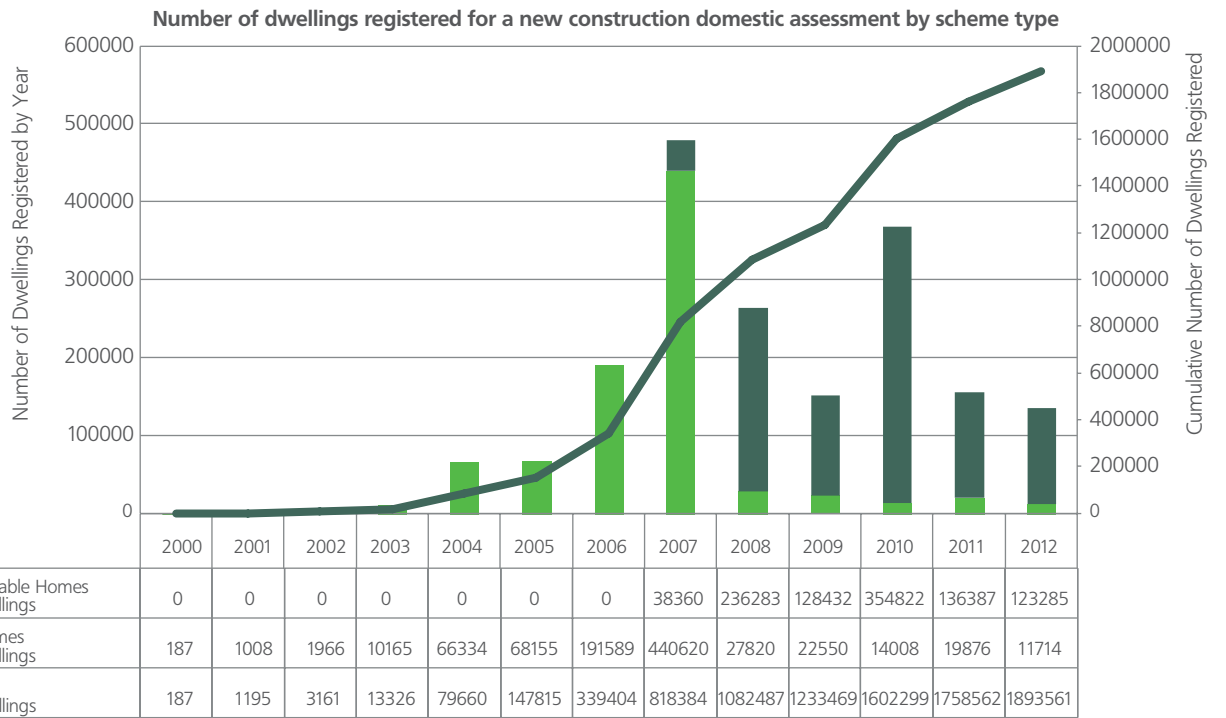
15. Number of projects and dwellings registered for a new construction domestic assessment by scheme type

- 15.1 This section highlights the number of projects (sites) and individual dwellings registered for assessment. Each project consists of a number of individual dwellings, hence why the number of projects is substantially less than the number of dwellings registered.
- 15.2 The effect of the introduction of the Code for Sustainable Homes in England, Wales and Northern Ireland in 2007 is clearly seen in the graph. Registrations to BREEAM EcoHomes after 2007 are for new dwellings in Scotland and for UK domestic refurbishment projects (the BREEAM Domestic Refurbishment scheme replaced Ecohomes for UK refurbishment project registrations in July 2012).

- 15.3 Registrations of new dwellings fell by 45% between 2007 and 2008, matching closely the 46% drop in national house building levels (new dwelling starts^[8]) over the same period. Registrations in 2010 were substantially higher than previous or subsequent years, this is believed to be due to a peak in project registrations prior to the launch of an updated version of the CfSH in November 2010.
- 15.4 Registrations were 13% lower in 2012 compared to 2011, whilst nationally new build starts were 3% lower across a similar period*. Refer also to section 3 for additional commentary on BREEAM/ CfSH registrations.



* Government statistics for house building cover the financial year April to March whereas the BREEAM registrations statistics are based on a calendar year, therefore it is not a direct comparison.



16. Proportion of New Construction domestic certificates issued by BREEAM rating and the Code for Sustainable Homes level (historical and 2012)

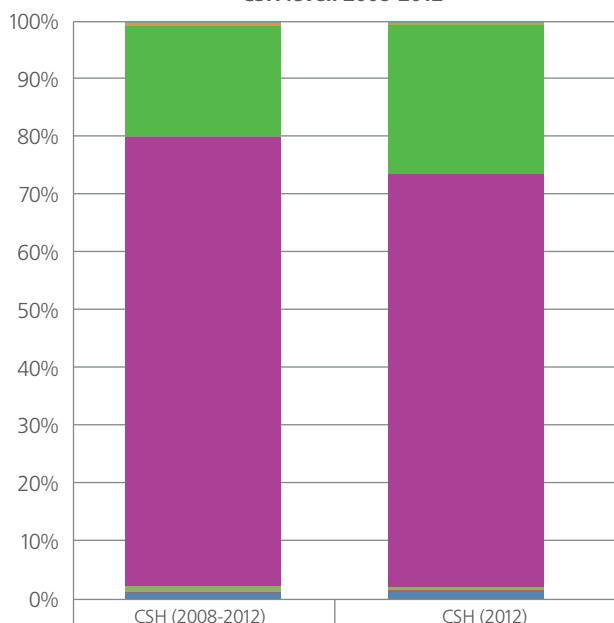
16.1 The data in this section shows the proportion of certificates issued by BREEAM rating and the Code for Sustainable Homes level achieved. Historical figures are from the year of the first certification under the scheme up to and including 2012. In the case of CfSH this is 2008 to 2012 and for BREEAM EcoHomes it is 2000 to 2012.

16.2 The data is based on certificates issued at both the design and post construction stages for new build domestic assessments.

16.3 The majority of assessments certified under the CfSH are at Level 3, this is because all new housing funded, promoted or supported by the Homes and Communities Agency (HCA) in England, Welsh Assembly Government Wales and social housing in Northern Ireland is required to meet CSH level 3.

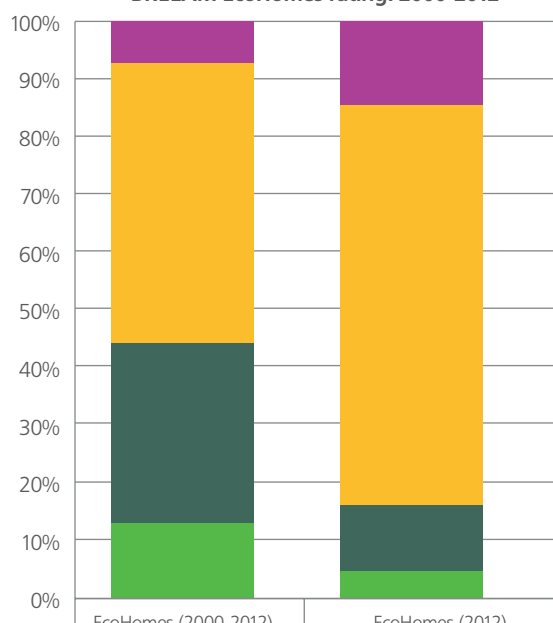
16.4 The predominance for BREEAM EcoHomes ratings of 'Good' and 'Very Good' follows the setting of a mandatory level for social housing in 2003 of 'Good', which was upgraded to 'Very Good' in 2005.

Number of New Construction certificates issued by BRE Global Ltd by CSH level: 2008-2012



CSH Level	CSH (2008-2012)	CSH (2012)
CSH - Level 6	0.3%	0.1%
CSH - Level 5	0.3%	0.2%
CSH - Level 4	19.3%	26.0%
CSH - Level 3	77.9%	71.7%
CSH - Level 2	0.9%	0.5%
CSH - Level 1	0.3%	0.3%
CSH - Level 0	1.0%	1.2%

Number of New Construction certificates issued by BRE Global Ltd by BREEAM EcoHomes rating: 2000-2012



EcoHomes Rating	EcoHomes (2000-2012)	EcoHomes (2012)
EcoHomes - Excellent	7%	14%
EcoHomes - Very Good	49%	70%
EcoHomes - Good	31%	11%
EcoHomes - Pass	13%	5%

17. Proportion of New Construction domestic certificates issued by assessment type (2000-2012)

17.1 The graph shows the proportional split in certification stages (and therefore assessments) for the Code for Sustainable Homes and BREEAM EcoHomes, by year and historically (overall). The data highlights the shift from the single, design stage assessment and certification of new dwellings that dominated under BREEAM EcoHomes, to the two-stage interim and final certification process introduced under the Code for Sustainable Homes in 2007.

17.2 2012 marked the first year that the number of 'design' interim certificates issued was lower than the number of 'as-built' final certificates issued, with a 48%-52% split respectively. This may in part be due to the drop in new housing starts that has occurred since 2008, as a result of the economic downturn. However, after a period one would expect to see a fairly even split between design and as-built stage certification – once the effect of older BREEAM EcoHomes assessments decrease, as this scheme did not have a mandatory requirement to certify at the 'as-built' stage of assessment.

17.3 For comparison, in 2012 the split between interim and final certification for non-domestic buildings assessed using BREEAM was 65% and 35% respectively (see section 12).



Existing Buildings In-Use Assessment Statistics

The five datasets in this fourth section focus on existing non-domestic assets in operation. Data is presented to give an overall picture of the numbers of assets registered and certified by BRE Global Ltd under the BREEAM In-Use scheme (2009-2012) and its predecessor BREEAM Management and Operation (1998 – 2012). Data is also presented by country of assessment and for the United Kingdom region of assessment, in addition to ratings achieved by assessment type.

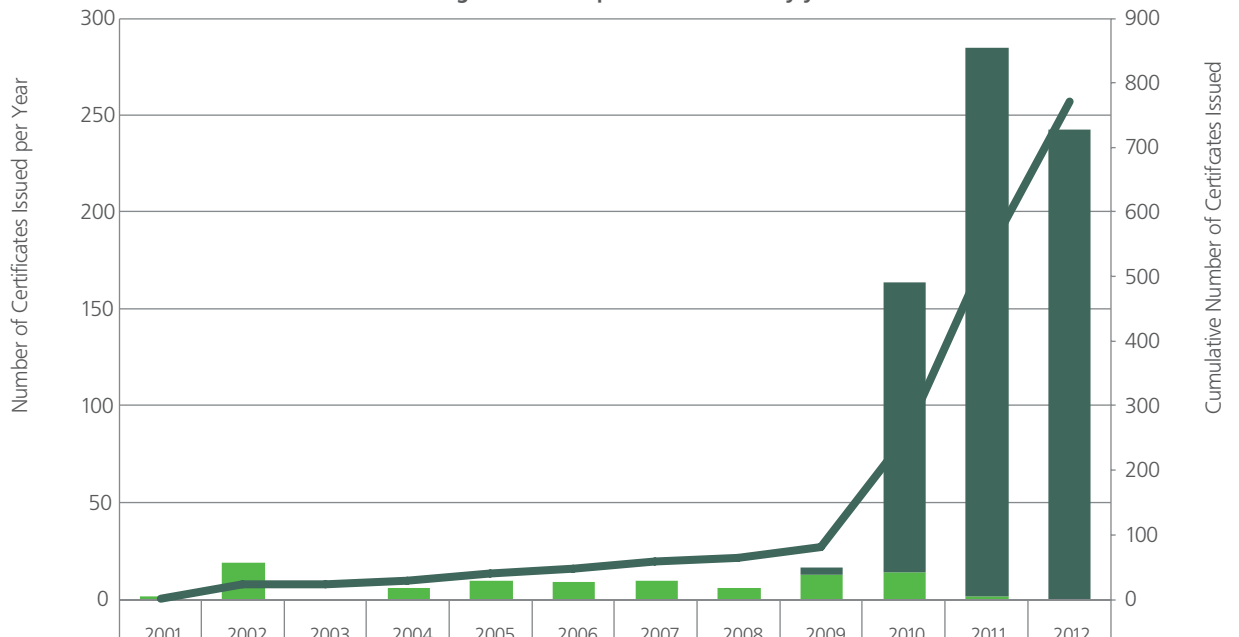


18. Number of certified assessments under the BREEAM In-Use non-domestic scheme by year

- 18.2 The data shows the number of certified assessments of existing, non-domestic buildings by BRE Global Ltd between 2001 and 2012 using the BREEAM In-Use scheme and its predecessor BREEAM Management and Operation (M&O).
- 18.3 BREEAM In-Use replaced BREEAM M&O as the scheme for registering and assessing existing buildings in operation in 2009. BREEAM M&O was first launched as part of the BREEAM '98 scheme for offices in 1998. Whilst there were certifications against this scheme prior to 2001, there are no records to verify the total number of certifications. The first confirmed certification of a BREEAM M&O assessment of an existing building occurred in 2001.

- 18.4 The BREEAM In-Use scheme consists of three parts, part 1 asset, part 2 management and part 3 occupier management. Certification can be achieved against any one or all three parts. See section 22 for the proportional breakdown in certifications against each part of the BREEAM In-Use scheme. BREEAM M&O operated a single stage certification process, the assessment covered performance aspects of both the physical built asset and management of the asset.
- 18.5 The majority of BREEAM In-Use certifications are for assessments of buildings outside of the UK and within Europe, reflecting the international property portfolios of clients using BREEAM In-Use. See section 19 for a breakdown of BREEAM In-Use certifications by country. The BREEAM M&O scheme was a UK-only scheme.
- 18.6 The BREEAM In-Use scheme was used to certify 77% of all existing buildings assessed and certified in Europe in 2012/2013^[1].

Number of certified assessments under the BREEAM In-Use & Management and Operation schemes by year



■ BREEAM In-Use	0	0	0	0	0	0	0	0	4	150	283	243
■ BREEAM Management & Operation	2	19	1	6	10	9	10	6	13	14	2	0
— Cumulative Total	2	21	22	28	38	47	57	63	80	244	529	772

19. Proportion of certified assessments under BREEAM In-Use non-domestic by country

Country	Historical (2009 – 2012)	2011	2012
Argentina	0.4%	0.0%	1.2%
Austria	0.3%	0.0%	0.8%
Belgium	27.8%	42.8%	13.6%
Czech Republic	2.9%	2.8%	3.3%
Denmark	0.4%	0.0%	0.0%
Finland	1.5%	2.8%	0.0%
France	7.2%	3.9%	10.7%
Germany	8.4%	6.4%	14.0%
Hungary	1.8%	1.4%	1.6%
Italy	1.6%	2.1%	1.2%
Lithuania	0.3%	0.7%	0.0%
Luxemburg	0.9%	0.7%	1.6%
Netherlands	2.6%	3.5%	0.0%
Poland	10.7%	2.1%	27.6%
Portugal	0.3%	0.0%	0.0%
Romania	0.6%	0.7%	0.8%
Russia	1.3%	0.0%	3.7%
Serbia	0.3%	0.0%	0.8%
Slovakia	0.6%	0.0%	1.6%
Spain	3.8%	4.9%	4.9%
Sweden	1.5%	0.7%	0.0%
Switzerland	0.6%	0.7%	0.8%
Turkey	2.1%	1.4%	2.5%
United Kingdom	22.1%	22.3%	9.1%
England	21.0%	20.8%	7.8%
Northern Ireland	0.0%	0.0%	0.0%
Scotland	0.9%	1.4%	0.8%
Wales	0.1%	0.0%	0.4%
	100.0%	100.0%	100.0%

- 19.1 The data presented in this section shows the proportion of BREEAM In-Use certified assessments by country. Of all BREEAM schemes BREEAM In-Use has the greatest diversity in certification share by country, reflecting the international property portfolios of clients who use BREEAM In-Use. So-much-so that the UK does not have the highest share of BREEAM In-Use scheme certifications, in contrast to the 96% UK share of BREEAM New Construction non-domestic certifications. Such has been the international growth in BREEAM In-Use that BRE Global Ltd updated the UK-focused BREEAM In-Use 'question set' in 2013 and launched BREEAM In-Use International.
- 19.2 Historically, the country with the largest number of BREEAM In-Use certified assessments is Belgium, with over a quarter of all assessments (27.8%), followed by England (21%) and Poland (10.7%). Germany (8.4%) and France (7.2%) complete the top five. In 2012 Poland is the highest ranking country for BREEAM In-Use assessments, with over 27%, followed by Germany (14%), Belgium (13.6%), France (10.7%) and UK (9.1%).
- 19.3 In 2012 the Juana Manso NÂ°305 building in Buenos Aires, Argentina became the first non-European based building to have its BREEAM In-Use assessment certified. The client achieved a Pass rating under parts 1 and 3 of BREEAM In-Use (Asset Performance and Occupier Management respectively) and a Good rating under Part 2 (Building Management).
- 19.4 The first assessments of buildings in Austria, Russia, Serbia and Slovakia were certified under BREEAM In-Use in 2012. Further details of these buildings and others certified under the BREEAM In-Use standard are available from www.greenbooklive.com
- 19.5 The data presented is based on the number of certificates issued, not necessarily the number of buildings assessed. As there are three parts to a BREEAM In-Use assessment it is possible for a single building to be certified under each part, as was the case with the Juana Manso NÂ°305 building in Argentina.
- 19.6 For the purpose of comparability and rankings, buildings certified in the UK using the BREEAM Management and Operation scheme between 2009 (BREEAM In-Use scheme launch year) and 2012 have been excluded; though the number of certifications was small.

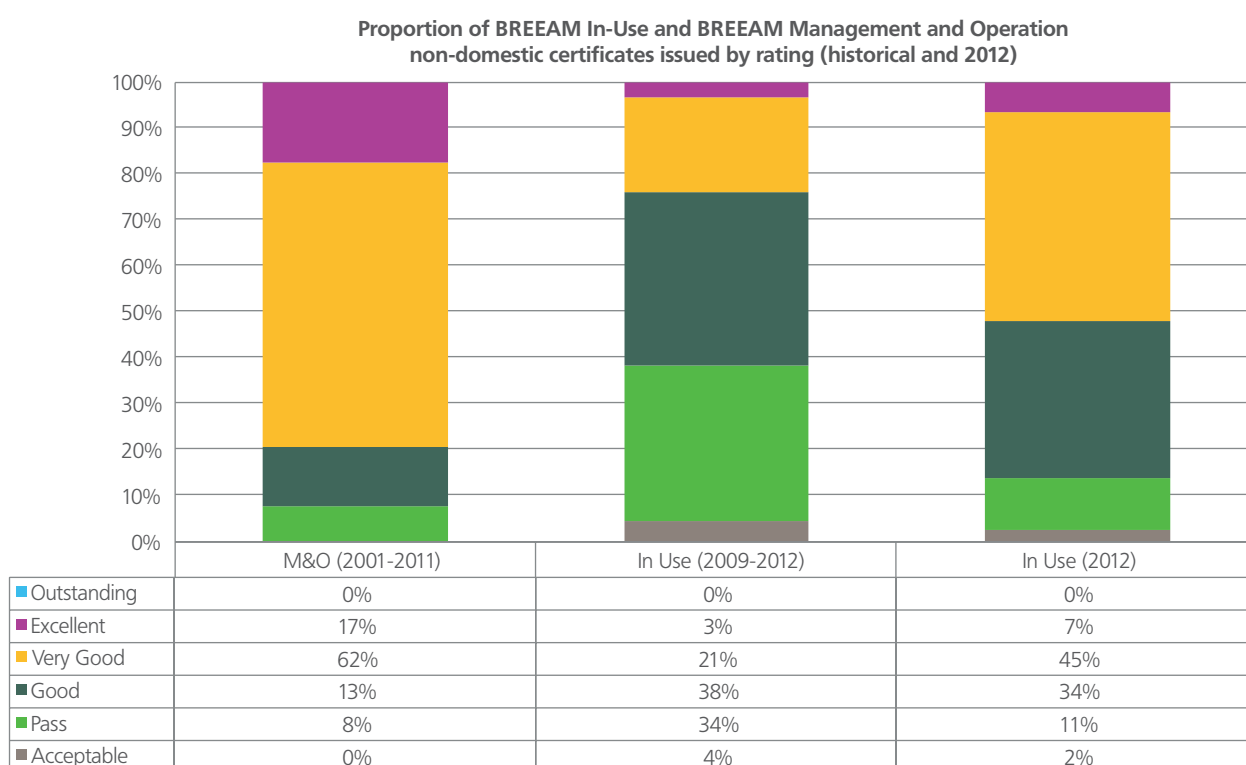
20. Number of assets registered for a BREEAM In-Use non-domestic assessment by country and year

Country	Historical (2009-2012)	2011	2012
Belgium	221	152	33
Brazil	2	2	-
Chile	12	2	10
Czech Republic	26	14	9
Denmark	5	-	1
Finland	16	8	3
France	173	76	61
Germany	50	12	29
Hungary	13	9	2
Iceland	1	-	-
Ireland	6	4	-
Italy	8	-	4
Jersey	4	2	2
Lithuania	3	3	-
Luxembourg	3	-	3
Netherlands	59	15	2
Norway	3		2
Poland	55	19	36
Portugal	2	-	-
Romania	9	3	5
Russia	3	2	1
Serbia	1	-	1
Slovakia	13	13	-
Spain	12	2	2
Sweden	7	-	3
Switzerland	4	2	2
Turkey	14	2	6
UK	661	297	76
Total	1386	639	293

- 20.1 The data in this section shows the number of assets registered for assessment by country and year against the BRE Global BREEAM In-Use International scheme. The data does not include registrations against BREEAM In-Use schemes operated by other National Scheme Operators in Europe. In 2012 BREEAM In-Use registrations represented 12% of all BREEAM UK and international non-domestic scheme building registrations.
- 20.2 In total the number of buildings registered for assessment against the BRE Global BREEAM In-Use International scheme spans 28 countries and in 2012 almost 75% of registrations are for buildings outside of the UK.
- 20.3 In making comparisons between country registrations and certifications, the reader should bear in mind that due to the multi-national mix of building portfolio's some countries may have a building certified but none registered. This is most likely because the registration for some projects is listed against the country in which the portfolio owner is based and this is not always the same country as the assessed buildings location.
- 20.4 There are no records of registered assessments against the UK BREEAM Management and Operation scheme (only data on buildings certified). This is the reason why there is no registration data for 1990 to 2009.

21. Proportion of BREEAM In-Use and BREEAM Management and Operation non-domestic certificates issued by rating (historical and 2012)

- 21.1 The data presented shows the proportional split in BREEAM ratings for the In-Use (all parts) and Management and Operation schemes for existing buildings. The 2012 data covers assessments of assets certified against the BREEAM In-Use scheme only. There were no BREEAM M&O certifications post-2011 and no BREEAM In-Use certifications pre-2009.
- 21.2 The Acceptable and Outstanding BREEAM rating levels were not available under the BREEAM M&O scheme.



22. Proportion of BREEAM In-Use non-domestic certificates issued by assessment type (2001-2012)

22.1 This graph shows the proportional split in BREEAM certificates issued by scheme and assessment type. Prior to 2009 the BREEAM Management and Operation scheme was used to certify assessments of existing non-domestic buildings in operation. BREEAM In-Use replaced BREEAM M&O as the scheme for registering and assessing existing buildings in 2009 and the last BREEAM M&O certificate issued was in 2011.

22.2 BREEAM In-Use operates a three part assessment and certification process, the graph highlights the dominance of the first and second parts of BREEAM In-Use, the performance of the physical built asset and management of the asset with a 48% and 49% split respectively in 2012.

22.3 Certification against the third part of BREEAM In-Use, occupier management, fell in 2012 to 3% from 7% in 2011. Statistically little can be inferred by this fall due to the relatively low number of assessments certified under BREEAM In-Use part 3 to date.



Appendix A – Key Performance Indicators for BREEAM New Construction Non-Domestic Assessments

This appendix provides a snapshot of UK construction industry performance of new buildings, major refurbishment and fit-out projects, as measured under the 2008 version of the BREEAM UK New Construction scheme for non-domestic buildings. The data is sourced from 600 'interim' design stage assessments (3,294,000 million m² of building floor area) and 200 'final' post construction stage assessments (867,000m² of building floor area) certified between 2009 and 2012*.

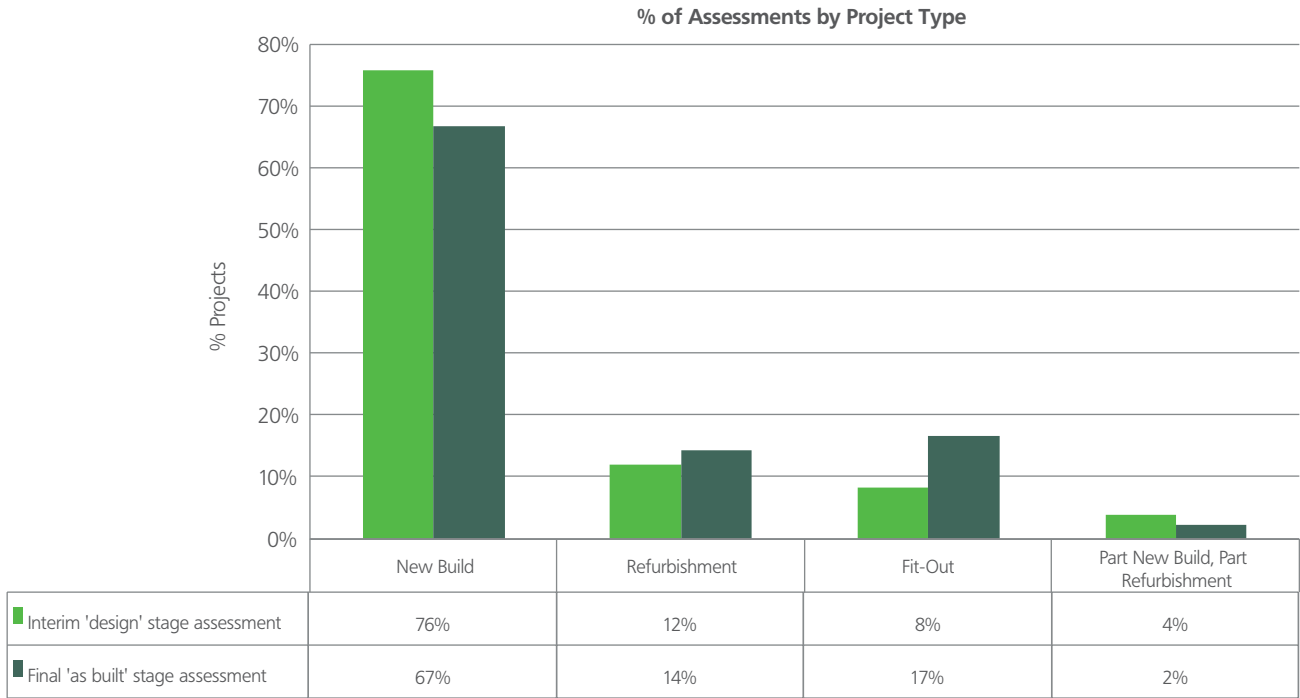
Data is presented to give a profile of the buildings assessed using BREEAM UK New Construction and their BREEAM performance, along with Key Performance Indicators for a number of environmental impacts and issues covered by the methodology, as follows:

1. Proportion of assessments certified by project type
2. Overall building performance (BREEAM percentage score)
3. Environmental section scores
4. Reduction of CO₂ emissions
5. Water efficiency
6. Resource efficiency
7. Responsible sourcing of materials
8. Public transport accessibility
9. Use of a BREEAM Accredited Professional
10. Achievement of BREEAM credits for exemplary level performance
11. BREEAM Innovation credit applications and approval rate.

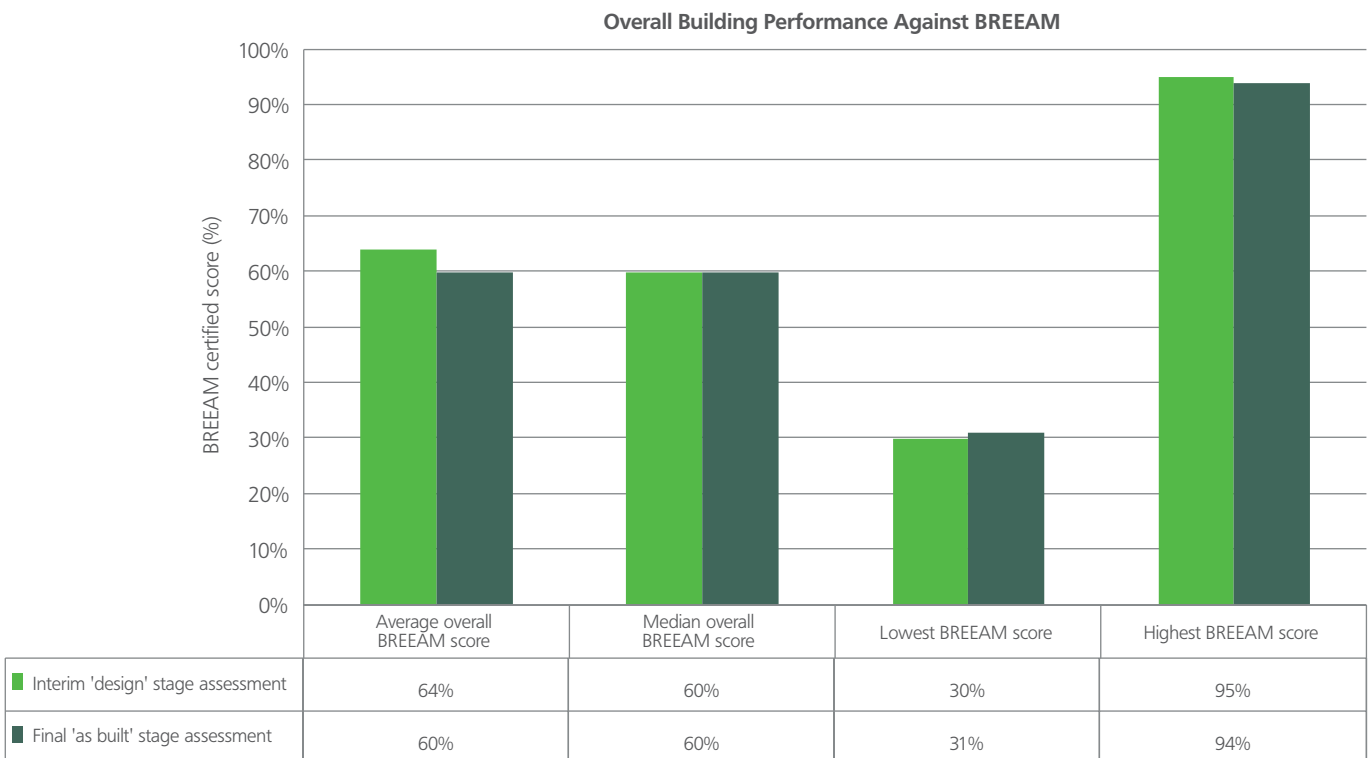


* The number of certified assessments used to present the data fluctuates depending on the specific KPI.

A1. Proportion of assessments certified by project type

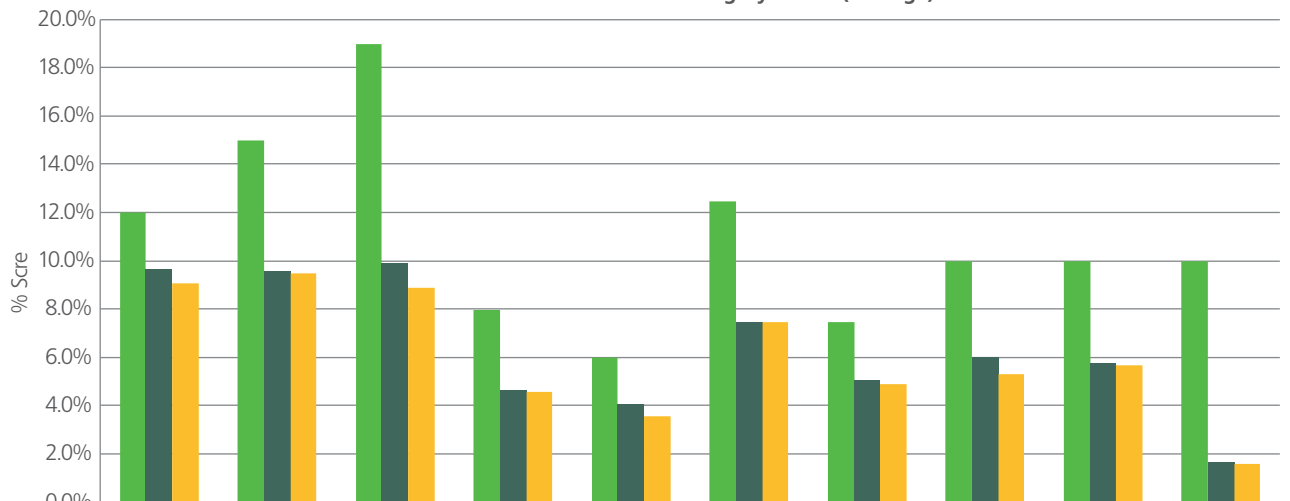


A2. Overall building performance (BREEAM score)



A3. BREEAM Environmental category scores

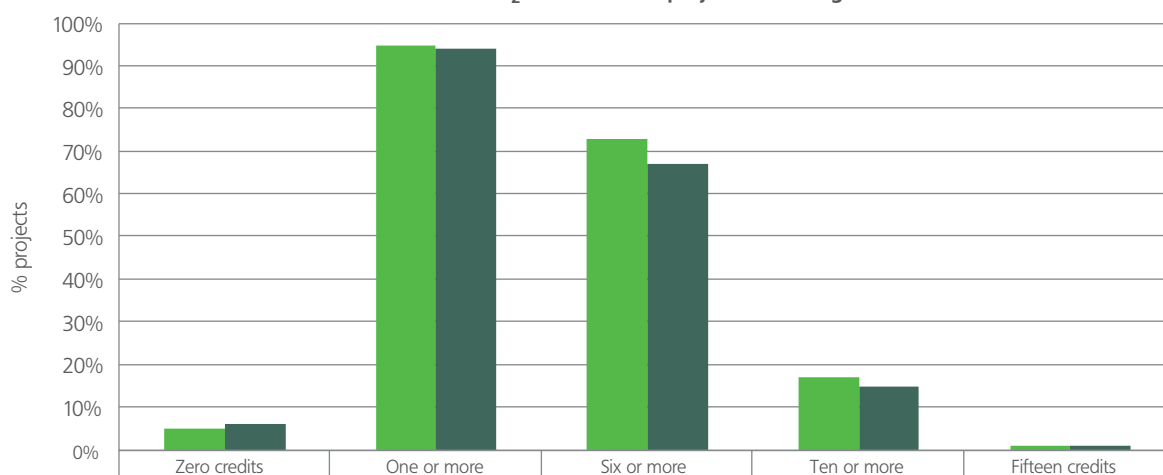
BREEAM Environmental Category Scores (average)



	Management	Health & Wellbeing	Energy	Transport	Water	Materials	Waste	Land Use and Ecology	Pollution	Innovation
■ Maximum possible score	12.0%	15.0%	19.0%	8.0%	6.0%	12.5%	7.5%	10.0%	10.0%	10.0%
■ Average Interim 'design' stage score	9.7%	9.6%	9.9%	4.7%	4.1%	7.5%	5.1%	6.0%	5.8%	1.7%
■ Average Final 'as built' stage score	9.1%	9.5%	8.9%	4.6%	3.6%	7.5%	4.9%	5.3%	5.7%	1.6%

A4. Proportion of assessments achieving BREEAM credits for the reduction of CO₂ emissions (Ene01 assessment issue) and the CO₂ Index performance

Ene01: Reduction in CO₂ Emissions – % projects achieving BREEAM credits



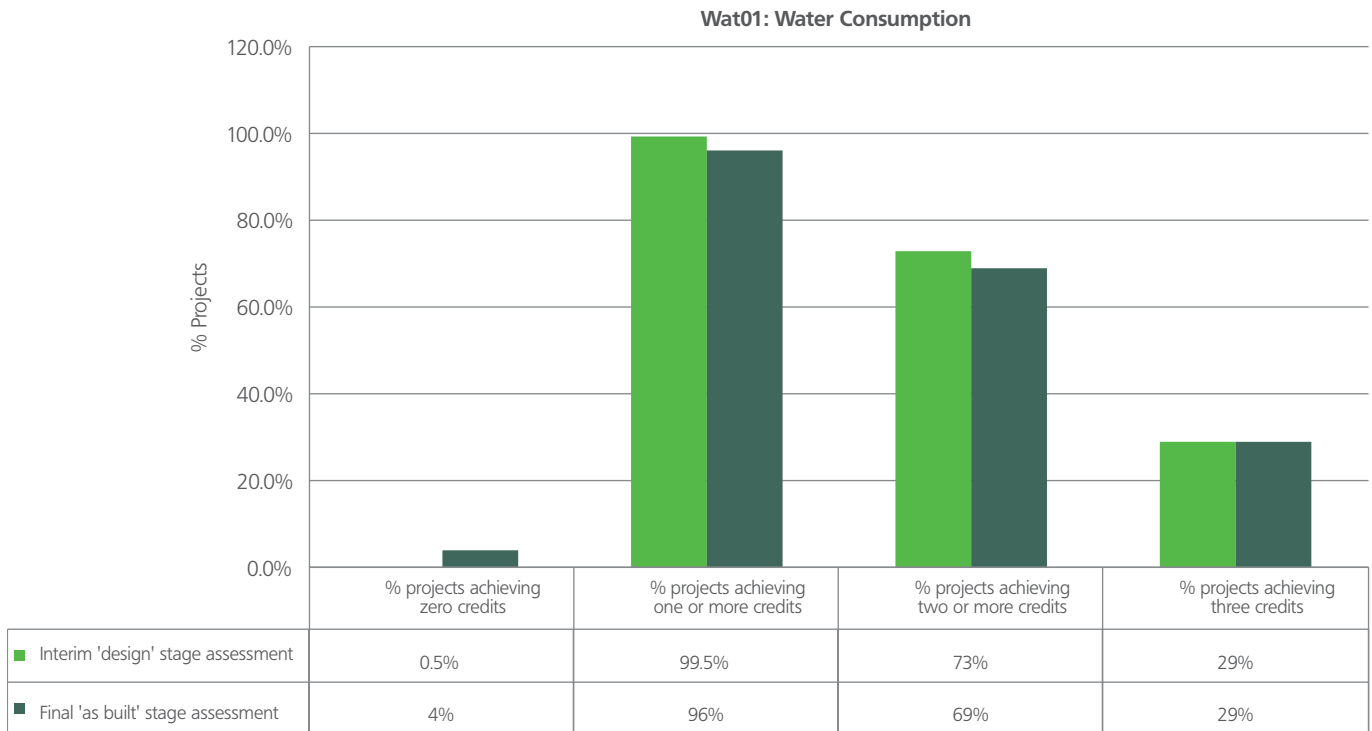
■ Interim 'design' stage assessment	5%	95%	73%	17%	1%
■ Final 'as built' stage assessment	6%	94%	67%	15%	1%

Under the 2008 version of BREEAM UK New Construction six credits is the minimum standard for a BREEAM Outstanding rating. This requires the building to achieve a CO₂ Index of 40 or less for new builds and 47 or less for refurbishments projects (as calculated under the National Calculation Methodology using approved software).

Ten credits is the minimum standard for a BREEAM Excellent rating. This requires the building to achieve a CO₂ Index of 25 or less for new builds and 31 or less for refurbishments projects.

To achieve fifteen credits requires the building to achieve a CO₂ Index of zero or less, equivalent to net zero carbon from regulated building systems.

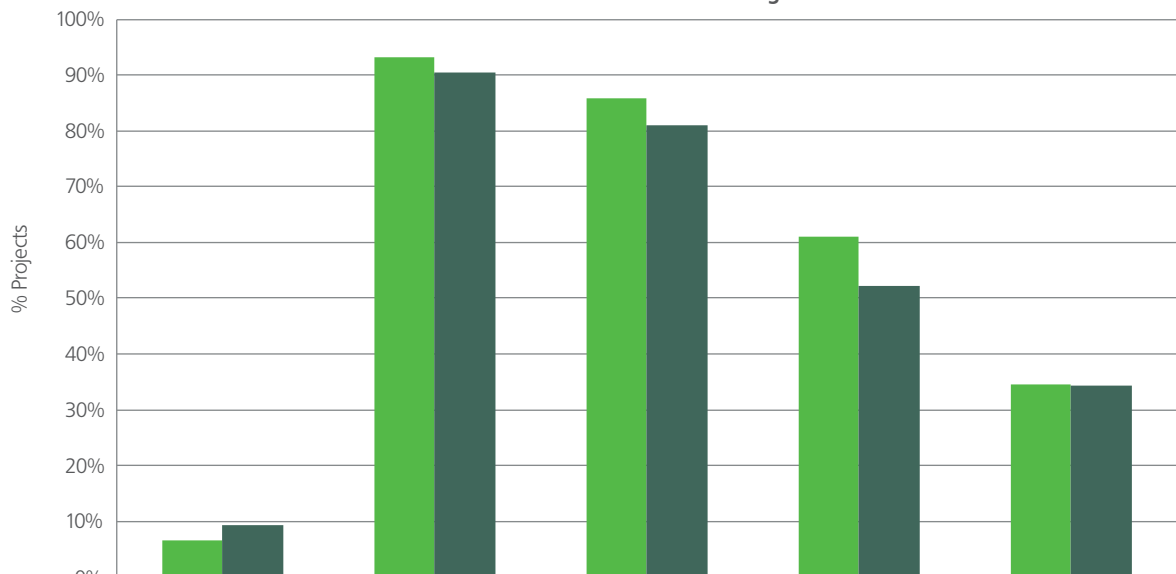
A5. Proportion of assessments achieving BREEAM credits for water efficiency (Wat01 assessment issue)



In the BREEAM UK New Construction 2008 version for offices and schools one BREEAM credit corresponds to achieving a modelled water consumption benchmark between $\geq 4.5 - < 5.6$ m³/person/year, two credits a benchmark between $\geq 1.5 - < 4.5$ m³/person/year and 3 credits a benchmark of < 1.5 m³/person/year.

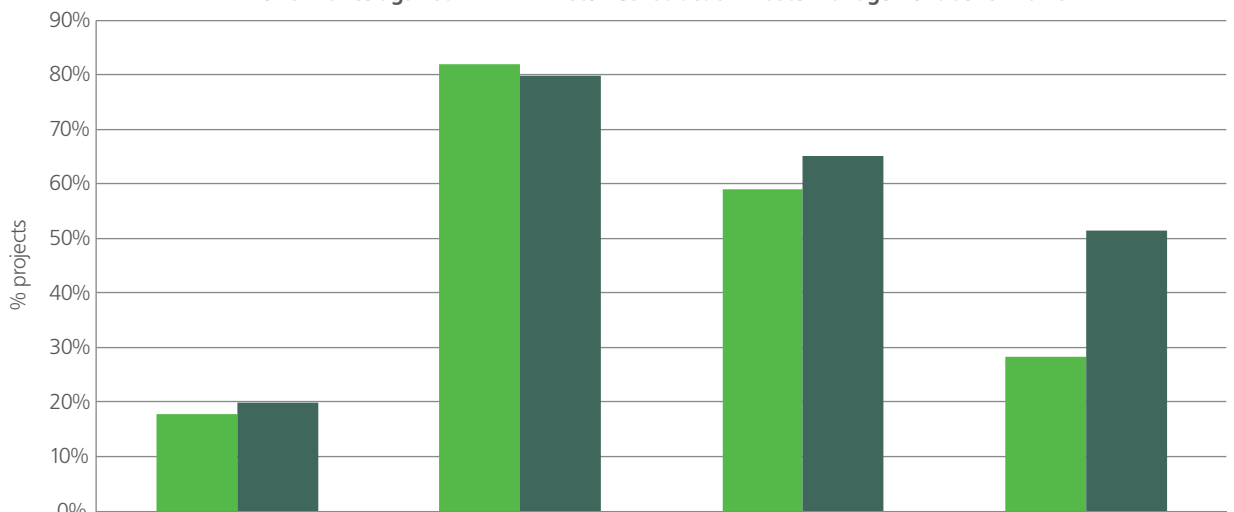
A6. Proportion of assessments achieving BREEAM credits for resource efficiency (Wst01 assessment issue) and performance against BREEAM construction waste benchmarks

Wst01: Construction Waste Management



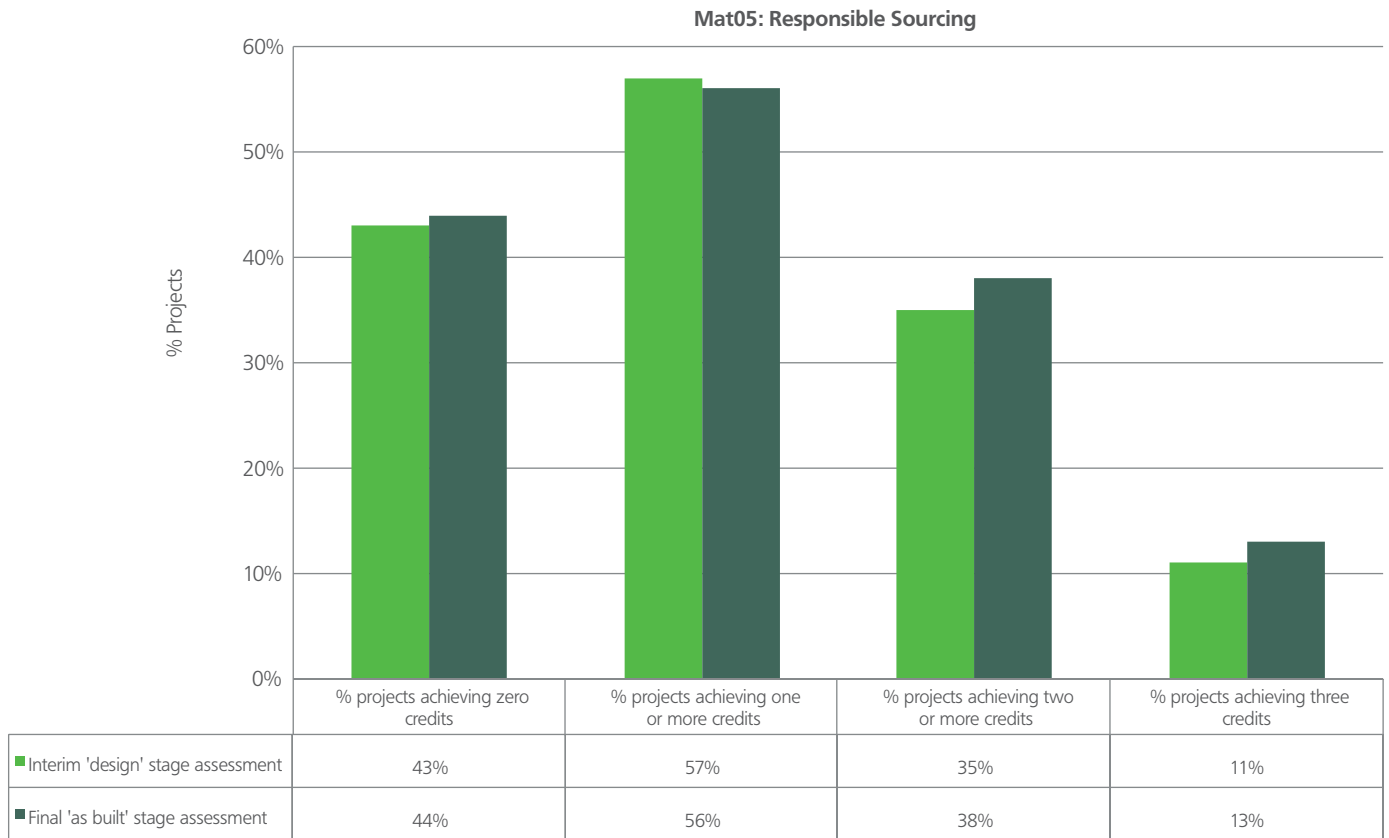
	% projects achieving zero credits	% projects achieving one or more credits	% projects achieving two or more credits	% projects achieving three or more credits	% projects achieving four credits
Interim 'design' stage assessment	7%	93%	86%	61%	35%
Final 'as built' stage assessment	9%	91%	81%	52%	34%

Performance against BREEAM Wst01 Construction Waste Management benchmarks



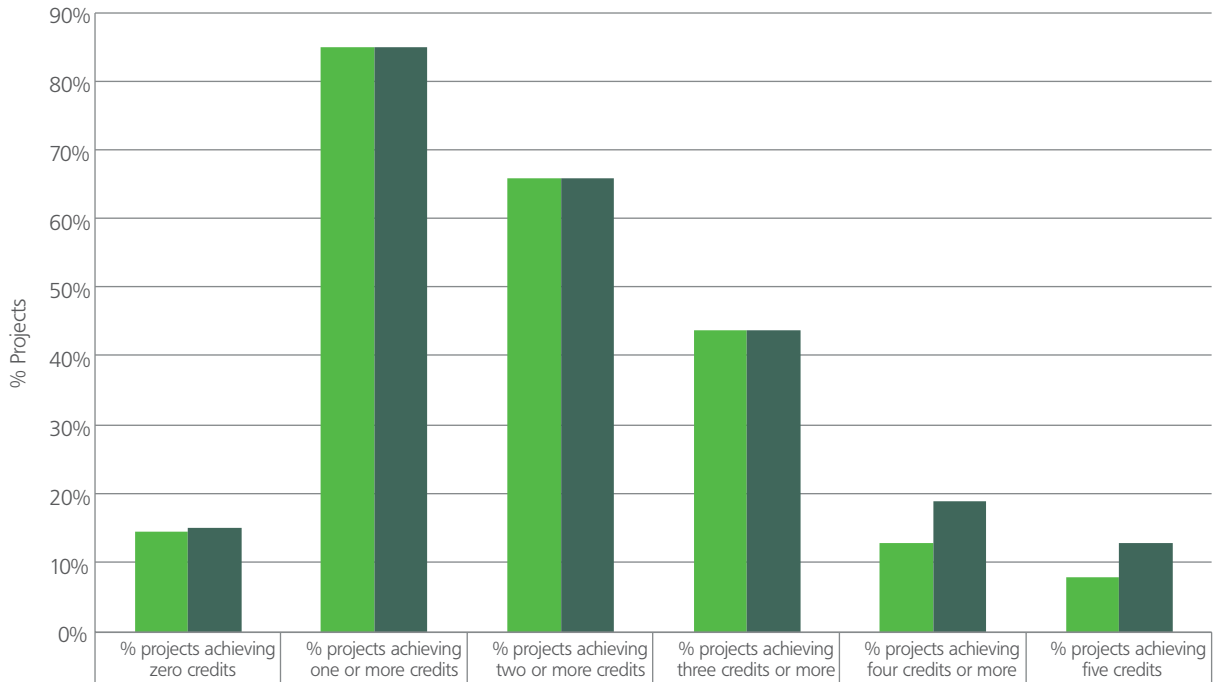
	Construction Waste ≥8.5 tonnes/100m² GIFA	Construction Waste <8.5 tonnes/100m² GIFA	Construction Waste <6.5 tonnes/100m² GIFA	Construction Waste <4.7 tonnes/100m² GIFA
Interim 'design' stage assessment	18%	82%	59%	28%
Final 'as built' stage assessment	20%	80%	65%	52%

A7. Proportion of assessments achieving BREEAM credits for responsible sourcing of materials (Mat05 assessment issue)



A8. Proportion of assessments achieving BREEAM credits for public transport accessibility (Tra01 assessment issue)

Tra01: Public Transport Accessibility

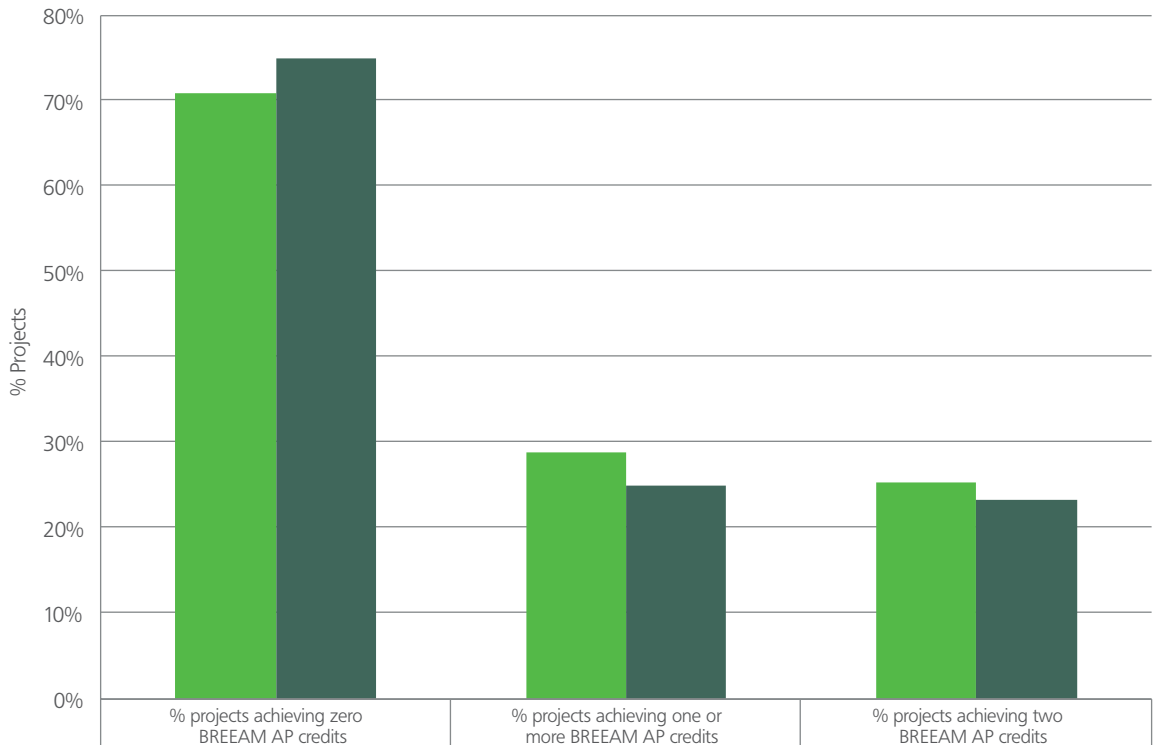


	% projects achieving zero credits	% projects achieving one or more credits	% projects achieving two or more credits	% projects achieving three credits or more	% projects achieving four credits or more	% projects achieving five credits
Interim 'design' stage assessment	15%	85%	66%	44%	13%	8%
Final 'as built' stage assessment	15%	85%	66%	44%	19%	13%

The average Accessibility Index (AI) for buildings assessed using BREEAM at the interim 'design' stage of assessment is 9.1, the median is 6.9 and the range 0.0 to 64.9. For Final 'as built' assessments the AI average, median and range is 8.9, 6.4 and 0.0 to 33.9 respectively. The Public Transport Accessibility Level (PTAL) method is used to determine the Accessibility Index in most New Construction versions of BREEAM. An AI between 8 and 10 will achieve three credits under the BREEAM UK New Construction 2008 version for the majority of building types.

A9. Proportion of assessments achieving BREEAM credits for the appointment of a BREEAM Accredited Professional

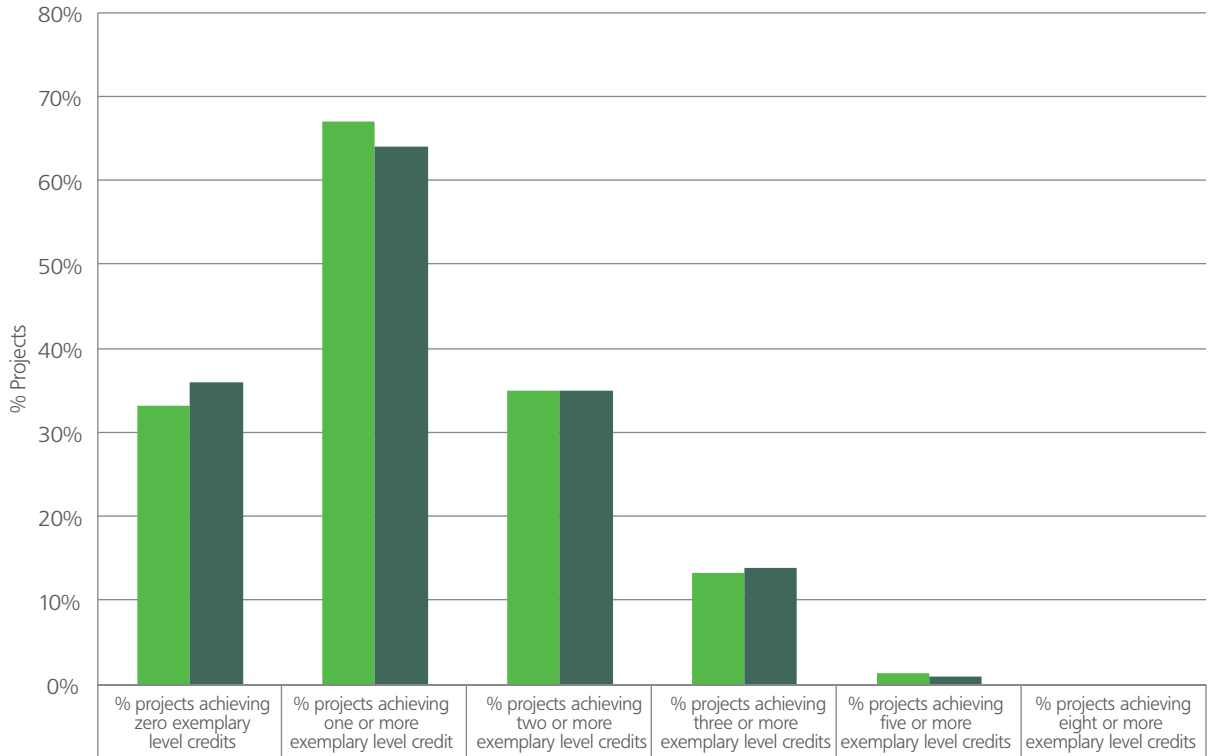
Percentage of projects appointing a BREEAM Accredited Professional



■ Interim 'design' stage assessment	71%	29%	25%
■ Final 'as built' stage assessment	75%	25%	23%

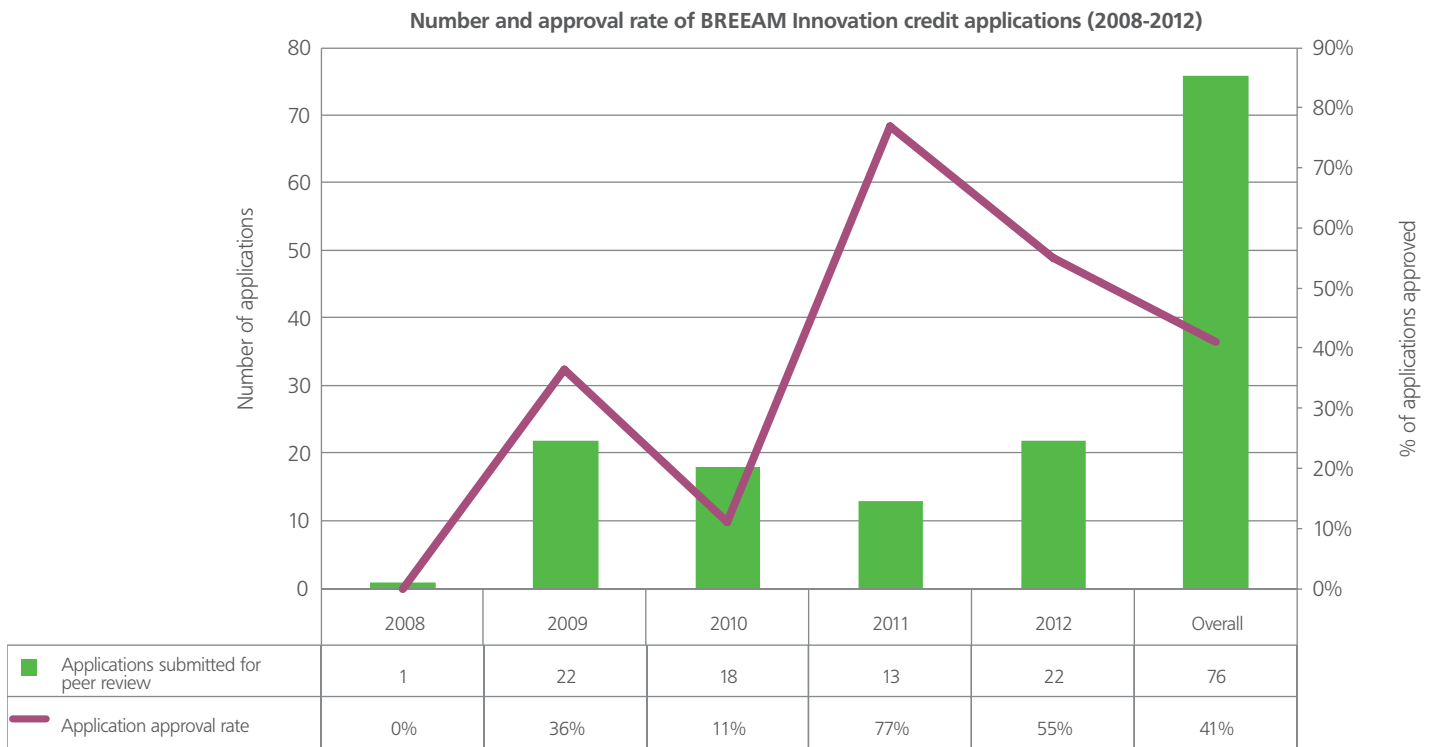
A10. Proportion of assessments achieving BREEAM credits for exemplary level performance

Percentage of projects achieving BREEAM exemplary performance level credits



■ Interim 'design' stage assessment	33%	67%	35%	13%	1%	0%
■ Final 'as built' stage assessment	36%	64%	35%	14%	1%	0%

A11. Number and approval rate of BREEAM Innovation credit applications (2008-2012)



Glossary

Asset: A term used to describe a single building i.e. a physical built asset such as an office building or a hospital.

Assessment Type: A term used to refer to a single stage of a BREEAM assessment, for example, under BREEAM New Construction a design stage assessment is one assessment type and post construction stage assessment is another. Under the BREEAM In-Use scheme, a part 1 asset assessment is one assessment type and part 3 organisational effectiveness is another.

BREEAM: Defined as the BRE Environmental Assessment Method, a registered trademark, owned by BRE Global Ltd. BREEAM consists of a suit of schemes, developed and operated by a number of National Scheme Operators in accordance with the Code for a Sustainable Built Environment to evaluate the life cycle environmental performance of buildings and infrastructure.

BRE Global Ltd: Means BRE Global Limited (registered in England, No.8961297). BRE Global Limited is an independent third party approvals body offering certification of fire, security and sustainability products and services to an international market. BRE Global Limited's mission is to Protect People, Property and the Planet. BRE Global Limited is part of the BRE Group.

BREEAM Certificate: BRE Global Ltd issue certificates for the BREEAM assessment process. Therefore a BREEAM certificate is confirmation that the assessment process for a project has been carried out correctly, in accordance with BRE Global Ltd BREEAM procedures. Those procedures are established in accordance with international standards, specifically BS EN 45011 (General requirements for bodies operating product certification systems). It is that standard, amongst others, to which particular BRE Global Ltd schemes are accredited to by the United Kingdom Accreditation Service (UKAS). Therefore, when referring to a BREEAM certified assessment, rating or building, what has actually been certified is the process the BREEAM assessor/assessment has gone through to determine a BREEAM rating.

BREEAM Licensed Organisation: An organisation licensed by BRE Global Ltd to offer BREEAM Assessments under one or more BREEAM schemes using qualified BREEAM Assessors.

Code for Sustainable Homes: The Code for Sustainable Homes (CfSH) is an environmental assessment method for rating and certifying the performance of new homes based on BRE Global's EcoHomes scheme. It is a Government owned national standard intended to encourage continuous improvement in sustainable home building.

Code for a Sustainable Built Environment: Developed by BRE Global Ltd as an international framework for the development of the BREEAM schemes. The Code is a set of strategic principles and requirements that define an integrated approach to the design,

management, evaluation and certification of the environmental, social and economic impacts of the built environment. All affiliated BREEAM schemes are developed and operated in accordance with a suit of core process and technical standards. Collectively, the BREEAM standards, schemes and core and local science base make-up the Code.

Communities: The name for the BREEAM scheme that covers the assessment of a whole community and provides a way to improve, measure and certify the social, environmental and economic sustainability of large scale development plans, also referred to as masterplanning. All BREEAM Communities schemes developed by NSOs must comply with the Communities Technical Standard of the Code for a Sustainable Built Environment.

Final assessment (and certificate): Some BREEAM schemes, for example BREEAM New Construction, operate a two stage assessment process. Final assessment is the second stage and refers to a type of assessment undertaken during the construction stage of building procurement for which BRE Global Ltd will issue a final 'post-construction' certificate. A final certified assessment results in the formal BREEAM rating for a building because the assessment on which that rating is based is primarily completed using 'as built' information. For example a site visit, where it is possible to confirm BREEAM compliance via inspection of physical building attributes and relevant paper-based evidence, e.g. receipts, invoices etc.

Interim assessment (and certificate): Some BREEAM schemes, for example BREEAM New Construction, operate a two stage assessment process. Interim assessment is the first stage and refers to a type of assessment undertaken at the design stage of building procurement for which BRE Global Ltd will issue an interim certificate. It is referred to as interim because the assessment is primarily based on and completed using design information, i.e. a desk top assessment based on commitments e.g. design drawings and specifications. See also Final Assessment.

In-Use: The name for the BREEAM scheme that covers the assessment of existing buildings, or assets, and whole portfolios of existing buildings. There are three parts to BREEAM In-Use against which an existing asset can be assessed; part 1 concerns the assessment of the built asset, part 2 concerns the assessment of the management of that asset and part 3 concerns the assessment of the organisational effectiveness i.e. management performance relating to activities that are undertaken by the occupier within the asset. All BREEAM In-Use schemes developed by NSOs must comply with the In-Use Technical Standard of the Code for a Sustainable Built Environment.

Licensed BREEAM Assessor: An individual that holds a BREEAM Assessor qualification and is practising on behalf of an organisation that holds a BREEAM licence.

Life Cycle Stage: For the purpose of BREEAM, this refers to a point in a building's life cycle where a BREEAM scheme applies. For example BREEAM Communities applies at the planning and design stage of the building life cycle and BREEAM In-Use applies at the operational stage of the life cycle.

Management and Operation: the name for a now obsolete BREEAM scheme that covered the assessment of existing buildings. The BREEAM Management and Operation scheme was replaced by BREEAM In-Use in 2009.

National Scheme Operator: An organisation that develops and manages one or more BREEAM schemes that are compliant with the BREEAM Technical and Operational Standards and that have a formal Scheme Operator License Agreement in place to act as the Scheme Operator in a defined territory. BRE Global is the National Scheme Operator for the UK. See www.breeam.com for a list of all NSOs.

New Construction: The name for the BREEAM scheme(s) that covers the assessment of the new-build stage of the building life cycle, and under some versions, major refurbishments. All BREEAM New Construction schemes developed by NSOs must comply with the Technical Standard of the Code for a Sustainable Built Environment.

Other buildings: A BREEAM scheme term used to describe building types that do not fall into a standard building type description for the purpose of scoping in BREEAM New Construction. For example, office, retail, education are standard building type descriptions. A stadium, a museum, an airport terminal are examples of 'other building' types.

Qualified BREEAM Assessor: An individual that has undertaken BREEAM training and passed the relevant BREEAM exam, and is therefore deemed competent to carryout BREEAM assessments on behalf of a licensed organisation.

Refurbishment: the name for the BREEAM scheme(s) that cover the assessment of existing building refurbishment and fit-out projects. There are two types of BREEAM Refurbishment Scheme, one for domestic refurbishments and one for non-domestic refurbishments and fit-outs (due for launch Autumn 2014). All BREEAM Refurbishment schemes developed by NSOs must comply with the Refurbishment Technical Standard of the Code for a Sustainable Built Environment.

Bibliography

1. The BREEAM website, www.breeam.com contains further information about BREEAM including:
 - Introduction to all schemes (by country and life cycle stage)
 - Introduction to the Code for a Sustainable Built Environment
 - Building case studies and BREEAM Awards
 - How to become a BREEAM Assessor
 - How to get an assessment
 - Who specifies BREEAM
 - Information on BREEAM and local planning
2. Green Book Live (www.greenbooklive.com) is a listings website for the accreditation and certification schemes run by BRE Global Ltd. Visitors will find listings for a range of products and professionals on the site.
3. Statistics on the Code for Sustainable Homes are available from www.statistics.gov.uk
4. A paper titled 'Common Data Metrics for Efficient and Informed Delivery of Environmental Assessments – Part II' was presented at the CIBSE 2013 Technical Symposium. This paper contained data constructed from approximately 190 live BREEAM assessments which used the Tracker Plus web based BREEAM project delivery system. The paper is available to download from www.cibse.org
5. A publication titled 'Going for Green Sustainable Building Certification Statistics Europe' (referenced throughout this publication) was published by the Royal Institute of Chartered Surveyors in September 2013. The publication contains annual statistics on the number of certified assessments in Europe by scheme for new builds, retrofits and existing buildings. The publication was presented at Expo Real 2013, the 16th International Trade Fair for Property and Investment in Munich, and is available to download from www.rics.org

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