



# BREEAM<sup>®</sup>

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## Best of BREEAM 2016

Outstanding sustainable buildings  
from the BREEAM Awards 2016

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# Business success and better places

This is a moment for celebration. Firstly, we are recognising all the projects and teams shortlisted for the 2016 BREEAM Awards, and particularly those taking the winners' awards. They are all to be congratulated for their commitment, leadership and expertise in sustainable real estate, and for the fantastic developments they have delivered. These awards provide a showcase of the best of UK and international real estate over the past year, highlighting its clear benefits for business, building occupants, broader society and the environment.

We have also reached our own significant milestone; we are celebrating 25 years since the launch of BREEAM. We are immensely proud to have pioneered the world's first sustainable standard for real estate. Many developers, investors, occupiers, industry professionals and partners have joined us on this journey, and we recognise the part they have played in raising the bar across our industry.

Together we have demonstrated the benefits and value to be derived from BREEAM. Through their successes and achievements, BREEAM developments have provided evidence in such areas as: improved employee satisfaction and productivity, increased rates of return for investors, and better rental rates and sales premiums for developers and owners. BREEAM buildings have led the way in demonstrating the savings that can be achieved in energy and water consumption, confirming the standard's economic and environmental value. These factors are helping to drive business success and provide better places for people to live and work.

Over the past 25 years BREEAM has grown and developed to meet the needs of real estate owners and occupiers globally, always setting its targets high to ensure that it remains an esteemed and consistent mark of quality. Our work continues; this year will see us collaborating with the global real estate industry to update our international standards. We will also continue to bring together BREEAM and CEEQUAL to help infrastructure providers to deliver quality and value.

While celebrating these awards and our first 25 years we therefore look forward to the future. We thank you for continuing the journey with us.



**Gavin Dunn**  
Director of BREEAM



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Front cover image:  
BREEAM Outstanding  
Central Bank of Ireland

25  
years of  
achievement



# The judges

Shortlists drawn from the highest scoring buildings in each BREEAM scheme were put before a panel of eminent industry judges. They made the final choice of winner, taking into account the BREEAM score achieved alongside a range of other factors, such as the value of the building to its occupiers and users, the site and other constraints, and the lessons and strategies that can be applied to other projects. Our thanks go to the judges for their very diligent approach to this difficult task.

The judges for the 2016 awards were:

<b>Alan Yates</b>	Technical Director of BREEAM and chair of the panel
<b>Claudine Blamey</b>	Head of Sustainability and Stewardship at The Crown Estate
<b>Rebecca Pearce</b>	EMEA Head of Sustainability for CBRE
<b>Sarah Richardson</b>	Editor of Building Magazine
<b>John Cole</b>	Head of Sustainability at the Home Office
<b>Bill Gething</b>	Leading architect and Professor of Architecture at the University of the West of England

A big thank you to our judges who had a very difficult task!



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# The sponsors

We would like thank the following for sponsoring the BREEAM Awards 2016

## Stroma Tech Headline Sponsor



Stroma Tech is a leading Building Energy and Sustainability Consultancy. Our long established team of consultants deliver BREEAM assessments for any project, and have certified many "Excellent" and "Outstanding" rated Buildings. We also offer a range of services from Building Energy Modelling and Thermal Analysis to Air Tightness and Acoustic Engineering.

## Ecobuild Awards Partner



Ecobuild is the leading UK exhibition and conference for the construction and energy market, inspiring over 44,000 industry professionals from across the supply chain. We connect building professionals in order to help them to learn, network and discover new ideas and innovative products.

## Category Sponsors

### Daikin Europe N.V. Offices Awards



Daikin is the largest HVAC manufacturer with more than 90 years of experience in the business. Throughout the years, we have proven ourselves to be an innovative key player. Daikin Europe is proud to support the BREEAM Awards. Congratulations to both the winners and nominees for creating one of the finest sustainable offices. Job well done!

### Kingspan Insulation Education & Health Award



Kingspan Insulation is a market leading manufacturer of optimum, premium and high performance rigid insulation products and insulated systems for building fabric and building services applications. We are proud to sponsor the 2016 BREEAM Education & Health Award. Congratulations to the worthy winners of this prestigious accolade.

### Landmark Information Services Residential Award



Landmark Information Group identify and translate environmental and property risk into facts, insight and opportunity. We are delighted to be sponsoring the 2016 BREEAM Award for Residential buildings and wish to congratulate Courtauld Road, the winner of this years' prestigious award.

### Energist Country First Award



Energist UK is the UK's number 1 specialist in Building Regulations, Sustainability and BREEAM. Congratulations from the Energist team to Ksenia Agapova, Hadley Barrett and Igor Reunov, what great projects... so well-deserved awards.

### Stroma Tech Mixed Use & Other Buildings and Your BREEAM Awards



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### Ecobuild Assessor of the Year

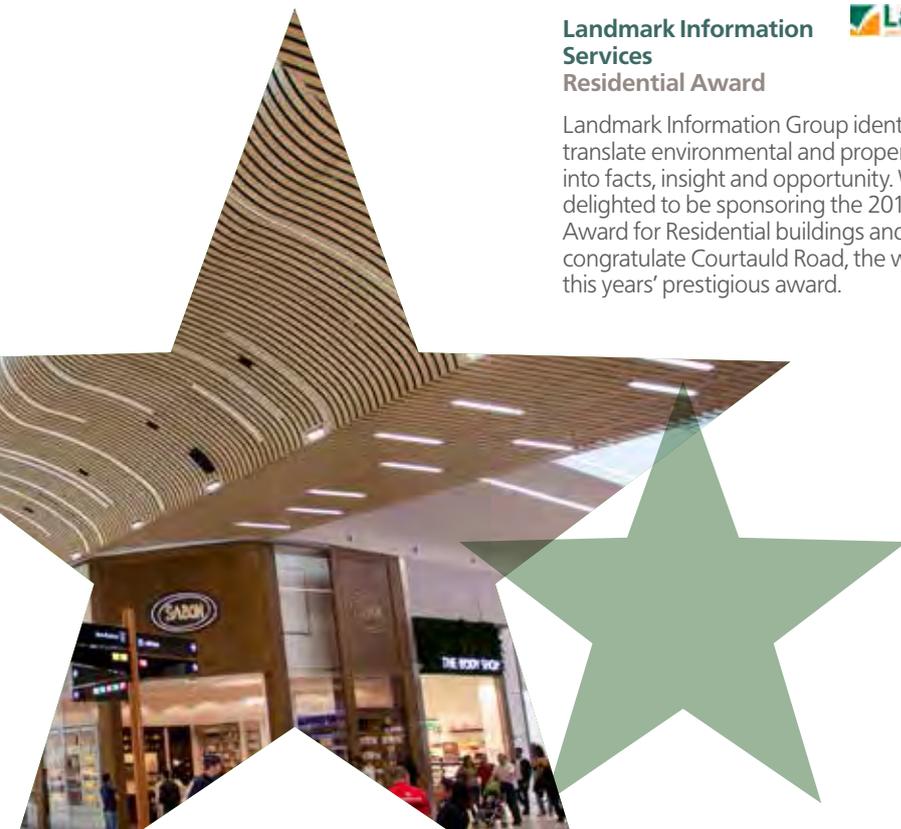


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### Building Magazine Your BREEAM Award



Building is the UK's best-read, most established brand in the construction industry. It was launched in 1843 as The Builder, by Joseph Alysius Hansom architect of Birmingham Town Hall and designer of the Hansom safety cab. Building once counted Prince Albert, Charles Dickens and Florence Nightingale among its readers. Building provides an unrivalled combination of award winning editorial, news, interviews, analysis and hard industry data and leads the way in journalism for the construction industry.



# This year's BREEAM Awards shortlists

Project	Client	Assessor	Score %	Rating	Developer	Architect	Contractor
<b>Education and Health</b>							
Wimbledon Arts Studio	University of the Arts London	Carbon Plan	95.1	Outstanding	University of the Arts London	Penoyre & Prasad	R. Durnell & Sons Limited
The Enterprise Centre	Morgan Sindall	Building Design Partnership	90.8	Outstanding		Architype	Morgan Sindall
South Lanarkshire College	South Lanarkshire College	Easlar	90.4	Outstanding	South Lanarkshire College	Austin-Smith:Lord	
Energy Safety Research Institute	Swansea University	AECOM	88.8	Outstanding		Stride Treglown	Bouygues UK
Edinburgh Centre for Carbon Innovation	University of Edinburgh	AECOM	87.5	Outstanding	University of Edinburgh	Malcom Fraser Architects	GRAHAM Construction
<b>Industrial</b>							
Filwood Green Business Park	Bristol City Council	Halcrow Group	93	Outstanding	Homes and Community Agency	Stride Treglown	Midas
Bentley Works	Skanska	RSK Group	92.5	Outstanding	Skanska	IBI Taylor Young	Skanska
DC1 Boscombe Road, Dunstable	Prologis	Yonder Consulting	92.1	Outstanding	Prologis UK Ltd	Stephen George & Partners LLP	Winvic Construction Ltd
Distributiecentrum NewLogic II	Dok Vast BV	MAT25 B.V.	91.18	Outstanding	DOKVAST B.V.	Habeon Architecten B.V.	Heembouw Roelofarendsveen B.V.
ECOstyle Warehouse	ECOstyle	Zethoven	85.01	Outstanding	Zethoven Bouwplan Groep	Zethoven Bouwplan Groep	Jorritsma Bouw
<b>Mixed Use &amp; Other</b>							
Five Pancras Square	Camden Council	Grontmij	97.6	Outstanding	Kings Cross Central General Partner Ltd.	Bennetts Associates & LA Architects	Kier Construction Limited
Bright Building	University of Bradford	GWP Project Services	95.2	Outstanding	University of Bradford	Farrell & Clark	
University of Hertfordshire Phase 1 Student Accommodation Buildings	University of Hertfordshire	RSK Group	92.4	Outstanding	Uliving	Willmore Iles	Bouygues UK
University of Hertfordshire Phase 2 Student Accommodation Building Blocks	University of Hertfordshire	RSK Group	90.8	Outstanding	Uliving	Willmore Iles	Bouygues UK

## This year's BREEAM Awards shortlists (continued)

Project	Client	Assessor	Score %	Rating	Developer	Architect	Contractor
United States Embassy	US Department of State Bureau of Overseas Buildings Operations	Waterman Energy, Environment and Design	89.3	Outstanding		KieranTimberlake	B.L. Harbert International and Sir Robert McAlpine
<b>Offices – In-Use</b>							
Carré Vert	Credit Agricole & Wereldhave	Greenaffair	94 + 87	Outstanding		Franck Michigan Architecte	
ABN AMRO HQ	ABN AMRO Bank N.V.	W4Y	87.61 + 73.35	Outstanding			
River Plaza	Paris River Plaza SAS	ARP-Astrance	86 + 70	Outstanding			
Olimpia Business Center	AG CONSULTING Ltd	Stoica Alexandra Vasilica PFA	81 + 70	Excellent		DICO & TIGANAS Ltd	
New City I	Hines Polska Sp. z o.o.	WSP Polska Sp. z o.o.	80 + 70	Excellent		Atelier S.A. Studio Architektoniczne	ECI S.A.
<b>Offices – New</b>							
The Edge	OVG Real Estate	C2N Bouwmanagement	98.36	Outstanding	OVG Real Estate	PLP Architecture	G&S Bouw
Noda	SCI LA BATAILLE	ALTO Ingenierie	93.2	Outstanding	BNP PARIBAS IMMOBILIER	Viguiet & Associates	
Torsplan	NCC Property Development	IVL Svenska Miljoinstitutet AB	90.4	Outstanding	NCC Property Development AB	Bau Architects	NCC Construction
Greendale	O1 Properties	JLL Russia & CIS	88.5	Outstanding	O1 Properties	Spectrum Holding	ANT YAPI
White Collar Factory	Derwent London	Ove Arup and Partners	88.2	Outstanding	Derwent London	AHMM	Brookfield Multiplex
<b>Offices – Refurb &amp; Fit-Out</b>							
Le Cap	Wereldhave	GreenAffair	91.5	Outstanding		Michigan Architecte	
Noda	Coca-Cola France	ASTRANCE	90.2	Outstanding	BNP Paribas Immobilier & La Poste Immo	Studios Architecture	Super Build
Central Bank of Ireland	Central Bank of Ireland	O'Connor Sutton Cronin & Associates Limited	86.7	Outstanding	Central Bank of Ireland	Henry J Lyons	Walls Construction
The HUB	Broadgate Estates	Verte	85.6	Outstanding	Broadgate Estates Ltd	Magnus Associates	Overbury Plc
University of Bristol – 8-10 Berkeley Square	University of Bristol	Sustainable Construction Services	73.1	Excellent		Jones Lang LaSalle (UK)	Beard Construction



Project	Client	Assessor	Score %	Rating	Developer	Architect	Contractor
<b>Residential</b>							
La Toison d'Or Apartments	TD Immo Invest BVBA / ProWinko	DGMR Bouw B.V	82.4	Excellent	BVBA TD IMMO Invest Brussels	Jaspers – Eysers Architects	CFE NV – BPC Brabant, Watermaal-Bosvoorde (BE)
Courtauld Road	Family Mosaic	Ecofirst Consult Ltd	80.7	Excellent	United Housing Ltd	Pollard Thomas Edwards	United Living
South Bank Tower	CIT Developments	Grontmij	77.3	Excellent	CIT Group Ltd	KPF	Mace
The Lincolns, 39-45 Grays Inn Road, London	OPAI Investments Limited	GWP Project Services	74.4	Excellent	OPAI Developments Limited	Robin Partington & Partners	Cardy Construction
Villa Moraira	DICAM Control y Gestión de Obra, S.L.	Alconor	74.27	Excellent		VAND Arquitectura	AMALUR Arquitectos
<b>Retail – In-Use</b>							
Chodov	Unibail-Rodamco	Bopro	85.8 + 91.1	Outstanding			
Kanyon	Eczacıbaşı Group and İş Real Estate Investment Trust	Turkeco Construction and Energy	81 + 89	Excellent		Tabanlıoğlu Architects and Jerde Partnership International	Eczacıbaşı Pharmaceutical and Industrial Investment
Qwartz	Altarea Cogedim	Sinteo	80.2 + 87.5	Excellent			
CityMall Almere	Unibail-Rodamco	W4Y Adviseurs	81.13 + 86.36	Excellent			
Aéroville	Unibail-Rodamco	Greenaffair	78.4 + 87.9	Excellent			
<b>Retail – New</b>							
Torsplan	NCC Property Development	IVL Svenska Miljoinstitutet AB	79.8	Excellent	NCC Property Development AB	Bau Architects	NCC Construction
Waitrose Hereford	Waitrose	Synergy BSS	78.1	Excellent		Farrell and Clark	
TKMaxx Hereford	TJX Europe	Synergy BSS	77.9	Excellent		LOM Architecture & Design	
L'avenue83	SNC Alta CRP La Valette	Alto Ingénierie	77.5	Excellent	Altarea France	Wilmotte et Associés	

For full details of the project teams involved and full listings information go to [www.greenbooklive.com/breembuildings](http://www.greenbooklive.com/breembuildings)

## Assessor Awards

The presentation of Assessor Awards is based on the highest average BREEAM assessment scores over the previous calendar year, subject to a minimum number of assessments. There is one award for Assessor Company of the Year, and three for Assessor of the Year. The organisation and individuals listed below have each achieved constantly high scores under BREEAM.

### BREEAM 2016 Assessor Company of the Year

#### Grontmij

Grontmij is part of Sweco, which plans and designs tomorrow's communities and cities. They provide consultancy, design & engineering and management services in a broad range of market sectors related to the built and natural environment. Grontmij have licensed BREEAM Assessors and APs across Europe, covering just about every BREEAM scheme and building type. They are also helping to pilot the new BREEAM Associate programme.



### BREEAM 2016 Assessors of the Year

#### James Warne, Boom Collective

James is a Founding Director of Boom Collective, an environmental engineering design practice that prioritises the balancing of the triple bottom line of economy, environment and social values within the context of the project's performance. As a BREEAM Accredited Professional for many years, James has led numerous projects from brief making and inception right through into operation, seeking to find best value and best practice at every stage of the project.



#### Kartik Amrania, Grontmij

Kartik is a Chartered Mechanical Engineer and has over 10 years of experience specialising in sustainable design throughout the built environment. He is Grontmij's Head of Department for their established and growing environmental and sustainability team responsible for providing low energy strategies and sustainable design initiatives and innovations within all of Grontmij's major projects.



#### Magdalena Krause, CH2M Hill

Magdalena Krause is a sustainability consultant at CH2M, with over 4 years of experience in providing BREEAM advice and assessment services. Her portfolio covers over 30 projects including education, industrial, commercial and residential developments. Magdalena says "BREEAM is a very helpful methodology for embedding sustainability into building design and pushing developers, design teams and contractors to think about environmental, social and economic factors."



## Country First Awards

Country First Awards are given to the assessor who undertakes the very first BREEAM assessment in a particular country. They are presented in recognition of the assessor's work in a new territory.

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**energist**

### BREEAM 2015 Country First Award

#### Ksenia Agapova, Azerbaijan and Singapore

Ksenia is Head of Sustainability Services at, JLL, Russia & CIS. JLL were the first to achieve BREEAM International New Construction certification in Azerbaijan and BREEAM In-Use certification in Singapore. The Baku White City Office Building in Azerbaijan represents one of the biggest redevelopment projects in region. Chevron House in Singapore was constructed in 1993, and the asset quality was proved by BREEAM In-Use rating in December 2014. The assessment process was initiated by an international investment fund, which owns the building. Ksenia says "BREEAM is an internationally recognised brand, which adds value to the investments of our clients and proves environmental efficiency of their buildings. It is always a challenge to be the first in the market, however pioneering BREEAM pays off quicker through reduced energy bills and lower vacancy rates".



#### Hadley Barrett, Estonia

Hadley Barrett has led multiple development projects and audits in multiple countries. He is a qualified BREEAM Assessor and AP for Oxford Sustainable including all major international schemes. He has experience as a non-executive director for investment funds focused on sustainable real estate and renewable energy, and a major shareholder in both small and large, as well as politically complex development projects across Europe. He led and advised on the audit and sustainable improvement of major projects such as Ulemiste centre, the largest retail centre in the Baltics.



#### Igor Reunov, Armenia

Igor Reunov of Geoengine LLC is company CEO, and a qualified geophysical and environmental specialist who has successfully provided more than 1200 projects for different clients. Igor became a BREEAM Assessor in 2014. The UWC school project in Armenia was very important as a symbol for the whole country, providing education for pupils from different countries. BREEAM was a key element, providing environmental quality for the design and construction of the building. Geoengine are now embarking on a second BREEAM project in Armenia.



Congratulations to all our Assessors!

# Education and Healthcare

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BREEAM certified schools and other education centres provide high-quality learning environments with reduced operational costs. They are also invaluable teaching aids through which their students learn sustainability lessons that they take into their lives.

**Edinburgh Centre for Carbon Innovation, University of Edinburgh** The first listed building to gain a BREEAM Outstanding rating, this former school, built in the 18th century has managed to conserve its historic character while using sustainable materials, achieving exceptionally low energy demand and creating a space to meet modern-day requirements for a healthy, enjoyable environment.

**Energy Safety Research Institute, Swansea University** The UK's first research centre for the safe deployment of renewable energy solutions, is also a showcase for adaptable laboratory design and spaces for research collaboration. The building has been designed to benefit from passive heat gain and natural ventilation and incorporates a micro Combined Heat and Power unit, solar photovoltaics, rainwater harvesting and LED lighting.

**Wimbledon College of Art, University of Arts London** The client's aspiration was to create an exemplar of innovation and sustainable design, providing high quality, multi-purpose spaces for a range of courses. The building maximises daylight, natural

ventilation and night-time cooling, with the asymmetrical gabled roof providing a greater south-facing area for photovoltaic panels and pitch to the north maximising light into the studios.

**Low Carbon Teaching Building, South Lanarkshire College** Underpinning this project was a desire for the building to exemplify the college's sustainability and energy efficiency ethos embedded in its operations and curriculum, despite site and budgetary constraints. The building, which utilises passive design, a variety of renewable technologies, including ground source heat pump and rainwater harvesting, served as a valuable learning opportunity for students.



Low Carbon Teaching Building, South Lanarkshire College



Edinburgh Centre for Carbon Innovation, University of Edinburgh



Wimbledon College of Art, University of Arts London



Energy Safety Research Institute, Swansea University



## And the winner is...

### The Enterprise Centre, University of East Anglia

This is the new home for the Adapt Low Carbon Group, established to help start-ups that have grown from the university's environmental science programmes. The building is certified to both Passivhaus and BREEAM standards, with materials sourced locally, including its pine timber frame and rain screen cladding formed from thatched timber cassettes.

# BREEAM Industrial Award

The extraordinary buildings in this always fiercely competitive category are delivering not only superb sustainability, but also very satisfied tenants and occupiers – as the buildings on our shortlist demonstrate.

**Bentley Works, Doncaster** Bentley Works, a 7.5 hectare engineering and manufacturing facility used by Skanska for over a century, is the company's first redevelopment to achieve zero carbon status. The client wanted to demonstrate their green ambitions. The building includes solar PV generating 43,500kwh per year, a biomass boiler reducing CO<sub>2</sub> emissions by 30% and an evaporative cooling system to replace mechanical cooling.

**DC1, Prologis Park, Dunstable** This represents the first phase of the Prologis Park Dunstable brownfield regeneration site. A key aim was to deliver significant energy efficiencies and to that end it has high levels of air tightness and insulation, a solar wall providing pre-heated air and a 51kWp PV array, resulting in a 45% cut in emissions against 2011 Building Regulations.

**NewLogic II, Tilburg** The developer DOVECAST was keen to establish a long-term relationship with occupant Tesla Motors Netherlands BV by building a distribution centre that has low energy costs and is a flexible and multi-functional space. An insulating shell with high thermal resistance encompasses the entire building so that it goes beyond Dutch building regulations for industrial buildings and it uses LED lighting throughout.

**Filwood Green Business Park, Bristol** "Achieving BREEAM 'Outstanding' was an ambition for Bristol as European Green Capital in 2015. This project sets the standard for future industrial developments in the city," said George Ferguson, Mayor of Bristol, of the development. It benefits from natural ventilation and daylight, high levels of insulation and 138kWp solar PV panel, reducing energy demand by 30%.



Filwood Green Business Park, Bristol



Bentley Works, Doncaster



NewLogic II, Tilburg



DC1, Prologis Park, Dunstable

## And the winner is...

### ECOstyle Warehouse, Oosterwolde

Situated in Ecommunitypark, a sustainable business park with carbon neutral aspirations, it was crucial that the warehouse reflected its surroundings and those of ECOstyle, a supplier of renewable energy

and water efficiency educational kits. Energy and heating is supplied by six air-to-water heat pumps and solar PV, which covers the entire roof. Rainwater is harvested and a sewage treatment facility purifies water through a natural process.



# BREEAM Mixed Use and Other Buildings Award

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The five buildings shortlisted demonstrate the ambition of their clients to create highly sustainable and energy efficient buildings, that not only reduce carbon emissions and improve operational costs, but improve the health and wellbeing of occupants.

**The Bright Building, University of Bradford** An exemplar of sustainable construction, the building underpins the University's Ecoresivity programme. It incorporates a south-facing trombe wall and solar chimney to provide natural ventilation, heating and lighting. It is also the world's largest monolithic hemcrete building, locking up 110kg of CO<sub>2</sub> per square metre of external wall, with renewables providing a 53.8% carbon reduction.

**Student Accommodation (Phase 1), University of Hertfordshire** The university is constructing 2,511 new units comprising cluster flats, townhouses, studios and conference rooms, with Phase 1 providing 80 units and two-storey student hub with common room and gym facilities. A building

management system is displayed in every kitchen and each flat will have a device to monitor energy and water use.

**Student Accommodation (Phase 2), University of Hertfordshire** This phase of the development will deliver 1,003 units and the whole project will include an Energy Centre biomass combined heat and power for the whole campus in order to deliver a zero carbon solution that takes into account regulated and unregulated energy usage. Energy efficient lifts and appliances are being installed through the development.

**The US Embassy, London** This building is designed to be welcoming, secure, and highly sustainable. Heat and power is supplied by ground source heat pumps and rooftop solar PV, with excess electricity and heat generated in a combined heat and power system exported to the grid and a planned district heating network. Wastewater is treated in an on-site treatment plant and reused for flushing toilets and urinals.



The Bright Building, University of Bradford



The US Embassy, London



University of Hertfordshire



University of Hertfordshire

## And the winner is...

### Five Pancras Square, London Borough of Camden

The client's aim was to create a spatially diverse civic building that is efficiently run and pushes the boundaries of sustainability on a constrained urban site. A key element of the low-energy design is the integration of passive features, including facades to optimise natural light and shade. More than 70% of heating is supplied by the King's Cross Central district heating network.



# BREEAM Office In-Use Award

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This year's shortlist is a distinctly European affair and demonstrates how sustainable, low carbon features can provide competitive edge in a crowded market, helping to add value by improving tenant satisfaction.

**New City I, Warsaw** This building constructed in 2010 houses different retail units and amenities. The owner wanted a building that would be more energy efficient and comfortable for its tenants. For example, LED lights were installed in the common areas and 'Green Facility Management' policies have resulted in average annual energy and utility savings of 15%.

**Olimpia Business Centre, Cluj** The client firmly believes that enhancing the sustainability of this existing building is key to competing against new builds, with lower running costs and improved health and wellbeing attracting and retaining tenants. Key features include solar thermal and PV and rainwater harvesting.

**River Plaza, Paris** This building had been entirely renovated in 2002 and the owner turned to BREEAM certification to improve its sustainability as a way to meet the expectations of tenants and maintain the value of the building. Indoor air and noise quality have, for example, been improved and the outside area enhanced by a green wall and a flower-rich meadow. The certification process itself has also helped tenant relations.

**Carré Vert, Paris** Carré Vert is the first building in the world to achieve a rating of Outstanding under BREEAM New Construction, and then to go on to achieve the same rating under BREEAM In-Use. Its success in the design and construction aspects of BREEAM and now in management and operation relies on a close partnership between the building's owner, Wereldhave, tenants Electricité de France (EDF) and their advisors Greenaffair.



Carré Vert, Paris



New City I, Warsaw



Olimpia Business Centre, Cluj



River Plaza, Paris

## And the winner is...

### ABN AMRO Headquarters, Amsterdam

ABN AMRO's goals were two-fold – to reduce the carbon emissions and energy use of their 1960s office and gain the knowledge to

advise their clients in the real estate sector. Key features include the use of solar energy and wind power, but a focus has been on building and occupier management to ensure long-term sustainability and building performance.



# BREEAM Office New Construction Award

Providing occupants with the ability to improve the comfort of their own environments, and in so doing improve the sustainability and energy use of the buildings, is a common theme of this year's category shortlist.

**Greendale, Moscow** A key element of this project was reducing the environmental the social impact of the development within the community as well improving the appearance of the urban district. With this in mind the building has an extensive green roof and an external lighting management system to reduce light pollution. Other features include rainwater harvesting and heat recovery systems.

**Noda, Paris** A driving force behind this project has been to maximize tenant comfort while improving a former industrial area of Paris, providing public access to the River Seine. The building is highly insulated and benefits from solar shading, green terraces and a rooftop vegetable garden, while the building management system can be controlled from smartphones.

**Torsplan, Stockholm** Constructed in a former industrial area of Stockholm, the building, which comprises offices, restaurants and a gym, contributes to the local area as well as providing comfort for tenants. HVAC units on each floor enable individual metering and billing, as well as control of temperature and lighting. Its heavy concrete structure provides good thermal storage and consistent indoor climate.

**White Collar Factory, London** Located in the heart of London's Tech City, the building is nevertheless inspired by Derwent's regenerated early 20th-century industrial buildings, which tenants value for their generous, flexible space. White Collar Factory therefore benefits from high ceilings that also improve ventilation and natural light, and openable windows giving back occupants control of their environment. Meanwhile, chilled water pipes embedded in the concrete slab transforming the structure into a radiant cooling source.



Greendale, Moscow



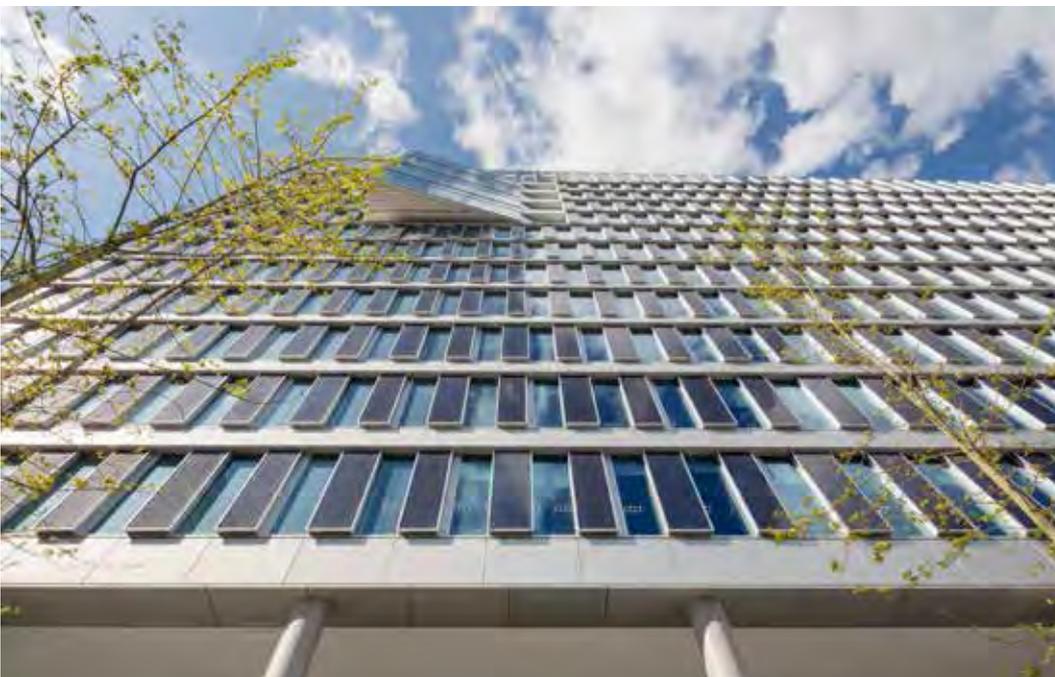
Torsplan, Stockholm



Noda, Paris



White Collar Factory, London



## And the winner is...

### The Edge, Amsterdam

Smart technology is a distinguishing feature of OVG Real Estate's sustainability strategy, with occupants able to control temperature and light levels via their smart phones. The result is 70% less electricity usage than comparable office buildings. The Edge also incorporates the largest array of PV panels of any European office building on its roof and south-facing facade.

# BREEAM Office Refurbishment and Fit-Out Award

Refurbishment and fit-out projects provide the opportunity to enhance sustainability and reduce energy costs in buildings that may have been constructed when these issues were lower priorities. Superb examples comprise our shortlist of reinvigorated buildings.

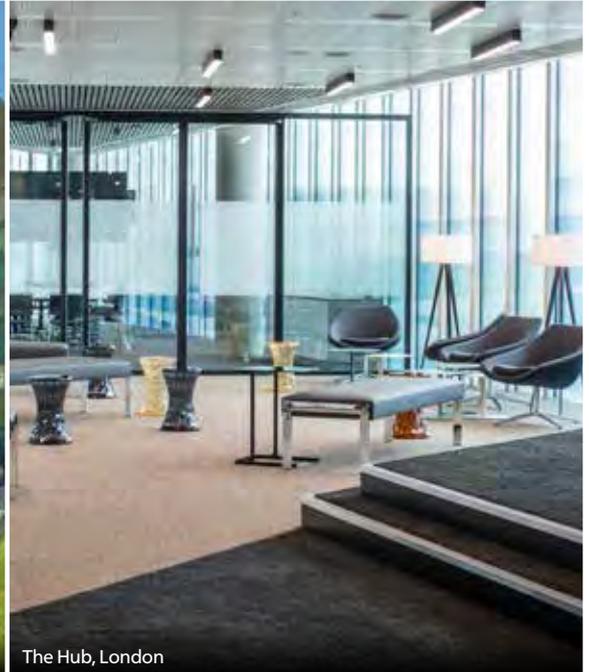
**Central Bank of Ireland, Dublin** The first office building in Ireland to achieve an 'Outstanding' rating, BREEAM has helped the bank create a high-performing, energy efficient building that underpins their strong sustainability ethos. Key features include a mixed-mode ventilation system to provide good quality air and a combined heat and power plant. The result is a 70% reduction in energy consumption over Irish Building Regulations.

**The Hub, London** Broadgate Estates' brief was for a natural working environment balancing wellbeing and organisational effectiveness based on the premise of 'boardroom to yoga class'. All finishes have either low or no VOC or Formaldehyde, while CO<sub>2</sub> sensors monitor both wellbeing and the building's central systems. Strictly-controlled product purchasing and supply chain management also minimised waste around carpet offcuts, pallets, and plasterboard.

**8-10 Berkeley Square, University of Bristol** The challenge was to transform three Grade II\* or Grade II listed Georgian town houses, into modern offices. A pre-demolition audit and historic building survey identified what materials should be retained in order to reduce waste. Desk layout was optimised to ensure natural ventilation worked and that drafts from single-glazed windows were not a problem. An advanced heating control strategy also optimised heat energy.



Central Bank of Ireland, Dublin



The Hub, London



8-10 Berkeley Square, University of Bristol



## And the winner is...

### Noda, Coca-Cola France, Paris

Coca-Cola France was a stakeholder during COP21 in December 2015 and is committed to reducing the global footprint of its supply chain. It therefore wanted the building to exemplify this commitment. For example, responsibly sourced materials are chosen to limit their environmental impact over the lifecycle of the building, while a building management system monitors energy and water consumption.

# BREEAM Residential Award

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These residential refurbishment projects demonstrate how buildings can be given a new lease of life, providing sustainable, energy efficient homes – improving their value and reducing their cost – while retaining the best elements of the original buildings.

**Le Toison d'Or, Brussels** A distinctive glass-fibre reinforced concrete façade has been retrofitted on this mixed-use building, situated in the centre of Brussels. The façade is triple glazed, giving excellent airtightness and acoustic insulation, as well as being lightweight. Biofuel provides energy to a combined heat and power system, with cooling produced through a combination of absorption and cooling towers.

**Southbank Tower, London** The client wanted to transform the previously unloved Kings Reach Tower, into a centrepiece of the redevelopment of London's Southbank. Low carbon heating, hot water and electricity for the whole building is provided by combined heat and power unit, while each apartment contains a combined energy and water consumption display device and LED lighting.

**The Lincolns, Grays Inn Road, London** Set within London's Bloomsbury Conservation Area, the refurbishment of these four Victorian terraced houses, combines the sensitive retention of their frontage with the use of traditional materials and a low carbon energy strategy. The houses have integrated photovoltaic roof panels, high levels of insulation, efficient heat recovery systems and a green roof.

**Villa Moraira, Alicante** This building on Spain's Costa Brava, which has achieved both BREEAM and Passivhaus certification, has been refurbished to achieve excellent levels of both energy and water efficiency. A mechanical ventilation system with heat recovery, for example, has helped to reduce energy demand for heating by 84% and 72% for cooling. Meanwhile, the collection of grey water and rainwater meets over 75% of the total demand for toilets and irrigation.



Le Toison d'Or, Brussels



The Lincolns, London



Villa Moraira, Alicante



Southbank Tower, London



## And the winner is...

### Courtauld Road, London

This mixed-tenure scheme in north London includes a Victorian warehouse, redeveloped into 15 apartments. The building retains the majority of the brick façade and timber flooring and is served by a combined heat and power unit. Designed for adaptability, the building goes beyond Part M Building Regulation requirements for wheelchair access.

## BREEAM Retail In-Use Award

One client dominates this year's shortlist but all the buildings share a common aim, which is to demonstrate sustainability among stakeholders and the wider public.

**Aéroville, Paris** This Unibail-Rodamco shopping centre close to Charles de Gaulle Airport, which opened in 2014, is one of the first shopping centres in France to be certified under BREEAM In-Use 2015. All materials in the project have been sourced by suppliers with environmental policies, with a biodiversity plan established at the construction stage, while rainwater is collected for sanitation.

**Centrum Chodov, Prague** One of the largest shopping centres in Prague, it is also the first shopping centre in Europe to achieve a double 'Outstanding' rating for asset and building management, with certification giving Unibail-Rodamco the chance to understand sustainable performance now and in the future. Highlights include a 14% reduction in water consumption, and energy recovered from incinerated waste.

**Citymall, Almere** As with all its developments, this shopping centre – the largest in the Netherlands – is seen by Unibail Rodamco as an exemplar of its sustainability ethos. For example materials have been chosen for their low impact on the environment. Other features include the re-use of rain water for irrigation and improvement of its green roofs.

**Qwartz, Paris** Altarea Cogedim views sustainability as part of its business strategy and this is demonstrated in the shopping centre, key features of which include smart water management, energy efficiency lighting and heat pumps. Beehives are located on the green roof, with honey given to tenants to raise sustainability awareness.



Centrum Chodov, Prague



Aéroville, Paris



Citymall, Almere



Qwartz, Paris



**And the winner is...**

**Canyon, Istanbul**

The client's aim for this mixed use development, comprising shops, offices and apartments, was for it to be a pioneer in energy use, water consumption and waste management. For example, solar provides 35% of the building's hot water, while a building management system monitors, controls and optimises energy and water consumption in all spaces.

## BREEAM Retail New Construction

As well as leading to significant reductions in energy and waste, BREEAM certification is seen as a key differentiator in what is a very competitive market.

**L'avenue83, Toulon** This shopping and leisure centre by Altarea Codigem is designed around a shopping street and the developer views sustainability as a central to its commercial strategy. A water loop serving all stores enables them to connect to energy efficient heating and cooling systems, while every tenant lease sets energy efficiency standards. Altarea Codigem are one of the leading users of BREEAM in France, and now have a 100% certification record on all their assets.

**Waitrose, Hereford** This BREEAM Excellent Waitrose store achieved a score of 78.1% scoring particularly highly in the waste and pollution categories of BREEAM. Waitrose are a major user of BREEAM across the UK, as are the John Lewis Partnership who achieved the accolade of appearing twice in the 2015 awards.

**TK Maxx, Hereford** Also located in Hereford's Old Market retail district, the building achieved a BREEAM Excellent score of 77.9%. The project scored particularly well in the Management and Waste sections of BREEAM. It is one of a number of BREEAM-certified assets owned by TK Maxx across the UK.



L'avenue83, Toulon



Waitrose, Hereford



TK Maxx, Hereford



### And the winner is...

#### Torsplan, Stockholm

Developed by NCC and constructed in a former industrial area of Stockholm, the building, which comprises offices, restaurants and a gym, contributes to the local area as well as providing comfort for tenants. Its heavy concrete structure provides good thermal storage and consistent indoor climate. Energy use is further reduced with efficient LED lighting and the building is heated by district heating, which produces low greenhouse gas emissions.

## BREEAM New Talent Award 2016

Designed to recognise up and coming talent in the BREEAM world, a new category – the BREEAM New Talent Award – has been created for the 2016 Awards.

The nominations for this new award are created from the most successful students in the BREEAM Accredited Graduate (AG) course.

The three students scoring the highest marks in the AG course last year are:

- **Yogesh Verma**, University of Nottingham
- **Sachin Porkute**, University of Nottingham
- **Mitchell Curtis**, University of Reading

The BREEAM AG Course is run by BRE Academy, and provides a BREEAM-based complement to existing academic programmes for built environment and sustainability undergraduates and postgraduates. It allows universities to connect with BREEAM in both UK and international markets.

The successful candidate and winner of the 2016 award is Mitchell. He is currently studying for a Doctorate of Engineering at the University of Reading. Born in New Zealand, he previously completed a Master of Science degree at Reading covering renewable energy systems.

Pauline Traetto, Director of BRE Academy says: "Congratulations to all three students who have made the shortlist for this new award. Providing students and graduates with industry relevant qualifications & skill sets to support academia, individuals and industry with employability and to pursue best practice in the marketplace is paramount to us."

More information on BREEAM AG and BRE Academy's BREEAM-related learning and development can be found at [www.breacademy.com](http://www.breacademy.com)

Many congratulations to Mitchell, the University of Reading and all the candidates involved!



Mitchell Curtis,  
University of Reading

# Thank You

To all the assessors, clients, APs and others who are helping to make BREEAM the leading international sustainability standard for buildings, communities and infrastructure.

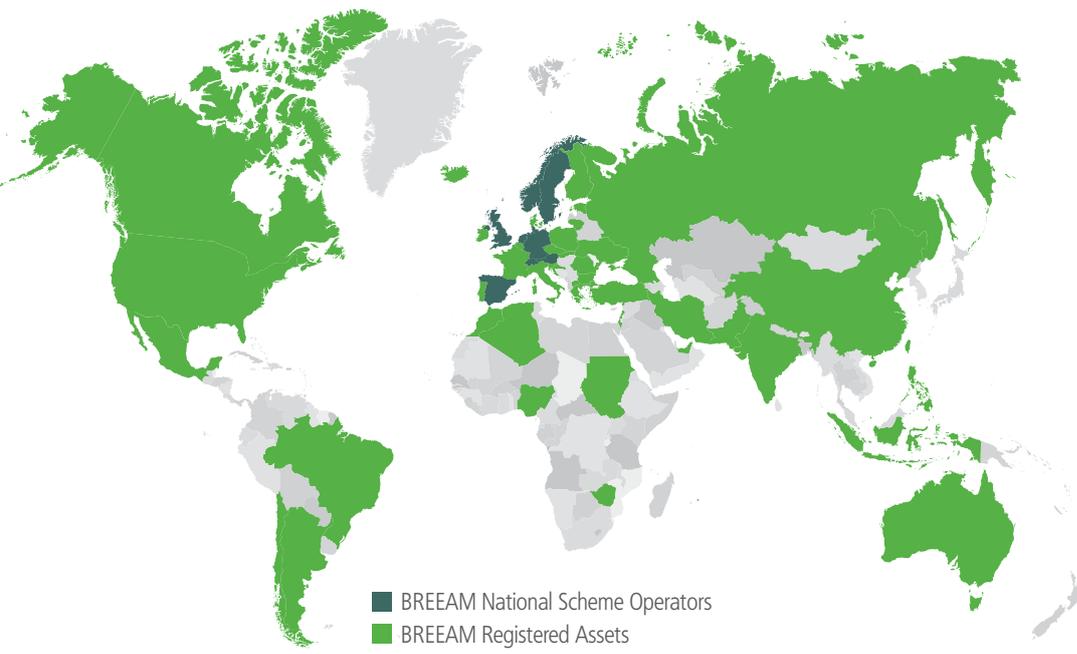
**Thank you to the clients, BREEAM assessors and project teams who supplied images and information for this document.**

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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](http://www.breem.com/breem25)



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