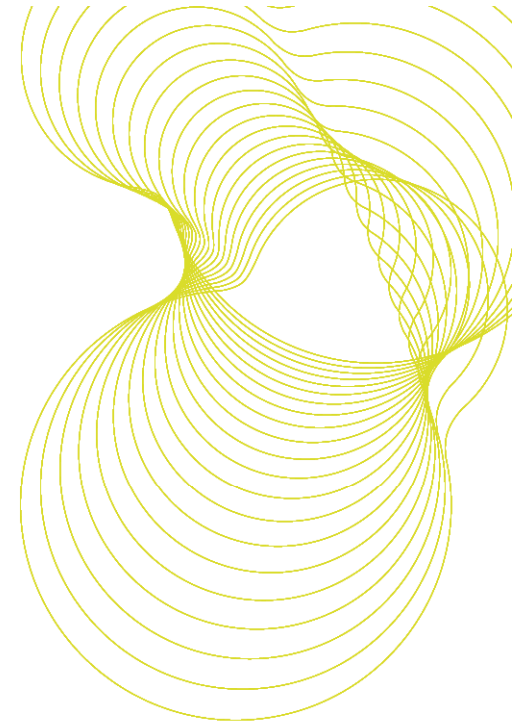


bre global

BREEAM Europe

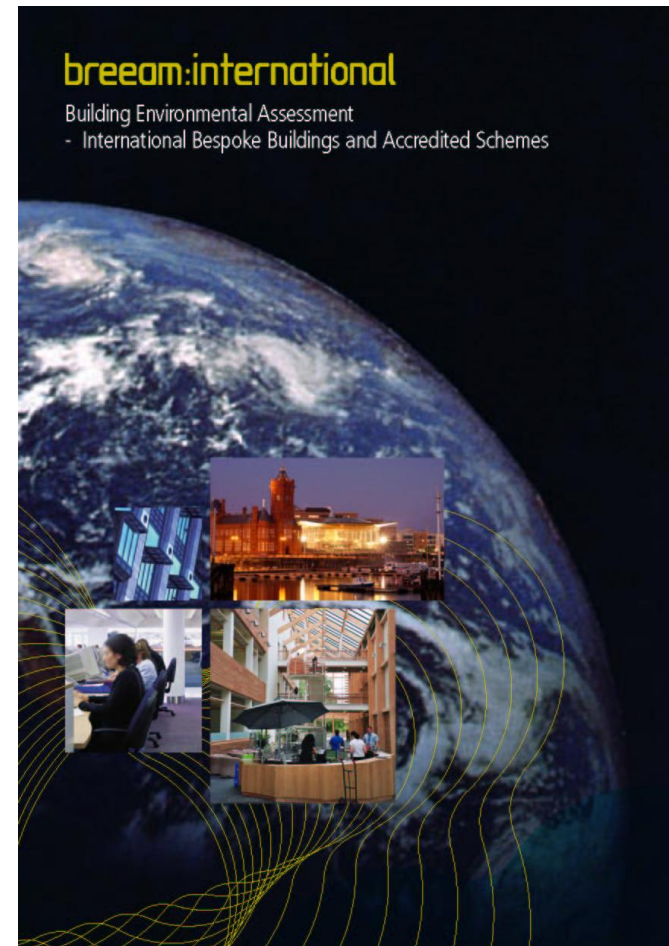


BREEAM International

- Banner under which all BREEAM assessments outside the UK are undertaken

Includes

- Regional standard Schemes
- 'One off' tailored assessments
- Country specific schemes



Regional standard schemes

- BREEAM Gulf
- BREEAM Europe
 - Retail
 - Offices
 - Industrial
 - Toyota retail units
 - More to come...
- Allows comparison of a portfolio of buildings across one region



BREEAM Bespoke International

- Buildings not covered by standard BREEAM schemes
- BRE develop criteria specific to the building assessed
 - Criteria tailored for the building type and the local context/local conditions
 - Close cooperation with the design team



Country-specific schemes

- A number of GBCs are also looking at adapting BREEAM into their own national environmental assessment method
- Leading to a tool that is:
 - Nationally recognised and endorsed
 - Appropriate and tailored to the local context and conditions
 - Consistent with other international standards and assessment tools
 - Available in the local language
- Advantages:
 - Benefiting from BRE's knowledge and expertise
 - Best practice sharing
 - Less resources required
 - Income revenue

BREEAM Europe

This presentation aims to give the reader a general overview of the operational and technical aspects of the BREEAM Europe Schemes specifically.



BREEAM Europe Schemes

- BREEAM Europe Offices
- BREEAM Europe Retail
- BREEAM Europe Industrial
- BREEAM Europe Toyota

Key objectives

- Maintain consistency and comparability with other BREEAM assessments in other locations
 - One common generic manual and country reference sheets
 - Same assessment methodology
 - Same categories
 - Minimum proportion of core issues
- Comparison against national baseline
 - Measure the improvement compared to the national Building Regulations
 - Use of national best practice standards or nationally acceptable ones

Key factors taken into account

- Climate
- Ecology
- Construction materials
- Culture
- Construction practices
- Building Regulations
- Infrastructure
- Historical context
- Political decisions
- Geography...



Scope of the BREEAM Europe Schemes

BREEAM Europe Schemes

For the purposes of BREEAM, Europe is defined as follows;

- Any member state of the European Union
- EFTA Member States i.e. Iceland, Norway and Switzerland
- Current EU candidates: Turkey, Croatia and Macedonia
- Others: Albania, Belarus, Bosnia & Herzegovina, Moldova, Montenegro, Serbia and Ukraine.

Stages of Assessment

The stages of assessment in which the BREEAM schemes

can currently be used to assess the environmental impacts arising as a result of an individual building development (including external site areas) are:

- **Design Stage**
- **Post Construction Stage (mandatory in all schemes from the Autumn)**
- **Operational Stage (BREEAM in Use in development for International)**

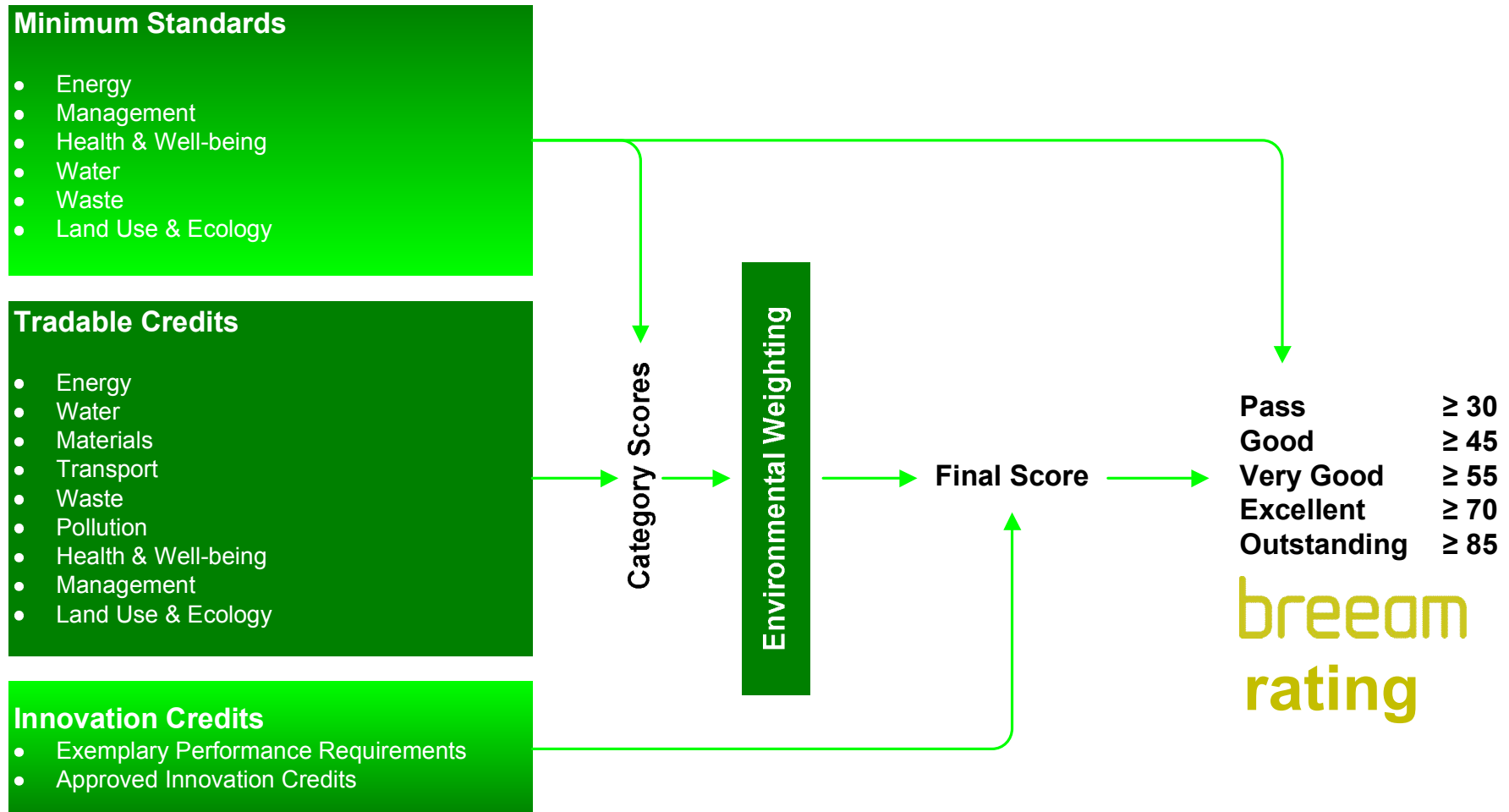
Types of buildings which can be assessed under the International Schemes

- **Whole new buildings**
- **Major refurbishments of existing buildings**
- **New build extensions to existing buildings**
- **A combination of new build and existing building refurbishment**
- **New builds or refurbishments which are part of a larger mixed use development**
- **Existing building fit out**

(for further information regarding the function areas of buildings falling under each scheme, please look at the scope of the schemes document on the BREEAM international website)

Scoring and Rating

General BREEAM process



BREEAM Europe Environmental Section Weightings

BREEAM Section	Weighting %	
	New builds, extensions and major refurbishments	Building fit out only (where applicable to scheme)
Management	12	13
Health & Wellbeing	15	17
Energy	19	21
Transport	8	9
Water	6	7
Materials	12.5	14
Waste	7.5	8
Land Use & Ecology	10	N/A
Pollution	10	11

BREEAM Europe Rating Benchmarks

BREEAM Rating	% Score
Unclassified	< 30
Pass	≥ 30
Good	≥ 45
Very Good	≥ 55
Excellent	≥ 70
Outstanding*	≥ 85

BREEAM Outstanding Rating

The following conditions must be met in order to certify a building at the *Outstanding* BREEAM rating level:

- The building must achieve a final BREEAM Score ≥85%
- Provision of material for the production and publication of a case study

BREEAM Europe Technical Sections

BREEAM is split into the following categories:

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



Examples of issues assessed under the Management section

- **Man 1** Commissioning
- **Man 2** Considerate constructors
- **Man 3** Construction site impacts
- **Man 4** Building user guide
- **Man 12** Life cycle costing

Examples of issues assessed under the Health & Wellbeing section

- **Hea 1** Daylighting
- **Hea 2** View out
- **Hea 3** Glare control
- **Hea 4** High frequency lighting
- **Hea 5** Internal and external lighting levels
- **Hea 6** Lighting zones and controls
- **Hea 7** Potential for natural ventilation
- **Hea 8** Indoor air quality
- **Hea 9** Volatile organic compounds
- **Hea 10** Thermal comfort
- **Hea 11** Thermal zoning
- **Hea 12** Microbial contamination
- **Hea 13** Acoustic performance
- **Hea 14** Office space (issue not assessed in the offices scheme)

Examples of issues assessed under the Energy section

- **Ene 1** Reduction of CO2 emissions
- **Ene 2** Sub-metering of substantial energy uses
- **Ene 3** Sub metering of high energy load and tenancy areas
- **Ene 4** External lighting
- **Ene 5** Low or zero carbon technologies
- **Ene 6** Building fabric performance & avoidance of air infiltration
- **Ene 7** Cold storage
- **Ene 8** Lifts
- **Ene 9** Escalators & travelling walkways

Examples of issues assessed under the Transport section

- **Tra 1** Provision of public transport
- **Tra 2** Proximity to amenities
- **Tra 3** Cyclist facilities
- **Tra 4** Pedestrian and cyclist safety
- **Tra 5** Travel plan
- **Tra 6** Maximum car parking capacity
- **Tra 7** Travel information point
- **Tra 8** Deliveries and manoeuvring

Examples of issues assessed under the Water section

- **Wat 1** Water consumption
- **Wat 2** Water Meter
- **Wat 3** Major leak detection
- **Wat 4** Sanitary supply shut-off
- **Wat 5** Water recycling
- **Wat 6** Irrigation systems
- **Wat 7** Vehicle wash

Examples of issues assessed under the Materials section

- **Mat 1** Materials specification (major building elements)
- **Mat 2** Hard landscaping and boundary protection
- **Mat 3** Reuse of building façade
- **Mat 4** Reuse of building structure
- **Mat 5** Responsible sourcing of materials
- **Mat 6** Insulation
- **Mat 7** Designing for robustness

Examples of issues assessed under the Waste section

- **Wst 1** Construction Site Waste Management
- **Wst 2** Recycled aggregates
- **Wst 3** Recyclable waste storage
- **Wst 4** Compactor / Baler
- **Wst 5** Composting
- **Wst 6** Floor finishes

Examples of issues assessed under the Land Use and Ecology section

- **Lue 1** Reuse of land
- **Lue 2** Contaminated land
- **Lue 3** Ecological value of site AND Protection of ecological features
- **Lue 4** Impact on site ecology
- **Lue 6** Long term impact on biodiversity

Examples of issues assessed under the Pollution section

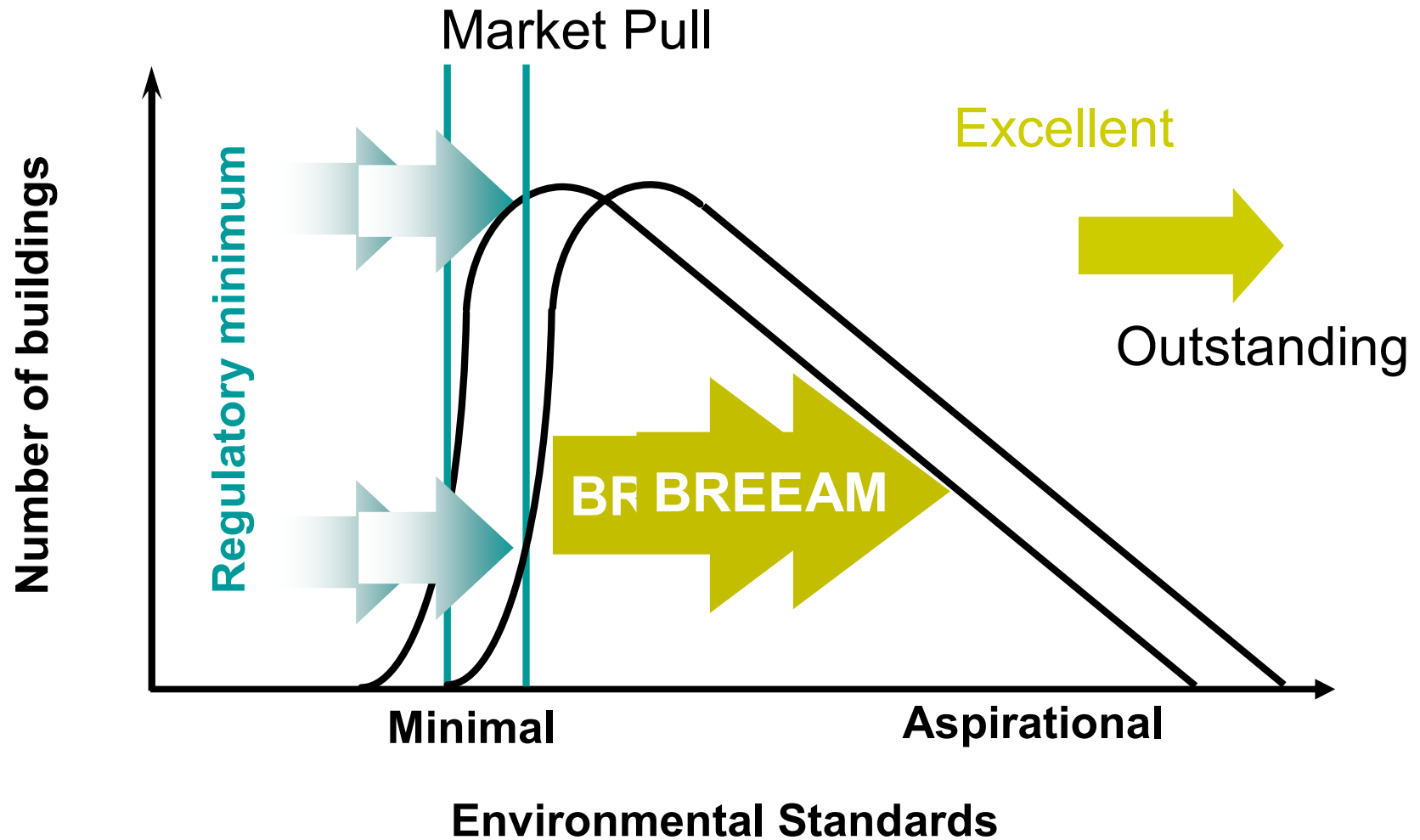
- **Pol 1** Refrigerant GWP - Building services
- **Pol 2** Preventing refrigerant leaks
- **Pol 3** Refrigerant GWP - Cold storage
- **Pol 4** NOx emissions from heating source
- **Pol 5** Flood risk
- **Pol 6** Minimising watercourse pollution
- **Pol 7** Reduction of night time light pollution
- **Pol 8** Noise attenuation

Country reference sheets

The use of local codes and standards

- BREEAM International promotes the use of local best practice codes and standards where such standards exist in a country or region
 - Ensure relevance and adequacy with the local context
 - Refers to standards design teams are already familiar with
 - Essential to set challenging but realistic benchmarks
 - Avoid doubling work

Setting the standard



The use of local codes and standards

- Country reference sheets are completed for a number of countries highlighting where different requirements or different standards should apply.
- Country reference sheets are continuously updated with local codes and standards as projects are being assessed and information is researched and collected, and then shared with other projects.
- All codes and standards listed in country reference sheets have been confirmed by BREEAM International as appropriate standards which can be used to demonstrate compliance against the issues which are assessed.

Example of Country Reference Sheet - Denmark

Credit number	Item	Local standard
Man1 Commissioning	Req. 3	Commissioning Codes for Fume cupboards and microbiological safety cabinets <ul style="list-style-type: none"> a. DS EN 14175-2:2003 “<i>Fume cupboards - Part 2: Safety and performance requirements</i>” b. DS EN 12469 – “Biotechnology – Performance criteria for microbiological safety cabinets”
	Additional references	Technical Building Regulations: <ul style="list-style-type: none"> a. Byggeloven (LBK 452:1998) (Building Regulations) b. Bygningsreglementet (BR2008) (Construction Regulations) www.br08.dk c. Bekendtgørelse om kvalitetssikring af byggearbejder (BEK 169:2004) (Directive on quality assurance of building works)
Man2 Considerate constructors	Additional references	Bygningsreglementet (BR2008) (Construction Regulations) www.br08.dk
Man3 Construction site impacts	Additional references	-
Man4 Building user guide	Additional references	-
Man12 Life cycle costing	Additional references	-

What happens if a Country Reference Sheet is incomplete?

- The client or assessor should appoint a local expert as early in the assessment process as possible
- The role of the local expert is to source local best practice documents. The BREEAM International assessor will be able to provide further guidance on this and support the local expert in this task.
- The local expert would also be required to translate and summarise the salient points covered by the documentation proposed to be used in order for it to be presented to BREEAM International for approval
- Once a local code or standard has been approved by BREEAM International, this is recorded in the Country Reference sheet and shared between projects.

What happens if local codes or standards do not exist in a country?

- European standards are identified and listed in the BREEAM Europe schemes
 - Default standards to be used to demonstrate compliance
- BREEAM International assessors will guide you through the process.

Contact Details:

Tel: 0044 (0) 1923 664462

Email: breeaminternational@bre.co.uk

Web: www.breeam.org/international