

BREEAM UK NEW CONSTRUCTION ASSESSMENT

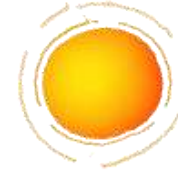
BUILDING SUSTAINABILITY CERTIFICATION

2017-2018

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BUILDING



It is used by people with different purposes:

- Residential
- Socialization
- Infrastructures
- Production
- Trade



There are requirements to cover:

- Health
- Comfort
- Practicability



ENVIRONMENTAL IMPACT OF BUILDING

European Union:

“Buildings consume nearly 40% of our energy, produce 30% of waste that goes to dumping, consume 30% of our raw materials and 25% of our water”.





ENVIRONMENTAL IMPACT OF BUILDING



¿What impacts do these buildings cause?



ENVIRONMENTAL IMPACT OF BUILDING

Natural Resources Consumption

- Big volumen of raw materials
- Renewable and non-renewable

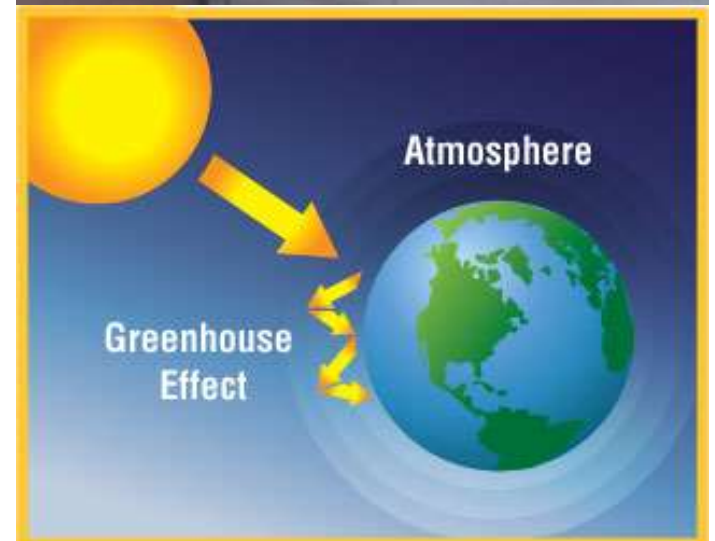




ENVIRONMENTAL IMPACT OF BUILDING

Energy consumption

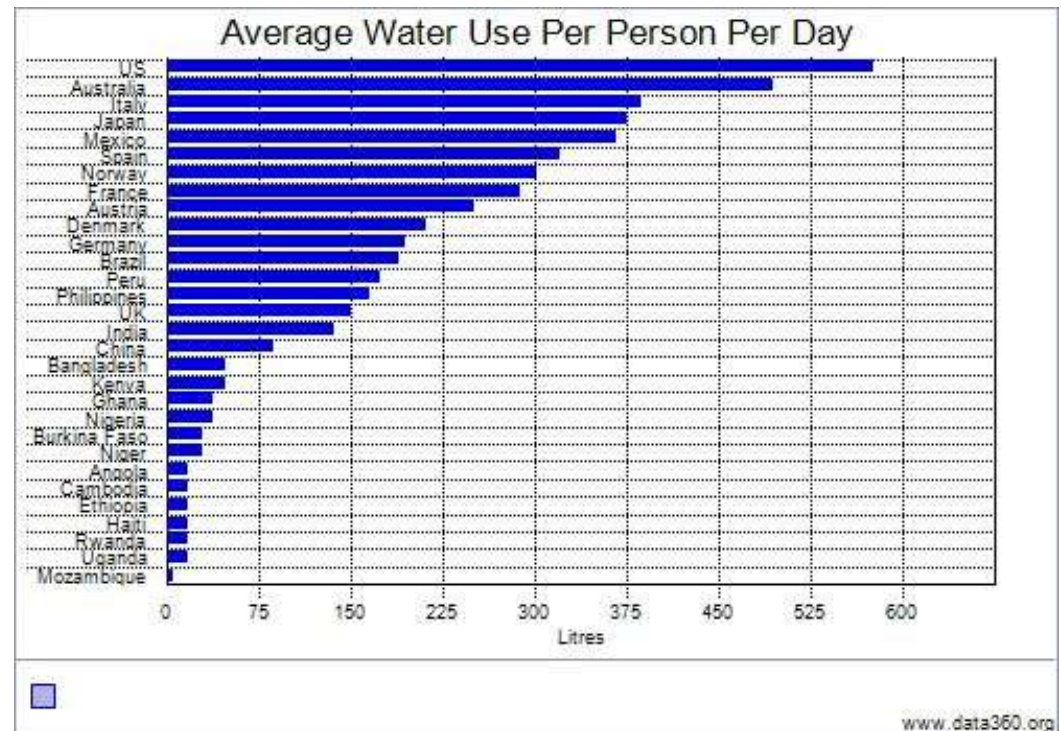
- Fossil energies
- Emissions to the atmosphere
- Greenhouse Effect





ENVIRONMENTAL IMPACT OF BUILDING

Water consumption





ENVIRONMENTAL IMPACT OF BUILDING

Increase of artificial land

- Destruction of farm land and pasture
- Over-exploitation of the coast





ENVIRONMENTAL IMPACT OF BUILDING

Waste generation

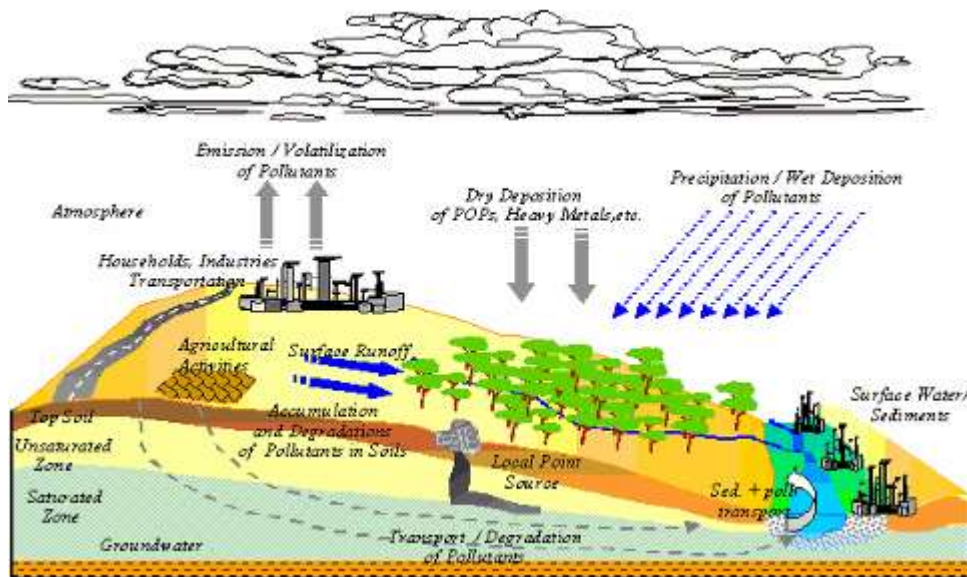
- Big volume and weight
- Mainly inert waste





ENVIRONMENTAL IMPACT OF BUILDING

Soil and water pollution

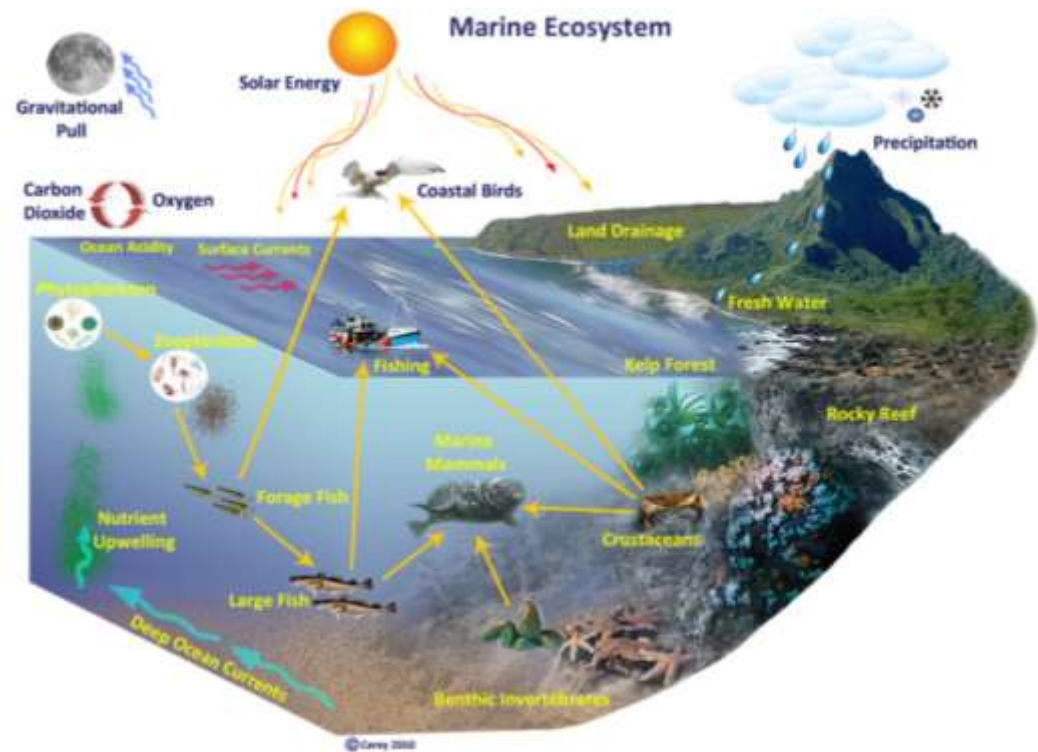




ENVIRONMENTAL IMPACT OF BUILDING

Impact over ecosystems

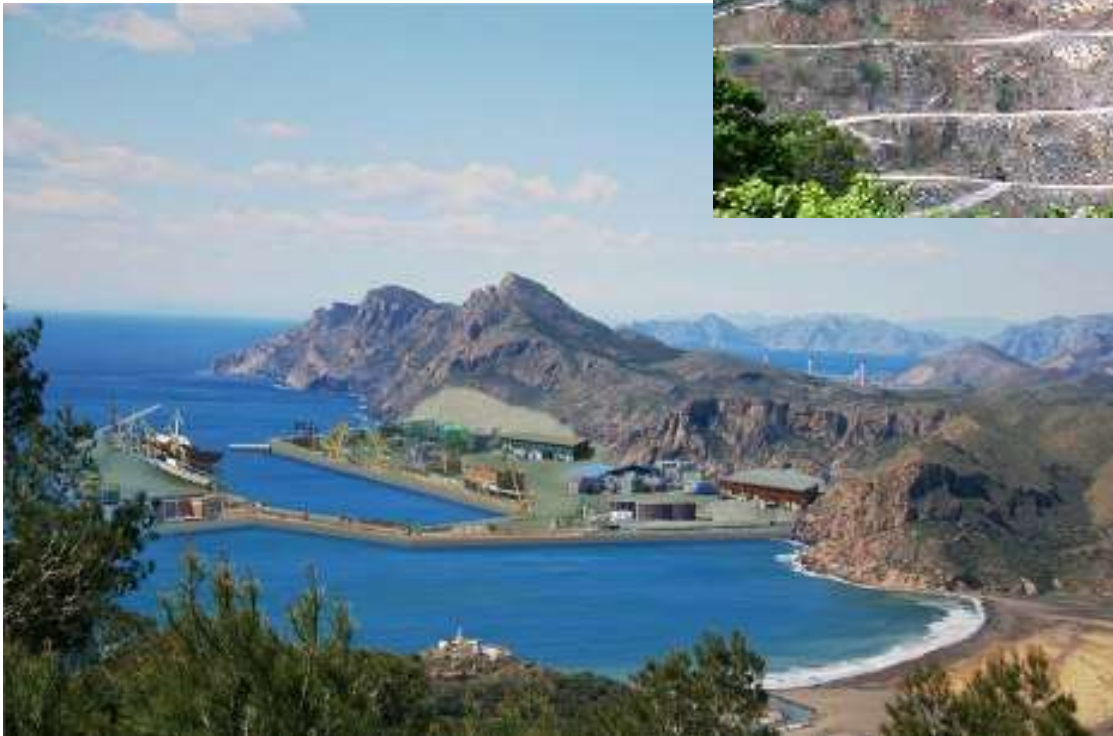
- Not balanced
- Destruction of life





ENVIRONMENTAL IMPACT OF BUILDING

Landscape impact





BUILDING SUSTAINABILITY ASSESSMENT

There are systems for assessing the building sustainability in different aspects.

Some measurable aspects are:

- ☐ Energy consumption in materials production
- ☐ Energy efficiency
- ☐ Use of non-pollutant materials
- ☐ Possibilities for recycling and recovery
- ☐ Use of recycled materials
- ☐ Building use
- ☐ Energy consumption during use stage
- ☐ Use of surrounding resources
- ☐ Water consumption
- ☐ Access to natural light
- ☐ Heating and cooling systems
- ☐ Indoor air quality



BUILDING SUSTAINABILITY ASSESSMENT

Certification developed by an accredited assessor

Why is it useful?

- market recognition for low environmental impact buildings
- confidence in tested environmental practice
- innovative solutions to minimise environmental impact
- a standard for progress towards environmental objectives



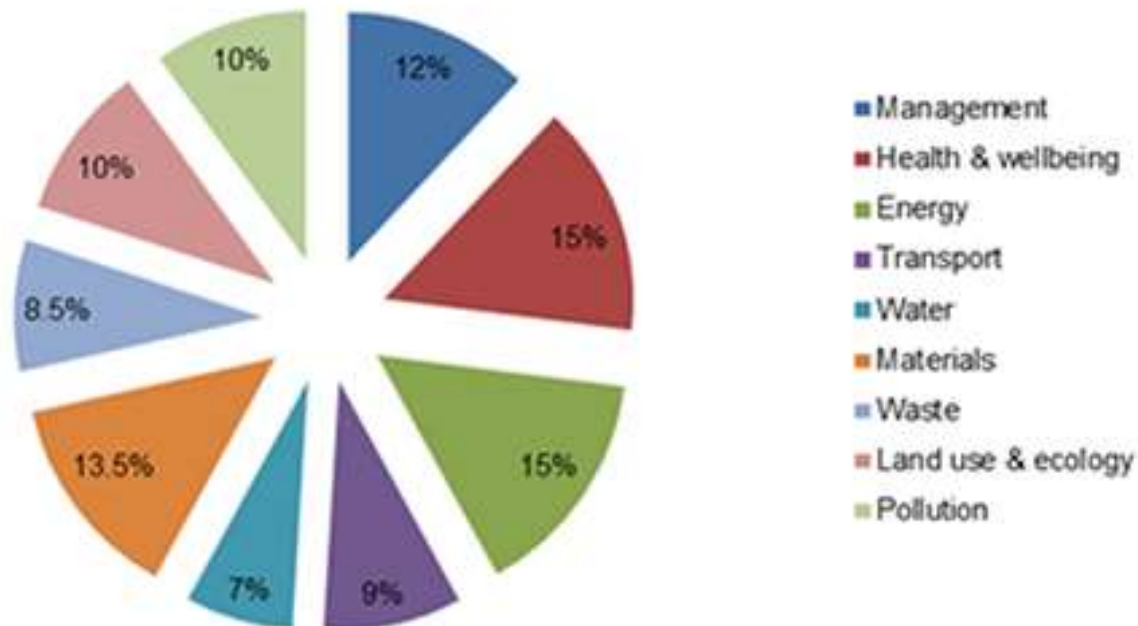
BRE Global Limited

Based in the UK

One of the most extended in the world

VIDEO

BREEAM 2014 NC (FFO) Weightings





National Scheme Operators



International



United Kingdom



Germany



Netherlands



Norway



Spain



Sweden



Austria



BREEAM New Construction

BREEAM International New Construction

BREEAM In-Use

BREEAM Refurbishment

BREEAM Communities



OTHER SYSTEMS OF ECOLABELING FOR BUILDINGS

LEED SYSTEM

U.S. Green Building Council (USGBC)

[LINK](#)



LEED® for New Construction

Total Possible Points** 110*

	Sustainable Sites	26
	Water Efficiency	10
	Energy & Atmosphere	35
	Materials & Resources	14
	Indoor Environmental Quality	15

* Out of a possible 100 points + 10 bonus points

** Certified 40+ points, Silver 50+ points,
Gold 60+ points, Platinum 80+ points



OTHER SYSTEMS OF ECOLABELING FOR BUILDINGS

LEED SYSTEM

Green Building Council Network

GBCs are member-based organisations

- Prospective
- Emerging
- Established

Regions:

- Africa
- Americas
- Europe
- Asia Pacific
- MENA (Middle East and North Africa)



WORLD
GREEN
BUILDING
COUNCIL

VIDEO



OTHER SYSTEMS OF ECOLABELING FOR BUILDINGS

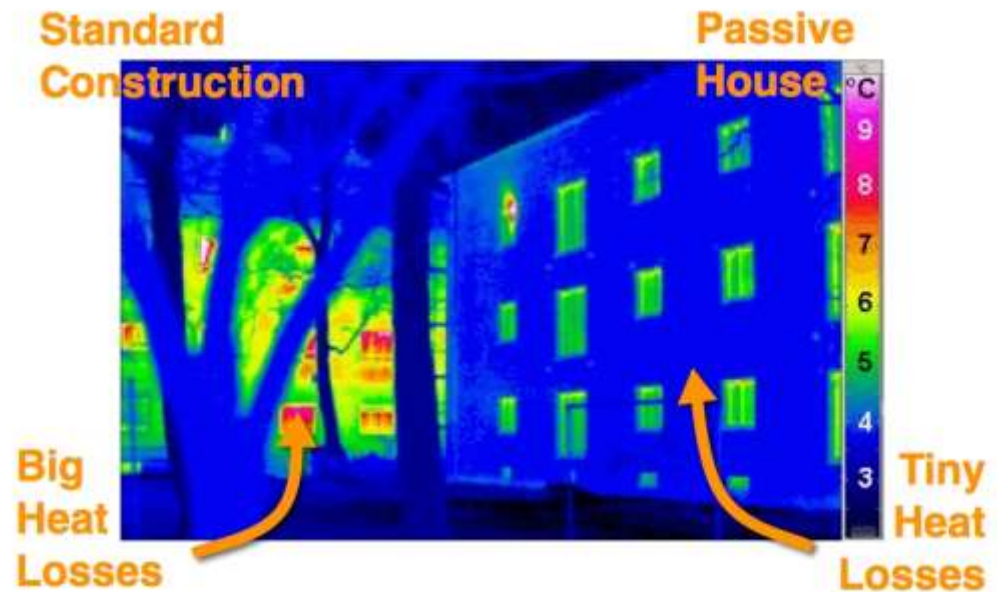
PASSIVHAUS

Looking for 3 main outputs:

- Comfort
- Energy efficiency
- Quality Assurance

5 Basics:

- Integrated design
- Location
- Orientation
- Form
- Construction system



**PASSIVE HOUSE IS
FUNDAMENTALLY
ABOUT DESIGN**

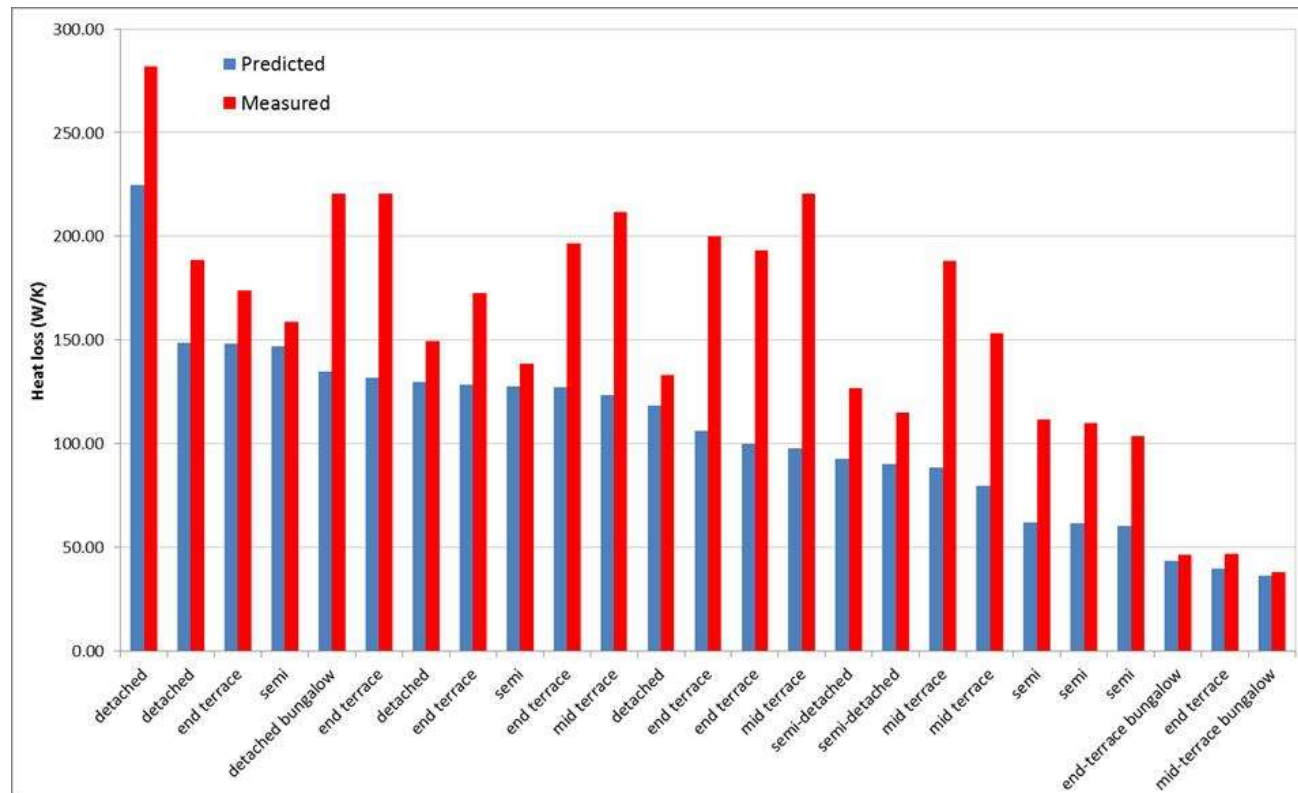
VIDEO



OTHER SYSTEMS OF ECOLABELING FOR BUILDINGS

PASSIVHAUS

The performance gap – Passive House value





OTHER SYSTEMS OF ECOLABELING FOR BUILDINGS

PASSIVHAUS

Passive House Institute

Independent research institute lead by Dr Wolfgang Feist
First pilot project (Kranichstein Passive House, Darmstadt, Germany, 1990)



iPHA Affiliate Organisations

Austria	Hungary	Sweden
Australia	Ireland	Turkey
Canada	Italy	United Kingdom
Germany	New Zealand	United States
Estonia	Portugal	
Spain	Greece	

