



Our world has become aware of the absolute need to respect our natural environment. This trend can naturally also be found in the construction industry, in both new-build and in renovations.

The Kyotec Group is finding more and more demand from architects, customers, etc. for environmentally friendly and sustainable construction and renovation.

At the moment, the certification for these standards is a free choice but the BREEAM method is being increasingly demanded and applied by our customers. Under pressure from environmental issues (climate change, acidification, water quality, energy management, materials sustainability ...) it can be assumed that, particularly for large projects, this certification will eventually be a requirement.

In recent years, a number of standards have been developed around the world to deal with this issue.

The oldest and most widely used of these is the British BREEAM standard, which exists in different versions to suit the nature and future use of a project – e.g. offices, industry, schools. This standard also has an international version that can be used outside the UK (Breeam Europe Commercial).

A nation-specific version can also be obtained via the British Research Establishment (BRE). This is why the Netherlands has selected the Breeam NL standard, whereby the certification of a project is based on the British standard but amended in accordance with the current Dutch legislation, databases and references.

In addition to the British standards, there are also, amongst others, the LEED (US), Valideo (Belgium) and the French HQE standards, which is important for Kyotec's market.

There is still no uniform standard at European level, so we work on the principle that each system has its own procedures, emphasis and interpretations. In the future, a convergence can be expected between the widely used BREEAM and the complex HQE standards.

Several owners and customers for new or existing buildings have their constructions evaluated and certified to one or more of these standards. In this way, they seek a high-level of 'durable' and 'green' building.

Seen in this way, "Challenger" from Bouygues has an exemplary role since they are seeking not only HQE and LEED but also Breeam Excellent certification. The realised gain has several aspects. Not only is the load on the environment reduced and sustainability increased, the financial consequences can also be attractive for the owner. For example, energy-efficient construction leads to lower energy bill, solar panels lead to lower CO2 emissions and good waste management increases the potential for recycling. In addition, it has been found that buildings with a good final certificate have added value for the seller or lessor.

Depending on the standard selected, various aspects are analysed in great detail for their sustainability and environmental impact. This is done not only for the planning and design phases but also for implementation and use.

Certificates either can be obtained at design level or after the project is completed. The aspects covered include energy (use and CO2 reduction), management, health, transport, choice of materials, waste management, land use, pollution and ecological impact.

Certificates assess the component aspects separately and provide an overall summary. In addition, the standards have a number of minimum requirements.

From the nature of its activities, it is evident that Kyotec influences various aspects of the certification and thereby sometimes plays a dominant role. Kyotec naturally wishes to make a positive contribution.

BREEAM (BRE Environmental Assessment Method) is the leading and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance.

## WHAT'S BREEAM ?

### How BREEAM works ?

BREEAM rewards performance above regulation which delivers environmental, higher comfort or health benefits. BREEAM awards points or 'credits' and groups the environmental impacts into the following sections :

**Energy** / operational energy and carbon dioxide (CO<sub>2</sub>)

**Management** / management policy, commissioning, site management and procurement

**Health & Wellbeing** / indoor and external issues (noise, light, air quality etc)

**Transport** / transport-related CO<sub>2</sub> + location-related factors

**Water** / consumption and efficiency inside and out

**Materials** / embodied impacts of building materials, including lifecycle impacts like embodied carbon dioxide

**Waste** / construction resource efficiency and operational waste management and minimisation

**Land use** / type of site and building footprint

**Pollution** / external air and water pollution

**Ecologie** / ecological value, conservation and enhancement of the site

The total number of points or credits gained in each section is multiplied by an environmental weighting factor which takes into account the relative importance of each section. Section scores are then added together to produce a single overall score.



Projet Challenger, France - Photographie © Source Flickr