



SOCIO ORDINARIO

# LEED

Leadership in Energy and Environmental Design

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Everyone knows that the construction industry has a huge impact on resource consumption. Figures by major research institutes state that the construction industry accounts for about 40% of Italy's energy consumption, 40% of its natural resources (raw materials and other materials) and produces 25% of its wastes. Plus the industry is responsible for heat dispersion due to poor insulation in buildings.

The European Union has set goals, signed by Italy, for stemming the problem of pollution and drastically cutting energy consumption.

Compliance with the parameters set by the regulations requires a new way of thinking about architectural design and urban development based on project organisation and management schemes that take sustainable considerations and practices into account.

In the United States, the Green Building Council, an organisation that promotes best practices in sustainability in the construction industry and awareness of the importance of the environment, offers a tool for measuring buildings' environmental impact.

Since it was published for the first time in 1999, the LEED Green Building Rating System for New Construction has been an important aid for professionals in the construction industry and all stakeholders, allowing them to choose when to increase the benefits of sustainable operations.

Steps are being taken to introduce the Leed certification system in Italy. Green Building Council Italia is a non-profit organisation promoted by Società Consortile Distretto Tecnologico Trentino with the participation of numerous enterprises, architects and public and private organisations.

# How does LEED work?

## What is sustainability?

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

(World Commission on Environment and Development, 1987, Report "Our Common Future")

The LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™ is a voluntary certification programme aimed at reinforcing and promoting the high performance of sustainable buildings.

The architect can assess the building and immediately be aware of the impact of choices made in design in terms of environmental impact, divided into five categories affecting human health and the environment.

These categories can in turn be divided into sub-requirements for assessment on a scientific basis:

1. Sustainable sites
2. Water efficiency
3. energy and atmosphere
4. materials and resources
5. indoor environmental quality

A sixth category – innovation and design process – includes issues that are not included in other categories, such as acoustics, participation of the community, and other factors which vary depending on the type of construction project.

## LEED CERTIFICATION FOR EIFFELGRES

As a construction material, Eiffelgres porcelain stoneware falls under the fourth category; it has been awarded recognition of the amount of recycled material used in production, equal to 40% by weight.

This means that if the material is used to make floor or wall coverings in a sustainable construction project subject to U.S Green Building Council assessment, it will be assigned a score for re-use of resources in the materials category, helping to improving the building's overall score.

### score:

in the materials category, helping to improving the building's overall  
Council assessment, it will be assigned a score for re-use of resources

## Summary of the LEEDS assessment table

REQUIREMENTS	POINTS
<b>Sustainable sites</b>	<b>8-14</b>
prerequisite: control of soil erosion and sedimentation	
choice of site	1
urban development	1
improvement of soil quality	1
alternative transportation	1-4
reduction of noise at the site	1-2
rainwater management	1-2
designing open spaces to reduce heat islands	1-2
reduction of pollution	1
<b>Water efficiency</b>	<b>3-5</b>
efficient water management in open spaces	1-2
innovative water collection technologies	1
reduction of the use of water	1-2
<b>Energy and atmosphere</b>	<b>7-17</b>
prerequisite 1: designing energy systems for monitoring the building	
prerequisite 2: minimum energy standards	
prerequisite 3: reduction of cfc's in ventilation and air conditioning systems	
optimising energy performance	2-10
using renewable energy	1-3
monitoring the building	1
reducing greenhouse gas emissions under the montreal protocol	1
measuring and monitoring results	1
promoting use of clean energy	1
<b>Materials and resources</b>	<b>7-13</b>
prerequisite: separate collection of recyclable materials and wastes	
reuse in the building	1-2
management of construction wastes	1-2
reuse of resources	1-2
recycling	1-2
use of local or regional materials	1-2
use of rapidly renewable materials	1
use of certified wood	1
<b>indoor environmental quality</b>	<b>8-15</b>
prerequisite1: minimum indoor air quality standards	

REQUIREMENTS	POINTS
prerequisite 2: control of tobacco smoke	
monitoring co2 emissions	1
promoting indoor ventilation	1
construction management plan for guaranteeing indoor air quality	1-2
use of low emissions materials	1-4
control of sources of indoor chemical pollution	1
control systems	1-2
thermal comfort	1-2
natural lighting and view	1-2

The total number of points in each category contributes to the building's overall assessment, from a minimum of 26 points to a maximum of 69, and defines its level, from sufficient to mediocre.

- ✓ More precisely, buildings may be divided into:
- ✓ Basic Certification ( Certified, 26 – 32 points)
- ✓ Silver Certification (33-38 points)
- ✓ Gold Certification (39-51 points)
- ✓ Platinum Certification (52 and 69 points)

## Who is LEED for?

Architects, engineers, designers, real estate agencies, builders, interior designers, landscapers, the civil service and schools may use the Leed system to promote good practices in sustainable design, making a positive impact on human health and the planet and helping reduce passive costs for the entire community every day.

Voluntary certification brings numerous benefits, even for those who put it in practice. It is definitely a way of making yourself more visible, as a landmark for professionals in the field of building biology, and offers an opportunity to join the sustainable building network, going beyond national boundaries.

It is therefore an expedient that can increase a company's competitiveness on the market. In the United States, for example, the media often publicise projects that stand out for achieving a high score in Leed certification, making them into cases for study and examples for other construction projects.

For enterprises, Leed certification is above all a declaration of transparency to their customers.

Customer satisfaction, one of the most important goals of business, can only be obtained with high levels of quality.



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