



### **1.3.2. REPORT ON METHODOLOGIES FOR CALCULATION OF CO<sub>2</sub> EMISSIONS IN CONSTRUCTION PROCESSES IN ROMANIA**

OERCO2  
ONLINE EDUCATIONAL RESOURCE FOR INNOVATIVE STUDY OF CONSTRUCTION  
MATERIALS LIFE CYCLE

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This report reviews the existing methodologies in Romania which are possible to estimate CO<sub>2</sub> emissions associated with the building sector. Some of these tools are international voluntary certification schemes, others were developed in Romania following the existing economic, climatic and technical parameters. The certification schemes apply to both buildings and construction materials.

Romania Green Building Council established in 2008 is the main promoter and authority that supported the drive of the building sector towards better, safer, healthier buildings. The green building certification schemes applied in Romania are as follows:

- BREEAM
- LEED
- Living Building Challenge
- GREEN HOMES
- DGNB

The measures taken as CO<sub>2</sub> emissions in the design, construction or operation of the building influence the performance level for all of the certification schemes mentioned above.

LEED, BREEAM and Living Building Challenge are being used as international versions, however GREEN Homes was designed as a national robust scheme for the residential building sector.

In the case of BREEAM, there are 39 certified new construction buildings are office buildings and retail spaces. BREEAM measures sustainable value in a series of categories, ranging from energy to ecology. Each of these categories addresses the most influential factors, including low impact design and carbon emissions reduction; design durability and resilience; adaptation to climate change; and ecological value and biodiversity protection. Within every category, developments score points – called credits – for achieving targets, and their final total determines their rating.



## NZEB legislation

The Green Mortgage provides discounted mortgage pricing available to suitably-qualified, prospective home buyers interested in buying a home or apartment subject to guidelines established by the Romania Green Building Council (RoGBC) related to superior energy efficiency and environmental considerations. See our GREEN HOMES toolkit for more details.

The Romania Green Building Council has developed a low cost but comprehensive Green Homes certification to assess and recognize the top performing residential projects utilizing sustainable construction principles.

The tools used by assessors in order to calculate the the CO2 emissions of a building are as follows: Integrated Environmental Solution (IES VE Pro), GaBi and 360 Optimi.

360 Optimi requires data about material type, product name, thickness, quantity, transport (distance and type), service life.

## Bibliography

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