The Role of Resource Efficiency Towards Circular Economy

Last Modified on 29/03/2019 10:09 am CET

Author: Helena Gervasio

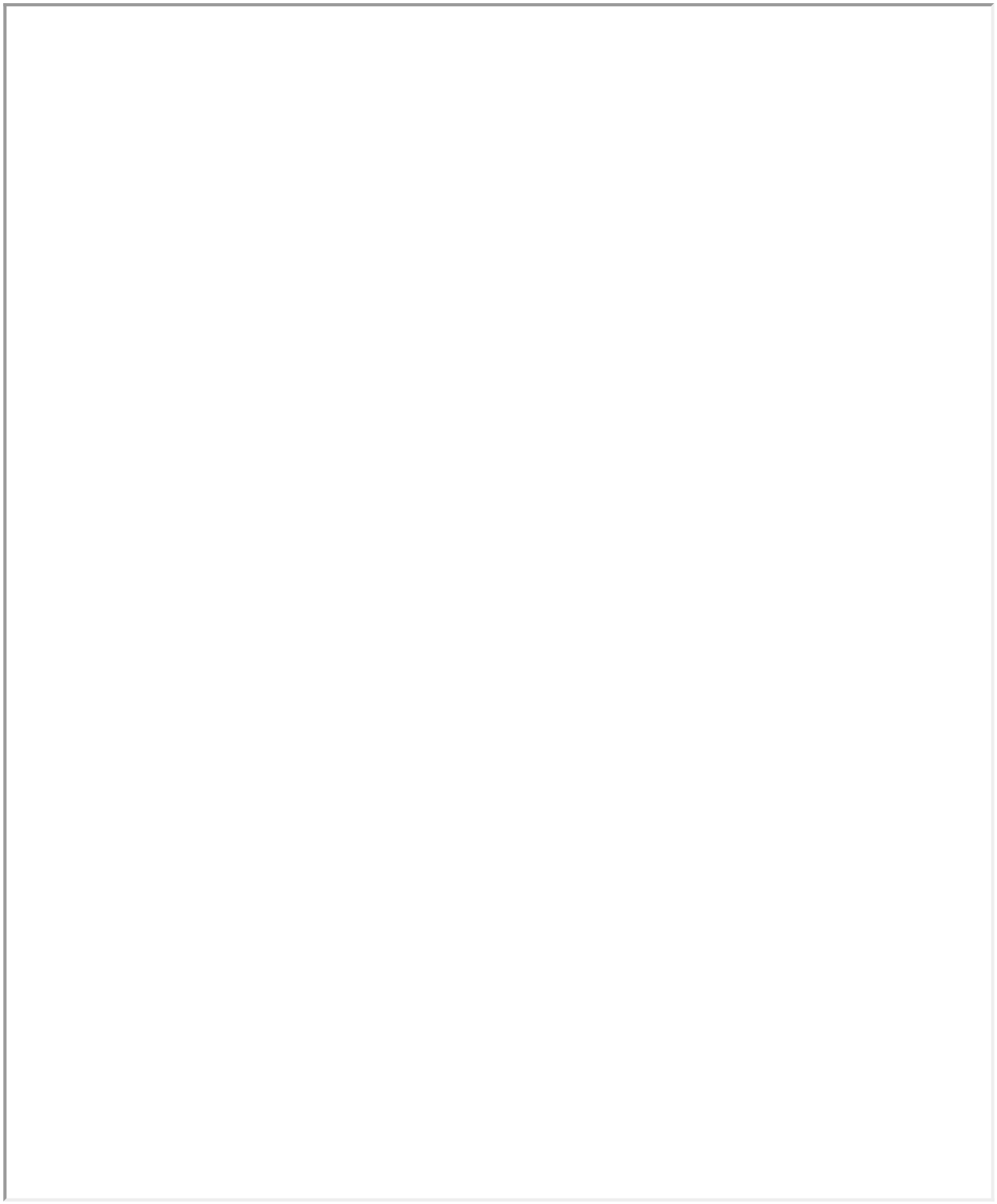
Date of publish: January 2019

Why did we conduct this research?

The use of natural resources for building construction represents, in terms of mass, one of the biggest challenges in resource consumption. The main aim of this paper is to present the developed approach, which is based on the benchmarking of the environmental performance of buildings, in a life cycle perspective

Key findings:

- Performance based approach for sustainable design developed in the project EFIResources enables to assess resource efficiency throughout the complete life cycle of buildings and aims for the harmonization between structural design and sustainability design of buildings.
- Providing a reference value for the environmental performance of buildings, it enables an easier interpretation of the performance of any given building and the identification of best practices, thus motivating the pursuit of measures leading to an enhanced building performance.
- Introduction of benchmarks provides a transparent yardstick to measure the environmental performance of buildings and will allow to effectively reduce the potential environmental impact of the building stock, so that the targets foreseen by the EU may become tangible in a realistic horizon of time.
- Need to promote the production of building data and environmental information about materials and processes, to allow for the consistent implementation of LCA-based approaches.



Reference:

Gervasio, H. (2019, January). The role of resource efficiency towards circular economy. In *IOP Conference Series: Earth and Environmental Science* (Vol. 225, No. 1, p. 012057). IOP Publishing.