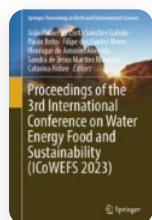


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# Sustainability Performance of Buildings in the Project Stage—Residence Students

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## Abstract

In recent years, the concept of sustainable construction has been promoted by demand and by regulations. Several methodologies to assess the sustainability of the construction have been spread across the world, by several countries for almost all continents. This study focuses on the most used construction sustainability assessment methodologies, which were compared with the Portuguese methodology, LiderA. It was found that the LiderA is the sustainability system with the greatest number of relevant criteria, considering the three dimensions of sustainability, environment, economy and social. Considering the 5 phases of the construction life cycle, the importance to apply these methodologies in construction is crucial in the early phases. It can help to draft the sustainability classification of the building. To apply the LiderA was used a residence of students, a building composed of apartments, in the phase of planning. All of the 40 criteria from the LiderA were classified from F to A++, according to the project of the residence of students. The final classification, as it was projected, was A, meaning that the building has an environmental performance 50% higher than usual practice. The category of criteria with the highest contribution was the category of quality of service and resilience, with a percentage of achievement greater than 50%. The local dynamics and the resources category were the categories with the lowest contribution, and they have the potential to be reevaluated by the building promoter, since it has the potential to improve the sustainability classification of the residence of students.

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