

Integration of LCA and BIM for Sustainable Construction

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Abstract : The construction industry is turning towards sustainability. It is a well-known fact that sustainability is based on a balance between environmental, social and economic aspects. In order to achieve sustainability efficiently, these three criteria should be taken into account in the initial project phases, since that is when a project can be influenced most effectively. Thus the aim must be to integrate important tools like BIM and LCA at an early stage in order to make full use of their potential. With the synergies resulting from the integration of BIM and LCA, a wider approach to sustainability becomes possible, covering the three pillars of sustainability.

Keywords : building information modeling (BIM), construction industry, design phase, life cycle assessment (LCA), sustainability

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