

Sustainable Buildings

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Sustainability – to satisfy human needs without restricting the fulfilment of human needs of future generations – is a significant topic especially in the field of construction. Long life cycles, economic, social and primarily ecological effects – as present discussions show – are perceivable aspects for everybody, and part of the sustainability assessment of building materials and buildings.

To assess this kind of sustainability, strategies, characteristic for long-term as well as short-term realization, must be applied, which take into consideration the quantitative evaluation of the entire life cycle of a building including material and energy requirements as well as avoid an apparent solution by simply shifting the problems. Life cycles analyses recording the material and energy flows „from the cradle to the grave“ by means of related environmental impacts, cover the ecological part of sustainability assessment.

The individual components leading to an objective and extensive total assessment are:

- Environmental product declarations (EPD) for building products
- Decision support on a quantitative basis in early planning stages
- Life Cycle Assessments for buildings
- Sustainability assessments for buildings

The method from the individual building material to the entire building, as followed by the Deutsche Gesellschaft für Nachhaltiges Bauen (DGNB = German Association for Sustainable Construction), allows the consequent optimization of building practice based on substantiated information and scientific methodology. Thus, applied sustainability assessment in the building sector consequently means the fundamentals of planning building materials and buildings for the near future.