



## **Construction sector**

LCM in the construction sector contributes to achieve societies' sustainability goals. Gaining a common understanding about this is still an ongoing process, but there are plenty of projects demonstrating already what this could mean. Projects comprise cost aspects as well as environmental and human health related aspects with special methodologies for topics in the different life phases of buildings and constructions. Targeted to different actor group views and interests, cost aspects are addressed as Life Cycle Costing (LCC), presently including mainly the use phase costs into design and investment decisions. Facility Management (FM) reflects, that use phase costs are as relevant as production costs. Health related aspects are addressed mainly as Indoor Air Quality and Cosiness, aiming, among others, at a proper balance between low emission indoor building products and ventilation set up. Environmental impact aspects are addressed as Life Cycle Assessment (LCA), with local and global protection goals, presently focussing on energy efficiency aspects. Finally resource saving is addressed by Material Flow Analysis (MFA) and Design for Recycling.

To gain, use and update valuable information on the different life phases of building products, building elements and buildings resp. constructions is still a challenge. Such information is required for design and investment decisions and should be transferable among actor groups in the different life phases. Instruments like Environmental Product Declarations (EPD) and labels should cover these requirements, as well as tools and interfaces for 3-D data and their visualisation in initiatives like the International Foundation Classes (IFC).

Contributions demonstrating various aspects of the "how to do" of LCM in the building and construction sector showing the state of the art and the future perspectives are highly welcome.

## **Sustainable Settlements**

Sustainable development addresses three main topics: social and economic welfare as well as environmental concerns. With regard to human settlements and their infrastructure, the ultimate actual and future challenges are the ongoing migration towards urban regions, the increasing gap between rich and poor, the decreasing social and cultural cohesion, the exploding needs for mobility versus traffic collapses, energy and waste management, air pollution, health and security as well as the maintenance and development of the lifelines, such as public and individual transportation systems, drinking and waste water networks, energy distribution and communication facilities, but also parks and recreational areas. There are no general recipes. Each situation needs a specific approach and solution. Often either the political will and/or the necessary funds are not given. In any case, comprehen-



sive life cycle considerations are a prerequisite of tangible, feasible and sustainable changes and developments in the urban fabric. The subtheme “Sustainable Settlements” calls for contributions mainly dealing with real case studies.

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