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# Vocabulary

## Life Cycle Costing

#### Research area: Design, planning and building

Life Cycle Costing is a systematic economic evaluation of life cycle costs of an item over a period of analysis using net present values. For a house Life cycle costs can be divided into:

• Initial costs: all costs incurred before residing a house - such as capital investment costs, purchase costs, and construction costs.





 Future costs: all costs incurred before residing a house – such as costs of water and energy bills, maintenance, occupancy and capital replacement, resale, salvage, and end-of-life costs. The costs to be included in a LCC vary depending on its objective, scope and time period.

Prioritising initial cost reduction in the decision making of a house design or construction, regardless of future costs implications, may not lead to an economically sustainable solutions in the long run. When LCC is not conducted it is like saying: 'All I care about now is reducing construction expenses. I do not care how will this house look like or function after 20, 30 years! It is not my business, it will be someone's else!'

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"For me, as a public policy researcher, I found it interesting that he distinguished three "levels of governance" in stakeholder participation: consultative, cooperative and integrated. Obviously, this ranged from marginal to greater participation. It made me think of the literature I read on recognition justice and fair and transparent decision-making."



Tijn Croon, a personal reflection following a lecture from Jordi Quiñonero, expert in planning of participatory processes, from the monoDestudio Cooperative, at the RE-DWELL Summer School in Valencia

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"Public health evidence is hardly referenced in policy and that the focus on other evidence bases such as on climate mitigation in building regulations results in both positive and negative impacts on health."

Carmichael, L., Prestwood, E., Marsh, R., Ige, J., Williams, B., Pilkington, P., ... & Michalec, A. (2020). Healthy buildings for a healthy city: Is the public health evidence base informing current building policies?. *Science of the total environment*, 719, 137146

"Cold homes have been linked to poor health outcomes by many studies, such as self-rated health well-being, physical health and mental health. In addition, households who cannot afford adequate heating have higher winter mortality and risk of having respiratory diseases."

Tu, G., Morrissey, K., Sharpe, R. A., & Taylor, T. (2022). Combining self-reported and sensor data to explore the relationship between fuel poverty and health well-being in UK social housing. *Wellbeing, Space and Society*, 3, 100070

#### Blog

Network members activities



We might think we are helping, but [Through<br/>Sustainability Lens] we might not!WORKSHOPS,<br/>REFLECTIONSPosted on 05-10-2021Posted on 05-10-2021WORKSHOPS,<br/>REFLECTIONSCountless examples can reflect this title, right? But<br/>today, I will write about a story of a woman living i...But<br/>Read more →Author: A.Elghandour (ESR4)Read more →



Kick-off a sense of unity out of us being different!

WORKSHOPS

Posted on 15-07-2021

Togetherness, belonging, a sense of comfort and connection plus an increased sense of responsibili...

Author: A.Elghandour (ESR4)

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# Mahmoud Alsaeed

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Krzysztof Nawratek (Co-Supervisor) Ignacio Guillén (Co-Supervisor)

# Vocabulary

### Sustainability of the Built Environment

ESR 5

#### Research area: Design, planning and building

Sustainability of the built environment aims to reduce human consumption of natural resources and production of waste while improving the health and comfort of inhabitants and, thus, the performance of the built environment elements such as buildings, spaces and the infrastructure that supports human activities. This requires an effective theoretical and practical framework encompassing at least six domains, including land, water, energy, indoor and outdoor environments, and economic and cultural preservation. Recently, other domains have been added, such as health and comfort, resource use, and environmental performance. Sustainability of the built environment also requires comprehensive coordination between the architectural, structural, mechanical, electrical and environmental systems of buildings in the design, construction and operation phases to improve performance and avoid unnecessary consumption.





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"High quality housing space is achieved by getting to know the users. Housing cooperative developers are close to the inhabitants and can get to know their needs and wishes in order to translate them into the design process."



Anne Kockelkorn, RE-DWELL Round-table no. 4, "How can community participation in the provision of affordable and sustainable housing be guided", 14 July 2022

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"The term sustainability is methodologically questionable. What do we want to sustain? Sustainability must be replaced by growth."

Interview with a sustainability manager conducted by Mahmoud Alsaeed on 23 February 2023



Choguill, C. L. 2007. The search for policies to support sustainable housing. *Habitat international*, 31, 143-149



"Creating a holistic framework for housing affordability and sustainability is a challenging issue that requires a transdisciplinary research approach to housing sustainability."

Mahmoud Alsaeed, from Housing co-creation for tomorrow's cities conference, Grenoble