Intermediation in a low energy building project: A case of One Brighton housing development 3-060-17

Paula Kivimaa & Mari Martiskainen
Centre on Innovation and Energy Demand, University of Sussex, United Kingdom

Keywords
buildings, zero-carbon houses, qualitative study, intermediaries, transition, local activities

Many experimental local projects have been carried out in low energy buildings that integrate a range of energy efficiency and renewable energy technologies and solutions. These have been important in showing how low energy building can be carried out and stimulating future expectations on energy demand reduction through buildings. However, a key question remains as to how we can spread these experiments to other localities and, importantly, into commercial applications, and who are important actors in these processes.

This paper presents an in-depth case study of One Brighton, a new build housing development in England offering 172 apartments and a community space, constructed during 2007–2010. One Brighton was developed with an objective of creating a residential building complex that enables sustainable, healthy and happy lifestyles. It in many ways stems from Bioregional – an environmental charity, social enterprise and an intermediary organisation championing more sustainable ways of living – and its pioneering BedZed housing development in London. However, also other intermediary actors were needed to initiate and pull through this innovative low energy building project. Triangulation of data sources including interviews, attendance in an on-site learning tour, and written material were used to construct the in-depth case.

Through a detailed analysis of this case, the paper shows (1) the role of a key intermediary actor in advancing systemic innovation in low energy housing beyond its initial experimental stage, and (2) how an ecology of intermediaries and champions advanced energy efficiency and sustainability during different phases of a building project. Intermediation in this case was crucial, taking different forms by different actors and at different periods. For policymakers this highlights the need to support the existence and activities of such intermediaries.

Experiences of consortia for scaling up nearly zero-energy renovations of single-family homes 3-062-17

Erwin Mlecnik & Ad Straub
Delft University of Technology, The Netherlands

Trond Haavik
Segel A.S., Norway

Keywords
innovation, renovation, collaboration, overcoming barriers, low-energy buildings, housing refurbishment, business models, one-stop-shop

On average 64 % of the dwellings in Europe are owner-occupied. Although there is an enormous potential to reduce their energy use and hence CO_2 emissions, the current average renovation rate is just around 1,2 %. The development of one-stop-shops is expected to increase the market uptake of home renovation. Developing emerging frontrunner consortia of SMEs, this research looks into opportunities and barriers for stimulating business development to develop the supply of integrated nearly zero-energy building (nZEB) renovations of single-family homes.

Experiences were collected from frontrunner consortia that want to offer nZEB renovations to owners of single-family homes. Using a business model canvas approach, the main barriers and opportunities were compiled from business development meetings with 24 consortia from five countries. Furthermore, a year after finalizing this exercise, the researchers evaluated the outcomes of the business development.

Based on the findings from the emerging consortia, the research identified key issues that are important for business model development. For reaching early adoption of nZEB single-family home renovation, effort is still needed for developing collaboration of SMEs, for improving customer interfaces and for dealing with barriers that emerge after business model development. Consortia are advised to pay specific attention to the use of the business model canvas for structuring their ideas, to discuss the opportunities to jointly develop one-stop-shops, and to seek collaboration with "independent" actors to reach out to larger groups of homeowners. Policy could support emerging consortia as the chances for successful market introduction are high.

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eceee secretariat
Sveavägen 98 IV
113 50 Stockholm
Sweden

tel: +46 (0)8 673 11 30

eceee@eceee.org
www.eceee.org

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