



Change in Business Ecosystems for Local Renewable Energy and Energy Efficiency - Better Energy Services for Consumers (USE)

It is increasingly acknowledged that production technologies alone will not meet the sustainability challenge. Attention must be paid to the factors which influence consumption at the individual, household and community level. Large-scale socio-technical changes are likely to require simultaneous development of organisations, technologies, service-based approaches and multiple network relationships that better address issues, such as consumers' energy use and consumers as prosumers. This consortium aims to create an understanding of the transition in the area of sustainable energy by taking an integrated approach to examining developments regarding renewable energy and energy efficiency. Attention is paid to local service ecosystems influencing consumer energy use and production through energy-efficiency and renewable energy solutions, and the emergence and diffusion of service-based innovations for integrated energy services in the context of buildings and districts. The project uses the idea of business ecosystems and applies it to the context that extends actor-networks from businesses to consumers and public actors. The project also analyses development of public policy and alternative-to-policy approaches in this area. Particular attention is paid to service-based innovation.

The consortium incorporates three main objectives: (1) to generate novel insights into the emerging ecosystem in sustainable energy production, energy-efficiency and renewable energy solutions: what kind of service and business ecosystems are emerging, what particular characteristics they have and how they involve consumers, particularly from the perspective of transitions (VTT & SYKE sub-projects); (2) to assess and to accelerate the generation, implementation and scaling up of new innovative service solutions and business ecosystems in the sector, where such structures are missing (VTT sub-project); (3) to examine what kind of policy and governance frameworks and instruments would support the emergence of new service business models and ecosystems promoting a transition towards new energy solutions (SYKE sub-project).

Research questions are: How can we theoretically and empirically describe the emerging renewable and energy efficiency ecosystem in the field of sustainable housing, integrating energy-efficiency and renewable energy solutions? How the generation, acceleration, implementation and scaling up of new innovative service solutions can be enhanced with the support of new type of evaluation approaches to promote the transitions of the energy system? What kind of governance frameworks and instruments would support the emergence of new ecosystems promoting a transition towards integrated renewable energy and energy-efficiency solutions to consumers?

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