

Development of Sustainable Cities: Sequences, Stakeholders and Interaction

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The interest for development of sustainable cities, eco-cities, has become massively popular since the early 2000s (Joss, S. 2010). Moreover, eco-cities are a highly complex phenomenon, and the evolution is characterised by multiple inter-institutional cooperation, at a level that e.g. utility firms perhaps have not experienced in the past. Obviously, a single firm will find it extremely difficult to take full responsibility for the construction of an eco-city. Despite the significant interest in, and the potential impact that efforts, to create a more sustainable society, might have, there is, for natural reasons, little research performed on the processes by which society and pockets of society evolve. In this paper we focus on development of the individual city, and the processes by which city actors attempt to move into sustainability. Given the scarce literature, we set out with a relatively inductive method, albeit slightly influenced by research on ICT (e.g. Kalling, T. 2003), stating that the successful implementation of new technical solutions is based on at least two phases. One phase, identifying the need for change, and the second installing and deploying them. We conclude that it might be effective to view the development of a sustainable city, using this two-step process approach. The first step, Asset Creation, is primarily characterised by choosing between technical solutions and securing funding, and is often driven by politicians, entrepreneurs and financiers. This phase is crucial in so-called Greenfield, and to some extent also in brownfield, and extended area, city projects. The second step, Asset Utilisation, on the other hand, starts when the equipment is installed, and when sustainable life is supposed to commence. This is characterised by entirely different challenges, as it deals with local cultural and cognitive features of behavior, and is, therefore, less deterministic and more voluntary. It requires active policy-makers that stimulate rather than command, committed citizens, and perhaps most importantly, a design which is deeply embedded in the idiosyncratic processes, activities and value chains that have given that very city its identity and historical comparative advantages. Local firms and citizen mainly drive this part of the venture. In this study, we use this approach as a perspective of sustainability change, and attempt to identify the challenges and success/failure factors one might be able to observe in the different phases. The primary purpose is to explore and identify the mechanisms that are involved in this two-step process, and, in its extension, to identify what fields of management theory might be suited to explore and use as the research community, inevitably, starts to study the sustainable society in a wider scale. Our observations suggest that a range of different management theory fields might be useful e.g.: stakeholder theory (e.g. Rhenman, 1964, Freeman, 1984), innovation process theory (Poole et al, 2000), and theories of inter-organisational relations (e.g. Parkhe, 1991, Szulanski, 1996), decision-making (e.g. Simon, 1976) and investment behavior (e.g. Bower & Gilbert, 2007). We have collected data from 45 different eco-cities around the world, which serve as the basis for our study.