Track 2 - The smart energy system transition in cities and regions

Title of the proposed paper
Planning and Business Models for Moving from Sustainable Energy Communities to Smarter Cities

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Text abstract (max. 300 words)
Turning the energy system of cities or regions into smarter, more sustainable ones poses a range of challenges. Those relating to planning on the one hand and financing on the other emerge as particularly crucial. Over recent years a considerable number of exemplary sustainable energy communities have emerged across Europe, paving the way to smarter cities. The authors have analysed 58 cities across 23 countries, in which solutions on neighbourhood scale have been realised. Typically, these projects encompassed both, demand side measures and supply side measures. Many provided examples of passive houses or even energy-plus buildings. Many set targets for zero emissions or 100% renewable energy supply. Whilst varying widely, the key characteristic of these projects was that they all combined a number of technologies and approaches in order to achieve best possible reductions in energy consumption and emissions. From this work lessons could be drawn regarding, inter alia, planning, funding and governance structures. Examples will be provided on how these projects were planned and delivered, how they were financed and what business models where used. Key aspects are the role of private house builders and the role of local authorities. This paper will explore barriers, success factors and lessons learned. Using the existing project examples as a starting point, it will explore in particular what is needed in order to scale up such projects to encompass whole cities, and what this means for individuals, municipalities, national governments and the EU.