

Paper title:

**Sustainable Urban Metabolism for Europe – Transforming urban planning policies and strategies**

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The way cities and urban areas are being built – in spatial terms and also in technological terms – is greatly influencing the quantities and qualities of resources being used in maintaining urban life. Future developmental trends, particularly at global scale, show that societal development is running a high risk, using up resources and unbalancing the environmental system, at least in some regions of the world. This paper will discuss a major new European Union funded research project *SUME* (Sustainable Urban Metabolism for Europe), which is exploring how future urban systems can be designed in a way that is consistently less damaging to the environment than the current status.

The concept of urban metabolism helps to understand and analyse the way societies – partly located in urban areas – use resources, energy and land, all elements of the environmental system, for maintaining and reproducing themselves. Researchers at Newcastle University are leading one of four work packages within the *SUME* project, and the paper will focus on Newcastle's work package – *Transforming urban planning policies and strategies*. The focus of that work package is on identifying the potential for new institutional frameworks and integrated strategies that can shape urban structures in such a way that leads to resource optimisation. The project is at an early stage, but the authors are keen to discuss the key question: how can policy makers and relevant stakeholder groups contribute to a sustainable urban development model and how would this be in their own interest?