Modelling Sustainable Urban Transition Dynamics

International symposium, Cardiff

3rd - 4th July 2013

Call for papers:

The challenge for urban policymakers is to develop the knowledge and capacity to find more sustainable ways of using resources and to incorporate this knowledge into the existing urban built environment, critical infrastructures, and the lives of the people who live in it.

Sustainable urban transitions are inherently complex phenomenon which cut across many fragmented sectors, such as buildings, water, waste, transportation, urban ecological systems and land uses. Although we cannot predict the future with high level of certainly, we know that it will have to conform to the laws of nature, the constraints of ecological systems and the peculiarities of individual human and societal systems. Significant amount of research and policy development is being undertaken to investigate visions for sustainable urban transition. Within the transition research communities, an emergent discipline has developed models to investigate the dynamics and interconnectivities of urban transition pathways. However, efforts to model long-term sustainable urban transition dynamics have been thus far been piecemeal and fragmented.

The systems thinking and dynamic simulation approach is both a mechanism and a platform to enable collaborative research integrating natural and social sciences. This symposium will bring together academics and practitioners to discuss and share experiences related to the opportunities, needs, and limitations of using systems thinking and dynamic simulation approach to investigate sustainable urban transitions. A new collaboration network based on the symposium is proposed and a special journal issue in a leading journal will be sought. Some limited funding may be available for travel and accommodation for invited speakers.

The themes of the symposium will be

1. Physical flows: energy, water and waste
2. Urban infrastructure and urban metabolism
3. Social transitions
4. Methodologies
   4a. systems thinking and analysis
   4b. dynamic modelling

Deadline for extended abstracts (200 - 400 words): 1st March 2013

Deadline for full papers: 15th June 2013

As places are limited, please contact Paula Mullins, MullinsPJ@cardiff.ac.uk (Tel: 029 20 870003), or Dr. Yangang Xing, yxing@cardiff.ac.uk as soon as possible.