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**Decision support for environmental master
planning by integrated flux modelling**

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DECISION SUPPORT FOR ENVIRONMENTAL MASTER PLANNING BY INTEGRATED FLUX MODELLING

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ABSTRACT

At the scale of the urban neighbourhood economies of scale make the local centralised management of resources (energy, water and waste) viable, with considerable environmental dividends. It is also possible to layout buildings to optimise their utilisation of natural resources (e.g. solar radiation and daylight) and to create a pleasant external microclimate. In essence, sustainable urban neighbourhoods are within our grasp.

However, to achieve this potential one would ideally utilise an integrated model of the set of resource fluxes that is sensitive both to the urban microclimate and to human behaviour within buildings. This would also accommodate models of renewable and high efficiency energy technologies, both embedded and centralised. This paper describes the successful results of a project that was conceived to solve this non-trivial problem: Project SUNtool (Sustainable Urban Neighbourhood modelling *tool*).