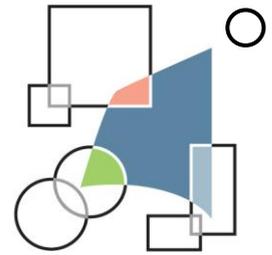


# SUMMARIES OF FIVE RESEARCH PROJECTS on urban sustainability funded through the 2nd URBAN-NET call



## Potential impact of climate trends and weather extremes on outdoor thermal comfort in European cities - implications for sustainable urban design

*Coordinator: Sofia Thorsson, Göteborg University, Sweden*

The mean air temperature in Europe is expected to rise 2 to 6°C by 2100. This means that winters will be milder and summers hotter, with an intensification of extreme heat waves in summer. The WHO acknowledges that the future increase in temperature will have profound effects on the health and well-being of urban citizens. In order to mitigate the problems with intensified heat stress and design sustainable cities quantitative information on factors determining outdoor thermal comfort is required.

The main objective of this interdisciplinary and transnational research project is study the potential impact of climate trends and extreme weather events (heat waves and cold spells) on outdoor thermal comfort in urban areas in order to develop a set of design guidelines and policies on how to maintain health and thermal comfort under changed climate conditions and extreme weather events for European cities. The city of Göteborg, Kassel and Porto, representing a northern, a mid and a southern European city will be selected for case studies.

Methods will include statistical downscaling of data from GCMs, spatial modelling of thermal comfort in different urban settings, thermal comfort analyses, national and international workshops with key stakeholders and project meetings. The re-search consortium includes scientists from climatology, geography, urban planning, environmental engineering, health as well as politicians and potential users of Sweden, Germany and Portugal

## SUPER-Sustainable Urban Planning for Ecosystem services and Resilience

*Coordinator: Johan Colding, Kungliga Vetenskapsakademien, Sweden*

Building on the established collaboration between Swedish, Turkish and Dutch researchers from the first Urban-NET call, the aim of this proposal is to deepen the explorations of how to increase urban resilience through the integration of ecosystem services\* in urban spatial planning. As such the project strives to lay a foundation for innovations in urban planning and governance that enable cities to navigate change, build local capacity to respond to disturbance and to prepare for uncertainty, and thus to foster transitions to sustainable urban trajectories. In this second call in-depth case studies in four cities (Stockholm, Istanbul, Arnhem-Nijmegen and Cape Town), in combination with comparative cross-city projects, we aim to deliver detailed knowledge of value for practitioners in each city, as well as for scholars in the fields of urban resilience, governance and sustainability.

\*Ecosystem services have been divided into four categories:

1. *Provisioning services* – products from regulation of ecosystems like food, fiber and energy;
2. *Regulating services* – benefits from regulation of ecosystem processes like air- and water filtration;
3. *Cultural services* – nonmaterial benefits from ecosystems, like spiritual enrichment;
4. *Supporting services* – necessary for production of all other ecosystem services

## Dilemmas of participatory network planning. Sustainability, democracy and planning in France, the Netherlands, Spain and Sweden

*Coordinator: Clarissa Kugelberg, Uppsala University, Sweden*

One reoccurring idea is that planning for a sustainable society requires broad mobilization of actors and resources. Participatory planning networks have therefore been initiated in order to organize

planning capacity that transcends formal divisions of authority, policy sectors and local democratic entities, as well as the distinction between public, private and civil sectors of society.

In the project proposal we assume that there are good substantial reasons for participatory network planning. However, the fundamental argument of the project is that such horizontal planning strategies are not easily reconciled with principles and norms of representative democracy. The tensions between vertical and horizontal principles of governance, we argue, are important causes for the well-documented difficulties to organize and institutionalize long-run participative and inter-sector planning strategies. It is therefore our aim to understand how these tensions are perceived and handled among politicians, planners and participating citizen groups, and to suggest institutional design-principles, if not specific solutions, that support participative network planning within the overall framework of representative democracy. We will do so by combining an inductive anthropological and a more rationalistic political science approach, and by comparing attempts to organize participative network planning in such different national contexts as France, the Netherlands, Sweden and Spain. One of the main tasks of these tools is to govern a re-integration of the civil society and retail, two increasingly segregated societal sectors in the wake of a consumption society.

## **Consumer Logistics: Understanding mundane use of container technologies for mobility in consumption and its relevance for sustainable European Cities**

*Coordinator: Daniel Normark, Göteborg University, Sweden*

Shopping is almost an omnipresent feature of urban settings generated by and generating mobility. Even though this relationship traditionally is addressed in logistics research, we lack knowledge about the more mundane types of behaviors that take place 'behind' larger policies. Logistics have studied the cycle and mobility for products from its production phase to its disposal leaving out the mobility in consumption, i.e. corporal mobility by customers transporting their purchases from the store back home. We argue that container technologies used for consumption mobility in everyday life, including bags and public transport, play pivotal roles performing (un-)sustainability and (non-)people-friendliness of the European Urban Cities.

With combined efforts by Swedish, French and British scholars on consumption and mobility the project will study the performance of consumer logistics at the inter-section of practices of consumption, mobility, city planning and retailing in four European inner cities. Our ethnographically informed study of consumer-logistics will contribute to an under-researched part of sustainable city management and consumption. Working in close cooperation with central stake-holders (city management, politicians, officials, retailers etc.) our goal is that our analysis will serve as guidelines for a more sustainable urban city life. The goal is; in close cooperation with stakeholders to contribute to the European development of sustainable good city form.

## **Chronotope: Time-Space Planning for Resilient Cities? New Means of Sustainable Planning in Societies of Consumption**

*Coordinator: Mattias Kärrholm, Malmö Högskola, Sweden*

During the last decades we have witnessed an increased consumption in the Western countries as an industrial society has been transformed into a society of consumption. Retail, an essential urban activity, has expanded into retail parks and malls, and has also colonised the larger city centres. In this way, retail has become an increasingly important agency of change in processes of urbanisation, affecting everyday life, car dependency, etc., and threatening a sustainable development. At the same time we can see growing divide between the private and the public service, where many neighbourhoods has lost their vitality as centres for everyday life. Researchers have criticised this decline of public space, but ideas on how to manage these changes are scarce. Here, we view physical planning from a time-space perspective that include aspects of synchronicity (contemporality) and synchronicity (contemporality) in the development of integrative tools for a more elaborated time-space planning. The basic idea is that efficient planning tools need to be able to deal with connections in both time and space. The aim of project is thus to develop such tools and concepts that can facilitate the integration of spatial and temporal connections, especially when it comes to everyday services in public space. One of the main tasks is to govern a re-integration of the civil society and retail, increasingly segregated societal sectors in the wake of a consumption society.