

# Annual Report 2010





## ANNUAL REPORT 2010

PUBLISHED BY MISTRA URBAN FUTURES

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Manchester City Council Press Office.

Jan Olof Yxell

Kerstin Elias

Lars Lilled

Petra Ljung

Kerstin Elias

Merritt Polk

Pictures on page 3, from the top:

Merritt Polk

Lars Lilled

Kerstin Elias

Graphic design: Jenny Sjödin

Production: Mistra Urban Futures

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# PREFACE

Mistra Urban Futures was established in January 2010. Sited in Gothenburg, Sweden, Mistra Urban Futures was set-up to better understand the challenges and possibilities facing urban areas and to establish a world centre for sustainable urban development. It is funded by Mistra, the Foundation for Strategic Environmental Research, the Swedish International Development Cooperation Agency (SIDA), and the consortium partners. The centre itself is hosted by Chalmers University of Technology.

The centre has a two year build-up phase to develop and establish the centre. The objective of the build-up phase is to make the Centre fully operational by January 2012. This has both intellectual and practical aspects. Developing the priorities in terms of substantive content and methodological approaches must go hand in hand with building up a solid organizational, managerial and administrative structure, recruiting

staff, finding a location for the Centre and developing an efficient communication strategy. The Centre is now half-way through the build-up phase and has developed a solid structural base for operation. The focus in the next twelve months will be to further position the centre in the area of knowledge and capacity building for urban futures, in terms of the scientific profile as well as global and local relevance, and to recruit staff that will form the core team at the Centre.

Financial contributions to Mistra Urban Futures come in different forms: as basic cash funding from Mistra, Sida and the consortium partners; as in-kind contributions from the consortium and the international partners; and as contract-based funding for single projects. Total funding in 2010 was 23 Million SEK (approx 2.6 Euro), distributed between Mistra, Consortium partners, Sida, international partners, associated partners and single project funding.



Photo Haris Kadic



Photo Jan Olof Yxell

# EXECUTIVE SUMMARY

An important result from the activities in 2010 is that the Centre now has a solid structural base for management, administration and internal communication. The recruitment of a Centre Director was finalized in March 2011, and the Consortium Agreement will soon be finalized. Until permanent core staff are recruited, interim staff have taken on the task of building up the Centre and are responsible for its general management.

## OUTCOMES

The general outcomes of the first year of operation are:

- The Centre is much better equipped to meet the challenges implicit in the vision that sparked the initiative to start the centre.
- The Centre is reasonably well known locally in Gothenburg, on the national level, and has started building its reputation in international circles.



Photo Unknown

- The methodological approaches have been put into operation, implemented and refined for the Centre's activities.
- A specific outcome is partnership formed with Kisumu IP.

## ACTIVITIES

A number of activities were carried out for the Gothenburg Interaction Platform (IP) during 2010. These promoted and supported joint knowledge production and capacity building. Highlights for the local partnership include strengthening the concept of sustainable urban development, making the transdisciplinary approach operational, and, through the local Pilot Projects, also ensuring the practical use of research. The Centre's work should be characterized by excellence, relevance and effectiveness. Following the schedule set forth in the Centre Operational Plan 2010, five Pilot Projects for co-production and



Photo Merritt Polk

co-learning were launched in 2010, and a joint Pilot Project between the IPs started in January 2011. A handful of additional projects with external funding will start in the next few months.

### JOINT KNOWLEDGE PRODUCTION

Parallel to the shaping and designing of the five Pilot Projects, the Centre has developed a supportive framework for joint knowledge production that enables Pilot Project leaders and project groups to work independently and creatively from their different areas of expertise. This currently includes building up the expertise and skills necessary for promoting the co-production of knowledge, support tailored for each Pilot Project, and an arena for mutual learning between Pilot Project leaders and Centre staff.

### EDUCATION AND TRAINING

Regarding education and training, the main focus in 2010 has been on establishing the idea of a Master's Program in Urban Futures. Among other things activities for joint Kisumu – Gothenburg capacity building have taken place in the form of exchange activities. Several senior researchers and teachers visited Kisumu and Gothenburg respectively to participate in educational activities. The Centre also recognizes the importance of other educational activities, such as training courses for professionals and pre-university level education, which will be given more attention in coming years.

### COMMUNICATION AND EVENTS

The initial communication strategy for the Centre is ambitious and a number of tasks have been accomplished: a temporary website for the Centre's build-up phase was set up; around ten events were organized in Gothenburg as well as at major international events such as the World Urban Forum and the World Expo. Due to great interest in the Centre locally, nationally and internationally, more than eighty smaller meetings were held between core staff at the Centre and representatives of private companies, public authorities, research institutions, NGOs etc.

### STRATEGIC PLAN

Additional development of the concept, profile and ethos of the Centre is one of the main activities during the build-up phase. Design of and preparation for this complex process started in May 2010, and will be finalized in October 2011 with the presentation of a Strategic Plan for 2012 - 2015. The preparatory phase has included core team discussions and workshops, as well as meetings with representatives from the international partners. In October 2010, the Strategic Plan process was launched with a Dialogue on Urban Challenges which was held in Gothenburg. There were over 100 participants from the consortium partners, other interested organizations and individuals.

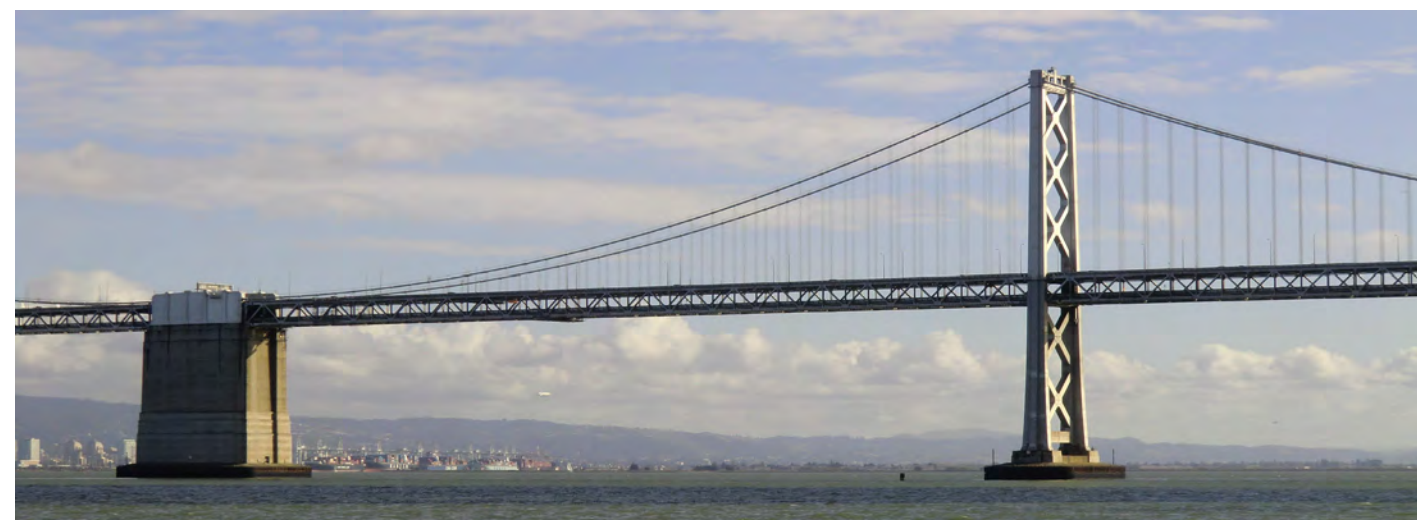


Photo Jenny Sjödin

# OVERALL PHILOSOPHY AND ETHOS OF MISTRA URBAN FUTURES

Mistra Urban Futures rests on four cornerstones:

1. An Integrated and holistic approach towards sustainable urban development.
2. Transdisciplinary modes of co-operation in producing, managing and making use of urban knowledge.
3. Partnerships for co-operation.
4. Dual focus on locally relevant and specific urban knowledge vis-à-vis globally relevant, generic scientific knowledge on cities.

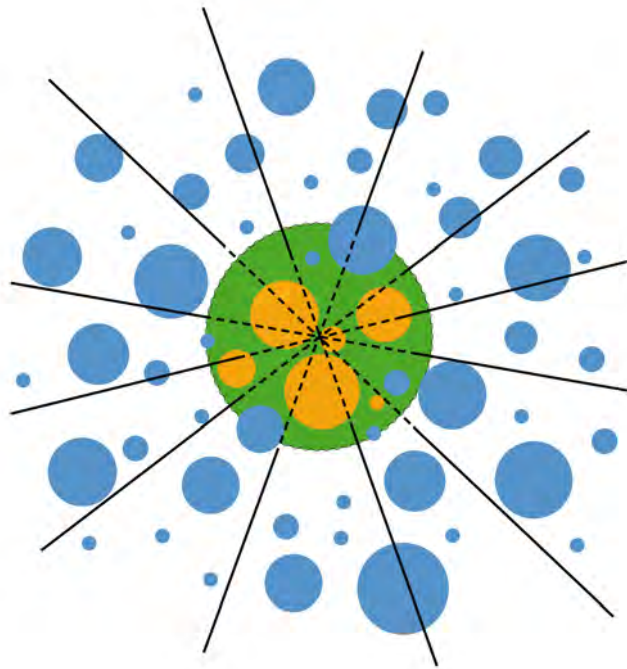
An important aspect of these four cornerstones is that the Centre views all actors as knowledge bearers, knowledge producers, and knowledge users. This permeates the focus of the planned activities, and the build-up of the international network of interaction platforms. The goals and ambitions regarding the involvement of different types of stakeholders in knowledge production and practice govern the Centre strategy, its decision-making processes and its choice of leadership. These features together form the Mistra Urban Futures Ethos.





## FIELD OF URBAN DEVELOPMENT

The figure below schematically illustrates the field of urban development, as a cross-section of a multiplicity of various sectors of industry, society and scientific disciplines. Each segment represents a specific sectorial activity, as indicated by the lines in the figure.



When moving towards the central field, towards the green circle, the different sectorial activities gradually become more and more integrated. The Centre finds its position in the inner green circle, where challenges are of concern to several sectors, and solutions are to be found through collaboration between actors representing a variety of expertise and capacities.

## TRANSDISCIPLINARY MODES OF CO-OPERATION

This need for collaboration, for promoting the creation of effective solutions for sustainable urban development, occurs through what we refer to as 'joint'

*Illustration of the field of Urban Development. The lines in the picture represents different sectors of industry, society and scientific disciplines. The blue circles represents areas that are of concern to one or two sectors and the orange circles represents areas that are of concern to several sectors. The centre positions itself in the inner green circle where challenges are of concern to several sectors.*

or 'transdisciplinary' knowledge production and capacity building. The 'joint' or 'co-production' aspects are central for addressing challenges and problems in the urban environment that, by their nature, affect or engage a variety of different stakeholders, decision-making levels, disciplines and sectors.

## PARTNERSHIPS FOR CO-OPERATION

In order to support the transdisciplinary modes of operation, it is crucial that the Centre is based on partnerships between different types of organizations. The Centre was founded by a consortium of seven important actors in western Sweden, including the two universities in Gothenburg, local and regional authorities and one research institute.

## LOCALLY AND GLOBALLY RELEVANT

The Gothenburg consortium, together with four partners in the UK, Kenya, South Africa and China forms the Centre's network of Interaction Platforms (IP).

The international partnership is essential to support the Centre's work on urban development in its different forms and contexts, in order to understand the relations between context-specific and generic urban knowledge. At the local level, Associated Partners will also contribute further to knowledge and capacity building.

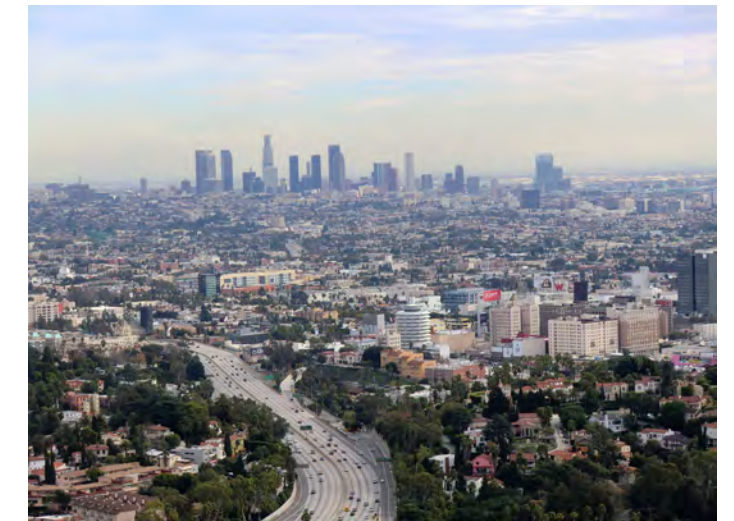


Photo Jenny Sjödin

## Quick facts about Mistra Urban Futures

### The Centre:

- Is sited in Gothenburg, Sweden.
- Was founded by the consortium.
- Is Funded by the Mistra Foundation for Strategic Environmental Research, the Swedish International Development Cooperation Agency (Sida) and the consortium.
- Has Interaction Platforms in Kisumu, Shanghai, Gothenburg, Manchester and Cape Town. Where the international partners play a vital role.
- Has Associated Partners which along with the other partners help shape the development of the Centre.

### CONSORTIUM

- Chalmers University of Technology
- The Göteborg Region Association of Local Authorities (GR)
- City of Gothenburg
- University of Gothenburg
- IVL Swedish Environmental Research Institute
- The County Administrative Board of Västra Götaland
- Region Västra Götaland

### INTERNATIONAL PARTNERS

- Manchester, UK - SURF, Center for Sustainable Urban and Regional Futures, Salford University.
- Kisumu, Kenya - Maseno University, Bondo University College & Kisumu Action Team (KAT).
- Shanghai, China - College of Architecture and Urban Planning (CAUP), Tongji University.
- Cape Town, South Africa - ACC, African Center for Cities.

### ASSOCIATED PARTNERS

- SP Technical Research Institute of Sweden
- White
- The Swedish Transport Administration
- Swedish National Board of Housing, Building and Planning

# ESTABLISHMENT OF THE CENTRE

Mistra Urban Futures has a 2-year build-up phase in 2010-2011. The target is to be fully operational in January 2012, with a well established organizational and governing structure, core staff recruited, an international network of Interaction Platforms, a more elaborated research program, knowledge and capacity building, and an operational Knowledge Hub. One year into the build-up phase the Centre is well on its way to reaching these targets.

## ACCOMPLISHMENTS

In terms of the structural baseline, the following has been accomplished:

- Chalmers University of Technology, as host of the Centre, has established the necessary administrative systems and routines for the management of the Centre.
- The Centre is temporarily located in the premises of the Centre for Environment and Sustainability, at Chalmers University of Technology and University of Gothenburg.
- The Centre Board is established and has had its first two meetings (see appendix 1 for list of Board members).
- A Consortium agreement between the seven consortium partners has been developed.
- The recruitment of a Director has been finalized, and Professor Lars Reuterswård will start in this position on May 1st, 2011.

## STAFF

Interim staff was assigned to the Centre in January 2010 with the main task of building up the Centre and managing its activities until permanent core staff is in place. In addition to the interim staff, all consortium partners contribute with staff, working part-time for the Centre, mainly at the project level. Furthermore, 10 project leaders in the local Gothenburg IP Pilot Projects have been assigned, which, together with project working groups, total around 40 at the present time. In total, the Centre has around 50 staff

in Gothenburg. In addition to the Gothenburg staff, 10-12 staff members at the other IPs have been involved in the Centre activities (for a list of staff at the Centre, see appendix 1).

## EXTERNAL RELATIONS

Following the opening of the Centre in January 2010, there was a tremendous interest among other organizations and individuals in Gothenburg, at the national level in Sweden, and internationally. Some of these are deeply interested in cooperating with the Centre, others would like to participate in the Centre's activities, and others were just interested in learning more about the Centre. The Centre has hosted several events for information, communication and networking purposes, and the interim staff has held more than 80 meetings in order to meet the interest in the Mistra Urban Futures initiative. A handful of these discussions have resulted in concrete arrangements for Associated Partners (AP), in agreement between the Centre and the respective company/organization. The dual purpose of these arrangements is for the Associated Partners to become more involved in the activities of the Centre, while also contributing to the Centre with expertise in certain fields.

## INTERNATIONAL NETWORK OF INTERACTION PLATFORMS

As part of building the Centre, the Interaction Platform (IP) in Gothenburg has evolved gradually over the months, through the starting of local Pilot Projects,

seminars and other events, and by collaboration on research proposals.

The partner IPs has started to take shape in various ways. Because of lower funding than the Gothenburg IP, these activities have been at more moderate pace. In order to further develop the IP concept, it has been agreed that Kisumu is a pilot city. With the aim to start the implementation in Kisumu of the Mistra Urban Futures IP concept, a workshop was held in Kisumu in November 2010, which involved the city, the universities, local companies and NGOs.

Two meetings of the IP Network were held in 2010: a kick off meeting in Gothenburg, and a workshop in Rio de Janeiro, in March 2010. The later was held in

connection to the World Urban Forum V where representatives of the IPs were actively involved in different Networking Events and Round Tables. Mistra Urban Futures also hosted a WUF Networking Event called 'UniverCities' on the cooperation between cities and universities, in which examples from Cape Town, Kisumu and Gothenburg were presented.

The development of the IP Network collaboration is also based on an international IP Pilot Project which involves all of the IPs. The project has been prepared under 2010 and will start in 2011.



Photo NASA



## Developing the Strategic Plan 2012 - 2015

A Strategic Plan, including an elaborated Research Program for the first fully operational phase, will be presented to Mistra by October 31st, 2011. The main focus initially has been on designing the complex process of developing and writing the Strategic Plan in an inclusive, yet efficient and effective manner. This has been supported through the IP Network meetings as well as through meetings with broader networks of stakeholders in Gothenburg. The work with the Strategic Plan runs from the second half of 2010 through most of 2011.

During 2010, a key issue has been to systematize the massive input of ideas for research and knowledge production that has accumulated from 2007 and onwards, in the preparatory phases, in the actual setting-up of the Centre and in its first Pilot Projects. A kick-off event, the Dialogue on Urban Challenges was held in Gothenburg in October 2010, where more than 100 participants from both academia and practice worked a whole day discussing what issues the Centre could/should work with from 2012 and onwards. Mistra Urban Futures has also co-arranged thematic seminars on topics that may evolve into possible profile areas for the Centre.

In parallel with the development of profile areas for the Centre, a designed program of activities for

the methodological development of the Centre has set the foundations for joint knowledge production. Through this process the centre has also formed a transdisciplinary methodological research framework. A transdisciplinary core team consisting of expertise in interdisciplinarity, transdisciplinarity, collaborative methods, facilitation, communication and learning, has been put together to develop a support framework. Starting in late spring, this core team has designed and is testing a framework for transdisciplinary knowledge production primarily through the five Pilot Projects that are running at the centre, but also in all of the centre activities where different types of collaboration are used.

This methodological development also includes a mapping of global as well as local expertise regarding broader experience with other types of collaboration and joint knowledge production, such as among practitioners or with public participation, both at the Gothenburg IP and within the international IP's. Under 2010 this included:

- Meetings with the international IP's.
- Consortium reference group for collaborative methods.
- Workshop on joint knowledge production at an international conference in Geneva.
- On-going networking with national and international experts in transdisciplinary knowledge production and integrative sciences.
- Interviews and a workshop with representatives from the public bodies at the Gothenburg IP.



12 Photo Kerstin Elias

# PROJECTS FOR JOINT KNOWLEDGE PRODUCTION AND CAPACITY BUILDING

A number of projects were started at Mistra Urban Futures during 2010, both in Gothenburg and internationally. The main work with designing and testing the framework for joint knowledge production during the first start up year has been in the Gothenburg Interaction Platform in five Pilot Projects which were identified jointly by the consortium partners in the application process. An additional project was carried out for the Swedish Institute of National Health in Gothenburg. An international Pilot Project was also initiated during 2010 which includes all of the five Interactions Platforms. Overall, six Pilot Projects were underway at the end of 2010. The five in Gothenburg will be completed in October 2011, and the international Pilot Project will run until 2013.

## The International Interaction Platform Pilot Project

The Interaction Platform Pilot Project (IP Pilot Project) is a joint project between the five Interaction Platforms of the Centre: Manchester, Shanghai, Kisumu, Cape Town and Gothenburg. It is a 3-year project which will contribute to the mapping of urban challenges and policy in the different localities of the Centre, as well as the various approaches and forms of knowledge exchange and transdisciplinary co-production of knowledge and capacity building that are being used among the partners. The IP Pilot Project is co-ordinated by the SURF Centre (Manchester) – with each IP providing the context-sensitive skills and knowledge to contribute to the overall program. Linking local knowledge from core partners and wider stakeholders within each IP with broader theoretical and conceptual analysis is an essential feature of the IP Pilot Project research design. A detailed outline of the Pilot Project has been developed and agreed between the IP representatives.

The aim of the project is to comparatively develop innovative, excellent and context-sensitive frameworks for action which enable cities to ask questions, develop processes and mobilise capacities and capabilities to address the challenges of urban sustainability. The IP Pilot Project will integrate with and contribute to, the overall ethos of transdisciplinary knowledge production within the Centre.

### MAJOR CHALLENGES IN DIFFERENT CONTEXTS

The project brings together an understanding of what the major challenges of urban sustainability are, in different contexts, and how they might be addressed. The emphasis is therefore on the formal policy process, on the conception, formulation and execution of urban policies for sustainability and on the knowledge, skills and expertise that cities need to make informed decisions about their present interventions and future trajectories. Central themes relate to issues of participation and transparency, piecemeal or systematic responses, context-sensitivity and the nature of form and of future visions.



Photo Lars Lilled



The IP Pilot Project comprises an initial phase - from October 2010 to April 2011 - to identify issues in each local IP context. Different starting points, sensitivity to context and clarification on the use of language, require clear consideration in order to maximize insights.

## METHODS

The Pilot Project will include workshops to share insights and contribute to the mobility of policy stakeholders between IPs for the benefit of the project and Centre as a whole. A process of staff exchange to understand different contexts and build in learning through comparative understanding will be incorporated into the research design.

## PRACTITIONERS AND RESEARCHERS

Each partner will select suitable practitioner-policy advisors for the project. There will be bi-annual meetings with a larger group for testing the validity of the work, who also act as ambassadors for the IP Pilot Project in each city-region. A final conference at the end of the IP Pilot Project will be held in Gothenburg to discuss its insights, enroll policy-makers and academics on a global scale and add to the profile for the Centre as a whole.



Photo Lars Lilled



Photo Merritt Polk



Photo Petra Ljung



Photo Courtesy of Manchester City Council Press Office.



Photo Courtesy of Göteborg & Co, Morten Brun

## Pilot Projects at the Gothenburg Interaction Platform

During the application process, five Pilot Project areas were identified and agreed upon within the consortium partners in Gothenburg. These were initiated during the spring of 2010 and formalized in the early fall.

Specific aims for the respective projects have been developed alongside the recruitment of project managers and project participants with crucial expertise and capacities. All Pilot Projects comprise representatives from the different partners in the consortium as well as partners outside the consortium, from both the Gothenburg area and nationally.

An important purpose of the Pilot Projects is to test and evaluate the transdisciplinary approach, modes of operation and methodologies. In order to give feed-back and learning into the further development of the Centre and its Strategic Plan, the Pilot Projects have a relatively short time frame. All five projects will be finalized in October 2011 but an intense ongoing dialogue with the project managers enables the Centre to also make continuous use of the projects in the work with the Strategic Plan 2012 - 2015.

## Pilot Project 1 Multi-Level Governance: Decision-making Processes for Sustainable Urban and Regional Development

When different levels of public policy and management are coordinated and simultaneously interact with other autonomous organizations, authorities and stakeholders, this is called multi-level governance. Governance must then be viewed in a broader context than the classical hierarchical sense. The term governance describes the process of using various means to transform knowledge and ideas into desired acts that lead to desired goals. Since multi-level governance is considered a good way to promote sustainable development, but is quite complicated in reality, it is necessary to examine how this actually works.

### COLLABORATION BETWEEN MULTIPLE SECTORS

The Pilot Project Multi-Level Governance aims to describe and analyze the collaboration between multiple sectors and over multiple levels of governance of sustainable development. The overarching question is: What knowledge and what experience can be

## Pilot projects at the Gothenburg IP

- Pilot Project 1: Multi-Level Governance: Decision-making Processes for Sustainable Urban and Regional development
- Pilot Project 2: A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen
- Pilot Project 3: Urban empowerment: Cultures of Participation and Learning
- Pilot Project 4: Business-driven Sustainable Urban Development
- Pilot Project 5: Urban Games



used to develop effective strategies for transdisciplinary collaboration that promotes sustainable urban and regional development?

### PROCESSES STUDIED

The Pilot Project will run until October 2011 and a number of processes will be studied. These are the deliberative process for the Gothenburg Region Association of Local Authorities (GR), the future program for public transport development (K2020), the City of Gothenburg's work with the social dimension of sustainable development (S2020) and a project carried out in Rosengård in Malmö. The working group for the Pilot Project includes both practitioners and researchers. In 2010, several meetings (workshops) have been held where the various processes were studied and discussed. In addition, a reference group linked to the Pilot Project will serve as a sounding board in connection with the various texts that are written. A planned by-product of the project is a policy report that presents important lessons from multi-level governance. A number of scientific articles, on different aspects of collaborative governance, are also underway.

## Pilot Project 2 A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen

Sweden will be affected by climate change, regardless of the level of success achieved by measures taken to reduce greenhouse gas emissions. In order to reduce the risks and take advantage of the opportunities of a changing climate, climate adaptation must be integrated into urban planning and development work.

### ATTACK, DEFEND AND RETREAT

This Pilot Project examines how three different climate adaptation strategies – attack, defend and retreat – can be used in planning and development of Frihamnen, the free-port area in Gothenburg. The focus is on how the district's planned buildings can be climate adapted to rising sea and water levels. The project investigates how the three different adaptation strategies would affect the area's sustainable development, i.e. the resulting economic, social and ecological consequences of each approach.

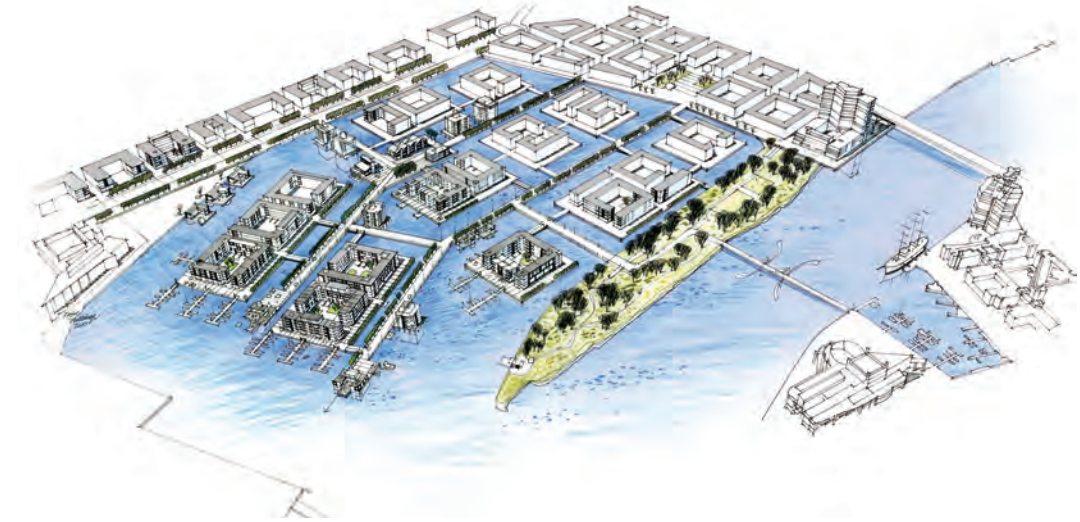
The project is transdisciplinary, which entails cross-border cooperation between practitioners and researchers from various disciplines. Through the use of workshops and focus groups, decision making support is developed for both practical and scientific results. The practical results will consist of a balanced assessment and report on how the climate adaptation concepts of attack, retreat and defense would affect the free-port area's sustainable development. The scientific results will touch upon conflicts of interest and conflicting objectives identified during the focus group work.

### RESULTS

The results will contribute to decision making support for the City of Gothenburg's, but also other cities', strategies and plans for climate adaptation and identify conflicting objectives relating to climate adaptation.

The project began in the spring of 2010 and a first workshop, which focuses on ecological consequences of the different climate adaptation strategies, were held in the autumn of 2010. The project will be completed in October 2011.

### ATTACK



### DEFEND



### RETREAT





## Pilot Project 3 Urban empowerment: Cultures of Participation and Learning

When one section of a city becomes a target for renovation and investment, the results aren't all positive. In the global competition for investment, many cities suffer the effects of gentrification with its intense focus on developing certain areas while other neighborhoods are neglected. This process is reinforced by a weakening public sector. There are different ways of responding to this development. In planning theory, these are described as communicative turns which were introduced as the vision of sustainable development was implemented in the late 1980's. Empowerment addresses the social breakdown within neglected communities. As residents learn about how development works and what's in it for them, interest

and motivation can grow, leading to greater participation, which benefits the individual, the neighborhood and the city as a whole. This brief background explains why questions about "empowerment" carry great weight in terms of planning and management. Empowerment is considered a force that can release energy when residents are seen as one of the important players in the governance processes meant to develop the city.

### CULTURE OF PARTICIPATION AND LEARNING

The purpose of this Pilot Project is to develop a culture of participation and learning, i.e. capacity building processes, directly linked to changes in the Hammarkullen area in Gothenburg. A capacity building process is a course of action which assists participants (residents, practitioners, researchers, teachers, students, etc.) in strengthening their ability as a group to contribute to change - social as well as physical.



Photo Albin Holmgren. Bredfjällsgatan in Hammarkullen, Gothenburg

The focus of the Pilot Project is on getting residents involved in these capacity-building processes.

### RESULTS

The tangible result is the establishment of capacity building processes in Hammarkullen in the autumn of 2010 and the spring of 2011. Details of this establishment process are also being analysed throughout this period. At the end of the project, recommended guidelines for how such processes can be developed and supported will be drawn up. The Pilot Project focuses both on how the area can be developed and how the university and the community can be developed. Our activities are meant to provide spaces (physical and social) among different participants and their activities. It is in these spaces that a culture of participation and learning will develop. By culture, we mean, a way to engage in dialogue and move the conversation forward.



Photo Jenny Stenberg. Workshop in Pilot Project 3: Urban empowerment: Cultures of Participation and Learning. Carin Smuts from SC Studio in Cape Town teaches co-creative design to architecture students where residents participate in shaping a café in Hammarkullen. The residents are now and trying to implement their ideas.

## Pilot Project 4 Business-driven Sustainable Urban Development

The forces that drive entrepreneurs have a vital role to play in today's political objectives and related aspirations for a long-term shift towards more sustainable development. The demand for goods and services are met and resources are utilized most efficiently through exploitation of the competitive behaviour of businesses in the marketplace. A challenge in this context is that many markets that are considered important for such development are currently either immature or nonexistent.

### ENTREPRENEURIAL INITIATIVES AND COMPLEX MARKETS

The ability to support and accelerate business-driven sustainable urban development requires knowledge

of how companies develop entrepreneurial initiatives within the framework of a strategy for sustainability and an understanding of what currently drives companies towards – or prevents them from – becoming more sustainable. One complicating factor is that many markets or potential markets, where development is desired, are characterized by complex states of dependence, mainly towards different types of public entities. Examples of such markets are infrastructures for charging electric cars, efforts towards better energy efficiency in existing property holdings, construction of more residential housing areas or other commercial markets in which some type of infrastructure affects or is affected by the business' sustainability profile. These markets often require collaboration and in some cases even concerted action by business, government and universities to develop in the desired way.

Special knowledge regarding how entrepreneurial initiatives come about and are supported in such a col-



laborative environment is also necessary. Currently, specific research in this area is limited. Instead, theoretical bases may be drawn from a variety of business/economic sub areas such as: organizational theory, strategy, CSR Corporate social responsibility and the environment, network theory, innovation and entrepreneurship, network research, driver impacts, etc.

### SUCCESS FACTORS

In this Pilot Project, we will identify success factors for business-driven initiatives with complex forms of collaboration towards sustainable urban development. This can then serve as a basis for a more coherent understanding of how such development can be facilitated, improved and accelerated.

### KNOWLEDGE TRANSFER

The information is meant to provide practical useful support for sustainable urban development. Significant knowledge transfer between project stakeholders is achieved through proximity to one another, high visibility and an emphasis on communication. Overall, the goal is to increase understanding of how driving forces from the business sector can be better utilized for sustainable urban development.

Subsequent research goals and visions relating to business-driven sustainable urban development will be shaped by the knowledge platform built up during the Pilot Project.

## Pilot Project 5 Urban Games

Today's youth have shown great interest in gaming and in "saving the planet". What if we could utilize gaming to help save the planet? This Pilot Project is investigating that possibility on an urban scale. By presenting complicated systems like cities in a gaming format, organizations can provide opportunities for learning about urban development and sustainability.

### FACILITATING COMMUNICATION AND LEARNING

The purpose of this Pilot Project is to develop the capacity of Mistra Urban Futures to utilize processes and tools that facilitate communication and learning. This can be done through, among other things, establishing an interface that serves as a platform for cross-

border meetings within the format of games and simulation programs. Another aim is to link existing and future urban games and simulation programs which are relevant to the topic and to produce new games and visualization programs. These efforts are meant to provide players and target groups with detailed images of the city and ideas about urban development. Results generated from gaming activities can provide information that can be understood and used by others.

### RESULTS AND TARGET GROUPS

The project's primary target groups are young people in school settings and decision makers. Results expected from the program include: the establishment of a platform for dialogue, learning and influence, collaboration among national actors towards games development and application of themes, a Pilot Project prototype, and a method box for sustainable urban development. The project has started an extensive marketing and external analysis regarding its thematic and systematic content. In addition, collaboration with a number of actors was recently initiated to start production of a number of games relating to sustainable urban development. A mapping out of the region's relevant actors in this area is also underway.

## Project for the Swedish National Institute of Public Health

The Centre was assigned by the Swedish National Institute of Public Health to map out and develop ideas for how issues of public health can be integrated in education for the built environment. In addition to extensive discussions with teaching staff, contacts and dialogue have been established with: The Swedish National Institute of Public Health, EpiLife (The Sahlgrenska Academy), Green Rehab (Region Västra Götaland & University of Gothenburg), the Research

Centre for Health Care Architecture (Chalmers), and the Centre for Management of the Built Environment (CMB).

The project has explored five different fields of knowledge.

1. Mapping of the existing national knowledge base on public health and the built environment.
2. Scoping study of how existing courses at Chalmers address public health, including interviews with active teachers.
3. Mapping of potential collaboration partners at other institutions.
4. Mapping of knowledge regarding how teachers and practicing architects deal with public health issues in their daily practice: What do future architects need to know to respond to the public health needs of current and future societies? (Workshop 1)
5. Exploring how the Swedish National Institute of Public Health, the academia and other partners can co-develop a curriculum which includes critical public health issues. (Workshop 2)

### RESULTS

The result of the project was presented at Swedish National Institute of Public Health in January 2011, and is now being finalized as a Swedish National Institute of Public Health report (Hälsa och samhällsbyggnad i undervisningen på Chalmers arkitekturutbildningen). Moreover, needs for new teaching material, future research and further education activities has been identified.

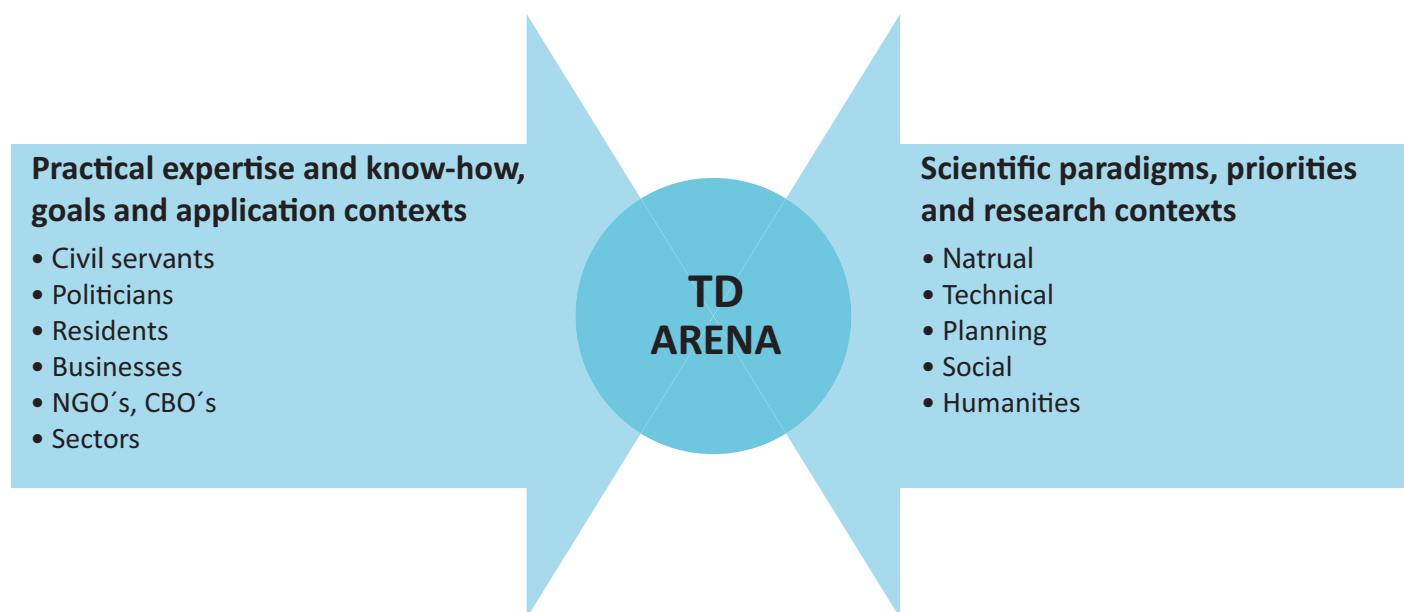


Photo Helena Davidsson. Pilot project 4 Business-driven Sustainable Urban Development Stakeholder meeting.



# TRANSDISCIPLINARY RESEARCH FRAMEWORK

The work in 2010 on knowledge production and innovation has focused on identifying the central requirements for ensuring the attainment of the “joint” in joint knowledge production by creating a transdisciplinary arena for knowledge production, see the figure below. The participants in the joint knowledge production process thus far include a wide array of practitioners, researchers, consultants, business interests, civil society, and the general public. Although the first year emphasized collaboration between the consortium partners predominantly, between research and practitioners, the general public and business stakeholders are also included in three of the five Pilot Projects (Pilot Project 1: Multi-Level Governance: Decision-making Processes for Sustainable Urban and Regional development, Pilot Project 2: A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen and Pilot Project 3: Urban empowerment: Cultures of Participation and Learning). There are a number of other approaches that are also of interest to the Centre, such as action research and different types of knowledge exchange. These will be more fully developed during 2011 in collaboration with the international partners.



*The transdisciplinary (TD) arena for joint knowledge production.*

## CREATING A SPACE

Our experiences thus far with transdisciplinary (TD) collaboration in the application and build-up process at the Centre have uncovered a number of central challenges and needs regarding how best to organize and support TD knowledge production in practice. The overall aim has been to develop a flexible structure which can be adapted and modified to suit the

specific knowledge and expertise needs of different substantive issues, stakeholder groups and contexts. This entails balancing both top-down and bottom-up approaches. This balance is crucial for creating a space where innovation and new ways of working together can be developed from the participants involved for the specific issues within the specific context at hand. The characteristics of such a space are

## Key Areas for Transdisciplinary Knowledge Production and Innovation

1. Broad inclusion of consortium partners and involved stakeholders.
2. In-depth collaboration throughout the process.
3. Thorough integration of relevant values, priorities, world views, knowledge, expertise, and methods.
4. A high degree of usability regarding effectiveness and excellence in both scientific and practice-oriented contributions to sustainable urban development.
5. Explicit focus on co-reflection regarding collaboration, integration, usability and mutual learning.

that it is open, creative, autonomous, unpredictable, dynamic, and reflexive. Five key areas have been identified to test and assess the creation of such arenas for joint knowledge production and innovation. These include: inclusion, collaboration, integration, usability and co-reflection.

## KEY AREAS

An important challenge to joint knowledge production and innovation is the question of who takes the first step in initiating projects. This has been especially problematic throughout the application and build-up phases, because, by definition, all involved stakeholders should be equally involved in initiating and contributing to the formulation of the research and practice agenda, a practical impossibility. We therefore have designed a two-tiered project start-up phase which includes an Initiation phase where stakeholders and interested partners are invited to contribute to formulating a problem, and a Formulation phase, where the problem is reworked by a revised group of stakeholders. The requirements here for broad participation and in-depth collaboration ensure that no one actor will have precedence in the project Initia-

tion phase. These requirements carry over into the problem formulation and project design phase.

These first two phases are seen as crucial for integrating different stakeholders who will characterize the entire process. They are also crucial for enabling joint decision making from all of the consortium partners and ensuring the context sensitivity and effectiveness of the results. Three additional phases focus on carrying out the project work, and applying and evaluating the results. These five phases and five support areas form the basis of the practical support for the Pilot Projects and for the theoretical and methodological research framework on joint knowledge production.

## JOINT LEADERSHIP

The Initiation phase was carried out in the spring of 2010. It was led predominantly by practitioners, who were asked to identify relevant stakeholders and knowledge needs in a number of problem areas that were agreed upon in the consortium. Seminars and meetings were held to gauge interest and map out knowledge gaps and needs. Final decisions regarding the pilot leadership were made by the core staff



at the centre. One of the main requirements of the leadership was that it was joint, consisting of a practitioner and a researcher, and as gender balanced as possible. In the second phase, there were continual meetings with the core staff and leadership at the Centre. Each Pilot Project Description was approved by the core staff before the Project started. Within this framework, the pilot leaders have had a great deal of freedom to design their Pilot Projects.

### DESIGNING THE PILOT PROJECTS

While a number of methods and approaches were suggested, the pilot leaders all decided upon the structure and processes involved in each Pilot Project. The organization and activities of the pilots vary somewhat. Pilot Projects 1: Multi-Level Governance: Decision-making Processes for Sustainable Urban and Regional development, 2: City Structure Adapted to Climate Change: Scenarios for Future Frihamnen and 3: Urban empowerment: Cultures of Participation and Learning, for example, all work with a tight working group of from 6-8 practitioners and researchers who together share the project activities. Pilot Projects 4: Business-driven Sustainable Urban Development and 5: Urban Games have a more network like structure with different types of participation by the involved stakeholders.

### DIFFERENT METHODS

A number of different methods and approaches are currently being tested within the Pilot Projects. Concrete methods and approaches for working with inclusion, for example, include: in-kind financing, joint leadership, and mixed working groups. Collaboration is supported, for example, through flat organizations and democratic decision-making and meeting methods (joint agenda setting, rotating meeting functions). Co-reflection is promoted through interviews with the staff responsible for transdisciplinary research and through the pilot journals. The pilot leaders have been encouraged to start their intensive work-

## The Five Phases of Joint Knowledge Production

### 1. Initiate

A first mapping of the problem area, identification of relevant stakeholders and interest groups.

### 2. Formulate

Problem formulation, formation of the working groups, organization and project planning, in-depth mapping of knowledge needs.

### 3. Carry-out

Data collection, analysis, synthesis, creating solutions/products, drawing conclusions.

### 4. Apply

Application of the results in decision-making, implementation, communication, publishing.

### 5. Assess

Formative and summative evaluations of the project, final seminars, workshops, etc.

ing phase with the help of a lunch to lunch, or full day kick-off meeting. Three such meetings have been held and greatly appreciated. A number of additional collaborative methods and strategies were also tested during 2010 to support different types of boundary crossing processes, such as the Dialogue process which started the Strategic Plan work, and the Centre initiation and support of research applications, such as the FORMAS application process.

### A SUPPORTIVE FRAMEWORK

Integrated with the shaping and designing of the five Pilot Projects, a supportive framework for joint knowledge production was developed to enable the pilot leaders and project groups to both work independently and creatively from their different areas of expertise, and receive the support and structure needed to carrying out their respective projects. Specific activities for supporting joint knowledge production currently in place include:

- Administrative support
- Support for joint knowledge production
- An arena for mutual learning
- Continual build-up of the expertise and skills needed to promoting the joint production of knowledge.

### A CORNERSTONE - PARTNERSHIPS FOR CO-OPERATION

A cornerstone of the ethos at the centre is “partnerships for co-operation”. In the Pilot Projects this includes a broad base of participation of both researchers and practitioners, as pilot leaders and members of the working groups. All pilot leaders and working group members are paid for their work at the centre, from the Pilot Project budgets or from in-kind resources. All participants, circa forty practitioner and researchers thus far, have a formal agreement with the centre for their work. The centre administrative staff supplies additional support through booking meetings and web input.



Photo Jan Olof Yxell



## Developing the Transdisciplinary Research Framework at the Centre

The working definition of transdisciplinary (TD) knowledge production at the Centre focuses on the joint part of knowledge production and capacity building through the participation of different stakeholders (both academic and non-academic) and the integration of different forms and sources of knowledge and expertise through on-going collaborative processes. The “joint” or “co-production” aspects are seen as central for addressing challenges and problems in the urban environment that, by their nature, affect or engage a variety of different stakeholders, decision-making levels, contexts, disciplines and sectors. Addressing such complex or “wicked” challenges demands a wide variety of expertise and knowledge. The approach at the centre draws upon a wealth of different disciplines and research areas when working on the science - policy interactions such as: post-normal science, triple-helix, Mode 2, sustainability science and interdisciplinary studies.<sup>1</sup>

### THE TRANSDISCIPLINARY DISCOURSE

There are a number of different definitions of transdisciplinary within the scientific discourses within which it is used. Within academia, one sees transdisciplinarity as the highest level of integration among disciplines (from disciplinarity, multidisciplinarity, interdisciplinarity to transdisciplinarity). The approach which this centre follows is what is sometimes referred to as a stakeholder, open or strong version of transdisciplinarity where the inclusion of non-academic expertise and knowledge within the knowledge production process is central. The international discourse on transdisciplinary knowledge production has developed a great deal of expertise in knowledge exchange, integration, translation and the refining of applied research approaches especially within environmental sciences and natural resource management<sup>2</sup>. The development of co-owned, joint knowledge producing processes are however, more rare and in need of methodological and theoretical refinement and development. This focus makes Mistra Urban Futures a pioneer in creating new arenas and platforms for innovative types of boundary breaking

collaboration for joint knowledge production and innovation, within both practice and research.

### TAILORING THE WORK

In the section above, five key areas for transdisciplinary knowledge production were presented: inclusion, collaboration, integration, usability and co-reflection. These areas are important for ensuring that each pilot is tailored for the specific substantive and contextual needs of the specific urban challenge under scrutiny, and that the participants work collaboratively in producing joint knowledge. In the development of the transdisciplinary (TD) methodological research framework, these areas are the core research focus in the five knowledge production phases.

A number of research questions have been formulated in these five areas for each of the five phases which form the basis of the research focus on transdisciplinary knowledge production. The data collection for the TD research includes: participatory observation, four sets of interviews with the pilot leaders, documentation of the pilots (meetings notes, reports, etc), pilot journals, focus group meetings with the pilot working groups and formative and summative evaluations.

### SUPPORT TO THE PILOT PROJECTS

Each Pilot Project also has a TD-core team member assigned to follow, support and act as a sounding board throughout the process. This type of support includes help in designing and planning the different meetings in the project groups, networking among the consortium partners regarding specific needs for different types of expertise and know-how, an informal on-going evaluation of the progress in the pilot and a direct link to the centre. An arena for mutual learning has also been set up consisting of the pilot leadership and staff responsible for transdisciplinary research. The arena consists of monthly meetings with a variety of activities, depending on the needs of the pilot

leaders. These meetings are primarily designed as a forum for mutual learning through exchanging experience and ideas between the Pilot Project leaders and staff responsible for transdisciplinary research, but they also act as a platform for building-up competence and skills. Examples of such needed skills include collaboration, conflict resolution and creating effective working teams. The TD-core has also held a workshop on workshop facilitation with a focus on integrating diverse expertise and knowledge.

The transdisciplinary approach has been seen as both very challenging and as a very effective way of working in the Pilot Projects. Some reflections from the pilot leaders are included in the appendix.

## Education and Training

In regard to education and training, the main focus in 2010 has been on establishing the idea of a Master's Program in Urban Futures. A number of successful meetings were held with key staff responsible for education at the University of Gothenburg and at Chalmers University of Technology. Also, a wider scoping study has been initiated to explore which educational elements would be relevant for an Urban Futures Master's Program. On the more detailed level, Mistra Urban Futures and its Pilot Projects have developed strong links with courses at University of Gothenburg (e.g. the Case Study course the River City 2050, the Sustainable Cities course at the School of Global Studies, Human Ecology) and at Chalmers (e.g. the Suburbs course in Hammarkullen).

### KISUMU - EXCHANGE ACTIVITIES

Activities for joint Kisumu – Gothenburg capacity building have taken place in the form of exchange activities. Several senior researchers and teachers visited Kisumu and Gothenburg respectively to participate

## Pilot journals and interviews

The pilot journals are a tool which is currently being designed and tested with the pilot leaders. They consist of a list of 3-5 questions formulated for each of the phases Initiate, Formulate, Carry-out, Apply and Assess. This aim of the pilot journal is twofold. First, it enables a continual collection of data from the Pilot Projects. Second, it has been designed as a formative evaluation tool to encourage reflection about the Pilot Project, and the role of the leaders and working group in creating new forms of joint knowledge and expertise. It will be filled out once for each phase. Interview questions have also been formulated for phases one, two and three, and have been carried out for phases one and two. These questions are structured around how the five criteria are evoked in the different phases of knowledge production.

<sup>1</sup> Nowotny et al 2001, Klein 1990, Klein et al 2001, Hirsch Hadorn et al 2008.

<sup>2</sup> Klein et al 2001, Hirsch Hadorn et al 2008, Pohl 2008.



in educational activities. Three Kisumu researchers/teachers have visited Chalmers for a month's stay and participated in courses at the master's level as well as in research seminars. Three Chalmers teachers have visited Kisumu and worked with Maseno/Bondo students in courses. Two master's students from Maseno University have studied a longer course at Chalmers Architecture. A group of Chalmers Architecture students carried out a Reality Studio in Kisumu for six weeks and a group of four students from the University of Gothenburg visited Kisumu for eight weeks to do a master's project on the development of the Kisumu Interaction Platform. Finally, contacts with University of Salford at the Manchester Interaction Platform have been initiated.

### PHD EDUCATION

Regarding doctoral education, there are a number of ongoing initiatives where the centre aims to grow increasingly active. The four Swedish schools of architecture are developing a joint research school in architecture. At the University of Gothenburg, there is an initiative to develop a cross-faculty research school for covering themes, such as globalization, the city, segregation, youth, culture and learning. The centre has also had initial contacts to build networking with the Research School for Architecture and Planning for the Urban Landscape at the Swedish University of Agricultural Sciences. The centre's international partners have, in addition, been involved as lecturers and opponents at research seminars. In relation to the emerging East African Urban Academy (a Chalmers initiative in collaboration with our Interaction Platform partners in Kisumu) there is also the opportunity to develop an East African research school in sustainable urban development.

### MASTER'S EDUCATION

Parallel to Mistra Urban Futures activities in master's education, a proposal to the Nordic Council of Ministers was coordinated by Mistra Urban Futures

staff on behalf of Chalmers. The objective of this successful application was to develop a Nordic Master's Program in Sustainable Urban Transitions through collaboration between five Nordic technical universities (Chalmers University of Technology, Aalto University, Technical University of Denmark, Norwegian University of Science and Technology and KTH Royal Institute of Technology). Funding for the program development has been received from the Nordic Council of Ministers and the program is expected to be launched in 2012. Although this initiative is outside of Mistra Urban Futures, the synergies with the centre have been instrumental in its development, and this Nordic Master's Program will form part of the overall range of master's education in Urban Futures at the centre. Moreover, the collaboration presupposes the development of joint activities also in PhD education. The Centre also recognizes the importance of other educational activities, such as training courses for professionals and pre-university level education, which will be given more attention in coming years.

### TRAINING

For training and further education, a scoping study was initiated in November 2010 to map such activities and capacities among the consortium partners. This study was finalized in February 2011 and a seminar with involved partners is planned for springtime 2011. Co-operation with pre-university (high-school level) education has started through the involvement of Kisumu Day High School and Global College, Gothenburg, in a seminar arranged by the Centre in Shanghai in October 2010, entitled Future cities, future citizens.



All Photos on this page by Haris Kadic. Four Master students from the University of Gothenburg visited Kisumu for eight weeks to do a master's project on the development of the Kisumu Interaction Platform.



# COMMUNICATION, EXTERNAL RELATIONS AND EVENTS

The initial communication strategy for the Centre is ambitious, and a number of tasks have been accomplished in the start-up phase so far. The focus in 2010 has been to develop the business idea, build relationships and create expectations about the Centre's future activities. Concrete efforts have been made, for example, in activities involving the current pilot projects and in the work done with the Strategic plan. The Centre has made significant progress on developing a well-functioning base for internal and external communication, which will be further developed in 2011. While interim staff have managed operations during the start-up phase, the plan is to recruit permanent staff during 2011.

A new communication strategy for the period 2012-2015 has been drafted and will be completed by 2011 in parallel with the Strategic Plan for 2012-2015. In the strategy, the focus of communication work shifts so that the organisation concentrates on the actual content of our operations, ie what we are working with, what we want to achieve and the outcome of our work.

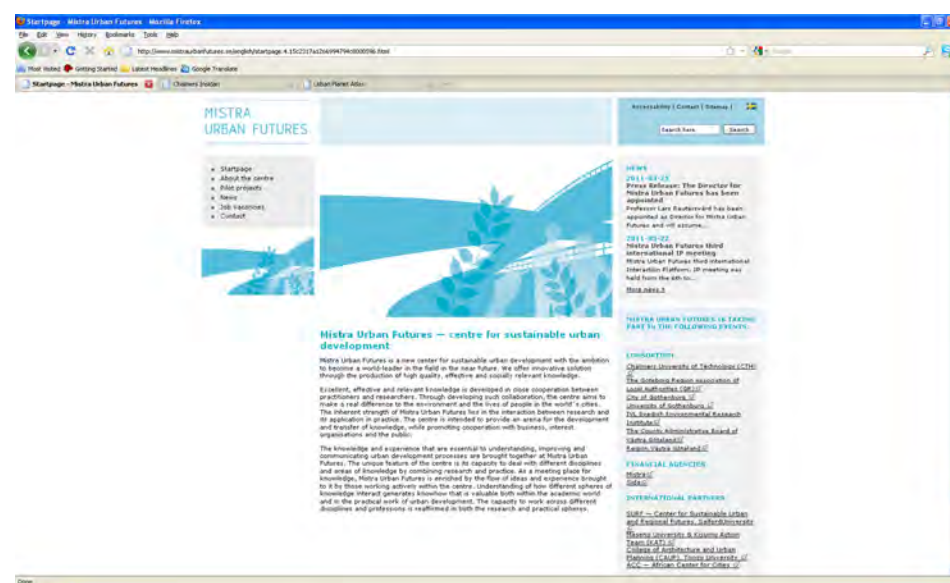
## Building a Platform for Communication

External communication activities have mainly focused on building the infrastructure for future external communication, using, for example, the website.

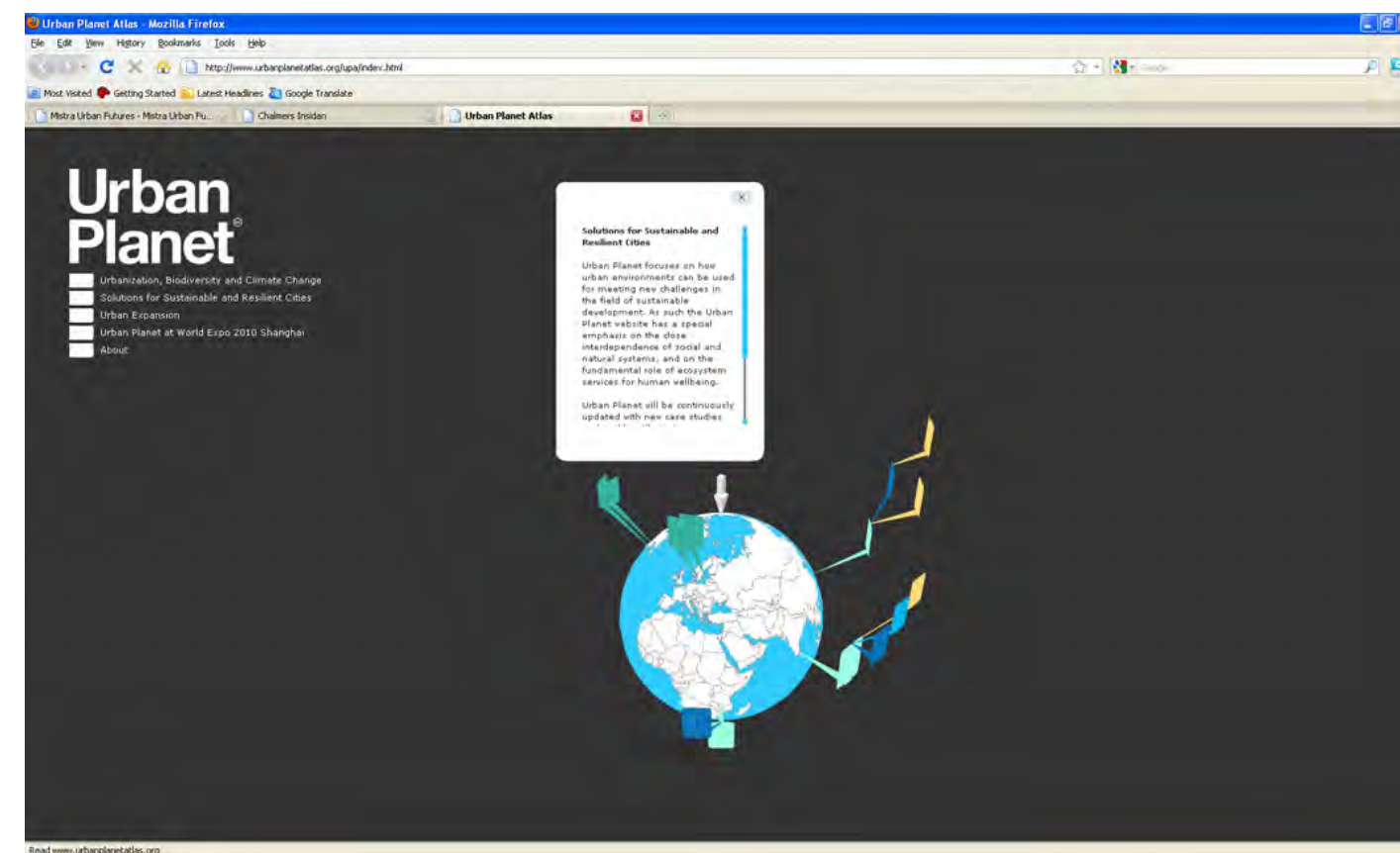
### THE WEBSITE

The first version of the website [www.mistraurban-futures.se](http://www.mistraurban-futures.se) was launched in March 2010. It was then managed and supported by one of the partners in

the consortium, IVL Swedish Environmental Research Institute. Since July 1st, administration of the website has been managed by personnel at the Centre. The website is available in both English and Swedish to make it internationally accessible. Basic information about the Centre as well as several news and press releases have been published. The development of a second and updated version of the website is in progress. The website is a fundamental and prioritized part of the Centre's communication. It is an effective channel to reach our network, however additional work is necessary to better communicate



Mistra Urban Futures website.



Urban Planet is a web based open source tool that is being developed in cooperation with Stockholm Resilience Center and Swedesc.

the operations of the Centre and to reach prioritized target groups.

### ARENAS FOR LEARNING AND NETWORKING

The establishment of various arenas for learning and networking which facilitate the exchange of knowledge has been identified as an important Centre activity. The first steps have been taken by establishing contacts with Gothenburg City Museum/Urbanum and its participating organisations as well as joining forces with Stockholm Resilience Centre to develop the web based tool Urban Planet/Atlas. The development of these platforms will continue during 2011. Discussions with other stakeholders about cooperation have also started and will continue.

### BASIC TOOLS AND MATERIALS

Many different actors are involved in the Centre's operations and access to communication tools and basic material is essential to make the organization coherent and recognizable. To start with, common templates have been produced, business cards have been printed and delivered as well as a pamphlet and roll-up. The work of developing a clear graphic profile

has started and will continue during 2011. One of the outcomes is a project platform for internal communication and sharing of documents. The interim staff has been trained and there is continuous transfer of documents and allocation of tasks to the project platform. Software for producing communication products is also in place. The creation of a CRM system (Customer Relationship Management) is ongoing and will help with handling the Centre's relations.

### INTERNAL COMMUNICATION

There is still a lot to be done regarding internal communication between Interaction Platforms. The first steps have been made through the establishment of functional internal communication routines within the core function which will act as a springboard towards building relationships between the Interaction Platforms. Regarding transdisciplinary collaboration, both internal and external communication are always tailored and adapted to the needs of the specific target groups. A well functioning system is in place that supports the continued development of external communication efforts.



## Outreach activities

In response to the great interest in the Centre locally, nationally and internationally, more than eighty smaller meetings have been held between core staff at the Centre and representatives of private companies, public authorities, research institutions, NGOs, etc.

### EVENTS

On a larger scale some ten events have been organized in Gothenburg as well as at major international venues, including the World Urban Forum V in Rio de Janeiro, an information meeting on EU research, a bus tour for researchers and practitioners in Gothenburg, Dialogue on Urban Challenges, World Expo in Shanghai as well as a Shanghai follow up meeting in Gothenburg. Kick-offs for the pilot projects and numerous practitioner-researcher workshops have also been held. The events have reached different target groups including practitioners, researchers, students



*Photo Petra Ljung. Mistra Urban Futures arranged and participated in several events in connection to World Expo 2010 in Shanghai. Mistra Urban Futures together with Stockholm Resilience Centre arranged the seminar Future Cities, Future Citizens. High school students from around the world were invited to share their visions and ideas for development of their cities.*

and other stakeholders. These events are in line with the goal that all communication should work in conjunction with transdisciplinary capacity building.



*Photo: Jan Olof Yxell. Mistra Urban Futures hosted on the 4th of October a Dialogue on Urban Challenges which was the kick-off for the work with the Strategic Plan. Over 100 people attended the workshop and took part in shaping the strategic development of the Centre.*



*Photo Kerstin Elias. Mistra Urban Futures arranged and participated in events in connection to World Urban Forum V in Rio de Janeiro. Mistra Urban Futures hosted a Networking event together with Mistra and Sida. The theme of the event was UniverCity: Towards city-university co-production and co-using of urban knowledge.*

### MEDIA

There has been continual interest from the media, especially regarding pilot project activities in the Gothenburg region. Mistra Urban Futures has been cited in a number of publications including: Göteborgs-Posten, Expressen/GT, Vårt Göteborg, and Chalmers News. Such publications have mainly reached a Swedish audience. Our goal is to reach a more international audience in the coming years.

### CATALYST

Mistra Urban Futures has taken the first steps towards becoming a catalyst in our network. As mentioned, the Centre has arranged or participated in a number of events. The process leading to Mistra Urban Futures being granted funds for two research applications from the Swedish Research Council Formas for Coordinated Urban Development, is a good example of what can be accomplished as a well functioning catalyst.



# FINANCIAL STATEMENT

## Revenues in 2010

The total turnover for the Centre in 2010 is estimated at 18,37 MSEK, divided between 15,75 MSEK (86%) cash funding and 2,62 MSEK (14%) in-kind contributions from the consortium partners.

| Source                     | Total, SEK | Cash, SEK  | In-kind, SEK |
|----------------------------|------------|------------|--------------|
| Mistra                     | 7 000 000  | 7 000 000  | -            |
| Sida                       | 6 000 000  | 6 000 000  | -            |
| Consortium                 | 5 101 597  | 2 750 000  | 2 351 597    |
| Other sources <sup>3</sup> | 263 404    | -          | 263 404      |
| Total                      | 18 365 001 | 15 750 000 | 2 615 001    |

Table 1 Mistra Urban Futures Revenues 2010

## Expenditures in 2010

The total expenditure in 2010 is estimated at 11,839 MSEK, which indicates a surplus of around 6,5 MSEK which will be transferred to the budget for 2011.

|       | Total, SEK | Cash, SEK | In-kind, SEK |
|-------|------------|-----------|--------------|
| Total | 11 839 308 | 9 224 307 | 2 615 001    |

Table 2 Mistra Urban Futures Expenditures 2010

Mistra Urban Futures has a surplus in 2010 which is indicated in the table below.

|       | Total, SEK | Cash, SEK | In-kind, SEK |
|-------|------------|-----------|--------------|
| Total | 6 525 693  | 7 975 693 | -            |

Table 3 Mistra Urban Futures Surplus 2010

<sup>3</sup>“Other sources” refer to Swedish Transport Administration, Swedish National Institute of Public Health, Adlerbertska Research Foundation, in-kind resources from three of the associated partners (Swedish Transport Administration, White Architects AB and SP – Technical Research Institute in Sweden) and our international partners.



# Appendix 1

List of staff<sup>4</sup> and people otherwise connected<sup>5</sup> to Mistra Urban Futures

## Interim Core Staff Mistra Urban Futures

|  |
|--|
| Henrik Nolmark, Acting Director (40% of full time) |
| Jaan-Henrik Kain (70-80 %)                         |
| Petra Ljung (70%)                                  |
| Björn Malbert (40%)                                |
| Merritt Polk (70-80%)                              |
| Jenny Sjödin (100%)                                |
| Pernilla Ottosson (45 %)                           |
| Henriette Söderberg (50 %)                         |
| Klas Andersson, Trainee (100 %)                    |

## Centre Board

|  |  |
|--|--|
| Ines Uusmann, Chair                                      | Former director-general, Swedish National Board of Housing, Building and Planning. |
| Katarina Gårdfeldt                                       | Centre for Environment and Sustainability, GMV                                     |
| Christian Baarlid  | Renova   |
| Colin Fudge  | RMIT University (Royal Melbourne Institute of Technology)                          |
| Raquel Rolnik  | University of São Paulo  |
| Clas-Uno Frykholm (Adjoint, repr Mistra)                 | Mistra   |
| Jörgen Sjöberg (Adjoint, repr host)                      | Chalmers University of Technology  |
| Pelle Persson (Adjoint, repr Sida)                       | Sida, Swedish International Development Cooperation Agency                         |
| Henrik Nolmark (repr core staff, reporting to the Board) | Mistra Urban Futures   |

<sup>4</sup> One full-time, others working part-time 10-70% of full time for the Centre

<sup>5</sup> This refers both to project staff paid from the Centre budget, and to non-paid e.g. Board members

## Consortium Council

|                          |  |
|--------------------------|--|
| Jörgen Sjöberg, Chairman | Chalmers University of Technology                  |
| Göran Bengtsson          | County Administrative Board                        |
| Staffan Eden             | University of Gothenburg                           |
| Nils-Gunnar Ernstsson    | Gothenburg Region Association of Local Authorities |
| Helen Eriksson-Elf       | City of Gothenburg                                 |
| Åke Iverfeldt            | IVL Swedish Environmental Research Institute       |
| Helena L Nilsson         | Region Västra Götaland                             |

## In-kind resources from the Gothenburg platform

|                     |  |
|---------------------|--|
| Pia Borg            | City of Gothenburg                                 |
| Ann-Louise Hohlfält | City of Gothenburg                                 |
| Åsa Lindell         | Region Västra Götaland                             |
| Mikael Appelqvist   | County Administrative Board                        |
| Jan-Gunnar Lindgren | County Administrative Board                        |
| Dick Hedman         | County Administrative Board                        |
| Kerstin Elias       | Gothenburg Region Association of Local Authorities |

## Senior Advisors and in-kind resources from Associated Partners

|  |   |
|--|---|
| Anna-Johanna Klasander                   | White Architects, Adjunct Professor Non-tenure<br>Chalmers University of Technology |
| Jan Gustafsson                           | Swedish Transport Administration  |
| Anders Hansson                           | City of Mölndal/Gothenburg Region<br>Association of Local Authorities               |
| Lars Lilled                              | City of Gothenburg  |
| Jessica Algehed, John Rune Nielsen et al | SP Technical Research Institute of Sweden   |

## Pilot Project - Multilevel Governance

|                  |  |
|------------------|--|
| Joakim Forsemalm | University of Gothenburg                           |
| Stig Montin      | University of Gothenburg                           |
| Kerstin Elias    | Gothenburg Region Association of Local Authorities |
| Elin Johansson   | County Administrative Board                        |
| Lars Lilled      | City of Gothenburg                                 |
| Magnus Johansson | ISU, Malmö University                              |
| Ylva Löf         | City of Gothenburg                                 |
| Jan Gustafsson   | Swedish Transport Administration                   |
| Lars Lilled      | City of Gothenburg                                 |

## Pilot Project – A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen

|              |  |
|--------------|--|
| Ulf Moback   | City of Gothenburg                           |
| Philip Thörn | IVL Swedish Environmental Research Institute |

|                |  |
|----------------|--|
| Greg Morrison  | Chalmers University of Technology            |
| Per Knutsson   | University of Gothenburg                     |
| Hanna Areslätt | City of Gothenburg                           |
| Katarina Buhr  | IVL Swedish Environmental Research Institute |

*Pilot Project - Urban empowerment: Cultures of participation and learning*

|                 |  |
|-----------------|--|
| Jenny Stenberg  | Chalmers University of Technology  |
| Eeva Bolin      | City of Gothenburg   |
| Ove Sernhede    | University of Gothenburg   |
| Lasse Fryk      | University of Gothenburg   |
| Elly Samuelsson | City of Gothenburg   |
| Ulrika Evenås   | Göteborgslokaler   |
| Pia Borg        | City of Gothenburg   |
| Pål Castell     | Consultant - Pål Castell Landskapskonsult  |
| Vanja Larberg   | Consultant - Vanja Larberg Undersökande arkitekt/<br>National Resource Management City of Gothenburg |

*Pilot Project - Business-driven sustainable development*

|                |  |
|----------------|--|
| Elin Eriksson  | IVL Swedish Environmental Research Institute |
| Anders Sandoff | University of Gothenburg                     |
| Göran Värmbj   | Värmbj Consulting                            |

*Pilot Project – Urban games*

|                  |  |
|------------------|--|
| Monica Billger   | Chalmers University of Technology                  |
| Karl Alfredsson  | Gothenburg Region Association of Local Authorities |
| Fredrik Axelzon  | Gothenburg Region Association of Local Authorities |
| Katarina Clase   | Centre of Visualization                            |
| Per Wetterstrand | Gothenburg Region Association of Local Authorities |

*Formas project – The interplay between citizen initiatives and invited participation in urban planning: An interaction research*

|                   |   |
|-------------------|---|
| Jenny Stenberg    | Chalmers University of Technology   |
| Hans Abrahamsson  | University of Gothenburg  |
| Henric Benesch    | University of Gothenburg  |
| Pål Castell       | Consultant - Pål Castell Landskapskonsult   |
| Nazem Tahvilzadeh | University of Gothenburg  |
| Emma Corkhill     | Region Västra Götaland  |
| Martin Berg       | University of Gothenburg  |
| Lars Jadelius     | Consultant - Pilotprojektkontoret AB  |
| Vanja Larberg     | Consultant – Vanja Larberg Undersökande<br>arkitekt/ National Resource Management |

|                  |            |
|------------------|------------|
| Mia Andersson-Ek | Consultant |
|------------------|------------|

*Formas project – Collaboration for improving energy efficiency in urban residential areas*

|                     |   |
|---------------------|---|
| Ylva Norén Bretzer  | University of Gothenburg                  |
| Anders Sandoff      | University of Gothenburg                  |
| Marie Thynell       | University of Gothenburg                  |
| David Langlet       | University of Gothenburg                  |
| Joshua Prentice     | -   |
| Carolina Hiller     | SP Technical Research Institute of Sweden |
| Peter Ylmén         | SP Technical Research Institute of Sweden |
| Kajsa Winnes        | SP Technical Research Institute of Sweden |
| Pernilla Holgersson | SP Technical Research Institute of Sweden |

*Manchester platform*

|              |   |
|--------------|---|
| Tim May      | SURF - The Centre for Sustainable Urban<br>and Regional Futures |
| Simon Marvin | SURF  |
| Beth Perry   | SURF  |
| Mike Hodson  | SURF  |

*Kisumu platform*

|                |                          |
|----------------|--------------------------|
| Stephen Agong  | Bondo University College |
| George Onyango | Maseno University        |

*Shanghai platform*

|                       |                   |
|-----------------------|-------------------|
| WU Siegfried Zhiqiang | Tongji University |
| TIAN Dan              | Tongji University |

*Capetown platform*

|                      |                         |
|----------------------|-------------------------|
| Susan Parnell        | University of Cape Town |
| Mercy Brown-Luthango | University of Cape Town |
| Warren Smit          | University of Cape Town |



# Appendix 2

## Short summaries of the Pilot Projects at the Gothenburg platform

### Pilot Project 1: Multi-Level Governance: Decision-making Processes for Sustainable Urban and Regional Development

The main purpose of this Pilot Project is to describe and analyse collaboration between authorities and across organizational and administrative levels, which are oriented towards urban and regional sustainable development. The overall question is the following: What knowledge and experiences in different cases of collaborative governance are useful for developing transdisciplinary strategies for sustainable development? Members of the Pilot Project 1 group are researchers from different disciplines (political science, ethnology and pedagogy from Gothenburg University and Malmö University College) and experts/practitioners from different public authorities and private organizations (Social Resource Management in the City of Gothenburg, The City Planning Office in the City of Gothenburg, The Gothenburg Region Association of Local Authorities, The County Administrative Board of Västra Götaland, the Swedish Transport Administration and private consultants). Pilot Project 1 is led by two project leaders, the first is a researcher/teacher (professor) of political science at the School of Public Administration, Gothenburg University and the second is a researcher (assistant professor) of ethnology at the Gothenburg Research Institute and also works as an expert at Radar (a private company dealing with architecture, planning and landscaping). The project leaders are salaried by Mistra Urban Futures (each at 20 percent of full time), while all others participate based on in-kind resources (5 to 10 percent). In sum Pilot Project 1 has access to a wide spectrum of expertise, which is a good basis for creative transdisciplinary discussions and analysis.

#### ACTIVITIES

Four processes of collaborative governance have been selected for empirical study: 1) A Deliberative process (Rådslagsprocessen) where civil servants and politicians of the Gothenburg Region (GR) had dialogues concerning regional development with members of the fourteen municipal councils in the Gothenburg Region (2002-2008), 2) A collaboration project (2006-2009) between six local and regional authorities concerning public transport issues (K2020), 3) A project within Social Resource Management concerning the social dimension of urban sustainability (S2020), and 4) An urban development project in the City of Malmö.

Methodologically, we are conducting in-depth interviews (focus groups) in each of the four processes. So far, two focus groups have been carried out, one containing twenty five participants from Rådslagsprocessen (November 2010) and one containing fifteen participants from K2020 (January 2011). The last two focus groups will be carried out in March and in May 2011.

Governance processes are in focus, not sustainable development as such. All processes being studied aim to facilitate sustainable development, but the Pilot Project 1 does not explicitly evaluate what this actually means in terms of different aspects of sustainability. So far, there are visual outputs in the form of politically accepted vision documents from two of the processes (Rådslagsprocessen and K2020). However, it will take

a while before we can study the implementation of these visions. It is also worth mentioning that we are not evaluating the processes by comparing them to each other. We are more interested in finding out the driving mechanisms for and barriers to successful collaborative governance. By “successful collaboration” we mean that participants in the process regard it as successful and that there are some visible outputs and outcomes of the process, such as vision documents, increased knowledge and trust, and new networks.

#### SOME FINDINGS

After the first focus group in November 2010, we started to interpret the collected information. The plan has been to identify explanatory factors and mechanisms for successful collaboration. A complete set of factors and mechanisms has not been compiled yet, but we have discovered some lines of thought, which will guide further analysis. We analyse case by case and thus accumulate insights in order to extract specific contextual factors from more general ones, and factors relating to the interplay between actors and structures. The outcome of the analysis will consist of both policy papers (a sort of “cookbook” for collaborative governance in multi-level settings) and academic articles. Themes for further analysis includes:

1. Collaborative governance starts generally with tackling a complex set of issues and problems. Some can be regarded as “wicked”. Thus, choices must be made. The reasons for choices might be political (what is politically possible) and/or cognitive (we do not know enough). In this selection process there is an interesting interplay between civil servants and politicians, which evokes the question: who are the drivers in the process of choosing which problems to deal with?

2. Multi-level governance often means that collaboration between equal actors/organizations actually take place in the “shadow of hierarchy”. This is a familiar expression in governance research, but what is interesting is what or who creates the shadow. It can be regional/urban political leaders, who do not intervene in the process, but act as “meta-governors”. One meta-governance strategy can be to send out “missionaries” in order to make the actors in the collaboration process think the “right” way. Central government and state authorities can also create the shadow by referring to different rules and legislation.

3. Events and narratives are important mechanisms for keeping a process together. Sometimes these mechanisms start accidentally, but after some time they are regarded as natural ingredients within the “success story”. Certain narratives might even be so important that the particular collaborative governance becomes a trademark. A question of general interest within this context is the longevity and strength of narratives related to success. Do they fade away when implementation efforts meet obstacles?

4. New forms of multi-level collaborative governance have implications for the ideals and the current state of representative democracy. On the one hand, the processes can be looked upon as ordinary “drafting committees” without any formal political functions, which make them compatible with representative democracy. On the other hand, some processes can be regarded as rather exclusive networks of experts who can seriously affect the framing of sustainable development. Such processes would exclude the majority of politicians and citizens and leave them behind.

# Experiences with TD knowledge development in the Pilot Projects

## PILOT PROJECT 1, MULTI-LEVEL GOVERNANCE

Transdisciplinary research (TD) in Pilot 1, Multi-level Governance consists of mainly two kinds of activities. First, researcher and practitioners/experts in the group are mutually responsible for conducting the interviews in the workshops (focus groups). This means that not just researchers are responsible for formulating questions and gathering relevant information about the investigated processes. Secondly, there is mutual responsibility for analysing the information and draw conclusions. This is the most creative part of the TD where all of the pilot members interpret the empirical material from different points of view. When researchers from different theoretical approaches interpret and write reports by themselves, important “tacit knowledge” is often left out. In the case of Pilot 1, several of the experts are deeply involved in the empirical objects of analysis, so we make rather “thick” case descriptions and interpretations with high relevance.

## Pilot Project 2: A City Structure Adapted to Climate Change: Scenarios for Future Frihamnen Resources in the project:

The the Swedish Transport Administration and the Foundation for the Swedish Environmental Research Institute IVL provide supplementary funding to the Pilot Project, amounting to 558 000 SEK. The funds provided by Swedish Transport Administration and the Foundation for the Swedish Environmental Research Institute IVL finance additional contributions of IVL expertise. During 2010 these funds financed IVL expertise contributions corresponding to 145 hours of work plus expenditures corresponding to 35 000 SEK.

During 2010 the Pilot Project implemented two workshops, i.e. a test workshop and the first “real” workshop. Nine persons participated in the test workshop, corresponding to 45 hours of work. 24 persons participated in the “real” workshop, corresponding to 120 hours of work.

### IMPLEMENTED ACTIVITIES

In September 2010 the Pilot Project group, consisting of Mr. Philip Thörn (project leader), Mr. Ulf Moback (project leader), Prof. Greg Morrisson, Dr. Katarina Buhr, Dr. Per Knutsson, and Ms. Hanna Areslätt, met for the first time and implemented the project kick-off. During the one-day kick off the project group formulated the scientific and popular approach, planned and scheduled future activities and delegated responsibilities.

During 2010 the Pilot Project implemented two workshops, i.e. a test workshop and the first “real” workshop. 32 people, sixteen scientists from different disciplines and sixteen civil servants from various public administrative offices, participated in the workshops. Each one lasted approximately five hours. The test

workshop was used to test and fine-tune the transdisciplinary methodology developed by the Pilot Project group. The first “real” workshop addressed how different climate change adaptation strategies can affect the ecology of Frihamnen, an urban district of Gothenburg.

During January-February 2011, two more workshops were implemented, one addressed how different climate change adaptation strategies can affect Frihamnen’s economy and one addressed the societal implications of different climate change adaptation strategies.

### RESULTS/OUTPUTS

The project group has formulated the scientific approach, addressed the methodological considerations and made the necessary delimitations. On February 25, 2011, the project had completed all planned workshops- all in all four workshops- and accomplished the first phase of the project, i.e. gathering the necessary material. Ten focus groups worked during the four workshops and approximately fifty hours of material, recorded on dictaphones and transcribed, have been produced. The project group is now ready to start the second and final phase of the project, i.e. the analytical work and production of scientific as well popular outputs.

The project group has developed a poster entitled “Climate Change Adaptation of Frihamnen: Visualising Attack, Retreat and Defend” which will be used for dissemination, information and communication activities. The poster will be presented at the IWA conference “Cities of the Future 2011”. The poster has also been submitted to the World Water Week conference “Responding to Global Changes – Water in an Urbanising World”.

# Experiences with TD knowledge development in the Pilot Projects

## PILOT PROJECT 2, A CITY STRUCTURE ADAPTED TO CLIMATE CHANGE

The project group in Pilot 2, “A city Structure Adapted to Climate Change” has successfully implemented four transdisciplinary workshops, where scientists and practitioners has interacted and jointly produced a transdisciplinary material. The key lesson learned is that in order to make the most of transdisciplinary workshops and make sure relevant material is produced, the scientific approach, methodological considerations and delimitations must be carefully addressed before producing any material, i.e. implementing any workshops. A test workshop provided us with valuable insights and experience, thus we could perfect our scientific and methodological approach before implementing the “real” workshops.



## Pilot Project 3: Urban empowerment: Cultures of Participation and Learning

This Pilot Project focuses on “cultures of participation and learning”, or in other words, “capacity building processes”, which imply empowerment actions that influence participants’ ability as a group to contribute to a change - social and physical. With participants we mean residents, practitioners, researchers, teachers, students, etc. As the Pilot Project duration is very short, we need to keep it’s focus narrow even if the problem area is extensive. It will therefore focus on two capacity building processes in Hammarkullen, Gothenburg:

- The regeneration of the local square in Hammarkullen
- The establishment of the Centre for Urban Studies university campus

Other actors already decided that these processes should take place, so we are not responsible for the entire processes. The Pilot Project will concentrate mainly on one set of actors involved in the processes: residents.

The concrete result of the Pilot Project will be the capacity building processes per se. In parallel, we will analyse how the capacity building processes work and at the end of the project we will develop recommendations or guidelines on how such cultures of participation and learning can be implemented and supported.

### ACTIVITIES

During the spring of 2010, the project group was formed through a number of meetings. Local practitioners got involved to shape the agenda for the project and also to discuss transdisciplinary forms of working. At the end of spring we were visited by a group from Vaulx-en-Velin in Lyon, who were interested in learning about our experiences. We also initiated work to develop our ‘ethical rules’ in relation to residents and other informers/participants.

At the beginning of autumn, the project went into its elaborative phase, initiated by a common kick-off workshop with Mistra Urban Futures’ transdisciplinary group. At the kick-off, the process design for the project was implemented and tools and methods were selected. With its local context, this Pilot Project has been involved in an extensive range of meetings, workshops, lectures, seminars and conferences locally as well as outside of Hammarkullen. All activities have been documented and will be part of the analysis. Broad participation is due to the large size of the working group which consists of five practitioners and four academics - and based in the city administration locally and in city centre, and in higher education. During the autumn, the activities were linked to some of the higher education courses carried out at the Centre for Urban Studies. These include:

- The master’s course Suburbs—Design & Future Challenges where design students (architects, planners, etc) learn, practice and develop tools and methods for co-design and co-planning with citizens;
- The bachelor’s course Community Outreach in Teaching where students from the teacher’s college develop professional roles in close relationship with local school and its pupils; and

- Bachelor courses in social work where students work in close cooperation with staff at the city district administration.

In addition to all such activities, the Pilot Project in collaboration with other actors initiated a number of events or workshops aimed at getting residents involved in the processes. Short descriptions of the events/workshops follow:

### DEVELOPMENT: A GANDHIAN PERSPECTIVE

In October, Angered College (folkhögskola), Hammarkullsskolan (elementary school), the Centre for Urban Studies and the Pilot Project organised a common lecture and workshops in Hammarkullen with Suman Aggarwal, Indian Professor of Philosophy and Gandhian scholar. Suman Aggarwal is also an activist and leader for Shanti Sahyog in India which works with non-violence and development work in poor areas in India.

### PARTICIPATION, EMPOWERMENT AND SUSTAINABILITY – HOW DOES IT WORK?

In October, the Centre for Urban Studies, Mistra Urban Futures, Chalmers Architecture, and the Pilot Project organised lectures and workshops in Hammarkullen with Carin Smuts, Architect from CS Studio, Cape Town, South Africa. Smuts is an award winning architect with extensive experience working with citizens in co-designing physical environments in poorer areas in South Africa. Such work includes finding funding for the construction of buildings such as cultural houses, women’s centres etc. In Hammarkullen, Smuts taught design students, students from the teachers’ college and social worker students how to collaborate in participatory design with a group of ten women from Hammarkullen. The workshop involved starting a café in an empty building on the square. During the workshop, they created five models of how the café could be designed and shaped. After the workshop this group of women with support from the Pilot Project, has continued to struggle to get their ideas implemented.

### LIVELY CITIES: PLANNING FOR PEOPLE

In November, the Centre for Urban Studies, Mistra Urban Futures, Chalmers Architecture, the City Museum and the Pilot Project organised lectures in the city centre and workshops in Hammarkullen with Kristian Skovbakke Villadsen, Gehl Architects, Copenhagen. Gehl Architects work all over the world to spread their concept of lively cities planned for people. In the workshop in Hammarkullen, Skovbakke Villadsen focused on four projects the students worked with during the Suburbs course (the square, the tram stop, the family house and the house of learning). Using Gehl’s twelve principals for lively cities, they designed a vision for each project. The participants were a mix of students and people from Hammarkullen as well as employees involved in the family house. The design students then went on to co-designing their four projects using results from many different workshops and meetings with both residents and employees. Their final results were presented for the public in Hammarkullen in December 2010.

In the end of 2010 the municipality received approval from Tillväxtverket for their project application to Utveckling Nordost UNO (Developing Northeastern Gothenburg). The UNO project entails 125 000 MSEK of investments in Angered and Bergsjön, of which 7 000 MSEK has been earmarked for the square and tram stop in Hammarkullen. The UNO-project could present great opportunities for the Pilot Project to develop our work further.



## RESULTS

As was mentioned, the concrete result of the Pilot Project will be capacity building processes per se and they have been described above. Carrying them out has been quite easy in a way, as we have been based in Hammarkullen also with other commitments and perhaps this will be regarded as a prerequisite for this way of working. However, we have not yet come to the project stage of thorough analysis and development of recommendations or guidelines on how cultures of participation and learning can be implemented and supported.

## PRELIMINARY CONCLUSIONS

As the results are not yet analysed, it is difficult to list preliminary conclusions. However, we already realize the difficulties we will have in describing the activities and their outcomes in a way that make sense to the reader since the issues we work with are very complex. We can, however, say that it is extremely valuable to work with students as drivers for capacity building processes. It adds value to their learning, i.e. the students obviously gain quite a lot when taught in such a context.

# Experiences with TD knowledge development in the Pilot Projects

## PILOT PROJECT 3, URBAN EMPOWERMENT CULTURES OF PARTICIPATION AND LEARNING

The transdisciplinary working form in Pilot 3, “Urban Empowerment, Cultures of Participation and Learning” has been extremely interesting and the knowledge we developed will be more valuable for society than traditional research or traditional demonstration projects. We probably all agree on this in the project. However, there are difficulties. One was the need to further development of ‘ethical rules’ for how we relate to inhabitants and other participants in transdisciplinary work. As researchers, we cannot follow all of the rules we usually use when leading a project together with practitioners. Another problematic experience was how the extensive reorganization in year end of 2010 of Gothenburg’s city districts from 21 to 10 affected our work. This was done in the middle of our already very short Pilot Project time and implied that four of the project participants did not know how the reorganization would affect their position and responsibilities for six months. The main impression of transdisciplinary working form, however, is very positive and we would like to return to this discussion with many more views and ideas at the end of the project.

# Pilot Project 4: Business-driven Sustainable Urban Development

## GOAL OF THE PROJECT

The project aims to gain experience and focus research on how interaction with business in urban development can be applied in order to gain more sustainable urban development. Collaboration can be more structured, more developed, initiated earlier in the urban development process and with more clear sustainable goals. However, transparency of the process and the citizen dialogue must be maintained. A “cookbook”, is being developed based on ongoing urban development projects, recent experience from different initiatives in Gothenburg, other Swedish cities and other countries. The cookbook contains key lessons, success factors, possible strategies and presentations of processes under different circumstances.

The project budget is 1.5 MSEK excluding taxes, duties and costs for project expenses such as meeting rooms, travels and other expense connected to meetings.

## PROJECT STAFF AND BUDGET

The project budget is 1.5 MSEK excluding taxes, duties and costs for project expenses such as meeting rooms, travels and other expense connected to meetings.

The project staff:

Elin Eriksson, IVL Swedish Environmental Research Institute, and Anders Sandoff, University of Gothenburg, School of Business, are both project managers. Other core project staff members are:

- Göran Värmbly, Consultant
- Kerstin Elias, White Arcitects
- Petter Rönborg, University of Gothenburg, School of Business, Economics and Law
- Bert-Ola Bergstrand, University of Gothenburg, School of Business, Economics and Law
- Helena Davidsson, IVL Swedish Environmental Research Institute, Communication
- Ivana Kildsgaard, IVL Swedish Environmental Research Institute,
- Ann-Beth Antonsson, IVL Swedish Environmental Research Institute

The following staff are involved in project meetings, stakeholder meetings and focus groups:

- Christian Jensen, University of Gothenburg, School of Business, Economics and Law
- Christina Wolff, IVL Swedish Environmental Research Institute
- Kaisa Svennberg, IVL Swedish Environmental Research Institute
- John Sjöström, IVL Swedish Environmental Research Institute

Other project members are:

- Gunilla Wigne, Lerum
- Lars Ekberg, Mölndal
- Marcus Nordanstad, VGR
- Dejan Djurkovski, Business Region Gothenburg
- Jessica Algehed, SP
- Irja Sandin Preera



- Catarina Hedar, Ramböll
- Jonas Norrman, IMCG
- Gunnar Ingelman, Kanenergi

The wider project group has met almost every third week for 2-3 hours, and the project staff more or less every week. All project members contribute significantly to the process and are important.

## ACTIVITIES, RESULTS AND EXPERIENCES OF THE TRANSDISCIPLINARY WORK MODEL SO FAR

From the start, several public and private sector organizations have been interested in participating, and have joined the project group and larger stakeholder group to contribute and take part in the findings. In October-November 2010, a project group of around fifteen people was formed. The project group includes representatives from academia, business, cities and regions, and has expanded in early 2011 to the group listed above. The project group accepted the project plan, but also requested that the expected results be clarified, i.e. how the goal of the cookbook will be developed. Also, several important issues have been identified. That is why focus groups have been formed. These include the project group and a few other experts working together to produce material for the project report. These focus groups focus on the following issues:

- The view from cities and the public sector about the potential of business driven sustainable urban development in existing and future processes.
- The potential for business driven sustainable urban development from a business perspective.
- Social development as part of business driven sustainable urban development.
- Criteria for assessment of sustainable development in business driven sustainable urban development.
- Models for cooperation between the public and private sectors in working towards sustainable urban development.

The focus groups will meet around five times during spring 2011. In brief, the different groups will give input to the project report including the following issues:

- Processes for current business driven sustainable urban development.
- Possible new arenas/platforms/processes for business driven sustainable urban development.
- Strengths and weaknesses of different processes and initiatives.
- Methods.
- Examples, websites and recommended literature.

To gather experience from a wider group in the region, expand the dialogue and disseminate the findings, the project group arranges so called stakeholder meetings. One stakeholder meeting was held on February 24, 2011, with around 45 attendees. The participants were mostly from the public sector but also from a few companies within the construction, energy, consultancy and ICT sector.

The next stakeholder meeting will be held May 31, 2011. The project group is inviting a wider group of business, construction companies, energy companies, innovation companies, research and development, social entrepreneurs, NGOs and others.

A third stakeholder meeting is planned for beginning of autumn 2011, where politicians will be invited to give their views, respond to the project findings, and present suggestions for how to proceed with the process. Also, the municipalities, regional government and business will also be invited. All stakeholder meetings are open and free to everyone, however, seating is limited.

## PRELIMINARY FINDINGS AND KEY LESSONS

A preliminary conclusion is that there are potential improvements and missed opportunities in steering the urban development process in a more sustainable direction. Suggestions include: taking advantage of business, since business involvement could start earlier in the process; the public sector could be more open asking for early ideas, and could set sustainability targets together with the private sector. However the public sector must always have the last word. After discussions with and input from up to seventy people, we have the following few preliminary findings:

- Businesses can be involved more and at an earlier phase in setting targets, long term goals and for a larger planning scale.
- The public sector can establish criteria for businesses to enable business to achieve higher sustainability performance and encourage business to invest in more sustainable solutions, rather than wait for demand from the broader market.
- The interest from both sides, from municipalities and the region as well as from businesses is high, since increased business driven sustainable urban development is a win-win situation.
- The concept is broad, even though both the concepts “sustainable” and “business driven” have established definitions. This is why the project group is developing a definition of the entire term that can be applied in the project.

## Pilot Project 5: Urban Games

The project Urban Games is about using games and visualization to understand the city as a complex system. Games and visualization can be powerful tools for learning and communication about what a city is and what a city should be. Games and simulation in particular can serve a vital role in highlighting the issue for multiple target groups and from different perspectives.

## RESOURCES FOR THE PROJECT

The project uses a model for resource estimation that today does not really correlate to the requested amount in the report. The term “full-time employee” is not used and the amount of time contributed by external partners around the project group itself is estimated below. Since the project’s structure entails production, a more operational form of budget planning has been applied. Today the measurable pilot project budget is estimated at 2,127,000 SEK which is time worked or actual funding put towards work on the project. Of this amount, 1.5 million SEK is allocated to the Mistra Urban Futures pilot. Added to this



were additional time worked on the project's various operational parts as well as further financing of about 617,000 SEK. On top of all that approximately 500 working hours contributed by external partners went into the project in the form of consultation in reference groups, collaborative partners and other expertise.

## ACTIVITIES

2010 has been in many ways a time for mapping out and starting-up the project. The following activities were carried out in relation to the corresponding deliverables. These are reported in correlation to each deliverable.

The pilot project has as its starting point the assumption that by the end of the project period the following processes and content will have been delivered:

- Have established and developing collaboration with at least one national player from the games and visualization industry. The game resulting from this collaboration is applied and used by the pilot project's target groups.
- Collaboration with the Trade Council and ten additional government agencies has been implemented and a continuous dialogue about implementation, coordination and other actions has been carried out during 2010.
- Urban Games has carried out testing of the product SymbioCity Scenarios involving about 300 students, ten teachers and about ten urban planners in the Gothenburg region.
- Urban Games has surveyed other products similar to the one above.
- Urban Games has begun writing two different manuals on how to use the product in different situations.
- Have developed at least one tool for dialogue processes. This tool utilizes the games and visualization method and the pilot project is responsible for development and testing of the actual model.
- Development of the dialogue tool will have started with a survey of and funding efforts for the product.
- A website with information about games and visualization has been created and over forty different types of games that correlate to the purpose of the project have been identified.
- Made a survey of and visualized the West Sweden network for games and visualization related to sustainable urban development.
- The survey has been initiated and is being run continuously. In addition, numerous meetings with interested stakeholders have been held.
- Have developed and implemented at least one educational game designed to explain complex processes within sustainable urban development.
- Production of three educational games is in operation and the start-up phase has involved establishing collaboration with various stakeholders such as the City Museum, interaction designers, environmental specialists, etc.
- Have delivered at least one conference paper on sustainable urban development and games and visualization.
- Contact has been made and an agreement has been reached with Jonas Linderöth of the Department of Education at Gothenburg University regarding a joint conference paper about the field of games and

learning applied to sustainable urban development. Collaboration will have also been established with Sus Lundgren about a paper on one of the company's game products.

- Have interacted with at least fifty representatives from industry, academia, and public organizations regarding the project's content and purpose.
- This work is held continuously and the goal will be reached during the project timeline.
- Have assisted Mistra Urban Futures and its pilot project in method development and established a basis for continued work with games and visualization within the efforts dealing with sustainable urban development in the framework of Mistra - Urban Futures.
- Collaboration with Pilot Project 3 is already in operation in regard to their development work in Hammarkullen, additional interaction will occur during a conference in June.
- Great interest in the development of simulation/visualization has been expressed by various stakeholders in the transport sector, which has meant that we initiated a survey of existing applications, current research and the needs that exist. The project is co-funded (four month post-doc) by the Transport Area of Advance at Chalmers and the Center of Visualization.
- We have, in cooperation with Mistra Urban Futures, gotten involved in developing the web project Urban Atlas/Urban Planet.
- We have in collaboration with the Center of Visualization and the Department of Architecture at Chalmers brought together interested researchers in a Mixed Reality Group. The group's purpose is to create activities around and initiate projects for the development of tools for visualization and simulation of complex urban systems and habitats. The focus is on different interactive forms, such as Mixed, Augmented and Virtual Reality (MR, AR and VR).

## PRELIMINARY CONCLUSIONS

One of the pilot project's primary objectives is to show whether games and visualization technology and pedagogy can be used for the purpose for which the project is set up. The project also aims to explore these possibilities and provide practical examples of the above. A clear indication that this need exists and that it is practically possible to in several ways energize this area is the huge interest in the project expressed by stakeholders from diverse business areas and organizations. A growing number of people are convinced that it is possible to use these systems towards solving the issue above. This is especially true as the pilot project itself is considered a creative project where the implementation of results will determine whether or not it has succeeded. A clear indication of this is that the pilot project has generated additional funds to finance development projects that fall within the pilot project's purpose and goals.

## EXPERIENCE FROM THE TRANSDISCIPLINARY FORM OF WORKING

A number of reflections about the transdisciplinary form of working were generated within the framework of the pilot project. However, the overall view is that the project is run using solution directed processes and that the common experience and desire to work in project form reconcile many of the transdisciplinary challenges.

## SOME EXPERIENCES THIS FAR

- Various projects methods are challenging in regards to budget estimates, time estimates, etc.

- The desire from Mistra Urban Futures' central administration that pilot projects should create their own governance process and be different creates challenges for common approaches to this report. There are few common denominators around style, form, measurement methodology, etc.

- Despite diverse organizational backgrounds, a common approach was created quickly to deal with the project's challenges and problems.

## EFFECT AND RESULTS

Within the framework for the pilot project, several sharp processes have already been carried out or initiated. Results already achieved within the framework for the pilot project include the following:

- A website has been produced with over forty types of games related to sustainable urban development and dialogue forms have been mapped out and documented.
- More than 300 young people have played games and discussed sustainable urban development.
- An entire school's workforce has discussed games as a method for learning about sustainable urban development and has initiated projects to work actively with their district's development issues.
- Discussions about games and simulations as a method have been held by city planners in the Gothenburg region.
- Collaboration with over thirty different organizations, agencies and other stakeholders about sustainability issues in the context of urban development has been carried out.
- A survey of Western Sweden participants within games and visualization has been made and updated continuously.
- A survey of how the municipalities of the Gothenburg region utilize visualization of complex data has been made.
- After six months the project has already generated more than 600 MSEK in additional financing on top of the pilot project's initial funding.

# Appendix 3

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## MISTRA URBAN FUTURES

Sited in Gothenburg, Sweden, Mistra Urban Futures was set-up to better understand the challenges and possibilities facing urban areas and to establish a world centre for their sustainable development. It is funded by Mistra the Foundation for Strategic Environmental Research, the Swedish International Development Cooperation Agency (SIDA), and seven founding organizations. The centre itself is hosted by Chalmers University of Technology.

Visiting address: Aschebergsgatan 44 | Gothenburg | Sweden

Postal address: Chalmers | 412 96 Göteborg | Sweden

Telephone: + 46 (0)31 772 49 56

E-mail: [mistraurbanfutures@chalmers.se](mailto:mistraurbanfutures@chalmers.se)

[www.mistraurbanfutures.se](http://www.mistraurbanfutures.se)

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# MISTRA URBAN FUTURES

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