



Urban Synergy Foresight

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EUROPEAN UNION



Committee of the Regions

Urban Governance in the EU

Current Challenges and Future Prospects

2011

TABLE OF CONTENTS

| | |
|---|-------|
| Atelier on “Urban Foresight as a Tool for Territorial Governance” – programme and background note | p. 7 |
| “De la planification territoriale à la 'stratégie partagée' : évolution du rôle de la prospective dans les politiques urbaines” – Jean Haëntjens , Economiste et urbaniste, consultant (Urbatopie), France | p. 21 |
| “Urban Synergy-Foresight” – Joe Ravetz , University of Manchester, United Kingdom | p. 31 |
| “The Importance of Forward Urban Studies and Innovations in an Uncertain World” – Voula Mega , Senior Policy Analyst, European Commission, DG RTD, Brussels, Belgium | p. 45 |
| “New Urban Europe: A Place 4 All” – Peter Nijkamp and Karima Kourtit , Department of Spatial Economics, VU | p. 61 |

University, Amsterdam, the Netherlands

“La prospective territoriale : le SCoT du Pays de Rennes” – p. 77
Isabelle de Boismenu, Directrice d'études, AUDIAR,
Rennes, France

“From Sustainable Energy Communities to Smart Cities.
Learning from 58 built examples in the EU's CONCERTO
initiative how cities and communities can meet the energy
and climate challenge” – **Sven Dammann** and **Georg
Houben**, European Commission DG ENER, Brussels,
Belgium p. 91

“Urban Foresight from an Environmental Perspective” – p. 103
Ybele Hoozeveld and **Teresa Ribeiro**, European
Environment Agency (EEA), Copenhagen, Denmark

“The Role of Urban Foresight in Regional Policy” – **Corinne
Hermant-de Callatay**, European Commission, DG REGIO, p. 115
Brussels, Belgium

Round-Up – “Urban Foresight as a Tool for Territorial
Governance” atelier p. 129

Open Days University atelier on “Shaping EU Cities in a Changing Environment: Strengthening Urban Quality in Strategies for Growth and Shrinkage” – **programme** p. 155

“The European Demographic Challenge: Urban Problems and Responses” – **Ivàn Tosics**, Executive Director, Metropolitan Research Institute, Budapest, Hungary p. 159

“European Forward-Looking Activities. Evidence and Inspiration for Policy Makers” – **Domenico Rossetti di Valdalbero**, European Commission DG RTD, Brussels, Belgium p. 169

“European Cities in a Fast Changing World – Investing in Innovation and Skills” – **Eurico Neves**, Director of Innova Europe, Lisbon, Portugal p. 173

Round-Up – “Shaping EU Cities in a Changing Environment: Strengthening Urban Quality in Strategies for Growth and Shrinkage” Open Days University atelier p. 185



**URBAN FORESIGHT AS A TOOL FOR TERRITORIAL
GOVERNANCE**

PROGRAMME

Thursday, 15 September 2011

[Room JDE 53 - Jacques Delors Building,

99-101 Rue Belliard - 1040 Brussels]

9h30-10h30 ***Opening session***

Gerhard Stahl, Secretary General of the Committee of the Regions

John Ratcliffe, Principal of The Futures Academy (Dublin Institute of Technology), Professor of Strategic Foresight at Henley Business School

10h45-12h30 *First round table: "Urban Foresight as a Tool to Help Decision-making"*

Moderator: **Philippe Destatte**, Director General, The Destrée Institute

Jean Haëntjens, Economist and town planner, Consultant in urban strategies (Urbatopie)

Paul Lecroart, Urban Planner, Urban Planning and Development Agency for the Paris Region (IAU IdF)

Joe Ravetz, Co-Director of the Centre for Urban & Regional Ecology, University of Manchester

Frédérique Parrad, Policy Officer, Directorate for Sustainable Development, Foresight and Evaluation, Regional Council of Nord-Pas de Calais

14h00-15h45 *Second round table: "Visions and Trends for 21st Century Cities"*

Moderator: **Corinne Roëls**, Secretary General, Groupe Futuribles

Voula Mega, Senior Policy Analyst, Relations with stakeholders (ERIAB), DG RTD, European Commission

Peter Nijkamp and **Karima Kourtit**, Management Board, Joint Programme Initiative Urban Europe

Isabelle de Boismenu, Research Director, AUDIAR, Rennes

Yves Van de Castele, Coordinator, Regional Plan for Sustainable Development (PRDD), AATL, Brussels

Kepa Korta, Director, Office of the Strategic Plan, San Sebastian

16h00-17h30 *Third round table: "What Role for Urban Foresight in European Policies?"*

Moderator: **Ibon Zugasti**, Director, Prospektiker

Ken Ducatel, Head of Unit, Digital Agenda: Policy Coordination, DG INFSO, European Commission

Georg Houben, Energy Technologies & Research Coordination, DG Energy, European Commission (*Smart Cities and Communities Initiative*)

Ybele Hoogeveen, Project manager - Nature protection and biodiversity, European Environment Agency

Corinne Hermant-De Callatay, Policy Analyst – Urban Policy, Urban Development and Territorial Cohesion, DG REGIO, European Commission

17h30-17:45 *Conclusions*

Béatrice Taulègne, Deputy Director, Horizontal Policies and Networks, Committee of the Regions



URBAN FORESIGHT AS A TOOL FOR TERRITORIAL GOVERNANCE

BACKGROUND NOTE

Introduction to territorial urban foresight: what added value for the European Union?

The need for a futures-oriented approach in cities (some quotes)

"Cities of the 21st century, whilst embodying the comfort, culture and cosmopolitan sophistication of a global economy, have largely ignored the harsh realities confronting them. (...) **[the] accelerating process of urbanisation has outpaced the competence and capacity of city politicians, planners and administrators to**

provide adequate services. The result is an infinite strain on the finite resources of the earth, which has led to overcrowding, congestion, housing shortages, escalating land prices, slums, squatter settlements, diminishing quality of life, environmental hazards, and the like¹."

"Most of the tribulations that tax current city governance are the product of an inability to cope proficiently with the consequences of both global and local change and confront the extreme complexity of urban and regional systems. Above all, it is increasingly recognised that **urban planners and policy-makers lack an effective future-oriented approach** enabling them to anticipate with acuity impending transformations, efficiently prepare for ensuing ramifications and tackle the inherent and labyrinthine complexity."

"(...) **planners and decision-makers desperately need to become more 'visionary'** in: cultivating community awareness, building constituency support and creating collaborative alliances; taking a strategic long-term view and adopting best practice; embracing both diversity and authenticity; committing to social equity and pride of place; and planning for liveability and espousing sustainability. (...) these challenges can only be met by **'imagineering' the future of cities through the application of methods and techniques drawn from the futures field** in a systematic, rigorous and holistic way."

¹ R. Satyanarayan, The intelligent city, Urban Land (June) (2002) 35–43.

"Present and future needs for effective city planning must be based on an understanding of past failures. (...) **A key function of urban planning is to make decisions in the present that will direct future activities** in a way that will create cities that are economically thriving, culturally vibrant, socially cohesive, clean, green and safe, and in which all citizens are able to live happy and productive lives². The scale and intensity of prevailing urban problems across the world's cities implies that existing planning processes and practices fail to fulfil effectively their primary purpose."

"(...) the various professions engaged in city planning have lost confidence, and competence, in thinking meaningfully about urban futures and demonstrating their capacity to shape and influence change, being *institutionally caged in a cautious and conservative role they do not wish to appear too off-the-wall to policymakers who want concrete answers*³. **What is needed to sustain the vitality and viability of cities, therefore, is a major shift in the way we think, plan and act, creatively and differently, together in imagining the prospects for cities – a futures-oriented approach.**"

² P. Hall, U. Pfeiffer, Urban Future 21, Spon, London, 2000. and D. Myers, Putting the future in planning, Journal of the American Planning Association 67 (4) (2001) p.365–367.

³ S. Cole, Dare to dream: bringing futures into planning, APA Journal 67 (4) (2001) 372–383.

[Extracts taken from J. Ratcliffe and E. Krawczyk, "Imagineering city futures: The use of prospective through scenarios in urban planning", *Futures*, volume 43, issue 7, September 2011, pp. 642–653]

First round table: "Urban Foresight as a Tool to Help Decision-making"

Moderator: Philippe Destatte, Director General, The Destrée Institute

The quality of territorial foresight and, in particular, of urban foresight, is nowadays measured not so much in terms of the ability to anticipate possible futures, always challenged by the increasing uncertainty and the exponential rate of change, as in terms of the ability to **construct collective visions of the future that are ambitious, proactive and engaging for stakeholders and citizens.**

True statesmen and women are no longer these days those who "think" in the place of their constituents, but those who know how to listen in order to help to build and deliver a collective voice. In the big cities of the 21st century it is time for debate between stakeholders and experts, policy makers and economic decision-makers and representatives of civil society to generate new answers to long-term challenges. More pragmatic and, at the same time, more

concerted perspectives, perhaps more solidly thought-out ones, but certainly also more volatile, more fragile and less perennial ones.

As we are all aware, compared to strategy in the strict sense of the term, **what foresight has to offer is its capacity to approach both long-term challenges, perceived in the present, as well as shared aims and values in a distant horizon.**

Key Questions

Three issues will be successively discussed at this round table:

- How can we today identify long-term challenges while many people think that the difficulty of perceiving long-term changes is growing?
- How can we today construct collective visions for a common future in increasingly populated metropolis that nevertheless seem to become more and more anonymous?
- How can we today articulate these long-term challenges and these collective visions to build credible strategies that can be appropriated by the key decision-makers?

The roundtable will constitute a time for discussion where all four speakers will be asked to answer these three questions according to

their own experience on the ground but also to their vision of the future.

Second round table: "Visions and Trends for 21st Century Cities"

Moderator: Corinne Roëls, Secretary General, Groupe Futuribles

Cities are the engines of growth. Over 80% of Europeans live in cities. This success has lead local authorities to take their own destiny into their hands and develop a strategic capacity. Foresight – which connects anticipation, participation and political action – is a means to develop this capacity and has become **a tool for territorial governance**; it builds an active citizenship, which is a condition for cities' resilience.

Territorial foresight activities consist in **identifying long and mid-term trends and developing visions for cities on which current policy decisions will be based**. It is a voluntary process that can bring about change, rather than just planning for change, and that calls for combining all urban dimensions; not only urban planning regulations and infrastructure, but also culture, education, communication or innovation.

While there is a consensus on **the new urban model of sustainable city**, its features and the ways and means to implement it are still to be defined. A sustainable city is one that reduces its emissions of

greenhouse gases, one that recycles its waste, one that pursues a balanced economic, social and environmental development?

Developments such as endless urban sprawl without any internal coherence, social inequality and declining neighbourhoods, and poor coordination between the city and its natural environment, go against a balanced economic, social and environmental development.

Foresight helps to conceive creative solutions that overcome these tensions. It makes it possible to **prepare for the future of cities and to define territorial development strategies**. This is what emerges from the reflections of Voula Mega, author of *Modèles pour les villes d'avenir: Un kaléidoscope de visions et d'actions pour les villes durables* (2009), from the role of foresight in the research programme Urban Europe and from the examples of three European cities: Brussels in Belgium, Sans Sebastian in Spain and Rennes in France.

Key Questions

- Need to change the urban paradigm. But, which are the limits of the consensus on the concept of sustainable city? Sustainable cities: a quest, a utopia? Is this objective challenged by the current economic and financial crisis?

- How to avoid a competition between city visions and strategies and those of the regions (relationship of the metropolis with its region)?
- What are the problems linked to the "territorialisation" of national and European objectives?
- Virtues and limits of territorial foresight exercises
- Cost of "non-Europe" (Social Europe, Fiscal Europe...) for European cities: what are, at city level, those areas most affected by a lack of European integration?

Third round table: "What Role for Urban Foresight in European Policies?"

Moderator: Ibon Zugasti, Director, Prospektiker

Major European Policies share a clear foresight approach and have particular implications for regional and local authorities' forecasts. Some of these policies and their main goals are the following:

- EU's action in the field of climate and energy:
 - o The European climate and energy package: 20-20-20 targets

- The European climate action: energy roadmap for moving towards a low-carbon economy in 2050
- Energy 2020: Secure, competitive and low-carbon energy system
- Roadmap to a Single European Transport Area: reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050
- Blueprint to Safeguard Europe's Water: Good status of all EU waters by 2015.

In addition to these policies, the Europe 2020 Strategy should be highlighted as the main European Strategy due to its important impact on the rest of the policies. Europe 2020 is the EU's growth strategy for the coming decade to become a smart, sustainable and inclusive economy. These three mutually reinforcing priorities should help the EU and the Member States deliver high levels of employment, productivity and social cohesion. Concretely, the Union has set five ambitious objectives - on employment, innovation, education, social inclusion and climate/energy - to be reached by 2020.

Key Questions

The following questions are relevant for the debate:

- What can accelerate the achievements of these goals?
 - What is the role of the urban foresight processes in the success of these policies?
 - Are there effective multi-level governance (top/bottom and bottom/up) approaches in relation to these policies? What is the role of urban foresight in them?
-

DE LA PLANIFICATION TERRITORIALE À LA "STRATÉGIE PARTAGÉE": EVOLUTION DU RÔLE DE LA PROSPECTIVE DANS LES POLITIQUES URBAINES

JEAN HAËNTJENS⁴

L'idée qu'il faut « changer de paradigme urbain » est aujourd'hui partagée par une majorité de décideurs. Elle appelle logiquement d'autres pratiques en matière de politiques urbaines mais aussi un usage différent de la prospective.

De la planification territoriale à l'approche stratégique

Il y a en fait plus de vingt ans que ces nouvelles pratiques ont été inventées autour des notions de *transversalité*, de *mouvement*, et de *gouvernance partagée*. Ces approches, qualifiées de stratégiques, se distinguent de la planification territoriale sur au moins quatre points :

⁴ Economiste et urbaniste, auteur de *La ville frugale* (2011), *Urbatopies* (2010), *Le pouvoir des villes* (2008) et *Stratégies et avenir des villes européennes* (Futuribles, juillet 2009).

- Elles ne se contentent pas d'anticiper un mouvement mais cherchent à le créer.
- Elles agissent simultanément sur tous les leviers disponibles, y compris ceux (éducation, culture, communication) qui ne font pas partie du champ traditionnel de l'urbanisme.
- Elles cherchent à *mobiliser méthodiquement des groupes d'acteurs*, publics et privés.
- Elles utilisent des *projets urbains emblématiques* pour déclencher ce mouvement, et font parfois passer ces projets avant le Plan.

De la planification territoriale à l'approche stratégique

| | Planification territoriale | Approche stratégique |
|------------------|---|---|
| Objectif | Anticiper une évolution Planifier des opérations | Créer un mouvement , changer de destin |
| Champs d'actions | Urbanisme, infrastructures | + économie, éducation culture, communication... |
| Acteurs | Quelques techniciens | Mobilisation méthodique de tous |

| | | |
|---------|---------|-------------------------|
| | | les acteurs |
| Méthode | Le Plan | Le projet avant le Plan |

Invention de l'urbanisme stratégique en Europe

Barcelone, Copenhague, Bilbao ou Lyon, sont souvent citées comme les villes ayant adopté les premières ce type d'approche. En fait, la montée en puissance de ces nouvelles pratiques a coïncidé avec un renouveau des pouvoirs urbains qui a été quasi général en Europe de l'Ouest. Partout, ceux-ci ont vu leurs compétences se renforcer et leur aire d'influence s'élargir⁵. Et ils se sont logiquement mobilisés pour sortir d'une crise urbaine qui frappait, à la fin des années 1970, un grand nombre de cités européennes : pollutions, paupérisation des centres, fuite des classes moyennes, perte de population.

Ces approches, qui étaient au départ plus intuitives que réellement stratégiques, se sont affinées avec le temps. En vingt ans, on est passé d'un urbanisme de produits et de « coups » – équipements culturels, quartiers d'affaire ou technopoles – à un *urbanisme du lien* visant à renforcer les complémentarités entre les différentes fonctions urbaines. Les *quartiers d'affaires, devenus plurifonctionnels*, ont été développés près des gares TGV. L'enseignement supérieur, un temps expatrié dans des campus, a été

⁵ Le Galès, Patrick, *Le retour des villes européennes*, Presses de Science Po, 2004.

réimplanté dans le cœur des cités. Pour requalifier les quartiers d'habitat social, on a déployé des stratégies complètes, touchant aux écoles, à la culture, à la création d'activités, ou aux transports collectifs. *Une autre façon de penser le développement urbain, de façon transversale et non plus par fonctions, s'est progressivement affirmée.*⁶

La *communication* est devenue une composante majeure des stratégies. L'objectif était, à la fois, d'attirer des investisseurs et de mobiliser les citoyens. Les villes ont travaillé sur leur *image symbolique* incarnée par des lieux emblématiques, des événements rituels (festivals, biennales...). Elles se sont mises à « raconter des histoires » et à « éveiller des imaginaires ».

A partir des années 2000, l'exigence de développement durable s'est invitée dans les stratégies en amenant avec elle plusieurs notions essentielles. La première est celle de *crise multiple* (énergétique, écologique, économique) et donc d'*incertitude* et de *rupture*. La seconde est celle d'*ouverture des possibles*. La troisième est celle de nécessaire *adaptation au contexte*.

L'ouverture des possibles

Depuis vingt ans, on peut en effet observer une diversité croissante des modèles économiques, des modèles de mobilité, des formes

⁶ Haëntjens, Jean, *Le pouvoir des villes*, L'aube, 2009

urbaines, des rapports à la Nature, à la Culture ou à l'énergie déployés dans les villes européennes.

En matière économique, par exemple, les villes disposent d'un registre de solutions beaucoup plus ouvert qu'il y a cinquante ans. Le rebond de villes industrielles en déclin comme Bilbao, Malmö ou Saint Etienne sur des secteurs comme la culture, les technologies de l'information, l'économie résidentielle ou le design, illustre le principe. Cette ouverture des possibles a été favorisée par la tertiarisation des activités (qui donne plus de souplesse dans leur implantation) mais aussi par l'importance croissante prise par l'économie résidentielle (dépenses des résidents ne travaillant pas localement) dans les dynamiques territoriales⁷.

En matière de mobilité aussi, les écarts se creusent. Quand Copenhague assure 35% de ses déplacements avec le vélo, les villes françaises ne dépassent pas 4%. Selon les formes urbaines, les consommations pour les déplacements varient dans une échelle de 1 à 3.⁸ L'énergie sera, dans les années à venir, un nouveau champ de différenciation. Certaines villes, comme Göteborg ou Helsinki visent à l'horizon 2050, une quasi autonomie énergétique, quand d'autres resteront totalement dépendantes des aléas du marché de l'énergie.

En somme, le paradigme de la « Modernité obligatoire » qui, il y a cinquante ans, dominait les politiques urbaines, a insensiblement laissé la place à une autre vision de l'avenir que l'on pourrait appeler

⁷ Davezies, Laurent, *La république et ses territoires*, Seuil, 2008

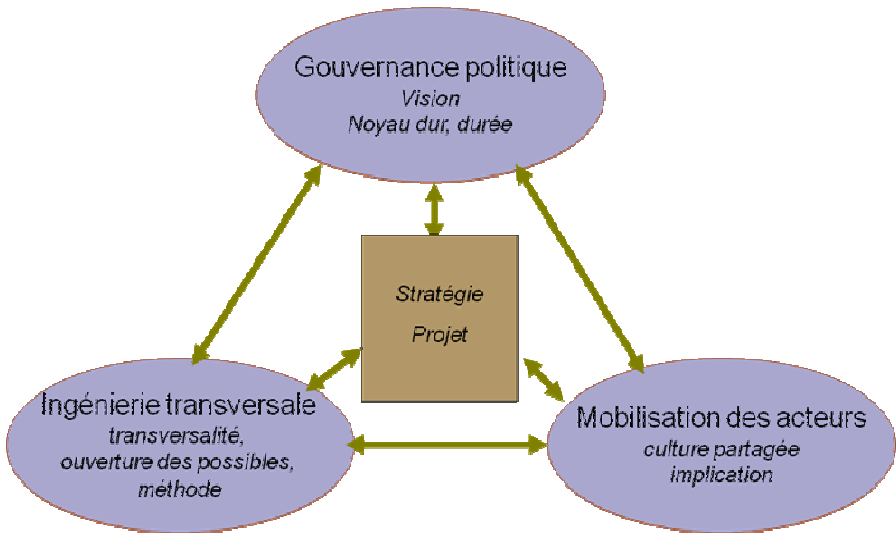
⁸ Haëntjens Jean, *La ville frugale*, FYP, 2011

celle du « Progrès pluriel et relatif ». Pour chacune des grandes fonctions urbaines (habitat, transports, rapport à la nature, culture, économie...), il existe plusieurs réponses possibles et le choix de la solution optimale dépend à la fois du contexte local et de la cohérence avec les options prises dans d'autres domaines.

La gouvernance

Pour mettre en œuvre ces approches stratégiques, et les faire partager par différents cercles d'acteurs, les villes ont du modifier leur organisation interne. Elles ont, d'une part, ajouté à l'administration traditionnelle, une *ingénierie transversale*. Cette structure technique est chargée d'une part d'explorer, dans tous les domaines, l'éventail des possibles, et d'autre part de proposer des « bouquets de solutions » cohérents. Elle anime, par ailleurs, les dispositifs de *concertation et participation* qui ont été mis en place pour mobiliser tous les acteurs concernés par la stratégie⁹.

⁹ Haëntjens, Jean, *Urbatopies*, l'Aube, 2010



Conséquences concernant l'usage de la prospective

Cette organisation de la gouvernance a eu deux conséquences importantes, concernant l'usage de la prospective dans les politiques urbaines :

- Elle ne s'adresse plus seulement à un groupe restreint de décideurs (les élus) mais à trois groupes qui ont chacun des attentes différentes.
- Elle doit aider les élus à affiner leur vision politique; elle doit permettre à l'ingénierie technique d'explorer les possibles et de nourrir la réflexion des élus ; elle doit permettre acteurs urbains de participer à la construction d'une vision partagée.

- Concernant la vision politique, la méthode des scénarios conserve toujours sa pertinence mais elle est, de plus en plus, complétée par des exercices de *visioning* qui privilégient, comme donnée, les « valeurs partagées » en interne et non plus les évènements exogènes, de plus en plus aléatoires. Ainsi, les scénarios « Facteur 4 » étudiés aujourd’hui par plusieurs villes, s’intéressent d’abord à la capacité d’adaptation de la société locale, et non au prix de l’énergie en 2050.

L’ingénierie transversale utilise, bien sûr, les techniques de veille, pour suivre le foisonnement d’innovations, techniques et sociétales, mises en œuvre par les villes¹⁰. Elle cherche aussi à appuyer sa réflexion sur des modèles ayant prouvé leur capacité à faire fonctionner ensemble des innovations de différentes natures. Le *voyage d’étude* est devenu un outil majeur de la réflexion prospective.

C’est incontestablement dans le domaine de la participation des citoyens que la gamme des outils et méthodes de la prospective s’est le plus élargie : Maquettes, lieux d’exposition (Hambourg, Barcelone), vidéos dynamiques, concours d’urbanistes, revues de prospective locale (à Nantes ou Rennes), exercices de *visioning*, tous les moyens possibles ont été mis en œuvre pour faire partager une culture du projet, condition première d’une gouvernance honnête.

Une dernière famille d’exercices – conférences, ateliers, séminaires – est enfin déployée pour faire converger ces différents « points de vue » et c’est le plus souvent l’ingénierie transversale qui en a la responsabilité.

¹⁰ Voir, par exemple, le site www.innovcity.fr

Evolution de l'usage de la prospective dans les politiques urbaines

| | | |
|------------------------|---|---|
| | Planification territoriale | Approche stratégique |
| Paradigme | Une direction dominante: la Modernité | Un progrès pluriel et relatif : A chaque ville son destin et son modèle |
| Objectif | Anticiper une évolution Planifier des opérations | Créer un mouvement, affirmer une différence |
| Rôle de la prospective | Anticiper les « tendances lourdes » d'une évolution inéluctable | <ul style="list-style-type: none"> • Affirmer une vision (<i>politique</i>) • Explorer les possibles urbains (<i>techniciens</i>) • Construire une culture commune, partager une vision (<i>acteurs</i>) • Créer du lien, un langage commun |

En somme, le défi que doit relever aujourd'hui la prospective territoriale pourrait se résumer ainsi : Comment faire réfléchir, sans se perdre, un grand nombre d'acteurs sur un avenir de plus en plus complexe et incertain?

URBAN SYNERGY-FORESIGHT

JOE RAVETZ¹¹

Overview

Cities are the new pattern-makers of global economies and societies... but they are too often divided and dysfunctional. There is a huge challenge: how to foster our cities – communities, city-regions, city-states, or urban worlds – to ensure survival and prosperity in the urban century?

This briefing looks at the role of the city, urban development and urban policy. This is not only about the physical city in front of us, but a complex multi-level system, driven by conflict and contradiction, but also full of creative potential.

What we can see is an emerging “*Urban 3.0*” next-generation city. Instead of ‘winner-takes-all’ economics and ‘silo-thinking’ government, the *Urban 3.0* model is based on creative synergy,

¹¹ Co-Director of the Centre for Urban & Regional Ecology, University of Manchester. Based on Ravetz, J, (forthcoming): *Urban 3.0: pathways to creative synergy and shared intelligence for more sustainable communities, economies, ecologies and societies in the urban century*: London, Earthscan / Routledge.

networked co-production, and shared intelligence. This kind of synergy can begin to respond to the complex inter-connecting problems which are all around – climate change, social exclusion, economic vulnerability – and then turning problems into opportunities.

Much urban policy focuses inwards at specific problems, and urban analysis takes detailed cross-sections. In contrast the *synergy* approach focuses outwards, at the wider picture and larger purpose – how cities can enable higher forms of shared intelligence: and how problems can be addressed through the creative connections of people and organizations.

So how to get such a synergy working? There are no blueprints: but there is a theory and practice for working with complex problems. *Urban 3.0* uses ‘*relational-emergent mapping*’, to explore the dynamics of creating synergy, value and value-added – economic, social, cultural, ecological or other. With this we can apply complexity thinking to the challenges of cities, and other territories of all shapes and sizes. And as urban systems are combinations of many other systems – economic, social, cultural, political, ecological etc – there are pathways in each of these:

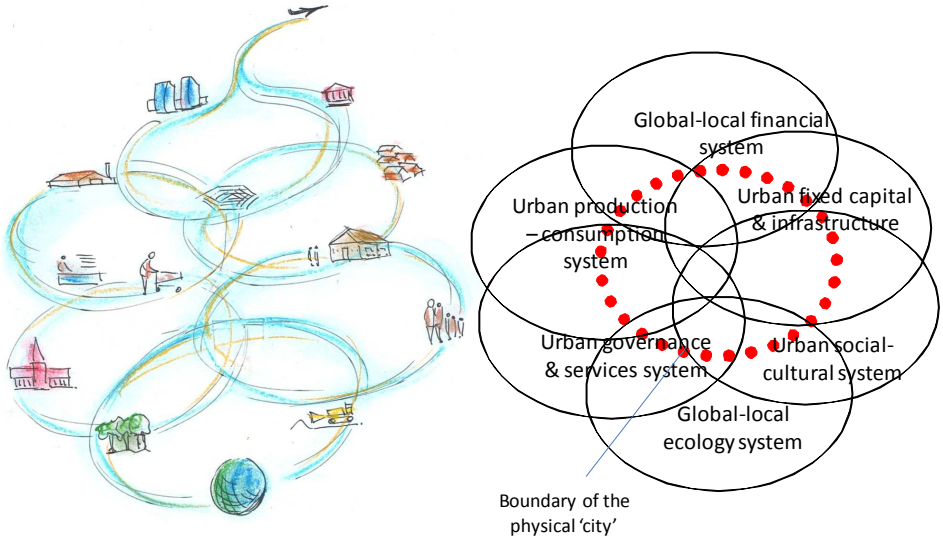
- **Urban synergy:** creative regeneration: urban climate policy: spatial planning and building design:
- **Economic synergy:** social enterprise: stakeholder finance: value exchange & integrated development:

- **Ecological synergy:** resource management & supply chains: ecosystem service values:
- **Social-cultural synergy:** community development: sustainable consumption: prosperity & well-being.
- **Governance synergy:** networked cities & regions: responsive services: digital democracy:

Each of these is inter-connected in real-world problems and opportunities. So we need to look beyond the boundaries of economics or ecology, at the inter-connections between and the synergies between – a general quality which we call ‘synergicity’. This then helps to navigate the labyrinth of complex problems: for example, the re-engineering of an urbanized nation (e.g. the UK) for ‘One Planet’ levels of emissions / resource flows in production and consumption. Another example is the rethinking of local economic development for ‘prosperity in austerity’. In each of these we have to look beyond ‘sound-bite sustainability’: at the anatomy of complex problems, the opportunities for creative synergies, and the pathways for policy responses.

What is urban?

Relational mapping of multiple systems of interaction & flows of resources, values, knowledge



Applications to urban development & urban policy

The synergy factor can be seen in many places - in cities, firms, communities or organizations. The process of evolving synergy leads from simple technical systems, to more complex self-organizing systems, with creative thinking and shared intelligence as the crucial quality. At the centre of the synergicity concept is the idea of a 'relational system'. This is a way of looking at how things are generally in "relation" to other things. A local economy is not

just a list of prices and goods, but a set of ‘relations’ between the people involved: a city is not just a set of buildings, but many kinds of ‘relations’ between buildings, users, values and activities. Such relations can be seen as layers - economic, political, social, cultural, ecological etc – which each have a common thread, of exchange and adding of value, in many diverse forms.

There isn’t a ‘right’ scale or boundary for the city, which is often a frontline between local and global: with competition for power and wealth, conflict and contradiction, between different ideologies. A good starting point is a mapping of urban systems, in the relational style (figure xxx). Some of these systems are more focused on a city as a hub in a global system: the finance and investment, or the system of resource flows and environmental capitals. Others are more focused on what happens inside: the production system, infrastructure and built environment, the community social and cultural dimension. We can see urban governance and public services in context – often not **running** the city, as much as **running to catch up** with the external forces which run the city.

- Many sub-systems combine into an “urban” system.
- Each has various drivers, actors, factors, ways of thinking, etc.
- Some are more local & geographical in focus: others are more global & networked
- Each can be supportive or destructive of other systems.

- There are many inter-connections – but also division & fragmentation
- “Sustainable development” can be seen as different systems working together in *synergy*.
- E.g... social cohesion + inward investment + strong governance + ecological improvement = successful city
- This can be mobilized through ‘synergicity’ – creative action, strategic thinking, shared intelligence ...

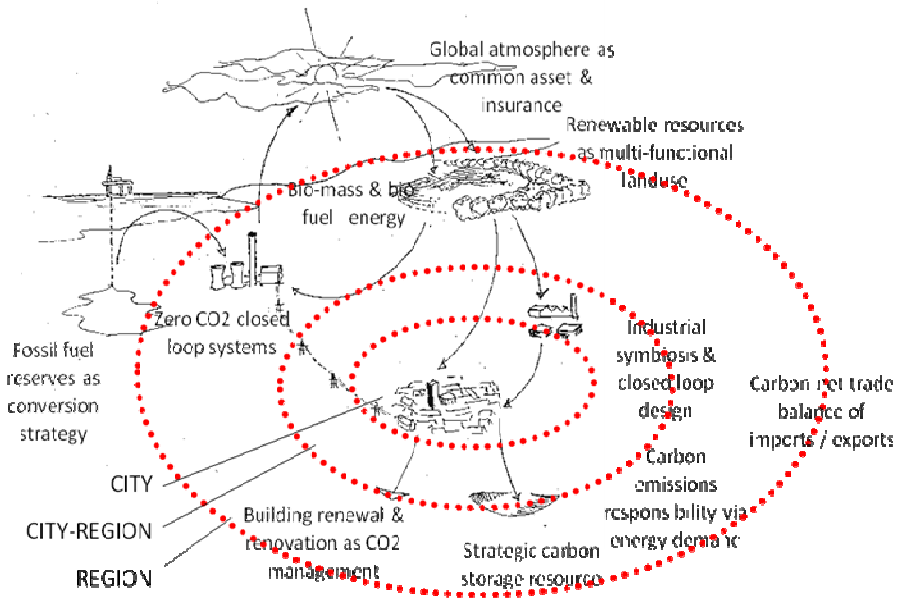
Urban ecological intelligence

A top priority for the Urban 3.0 approach is for climate change policy. In reality there are many barriers and challenges for cities, in the re-engineering of their buildings and transport systems, and reducing their dependence on external resources. Usually there is no single right place to draw the boundary around an urban climate system: power grids and energy supplies come from elsewhere: technology is a national and global agenda. There are split incentives and shared responsibilities between public and private sectors: between producers and consumers: between infrastructure providers and intermediaries: between landlords and tenants. Most greenhouse gases are global pollutants: some are produced locally, while others are embedded in imports or exports for local activities for global

supply chains. We can use a relational mapping approach to explore the potential of urban climate policy:

Urban ecological intelligence

Inter-connections & synergies in technical pathways, multi-function actions, shared resources, industrial symbiosis, integrated production-consumption chains



- *'Who is involved'*: all stakeholders and sectors are active in most of the pathways: government and social enterprise: financial and professional: utilities and infrastructure: manufacturing and

distribution: building designers and providers: households and communities.

- *'What are the rules'*: this works within financial and legal systems, combined with the practical aspects of building design and technology. But it's crucial that these rules may change, depending on the actor roles and relations above: for instance the more trust between actors, the lower the cost of capital, and higher the investment viability.
- *'Which worldviews are involved'*: underlying the pathway is a paradigm challenge: in most cities, concentrated and conspicuous displays of energy and resources are part of the deal, of concentrated and conspicuous displays of wealth and power (see the 'bright light' shop windows, street lights and airport complex). For a city to adopt a low-carbon path involves not only technology but a change in worldview, of regimes and institutions. This can't be planned or engineered, but we can enable a more active interface and discussion zone between different worldviews.
- *'How does it work'*: in practical reality the re-engineering of a city is a process more than a single event. So we can begin to design such a process as a process 'metabolism', with mobilization and management of finance, labour, material, physical structures and so on.

- ‘*When do transitions happen*’: analysis shows that such re-engineering is itself a parallel strand within other processes: economic development, social progress, political innovation, technology evolution, financial restructuring and so on. The more synergy can be enabled, the greater the chances, and the greater the sustainability of success.
- ‘*Why does it happen*’: finally to guide all this we need to build up collective (co)- intelligence, knowledge management, public deliberation and conscious policy intervention. This includes both hard IT databases and social networks, combined with soft learning, innovation, and tacit knowledge. The concept of ‘carbon intelligence’ looks at the internal flows of knowledge / learning between providers, consumers, designers, financiers, intermediaries: then there is a wider field of ‘urban intelligence’ which connects these to other communities of interest.

Foresight and synergy-foresight

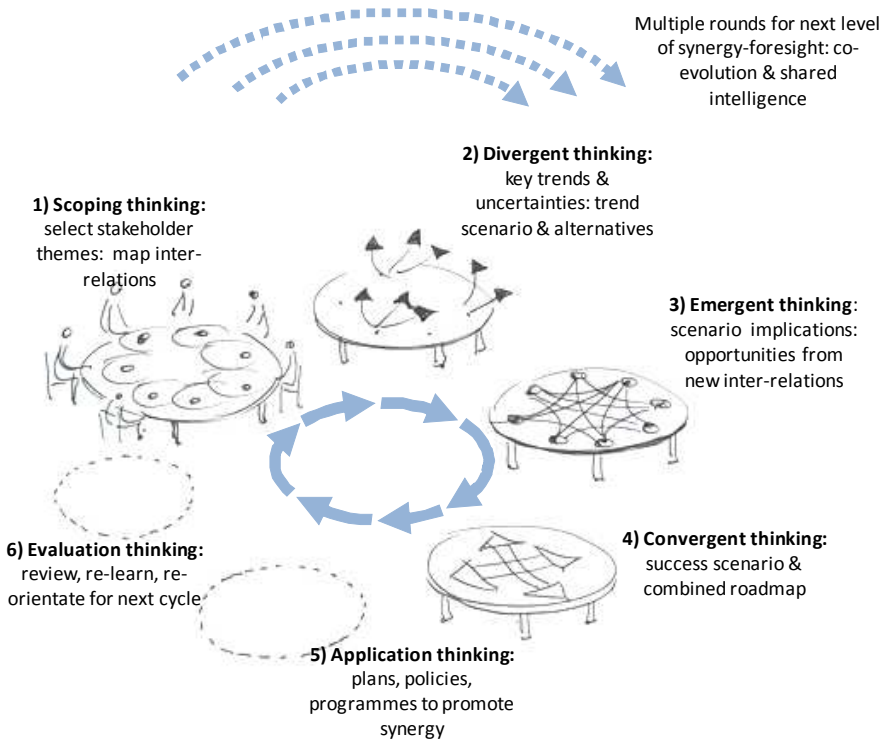
So how to mobilize this magic synergy and shared intelligence? It’s not so much a blueprint or a target – but more like a process of enquiry, debate, creative thinking and so on. Such a process has taken many forms in the past: the one most relevant to policy today, often goes under the name of *foresight*. Foresight generally contains three strands: first, it looks to the future through prospectives and scenario studies: then it looks to the present through the people and organizations involved: thirdly, it makes strategies and plans in the face of uncertainty. This approach is

different from normal research where the problem boundary can be specified, objectives and methods can be identified, and specific results expected. In contrast, a Foresight approach is needed for research and policy agendas for more complex and inter-connected problems: with high levels of uncertainty, complexity, controversy, transition, learning, and inter-connections with other sectors.

The ‘synergy’ concept adds another dimension, and the result is what we call ‘*Synergy-Foresight*’. This aims to look wider and deeper, with multiple versions of the future, and with multiple forms of thinking. It brings in a wider set of people and organizations, with deeper opportunities for connections and collaborations. It is not just studying a ‘problem’, but looks towards a wider purpose - the self-organization of creative learning and shared intelligence, across the city or other unit.

The synergy concept adds another dimension to foresight, and the result can be framed as ‘*Synergy-Foresight*’. This aims to look wider and deeper, with multiple versions of the future, and with multiple forms of thinking. It brings in a wider set of people and organizations, with deeper opportunities for connections and collaborations. It is not just studying a ‘problem’, but looks towards a higher purpose - the synergicity and self-organization of creative learning and shared intelligence, right across the city or the community.

Synergy foresight process



The Urban Synergy-Foresight method follows a 6-stage process model. This is not a fixed blueprint, rather a practical way of structured exploration. It is based on fundamental ideas on emergence and evolution, creativity and improvisation, innovation and transition: for each of these there are sources such as ‘U-theory’,

transition theory, or innovation theory. These are the typical stages in enquiry and analysis:

- **Scoping**: setting the agenda, boundaries, dynamics of the problem;
- **Divergence**: exploring, pushing the boundaries, what-if questions and scenarios;
- **Emergence**: finding a creative space where new concepts and new connections can experiment, emerge and flourish;
- **Convergence**: steering the new concepts and connections, back into a more tangible form where they can be focused towards real world issues;
- **Application**: turning the process of research and deliberation into strategies, plans, policies, and ultimately action;
- **Evaluation / learning**: reviewing the experience, its implications for the mental landscape, and re-orientation for the next phase.

This cycle of enquiry and development can work at different levels. Firstly ‘co-production’ looks at shorter term practical problems. Secondly, ‘co-evolution’ looks at longer term strategic thinking: and thirdly, ‘collective intelligence’ looks for wider or deeper learning effects, creative action and paradigm changes. The synergy-foresight approach steers towards the second and third levels: but the first more practical level is also important.

For a ‘mini-synergy-foresight’ process, of less than a ½ day, the first 3 or 4 stages are enough to get started. The results from the ‘mini’

process are then seed-corn ideas which can feed into wider programmes of foresight and policy development. These results can be organized in a frame of ‘inter-connections’:

- Inter-connecting between different **types** of knowledge: e.g. future scenarios: systems analysis: risk assessment: policy responses
- Inter-connecting between different **levels** of knowledge: e.g. opportunities in climate change issues: strategic policy for climate change: synergy foresight & social learning on climate change issues.
- Inter-connecting **within** sectoral agendas: e.g. climate change: global-local linkages: developed / developing countries: producers / consumers: adaptation / mitigation policies: energy / land-use combinations:
- Inter-connecting **between** sectoral agendas: e.g. between climate change: food and farming: urban and infrastructure: development and trade policy: finance & macro-economy.

In conclusion – the Urban 3.0 model, and the synergicity method behind it, are not like blueprints with targets and indicators. They are more like spaces and opportunities for creative value-added activities and relationships. To realize this potential we can follow the ‘Urban Synergy-Foresight’ approach – a process of exploration and learning to unlock the potential of shared intelligence.

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THE IMPORTANCE OF FORWARD URBAN STUDIES AND INNOVATIONS IN AN UNCERTAIN WORLD

VOULA MEGA¹²

"IMAGINEERING" THE URBAN RENAISSANCE

Recreating cities as poles and magnets of civilisation

"Reinvent itself or die" is a dilemma for all organisms which have the capacity to renew themselves. Urban renaissance is the renewal of cities through the regeneration of both their hardware and software. It has to reconcile environmentally sound physical structures with social revitalisation and economic enhancement. The city is the only living. It is something more than the simple concentration of people and activities, it is a matrix of relationships and synergies, a place of conflicts and tensions, where the whole can exceed much the sum of the parts and create the conditions for

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renewal. Revitalising an urban area entails recreating the economic diversification, the social heterogeneity and cultural diversity of the city.

Urban renaissance is a challenging concept for cities desiring not simply to invest in urban renewal and sound micro-economic environments but being recreated as *civitas*, a universal space on an increasingly diversified local territory. The New Charter of Athens, issued by the European Council of Town Planners in 1998, signalled a clear shift in prevailing planning principles and objectives. The 1933 Charter of Athens had introduced functionalistic ethics in planning, asking the separation of spaces for work, living, leisure and communication. The New Charter of Athens advocates for human settlements for all, based on true involvement which promotes socio-economic progress and environmental enhancement and safeguards traditional identity (ECTP 1998).

Cities invest in urban renaissance projects, which often have the potential to transform the entire fabric and create new prospects for the future. Copenhagen went through decades of investment in urban renaissance. Already in 1989, the regional plan of Greater Copenhagen promoted a better city instead of a larger city. The ongoing urban renewal in Copenhagen, described as the largest recycling project in Denmark, is based on principles of quality and equality and aims at ensuring sustainable development in relation to natural, cultural and human resources.

Berlin, once a divided European city, strives to create a new future out of an exceptional past. According to W. Wenders, "the history is here physically and emotionally present". The German capital demonstrates that urban renaissance does not only concern the physical spaces. It creates symbols for the future. The 1 km long part of the wall exhibited in East Side Gallery may serve as a metaphor of the many mental walls that have still to be turned down. Twenty years after the fall of the wall, the urban scars are healed. All ruins, potent symbols of war and arbitrary partition, have been restored. The symbol of the hollow tooth as a monument of memory is significant.

The urban core has been re-designed for people and flagship projects are being enriching the urban fabric. Potsdamer Platz, once the hub of social life, the busiest crossroads of Europe and later the broken heart of divided Berlin, is becoming once again a centre of attraction. The Sony centre is conceived as a "city in the city", open to all citizens. The success of the "packing" by the artist Christo of the Reichstag, building of conventional aesthetics, prepared its ownership as a seat of the Parliament of the unified Germany. The glass cupola, which overhangs the hemicycle, places the citizen symbolically above the elected representative (Berlin capitale 1992).

In Amsterdam, urban renaissance has been linked to the vision of a diverse city optimising scarce land and water resources. Until the Second World War, Amsterdam had developed in a series of concentric rings, forming a semi-circle. The 1950 General Extension Plan added lobes like the fingers of a spread-out hand (Pastor 1994).

During the reign of the private car, some concentric canals have been filled in with soil to make more space available to traffic. Sustainability actions lead to the reopening of canal rings and the intensification of the land use. The water environment of the city has been rediscovered. Many Dutch cities, such as Leiden, worked hard to create mixed-use and citizen-friendly environments, including pedestrian and bicycle bridges spanning canals.

Exceptional events bring unique opportunities for cities, regions and nations. Symbolic and structural projects can offer significant landmarks and have the potential to shape territories. They may act as catalysts for the future. They usually stem from high-scale projects or unique international events, such as Olympic Games, Universal Exhibitions and high-level fairs. They are often linked to enriching processes which draw on international expertise and the best available technologies.

Public spaces belong, by definition, equally to all citizens. They are the places where people come together to celebrate and to protest, to express joy or indignation. R. Koolhaas describes them as fortresses of freedom. They cannot be "clone spaces", each one of them has to have the form that best serves its purpose. Noble, safe, attractive and enjoyable public spaces can support civilised collective life. They have great potential as islands of civilisation in the archipelago of the city. Open spaces can facilitate the flow of energy throughout the city and promote exchanges and interactions.

The Agora, the focus of civic life in the ancient Greek polis (City-State), constitutes a powerful archetype for a central public space that orchestrates all spaces. Harmony, proximity, mix, safety, citizenship were well anchored in those cities-states, where the assembly, the bouleuterion, the theatre, the stadium, the sanctuaries all had the noble aim of promoting the physical and mental well-being of citizens.

Attractive public spaces may foster citizen participation and democracy. Public space is highly charged, with multiple risks of conflicting interests. In many cases it cannot rise to the challenge of being a space for negotiating democracy and becomes instead an arena of confrontation and of exclusion. It should not be just the space left after the definition of the built places, but should be given prominence as a civic space and shaped as a matter of priority. Special care has to be taken for public spaces to include everybody.

Environmental and cultural landscaping of public spaces is very important in forging identity. Qualitative recommendations for the functional and aesthetic character of squares, roads and pavements, roadside plantations and public lighting have been developed and implemented in many cities. Brussels and the Manual of Public Spaces provide a good example (Région de Bruxelles-Capitale 1995).

Historic public spaces are sites that invite to journeys in space and time. Athens and Rome, cradles of European civilisation, competed in reorganising their millennial heritage into cultural parks. The

ancient Forum in Rome and the monuments surrounding the Acropolis, have been enhanced to become the focal points of urban archaeological parks, the natural and cultural lungs of the two capitals. In cities like Siena, with a planning tradition of seven hundred years, the medieval heritage becomes the principal resource for future visions. This does not consist solely of the built capital, but also of the traditional “Palio” the local celebration that reinforces the social capital of the city.

Sustainable regeneration for walkable compact cities

Progress towards sustainability demands greater intensity of land use and the conversion and reuse of abandoned or contaminated land (brownfields) and buildings. Sustainable cities opt for renewal rather expansion, for consolidation of the urban fabric and improvement of the suburbs. Consolidation, i.e. concentrated and intensified use of space in a well-defined urban territory, provide advantages for the integration of urban structures that minimises rates of flow per person and lead to a drastic reduction of greenhouse emissions, preservation of bio-diversity and enhancement of local materials and skills.

The interrelated paradigms of dense and compact city are critical indicators for sustainability. Compact settlements imply a clear urban/ rural boundary discouraging sprawling processes, functional diversification of land uses at the neighbourhood level and the environmental improvement of all urban centres, well served by

public transport. The Danish model of decentralised concentration and the Dutch compact city policy, based on the principle of spatial multi-functionality, go into this direction.

Cities like Amsterdam consider urban mix to be an invaluable attribute of the inner city heritage and try to strike a balance among housing, offices, commerce, services, tourism and leisure. The compact city policy, introduced in 1985, aimed at enhancing scarce space as efficiently as possible, creating diverse residential environments and curbing the overall environmental burden. Diversity and mixed land uses are linked to enhancing the city's unrivalled character as a cultural melting pot.

High density should be distinguished from high rise. C. Correa suggests high density / low rise could be the ideal composition. Various studies suggest that, while high density may convey the illusion of chaos, it bestows the benefits of social and spatial stability. Mixed uses are a guiding sustainability principle for many city plans (World Bank 1995a).

Sustainable cities must reflect a true urban and social intermixture. There is an increasing unanimity about the need for urban mix, a desire for "a real neighbourhood, an organic part of the city, everywhere in the city". Functional zoning often destroyed the complex cultural, economic and democratic structure of a city. The reintegration of urban functions should reinforce identity and openness. The "open block" concept, proposed by Ch. de

Portzamparc, advocates for interaction and harmony in each block and neighbourhood (Mega 2010).

Bringing city to the periphery is possible through mixed developments and vital neighbourhoods. The Huddinge Centrum, in the south of Stockholm, offers a successful experiment in transforming a suburban shopping centre into a town square, a lively public space for the community. The location, next to the train station, generated the creation of new offices and apartment units, while the area has been redesigned following the medieval part of Stockholm. The “Living above the Shop” project, in Dublin, has been a prime example encouraging and assisting shop owners to convert their upper floors into residential spaces. It transformed empty in the evening and dangerous commercial streets into vibrant neighbourhoods.

CITIES FOR AND WITH THE CITIZENS

Social foresight embedded in urban governance 2.0

Society is the ultimate frontier for all policies. Governance is the science and art of co-governing societies with the participation of all actors. The move from government to governance implied the recognition that policy options should respect the evolving dynamics and preferences of society. In most cities, new civic bonds are being

sought with civil society, expected to invigorate the debate between governments and their constituencies, increase public transparency and accountability and enhance collective capacity for reflexion and judgement. Social foresight and forward participatory processes are cardinal for broadening the possible options, envision the preferred futures and co-create the most desirable one.

Citizens are the political stakeholders. Governments should allow as many voices as possible to be heard, and as many values as possible to be represented. Residents, users of public infrastructure and services, wish to be better informed on important emerging issues, policy options and technologies. Decision-makers should invest in a better understanding of public opinion. Making the community, especially the under-represented social groups, more knowledgeable, aware and willing to take part in envisioning and creating the common future is a noble challenge. Projects must not only be scientifically robust, but also be able to assemble citizens around a mobilising vision.

Citizens are gradually invited to act as partners rather than protesters. Empowerment has become ethically correct and practically advantageous. The Barcelona "Civic Agreement 2002" has been a partnership between the city and the main citizen associations. Efforts for citizen consultation on the gestation of visions and plans expand. In Emilia Romagna, a region with traditional openness and the paradigm of small and medium enterprises, civic bonds thrive. R. Putnam asserts that the region is not populated by angels, but the social capital and the cultivation of

the civic community promote strong and responsive collective action (1992).

A democratic infrastructure is being built through formal mechanisms of horizontal and vertical cooperation between government bodies and partnerships with non-governmental actors. New spatial structures, such as inter-communal frameworks, regional platforms, territorial pacts, inter-regional contract areas etc. promise more coordinated spatial planning and more coherent allocation of public resources, as well as greater transparency, visibility and accountability.

National leadership is necessary to provide a coherent policy coordination framework and enable territorial authorities to set priorities and commit resources, to promote public-private partnerships and share the risk and cost of innovations. Leadership at the local and regional levels is necessary to define territorial needs and develop visions, design and implement programmes, mobilise public and private resources to invest and develop a permanent dialogue with the other territorial authorities.

Leaders have to interpret the needs of the citizens, elaborate the plans towards sustainable development, facilitate and stimulate the interaction of the different actors and partners and guarantee the consistency of the different options and decisions. Stockholders, the owners of the physical assets, stakeholders, and outside partners, providing resources and competencies and having an interest in

territorial development, may invest great energy and open new perspectives for the future.

Partnerships and alliances are essential for forging a mobilising vision for the future and agreeing on the path to achieve it. They should enhance the capacity, contribution and commitment of the public, private and community sectors and improve the capacity of society to act. Public-private partnerships should work like an orchestra (private) with its conductor (public) for the overall improvement of urban functions and life. Innovative partnerships can serve as catalysts of change.

Forward-looking national, regional and local governments can create innovative strategic public-public partnerships, which can be enriched with effective public-private partnerships. Strategic public-private partnerships have a great potential in rebalancing objectives of commercial vigour with long-term societal objectives. They have the potential to take more risks, reduce the social costs of projects and lead to better outcome from public and private investment.

Strategic foresight tries to build upon a city's more broadly shared values and priorities and the commitment of many actors to act upon common interests. Experience suggests that partnerships need a clear vision and structure, a strategic and tactic approach, a critical mass, assertive leadership and social justice, continued evaluation and assessment. Sustainability means, first and foremost, sustain ability to innovate and progress.

Citizenship and accountability to the future

Citizens, users of public infrastructure and services, may contribute decisively in creating a collective momentum and enhance the "creative commons". Citizen representation and participation got enriched with new instruments and methods, like action planning and schemes, participatory leadership and world cafés, dialogue and consensus workshops, bringing together different, traditionally opposed, actors, on neutral grounds and on equal terms. They involve the organisation of carefully structured collaborative events, which liberate creative individuals, articulate a sense of vision and create a thrust for the future. Processes, like the charette, are being used to bring together the richness of diverse ideas and build consent at the earlier possible stage. Citizens' juries, intermediary platforms, real and virtual, and social networks can enrich more permanent and effective interfaces among experts, policy-makers and citizens (Mega 2010).

Global foresights highlight the rise of new leaders and philanthro-capitalists and an unprecedented increase in female leaders and a push by religious groups (Toffler ass. 2010). More diverse citizenship and leadership is a major challenge for cities. Voluntary approaches with the active participation of industry are most important. In Japan, thousands of agreements have been made between local communities and their businesses, where the latter have agreed to achieve particular objectives, often with the local government acting as mediator and guarantor. The Rhine contract,

between the municipality of Rotterdam and polluting industries of the Rhine is also a prime example.

Volunteers constitute a most precious urban human resource. In Athens, 55,000 volunteers, Greek and foreigners, were selected and trained in order to offer their services during the 2004 Olympic Games. The municipality of Athens organised a dedicated body of volunteers to help visitors discovering another face of the Greek capital. Barcelona demonstrated what can be achieved with passionate and committed volunteers. After the great voluntary support during the 1992 Olympic Games, this body was considered as a living asset and was given new opportunities. The municipality helped creating the association "Volunteers 2000", which assists in all types of citizen projects, safeguarding the functioning and minimising the cost of every action.

Citizen associations are precious resources for any city. In Brussels, the ARAU (Atelier de Recherche et Action Urbaine) brings together aware citizens and local residents who care and struggle for the enhancement of their urban heritage. The outrageous demolition of some historic buildings in the 1960s, spurred the willingness of citizens to do something more than simply protest. The challenge is to become responsible citizens and learn reading, living and writing the city.

Children, the citizens of the future, are at the very heart of sustainable development. The well being of children is a litmus test for the present and future of the society as a whole. In Finland, the

“Children as Urban Planners” project in Kitee aimed at educating active citizens in environmental awareness and responsibility for their built and natural environment. Hundreds of schoolchildren studied the urban history of Helsinki and then redesigned the city centre. Thousands of municipalities are creating municipal councils of children to promote civic awareness and engage the citizens of the future.

Intergenerational equity is an essential dimension of sustainable cities. The generation project, in Portugal, emerged from the need to improve the prospects of youths in the deprived community of Amadora in the periphery of Lisbon. Activities range from work and play for the very young, enabling parents to stay in full-time employment, to a number of programmes working with children to encourage them to stay in education. The ‘If You Keep Studying’ project provides education and training in the fields of martial arts and a youth orchestra. Martial arts, taught by an Olympic medallist of Cape Verdean origin, teach children discipline and respect, whilst the youth orchestra has incubated ten orchestras in the Lisbon area. And the journey into the future continues (EC 2010a).

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NEW URBAN EUROPE: A PLACE 4 ALL

PETER NIJKAMP & KARIMA KOURTIT¹³

New Urban Europe: Dynamic Urban Voices

Europe will gradually but certainly move towards a diversified and urbanized geographical structure. A proper response to such far-reaching challenges calls for strategic research on many aspects of urban dynamics in Europe. Modern cities in an open and globalizing economy are powerhouses of creative ideas, innovative technologies, sustainable developments and socioeconomic wealth. They play a pivotal role in the future of an urbanized Europe, but they are also confronted with grand challenges, notably far-reaching demographic transformations (in particular, ageing, rapid population rise in many continents, and unprecedented migration flows), environmental decay and climatological change (in particular, greenhouse gases, scarce resources, water management), unequal social participation (in particular, unemployment and poverty, cultural-ethnic tensions), and ever-rising mobility trends (in particular, commuting, long-distance travel, complex urban logistic changes). A rather representative – but by no means exhaustive – overview of such

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trends and challenges is offered in Table 1. This table summarizes in a succinct form the various global trends, followed by a concise description of the most relevant policy and research challenges. The challenges for urban environments may be turned into new opportunities, in particular in such domains as advanced infrastructure and logistic systems, environmental and climate-neutral facilities, creative and knowledge-intensive strategies for socioeconomic prosperity and well-being. Cities – and in particular, metropolitan areas – may thus act as spearheads of sustainable economic growth for European countries.

The observations in Table 1 call for appropriate long-range policy strategies for urban areas – and networks of cities – in the highly diversified European space-economy. Such policy actions would need to be supported by solid, multi-disciplinary and evidence-based research on the challenges and opportunities of urban environments in Europe.

Table 1. Trend-challenge matrix of URBAN EUROPE

| | Trends | Challenges |
|----|---|---|
| 1. | structural world-wide urbanization <i>2007:</i> 50% world population in cities <i>2030:</i> 5 bln people in cities (in particular developing countries) | turn mass population movement towards urban agglomerations into new socio-economic and ecological opportunities |

| | | |
|----|---|--|
| 2. | double urbanization: big cities grow into mega-cities (including political power) and medium-sized cities grow even faster into big cities | develop a balanced national (or supra-national) strategy for emerging connected city systems |
| 3. | urban economies become pivotal vehicles for future economic progress and welfare through their productivity enhancing potential | manage production and investments to the benefit of sustainable economic development of urban and non-urban activities |
| 4. | urban mass concentrations are accompanied by many negative externalities (e.g., pollution, congestion, poverty, low health conditions, criminality) manifesting themselves often in Third -World cities | develop an effective and broad-spectrum urban policy to ensure that the benefits of agglomerations are higher than their social costs, through the provision of appropriate urban amenities, effective institutions, safety measures and citizens' participation |
| 5. | structural urbanization tendencies are directly reflected in drastic land-use and infrastructural changes threatening cultural heritage | design a spatially integrated and balanced urban land use strategy that is compatible with ecological sustainability and inter-urban variety |
| 6. | rapid urbanization leads to drastic increases in the demand for public amenities (e.g., medical care, education) | satisfy the demand of an increasingly large share of the world population for high-quality urban amenities and job opportunities |
| 7. | climate change does not only affect coastal and delta settlements, but all cities world-wide (e.g. urban heat islands) | develop effective measures for eco-friendly and climate-neutral metropolitan areas by providing efficient energy systems and environmental technologies |
| 8. | intra-urban accessibility and inter-urban mobility is under permanent stress due to the increase of the action radius or urban residents | manage sustainable accessibility and mobility of urban transport systems through new logistic and infrastructural concepts |

| | | |
|-----|--|---|
| 9. | socio-economic exclusion and ethnic tension in specific districts of urban agglomerations are rising due to socio-economic disparities | need for conflict management and pro-active inclusion strategies for less privileged groups in urban areas |
| 10. | uncontrolled urbanization leads to urban sprawl at an unprecedented level and with a high ecological footprint | design of fit-for-purpose institutional mechanisms and structures in a multi-layer dynamic system of urban-rural land use |

Source: Nijkamp and Kourtit, 2010

The diversity in challenges and response calls for a coherent approach through which anchor points for effective action can be identified. Four such anchor points (or pillars) have been highlighted in the Joint Programming Initiative (JPI) URBAN EUROPE¹⁴ position documents (2010) and built around four interconnected pillars (cornerstones) that form the focal points of long-term strategic research on urban areas, viz.:

(1) *Economy & Innovation: Creative Economic Capital*

¹⁴ The Joint Programming Initiative (JPI) URBAN EUROPE is a research and innovation initiative of EU Member States and Associated Countries (a third country which is party to an international agreement with the European Community, under which it makes a financial contribution to FP7). It was established in 2010 within the concept and framework of Joint Programming which was proposed by the European Commission (COM, 2008) and established by the Council of the European Union (16775/08) in 2008.

- (2) *Mobility*: Infrastructural, Logistic, Connectivity and Communication Capital
- (3) *Society*: Social and Cultural Capital
- (4) *Ecology*: Environmental Capital

These corner stones provide the principles through which various modern cities in Europe may manage the increasing concentration of people in Europe in urban agglomerations, with a view to the design and implementation of a liveable, sustainable, accessible and economically viable environment and settlement pattern for European citizens. The four pillars are each of critical importance for the new economic geography of an interconnected Europe. They should be balanced against each other, but are also mutually connected. Thus, linking together these four areas in an interactive chain is an essential task of each urban policy. Thus, the value added rests on strategic and evidence-based research on the interfaces of these cornerstones.

Future Urban Images

The interfaces between these pillars have received far less attention, although it is highly likely that new research perspectives and achievements are exactly to be found on these interfaces. On these interfaces one may expect breakthrough innovations on the reinforcement of urban functions of cities in the future (ranging from the period 2020 to 2050). Critical research questions may be identified by a backcasting experiment based on a long-term horizon

for urban future (up to the year 2050). In view of the strategic orientation of the New Urban Europe research orientation and focus, four long-term urban images have been distinguished. These interlinked future appearances of urban environments (in the year 2050) offer stylized pictures of urban agglomerations, with the aim to distillate relevant and operational research issues for the New Urban Europe's Strategic Research Agenda (SRA). The four urban images and their main orientation are:

1. *Entrepreneurial City 2050*: economic vitality and innovation

This image assumes that in the current and future global and local competition, Europe can only survive, if it is able to maximize its innovative and creative potential in order to gain access to emerging markets outside Europe; cities are then spearheads of Europe's globalization policy.

2. *Connected city 2050*: smart logistics & sustainable mobility

The image of a connected city refers to the fact that in an interlinked (from local to global) world, cities can no longer be economic islands in themselves ('no fortresses'), but have to seek their new opportunities in the development of advanced transportation infrastructures, smart logistic systems and accessible communication systems through which cities become nodes or hubs in polycentric networks (including knowledge and innovation networks).

3. *Pioneer City 2050*: social participation & social capital

This image refers to cities as attractors for creators and pioneers, offering the general conditions for cutting-edge innovations and developments beyond conventional approaches, and providing innovative environments for the assessment and implementation of new (technological) solutions, through which Europe can become a global pioneer.

4. *Liveable City 2050*: ecological sustainability.

The final image addresses the view that cities have to consider all relevant aspects such as health, security and safety in order to provide an attractive environment to live and work for all citizens, and that smart environmental and energy initiatives (e.g., recycling, waste recuperation) shall act as engines for ecologically-benign strategies, so that cities may become climate-neutral agents in a future space-economy.

These images are only intermediate instruments to prompt creative thinking on feasible and innovative research plans. These four images highlight the strategic dimensions of urban futures in Europe. They lend themselves for systemic approaches to THE 'NEW URBAN EUROPE' vision, they all need operational geo-science information and behavioural data to map out or understand uncertain urban futures, and they also reflect the need for strategic thinking on the governance of urban agglomerations in Europe. These four ideal-typical representations of European urban agglomerations in the year 2050 are not to be seen in isolation, but they are interconnected.

These four images highlight the strategic dimensions of urban futures in Europe.

Knowledge Coliseum

A careful analysis of all research ideas, existing research initiatives and research needs leads then to the design of the following knowledge arena for European cities focusing on a long-term horizon of 2020 – 2050. Scientific research in this area needs long-range strategic foresight experiments, multi-component modelling based on non-linear dynamic (complex) systems analysis, the development and use of advanced research tools from different disciplines, and the availability of appropriate data and solid information systems. In the course of interactive scoping and foresight experiments, a wealth of innovative research ideas has been extracted from a creative envisioning process regarding these four interlinked urban images, on the basis of stakeholder consultation and interactive workshops with experts and policy-makers. To create a systematic and operational research agenda, a process of stepwise focusing and filtering has been carried out. This has led to the identification of three major research issues to be addressed in the JPI URBAN EUROPE. These can be presented as follows (see also Figure 1):

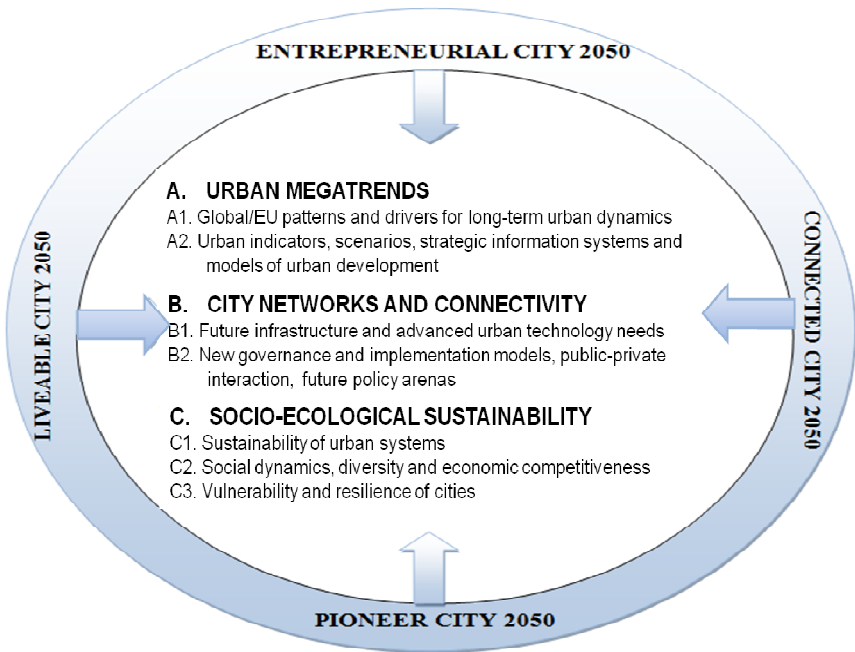


Figure 1: *Knowledge Arena for NEW URBAN EUROPE*

These three strategic research issues will now be described successively in more detail.

A. Urban Megatrends

Urban development patterns demonstrate a surprising diversity in many countries. In our urban century, urban networks, regions and cities (including urban agglomerations, supernova cities / megacities and systems of cities) offer strong centripetal and centrifugal forces

that will most likely be decisive for the economic geography of our planet. Future urban developments, economic changes and growth challenges call for a long-range research horizon, in which (new) technology, innovation, demography (growth and ageing), climate, culture and socio-economic developments are taken into consideration. There is a need for a systematic analysis and monitoring of the drivers and impacts of both micro- and macro-structural trends regarding urban dynamics.

B. Urban Networks and Connectivity

The urban world is highly dynamic and displays a variety of new mobility, logistic and land use developments that are decisive for vital and attractive cities – and networks of cities – in the decades to come. Urban settlements patterns move increasingly towards connected multi-functional urban areas: cities are complex networks, connected cities become higher-order networks, and mega-cities are becoming nodes or hubs of global command and control. Land use and infrastructure offer the material/physical facilities that support the socio-economic performance of urban systems (e.g., ports, energy grids, rail and road connections, IT systems, aviation networks). Urban agglomeration advantages are critically dependent on land use planning, housing, transportation and logistics, industrial locations and economies of density.

C. Socio-economic Sustainability

Cities are seedbeds of innovation and socio-economic progress, but their dynamic evolution also changes the continuity and

sustainability. Urban sustainability in terms of ecology, social dynamics and vulnerability of cities calls for a careful management and strategy development, with a view to a balanced future. There are threats by population explosion, but also by large-scale industrialization and urbanization. But these threats are balanced by many new opportunities emerging from structural urbanization trends.

This knowledge arena contains thus three prominent research issues (A,B,C) and consequently seven systematically organized research themes (A1,A2,B1,B2,C1,C2,C3). These issues and themes form the operational cornerstones of a full-fledged research programme of the JPI UE. This architecture of the SRA needs to be experimented and tested during a 2-year pilot phase of the JPI URBAN EUROPE , with the aim to offer both a ‘proof of concept’ and a ‘proof of application’, so that the added value, benefits and impacts of research synergy in Europe can be evaluated. For the pilot phase to be successful, a clear perspective on participating stakeholders, joint activities to be undertaken, and instrumental and framework conditions for European cooperation in the URBAN EUROPE domain is needed.

New Urban Europe Ambitions

The portfolio of research initiatives, programmes and joint activities is broad and ambitious, and needs therefore a focus in terms of instruments and joint framing conditions to be used. Transnational research collaboration may sometimes be a painstaking process, and

therefore it seems reasonable to adhere as much as possible to existing instruments used in different European collaborative research initiatives like FP-7 framework programmes, ERA-Nets or NORFACE initiatives. This approach calls for a careful consideration of various research collaboration initiatives, as research synergy among different European countries is characterized by variety and heterogeneity. To select clear priorities out of the broad spectrum of plans and proposals, interactive discussions with various stakeholders (based on a Triple Helix concept) have been organized leading to the following main orientations (coined modules):

- A stakeholder-guided process leading in a gradual development to a joint commitment regarding new research initiatives which should result in a selection and implementation of joint research and innovation activities on new urban issues, with a duration of some two years. This includes joint research and innovation activities on strategic topics related to the UE research objectives. These topics are an operational translation of various research issues and themes as mapped out in Figure 1 (Module 1)
- An effective cooperative effort to share knowledge or experiences in the domain of the ‘New Urban Europe’ (Module 2). This comprises various collaborative activities based on shared knowledge that support the development of both Modules 1 and 3.

- An alliance of existing or emerging research programs / initiatives of partner countries involved (based on à la carte participation) (Module 3). This contains existing or emerging experimental research projects and programmes undertaken by (individual or joint) partner countries – which have already started or may start soon – on the scientific domain outlined in the Strategic Research Framework (SRF) of the JPI URBAN EUROPE.

The three Modules are not mutually exclusive, but are meant to offer a complementary portfolio, with the aim to get a quick, efficient and flexible take-off of the JPI URBAN EUROPE. The main idea is to take advantage of existing initiatives and to build up new joint activities in the pilot phase. Figure 2 demonstrates clearly the integrative design of the successive UE research plans and activities leading to a full-fledged research design and implementation at the end of the pilot phase (end 2013).

The various steps incorporated in Modules 1-3 should ensure an ambitious research effort on the JPI UE, which in a few years should reach the top of the pyramid as sketched out in Figure 3.

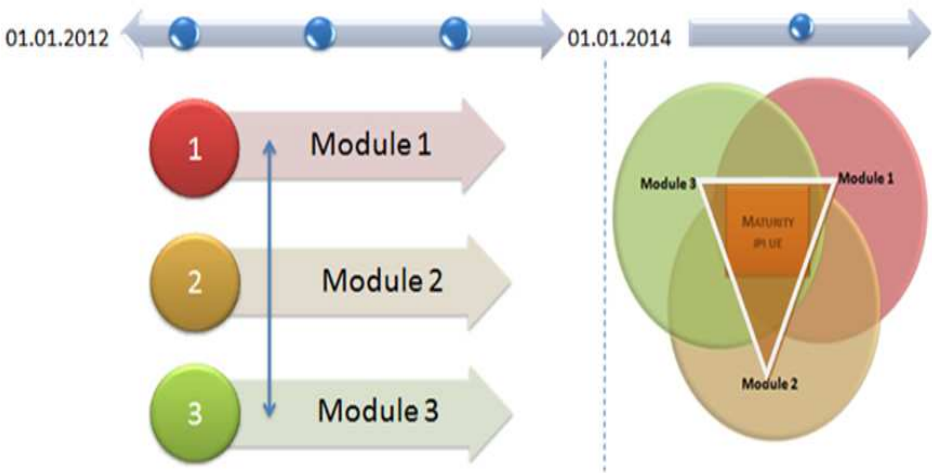


Figure 2. Streamlining of Modules 1-3 of JPI UE: the Triple-Module Approach to UE

The next steps comprise now: formulation of concrete pilot topics (module 1), organization of knowledge sharing activities (module 2) and stimulation of research alliances (module 3).

Conclusions and Suggestions

It goes without saying that the development process of the Urban Europe research initiatives may show quite some variation ranging from solid consultation processes to spontaneous ideas, or from ‘low hanging fruit’ possibilities to politically attractive (‘sexy’) topics.

This could be handled in any of the three abovementioned modules. Some approaches may be based on a structured consultation process, others more on spontaneous or ad hoc collaborative initiatives.

JPI UE AMBITION VIA HIERARCHY PYRAMID

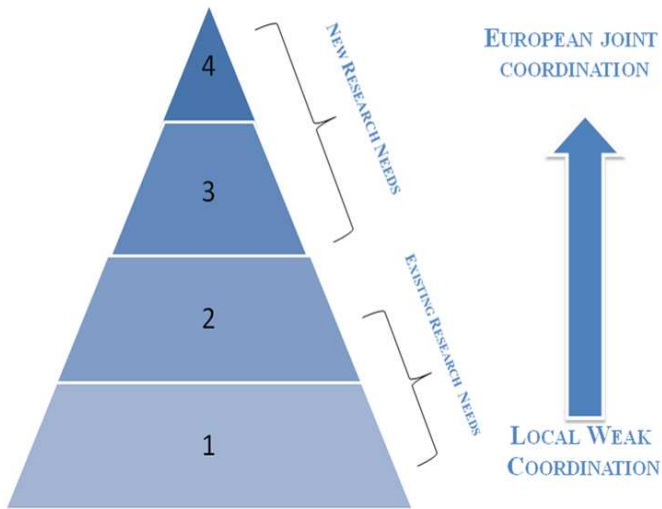


Figure 3: The Ambition Pyramid of URBAN EUROPE

Clearly, the further development of such common research activities could gradually be fine-tuned during the pilot phase (2012-2013), so that after the two-years phase in an evolutionary way a real common research programme could emerge. Such a collaborative effort of

partner countries – through an à la carte conditions of existing research programmes (or through research institutes involved), or through a design of joint experimental studies of an exploratory or fundamental nature on new urban issues – may lead to a fast take-off of JPI UE.

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LA PROSPECTIVE TERRITORIALE : LE SCHEMA DE COHERENCE TERRITORIAL (SCOT) DU PAUS DE RENNES

ISABELLE DE BOISMENU¹⁵

A travers la démarche prospective menée pour formaliser le SCOT du Pays de Rennes¹⁶, nous tenterons d'illustrer la façon dont les élus sont parvenus à faire des choix et des arbitrages pour l'avenir du territoire. Cet exemple est spécifique et de ce fait ne peut être transposé. Néanmoins, la présentation de la démarche empruntée pour aboutir à des orientations stratégiques, mariant les outils de la planification territoriale et de la prospective, peut contribuer à la réflexion sur la ville durable¹⁷.

Ville et région, compétition ou synergie?

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¹⁶ Scot arrêté le 17 décembre 2007, au terme d'une démarche de 3 ans.

¹⁷ Cette présentation s'organise autour des questionnements qui étaient proposées pour la table ronde.

Dans l'enceinte du Comité des Régions Européennes, il est légitime de se poser la question de l'échelle d'intervention. Cependant, l'enjeu paraît moins de définir la « bonne » échelle pour agir que d'appréhender leurs logiques respectives d'organisation, c'est à dire leurs capacités de centralité et de distribution, afin de développer les synergies entre espaces régional et métropolitain pour les rendre plus efficaces, au service du plus grand nombre.

Ainsi, la dynamique territoriale de la métropole rennaise doit être abordée à large échelle, notamment celle du littoral Atlantique qui connaît une croissance forte, liée à l'attractivité maritime. C'est sur cette base que s'est constitué le réseau des « Villes membres de la Conférence des villes de l'Arc Atlantique ». Rennes Métropole, fait également partie intégrante d'un maillage territorial au sein d'un vaste espace comprenant plus de deux millions d'habitants et cinq aires urbaines. La structuration de cet ensemble au sein de « l'espace métropolitain Loire – Bretagne » permet l'intensification des coopérations entre ces agglomérations et constitue une opportunité pour compter dans une Europe de plus en plus urbaine.

Au sein de la Bretagne, Rennes joue le rôle moteur de capitale régionale en irriguant un vaste territoire dont elle est la porte d'entrée européenne. Mais, réciproquement, c'est grâce à l'image de la région que le Pays de Rennes pourra réussir demain en s'appuyant sur cette dynamique et en multipliant les coopérations avec les institutions et les entreprises bretonnes.

Cette multi-appartenance à différents niveaux semble montrer la nécessité de penser l'espace métropolitain non en terme de concurrence mais plutôt dans une articulation d'échelles, du micro-local au global, en recherchant un équilibre territorial et un maillage dynamique entre agglomération de région.

Changement de paradigme ou réinterprétation du « modèle » à la lumière de l'évolution des enjeux ?

La mise en œuvre des SCoT (Schéma de Cohérence Territorial)¹⁸ doit concourir à la promotion d'espaces urbains « durables ». Ce concept n'est cependant pas toujours clairement défini. Il ne traduit pas non plus de façon totalement satisfaisante le terme anglo-saxon de « sustainability », c'est à dire la recherche d'un équilibre continu entre les différentes fonctions urbaines, pour le bien du plus grand nombre. Pour leur part, les élus du Pays de Rennes ont formulé la portée qu'ils entendaient donner à cet enjeu autour d'objectifs étroitement imbriqués prenant en compte, conjointement, les dimensions économique, environnementale et surtout sociale :

- Des mutations profondes à anticiper : mutation de l'économie, évolution démographiques et sociales, défis énergétiques et environnementaux

¹⁸ Cf. Encart

- Une stratégie ambitieuse pour consolider l’avenir du Pays de Rennes, un développement durablement nécessaire et un développement nécessairement durable,
- Placer l’habitant au centre des choix pour optimiser la cohérence territoriale de la ville-archipel

Ces grands objectifs ont servi de cadrage à la réflexion. Celle-ci s’est développée à partir des principaux éléments constitutifs du développement urbain contemporain. Il a semblé indispensable de prendre en compte ces phénomènes et de les connaître de façon approfondie pour penser et accompagner de façon réaliste et efficace l’évolution de la ville. Sans prétention à l’exhaustivité et pour ne retenir que les facteurs les plus prégnants pour le territoire rennais, on peut citer :

- **La périurbanisation**, c’est à dire le processus d’étalement de l’espace construit, de façon centrifuge à partir du cœur d’agglomération¹⁹. Ce territoire accueille une part toujours plus importante de la population du bassin de vie rennais. Ce phénomène est porté par une forte dynamique économique et démographique. Il est d’autre part facilité par la présence d’infrastructures de déplacement performantes, voies rapides rayonnantes et étoile ferroviaire. Cette réalité doit être prise

¹⁹ Dans la dernière période (1999-2006), la périphérie lointaine, c’est-à-dire au-delà de Rennes Métropole, a connu une expansion sans précédent (+2,55%), alors que les taux de croissance dans l’agglomération elle-même se ralentissait (+1,58%) ; soit pratiquement l’inverse des taux de croissance de la période 1990-1999.

en compte comme une tendance lourde qui se prolongera très probablement²⁰. En effet, s'il est en parti subi, du fait des prix du foncier, ce mouvement correspond également à des choix de vie pour de nombreux ménages.

- **La polarisation**, notamment pour ce qui concerne les activités économiques qui connaissent une tendance à la concentration au cœur de métropole et autour des pôles d'échange. L'espace urbain s'organise en effet de plus en plus autour des flux, de personnes, de biens, ou de services. Aussi, les « nœuds » deviennent-ils stratégiques pour organiser le fonctionnement de l'ensemble du système, desservir les pôles et les articuler afin de les rendre plus efficaces pour le plus grand nombre.
- **La mobilité**, enfin semble l'un des marqueurs du monde contemporain et restera constitutive de l'organisation du système urbain. A la fois facteur de mise en réseau mais aussi de fractionnement, notamment pour ceux qui n'ont pas les moyens de cette mobilité. Le défi pour le SCoT consiste alors à accroître l'efficacité des déplacements pour tous et sur l'ensemble de la ville-territoire²¹.

La proximité de la nature et son intégration dans la ville constitue par ailleurs la toile de fond du projet d'autant plus qu'elle

²⁰ Le renchérissement du prix du pétrole pourrait infléchir ce phénomène mais de façon sans doute marginale à court et moyen terme.

²¹ La vitesse fait partie du mythe du progrès, et l'on pourrait donc aussi parler dans cette optique du développement des télécommunications dont la multiplication n'est pas non plus sans impact sur l'espace urbain contemporain.

correspond à une demande sociétale croissante. La façon dont la métropole rennaise s'est organisée pour y répondre est originale. Elle a réussi à imposer un modèle de « ville sans banlieue », basé sur la préservation de la ceinture verte autour de la ville centre et des espaces verts, majeurs²².

Cependant, la dynamique d'évolution économique et démographique du bassin rennais et l'élargissement du territoire de projet, de l'agglomération (37 communes) au territoire du pays de Rennes (67 communes) ont obligé à reconsidérer le modèle en faisant apparaître trois grandes contradictions :

- Comment continuer à répondre à la nécessité de l'accueil impliquant un rythme de construction soutenu, tout en préservant la qualité du cadre de vie, tenant à la proximité de la campagne ?
- Comment conjuguer la tendance de la ville à se « dilater », entraînant une augmentation de la demande de mobilité notamment sur des trajectoires transversales, avec l'efficacité des déplacements ?
- Enfin, comment maintenir un équilibre entre une concentration toujours plus intense des activités, liée au rayonnement de la capitale bretonne, et l'équilibre du pays de

²² La tradition de planification territoriale de l'agglomération rennaise, forte de trois schémas directeurs : le SDAU de 1974, le schéma directeur 1983, le schéma directeur 1994.

Rennes dont les espaces résidentiels s'éloignent de plus en plus ?

La démarche menée pour formaliser le SCoT a permis de dépasser ces contradictions²³. Cela n'a été possible que par une « inversion » du regard. Ce n'est désormais plus (ou pas seulement) l'espace bâti à partir duquel doit être pensé l'aménagement urbain, les « vides » doivent également être pris en compte. Ils seront demain des éléments organisateurs et structurants de l'aménagement. Ce nouveau regard s'est concrétisé dans le concept de la « ville-archipel » amenant à reconsidérer la manière de composer de la ville-territoire, en prenant en compte à la fois les espaces centraux et la périphérie car l'urbain ne s'arrête pas à la ville dense.

Comment territorialiser les choix d'aménagement et de développement durables ?

Désormais, il s'agit de prendre en compte l'ensemble d'un territoire et ne plus séparer le monde urbain du monde rural. Il faut trouver les moyens d'intégrer dans l'organisation de la ville la forêt, le bocage et plus largement le patrimoine naturel pour réfléchir aux fonctions qu'ils peuvent jouer dans la régulation collective, non seulement réserve de faune et de flore mais aussi comme facteur d'intégration sociale et d'attractivité. La « trame verte et bleue », c'est-à-dire

²³ Dans cette présentation, nous n'aborderons que la première d'entre elles.

l'armature écologique du territoire qui constitue le socle du projet. Le paysage du Pays de Rennes prend appui sur le réseau des cours d'eau et des vallées. Ce patrimoine végétal et hydrologique, avec les chemins et fossés qui lui sont liés, sont autant d'éléments qui structurent le paysage et apportent des points de repères et d'identité. Cette nouvelle approche du territoire urbain s'est concrétisée dans le SCoT du Pays de Rennes par plusieurs outils :

- **La « trame verte et bleue »**, c'est-à-dire l'armature écologique du territoire qui constitue le socle du projet. Le paysage du Pays de Rennes prend appui sur le réseau des cours d'eau et des vallées. Ce patrimoine végétal et hydrologique, avec les chemins et fossés qui lui sont liés, sont autant d'éléments qui structurent le paysage et apportent des points de repères et d'identité.
- **La limitation rigoureuse de la consommation d'espace.** Le mode d'organisation qui contribue à la proximité entre l'homme et la nature nécessite un habitat dense car il conditionne le maintien d'espaces naturels comme la trame bocagère et la vitalité de l'agriculture. Ceci s'est concrétisé par des prescriptions fixant des objectifs de densités²⁴ et le calcul d'un quota d'espaces urbanisables pour chaque commune, basés une évaluation du potentiel d'extension et

²⁴ Cœur de métropole : 45 logements par hectare ; Couronnes d'agglomération : 25 logements par hectares ; ces densités sont portées respectivement à 65 et 45 logements par hectare à proximité des pôles d'échange.

de renouvellement urbain. Ces règles sont assorties de précisions sur les « limites paysagères de développement », les directions d'urbanisation privilégiées, l'obligation de continuité urbaine et des enjeux de diversité urbaine.

- **Les « champs urbains »**, enfin ont été inventés pour protéger des espaces agricoles périurbains à forts enjeux en matière de paysage et d'environnement. de grands sites agro-naturels ont été délimités à l'échelle intercommunale pour pérenniser la fonction agricole et l'offre de loisirs verts.

Vertus et limites de l'exercice de prospective territoriale ?

L'évolution des villes en font des systèmes éminemment complexes du fait de la transversalité des thématiques à prendre en compte mais aussi parce que désormais, c'est aussi, voire plus en termes de flux que d'aménagement stricto sensu que les interventions doivent être pensées. Enfin et peut-être surtout, parce que l'organisation dépend de la décision de nombreux opérateurs à de multiples niveaux enchevêtrés. Parmi les défis auxquels il faut faire face pour aborder l'urbain contemporain, on peut citer :

- **L'hétérogénéité du territoire et des acteurs.** Le pays de Rennes regroupe des territoires très différents par leur histoire, leur positionnement géographique et leur logique de développement. Chacun des EPCI (établissement publics de coopération intercommunale) est représenté par ses élus mais

le territoire regroupe également des réseaux d'acteurs économiques, associatifs, sans compter l'acteur habitant doté de compétences propres. La réflexion sur l'avenir du territoire ne peut donc être monopolisée par aucun groupe. Cela oblige à la formulation d'un projet commun qui ait un sens suffisant pour fonder les formes de régulation nécessaires entre ces différents opérateurs et l'ajustement de leurs logiques variées, voire parfois contradictoires.

- **Le décalage entre territoire « pertinent » et territoire de décision.** L'aire urbaine²⁵ rennaise représente environ les 2/3 de la population du département qui compte 960 000 habitants. Le Pays de Rennes, territoire de projet du ScoT est doté d'une instance décisionnelle, le syndicat mixte, qui compte 87 élus, représentants des cinq EPCI qu'il regroupe. Cependant le territoire du Pays de Rennes, s'il est plus large que l'agglomération rennaise, est loin de recouvrir l'ensemble du « bassin de vie »²⁶ et ne peut donc être pilotés à l'échelle où se déploient les phénomènes urbains les plus prégnants.

²⁵ Une aire urbaine ou « grande aire urbaine » est un ensemble de communes, d'un seul tenant et sans enclave, constitué par un pôle urbain (unité urbaine) de plus de 10 000 emplois, et par des communes rurales ou unités urbaines (couronne périurbaine) dont au moins 40 % de la population résidente ayant un emploi travaille dans le pôle ou dans des communes attirées par celui-ci.

²⁶ Le Pays est constitué de l'agglomération qui compte environ 400 000 habitants et 4 EPCI (établissement publics de coopération intercommunale) représentant 65 000 habitants.

- **L'incertitude**, car le développement de la ville-territoire dépend des décisions d'une multitude d'acteurs. Il dépend aussi de l'évolution du contexte plus vaste dans lequel il est inséré. Ceci est facteur d'imprévisibilité et de vulnérabilité qu'il faut pouvoir intégrer comme une donnée, car l'incertitude est devenue une certitude. La voie est sans doute moins la recherche du risque zéro que de la constitution d'un « territoire apprenant », où la cohésion sociale est forte comme en a fait l'option l'agglomération rennaise, afin de faciliter l'adaptation aux situations, la réactivité, l'innovation.

Ceci appelle de nouvelles façon de penser l'urbain et de nouvelles ingénieries pour y répondre. La prospective territoriale paraît un levier puissant pour faire face à ces nouveaux défis. Le parti pris initial d'adopter une démarche prospective pour l'élaboration du SCoT s'inscrit dans la tradition rennaise d'évaluation et d'anticipation. Ce parti pris a amené des apports décisifs à chacune des étapes clés du processus :

- **L'élaboration d'un diagnostic « prospectif »**, a permis aux élus de se doter d'un référentiel commun sur la base d'une analyse partagée des questions clé pour l'avenir du territoire. Ceci a pu se faire grâce à l'utilisation de la « grammaire prospective » qui a constitué un fil rouge pour l'identification des tendances lourdes et des incertitudes majeures et permis ainsi de porter un regard réaliste sur les grands enjeux du futur.

- **La prospective exploratoire** a permis de faire émerger des « visions nouvelles » et de rompre avec une image du futur, vue à travers le seul prisme de la réalité présente. Ceci a été possible grâce à l'élargissement du champ d'investigation aux attentes sociales²⁷ mais aussi à travers un outil de consultation original²⁸ qui a permis une visualisation synthétique des enjeux en dégageant de façon claire les consensus et les controverses.
- **La prospective stratégique** a permis de construire des visions du futur, notamment à travers des ateliers prospectifs rassemblant des personnes d'horizon très divers (élus, société civile, techniciens...)
- **La prospective décisionnelle**, enfin a permis d'aller jusqu'à la phase de décisions. Cela a été possible grâce à une visualisation cartographique des impacts territoriaux découlant des options potentielles. Ces scénarios contrastés qui ont servis de support de réflexion ont permis d'analyser les conséquences des choix territoriaux et joué un rôle déterminant dans la prise de conscience des enjeux du futur.

La prospective et ses outils ont ainsi démontré toute leur pertinence dans cette démarche et permis la mobilisation des acteurs nécessaire

²⁷ Notamment à travers la conduite d'une étude sociologique qui a permis de mettre en lumière le décalage entre représentation et territoire vécu et de révéler les marges de manœuvre possibles.

²⁸ Delphi abaque de Régnier

à la formalisation d'un projet commun pour l'avenir du territoire rennais. Dans cette mesure, on peut considérer l'approche prospective comme l'un des leviers de renouvellement de la planification territoriale.

Le SCoT (Schéma de cohérence territorial), un projet et un outil pour préparer l'avenir du territoire

Le SCoT est un document juridique qui définit le projet global d'aménagement du territoire à horizon 15-20 ans. Ce nouvel outil, créé par la loi SRU (solidarité et renouvellement urbain) en 2000 sert de cadre de référence pour organiser l'ensemble des politiques sectorielles (habitat, organisation de l'espace, déplacements, développement commercial, protection de l'environnement, développement économique...)

« Lois Grenelle 2 » apporte des évolutions aux SCoT. Promulguée le 12 juillet 2010, la loi portant « engagement national pour l'environnement » dite Grenelle 2, conforte les SCoT comme outil de définition et de cohérence des politiques territoriales tout en renforçant leur portée sur différents points parmi lesquels on peut mentionner :

- Le DOO (document d'orientation et d'objectifs) devient davantage opérationnel et prescriptif
- La loi valide et confirme des pratiques déjà existantes comme celles qui concernent :
- les densités minimales de construction, assorties d'objectifs chiffrés de consommation d'espace
- La préservation des continuités écologiques et la prise en compte des ressources naturelles,
- L'articulation urbanisme/transports collectifs,
- La répartition par secteurs des objectifs de production de logements, l'amélioration des performances énergétiques
- La généralisation des SCoT à l'ensemble du territoire national

FROM SUSTAINABLE ENERGY COMMUNITIES TO SMART CITIES

**Learning from 58 built examples in the EU's CONCERTO
initiative how cities and communities can meet the energy and
climate challenge**

SVEN DAMMANN AND GEORG HOUBEN²⁹

Abstract:

Cities are the key to the EU's objectives of 20% energy saving by 2020 and to developing a low carbon economy by 2050, because 70% of the EU's energy consumption takes place in cities. To harvest the great potential for energy-saving, renewables and green-energy business models in cities, the European Commission has launched in 2011 the new Smart Cities and Communities Initiative, to upscale the valuable lessons learned in the 58 sustainable energy communities in 23 countries of the EU's CONCERTO initiative and

²⁹ European Commission DG ENER, Unit C2, in collaboration with Valerie Bahr, Charlotte Schlicke, CONCERTO Premium, Steinbeis-Europa-Zentrum, Stuttgart, Germany

to foster the further development and usage of renewable energies, sustainable transport and smart ICT solutions in the urban context.

To offer guidance to decision-makers in cities and communities the CONCERTO demonstration projects in their many different geographical, economical, political and technical environments have been closely monitored with regard to their economic and environmental performances. The results, made accessible on a new website with advanced inquiry functions, offer a broad variety of solutions with regard to energy efficiency and renewables in the low-emission cities and communities of tomorrow.

To provide additional, forward-looking input from stakeholders in all relevant areas including Energy, Transport, ICT and Water & Waste management, to broaden the scope of comprehensive urban energy planning even more and to facilitate the take-up of the solutions developed in the demonstration projects of the Smart Cities and Communities calls, the European Commission has launched in November 2012 the Smart Cities Stakeholder Platform.

Keywords:

Energy efficiency and renewables in communities and cities, CO₂ reduction, energy efficient buildings and blocks, built examples database, intelligent energy management, smart metering, technology mix, economic analyses, Smart Cities & Communities Initiative, policy recommendations; integration of all stakeholders.

A strong local dynamic for the energy transformation of Europe

Though the EU is on track for achieving its target of a 20% reduction of CO₂ emissions by 2020 (in comparison to 1990 levels), it is not on track for its target to reduce its energy consumption by 20%³⁰. Yet only in the combination of boosting energy production from renewable sources while reducing our energy consumption will we be able to meet the EU target of an 80-95% reduction of CO₂ emissions by 2050. While the European Commission has put forward an ambitious Energy Efficiency Directive, currently discussed with the Member States and the European Parliament, also **many local actors have understood that an ambitious energy-saving and renewables policy is an opportunity and not a burden**: Independence from volatile fossil fuel markets, clear air for citizens, local employment in energy refurbishment, new business opportunities for providers of smart energy services and a credible contribution to protecting our common climate are among the many benefits that energy-smart cities will enjoy. Benefitting from the lessons learned in its initiative for sustainable energy communities "CONCERTO", the European Commission has in 2011 launched its "Smart Cities and Communities Initiative" to support selected groups of pioneer cities from at least three countries and their partners in industry, science and business in developing smart solutions that can then be copied by other cities throughout Europe.

³⁰ From the projection for a business-as-usual scenario for 2020 in the 2007 PRIMES EU-energy outlook.

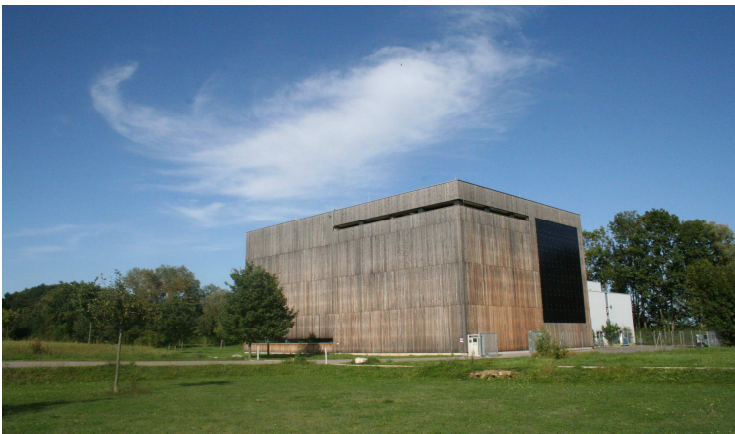
With the CONCERTO projects as a solid experience base, the Smart Cities and Communities Initiative has a broader scope as it also addresses other aspects that are the key to the overall energy performance of cities, such as sustainable transport, smart ICT solutions and Water & Waste management. To supplement these experiences with indispensable input from urban-energy stakeholders the European Commission has launched in November 2011 the **Smart Cities Stakeholder Platform**. It will facilitate stakeholder dialogue; social, technological and financial innovation as well as the dissemination and implementation of the solutions developed in the Smart Cities and Communities Initiative's demonstration projects. Accordingly it will also address market uptake measures such as organisational innovation through innovative planning and business models; public procurement; standards; regulation and exchange of knowledge and best practices.

The EU's CONCERTO initiative for sustainable energy communities: generating transferable know-how from pioneer projects

The European Union's initiative **CONCERTO**, within the European Research Framework Programme (FP6 and FP7), aims to **study and demonstrate** the economic, environmental and social benefits of **optimising the energy performance of buildings of entire communities** - instead of addressing buildings individually without coordination at community level; bringing all players and instruments together in a CONCERTO instead of having many soloists, so to speak.



© Growing up in a post-fossil-fuel village: CONCERTO project SERVE, North Tipperary, Ireland



© Scharnhäuser Park, Germany: Biomass co-generation plant: CONCERTO project: POLYCITY Ostfildern

Indeed, the CONCERTO initiative proves that with a **sound, inclusive planning** cities and communities can become pioneers in sustainable energy. The results are encouraging: **58 CONCERTO communities in 23 EU countries have shown that existing buildings can cut their CO₂ emissions by up to 50% at acceptable costs with different mixes of energy efficiency measures, renewable energy sources, innovative technologies, demand management and an integrated approach.**



© Solar island: CONCERTO project cRRescendo, Almere, The Netherlands



© Roof top solar power plant: 2000m² thermal solar collectors and 50kWp photovoltaic panels: CONCERTO project Green Solar Cities, Salzburg, Austria

Integrative, participatory planning important for success

An important lesson learned from the CONCERTO projects and documents in the CONCERTO analysis reports is that a planning process that integrating all actors is crucial for a sound implementation (Fig. 1).

Fig. 1: Integration of all actors in the planning phase is crucial for a sound implementation



Harvesting know-how from 58 forerunner communities – examples ready to be replicated

The purpose of supporting the projects (some still ongoing) in the 58 pioneer communities has been to demonstrate what can be achieved and to make the generated know-how available to all cities and communities in Europe. In two meta-projects (CONCERTO Plus and CONCERTO Premium) the EU has collected and still is collecting a wealth of energy, economic, environmental data and

information on the actors' perceptions from the demonstration projects. The ongoing **CONCERTO Premium project is assessing them and is developing policy recommendations.**

The CONCERTO website (www.concerto.eu) is a useful tool for decision support, as it presents **realized examples** organized either by the community's geographical location or by the technologies applied. A dedicated menu point offers specific **policy recommendations.**

By the second half of 2012 the website user can use the integrated new **technical monitoring database** to learn from the approaches of all 58 communities by their monitoring data. This database will help individual cities to decide, what technology mix they should choose to meet the energy and climate challenges. Thanks to specially designed advanced database software, decision-makers can make inquiries into the database in a very flexible manner, while the software finds the examples and technology performance data relevant to them from across all CONCERTO projects. (see example box). The queries may include e.g. energy consumptions for buildings clustered by types, age and typical construction features, life-cycle costs for technologies applied, CO₂ emissions of implemented measures and strategies on the urban scale.

How the intelligent CONCERTO database can support decision-making – an example:

The head of the urban planning department in Seatown wonders "Should our city implement measures A (SUPPLY OF A NEW DEVELOPMENT AREA WITH DISTRICT HEATING) or B (INCREASED ENERGY EFFICIENCY REQUIREMENTS FOR NEW BUILDINGS) or C (A & B)?"

She types the search-terms CITY, NEW DEVELOPMENT AREA, SINGLE FAMILY HOUSES, DISTRICT HEATING OR INCREASED ENERGY EFFICIENCY into the CONCERTO Technical Monitoring Database on www.concerto.eu and receives

- CONCERTO AREA 1 ENCOMPASSES A NEW DEVELOPMENT AREA WITH SINGLE FAMILY HOUSES WITH INCREASED ENERGY EFFICIENCY **WITHOUT** DISTRICT HEATING
- CONCERTO AREA 2 ENCOMPASSES AREA WITH SINGLE FAMILY HOUSES WITH INCREASED ENERGY EFFICIENCY **WITH** DISTRICT HEATING

Based on this, she puts the terms ECONOMICS, ECOLOGICAL and receives GREENHOUSE GAS MITIGATION COSTS ARE SIMILAR, CONCERTO AREA 2 ACHIEVED A HIGHER GREENHOUSE GAS EMISSION REDUCTION

Based on this, she puts CONTACT and receives

- PROJECT COORDINATOR AREA 2
- IMPLEMENTING COMPANIES AREA 2: COMPANY1, COMPANY2 (REAL ESTATE DEVELOPER), ...

Based on this, she recommends to her Mayor, that Seatown contacts the colleagues in the city administration in charge of CONCERTO Area 2 for further details and COMPANY2 which has already implemented the NEW DEVELOPMENT AREA WITH INCREASED ENERGY EFFICIENCY **WITH** DISTRICT HEATING that proved to work so well in CONCERTO AREA 2.

CONCERTO Premium will also deliver a **guidebook for assessment** (expected for end 2012) with a comparison and classification of the CONCERTO projects according to different criteria, achievements reached (technical and financial) and potentials for actual energy reduction.

Suggestions for a potential up-scaling of innovative products, smart (i.e. renewable) solutions integrated into the buildings and energy monitoring to the rest of the building market, will be developed in a '**Technology Prospective Study**' (expected for end 2012).

Further information:

1) Smart Cities Stakeholder Platform

Website: eu-smartcities.eu

Contact: eu-smartcities.eu/contact.

2) Information on the **calls for proposals for Smart Cities and Communities demonstration projects** is published on cordis.europa.eu.

3) CONCERTO Premium

Website: www.concerto.eu

Contact: concertopremium@steinbeis-europa.de.

URBAN FORESIGHT FROM AN ENVIRONMENTAL PERSPECTIVE

YBELE HOOGEVEEN & TERESA RIBEIRO³¹

Spatial planning and urban design are not primarily governed at EU level, but their challenges are closely related to global developments and the European policy agenda. The stated ambition for the EU up to 2020 is to achieve smart, sustainable and inclusive growth, with explicit objectives on employment, innovation, education, social inclusion and climate/energy. Greening the economy is key to achieve these goals.

Despite successes of European environmental policy, for example regarding designation of protected areas and emission reduction of certain air and water pollutants, economic growth has only been partially decoupled from environmental pressures. There is an urgent need to improve resource efficiency in order to maintain natural capital and ecosystem resilience (EEA 2010a). Smart urban design and spatial planning can help optimising our land, water and energy

³¹ European Environment Agency (EEA), Copenhagen

use, and thus contribute to biodiversity conservation and climate change mitigation and adaptation.

Local development needs and perspectives are influenced by regional and global megatrends. The world population has more than doubled since the 1960s and is expected to peak at approximately nine billion by around 2050 to 2070 (figure 1). Considerable differences exist, however, in terms of projected regional population growth. A major decline is forecast in Eastern Europe, where the population is expected to be less than half today's level by 2100. Contrastingly, in many African countries the population is likely to have doubled by 2100 (EEA, 2010b).

This growing world population is increasingly living in urban areas. The urban growth rate is expected to decline as population growth slows down, but even in Europe with its moderate population growth and sharp regional declines, urban areas are still projected to grow until 2050 (figure 2).

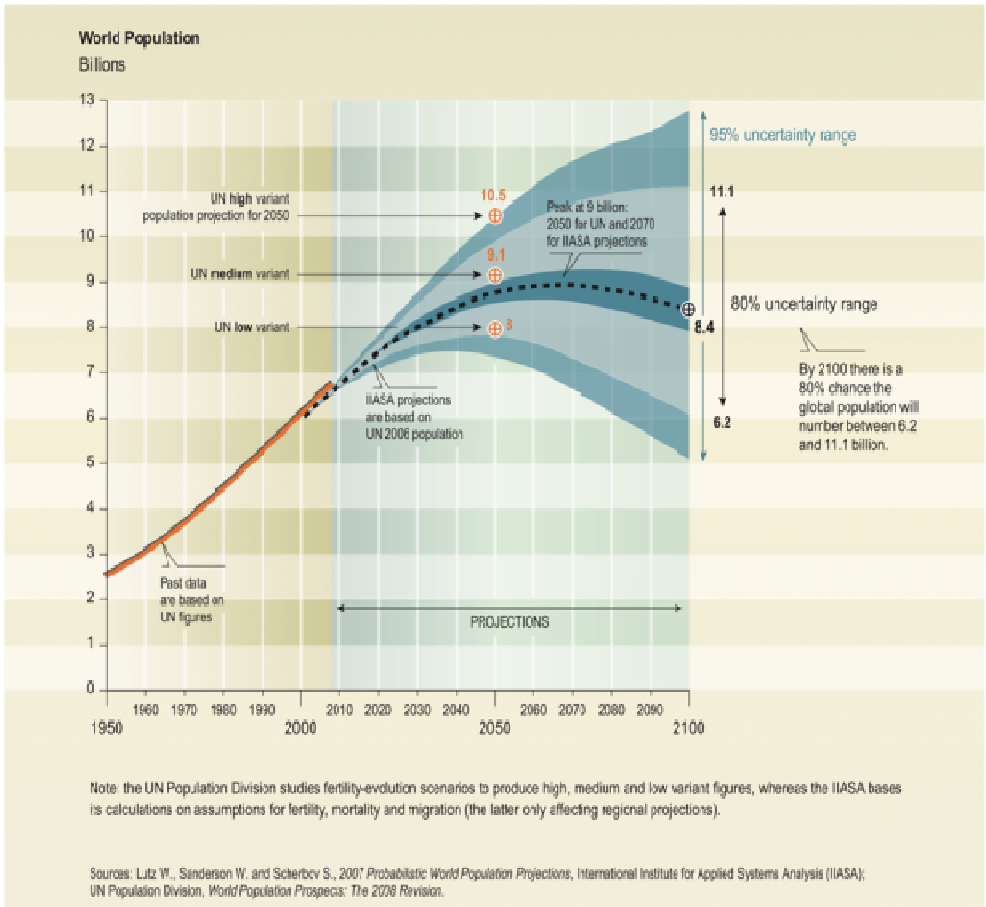


Figure 1. Projected world population change (EEA, 2010b, based on various sources)

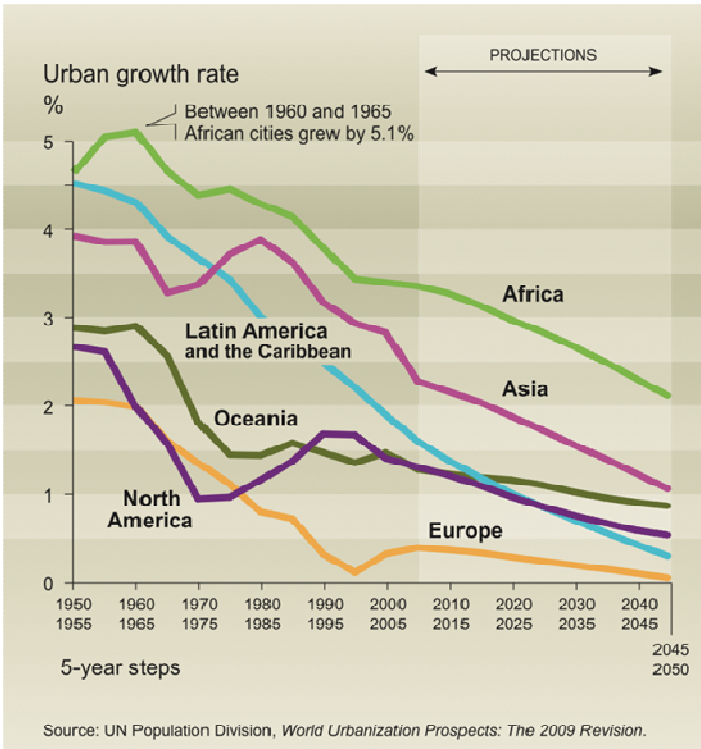


Figure 2. Urbanisation trends (EEA 2010b, based on UNPD 2009).

Economic growth is one of the most pronounced megatrends over the last decades and even centuries, boosting the demand for food, water, energy, and raw materials. This in turn increases pressures on the environment through e.g. deforestation, agricultural intensification, drainage, mining, and emission of greenhouse gases and other pollutants. Considering that the Earth’s ecosystems already

are converted and utilised to a very high degree (figure 3), we may risk crossing tipping points in the earth's regulatory mechanisms and triggering irreversible ecosystem collapse.

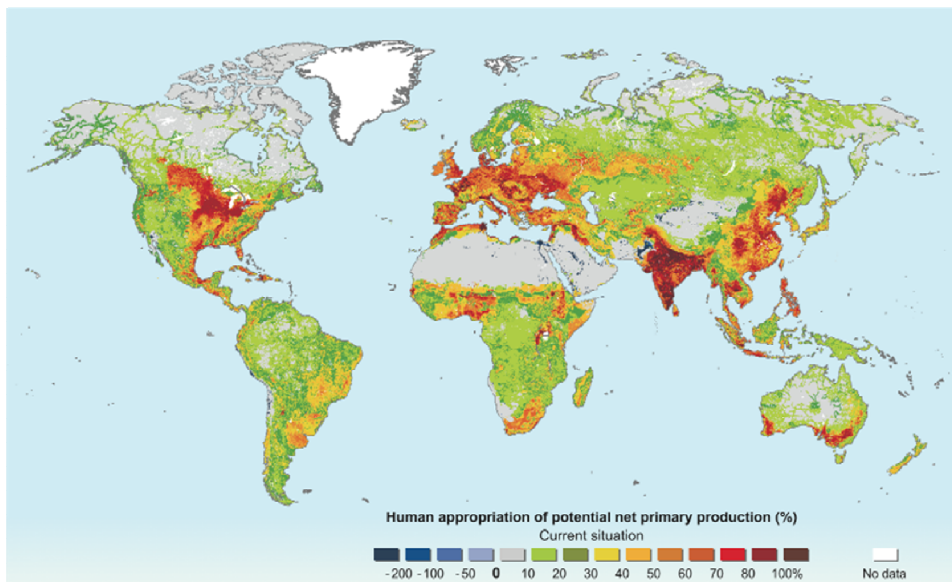


Figure 3. Human use of terrestrial ecosystems in terms of primary production appropriation (EEA 2010b, based on Haberl et al., 2007)

Climate change (figure 4) is such a wide reaching feed-back mechanism that has caused major concern and policy responses at

global, national and regional levels. Urban design is a major tool for adaptation to climate change. Adequate and timely planning of urban and industrial development, water defence mechanisms and sewage systems in areas that will be increasingly prone to flooding is crucial (figure 5).

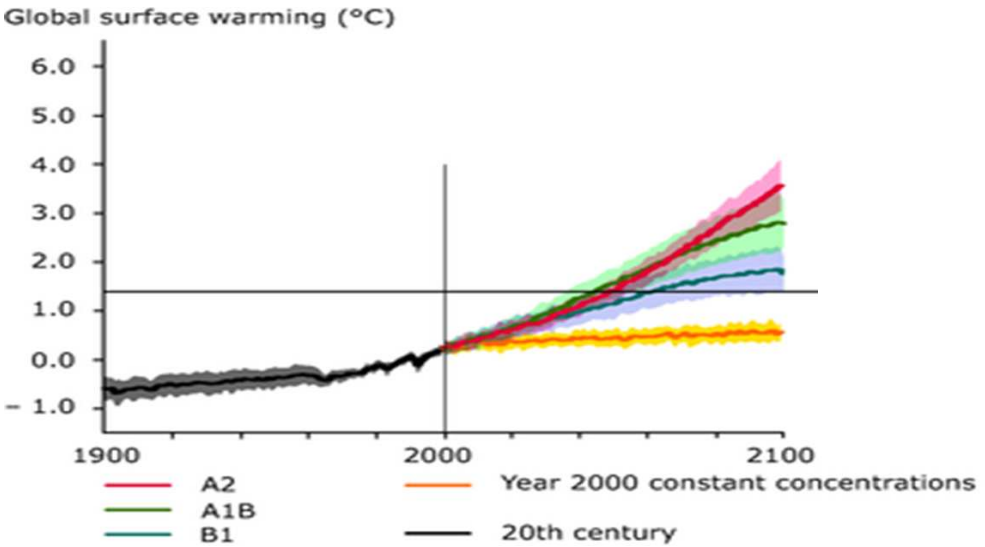


Figure 4. Climate change projections in different scenarios (EEA, 2010a based on IPCC).

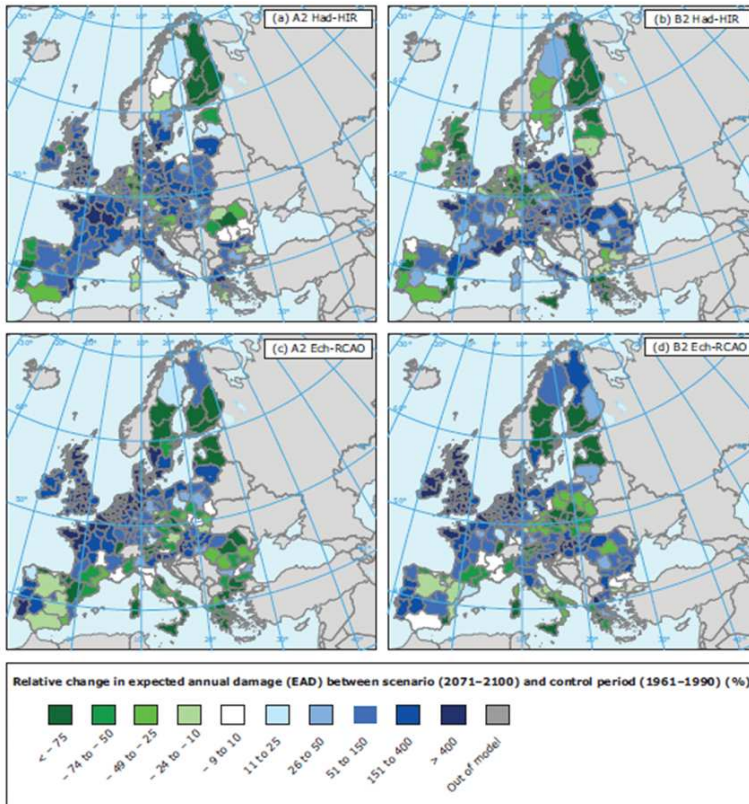
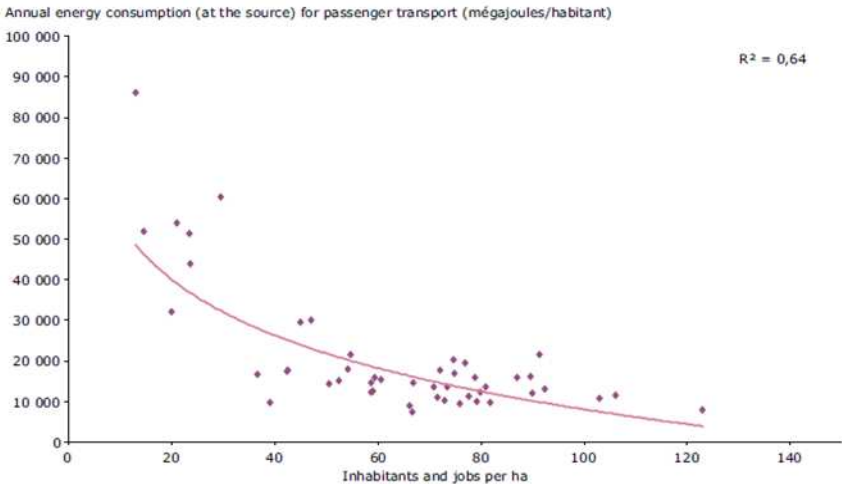


Figure 5. Expected impact of climate change on future flood damage (EEA 2010c, based on Feyen et al., 2010)

Urbanisation and urban design can also help mitigating climate change and preventing biodiversity loss. Greenhouse gas emissions are to a considerable degree caused by energy use for transport and heating. The emissions per capita are generally lower in urban areas

than in rural areas, due to more efficient transport (figure 6). Further gains can be achieved by compact housing. On average the space occupied per capita is lower in urban areas. The current trend, however, is that urban areas grow faster than the population, indicating an increasingly dispersed urban development. This urban sprawl leads to fragmentation of natural habitats and ultimately to biodiversity decline. Compact development and more restrictive spatial planning could counteract this.



Source: Mobility in Cities Database, © UITP, 2006.

Figure 6. Energy efficiency as a function of population density (EEA, 2009, based on UITP, 2006)

Scenario studies are great to analyse development perspectives and help finding solutions, particularly if participatory storyline development is combined with quantitative modelling. Involving stakeholders enhances legitimacy and relevance of scenario studies and facilitates the implementation of ideas, whereas the underpinning quantitative modelling can increase credibility and scientific rigour. The experiences with PRELUDE³², a land use scenario study conducted by the EEA, confirm the value of this approach (EEA, 2007; Volkery et al. 2008).

Perhaps more important than the concrete PRELUDE scenario results were the process gains. PRELUDE built a platform for discussion rather than a set of predetermined response mechanisms. This ‘eye-opener’ potential is the true added value of a participatory approach: bringing actors together who do not normally meet, to discuss issues they do not normally discuss. Relying on co-development of knowledge, participatory foresight studies enhance credibility, relevance, legitimacy and creativity of planning concepts, and may ultimately lead to better solutions.

Summary: Drawing on recent EEA analyses, particularly the ‘European Environment state and outlook 2010’ report, this contribution looked at challenges for urban design from an environmental perspective. Europe’s environment is affected by a

³²<http://www.eea.europa.eu/multimedia/interactive/prelude-scenarios/prelude>

number of global megatrends, including human population growth, urbanisation, biodiversity loss and climate change. More efficient use of our resources, including land, water, energy and raw materials, is needed to maintain natural capital and ecosystem resilience. Urban planning offers opportunities in this respect, allowing smart energy grids and transport infrastructure, as well as compact and energy-efficient housing. In this context, participatory foresight studies, combining qualitative storyline development and quantitative modelling, have many advantages over traditional policy approaches. Relying on co-development of knowledge, they enhance credibility, relevance, legitimacy and creativity of planning concepts, and may ultimately lead to better solutions.

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THE ROLE OF URBAN FORESIGHT IN REGIONAL POLICY

CORINNE HERMANT-DE CALLATAÿ³³

Foresight plays a role as a source of information or inspiration for the general context in which regional policy is to be implemented. Recently, two foresight exercises have been conducted in the context of the ESPON programme, one of which on "Future Orientation for Cities (the FOCI study). Under the request of Commissioner Hahn, the Unit responsible for "Urban development and territorial cohesion", in the Directorate-General for Regional Policy of the European Commission, has carried out a reflection process from 2009 to 2011 on "Cities of Tomorrow". These are three examples of the use of foresight in regional policy.

As highlighted by Moritz Lennert (Université Libre de Bruxelles, IGEAT), who coordinated the ESPON-FOCI study, the choice of policy is not only about facts, but also about paradigms and ideologies. This is why foresight may play a key role in feeding the political debate. Impacts of fundamental policy choices are

³³ Corinne Hermant-de Callataÿ, Urban Development and Territorial Cohesion unit, Directorate General for Regional Policy, European Commission

extremely complex to predict, especially at territorial level. However, scenarios can help to create images, elucidate factors and provoke debate. The choice of possible scenarios very much depends on the political objectives which are pursued in building these scenarios.

Scenarios do not aim to formulate predictions. But they can provide inspiration. Several findings may be summarised from these different exercises.

The 2006 ESPON “Scenarios on the territorial future of Europe”

ESPON scenarios have launched an awareness-raising process about new territorial challenges, search for appropriate policy responses and revisiting issues related to the cohesion/competitiveness debate.

The ESPON Scenario has shown various possibilities for the long-term evolution (2030) of the European territory based on three scenarios: a cohesion-oriented scenario, a competitiveness-oriented scenario and a baseline scenario. The two first scenarios provide images of the possible impact of either a cohesion-oriented or a competitiveness-oriented policy.

In the cohesion-oriented scenario, there is a focus on weak regions, strong proactive environmental policies, active territorial governance, constant public spending levels, cohesion-driven infrastructure investment choices, restrictive migration policy.

The related map (see below) reveals a less concentrated, but more widespread pattern in respect of the attraction and polarisation potentials of metropolitan areas in 2030. Urban settlements are characterised by greater polycentricity, stretching over much larger areas of the European territory than in the trend scenario. The number of areas at risk of marginalisation and of declining activities is comparable to that prevailing in the trend scenario, but their size is reduced and their intensity lower. The areas with high potential for tourism and retirement as well as those with relentless population ageing remain similar to the trend scenario. The resulting impacts of natural hazards (drought, fires, and floods) are much lower than in the trend scenario.

Another basic difference with the trend scenario is the emergence of several peripheral integrated zones. The area of concentration for flows and activities, the successor of the former pentagon of the early 2000s, has a wider reach than in the trend scenario and includes a larger number of cities in the inner periphery.

Source: ESPON project 3.2 - Spatial Scenarios and Orientations in relation to the ESDP and Cohesion Policy
http://www.espon.eu/export/sites/default/Documents/Projects/ESPON2006Projects/CoordinatingCrossThematicProjects/Scenarios/fr-3.2_final-report_voll.pdf

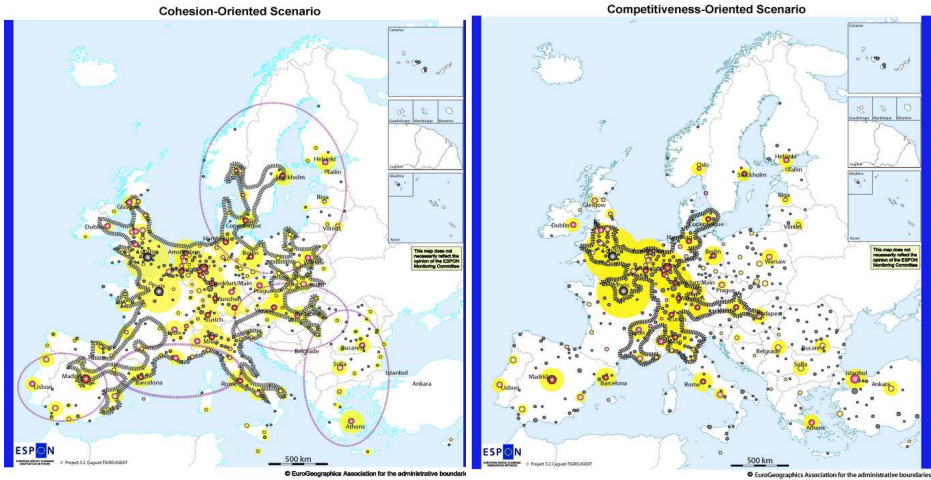
In the competitiveness-oriented scenario, there is a focus on the strongest potentials, reduction of EU budget and of public intervention, increased privatisation, infrastructure investments and

both market- and cost-efficiency-driven environmental policies, open migration policy.

The related map highlights the fact that the attraction and polarisation potential of metropolitan areas is particularly strong and concentrated in the traditional Pentagon. Only very few metropolitan areas beyond it are able to generate significant attraction and polarisation effects. The area of concentration for flows and activities is much more limited than in the trend scenario. It covers only parts of the traditional Pentagon, although it also extends out along a few major corridors, to reach Vienna and Copenhagen. The risk of rural marginalisation is much more intense than in the trend scenario. The areas at risk of declining industrial activity are more extended than those in the trend scenario and the intensity of risk is also higher. External migration flows are particularly intense. The areas with high potential for tourism and retirement are similar to the trend scenario, but the areas with relentless population ageing, generally in remote rural regions, are more extended. The resulting impacts of natural hazards (drought, fires, and floods) are more intense than in the trend assumptions.

Source: ESPON project 3.2 op.cit.

In the maps below, attraction and polarisation potential of metropolitan areas are described in yellow (darker or lighter yellow according to the level of concentration). Boundaries in grey describe the areas of concentration of flows and activities.



The authors of this work invite the potential policy users of these scenarios to raise some basic policy questions: should territorially 'balanced' distribution of population and production be a policy goal? Can policy explicitly accept certain trends of marginalisation/depopulation? How much influence does policy really have on the capacity of declining regions to reverse the trends? If focused on competitiveness, do area-based, territorially-coordinated policies bear risk of increasing inter-regional disparities?

Another interesting lesson to be drawn from the work of ESPON on scenarios is the identification of four main challenges for Europe:

climate change; energy; an ageing population and globalisation. Scenarios and categorisation of challenges were very useful for feeding the long term visions and context of regional policy. However, it gives more visibility to challenges which can be assessed from a quantitative point of view. For example, a challenge such as social polarisation was not given much emphasis in the analysis as there are no data at regional level to support foresight in this field.

Future Orientation for Cities (FOCI)³⁴

Another study of the ESPON programme is focused on cities as objects of study, policies and foresight.

In this context, a general review of the state and perspectives of cities has been conducted and the work programme included several strands: a review of policy visions and policies on cities in Europe; an analysis of new knowledge on cities regarding urban extension and form, social cohesion, economic development, city/hinterland and cooperation.

³⁴ This study was conducted by a consortium coordinated by IGEAT (Moritz Lennert, G. Van Hamme, C. Patris) with many partners: EUROREG; Géographie-cités; GeoVille; IGUL; NTUA; TERSYN; UAB; Université Paris-Est, LVMT, Inrets; University of West England. Results are available at: http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/foci.html

In analysing indicators of the *Urban Audit* and of the Perception Survey on quality of life in European cities, the study highlights the importance, for social cohesion, of good health and education systems as well as urban housing policies. According to gathered data, there is a correlation between "social cohesion" indicators and the Gross Domestic Product (GDP per head) at the EU 27 level – given the great diversity of countries involved – but no correlation at the EU 15 level.

The report raises another key question: is agglomeration a strength *per se*? The answer is not straightforward. There is no scientific evidence of the superiority of large agglomerations *vis-à-vis* small and medium size cities: *"Agglomeration economies are an undeniable fact proven by the mere existence of cities - but we have no idea which ones, and how they play out exactly. (...) Agglomeration diseconomies are also observable - but we have no idea if there is any threshold beyond which these diseconomies outweigh the economies"*³⁵

Either encouraging agglomerations, or limiting their growth in encouraging a more polycentric urban development, is a matter of political choice, as may be the choice between growth and diseconomies.

³⁵ Presentation of ESPON-FOCI by Moritz Lennert (IGEAT-ULB, Bruxelles)

In the study, specific attention has also been given to the future of cities with the elaboration of scenarios to assess the upcoming challenges for cities, which are based on two possible hypotheses:

- “Green Economy”: swift crisis recovery at global scale with a European focus on the green economy and new energy paradigm
- “Enhancing the European potential”: no swift recovery at global scale with a European focus on cohesion, reinforcement of European industries and regional potentials

It is interesting to see how the two hypotheses impact on different scenarios ("scenarios" in column 1; "green economy" in 2; "enhancing the European potential" in 3):

| | | |
|--|--|---|
| Macro-territorial aspects | Slow expansion of growth from the Pentagon outwards | Rather balanced development of urban systems |
| Winning metropolitan areas | Metropolitan areas and international gateways | Centres of national trade networks + cities along TEN |
| Hinterlands of metropolitan areas | involved in the development process, first in western Europe, then elsewhere | High diversity according to regional potentials |

| | | |
|---|--|--|
| Remote medium-sized and small towns (SMT) outside metropolitan regions | SMT with an industrial basis negatively affected; improvement in a later phase | SMT benefit from development opportunities based on a pro-active regional policy |
| Networks of cities Cooperation/competition | Large scale specialised cooperation networks. Global competition. | Progress of intra-European networking benefitting also to medium-sized towns. Intra-EU competition. |
| Sustainability | Compact urban forms serviced by public transport – new green technologies | No uncontrolled metropolitan expansion. Balanced evolution of the settlement pattern |
| Social polarisation and tensions | Possible increase of social segregation in large cities. | Social policies in cities (housing, urban reg.) reduce social segregation |

A range of other policy questions are raised by the report with respect to:

- Sustainable growth: Is city form important for sustainable growth? How sustainably are European cities developing?

- Inclusive Growth: How inclusive are our cities' economies?
- Smart Growth: How are cities preparing for smart growth? How are cities linking into the global economy?
- Territorial Cohesion: Where are the missing links of territorial cohesion? Where are our cities headed?³⁶

“Cities of tomorrow”

A reflection process was launched following a request by the European Commissioner in charge of Regional Policy, Johannes Hahn. The aim was to conduct a prospective analysis of cities, within a horizon beyond 2020 and to feed the reflection on the Cohesion Policy post-2013

Experts from a diverse set of fields (urban planning, sociology, environment, economics, technology, architecture, etc) have been invited to a series of hearings as well as stakeholders, including city representatives and European associations

Three milestones have been defined for joint work with some 70 experts involved:

- Identifying the long-term challenges in the framework of overall policy objectives (Europe 2020)

³⁶ Presentation of ESPON-FOCI, op.cit.

- Debating and identifying visions and models and their coherence with the challenges identified;
- Tackling the governance issues; discussing the best policy response to support a transition towards more sustainable urban areas in a social, economic, environmental and territorial perspective.

The story line of the report is as follows:

- 1) Cities are key to the sustainable development of the European Union
- 2) The European model of sustainable urban development is under threat
- 3) There are opportunities to turn the threats into positive challenges
- 4) New forms of governance are essential to respond to these urban challenges

Several key messages of the report may be underlined:

- Not focus only on sectoral challenges but transversal challenges

- ✓ Foster cities' attractiveness (e.g. develop public open spaces; culture, creativity and cultural/industrial heritage; safety and security);
- ✓ Accelerate transition towards a sustainable city given the inherent inertia of infrastructure provision
- ✓ Territorial coherence and cohesion (e.g., urban/peri-urban cooperation, cooperation metropolis and its hinterland; urban/rural linkages).
- The need for an integrated approach to challenges (e.g. avoid the "decoupling" of economic and social development; "green and inclusive" scenarios)
- Provide responses to multi-level, multi-objective and multi-stakeholder policy challenges
 - ✓ Challenges do not respect administrative borders
 - ✓ Challenges cannot be addressed individually; their interrelations and contradictions need to be properly understood

The administrative city needs to be complemented by flexible levels of governance which may address the functional geography of urbanised space.

A final report was published in October 2011. It can be found on the INFOREGIO web site at:

http://ec.europa.eu/regional_policy/conferences/citiesoftomorrow/index_en.cfm (English version; translations of the report; executive summary and conclusions in all languages).

Other material are also available on the web, such as presentations and proceedings of three workshops and a series of five thematic issue papers on "Urban environmental challenges", "Urban economic challenges", "Urban social challenges", "Urban governance challenges" and "A Mapping of urban foresights" as well as a synthetic report on "Good practice case studies of cities tackling challenges".



ROUND-UP OF THE ATELIER ON URBAN FORESIGHT AS A TOOL FOR TERRITORIAL GOVERNANCE

(Held on 15 September 2011)

I. Introduction

The fourteenth atelier of the **Committee of the Regions (CoR)** focused on the theme "Urban Foresight as a tool for Territorial Governance". It was held at the CoR premises in Brussels and gathered together eminent policy and academic experts, as well as representatives of European cities and regions.

II. Introduction to Territorial Urban Foresight: What added value for the European Union?

The conference was opened by Mr. Gerhard Stahl, Secretary-General of the CoR. Mr. Stahl clearly stated that the very essence of the European Union and the CoR was to be a political answer to a quickly changing world. The European Union tries to provide new institutional structures and new instruments – such as the European Semester, the Europe 2020 Strategy, Euro-Pact-Plus – for embracing a new environment in which economic development, innovation and migration require that traditional national barriers be transcended. As a matter of fact, cross-border cooperation is intensifying throughout Europe. For instance, the European Grouping of Territorial Cooperation instrument encourages the establishment of public services beyond frontiers. Similarly, macro-regions and metropolitan areas are developing across borders. For example, Malmoe and Copenhagen have basically merged into one city located into two member States. Therefore, cities and regions are increasingly taking responsibilities for their own people and their own future, serving first and foremost citizens belonging to a coherent and cohesive urban area rather than citizens of a National State. Moreover, current policy challenges are now impacting on cities and regions. Information and innovation, climate change and the green economy, demographic change and migration, the multi-lateral and the multi-polar world, have to be tackled with policies for which local and regional authorities (LRAs) are responsible. Consequently, a new model of political governance and economic development is clearly required to address these developments.

In order to strengthen the role of LRAs within this changing European Union, the Committee of the Region issued its *White*

Paper on Multilevel Governance (MLG), which confronts the European Union and national actors with the need to change the established policy-making process. The principle of subsidiarity is also a cornerstone of Multilevel Governance, which, from the CoR's perspective, means developing a way to work together in order to resolve policy problems efficiently. Multilevel Governance and territorial foresight are also linked when addressing the issues of democracy, sustainable long-term development and territorial partnership. In other words, what can be done to build up stable, efficient and measurable relationships between different actors, and how? This is undoubtedly the central question in the current political context.

Urban foresight is a behavioural and political activity about people and the future. Agreeing with Mr. Stahl, **Professor John Ratcliffe** pinpointed limited cooperation of stakeholders as being a key issue. Collective planning can be best achieved through strategic urban foresight led by an enlightened leadership which address changes. With that in mind, Professor Ratcliffe argued that foresight groups should be run by disinterested actors, such as universities, which are generally open-minded and free of vested interests, rather than local authorities or business communities.

Furthermore, Professor Ratcliffe advocated the adoption of a **new mindset** based on: a conceptual awareness of territories and city-regions as complex and adaptive systems; technical expertise; a common understanding of the processes in place within the urban foresight exercises; and creative thinking. Creativity is the

cornerstone of this new mindset and should frame foresight processes. In particular, Professor Ratcliffe emphasised:

- Framing the questions by identifying and conducting strategic conversations with the relevant key players, who often are not the "usual suspects";
- Scanning the horizon by consulting "remarkable people", who see the world through different lenses;
- Forecasting alternative futures using creativity in order to avoid the pitfalls of rehearsing 'alternative futures' (e.g. sustainable development);
- Visioning by observing and imagining the **strategic long-term options**. On this matter, Professor Ratcliffe warned against confusing visioning with a branding exercise for promoting and marketing the city;
- Strategic options should launch a dynamic for change but keeping in mind that "**small things can have huge effects**".

The challenge of urban foresight is clearly to embed future thinking in the culture and process of an organisation. In other words, get people to think outside the box and to challenge assumptions. Therefore, enlightened leadership is a vital element of element of urban foresight.

The introductory session stressed the vital relevance of the **regional** and **city** level of governance. Regions and cities are becoming increasingly complex places. Moreover, cities are facing global challenges that can only be tackled through **leadership, partnership** and **creativity**. It was emphasised that:

- The current economic environment is increasing pressure on LRAs, often leaving cities tackling global issues with a very limited budget, which could be also **a window for creativity and innovation** to find **a new economic and development model**;
- Relevant foresight should **connect with real stakeholders, people, and their real concerns**. Key stakeholders and key leaders are not necessarily the obvious ones. Spending time identifying these key actors is critical to successful urban foresight;
- Urban foresight is **a tool** for collaboration and cooperation, for creating networks and embracing the complexity of urban areas.

III. The Atelier Debates: Sessions

Session 1: "Urban foresight as a tool to help decision-making"

Philippe Destatte introduced the first session, which explored to what extent foresight is a significant and useful tool for policy-makers and citizens to understand, shape and build 21st century cities. At stake is building the capacity of LRA and EU's institutions to answer to future challenges. Foresight aims at identifying coming evolutions **and** achieving a desirable future. Therefore, agreeing with Professor Ratcliffe, **Philippe Destatte** considered leadership as being central to urban foresight. Citing Millenaire 3 in Lyon and Nord-Pas-de Calais 2020 as examples, **Philippe Destatte** raised the following question: Is urban foresight able to create a bottom-up environment with a collective leadership?

The talks during the first session were organised on 3 themes: **identifying new issues, building desirable collective visions and drawing up strategies.**

Theme 1: Identifying new issues

Philippe Destatte: How to identify long-term issues and challenges in a quickly changing society with increasing uncertainty?

30 years ago, urban development was based on the prediction of the evolution of exogenous variables, such as energy prices or interest rates. Nowadays, cities' evolution is linked to endogenous variables. Cities are therefore developing **an adaptive capacity to**

developments that cannot be predicted or controlled. Additionally, **Jean Haëntjens** mentioned that possibilities for urban development had multiplied. Bilbao has triggered off its development through culture and is now a dynamic city with a high-technology based economy. Similarly, Stockholm and Gothenburg have decided, regardless of developments in the oil market, to be energy sufficient by 2050. In other words, the **political will of local actors has the capacity to remove an external threat and to create new opportunities.**

Despite acknowledging changing conditions, **Frédérique Parrad** argued that **structural trends are still shaping urban development.** Nord-Pas-de-Calais (NPC) was an industrial region which suffered greatly from the deindustrialisation period, and the region is still recovering. In addition, people have become pessimistic and have difficulty believing in a positive future due to the current economic crisis. In response, NPC is developing a culture of "**resilience**", which consists of nurturing the capacity of local society to adapt and rebound after a social or economic shock. Not passive, the strategy of "resilience" looks at change as being an opportunity to move forward and to **develop potentialities.**

Philippe Destatte: Are urban issues and challenges the same everywhere or are they specific to each city?

In spite of existing local specificities, **Joe Ravetz** stressed the clear common **paradox between globalisation and localisation.**

Currently, issues, such as economy, culture or migration, appear to be more and more global. At the same time, local issues are gaining prominence. People are focusing on quality of life, meaning in their life, work or community. **Cities are made of movement, flows and relationships**. Local communities are flexible, adaptive and difficult to observe, integrate and dialogue with. Therefore, experts have to be cleverer, more complex and more strategic when identifying key stakeholders.

Philippe Destatte: From a practitioner point of view, how is foresight perceived?

Crises, even sectoral ones, **open a range of opportunities**. Notably, **Paul Lecroart** mentioned Seattle, whose mayor engaged the city and other main US cities in a sustainable development strategy due to water supply shortages. Importantly, **Paul Lecroart** stressed on the **negative effects of political and institutional fragility on urban foresight**. For instance, the Ile-de-France's representatives were reluctant to undertake an urban foresight activity that would eventually come up with different development visions and strategies than those already framed and put in place by politicians. Finally, **Paul Lecroart** reiterated John Ratcliffe's statement that it is vital to spend time identifying the so-called "remarkable people" and listening to them because communities and civil societies are prompting change and evolution within institutions and administrations.

Theme 2: Building collective desirable visions

Philippe Destatte: On one hand, visions are subjective and to some extent immaterial. On the other hand, the final outcome should be to formulate concrete strategies that may result in particular infrastructure being built. How is this contradiction managed?

Jean Haëntjens identified three different roles in shaping visions:

- political leaders define the ambitions and values;
- the technical team develops an appropriate strategy, thereby producing a technical vision;
- civil society and communities participate in shaping the vision. For instance, *La fête des Lumières* questions actors, such as artists, on how light could serve the development of Lyon.

The challenge therefore is to coordinate and to balance these three visions into one. According to **Jean Haëntjens**, this is the role of the technical team.

A specific territorial approach to future challenges is critical simply because regions and territories, within their boundaries, directly connect future challenges and people's expectations. **Frédérique Parrad** specified that NPC has a tradition of foresight since the 70s-80s. It was initially a technocratic process but the region moved to a more participatory approach in the 90s led by new political leaders. This Region-led long-term dynamic will be strengthened in the

following months and years. Based on this experience, the way to obtain common vision between stakeholders is **democracy**, which is the capacity to peacefully and consensually regulate relationships within a troubled environment. Foresight proposes alternative approaches to the future and choices are to be made on the principles of democracy.

Philippe Destatte: How can people be involved in building a common vision? Is there a real capacity to produce new ideas?

Joe Ravetz stressed the fact that there is no single vision anymore. **People are creating new ways to develop visions** through social networks or grassroots movements, for example. One could say that people taking part in the recent riots may have different views on what is right, wrong or desirable, and about the future. Currently, society is experiencing a "jazz period", as stated by John Ratcliffe, wherein the number of actors has multiplied. The challenge is therefore to bring them to work together.

Philippe Destatte: Is there a common platform in building vision throughout Europe?

Paul Lecroart argued that a **common platform exists within the EU** but this platform is informal, not written. As a result, sharing experience is an efficient tool for creativity and innovation. For

instance, elected officials, travelling to another city to analyse how things were happening, nurture new ideas and produce decisions.

Theme 3: Elaborating strategies

Philippe Destatte: How can long-term issues and collective visions be articulated to shape credible and workable strategies?

Decision-makers, inside and outside the city, get involved into urban foresight if it offers a value to them. If no money is left to finance urban development, decision-makers outside the city, such as banks, are reluctant to invest. On the other hand, insiders, such as local communities, have a different understanding of value and can do a lot without money, such as childcare or environmental protection. Therefore, **Joe Ravetz** stressed the importance of analysing and becoming aware of the way "**value**" is **circulating** around the city and layers of governance.

Philippe Destatte: Is foresight in contradiction to strategic planning?

According to **Jean Haëtjens**, urban foresight produces **coherent and cohesive strategy** because it is a "**touch and go**" process that **links internal contradictions together**.

Experimentation is crucial in urban foresight. **Paul Lecroart** suggested using temporary urbanism to conduct experimentation. *Paris Plage*, for instance, is first and foremost a reflexion about cars in the city. **Paul Lecroart** also pinpointed the importance of **identifying the passive forces** that will impede, slow down or undermine the project.

Philippe Destatte: Is the methodology of urban foresight evolving?

Previously, urban foresight was a "one shot" exercise. It is now becoming a permanent process. Ongoing foresight requires institutional support to keep actors mobilised. Citizens have strong expectations towards politics and public administration. In other words, institutions and politicians have to deliver despite the complexity of governance structures. At the same time, **Frederique Parrad** warns against the risk of too much personalisation of the leadership role. It is important and complex to put in place a foresight network that does not depend on one person.

The discussion emphasised that today's cities are developing their capacity to adapt to unpredictable developments. In order to build this capacity, some elements are required:

- Take into consideration the complexity of city, which requires an **inclusive** and **democratic** approach to foresight. Consequently,

the challenge is to involve the diverse actors within cities, to **manage** and **bring together** the variety of visions produced into a **coherent** and **cohesive** urban development strategy;

- Institutions have a significant role to play; however, institutional fragility and institutional personalisation both can produce **strong negative effects**. A **balance** has to be found to make room for alternative actors, design processes that lead to decision-making, maintain awareness in order to react to change and evolution;
- **Experimentation** is the key word to innovation and alternative futures.

Session 2: "Visions and Trends for 21st Century Cities"

The second panel explored long-term visions for cities. In this respect, **Corinne Roël** stated that there was currently a consensus on the need to move towards sustainable cities. However, the definition of "sustainable city" remains diverse from one city to another, which leads to wide range of strategic choices and projects.

Additionally, the second session raised the issue of how to avoid competition between different scaled visions, objectives and strategies.

Voula Mega, Senior Policy Analyst, stressed the links between innovation and foresight and the local and European level. In

particular, she called for **forward studies able to feed EU policy-making**. Radical changes are happening outside Europe, in Asia in particular, but in Europe 80% of the population is already living in urban areas. Cities clearly are central to social and human development. Indeed, cities are a crossroads of people and influences, concentrating creativity and innovation and give birth to an active citizenship.

In order to achieve sustainable urban development within the current context, all the issues encompassed by the concept of sustainable development have to be tackled **at the same time**. It is therefore only consistent that the Europe 2020 strategy aims at achieving smart, green and inclusive growth. Within this framework, urban foresight brings in **long-sighted perspective, creative rigour and social forecasting**, which are vital to urban governance and urban development.

Karima Kourtit presented the Joint Programme Initiative (JPI) Urban Europe, which aims at creating synergies and empowering cities to deal with change. JPI Urban Europe works with decentralised cities through a bottom-up approach across 15 countries in Europe. The foresight exercise of Urban Europe has identified 10 mega trends and strategies encompassed into 4 pillars: mobility, ecology, economy and innovation and society. Most importantly, Urban Europe works on the **interfaces** between these 4 pillars. For instance, Urban Europe raises the question of what ecology means for mobility and the economy. In addition, this foresight exercise has already made it possible to identify main

issues for 2050: the urban megatrend, urban network connectivity and the socio-environmental sustainability of cities.

Isabelle de Boismenu presented the example of Rennes in Brittany, France. Within this project, foresight was a tool for addressing and overcoming difficulties and contradictions, such as how to manage densification and at the same time maintain the environment and quality of life of the urban area. **Isabelle de Boismenu** detailed the SCOT (Schema de Cohésion Territoriale), a new tool introduced in France in 2000, which requires cities to think about their future. European directives are fit into this SCOT or even strengthen it. **Isabelle de Boismenu** listed 3 assets to foresight: drawing up a common framework, changing the conceptions and the visions, and undertaking actions. She stressed the value of **undertaking foresight throughout the process of urban development**, instead of limiting it to exploratory and visioning exercises. Also, the use of a diversity of tools and techniques was outlined as being relevant to achieve inclusive, creative and responsible urban development. Finally, **Isabelle de Boismenu** advocated the adoption of an interdisciplinary approach between planning and foresight.

Yves Van de Castele presented the current foresight exercise undertaken by Brussels-Capital for the development of the metropolitan area up to 2040. Firstly, a **governance and leadership** issue was highlighted as the exercise is undertaken for the metropolitan area, 135 municipalities, upon which Brussels-Capital does not have authority. Traditionally, strategic planning within Brussels-Capital is formulated in the *Plan Régional de*

Développement Durable (Regional Sustainable Development Plan). The current one identifies 5 challenges in the years to 2020: demographic booming, mobility and pollution reduction, *dualisation* of the city (rich/poor) and poverty in general, and the international dimension. In the meantime, Brussels-Capital adopted a foresight approach to encompass the metropolitan area, **take into consideration competition within the geographical area** and plan urban development into the long-term future. Currently, two exercises are being undertaken following three stages: establishing a diagnosis, building a vision for 2040 and a proposal of action for 2020. The first exercise aims at building a vision for the RER zone, which spreads 30km around Bruxelles in Flanders and Wallonia. Brussels-Capital received three very different proposals, albeit with a common feature of defending polycentric urban development. The second exercise is organised around a set of workshops bringing together public servants, cabinet's staff, academics and NGOs. In addition, a citizen forum with 35 people representative of the population within the metropolitan area has been created. In terms of methodology, **Yves Van de Castele** outlined two limitations: the **lack of representativeness** of selected participants and the **lack of engagement** within the citizen forum. Despite these limitations, Brussels-Capital aims to establish, by 2012, an action plan based on the conclusion and proposals of these two foresight exercises.

Kepa Korta explained the case of San Sebastian, which drew up an urban strategy for 2010, based on the development of strategic economic activities, such as neuroscience, bioscience, NITC. One of the outcomes is selection as 2016 European Capital of Culture

confirming the international dimension of the city and its success in reinventing itself. San Sebastian has recently ratified a new strategy for 2020 giving a central place to "**invisible infrastructures**" which are crucial in the **relational-based model of city**. Social innovation facilities, a governance institute and a peace and human rights centre are some of the projects planned under this new strategy. The main objective is to increase the cooperation in knowledge and knowledge management, politics, and social innovation to ultimately make a difference in terms of **quality of life and happiness when living in an urban area**.

The debate focused on practical examples highlighting the strengths and pitfalls within the practice of conducting urban foresight exercise. Most participants agreed on the **creative, long-term perspective** and **collaborative** aspects brought by foresight methodology. Additionally, participants agreed on the valuable capacity of foresight to address contradictions. However, it was equally emphasised that:

- Forward looking exercises are difficult to transfer into **practice**;
- **Urban foresight takes place in an institutional architecture** which does not necessarily encompass the **cohesive urban area**;
- Inclusiveness raises the issue of **representativeness** and **participation**, which is complicated to achieve effectively even on a city scale;

- Urban foresight should also aim at achieving **subjective and non-measurable elements**, such as quality of life and happiness.

Session 3: "What Role for Urban Foresight in European Policies?"

Ibon Zugasti framed the round-table by asking three questions: What can accelerate the achievement of the European 2020 targets? What is the role of urban foresight processes in the success of European policies? What do bottom-up and top-down approaches bring to these policies?

Ken Ducatel introduced the Europe 2020 strategy and explained the flagship initiative *Digital Agenda for Europe*, which essentially consists of providing high-speed broadband access across Europe. Under this flagship initiative, the challenge is therefore also to try to build a **local digital agenda**. EU policies are most generally made at a high integrated level essentially because it is really **difficult to customise policies to the specificities of each local or regional area**. However, the Commission acknowledged that **cities are the relevant scale of action** under the Digital Agenda. Cities are the current crunch point, whilst at the same time being on a relatively manageable scale and close to Information and Communication Technologies (ICT) users. The Commission undertook a foresight exercise and came up with the proposal of putting in place an **"Open by default policy structure"** using the internet, social media, etc.

This will make it possible to create more interactivity between the different levels of governance and to articulate the dialogue between the local and EU level. Importantly, foresight allowed **the actors' mindset to be changed and networks to be created**. Furthermore, foresight created **distributed processes by which solutions could be surfaced, tested, embraced and moved forward**.

The SET-Plan, under the Smart City Europe 2020 target, was presented by **Georg Houben** from DG Energy at the EC. Firstly, **Mr Houben** stressed the priority of the EC to **identify common policies across cities**. Under the Smart City, the EC aims to **develop innovative and duplicable solutions, bundling demands from cities, attracting and involving business and banks and creating new markets**. In order to achieve the objective, the EC learnt from past experience, ran a public consultation with business, academics and public authorities and looked back at the experience of Covenant of Mayors or Civitas. Consequently, the SET-Plan is firstly based on calls for proposals from cities in order to **root projects into comprehensive city plans**, and, secondly, on a stakeholder platform to collect feedback and facilitate knowledge sharing.

Ybele Hoogeveen stressed that **the real future does not fit to the predicted future**. It is therefore important to be aware of and to **accept unpredictable change**. In terms of foresight, the European Environment Agency (EEA) ran a prospective study on megatrends, which notably concluded that not much space was left for growth, particularly in Europe. As a result, one of the vital challenges for cities in Europe is **resource efficiency**. Furthermore, **cities are**

impacting on a much wider territory than their own boundaries.

In particular, Ybele Hoogeveen insisted on the intricate relationship between rural areas and cities. Consequently, a "smart city" has to take this fact into consideration when conducting a foresight exercise. From Ybele Hoogeveen, urban challenges come essentially from **a design issue** that can be curved up by being smart enough. In this process, inviting stakeholders to participate to a foresight exercise enhances the credibility, relevance and legitimacy of the foresight. More importantly, it releases creativity and allows uptake of ideas.

Corinne Hermant-De Callataÿ illustrated her intervention using 3 examples: ESPON, the FOCI project and *Cities of tomorrow*. Some key elements came out from these experiences. Firstly, territorial challenges remain to be clarified and better understood by stakeholders. Secondly, policy research should be extended in order to **avoid overlooking vital urban challenges and to explore controversial issues**. For instance, the ESPON project identified **polarisation of cities** as being a critical challenge for the future, but due to the lack of data this theme was not finally integrated into the foresight exercise. Similarly, the FOCI project questioned the relevance of city as social organisation for moving forward a better future. Thirdly, foresight should provide with **provocative pictures** for unleashing creativity. To conclude, Corinne Hermant-De Callataÿ highlighted a vital contradiction, which is that European regional policy depends on the political willingness of nation states to implement it at regional level. The European level strongly

encourages cities to undertake urban foresight, to include civil society and to adopt a holistic approach to urban development.

During the third session, the discussion focused on the **capacity of EU policies to go local** and to act at city level. Despite the EU acknowledging the importance of the "**territorial dimension**", participants highlighted the difficulty for the EU to **directly interact with local actors** and to **shape policies to their specific needs**. However, foresight appears to bring to the surface new ideas to enable EU policies to go local. Additionally, participants drew attention on issues still to be tackled through urban foresight:

- **Resource efficiency** and **polarisation of cities** are the critical challenge of European city that remain to be explored;
- Urban challenges often lay in **design issues**;
- Urban foresight should prepare for **unpredictable change**;
- **Platforms and governance architecture** to enable EU policies to go local are still to be found.

Béatrice Taulègne concluded the workshop by outlining that the current context and challenges call for a change of political mindset – where possible through the use of foresight in policy and decision-making processes. Developing bottom-up approaches was identified as being a key element of foresight and better policy-making. Indeed, urban foresight puts people at the centre of urban development. Also, sharing experience seems to be vital to inspire

and to develop relevant urban strategies. Therefore, the CoR should use foresight to introduce into the current political debate achievable and ambitious strategic options for the future of Europe and European cities and regions. By the end of the year, the CoR expect to put in place a first database of foresight studies at local and regional level, which will enable the CoR to identify trends and strategies within cities and regions. This workshop was a first step in a long-term foresight process.

Key messages:

The context:

Cities are embedded in a **quickly and unpredictably changing world**. Increasingly, cities are interlocked into a paradox between **globalisation and localisation**. Cities are facing challenges such as sustainable development or the limits of economic development, leading to a phenomenon of **greater integration and disappearance of traditional boundaries between the levels of government**. At the same time, **citizens of urban areas** expect answers to their day-to-day concerns, leading to the emergence of quality of life and happiness issues as the main target for urban development strategies. Urban dynamics are as well becoming **more fluid** and more difficult to grasp, therefore also more difficult to tackle at policy level. However, the **current environmental and economic context** urges cities to act now by thinking about their future.

Urban foresight as a tool to address current urban challenges:

Within this context, urban foresight appears to be a relevant tool for cities to build their future. Urban foresight is a **dynamic process** based upon 3 main pillars: **democracy, flexibility and adaptability**, and **creativity**. Urban foresight opens inclusive arenas where contradictions are addressed and citizens can take initiatives for their own future; it relies on the principle of unpredictable change and it aims at discovering and exploring new issues, instruments and synergies.

European regions and cities are increasingly attempting to **use strategic urban foresight** in order to better respond to globalisation. Lessons are to be learnt from these experiences to improve the practice of urban foresight. Furthermore, the **articulation between global foresight, European foresight and territorial foresight** has to be deepened in order to build **comprehensive, cohesive and coherent** urban development policies.

Lessons for the CoR:

- Intensify CoR's bottom-up process **to learn at EU level from territorial experiences;**
- Keep exploring **sustainable MLG approaches for efficient urban foresight;**
- **Urban foresight undertaken by cities and regions could enrich EU policies but more bridges need to be built; the CoR has a role to play here;**

- Citizenship is at the core of effective urban foresight processes and is key to develop sustainable, inclusive and integrated urban policies. The CoR should find ways to reach out directly to **urban citizens**.

Participants:

- **Mr Gerhard Stahl**, Secretary-General of the Committee of the Regions of the European Union
- **Prof. John Ratcliffe**, Principal of The Futures Academy (Dublin Institute of Technology) and Professor of Strategic Foresight at Henley Business School
- **Prof. Philippe Destatte**, Director, *Institut Destrée*, Namur, Belgium
- **Jean Haëntjens**, Economist and Town Planner, Consultant in urban strategies (Urbatopie)
- **Paul Lecroart**, Urban Planner, Urban Planning and Development Agency for the Paris Region (IAU IdF)
- **Joe Ravetz**, Co-Director of the Centre for Urban & Regional Ecology, University of Manchester
- **Frédérique Parrad**, Policy Officer, Directorate for Sustainable Development, Foresight and Evaluation, Regional Council of Nord-Pas de Calais
- **Corinne Roël**, Secretary General, Groupe Futuribles
- **Voula Mega**, Senior Policy Analyst, Relations with stakeholders (ERIAB), DG RTD, European Commission

- **Karima Kourtit**, Management Board, Joint Programme Initiative Urban Europe
- **Isabelle de Boismenu**, Research Director, AUDIAR, Rennes
- **Yves Van de Castele**, Coordinator, Regional Plan for Sustainable Development (PRDD), AATL, Brussels
- **Kepa Korta**, Director, Office of the Strategic Plan, San Sebastian
- **Ibon Zugasti**, Director, Prospektiker
- **Ken Ducatel**, Head of Unit, Digital Agenda: Policy Coordination, DG INFSO, European Commission
- **Georg Houben**, Energy Technologies & Research Coordination, DG Energy, European Commission (*Smart Cities and Communities Initiative*)
- **Ybele Hoogeveen**, Project manager - Nature protection and biodiversity, European Environment Agency
- **Corinne Hermant-De Callataÿ**, Policy Analyst – Urban Policy, Urban Development and Territorial Cohesion, DG REGIO, European Commission
- **Ms. Béatrice Taulègne**, Deputy Director, Horizontal Policies and Networks, Committee of the Regions



OPEN DAYS UNIVERSITY

**"SHAPING EU CITIES IN A CHANGING ENVIRONMENT:
STRENGTHENING URBAN QUALITY IN STRATEGIES
FOR GROWTH AND SHRINKAGE"**

PROGRAMME

12 October 2011

[Charlemagne building, European Commission - Brussels]

14.30–14.45: *Introductory Statements*

- **Mrs. Béatrice Taulègne**, Deputy Director of the *Committee of the Regions'* Horizontal Policies and Networks Directorate

Panels moderated: by **Professor Michael Parkinson CBE**,
Director, European Institute for Urban Affairs, *Liverpool John
Moore's University*, UK

14.45-15.30: *Panel 1: "EU's New Urban Agenda: Opportunities
and Constraints in a Dynamic Domestic and Global
Context"*

- **Dr. Christian Svanfeldt**, Policy Analyst, Urban Development and Territorial Cohesion unit, *DG REGIO*, European Commission
- **Mr. Stefan Kuhn**, Director of Urban Governance team, *ICLEI* Europe
- **Mr. Jean Loup Drubigny**, Head of *URBACT* Secretariat

15.45-16.15: *Panel 2: "Europe 2020 Strategy and EU Cities:
Responding to Demographic and Socio-
Economic Challenges"*

- **Dr. Ivan Tosics**, Executive Director, *Metropolitan Research Institute*, Budapest
- **Dr. Domenico Rossetti di Valdalbero**, Scientific Officer responsible for foresight and forecast activities, *DG RTD*, European Commission

16.30-17.00: *Panel 3: "Implementing Integrated Urban Governance: Policy*

- **Dr. Tadashi Matsumoto**, Senior policy analyst, Public Governance and Territorial Development Directorate, *OECD*, Paris
- **Mr. Eurico Neves**, Director of *Innova Europe* and Lead Expert *UNIC* project (URBACT)

17.15-17.30: Concluding remarks:

Prof. Claude Jacquier, Research Director at the National Centre for Scientific Research (CNRS)

THE EUROPEAN DEMOGRAPHIC CHALLENGE: URBAN PROBLEMS AND RESPONSES³⁷

IVÁN TOSICS³⁸

1. The European demographic challenge and the consequences on national level

For the time being the population of the European Union is growing, despite the very low fertility rate of 1,6 (far below the replacement rate of 2,1). The two factors that mitigate the effects of low fertility rate and thus postpone the population decrease of the European Union are the increasing life expectancy and the immigration from countries outside the EU. The increasing life expectancy falls already now short to counterbalance low fertility rates, thus a natural

³⁷ This short article is based on the following paper: 'The impact of European demographic trends on regional and urban development' written by Éva Geróházi - József Hegedüs - Hanna Szemző - Kyra Tomay - Iván Tosics - László Gere, prepared for the Hungarian Presidency of the Council of the European Union, with the support of the Ministry of Interior, Hungary. The report can be downloaded at <http://www.mri.hu/downloads/publications/Demography.pdf>

³⁸ Metropolitan Research Institute, Budapest

population decrease is just now around to begin. The positive migration balance can only mitigate the natural population decline until approximately 2025, from which time the population of the EU will begin to decrease from its peak of around 520 million.

One of the most visible phenomena of the demographic changes is ageing. Longer life expectancy is a positive phenomenon and characterises the increasing quality of life in the European Union. However, the elderly dependency rate³⁹ will more than double by 2050, from its current 20% to 45-55%. This will put pressure on public spending, especially pensions, health care and social services.

Many argue that a coordinated migration policy is the only way to tackle the coming demographic crisis of the European Union. However, not only the number of migrants counts but also their qualification. According to recent estimates the jobs that need high skills and education will increase by 16 million while jobs requiring low qualifications will decrease by 12 million by 2020. The low integration capacity of many societies poses a further problem: the integration of different cultural behaviours and the fight against social and spatial segregation require extra effort. In the early 21st century political parties with an anti-migration agenda gained ground in several countries, and in addition several EU countries have decided to tighten migration policies and limit the migrant inflow.

³⁹The number of elderly above 65 as percentage of the working age population (aged 15-64).

Demographic processes lead to increasing spatial disequilibria: within the growing Europe the population of the Eastern countries started to shrink earlier: these countries are losing population already now. The emigration of people to the old Member States affects to large extent the highly skilled workforce who could otherwise be the engine of growth in the home country (brain drain). In principle it would be possible to replace these emigrants with talented migrants from third countries - however, these migrants also aim for the growth poles of Western Europe.

2. Differentiation of urban areas and emerging urban development issues related to demographic changes

As a combined result of economic development trends and demographic factors three main types of cities can be distinguished in the long run:

- Cities with strong population increase, mainly due to their economic power (mainly bigger cities in Western Europe). These cities will remain targets and hosts to migrants also in the long run with large challenges to integration policies. As a consequence of the steadily increasing population numbers these cities have to face the pressing demand for additional infrastructure and public services.
- Cities with good economic background and roughly stable population (smaller cities in the Western and larger cities in

the Eastern European countries). Such cities have to pay special attention to ageing, tackling the consequences by redesigning the urban environment, transportation and services according to the new type of needs.

- Cities of complex shrinkage, experiencing at once demographic and economic decline. Such urban areas can be found in the post-socialist EU countries and also in some peripheral areas of Western Europe. The main cause of complex shrinkage is economic restructuring. Shrinking cities have to concentrate on economic recovery, parallel to downsizing the urban infrastructure in order to reach a new equilibrium with fewer residents.

The first group, the dynamically growing cities will have controversial development path. The financial background of urban development and of existing public services will be ensured. However, these cities will face the problem of continuously growing need for human and physical infrastructure. Also immigration creates unfunded tasks on growing cities: while cities face the direct costs of immigration (housing, education, integration), most of the benefits are collected on the national level through the advantages of economic growth. Both the extension of human and physical infrastructure and the integration of immigration groups require inter-governmental cooperation. There are already some good practices on local and national level which can be mentioned:

- In Montpellier, one of the fastest growing French cities, the SCOT planning system, introduced on the level of the urban community (the city and 31 surrounding settlements), ensures the coordination between development of the functional urban area and the public transport system.
- The Scandinavian countries develop overarching systems for the integration of migrants. In the Helsinki region, for example, the national policy for the growing metro areas initiates cooperation between suburban municipalities in speeding up the construction of social housing, increasing the employment opportunities and reducing homelessness.

The third group, the quickly shrinking areas might lose 20-30% of population (in extreme cases over 50%) within 15-20 years. The examples of partly abandoned post-industrial US cities (e.g. Detroit) show, how difficult it is to manage shrinkage in such a way that it leads to increasing quality of life. In Europe new approaches to shrinking areas have been developed in Germany (the eastern part of which suffering the most of this problem):

- In the “Görlitz Probewohnen” pilot project everyone can live for two weeks in renovated inner city flats, to discover the advantages of inner city living.
- In the “Wachterhauser in Leipzig” project empty buildings are offered for different temporary uses, to win time for the decision about these buildings.

- In the overarching „Stadtumbau Ost“ (Urban Redevelopment East) program shrinking cities have to elaborate long-term plans, taking into account demolition and renovation at the same time, in the same areas. The approved plans then get financial support from the federal and the state level.

The most important condition for such approaches is that shrinking should not become a taboo topic. Good strategies for managed shrinking have to be developed together with the population and need public financial support.

Thus both dynamic growth and complex shrinking pose difficult problems to the cities. In order to mitigate such problems the idea of polycentric development across the EU should be raised as one of the aims of the future – to avoid too much concentration (overdensification) in the most developed areas with simultaneous decline (emptying out) in the peripheral areas. For the support of polycentric development more efficient tools should be found than the ESDP (European Spatial Development Perspective) was which largely remained a plan in the drawer.

3. The importance of housing policy to mitigate demographic processes

Housing markets create exclusion. Without public interventions market cities develop which are socially unacceptable and also economically inefficient. Public interventions, based on a substantial

share of publicly owned housing, are important for the mitigation of demographic processes, especially urban shrinkage and the segregation of migrant and minority ethnic groups.

The problems of the market dominated housing systems can be illustrated with the case of the post-socialist countries. The housing stock in these cities consists (since the mass give-away privatization of housing in the 1990s) almost exclusively of owner-occupied units. The lack of social (affordable) housing leads to serious difficulties – families in arrears can very easily end up in homelessness. another problem is the low level of job-mobility as home ownership is a barrier against the move to other settlements (it is difficult to sell housing in lagging areas, and expensive to buy in job rich settlements).

Under such circumstances east-central European cities face the difficult challenge how to ensure the needed public intervention into the ownership dominated housing system. There are several policy options, such as:

- Try to re-gain public involvement and control in the management of individualized owner occupied stock (through the establishment of housing associations, cooperatives).
- Launch public initiatives to increase the offer of rental housing by social renting agencies.

The privatization of the housing stock was much easier than these 'reverse' options, aiming at the increase of public influence over the housing stock. No wonder that there are no good practice cases existing yet in the East Central European countries which would have resulted in the re-creation of a sizeable public rental housing stock in any of the larger cities.

In the larger cities of the Northern and Western European countries social housing is usually still available. Even so, also these cities have to struggle with the rigidity of the housing markets. The growing cities get many migrants, who are usually housed in social housing, concentrated in the most segregated areas of these cities. In order to decrease the spatial segregation of migrant and ethnic groups cities have to intervene into the housing market to create more social mix. One of the wide-spread tools for that is demolishing social housing in poor segregated areas (replaced by new subsidized middle-income owner occupied housing) while building new social housing in better off parts of the city. Such direct interventions, applied e.g. in Lyon, The Hague and many other cities, are hotly debated and many times questioned for their effectiveness.

4. Summary and outlook to the future

The increase of Europe's population is less and less intense and within 15 years or so the decrease of the population will become the reality. This will affect the different parts of Europe in very diverse

ways as in the meantime also large territorial re-grouping of the population is predicted with millions of people moving from the Eastern to the economically more successful Western part of the EU.

This territorial re-grouping can be evaluated in very different ways:

- positively, as a sign of efficiency: the realignment of population along the efficiency of the economy serves the better economic development of Europe and simultaneously improves the net welfare of the population as millions will enjoy better life in more successful regions
- negatively, as a sign of inequality and exploitation: whole regions and countries in the East will lose their most educated people leaving behind only the elderly and the poor, leading to the irreversible shrinkage and decline of the Eastern peripheries of Europe.

Along efficiency arguments (in strict economic sense) the first evaluation has to be supported. However, if social, environmental and cultural considerations are also taken into account, the evaluation changes in favour of the second.

If the EU2020 strategy, i.e. the equal importance of the three main aims and the five headline targets is taken seriously, the European Union can not tolerate the growing territorial inequalities caused by economic development and the demographic changes that follow suit.

In order to slow down the re-grouping of population before it leads to disastrous outcomes, the economically lagging behind Eastern countries and regions have to be supported. Besides financial help also the spread of the know-how of integrated approaches is needed.

For such an European intervention the easiest form would be the strengthening of Cohesion Policy, not only with higher level of financial redistribution but also with more coordination of the recipient countries, heading from the emerging economic governance towards a broader social governance.

It is a real dilemma of the day how such ideas could be realized under the conditions of the present economic and financial crisis. How could the development of a more balanced Europe with the further spread of the integrated approach be ensured, taking the increasingly dramatic situation of growing problems vs. shrinking resources into account? There is no direct answer on this question – even if we know that we should not waste the good crisis to change unhealthy and unsustainable processes.

EUROPEAN FORWARD-LOOKING ACTIVITIES: EVIDENCES AND INSPIRATION FOR POLICY MAKERS

DOMENICO ROSSETTI DI VALDALBERO⁴⁰

Forward-looking activities could be defined in the following way: "It is a sensitive exercise oriented towards the future at the junction of dream and reality aimed at shaping a more sustainable world. Ideally, it uses a combination of qualitative and quantitative methods".

Forward looking activities in the EU cover foresight, forecasting, horizon scanning, technology assessment, impact assessment and prospective. They have a long history in the EU. Examples of such activities at the EU-level can be found at the European Council (cf. Gonzalez Report "Europe 2030", at the European parliament (Scientific Technology Options Assessment - STOA), at the Council and Member States (cf. Joint Programming Initiatives-JPI) and at the European Commission.

⁴⁰ Scientific officer responsible for foresight and forecast activities, DG RTD, European Commission

In the Commission, forward-looking activities came back to the eighties with the *Cellule de Prospective* ("Foresight cell" established by Jacques Delors) and the FAST programme on Forecasting and Assessing Science and Technology. In the 2010 Innovation Union, a plea is made for forward-looking activities to provide more evidence-based EU policy-making. The Commission Multiannual Financial Perspectives (cf. "A budget for Europe 2020") and the long-term planning (cf. Research Framework Programme or Structural Funds) also require a medium to long-term vision.

The Europe 2020 strategy on smart, sustainable and inclusive growth highlights the main objectives and the main road to follow for the next decade. Several European Commission reflexion papers go up to 2050 and are published in the Official Journal of the EU such as the "Roadmap for moving to a competitive low-carbon economy in 2050" and the "Roadmap to a Single European transport Area".

Looking at the "heavy trends", not a single European country is in the list of the largest countries by 2025 (100million+). And in the most favourable case, by 2050, the EU will only account for 17% of global GDP against 29% today. As the Gonzalez Report "Europe 2030" said: Europe is at a crossroads: either we keep and strengthen the role as one of the main global actors, or we become an increasingly irrelevant outgrowth of the Asian continent.

There is EU binomial rethinking: on the roles of men and women; on professional and private life; on individual freedoms and collective responsibilities; on economic growth and social well-being (*Beyond*

GDP); on public and private sectors; on manufacturing and services; on man and technology relation; on the right balance between ethics and progress, between faith and reason. This blurred transition can be perceived as difficult time but also as a time for new opportunities. The future can be shaped by visionary decision-makers. A new economic and social development model can be elaborated. It has to be strongly based on innovative services and products. It has to be connected to sustainable development (cf. resource efficiency) and to welfare (cf. inclusion and cohesion in EU society).

EUROPEAN CITIES IN A FAST CHANGING WORLD – INVESTING IN INNOVATION AND SKILLS

EURICO NEVES⁴¹

Introduction

As one enjoys the cultural and leisure experience of wandering around the narrow streets of historic town centres, often imprisoned within medieval walls, it is impossible not to reflect on how much cities have opened up. Once the fear and rivalry amongst neighbour cities or countries is overcome, cities have jumped over their old defensive walls and extended apparently endlessly across land, sometimes so much as to touch and even merge with other cities, creating extensive metropolitan areas or complex urban networks. Cities have also opened up to people from elsewhere, absorbing new cultures, styles and traditions. Many cities once famous for a single traditional sector have opened up to new businesses and services. Cities and their growth are in fact one of the key engines of a drastic

⁴¹ Director, *Innova Europe*, Lisbon/Brussels

change from a defensive and closed society towards an open global community. And at a time where open innovation is changing the way organisations across the world look at and take advantage of one of society's last "closed fortresses" – the world of research and development – it is worthwhile considering how cities are, turning their own ways, adopting and promoting such innovation methods to effectively 'open up'.

Repositioning Cities through innovation and creativity:

Cities have long embraced the need for innovation – as a driver of competitiveness and economic growth – amongst their top priorities. But most remain strongly traditional in their approach to the topic, with a clear focus on the promotion of the triple helix model through incentives to academic research, support to industry (often through the promotion of industrial or scientific areas, including incubators) and some intervention at the level of local policies, including tax incentives and funding programmes. In short, cities promote innovation by making use of the traditional tools they have at hand, which are awards, land and money. To promote local innovation, cities traditionally try to attract the "right type" of higher education institutions and research centres, the "right type" of businesses and the "right type" of people, and wait for them to play their respective role in the (closed) innovation chain: universities produce people and scientific knowledge, both of which should eventually be used by

local businesses to innovate, taking advantage of the “proximity factor” and making ample use of the locally available work force.

But in our quickly evolving times, the “right type of people” has changed (see Fig.3 below). And so has the “right type of businesses”; now they are knowledge intensive and local education institutions, no matter how good or how big they are, can no longer satisfy their need for (open) innovation and knowledge.

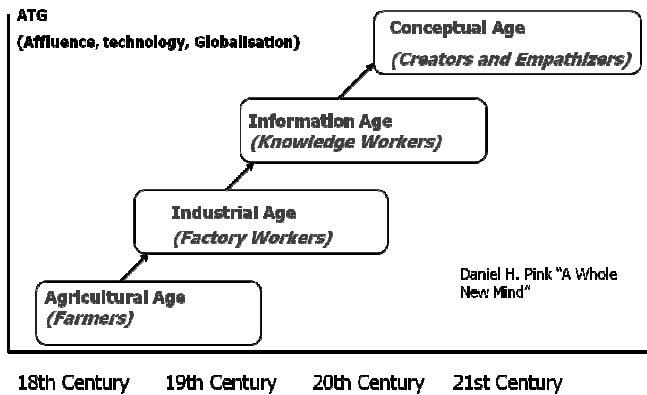


Fig. 1 – 21st century workers

At the same time, cities themselves are facing new and demanding challenges of their own – such as affordable public housing, quality schools, safe neighbourhoods, clean streets, sustainable transport,

amongst many others – and must actively involve citizens to solve them. Cities must not only promote open innovation, they also need to adopt it as an innovative problem solving solution.

Embedding Innovation & Creativity into City-Making:

There are at present two clear, distinct and competing innovation scenarios for local economies:

1. ‘*Hollowing-out*’

- Local companies reaching farther afield to tap into the global network of ideas and skills, and eventually moving out altogether if unable to find them locally.

2. ‘*Agglomeration*’

- Local companies strengthening their local ties
- Local/regional economy emerging as a centre of new knowledge creation and application, stimulating and attracting new enterprise.

In closed innovation days, regional innovation was very much an “agglomeration” game – i.e. developing “*local links*” and thus creating the local conditions to attract and retain the most

competitive firms, and thus secure economic growth and jobs. But today, high technology companies once tied to their locations can now move their production to anywhere in the world. And in a global and competitive world, even the most competitive region will eventually lose in some competitiveness factor to another city or region, and will as a consequence lose companies if playing only the “agglomeration” game. The key nowadays is to create the conditions for companies to be able to “hollow-out” (and “hollow-in”) without having to leave at all – because their region or city has become an “*urban hub*” in the global network of ideas and talents.

Urban innovation in the new open innovation paradigm must combine the creation of local links (that will tie local firms to their local partners and markets) with the conditions for urban hubs (which will be the “highways” connecting local companies with the global base of ideas, skills and organisations), as pictured in Fig. 2 below.

Putting Urban Innovation in motion:

Different cities may address Urban Innovation in different ways, but it is commonly understood that cities can and should play a key role in:

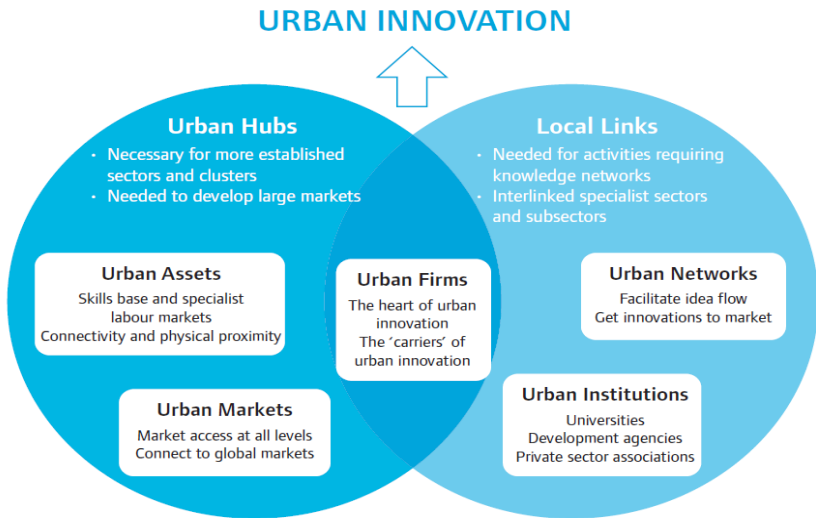


Fig. 2 – Urban Innovation in an Open Innovation context

- **Creating Spaces Where Interactions Take Place: Connected, Interdisciplinary Environments as Living Labs**

In contrast with the type of innovation intermediaries described by Chesbrough consisting of private firms operating largely globally, Living Labs are commonly Public Private Partnerships (PPP) committed to communities that contribute to their funding, often through city councils (such as Oulu, presented as a case study at the end of this article).

Living Labs (short for ‘Living Laboratories’) try to involve users in the innovation process by designing, developing and validating new technologies, products and services with users in real life environments, often using a whole city as a laboratory. Living Labs become an innovation area where users co-create with developers and researchers. It may be argued that they are a first attempt to structure and provide governance to user involvement in a way that can be addressed by companies, research institutions, public organizations and policy makers, e.g. at city level. Also they provide a wide range of services and play diverse roles in the quest for articulating user involvement, from support to leading entrepreneurial users to needs-finding or user experience services. Their goal is the creation of “innovation arenas” where multiple actors can experiment in an open, real life environment. It would be difficult to imagine a better context for Open Innovation.

- **Attracting talent and skills to innovation processes**

Cities can also play a key role in increasing participation in areas of innovation and entrepreneurship, especially by those who are under-represented, by creating conditions that attract a wide range of locals including young people, women, and migrants to the projects being developed in the city. This may include leveraging ‘experienced people’ (may be

retired) who can pass on skills and lessons to those starting off so that experience is reinvested. This could also include efforts to increase the participation of women (50% of workforce) in all areas of business innovation, as women are often much less likely to start a new businesses or to drive innovation within existing businesses.

Another promising area that clearly may fall under the responsibility of public authorities such as city councils is the expansion of entrepreneurship support measures to target young people, who have not attended university and reside in disadvantaged areas, as they are often excluded from regular support schemes although they may possibly be the target group with the greater need and will to take entrepreneurial initiative. The combination of a variety of types of people working together in new working environments is an approach that promises successful results.

- **Setting the technological infrastructure**

A fundamental principle of open innovation is communication, and a wide range of information technologies are now available which allow users to communicate with each other and with product developers so as to inform, if not determine, product development. At a basic level, it is arguable that global open innovation would not be practical without the email and web facilities which

are now standard industry tools. In the meantime, more sophisticated tools have also been developed to inform and assist the process, including web-based tools for management of dispersed innovative communities or websites offering specific forms of expertise of relevance to innovation.

But technology can also be used to assist in the innovation process itself. These ‘Innovation Technologies’ help to create new environments in which people can think about new options; to engage other parties, such as users, in design; to play or experiment with different virtual scenarios and to ensure that other technologies are used to maximum effect in the delivery of product, process, and service innovation. Such technologies may influence the ways in which knowledge is constructed, shared and used. They affect the ways in which we think about and conceive innovations and they affect the way we develop, test and prototype new products, processes and services. These technologies build upon the massive computing power, infrastructure and tools provided by ICT, such as broadband and open systems.

To favour open innovation, cities must of course provide the necessary infrastructures and applications (as illustrated in the Manor City case study at the end of the article), and go along with three main trends:

- The world is becoming equipped with all sorts of ‘instruments’. We now have the ability to measure and

observe almost anything with precision. Sensors are being embedded everywhere: in cars, appliances, cameras, roads, pipelines...even in medicine and livestock. Cities should take advantage of the data and instruments available to them.

- The world is becoming interconnected. People, systems and objects can communicate and interact with each other in entirely new ways.
- All things are becoming intelligent. These instrumented and interconnected things are being linked to powerful new back-end systems that can process the data and advanced analytics are capable of turning it into real insight, in real time.

- **Investing Across Boundaries**

Even if intended for a particular group or sector, most of cities' innovative policies and actions end up affecting most if not all of its citizens. Cities must recognize this fact and invest and promote working together across boundaries, sectors and professions. Innovative policies often require long-term commitment and genuine collaboration between many different agencies, departments and public and private interests and it's the city's governance role to bring them together and try to align them.

Conclusion:

G. K. Chesterton, a well known English writer from the early XX century, once a saying about man that can be nicely paraphrased into cities: there are cities so big that make us feel small, but the real big cities are those that make us feel big.

In a time of mega-cities, innovation is the real key for cities to grow big – they can do it if they embrace open innovation and put creativity and quality of services at the centre of their development, as challenged in this paper.



ROUND-UP OF THE ATELIER ON "SHAPING EU CITIES IN A CHANGING ENVIRONMENT: STRENGTHENING URBAN QUALITY IN STRATEGIES FOR GROWTH AND SHRINKAGE"

(held on 12 October 2011)

I. Introduction

The conference was opened by **Mrs Béatrice Taulègne**, Head of the CoR's Forward Studies Unit. 70 to 75% of EU citizens live in cities. 80% of EU GDP is produced in cities. Clearly, cities are at the heart of the European dynamic, generating the best as well as the worst of it. Besides being economic, cultural and innovation leaders, cities are also places of pronounced inequality and environmental problems, both triggering and exacerbating social divisions within European society. Consequently, the CoR is focusing its research work on urban quality as a new criterion of urban development.

Urban quality initiatives ultimately aim to build socially, economically and institutionally sustainable cities. In this framework, "urban foresight" is a tool to achieve urban quality targets. Urban foresight makes it possible to formulate urban policy on a long-term basis with respect to geographic and demographic trends. In other words, urban foresight addresses urban quality through an integrated and holistic approach. In particular, within the European Union, urban foresight will help to tackle the challenge of an increasingly local world within a globalising world – the so-called "glocalisation" phenomenon. Importantly, good governance and multilevel governance are key to achieving an efficient, integrated approach to urban quality and urban development. Multilevel governance is critical to sustainable urban development and to achieving the ambition of inclusive cities. In this context, the vision of the CoR is to be a catalyst of ideas that give greater prominence to urban issues in European political debate. The CoR is advocating reinforcement of the bottom-up approach to urban policy through development of partnerships between local and regional authorities and the European Union. The CoR "is also working to include a more tightly integrated urban dimension in the 2014-2020 Cohesion Policy. Furthermore, the topic of the CoR's fifth Summit of Europe's Regions and Cities on 22-23 March 2012 in Copenhagen is "European Urban Fabric in the 21st Century".

II. The Atelier Debates: Panel by Panel

Panel 1: "The EU's New Urban Agenda: Opportunities and Constraints in a Dynamic Domestic and Global Context"

Prof. Michael Parkisson, Director of the European Institute for Urban Affairs at Liverpool John Moores University in the United Kingdom, pointed to the **current momentum for an ambitious European urban agenda**. Across the European Union, cities are experiencing huge pressures. It is therefore vital for the European Union to get the answer right. In order to formulate this answer, Prof. Parkisson underscored three main questions that the European Union and local and regional authorities must address: What are the opportunities? How can EU 2020 be connected to an ambitious urban agenda? How can multilevel governance be integrated into urban development strategy?

Cristian Svanfeldt, policy analyst in the Urban Development and Territorial Cohesion Unit/DG REGIO at the European Commission, pointed out that **urban Europe accounts for 2/3 of the European population**. More specifically, a third of EU citizens are living in urban areas (small towns) and another third in cities. He also reminded us that urban demographic reality is different across Europe. In fact, capitals, middle-sized and small cities are stable or growing at a steady pace in Western Europe, whereas small cities are shrinking in Eastern Europe. Similarly, fiscal power and financial resources are dramatically different from one city to another and

from one country to another. Additionally, Mr Svanfeldt stressed the importance of **including small towns within the project of a European urban agenda**. As a matter of fact, **small towns and cities are increasingly acting as a system, developing cooperative networks and cross-border cooperation**. Despite this diversity, the values, principles, visions and objectives for urban development across Europe are based on a shared framework mainly drawn up from the Leipzig Charter on Sustainable European Cities, the Europe 2020 strategy, the territorial agenda 2020 and the territorial cohesion policy. Within this framework, the challenge remains to **implement policy efficiently** to achieve the set targets. Instead of addressing urban challenges one by one, Mr Svanfeldt argued that **challenges should be connected in order to adopt an integrated and holistic approach to urban development**. For instance, pollution and obesity could be addressed through a clean urban mobility project. Another critique was that the current urban development framework largely adopts a macro-level approach rather than **a micro-level one**. Mr Svanfeldt stressed that under the Smart Cities strategy, for example, each city should be given room to define what "smart city" means with regard to its own background and perspective for the future. Importantly, Mr Svanfeldt concluded by highlighting what are in his eyes the two main challenges facing European cities: providing **capacity for innovation** and building **a truly inclusive city**. **A new model of governance remains to be discovered** if local and regional authorities and the European Union are to overcome these challenges.

Stefan Kuhn, Director of the Urban Governance team at ICLEI Europe, highlighted two current megatrends affecting countries around the world, except within the European Union: population growth and rapid urbanisation. Despite their multiplication across the globe, **megacities are highly vulnerable**, mainly because they do not constitute a sustainable urban system. Instead, **the European urban landscape seems well equipped to become increasingly sustainable**. Indeed, European cities are "walkable", "cyclable" and quite small, which means that infrastructure is less vulnerable and the urban structure is easier to comprehend. European cities are also endowed with a long tradition of local and democratic governance, highly educated civil servants and citizens. Moreover, the gap between rich and poor is small by global standards. **European cities must build on these strengths to develop social sustainability and resilient infrastructure, and offset the uneven distribution of the population**. Mr Kuhn stressed that the European Union should focus on an agenda and a vision for 2050 rather than 2020, which is essentially tomorrow on an urban development timescale. From this perspective, the challenge is to enhance quality of life with scarcer resources and evolve towards a carbon-neutral urban system. Mr Kuhn insisted that this is **a social rather than an environmental project**.

Jean-Loup Drubigny, head of the URBACT Secretariat, questioned the role of cities as leaders of economic growth, social inclusion and a climate change. Despite the Europe 2020 strategy, the economic dynamism required to shift European cities to sustainable cities is currently lacking. In the interests of good governance and

devolution, **an increasing number of responsibilities are transferred to local and regional authorities, but not the concomitant funding.** In the current context of economic austerity, **city budgets are facing cuts of 20-30%.** Furthermore, **credit has dried up as a result of the economic crisis** and the fall of Dexia, whose toxic debt was equivalent to 100 years of the City of Brussels" budget or of the French policy budget for disadvantaged districts. The City of Madrid currently has funding for 300 days. Needless to say, cities are strongly affected by the economic situation, which requires them to **change the way they function and the way urban development policy is formulated.** Mr Drubigny also insisted that cities are not asked to put forward a vision. Instead, national and European institutions are asking cities to implement urban development policy. For instance, the **Europe 2020 strategy is far removed from the day-to-day concerns of cities and mayors, with its diffuse targets and excessively complicated access to funds.** What can the European Union do for cities? Policy content and procedures must be clarified and simplified for greater efficiency. Concepts and messages on urban development must be adapted to local implementation to allow the possibility of integrating and applying these common urban concepts in local urban public policy. In other words, the **European Union must adopt an integrated approach of urban development supported by a strong pedagogical dimension directed towards local and regional authorities.**

The discussion emphasised the momentum for a European urban agenda. With this ambition in mind, guest speakers drew from their experiences to offer ideas for an ambitious European urban agenda that will contribute to building more sustainable, inclusive and innovative cities in a time of scarce economic resources:

- Urban projects must address urban challenges through **an integrated and holistic approach** – i.e. *multilevel governance* promoted by the CoR and its members. These challenges can **be connected** to each other in order to make smart use of available funds and to spread sustainable changes to each element of the urban dynamic;
- The European urban policies must **shift from the macro to the microlevel to include small- and medium-sized towns**. Appropriate urban development strategies should be developed accordingly. This process should not only include the national and EU levels but also the regional and local levels of governance;
- **The challenges facing European cities** – ones of economic, social and environmental sustainability – should be **better integrated within EU policy making**.

Panel 2: "Europe 2020 Strategy and EU Cities: Responding to Demographic and Socioeconomic Challenges"

Dr Ivan Tosics focused his presentation on Central and Eastern European cities, where the population is shrinking quickly (*demographic problems*) and infrastructure is crumbling. The rapid transition from socialism to capitalism has weakened Central and Eastern European cities, notably by not creating stable conditions for coherent urban development. Taking the example of the housing market, Dr Tosics explained that the transition to capitalism has led to the privatisation of housing, which is now a significant impediment to refurbishment and undermines the improvement of energy efficiency in buildings. Residents in Central and Eastern European cities invest in their own property leading to inequality and inconsistency in terms of urban policy. Furthermore, the private housing market is creating exclusion and segregation as the poorest are not in a position to invest in renovation of their housing. Finally, Dr Tosics commented on the **Europe 2020 strategy, noting that its objectives would be difficult to implement in the urban reality of Central and Eastern Europe.** Moreover, in his view, **the proposal for a renewed cohesion policy is symbolic of the decline of solidarity** within the European Union.

Dr Domenico Rossetti di Valdalbero, scientific officer responsible for foresight and forecast activities, DG RTD, European Commission, presented the demographic and socio-economic challenges facing European cities. 60 % of the world's population will live in urban areas by 2030. The mega-trend of rapid urban

growth is largely happening in Asia, South America and Africa, but **mega-trends are impacting European cities**, too. For instance, world CO₂ emissions are projected to reach 44.2 GTCO₂ by 2050; issues around ageing populations will be more salient than ever; the oil supply is not sustainable on current consumption levels. Furthermore, European cities are at risk of being out-grown by Asia. China, for example – especially the Chinese private sector – is employing more researchers than the Europe Union, which may lead to a shift of the innovation hub to Asia. The European Union as a whole is working hard to tackle these challenges by **building up networks, creating macro-regions or developing urban strategies and joint initiatives**. Dr Rossetti di Valdalbero announced a new call for a proposal on "Forward looking tools and methods for answering major societal challenges", published July 2011 (FP7 SSH.2012.7.1.1-1).

The debate focused on the *Europe 2020 Strategy* and the demographic and socio-economic challenges faced by cities. It emphasised that:

- **Local realities are quite different across Europe.** As a result, the Europe 2020 strategy is based on targets that may be suitable in some cities but unsuitable to others. This calls for further development of a European strategy that **gives room for manoeuvre in response to local realities**;

- **Globalisation and new international realities** should be taken into account when formulating regional and urban development policies. The potential for channelling these processes at the EU level is limited, as **the urban development expertise is dispersed among various EU Commission DGs and institutions.**
- **Solidarity and cohesion** should be preserved and reflected within urban development strategy and different European policies;

Panel 3: "Implementing Integrated Urban Governance: Policy Instruments and Models to Emulate"

Dr Tadashi Matsumoto, senior policy analyst in the Public Governance and Territorial Development Directorate of the OECD, presented the results of the OECD's Compact City policy report. Notably, the report concluded that **land consumption is increasing faster than population growth.** The **current model based on urban sprawl is not sustainable.** Instead, Dr Matsumoto promoted a **"compact cities" model based on transportation linkages, mixed land uses, and high quality urban services.** Compact cities must **package policy in order to avoid counterproductive effects,** such as traffic congestion or unaffordable housing. Moreover, Dr Matsumoto insisted that **good urban governance is a key element in efficient and effective policy implementation, as are diversified policy instruments.** Therefore, Dr Matsumoto stressed

that a "one size fits all" plan is not feasible. Instead, cities must reflect upon local conditions to develop relevant urban strategies.

Eurico Neves, Director of Innova Europe and Lead Expert for the UNIC project (URBACT), questioned the ability of cities to do more with less. Cities are asked to become smarter, sustainable and more inclusive. However, **cities are currently lacking innovation and "smart money"** to achieve these visions. European cities must adopt innovative problem-solving processes. Cities must become **"urban hubs" with local links** adapted to global companies and the globalised world as well as the localised dynamic and social reality. Cities must play the capitalism game by **developing an entrepreneurship mindset** when tackling urban challenges, which means **being creative, attracting and connecting talents, developing technological infrastructure and going beyond their own boundaries**.

The third panel discussion focused on the importance of **rethinking urban strategies** in light of the current unsustainable model of urban sprawl:

- **Compact cities** have the potential to be sustainable if **an integrated and transversal approach to urban development** is adopted. Cross-cutting and cross-sector policies must be developed and implemented efficiently in order to curb

counterproductive effects from this urban development model. This is also relevant to localities experiencing serious demographic and financial problems;

- **Good governance and policy innovation instruments** are key to achieving positive policy outcomes and economic growth. Likewise, an **entrepreneurship mindset** will, and **"thinking big" may**, ease urban development and growth in sustainable employment.

Concluding remarks:

Prof. Claude Jacquier, Research Director at the National Centre for Scientific Research (CNRS), stated that **cities are integrated into a complex system**. Cities are firstly made up of local communities consisting of a particular environment, specificities in terms of gender and social dynamic and economic and political institutions. Then, these local communities make a city and a "rurban" region, which interact with other cities and **rurban regions**. In other words, the complexity of the urban dynamic is better understood using a **polycentric approach**. Cities and urban regions, such as London or Brussels, are considered to be rich when looking at GDP/capita. However, the **available revenue/capita is often equal to or below the country average**. European cities are **lacking the investment, innovative skills and relevant regulation** needed to face their well-known challenges. The economy of a city is based on four pillars: the productive base (labour and capital income from local activities),

the social base (social benefits), the residential base (pensions, external income, tourism) and the public base (wages from the public sector). Each pillar is **a potential source of development of local employment and the local economy**. Prof. Jacquier stressed that the current period is one of transition to multilevel governance that should lead to **transversal cooperation between cities**. However, transversal cooperation is the hardest to implement as it clashes with professional and cultural identities. **It is vital to enable people to act and lead on sustainable urban development in a grassroots fashion.**

Key messages:

The context:

Cities across the world are under **multiple pressures**: rapid population growth, ageing populations, increasing social inequality, slowing economies. Cities face demands from the national and supra-national level to become socially, economically and environmentally sustainable, but financial capacity has reduced dramatically. Despite the **Europe 2020 strategy**, the creation of macro-regions and other European urban programmes, there is **a clear need for an ambitious European agenda.**

Lessons for the CoR:

During the atelier's discussions, it was often suggested that local and regional authorities have a vital role to play in shaping a European urban agenda. The **CoR could play a significant role** in rethinking the European Urban Development Strategy and advocating:

- **inclusion of local and regional authorities** in the process of formulating a European Urban Agenda;
- **development of a micro-level and a transversal approach** which will enable local and regional authorities to adapt European strategy to local realities;
- **promotion** of a polycentric approach to urban development based on the concept of **urban regions**;
- **research into new models of governance and new policy instruments (i.e. MLG)** to empower local and regional authorities acting both within urban areas and at the national and supra-national levels.

Participants:

- **Mrs Béatrice Taulègne**, Deputy Director, Directorate for Horizontal Policies and Networks, Committee of the Regions, Brussels
- **Prof. Michael Parkinson CBE**, Director, European Institute for Urban Affairs, *Liverpool John Moores University*, UK

- **Mr Christian Svanfeldt**, Policy Analyst, Urban Development and Territorial Cohesion unit, *DG REGIO*, European Commission
- **Mr Stefan Kuhn**, Director of the Urban Governance team, *ICLEI* Europe
- **Mr Jean Loup Drubigny**, Head of the *URBACT* Secretariat
- **Dr Ivan Tosics**, Executive Director, *Metropolitan Research Institute*, Budapest
- **Dr Domenico Rossetti di Valdalbero**, Scientific Officer responsible for foresight and forecast activities, *DG RTD*, European Commission
- **Dr Tadashi Matsumoto**, Senior Policy Analyst, Directorate for Public Governance and Territorial Development, *OECD*
- **Mr Eurico Neves**, Director of *Innova Europe* and Lead Expert for the *UNIC* project URBACT
- **Prof. Claude Jacquier**, Research Director at the National Centre for Scientific Research (CNRS)