

Research Joint Programming Initiative Urban Europe - Global Urban Challenges, Joint European Solutions Update on Developments















***Workshop on fostering innovative dialogue between
researchers and stakeholders to meet future challenges: Land,
Soil, Desertification, Urban and Community-Based
Environmental Management
10-11 June 2013 Brussels***

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This powerpoint presentation is based on material provided by the JPI Urban Europe

What is Joint Programming?

- "Towards joint programming in research: Working together to tackle common challenges more effectively" (Commission Communication of 15 July 2008)
- Member States expected to pool resources in creating **joint transnational R&D programmes** (Council decision of 2 December 2008 establishing a scheme of Joint Programming Initiatives)
- Focus on **grand challenges** which cannot be solved on level of individual countries
- **JPI Urban Europe** accepted as one of ten such *Joint Programming Initiatives* since December 2011
- JPI Urban Europe is striving to establish **a large-scale, long-term, European research and development programme** dedicated to urban development

Country		Ministry / Authority / Administration	Funding Agency / Council / Foundation
	AT	Federal Ministry for Transport, Innovation and Technology Federal Ministry for Science and Research	FFG
	BE	Innoviris (Brussels Region),	VITO, FWO (Flanders)
	CY		Research Promotion Foundation
	CZ		
	DK		Council for Strategic Research
	FI		Tekes
	FR	Ministry of Ecology, Sustainable Development, Transportation and Housing	Iffstar, ANR
	IE		Science Foundation Ireland
	IT	Ministry for Education, Universities and Research	
	MT	Integrated Transport Strategy Directorate	Malta Council for Science & Technology
	NL	Ministry of Infrastructure and the Environment	Dinalog, NWO
	NO	Ministry of the Environment	The Research Council of Norway
	SE		Vinnova, Formas
	TK		Tübitak

JPI Urban Europe approach: cities are complex organisms



- **Systemic** orientation (i.e. analysing the system as a whole and the interrelations between different areas instead of purely sectorial analysis (transport, settlements, energy supply,...)
- A “**human-centered**” approach (taking human behavioural patterns as a starting point and not projected technological changes per se)
- **Interdisciplinary** analysis and development of respective planning tools and technologies for urban areas
- **Integrative and trans-disciplinary** demonstration and implementation of solutions, uniting researchers, industry and urban practitioners
- **Long-term oriented** in analysis and planning, stretching beyond the next 15-20 years

Recent developments of JPI Urban Europe

- Results from the **first Call for Proposals** (Call closure 09/12)
- Preparing the **second Call for proposals** (Call open 06/13)
- Launch of **Urban Europe Research Alliance** (Spring 13)
- Completion of a study on **urban megatrends** (Summer 13)
- Contribution to organisation of **EU-China Joint Workshop on Urban Innovation** (Foshan, China 30-31/05/13)
- Preparing a **Scientific Research Agenda**, and developing funding instruments for the future calls (ongoing)
- Hosting **scientific workshops** (e.g. at EURA conferences – next EURA event 04-06/07/13 in Enschede, NL) (on-going)

Results from the first pilot Call 2012

- **APRILab** - Action oriented planning, regulation and investment dilemmas for innovative urban development in living lab experiences (*University of Amsterdam*)
- **IMAGINATION** - Urban Implications and Governance of CEE migration (*Erasmus University of Rotterdam*)
- **Interethnic Coexistence in European Cities**: A comparative and applied oriented analysis of neighbourhood-related policies (*Austrian Academy of Sciences*)
- **Gentrification 2.0** (inner-city neighbourhoods) (*Radboud University Nijmegen*)
- **CONCOORD**: Consolidation and Coordination in urban areas (transport) (*Eindhoven University of Technology*)
- **b-Part**: Building Pervasive Participation (citizens' e-participation) (*FTW Telecommunications Research Centre Vienna*)
- **G@together** - conceptualizing a platform solution for fostering inclusion on urban labour markets (*INSET Research & Advisory Unternehmensberatung GmbH*)
- **Social uplifting and modernization of suburban areas** with Urban Living Lab approach (*VTT Technical Research Centre of Finland*)
- **CASUAL**: Co-creating Attractive and Sustainable Urban Areas and Lifestyle - Exploring new forms of inclusive urban governance (*Nordic Centre for Spatial Development*)
- **Green/Blue Infrastructure** for Sustainable, Attractive Cities (*Lulea University of Technology*)

Preparing the second pilot call 2013

- Launch date 18 June – deadline for pre-proposals envisaged 18 September – deadline for full proposals 21 January 2014 **(tbc!)**
- Funding Agencies from AT, BE, CY, DK, IT, NL, NO, SE, TR, UK
- Two broad topics:

Governance of Urban Complexity

Cities are getting increasingly complex and new forms and structures for governance may be required to deal with this

Urban Vulnerability, Adaptability and Resilience

Enhance understanding of and response to natural, environmental, social, economic and technological shocks as well as gradual changes

Call information at <http://www.jpi-urbaneurope.eu/>

Launch of Urban Europe Research Alliance UERA

- Aims to strengthen, expand and optimise research capabilities in area of European urban development
- Inaugural meeting on 19 April in Lyon organised by IFSTTAR - French Institute of Science and Technology for Transport Development and Networks
 - 23 research organisations from 10 JPI Urban Europe countries discussed common needs and objectives, identified priority areas of research and innovation as well as potential partner organisations to join the UERA in the future
 - Next meeting is planned to further elaborate the UERA concept as well as a brokerage event to support the next joint calls

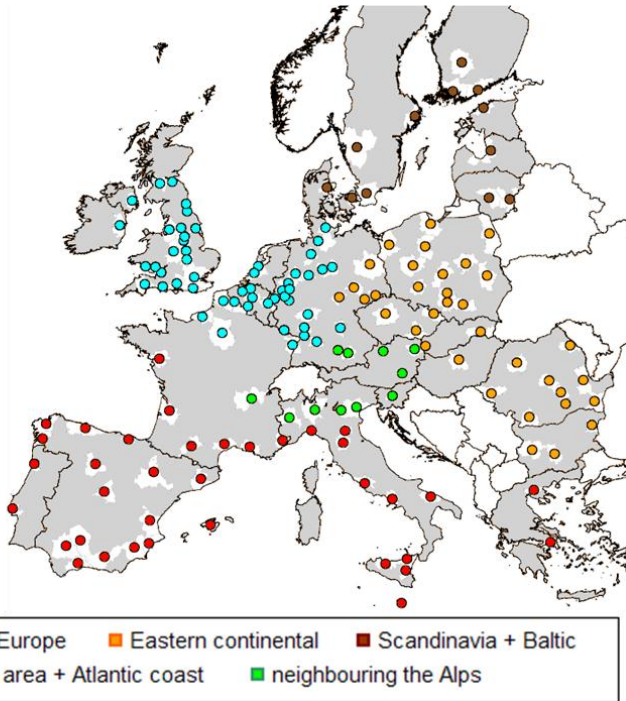
Follow information at <http://www.jpi-urbaneurope.eu/>

Investigating urban megatrends

The **Urban Megatrend Study** aimed at

- Identifying and understanding the **challenges** and their **interdependencies** stemming from megatrends for European urban areas
- Creating a **differentiated perspective** of challenges for urban areas across Europe taking into account **regional disparities**
- Highlighting the **complex connections** between the challenges and megatrends with **time horizon of 2030+**

Qualitative analysis of urban megatrends



- **148 city regions** were taken in the quantitative analysis
- **Five regional clusters** were used depending on the geographical location

Demography: changes in population

Decreasing Population in the East - growing urban regions in the West

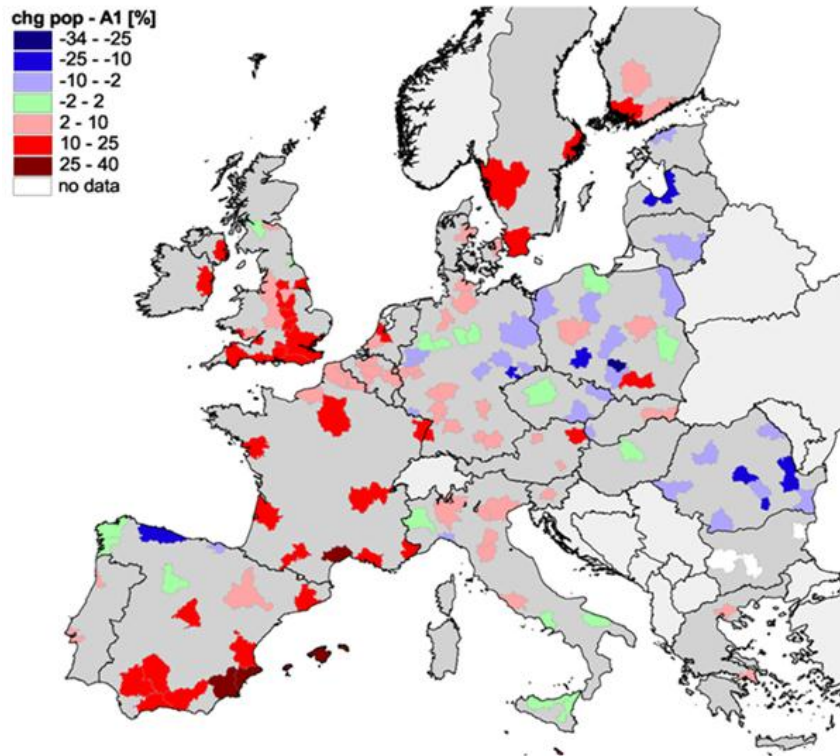


Figure: City regions' future population dynamics – 2025 relative change of population since 2001 (Data: PLUREL project, IIASA, Univ. Edinburgh, AIT)

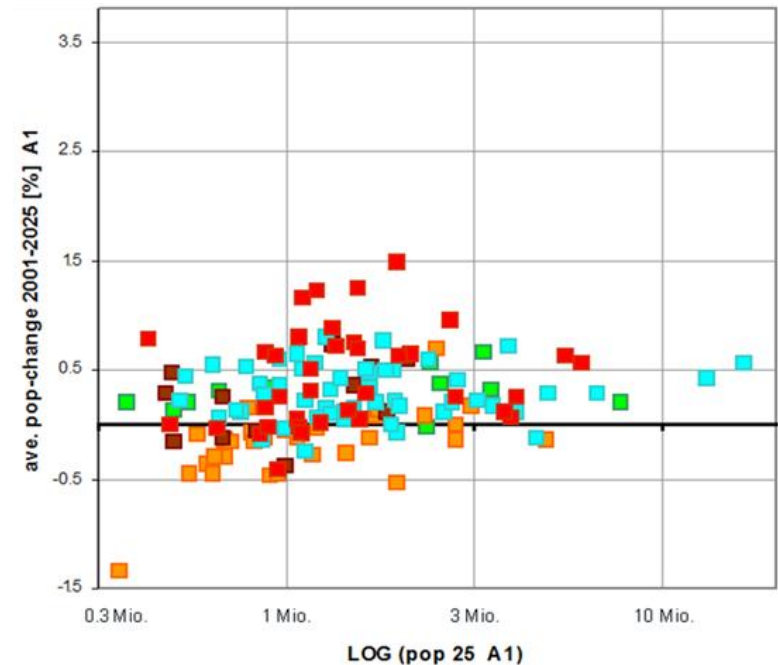


Figure: City regions' future population dynamics – 2025 relative change of population since 2001 (vertical axe) against city size (horizontal axe - population numbers as log-scale). (Data: PLUREL project, IIASA, AIT)

Demography: changes in the age structure

The share of elderly (60+) increases throughout Europe
The Eastern and Southern urban regions are affected the most

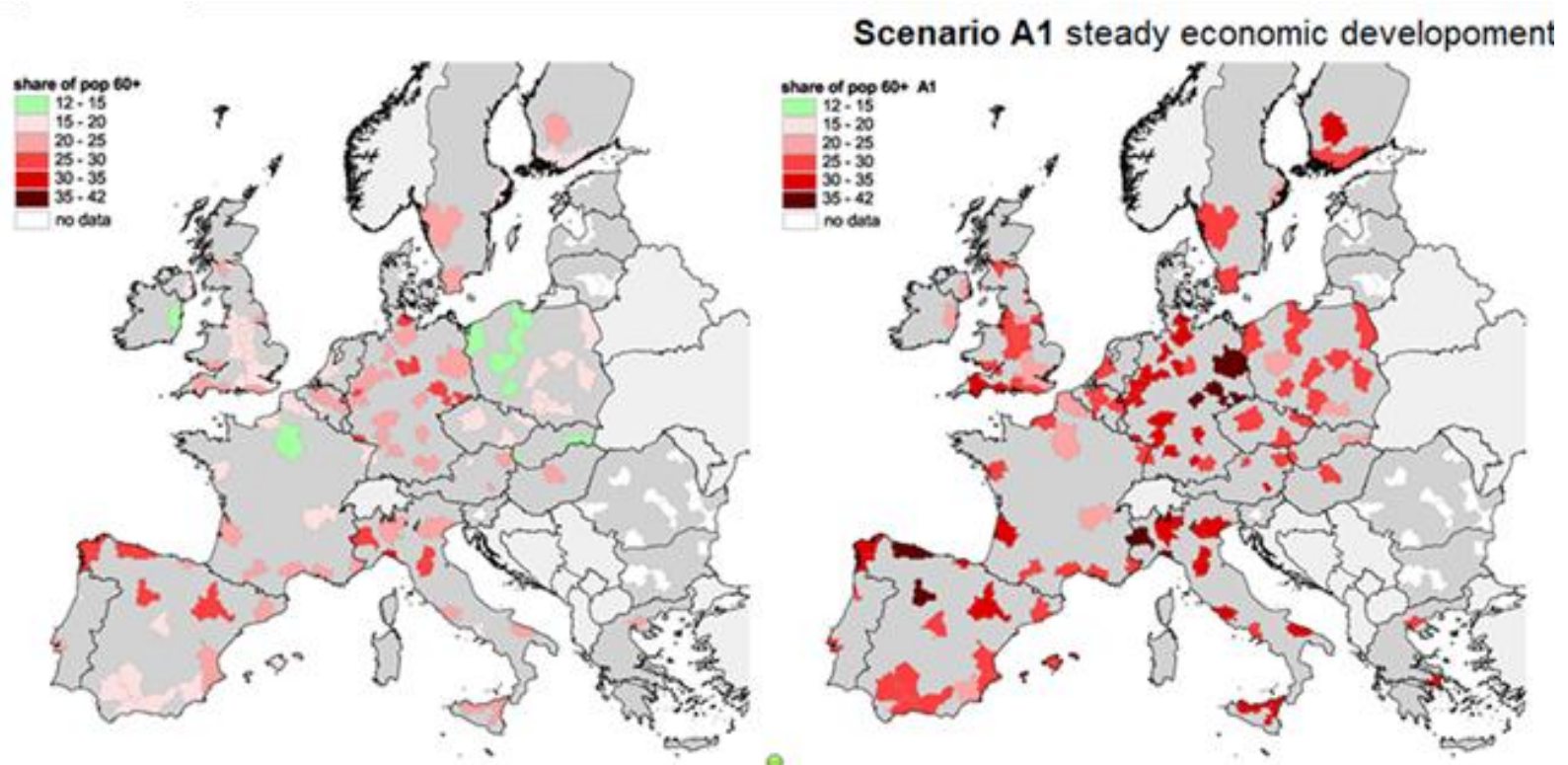


Figure: City regions' share of the 60+ age cohort 2001 and 2025 (Scenario A1) (Data: PLUREL project, EUROSTAT, IIASA, AIT)

Economic development

The GDP per capita shows a distinct east-west and south-north upward gradient

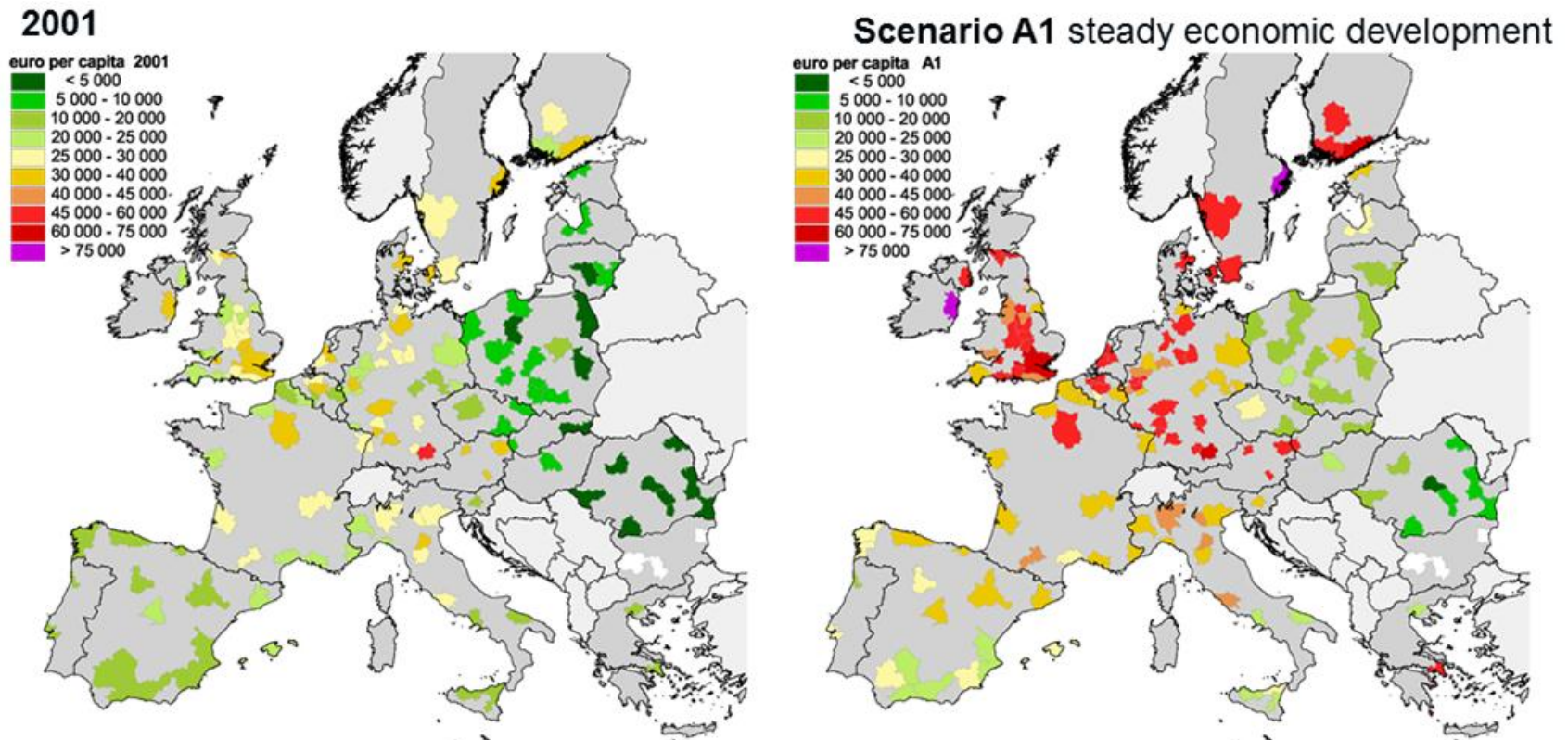


Figure: City regions' GDP per capita 2001 and 2025, Scenario A1) (Data: PLUREL project, EUROSTAT, Boitier et al., AIT)

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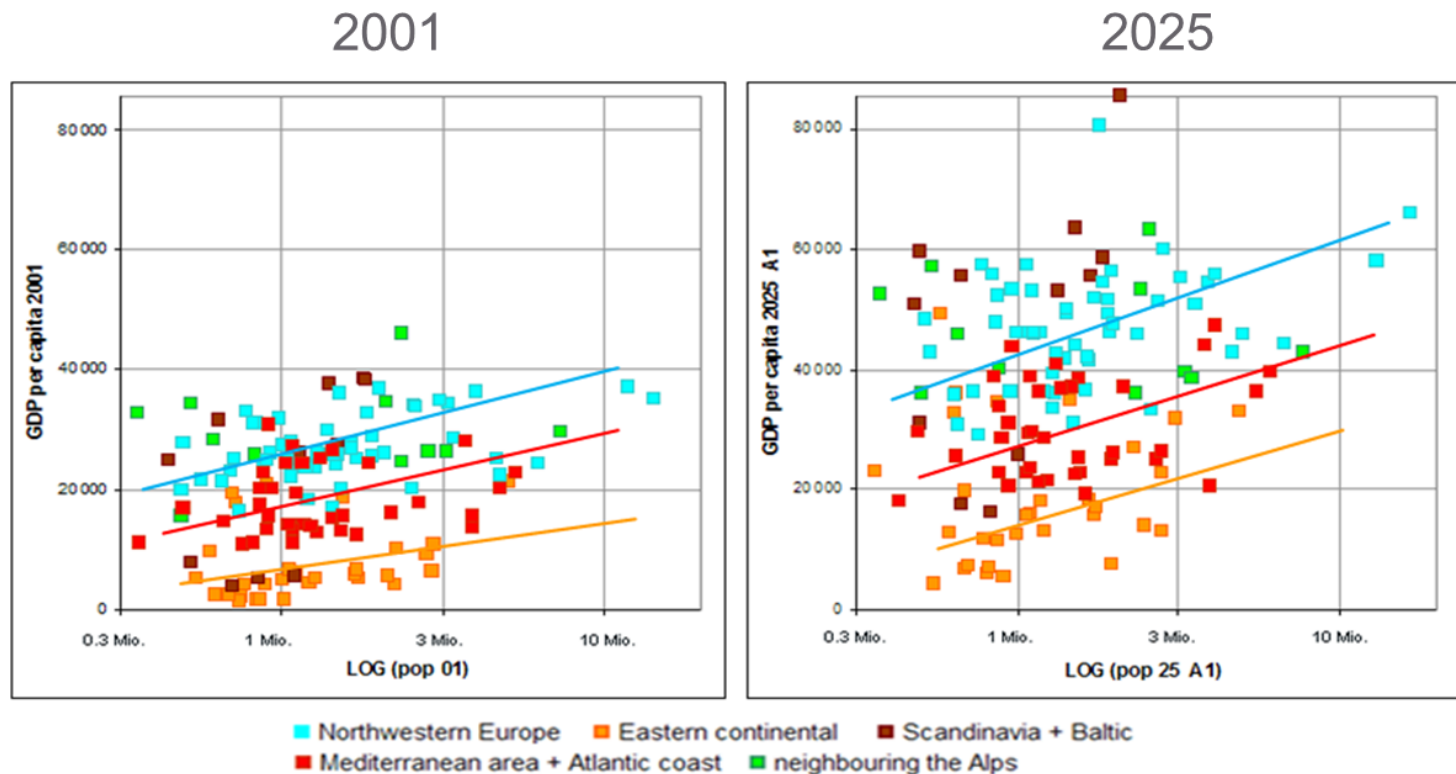


Figure: City regions' GDP per capita (vertical axe) against city size (horizontal axe, log-scale) - 2001 and 2025, Scenario A1), estimated trend lines for the sub-groups Eastern-Continental, Mediterranean, North-western (Data: PLUREL project, EUROSTAT, Boitier et al., AIT)

Climate change

Temperature increase will concentrate on Southern & Eastern continental regions & those neighbouring the Alps

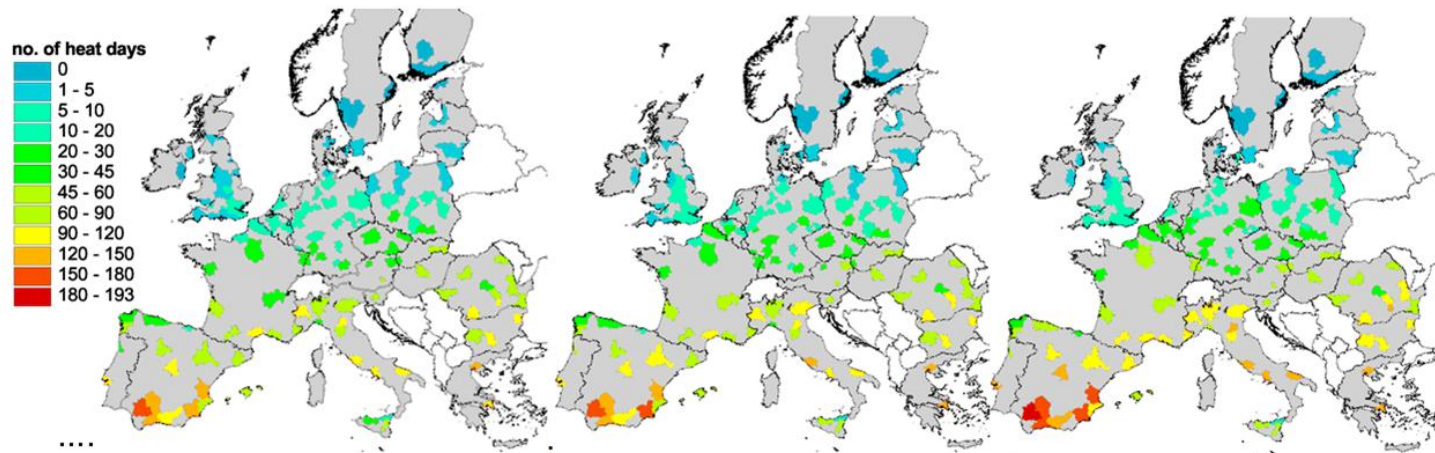
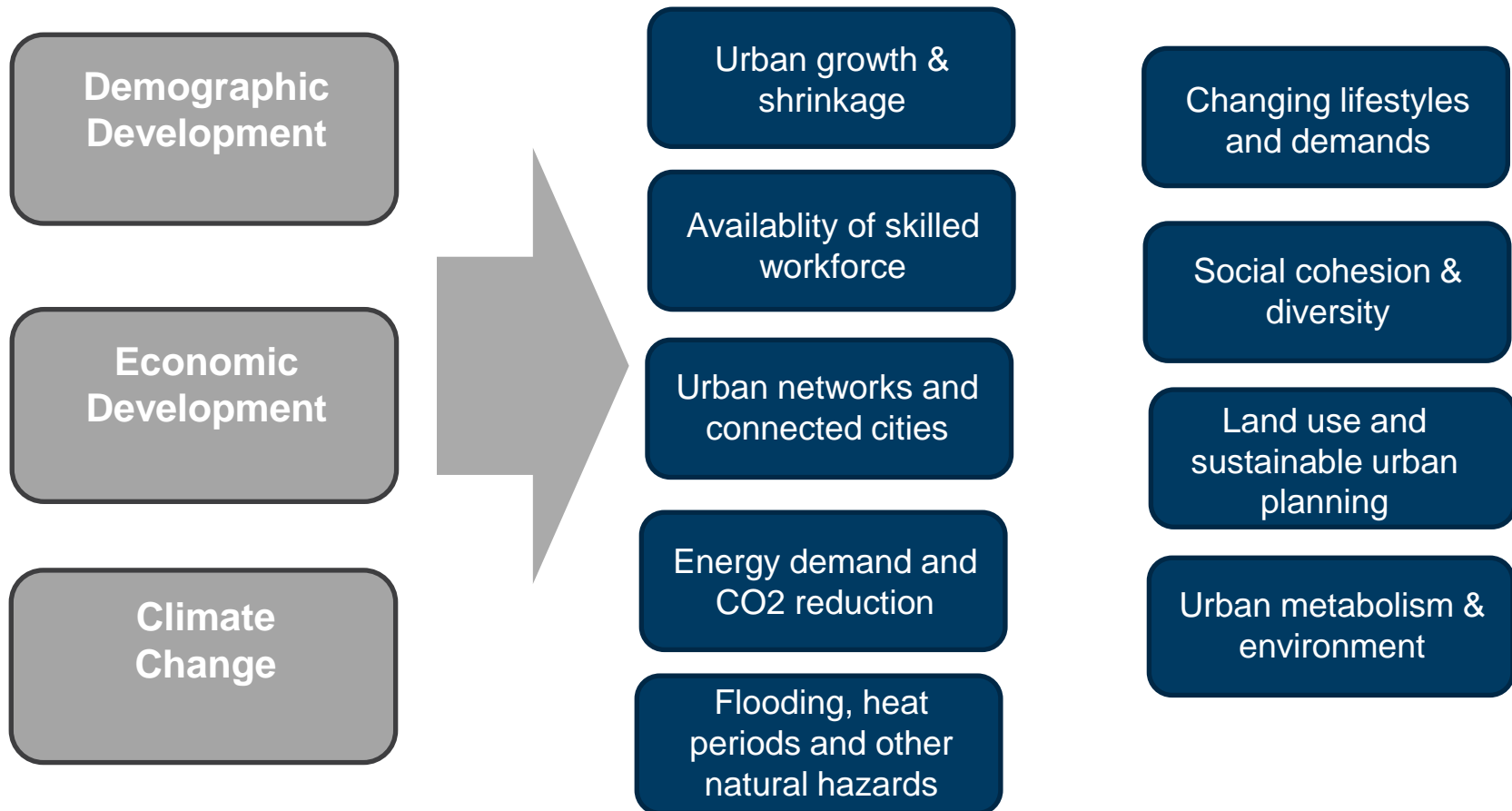


Figure: Number of heat days (days with $T_{max} > 25^{\circ}C$) – averages during 30 year periods 1971-2000, 2011-2040, 2041-2070

Conclusion for the City of Tomorrow

- Megatrends lead to **a broad spectrum of interlinked challenges** regarding the social, environmental and economic capital of cities
- Although these are global and European trends, **challenges cumulate in different ways** in different regions, and in cities within these regions
- Need for action evolves therefore
 - at all levels – European, national, regional and local level
 - with a cross-disciplinary and cross-sectoral approach

From Megatrends to Challenges



From Challenges to Visions

Urban Challenges

- Manage sustainable urban growth and shrinkage
- Provide innovative & green environments and public spaces
- Ensuring energy transition and CO2 reduction
- Manage mobility needs and urban networks
- Achieve social cohesion and utilize urban diversity
- Take advantage of newest technological solutions
- Anticipate all these issues in new governance concepts

RDI areas

Urban Adaptability & Dynamics

Social Inclusion and Urban Democracy

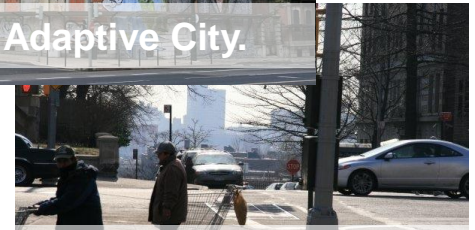
Economic Vitality and Knowledge Based Society

Sustainable Infrastructure & Networks

Urban Environment and Ecosystem Services



The Adaptive City.



The Diverse City.



Entrepreneurial City.



The Connected City.



The Livable City.

EU-China Joint Workshop on Urban Innovation

- On 30-31 May 2013 in Foshan, China, organised by **China Centre for Urban Development (CCUD) of the National Development and Reform Commission of China (NDRC)** and European Commission DG Research & Innovation in association with **JPI Urban Europe**, FP7 SSH project UrbaChina, EERA JP Smart Cities and Communities...
- Fostered the **EU-China Partnership on Sustainable Urbanisation** (DG ENER)
- Themes: **Urban Planning, Green Urban Mobility and Sustainable Energy Solutions for Cities**
- Scientific, policy-making and business communities from Europe and China - to define **a common strategy** and **collaboration opportunities** in priority areas of joint interest leading to targeted actions and flagship projects under the urban innovation theme

Thank you for your attention!

Urban Europe

Joint Programming

<http://www.jpi-urbaneurope.eu/>