



Challenges for European cities in 2014-2020: the Joint Programming Initiative Urban Europe

Margit Noll

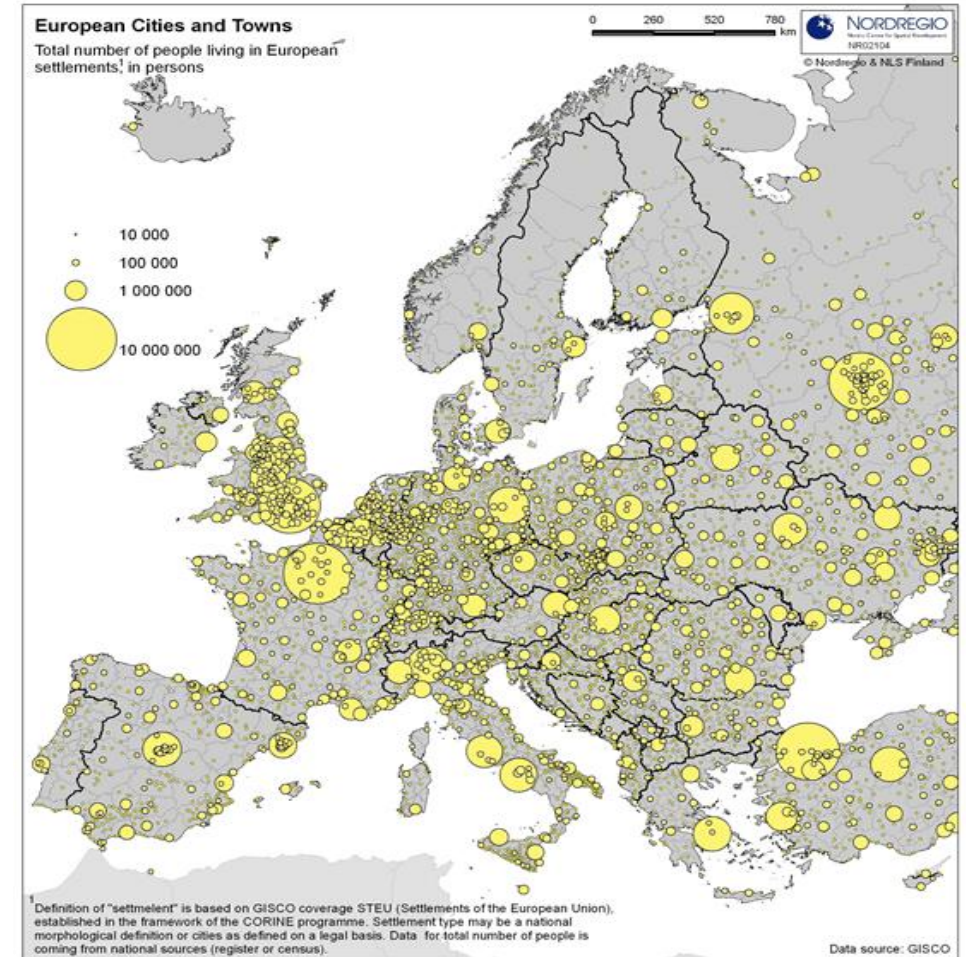
JPI Urban Europe, Management Board

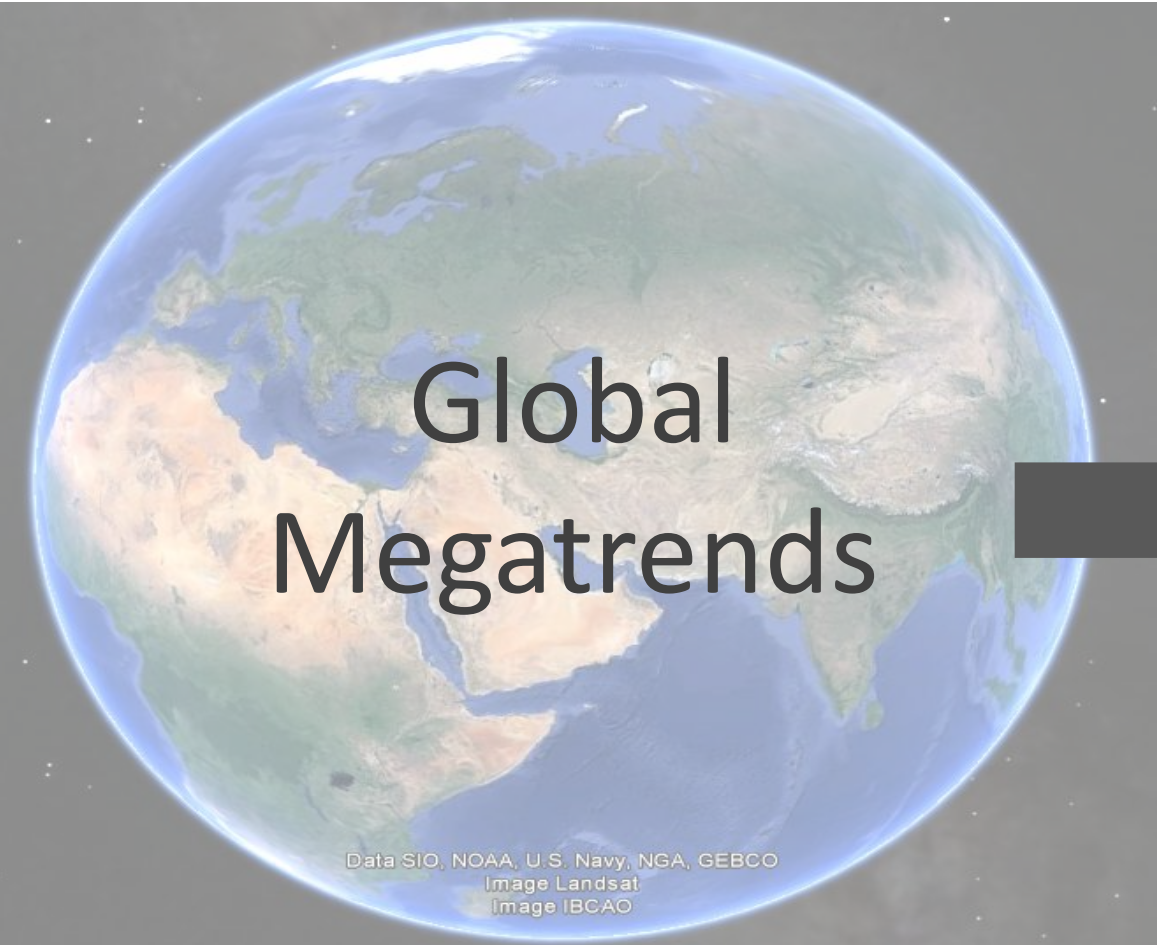
WiRE Conference, 12 June 2014

European Cities

A heterogeneous pattern of European urban areas

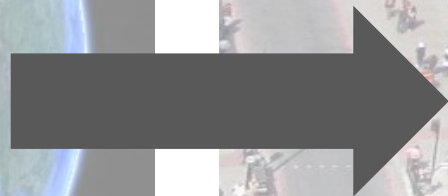
- Cities are typically smaller than in US & China.
- Larger share of our population lives in small and medium sized cities.
- Med-sized cities show the highest dynamics.
- European Cities are diverse in history, demography and built environment.
- Cities are contributing significantly to achieving the targets set in the EU 2020 Strategy - Smart, Green and Inclusive Growth





Global Megatrends

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
Image IBCAO



Local Challenges

Source: Google Earth

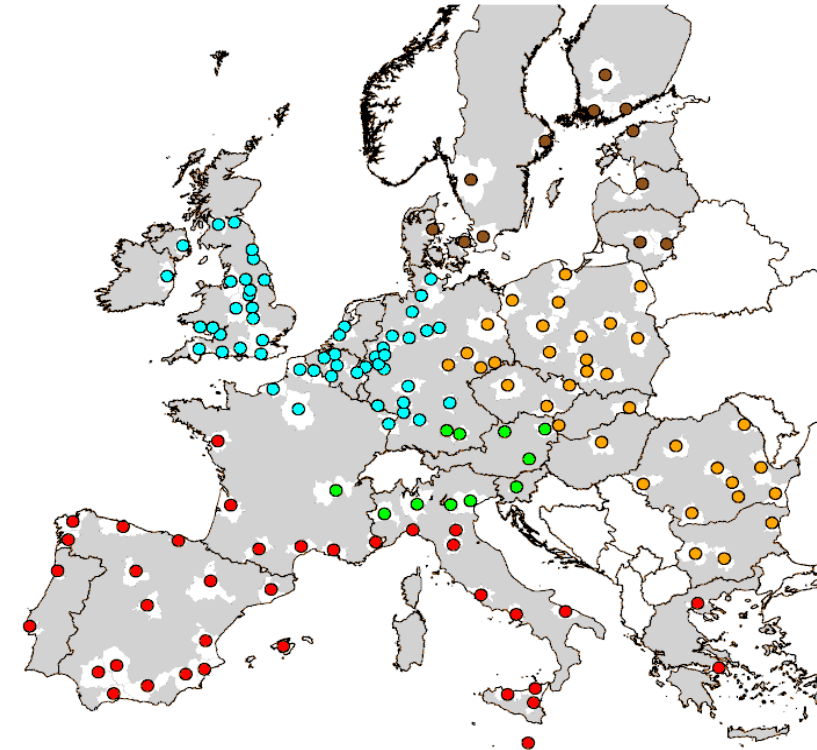
Source: BING Maps

Quantitative analyses of Urban Megatrends

148 city regions - five city region clusters



Data source: PLUREL project 2007-2010 Population numbers: EUROSTAT; pop. distribution and morphology exploration: AIT



■ Northwestern Europe ■ Eastern continental ■ Scandinavia + Baltic
■ Mediterranean area + Atlantic coast ■ neighbouring the Alps

Data Sources: **EUROSTAT** (baseline data), **IIASA** (demography), **University Paris 1** (economy), **University of Edinburgh** (land use), **AIT** (intra-regional distribution in the urban regions)

Demography: Decreasing Population in the East. Growing urban regions in the West and South.

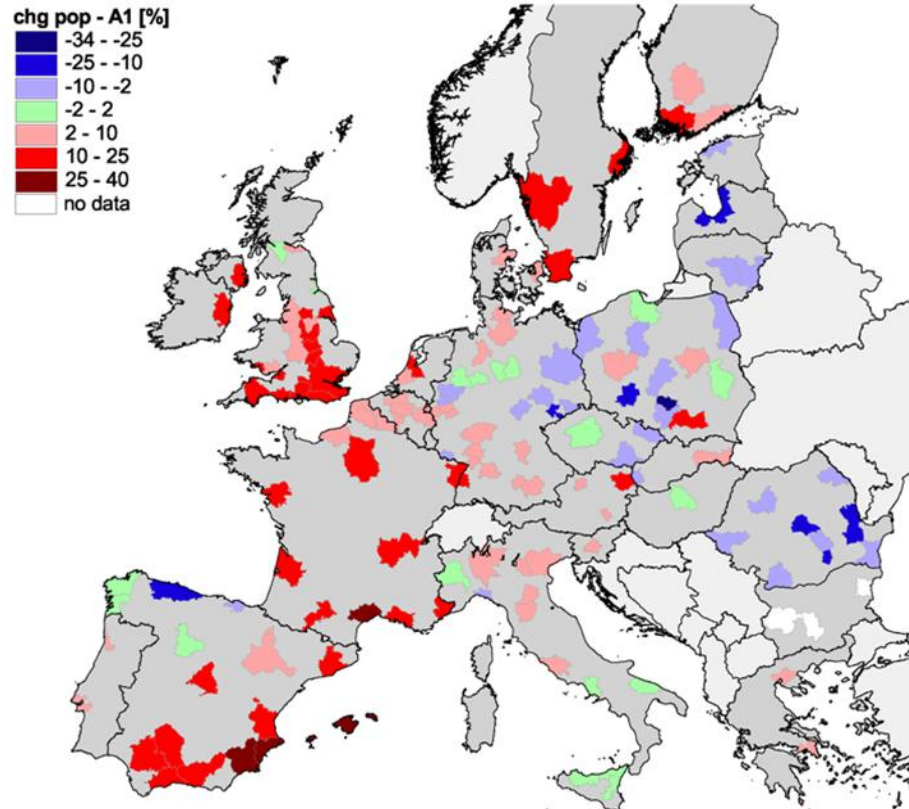


Figure: City regions' future population dynamics – 2025 relative change of population since 2001 (Data: PLUREL project, IIASA, Univ. Edinburgh, AIT)

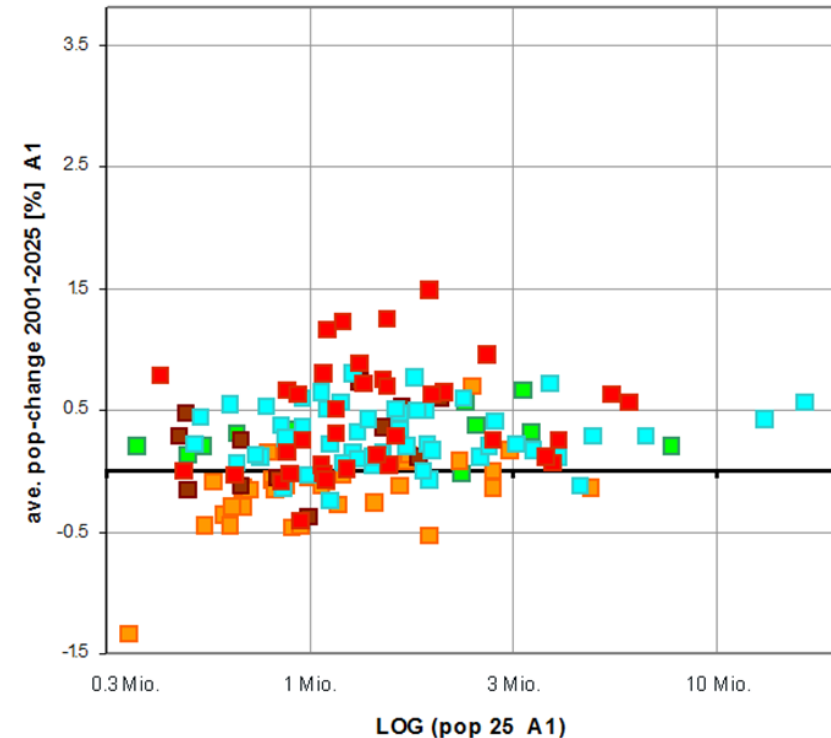


Figure: City regions' future population dynamics – 2025 relative change of population since 2001 (vertical axe) against city size (horizontal axe - population numbers as log-scale). (Data: PLUREL project, IIASA, AIT)

Demography: The Share of elderly (60+) increases throughout Europe.

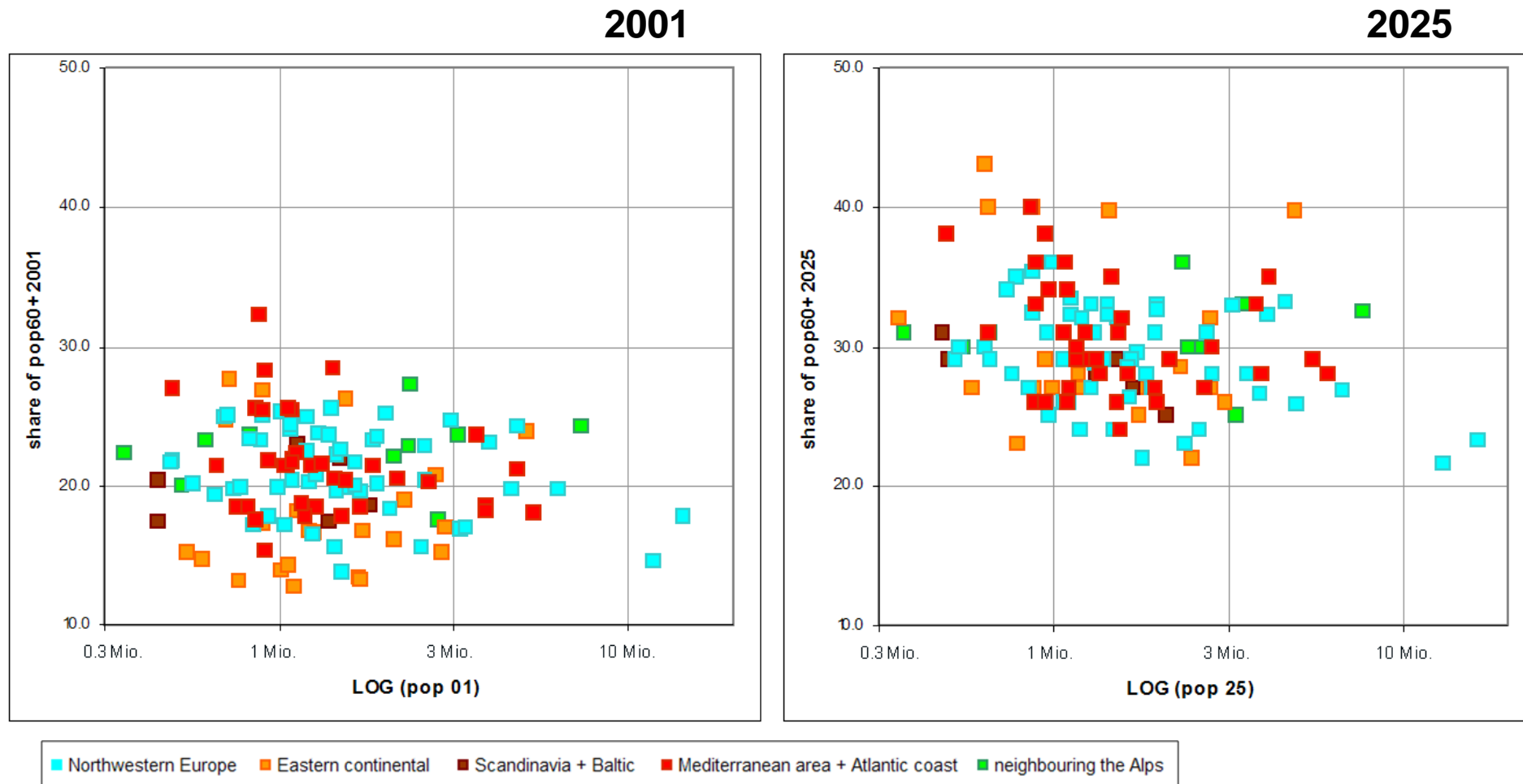


Figure: City regions' share of the 60+ age group in 2001 and 2025 (Scenario A1). (vertical axis for city size, horizontal axis for population numbers on a log scale. (Data: PLUREL Project, EUROSTAT, IIASA, AIT)

Economic Development: The GDP per capita shows a distinct east-west and south-north upward gradient.

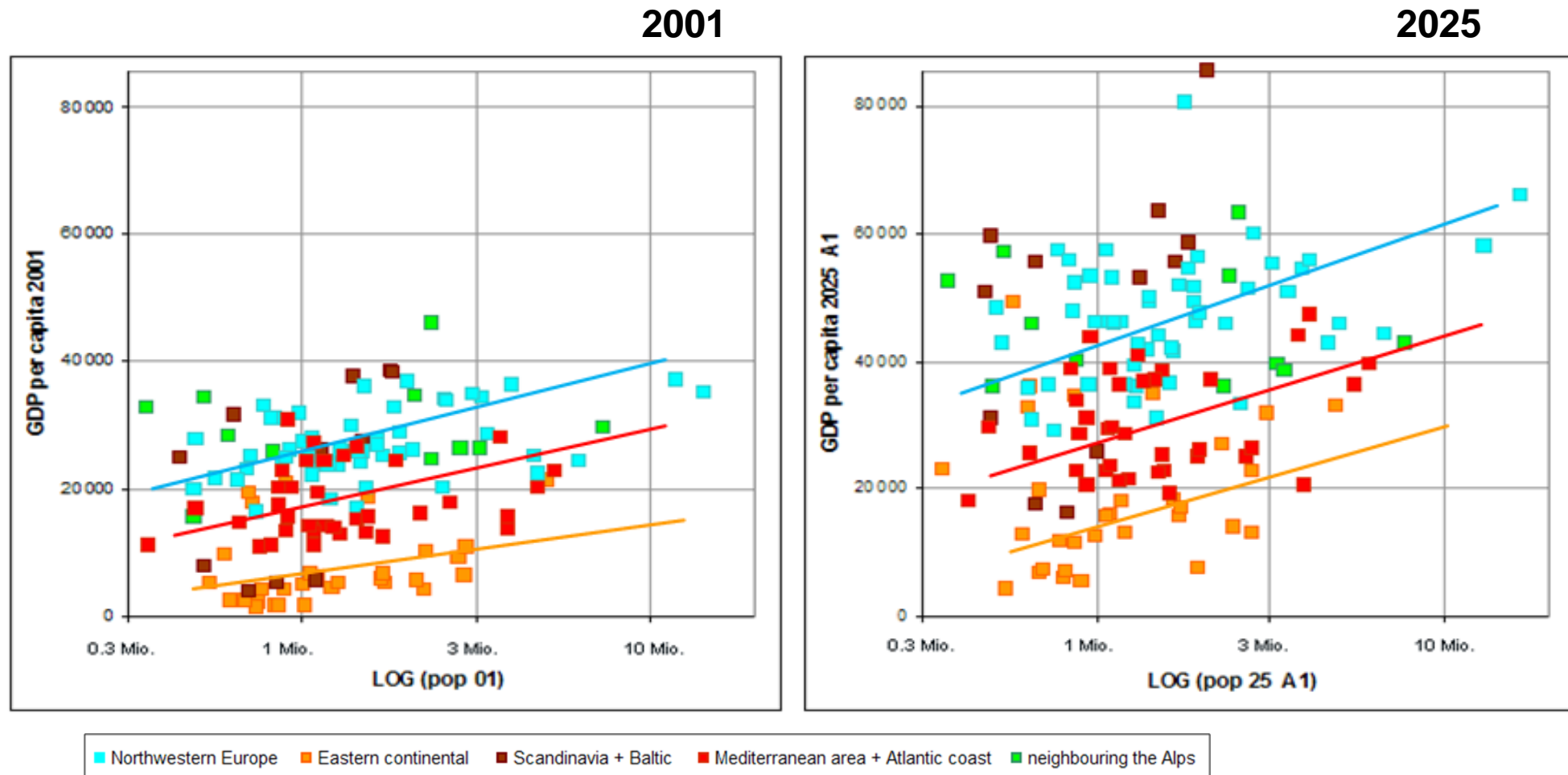


Figure: City regions' GDP per capita (vertical axe) against city size (horizontal axe, log-scale) - 2001 and 2025, Scenario A1), estimated trend lines for the sub-groups Eastern-Continental, Mediterranean, North-western (Data: PLUREL project, EUROSTAT, Boitier et al., AIT)

Artificial Surface: Increase of the built-up area is not strictly connected to economic growth.

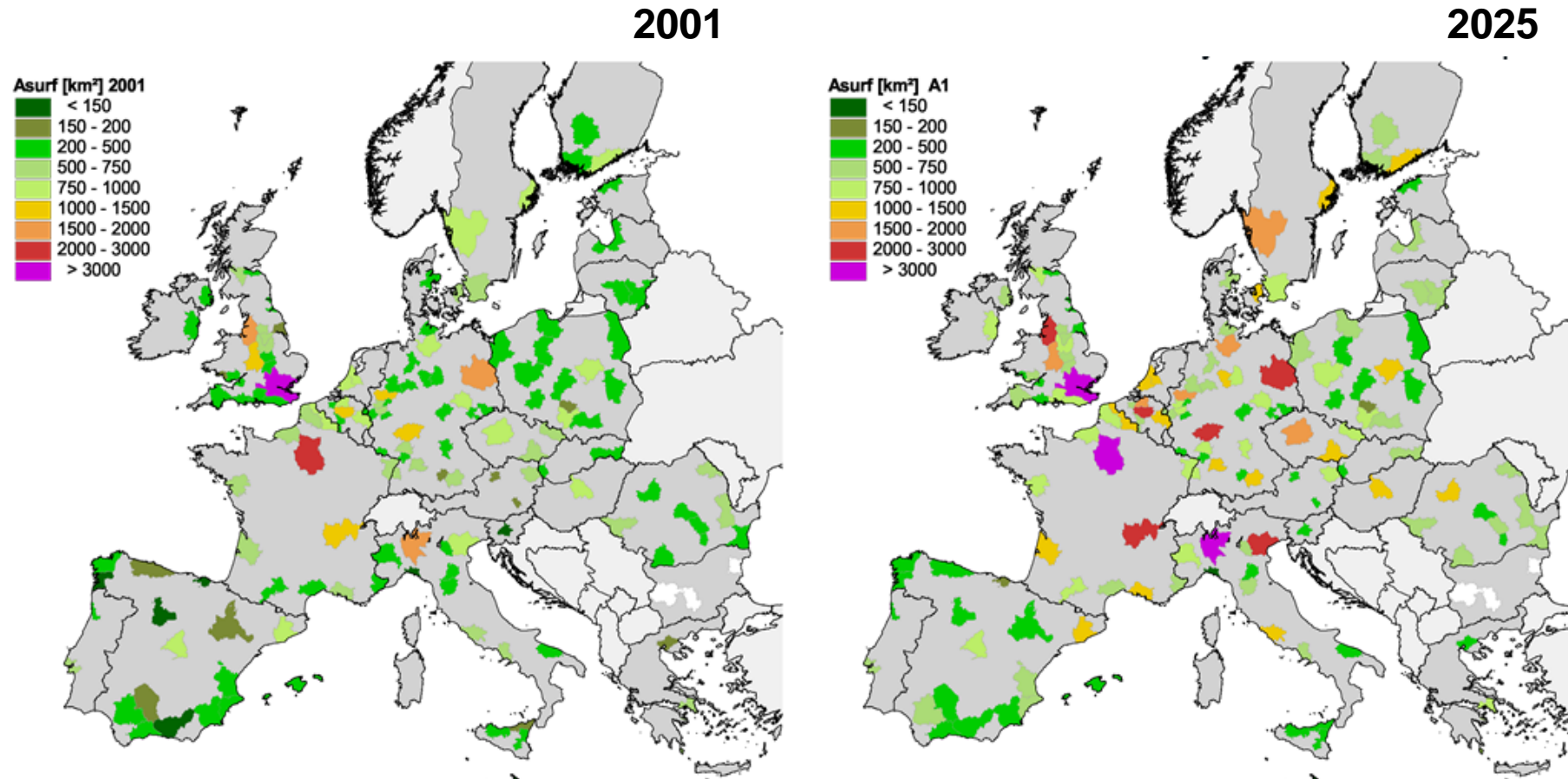


Figure: City regions' artificial surface area – recent past (2001) and 2025 scenario A1; area in km². (Data: PLUREL Project, IIASA, University of Edinburgh, AIT)

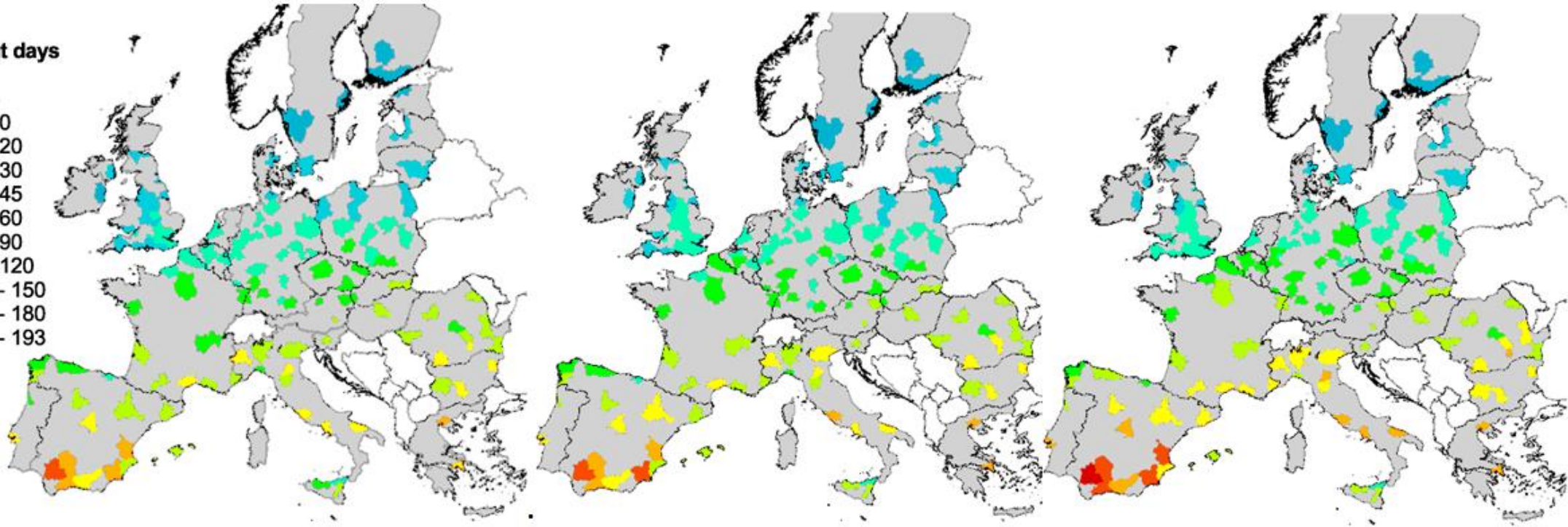
Climate Change: Temperature increase will concentrate on Southern & Eastern continental regions & those neighbouring the Alps

1971 - 2000

2011 - 2040

2041 - 2070

no. of heat days



Climate Change: Increased Risk of flooding due to rising sea levels and increases in heavy precipitation.

2025

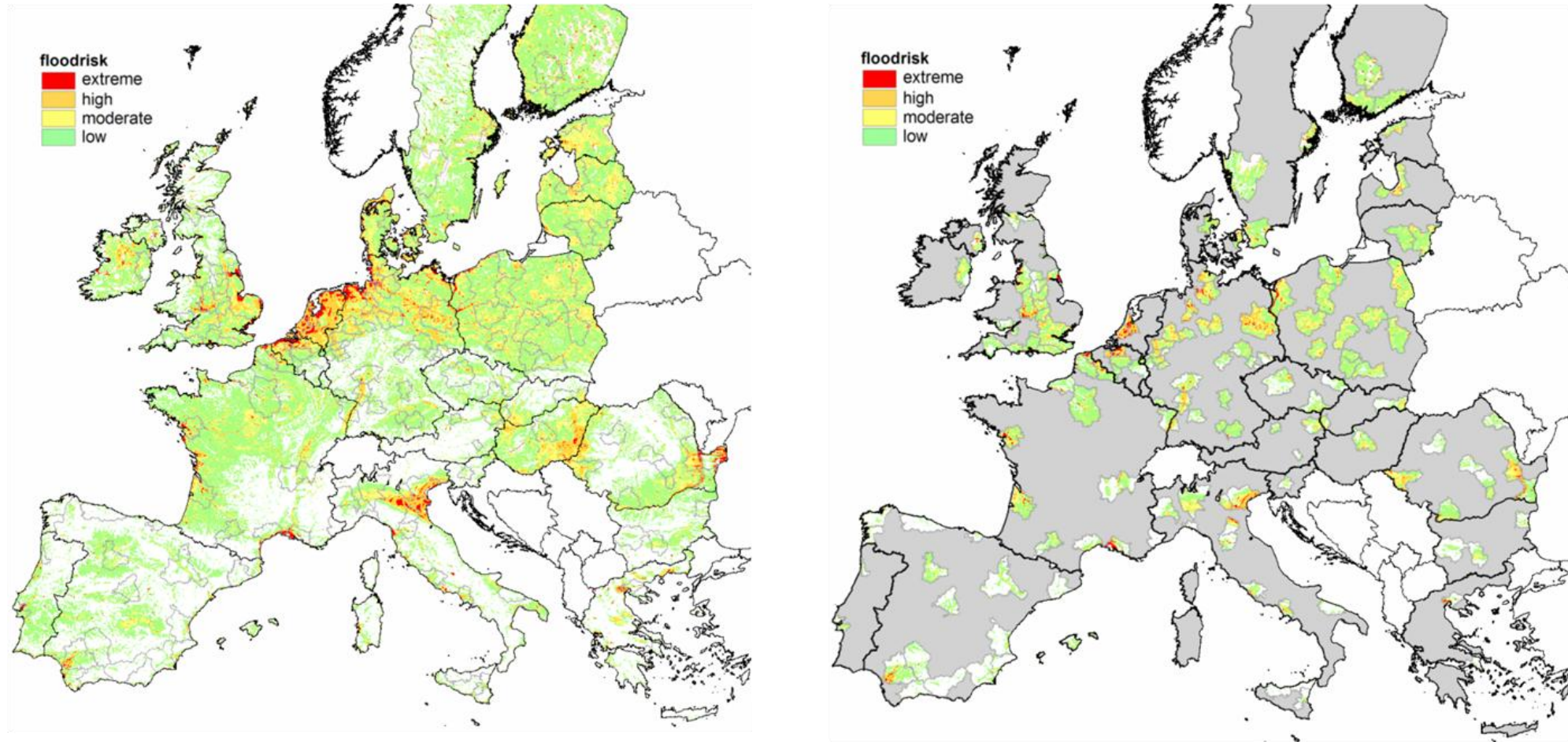


Figure: Projected risks due to coastal and river flooding in the EU27 and 148 city regions (Source: AIT, based on JRC's potential flood hazard map of Europe (De Roo, 2007; extracted and correlated by the AIT)).

Screening of Urban Megatrends: Conclusions.

- Giving emphasis to the diverse set of challenges, problems and potentials of European cities
- Tackling economic, social, environmental and demographic developments in their complexity as best as possible
- Addressing the identified East-West and North-South trends to ensure sustainable urban development in Europe in the decades to come
- Taking advantage of European diversity to develop and realize European models for urban transformation
- facilitating multi-stakeholder involvement to bring new scientific results into policy and decision making and to ensure civil participation

→ **JPI Urban Europe has the ambition to address these findings in its transnational research & innovation programme**



Joint Programming Initiative Urban Europe

The European hub for urban research

- 14 European Countries decided to pool resources to create the JPI Urban Europe to strengthen research and innovation in the area of urbanization
 - **Joint Actions** with emphasis on solution-orientation
 - **Mobilising stakeholder** community (cities, research organisation, companies, citizens)
 - **International cooperation** activities
 - **Teaming up with other initiatives** and networks as well as EC DGs



JPI Urban Europe Principles

- ...anticipating European urban characteristics and finding innovative solutions.
- ...provide input for evidence based policies.
- ...utilize new technologies and investigate new governance concepts.
- ... bringing forward radical inter-disciplinarity as needed to address research topics.
- ... fostering trans-disciplinary research and collaboration between academia, urban stakeholders and urban policy
- ... fostering holistic urban research and social innovation



Joint Actions & Instruments

- Developing a **Strategic Research & Innovation Agenda** (to be completed 2015)
- **Joint transnational Calls**
- **Alignment of National Programmes**
 - Assessment of existing programmes in the JPI Urban Europe context
 - Organisational learning and trust building
- **Urban Europe Research Alliance**
 - Utilizing synergies among urban-related research organisations
 - Joining forces on strategic research issues
- **Dissemination and Valorisation**





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