

**NEW WAYS FOR LOCAL AND REGIONAL
INNOVATION: EUROPEAN
PERSPECTIVES**

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**KNOWLEDGE, TERRITORY AND INNOVATION
PLATFORM (PCTI)**

SEMINAR AND ROUND TABLE

BARCELONA

18 MARCH 2014

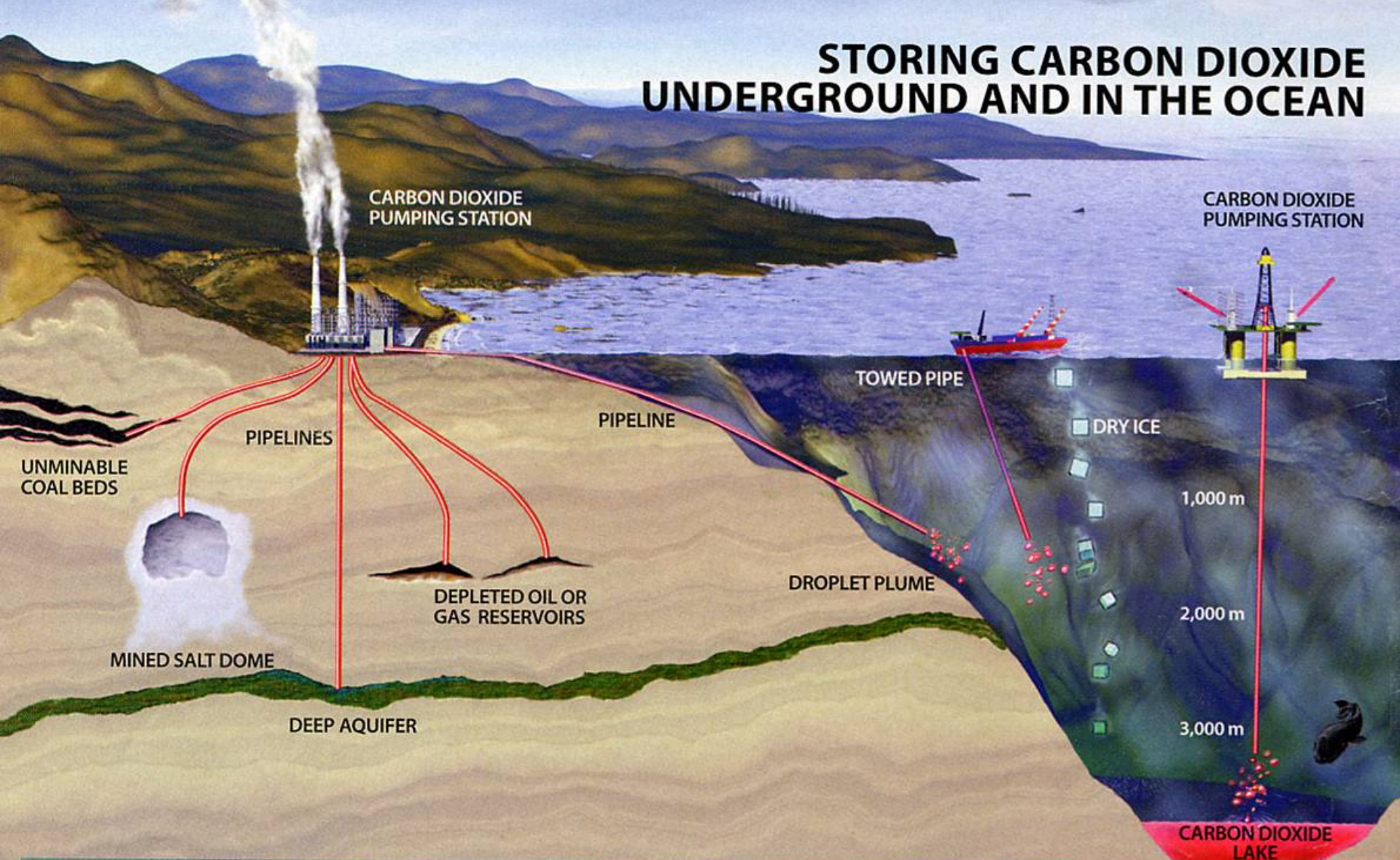
DIFFERENT VIEWS ON THE URBAN FUTURE

1. Modernistic (technology-optimism) perspective

Ignacio Palacios-Huerta: What will the world look like in 100 years? Economists answered:

- Robots will do all production, including production of robots
- Humans will have more years in good health so they might want different spouses for different life phases
- Population will be more educated, demanding democracy and live in peace
- Trends for urbanization could reverse, people may be spread out more efficiently across the earth
- Incomes will be much higher, the world's poorest will live

STORING CARBON DIOXIDE UNDERGROUND AND IN THE OCEAN



STORAGE UNDERGROUND	ADVANTAGES	DISADVANTAGES	STORAGE IN OCEAN	ADVANTAGES	DISADVANTAGES
Coal Beds	Potentially low costs	Immature technology	Droplet Plume	Minimal environmental effects	Some leakage
Mined Salt Domes	Custom designs	High costs	Towed Pipe	Minimal environmental effects	Some leakage
Deep Saline Aquifers	Large capacity	Unknown storage integrity	Dry Ice	Simple technology	High costs
Depleted Oil or Gas Reservoirs	Proven storage integrity	Limited capacity	Carbon Dioxide Lake	Carbon will remain in ocean for thousands of years	Immature technology

2. Biological-ecological perspective

For the first time, a global collapse of civilization appears likely, due to overpopulation, overconsumption by the rich and choices of unnecessarily environmentally damaging technologies.

Both the ecosystem and the human socio-economic systems are threatened by a perfect storm of environmental problems.

Today's 7 bn population would need 1,5 Earth to live on acceptable level; while 5-6 Earth to live on US standards. And by 2050 there will be 9,3 bn persons...

Technologies can add but also subtract from Earth's carrying capacity. (Ehrlich, 2013; The world in 2100)



3. Social perspective

10% of GDP has been transferred from returns on labour to returns on capital. The financial rewarding of chief executive to worker was 20:1 in 1960s, by 2010 this has been raised to 384:1 (Chris Brooks)

In the United States the top 1% of the population received 8% of pre-tax income in 1980, increasing to 18% in 2008.

The four Nordic countries plus Switzerland are characterised by below-average inequality (little wage dispersion combined with a high employment rate) while Chile, Israel, Mexico, Portugal, Turkey and the United States are characterised by above average inequality originating from the labour market.

Theorists of happiness: above \$15.000 a year money doesn't





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CHALLENGES TO URBAN AREAS

Cities of Tomorrow (European Commission, 2012)

- The main challenges of the upcoming decades:
 - demographic (ageing)
 - economic (growing global competition),
 - environmental (less renewable energy sources, more carbon produced)
 - socio-spatial (migration with growing inclusion problems, growing inequalities within society)
 - cultural (heritage, identity, bridging differences, ...)
- All these challenges have to be handled AT ONCE

CRISIS MAKES INTEGRATION NOT EASIER

Novelties of the present situation:

- for a number of years there will be no economic growth
 - and even later the present form of economic growth will be questioned as sacrificing the scarce environmental resources and increasing socio-spatial inequalities
- the capacities of the public sector will be – for long time – much more limited than so far, leading to decline in qualified staff in public institutions
- the tolerance level of the people (regarding inequalities and democracy deficits) is sharply decreasing



BREAKING NEWS

ENGLAND RIOTS

ACPO president Sir Hugh Orde defends police tactics

BBC NEWS 09:09 RIOTS STARTED ON SATURDAY • THE HEAD O

INNOVATIVE IDEAS FOR SMART-SUSTAINABLE DEVELOPMENT

There are many ideas around how the future problems can be approached in integrated way:

- circular economy (linking savings in resources to spreading work opportunities)
- changing mindsets (mobility, consumption...)

Most of these theories conclude that URBAN AREAS COULD BE LEADERS OF THE CHANGES

However, cities have limited opportunities in reality, partly but not only because of the economic crisis (shrinking resources).

THE EUROPEAN POLICY FRAMEWORK(S)

1) **Cohesion policy**: spatially targetted to lagging regions

- ITI and CLLD as potentially good tools, but rejected by many countries

2) **Innovation policy**: spatially blind

- 2009 expert advisory group report: Knowledge for Growth

- Smart Specialisation: national and especially regional governments should encourage investment in domains that would complement the country's other productive assets, to create future interregional comparative advantage

- EU2020 adopted this approach and RIS3 (Research and Innovation Strategies for Smart Specialisation) became ex-ante conditionality for future Structural Funds programmes

FOCUS ON INNOVATIVE SOLUTIONS

- What is “innovative”? Technical aspects (innovative technology providers) may become dominating the process.
 - Example from a smart cities conference: large solution providers were present but not cities. Innovative companies said that this is not a problem as they know the solutions and are present in all countries of the EU.
- Technical innovation does not work in itself without the society. Citizens are needed to achieve integrated development, approaching all three main aims at once under the given local circumstances.
- Urban governance is needed, on the correct territorial level, where all three main aims can be approached simultaneously.

CRITICAL SOCIAL INNOVATION

Igor Calzada: under economic recession and democracy deficit three principles should lead innovation:

- **Territorial:** city-regionalism (regions, especially functional urban regions create better space for interconnected social innovation process)
- **Democratic:** governance based on citizen involvement (Quadruple or Penta Helix instead of Triple Helix)
- **Strategic:** combination of top-down ethical and strategic policy efficient design with bottom-up socially innovative participation.

TERRITORIAL DEVELOPMENT STRATEGIES

- To go directly to the causes of the recession.
- To get realistic agreement among the stakeholders of certain territorial units.
- To make explicit the non-mainstream, even extra-official and micro level, extremely innovative social processes that are happening in the civil arena.
- To rescue at any level CSI projects feeding the bottom-up Smart City approach (Smart Citizens or Fabrication Laboratories, among others).
- To find an Urban Governance model that serves better all the stakeholders.

STRATEGIC PLANNING: THE MESO LEVEL

Calzada's analysis about EuskalHiria (the top-down spatial planning brand in the Basque Country):

- the macro (policy) level has been kidnapped by the Government's and civil servants' reactivism without activating a real bottom-up strategic Think Tank among the key 5 different stakeholders in the Penta Helix model: Public Sector, Private Sector, Civil Society, Academia and Entrepreneurs/Activists
- the micro (project) level has been occupied primarily by critical civil platforms in favour of a anti-growth socio-economic paradigm

The effectiveness of the meso level in Urban Governance is a matter of how visionary a Government (Macro) level is and how responsible Social Movements (Micro) are.

A POTENTIALLY GOOD EXAMPLE: FLANDERS

- By 2020 Flanders wants to rank among the top five knowledge-intensive regions in Europe. To reach this target, the region has taken steps towards a transformation policy approach. This focuses on value chains, economic clusters, open innovation and 'grand projects', which are selective investments in future-oriented domains with a high innovation and growth potential and large societal impact.
- The long-term vision about Flanders future development is contained in the plan 'Vlaanderen in Actie' (ViA), a broadly-based initiative consisting of several breakthroughs in the socio-economic domain. ViA conveys a vision that entails more than a moderated improvement or some growth percentage points. Namely, it points to an evolution that fundamentally alters the landscape and society of Flanders.

THE TERRITORIAL REALITY: FRAGMENTED GOVERNANCE

Problem 1: if the administrative city is much smaller than the morphological area.

Problem 2: if the functional urban area is uncoordinated, no governance structure exists .

- weak economic performance (decisions taken below optimal spatial level)
- environmental problems (urban sprawl, uncoordinated services)
- social polarization and exclusion (unequal allocation of public funds leading to concentration of the poor areas and of the free-rider rich suburbs)

CITIES (million)	Admin city	MUA/city	FUA/city
London	7,43	1,1	1,8
Berlin	3,44	1,1	1,2
Madrid	3,26	1,5	1,6
Paris	2,18	4,4	5,1
Budapest	1,70	1,2	1,5
Vienna	1,60	1,0	1,6
Lisbon	0,53	4,4	4,9
Manchester	0,44	5,0	5,8
Liverpool	0,44	2,7	5,1
Katowice	0,32	7,1	9,5
Lille	0,23	4,1	11,3
...			
AVERAGE (40 cities)	42.63 mill	1,7	2,3

Sources: ESPON, 2007: Study on Urban Functions. ESPON Study 1.4.3 IGEAT, Brussels. Final Report March 2007 www.espon.eu City population: <http://www.citypopulation.de>

THE IMPORTANCE OF FUNCTIONAL URBAN AREA COOPERATION

- To avoid the **negative effects of competition** (investments, services, taxes) between local authorities
- To **integrate policies** – economic, environmental and social challenges can best be addressed **at once** on broader urban level
- To reach the **economy of scale** – size matters in economic terms and in services

However, functional urban areas are undefined and usually weak in administrative-political sense

POTENTIAL WAYS TO DELIMIT METROPOLITAN AREAS, CITY REGIONS

There is no universal agreement, neither on the term (metropolitan area, functional urban zone, city-region, ...) nor on its content.

Parameters for definition may be grouped as follows:

- Labour-market definitions. Predominantly focused on TTW (travel-to-work area)
- Economic activity-based definitions. Besides access to labour markets other factors might also be important (e.g. the supply chain, proximity of international airport)
- Housing-market definitions: the city-region might be defined as the area in which households search for residential locations
- Service-district definitions. For example retail catchments, access to hospitals, theatres, etc.

KNOWLEDGE ABOUT METROPOLITAN AREAS

- spatial view: Europe is a bunch of grapes
- ESPON research
- METREX proposals for types of institutions
- URBACT projects
- FP projects, e.g. PLUREL
- OECD analysis of metropolitan regions
- EUROCITIES Metropolitan Areas WG analysis

SPATIAL VIEW: EUROPE IS A BUNCH OF GRAPES

“... you have big grapes, you have small grapes, you have sweet ones, you have tiny ones, you have growing ones, you have flourishing ones, others are suffering and shrinking ... each grape is one of our metropolitan regions...”

(Klaus Kunzmann)



ESPON DATA ON EUROPEAN FUNCTIONAL AREAS

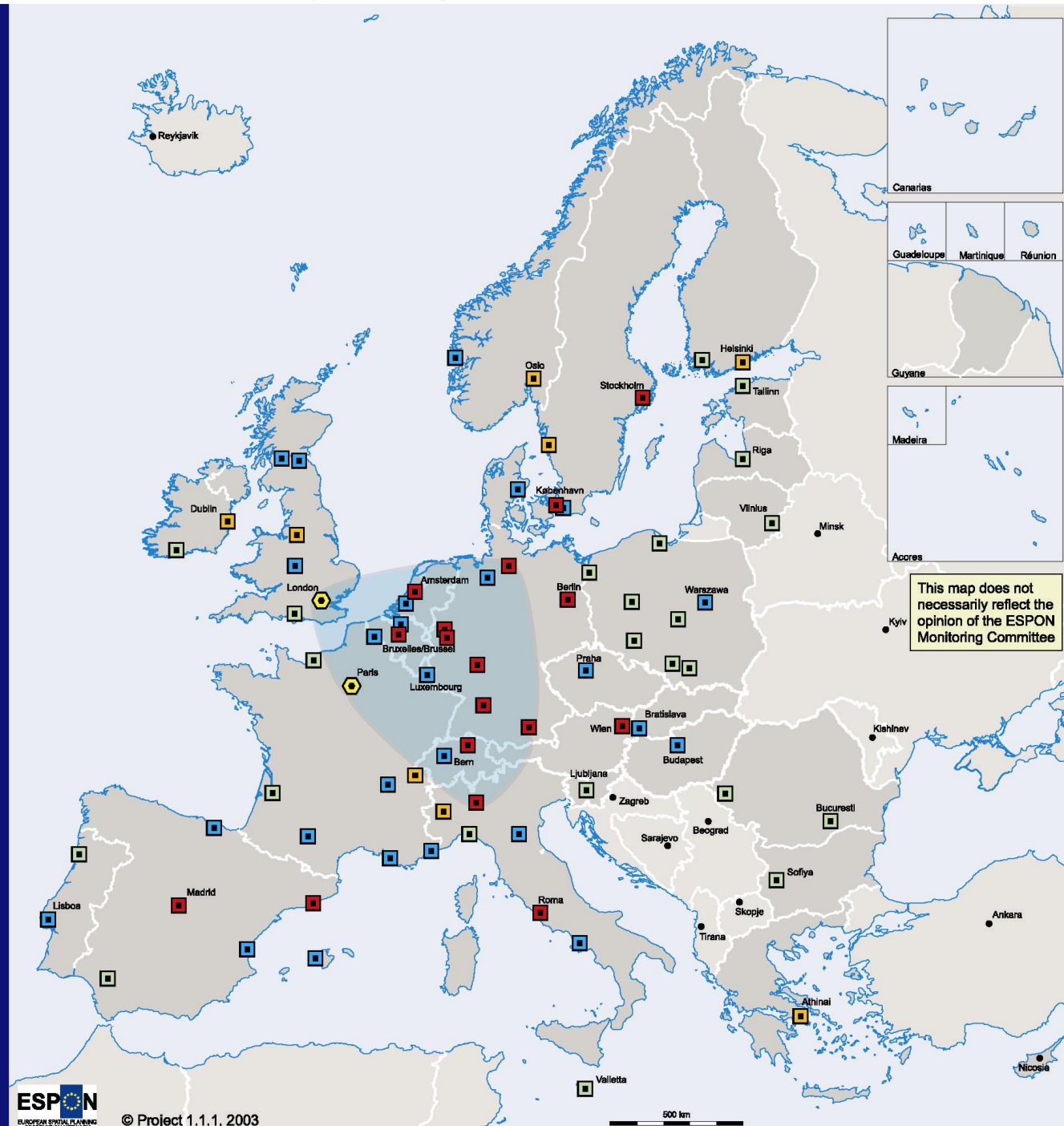
- ESPON 1.1.1 has identified in the enlarged Europe 1595 FUA-s with over 50 th population, 149 groups of FUA's and 64 Metropolitan Growth Areas.
- The 64 MEGA's are categorized as follows:
 - Global nodes: 2 (Paris and London)
 - European engines: 13 (Munich ... Stuttgart)
 - Strong MEGA's: 10 (Stockholm ... Gothenburg)
 - Potential MEGA's: 23 (Lyon ... Bratislava)
 - Weak MEGA's: 16 (Naples ... Valetta)
- ESPON results suggest that there are in the wider Europe some 120 metropolitan FUA's with 500.000 or more population in contiguous urban areas.

Potential main nodes of polycentric regions

Metropolitan Growth Areas

-  **Global city**
-  **European engine**
-  **Strong MEGA**
-  **Potential MEGA**
-  **Weak MEGA**

 **Pentagon area**



This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

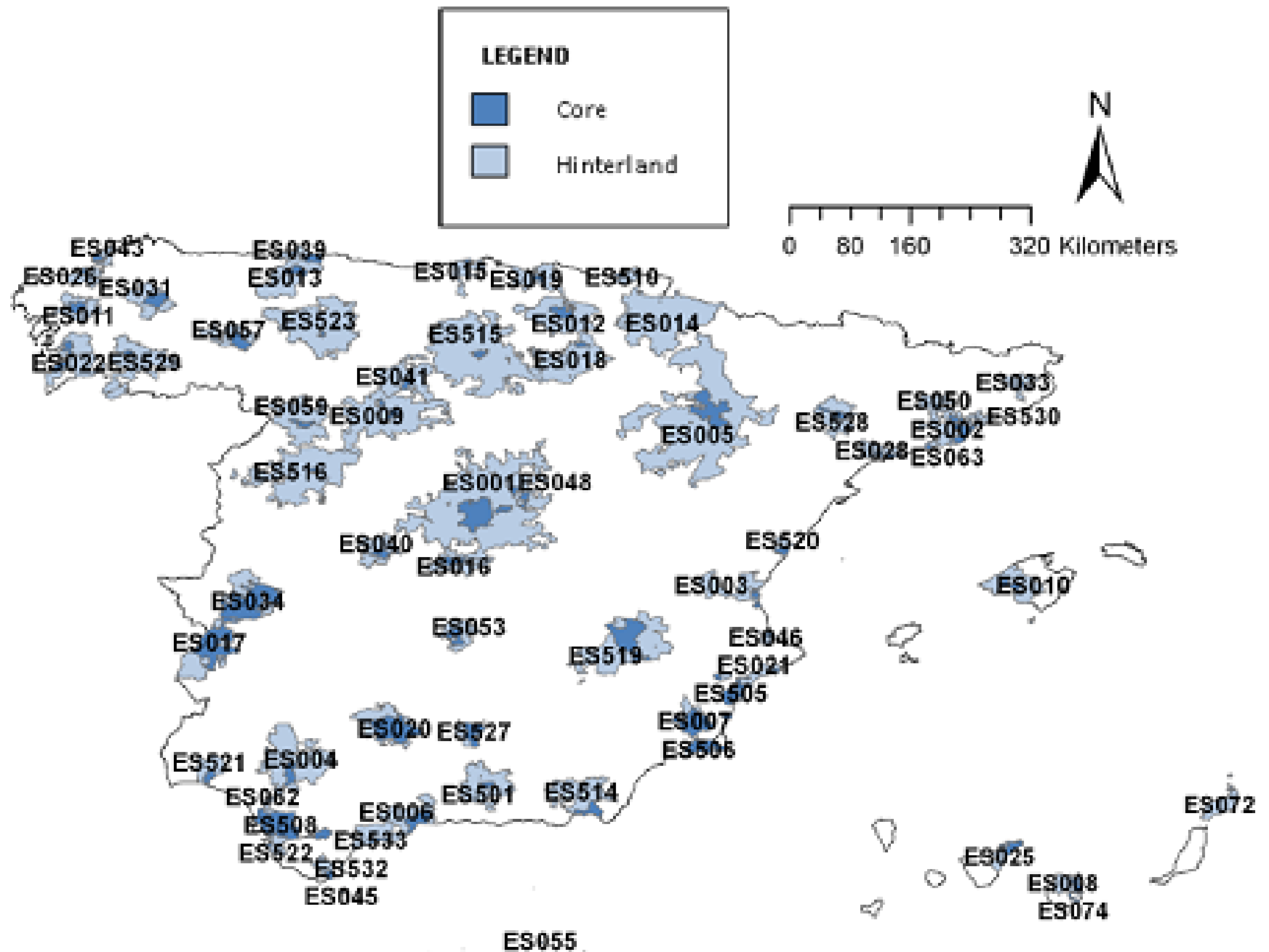
© EuroGeographics Association for the administrative boundaries
 Origin of data: Eurostat, National Statistical Offices, National Experts
 Source: ESPON Database

OECD DELIMITATION OF FUNCTIONAL URBAN AREAS

- OECD identification of FUAs
 - population grid from the global dataset Landscan (2000). Polycentric cores and the hinterlands of FUAs identified on the basis of commuting data, including all settlements from where at least 15% of the workers commute to any of the core settlement(s).
- OECD defined four categories (total functional urban area):
 - small urban areas with a population of 50 – 200 thousand;
 - medium-sized urban areas (200 – 500 thousand),
 - metropolitan areas (500 thousand – 1,5 million);
 - large metropolitan areas (above 1,5 million population).
- 29 OECD countries: 1175 functional urban areas. Public database: www.oecd.org/gov/regional/measuringurban
- European OECD countries: 659 functional urban areas (29 large metropolitan areas and 88 metropolitan areas).

European OECD Countries	Large metropolitan area (1,5 mill -)	Metropolitan area (0,5 mill-1,5 m)	Medium sized urban area (200 th–500)	Small urban area (50 th– 200 th)	SUMM	Share of pop in FUAs (%)
Austria	1	2	3	-	6	56,5
Belgium	1	3	4	3	11	58,9
Czech Rep	1	2	2	11	16	45,6
Denmark	1	3	-	-	4	53,8
Estonia	-	1	-	2	3	55,3
Finland	-	1	2	4	7	49,7
France	3	12	29	39	83	62,8
Germany	6	18	49	36	109	64,3
Greece	1	1	1	6	9	49,8
Hungary	1	-	7	2	10	49,7
Ireland	-	1	1	3	5	50,3
Italy	4	7	21	42	74	50,8
Luxembourg	-	-	1	-	1	80,2
Netherlands	1	4	11	19	35	72,1
Norway	-	1	3	2	6	44,5
Poland	2	6	16	34	58	55,2
Portugal	1	1	3	8	13	53,9
Slovak Rep	-	1	1	6	8	36,9
Slovenia	-	1	1	-	2	39,1
Spain	2	6	22	46	76	62,7
Sweden	1	2	1	8	12	52,7
Switzerland	-	3	3	4	10	55,6
UK	3	12	44	42	101	73,0
SUMM	29	88	225	317	659	

SPAIN



Madrid	6,400,189
Barcelona	3,446,701
Valencia	1,482,901
Sevilla	1,347,611
Bilbao	1,007,708
Málaga	859,889
Zaragoza	766,042
Las Palmas	581,146
Granada	489,098
Palma de Mallorca	484,021
Murcia	472,148
Santa Cruz de Tenerife	430,858
Valladolid	423,909
Vigo	423,653
Alicante/Alacant	377,850
A Coruña	367,795
Córdoba	340,601
Pamplona/Iruña	333,732
Cádiz	318,247
San Sebastián/Donostia	311,865
Oviedo	293,546
Santander	283,074
Gijón	276,983
Vitoria/Gasteiz	245,068
Salamanca	237,074
León	234,818
Elche/Elx	214,549
Burgos	211,622
Almería	202,857
Sabadell	202,043

FUNCTIONS AND INSTITUTIONAL FORMS OF COOPERATION ON METROPOLITAN LEVEL

Eurocities „Metropolitan Areas In Action” research (40 European cities):

- types of **content/functions of cooperation**: from loose talks through single or more functions till strong joint multi-functional planning
- types of **institutional form of cooperation**: from no form or statistical unit through weak delegated council till strong (elected or delegated) council

Metropolitan functions and organizations: European examples

Functions	Networking	Some functions	Strong planning
Institution			
Non-organization	Brno	Vienna	
Delegated organization	Bratislava	Amsterdam	Frankfurt
Elected organization			Stuttgart

Size of the collaboration	1. Statistical unit	2. Networking, weak strategic planning	3. Single function	4. Multiple functions	5. Strong strategic, spatial planning of binding nature
A) Smaller than FUA		Brussels, Ghent, Malmö, Vienna, Zurich.	Helsinki, Katowice, Warsaw	Amsterdam, Rotterdam	Frankfurt, Lille, Lyon, Rennes, Strasbourg
B) FUA	Berlin, Budapest, Ghent, Linköpping, Lisbon, Strasbourg, Vienna, Warsaw	Amsterdam, Birmingham LEP, Bratislava (Region), Brno, Brussels, Göteborg, Katowice, Lyon, Malmö, Sofia, Terrassa,		Helsinki, Madrid (Region), Munich (?), Manchester, Oslo, Preston, Stockholm (county), Tampere	
C) Somewhat larger than FUA	Sofia	Brabantstad, Zurich	Brussels	The Hague, Torino (Province)	Stuttgart
D) Much larger than FUA (larger economic zone)	Birmingham, Budapest,	Bratislava, Frankfurt, Ghent, Göteborg, Hamburg, Katowice, Lille, Linköpping, Lyon, Malmö, Oslo, Rennes, Sofia, Stockholm, Strasbourg, Stuttgart, Tampere, Vienna, Zurich	Rotterdam – The Hague	Katowice (Region), Lisbon (Region),	Berlin, Helsinki (Region), Malmö (region)

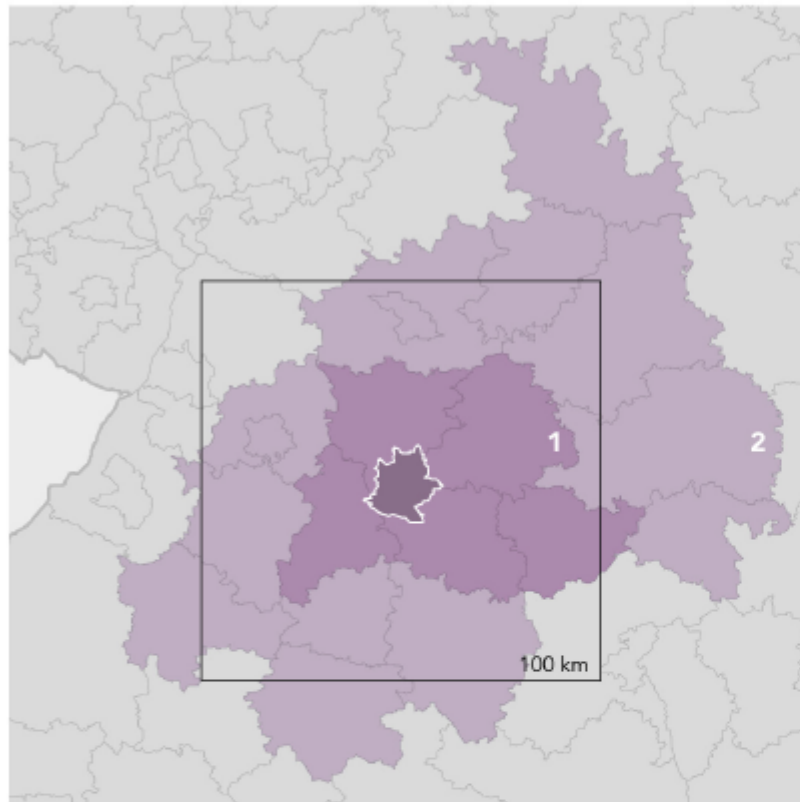
THE FRENCH 'URBAN COMMUNITIES'

- Created by the French Parliament in 1966 as compulsory settlement associations in metropolitan areas of Bordeaux, Lille, Lyon and Strasbourg.
- 1999 Chevenement law: strengthening the roles of settlement associations (while keep them voluntary to create) in order to achieve cooperation and joint administration between large cities and their independent suburbs
 - 2009: 16 urban communities in France with a combined population of 7,5 million inhabitants. All urban areas in France over half million inhabitants are urban communities, except for Paris.
- Urban communities are voluntary in their creation. However, if created, broad range of compulsory functions and single business tax regime are compulsory.

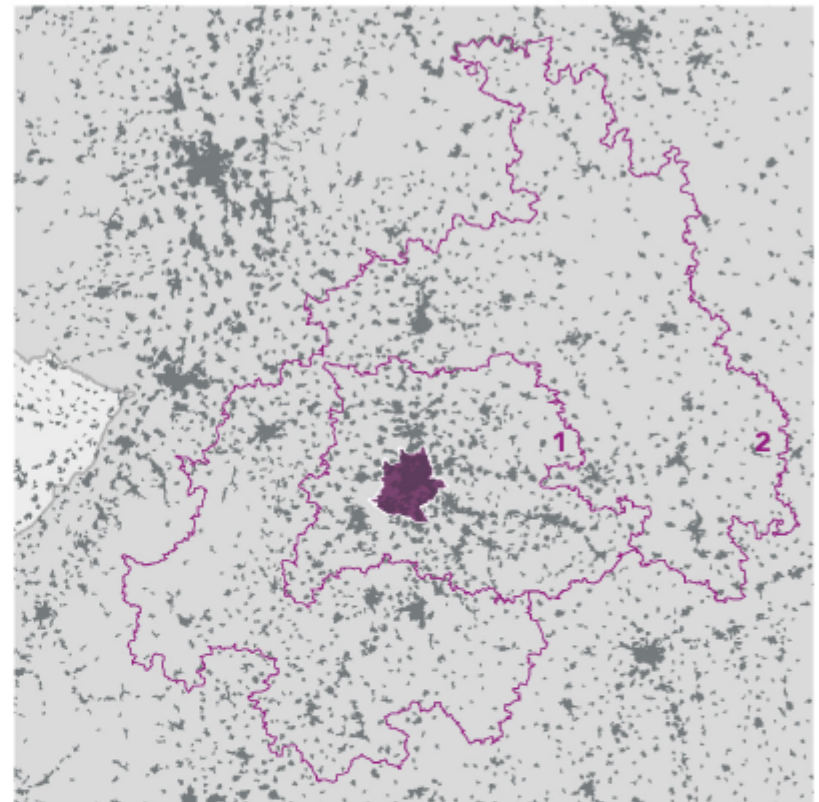


City, size	Areas around the city	Functions of the different areas	Legal background	Note
Stuttgart (0,6 mill)	1. Stuttgart Region (2,7 mill) 178 municipalities	1. Land use planning, the organisation of public transport and the promotion of the economy	1. Stuttgart Region (Parliament with 91 delegates) and the Stuttgart Region Association and agencies	In Germany, the Federal Ministry of Transport supports model projects of spatial planning called „Modellvorhaben der Raumordnung“, or “MORO”. In these model projects, new ideas and instruments of spatial planning are tested and scientifically monitored.
	2. Stuttgart Metropolitan Region (5,3 mill)	2. Voluntarily tasks in the field of transport, economic development, climate change	2. Committee with 36 nominated delegates.	

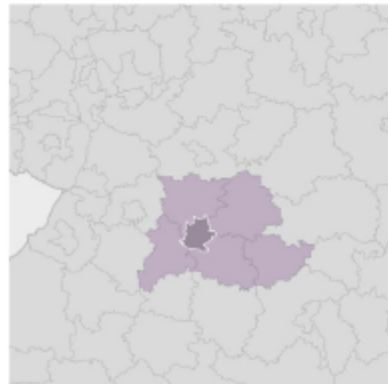
Region - All levels of cooperation - Administrative Borders



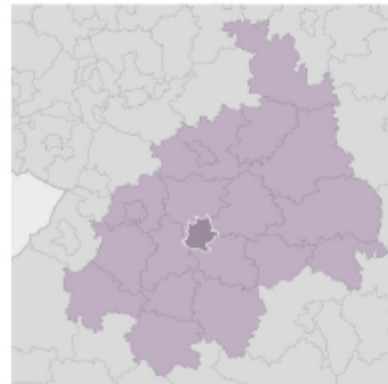
Region - All levels of cooperation - Urbanisation Patterns



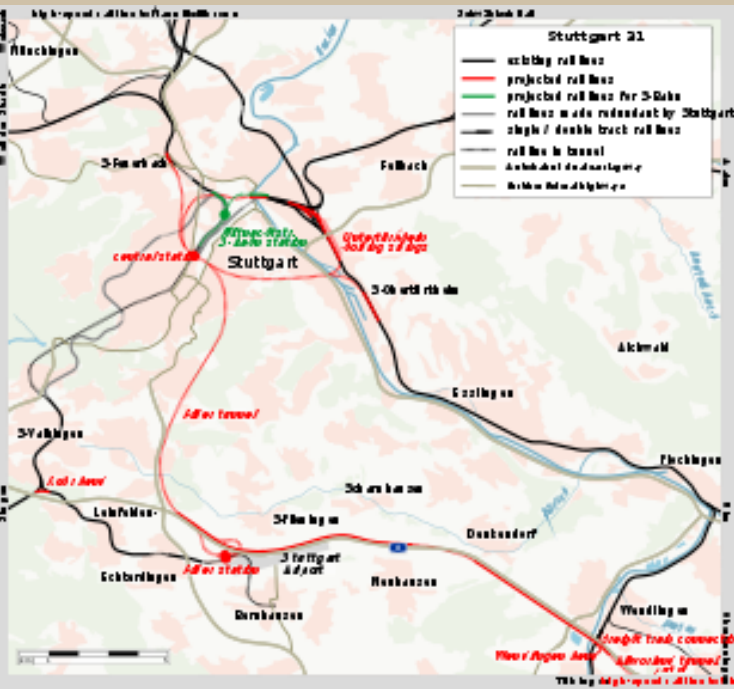
1 Stuttgart Region



2 Stuttgart Metropolitan Region



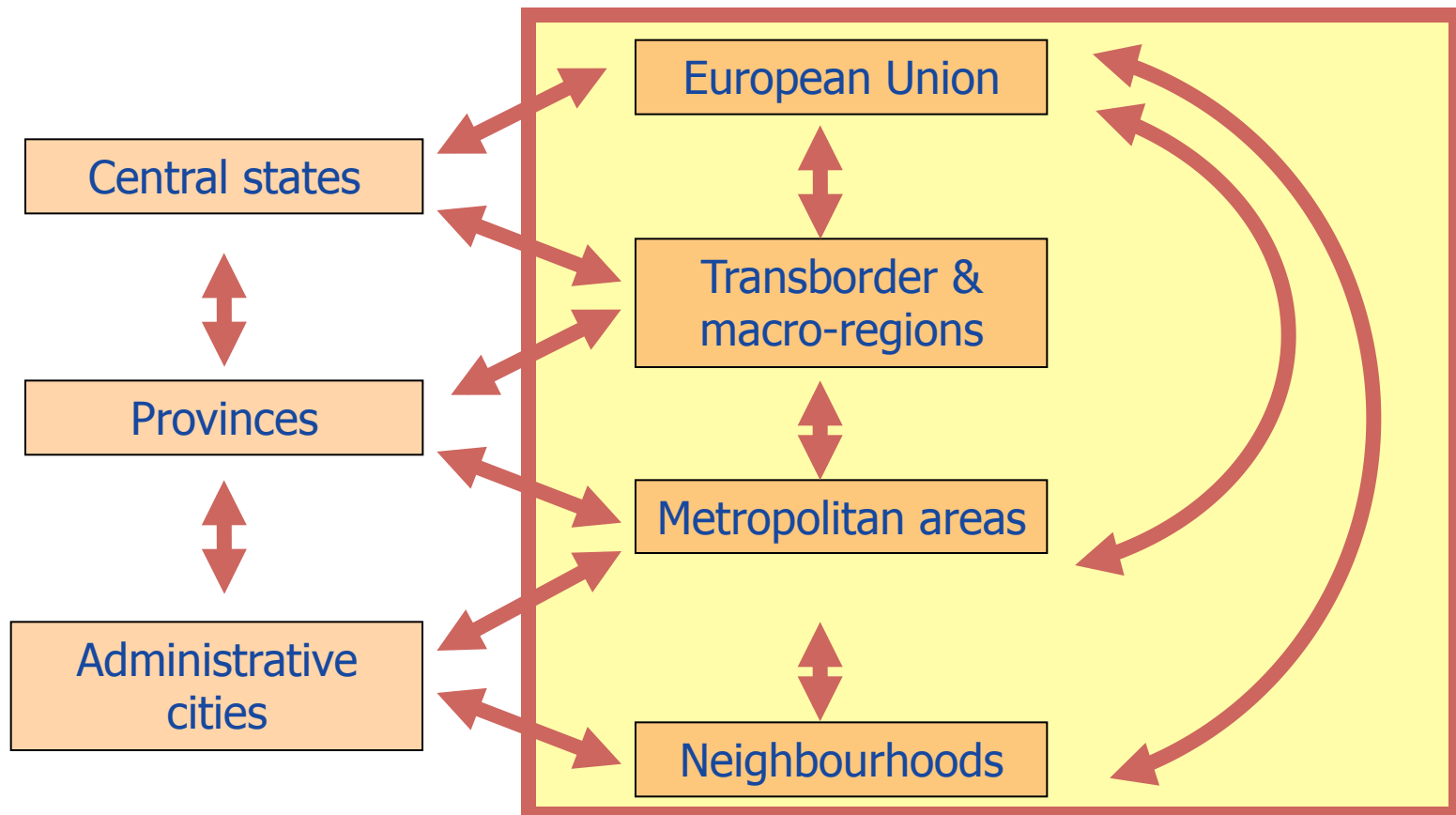
AN ALMOST FAILED CASE: STUTTGART 21



Government and governance

Old: fixed action space

New: flexible action space



Adapted from Jacquier, 2010

CONCLUSIONS

- Innovation and competitiveness are needed but **not only in economic terms**.
- The main goal of development should be **integration of the 3 different aspects**: sustainability and inclusiveness should be taken care of while becoming more competitive economically.
- This can only be achieved through **CSI-oriented coordinated planning and governance** across the **functional urban area** (and neighbourhood) level. It is a crucial dilemma how the innovative ideas are implemented by formal government levels.
- Metropolitan areas which act as pioneers in this new type of „**integrated competitiveness**” should be more open to other parts of Europe, widely **disseminating** their practice while taking direct links to some of those areas which need direct advice.