

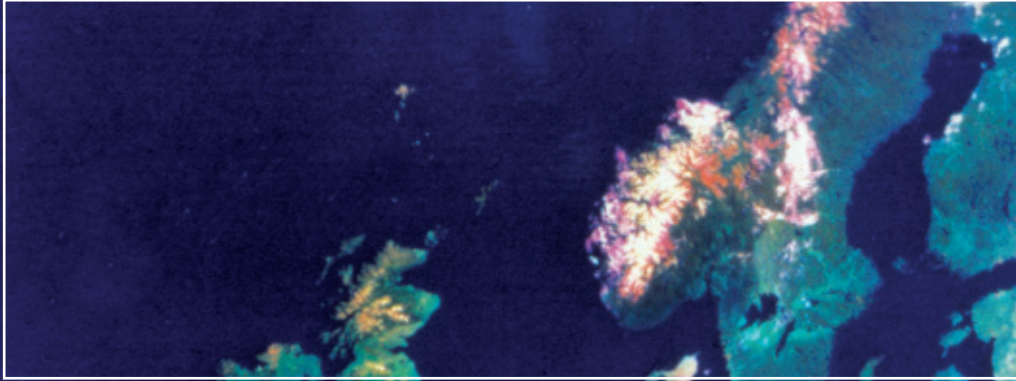
FRAMEWORK

FRAMEWORK

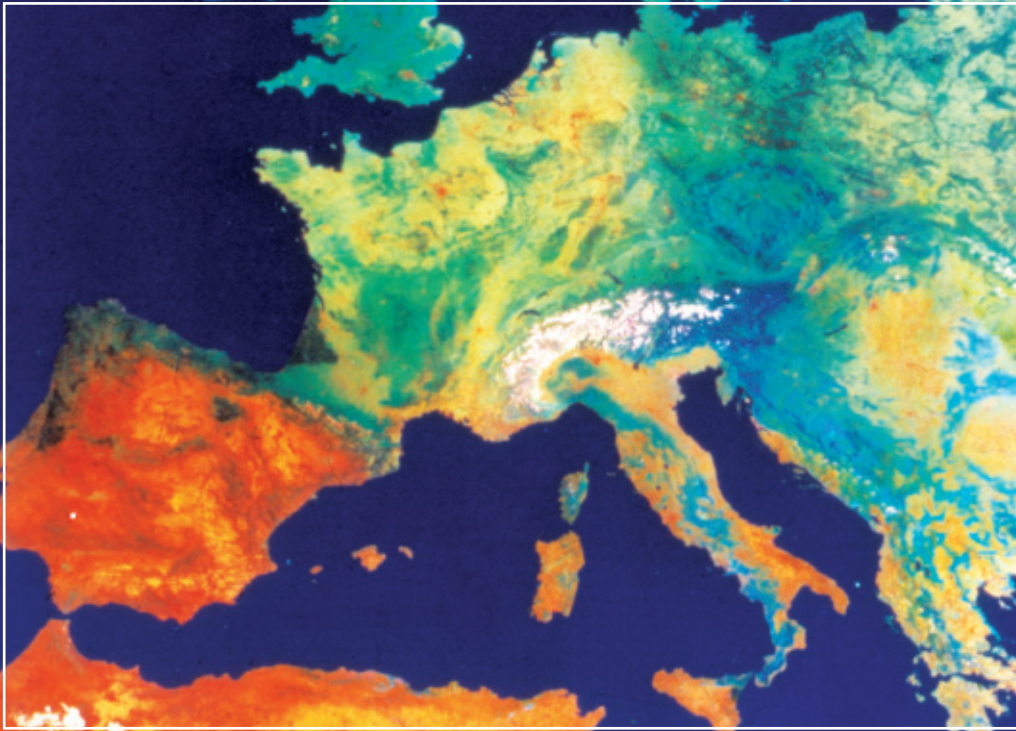
PolyMETREXplus

FRAMEWORK

POLYCENTRICITY AND BETTER
EUROPEAN TERRITORIAL BALANCE



Polycentricity and better European territorial balance



Polycentricity and better European territorial balance

A project conceived, promoted and progressed by METREX, the Network of European Metropolitan Regions and Areas, and the Generalitat de Catalunya (Lead Partner) under the INTERREG IIIC programme of the European Union, 2004 - 2007.



Project conception
and promotion



Lead Partner



Project coordination
and financial management



Vision - an instance of perception, especially of future development

Framework - a structural plan or basis of a project

Practice - a usual or customary action for proceeding

Benchmark - a reference point

Polycentric - having more than one centre

Territorial - relating to a particular territory

Balance - harmony in the parts of a whole

Connectivity - serving to link or enable relationships or associations

FRAMEWORK

Framework has been prepared by METREX to summarise the outcomes and outputs of the PolyMETREXplus project for the information and use of METREX Members and the wider European metropolitan community.

It concludes that a better European territorial balance could be achieved, over time, through the progressive development of well connected polycentric metropolitan clusters and corridors and that this approach should be commended to the European Union.

Framework includes a Vision and a Framework for a Polycentric Metropolitan Europe, a related Action Plan and a Benchmark of effective polycentric metropolitan practice.

It takes the form of an illustrated manual for practical use and reference. It has been produced in EN|ES|FR|IT|DE and can be downloaded in these languages from the METREX web site at www.eurometrex.org

FRAMEWORK PURPOSES

- 1 Report on the outcomes and outputs of the PolyMETREXplus project to METREX members.
- 2 Provide a basis for discussions with European institutions on the future of the territorial dimension to European affairs, for example, through any review of the European Spatial Planning and Development (ESDP) process and the contributory research work of the European Spatial Observation Network (ESPON).
- 3 Provide a European context and foundation from which METREX members and the European metropolitan community can progressively take forward the concept of better European territorial balance through metropolitan polycentricity, for example, through the Representative Interregional Networking Activities identified in this report and the forthcoming INTERREG IV programme of the European Commission.

METREX Glasgow November 2007.

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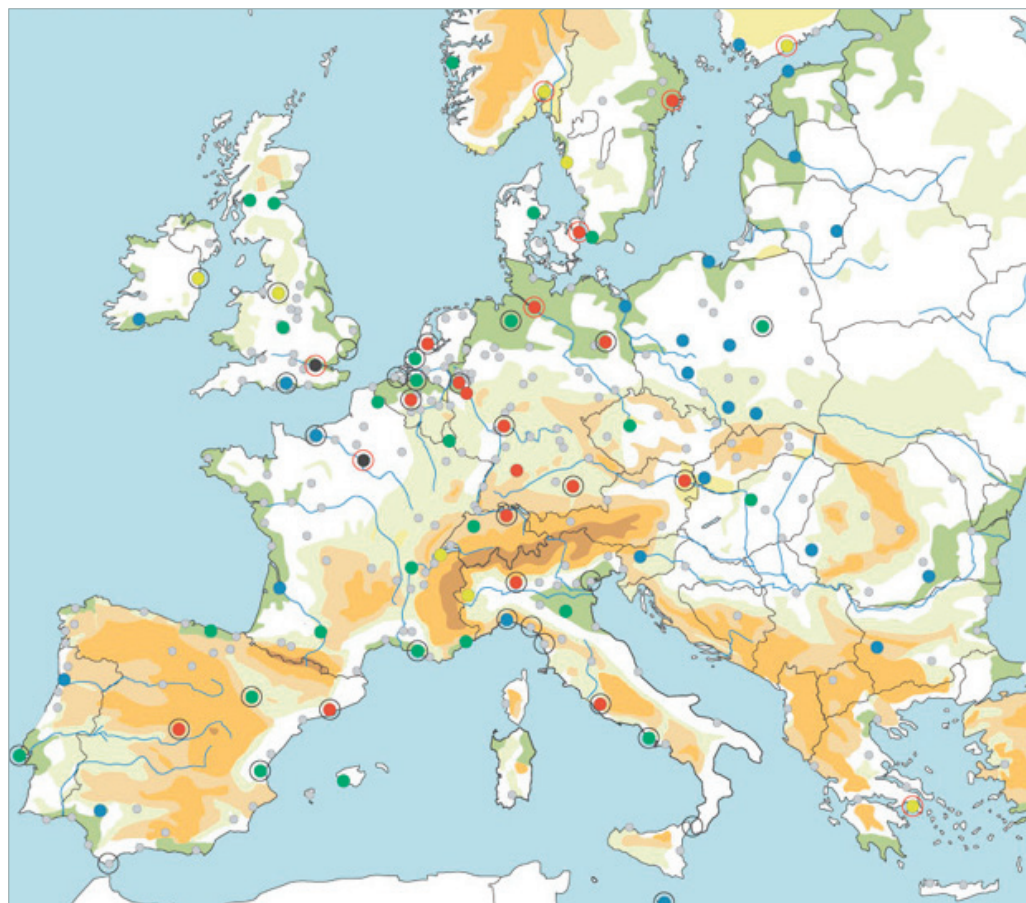
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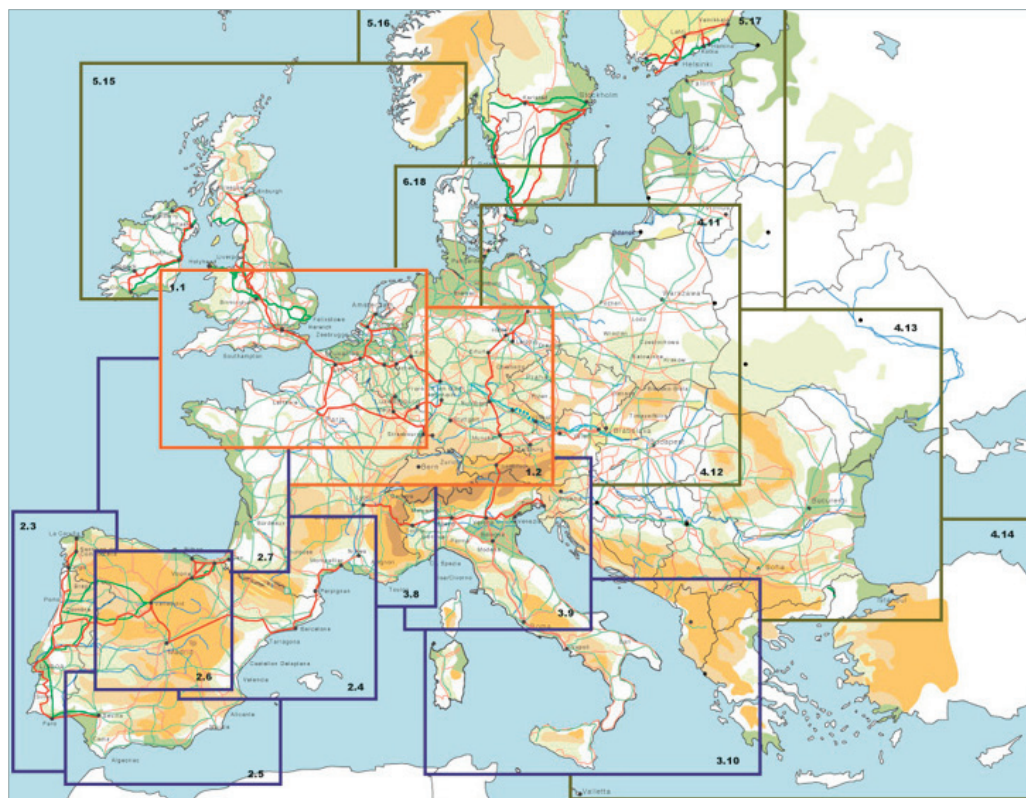
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1 The European Territory, its cities and its people



2 European transnational and interregional territories



Connectivity remains the key factor for polycentricity

WHY polyMETREXplus?

WHY POLYMETREXPLUS?

European territory, its cities and its people

Cities have always grown up at points of connection, which is why connectivity features as a key consideration in this Framework.

They started as market places, developed supporting services and eventually specialisations. Such knowledge and expertise became a valuable asset, which in turn needed safeguarding and support. For example, medieval cities reflected these functions in their market places, exchanges, castles, walls, monasteries, universities, guilds and systems of governance. Urban Europe grew from city-states, which exercised influence over wide areas of territory.

Many early trading areas between city-states were based on their maritime connections, notably within the Mediterranean and Baltic Seas and along the Atlantic coast. Europe's major rivers were key trading routes to inland Europe.

Europe began the process now known as globalisation through its long distance external trading links to the east to Asia and to the west to the Americas. Many European cities founded their prosperity on their roles as gateways to wider global markets.

The industrial revolution saw a rise in cities whose activities were based on local energy and mineral resources and on a supply of materials from Europe's global contacts. European empires enabled such sources of supply. In the twentieth century urban Europe has experienced the devastation of two major territorial wars and, until recently, a major political territorial division between east and west.

This is the historical context for the PolyMETREXplus project. It is summarised here because the project takes as its twin starting points the territory of Europe, with its geographical and geological characteristics and the natural

resources that have so influenced its urban development, and its people and their cities, which have responded to the opportunities offered by nature and circumstances.

Urban Europe, and in particular its major urban areas, reflect the legacies of past centuries and many of their locations remain valid today for the same reasons that brought them into being in the first place. Maritime trade remains a factor, global links remain factors, long-standing trading routes still have significance, centres of knowledge and expertise have even more significance and culture is a key factor in identity and attractiveness.

Connectivity remains the key factor for polycentricity.

WHY POLYMETREXPLUS?

European Union

In recent years, within the developing European Union, there has been an unprecedented overall growth in prosperity. Material wellbeing is now at high levels within many European cities and the European Union is concerned, through the Lisbon Strategy, to maintain European global competitiveness.

The European Union has also been concerned, since its foundation fifty years ago, to develop European cohesion to heal the divisions of the twentieth century. It also took the view that major disparities between Union partners were not conducive to cohesion and that the wellbeing of all member states was a matter of common concern.

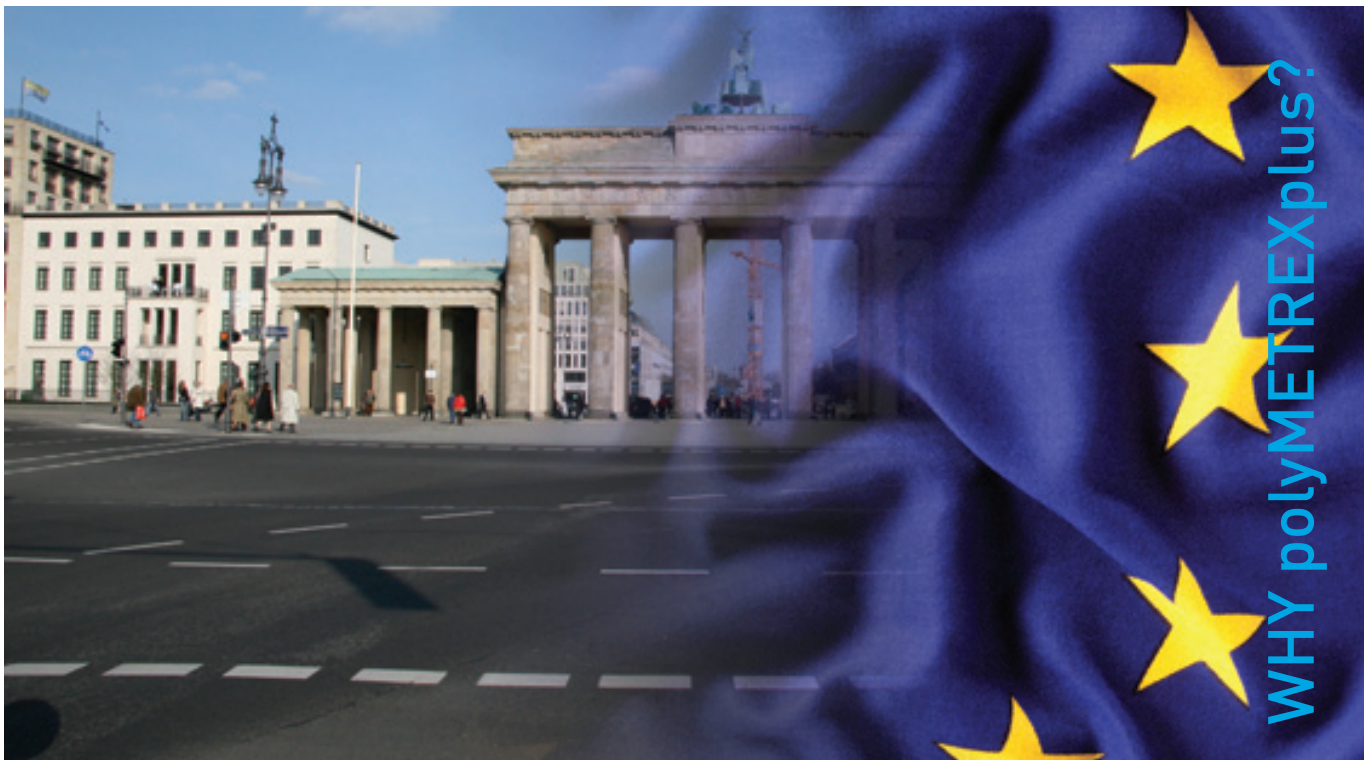
Within the European Union, which now includes 27 Member States with 3 candidate countries at the negotiation stage, the related issues of competitiveness and cohesion are major political considerations. A polycentric approach to better European territorial balance can support both these objectives.

European Spatial Development Perspective (ESDP) and the issue of better European territorial balance

The European Spatial Development Perspective (ESDP) of 1999 identified one specific key strategic territorial issue. Europe has two cities of global significance, London and Paris, and many of the core business and productive functions of the European economy are located in what has become known as the Global Integration Zone (GIZ) based around the London/Paris/Brussels/Rhine-Ruhr area.

The ESDP sought the identification of a number of balancing GIZ in order to foster the wider competitiveness of the European economy and to avoid growing disparities of prosperity and wellbeing across the territory of the European Union. Such disparities were seen as the potential generators of economic migration that would diminish the competitiveness of some areas and increase pressures on others. The ESDP sought a better territorial balance.

The PolyMETREXplus projects seeks to provide a metropolitan response to this challenge and to present a Vision of what better territorial balance might look like and a Framework and Action Plan through which this might be realised, over time.



WHY POLYMETREXPLUS?

Metropolitan dimension to European affairs

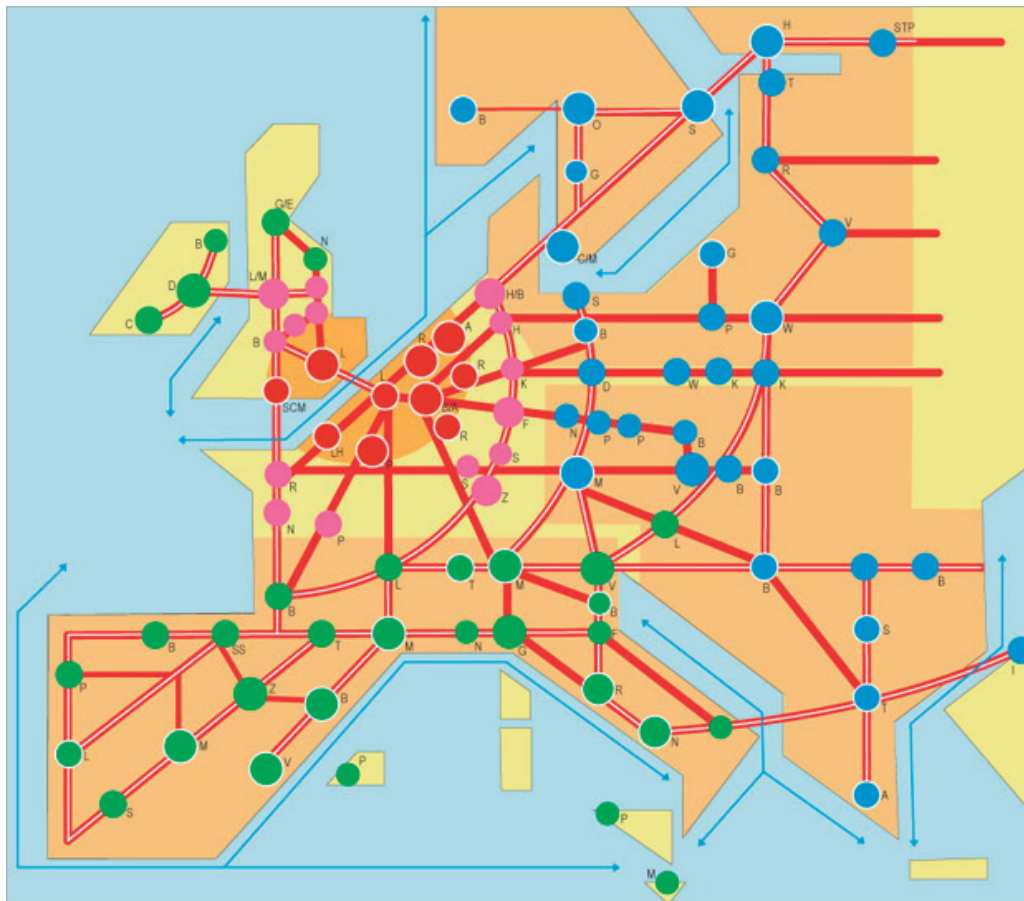
The metropolitan dimension to European affairs is significant and many of the key strategic issues of concern at the European level can be addressed most effectively at the metropolitan level. For example, promoting and enabling cohesion and competitiveness, balancing urban expansion and urban renewal, integrating urban activities and transportation and managing the environmental impact of development.

Potential for polycentric metropolitan co-operation

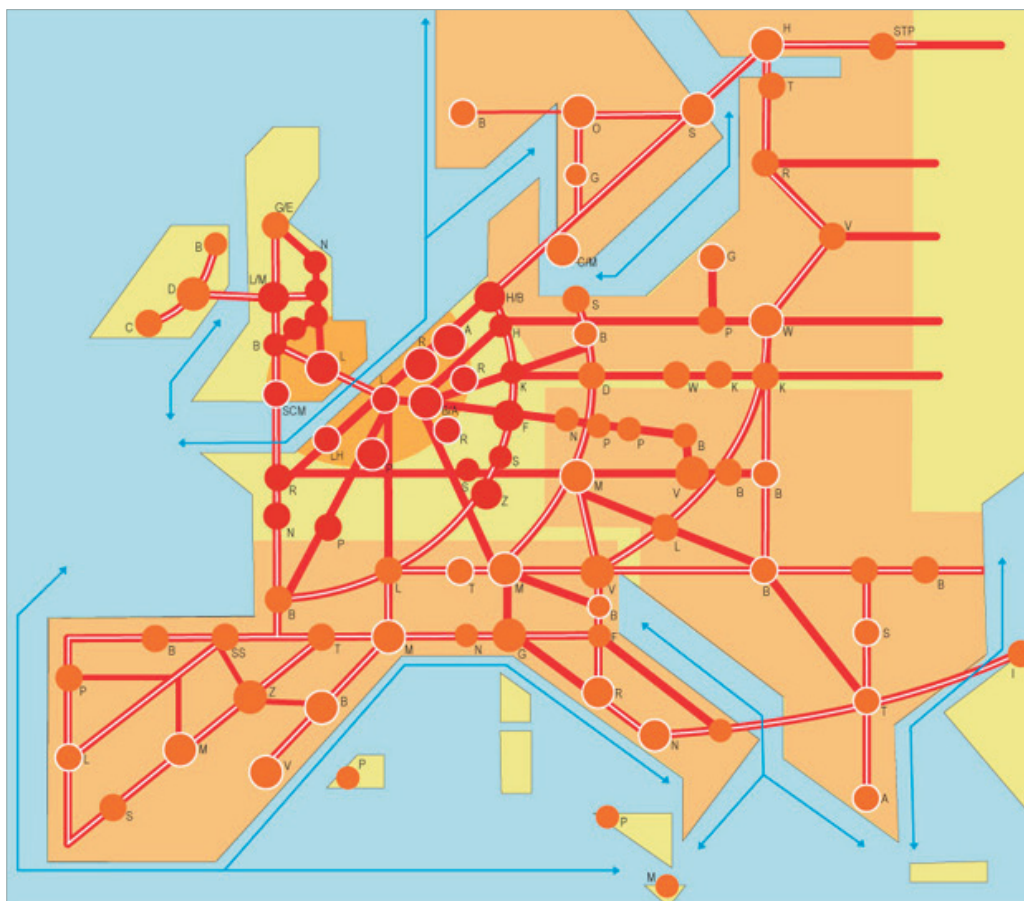
There is unrealised potential for polycentric co-operation to foster the collective competitiveness of metropolitan regions and areas. This will require all Europe's major metropolitan areas to become as individually strong as they can be, by addressing their social, economic and environmental weaknesses and realising their opportunities, and as collectively strong as they can be through co-operation.

A polycentric approach, through high quality connectivity between metropolitan areas and from metropolitan areas to the wider Europe and beyond, offers opportunities to develop social, economic and environmental relationships. For example, high quality specialised health and higher education services, more robust labour markets, larger markets for goods and services and common approaches to environmental issues, such as renewable energy and climate change.

Polycentric relationships can be founded on complementarity, where the roles and functions of a cluster or corridor (for example, along coasts or river valleys) of metropolitan areas are different or on co-operation where they are the same or similar. The historic functions of cities as centres of knowledge, specialisation, innovation and fund raising can be reinforced through polycentric relationships in both the public and private sectors.



3 European territorial balance



4 Vision - what might better European territorial balance look like?

SUMMARY

ESPON and better territorial balance

The PolyMETREX plus project has drawn appreciably on the research and findings and conclusions of the European Spatial Observation Network (ESPON). ESPON has recently concluded a body of research work under the Interreg IIIC programme of the European Union (see www.espon.lu).

In particular, its work on the assessment and categorisation of European urban areas has provided the basis for the conclusion of the PolyMETREXplus project that better European territorial balance could only be achieved between the GIZ and the two major transnational areas of the Mediterranean and the Baltic/Danube/Aegean.

PolyMETREXplus has taken the ESPON assessments of Functional Urban Areas (FUA - cities and their areas of influence) and Metropolitan European Growth Areas (MEGA - Global nodes, European engines, Strong, Potential and Weak metropolitan

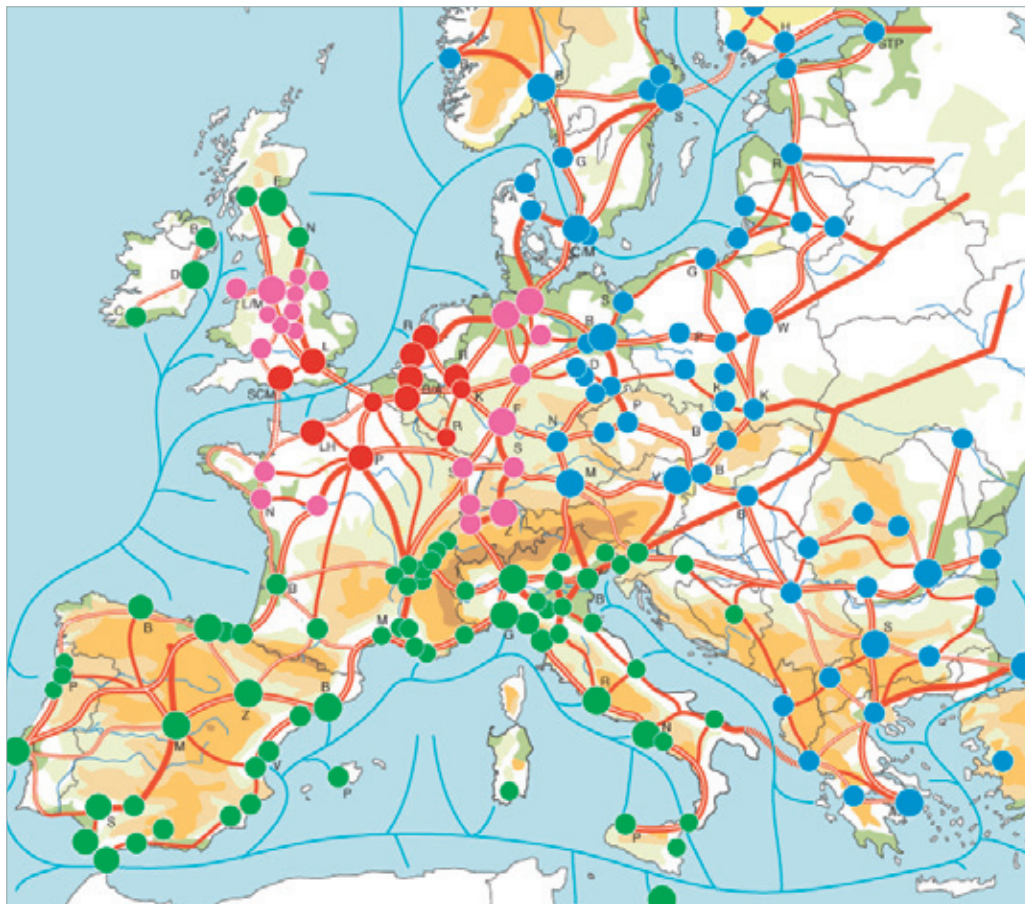
areas) as the basis for its assessment of polycentric development possibilities.

Vision and the TEN-T programme

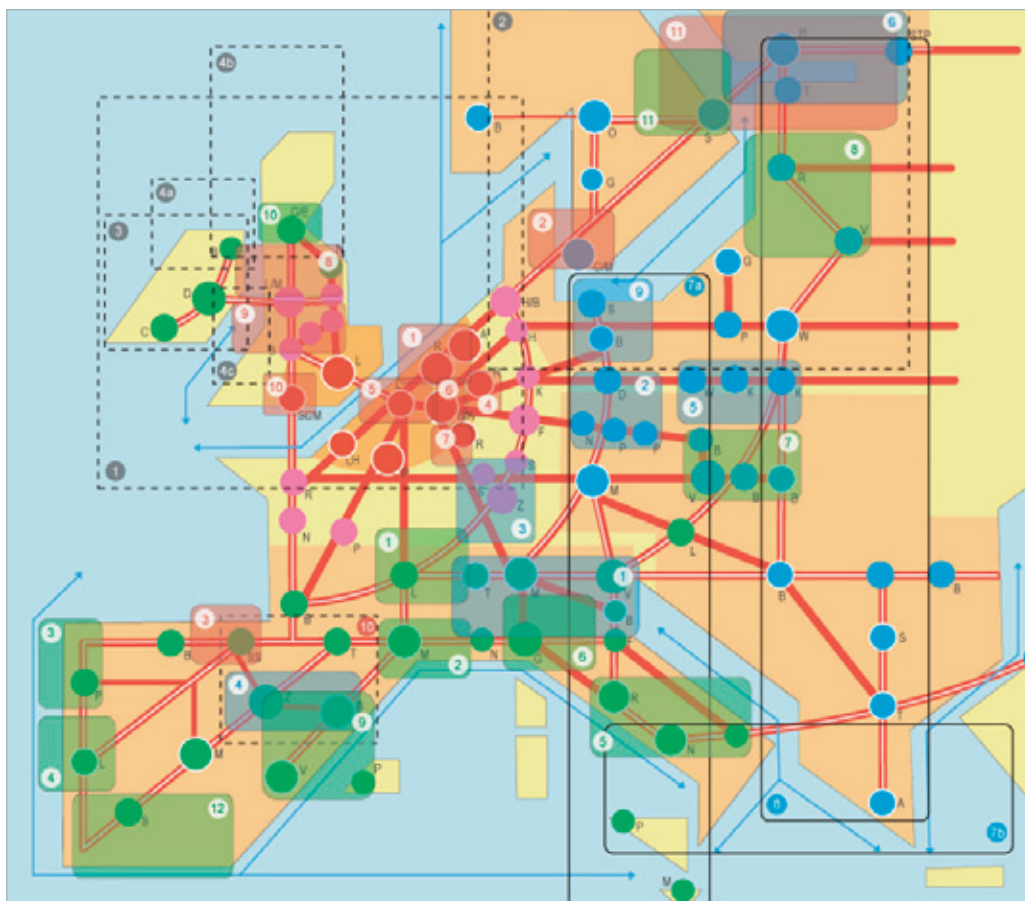
The PolyMETREXplus Vision for better European territorial balance concludes that the better connectivity in prospect through the Trans European Transport Network (TEN-T) Programme of the European Union, augmented with additional proposals by ESPON and METREX, could improve European North/South and East/West connectivity and peripheral movements around the GIZ and enable the Mediterranean and Baltic/Danube/Aegean areas to function more effectively as counter balancing areas to the GIZ.

If the metropolitan areas identified by ESPON as Potential or Weak Metropolitan European Growth Areas (MEGA) can also increase their strengths individually and collectively, through polycentric

co-operation, then the Vision of better territorial balance could be realised, over time. There are also metropolitan areas that are not categorised as MEGA that can make a significant contribution to the Vision.



5 Framework



6 Action Plan

- GIZ Metropolitan Areas
- Linking Metropolitan Areas
- Atlantic / Mediterranean Metropolitan Areas
- Baltic/Danubian/Aegean Metropolitan Areas

SUMMARY Framework

The Framework for a Polycentric Metropolitan Europe demonstrates the practicality of the Vision by illustrating the geographic realities of metropolitan locations and the augmented TEN-T programme and the new relationships that could emerge in metropolitan corridors and clusters.

Action Plan

The Action Plan looks at such corridors and clusters in more detail and provides the basis for the Spatial Visions and polycentric initiatives from which these can be progressed, possibly through further action under INTERREG IV B and C (2007-2013).

Polycentric Practice Benchmark

There are a number of examples of existing European polycentric initiatives and organisations that have come into being in response to the need for collective co-operation for competitiveness and cohesion. They provide the practical experience that underlies the Polycentric Practice Benchmark and give credibility to the Vision, Framework and Action Plan.

Such initiatives, collectively, offer a way forward to the better territorial balance sought by the ESDP. They can be thought of as the building blocks for a polycentric metropolitan Europe.

SUMMARY

PolyMETREXplus and InterMETREX

The PolyMETREXplus project is related to the InterMETREX project in a number of ways. The InterMETREX project provides a Benchmark of effective metropolitan spatial planning practice. Its purpose is to support metropolitan areas in becoming as strong as they can be through their strategic decision making. InterMETREX has been extended to address the issue of climate change and to explore ways in which metropolitan areas can assess their greenhouse gas emissions and adopt appropriate mitigation strategies to achieve national and European reduction targets, for example, of 60% by 2050.

Climate change and carbon light connectivity

In considering connectivity it will be important for European metropolitan areas to consider how this can be improved in carbon light ways, that is, in ways that help to make greenhouse gas emissions reductions. For example, European policy is to facilitate journeys under 400km by train rather than plane and to promote the integration of transport modes within and between metropolitan areas. Maritime and inland waterway transport is seen as having a growing role to play. Integrated polycentric metropolitan carbon light transportation will be an issue within and along the clusters and corridors of the Action Plan.

PolyMETREXplus INTERREG IIIC Application**PolyMETREXplus partnership, the INTERREG IIIC Application and the legal and financial basis for the project**

The PolyMETREXplus partnership comprises METREX, as the originating Network and the promoter of the Application for co-funding under the INTERREG IIIC programme, sixteen METREX Member authorities and bodies and two other metropolitan bodies. There are ten contributing authorities of which eight are METREX Members. Appendix 1 gives details.

The partnership submitted an Application for co-funding to the INTERREG IIIC South Zone Joint Technical Committee (JTC) in July 2004 and this was approved in October 2004. The PolyMETREXplus Subsidy Contract between the Generalitat de Catalunya, as the Lead Partner, and the Generalitat Valenciana, as the INTERREG IIIC South Zone Paying Authority, was signed in November 2004.

SUMMARY

PolyMETREXplus INTERREG IIIC Application

Catalunya contracted the Project Co-ordination and Financial Management of PolyMETREXplus to the Institut d'Estudis Territorials (IET) in Barcelona.

A Partnership Agreement exists between the Lead Partner and all other partners that defines the contributions that partners will make to the project to enable the Lead Partner to fulfil the obligations of the Subsidy Contract. The Subsidy Contract and the Partnership Agreement provide the legal and financial basis for the project.

PolyMETREXplus partnership, the INTERREG IIIC Application and the legal and financial basis for the project

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To contribute effective polycentric metropolitan relationships, based on complementarity and co-operation, to the draft European Convention objective of Territorial Cohesion and the European Spatial Development Perspective (ESDP) objective of the balanced and sustainable development of the territory of the EU.

SUMMARY

PolyMETREXplus INTERREG IIIC
Application

Approved purpose

The European Spatial Development Perspective contains spatial planning guidelines that support the development of a polycentric and balanced urban system and three Policy Options aimed directly at metropolitan areas. The ESDP seeks a metropolitan response to three key strategic issues.

1 Zones of Global Economic Integration (GIZ)

....strengthening of several larger zones of global integration in the EU, equipped with high quality global functions and services... (Policy Option 1)

2 Polycentricity

....strengthening a polycentric and more balanced system of metropolitan regions, city clusters and networks (Policy Option 2)

3 Complementarity

To strengthen a balanced settlement structure ways and procedures must be found to enable cities and regions to complement one another and co-operate (para 73)

....complementarity should not be focused solely on economic competition but expanded to all urban functions...(para 74)

Promoting co-operation....with towns and cities in the countries of Northern, Central and Eastern Europe and the Mediterranean region....strengthening North-South links in Central and Eastern Europe and West-East links in Northern Europe (Policy Option 5)

The specific purpose of the PolyMETREXplus project, as defined in the approved INTERREG IIIC Application, is to provide a concrete and effective metropolitan response to the Policy Options in the ESDP.

Approved objectives

The approved PolyMETREXplus Application includes the following project objectives, to fulfil the approved project purpose.

To contribute effective polycentric metropolitan relationships, based on complementarity and co-operation, to the draft European Convention objective of Territorial Cohesion and the European Spatial Development Perspective (ESDP) objective of the balanced and sustainable development of the territory of the EU.

To support the objective of INTERREG IIIC to improve the effectiveness of policies and instruments for regional development and cohesion by producing a Framework for a Polycentric Metropolitan Europe, a related Action Plan and a Polycentric Practice Benchmark derived from a programme of Representative Interregional Networking Activities (RINA's).



Working approach - Planning and Practice components

The project has been progressed through a series of partner and contributor Workshops, which have focussed, in the period 2005/2006, on the conception and formulation of the Vision, Framework and Action Plan (the Planning Component) and, in period 2006/2007, on the development of Representative Interregional Networking Activities (RINA) to test the scope for additional polycentric clusters and corridors to those that already exist (the Practice Component).

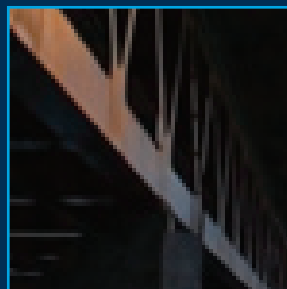
Documentation - Discussion Notes, Progress Reports and RINA scoping studies

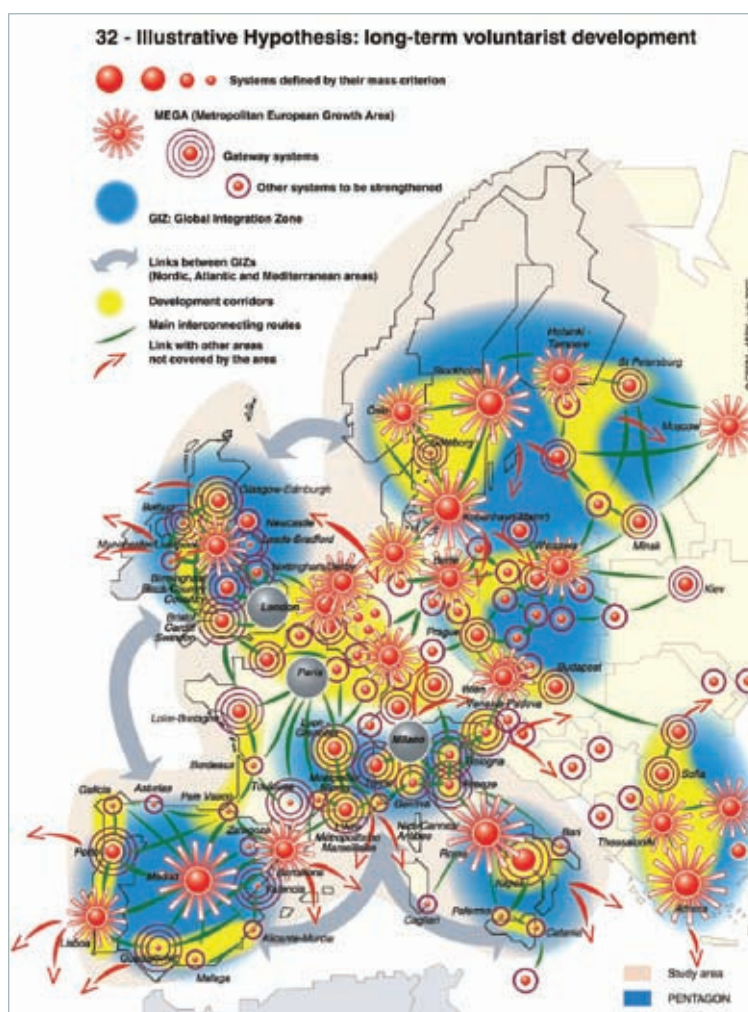
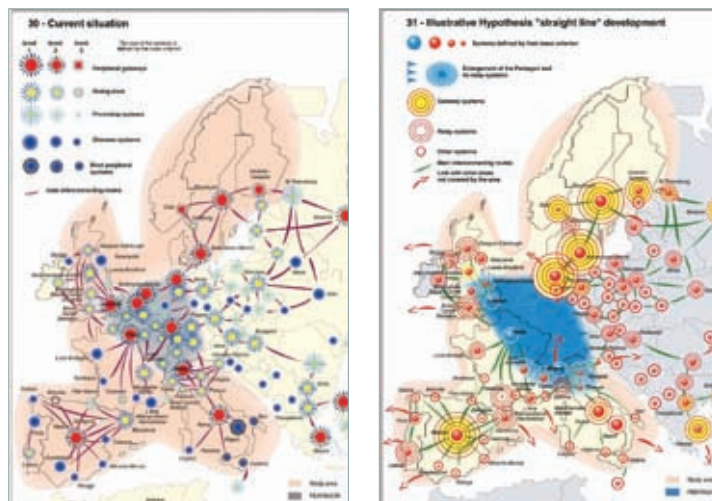
METREX has produced a Briefing Note, 11 Discussion Notes and two Interim Reports on the Planning and Practice Components of the project (see Appendix 2). Partners have produced a number of RINA scoping studies.

Progress has been reported to METREX biannual Meetings and biennial Conferences in Barcelona (2004) and Szczecin (2006) and findings and conclusions have been disseminated.

Framework draws on this body of documentation, which can also be referred to and downloaded from www.eurometrex.org under the PolyMETREXplus button.

CONTEXT





7 CPMR context diagrams

CONTEXT

Study on the construction of a polycentric and balanced development model for the European territory - Conference of Peripheral Maritime Regions of Europe (CPMR - 1999)

The CPMR study covered the Baltic area (Norway, Denmark, Sweden and Finland), UK, France, Spain, Portugal and Italy but excluded the core area (London, Paris, Rhine-Ruhr).

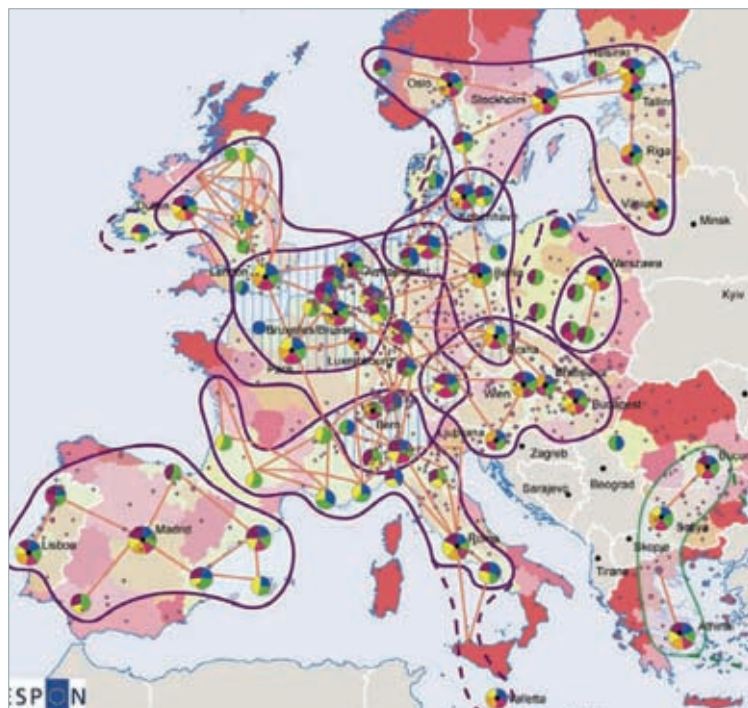
The CPMR developed a typology of peripheral urban systems before the ESPON research Projects. It is based on 5 indicators (Competitiveness of the urban systems, Economic decision making centres, Human capital, Connectivity, Drivers of change) and led to the identification of 41 Metropolitan European Growth Areas (MEGA's). MEGA's include a conurbation of at least 500k and other centres of 150k within 130km. The total metropolitan population, on this basis, should then be at least 1m.

The study then goes further than this to cross reference the above indicators and categorise the 41 MEGA's as Peripheral gateways, Rising stars, Dilemma systems (whose future depends on tackling major weaknesses in terms of competitiveness and connectivity) and Most peripheral systems (that are at risk of being left out of international dynamics because of their competitive difficulties and lack of connectivity).

The study summarises the present situation with regard to the 41 MEGA's (Diagram 30 - Current situation), considers the implications of the continuation of present trends (Diagram 31 - Illustrative hypothesis - straight line development) and the benefits of a voluntary change of direction towards polycentricity (Diagram 32 Illustrative hypothesis - long term voluntarist development).

These diagrams give one approach to the analysis and graphic representation of a polycentric metropolitan Europe and seek to illustrate visually the strategic benefits to be gained. They have been used by METREX as a basis from which to extend the coverage to include the core area and Eastern Europe in order to give series of working graphics of what better European territorial balance might look like.

METREX acknowledges the intellectual origins of the MEGA concept and the assessment of European metropolitan areas in the work of CPMR. This work provided the foundation for subsequent studies by ESPON (Thematic project 1.1.1 Polycentricity) and by METREX through the PolyMETREXplus project.



8 ESPON view of potential Global Integration Zones and better European territorial balance

T1 Comparison of the GIZ conclusions in ESPON project 2.4.2 zoom in and the first PolyMETREXplus Interim Report

zoom in
9 transnational areas

PolyMETREXplus
8 transnational areas and
18 interregional areas

1 Central European Zone	1 Global Integration Zone
	1.1 Core Area
	1.2 Rhine/ Alps North
	1.3 Niedersachsen
2 North Western Zone	2 Northern Isles
7 Iberian Zone	3 Iberian Peninsula
	3.5 Iberia Mediterranean
	3.6 Iberia Atlantic
	3.7 Iberia South
	4.8 Biscay
3 Southern Belt (includes Biscay)	5 Alpes-Mediterranean
	5.9 Rhone/ Alps
	5.10 Alps South
	5.11 Mediterranean Central
9 Eastern Zone (potential)	6.12 Aegean plus
6 South Scandinavian-Baltic Zone	7 Baltic
	7.13 Baltic West
	7.14 Baltic East
	8 Central Europe
5 Eastern Central Zone	8.15 Berlin
	8.16 Sachsen Triangle
4 Danube Zone	8.17 Danubian Area
8 Polish Zone	8.18 Poland

CONTEXT

ESPON Thematic project 1.1.1

Polycentricity

ESPON Thematic project 1.1.1 Polycentricity has identified 1595 recognised Functional Urban Areas (FUA), which have been assessed against 7 key indicators including population and industrial, tourism, transport, knowledge, decision-making and administrative functions.

64 Metropolitan European Growth Areas (MEGA's) have been identified from the FUA analysis and ranked as Global Nodes (2), European Engines (13), Strong MEGA's (10) Potential MEGA's (23) and Weak MEGA's (16) on the basis of the 4 key indicators of mass, competitiveness, connectivity and knowledge. Mass is defined by population and GDP, competitiveness by GDP per capita and head offices of European Companies, connectivity by air transport and accessibility and the knowledge base by education levels and R and D share of total employment (see Appendix 3 for details).

In addition ESPON it has identified 12 metropolitan areas that would rank as MEGA if administrative and tourism criteria are ignored. These are included in the ESPON final analysis to make 76 MEGA in all. The ESPON analysis also identifies 7 metropolitan areas that are international and 31 that are European gateways. Only 4 gateways are not MEGA's.

ESPON also identifies 22 locations, involving 40 individual FUA, where there would appear to be opportunities to create polycentric metropolitan areas or regions around MEGA's. METREX has also identified 45 other such locations and 14 related FUA in adjoining neighbour countries (see Table 2).

This package of 80 ESPON MEGA and gateway locations, together with potential polycentric clusters and corridors, has been reflected in the Vision, Framework and Action Plan.

CONTEXT

ESPON Policy Impact project 2.4.2
Zoom In - Integrated analysis of
transnational and national
territories

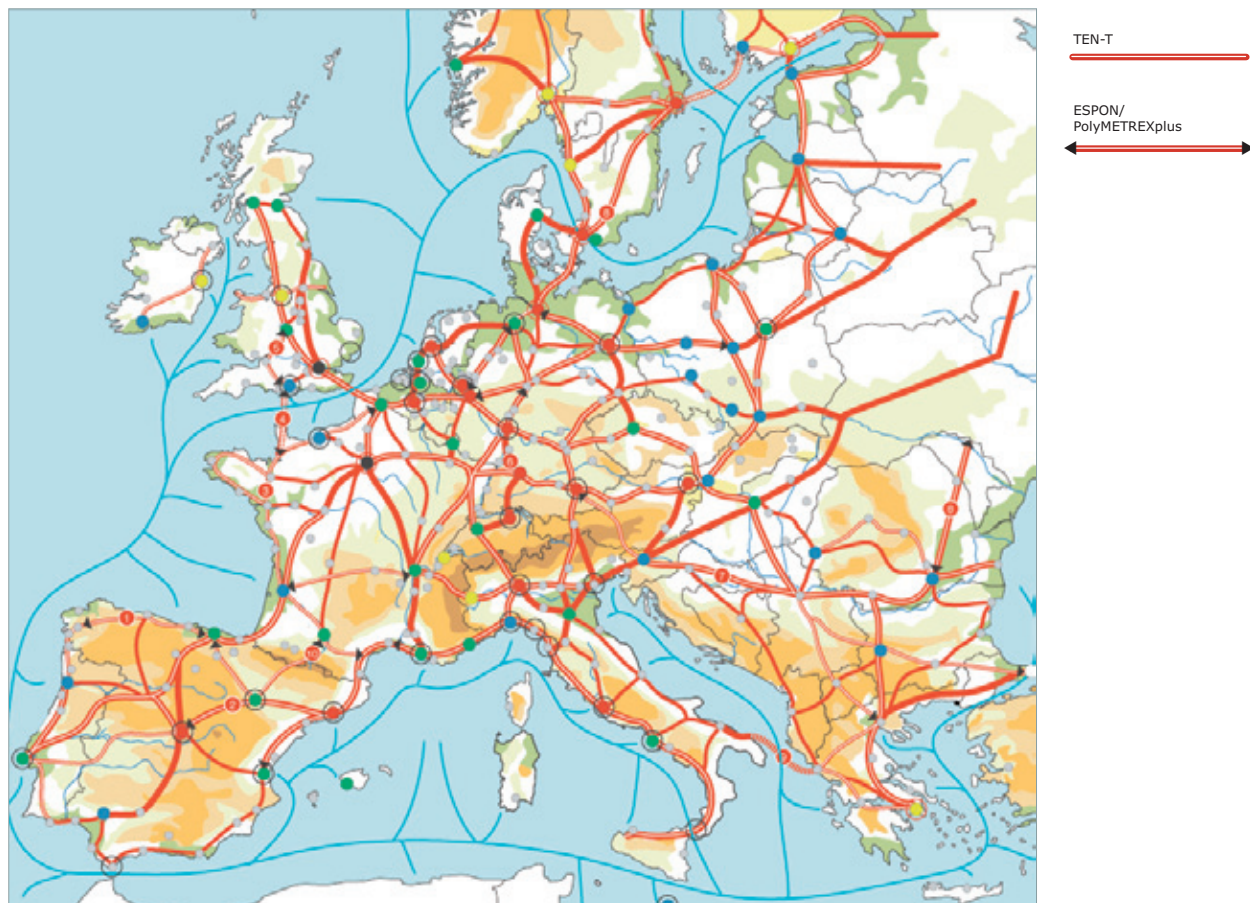
ESPON Policy Impact project 1.2.1 Zoom In concludes that 9 transnational areas can be identified as potential Global Integration Zones to balance the European core. These conclusions are similar to the PolyMETREXplus conclusions on European transnational areas but the difference is that PolyMETREXplus goes further to identify interregional areas below this level where existing and potential polycentric metropolitan clusters and corridors can form the building blocks for a polycentric Europe (see Table 1).

ESPON Policy Impact project 1.2.1 also shows MEGA analysed by the significance of their industry, transport, University, decision-making, administration and tourism functions. This analysis has been presented in Appendix 4 to demonstrate the scope that there is for polycentric co-operation between potential and weak MEGA to complement one another.

These particular ESPON studies have been helpful to PolyMETREXplus in providing the research basis from which to make the informed judgments that have led to the Vision, Framework and Action Plan.

T2 Additional Functional Urban Areas added to the PolyMETREXplus assessment

Additional Functional FUA added by PolyMETREXplus		Additional 40 FUA from ESPON		14 FUA in adjoining European countries	
Aachen (MHAL)	Hannover	Alicante/ Murcia	Parma	Ankara	Turkey
Bari	Leeds	Annency	Pisa	Belgrade	Yugoslavia
Basel	Leipzig	Avignon	Ploestie	Chisnau	Moldova
Bayonne/ St Sebastian	Liverpool	Bielsko-Biala	Pizen	Istanbul	Turkey
Belfast	Malaga	Braga	Potsdam	Izmir	Turkey
Bradford	Malaga	Cadiz	Saarbrücken (Sar/ Lor/ Lux)	Kiev	Ukraine
Bristol	Nancy	Catelon de la Plana	Salerno	Lviv	Ukraine
Brno	Nantes/	Chambery	St. Etienne	Minsk	Belarus
Cardiff	St. Nazaire	Coimbra	Tarragona	Odessa	Ukraine
Catania	Newcastle/	Coventry/ Bedworth	Toulon	Sarajevo	Bosnia
Chemnitz	Tyneside	Czestochwa	Tranava	Skopje	FIROM
Cordoba	Nicosia	Helsingborg	Trieste	St. Petersburg	Russia
de Haag	Nürnberg	Khalkis	Udine	Tirana	Albania
Dijon	Palermo	La Spezia	Valence	Zagreb	Croatia
Dortmund	Rouen	Lausanne	Verona		
Dresden	Salzburg	Livorno	Vicenza		
Duisberg	Sheffield	Modena	Wolverhampton		
Essen	Strasbourg	Montpelier			
Felixstowe	Thessaloniki	Nîmes			
Firenze	Venezia	Nitra			
Granada	Zaragoza	Nottingham			
Grenoble	Zeebrugge	Ostrava			
Halle		Parma			



9 Connectivity - the EU TEN's programme (augmented)

CONTEXT Connectivity the EU TEN's programme

The 2005 European Union Trans European Transport Network (TEN-T) programme contains 30 priority axes and projects, as listed in Appendix 5. ESPON concludes that there are 9 additional projects that warrant consideration to support the better territorial balance sought by the ESDP. The PolyMETREXplus partnership supports this view and has also suggested the inclusion of a project to maximise the improved connectivity that will be possible once a new Pyrenean tunnel is completed.

This augmented TEN-T programme would enable the improved North/South, East/West and peripheral connectivity that is required to support the better territorial balance sought by the ESDP. The Programme is reflected in the Vision and Framework and underpins them both.

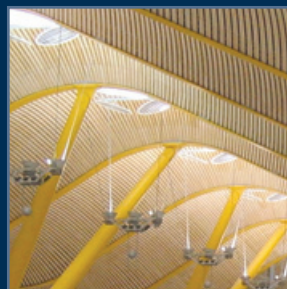
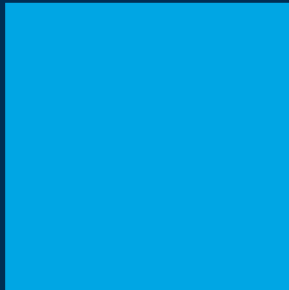
A key issue is how the improved connectivity envisaged in the TEN-T programme is to be achieved in a carbon light way, that is, in a way that is compatible with the EU target of a 60% reduction in greenhouse gas emissions by 2050.

Modal shift to rail (as high speed lines release capacity for inter and intra regional passengers and freight) and maritime transport (motorways of the sea) is envisaged in the TEN-T programme.

Appendix 7 A primary homogeneous network of motorways for European cohesion

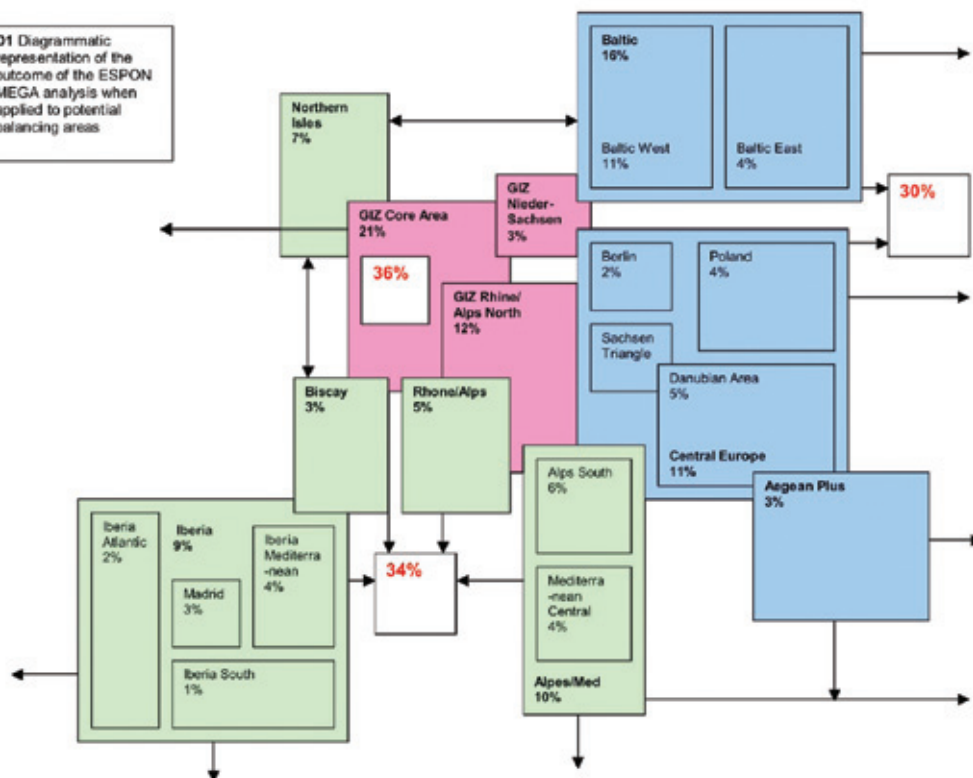
In Appendix 7, Dr. Albert Serratos, of the Institut d'Estudis Territorials (IET), Barcelona, makes the case for a primary homogeneous network of motorways for European cohesion. This case is amplified in Discussion Note 12A, which was produced at the concluding stage of the PolyMETREXplus project. This is a concept that will be progressed further by METREX.

OUTCOMES & OUTPUT
THE PLANNING COMPONENT



T11 European urban balance											
		Mass	Compete	Connect	Know	Av Index	Mass	Compete	Connect	Know	Totals
T3	GIZ	Percentage 36	3038	2567	2889	1948	2652	42	46	44	46
T4	Northern Isles		444	489	519	534	496	7	8	10	9
T5	Iberian Peninsula		878	430	670	535	631	15	7	14	9
T6	Biscay		174	185	209	314	213	3	3	3	5
T7	Alpes/Mediterranean		1110	868	1008	701	943	21	17	19	17
	Sub totals	Percentage 34	2606	1970	2406	2034	2263	46	35	46	40
T8	Aegean Plus		287	116	240	341	246	5	1	4	7
T9	Baltic		890	883	804	1781	1055	14	14	13	36
T10	Central Europe		753	534	640	853	694	13	8	11	16
	Sub totals	Percentage 30	1850	1533	1684	2955	1995	32	23	28	59
	Totals	Percentage 100	7494	6078	6979	6987	6930	120	104	118	145
											496

D1 Diagrammatic representation of the outcome of the ESPON MEGA analysis when applied to potential balancing areas



10 Better territorial balance

OUTCOMES & OUTPUTS

Findings and conclusions on better European territorial balance

The detailed analysis in Appendix 3, and summarised in the table opposite, shows that, taking the ESPON FUA and MEGA indicators described earlier, the Global Integration Zone (GIZ) focussed on the London/Paris/Rhine-Ruhr area can only be balanced by the Mediterranean and Baltic/Danubian/Aegean transnational areas.

The concept of the Pentagon, bounded by London, Paris, Milano, München and Hamburg, has sometimes been taken as being synonymous with the GIZ. It would clearly be impossible for the rest of Europe to achieve balance with such an extensive view of the European core.

The ESPON context diagram clearly supports this view in recognising the existence of bridging or linking metropolitan areas around the GIZ. München and Hamburg fall into such areas and Milano, being south of the Alps, makes a key contribution to the strength of the Mediterranean balancing area.

The PolyMETREXplus analysis of the realities of better European territorial balance has informed the Vision that follows.

*Vision - an instance of perception,
especially of future development*

OUTCOMES & OUTPUTS PolyMETREXplus the Planning Component

Vision

The longer term territorial balance of Europe will be formed over time through the common understanding of strategic decision makers and civil society of the directions that need to be taken. It could be helpful to inform this process with a graphic representation, or Vision, of such directions that illustrates the essentials.

For the future there are global uncertainties to be taken into account, such as energy supplies and climate change, the changing structure of economies and the balance of global trade. These are reflected in the Lisbon Strategy of the European Union, which aims to make Europe a foremost knowledge based economy.

There are good reasons to conclude that the European core, or Global Integration Zone (GIZ) focussed on the London/Paris/Rhine-Ruhr area, will continue to generate a high

proportion of European wealth and prosperity. The GIZ benefits from the proximity and connectivity of its component metropolitan areas and is strongly linked to the wider global economy. The ESPON criteria of wellbeing and influence indicate that the GIZ and its closely associated linking areas comprise some 36% of European strength.

However, there are also metropolitan areas outside the core that also have global roles, for example, Rome, Madrid, and Milano. There are also well established, or historic, relationships between metropolitan areas outside the core, for example, within the Baltic and Mediterranean areas and along river corridors such as the Rhine and Danube.

It is not possible to foresee the many and varied social, economic and environmental relationships that might develop outside the core given the right circumstances.

However, it is possible to imagine the broad opportunities and to positively promote and enable them.

A Vision for better European territorial balance, that reflects the Lisbon Strategy, could include the following elements.

A strategic emphasis on improved European connectivity North/South, East/West and peripherally, to link Europe's main transnational areas to each other and to the core.

Within transnational areas outside the core, the identification and promotion of polycentric metropolitan clusters and corridors.

Within such a Framework of strategic connectivity and metropolitan clusters and corridors the Mediterranean and Baltic/Danubian/Aegean areas of Europe could be strengthened to balance the core.



12 Framework for a Polycentric Metropolitan Europe

A recognised inner core (GIZ) and related outer core bridging areas linking to the centre

Promotion and development of polycentric metropolitan clusters and corridors

Balance between the inner core (GIZ) and the Mediterranean/Danubian/Aegean transnational areas

In consequence, strong polycentric relationships within and between recognised European interregional areas

Improved North/South, East/West and peripheral connectivity

Good connectivity from all areas to the core area

Good connectivity to European gateways, particularly from land locked countries or countries with limited coastal access

Recognition of Europe's metropolitan regions and areas to foster effective metropolitan governance, economic development, social complementarity and environmental co-operation

Framework - a structural plan or basis of a project

OUTCOMES & OUTPUTS

PolyMETREXplus the Planning Component

Framework for a Polycentric Metropolitan Europe

The main elements of the Vision can be defined and located on the European territory and reflected in the Framework.

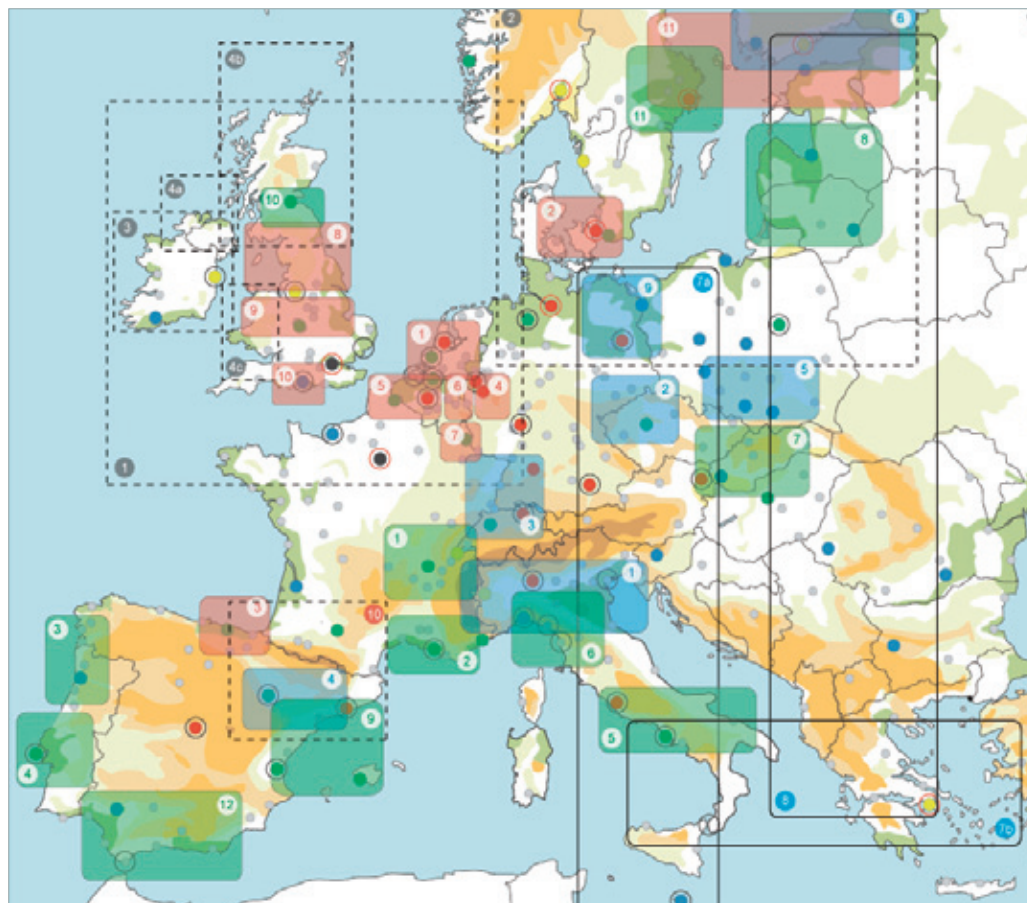
It is clear that strategic connectivity of European transnational and interregional areas would be greatly improved by the EU TEN-T programme, augmented as suggested by ESPON and METREX, and that the opportunities for North/South, East/West and peripheral movements would be significantly increased.

With such strategic improvements in prospect it would also be possible for metropolitan areas, either MEGA or FUA of national and transnational significance, to consider the potential to form polycentric clusters or corridors. Corridors might stretch over the longer distances within recognised European transportation axes.

ESPON and METREX studies have also identified a number of existing clusters of smaller FUA that might also consider the benefits of polycentric association (see Table 2 earlier).

A Framework for a Polycentric Metropolitan Europe could therefore comprise the primary European connections, whether they are by road or rail, and the metropolitan structure of Europe comprising MEGA, significant FUA and FUA clusters.

Within such a Framework the potential for a growing range of transnational and interregional social, economic and environmental relationships could be released. Their combined impact outside the core area could help to achieve and sustain the better territorial balance sought by the ESPD.



13 Action Plan

OUTCOMES & OUTPUTS PolyMETREXplus the Planning Component

Action Plan

The Action Plan comprises the 9 polycentric initiatives and organisations that presently exist in Europe, the 11 Representative Interregional Networking Activities (RINA) scoping studies that have been carried out by PolyMETREXplus partners, 6 polycentric metropolitan clusters and corridors that have been identified by ESPON and by METREX and a number of national and transnational polycentric Spatial Visions (see Appendix 6 for details).

This package of related polycentric activities and opportunities could form the basis for effective action to take forward the Vision and implement the Framework. The INTERREG IVB and C programmes could provide one means of taking RINA scoping studies further to concrete plans, programmes and projects.

OUTCOMES & OUTPUTS

PolyMETREXplus the Planning Component

The following steps and bases offer a way forward for polycentric metropolitan initiatives to establish themselves. They could provide the basis for a Polycentric Practice Benchmark, drawing on the practical experience of the 11 initiatives and organisations that already exist (see Appendix 6 and the PolyMETREXplus Second Interim Report). The 3 Case studies of Regio-Randstad, Øresundkomiteen and Eurocity Basque, in particular, illustrate effective ways in which to respond to opportunities for cluster, corridor and cluster and corridor polycentricity.

Benchmark steps to establishing polycentric relationships

1 Mass

Polycentric metropolitan clusters and corridors can create the critical population mass on which to build the knowledge base, labour markets and expenditure markets from which to compete more effectively.

2 Connectivity

Improved connectivity will help to build social networks and economic markets and change perceptions of what is possible. Connectivity will include transportation and telecommunications links.

3 Identity

Over time metropolitan clusters and corridors can build fresh identities around the new social and economic relationships that become possible.

4 Recognition

Publicity for the new opportunities in prospect can enhance public awareness and generate recognition of the value of polycentric collaboration.

5 Marketing

Collective marketing can be undertaken, with confidence, once the opportunities in prospect have been clarified and take on more substance.

6 Influence

Once the polycentric possibilities are established then a body or organisation might be formed to represent the collective and common interests of the cluster or corridor. It may begin to have influence on strategic decision-making and to generate its own resources.

7 Support

Once real benefits begin to flow from the new relationships that have been formed then the cluster or corridor will be able to generate lasting support for its initiatives and activities.

Benchmark bases for functional polycentric relationships

8 Integrated strategies

There may then come a point where the added value of an integrated approach to the consideration of the collective strengths and weaknesses of a polycentric cluster or corridor will become apparent and an integrated Strategy can be produced with the involvement of stakeholders and civil society.

9 Collective decision-making and governance

Integrated polycentric strategies can be taken forward on a collective and voluntary basis or through an established body with planning and implementation powers and resources. These are issues of governance, which is the function of effective representative decision-making on the basis of subsidiarity.

Subsidiarity, in a polycentric metropolitan context, would require recognition of those issues that require to be addressed over the cluster or corridor as a whole.

10 Proximity

Polycentric relationships can arise from shared problems and opportunities. Borders and natural barriers can present administrative and technical problems to be overcome jointly. Natural resources can form the basis for a common interest in their sustainable use. Water and renewable energy resources, in particular, offer opportunities for metropolitan collaboration on a polycentric basis, for example, along river valleys and coasts.

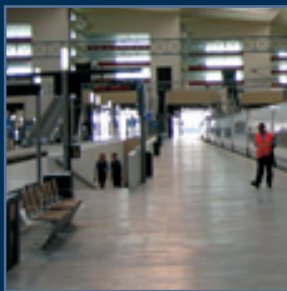
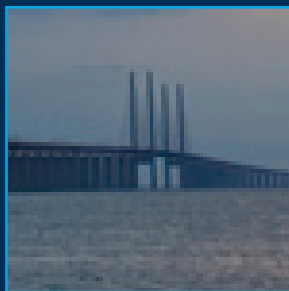
11 Co-operation

Polycentric relationships can also arise from shared economic and social opportunities, for example, where businesses draw on a wide range of suppliers or public services offer specialist research, health or educational opportunities. Interregional public transport services offer particular opportunities for co-operation.

12 Complementarity

Polycentric relationships can also be formed on the basis of complementarity, where metropolitan areas with different roles and functions improve their collective competitiveness by through a wider portfolio of services, attractions and opportunities.

THE WAY FORWARD



ESPON has demonstrated its ability, as a network of research institutions, to carry out in depth assessments of complex spatial planning issues and this provides a valuable resource of knowledge and understanding.

If a European spatial planning process can be established then ESPON has the research capability to provide the informed analyses required and to sustain an ongoing process of monitoring and review.

ESPON has recognised that it does not have a policy- making role, although it has carried out scenario work to explore spatial planning options. The ESPON view of potential Global Integration Zones and better European territorial balance, referred to earlier, is helpful.

Stakeholder forum

As in metropolitan areas, there are many stakeholders in the European spatial planning and development process who can contribute to an integrated ESDP. These include, for example, the European political institutions and national governments, European Commission Directorates, European Economic and Social Committee, Committee of the Regions, ESPON, European networks and civil organisations and associations.

It has been found helpful, at the metropolitan level, to set up Stakeholder Forums through which to obtain responses to analyses, issues and options and contributions to forward planning scenarios. They can help to establish the integrated, longer-term view that is required and to regularly roll this forward.

A European spatial planning and development stakeholder forum could connect research (ESPON), policy making (the European institutions), practice and implementation (national, regional and metropolitan levels). Such a forum could also help to ensure continuity of decision-making at all levels and a more widespread understanding of, and support for, European strategies. The effectiveness of European decision-making could be enhanced.

Implementing the PolyMETREXplus Vision, Framework and Action Plan

METREX will take the outcomes and outputs of the PolyMETREXplus project forward through its ongoing networking activities and the opportunities presented by European Commission programmes, such as INTERREG IV B and C. The project has helped to provide a context for future European metropolitan level activities and initiatives

An ongoing European spatial planning process

What the experience of the PolyMETREXplus project has shown is that there is a need for an ongoing spatial planning process at the European level.

The European Spatial Development Perspective (ESDP) of 1999, after a gestation period of over a decade, is now approaching its 10th anniversary. Many new issues have arisen in this time and strategic planning at the national, regional and metropolitan levels requires an up to date European assessment and policy context for these.

The ESDP, and subsequent European Directives, have clarified many of the sensitive natural and heritage resources of European significance and established safeguarding measures.

However, strategic spatial planning needs to go beyond this to exercise foresight on those dynamic inter related issues such as demographic and migration change, economic change in a global context, metropolitan change, transportation change, energy and climate change.

A Vision, Framework and Action Plan should be component parts of an updated European Spatial Development Perspective. The PolyMETREXplus project has endeavoured to scope these components from the available ESPON and TEN-T research and information although, as a practitioner Network, METREX is limited in the resources of knowledge and information that it can bring to this process.

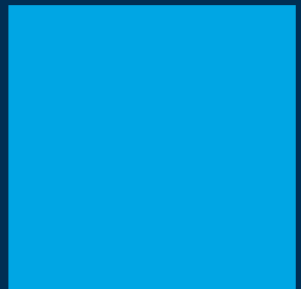
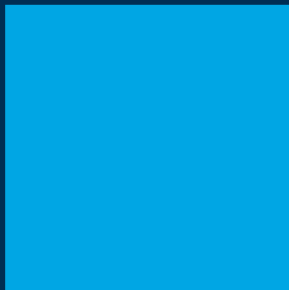
It does, however, have valuable practical experience of strategic planning and development at the metropolitan level, which is of direct relevance to polycentric metropolitan clusters and corridors.

The InterMETREX Practice Benchmark has established effective spatial planning practice at the metropolitan level, much of which is also relevant at the polycentric metropolitan level. This gives confidence that the PolyMETREXplus Action Plan does represent a practical and realistic way forward and that better European territorial balance could be achieved through polycentric metropolitan collaboration.

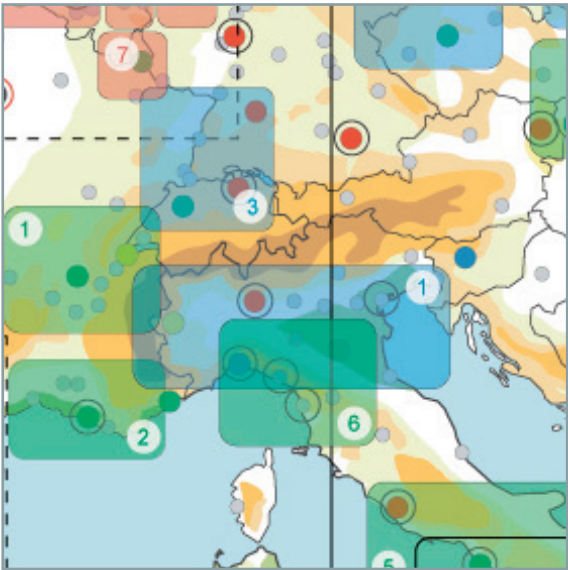
METREX and related European networks have the interest and capacity to contribute to an ongoing European spatial planning and development process.

OUTCOMES & OUTPUT
THE PRACTICE COMPONENT

Representative Interregional Networking Activities
[RINA]



RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition



	Administration	Transport	Decision making	University	Tourism	Industry
Alps south area by key functions						
7 Milano		European hub				
26 Torino		Minor node				
51 Bologna		Minor node				
58 Genova		European hub				
67 Ljubljana		European hub			Potential	
Le Spezia		European hub				
Livorno		European hub				
Trieste		European hub				
Venezia		European hub				
Verona		Minor node				

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

1 Rail axis	Berlin-Verona/ Milano-Napoli-Messina-Palermo
6 Rail axis	Lyon-Torino-Venezia-Trieste-Ljubljana-Budapest
10 Malpensa	Milano Airport
17 Rail axis	Paris-Strasbourg-Stuttgart-Vienna-Bratislava
21 Motorways of the sea	Four motorways of the sea are proposed, two in the Mediterranean, one in the Atlantic and one in the Baltic

Lead partners/ Regione Emilia-Romagna and Regione del Veneto (coordinators)

Partners/ Regione Lombardia and the Provincia di Torino (representing Piemonte) (contributors)

A series of stakeholders participated in the themes of the study, including Agencies for spatial development and enhancement, Chambers of Commerce, the Union of Italian Provinces and politicians.

Objectives

There were three general objectives for this study.

- Formulate an integrated territorial vision for the Po-Veneto area
- Identify actions to be taken to enable the Po-Veneto area to support the polycentric re-adjustment of the European territory
- Identify good practices and concrete projects, which will support this re-adjustment role

The study has closely examined the role of the Po-Veneto area, which is made up of the four regions synonymous with Northern Italy, that is, Piedmont, Lombardy, Emilia-Romagna and the Veneto, and its potential to support a polycentric re-adjustment of European territory.

Objective 1. Formulating an integrated territorial visions for the Po-Veneto area

There are three basic reasons for the integrated vision chosen for this area.

The first one concerns the connective role of the Po-Veneto area and its potential for integration and re-adjustment, to which few other European areas could aspire. The Po-Veneto area can perform this task because of its geographical position, at the crossroads of important East-West and North-South corridors, and a part of Europe that faces both the Tyrrhenian and Adriatic seas.

The second reason concerns the competitive position of the Po-Veneto area in terms of globalisation and the expansion of Europe, which are having an impact on the traditional urban productive systems of the past. Positions that were thought to have been consolidated are now brought into question by the opening up of new markets and appearance of new producers.

So much research indicates that companies and entrepreneurial groups that manage to remain competitive cross over the boundaries of districts and regions. They are companies capable of creating alliances and collaborative enterprises, building and participating in economic, financial and technological networks and developing powerful innovative processes.

A similar reasoning applies to urban systems. The average town or city, which used to represent the established authority for the development of districts and the support of small and medium-sized companies (SME), runs the risk of being inadequate for the emerging competitive challenges.

The Po-Veneto territorial system is much less integrated than similar systems, such as the Randstad, Rhurgebeit or the Côte d'Azur. Competitive ways of thinking prevail over the logic of cooperation between neighbouring towns, adjacent regions, trade fairs, airports, logistical structures and universities.

By integrating its own centres of excellence the Po-Veneto metropolis can achieve a higher standing in order to confront the challenges of global competition. The Po-Veneto area will depend on successfully finding strategies for integration between adjacent regions to exploit the "economies of specialisation" to best advantage.

Finally, the third reason for developing a unifying vision is the powerful emergence of problems common to all four Regions, amongst which are environmental conditions, overdevelopment and difficulties with infrastructure provision, demanding recovery and re-training needs and the urban sprawl.

Objective 2. Action to be undertaken

On the basis of work already done, actions have been identified that must be pursued to enable the Po-Veneto area to perform a re-balancing role in Europe. They must promote the integration of urban areas and centres of economic, technological and scientific excellence.

- Improve internal and external connectivity, strengthening the various infrastructural corridors
- Improve environmental conditions, reducing congestion and the pollution of the large urban areas, acting against emissions of pollutants and greenhouse gases
- Define an overall outline for co-ordination of the planning instruments and planning of the various institutions operating in the Po-Veneto Area
- Identify and involve the various interests, including the private sector, in the planning and fulfilment of the necessary actions
- Promote recognition of the weight and standing of the large polycentric Po-Veneto metropolis on the southern side of the Pentagon

This last aim is the basis of the whole line of argument. Self-awareness and external recognition of the role that the Po-Veneto area can play in the European scenario is a prerequisite for the fulfilment of all the actions listed above.

The entire Po-Veneto area and the extremely close relationships that exist between the individual towns and the local production systems are part of its strength.

The entire Po-Veneto area, if it were to increase its own integration, could be regarded as the southern side of the Pentagon.

Objective 3. Identifying concrete projects

The partners have together identified illustrative actions (projects and/or agreements in process of fulfilment or in the definition phase), which will support the re-balancing role of the Po-Veneto area.

At the meetings held between the partners, agreement has been reached above all on the spheres where action should be given high priority.

The most important, where the greatest deficit emerges, concerns infrastructure. The infrastructural investment of the Po-Veneto area is simply not adequate for its economic weight and development prospects, particularly in comparison with similar European areas.

Projects concerning infrastructure

There are projects that can reinforce the connections of the Po-Veneto area with the rest of Europe and sustain the primary bridging role that this area wishes to adopt.

High Speed rail link Lyon-Ljubljana

This is a fundamental component for the development of Corridor 5, which crosses and links the important cities of the Po-Veneto area (Turin-Milan-Venice-Trieste)

Laying of second railway track Bologna-Verona

The railway track section Bologna-Verona, which coincides with part of the route of Corridor 1, is still to a great extent single track. This severely limits the potential for the transport of both goods and passengers, as well as being a risk situation, as there have

been serious railway accidents here. Doubling this section of railway track will greatly increase the transport capacity and eliminate one of the main bottlenecks of the Po-Veneto area for North-South links.

High Speed rail link Milan-Bologna

Construction of the High Speed rail link Milan-Bologna, the section carrying the heaviest traffic in Italy, is the most important infrastructural work in progress and will greatly influence the transport system for Northern Italy. It will shorten journey times between the north and south of the country and, by uniting a large productive area, Emilia-Romagna, with the economic and financial centre of the Po-Veneto area, it will increase the integration of this area.

Agreements sealed between the Regions of the Po-Veneto Area

The physical and environmental uniqueness of the Po-Veneto area is widely recognised and can increasingly become a unifying factor, on which common policies can be built, with particular reference to air quality, the problems and potential of the river Po, conditions on the Adriatic coast, utilisation and enhancement of natural and countryside resources, whether in the plains or the Alpine-Appennine arc.

Protocol of understanding between the autonomous Regions and Provinces of the Po valley. Common measures for the prevention and reduction of atmospheric pollution in the Po Plain area.

The Regions of Emilia-Romagna, Lombardia, Veneto, Piemonte and the Autonomous Provinces of Trento and Bolzano share the need to harmonise their efforts and to co-ordinate their individual regional plans, within the scope of a unitary strategy aimed at picking out concrete, effective actions for improvement of air quality.

The process was started on 28th October 2005 in Torino, with the signing of a document of intent.

Collaboration agreement for research and technological transfer between the Regions of Emilia-Romagna, Piemonte and Lombardia.

Strong growth in competitive capacity is the real challenge for the future. The development of technological research activities and their application by industry is one of the primary tasks, on which synergies can develop from Universities, research centres and innovative companies.

The Collaboration Agreement, signed on the 14th May 2007 for a three-year period, concerns shared policies for developing an economy based on knowledge, innovation and quality, in line with EU guidelines. The basic idea is to promote industrial research by means of structural networks created together with universities, research organisations and companies, accredited and certified by the Regions on the basis of specific requirements.

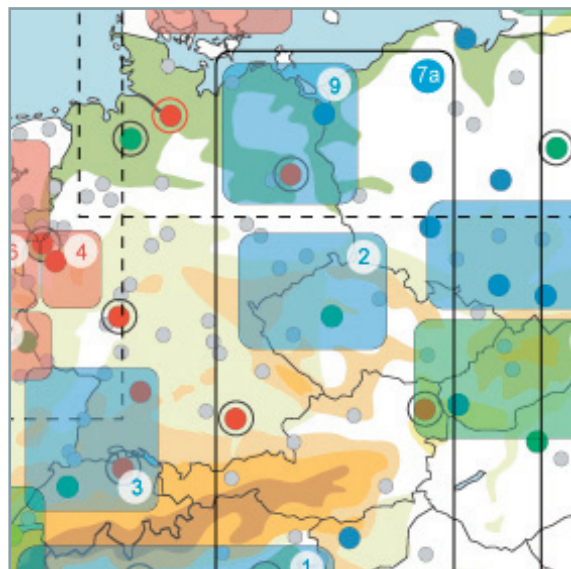
Joint territorial planning

On 15th February 2007 the Regional Council members responsible for Emilia-Romagna, Lombardia, Piemonte, Friuli, Venezia, Giulia, Veneto and the Provinces of Trento and Bolzano took up their places at the inter-regional council for sustainable territorial development of the Po valley area, to promote the economic and social competitiveness of the regions in the new context of European development.

The inter-regional council will be a meeting place to promote a certain degree of co-ordination between the respective instruments for territorial planning of the region.

Pentagon II is defined by the capitals of Berlin, Prague, Vienna, Budapest and Warsaw

RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions and
1 proposed PolyMETREXplus addition



T7	Administration	Transport	Decision making	University	Tourism	Industry
Central Europe area by key functions						
13 Berlin		European hub	Potential			
75 Szczecin		Major node				
Danubian area by key functions						
18 Wien		European hub				
38 Praha		Major node				
43 Budapest		Major node				
53 Bratislava		Minor node				
Poland by key functions						
42 Warawa		Major node				
65 Krakow		Minor node				
69 Katowice		Minor node				
70 Gdansk		Major node				
71 Poznan		Minor node				
72 Wroclaw		Minor node				
73 Lodz						

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

- 22 Rail axis Athens and Constanta to Budapest and Prague-Nürnberg/ Dresden
- 23 Rail axis Gdansk-Warzawa-Katowice-Brno-Vienna-Bratislava
- 25 Motorway axis Gdansk-Katowice-Brno/ Bratislava-Vienna
- 27 Rail axis Rail Baltica from Helsinki/ Tallinn-Riga-Kaunas-Warzawa

Partner/ Metropolitan Region Saxon Triangle**Contributors :**

Metropolitan Region Berlin/Brandenburg, Centrope – Central European Region, Košice Metropolitan Region, Kraków – Upper Silesia Cluster, Łódź Metropolitan Area, Poznań Metropolitan Region, Szczecin Metropolitan Area, Upper Silesian Metropolitan Union, City of Vienna, Warsaw Metropolitan Region and Wrocław Metropolitan Area

Context

The European Spatial Development Perspective (ESDP) sets out a spatial development strategy for a polycentric Europe. Its focus is on the creation and enlargement of several dynamic Global Integration Zones (GIZ) to accelerate economic growth and create jobs in the EU. In this way it makes a contribution to the Lisbon Strategy which seeks to develop the European space as the most competitive and dynamic knowledge-based economic area in the world.

Purpose and Approach

The central European space is of significance for a successful eastern enlargement of the European Union and has the potential to become an economic zone of European or even worldwide importance. In line with the ESDP a number of initiatives deal with spatial visions for parts of the European territory from a metropolitan point of view. Even though parts of the central European space are included in some of these initiatives, the question of a metropolitan spatial vision for central Europe remains open. So far, there is little exchange of views and ideas between the central European metropolitan regions regarding a spatial vision for their sphere of influence. Thus, the RINA addresses the task of initiating a “Metropolitan Spatial Vision for Central Europe and Corresponding Actions” by starting a workshop based dialogue between the metropolitan regions in central Europe.

Milestones

Aug 2006	Discussion paper on the Central European Space and its role in the EU
Sep 2006	Workshop with the metropolitan regions of Central Europe in Szczecin (PL)
Dec 2006	Documentation of the Szczecin workshop
Jan 2007	Questionnaire for the metropolitan regions of Central Europe
Mar 2007	Workshop with the metropolitan regions of Central Europe in Wrocław (PL)
Apr 2007	Documentation of the Wrocław workshop
Jun 2007	Workshop with the metropolitan regions of Central Europe in Dresden (D)
Jul 2007	Documentation of the Dresden workshop
Nov 2007	Documentation of RINA results

Outcomes and Output

The metropolitan regions elaborated the “Wroclaw Memorandum of Cooperation of Metropolitan Regions in Spatial Planning and Development in the Central European Space” as strategic framework for future cooperation. In the memorandum metropolitan regions identified several fields of action for further cooperation.

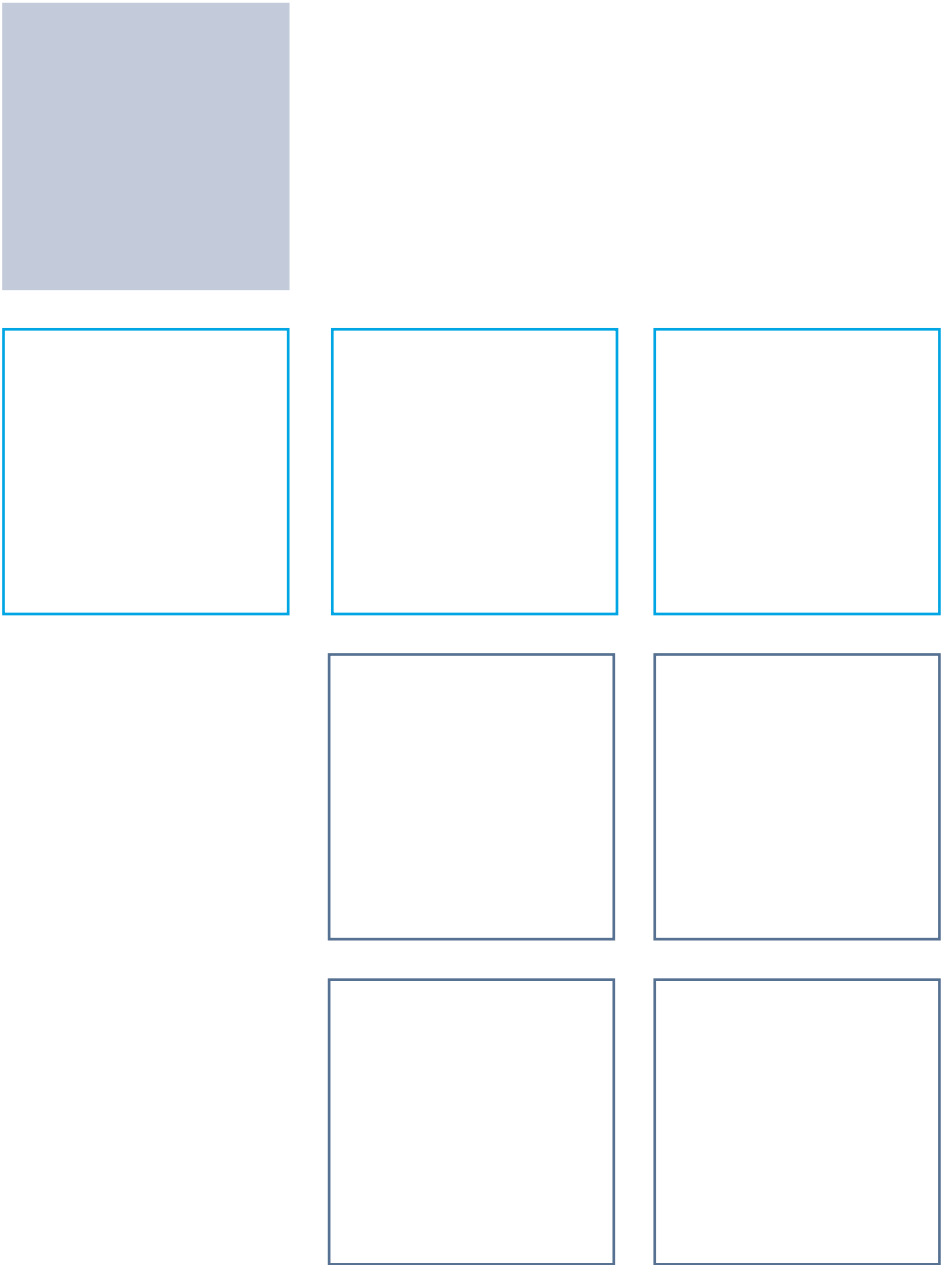
- Exchange of knowledge and experiences regarding spatial planning and development, governance of metropolitan regions, urban sprawl, renewable energies, labour markets, demographic change and science and education
- Implementation of a high quality communication infrastructure for communication between metropolitan regions in the Central European Space
- Creation of a tourism network with common marketing
- Common statement for the revision of Trans-European (Transport) Networks
- Lobbying for flight and railway connections between metropolitan regions in the Central European Space
- Presentation of the Central European Space and its metropolitan regions within Open Days in Brussels
- Lobbying for an ESPON study with a focus on the Central European Space and for the establishment of EU institutions in Central Europe

In addition “Metropolitan Profiles” that describe each metropolitan region of the Central European Space were compiled. The profiles include statistical data and information about the spatial structure and location, organisation and governance, strengths, current activities and the strategic perspective of each metropolitan region.

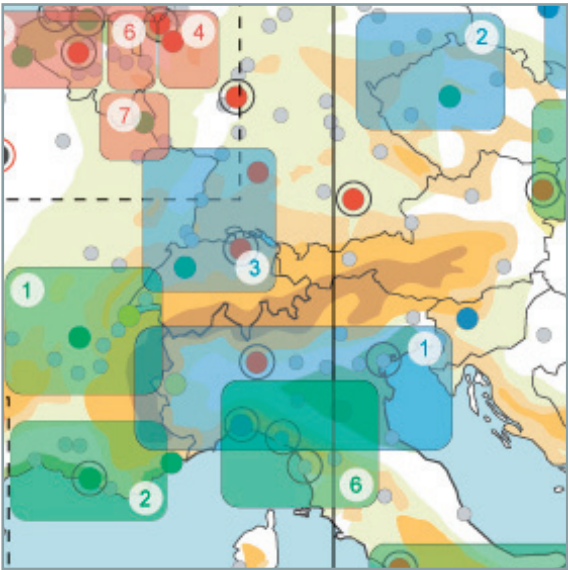
Way Forward

Metropolitan regions discussed and identified several options for further metropolitan cooperation in the Central European Space. The cooperation along European corridors was identified as an option in order to strengthen north-south and east-west relations. In this regard it is intended to prepare applications within the framework of the INTERREG IV B programme for “Central Europe” with a focus on transportation and connectivity, tourism, demographic change and economy and science.

In addition metropolitan regions support idea of a network of metropolitan regions in the Central European Space to exchange knowledge and experiences regarding several aspects of spatial planning and metropolitan governance. It is intended to set up this network in the framework of the INTERREG IV B programme for “Central Europe”.



RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions and
1 proposed PolyMETREXplus addition



		Administration	Transport	Decision making	University	Tourism	Industry
GIZ Rhine/ Alps North area by key functions							
3	München		European hub				
4	Frankfurt		Global hub				
11	Zurich		European hub			Potential	
15	Stuttgart		European hub				
37	Bern						
	Nürnberg		Minor node				
	Basel		Minor node				
	Innsbruck		Minor node				
	Graz		Minor node				
	Salzburg		Major node				

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

- 3 High speed rail axis Southwest Europe (Paris/ Bordeaux and Lyon/ Nimes to the Iberian peninsula)
- 4 High-speed rail axis East Europe (Paris and Luxembourg to Mannheim and Strasbourg)
- 17 Rail axis Paris-Strasbourg-Stuttgart-Vienna-Bratislava
- 24 Rail axis Lyon/ Genova-Basel-Duisberg-Rotterdam/ Antwerpen
- 28 Rail axis Eurocaprail from Brussels-Luxembourg-Strasbourg
- 6 Connectivity Bern-Strasbourg-Frankfurt

Partner/ Verband Region Stuttgart**Contributors/ Strasbourg, Zurich and Lyon****Context**

Stuttgart Region has a strong position in terms of its innovation and competitiveness function, but still has potential to develop in its decision making and gateway functions. It also finds itself in a bridging position between the core of the GlZ, the Alps-South and central Europe. It needs better integration with its nearest neighbouring metropolitan areas in France, Switzerland and Italy.

This endeavour is in the context of recent initiatives of Germany, France and Switzerland to rewrite their national spatial visions and programmes as well as to enforce a metropolitan policy as an important contributor to improving the overall competitiveness of the country.

Purpose

To enable the Metropolitan Regions of Stuttgart, Zurich and Strasbourg to exchange information about their profiles and strategic plans, develop bi-lateral and multilateral strategies and actions and prepare further activities. This will also be for the benefit of the European sub-area and to perform a bridging function of this area between the core of the GlZ, the Alps-South and the central European area.

Approach

Verband Region Stuttgart as a partner in PolyMETREXplus invited the two neighbouring metropolitan regions in Switzerland and France, Zurich and Strasbourg, to get engaged in a structured dialogue concerning the development of a polycentric metropolitan cluster of the three regions. The dialogue aimed at exploring the two main questions.

- How can a cluster of the metropolitan regions Stuttgart-Zürich-Strasbourg look like and how can it be developed and managed?
- How can this cluster be positioned in Europe?

Three workshops were held in Stuttgart, Zurich and Strasbourg in 2007. In addition to the collaborating organisations (Verband Region Stuttgart, Regionalplanung Zurich und Umgebung, Communauté Urbaine de Strasbourg/ADEUS) further organisations were invited and participated, like business promotion associations and transport agencies.

The analysis and development of a polycentric metropolitan cluster is a fairly new approach to territorial development. Predecessors can be seen in the German instrument of "city networks" and in transnational cooperation, e.g. under INTERREG IIIB. Against this background, the three regions worked on the following questions.

- What is a cluster?
- Which prerequisites?
- What potentials?
- Which commonalities?
- Who are the shareholders/stakeholders (acting people)?
- Which forms of cluster and cooperation?
- What themes of cooperation?
- What are the benefits?
- Who can be the main promoter/leader?
- Which transport connections?

Outcomes

The RINA proved successful in establishing a working relationship between the three neighbouring metropolitan regions Stuttgart (Germany), Zurich (Switzerland) and Strasbourg (France). This was supported by the commitment of the decision making bodies of the three main organisations, as well as by the Swiss Government. The three regions have laid groundwork for a common understanding of being a related cluster of metropolitan regions in a polycentric Europe. They have also explored common interests, topics for further exchange of best practice and strands for common actions:

Possible themes of cooperation.

- Transport/HST-TGV/Connectivity
- Cultures, Leisure, Tourism
- Sustainable development (best practice exchange urban sprawl, renewable energies, nature in the urban environment, agriculture in cities)
- Pôle de compétitivité (therapeutical innovations-pharmacy, mobility of the future)
- Creativity and innovation (in society, business and the social field)
- Living/quality of life, attractiveness
- Exploit the potential of various societal groups (migrants).

Shareholders and stakeholders to involve.

- Politics
- Administration and affiliated organisations (business promotion, marketing, etc.)
- The business world (organisations, enterprises, networks)
- Infrastructure operators (tariff integration, airports, trade fairs)
- Further topical initiatives (theatre, media, etc.)
- Interest groups (societal organisations, like the Forum Region Stuttgart, Greater Zurich Area)
- Existing co-operations (Zurich-Baden-Württemberg, Magistrale für Europa, METREX, Steinbeis IRC Zurich-Stuttgart-Erfurt).

Potentials to address.

- Stuttgart - manufacturing, research/innovation, architecture, automobile, wines
- Zurich - centre of finance, services, airport, research, creative industries, culture/skiing/tourism/quality of life
- Strasbourg - European Capital, European interface, research, medieval city/tourism, gateway to the Alsace, wines, food.

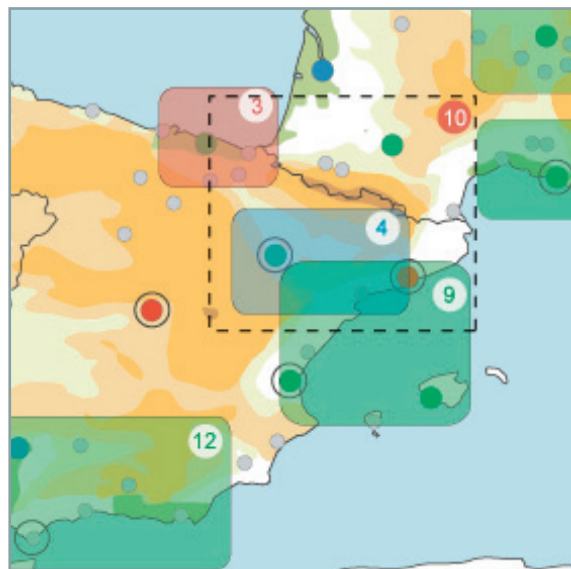
Outputs

Verband Region Stuttgart and the contributing metropolitan regions Zurich and Strasbourg have implemented three workshops in Stuttgart, Zurich and Strasbourg in 2007. Each workshop was reported by minutes. In addition, a discussion note on the definition and development of polycentric metropolitan regions in Europe was prepared.

Way forward

The three regions concluded that the whole issue of defining and developing a polycentric metropolitan cluster of three neighbouring metropolitan areas is very ambitious and difficult, but the group is on the right way forward. In the future, further concrete elaboration of themes will be executed and concrete pilot projects will be helpful for further development and a common trust basis. In addition, the exchange with other comparable projects is desired. Finally, the three regions have concluded to extend their collaboration beyond the lifetime of PolyMETREXplus. Thus, the three metropolitan regions are in the course of developing a network with future work on best practice exchange, projects as well as formal and informal activities.

RINA context provided by the
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RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions and
1 proposed PolyMETREXplus addition



	Administration	Transport	Decision making	University	Tourism	Industry
Iberia central area by key functions						
5 Madrid		European hub				
Iberia Mediterranean area by key functions						
16 Barcelona		European hub				
49 Valencia		European hub				
52 Palma		Major node				
Alicante		Minor node				
Ibiza		Minor node				
Biscay area by key functions						
41 Toulouse		Minor node				
56 Bordeaux		Minor node				
48 Bilbao		Gateway port				
Nantes/St Nazairre		Gateway port				

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

- | | | |
|----|----------------------|---|
| 3 | High-speed rail axis | South-west Europe (Paris/Bordeaux and Lyon/Nimes to the Iberian peninsula) |
| 16 | Rail freight axis | Sines/Algeciras-Madrid-Paris including a new trans-Pyrenean crossing |
| 19 | High-speed rail axis | Interoperability on the Iberian peninsula |
| 21 | Motorways of the sea | Four motorways of the sea are proposed, two in the Mediterranean, one in the Atlantic and one in the Baltic |
| 1 | Multi modal axis | Eurocity Basque/Bordeaux-Toulouse-Lyons-Marseille with connection to the Pyrenean tunnel |

Partner/ Zaragoza

Contributor : Catalunya

Context

The Ebro Valley, located in the north-west quadrant of the Iberian peninsula, covers about 1/5th of the area of Spain, with a physical environment with all kinds of contrasts (relief, climate...) that affect the population, economic activities and infrastructure. Migration from the countryside to the towns and cities, especially in the 1960's, means that the Valley now has a population of about 3 million, or about the 7% of the population of Spain.

The Valley has been traditionally considered as one of the most important agricultural areas in Spain, an economic activity that, although still important, has lost its leadership in favour of industry.

There have been strong inter-relationships between the inhabitants of the Valley, taking advantage of the course of the river Ebro. This has been a key factor in the creation of infrastructure routes. Nevertheless, these now have deficiencies and it is necessary to develop high capacity infrastructure to structure the Valley internally, and enable local connections, and to provide external connections to the rest of Spain, the EU and the international community.

Purpose

To identify the possibilities for developing a future economic cluster in the Ebro Valley, taking advantage of the present infrastructure and developing new infrastructure that will allow networking and the establishment of synergies and complementarities.

The economic cluster potential of 3 million inhabitants in the Valley cities (Huesca, Lérida, Logroño, Miranda de Ebro, Pamplona, Tortosa, Tudela, Vitoria and Zaragoza) must be spread throughout the Valley.

Approach

The study has considered 7 sectors or thematic axes with high importance for the future, including transport infrastructure, the food industry, renewable energy, the automotive industry, ICT's, logistics and tourism.

Outcomes

Several meetings with the main Valley socio-economic agencies have been held to discuss the present and future situation. Protocols on mutual collaboration and a common impetus to infrastructure provision have been signed but they should be extended and generalised. They include initiatives on the 7 sectors and thematic axes as follows.

Transport infrastructure

- Develop a common strategy to improve the infrastructure that concerns the Valley overall, including connections with France
- Obtain the regional management of Ebro Valley airports and develop a regional airports network

Food industry

- Develop a sectoral cluster, emphasising quality and R&D+I
- Produce crops with more added value, better adapted to the agro-climatic conditions and towards bio-fuels

Renewable energies

- Develop an Energy Agency in the Ebro Valley
- Sector integration in European research networks

Automotive industry

- Create a sectoral cluster with the companies, suppliers and Governments
- Promote R&D+I, specially about the use of hydrogen as a fuel
- Establish agreements and networks with other European clusters, specially in Germany

ICT's

- Formal constitution of a High-Tech cluster in the Ebro Valley and development of a sectoral plan
- Improve the skills of the population and labour force

Logistics

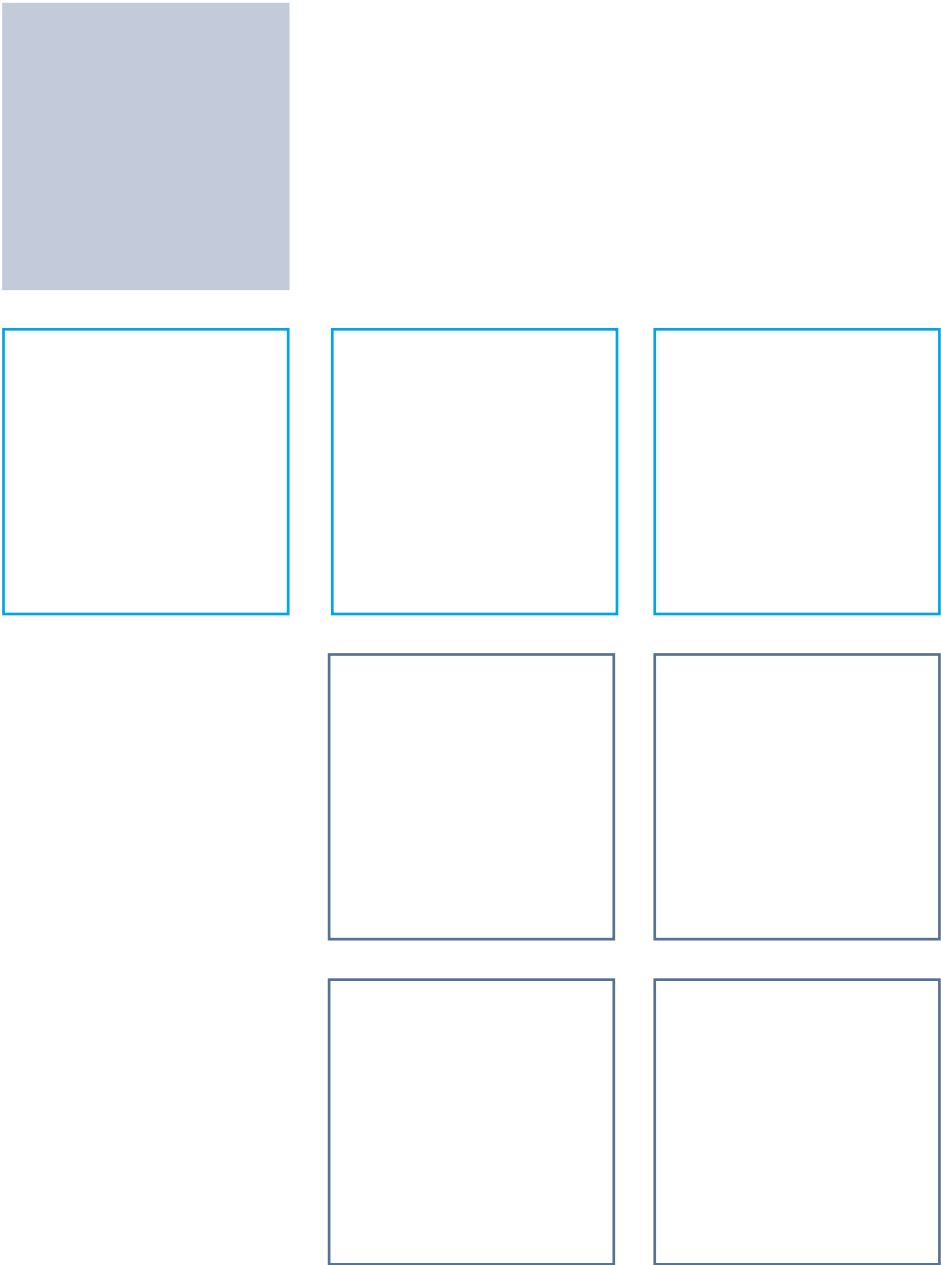
- R&D+I to keep and increase the current competitiveness on two scales, national and international, taking advantage of the improved transport infrastructure

Tourism

- Develop a trademark
- Constitute

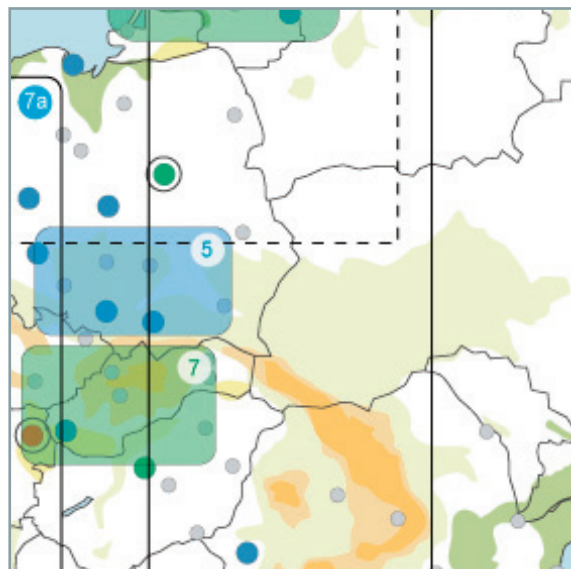
Way forward

The development of the Ebro Valley RINA, within the PolyMETREXplus project, has provided the ideal framework within which to host exploratory meetings and from which to promote the implementation of their findings and conclusions.



RINA context provided by the ESPON 2.4.2 Final Report

zoom in



RINA context provided by the 2005 reviewed 30 TEN-T projects, 9 ESPON suggestions and 1 proposed PolyMETREXplus addition



	Administration	Transport	Decision making	University	Tourism	Industry
Central Europe area by key functions						
13 Berlin		European hub	Potential			
75 Szczecin		Major node				
Danubian area by key functions						
18 Wien		European hub				
38 Praha		Major node				
43 Budapest		Major node				
53 Bratislava		Minor node				
Poland by key functions						
42 Warawa		Major node				
65 Krakow		Minor node				
69 Katowice		Minor node				
70 Gdansk		Major node				
71 Poznan		Minor node				
72 Wroclaw		Minor node				
73 Lodz						

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

22 Rail axis	Athens and Constanta to Budapest and Prague-Nürnberg/ Dresden
23 Rail axis	Gdansk-Warzawa-Katowice-Brno-Vienna-Bratislava
25 Motorway axis	Gdansk-Katowice-Brno/ Bratislava-Vienna
27 Rail axis	Rail Baltica from Helsinki/ Tallinn-Riga-Kaunas-Warzawa

Partner/ Institute of Urban Development, Krakow

Partners involved in the co-operation :

Marshals of regions : Malopolska, Silesia, Opolskie, President of Moravian-Silesian Region.
Presidents of cities : Kraków, Czestochowa, Opole, Bielsko Biata, Ostrava, Katowice

Aims and results of the proposed project (What?)

The Kraków-Upper Silesia Cluster (KRUS) is an area that may become a large and important polycentric region in Central Europe. The area includes Kraków, Czestochowa, Opole, Ostrava and Bielsko-Biała, and at its centre is the Upper Silesia Metropolitan Area. This has been called the Kraków-Upper Silesia (KRUS) Cluster. This type of intensively urbanised system of towns and cities can operate as a spatial organisation characterised by a functional distribution of work, economic and spatial integration and political cooperation.

The fundamental goals of identifying the KRUS Cluster are as follows.

- Increase the level of competitiveness in response to the challenges of globalisation
- Strengthen the polycentric development of the territory of the EU (the networking cooperation of cities) and increase the potential of large cities and metropolitan areas as the main generators growth in their regions.

Purpose and background of the proposed project (Why?)

Numerous European initiatives, stemming from the ESDP and the work of ESPON, indicate the need to shape the social and economic capabilities of towns and cities and their areas of influence as polycentric systems. European polycentricity means cooperation and the building of relationships between urban areas to increase their competitiveness. It means connections between peripheral urban areas and the main European and global centres that will allow the periphery to be integrated with the dynamically developing global economies.

The European Union is facing the necessity to maintain its cohesion policy and to make the Lisbon and Gothenburg Strategies more effective. Although support for the poorest regions will remain one of the most important objectives of the Union, more funds will be allocated towards the improvement of the external competitiveness of the EU. A considerable part of those resources will be allocated to supporting the development of the largest urban centres. Many countries are, therefore, trying to increase the potential of such centres through clustering and the formation of urban networks.

Planned approach and action (How?)

The following actions are required to realise the objectives of the KRAUS cluster project.

- Overcome regional and local social divisions
- Stress cooperation in the selected areas that are essential for the qualitative development of the Kraków-Upper Silesia Cluster
- Lobby for multilateral strengthening of the area at both national and European levels to attain the high level of financial support needed and rapid renewal and development
- Create and conduct joint projects to increase the level of EU support
- Build institutions that foster cooperation.

What are the next steps?

In May 2007 a conference was organized by Institute of Urban Development and the Marshal of Silesia Region with the co-operation of the Marshals and Presidents of the regions and cities in the KRAUS area. During this conference partners signed a Declaration of co-operation in the Krakow-Upper Silesia Cluster.

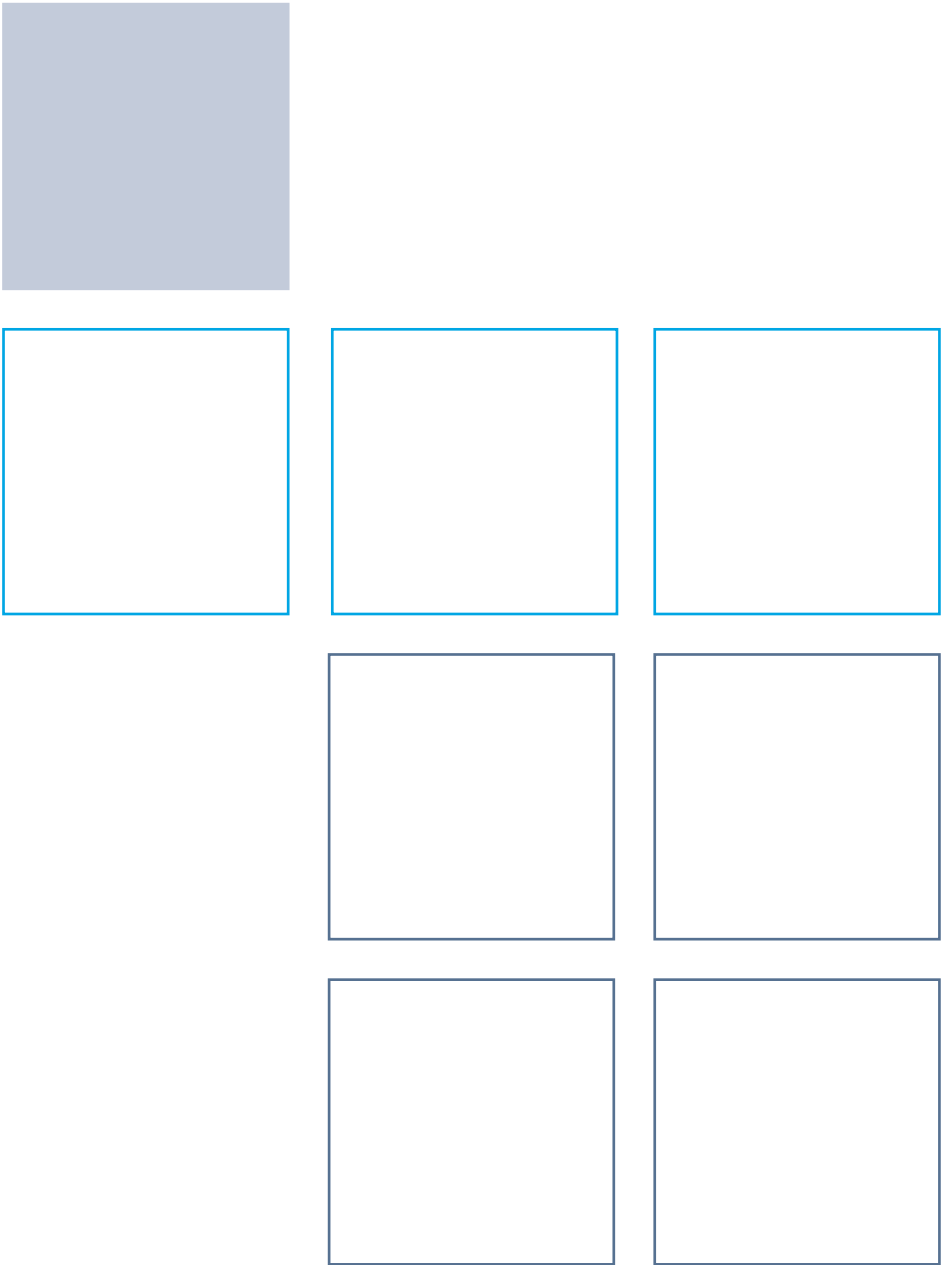
Co-operation will be institutionalised and the co-ordinating and supporting institution will be have the following responsibilities.

- Assessment of the potential of the KRUS Cluster potential within the framework of EU policies and programmes
- Securing EU funding for cooperation and development within KRAUS

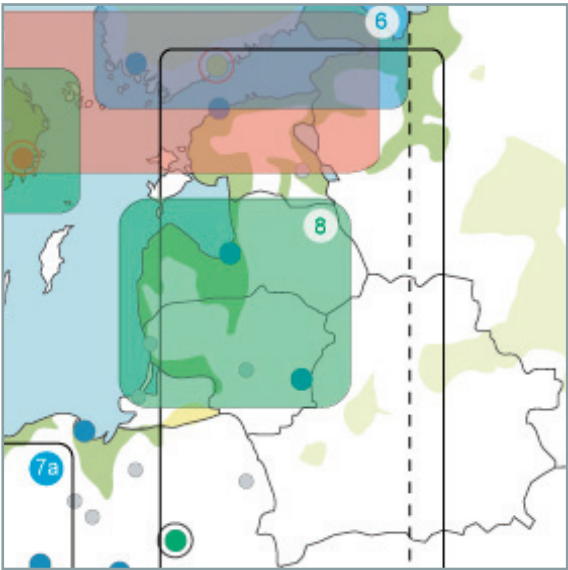
The KRUS Cluster connects Polish and Czech regions. It has a population of over 7.5 million including nearly 20% of the population of Poland. The axes of the cluster are the existing A4 east-west motorway and the designed A1 south-north motorway. A special asset of the area is its diverse but complementary and dense urban network, especially in the Upper Silesia Metropolitan Area, as well as in the Rybnik Coal Mining Centre and the Ostrava-Karvina Industrial Basin.

Such a concentration of urban centres provides a great opportunity for creating a counterbalance to other developing European urban systems. At the same time, it demonstrates the need for concerted action by local authorities, extending beyond the jurisdictions of particular towns, counties and even regions. An increase in the competitive edge of particular towns and cities located in the area in question will depend, to a large extent, on the success of their joint initiatives.

Cooperation in four particular areas, transportation, economy, human resources and environmental protection is of special significance to the development of particular towns and cities and the whole KRUS Cluster.



RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition

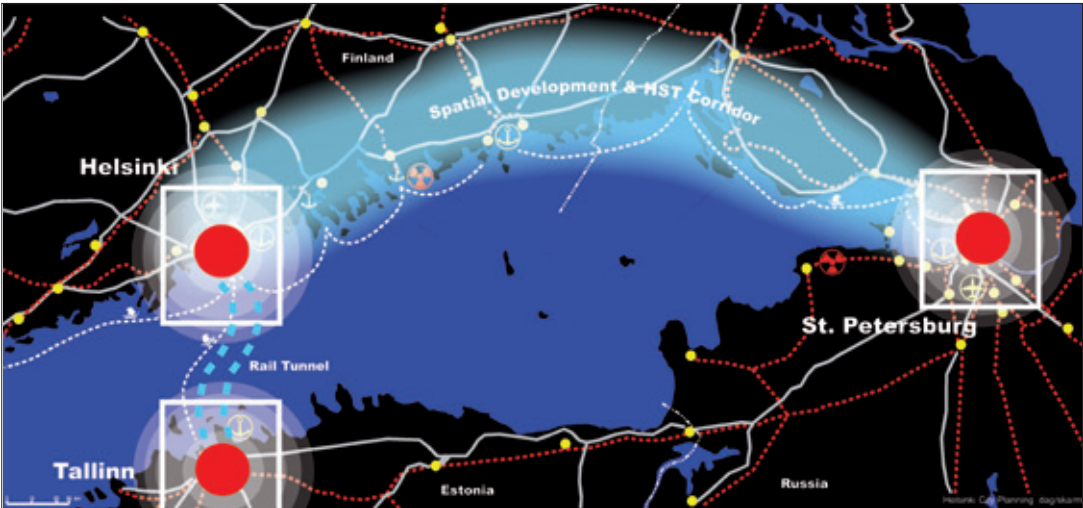


T6	Administration	Transport	Decision making	University	Tourism	Industry
Baltic East area by key functions						
20 Helsinki		European hub				
54 Turku						
60 Tallinn					Potential	
66 Vilnius		Major node			Potential	
68 Riga		Major node			Potential	
Kolka (Latvia)		Gateway port				

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

12 Rail/ road axes	Nordic triangle from Malmö-Oslo-Stockholm-Turku-Helsinki towards St. Petersburg
21 Motorways of the sea	Four motorways of the sea are proposed, two in the Mediterranean, one in the Atlantic and one in the Baltic

RINA concept



Partner/ Helsinki**Contributors : Tallin and St. Petersburg****Why The Gulf of Finland RINA?**

The Gulf of Finland, from Helsinki in the northern most part of EU to Tallinn in the south and St. Petersburg to the east, is recognised as one of the key gateways of the EU to Russia. The Gulf of Finland represents the EU periphery. At the same time it provides a key opportunity to open up an important economic dialogue with neighbouring Russia.

Purposes

- Development of a spatial vision for the Gulf of Finland and preparation of an Action Plan, the Joint Statement of Intent, for cooperation between the metropolitan areas in the Gulf of Finland triangle with the aim of creating spatially polycentric regions
- Identification of the key challenges and opportunities for Helsinki, St.Petersburg and Tallinn and translation of these into policy options and instruments
- Exchange of practical knowledge and experience of spatial planning between the Gulf of Finland metropolitan areas.

Gulf of Finland results

- Framework for a polycentric Gulf of Finland - forming polycentric relationships will help foster their collective economic and social strengths and address common environmental issues. An Action Plan, entitled 'Joint Statement of Intent' delivers the necessary Policy Options to implement collectively. In doing so, all new development will be managed and controlled in line with the agreed set of policies
- Policies and instruments - The Gulf of Finland RINA has realized the objective of INTERREG IIIC, which is to improve the effectiveness of policies and instruments for regional development and cohesion. This has been achieved in this RINA by the creation of policy options at a spatial planning level as to how the Gulf of Finland city-regions should develop in the future in order to form polycentric regions
- Cooperation - PolyMETREX seeks to enable metropolitan areas to become as collectively strong as possible through the development of effective polycentric relationships between city-regions by means of cooperation
- Transnational connectivity - The Gulf of Finland development triangle recognizes the importance of transnational connectivity in achieving better economic balance with the Pentagon, and in particular, to evaluate the possibility for High-Speed Train Network especially between Helsinki and St.Petersburg. In doing so, this may kick-start transnational economic and cultural development as well as lowering carbon emissions for travel.

Vision for Gulf of Finland

By 2050 the Vision for the Gulf of Finland will be to create compact and polycentric metropolitan areas, operating at a transnational level within a unified economic and development triangle of Helsinki-St.Petersburg-Tallinn, that will create spatial and business cohesion, offer a connected high-speed public transport network transnationally and locally, ensure safe and secure urban areas with social equity, be energy efficient with low carbon emissions, and be geared to making clean and healthy environments.

How to achieve this Vision?

In order to achieve the Gulf of Finland Vision, the development triangle is divided into three inter-connected sub-areas.

- Northern development belt along the Helsinki-St.Petersburg shoreline
- Southern vertical area between Helsinki, Tallinn and to mainland Europe
- Southern horizontal belt from Tallinn to St.Petersburg.

These sub-areas could be perceived mainly as intermediate cooperation areas, where proximity and traditional relationships between metropolitan areas might form the basis for the development of common strategies. This structure of the Gulf of Finland can help to achieve sustainable development for the whole triangle.

Joint Statement of Intent

Spatial Planning Policy Options for polycentric metropolitan areas to achieve cohesion in the Gulf of Finland development triangle.

- Management of growth and regeneration of metropolitan areas to create more compact, high-density smart urban structures (a smart metropolitan area is a compact, dense structure with a strong centre, based around high-quality public transport networks)
- Making metropolitan areas more polycentric, with high-density development associated with town and local centres, whilst recognising the need to complement the polycentric balance by strengthening each of the three city centres
- Confining new development to specific new corridors in order to prevent urban sprawl
- Giving priority to EU and Russian spending on a dedicated high-speed train (HST) network between Helsinki and St. Petersburg, and in the long-term, to consider a high-speed rail tunnel to be built between Helsinki and Tallinn. Giving priority to national and metropolitan spending on high-quality public transport to encourage the public to leave their cars at home, thereby helping to mitigate CO2 emissions
- Concentrating clusters of development around key interchanges of public transport, particularly rail, metro and tram networks
- Creating employment clusters in city centres and around public transport interchanges and hubs in order to create better urban balance within metropolitan areas
- Supporting innovatory ICT cluster development through the re-organisation of space within metropolitan areas and, in particular, locations around transportation interchanges and hubs
- Creating high-speed train networks within Europe as an alternative to short-haul air travel and considering the opportunities to build new towns related to the high-speed rail network
- Examining new forms of metropolitan governance applicable throughout the Gulf of Finland triangle.

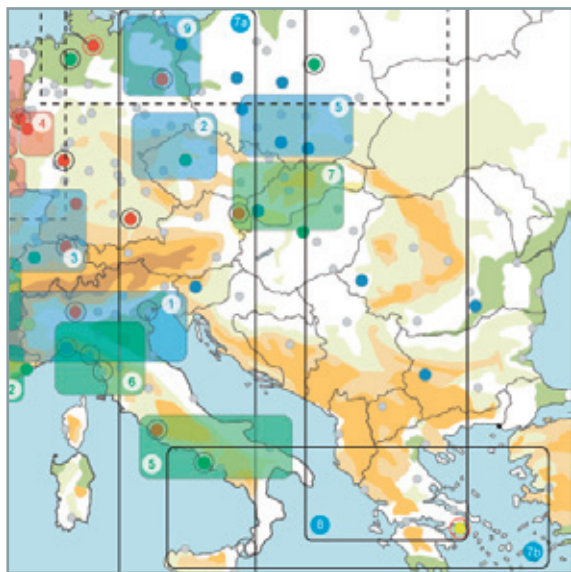
Instruments

Instruments to be applied for follow-up actions to achieve a polycentric Gulf of Finland triangle and better territorial cohesion.

- Use spatial planning as the main instrument in the future for metropolitan areas to be developed in a polycentric form
- Investigate fresh, new, innovative approaches in spatial planning for the future of metropolitan areas

- Support a new INTERREG IVC project for the Gulf of Finland RINA triangle
- Develop long-term strategic plans for each Gulf of Finland metropolitan area to take account of the Spatial Planning Policy Options
- Explore governance options that will best achieve polycentric metropolitan areas.
- Develop maps for the whole of the Gulf of Finland RINA, in more detail, to provide better understanding of the strategies
- Produce a more detailed spatial transnational profile for each circle of cooperation within the Gulf of Finland triangle and then to develop an integrated, more detailed Vision for a more unified triangle
- Use Public Private Partnerships (PPP) between the public and private sectors to deliver major projects
- Consider Securitisation as a means to pool assets, in the form of securities backed by cash flows from assets.

**RINA context provided by the
ESPON 2.4.2 Final Report**
zoom in/ see appendices 3 and 4



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition/
see appendix 5



Lead partners/ Regione Emilia-Romagna and Regione del Veneto

Partners/ Organisations for the Environmental Protection and of Athens and Thessaloniki, Province of Naples, Metropolregion Nürnberg

A series of stakeholders participated in the themes of the study, including Agencies for spatial development and enhancement, Chambers of Commerce, the Union of Italian Provinces and politicians.

Objectives

This RINA study has reviewed how the regions and metropolitan areas along Corridor 1, which intersects with the Adriatic Corridor 8, the Meridian corridor and the links towards the Aegean Sea, could integrate themselves better, through an infrastructure network that aims to increase connectivity and competitiveness. The study also looked at how to improve relationships with areas bordering the enlarged EU.

Euro Mediterranean relationships are understood to be relations between the central European area (Metropolregion Nürnberg), semi-central areas (Emilia-Romagna, Veneto), peripheral Mediterranean areas (Naples, Bari) and Aegean Sea areas (Athens, Thessaloniki).

Method

The RINA has held two international workshops. The first, on The role of European Corridors in the development of Euro Mediterranean relationships, was held in Bologna, in June 2006, with the participation of colleagues from Emilia-Romagna, Veneto, Napoli, Thessaloniki, Athens, Nürnberg, institutional regional and local representatives, the Chamber of Commerce of Emilia-Romagna, METREX and the IET for the Lead Partner. Reports and contributions to this workshop were brought together in a publication, circulated to the many stakeholders and made public.

The second, on The infrastructural European corridors and spatial development, was held in Napoli in December 2006, with participation from Emilia-Romagna, Veneto, Napoli, Athens and political representatives of the Campania Region.

The analysis found scope for cooperation through common projects. A review has been done of the projects being carried out, or in course of development, which are aimed at easing the connectivity between the partner countries and externally. The study was not only a review and a reflection on actual projects and operations aimed at increasing the connection, integration and spatial cohesion between the central European area and the Mediterranean areas. Additional projects and operations have also been identified as follows.

- Strengthen Corridor 1 to improve the connectivity of southern Europe with the GIZ and north-south relationships
- Improve connections between Mediterranean Italian and Greek regions and those of Central Europe in order to facilitate commercial relationships
- Increase the connections of Corridor 1 with other European infrastructural systems
- Improve the logistical hubs of some metropolitan regions along Corridor 1
- Develop the highways of the sea
- Strengthen the connections between infrastructural corridors and the areas crossed by them.

Corridor 1 and the Euro-Mediterranean System

In order to understand the link between Corridor 1 and the Euro Mediterranean system it is important to recognise three considerations.

- Corridor 1 is the main spine on which to centre a RINA on Euro Mediterranean relationships, concerned with the countries and metropolitan areas that face the Mediterranean Sea and the relationships between these and central Europe
- Corridor 1 must consider relationship with the other infrastructural spines that cross it and would strengthen its connective north-south role
- The notion of Corridor 1 not an infrastructural system that unites two points but a multimodal backbone, on which commodities, people, information, ideas and cultures travel, connected and integrated spatially with the corridors that cross it.

Today competition goes beyond the single State and “being organised as a system” is essential for a competitive edge. More adjoining metropolitan areas must participate in cooperation projects as the only way of reaching their infrastructure and development potential and helping to balance the GIZ’s economic and functional concentration.

The role of RINA’s partner regions in a Euro Mediterranean Relationships’ System

Southern Italy has potential in being the contact point for flows that cross the Mediterranean area to reach central Europe. The North Sea ports play a strong role because they are well connected to higher density urban areas with the highest European income. The competitive strategy of southern ports aims to strengthen the high-speed rail service northwards and to become closer to central European areas, with a 3/4 days edge on maritime routes.

The roles of the RINA study for partners in developing the Euro Mediterranean relationships.

Emilia-Romagna and Veneto could be a hub for other areas in the system, because of their role as a bridges to northern and central Europe. This role could be twofold. Firstly, as a connection between Mediterranean countries and central Europe, in order to decrease their peripheral character and to integrate them more effectively. Secondly, to foster positive relationships between the cities and regions of northern and central Europe and the logistic platforms of the Mediterranean Sea.

The Regional Spatial Plan (PTR) for Emilia-Romagna recognises that the area belongs to three European economic integration and social spaces, with diverse relationships, and therefore has excellent opportunities to increase the development of regional systems and to improve European cohesion.

Veneto and Venice is the historical gateway to the Adriatic and the Mediterranean Seas and a hub to continental Europe, reinforced by the enlargement of the EU. The projects for Corridor 5 support this role. Venice is both an infrastructural and cultural bridge and an area that could develop more advanced Euro Mediterranean relationships. This role is being considered by the regional spatial coordination plan.

Athens and Thessaloniki, in the south east of the EU, play a crucial role as links with the countries that face the Central and Eastern Mediterranean sea. This is role becoming increasingly important as the EU extends eastwards.

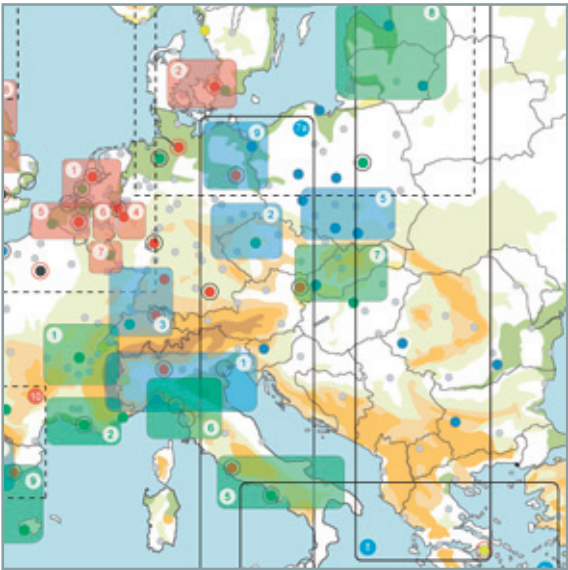
The Province of Naples is at the centre of a metropolitan cluster comprising by Rome, Naples and Bari, which is at the crossroads of Corridor 1 and Corridor 8, linking both the Tyrrhenian and Adriatic seas. It has a role as a logistics platform for commodities from and towards the whole of Europe.

The role of Nürnberg metropolitan area is crucial as the main hub for Corridor 1. It has high-level connections with production systems and with other German and north European metropolitan areas.

Infrastructure Projects

- 3.1.1. Bologna-Florence A1 highway section (Milan-Naples), mountain crossing variation
- 3.1.3. Bologna-Florence high-speed railway (FAV)
- 3.1.4. Rome-Naples high-speed railway
- 3.5. Sea Highways
- 3.3.3. Naples-Bari high-capacity line
- 3.5.1. Port of Ravenna- seabed intervention
- 3.5.2. Connections to Venice's port
- 3.5.3. Port of Napoli

RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition



T6	Administration	Transport	Decision making	University	Tourism	Industry
Baltic East area by key functions						
20 Helsinki		European hub				
54 Turku						
60 Tallinn					Potential	
66 Vilnius		Major node			Potential	
68 Riga		Major node			Potential	
Kolka (Latvia)		Gateway port				

- Euro engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

12 Rail/ road axes	Nordic triangle from Malmo-Oslo-Stockholm-Turku-Helsinki towards St. Petersburg
21 Motorways of the sea	Four motorways of the sea are proposed, two in the Mediterranean, one in the Atlantic and one in the Baltic

RINA 8 concept/ Maps 1, 2 and 3 - See pages 110, 111,112.

Please refer to 3 maps: INTERREG IIIC PolyMETREXplus - North South Interface
Map 1. Potential
Map 2. Connectivity
Map 3. Co-operation

Partners/ Helsinki, Athens, Bucharest

Contributors : Sofia and Bucharest

Why The North-South Interface RINA?

The North-South of the EU, from Helsinki in the north and Athens in the south, is recognized as one of the most poorly connected areas of Europe. The North-South represents the EU periphery, bordering Russia, the Ukraine and Belarus. At the same time it is possibly the key area of development potential in the EU.

Three key challenges, to upgrade the quality of life, to create better transnational connectivity and to realise the potential that the Interface offers make the North-South unique in the EU today.

Purposes

- Development of a spatial Vision for the North-South and preparation of an Action Plan, the Joint Statement of Intent, for the Interface
- Cooperation between the metropolitan areas in the North-South Interface with the aim of creating spatially polycentric regions
- Identification of the key challenges and opportunities for the Interface and translation of these into policy options.

North-South Interface results

- Cooperation - PolyMETREX seeks to enable metropolitan areas to become as collectively strong as possible through the development of effective polycentric relationships between them. This can only be done through long-term cooperation
- Knowledge and experience - The North-South RINA has exchanged spatial planning knowledge and experience between seven Capital city-regions as a means of contributing a metropolitan dimension to European affairs
- Policies and instruments - The North-South RINA has realized the objective of INTERREG IIIC, which is to improve the effectiveness of policies and instruments for regional development and cohesion. This has been achieved by the creation of spatial planning policy options showing how the North-South metropolitan areas should develop in the future in order to form polycentric regions
- Balanced Europe - These key policy options will be directly related to the long term relationship with the Global Integration Zone (GIZ) through the creation of polycentricity regions, which, in turn, will support the Territorial Agenda of creating a more balanced and sustainable Europe
- Transnational connectivity - The North-South RINA recognizes the importance of transnational connectivity in achieving better economic balance with the GIZ and, in particular, the possibility of a High Speed Train (HST) network North-South. This may kick-start transnational economic and cultural development as well as lowering carbon emissions for travel
- Framework for a polycentric North-South Interface - Forming polycentric relationships will help foster the collective economic and social strengths of metropolitan areas and enable common environmental issues to be addressed. An Action Plan, the Joint Statement of Intent, identifies the necessary Policy Options for collective implementation. New development will be managed and controlled in line with the agreed set of policies. A Polycentric Benchmark that can be drawn together from the collective views of the seven metropolitan areas involved

How to achieve this Vision?

In order to achieve the North-South Vision the territory is divided into three inter-connected and over-lapping sub-areas.

- Northern area comprising Helsinki, Tallinn, Riga and Vilnius
- Central area comprising Warsaw and Budapest and Belgrade
- Southern area comprising Bucharest, Sofia, Belgrade, Thessaloniki and Athens.

These sub-areas could be perceived mainly as intermediate cooperation areas, where proximity and the traditional relationships of their metropolitan regions might form the basis for the development of common strategies.

Joint Statement of Intent

Spatial Planning Policy Options for polycentric metropolitan areas to achieve cohesion in the North-South Interface.

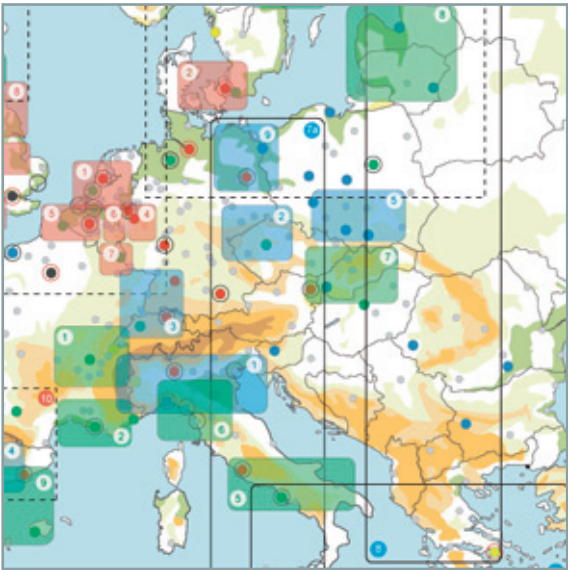
- Management of the growth and regeneration of metropolitan areas to create more compact, high-density (at appropriate levels) urban structures
- Making metropolitan areas more polycentric, with high-density development associated with town and local centres, whilst recognising the need to complement the polycentric balance by strengthening city centres
- Confining new development to specific new corridors in order to prevent urban sprawl
- Giving priority to EU spending on a dedicated high-speed train (HST) network throughout the North-South Interface
- Giving priority to national and metropolitan spending on high-quality public transport to encourage the public to leave their cars at home, thereby helping to mitigate CO₂ emissions
- Concentrating clusters of development around key interchanges of public transport, particularly rail, metro and tram networks
- Creating employment clusters in city centres and around public transport interchanges and hubs in order to create better urban balance within metropolitan areas
- Supporting innovatory ICT cluster development through the re-organisation of space within metropolitan areas and, in particular, locations around transportation interchanges and hubs
- Creating high-speed train networks within Europe as an alternative to short-haul air travel and considering the opportunities to build new towns related to the high-speed rail network
- Examining new forms of metropolitan governance applicable throughout the EU.
- Using the North-South Interface as a cooperation mechanism between the EU, Eastern Europe and Asia, with whom the participating countries have a long history of transnational relations

Instruments

Instruments to be applied for follow-up actions to achieve a polycentric North-South Interface and territorial cohesion.

- Use spatial planning as the main instrument in the future for metropolitan areas to be developed in a polycentric form
- Investigate fresh, new, innovative approaches in spatial planning for the future of metropolitan areas
- Support a new INTERREG IVC project for the North-South RINA Interface
- Develop long-term strategic plans for each North-South metropolitan area to take account of the Spatial Planning Policy Options
- Explore governance options that will best achieve polycentric metropolitan areas
- Develop maps for the whole of the North-South, in more detail, to provide better understanding of the strategies
- Produce a more detailed spatial transnational profile for each circle of cooperation within the Baltic, Central and Southern circles and then to develop an integrated, more detailed Vision for a more unified Interface.

RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition



T7	Administration	Transport	Decision making	University	Tourism	Industry
Central Europe area by key functions						
13	Berlin	European hub	Potential			
75	Szczecin	Major Node				

Euro engine

Strong MEGA

Potential MEGA

Weak MEGA

Partner/ Szczecin**Contributor : Berlin/ Branderberg****Context**

The basic aim behind creating the Szczecin-Berlin Corridor of multi-level and multi-dimensional cooperation is to restore the historic relationship between the two cities, in the context of the enlarged EU, and to maximise the benefits of the EU membership.

Purpose

The city of Szczecin is searching for a new European role and welcomes opportunities for its future development. This is why the proximity of Berlin has a special significance for Szczecin, as it is at present one of the most rapidly developing European metropolitan areas. If Szczecin takes advantages of its assets it could become a complementary centre for the German capital in respect of many urban functions.

Approach

Existing and planned activities and development, including infrastructure, will be analysed and the possibilities for cooperation between Berlin and Szczecin will be considered. These actions will be a first step to restoring the centuries old interaction of these two metropolitan areas, based on EU standards.

In the framework of the corridor, relationships will also be considered with RINA 2, the Saxon Triangle, the southern Baltic, adjoining Polish regions and the European NS transportation corridor.

The approach will be to explore various scenarios for future relationship between Berlin and Szczecin and the spatial planning implications in the two-city corridor.

Action Plan

Szczecin and Berlin-Brandenburg have met and consider that partners should concentrate on the following possible fields of cooperation.

Proposed ideas for consideration**1 Infrastructure development**

- Rail connection (Line Szczecin-Berlin + Western Rail Ring)
- Road connection (A20 and A11/A6 and A3, Western Ring Road, Rosow Road)
- River connection (Oder/Havela Channel, river ports, Szczecin-Berlin fairway through Dabie Lake and Skośnica Channel. Programme for the Oder 2006 development)
- Air connection. Regional Goleniów Airport Project, Municipal Szczecin Dabie Aerodrome Project

2 Environmental Protection

- Oderregion. Anti-flood protection (INTERREG IIIC)
- Water reserves protection
- Network of protected areas, including NATURE 2000 (habitats and birds)
- Cross-border hazards, water and air pollution

3 Joint transport policy (testing of transport trends)

- Trends testing. Selecting significant transport sectors that need support to realise growth potential and eliminate deficiencies
- Urban and regional strategies in the field of transport (Translogis, Baltic Bridge, Baltic Plus projects)

4 Polycentric metropolitan regions and areas (Functional Urban Regions - FUR)

Bi-centric configuration

- Berlin and its adjacent area
- Szczecin and its adjacent area

Complementarity

- Technological centres (cooperation and specialization)
- Tourism (sailing)
- Sentimental tourism
- Maritime museum etc.
- Philharmonic Hall concerts
- An offer for Berlin

5 Functional connectivity

- Transport. The port of Szczecin. Receiver/sender for Berlin
- Education. Cooperation
- Tourism. An offer for Berlin
- Education/culture. Youth co-operation etc.

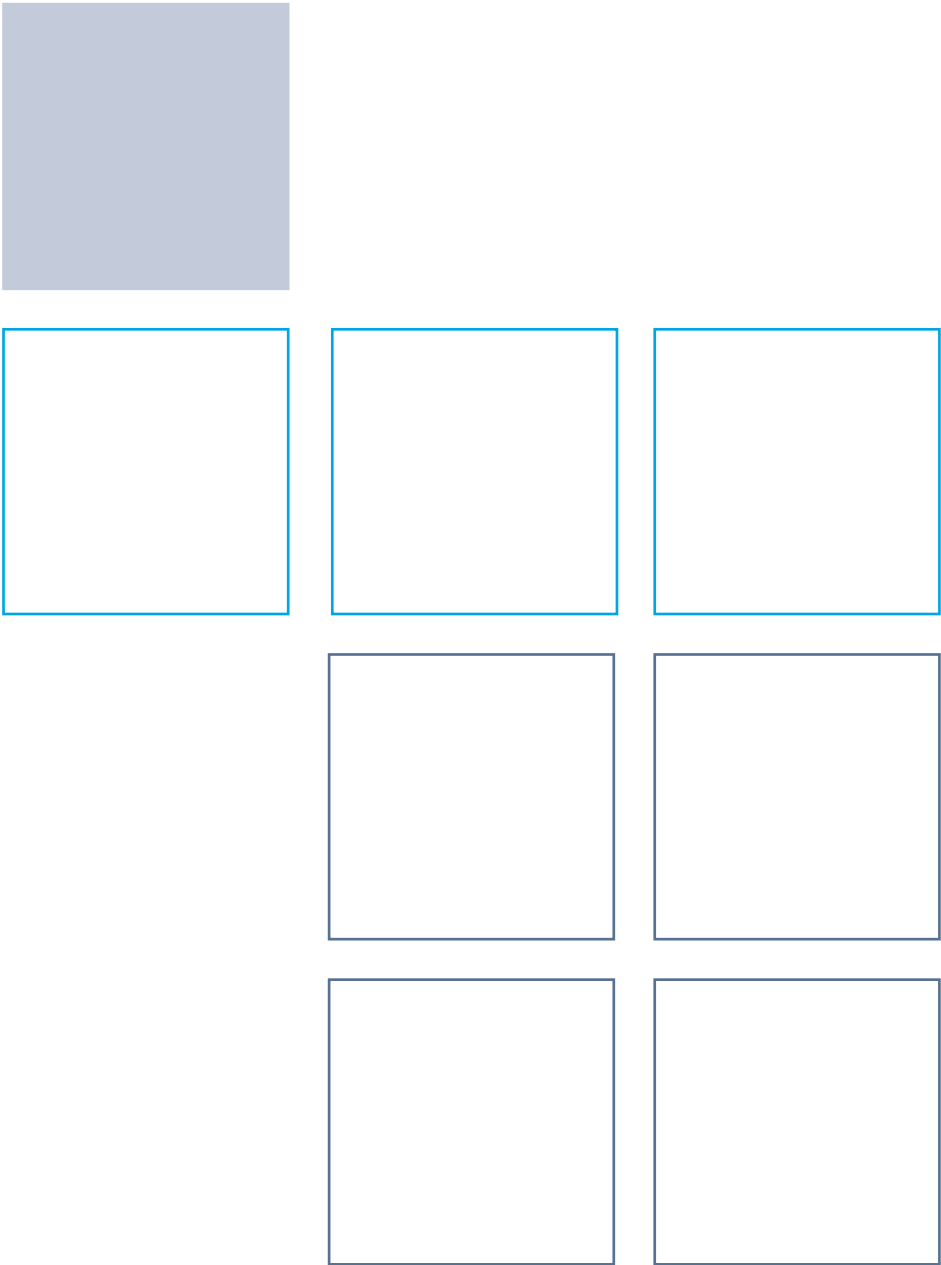
6 Creating an integrated interregional corridor while preserving planning balance

- Reinforce cooperation
- Continue work on a joint map
- Create compatible information bases and principles of access
- Complementary development of growth centres, for example, Berlin Centrum and Szczecin Śródmieście
- Website (provide information on services access, monuments, cycle paths, nature attractiveness)

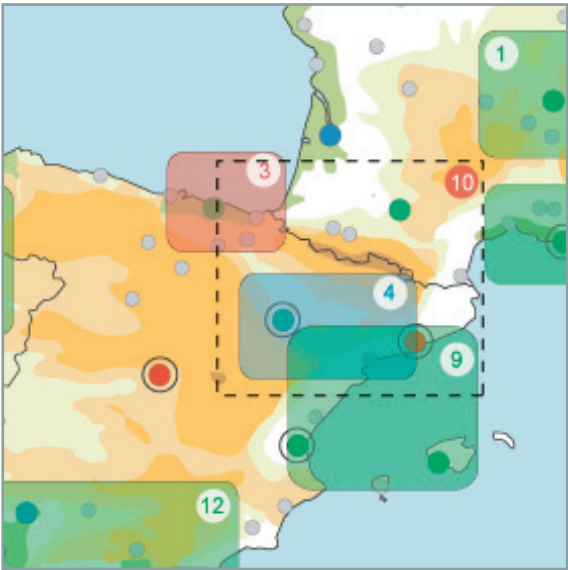
7 Next steps

The partners will continue discussions to create a Steering Committee to be responsible for coordinating Expert Group meetings and tasks, as well as working out the details of the Berlin-Szczecin Corridor Concept.

Although the RINA 9 activities are closed, the city of Szczecin is particularly interested in continuing the launched activities and dialogue with the city of Berlin. The Concept of long-term Berlin-Szczecin Corridor cooperation is to be the basis for such continuation. As both cities expressed their interest and willingness for cooperation, it has positive prospects for the future.



RINA context provided by the
ESPON 2.4.2 Final Report
zoom in



RINA context provided by the 2005 reviewed
30 TEN-T projects, 9 ESPON suggestions
and 1 proposed PolyMETREXplus addition



	Administration	Transport	Decision making	University	Tourism	Industry
Iberia Mediterranean area by key functions						
16 Barcelona		European hub	Potential			
49 Valencia		European hub				
52 Palma		Major node				
Alicante		Minor node				
Ibiza		Minor node				
Biscay area by key functions						
41 Toulouse		Minor node				
56 Bordeaux		Minor node				
48 Bilbao		Gateway Port				
Nantes/ St. Nazairre		Gateway Port				

Euro engine

Strong MEGA

Potential MEGA

Weak MEGA

Lead Partners/ Generalitat de Catalunya through the Institut d'Estudis Territorial (IET)**Context**

The Pyrenees has long been perceived as a barrier between the Iberian Peninsula and the rest of Europe. However, this perception could be changed if a new polycentric vision for the Pyrenees could be achieved. The area has sufficient critical mass, with a population of 20 million, to become an integrated transnational and interregional area. The unifying issue is connectivity. With improved connectivity the area could become a link rather than a frontier between Europe, Iberia and Africa. The ESDP recommends the establishment of a Pyrenees zone of economic integration.

Purpose

To investigate and assess the possible infrastructure needs in the Trans-Pyrenees area to enable polycentric development.

Approach

The approach was to identify the urban nodes in the area, consider their socio-economic characteristics and assess their potential to generate transportation movements. This potential was then compared with actual flows and planned infrastructure investment.

33 urban nodes were identified with a combined population of 12m. They range from 50k (Teruel) to 4m (Barcelona) and 13 have populations under 100k. Rail traffic data is not available after 1990 and the analysis has therefore concentrated on road traffic data for 2000 and the average annual daily flows between the nodes.

The potential demand was identified as a function of the population of nodes and the distance between them, using a gravitational model. The most interacting nodes were used as models to define potential levels of interaction between other nodes with similar characteristics.

To simplify the study only the most important nodes were analysed and only those within sectors that had direct connections. To identify the potential demand for infrastructure between nodes the model without was operated without reference to any geographic or administrative limits.

Outcomes

The Mediterranean axis is the most congested, with more than 40k vehicle movements a day between Narbonne and Perpignan. Barcelona is the most extreme case with more than 100k vehicle movements a day in its metropolitan area on the most congested day.

The results obtained have some limitations, due to the simplifications assumed by the model.

Nevertheless, they give an indication of a deficiency or spare capacity in connectivity between nodes. The sectors studied were often part of a larger corridor where the flows between two nodes also included bypass traffic. This might be the case for the Barcelona-Montpellier sector, which is the natural and most used corridor connecting northern Europe, southern Spain and Africa.

Another factor could be the presence of tolls or charges in a given corridor, which might influence the total volume of traffic. The presence of other transportation means between two nodes might also influence the road demand. For example, in Barcelona-Valencia there are good rail and air communications, which can explain the big differences between real (low) and potential (high) demand.

The different railway gauge between Spain and the rest of Europe makes direct connections difficult. However, the construction of the HST connecting Madrid with Zaragoza, Barcelona and the French border offers polycentric potential.

There is a lack of co-ordination on major road infrastructure, for example, for the planned central Pyrenees connection, which will be a motorway in the Spanish side but only a main road on the French side.

A main conclusion is that the current plans and projects of the different regions of the trans Pyrenees are not yet orientated to the building of a more polycentric area.

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A main conclusion is that the current plans and projects of the different regions of the trans Pyrenees are not yet orientated to the building of a more polycentric area.

Outputs

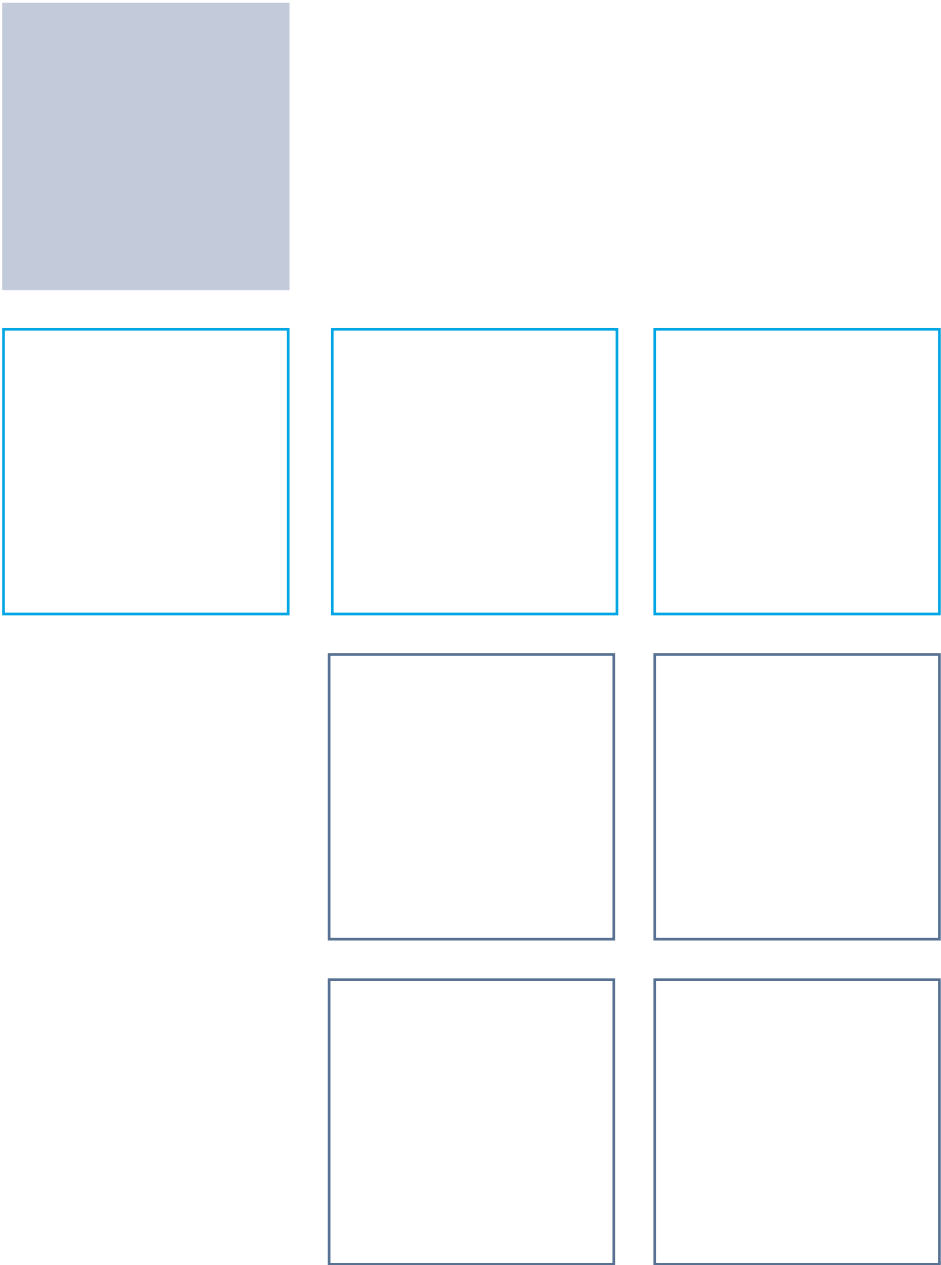
The trans Pyrenees RINA demonstrates the use that can be made of gravity road transportation models to compare existing traffic flows, and connectivity, with potential flows between polycentric urban areas. The methodology enables this indicator of polycentric potential to be used to assess existing transportation plans and projects and their effectiveness.

Way forward

Realisation of the polycentric potential of the trans Pyrenees area depends on the transnational road and rail connections now in prospect and the more interregional connections that have yet to be developed, being integrated with the urban potential of the 33 main urban areas.

There are examples elsewhere in Europe of the trans national and interregional cooperation that is required, for example, in the Alpine space. A trans Pyrenees polycentric initiative might be taken forward under the INTERREG IV programme.

The methodology developed for the Trans-Pyrenees RINA could be of use in other RINA where potential connectivity is an issue.



Partners/ Metropolitan Region Saxon Triangle, Glasgow and Clyde Valley Structure Plan Joint Committee

Contributors : City of Amsterdam, Centrope – Central European Region, Metropolitan Region Hanover-Brunswick-Goettingen, Metropolitan Region Rhein-Neckar, Upper Silesian Metropolitan Union

Context

At the core of the European Spatial Development Perspective (ESDP) and the PolyMETREXplus project is the concept of how to achieve balanced European development that provides 'counter-weights' to the "Pentagon" that is at present perceived to be the only European Global Integration Zone (GIZ). In order to achieve this aim, there needs to be a clear view of the role of peripheral areas, and those areas adjacent to the GIZ or even within it, whose development role is constrained by physiography or history. Creating counterweights can only be achieved by creating competitive 'critical mass' in alternative locations to the GIZ.

Within metropolitan Europe, there are several polycentric metropolitan agglomerations with two or more powerful centres, such as the Ruhr Area in Germany or Upper Silesia in Poland. Additionally, there are examples of neighbouring metropolitan regions, which together create a polycentric metropolitan region with two or more metropolitan centres, such as Central Scotland (Edinburgh – Glasgow) or the Saxon Triangle (Chemnitz/Zwickau – Dresden – Halle/Leipzig). In line with the EU strategy for 'Growth and Jobs', such polycentric metropolitan regions are often created to enhance their competitiveness and to position themselves in the 'metropolitan champions league' at European or even worldwide level.

To make such polycentric metropolitan regions work, cooperation between independent government and governance structures is necessary. Single centres within a polycentric metropolitan region need to find the right balance between cooperation in order to create 'critical mass' on the regional level and competition on the local level. Polycentric metropolitan regions in Europe developed different governance approaches to face this major challenge.

Purpose and Approach

The objective of the RINA was to learn more about practical knowledge and experience of the work of polycentric metropolitan regions. The main focus was on different approaches to govern such regions and how they come from competition to cooperation. In particular the RINA aimed at the:

- Identification of challenges and opportunities of polycentric metropolitan regions
- Exchange of practical knowledge and experience of the work of polycentric metropolitan regions
- Discussion of different governance approaches in polycentric metropolitan regions
- Elaboration of a classification of polycentric metropolitan regions

These aims above were addressed by a literature review of existing studies on effective governance in polycentric and collaborating metropolitan regions and in the frame of workshops and colloquiums with representatives from polycentric metropolitan regions.

Milestones

Dec 2006	Review of existing studies regarding metropolitan governance in polycentric regions
May 2007	Colloquium with polycentric metropolitan regions (Dresden, Germany)
Jun 2007	Compilation of results of the Dresden colloquium
Aug 2007	Classification of polycentric metropolitan regions
Sep 2007	Workshop with polycentric metropolitan regions (Amsterdam, Netherlands)
Oct 2007	Documentation of the Amsterdam workshop
Nov 2007	Documentation of RINA results

Output and Outcomes

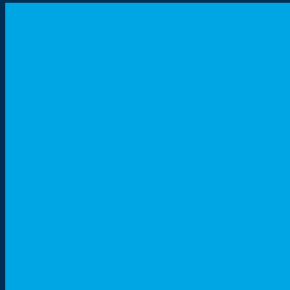
One finding of the RINA was that all metropolitan regions are polycentric depending on the spatial level that is considered. Even those with a more or less dominant centre have a multitude of sub-centres. However, looking at the variety of existing metropolitan regions, they can be classified in different ways.

Considering the distribution of population at least three different types can be identified. Type one represents metropolitan regions, where the largest city has twice inhabitants than the second largest city. Those regions seem to be dominated by the largest city. Type two represents regions where the second largest city has more than the half inhabitants of the largest and twice inhabitants than the third largest city. Such regions are more or less dominated by two powerful centres such as Edinburgh and Glasgow in Central Scotland or Dresden and Leipzig in the Saxon Triangle. Type three represents regions where none of the five largest cities has twice inhabitants than the city that is next in population size. Examples are the Randstad (Netherlands), the Ruhr Area (Germany) and the Upper Silesian Metropolitan Union (Poland).

Within the RINA type two and three were considered as “truly” polycentric because at least two powerful centres are involved. However, in some cases type one can be considered as truly polycentric as well, for instance in cross border regions such as Centrope (Vienna - Bratislava) and Øresund (Copenhagen - Malmø). Those metropolitan regions would hardly work if the largest cities would aim at dominating other partners. This is especially true in the case of Centrope, where the second largest city Bratislava is a capital city as well.

Another approach of classification considers the evolution of spatial distribution of population in polycentric metropolitan regions (based on Champion 2001). Type one evolves from a monocentric city which continuously grows and alternative centres in the metropolitan hinterland emerge (e.g. Berlin, Stockholm). Type two evolves from a monocentric city that grows and incorporates smaller already existing centres in the metropolitan hinterland (e.g. Nuremberg, West Midlands). Type three evolves from previously and still independent centres which together create a polycentric metropolitan region. For type three a distinction can be made between regions with and without large open space and/or rural landscapes between the centres. The latter would be the case in the Ruhr Area or the Upper Silesian Metropolitan Union, the former is true for the Randstad or the Saxon Triangle. Within the RINA type three, which links up at least two strong independent centres, was considered as “truly” polycentric.

APPENDICES



APPENDIX 1

PolyMETREXplus PARTNERSHIP

- 1 Generalitat de Catalunya
- 2 Diputación Provincial de Zaragoza
- 3 Junta de Andalucía
- 4 Regione Veneto
- 5 Regione Emilia-Romagna
- 6 Gemeente Rotterdam
- 7 Organisation of Athens
- 8 Organisation of Thessaloniki
- 9 METREX
- 10 Greater London Authority
- 11 GCVSPJC
- 12 Verband Region Stuttgart
- 13 Landeshauptstadt Dresden
- 14 Stockholm Stad
- 15 City of Helsinki
- 16 Malta Environment & Planning Agency
- 17 Municipality of Szczecin
- 18 Krakow Institute of Urban Development
- 19 Municipality of Sofia

PolyMETREXplus CONTRIBUTORS

- 1 City of Amsterdam
- 2 Metropolregion Nuremburg
- 3 Provincia di Torino
- 4 Metropolregion Hannover Braunschweig Göttingen
- 5 Region of Mazovia
- 6 Vilniaus Planas
- 7 Municipality of Bucharest
- 8 Eurocity Basque
- 9 Regione Lombardia
- 10 Provincia di Napoli

APPENDIX 2

PolyMETREXplus DISCUSSION NOTES AND INTERIM REPORTS

These can be downloaded from the METREX web site at www.euormetrex.org under the PolyMETREXplus button.

Introductory briefing note

The relevant context material available to partners and contributors to the PolyMETREXplus INTERREG IIIC project on the development of polycentric studies, visions and strategies for the spatial planning and development of the wider Europe.

- 1 **Towards European urban balance**
 Exploratory outcomes from the first PolyMETREXplus Workshop in London on Thursday 22 and Friday 23 April 2004.
 - 2 **European connectivity**
 Exploratory consideration of the implications of the Trans European Networks (TEN-T) for PolyMETREXplus Helsinki Workshop Thursday 2 and Friday 3 September 2004.
 - 2/ 3a **Towards European urban balance**
 Exploratory position statement for the PolyMETREXplus Steering Committee Meeting in Barcelona on Wednesday 7 October 2004.
 - 3 **Towards European urban balance**
 Integrated exploratory consideration of the implications of the ESPON/ TEN-T/ Spatial vision studies and programmes. Helsinki Workshop Thursday 2 and Friday 3 September 2004.
 - 3a **Towards European urban balance**
 Consideration of the findings and conclusions of the ESPON 111 Study Potentials for Polycentric development in Europe PolyMETREXplus Workshop in Athens on Thursday 30 September and Friday 1 October 2004.
 - 4 **Towards European urban balance**
 The TINA programme as summarised and published by TINA Vienna Transport Strategies GmbH a Company of Wien Holding GmbH.
 - 5 **Towards European urban balance**
 Relevant extracts from the findings, conclusions and recommendations of the ESPON projects that reached their conclusion in 2004. For consideration at WK5 in Barcelona from Wednesday 23 to Friday 25 February 2005.
 - 6 **Towards European urban balance**
 Key issues, and potential RINA projects, within the 18 inter regional tiles, including available responses to Discussion Note 2/3a. For consideration at WK5 in Barcelona from Wednesday 23 to Friday 25 February 2005.
 - 7 **Towards European urban balance**
 From synthesis to scoping. For consideration prior to WK6 in Zaragoza from Thursday 23 to Friday 25 April 2005.
 - 8 **The Northern Isles/ Tile 8.20**
 From synthesis to scoping. For consideration prior to WK6 in Zaragoza from Thursday 28 to Friday 29 April 2005.
 - 9 **Framework for a Polycentric Metropolitan Europe and related Action Plan**
 Exploratory diagrams and explanatory text. For consideration prior to WK7 in Veneto from Thursday 22 to Friday 23 September 2005.
 - 10 **Climate Change/ Urban Change**
 Exploratory approach to the METREX RINA (Representative Integrated Network Activity). For consideration prior to the SCM in Granada from Tuesday 25 to Wednesday 26 October 2005.
 - 11 **Framework/ Action Plan/ RINA position summary**
 Summary of the position with regard to the PolyMETREXplus Framework/Action Plan and 19 proposed RINA. For consideration prior to the SCM in Granada from Tuesday 25 to Wednesday 26 October 2005.
- Interim Report on the PolyMETREXplus project**
 At the end of Phase 1 (December 2005) including outlines of the Framework for a Polycentric Metropolitan Europe, Action Plan and Benchmark.
- Second Interim Report on the PolyMETREXplus project**
 At the mid point the Project Component (Second phase 2006-2007) including an outline of the PolyMETREXplus Action Plan (Representative Interregional Networking Activities - RINA).

APPENDIX 3

ESPON MEGA ASSESSMENT

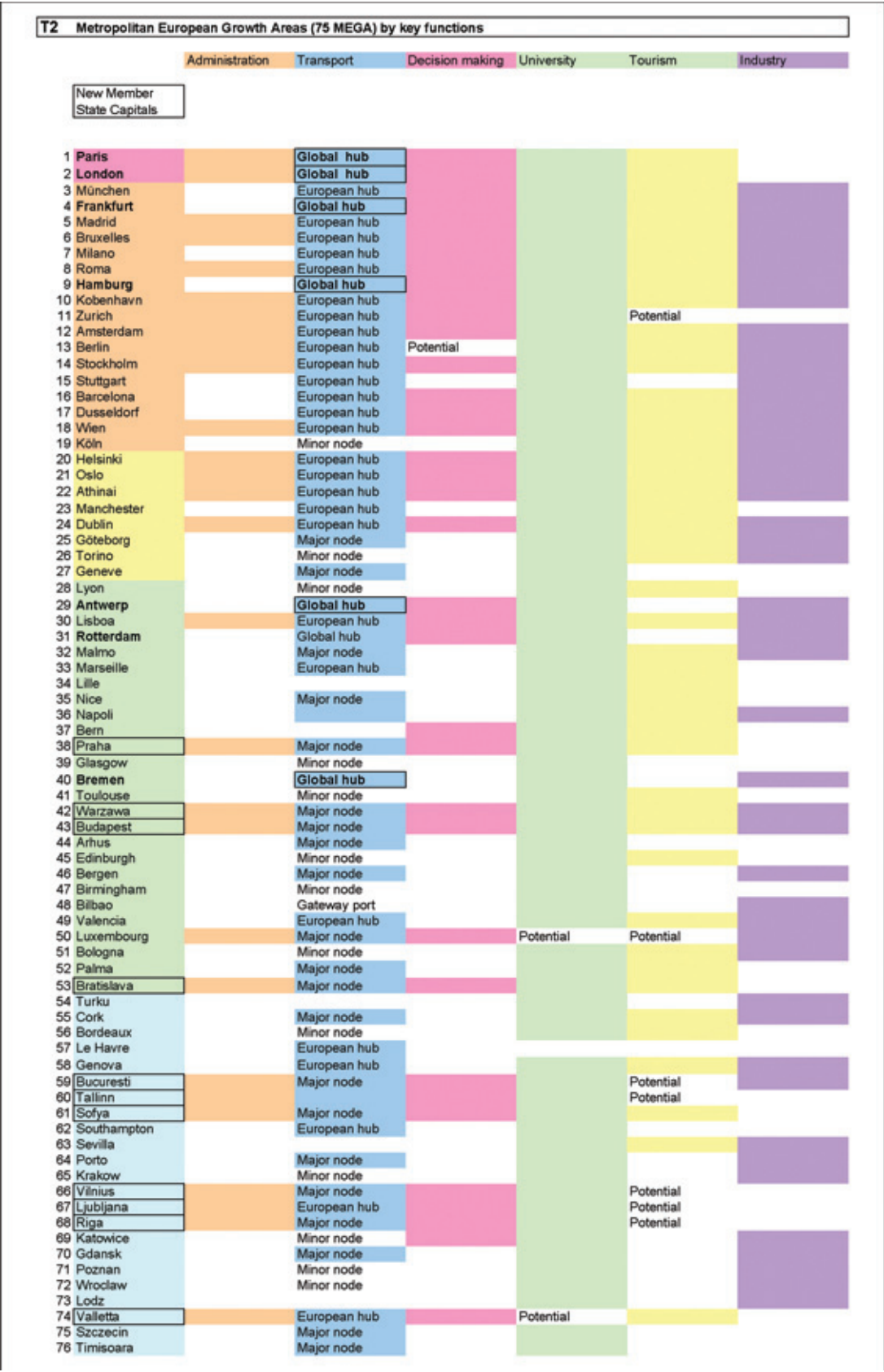
T1 ESPON MEGA assessment

MEGA	Categories	Indicators	Average	Scores	Total							
MEGA type	Gateway type	Mass Competitiveness Connectiv. Know-ledge	Index	Mass Competitiveness Connectiv. Know-ledge	score							
1 Paris	Global node	Air	767	197	266	175	307	4	4	4	4	16
2 London	Global node	Air	663	402	636	122	403	4	4	4	3	15
3 München	Euro engine	Air	164	227	158	184	183	4	4	3	4	15
4 Frankfurt am Main	Euro engine	Air	158	142	290	135	181	3	3	4	3	13
5 Madrid	Euro engine	Air	278	98	187	156	179	4	2	4	3	13
6 Bruxelles/Brussel	Euro engine	Air	100	148	166	132	137	2	3	4	3	12
7 Milano	Euro engine	Air	235	125	190	57	152	4	3	4	1	12
8 Roma	Euro engine	Air	211	112	170	85	145	4	2	4	2	12
9 Hamburg	Euro engine	Mainport	181	156	107	125	142	4	3	2	3	12
10 København	Euro engine	Mainport	138	123	139	148	136	3	3	3	3	12
11 Zürich	Euro engine	Air	96	125	166	0	129	2	3	4	3	12
12 Amsterdam	Euro engine	AirPort	96	159	241	120	154	2	3	4	2	11
13 Berlin	Euro engine	Air	223	77	123	144	142	4	1	3	3	11
14 Stockholm	Euro engine	AirPort	132	116	119	199	142	3	2	2	4	11
15 Stuttgart	Euro engine	Air	164	106	101	157	132	4	2	2	3	11
16 Barcelona	Euro engine	AirPort	234	65	136	98	133	4	1	3	2	10
17 Duesseldorf	Euro engine	Air	115	151	147	81	124	2	3	3	2	10
18 Wien	Euro engine	Air	128	95	111	151	121	3	2	2	3	10
19 Köln	Euro engine	Air	122	116	97	125	115	3	2	2	3	10
20 Helsinki	Strong MEGA	AirPort	95	110	79	222	126	2	2	1	4	9
21 Oslo	Strong MEGA	Mainport	80	114	103	202	125	1	2	2	4	9
22 Åthinal	Strong MEGA	AirPort	172	48	105	87	103	4	1	2	2	9
23 Greater Manchester	Strong MEGA	AirPort	147	71	138	78	108	3	1	3	1	8
24 Dublin	Strong MEGA	Mainport	75	109	103	114	100	1	2	2	2	7
25 Göteborg	Strong MEGA	Port	90	68	61	145	91	2	1	1	3	7
26 Torino	Strong MEGA	Air	126	96	64	60	87	3	2	1	1	7
27 Genève	Strong MEGA	Air	32	87	102	0	74	0	2	2	3	6
28 Lyon	Potential MEGA	Air	102	76	78	110	92	2	1	1	2	6
29 Antwerpen	Potential MEGA	Port	72	84	67	118	85	1	2	1	2	6
30 Lisboa	Potential MEGA	AirPort	128	75	79	54	85	3	1	1	1	6
31 Rotterdam	Potential MEGA	Mainport	75	86	63	114	85	1	2	1	2	6
32 Malmö	Potential MEGA	Port	66	57	82	138	81	1	1	1	3	6
33 Marseille/Aix-en-Provence	Potential MEGA	Mainport	96	59	73	90	80	2	1	1	2	6
34 Lille	Potential MEGA	Air	134	52	55	57	75	3	1	1	1	6
35 Nice	Potential MEGA	Air	54	57	94	90	74	1	1	2	2	6
36 Napoli	Potential MEGA	Mainport	134	40	67	45	71	3	1	1	1	6
37 Bern	Potential MEGA	Air	50	75	50	0	58	1	1	1	3	6
38 Praha	Potential MEGA	Air	55	74	78	117	81	1	1	1	2	5
39 Glasgow	Potential MEGA	Air	96	64	80	78	79	2	1	1	1	5
40 Bremen	Potential MEGA	Mainport	63	75	96	109	79	1	1	1	2	5
41 Toulouse	Potential MEGA	Air	57	64	96	119	77	1	1	1	2	5
42 Warszawa	Potential MEGA	Air	101	51	75	78	76	2	1	1	1	5
43 Budapest	Potential MEGA	Air	72	69	74	95	75	1	1	1	2	5
44 Aarhus	Potential MEGA	Port	72	65	39	148	73	1	1	0	3	5
45 Edinburgh	Potential MEGA	Air	41	98	63	86	72	0	2	1	2	5
46 Bergen	Potential MEGA	Air	25	66	46	147	71	0	1	1	3	5
47 Birmingham	Potential MEGA	Air	59	68	91	68	71	1	1	2	1	5
48 Bilbao	Potential MEGA	Air	52	58	54	119	71	1	1	1	2	5
49 Valencia	Potential MEGA	Mainport	96	50	51	74	68	2	1	1	1	5
50 Luxembourg	Potential MEGA	Air	31	130	69	41	68	0	3	1	1	5
51 Bologna	Potential MEGA	Air	63	90	69	55	67	1	2	1	1	5
52 Palma de Mallorca	Potential MEGA	AirPort	31	80	125	49	66	0	1	3	1	5
53 Bratislava	Weak MEGA	Air	23	57	53	131	66	0	1	1	3	5
54 Turku	Weak MEGA	Port	24	65	33	145	67	0	1	0	3	4
55 Cork	Weak MEGA	Port	26	79	44	114	66	0	1	1	2	4
56 Bordeaux	Weak MEGA	Mainport	65	63	57	75	65	1	1	1	1	4
57 Le Havre	Weak MEGA	Mainport	63	62	40	74	60	1	1	1	1	4
58 Genova	Weak MEGA	Mainport	47	70	54	63	58	1	1	1	1	4
59 Bucuresti	Weak MEGA	Air	63	22	51	89	56	1	0	1	2	4
60 Tallinn	Weak MEGA	Port	18	38	39	132	57	0	0	0	3	3
61 Sofia	Weak MEGA	Air	39	26	45	116	57	0	0	1	2	3
62 Southampton/Eastleigh	Weak MEGA	Mainport	14	74	52	79	55	0	1	1	1	3
63 Sevilla	Weak MEGA	Port	60	39	42	70	53	1	0	1	1	3
64 Porto	Weak MEGA	Port	53	49	50	34	47	1	1	1	0	3
65 Krakow	Weak MEGA	Port	38	41	48	51	44	0	1	1	1	3
66 Vilnius	Weak MEGA	Port	21	30	43	80	44	0	0	1	2	3
67 Ljubljana	Weak MEGA	Air	20	56	47	50	43	0	1	1	1	3
68 Riga	Weak MEGA	Port	41	31	41	54	42	1	0	1	1	3
69 Katowice (Upper Silesia)	Weak MEGA	Port	90	32	38	37	49	2	0	0	0	2
70 Gdansk/Gdynia/Sopot	Weak MEGA	Port	35	38	40	49	40	0	0	1	1	2
71 Poznan	Weak MEGA	Port	30	51	42	36	40	0	1	1	0	2
72 Wrocław	Weak MEGA	Port	27	39	40	49	39	0	0	1	1	2
73 Łódź	Weak MEGA	Port	43	24	30	40	34	1	0	0	1	2
74 Valletta	Weak MEGA	Mainport	15	34	46	0	32	0	0	1	1	2
75 Szczecin	Weak MEGA	AirPort	21	27	32	41	31	0	0	0	1	1
76 Timisoara	Weak MEGA	Air	13	20	39	49	30	0	0	0	1	1
Total												495

Tables 1 and 2 shows that the extent to which European core contains many of the engines of the European economy and, in consequence, the potential that there is for Potential and Weak MEGA and other related metropolitan areas and gateways to form polycentric clusters and corridors for combined competitiveness and cohesion.

APPENDIX 4

RINA CONTEXT PROVIDED BY THE ESPON FINAL REPORT



APPENDIX 5

CONNECTIVITY - THE EU TEN'S PROGRAMME

2005 reviewed 30 TEN-T projects, 9 ESPON suggestions and 1 proposed PolyMETREXplus addition

1 Rail axis	Berlin-Verona/Milano-Napoli-Messina-Palermo
2 High-speed rail axis	Paris-Bruxelles-Köln-Amsterdam-London
3 High-speed rail axis	South-west Europe (Paris/Bordeaux and Lyon/Nîmes to the Iberian peninsula)
4 High-speed rail axis	East Europe (Paris and Luxembourg to Mannheim and Strasbourg)
5 Rail freight axis	Betuwe line from Europort/Rotterdam east to Germany
6 Rail axis	Lyons-Torino-Venezia-Trieste-Ljubljana-Budapest
7 Motorway axes	East/West from Igoumenista -Thessaloniki-Alexandroupolis North/South from Budapest-Sofia-Thessaloniki-Athens-Patra
8 Multi-modal axis	Portugal/Spain north to the rest of Europe Sevilla-Lisboa-Porto-La Coruña-Valladolid to Eurocity Basque (San Sebastian/Bayonne/Biarritz)
9 Rail axis	Cork-Dublin-Belfast-Stranraer
10 Malpensa	Milano Airport
11 Øresund fixed link	Copenhagen-Malmö
12 Rail/road axes	Nordic triangle from Malmö-Oslo-Stockholm-Turku-Helsinki towards St. Petersburg
13 Road axis	Ireland/UK/Benelux from Cork-Dublin-Belfast to Stranraer- Liverpool-Birmingham-Felixstowe
14 Rail axis	UK West coast main line from London-Glasgow/Edinburgh
15 Global satellite	Galileo navigation system
16 Rail freight axis	Sines/Algeciras-Madrid-Paris including a new trans-Pyrenean crossing
17 Rail axis	Paris-Stasbourg-Stuttgart-Vienna-Bratislava
18 Inland waterway	Rhine/Meuse-Main-Danube (Rotterdam to Constanta axis on the Black sea)
19 High-speed rail axis	Interoperability on the Iberian peninsula
20 Rail axis	Fehmarn belt (Øresund-Hamburg-Bremen-Hannover)
21 Motorways of the sea	Four motorways of the sea are proposed, two in the Mediterranean, one in the Atlantic and one in the Baltic
22 Rail axis	Athens and Constanta to Budapest and Prague-Nürnberg/Dresden
23 Rail axis	Gdansk-Warszawa-Katowice-Brno-Vienna-Bratislava
24 Rail axis	Lyons/Genova-Basel-Duisberg-Rotterdam/Antwerpen
25 Motorway axis	Gdansk-Katowice-Brno/Bratislava-Vienna
26 Rail/road axis	Ireland/UK-rest of Europe (see also projects 9 and 13)
27 Rail axis	Rail Baltica from Helsinki/Tallinn-Riga-Kaunas-Warszawa
28 Rail axis	Eurocaprail from Brussels-Luxembourg-Strasbourg
29 Rail axis	Inter modal axis fromThessaloniki-Igoumenitia-Athens-Patra-Kalamata (see also project 7)
30 Inland waterway axis	Seine-Scheldt from Paris-Antwerpen

ESPON suggestions

1 Multi modal axis	La Coruña to Bilbao/Eurocity Basque
2 Connectivity	Madrid-Valencia-Barcelona
3 Connectivity	Bordeaux-Nantes-Le Havre-Lille
4 Sea connection	Brittany-Southampton
5 Connectivity	Southampton-Bristol-Birmingham
6 Connectivity	Bern-Strasbourg-Frankfurt
7 Connectivity axis	Balkans axis from München-Ljubljana-Belgrade-Skopje-Thessaloniki-Istanbul
8 Connectivity	Bucuresti-Chisnau
9 Sea connection	Bari-Igoumenitia

PolyMETREXplus suggestion

1 Multi modal axis	Eurocity Basque/Bordeaux-Toulouse-Lyons-Marseille with connection to the Pyrenean tunnel
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APPENDIX 6

EXISTING POLYCENTRIC INITIATIVES AND ORGANISATIONS

Case studies

- 1 Regio-Randstad
- 2 Øresundskomiteen
- 3 Eurocity Basque

Other components of the Action Plan for reference

Other existing polycentric initiatives and organisations

- 4 Ruhrgebiet
- 5 Flemish Diamond
- 6 MHAL - Maastricht/Herleen/Aachen/Liege
- 7 Sarre-Lor-Lux - Sarbrücken/Lorraine/Luxembourg
- 8 Northern Way (UK)
- 9 Midlands Way (UK)
- 10 SCM - South Coast Metropole (UK)
- 11 Baltic Palette

PolyMETREXplus RINA 1 - 11

(see earlier section on PolyMETREXplus outcomes & outputs
 - Practice Component)

- 1 Po Valley Spatial Vision
- 2 Metropolitan spatial vision for central Europe
- 3 Polycentric cluster - Stuttgart/ Zurich/ Strasbourg
- 4 Ebro Valley economic cluster
- 5 Krakow - the Upper Silesia cluster
- 6 Gulf of Finland - Helsinki/ St.Petersburg/ Tallinn
- 7A/B Corridor 1 Euro-Mediterranean relations
- 8 North-South interface
- 9 Szczecin - Berlin corridor
- 10 Trans-Pyrenees area
- 11 Metropolitan Governance in Polycentric and Cooperating
 Metropolitan Regions

Other potential polycentric cluster and corridors

(see action plan)

- 1 Lyon polycentric cluster
- 2 Marseille polycentric cluster
- 3 Porto polycentric cluster
- 4 Lisboa polycentric cluster
- 5 Roma-Napoli-Bari corridor
- 6 Genova/Florence cluster
- 7 Wien/Bratislava cluster
- 8 Riga/Vilnius cluster
- 9 Berlin/Potsdam/Szczecin corridor
- 10 Barcelona/Valencia corridor
- 11 Central Scotland corridor
- 12 Stockholm cluster
- 13 Andalucia cluster

Related spatial visions

- 1 NW Europe
- 2 Baltic Sea
- 3 Spatial Plan for Ireland
- 4A/B/C Spatial Plans for Northern Ireland, Scotland and Wales

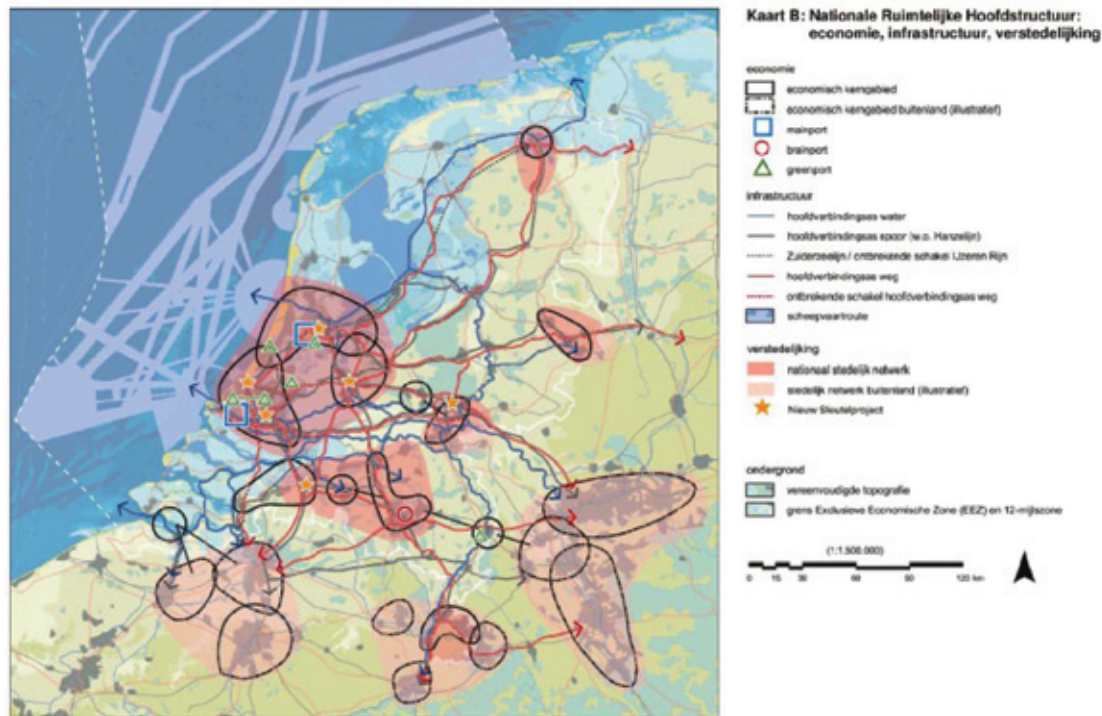
APPENDIX 6 contd.

EXISTING POLYCENTRIC INITIATIVES AND ORGANISATIONS - Case studies

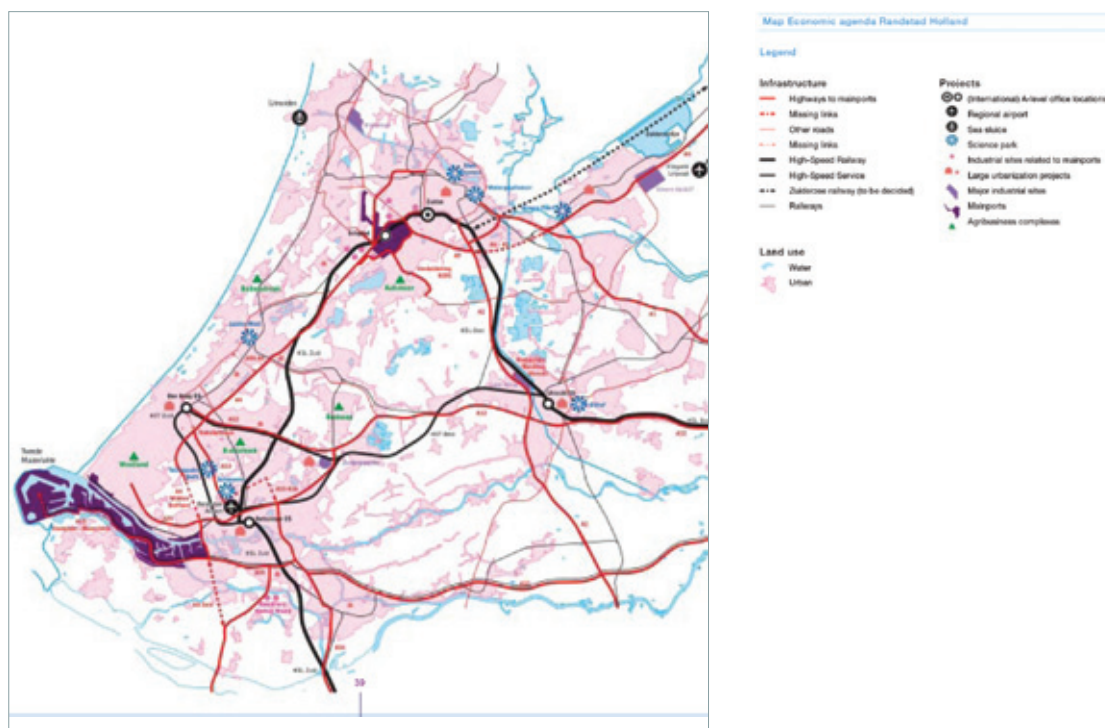
1 Regio-Randstad - Polycentric cluster

(see www.regio-randstad.nl from which the following information has been sourced)

Map 1 National Spatial Structure for economy, infrastructure and urbanisation



Context



Economic Strategy Randstad (ESR) 2004

APPENDIX 6 contd.

Background

The Randstad (rim or edge city) is a network of Dutch cities around a Green Heart. Recently it has come to be called the Deltametropolis, with a North Wing focused on Amsterdam and Utrecht and a South Wing focused on Rotterdam and Den Haag. The Randstad has a population of some 7.5m, of whom 6.6m live in the urban areas and 625k in the Green Heart. The Randstad includes 41% of the population of the Netherlands.

Organisation

Regio-Randstad was set up in 2002. It is a joint venture between the four Provinces of North and South Holland, Utrecht and Flevoland and the four cities and four city regions around Amsterdam, Rotterdam, Utrecht and Den Haag.

A Board and Executive Committee promote and monitors and action on the four key purposes listed below. They are supported by a Bureau providing secretariat functions, including policy, management and communications and financial and economic coordination. National government and Regio Randstad meet regularly through an Administrative Committee.

Purpose

Regio Randstad strives to strengthen the international competitive position and to improve the quality of life in the western Netherlands and in the Randstad. The Strategic EU Randstad Agenda 2004-2007 has four components.

1. Accessibility for international competitiveness supported by the realisation of Trans-European Networks (TEN-T) and inter-modal transport (Marco Polo programme)
2. Framework Programme for Research and Development, eEurope and Lifelong Learning
3. Maintaining the quality of life
4. Rural development and coastal zone management

Key Issues

Regio Randstad strives to strengthen the international competitive position and to improve the quality of life in the western Netherlands and in the Randstad. The Strategic EU Randstad Agenda 2004-2007 has four components.

- Space for living, working and recreation
- A balanced social structure
- Strengthening of the knowledge infrastructure
- Better links between Randstad interchanges and better hinterland connections
- Sustainable and secure water management
- Development of a Randstad green spaces structure
- An attractive landscape
- Valuable natural environments
- Sustainable agriculture

Strategy

The Economic Strategy Randstad (ESR) 2004 includes some thirty points for action. The goal is the balanced development (an equitable distribution between living and working environments) of the Randstad into an internationally competitive network metropolis. This requires strengthening the integration of the region, increasing differentiation between the cities and other parts of the region and widening the possibilities for interaction between economic partners.

APPENDIX 6 contd.

EXISTING POLYCENTRIC INITIATIVES AND ORGANISATIONS - Case studies

2 Øresundskomiteen - polycentric corridor and cluster

(see www.oresundskomiteen.dk from which the following information has been sourced)



Background

The Øresund Region is one of the most integrated and dynamic cross-border regions of Europe. It generates a quarter of the combined GDP of Sweden and Denmark.

It comprises Zealand, Lolland-Falster Møn and Bornholm in Denmark and Skåne in Sweden and has a population of 3.6m of whom one third live in Sweden and two-thirds in Denmark. The two sides of the Region are connected by the Øresund Bridge, the multi modal fixed-link between Copenhagen (population 0.5m) and Malmö (population 0.25k) opened in 2000, and by ferries sailing between Helsingborg and Elsinore.

Organisation

The Øresundskomiteen (Øresund Committee) consists of regional and local authorities from Denmark and Sweden including the Capital Region of Denmark, Region of Sealand, City of Copenhagen, City of Frederiksberg, Regional Municipality of Bornholm, Local Government Denmark (The Capital Region and Sealand), Region Skåne, City of Malmö, City of Helsingborg and the municipalities of Landskrona and Lund. The Committee is supported by a Secretariat and has a budget of €1.685m.

Purpose

The Øresund Committee acts as a builder of networks, a political platform and an embassy to increase cooperation across the Sound between individuals, companies and organisations.

- Strengthening the public rooting of the integration process
- Influencing national authorities and regional actors in order to eliminate different barriers as far as possible
- Continuous work for a good development of our infrastructure and a sustainable environment
- Administration of the INTERREG IIIA programme
- Information about the region and the work of the Øresund Committee through conferences, seminars etc

APPENDIX 6 contd.

Visions and goals - Action Plan 2005 - 2006

The region should be developed into Europe's most functionally integrated border region.

It should be the leading region in Europe with a strong economic growth, a high social welfare, a sustainable environment and balanced development. It should be easy and attractive to live, work and study, irrespective of where one lives in the region. The region should be Europe's cleanest region.

Strategy - Action Plan 2005 - 2006

Promote sustainable economic growth by:

- Optimising frame conditions
- Highlighting potentials and possibilities
- Profiling the region internationally.

Promote daily integration by promoting:

- Mobility
- Interaction between rules and system
- Identity and legitimacy.

Connecting the region by strengthening and promoting:

- Infrastructure and communication
- Balanced development
- Solidarity and a broad cooperation.

Progress

- Transport of passengers on the Øresund trains has exceeded all expectations
- Car traffic on the bridge as well as ferry traffic is growing
- The number of border commuters has more than tripled during the last few years
- The number of student commuters is growing in both directions
- University cooperation has developed strongly
- Long-standing hospital cooperation is being formalised to an increasing extent
- The purchase and establishment of companies across the Sound has more than doubled in a short number of years
- The Øresund region is the leading region in the Nordic countries concerning global competitiveness and is a leading region concerning foreign investment
- There is a major awareness of the concrete results of the INTERREG programme in the Øresund Region.

Current Issues

- Business and trade
- Labour market and education
- Communication and infrastructure
- Culture
- Information
- International cooperation and profiling.

APPENDIX 6 contd.

EXISTING POLYCENTRIC INITIATIVES AND ORGANISATIONS - Case studies

3 Eurocity Basque - Polycentric corridor - Polycentric cluster (see www.eurocite.org from which the following information has been sourced)

Background

The Bayonne-San Sebastián Basque Eurocity straddles the French-Spanish border on the Atlantic side of the Pyrenees, extends along the 50km urban corridor between Bayonne and San Sebastián and contains a population of 600,000. It is the natural access route between the Iberian Peninsula and Western and Central Europe.

Organisation

In January 1993 the Provincial Council of Gipuzkoa and the Biarritz-Anglet-Bayonne Urban Community (then the District Community) signed an agreement to foster cooperation between the institutions on both sides of the border.

In February 1997 the partners set up an Agency to organise the action required to realise the aims and objectives of the Eurocity Basque. In 2001 the Consorcio Bidasoa-Txingudi joined the agency.

The organisation structure of the Agency includes a rotating Presidency and Vice Presidency, a Member College, Management Council and Directorate/Secretariat.

Purpose

The cooperation project aims to respond to the challenges posed by membership of the European Union and seeks to position the Bayonne-San Sebastián conurbation competitively within the European urban system.

Consequently, the aim of the authorities on both sides is to realise the urban potential between Bayonne and San Sebastián and to convert it into a new European city of 600,000 inhabitants.

Objectives



- 1 Adjust the Atlantic platform of inter-modality, communication and information, transforming the corridor, which is presently one of transit, into a development Euro-corridor.
- 2 Structure a linear polycentric metropolitan network, by means of putting into practice the management of space, various infrastructures and an offer of services and facilities whose quality and articulation will respond to the demands of the cities of European rank.
- 3 Protect and value the natural heritage, creating an excellent environment by applying the concept of green metropolis.

APPENDIX 6 contd.

Strategy

The Economic Strategy Randstad (ESR) 2004 includes some thirty points for action. The goal is the balanced development (an equitable distribution between living and working environments) of the Randstad into an internationally competitive network metropolis. This requires strengthening the integration of the region, increasing differentiation between the cities and other parts of the region and widening the possibilities for interaction between economic partners.

Resources

The chief assets of the Eurocity are,

- Richness and quality of its surrounding environment
- Concentration of centres of technological innovation and development linked to a production network
- Industrial tradition nowadays based principally on a network of competitive small and middle-sized companies
- Quality of human resources
- Cultural quality
- Satisfactory level of urban facilities.

Strategy and Action Plan

Ten inter-mediate action steps have been established.

- 1 A multimodal Eurocorridor
- 2 Logistic heads
- 3 Excellent facilities
- 4 Joint unifying symbols
- 5 Structuring of the metropolis
- 6 Competitive public services
- 7 Promotion of public and control of private transport
- 8 Positive valuing of the urban environment
- 9 Excellence of the surrounding environment
- 10 Promotion of existing values

Sectoral Commissions have been set up for Environment, Culture, Tourism, Social services, Economic synergy, Sport, Housing and Public health.

APPENDIX 7

A PRIMARY HOMOGENEOUS NETWORK OF MOTORWAYS FOR EUROPEAN COHESION

See METREX Discussion Note 12A for the full text of this contribution to PolyMETREXplus from Dr. Albert Serratos, IET

Il n'existe pas d'économie moderne créative de richesses et d'emplois sans réseau de transport performant.

Jacques Barrot
Vice-President of the European Commission
Commissioner for Transport 2

Introduction

The ESPON final report (Zoom In) mentions cities (nodes) and connectivity (networks). One of its aims is to describe the present status and potential of the nodes. Its first conclusion is that there is a need to look beyond the Pentagon (London, Hamburg, Munich, Milan and Paris) and beyond MEGAs (Metropolitan European Growth Areas) to leverage regional potential in the European Union by developing a polycentric settlement structure.

The first and second provisional PolyMETREXplus reports focused on outlining and analyzing RINA's (Representative International Networking Activities) which in many cases provide significant input regarding the potential of basic European zones as well as their internal connectivity and external connectivity to other nearby territories. The outcome is a heterogeneous map with large gaps, an approximate reflection of the inner cohesion of the European area. However, while this exercise significantly improved knowledge of the nodes, these provisional reports fail to provide an overall picture of the European transport network.

The final report, again, cannot even begin to provide an integrated approach for all modes of transport by air, land or sea; yet it would be unreasonable not to capitalize on all the work done so far in order to produce a Europe-wide proposal for at least one of the connecting networks.

Road transport is of unquestionable importance, for two reasons: first, because roads and motorways collect traffic flows from their points of origin; second, because they distribute them on to their final destinations. This essential function is what makes road transport take the lion's share, both in number of passengers and in volume of goods. Therefore, traffic maps reflecting ADT (average daily traffic) provide a first approximation of actual connectivity among the different parts of Europe. The missing links and rate of use of each roadway provide an accurate picture of mobility, hence of the degree of development in each member state or region. Relative spatial competitiveness springs into view, and each area's degree of European integration can be easily gauged.

The old Roman roads, which were suitable for wheeled transport, sustained cohesion in a considerable part of Europe for almost a millennium. The decay of that network went hand in hand with disintegration. Attempts to unify Europe by more or less violent means - Charlemagne, Napoleon, Hitler - all failed. By contrast, the US Interstate Highway System promoted by President Eisenhower in the 1950s managed to endow the whole country with a primary opportunity for development, which was the basis for its economic leap ahead.

Looking back, it is interesting to note that the only continental road networks ever built were the Roman and the US network, and that both grew with their empires until they came to outrank the rest in terms of wealth generation.

Interconnection cannot be planned by simply juxtaposing the main arteries proposed by metropolitan areas, regions, or states. Neither can a strategy of agreed priorities be feasible unless there is first an integrated, Europe-wide plan in place. Only with such an integrated vision can any agreement be reached on priority-setting programs to be applied to the proposed arteries and their segments; and only with the original plan and the ensuing programs will it be possible to monitor changes over time. To this aim, it would be very effective to have an updated atlas of traffic intensity maps.

Updated proposal

At the Conference of Pyrenean Regions held in Jaca in 1982, a proposed roadway scheme for Europe was presented. As usual, this proposal was dubbed utopian at the time. The word was wielded as an accusation, a very handy and effective one when any omen of change unleashes fear mechanisms (adrenaline rushes when there is danger of aggression). Soon after that, a somewhat altered version was produced, to keep the supposedly utopian project from becoming downright obsolete.

In a nutshell, the proposal is based on the following criteria:

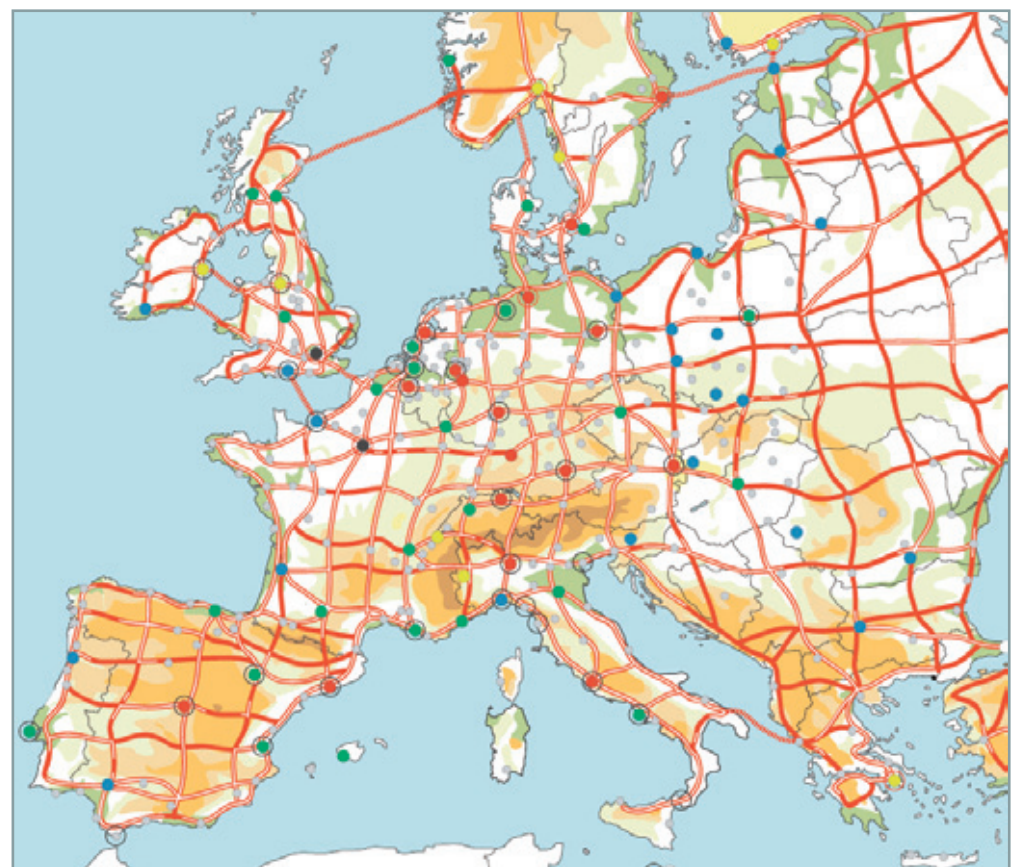
- An overall vision of a single Europe.
- A voluntarist, egalitarian network throughout every part of Europe, without exception.
- A basic network, by way of a reference grid, into which the shorter-ranging networks could be inserted to ensure uniform irrigation of all regions.
- A square-grid network, having the lowest cost for equal functionality, with all the non-essential adjustments required to absorb the repelling forces of major orographic obstacles and counter the attracting forces of large population centres.
- Special treatment at the edges, with a perimeter road all along the coastline to "close" and connect the edges of the network.
- The minimum network that can be "demanded" on a European scale, for social, cultural and even economic reasons, requiring no further justification once political approval is secured, with the option to improve and complete it in certain areas but only with prior case-by-case justification (e.g., direct connections between large conurbations, links to major ports, and so on).
- Implementing this network is a top priority, ahead of demand and development; its priority status should be binding when allocating resources to its construction (the precedent is Eisenhower's interstate highway grid for the USA in the 1950s).
- When vast swathes of land have already achieved a high level of service on their own road networks, there can be no delay in bringing late-developing regions up to speed, or gaps will become wider. Relative levels matter more than absolute levels of service in assessing the ability of a given region to "compete".

- Mesh size is a political decision that is not determined by the shape of the pattern. On a continental level, at least for the first stage, it seems reasonable to suggest squares with sides ranging from 150 to 200 km, close to what already exists in Germany, Switzerland, Austria and Italy... and much larger than the mesh size in Belgium, the Netherlands, or the Ruhr (about 50 km).
- Unlike urban and metropolitan networks, mesh size on a European scale is more elastic, since it will be possible over time to reduce point-to-point distances for better territorial irrigation and to get closer to the basic network.
- In every case, there is freedom to decide on the specific layout, allowing for more or less voluntarism, and to determine capacity (number of lanes, links, etc.). Still, the primary European network ought to be unambiguously ranked as a motorway in order to achieve true homogeneity with the current status in many regions. If nothing else, the roads should at least be designed as motorways, even if they have to be implemented on a gradual basis (for instance, with a single carriageway or a few level crossings in the early stages).
- Obviously, natural obstacles have to be acknowledged, but not to the extent of devaluing the network's basic quality. It is very important to note that some expensive projects (long tunnels, large viaducts) may lack justification on an isolated basis compared to the alternatives, yet become the obvious choice as part of a major artery within a global network. In percentage terms, the cost increase is negligible compared to the full extent of the network, while a poor, piecemeal solution will cause bottlenecks, lowering the overall quality and short-changing the rest of the road. An example: a mere two tunnels, Cadí and Puymorens/Pimorent, on the straightest route between Paris (population: 12 million) and Barcelona (population: 5 million) are the sole major works required to revalue a 1000-km long itinerary.
- Geometric homogeneity and uniform construction of all the roads is not enough to ensure equitability. The way the roads are financed or operated may be a discriminatory factor. Whether direct tolls should be charged, and whether different toll rates should be set for similar roads, are political issues of the first order which require joint, deep-reaching reflection. The Gilbert Dreyfus Report on French motorways (January 1982) clearly bears out this point.

1 Adapted from "La difícil vertebración de Europa" – CEDRE, Albert Serratosa, 1988.

2 Réseau transeuropéen des transports, Commission européenne, 2005.

Proposal of Motorways - minimum network in Europe



Existing Network 2005:
Motorways/Double Carriageways

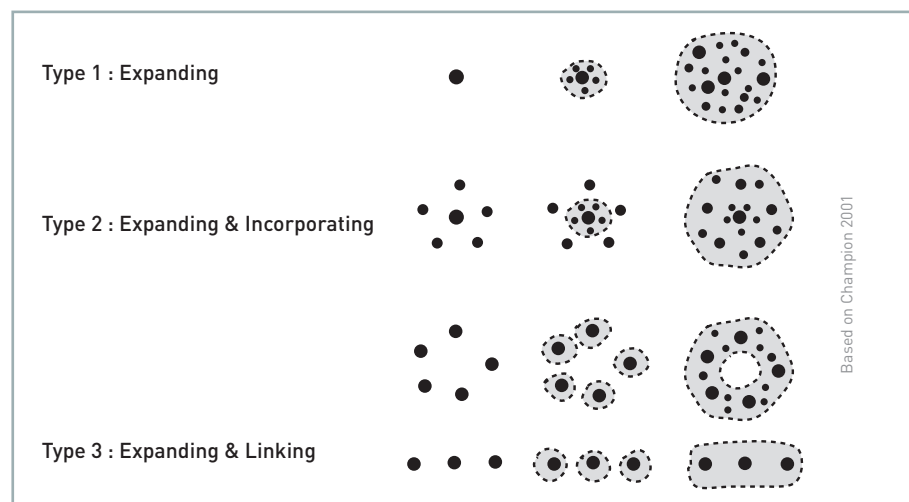
● GIZ
Metropolitan Areas

● Linking
Metropolitan Areas

● Atlantic / Mediterranean
Metropolitan Areas

● Baltic/Danubian/Aegean
Metropolitan Areas

APPENDIX 8



Concepts of Polycentricity

The concept of polycentricity has become very popular in politics and spatial planning in the last decade. The reason for its high acceptance can be found in the variety of possible ways to interpret it. The concept is discussed at different spatial scales, as an analytical and conceptual approach, in different dimensions of content and with regard to different evolution and development modes over time.

1 Polycentricity at different spatial scales

The concept of polycentricity is closely linked to the spatial dimension and is discussed on different spatial levels. Polycentricity on one level can change to monocentricity on the other. At least four spatial levels play a crucial role for polycentric development.

European level

The concept of a polycentric Europe with several Global Integration Zones (GIZ) has been considered in political and academic discussions in recent years. On the one hand, and in line with the EU strategy for Growth and Jobs, the concept is linked to questions of competitiveness. On the other hand, it is often favoured in order to achieve social and territorial cohesion.

Different views exist on how to create new GIZ. In some cases approaches are based on theoretical considerations (see references below - Mehlbye) and in some cases empirical data is taken into account (see references below - ESPON). In either case metropolitan regions and areas (MEGA) are perceived as pillars of new global GIZ.

Transnational and National level

On the transnational and national level the concept of polycentricity is often linked to polycentric urban systems. In several parts of Europe transnational cooperation between cities and metropolitan regions has been created, for example, Cooperation Metropolitan Regions in Central Europe and the Baltic Metropolises Network, often in order to create counterweights to the Pentagon at the European core and to contribute to the European Spatial Development Perspective (ESDP), which seeks new GIZ.

On the level of national spatial development policy a polycentric urban system is often seen as desirable in order to achieve a stronger cohesion between regions and balanced spatial development.

Regional level

Polycentric metropolitan regions and city networks have also taken up the concept of polycentricity at the regional level. Within metropolitan Europe, there are several polycentric urban agglomerations with two or more powerful centres, such as Rhein Ruhr in Germany or Upper Silesia in Poland. Additionally, there are examples of neighbouring metropolitan regions, which create a polycentric metropolitan region with two or more metropolitan centres, such as Central Scotland (Edinburgh-Glasgow) and Saxon Triangle (Chemnitz/Zwickau-Dresden-Halle/Leipzig). In line with the EU strategy for Growth and Jobs, such polycentric metropolitan regions are often created to enhance their competitiveness and to position themselves in the 'metropolitan champions league' at the European or even global level.

City and City-region (metropolitan) level

Polycentricity often exists on the level of city regions as a result of a growing centre that causes the development of alternative centres in suburban areas around the centres.

2 Polycentricity as analytical and conceptual approach

The concept of polycentricity is used as an analytical tool in order to describe reality (for example, urban development processes) but is also used as a conceptual approach in order to describe a desired situation from a normative point of view.

3 Polycentricity in different dimensions of content

Polycentricity exists with regard to different dimensions of content. On a regional level polycentricity can just describe settlement structures (for example, the spatial distribution of metropolitan regions in a certain space). However, other dimensions of polycentricity may cover functional relations between metropolitan regions (for example, traffic) or the institutional cooperation between metropolitan regions (for example, networks).

4 Polycentricity in different evolution modes

A polycentric structure can evolve through different modes of evolution. For example, polycentric metropolitan regions show different development paths of becoming polycentric and consequently result in different types of polycentricity today.

Type one evolves from a monocentric city, which continuously grows and alternative centres in the metropolitan hinterland emerge (for example, Berlin, Stockholm).

Type two evolves from a monocentric city that grows and incorporates smaller already existing centres in the metropolitan hinterland (for example, Nuremberg, West Midlands UK).

Type three evolves from previously and still independent centres, which together create a polycentric metropolitan region. For type three a distinction can be made between regions with and without large open spaces and/or rural landscapes between the centres. The latter would be the case in the Ruhr Area or the Upper Silesian Metropolitan Union, the former is true for the Randstad or the Saxon Triangle.

Within the RINA 11, Metropolitan Governance in Polycentric and Cooperating Metropolitan Regions, type three, which links up at least two strong independent centres, was considered as “truly” polycentric.

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FRAMEWORK

FRAMEWORK

MAPS
[ZOOM OUT]



