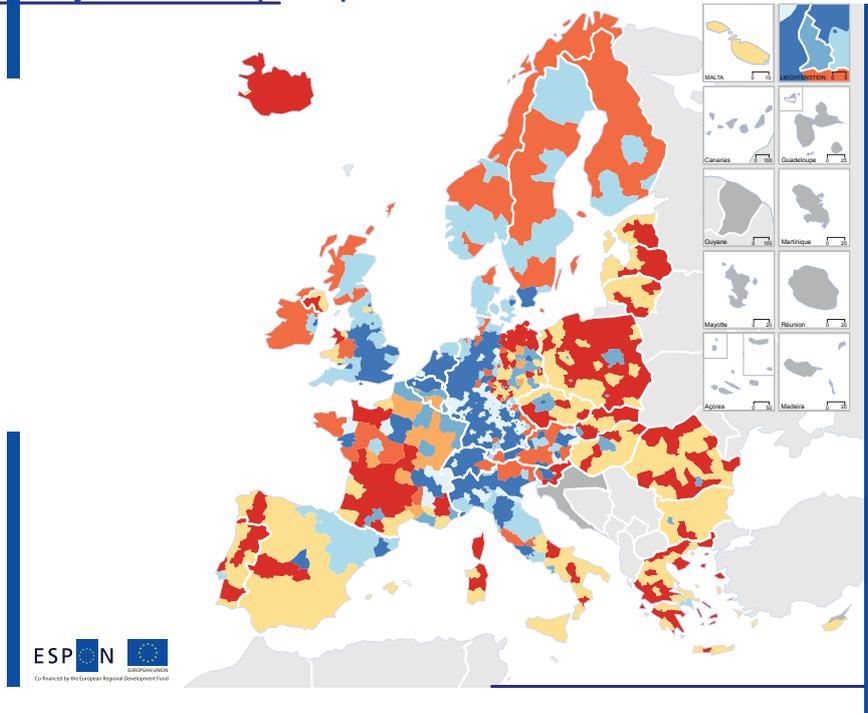


Polycentric Territorial Structures and Territorial Cooperation

Polycentric development potentials



Polycentricity is a concept that encourages regions and cities, working with neighbouring territories, to explore common strengths and reveal potential complementarities, which brings added value that cannot be achieved by the individual regions and cities in isolation. Importantly, a polycentric approach allows for joining existing assets in order to *increase their competitive power, efficiency of using limited resources* by avoiding duplicating roles and functions and bringing *more benefits for local inhabitants* using the combined resource potential.

Rather than attempting to change the existing settlement patterns some of which cannot be altered (like continuous urbanisation), the Policy Brief suggests that *policy-makers at different scales should strive for increasing flows and interactions among places* in order to boost their competitiveness and bring more benefits to their inhabitants through combining existing assets and resources. Making Europe more polycentric requires *taking strategic advantage of existing regional diversity and further strengthening territorial cooperation and governance* in order to target investments and reduce regional disparities.

The Policy Brief builds on existing evidence produced by ESPON highlighting the polycentric development potential in Europe and it is guided by questions on:

- *why* polycentric territorial cooperation matters?
- *where* polycentric structures can be found in Europe and where there are potentials for more polycentric development through territorial cooperation?
- *how* policy-makers at different territorial scales should engage in and support territorial cooperation arrangements to further enhance polycentric settlement structures in the EU?

Based on these questions the Policy Brief attempts to provide considerations on a potential EU Territorial Reference Framework which could support relevant policy processes, such as the update of the EU Territorial Agenda post 2020.

Why polycentric territorial cooperation matters

The importance of supporting polycentric development in Europe by promoting more functional links and interactions among places is emphasised in all key EU level strategic documents on territorial development – the European Spatial Development Perspective (1999), EU Territorial Agenda 2020 (2011), the “Pact of Amsterdam” which established an EU Urban Agenda (2016).

The argument was, and remains, that polycentric development can create critical economic mass by combining efforts of urban centres, while also delivering more balanced development between regions and more co-operative and functional urban-rural relations. With a deeper and broader understanding of their joint comparative advantages, *cooperating cities can strengthen their competitive resource power* in the greater regional context, in Europe and also on the increasingly important global market. They do so by offering a more diversified labour force, infrastructure, knowledge base and innovative potential.

From a place-based and integrated approach, which is intrinsic to polycentric development, it is important to understand competitiveness in broader terms beyond the merely economic. The competitiveness of urban nodes and networks focuses on the comparative strengths of places based on the combination of economic activities, innovative initiatives, quality of life, service level, cultural climate and identity. A regional/local common vision for future development defines the space specific mix. This mix can include specialisation and cooperation in service provision, building business clusters of industries, promoting local/ regional innovation systems of local authorities, businesses and academia etc.

Giving up attempts to build the “Kingdom of Everything” in one place and joining resources allow cities to afford more in terms of improving life quality for inhabitants (wider range of public services, better education, leisure and sports facilities) and at the same time to save resources for achieving other development objectives. In this case, actions towards increasing the service area should go hand-in-hand with promoting sufficient mobility, both physical and digital.

In a nutshell, promoting more interactions among places serves the aim of providing more and better jobs and services to inhabitants in the regions by combining the existing resource base and potential for development. Thus, polycentric development is *not* about cities making massive investments in order to grow bigger. Instead it is *about building linkages and joining forces with neighbouring cities and towns* in order to “borrow” size and quality, to create a stronger critical mass and ensure positive spill-over effects for the development of wider regions.

In this way, polycentric development can contribute to *reducing regional disparities at all levels*, specifically to avoid further excessive economic and demographic concentration within the core areas at EU and national scale, and to revitalising less densely settled and economically weaker regions. In the long run, polycentric development contributes to making cities and regions more resilient and diversified, which strengthens the competitiveness of Europe in the global economy.

Key policy messages

The following key policy messages are presented as guidance points for policy-makers engaged in promoting polycentric development patterns at different territorial scales. They are derived from the analysis of polycentricity patterns around Europe and case-studies presented below. In general, the analysis of polycentric structures, flows and networks at lower geographical scales presented in this Policy Brief reveals a wide diversity within European regions and supports the development of more place-specific policy recommendations.

At European and national scale:

- **Reinforce existing diversity through collaboration** Successful polycentric development depends on both the vitality of urban areas (nodes in the network) and the intensity of economic, social and cultural flows and interactions among them. Considerations on a potential EU Territorial Reference framework in relation to polycentricity should thus be based on two important principles: further support to strengthening existing urban nodes and the promotion of more flows and interactions among them and with the surrounding rural areas. At the same time, territorial policy orientations at EU and national scales should not be aimed at changing settlement patterns but rather at enhancing diversity and making the most of existing territorial fabrics by combining resources and assets of different places.
- **Lower density requires more cooperation** Improving accessibility and territorial cooperation is critically important in those parts of Europe that are characterised by low density urban structures. In these areas, priority should be given to increasing flows and interactions among places over attempts to grow “bigger cities” with more low-return or no-return type investments. At national scale, the close proximity of these areas to more densely populated urban structures presents additional opportunities for enhancing polycentric cooperation practice and functional flows. This clearly suggests the need to develop links among small and medium-sized urban areas and larger metropolitan areas by developing complementary/supporting businesses and business clusters, ensuring knowledge transfers, using metropolitan areas as gateways for attracting interest for cultural and touristic resources in the regions, etc.
- **Create supportive policy framework for cooperation** EU and national policy frameworks should promote collaborative practices amongst cities and regions and support bottom-up initiatives based on cooperation. For example, territorial cooperation can in relevant cases be required as a precondition for receiving financial support. Territorial cooperation practices can also be supported by providing specific legal constructions. Polycentric plan-making should be stimulated and facilitated by offering relevant capacity-building and specific advantageous regulations.

At regional and local scale:

- **Vision comes first, not the structures** Building cooperation structures (the typical “bureaucratic” response to a need) is important but it is to be seen as a tool for securing the implementation of policies. The need to secure implementation and commitment can lead to formalising the process, but only after agreeing on a common vision for future development. If the start focuses on building organisational structures without an agreed specific place related vision, then it can become dominated by juridical oriented discussions and disagreements about competencies.
- **Strategic and operational approach** Long-term commitment of concerned stakeholders should be established by building and implementing a common strategy based on joint interests (e.g. shared problems, endogenous qualities and assets, comparative advantages, possibility to replicate good practices), a jointly developed set of priorities, actions and shared resources.

- **Political will and active leadership are crucial** Authorities and their leaders play a crucial role in supporting and coordinating cooperation practices - by providing financial support to cooperative initiatives and projects, by supporting and developing regional mobility (physical and digital) and/or by establishing and moderating cooperation structures such as coordination councils/boards.
- **Build inclusive place governance** Cooperative practices should be inclusive and go beyond interactions of local/urban authorities, engaging the main local/urban/regional stakeholders – businesses, academia, non-profit/citizen initiatives etc. It is important to allow them identifying and describing existing bottlenecks and shortcomings of insufficient collaboration and coordination. Moreover, they have to be actively engaged in “place governance” supporting political leaders in making and implementing development decisions.
- **Sustain continuous commitment** To sustain the necessary level of commitment, it is crucial to ensure regular communication, practical implementation supported by relevant resources and shared ownership of results. A legal framework for cooperation can in certain cases also serve the need to ensure commitment of partners but is by no means the key to success.
- **Branding and marketing** Nowadays an image of a place and its governance practices are no less important than its resource capacity and development potential. Branding and marketing polycentric cooperation practices do not only help to communicate the benefits of collaborative development of places but also allows attracting more attention and resources. Several important principles nowadays encourage new investment decisions - the culture of collaboration, engaging local stakeholders in “place governance”, achieving more with less. Following these principles helps building trust towards the place and belief in the ability of local players to use any additional resources efficiently with large potential impacts.

Mapping polycentricity in Europe

ESPON has paid a lot of attention to polycentric structures and development as well as territorial cooperation over the years. This section builds on the outcomes of previous relevant ESPON projects and reveals existing polycentric territorial structures at different territorial scales, illustrated by a number of new and updated ESPON maps.

One of the main advantages of ESPON is related to the availability of evidence at **NUTS3** and lower levels which allows supporting policy-makers and stakeholders at national, regional and local level with more detailed insights and new ideas on how to take the cooperation forward to further strengthen the polycentric development they are striving for.

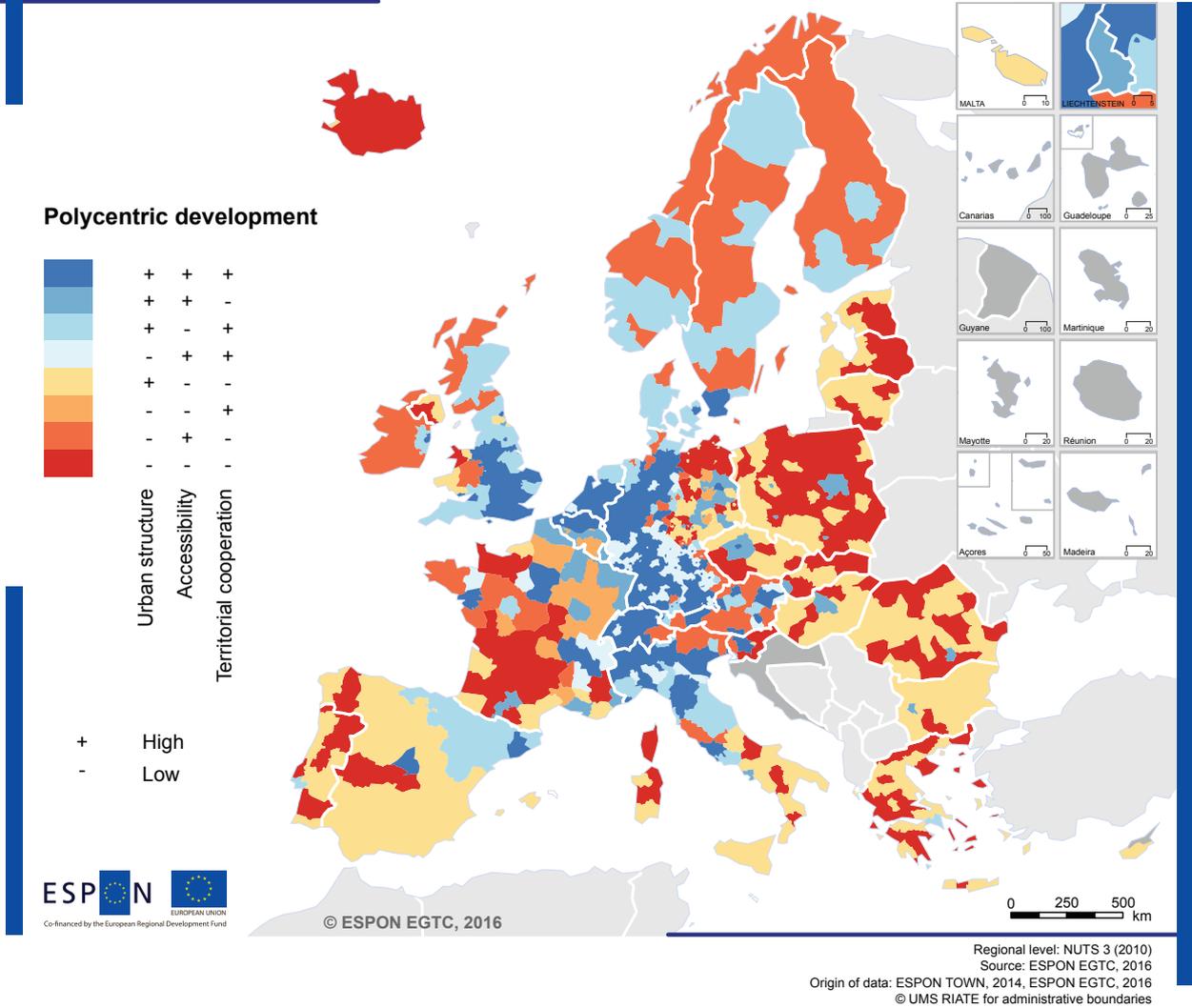
The current patterns and further development potentials of polycentric development at different territorial scales in Europe are revealed and analysed in this section on the basis of three criteria:

- the hierarchy of urban settlement structure that shows different size and functions of urban nodes;
- accessibility patterns which reveal the possibility for people to connect within the region, the country and within the EU;
- existing territorial cooperation structures and practices.

Combining the three criteria on territorial structures, accessibility and territorial cooperation reveals the pattern of *Polycentricity in Europe*. Most importantly, it identifies where in the European regions there is more potential for enhancing polycentric development by promoting more functional flows and territorial cooperation practices. The overall pattern of polycentricity is shown on map 1 below and the individual patterns for each of the three criteria on maps 2 to 5. The following observations and conclusions can be drawn:

Map 1: Potentials for further polycentric development in Europe

Polycentric development potentials



Strong existing polycentric character

- Some parts of Europe score *high in all three dimensions* and thus have a strong polycentric character. This is the case for large parts of the Netherlands and Belgium, the larger metropolitan areas in France, Western parts of Germany, Northern Italy, South-East UK and Switzerland.

Potentials for further polycentric development

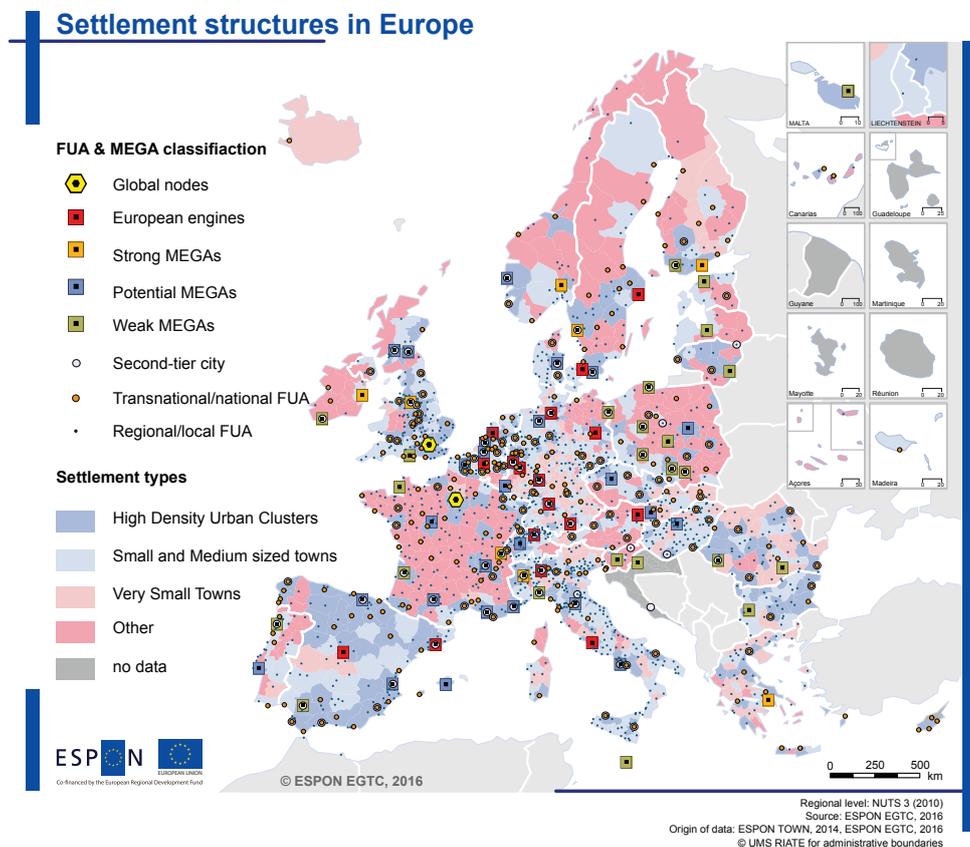
- *Favourable conditions for further polycentric development are most likely to be found where there are relatively dense territorial structures and good accessibility, but where cooperation is less developed.* This is for instance the case for metropolitan areas in Central and Eastern Europe, except for the Baltic States.
- *Also in cases where relatively dense territorial structures and territorial cooperation exist, the conditions for polycentric development are to be considered relatively favourable, e.g. in Northern Spain, the metropolitan regions in the Nordic countries, and Northern UK.* An obvious area for territorial cooperation is to improve the accessibility within these regions in order take advantage of the potentials for further polycentric development.

- *Dense territorial structures in combination with low scores on the other criteria clearly suggest that more benefits of polycentric development can be achieved by increased accessibility and territorial cooperation. As an example, the Slovak Republic displays dense territorial structures with Bratislava as a potential MEGA, but accessibility is relatively low and there appears to be room for more territorial cooperation. However, this would require a joint strategic vision and concerted efforts among relevant stakeholders.*
- *Promoting better accessibility and territorial cooperation is most crucial for those parts of Europe that are characterised by weak urban structures. These include for example considerable parts of the Baltic States, Poland, Hungary, Romania, and Southern France. The location of these areas in close proximity to more densely populated urban structures presents additional opportunities for enhancing polycentric cooperation practice and functional flows.*

The colourful mosaic of polycentric development patterns and potentials that emerges from Map 1 is once again a reminder of *how much more diverse Europe appears when analysing the indicators at NUTS 3 level compared to any observations at country level*. This can be illustrated by the example of Poland – whereas in all previous studies Poland has been characterised as one of the most polycentric countries due to a balanced distribution of urban centres of similar sizes across the country, a more detailed analysis at NUTS 3 level reveals that there is still a lot of potential to develop more polycentric cooperation structures within the country.

Maps 2-5 presented below reveal the factors lying behind the observations on the nature of polycentricity in specific regions.

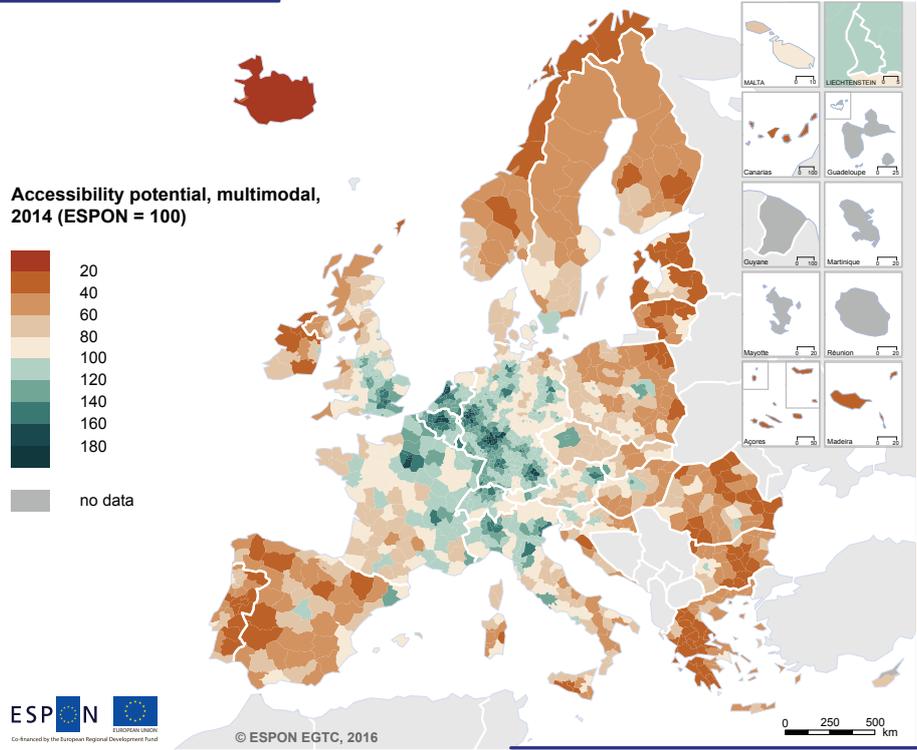
Map 2: Settlement structures in Europe



The classification "Other settlement types" includes "unpopulated areas, sprawling urbanisations, or settlements that are too sparsely populated to be even considered Very Small Towns (below 5.000 inhabitants)" (ESPON TOWN 2014).

Map 3: Accessibility potential, multimodal

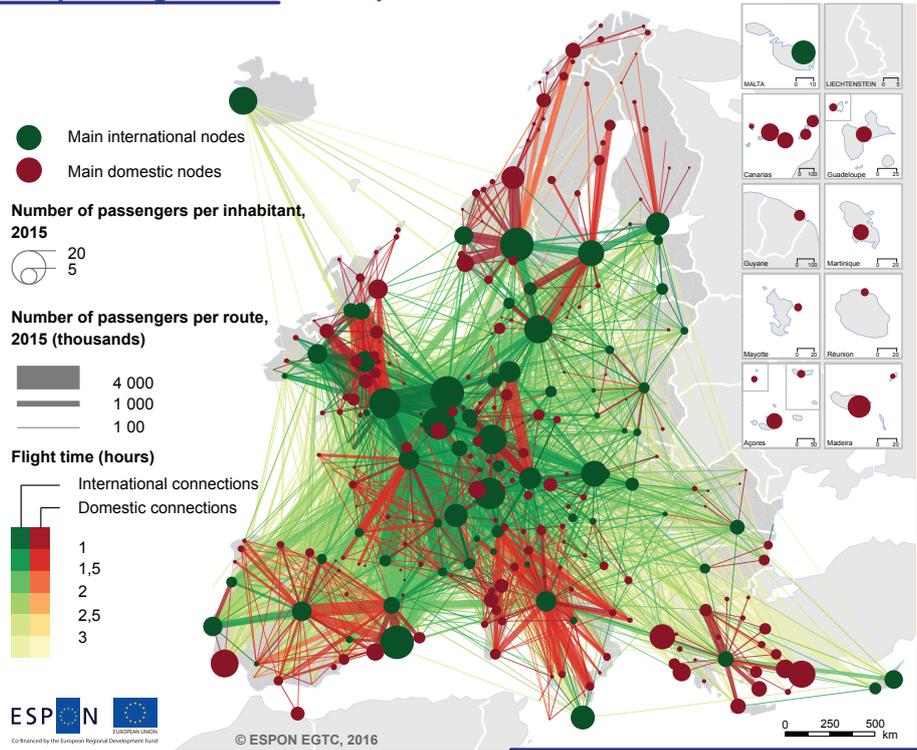
Accessibility potential, multimodal



Regional level: NUTS 3 (2010)
 Source: Spiekermann & Wegener Urban and Regional Research (S&W), 2014
 Origin of data: S&W Accessibility model, 2014, RRG GIS Database, 2014, S&W Flight Network Database, 2014
 © UMS RIATE for administrative boundaries

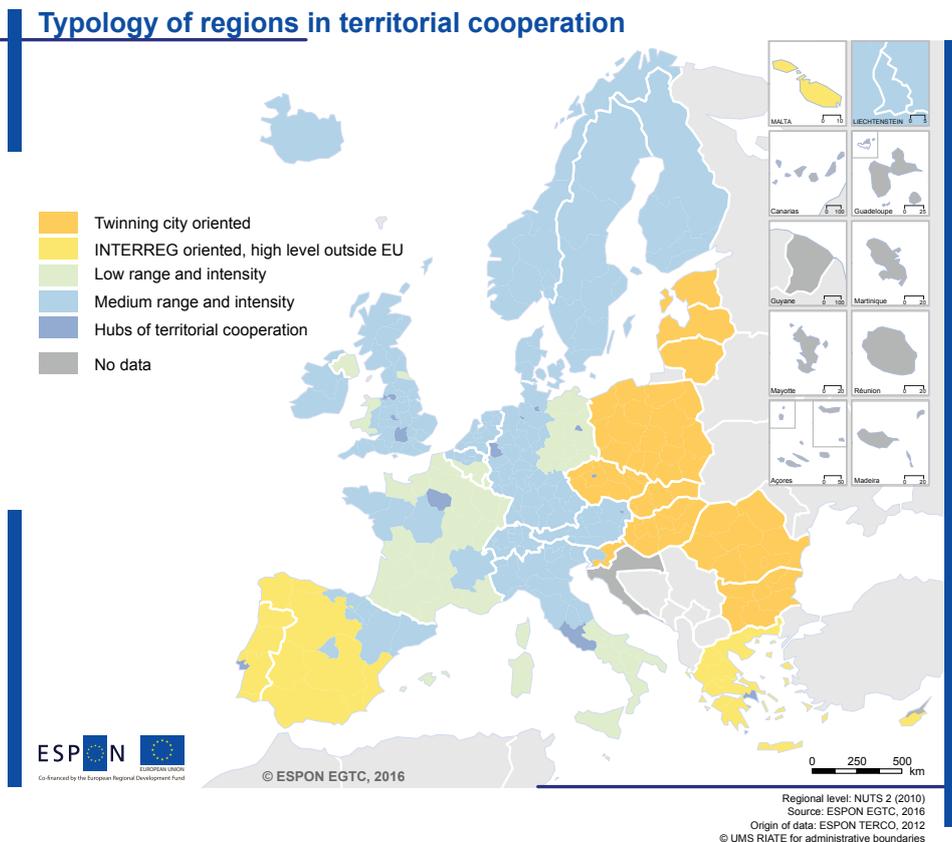
Map 4: Air passenger flows in Europe

Air passenger flows in Europe



Regional level: NUTS 3 (2010)
 Source: ESPON, 2016
 Origin of data: Eurostat, 2016
 © UMS RIATE for administrative boundaries

Map 5: Typology of regions in territorial cooperation



Good practices in polycentric territorial cooperation

A number of ESPON projects have carried-out case studies on territorial cooperation at different scales with a focus on polycentricity and involving a wide range of stakeholders, practitioners, experts and researchers. In this section, three examples of good practices of polycentric territorial cooperation are presented building on previous as well as ongoing ESPON Targeted Analyses projects and activities. In addition, the stakeholders and practitioners from the case study regions share their experiences and views on territorial cooperation in more general terms.

Metropolitan cooperation and macro-regional urban networks

There are some examples of European capital cities which jointly function as a gateway in the form of a polycentric network with regard to specific functions in a macro-region. For instance, in Central Europe, the cities of Bratislava, Budapest, Ljubljana, Prague and Vienna form such a polycentric network. Through cooperation and a division of labour these cities are attempting to implement the idea of smart specialisation. However, all five metropolitan areas are also trying to position themselves as hubs towards neighbouring regions and countries in their own geographical context.

This case study demonstrates that developing co-operative practices brings added value both in terms of individual and joint competitiveness by stimulating the thinking of involved stakeholders around their potential specialisations and complementarities with their partners. At the same time, combining specialisations within larger geographical areas and joint action helps to build more resilient regional economies.

In order to take full advantage of the benefits of further polycentric development in this transnational metropolitan region, not only should the existing cooperation among the five capitals be strengthened, but it will also be crucial for them to engage with medium-sized cities and towns to strengthen the urban networks in the respective national contexts as well as in Central Europe.

Case study 1: A transnational polycentric network of metropolitan areas

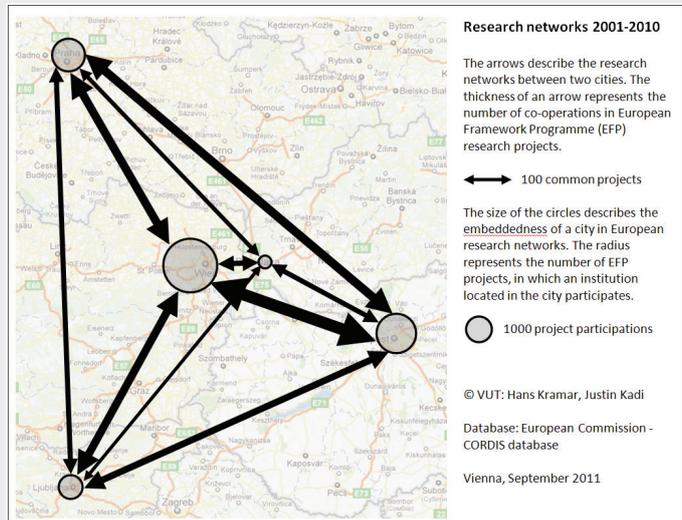
As the ESPON Targeted Analysis project POLYCE demonstrated, the central European capitals of Bratislava, Budapest, Ljubljana, Prague and Vienna form a polycentric city network in the Danube Region. They share a long history, culture and good cooperation of their countries. The linkages among the five cities and cooperation between them are of different strength and intensity. Considering polycentricity, each of the five cities stands out in its own way, each being an important focal point in the Central European urban network. Functional polycentric relations are particularly strong in terms of research and business networks.

Some cities still have opportunities to improve their inner polycentric structure, strengthen their ties within European economic or research networks or improve their connectivity. All capitals have made polycentric development a cornerstone of their spatial planning systems. As the project concluded, different kinds of flows, networks and cooperation ventures between the cities might stimulate and strengthen each other. Consequently, enhancing political, economic and social networks via governance measures could improve the conditions for all kinds of interaction between the five cities.

From a stakeholder perspective (City of Vienna), the following experiences of territorial cooperation are highlighted:

- The main reason for territorial cooperation is to find a balanced way to work together and at the same time compete with each other, and identify the potentials and challenges for such cooperation/competition. The main elements and activities of the cooperation focus on networking on a high level, exchanging know-how, and learning from each other.
- The most comprehensive cooperation the City of Vienna is involved in is the EU Strategy for the Danube Region, where we together with Ljubljana are responsible for the priority area on institutional capacity and cooperation aiming at better coordination of stakeholders, programmes and activities, and more efficient use of EU funds. The benefit of this cooperation is that it is creating better opportunities for higher education, employment and prosperity for the citizens of the Danube countries.
- An important domestic territorial cooperation is the Planungsgemeinschaft Ost (PGO) which brings the Federal Provinces of Vienna, Lower Austria and Burgenland together in a joint organisation. Its scope of work comprises the development of joint spatial planning objectives, the thematic co-ordination of spatial plans, and the implementation of research projects of importance for regional planning in the three federal provinces. An important initiative carried out by PGO was the development of possible scenarios for future settlement development and the formulation of a joint spatial development strategy, which allowed for a more precise definition of metropolitan regions.
- The Federal Provinces of Vienna and Lower Austria are also carrying out an intensified cooperation across provincial borders to improve the exploitation of development potentials of the urban region. This City-Environs Management initiative concerns planning and management related to joint strategic regional development and concrete joint projects to overcome the dividing line of the city border. The advantage of this cooperation is that it enables better information, understanding and agreement on cross-municipal planning issues.

Map 6: Research networks in Danube region (2001-2010)



Cross-border metropolitan cooperation

Cross-border metropolitan regions link national urban systems in some parts of Europe. This role of interface can generate a number of new opportunities and agglomeration economies. The concept of cross-border polycentric metropolitan regions brings together several complex dimensions, in particular 'polycentricity' and 'metropolitan quality'. These regions can be understood as political constructions based on cross-border agreements which consider the existence of national borders as a resource for increasing interactions at the local level and based on the embeddedness of the metropolitan centre(s) in global networks.

Cross-border metropolises often show more and higher differentials than domestic metropolises. Using these differentials is a sometimes complex challenge, but might be a rewarding strategy in the long term for all partners involved.

The case study of the Upper Rhine region reveals the importance of national policy frameworks in support of building polycentric networks and problem solving at functional rather than administrative scale.

Case study 2: Functional integration in cross-border polycentric metropolitan regions

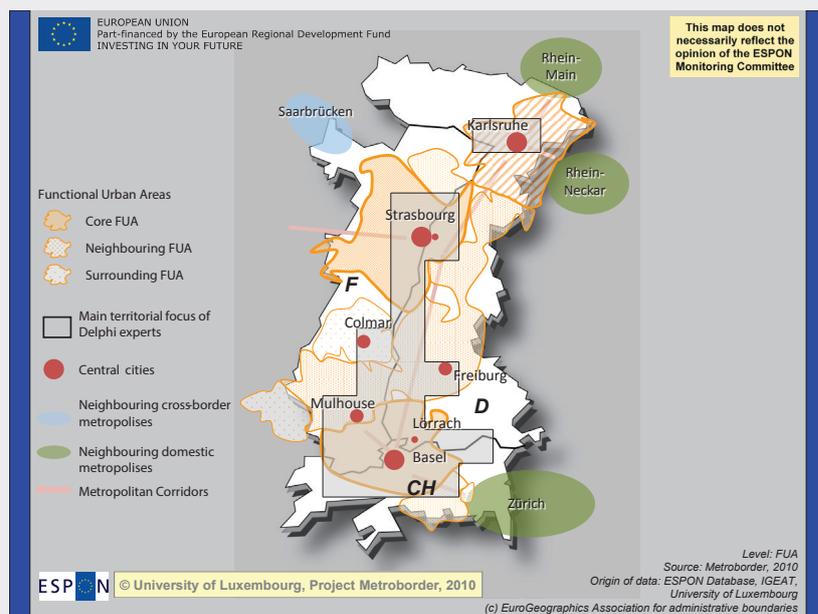
Cross-border polycentric metropolitan regions are an important emerging phenomenon of European spatial organisation having large development potentials. As demonstrated in the METROBORDER project (2010), this is very much the case for the Upper Rhine Region crossing the borders between Switzerland, France and Germany. This metropolitan region shows a distinct polycentric structure with its major cross-border urban areas of Basel, Strasbourg, and to a certain extent, Karlsruhe.

In fact, the Upper Rhine region clearly illustrates the high importance of polycentric organisation, which allows for these regions to have an economic and demographic weight that is comparable to 'classical' national metropolises. The high intensity of cross-border employment in the Upper Rhine region is due to a strong presence of a knowledge-intensive economy driven by an international financial centre (Geneva) and high-tech activities (Basel). In order to further strengthen the cross-border polycentric development in the region, a process of strategy-building has been carried out and efforts have been made to develop more efficient cross-border governance structures.

From a stakeholder perspective (Federal Office for Spatial Development ARE, Switzerland), the following experiences of territorial cooperation are highlighted:

- Switzerland is a federal state where cantons (regions) and municipalities have always had strong competences, a situation which is reflected in the polycentric structure of the country. This is considered as an asset that has to be strengthened. The first priority of the Spatial Strategy for Switzerland, which was jointly elaborated by the Federal Ministries, the cantons and the municipalities, is to constitute areas of territorial cooperation and to strengthen the polycentric network of cities and municipalities. Thus, this document is the result of a cooperation between many different territorial actors, but also a commitment to intensify this cooperation.

Map 7: Upper Rhine cross-border polycentric metropolitan region



- On the federal level, different instruments have been elaborated to foster cooperation projects at the regional or at the local levels. These instruments have different focuses – transportation, urbanization, regional policy, governance, etc. – but all are based on the assumption that problems have to be tackled at the scale of the functional areas, and not at the scale of the administrative areas.
- Regarding the international dimension of territorial cooperation, three of the four Swiss metropolitan regions are stretched over one or several countries. Many more functional urban areas are cross border areas. In this context, cross-border cooperation projects are not only an opportunity, but also a necessity in many domains, for instance in order to be able to build up efficient public transportation networks.
- More specifically, European research oriented cooperation projects like METROBORDER allow Switzerland to get an insight on what is done in similar territories outside of Switzerland and to see what is already working well in international comparison and what could be further improved.

Functional urban regions

As part of the ongoing ESPON Targeted Analysis activity on spatial dynamics and strategic planning in metropolitan areas (SPIMA), the City of Oslo is sharing their experiences of territorial cooperation and further strengthening their endeavors aiming at establishing a functional urban region. The case of Oslo demonstrates the importance of multi-level governance structures, involving actors from all territorial scales and private players, long-term commitment supported by planning and legal frameworks, dialogue and trust among stakeholders, joining resources and their co-ordinated use for promoting more polycentric development patterns within the city-region.

Case study 3: Towards A Functioning Urban Region

Oslo's regional collaboration can be understood in two main ways: *geographically*, where the territories which are covered have three concentric patterns, and *thematically*, where the issues addressed are linked to specific areas of local government responsibility and in some cases are able to link these issues together at the same territorial level.

The spatial extent of Oslo's three main arenas for regional collaboration covers:

1. The collaboration with **Akershus County** is based on political and legal agreements and plans, which commit the partners to joint action. Oslo and Akershus jointly cover about 90 % of the capital city's functioning urban region for daily commuting. The population sizes of Oslo and Akershus are similar, which gives a good balance to their collaboration. A toll-ring was established in 1989, which is currently generating € 300 mill annually for joint action in transport investment and operational support. The funding and rolling programmes are an important arena for political dialogue in the functioning urban region. More recently, a regional plan for innovation and growth and a regional spatial plan were both adopted in 2015. The toll-ring agreement and the regional plan also commit both national and local authorities in their planning and location decisions. The spatial plan and transport collaborations are closely coordinated, while the regional plan is independent.

Map 8: Spatial coverage and settlement patterns in Oslo's three arenas for regional collaboration



2. Collaboration in the **Oslo Region Alliance** is primarily a political network between county mayors and municipal mayors from sub-regional networks. The Region Alliance, chaired by the City of Oslo, was established in 2004 and provides a joint platform for branding and has approved a strategy with guidelines for land use and transport, which in turn forms the basis for both specific regional plans (such as that for Oslo and Akershus).
3. Collaboration in the **Eastern Norway County Network** (3) covers a very large geographical area of 8 County authorities. This network started in 1996 and has done invaluable work in lobbying national governments for transport investments in coordination with the Oslo Region Alliance, and has created an arena for a range of ad hoc thematic and sub-regional dialogues and actions.

From a stakeholder perspective (City of Oslo), the following experiences of territorial cooperation are highlighted:

- The added value and benefits of regional cooperation in the Oslo functioning urban region, i.e. Oslo and Akershus, are very significant. In broad terms the long-term investments, together with policies and plans and joint public transport operations, have increased the potential for sustainable and competitive growth. By improving accessibility through better transport connections, this also makes the growth more inclusive so that new jobs can benefit populations across the whole region.
- The networks of policymakers and experts in the functioning urban region will provide the basis for adapting and strengthening the long-term strategies and investment programmes. Formal agreements of commitments have been made between Oslo and Akershus. The main goals are to achieve sustainable and competitive growth across the region. The joint policies, plans and agreements, all give a platform to prioritise growth in the urban hubs, both within Oslo and secondary towns.
- At the wider geographic scale, a long term vision was adopted in 1999 that supports a polycentric structure, where more of the future growth should be concentrated in the secondary towns that will be served by new railway connections. Major investments are now under way in the Oslo metropolitan area and wider region, which are gradually making travel between the secondary towns within region much easier and more sustainable.
- Currently however, although the region is growing as a whole, this growth is not very polycentric. Oslo continues to have a proportionally far bigger share of the total population growth since the polycentric goals was agreed. In order to encourage more polycentric growth, the planning policies and real estate markets in secondary towns will have to respond in a much stronger way than has happened so far. This will be a key question in the years ahead.
- Regional policy has always to be balanced carefully against local interests and the municipalities' right to plan for themselves. Achieving this balance requires long-term dialogue and trust between the core city, regional authorities and municipalities, which is a central precondition for success.
- Independent funding for joint activities is a strong stimulus for regional collaboration. The toll-ring provides substantial collateral funding for a long-term investment programme in the functioning urban region, which motivates both national and local authorities to engage in issues of regional development.

ESPON 2020 - More information

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