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EUROPEAN UNION



INTERREG III B CAUSES

common best practices in spatial  
planning for the promotion of sustainable  
POLYcentric DEVELOPMENT

**POLY.DEV.**

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# foreword

Maria Prezioso

The economic-territorial competition for the attraction of external resources has dramatically increased in the last decades, creating an open debate across Europe on the modalities adopted by the territories in order to gain foreign investments.

Country-systems, regions, and towns have been proposing themselves as productive, logistic, and service activities centres with ever-growing intensity, thus encouraging planning processes and endogenous resources organisation in order to ensure and offer coherent and sustainable “territorial sets” able to determine their success on the global market.

All these aspects and more define a polycentric economic/territorial setup, where the concurrent presence of several autonomous powers and decision centres is fundamental in a political, administrative, and economic system. The European Union gave remarkable importance to this concept, considered as one of the main goals of ESDP and now the new European territorial agenda toward the achievement of a balanced urban system and new forms of urban/rural relations.

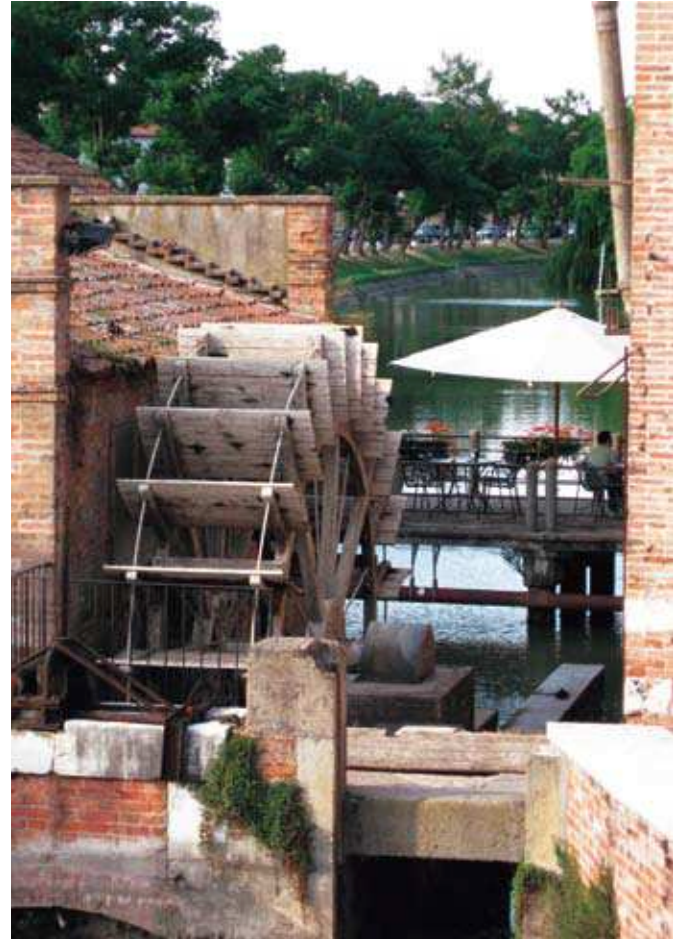
The trans-regional POLY.DEV. project faced the polycentrism “issue” not only in the framework of the global/local debate, but also in the perspective of national/regional relations, and was seen as a place of evolution of scattered settlements (both urban and not) that reorganise as a system – although maintaining features and individualities able to connote their vital self-sustenance.

The results provide the 2007-2013 programming with an important developmental outlook, also beyond the so-called “Pentagon area”, thus overcoming the simple “cluster” vision always chosen as the synthesis of a hierarchical polycentric centre-periphery scenario.

The POLY.DEV. project relied on polycentrism to define a structure of “similarity in difference” through the sharing of a common work methodology to



Montefortino, Sibillini Mountain National Park, Marche Region, Italy.



Dolo, old water mill on the Brenta river, Venice, Italy - photo by Tiziana Quaglia

design a spatial model based on the spread multi-centrality that features the integration of peripheral urban systems (through the expansion of the so-called 'European core'), and a further appreciation of different areas specific resources that cannot grant access to European economic circles.

Analysing polycentrism at the regional and sub-regional levels, the POLY.DEV. project then confirmed the substantial role to be given by European territorial policy to places networks, both subsidiary and inter-dependent, alternatives of the big metropolises, capital towns, as well as of the medium- and small-sized cities. These places networks can fulfil the integration of the rural environment, without disregarding the issue of urbanisation.

Some references (CEMAT, ESPON, ESDP, and the new Territorial Agenda) seemed therefore more suitable than others to update from the "bottom-up" the development strategy of the European territory that, between 2002 and 2004, detected several MEGAs at the base of the polycentric European urban system. These (strong and potential) MEGAs were acknowledged by ESDP too, as sets of strategically integrated areas suitable to develop groups of economic activities based upon alliances among connected urban areas; on a local scale the equi-potent polycentric systems can represent cooperative vehicles at intra-regional scale, able to be competitive in a trans-national range.

The work methodology behind the POLY.DEV. project then transformed potential polycentric places and models

into emerging polycentric places and models, if exposed to the action of a sustainable planning. These places and models would then be able to enhance the development of (partially already active) existing local identities at the different scales in the range of the limits and the respective natural and anthropic fields of action, through the use of the governance instrument.

As shown by the project's empirical evidence, investments in polycentric planning are explainable only by making reference to a variety of circumstances with strict territorial relevance, which, moreover, represent a chance for those territories able to transform them into: jobs, increases in gross local product, and the dissemination and transfer of knowledge (i.e., technological and managerial know-how).

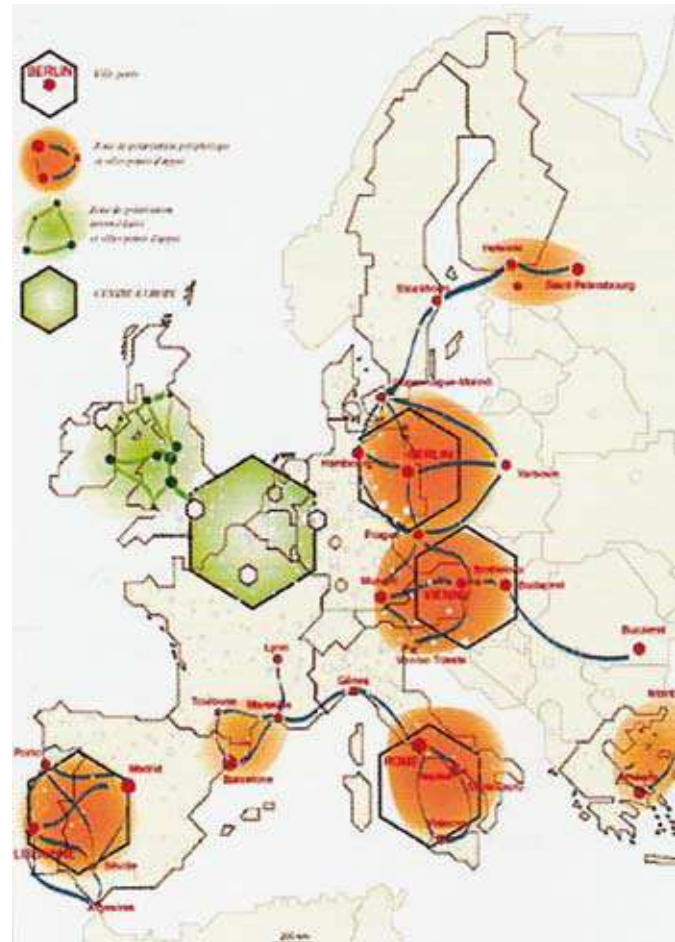
The presence of innovative factors, the consistency and composition of internal demand, the nature of local competition, and the existence of integrated productive networks represent indicators of territory competitiveness for investors. Also, cultural heritage is a primary factor in the search for polycentric territory and has a crucial influence on enterprise localisation choices.

The review and integration through the POLY.DEV. project was useful in explaining how the combination of national and strictly local conditions promote a competitive advantage for the European enterprise, so that the conditions behind this advantage are often localised inside the state, in different territorial systems (cities or re-





Europeans corridors - Veneto Region.



European gates - Ingèrop,2000.

gions, mostly trans-border located) for different productive sectors. In these cases, cities and/or regions become unique environments to provide the different economic sectors with competitive and sustainable support.

On behalf of the Technical-Scientific Committee, with pleasure and gratitude I thank the Veneto region, as project Lead Partner, and all partners for their professional competence and the true feeling of cooperation shown during these two years of work. Special thanks go to all members of the Technical-Scientific Committee, who collaborated with patience, ability, and intuition in order to make clear and more achievable the many innovative objectives of the project.

<sup>1</sup>As well known the Pentagon is a strong central area of the European spatial system, stretching from London to Milan, encompassing Paris, Munich, and Hamburg; it is a region with global economic functions, high quality, considerable income levels, and advanced infrastructural systems – where half of Europe’s wealth and 40% of its population are concentrated on 18% of its territory.

# model application remarks

Maria Prezioso

## **Models of cooperation and polycentric aggregation**

The POLY.DEV. project has now reached a stage where the different regional dimensions can benefit both from important scientific data and common applied innovative experience. In this respect, the project seminars were a real opportunity to communicate about these finalised results, to share knowledge and learn from the scientific experience developed. This momentum in the networking among Project Partners hopefully will be maintained, as well as all feasible synergy among pilot areas explored in the future.

The POLY.DEV. project considered the trans-area cooperation to polycentrism under different perspectives: trans-provincial as in the Veneto region; regional/sub-regional or morphological (coastal) for Greece; intra-provincial in the Marche region; at regional/local functional level elsewhere.

A positive outcome of the Project was the added-value coming from exchange of views and experiences among Transnational Project Partners in the application of the STeMA methodology. Another added-value came from focusing on:

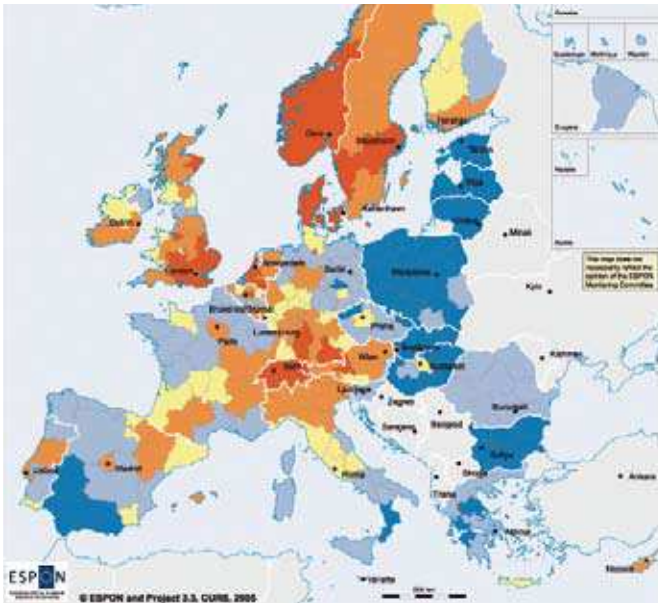
- a certain number of methodological elements of importance and particular complexity, as the STeMA procedure and its application by a dedicated GIS;
- common metadata sources;
- the revision of territorial and spatial typologies at NUTS 3 level;
- a certain number of common indicators and relative mapping.

In this context, all partners offered sufficient metadata information.

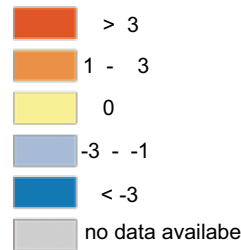
Here follows a brief summary of the single case studies performed.

**Prefecture of Fthiotida (Greece)** applied STeMA at NUTS 3 level having as a basic reference spatial unit the NUTS 5 level. It calculated the Index of periurbanisation too, in order to give a final definition of the polycentric dimension in Fthiotida.

The double comparison designs a significant/classic form of polycentrism, based on a central linear system (fishbone) with semi-urban or rural poly-



Economic Lisbon indicators



Regional performance of fourteen Lisbon Short List Structural Indicators - ESPON project 3.3, Final Report revisited January 2007, pg. 19.

nuclear dependencies. Three different spatial scenarios were built on the policy simulation from ESPON 3.3 project's TIA.

Fthiotida applied STeMA at the Prefecture's area (NUTS 3 level). According to ESPON, Prefecture of Fthiotida is classified as typology 6: Low urban influence, Low human intervention and is a Regional/Local area with no special functions. Lamia is the most important urban centre in Fthiotida and is considered by ESPON as a Regional/Local Functional Urban Area (FUA).

In its proposal of a sustainable polycentric plan, Fthiotida took into consideration the following proposals raised during the local participative and interactive procedures:

- Administrative decentralization
- More direct citizens participation in decision making
- Bottom-up action
- Preservation of local identity
- Equal opportunities
- Reduction of structural inequities

**Magnesia** (Greece) was studied in the perspective of the national, regional, and local points of view.

For this area, ANEM agency applied STeMA at the NUTS 5 level too. Urbanisation is concentrated in the coastal zone, defining three scenarios of Volos-Larissa bi-polarisation, thus suggesting a regional policy embracing polarisation instead of polycentrism.

**Marche Region** (Italy) applied STeMA at NUTS 3 level, from Census micro-areas (census sections) in the Fermo pilot area. Marche formalised some critical suggestions with regard to the use of census areas in order to calculate the competitiveness level of its pilot area. The final Fermo polycentric spatial scenarios define an "octopus" model and its connection with another linear coastal system.

**Veneto Region** (Italy, project Lead Partner) applied STeMA at NUTS 5 level, from Census micro-areas (census sections). Through the definition of sub-determinants (Hydrological System, Geo-mechanical System, Landscape System, Historical and natural landscape, Urban

Settlements System, Rural Settlements System, Natural System) Veneto experimented the application of the model building a simplified GIS, concluding its Pilot Action with one spatial scenario ("Bilanciere", Veneto target area) and measuring by STeMA-SEA the goals of competitiveness in sustainability. A polycentric Venezia-Padova metropolitan model was formalised in a single picture.

**Slovenian partners** applied STeMA at NUTS 3, NUTS 5 and NUTS 7 levels, using some vector data and creating SST from ESPON 3.3 project. Slovenia calculated the index of capability too, in order to give a final definition of the polycentric dimension in Primorska pilot area. This vision agrees with the ESDP vision (1999).

The double comparison shows a significant form of polycentrism, based on a linear (though not "top-down") system with a urban-rural poly-nuclear aspect. Some different spatial scenarios were built, where STeMA-SEA measured the goals of competitiveness in sustainability for the new 2007-13 regional development programme to make trans-border centres more competitive.

In Slovenia's final evaluation, polycentrism is different with regard to the traditional central places and shows a semi-network pattern. Some problems are linked to the density of population.

Slovenia performed a comparison between STeMA typologies and the landscape units used in the Slovenian National plan, completed studies about landscape, spatial vulnerability and human vulnerability (ageing index, educational level, Natura 2000, water protection areas). The final spatial vulnerability was assessed with regard to mountains, karstic plateau, etc. A socio/economic process was studied, showing that public services, not a productive system, are the core issue.

Three local polycentrism scenarios were built: infrastructural intervention to a better accessibility; a static level of urbanisation; and intensive activities in rural and agricultural areas.

For **Slovakian** districts of Ružomberok and Liptovský Mikuláš (Žilina region) and Banská Bystrica region STeMA was applied at NUTS 2, 3 and 4 levels, using NUTS 4



Malcontenta, Mira, Foscari-Widmann villa, villas of Veneto are inscribed in the UNESCO cultural heritage list, Venice, Italy - photo by Veneto Region.

as the base of study, collecting data on census units and building a final synthetic map with policy evaluation and polycentric model.

For the Banská Bystrica pilot region STeMA was applied at NUTS 3, 4 and 5 levels, from data analysis to policy evaluation. The polycentric settlement organisation is quite scattered and it will be possible to build a final model only acting on policies concerning infrastructure, water, drinking waters pipelines, tourism facilities, etc.

This work also encouraged a reflection on the second European Spatial Development Perspective – also called Scenarios for Territorial Agenda and its revision (see the ESPON 3.2 project) in a polycentric direction, with regard to its suggestions towards a balanced and cohesive development of the European territory, and, vice versa, to advise on some new orientations from the Lisbon/Gothenburg Strategy, in order to highlight the direct link existing between the new ESDP and competitiveness.

To facilitate this new integrated process, a fundamental message comes from the POLY.DEV project: polycentrism and competitiveness could have lots of definitions, and different territorial dimensions. That is quite different from the common meaning of sustainability as stated in Gothenburg: a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Report of the Brundtland Commission or WCED, *Our Common Future*, 1987, Oxford: Oxford University Press; Scientific Summary - Glossary).

At the same time, starting from the definition of polycen-

trism given by several scientific references, and from the sustainability basic concept, the project results suggested the integration of these different visions into the new 2007-13 framework, by key messages collated at the sub-regional scale. So, a polycentric, cohesive, competitive, sustainable region should have or, at least, try to pursue a competitive market which uses internal and differentiated development factors, with respect to rules (governance) granting environmental, social, cultural and economic sustainability.

Concerning the evaluation of the territorial dimension of polycentrism in sustainability, and also referring to the EU studies, the approach of macro-economic evaluation widened to the regional scale has had to be critically evaluated.