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Research note: Cross-border connectivity in European Groupings of Territorial Cooperation: how to conceptualize and measure integration

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The text below is a research note denoting work in progress and is meant to supply background information to the presentation given at the conference. Note that some sections replicate previously published material (indicated in footnotes). Please do not cite without permission. However, feel free to contact the author (svenssons@ceu.edu) for comments or access to these publications.

On the topic and this text

The significance of local cross-border cooperation structures between subnational authorities is expected to grow in the 2014-2020 implementation period of cohesion policy, especially through increased participation of European Groupings of Territorial Cooperation (EGTCs), introduced as a legal tool by the European Union in 2006. As of April 2015, 53 EGTCs had been registered with the Committee of the Regions and while these have attracted attention from some scholars (e.g. Keating 2008, Klatt and Hermann 2011, Engl and Zwilling 2014), there is still much need for empirical investigation into how these new organizations function and perform. This is the larger research agenda that I seek to contribute to. The aspect that I concentrate on in current work is the extent to which these and similar organizations really are integrated spaces and how this relates to performance. The importance of this is highlighted by the frequency with which cross-border cooperation is portrayed to serve as laboratories of European integration (e.g. Johnson 2009a:177).

The presentation at the Regional Association Annual conference contains three parts: an overview of currently registered EGTCs, a theoretical and methodological argument on integration, and a discussion of a limited number of EGTCs in terms of political and territorial integration including a ranking based on the recently suggested network-analytical metric connectivity (Svensson and Nordlund 2015). The present research note supplies some background information to the presentation. Subject to discussions at the conference, a full manuscript is expected to be developed during 2015.

European Groupings of Territorial Cooperation: a new type of Euroregion

European Groupings of Territorial Cooperation is a legal instrument that offers new potential for local cross-border cooperation between public authorities to develop. Such cooperation associations has previously taken multiple legal forms, and has often been referred to as Euroregions, which can be defined as “formalized cooperation initiatives between sub-national authorities, often including private and non-profit actors, located close to a border in two or more countries” (Svensson 2013b; Perkmann 2002, 104). The first Euroregion started with the creation of the Dutch-German EU-Regio in 1958 and over the next two decades about thirty more such Euroregions were added. In 2014, there were at least 150 Euroregions (Svensson 2013a).¹ Euroregions have, however, often remained weak organizations with lack of decisive competencies, which led to the “search for new legal instruments as the European Grouping of Territorial Cooperation (EGTC) to overcome these weaknesses (Klatt and Hermmann 2011:68).

The European Grouping of Territorial Cooperation (henceforth EGTC) was introduced via EU legislation in 2006. The measure was explicitly proposed to address “the difficulties encountered by Member States in the field of cross-border cooperation” and aims at facilitating and promoting cross-border, transnational and interregional cooperation between its members. Membership is open not only to local and regional authorities, but also to other bodies under public law and member states themselves (Engl 2014). Following revisions of the regulation in 2013 (regulation 1302/2013), third party countries can take part under certain conditions (Gsodam and Martinez 2014). As will be discussed below, the role of EGTCs in implementation of European Territorial Cooperation programs and their contribution to territorial cohesion have also been underscored.

The Committee of the Regions (CoR), a body within the EU governance structure with some rights related to regional and local issues, has been charged with the responsibility of

¹ It should be noted here that Euroregions are not inventions by the European Union. Contrary to what some might think, the first active European-level actor was not the European Union, but the Council of Europe. The latter invented the term and invested considerable energy in the 1980 Madrid *Convention on Transfrontier Cooperation between Territorial Communities or Authorities* which stated that such cooperation leads to “improvement and development of frontier regions <...> economic and social progress of frontier regions and to the spirit of fellowship which unites the peoples of Europe” (Council of Europe 2014). Another early actor was the Nordic Council, which in 1962 urged its member countries to allow and promote cooperation in the borderlands (Anderson 1967). However, due to the substantial financial support that has been channeled to cross-border cooperation projects since the 1980s, Euroregions are today mostly associated with the European Union. Within EU’s Regional Policy, they receive funding within the framework of the European Territorial Cooperation program. In the period 2007-2013, 5.6 billion Euro was allocated to cross-border cooperation, and for the 2014-2020 funding period the sum has been increased to nearly 10 billion Euro (European Commission 2014).

keeping a register of all EGTCs. As of April 2015, there were 53 registered EGTCs, disbursed across Europe, but with an overrepresentation in Central and Eastern Europe as seen in Table 1.

Table 1. Distribution of EGTCs according to geographic location, purpose and membership composition

Geographic EGTC distribution	Northwest	Central and Eastern	South	Scandinavia	Pan-European	Total
Purpose						
Multi-purpose	8	22	11	0	1	42
Single-purpose	1	0	6	0	4	11
	9	22	17	0	5	53
Membership composition						
Primarily local	2	16	1	0	3	22
Primarily regional	2	6	10	0	1	19
Mix of actors	5	0	6	0	1	12
	9	22	17	9	5	53

Source: Author based on Committee of the Regions registry and websites of individual EGTCs

Unlike previous Euroregions, the EGTCs has started to have different forms in terms of their key actors and composition. Even though the majority continue the tradition of Euroregions as aspiring multi-purpose governance bodies, about 20% have been set up for specific purposes, such as a joint border area hospital (EGTC Cerdanya at the French-Spanish border) or the joint management of a resource such as an alpine area (Parco europeo Alpi Marittime – Mercantour at the Italian-French border). There is also variation in membership composition, but also here the majority continues in the mode of a traditional Euroregion, which is primarily regional or local in its membership composition.

A key question is then whether the EGTC form has managed to create integrated European political and territorial spaces on the ground, and to make cross-border cooperation institutions impressive not only in numbers and omnipresence, but in what they actually do.

The meaning of integration in cross-border spaces²

What do we mean when we use the word ‘integration’? The concept of integration has a variety of meanings and connotations in different social-scientific contexts. ‘European integration’ has been used as a catch-all label for studies related to the European ‘Project’, understood as the European Union, even though occasionally effort has been made for an inclusive interpretation, such as that European integration is understood as “pan-European rather than as merely the EU” (Taylor & Francis Online 2014). However, as noted by Murray (2009) and (Kirchner 2009), the word integration is frequently taken as something “that does not require explanation” (Murray 2009: 228). When scholars do work explicitly with the concept, one frequent understanding is that of European integration as a process (Diez and Wiener 2009:3, Murray 2009, Christiansen 1998, Chrysochoou 2000, van Ham 2001). This process can in turn refer to different phenomena. As expressed by Van Ham (2001) it may, “refer to a process of long-term socio-economic convergence among European societies; a careful and premediated process of cooperation among European nation-states and regions on a variety of levels; as well as a process of constructing (or ‘growing’) of European identity” (van Ham 2001:58). What these have in common is that they all consist of acts of inter-linkage, i.e. we see integration as a process of increasing and intensifying relations among entities that leads to the emergence and expansion of an inclusive integral whole. These flows can consist of goods, services, and information, take place within different realms (economic, social, and political) and entities can be anything from individuals to firms, organizations, and countries.

It is therefore that I have advocated a network-analytical approach to integration, since the emphasis is on integration of entities between different subsets and the particularities that makes the system as a whole integral. Integration in this sense is related to whether actors on either side acquire ties to actors on the other side. With an explicit focus on the sets of relations that tie individual social entities (actors in network terminology) into grander systems, social network analysis provides formal tools for studying systemic structures and relational pattern. With its genesis in sociology and the behavioural sciences, network analysis has permeated the social sciences, providing an alternative approach for understanding system complexity and inter-relatedness that stretches beyond the traditional cross-comparisons of properties of, assumed independent, units of analysis.

A Euroregion in the form of an EGTC is an organizational institution, but also a territory, a border region that is “a special area of fluxes and exchanges of a social, cultural, economic and political nature, a space where the development of multiple activities takes place and where the type and intensity of transactions have evolved in time” (Sousa 2013:671). Assessing how far the process of integration has reached within an EGTC territory then means

² This main part of this section is replicated from Svensson and Nordlund 2014. For referencing purposes, you may contact the author for a copy of the article.

to measure the level of cross-border integration within different realms, which could be territorial (e.g. infrastructure, geographical linkages), economic (e.g. firms, labor commute), social (e.g. friendships, marriages) or political (e.g. policy communication, policy cooperation, policy coordination).

In what follows below I address the territorial and political integration of EGTCs. This is tentative work, and needs more data for a holistic picture.

Territorial integration

Territorial cohesion was the last dimension to be included under the umbrella term Cohesion Policy in the Lisbon Treaty, after the economic and social dimension. Cohesion policy is expected to improve territorial cohesion for instance by advocating for a ‘functional approach’ to how territories can achieve ‘integrated development’. At the same time this territorial cooperation with the aim of integrating spaces, is expected to ‘strengthen European integration’ as such.³

This ‘functional approach’ to territorial integrated development is typical for how the meaning of integration often remains unquestioned. Critical discourse analysis of European policy documents regarding cross-border cooperation (see Celata and Coletti 2008 and 2011) has shown how cross-border regions are throughout portrayed as given (rather than constructed). They are thought to have common characteristics (backwards, economically disadvantaged) due to the nature of borders as obstacles.⁴ However, how these cross-border regions should themselves be delimited is rarely discussed.

“The existence of homogenous border areas that require a joint management is justified on the basis of presumed objective criteria identifying a common geographical, economic or cultural heritage. <But> the problematic operation of setting the boundaries, however, is weakly problematized. Policy documents do not present the methodologies by which border regions have been delimited, but, on the contrary, present the definition of border regions as unproblematic, self-evident and guided by objective criteria (Celata and Coletti 2008, p. 8).”

Hence, a correspondence between political institutionalized cross-border cooperation and such ‘self-evident’ and ‘unproblematic’ regions is assumed. If the delimitation of cross-border cooperation is unproblematic (‘natural’ due to common geographical/economic/cultural heritage), the expectation is that there would be stable territorial coverage of the institutions that are set up to cover them, i.e. stable membership, over time. There would be no contestation over

³ See European Commission Regional Policy website: http://ec.europa.eu/regional_policy/en/policy/what/territorial-cohesion/ (retrieved May 20, 2015)

⁴ Celata and Coletti build their analysis on documents related to the 200-2006, and 2007-2013 programming period of the European Union.

who should become a member, and recruitment drives by the leadership should not be necessary. However, if we question the basic assumption, an alternative expectation (or hypothesis) can be formed, according to which there would be contracting and expanding territorial coverage due to shifting memberships. This would be manifested as overlapping memberships, contestation over memberships and ongoing recruitment efforts. That this is not so, I have demonstrated in previous research of six Euroregions with different legal forms (only one of them is an EGTC).⁵ The analysis of that data gave rise to six observations, or findings, of relevance to the research question.

First, frequently there are significant changes in membership over time. *Second*, all the six studied Euroregions had at least one member local government, which is also member of another Euroregion. These overlapping memberships indicate that the boundaries of the Euroregions are not clear. *Third*, the visual imagery produced by the Euroregions do not always correspond to the actual territorial coverage. The official maps displayed by two of the Euroregions gave the perception of regions that are more cohesive and geometrically appealing than reality. *Fourth*, related to the phenomenon above it is more common than perhaps thought with disjointed membership, i.e. territorial coverage that is not continuous as some local governments join the organizations that are not adjacently located. *Fifth*, membership is sometimes contested, with members ‘close’ to the border expressing doubts when members ‘far from’ the border are let in. What is considered ‘close’ and ‘far’ differs significantly between cases and between members. *Sixth*, sometimes the leadership expresses awareness of these shifting boundaries and behaves towards their organization as towards any collective action organization that needs to secure enough members. Nonetheless, deliberate recruitment efforts to increase and expand the organizations were among the investigated cases were rare.

In the present research of Euroregions with an EGTC legal form I have in the first phase focused on territorial linkage. This is again to follow up on assumptions made from policy circles on the importance of ‘territorial cohesion’ as one of the key aims of EU Cohesion Policy, and particular aim for EGTCs to achieve.

In order to investigate this I have mapped ten EGTCs with primary local government membership, to investigate the extent to which these are territorially integrated, in the sense of having direct territorial adjacency between its members, including across the border. This indicates network integration, but also network cohesion.⁶ A rudimentary understanding of network cohesion is provided by the density measure, calculated as the quota between the number of existing ties and the total number of possible ties. The density can refer to the whole

⁵ Presented at the University Association for Contemporary European Studies Annual Conference Leeds, UK, “Exchanges ideas on Europe”, September 2-4, 2013: “Who is in and who is out? A spatial and temporal perspective on micro-regional and cross-border European territorial cooperation”

⁶ The following section is copied more or less verbatim from Svensson and Nordlund 2015. For referencing purposes, you may contact the author for a copy of the article.

network a subset of actors. The latter can for instance be densities of cross-border links only. That is, of all possible cross-border links, how many are present? However, it still measures only an aggregated tendency. Due to their focus on overall amount of ties, they hide finer details of the actual patterns of ties that exist in these networks and which would be important for assessing the degree to which they are integrated. In addition, one can assume a limitation to the number of ties, cross-border as well as domestic, which can actually be upheld by an actor. Density assumes an infinite ‘relational capacity’ of actors.

Following the definition of integration as a process of increasing and intensifying relations among entities that leads to the emergence and expansion of an inclusive integral whole, integration is not just about the number of ties, but also about the extent to which an important share of actors are included. Moreover, it would fit when applied to the political realm of a cross-border region as indicated by the communication between actors therein.

In my work with Nordlund (2015) we have drawn on blockmodeling to do this, a hands-on tool in role-analysis that implies partitioning the actors of a network into subsets (‘positions’ in network terminology) based on a meaningful definition of equivalence that are deemed to fulfil similar structural roles in the network. Stemming from a series of articles in the 1970s (Lorrain and White 1971; H. C. White 1974; H. C. White, Boorman, and Breiger 1976; Breiger 1976), role-analysis and the associated technique of blockmodeling have occasionally been seen as a possible foundation for a theory of social structure (e.g. H. C. White, Boorman, and Breiger 1976, 732; Snyder and Kick 1979, 1103).

A blockmodel is created by sorting the original data matrix in accordance with a given subsets of partitions. In this context it means simply the national belonging of local authority in the EGTC. After having outlined the sub-matrix ‘blocks’ within and between positions, the underlying functional anatomy of a network is established by comparing emerging block patterns with a set of ideal blocks. In structural equivalence studies two actors are deemed equivalent if they have identical ties to the same alters. In such a case the two basic ideal blocks are 1-blocks (corresponding to a fully connected block) and 0-blocks (no ties). In regular equivalence studies role-similarity means having similar ties to other actors that in turn are equivalent. This adds an additional ideal block type where there is at least one tie on each row and column, respectively.

Importantly, we do not apply role-equivalence here but instead use this technique of generalized blockmodeling and its set of ideal blocks to conceptualize and measure integration in this particular disciplinary context. You can use this two calculate two measures:

Connectivity: indicates the share of actors with cross-border connections. The directional connectivity measure indicates the share of actors on one side with cross-border connections.

Overfit: indicates the number of ties that are not necessary in order to maintain a given connectivity.

Connectivity, captures different properties of cross-border ties than density does. In combination with the measure of overfitting, the image of territorial integration in the studied EGTCs becomes more nuanced.

The ten EGTCs (see Table 2) were selected among those with multi-purpose functioning and with local government membership rather than regional (Duoro is an exception), and with a distribution between few and many members, and in geographical distribution.

Table 2. Geographic home and size of the examined EGTCs

<i>Name of the EGTC</i>	<i>Countries covered</i>	<i>Number of members</i>
Duoro	Spain & Portugal	4
Linieland	Belgium & Netherlands	4
Sajo Rima	Hungary & Slovakia	4
IsterGranum	Hungary & Slovakia	82
PonsDanubii	Hungary & Slovakia	11
Europegate	Hungary & Romania	36
ZasNet	Spain & Portugal	28
Arrabona	Hungary & Slovakia	7
Abauj	Hungary & Slovakia	16
Spolocny	Slovakia & Czech Republic	46

Source: Author based on Committee of the Regions registry and websites of individual EGTCs

The ranking (see table 3) shows the EGTCs according to their connectivity, i.e. how many of the local governments have direct territorial adjacency to a local government on the other side of the border, compared with density (how many such links there are in general in the area) and cross-border density. Just as with visual and time-series inspection of Euroregions in my study referred to above, the numbers show the complexity of how regions are constructed. What functionality means in territories that are loosely connected, or not at all, needs further explanation. Likewise, the link between functionality and policy outcome.

Table 3. Connectivity and density values for the examined EGTCs

<i>EGTC</i>	<i>Connectivity</i>	<i>Overfit</i>	<i>CrossBorder Density</i>	<i>Normal density</i>
Duoro	1	0	0.75	0.8333
Linieland	0.75	0	0.67	0.83
Sajo Rima	0.5	0	0.17	0.25
IsterGranum	0.41	0.47	0.02	0.05
PonsDanubii	0.28	0.28	0.11	0.16
Europegate	0.28	0.14	0.02	0.07
ZasNet	0.27	0	0.02	0.08
Arrabona	0.1	0	0.08	0.05
Abauj	0	0	0	0.14
Spolocny	0	0	0	0.06

Source: Author based on Committee of the Regions registry and websites of individual EGTCs

Political integration

Political integration is best investigated by mapping informational flows through the EGTC network, or who interacts with whom. Such data can be obtained through interviews or by documents demonstrating partnerships, attendance at the same meetings, commissions, etc.

The review of current EGTCs through the Committee of Regions and the textual material on their individual websites in April 2013 showed that none of the EGTCs display enough information to enable a complete mapping of the network of information or knowledge flows. Projects often do not list exactly who is the project owner, and many EGTCs list little activity at all.

The next stage of the research here will therefore be to contact EGTCs for detailed information on projects and membership involvement.

However, a previous study of the Ister-Granum EGTC can show the value of the density and the connectivity measures of political integrations.⁷ In that study the highest political representatives of each membership local government was asked to indicate how often he/she communicated with representatives of all other local governments in the study. Based on those who had indicated at least monthly communication, a network set was created and values calculated

Table 4. Network properties of Ister-Granum EGTC

Euroregion	OVERALL DENSITY		CROSS-BORDER DENSITY		CROSS-BORDER CONNECTIVITY
	Monthly	Weekly	Monthly	Weekly	
Ister-Granum (82)	0.19	0.07	0.05	0.01	0.67

The measures show that even though Ister-Granum has a relatively few cross-border contacts (low density values), those contacts are better spread across actors (connectivity). This is important, since EGTCs are supposed to foster cross-border political relationships that could have possible spill-over effects in terms of encouraging policy cooperation outside the framework of the EGTC, which in turn would enhance the likelihood of well-functioning EGTC. As can be expected there are more informational than territorial ties between local government, but the discrepancy is surprisingly small, due to the specific geographic shape of this EGTC, which is located along rivers as borders.

Unanswered questions and need for further research

Local cross-border cooperation institutions adopting the legal form of EGTC constitute a flagship construction of a European Union seeking to promote ‘territorial cohesion’ as a part of Cohesion Policy. Territorial integration is an important part of territorial cohesion, and the research displayed here used the newly introduced network analytical tools ‘conectivity’ and ‘overfit’ to show the great variety among EGTCs in this respect. The same metric can fruitfully be used when studying integration of political spaces, as shown by the Ister-Granum EGTC case, for more data is needed to do larger comparisons of this.

Finally, a note on EGTCs. The review of those that have established so far show that some of the problems associated with Euroregions in general persist with this new legal form as well.

⁷ To be published in a forthcoming issue of *Regional & Federal Studies*: “The bordered world of cross-border cooperation: the determinants of local government contact networks within Euroregions.”

Many EGTCs display little activity, and those who do keep up the tradition of playing, as expressed by Klatt and Hermann 2011, the role of “cross-border information center, network organizer, and support organization, while their actual governance of self-sustainable cross-border activities remains low (Klatt and Hermann 2011: 65)

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