

METROPOLITAN AREAS IN ACTION

MAIA

Analysis of European cities

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1 The challenge

There is a growing need for cooperation between municipalities beyond the administrative boundaries of the cities. In most of the European cities the administrative borders are outdated. Moreover, the different challenges urban areas face (demographic, employment, environmental, social) require integrated policy answers, otherwise the policies tackling any of these challenges create huge problems (externalities) regarding the other challenges. These problems can even result in slowing down of actions for change for fear of negative side-effects. Integrated policies need a territorial base which is large enough to deal with the externalities of each of the policy domains. The functional urban areas (metropolitan areas) of the cities are in most cases fulfilling this criteria. Strengthened collaboration and joint planning in such areas might lead to more integrated solutions – without necessarily creating any new form or level of universal public management or administration.

The EU2020 Strategy aims for balanced development regarding economic, environmental and social aspects. To achieve that, European policies increasingly acknowledge the growing importance of integrated planning across functional urban geographies. Thus metropolitan areas (as larger scale functional urban areas around cities) should get increasing attention in Europe.

However, „metropolitan” can frighten rural stakeholders who might think that cities will take over. Moreover, the residents of urban areas do not even understand the term. The administrative regions, who understand, are in many cases against the idea, protecting their power. In order to overcome the governance challenge strong citizens support would be required but public awareness is quite limited and people are quite reluctant to see any new administrative units to develop.

The following analysis, which is based on the Eurocities MAIA database², aims to explore why functional urban areas matter and what their opportunities might be in future European urban development.

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² The Eurocities Metropolitan Areas Working Group conducted a work to collect information about the different territorial collaboration forms around European cities. The first analysis of the data was performed by Iván Tosics in 2012. This was followed by the work of the University of Ghent to collect additional data. Eurocities published the Metropolitan Areas In Action Summary Report in November 2013. The present paper is an additional background document to this work.

2 The territorial and functional aspects of metropolitan area collaboration

In order to prepare the more detailed analysis of the European metropolitan areas we have to distinguish the territorial and functional aspects of the collaborations.

2.1 The territorial levels: MUA/FUA/economic zone

The different cooperation zones around the cities are created on different levels. We have to differentiate at least the following three levels:

- Morphologic area (MUA) that covers those areas around the administrative city that are built continuously to it creating one urban texture.
- Functional Urban Area (FUA) that means the zone around the city in which day to day connections (e.g. commuting) can be observed.
- Larger economic area, as seen from the investors' point of view (e.g. all areas which can be reached within one hour from the airport).

It is not easy to spatially delineate these different types of areas. In the following table we use two databases: the ESPON³ research determining MUA and FUA areas around all medium and larger European cities and the recent OECD⁴ attempt to determine metropolitan (FUA) areas around larger cities in the OECD countries. As seen from the table, these delineations often do not match, regarding the number of population. This clearly shows that no common understanding/definition exists on what a FUA is. Official definitions – when existing – are quite different from one country to another.

Despite these obvious difficulties it is possible to use these data to draw an approximate picture of the size of the different cooperation areas.

³ ESPON, 2007: Study on Urban Functions. ESPON Study 1.4.3 IGEAT, Brussels. Final Report March 2007. (Data represent 2004.) www.espon.eu

⁴ OECD data: <http://stats.oecd.org/Index.aspx?Datasetcode=CITIES> downloaded 03.11.2013. This database (the Metropolitan database) contains data for 275 metro areas with a population of 500,000 or more over 29 OECD countries. These metro areas follow a harmonized functional definition developed by the OECD, in cooperation with the European Commission.

Table 1. Administrative, morphological and functional areas of large European cities

	Admin city	MUA	MUA/city	FUA	FUA/city	FUA (OECD data)
CITIES	million people			million		million
Berlin	3.44	3.78	1.1	4.02	1.2	4.57
Madrid	3.26	4.96	1.5	5.26	1.6	6.60
Hamburg	1.72	2.12	1.2	2.98	1.7	3.68
Budapest	1.70	2.12	1.2	2.52	1.5	2.91
Warsaw	1.69	2.00	1.2	2.79	1.7	3.03
Vienna	1.60	1.67	1.0	2.58	1.6	2.71
Munich	1.35	1.65	1.2	2.67	2.0	2.88
Sofia	1.31	1.31	1.0	1.31	1.0	
Milan	1.26	3.70	2.9	4.1	3.3	4.06
Birmingham	0.99	2.36	2.4	3.68	3.7	1.89
Brussels	0.96	1.50	1.6	2.64	2.8	2.56
Torino	0.91	1.31	1.4	1.60	1.8	1.80
Amsterdam	0.78	1.05	1.3	1.47	1.9	2.38
Stockholm	0.76	1.48	1.9	2.17	2.9	2.11
Frankfurt	0.65	1.46	2.2	2.76	4.2	2.57
Stuttgart	0.61	1.74	2.9	2.29	3.8	2.00
Rotterdam	0.60	1.03	1.7	1.43	2.4	1.49
Oslo	0.60	0.71	1.2	1.04	1.7	1.26
Helsinki	0.56	1.07	1.9	1.29	2.3	1.52
Lisbon	0.53	2.32	4.4	2.59	4.9	2.82
Göteborg	0.51	0.63	1.3	0.96	1.9	0.90
The Hague	0.51	0.59		0.82		0.88
Lyon	0.47	1.18	2.5	1.79	3.8	1.93
Manchester	0.44	2.21	5.0	2.56	5.8	1.87
Bratislava	0.43	0.44	1.0	0.71	1.7	0.70
Zurich	0.37	0.72	2.0	1.62	4.4	1.24
Brno	0.37	0.38	1.0	0.54	1.5	0.65
Katowice	0.32	2.28	7.1	3.03	9.5	2.60
Malmö	0.28	0.28	1.0	0.96	3.4	0.69
Strasbourg	0.27	0.42	1.6	0.61	2.3	0.76
Ghent	0.24	0.30	1.3	0.70	2.9	0.59
Lille	0.23	0.95	4.1	1.14	5.0	1.35
Tampere	0.21	0.27	1.3	0.34	1.6	
Rennes	0.21	0.25	1.2	0.52	2.5	0.68
Terrassa	0.21					
Linköping	0.15	0.13	1.0	0.24	1.6	
Preston	0.13	0.25	1.9	0.35	2.7	

Source: ESPON, 2007; City population: <http://www.citypopulation.de>; OECD (last column)

These data illustrate how large the fragmentation of the European urban system is: the power of the city mayors does not cover at all the whole of the continuous urban areas (which are in European average +70% larger than the administrative city). The difference is even larger in the case of the functional urban areas which are +130% larger in population number than the administrative city. From this it follows that one of the important challenges of European urban development is to solve the problem of missing (or existing but weak) governance on functional urban area level. As the table

shows this problem is also a challenge for the MUAs – in this paper, however, the main attention is devoted to the FUA level.

2.2 The functional aspects of cooperation

The links between the core city and its neighbouring municipalities (regardless whether these belong to a MUA, FUA or larger territorial unit) can be of very different types with very different intensity of cooperation. The main types of relations are listed below in the order of growing strength of cooperation:

- **Statistical Unit:** the area is only registered for statistical purposes, or is indicated in scientific or spatial planning documents with no administrative or political relevance. In such cases inside the area there are usually no regular, formal functional connections between the municipalities.
- **Networking:** neighbouring settlements cooperate with each other in a loose connection in order to reach certain goals, like jointly lobbying towards upper government levels, creating common brands to strengthen the economic, touristic potential of the given area, coordinating the planning documents for using the EU funds more effectively. In some cases not only the public authorities cooperate, but other non-profit or for profit organisations are also involved.
- **Weak (non-binding, visionary) strategic planning:** neighbouring settlements create the organisational framework/cooperation mechanism in order to elaborate common strategic plans concerning certain sectors (like transportation, local economy, education) or wide scale regional planning – however, these plans have no binding power towards the participants of the collaboration.
- **Single function collaborations:** the neighbouring settlements provide/coordinate one common service for the inhabitants (this is in most cases public transportation).
- **Multiple function collaborations:** neighbouring settlements provide a branch of common services for the inhabitants of the common area (in most cases transportation, housing, culture, health). It can happen that there is a common budget to finance these services but in most cases only the coordination of services is provided on the upper level while the services themselves are managed and financed on the lower level, by the municipalities.
- **Joint strategic planning with binding power:** a joint organisation of the settlements – based on strong legal framework – has the right to create a strategic/spatial plan which is binding for all participating municipalities (e.g. the SCOT system in France).

These types are very different regarding the strength of the cooperation between the municipalities belonging to the same urban area.

3 Analysis: different territorial and functional patterns in the European metropolitan areas

3.1 The static picture: various functions existing on the different territorial levels

The MAIA data-base includes the description of over hundred collaboration areas around nearly 40 cities (those cities which answered the questionnaire sent out by the Eurocities Metropolitan Areas Working Group) concerning the size, layout, functions, organisational structure and financial instruments applied in the given collaboration areas⁵. The data collection aims to explore all the collaborations that are defined above the city level, from the smallest cooperation area which the city administration itself considers significant, till the largest one.

The essence of the information collected in the MAIA study about the collaboration areas around European cities is summarized in the form of a large table (see Appendix 1). This table contains the different collaboration areas around the cities, in the order from the smallest towards the largest, according to population number. For each of these areas there is a description given, concerning the institutions, decision-making structures and the content (functions) these collaborations involve.

In the following analysis we join together the territorial and the functional aspects. For each city we analyse first of all those collaboration areas which were closest in size to the population number of the FUA area in the OECD and ESPON databases. Besides of the analysis of these areas we also explore collaborations in smaller and in larger areas than the FUA.

The following table summarizes the main results of the categorisation of the cities, applying the two dimensions to the MAIA database. One city can be represented in more than one cell of the table as several cities have more than one territorial collaboration form on (or close to) the FUA level.

It is important to note that many cities did not supply enough detailed information. Consequently this table can only be regarded as a hypothesis – some classifications can be false due to the lack of detailed information.

⁵ Due to the fact that information has been collected by questionnaires, voluntarily filled in by the cities, the quality of the answers is very different across the cities. More precise information, however, could only be collected with the use of much more costly methods.

Table 2. Classification of cities based on the size and functions of the different collaboration territories

Size of the collaboration	1. Statistical unit	2. Networking, weak strategic planning	3. Single function	4. Multiple functions	5. Strong strategic, spatial planning of binding nature
A) Smaller than FUA	Budapest, Brussels	Ghent, Malmö , Vienna, Zurich.	Frankfurt , Helsinki ⁶ , Katowice , Warsaw	Amsterdam, Rotterdam Milan (Province)	Lille⁷, Lyon, Rennes, Strasbourg Milan (future Metropolitan city)
B) FUA	Berlin, Budapest, Ghent, Linköpping, Lisbon, Strasbourg , Vienna, Warsaw	Amsterdam, Birmingham LEP, Bratislava (Region) , Brno, Brussels, Göteborg , Katowice, Lyon⁸, Malmö , Sofia ⁹ , Terrassa,		Helsinki ¹⁰ , Madrid (Region), Munich, Manchester, Oslo, Preston, Stockholm (county), Tampere (region)	
C) Somewhat larger than FUA	Sofia	BrabantStad, Zurich	Brussels	The Hague, Torino (Province), Helsinki (region)	Stuttgart
D) Much larger than FUA (larger economic zone)	Birmingham Budapest	Amsterdam, Bratislava, Frankfurt, Ghent, Göteborg, Hamburg, Katowice, Lille, Linköpping, Lyon, Malmö, Oslo, Rennes, Stockholm, Strasbourg, Stuttgart, Tampere, Vienna, Zurich	Rotterdam – The Hague	Katowice (Region), Lisbon (Region),	Berlin, Malmö (region)

Cities in bold: some type of metropolitan organization exists.

It is much easier to handle the case of monocentric urban areas than that of the polycentric FUAs. The latter are more complex and are in most cases part of the C or D categories: Frankfurt, Lille, Katowice, Brussels, Lyon, Rotterdam-The Hague, Malmö, BrabantStad and Zürich – at least – are fitting within this category.

This table is an important starting point to formulate some statements about the links between the type/size of the urban area and the functions delegated to it.

Regarding the collaboration forms (functions), a vertical red line separates columns 1 and 2 from columns 3-5. The former can be considered as weaker, while the latter as stronger collaboration forms.

⁶ There are two different levels smaller than the FUA around Helsinki: a common Environmental Service Authority for 4 municipalities and a common transportation authority for 7 municipalities.

⁷ Lille has two levels that are smaller than the FUA and they operate several common services – for 85 municipalities – and a SCUT system for 124 municipalities. (The FUA would consist about 150 municipalities.)

⁸ The Metropolitan Cooperation around Lyon consists of 4 metropolitan areas that are not connected directly (so this area is not exactly a FUA). They promote common policy development.

⁹ Sofia agglomeration was defined in the Operational Programme Regional Development (2007-2013) as an area for strategic planning.

¹⁰ In the Greater Helsinki area not really common services were organised, rather special contracts with well defined targets in the area of social housing, homelessness services and employment programmes.

Regarding the territorial aspect, the main interest of this study is on the FUA level (row B). The table shows that the B-5 cell is empty, i.e. there is no European example (at least among the cities included into our analysis) for a city which would have the strongest collaboration form exactly on the functional urban area level. The closest example to this “optimal” case is Stuttgart, which established the strong collaboration on a slightly larger territorial level than the FUA.

Regarding those cities which have collaboration on the FUA level, but not enough strong, there are 8 cities in the B-4 (and 2 more in the C-4) cell. These cities are fairly close to establish a “full” metropolitan governance on the territory of their functional urban area. However, it is not at all easy to make this missing step, as the example of Stockholm illustrates.

In Stockholm the directly elected county self-government covers the functional urban area. However, Stockholm County’s 26 municipalities have not yet been able to reach a consensus on bolstering regional governance. The current institutional arrangements are relatively decentralised and split-up. They are indicative of a political culture marked by a very high degree of collaboration and negotiation, framed by an overarching context of trust and transparency. But the frequent meetings and negotiation are rendered less effective than they might be due to the absence of a more empowered regional institution.

The 11 cities in B-2 are relatively further away from strong metropolitan governance as their collaboration is based on voluntary decisions.

In Bratislava the regional level (with delegated leadership) covers the functional urban area. Strategies, programmes, land-use plans and mutual goals for sustainable urban development exist but the efficient management of their implementation is missing.

The 8 cities in B-1 are even further away from metropolitan governance, as their functional urban area is only statistically defined and not even voluntary collaboration exists on this level.

Regarding those cities which have strong collaboration but not exactly on the FUA level, the case of the cities in the C-3, C-4 and C-5 categories seems to be manageable, as their collaboration is in wider area as the FUA, from which to narrow it down should in principle not be so difficult. Those cases, where strong collaboration forms have been established on smaller territorial basis than the FUA, seem to be more difficult. Cities in the A-5 cell (Frankfurt and four French cities) are in a strange position: the strong collaboration exist but does not cover the full functional urban area. Similar is the case of the two large Dutch cities. In these cases the existence of the strong collaboration on the smaller territorial level can in fact be a bottleneck for the FUA level cooperation as the missing territories are probably not willing to join to the existing collaboration.

In the case of Lille (and all other French cases), for historic reasons the territory of strategic planning is smaller than the functional urban area, while the urban communities were created on even smaller (although larger than the MUA) territory. This spatial mismatch creates significant problems.

Besides the functional urban area level, most cities aim also for some type of collaboration on wider territorial basis. Almost 20 cities are included in the cell D-2, showing that weak (vision-building, marketing) planning is the most usual form of governance in the larger economic areas.

3.2 The dynamic processes: efforts to change

This static picture, of course, does not show the dynamism, the efforts to change the existing situation. The changes towards stronger functional urban area level cooperation might have two dimensions.

The 'territorial adjustment' means to extend the territory of the collaboration area towards the functional urban area (from A towards B). There are clear signs towards such changes e.g. in some parts of the Netherlands (see the example of the Rotterdam – The Hague region) although it is not clear whether the government plans to change the system of city-regions (Stadsgewest) will allow for larger territorial units to be formed, adjusting better to the expanding metropolitan areas, or just the opposite.

The 'functional expansion' means to change on the same territorial level the functions of the collaboration towards stronger cooperation (from 1-2 towards 3-5). This might be done with the increase of the number of joint functions and/or with the introduction of more binding elements into the collaboration. Bratislava, Brno, Brussels, Warsaw are just a few examples where serious discussions are going on between the different levels of government about expanding the functions on FUA level (the only case where opposite changes happen, towards decreasing the importance of metropolitan cooperation, is Budapest).

The following city cases illustrate the difficulties of this functional expansion.

In Malmö a bottom-up developed voluntary association covers the FUA. The regular meetings between civil servants and politicians are efficient in terms of sharing information/best practice in common issues. However, in terms of reaching the goals of the collaboration the results are rather small.

„The present structures of governance at the Helsinki region are not anymore good enough when solving the sub-regional challenges, and the current situation cannot be continued anymore. A metropolitan body for the 14 municipalities should be created. ... an efficient and sound development of community structures, housing, transportation and environment can only be secured by creating co-operation structures which bind each municipality in the region.”

In Lisbon a delegated regional level covers the functional urban area. This means a top-down created association of municipalities, having board of mayors, assembly, executive committee and bureau. However, the evaluation shows that this collaboration is quite weak: metro areas should get effective governance.

Besides these concrete cases many cities face the difficulties of expanding relations across borders, not only between different countries but even within the same country, between existing political/administrative regions (especially – but not exclusively – in federal countries).

3.3 The institutional aspects of cooperation

From the MAIA database we can identify different institutional forms (in the order of increasing strength) that are created on the functional urban area level.

- No formal cooperation but occasional meetings of the political leaders is organised. This organisational form could be observed in those cases where the organisational process is just in its starting phase (like in Brno) or when the cooperation is tied to certain decisions (like in case of EU programming in Katowice or Sofia).
- Formalised cooperation with different decision making bodies like councils, boards, working groups with delegated participants (delegation from the public sector only or from other sectors as well). Loose cooperation and strong cooperation can also belong to this category as the organisational form itself could be implemented in several ways and the functioning of it depends rather on the depth of functions and the mechanisms of voting and implementation.
- Delegated (from below, i.e. from the municipalities) decision making systems and common operational organisations/agencies. This form is most common in cases where transportation

association is in operation in the metropolitan area with own transportation authority or company (e.g. Helsinki Regional Transportation Authority), but it can also be discovered in the case of spatial planning when a special organisation is responsible for setting up and controlling the meeting of the obligations (e.g. Regional Planning Association in Munich area).

- Elected entities for decision making bodies (like elected regions) with several implementing organisations, companies, agencies.

In general it can be observed that in order to achieve deeper forms of cooperation, more organisational power is needed in stronger institutional forms (e.g. most multi-functional areas are in directly elected regions).

From the examples and the self-evaluations quoted from city representatives it follows that in order to achieve stronger metropolitan collaboration, steps have to be taken towards the establishment of more binding institutional forms on the functional urban area level. This, however, raises the issue of flexibility. Fixed boundary, directly elected institutional systems can not cope with the quickly changing economic reality which would require dynamically changing composition of metropolitan areas. The latter can only be created in the form of delegated leadership (which can easier be changed in a flexible way). This, however, raises the issue of decreasing democracy and transparency. Thus we arrived to the trade-off between efficiency and representative democracy.

4 Conclusions and recommendations

The short analysis of the MAIA data-base of nearly 40 European urban areas has shown that there are big variations regarding the types of collaborations existing on the MUA/FUA/Business zone levels around European cities. In a few cities relatively strong structures exist on the functional urban area level. The more general case, however, is the existence of only informal collaborations, which have serious limits to solve the basic challenges of sustainable urban development.

It is of high importance to turn the informal, weak collaborations into stronger, more binding forms of cooperation on the functional urban area level. This can be approached basically in two ways:

1. to strengthen (give more power, functions) to existing weak collaborations on FUA level, i.e. moving from B-4 towards B-5
2. to expand in territorial sense the existing strong collaborations to better cover the whole area of the FUA, i.e. moving from A-5 towards B-5

The MAIA study includes examples of such efforts. Regarding the first version, there are many cases (e.g. Zürich) where the existing metropolitan collaboration aims to get more functions and power from below (the municipalities) and from above (the region). In regard of the second version many cities aim to merge with the administrative level which covers best the FUA area (see the Italian efforts to join the provinces to the core city in the case of the ten largest Italian cities or the discussions in France to merge the “department” level to the urban communities in the case of the largest urban areas).

It is a crucial question how the resulting new level of governance could fit the already overcrowded system of administrative levels: besides local authorities, provinces, counties/regions, national states it would be very difficult to establish a new general administrative level for metropolitan areas. It is clear that parallel competencies between the different governance levels have to be avoided. The two versions highlighted above give two possible patterns for such change: create metropolitan governance around the largest cities

- as a collection of some competencies transferred down from the upper regional level and some competencies delegated upwards from below, from the municipalities;
- dissolve the existing administrative level around the large cities and merge them with the city into a metropolitan unit, while keep this level unchanged in other areas.

In both cases the metropolitan government will only exist around large cities, in the first version distinguished from the rest of the administrative structure by its functions, in the second version by its territory. In both cases the creation of a new, general level of territorial administration has been avoided.

The level of cooperation (regarding both the common functions and the organisational forms) depends mainly on the following two factors:

- The existence of strong top-down national framework that initiates (in some cases obliges) the formation of cooperation across the administrative boundaries.
- The spreading out of bottom-up initiatives, in the form of cooperation agreements between political leaders of settlements belonging to the same functional urban area.

Stronger metropolitan collaboration requires both top-down policies and frameworks and bottom-up cooperation efforts. The required more formalized cooperation forms (with some types of administration or organization) have to be established as a combination of these two different but equally important processes/efforts.

Cities have to play leading role in the initiation of better FUA level collaboration. In some cases this regards careful supervision of existing relationships – it is not rare that already now too many collaborations exist around the city which differ from each other in functions and/or territories.

Besides the cities themselves it is the national level which has the most important role to play in strengthening the agglomerational and the metropolitan cooperations around larger cities. Good examples of national policies/initiatives towards metropolitan cooperation can be discovered in Belgium, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Switzerland, just to mention a few countries.

The European level (the Commission, the Parliament) has also important tasks to do in order to encourage cooperation in functional urban areas: to stimulate the development of national policies and frameworks for metropolitan areas and to motivate cities to actively build bottom-up collaborations. The Integrated Territorial Investments (one of the new tools of the upcoming Cohesion Policy period) and the process of the approval of the Partnership Agreements offer some possibilities for the EU to influence the planning systems of the member states. Besides, the new European programmes (e.g. Innovative Actions) and the well-functioning existing European Territorial Cooperation Programmes (URBACT, INTERREG, ESPON) could be used to increase the attention towards functional urban areas, expand the empirical evidence and step further towards a common understanding of FUAs at the EU level. The MAIA study could become an important source of evidence in the support of these efforts.

Epilogue: further steps with the MAIA empirical research

For policy oriented research the MAIA data-base seems to be a good starting point. Instead of further collection of city cases the deepening of the information about the existing cases would be advisable. This could start with the selection of a few cities, representing the main categories in Table 2. In the selected cities further work has to be done with more qualitative methods to explore the important details of their governance structures, the problems and the future potentials.

Besides, already on the basis of the existing material a compilation of good examples of integrated development on metropolitan area level could be prepared and disseminated to the national governments.