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## Cooperation differs. Intentions of municipalities towards metropolitan cooperation in post-socialist space – Brno, Czech Republic

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#### **ABSTRACT**

The long-term regional policy of metropolitan regions contributes to the socio-economic development of the entire functional region as it prevents the disharmony in the activity of the interested actors. In the Czech environment, metropolitan cooperation has not been institutionalized yet, which is remarkable while its importance is emphasized in many developed countries and the development of metropolitan regions is greatly supported by EU through the tool ITI. Moreover, a fully-fledged expert interdisciplinary discussion on this issue, which would provide valid conclusions for the needs of the planning practice, is developing rather slowly. The presented contribution is filling this research gap by analysing and assessing the potential of municipalities for metropolitan cooperation in post-socialist space (mainly through institutional cooperation), using a relevant literature, assessing the results of a questionnaire survey and empirical experiences from the model territory of Brno metropolitan area (BMA). The results of the research indicate a willingness to set-up more formal institutionalization of metropolitan cooperation. It would be feasible to transfer some competencies to a newly established metropolitan expert platform/agency. However, cooperation is significantly linked to the awareness of its benefits (not only of a financial character) and to the requirement of keeping 'basic' selfgoverning competencies.

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Regional policy; metropolitan cooperation; institutionalization; integrated territorial investment; Czech Republic; Brno metropolitan area

#### 1. Introduction

Post-socialist Central European countries, like the rest of Europe and the developed world, are currently facing a number of challenges, with big cities at the forefront of these challenges. They are the places where the majority of the population is concentrated and at the same time, the principal places of origin and further application of new economic and social processes and places from where innovations as changes of lifestyle are spreading. The cities are economic and organization cores of the areas called functional municipal

regions, catchment areas, metropolitan areas, agglomerations or daily urban systems. The mere existence of such multiple denominations indicates that these areas are considerably complicated, be it in regard to their development and governance, or regarding their spatial delimitation, economic and social structure, or their development in time (Cox, 1995; Pacione, 2009; Williams, 1999). It is this very complicated character, the multi-layered structure and the complexity that have been arousing long-term interest of experts from various research fields. From the scientific point of view, the issue of the development of cities and metropolitan areas is an interdisciplinary topic and belongs to the 'traditional' topics of regional science and is discussed within the social sciences by the fields such as geography, sociology, economics, political science, law and administrative science, as well as management.

The aim of the presented text is – on the background of the issue of the development of metropolitan areas in post-socialist countries, by discussing it with relevant scientific literature, by assessing and considering the results of our questionnaire survey, statistical analysis of the data and empirical experiences from the model area – to analyse and assess the intentions of municipalities towards the metropolitan cooperation in the socio-economic system of the Czech Republic, mainly through the institutional dimension of cooperation. The importance and the topicality of the presented text are illustrated through the support of metropolitan areas within the cohesion policy of the EU through the Integrated Territorial Investment tool (ITI). The mentioned links are presented and elaborated in the model territory of Brno metropolitan area, which is very active on this issue in the Czech Republic.

Regarding the potential of future metropolitan cooperation in Brno metropolitan area taking into account the intentions of mayors of BMA municipalities, we have identified the following three hypotheses, which are analysed, clarified and answered in the results and discussion:

H1: To maintain long-term metropolitan cooperation and development of BMA, the external financial resources are the most important factor.

H2: The majority of municipalities in BMA are willing to cooperate (and the willingness to cooperate decreases depending on how formal and institutionalized the form of cooperation shall be).

H3: The willingness of municipalities to cooperate is dependent on the distance from the core (city of Brno) and on the size of municipalities.

#### 2. Theoretical background

### 2.1. The development of metropolitan areas – a necessity for cooperation and finding a compromise

Due to the intersection of scientific disciplines dealing with regional science, there is a gradual change of paradigm lying in the shift in perception of the urban development from outdated planning and development within administrative boundaries towards considering more the interests of the actors being active within the natural functional urban regions (metropolitan areas). Furthermore, it is more and more difficult to reach 'an effective' development of metropolitan areas in today's world. The interactions in

metropolitan space are due to processes of decentralization, globalization and Europeanization - more interconnected (Hanssens, Derudder, & Witlox, 2012), and boundaries between urban, suburban, peripheral and rural areas are gradually fading away. Whereas political boundaries, which do not often agree with the functional space where the activities of most of the people take place, remain unchanged for decades (Bolgherini, 2011). Coordination and cooperation on the level of metropolitan areas are a necessity in order to solve huge urban challenges of the present time (Heeg, Klagge, & Oßenbrügge, 2003; Heinelt & Kübler, 2005; Salet, Thornley, & Kreukels, 2003). To make these activities work effectively, they require systematic and targeted intervention of the public sector (Brezzi, Piacentini, & Sanchez-Serra, 2015). If we proceed from the neo-Keynesian and institutional concept of regional development, regional policy is irreplaceable with its aims and tools that always need to be perceived and implemented in the context of the environment of the specific social system that influences the behaviour of the actors of the given region (Pahl, 1975).

Aims of the regional (in this case, metropolitan) policy may in the context of the basic simplified structuring of the theories of regional development derive from the convergent or the divergent concept (conflicting aims). In practice, we almost always encounter a combination of the above-mentioned approaches (Hall, 2007). Moreover, it is necessary to realize that - even when giving more consideration to the mentioned specifics of the social system - the desired regional development (objective) is getting more subjective, as it is related to the value orientation of stakeholders acting in the metropolitan areas (citizens, local authorities, etc.). The need to reach a consensus regarding the common planned objectives is becoming far more important (Cox, 1995), and it also determines the spectrum of chosen tools in the development of metropolitan areas (Klok, 1995).

A significant aspect of metropolitan policy is the issue of its spatial interpretation and viewing (Kloosterman & Musterd, 2001), or rather the territorial levels of its implementation (Feiock, 2009). A significant trend of regional policy at the national level is its interconnectedness with other state policies. Yet, some authors point out that the role of the national level in regional development is decreasing (the so-called de-nationalization -Heeg et al., 2003). In many countries, a new policy of endogenous development of metropolitan regions is being employed more, taking advantage of inner potential and focusing on the activation of regional actors. The region is not only perceived as a 'mere' object of the economic and political action, yet its responsibility for its own development and selforganization of metropolitan actors is more and more required (Ježek, 2015). This approach building on the New Regionalism focuses on the interconnectedness of metropolitan regions by emphasizing voluntary cooperation, informal networking and integration (Allen, Pereira, Raes, & Smith, 1998; Paasi, 2002; Spaans & Zonneveld, 2016) rather than top-down mechanisms to promote metropolitan coordination and cooperation among fragmented stakeholders (Katz, 2000; Paasi, 2013), while in practice, these approaches often influence each other (Kaczmarek & Kociuba, 2017).

The above-described development of perception of the metropolitan policy and cooperation is also due to European cohesion policy that underwent a significant change in the course of time. European cohesion policy originated as a policy focused on reducing differences between regions. Its aim is to reduce the underdevelopment of the most disadvantaged regions with the common aim to reach convergence and inner balance (Single European Act, cited as Act, 1987). This attitude encountered growing criticism after 2000. The Barca Report from 2009 became a huge milestone for the contemporary European cohesion policy, becoming the basis for the reform of tendency of EU regional policy. The report states that contrary to the up to now applied top-down approach, the reinforcement of the territorial approach towards the regional development (bottom-up) is more effective. This way, the endogenous potential of regions is supported, based on local knowledge of the environment – the so-called place-based approach. This direction of European cohesion policy was briefly projected in the Treaty of Lisbon (2009) and was implemented into new rules and legal regulations of EU cohesion policy for the period of 2014–2020. Under its terms, the so-called territorial dimension is reinforced, i.e. the subsidies from the European structural and investment funds are territorially aimed. Employing integrated tools is a part of the territorial dimension. The integrated territorial investments (ITI) are one of such tools. The ITI may (yet do not have to) be employed for the implementation of interbranch integrated strategies by interconnecting the thematic aims defined in the Partnership Agreement and Operational Programmes, which include the territorial dimension. ITI is a flexible tool that allows drawing of financial resources from several priority axes of one or more operational programmes. The key elements of the ITI are the delimitation of the given area, creation and implementation of the integrated strategy in the given area and setting up the mechanism of the management of the ITI (European Commission, 2014). The ITI tool is not employed in every European country (e.g. Denmark, Austria, Spain, Sweden), and the countries where the tool is employed use it in various areas. In e.g. Poland, the Czech Republic and Slovakia, the ITI is implemented on the level of functional urban regions, while at the same time there are countries where the tool is not employed territorially, yet only within chosen regions (e.g. the UK, Germany) - for more information see the interactive website application of European Commission.

#### 2.2. Metropolitan cooperation and its institutionalization

Together with a qualitative (development) and quantitative (growth) shift of metropolitan areas, there is a greater need to find a suitable form of networking and cooperation structure, either of formal or informal character – for reaching consensus. We can classify the dimensions of metropolitan cooperation according to Meijers, Hoogerbrugge, and Hollander (2012) as follows:

- (1) functional (spatial-functional networking based on metropolitan issues like labour market, transportation, education, the use of services etc.),
- (2) cultural (togetherness, confidence, identification, recognizability, marketing),
- (3) institutional (area delimitation, types of cooperation, planning process, conceptual documents, a form of governance, legislation, etc.).

These dimensions are formed and developed in parallel for the metropolitan area, yet within the institutional dimension, which is accentuated the most in our contribution, Franz and Hornych (2010) define a certain sequence that is first informal and voluntary (informal ad hoc meetings of various actors exchanging information), followed with first signs of formalization (regular meetings of working groups, common actions concerning the marketing of the region, cost-sharing between metropolitan actors on particular

projects/topics), which may reach the formal institutionalization (establishing an agency for metropolitan development, binding metropolitan programme and law, election of representatives of metropolitan region).

The institutional dimension of the metropolitan cooperation gives an account of the level of the institutionalization of the metropolitan areas (Tomàs, 2015) - even though the expert literature more often uses the term 'institutionalization of the metropolitan cooperation' (Vallbé, Magre, & Tomàs, 2018; in the Czech Republic e.g. Binek et al., 2015), or in the context of the European cohesion policy in the metropolitan areas the term 'institutionalization of the ITI structures' (Krukowska & Lackowska, 2017), or alternatively there is one more narrowly focused term 'institutionalization of metropolitan governance' (Zimmermann & Feiertag, 2017).

The institutionalization of the metropolitan cooperation should be understood as a creation of a package of coordinating measures, recommendations and framework regulations which will influence all actors within the metropolitan region. It is important to highlight that this term is perceived as being superordinate towards unfinished concepts by several authors such as governance of functional urban areas/metropolitan governance (Andersson, 2015; Herrschel & Newman, 2002; Kaczmarek & Mikuła, 2007 and many others) which are not elaborated here due to the limited extent of the text. No agreement on the optional institutional structure of metropolitan areas exists in the literature, yet the empirical researches clearly show that European metropolitan areas with governance bodies perform better on several aspects and issues: density, GDP per capita, etc. (Ahrend, Gamper, & Schumann, 2014). Even here, of course, a certain organization of metropolitan region always depends on circumstances that are typical for individual countries.

#### 2.3. The development of metropolitan areas in post-socialist countries

There are no doubts that urbanization cannot be generalized with regard to space or time. Leaving aside obvious differences between the development of the cities in the USA and in Asia, a whole range of dissimilarities can be found within individual European cities resulting mainly from the differences in their socio-cultural environment. This environment was developed in the second half of the twentieth century with an influence of specific factors which through a historical memory used to and still have an impact on the formation of functional municipal regions.

As far as the eastern and a part of central Europe are concerned (CEE countries), the origin and the development of metropolitan areas were affected by the post-war arrival of socialism that partially inhibited the natural development of metropolitan areas due to the central planning end economic and social equalization, The emphasis on heavy industry and to a certain extent 'artificial' system of centres of rural settlements accentuated by the polarization of the capital city (biggest cities) and the rest of the country (Lang, 2015) was in contrast to the deindustrialization and the development of the tertiary sector in the western European countries (Kunc et al., 2018), while there were obviously differences between these countries (Mykhnenko & Turok, 2008). The entire organization of the society of the CEE countries went through a lot of changes that also concerned the development of metropolitan areas (Aligica & Evans, 2009; Harloe, 2008). As Čermák, Hampl, and Müller (2009) states, even in these countries some trends and processes that formed the urban systems in the western countries could be fully employed and developed, yet with a certain delay and deformation. The processes of liberalization, privatization, restitution and gradual opening to the foreign investors became the tools of socio-economic changes. The metropolitan areas now play a much more important part in the socio-economic development of CEE countries than they used to in the past.

It is not a coincidence that the concept of the discussed metropolitan cooperation and planning appears in the scientific literature focused on the post-socialist central European space, and moreover, we may observe that in a plenty of western European metropolitan areas these new forms of cooperation and governance were not only set (Salet & Thornley, 2007) but are successfully in operation (Harrison & Hoyler, 2014; Wilks-Heeg, Perry, & Harding, 2002).

We will now focus only on such post-socialist central European countries that implement the ITI on the level of FUA (functional urban areas) on the entire area of its country, however, this does not mean that there is no discussion regarding the evaluation of the process of the metropolization and its institutionalization in other countries - see e.g. Benedek (2016) and Török (2015) in Romania. The authors agree that although the conceptional debate on metropolitan regions started relatively late in the EU, it played an important role in spatial planning and research mainly in CEE countries. A similar topic is approached by Viturka, Pařil, Tonev, Šašinka, and Kunc (2017) exampled by the case of the Czech Republic or Kebza (2018) and Bański, Degórski, Komornicki, and Śleszyński (2018) exampled by the case of Poland as well as Europe in general, while they both highlight an increasing specialization of the regional economy, as well as the growing differences between the metropolitan areas and peripheries. We are inclined to think that the differences will deepen in favour of the metropolitan areas, and it will contribute to the strengthening of their importance and subsequent necessity to administer them. In terms of the studies linked with cities and metropolitan areas in the context of European regional policy, Poland is a very suitable post-socialist space. Poland is the only state in post-socialist Central Europe where there are actually more large cities with a population of more than 500 000. In addition, the above-average financial allocation from the ITI is intended for Poland's FUAs (Van der Zwet, Bachtler, Ferry, McMaster, & Miller, 2017). According to Mikuła and Kaczmarek (2017), the national metropolitan reform in Poland, like in other post-socialist countries, is still in its initial stage. Whereas the experiences of the 'top-down' attitudes towards the building and development of metropolitan areas in Poland are so far rather brief and fragmentary, the 'bottom-up' initiatives of the local self-governments for metropolitan integration are the key tools for a more balanced development and territorial cohesion. On the other hand, Poland is a witness of a huge transformation of the metropolitan space. The 'double top-down' approach is sometimes mentioned here when implementing the ITI tool, when the European Commission directives were specified from the point of view of the national level. Therefore, Poland (similarly as the Czech Republic) is often in relation to the implementation of the ITI tool defined as 'the best pupil in the class' (Krukowska & Lackowska, 2017).

After almost 30 years of the post-socialist development, we can still observe in the central-European space a temporary absence of conceptual planning, administration and cooperation in metropolitan areas, which is considered to be the key weakness of the present spatial development (Serbanica & Constantin, 2017). Particularly, the institutional dimension of metropolitan cooperation focused on a new dimension of the territorial administration (governance) is absent here (Finka & Kluvánková, 2015), and not a long time ago it was a taboo. In this context, it is essential to mention that there is a significant pressure to support the cities and their hinterland, which comes from the regional policy of the European Commission through the ITI tool. Despite the criticism of the contemporary regional policy of the EU (cohesion policy) regarding the strong emphasis that it puts on financial (subsidy) tools and even a certain similarity with features that resemble the socialist central planning, often coming directly from the countries of the central and eastern Europe (e.g. Malý & Mulíček, 2016; Török, 2015), we tend to agree with other quoted authors that the importance of European regional policy is absolutely crucial when trying to set up and institutionalize metropolitan cooperation.

#### 3. Context of the Czech Republic and Brno metropolitan area

In the Czech Republic, activities related to the development of metropolitan planning and governance are still rather sporadic. However, in the last two decades the situation has changed, the experts and policymakers now show more interest in the research of metropolitan areas (among others thanks to the ITI), approaches and methods for their delimitation are coming into focus (e.g. Hübelová, Kozumplíková, Jadczaková, & Rousová, 2018; Klapka, Halás, Netrdová, & Nosek, 2016; Kostelecký & Čermák, 2004; Mulíček & Osman, 2018; Sýkora & Mulíček, 2009; Tonev et al., 2017), and at the same time initial activities (primarily concerning the planning practice) related to the development of metropolitan planning, cooperation and institutionalization of metropolitan areas appear (Binek et al., 2015; Havlík, 2018; Maier, 2003; Slach, Nováček, & Rumpel, 2015; Šašinka & Zvara, 2014).

Even though the Czech metropolitan areas differ from the metropolitan areas of the world metropolis mainly due to their small significance within the global economy, they hold an important position within the Czech Republic regarding the settlement network, economic, political and cultural sphere, which is distinctly perceived also within the space of the entire central Europe (Musil, 2003). At the same time, it is necessary to mention that the settlement structure of the Czech Republic is typical for its high number of small self-governing municipalities compared to other European countries, which brings along plenty of issues resulting from the small size (Swianiewicz, 2002). Integration methods employed elsewhere in Europe need to be applied very carefully under the conditions of the Czech Republic taking into account the recent historical development and preferably focus on deepening of the cooperation of all involved subjects at the expense of the integration efforts.

The metropolization of the space of the Czech Republic was (and still is) fundamentally determined by the specifics from the communist period: intensified geographical unevenness of the settlement and hierarchy of the centrality (a massive ordered amalgamation of municipalities during 1970s and 1980s)<sup>2</sup>, concentration of population into the areas of heavy industry, slowdown in the development of the largest centres in the country and subsequent population decline in the hinterland of larger cities or the attempt to remove the self-government. These specifics overshadowed the processes of forming natural functional municipal regions<sup>3</sup> (Čermák et al., 2009). They did not start to form until the period of transformation, and although it was delayed compared to the western countries, the more turbulent it was (Musil, 2003). After 1989, it is consequently reverted to a natural developmental trajectory that was typical for the western part of Europe. Relating the metropolitan cooperation development, it is crucial to mention the re-establishing a municipal self-government by law in 1990. It gave birth - according to Maier (2003) - to 'communal egoism' and reduced the possibility to achieve a wider coordination of development, even on the level of functional urban areas. Since 2001, new regions have been in existence as territorial units (NUTS 3) with self-government powers which are analogous to those of municipalities. Also, regional self-governments have both representative and executive components. The regions cover the entire area of the Czech Republic, yet they may be considered to a certain extent as the artificial self-governing territorial units that do not overlap with the natural space of functional urban areas. Taking into consideration the contemporary legislative framework on the municipal and regional level, the creation of the metropolitan level of management and administration is rather complicated.

Also, the metropolitan area of Brno that was being formed back then (still without any specific delimitation and denomination) was greatly influenced by the transition to the market economy in the 1990s. It appeared that the attractiveness of some of the centres of settlements dropped significantly after the restriction of state subsidies and a subsequent decrease in the number of job vacancies. The period of transformation may be perceived as a certain cleansing process, after which in the following decade middle-sized and smallsized centres stagnated or were in decline. The most dynamic development was the one with large natural centres that started to allure job commuters from more distant areas. Since the middle of the 1990s, the process of suburbanization has been underway with a reversed vector of influence. The two-way functional interaction between Brno and its hinterland further intensifies and becomes larger as far as space is concerned, the position of Brno as a centre of this region is getting stronger<sup>4</sup>, which causes a bigger polarization of the territory of Brno metropolitan area (BMA).

In this respect, a need for a specific formalization of cooperation has been gradually initiated within the area of BMA after 2010 by the core city (bottom-up approach), primarily on the practical basis (solving the concrete issues such as sustainable mobility, coordination of residential and commercial development, waste management, etc.). It was just an ad hoc solution (informal voluntary meetings) with missing conceptual approach, which was furthermore limited by the fact that the institutional concept of metropolitan cooperation was not embodied in the Czech spatial planning system.

A new territorial tool ITI may be described as the principal catalyst of these processes in the BMA. It was transformed from European documents to the relevant documents at the national level (within the authority of the Ministry of Regional Development of the Czech Republic), and in cooperation with the major cities, it created a methodical document for the implementation of the tool ITI in the Czech Republic.

Here, the synergy of top-down and bottom-up approach in the development of metropolitan areas in the Czech Republic was fully and positively manifested, along with the essential need for their particular systematisation, formalization and a long-term concept (see the mentioned institutional level of cooperation). As soon as the Czech Republic definitely entered to use the tool ITI at the level of functional municipal areas (use of this tool was left to each member of the EU country to decide), Brno continued in its activities in metropolitan cooperation from the previous years and made a multilateral informal agreement (Memorandum on cooperation) with South Moravian Region and five other major surrounding municipalities with extended powers<sup>5</sup> in the hinterland of the city of Brno. The memorandum includes the declaration of an interest to cooperate within the area of BMA when preparing and fulfilling the Integrated strategies of the development of BMA for employment of the tool ITI and cooperation going beyond 2020. The Memorandum agreement is perceived as an opening of the space for mutual discussion, consultation, providing information and common procedures in accordance with the purpose of the Memorandum.

For the purpose of the tool ITI, Brno metropolitan area (BMA) was delimited, corresponding with the area of FUA. This area includes 167 municipalities with a population of approximately 620 000 (see Figure 1).

At the end of 2015, the Integrated strategy of the development of the Brno metropolitan area was approved using the tool ITI. An almost two-year intensive cooperation on this conceptual document was based on a participative method – i.e. involving a range of partners from municipalities and other significant subjects. The strategy includes apart from the proposals of thematic interventions and measures a complete set of analytical information from Brno metropolitan area.

For the first time, a more detailed mapping was conducted, and the available data was collected, analysed and interpreted, all at the level of the functional municipal region. Apart from the strategy itself, informal professional and political managing structures were formed including the representatives of the major municipalities of BMA that are in charge of fulfilling the strategy. The mentioned activities are gradually supported by an appropriate marketing support (logo of BMA, presentation of executed projects,

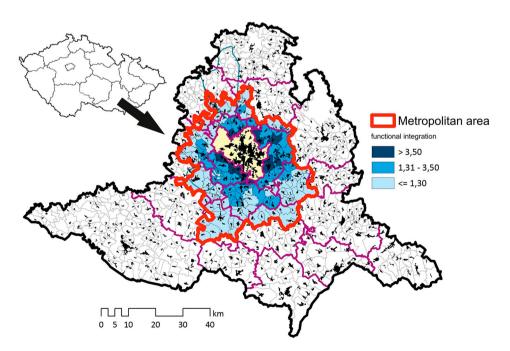


Figure 1. Delimiting of Brno metropolitan area for the needs of tool ITI. Source: Mulíček, Seidenglanz, Franke, and Malý (2013), own processing.

map applications, conferences, exhibitions, competitions, etc.), which leads to the strengthening of the cultural dimension of metropolitan cooperation.

Gradually, the subjects are more interested in a further cooperation within the Brno metropolitan area, which in future will not have to be restricted to the intersection of topics regarding the territorial needs and the limits of the cohesion policy of EU and will not be either limited by any time period to draw European subsidies. The EU thus provided us through the tool of integrated territorial subsidies (ITI) with an impulse to deeper spatial analyses, and in a certain way, a process of metropolitan cooperation was initiated with a gradual institutionalization not only in the Czech Republic but in the entire post-socialist space as well.

#### 4. Methods and data

Compared to other Czech cities, the city of Brno is at present one of the leaders in terms of the issue of the development of cooperation and planning on a metropolitan level. Gradually, all three dimensions of metropolitan cooperation - functional, institutional and cultural were accomplished within BMA. At the same time, it is necessary to bear in mind that the current cooperation is motivated predominantly by the opportunities of external financing within the end of 2020.

To guarantee that this cooperation is targeted as best as possible for future, the questionnaire survey was conducted during the summer of 2017 among the mayors of all 166 municipalities in the area of BMA under the auspices of the city of Brno called 'The opportunities and a potential for a long-term cooperation in BMA'. The aim of this rare survey was to determine, among other things, whether the hinterland of Brno perceives the benefits of the cooperation with neighbouring municipalities and whether it wishes to join actively even after 2020. The digital questionnaire containing 16 questions was focused on all three above-mentioned dimensions of metropolitan cooperation – i.e. functional, cultural as well as institutional, while the questions were designed as closedended, half-open and open-ended (see Supplemental data). In this respect, we are aware of the fact that the options of 'yes-no' answers might be rather simplifying in regard to the complexity of the issue. Yet, a research of such an extent and focus is unique in the Czech Republic, so there is space for a further research that would analyse the selected phenomena in more details.

Before the final distribution of the questionnaire among all municipalities of BMO, there was a piloting with two municipalities and the questionnaire was then slightly rectified regarding the formulation of the questions. The return rate of the questionnaire was 88% (146 municipalities), which bears a good information value and proves that municipalities are interested in the issue of metropolitan planning. For the purpose of this contribution, we closely analysed 6 answers concerning the institutional dimension of metropolitan cooperation, ranging from informal character (willingness to cooperate; WTC), willingness to establish formalized agency/platform oriented to metropolitan cooperation and development of BMA (WEP), willingness to contribute to a potential metropolitan fund that would serve for financing of the jointly chosen topics that would be decided upon by the representatives of the municipalities of BMA (willingness to fund; WTF), willingness to transfer of some municipal competencies to a higher level in order to make the management more efficient (WTR) and ending with the willingness to

discuss the possibility of the municipality merging with another one in order to make the management more efficient and to create one self-governing entity (willingness to merge; WTM) - see Box 1.

Box 1. Questions of the questionnaire entering the analysis. Source: own research.

Question	Form of responses and response options	Variable; hypothesis concerned
Is your municipality willing to participate in metropolitan cooperation within the framework of BMA? If yes, how?	a) DEFINITELY YES – active participation (describe how) b) RATHER YES – passive participation (describe how) c) DEFINITELY NOT (describe why)	WTC; H2, H3
Which of the following factors are the most important for establishing and maintaining a long-term metropolitan cooperation and development of BMA in future?	(select up to 3 options) a) Strong political leadership on a municipal level b) Strong political leadership on a regional level c) Strong political leadership on a national level d) Strong clerical/expert leadership e) Awareness of metropolitan cooperation benefits f) External financial tools for project funding g) Ability of consensus and compromise h) Balanced representation and decision-making i) Other (please specify):	-;H1
Can you imagine establishing a formalized subject/agency oriented to metropolitan cooperation and development of BMA in future? If yes, should it be a political or an expert platform? What should be its competencies/powers?	(open-ended question)	WTF; H2
Can you imagine the possibility that your municipality would contribute from its budget to a possible metropolitan fund that would finance topics selected jointly by representatives of the BMA municipalities?	YES – NO – unable to answer	WEP; H2
Would you discuss the possible transfer of some municipal competencies to a higher (metropolitan) level in order to make the management more efficient?	YES – NO – unable to answer	WTR; H2
Would you discuss the possibility of your municipality merging with another one in order to make the management more efficient and to create one self-governing entity?	YES – NO – unable to answer	WTM; H2

Answers to these questions were also graphically demonstrated in a table or map of BMA in the environment ESRI ArcGIS.

Thereafter, the data from the questionnaires were digitalized and analysed using SPSS software. We carried out a statistical analysis to investigate a possible occurrence of significant differences between basic characteristics of municipalities - independent variables (distance from Brno city, population, income per capita and index of functional integration) and dependent variables WTC, WEP, WTF, WTR and WTM. Considering the exploratory nature of our study and the relatively small sample size, we attempted to keep a balance between the quantitative analysis and the qualitative discussion of the patterns found. Thus, we put less emphasis on the complexity of the analysis and concentrated more on the interpretation of its statistically most evident findings. Thus, we used the analysis of variance (ANOVA) for comparing the mean values of distances and population and a bivariate cross-correlation analysis of the characteristics of municipalities and their willingness to cooperate, fund and merge.

#### 5. Results

We have revealed significant differences in the distance of the municipalities from Brno, their population and their willingness to cooperate. There are also significant differences in the distance of the municipalities and their willingness to fund. There is, however, no significant relationship between the distance and population and willingness of municipalities to merge with other municipalities (see Table 1). This attitude will be dependent on other factors, which cannot be covered by the analysis and thus will be discussed separately below.

Then, for the purpose of the following summing-up correlation analysis the categorical variables were transformed into the so-called 'dummy variables' by merging three original categories into two categories with binary coding (1 = Yes, 0 = No). The results of the correlation analysis are presented in Table 2. The table demonstrates the correlation between the dependent and independent variables. Provided that we take into consideration only the mutual relations dependent on the variables, we find that the strongest positive correlation is between the willingness to cooperate and the willingness to establish a formalized subject/agency. The answers concerning the willingness to establish a subject/agency and transfer the competencies also correlate with the willingness to cooperate and be involved financially. Yet, they do not correlate with the independent variables (destination, size, integration, incomes) at all. It has been also revealed that there is no significant relationship between the municipal income (neither in absolute nor per capita values) and the willingness of the municipality to cooperate. Low, yet significant correlations at the level of 0.01 (with the 'principal' question concerning the willingness to cooperate, the influence of the distance and size of the municipality is evident), or no correlations are predominantly caused by the small number of analysed units and also by the fact that almost one-fifth of the municipal representatives were not willing or able to answer the additional questions.

Table 1. Differences in the average distance and population of the municipalities that are or are not willing to cooperate, fund and merge.

Municipa	alities	Average distance (km)	F	df	Sig.	Average population (number)	F	df	Sig.
Willing to	No	24.2	7.23	2	.001	1,483	2.88	2	.060
cooperate	Rather yes	22.7				1,124			
•	Definitely yes	19.3				1,843			
Willing to fund	No	23.2	5.52	2	.005	1,367	1.28	2	.281
	Not sure	22.0				1,273			
	Definitely yes	18.9				1,823			
Willing to merge	No	21.5	0.72	2	.489	1,393	0.49	2	.613
	Not sure	21.1				1,546			
	Definitely yes	23.8				1,906			

Notes: Result of the ANOVA, F-values, degrees of freedom and probability levels.

**Table 2.** Inter-correlation matrix of basic characteristics of municipalities and their willingness to cooperate, fund, merge, establish an agency/platform and transfer competencies.

Distance	Population	Functional integration	Income per capita	WTC	WTF	WTM	WEP	WTR
1.000								
-0.138	1.000							
-0.811**	0.140	1.000						
0.141	0.146	0.080	1.000					
-0.198*	0.105	0.243**	-0.054	1.000				
-0.262**	0.160*	0.271**	-0.028	0.307**	1.000			
0.080	0.093	-0.034	0.025	0.096	0.090	1.000		
-0.078	0.018	0.133	0.025	0.545**	0.362**	0.073	1.000	
-0.042	0.003	0.001	0.121	0.309**	0.098	0.146	0.251**	1.000
	1.000 -0.138 - <b>0.811</b> ** 0.141 - <b>0.198</b> * - <b>0.262</b> ** 0.080 -0.078	Distance         Population           1.000         -0.138           -0.811**         0.140           0.141         0.146           -0.198*         0.105           -0.262**         0.160*           0.080         0.093           -0.078         0.018	Distance         Population         Functional integration           1.000         -0.138         1.000           -0.811**         0.140         1.000           0.141         0.146         0.080           -0.198*         0.105         0.243***           -0.262**         0.160*         0.271**           0.080         0.093         -0.034           -0.078         0.018         0.133	Distance         Population         Functional integration         Income per capita           1.000         -0.138         1.000         -0.811**         0.140         1.000         1.000         -0.141         0.146         0.080         1.000         -0.094         -0.054         -0.054         -0.054         -0.028         0.080         0.093         -0.034         0.025         -0.078         0.018         0.133         0.025	Distance         Population         Functional integration         Income per capita         WTC           1.000         -0.138         1.000         -0.140         1.000         -0.0811**         0.140         1.000         1.000         -0.0141         0.146         0.080         1.000         -0.0198*         0.105         0.243***         -0.054         1.000         -0.0262**         0.160*         0.271***         -0.028         0.307**         0.080         0.093         -0.034         0.025         0.096         -0.078         0.018         0.133         0.025         0.545***	Distance         Population         Functional integration         Income per capita         WTC         WTF           1.000         -0.138         1.000         -0.140         1.000         -0.0811**         0.140         1.000         1.000         -0.0141         0.146         0.080         1.000         -0.0198*         0.105         0.243***         -0.054         1.000         -0.0262**         0.160*         0.271***         -0.028         0.307***         1.000         0.080         0.090         -0.094         0.025         0.096         0.090         -0.078         0.018         0.133         0.025         0.545***         0.362**	Distance         Population         Functional integration         Income per capita         WTC         WTF         WTM           1.000         -0.138         1.000         -0.140         1.000         -0.141         0.140         1.000         -0.0141         0.146         0.080         1.000         -0.0141         0.05         0.243***         -0.054         1.000         -0.0262**         0.160*         0.271***         -0.028         0.307***         1.000         0.008         0.093         -0.034         0.025         0.096         0.090         1.000         -0.078         0.018         0.133         0.025         0.545**         0.362***         0.073	Distance         Population         Functional integration         Income per capita         WTC         WTF         WTM         WEP           1.000         -0.138         1.000         -0.138         1.000         -0.140         1.000         -0.141         0.140         1.000         -0.0141         0.046         0.080         1.000         -0.0198*         0.105         0.243**         -0.054         1.000         -0.0262**         0.160*         0.271**         -0.028         0.307**         1.000         1.000         -0.080         0.093         -0.034         0.025         0.096         0.090         1.000         -0.078         -0.078         0.018         0.133         0.025         0.545**         0.362**         0.073         1.000

Notes: WTC – Willingness to cooperate; WTF – Willingness to fund; WTM – Willingness to merge; WEP – Willingness to establish an agency/platform; WTR – Willingness to transfer competencies. The values of correlation (Pearson's *r*) are significant at the level \*\*<0.01 or \*<0.05.

Significant correlations are in bold.

Source: authors' survey.

When comparing the answers to the individual dependent variables according to the level of formalization and institutionalization in order to test the hypothesis H2 (Table 3), we find that the first part of the hypothesis is valid (more than 75% of municipalities are willing to cooperate), yet it does not hold true that with a more formal and institutionalized cooperation, the willingness of municipalities to cooperate subsequently decreases. It is surprising that almost one-third of all municipalities can conceive of transferring part of their competencies to a different level, while a less than one-fourth can conceive of contributing to a potential metropolitan fund. The willingness to establish formalized subject/agency will be analysed separately further in the text.

When closely analysing the mapping approaches that take into consideration wider perspective and a certain level of generalization, it is apparent that the municipalities with a shorter distance from Brno are more willing to cooperate (Figure 2), which is also confirmed by a statistical analysis. These are usually municipalities that are morphologically interconnected with the core (MUA). An important catalyst of such cooperation is the tool ITI, or rather a gradual and systematic informal institutionalization of the cooperation, in the process since 2014, based on the interest of the municipalities to cooperate and produce a strategic development document for BMA. The results of our questionnaire survey that was conducted in 2017 demonstrate that the municipalities in BMA are willing to cooperate, and what is more, they are interested in an active partner-ship i.e. to have an opportunity to influence the form of cooperation. Overall, to clarify H3, the willingness of municipalities to cooperate is dependent on distance from the core (city of Brno) but is not dependent on the size of municipalities.

**Table 3.** A comparison of the answers to individual dependent variables according to the level of formalization and institutionalization.

% Variable	Yes / rather yes	No	Unable to answer	No data
WTC	75.3*	12.7	_	12.0
WTF	22.3	32.5	33.1	12.0
WEP	50.0	29.5	8.4	12.0
WTR	29.5	36.7	21.7	12.0
WTM	6.6	72.3	9.0	12.0

Notes: N = 166; \*The value shows the total of the answers 'yes' (33.1%) a 'rather yes' (42.2%).

Source: authors' survey.

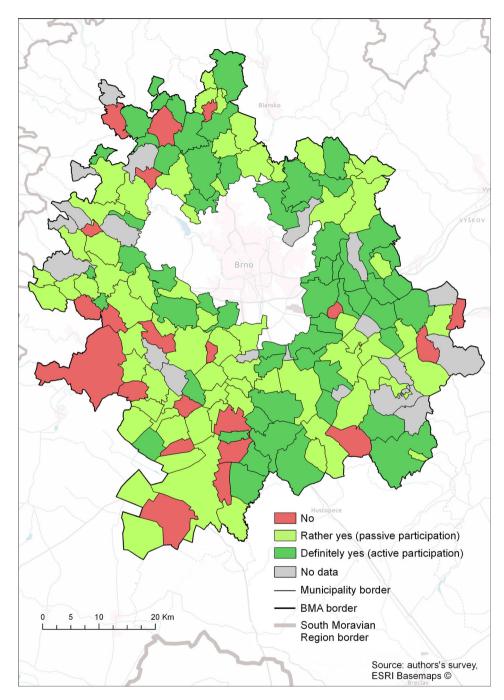


Figure 2. The willingness of municipalities to cooperate within BMA.

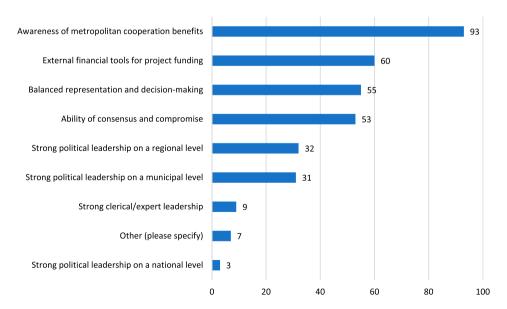
It is also evident that the cooperation of the municipalities in the development of BMA is motivated by the financial incentives (ITI). The current European cohesion funds may not be available in the future in such an amount and such a thematic range. It is thus necessary to search for alternative financial sources (on national, metropolitan or

municipal level), for which it is essential to adjust the legislation and revise the fiscal federalism of the Czech Republic for the future and thus strengthen the financial independence and the responsibility of the municipalities. According to the ascertained data, it has been revealed contrary to the former hypothesis H1 that the external financial resources are not the most significant factor for the future maintaining of a long-term metropolitan cooperation and development in BMO, yet it is the awareness of the benefits of the metropolitan cooperation (not only of financial character) – see Figure 3. The hypothesis H1 was thus not confirmed.

In terms of the willingness to contribute to a potential metropolitan fund, the situation is a bit different than in case of the willingness for cooperation. The distance of individual municipalities from the core is a significant variable, too, which influences to a great extent the decision-making process of municipalities, the willingness is yet less low (Figure 4). At the same time, the biggest manifestations of suburbanization can be detected in the immediate proximity of the core (as well as the biggest manifestations of negative metropolitan externalities), which has an impact on the economy of the municipality – for this reason we can observe here the biggest effort to raise supplementary funds, even at the cost of creating additional formalized structures and rules.

As far as the establishing of the formalized platform/agency is concerned, exactly one-half of the municipalities can conceive of its establishment, which is a rather high number. This may be caused by the chosen method as this was, contrary to other variables, an open-ended question with scope for comments. They reveal that 71% of the municipalities that can conceive of the establishment of the formalized platform/agency would prefer expert platform, 5% political, 16% a combination and the opinion of the rest of the municipalities is not clearly defined.

The municipalities of BMA form approximately one-quarter of the entire number of municipalities in the South Moravian Region (NUTS 3), and it is one half regarding the



**Figure 3.** The most important factors for establishing and maintaining a long-term metropolitan cooperation and development of BMA in future.

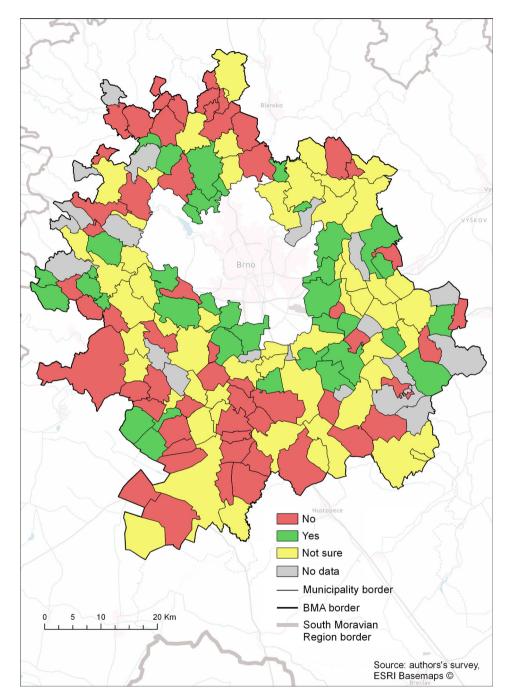


Figure 4. The willingness of municipalities to contribute into a potential metropolitan fund.

population. The questionnaire survey refers to a strong unwillingness of municipalities to discuss a possibility of merging with another one in order to make the management more efficient and to create one self-governing entity, regardless of the distance from the core, the population number or the indicator of functional integration. Here, the above-mentioned specificities of the development of functional regions in the Czech Republic and lack of experience with municipal cooperation get reflected, based on a unique historical memory. The integration methods applied elsewhere in Europe are almost inapplicable under the conditions of the Czech Republic, therefore it is necessary to concentrate on the deepening and subsequent formalization of the cooperation of all involved subjects at the expense of the integration efforts.

On the other hand, it needs to be mentioned that even though the willingness of the municipalities to merge is minimal, the results of the questionnaire reveal that almost one-third of the municipalities are willing to discuss the transfer of some competencies to a higher (metropolitan) level. This fact proves that the self-governing 'communal egoism' is gradually weakened when more and more smaller self-governing municipalities realize that the price paid for the full self-government may be too high and not always is efficient. This may be a future signal for the national level to implement the reform of the self-government which would allow more for the natural functional regions and their inner relations. Before this happens, we may use relatively explicit results of the survey leading to a partial solution, which is to establish an expert apolitical platform/agency on the metropolitan level - a metropolitan office. It would be necessary though to thoroughly consider not only the willingness of the individual municipalities and the financing aspect but mainly the transfer of chosen competencies from both the municipal and regional levels. In this sense, it has to be taken into account that none of the involved parties will surrender its competencies unless they are fully aware of the benefits of the given solution (e.g. the use of the ITI tool) which may be an adequate compensation of such a 'loss'. The possible solutions thus hold the balance of power in the management of the endogenous development of the region, which is characterized by a strong leadership.

#### 6. Conclusions, implications and discussion

The issue of formation and development of metropolitan cooperation within the central post-socialist space is gradually becoming a subject matter of interdisciplinary scientific discussions, and it provides us with a huge potential for a further research and practical application. There is a shift in the perception of urban development when planning within administrative boundaries is rather a thing of the past, while the interests of the actors being active within the natural functional municipal regions are more and more taken into consideration. During the last several years, we have witnessed a significant progress in the development of functional, cultural and institutional dimension of metropolitan cooperation in many European countries due to the impulse from the European Commission and the implementation of the territorial tool ITI (Krukowska & Lackowska, 2017; Vallbé et al., 2018; Van der Zwet et al., 2017). The informal metropolitan cooperation is becoming more formalized and institutionalized.

The concepts of metropolitan cooperation and planning reach further than the year 2014, i.e. the origin of the new programme period of EU. This concept had been discussed as early as since the 1990s in the developed countries of western Europe (and USA) within the broad context of new regionalism, metropolitan governance, spatial planning and regional policy (Heeg et al., 2003; Heinelt & Kübler, 2005; Salet & Thornley, 2007; Williams, 1999).

Although the ITI, as an instrument for the sustainable development of a given territory, are initiated by the European Commission, not every member country uses this instrument and, moreover, each country concerned approaches this new instrument in a somewhat different way, which is understandable in terms of territorial and political specifics but also causes both methodical and application discontinuities. From the post-socialist countries of Europe, ITI took 'especially' the Czech Republic and Poland (applied also in the other five CEE countries), where the 'top-down' principle of the EU directive was reinforced by national level specificities (Havlík, 2018; Mikuła & Kaczmarek, 2017; Slach et al., 2015), or for attempts at metropolitan cooperation and planning in previous years (Čermák et al., 2009; Lackowska & Zimmermann, 2011; Maier, 2003 etc.).

As far as the metropolitan environment of central Europe is concerned, three decades of specific post-socialist development together with a 15-year-long involvement in the European structures have not generated any significant status within the political-economic and spatial redistribution of power. In regard with the existence of various traditional types of regions with a significant purpose and being established for decades (regions, voivodships, and the like), the institutionalization of metropolitan areas will be in a difficult position. Despite this fact, the present day is most favourable in history to the development of various forms of metropolitan cooperation and planning in the countries of CEE.

The role of the Czech Republic concerning the setting and the development of the metropolitan cooperation has been for a long time merely a passive one, the current activation is more likely a consequence of the external pressure from the EU through the Europeanization of the tools of regional policy. Despite all that, a rare synergy of mutual topdown and bottom-up approach was initiated here, consisting of a unified methodical coordination of the strategic planning on the level of seven functional municipal areas using the tool ITI. The attitudes of the individual Czech metropolitan areas towards the perception of metropolitan cooperation range: from a passive role of a mere recipient of European funds over to a conceptual long-term creating of the individual dimension of metropolitan cooperation.

Unless the Czech Republic wishes that the development of individual metropolitan areas is fragmented and imbalanced (Feiock, 2009), the country is facing a fundamental political decision that lies in the settlement of the deficit from the previous periods, understanding and taking into consideration the unique historical memory of the area, and an adequate projection of the metropolitan concept into the spatial planning system of the Czech Republic, where concepts from other countries must be applied very cautiously and might not be easily replicated. The dualism in planning might cause difficulties as there are two planning subsystems: territorial and strategic, which are not interconnected, and at the same time, there are two codified levels of self-administration authorities on the municipal and regional level, and it would be necessary to stipulate their competencies and debug the potential overlapping.

The results of the, at least in the Czech Republic, unique questionnaire survey mapping the subjective intentions of the mayors towards the metropolitan cooperation demonstrates that the willingness of the representatives of the municipalities in BMO to cooperate is relatively high. The willingness to cooperate decreases with the increased distance from the centre, yet it is not influenced by the size of the municipality. It is revealed at the same time that it is not the external financial resources but the awareness of the positives of the metropolitan cooperation that is the most significant factor. In accordance with the level of formalization and institutionalization of the metropolitan cooperation according to Franz and Hornych (2010), the intentions of mayors were also mapped ranging from the lowest to the highest formalization of cooperation. It was assumed that the willingness of the mayors to engage in the least formal cooperation will be the highest, and it will decrease with the increased formalization. This hypothesis proved wrong, as it was revealed, besides other things, that more mayors prefer the transferring of some competencies to a higher (metropolitan) level than the less formalized shared financing of common projects. The survey illustrates that three fundamental factors described in the study of Heinelt and Kübler (2005) will be manifested in further institutionalization of the metropolitan cooperation and development of the BMO area: willingness to collaborate which is related to the tradition to collaborate (in our case the specifics of the historical post-socialist development), incentives for cooperation (ITI tool and awareness of other benefits) and strong (political) leadership within the endogenous development of the metropolitan region.

For these reasons, it is essential that in Brno metropolitan area the continuity of existing cooperation and conceptional development of the entire functional region is maintained and these experiences are transferred to the national level. We expect the tool ITI to be used for the sustainable development of functional municipal areas on a European and national level even after 2020 (European Commission, 2018) and a significant variable is being clarified in this issue. The strong leadership of the metropolitan region is the essential factor becoming the main determinant of the institutionalization of metropolitan areas not only in the Czech Republic but also in the entire central European post-socialist space.

#### **Notes**

- 1. It is more suitable regarding the attainability to use the formulation 'the development on which there is a mutual agreement' rather than the term effective.
- 2. Just in between 1970 and 1980, the number of self-governing municipalities dropped by almost 3 000 (7 511 municipalities in 1970 and 4 778 in 1980).
- 3. Apart from the so-called Settlement Regional Agglomerations and Municipal Regions that were artificially created by the former socialist planners in the first half of the 1980s, which never performed their administrative function and after 10 years were formally
- 4. The second largest municipality of BMA is the city of Kuřim with a mere population of 11 000 in 2018 while the average population size of a municipality of BMO (without Brno) is only 1 455 inhabitants.
- 5. Municipalities with extended powers are centres of the so-called small districts that perform competencies that are delegated from the state level to the local level (within their administrative area). There is an ongoing discussion about their granted self-governing competencies for future.

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