

## Along the path to metropolitan cooperation via metropolitan unit establishment: Case of Brno Metropolitan Area, Czech Republic

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**Abstract:** *Former socialist countries still suffer from the absence of planning at a higher administrative level. To develop a metropolitan governance model, strengthen the partnership between the hinterland and core cities, and eliminate obstacles stemming from the local government fragmentation, the paper aims to introduce the steps for the institutionalization of metropolitan cooperation in the Czech Republic, being demonstrated by the example of the Brno Metropolitan Area (BMA), a leader in the development of intermunicipal cooperation. The procedure is based on transferable experience from foreign countries and robust surveys among mayors in BMA (carried out in 2020, 175 municipalities, 96% response rate) and tens of experts on metropolitan issues. Selected results show that a mutual willingness to create an institution (metropolitan unit) responsible for harmonic metropolitan development, delegate some municipal competencies to a higher level and to contribute to a metropolitan fund was found. The participation of municipalities in the institution is proposed indirectly through voluntary association of municipalities, which would be intermediate between local and metropolitan levels. However, for implementation at the national level, a valid and effective legislative regulation is needed.*

**Keywords:** *metropolitan regions; metropolitan unit; municipality governance; spatial planning; Czech Republic*

### Introduction

Cities are considered to be living systems in whose territory not only the cities' residents but also work/school commuters from surrounding municipalities are concentrated and thus perform city-serving and city-forming functions. Therefore, we may view the cities as economic and organizational centres of the units called functional urban areas (FUA), agglomerations, or metropolitan areas (Dijkstra and Poelman 2012). The diversity of these names suggests that they are usually highly complex areas in terms of development and governance, be it spatial delimitation, economic and social structure, or evolution over time (Cox 1995, Williams 1999, Pacione 2009). It is just the complexity, sophistication and multi-layered feature that attracts the interest of scholars from many disciplines during the whole century.

The term of "metropolitan area" is mainly used in the professional geographically oriented literature to refer to a city and its hinterland, whereas there is no uniformly accepted definition of the term. A general term of "metropolis" used to have several meanings such as the mother city, the capital city, the capital of an ecclesiastical province, etc. (Blotevogel 2001). These days, political, social, and economic connotations clearly dominate in the discourse on metropolises or cities, whereas metropolitan regions represent an arrangement of stakeholders from various territorial levels and social areas attempting to develop and elaborate the basis for cooperative behaviour (Franz and Hornych 2010, Sassen 2018).

In order to search for effective models of cooperation and partnership between cities, municipalities, and other institutions in metropolitan regions, it is necessary to focus on the concept of governance, which represents a set of many public and private sector institutions at various territorial levels that work together with the aim to develop the territory (Jouve and Lefèvre 2002). While the concept of governance itself does not refer to any geographical scale (Jordan 2008), in the case of metropolitan governance it is applied to a specific type of territory.

According to Krukowska and Lackowska (2017), metropolitan governance addresses the question of how tasks involving more than one administrative unit can be performed effectively without autonomy and local democracy being put in risk. This fact is also linked to the final step for creating effective cooperation and coordination between various levels of administration, public and private institutions, organizations, and other players, which is the institutionalization of metropolitan (intermunicipal) cooperation. This practice is already common in many Western countries. In the conditions of post-socialist countries, including the Czech Republic, it is beginning to emerge gradually, mostly as a result of external pressure generated by the European Union and its regional policy instruments.

Cooperation at the level of metropolitan areas in the Czech Republic has yet been an omitted level of intermunicipal cooperation. Therefore, its effective functioning requires setting up the processes and legislative conditions the non-existence of which significantly determines the current state of cooperation in urban regions. Moreover, the determination of metropolitan areas for the needs of management of spatial (strategic and territorial) development is not unified under the current Czech conditions. Metropolitan cooperation represents the top level of municipality cooperation in terms of hierarchy in functional urban areas. These territories are distinguished by a high level of urbanization and population concentration, the concentration of economic activities, science/research, and intensive social/economic relations (commuting, etc.) between the centre, and its hinterland (Tonev et al. 2017, Kunc et al. 2021).

In the Czech environment, there is no formal institution responsible for metropolitan issues – no legal framework has been so far established and cooperation at the level of metropolitan areas in has yet been an omitted level of intermunicipal cooperation. The metropolization of the Czech Republic is fundamentally influenced by the unique historical memory of space and specificity from the communist period. One of the key facts is the high number of small self-governing municipalities. Further solutions will necessarily have to consider the specifics of the Czech environment (not only historical ones). The metropolitan concepts used elsewhere in Europe must be applied in Czech conditions with great consideration, taking into account recent historical developments and legislation framework.

Urban development cannot be limited by administrative boundaries, and that the contemporary problems and challenges need to be addressed under agreement between the city and its surrounding municipalities. The aim of this paper is, based on the extensive research in the model of Brno metropolitan area (BMA) and subsequent analyses, to develop a procedure that would support the institutionalization of metropolitan cooperation and implement effective governance at the level of metropolitan areas in the Czech Republic.

## **Theoretical background**

### **Metropolitan areas and their governance**

The classical professional literature comes to the agreement that the emergence of metropolitan areas can be considered, in terms of development, as a higher level of urbanization linked to the development of post-industrial processes (Hall and Hay 1980, Van den Berg et al. 1982). From an economic point of view, metropolitan areas are characterized by a high level of economic activities and consumption, resulting in increasing economies of scale, high labour productivity, and high wage level, but also high input prices in the form of high wages,

land/property prices, etc. (Boix et al. 2012). Urbanization and agglomeration economies or benefits are crucial mechanisms for the development of metropolitan areas (Capello 2000, Rodríguez-Pose and Fitjar 2013, Viturka et al. 2017), which are linked to multiplication effects arising from spatial proximity between the metropolitan centre and its hinterland (Meijers and Burger 2015).

Interaction between the metropolitan centre and its hinterland has been increasingly interlinked recently. The boundaries between urban, suburban, peripheral, and rural areas gradually disappear. However, the political boundaries often remain unchanged for decades. Therefore, coordination and cooperation at the metropolitan level is a must to address the major urban challenges of these days (Heeg et al. 2003). To be effective, these activities often require a systemic and targeted public sector intervention (top-down and bottom-up approach) in the context of the set objectives of metropolitan policy and its instruments (Brezzi et al. 2012, Kaczmarek and Ryder 2015).

A significant aspect of the metropolitan policy is the question of its spatial concept (Kloosterman and Musterd 2001), or in other words, the spatial level of its implementation (Feiock 2009). At the national level, an important trend in regional policy is its interconnection with other national policies. However, some authors point to the steadily declining role of the national level in regional development (so-called de-nationalization – Heeg et al. 2003). Locally evolved self-governing institutions that are adapted to specific local circumstances may provide more effective resolution of collective action problems than central intervention in many circumstances (Ostrom 2010).

This approach builds on the New Regionalism focused on the interconnectedness of metropolitan regions by emphasizing voluntary cooperation, informal networking, and integration (Paasi 2002, Groth and Corijn 2005) rather than top-down mechanisms to promote metropolitan coordination and cooperation among the fragmented stakeholders (Katz 2000, Paasi 2012), whereas in practice we often see mutual interaction of these approaches.

The concept of governance generally stimulates the stakeholders with various interests to get involved into decision-making and the follow-up process of development. Given the involvement of a whole range of stakeholders, the shift towards performance-based governance requires comprehensive and systematic approaches to examining the internal linkage of collaboration, strategic interactions, and partnership structures (Zimmermann et al. 2020). Exploring the relationships between stakeholders and the ways they are structured is essential for understanding the interactions that are realized to influence public policies and achieve desired outcomes (Bovaird and Löffler 2009).

The nature of the interactions is influenced, to a considerable extent, by the institutional context, among other circumstances. Trust in institutions contributes to a certain simplification of relations in society, acting as a coordinating mechanism for future economic transactions (Rus and Iglič 2005). Achieving mutual trust is not a one-time matter, it requires the repetition of successful interactions based on mutual benefits. However, this process is influenced by other factors such as institutional, cultural, and political perspectives of governance (Freeman et al. 2010) that shape the conditions for interactions. Therefore, when analysing cooperation, it is necessary to take into consideration the fact that cooperative games take place in an institutional context with different norms and rules and with a different allocation of the available resource. However, institutions can reinforce elements of trust in people's behaviour and attitudes (Delhey and Newton 2003).

According to Brenner (2003), metropolitan governance involves a wide range of institutional forms and strategies, which include, among others, efforts to adjust the existing administrative boundaries or create intermunicipal agencies. The process of decision-making and management of metropolitan regions represents one form of regional governance, which can be characterized as a slightly institutionalized form based on network relations, a form

of collaboration of regional stakeholders with the aim to meet the needs of regional development (Fürst 2001), or as a process of organization and coordination of stakeholders striving to implement collective action to improve the development of a given territory (Rumpel et al. 2011). Thus, in the case of metropolitan cooperation, it could be an umbrella organization operating in the metropolitan area. However, the society needs to understand the purpose of the activities and objectives provided by the institutions to be able to trust them.

### **Development of metropolitan areas in Central and Eastern Europe**

Within Eastern Europe and some parts of Central Europe, the emergence and development of metropolitan areas was marked by the post-war rise of communism (Cudny and Kunc 2022), which, through central planning and economic and social levelling, slowed down the natural development of metropolitan areas. The emphasis on heavy industry, and, to some extent, “artificial” integrative settlement system, reinforced by the polarization of the capital city and the rest of the country (Lang 2015), contrasted with the deindustrialization and development of the tertiary sector in Western European countries (Kunc et al. 2018).

The entire organization of the society in the former socialist states of Central and Eastern Europe underwent several changes during the transition period, which also affected the development of metropolitan areas (Harloe 2008, Mikula and Kaczmarek 2017, Tonev et al. 2017, Bański et al. 2018, Benedek et al. 2022 and others). In Poland, concrete (tailor-made) examples of metropolitan unions or units and their institutionalization have already been discussed in recent years (Kaczmarek 2021). A number of analyses have also been carried out on intermunicipal cooperation, its forms and possibilities in Slovakia (e.g., Klamár et al. 2019, Valach et al. 2019, Melichová and Varecha 2020, Šveda and Šuška 2020). The institutionalization of such cooperation in metropolitan regions (urban functional regions) is not yet considered.

With a certain time lag and some deformation, the trends and processes that shaped urban systems in Western countries thus could also be fully developed and applied in Central Europe (Čermák et al. 2009). The process of liberalization, privatization, restitution, and gradual opening to foreign investors became the instrument of socio-economic change. Thus, in the socio-economic development of European post-socialist countries, metropolitan areas started to play a much greater role than they used to in the past.

Factors that condition the success of metropolitan cooperation could be summarized as a long tradition of cooperation, a strong bottom-up initiative, the institutionalization of metropolitan cooperation, anchoring in legislation and a positive attitude of central authorities (Newman and Thornley 1996). Long-standing cooperation, which in developed countries dates back to the 1960s or 1970s, gradually broke down the initial mistrust of local governments and built a solid foundation on which cooperation in metropolitan areas could be gradually broadened and deepened in substantive terms, very often involving a bottom-up initiative (Brezzi et al. 2012).

After more than 30 years of post-socialist development, the Central European territory still suffers from the absence of a conceptual dimension of planning, governance, and cooperation in metropolitan areas, which is considered a key drawback in current spatial development practice (Serbanica and Constantin 2017). What is really missing is the institutional dimension of metropolitan cooperation focused on the new dimension of spatial governance (Finka and Kluvánková 2015), which has been a taboo until recently. In terms of metropolitan planning and intermunicipal cooperation at the metropolitan area level, especially in the context of ITI support, Poland, Romania, and Latvia, within Central European countries, take the lead (van der Zwet et al. 2017).

## **Development of metropolization activities in the Czech Republic**

The metropolization of the Czech Republic has been fundamentally determined by the specific aspects of the communist period: the deepening of the geographic inequality of the settlement and centralized hierarchy (massive directive merging of municipalities during the 1970s and 1980s), the concentration of population into heavy-industry areas, or the slowing down of the development of the largest centres in the country and the consequent loss of population in the hinterland of large cities. After 1989, there was a gradual return to the natural development trajectory that was going on in western part of Europe. These specifics overlooked the processes of the formation of natural functional urban areas (Čermák et al. 2009), which began to emerge only in the period of transition, albeit with a delay compared to Western countries, but even more turbulent (Musil 2003).

Therefore, in the Czech Republic, the metropolization of the territory was quite massively coming about, which significantly changes the spatial relations between settlements in the territory, influences the demand for public administration services, and brings fresh impulses for new activities. The drawbacks arising from the lack of the possibility to direct or balance certain activities and coordinate joint procedures in the territory are clearly visible. These drawbacks are linked with the emergence of negative external effects (externalities), the increasing cost of the public administration, the provision of public services, and, in general, the absence of synergic effects (Šašinka and Zvara 2014, Šašinka et al. 2019, Kunc et al. 2020, 2021). The main catalyst, as in other EU countries, for these processes in the Czech Republic is a new ITI territorial instrument.

## **Materials and methods**

The paper is based on the fact that the institutional level of metropolitan cooperation is not anchored in the Czech environment. Therefore, the goal is, based on the carried-out research and analyses, to introduce a realistic procedure and steps for supporting the institutionalization of metropolitan cooperation and implementing effective governance at the level of metropolitan areas in the Czech Republic. The stated activities are to contribute to a more effective and long-term institutionalization of intermunicipal cooperation in metropolitan areas and its transmission to the application level enabling their transfer to the national level. This method would also resolve the current inconsistency of the approach (to the definition of metropolitan areas and intermunicipal cooperation) and the absence of an entity that would coordinate activities in the metropolitan area. The (existing) situation in the Czech Republic is in clear contradiction to the development of governance in other EU countries.

Several individual steps have been continuously implemented to achieve this objective, which have been consistently discussed and coordinated with national level, concretely with representatives of Ministry of Regional Development and Ministry of Interior of the Czech Republic. Firstly, the theoretical knowledge based on a search of domestic and foreign literature and case studies from several developed foreign countries in this area were systematized. After the existing level of metropolization in the Czech Republic was assessed, a specific model area of the BMA was selected, in which activities aimed at the development of metropolitan cooperation have been implemented gradually and foreign experience gained since 2010 was employed. This is the reason why the BMA is regarded to the leader in the development of metropolitan cooperation in the Czech Republic. Therefore, unique research was carried out in the BMA municipalities during 2020–2022, the scope of which was unprecedented in the Czech Republic, as for the other Central and European countries perhaps only in Poland.

The methodological basis of the research was a questionnaire survey conducted among the mayors of the municipalities located in the Brno Metropolitan Area in 2020; it means 183 municipalities in the hinterland of Brno city. With regard to a similar survey in terms of methodology from 2017, it was not necessary to conduct a pre-test, the representatives of the municipalities were made familiar with the submitted questions. Compared to 2017, some topical questions have been added to the new survey and when comparing the main results, a slight positive shift in thinking towards forms of intermunicipal cooperation was particularly evident. Otherwise, there were no significant changes in the main questions and issues. The survey was conducted under the auspices of the Brno City Hall, ITI Management department, and metropolitan cooperation. All municipalities were addressed and after being urged by e-mail/telephone, 175 of them returned the questionnaire. Thus, the survey response rate was 96%. The obtained data were processed by means of Microsoft Excel, ArcGIS, and Gephi (a network visualization tool).

The aim of the survey was, among other things, to find out whether and how representatives of municipalities in Brno's hinterland perceive the benefits of cooperation with neighbouring municipalities and whether they want to actively cooperate in strategic and spatial planning within the BMA in the near future. In addition, the representatives of municipalities were asked to provide some specific topics that could be addressed jointly at the metropolitan level in the future, respectively that have resonated among municipalities for many years (such as waste management, flood protection measures, drought and erosion issues, residential and commercial development).

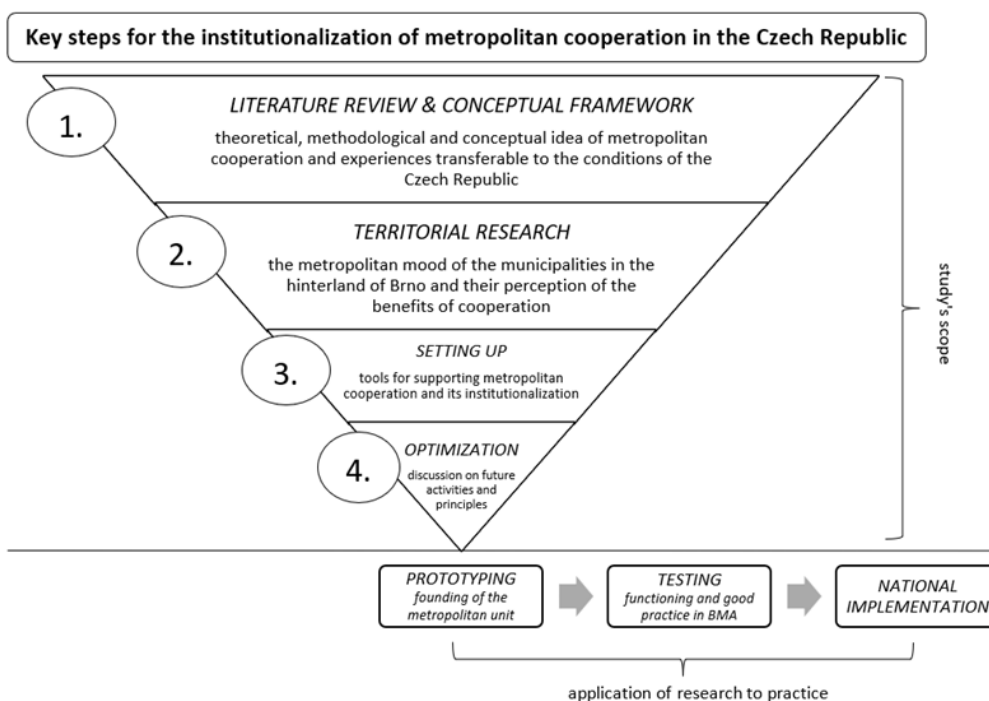
The questionnaire was spread via e-mail and included 18 closed, semi-open, and open questions. For the purpose of the paper, the mayors' answers to the questions concerning the institutional dimension of metropolitan intermunicipal cooperation were analysed in more detail at the following levels:

- i. The municipalities' willingness to engage in cooperation within the BMA by means of an expert public entity (so-called metropolitan unit) focused on metropolitan cooperation and development of the BMA, which would perform some activities for more municipalities within the BMA. An essential aspect to further activities is the assumption of a robust willingness to cooperate.
- ii. The municipalities' willingness to contribute from the municipal budget to a possible metropolitan fund which would be used to finance jointly selected topics, which would be handled by the BMA municipal representatives. The financial contribution from the municipal budget will be an important part of the multi-source funding of the metropolitan unit.
- iii. The municipalities' willingness to discuss the possibility of delegating municipal competencies to a higher (metropolitan) level in the future in order to make management more effective. Some activities (typically in the field of transport, floods, erosion, waste management, education, healthcare, etc.) cannot be handled (only) at the municipal level concerning financial and human resources and will have to be delegated to a hierarchically higher level.
- iv. The municipalities' willingness to discuss the possibility of merging in the future in order to make management more effective and create one self-governing unit. There are too many municipalities in the Czech Republic, especially small ones (up to 500 residents). Reducing the number of municipalities would be the top step in an administrative reform, which is, however, very sensitive in terms of politics and society.

In order to stimulate a necessary discussion on the topic across the expert spectrum, an online questionnaire for the expert community was created and distributed to a selected group of about 20 experts from the academic, public, private, and political spheres in the period of October–December 2020. The questionnaire survey aimed to identify the tools which could be used for intermunicipal metropolitan cooperation and its institutionalization, to set up some support for metropolitan cooperation through the selected tools, and to find out the possibilities of its institutionalization.

Guided interviews with representatives of municipalities, towns, and voluntary associations of municipalities (a special legal form for intermunicipal cooperation) from the BMA municipalities was the last research activity. The municipalities were selected with the aim to cover both large and small municipalities located in the immediate hinterland, as well as those further away from Brno, the core city. The contradictory attitudes of municipal representatives towards metropolitan intermunicipal cooperation identified in the previous questionnaire survey were also considered. Two voluntary associations of municipalities were selected on purpose so that the aggregated information obtained from their managers would complement the mosaic of information from the elementary level (municipality). The future activities and principles of a metropolitan unit were discussed, such as the most appropriate legal form, financing method, membership, and competencies, but also the effectiveness of cooperation, communication strategies, and, above all, specific projects/topics in which municipalities or voluntary associations of municipalities are interested.

Syntheses of the findings stated above (fig. 1) shall lead to setting the methodology of institutionalization of metropolitan cooperation in the conditions of the Czech Republic. All the successive steps have been reflected and taken into account in the interpretation of the results and in discussion and summary in conclusion.



**Fig. 1.** Design of individual methodological steps; Source: Own processing

## Results

### General background linkages and prerequisites for the institutionalization of metropolitan intermunicipal cooperation in the Czech Republic

In the conditions of the Czech Republic (fig. 2), metropolitan areas are formed having one dominant core city that influences the development of the wider territory (such as Prague, Brno, and the hinterland), but also as a union of several large cities with a high population (Ústí n/Labem and Chomutov regions, Ostrava region). Although these differences in the settlement structure of individual metropolitan areas may seem fundamental (fewer municipalities and larger cities are more suitable for formal institutionalization), in practice, it turns out that all types of agglomerations (or functional urban areas) function in a similar way (because all types of agglomerations use methodological instruction for the use of integrated territorial tools and regional action plans, which sets out the basic procedures used during interactions in the territory) and face basically similar challenges. It means that all types of functional urban areas deal with the same metropolitan issues, even if they face other problems that are specific to the metropolitan areas/agglomerations. This assumption allows proposing a uniform methodology for institutionalizing metropolitan cooperation in the Czech Republic in the form of a metropolitan unit.



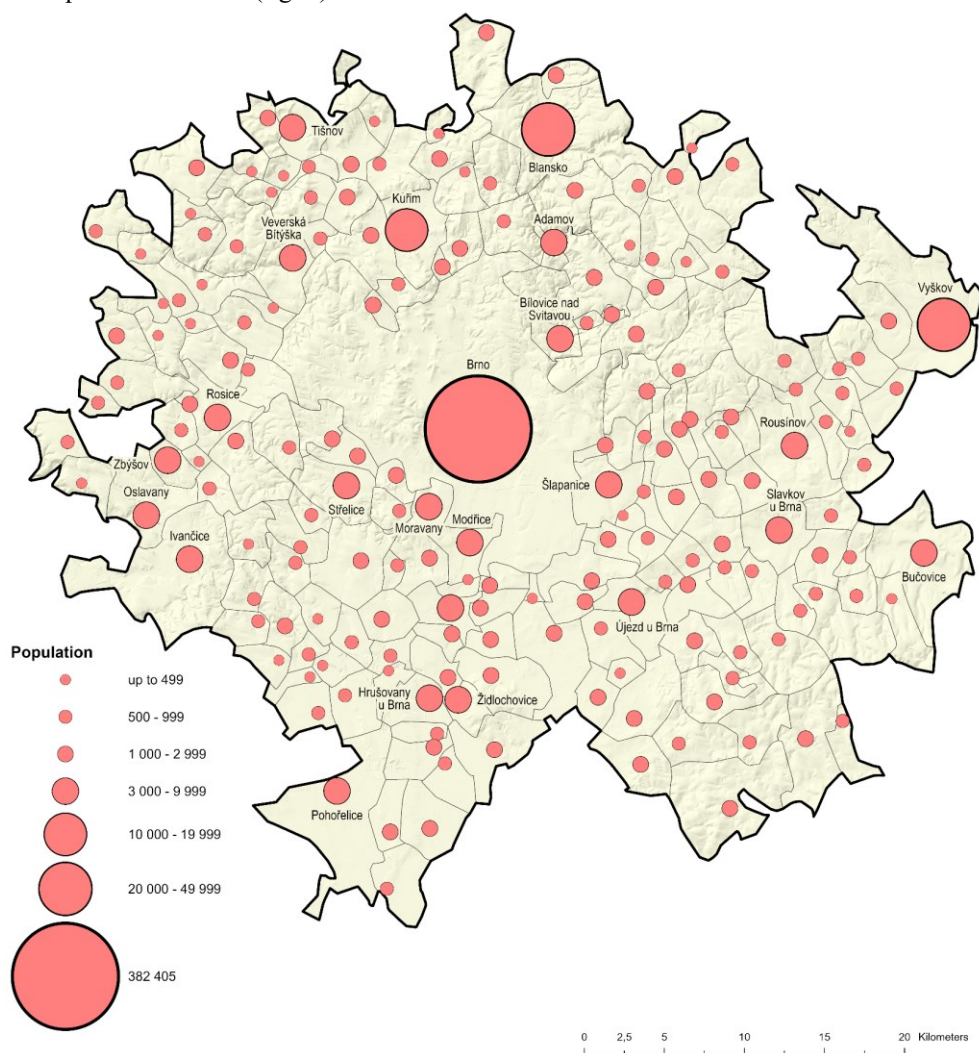
**Fig. 2.** Metropolitan areas and agglomeration in the Czech Republic; Source: Own processing

The topic representing the institutionalization of metropolitan cooperation in the Czech Republic is largely determined by the political aspect. Without political support at the local, regional, and especially national levels (for example, enforcement of new legal legislation) it will be very difficult or even impossible to enforce fundamental changes related to the institutionalization of metropolitan cooperation. A number of declarations, statements and records were made at key hierarchical levels (statutory cities, ministries), which were also written into formal documents. On the other hand, these documents are not legally binding. The proposed approach to the institutionalization of metropolitan cooperation tries to reflect the identified factual and professional arguments, but the political aspect is also taken into account. The aim is to seek compromises while taking into account the existing political will to address the issue.

At present, the BMA is a leader in the planning and development of intermunicipal cooperation at the metropolitan level in the Czech Republic. The spatial definition of 2014 (Muliček



et al. 2013) was followed by a new definition of 2020 (Ouředníček et al. 2020) and the BMA currently, according to the data of Czech Statistical Office from the year of 2022, represents 184 municipalities (incl. the core Brno city), 700,000 inhabitants and an area of almost 2 million square kilometres (fig. 3).



**Fig. 3.** BMA delimitation; Source: Own processing

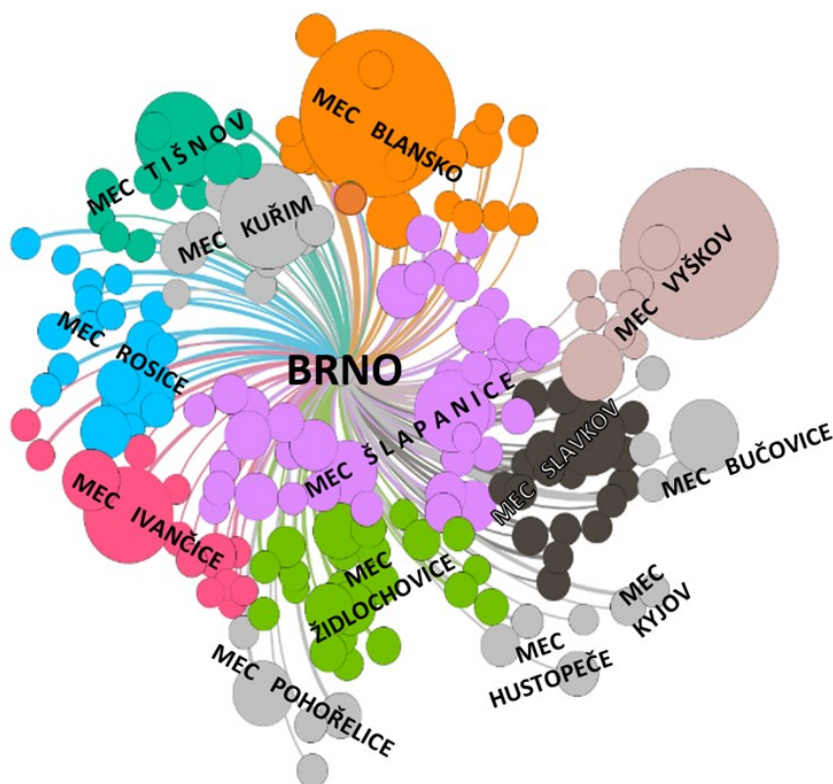
More than 6,250 self-governing municipalities in the Czech Republic cause spatial, administrative, and executive fragmentation. As shown in Table 1, the smallest municipalities of up to 500 inhabitants represent almost 55% out of all municipalities, and 8% of the Czech Republic citizens live there; municipalities of up to two thousand inhabitants represent almost 90% of all municipalities with the proportion of the population of 27%. Brno metropolitan area has a completely different settlement structure compared to the rest of the Czech Republic. Only 16% of municipalities are included in the lowest category (up to 500 inhabitants) with an “insignificant” 1.5% of BMA population; all other categories have a significantly higher share of municipalities. In general, the settlement structure of the BMA consists of larger municipalities in terms of population than the national average, yet more than 180 municipalities is a very high number for effective metropolitan cooperation.

**Tab. 1.** Number of municipalities and inhabitants in size groups of municipalities in the Czech Republic and BMA (2021)

| Share (%)                            | Size category of a municipality |         |             |             |              |                 |
|--------------------------------------|---------------------------------|---------|-------------|-------------|--------------|-----------------|
|                                      | Up to 499                       | 500–999 | 1,000–1,999 | 2,000–4,999 | 5,000–24,999 | 25,000 and more |
| Czech Republic                       |                                 |         |             |             |              |                 |
| Share of municipalities in the total | 54.2                            | 21.9    | 12.5        | 7.0         | 3.7          | 0.3             |
| Share of inhabitants in the total    | 7.8                             | 9.1     | 10.2        | 12.5        | 22.4         | 38.2            |
| Brno Metropolitan Area               |                                 |         |             |             |              |                 |
| Share of municipalities in the total | 16.3                            | 37.0    | 25.0        | 14.7        | 6.5          | 0.5             |
| Share of inhabitants in the total    | 1.5                             | 7.4     | 8.9         | 11.3        | 16.4         | 54.4            |

Source: Own processing

The following figure 4 shows the relationship between the core city and its hinterland in the BMA from a network perspective in the form of a “star topology” in which the network components (municipalities in BMA) are connected to a central node (Brno) by edges. The municipalities belonging to the metropolitan area take the form of “nodes” coordinated by longitude and latitude. The size of the nodes is based on the population size of the municipality in the Brno hinterland. Edges (if they exist) declare the willingness of these municipalities to engage in cooperation with Brno, the core city, stated in the questionnaire. The colour of the node varies according to the affiliation to the higher territorial units (municipalities with extended competence – MEC).



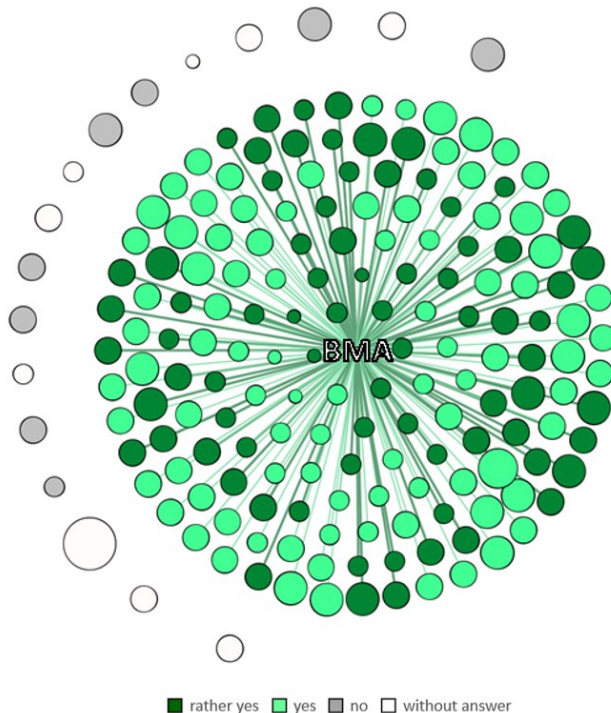
**Fig. 4.** Model territory of the BMA in a star network topology; Source: Own processing

In this case, Brno encouraged to network and cooperate with smaller municipalities and their surroundings. Thus, the economic growths can spread from metropolitan city through smaller municipalities to rural and lagging areas (Rauhut and Humer 2020). Other results concerning the willingness of municipalities to participate in metropolitan cooperation are also presented schematically in this way, as they allow simplifying the reality and modelling the relations between the core city and the hinterland.

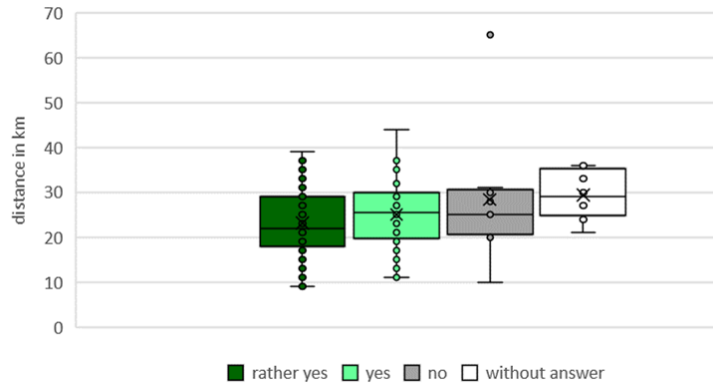
#### **Willingness of municipalities for metropolitan cooperation in the BMA model area**

The willingness of municipalities to cooperate within the BMA was very high in 2020. Only 9 municipalities (4.9%) were not interested in such cooperation. Confirming the assumption of cooperation is an essential input for all follow-up activities. Figure 5 illustrates this willingness using bold colours of the nodes – the darker the colour, the greater the willingness to cooperate (dark green – definitely yes; light green – rather yes; grey – no; white – without answer). At the same time, using the Fruchterman-Reingold power algorithm, the nodes were coordinated so that their position in the network also indicated a willingness to cooperate.

As expected, the deeper analysis shows that municipalities located at a shorter distance from Brno are more interested in cooperation, which is confirmed by the analysis in figure 6. In the network, the distance from Brno (accessibility by car) is reflected in the size of the node – the larger the node, the greater the distance (from 10 to 70 kms from the city centre). Thus, municipalities that are located in the immediate vicinity of Brno (up to 25 km on average) and are morphologically connected to the core area are more interested in cooperation. An important catalyst for this cooperation is the ITI instrument, the process of the gradual and systematic informal institutionalization of cooperation working since 2014, based on the declaration of interest of municipalities to cooperate and create a strategic development document for the BMA.



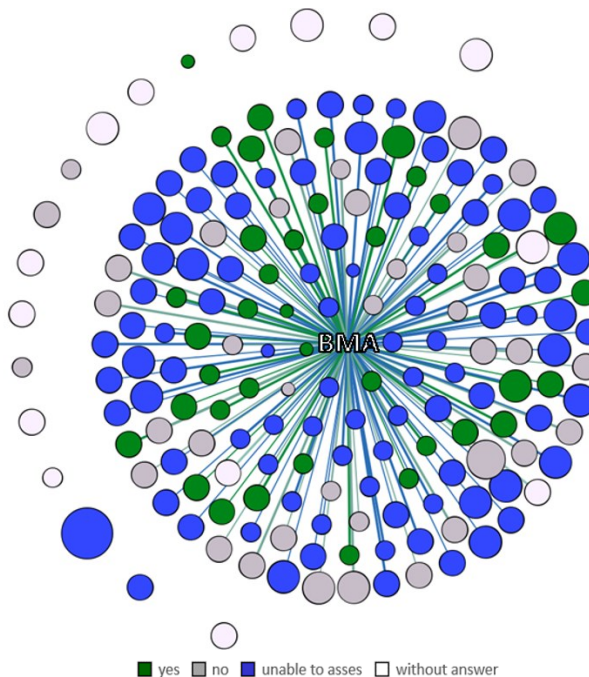
**Fig. 5.** Willingness to metropolitan cooperation in the network perspective;  
Source: Own processing



**Fig. 6.** Willingness to metropolitan cooperation according to the distance from the core;  
Source: Own processing

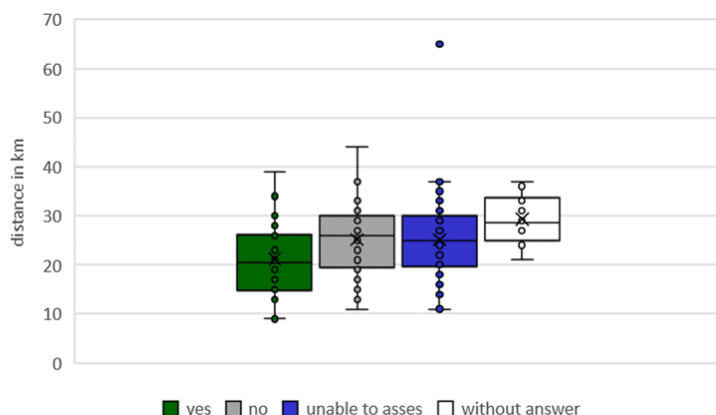
Other results confirm the fact that municipal cooperation within the BMA is primarily motivated by economic incentives. Municipal budgets, especially for municipalities with a smaller population, are often limited, and any additional expenditure may be unacceptable to the municipal council. Thus, the willingness to cooperate according to the population size was declared to a greater extent by the municipalities with a larger population, where the median of the population was 1,316 inhabitants. The mean was 2,535 inhabitants, while the median of the population of municipalities who definitely disagreed with cooperation was 878 inhabitants, and the mean was 1,554 inhabitants.

This is also the willingness of municipalities to contribute to the new metropolitan fund of the metropolitan unit, which would carry out selected agendas, is already much less positive than in the case of willingness to cooperate. This fact is highlighted in figure 7, where the colour of the node indicates the (un)willingness to contribute to this fund: green – yes (21%); grey – no (20%); blue – unable to assess (51%); white – without answer (8%).



**Fig. 7.** Willingness to contribute to the common fund; Source: Own processing

This figure proves that 166 municipalities expressed some degree of agreement to cooperate in the previous question. However, only 37 municipalities of them (22.3%) would be willing to pay/contribute to the metropolitan fund anymore. At the same time, a financial contribution from the municipal budget will be an important and necessary part of the multi-source financing of the metropolitan unit. The distance of individual municipalities in the hinterland from the core city Brno (fig. 8) is still a parameter that has a clear influence over the decision on the financial participation of municipalities. The mean distance of municipalities willing to contribute to the common fund was 21.2 km, while the mean distance of those unwilling was 25.2 km



**Fig. 8.** Willingness to contribute to the common fund according to the distance from the core; Source: Own processing

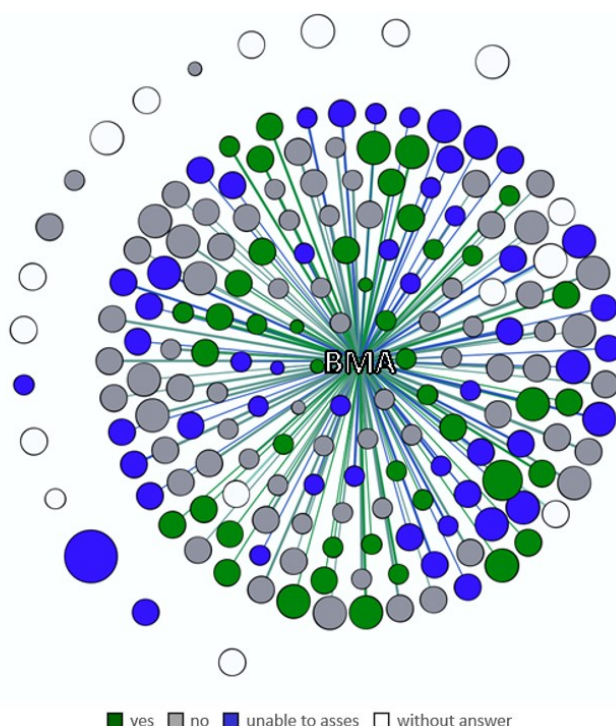
The investigation based on the testimonies of respondents (municipality representatives) has shown a strong reluctance of municipalities to get rid of some self-governing competencies and transfer them to a higher – metropolitan – level. Only a minority of municipalities are willing to discuss such a reality. This fact is highlighted in figure 9, where the colour of a node indicates (un)willingness to transfer its competencies to a higher level: green – yes (24%); grey – no (39%); blue – unable to assess (28%); white – without answer (9%). Certain activities, typically transport, floods, drought and erosion, waste, education, healthcare, etc. cannot be handled independently (only) at the municipal level concerning the municipal budget and human resources and would be more advantageous to transfer them to a hierarchically higher level. This is particularly the case of less-populated municipalities but generally applies to most municipalities. The distance from Brno, the core city, to the hinterland municipalities does not play a significant role in this respect (fig. 10).

As expected, representatives of municipalities in the more distant Brno's hinterland (mean = 32 km) expressed extremely strong resistance to the discussion of a possible merger with another municipality to make management more effective and potentially create a higher self-governing unit, a metropolitan unit. It could be considered as a distinctive (not only) for promoting multiple collaborations or facilitating the adaptation of many collaborative projects over time (Ansell and Gash, 2018). This fact is highlighted in figure 11, where the colour of a node indicates (un)willingness to merger with another municipality: green – yes (5%); grey – no (76%); blue – unable to assess (10%); white – without answer (9%).

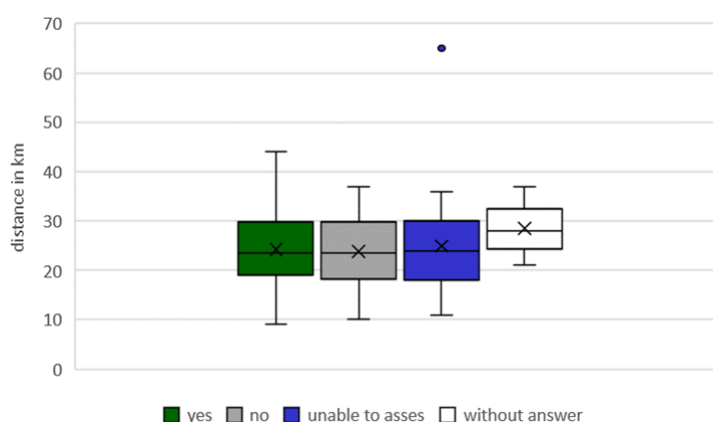
According to the testimonies confirmed by experts and municipal representatives during discussions, this fact reflects the specific features of the development of functional areas based



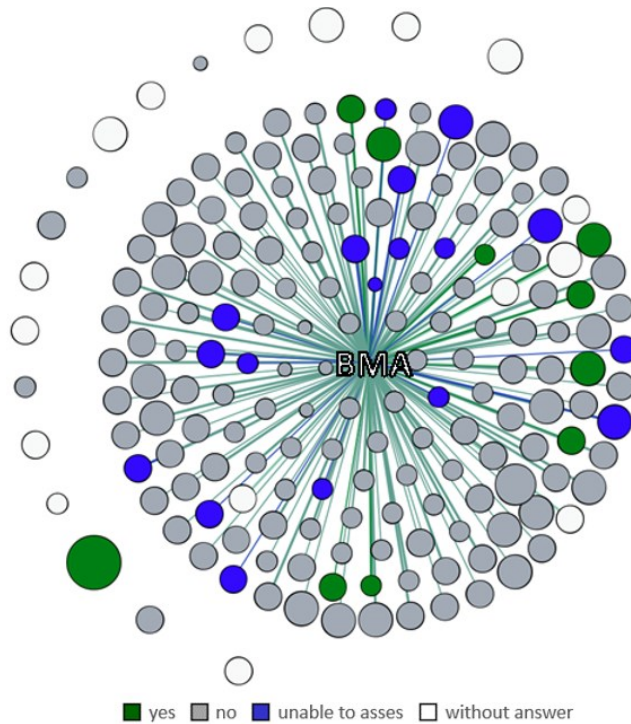
on unique historical memory in the form of directive mergers of municipalities by the communist political apparatus in the 1970s and 1980. In reality, there is a large number of municipalities in the Czech Republic, especially those with populations below 500 inhabitants (55% of the total number of 6,250 municipalities). It is interesting that the more-populated municipalities tended more to this merger with another municipality (fig. 12). Reducing the number of municipalities by merging them would be the top step of administrative reform. This step, which has already succeeded in most EU countries, will be difficult to implement in the Czech Republic as it is a very sensitive aspect in terms of politics and society.



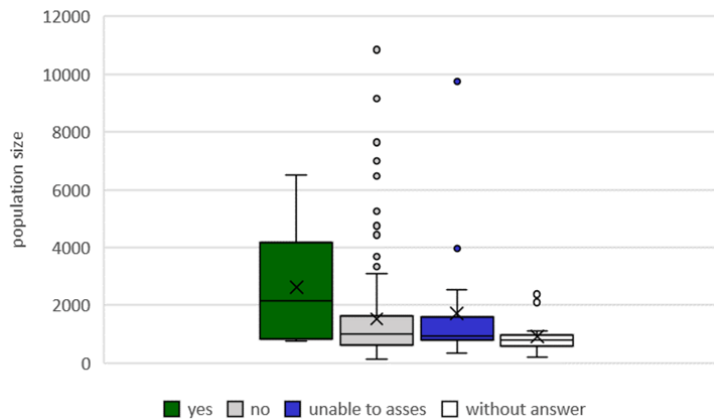
**Fig. 9.** Willingness to transfer the selected competencies to a higher level;  
Source: Own processing



**Fig. 10.** Willingness to transfer the selected competencies to a higher level  
according to the distance from the core; Source: Own processing



**Fig. 11.** Willingness to merge with another municipality; Source: Own processing



**Fig. 12.** Willingness to merge with another municipality according to the population size; Source: Own processing

## Conclusions

The issue of metropolitan cooperation and its institutionalization deserves attention mainly because of its potential to ensure metropolitan development, greater efficiency, and the possible joint solution of topics that resonate in metropolitan areas. At the same time, metropolitan cooperation is considered by experts as a tool that can solve the fragmentation of administration and problems in the functional areas and bring synergies to all stakeholders. The initial impulse to start metropolitan cooperation was the ITI tool, which contributed to the definition of metropolitan areas and the integrated implementation of territorial strategies.

From the field research emerged that there are given spatial patterns of behaviour of the inhabitants of the municipalities in the BMA, which are tied primarily to the population size and the distance from the core of the metropolitan area. First, the willingness of municipalities' representatives in the Brno hinterland, or the BMA, is very high, while the willingness to pool economic resources and financing of selected topics is rather low and decreases with the increasing distance from Brno. The willingness of municipal leaders to delegate some competencies to another level is very low and does not correlate with either the distance from Brno or the size of the municipality.

Subjective perceptions of the costs and benefits of metropolitan cooperation are influenced by historical and economic associations associated with the directive mergers of municipalities ordered by the communist regime in the 1970s and 1980s. In the early days of the political and socio-economic transition, the forcibly merged municipalities separated, and their number settled around the extremely high figure of 6,250 self-governing municipalities, more than half of which have fewer than 500 inhabitants. Thus, contrary to expectations, the reunification of municipalities in the near future would be an absolutely essential positive impulse for much more effective functioning of metropolitan cooperation in the hinterland of large cities (similar activities could occur in the future in Slovakia, which is in a similar situation in terms of settlement structure and number of villages and has a similar historic memory). The size of the municipality itself is closely related to its financial possibilities (also under the ITI instrument and EU cohesion policy) and thus, by the participation in the financing of joint activities. However, the question of possible mergers is not on the agenda, it will require sensitive but also robust political and social support, which, even after more than thirty years, is still at odds with the historical memory of directive (communist) party decision-making.

Subsequently, based on the number of expert discussions, round tables, and foreign experience it was possible to conclude that there is a general agreement on creating an entity (institution) which would be responsible for harmonic development of metropolitan areas – so-called metropolitan units. Considering the extremely high number of municipalities in the metropolitan areas of the Czech Republic, not all municipalities of the metropolitan areas will realistically be able to participate in the day-to-day executive of the metropolitan unit; their activity will take place indirectly through voluntary associations of municipalities of which the municipalities are members. The Czech legislative executive currently does not offer any more suitable option.

The prerequisite for a nationwide long-term solution to the problem of institutionalising metropolitan cooperation in the Czech Republic on the basis of metropolitan units is a valid and effective legislative regulation. This legislative regulation will enable, among other things, the transfer of the ITI instrument to the metropolitan unit. The law will regulate, in particular, the basic bodies (authorities) of the metropolitan unit and the links between them. The setting up of the other bodies of the metropolitan unit and the possible more detailed regulation of the relations is expected to be done through the statutes. Sufficient flexibility will thus be left to regulate the functioning of metropolitan units in the context of specific territorial characteristics.

A metropolitan unit as a specific entity with a legal personality should enable the core city/cities (the natural centre of gravity of the metropolitan area) to cooperate with other municipalities in the hinterland and other region(s). Metropolitan unit may become an authority representing development strategy of metropolitan area/agglomeration. Due to the high number of municipalities, it cannot be assumed that all municipalities of the metropolitan area/agglomeration will participate in the day-to-day agenda. Competent representatives will be selected to represent the large mass of municipalities.

As for policy support, in August 2020, all mayors of the Czech statutory cities signed a common declaration that defines fundamental requirements for the future and institutional-



zation of metropolitan cooperation in the Czech Republic. In 2022, it was followed by a common motion of the mayors of the four Czech largest cities (Prague, Brno, Ostrava, Plzen) appealed to the Ministry of Interior of the Czech Republic to elaborate, together with the Ministry of Regional Development of the Czech Republic and other territorial partners, a legislative modification and position of metropolitan areas in the Czech Republic towards other discussions.

The issue of institutionalization in metropolitan cooperation is also anchored at the highest hierarchical (national) spatial level. In October 2021, the requirement for cooperation at the level of metropolises and agglomerations appeared in the coalition agreement of the political parties of the Government of the Czech Republic, including legislative anchoring and the possibility of financial support from the central level, and in January 2022, also in the government program declaration, where this form of cooperation is declared through the ITI instrument. These are the first major steps from the national level, which, through their political significance, also determine specific activities in the regions. Real political support from the ministries, regions, and mayors of cities and municipalities involved will be very important; it will be impossible to set up a universal way of institutionalizing intermunicipal metropolitan cooperation without it.

Following the phenomena described above, the policy of endogenous development of metropolitan areas responsible for the development and management of themselves is gradually starting to be applied in many countries. Experiences outside the territory of the Czech Republic show that the existence of a responsible entity with adequate position and powers is the most effective solution. In the Czech Republic (unlike several other, even post-socialist countries), such a subject does not yet exist. Therefore, it is necessary to continue the political debate that has just started and implement adequate reforms quickly. In further follow-up research, it would be appropriate to try to quantify these agglomeration advantages/benefits for the Czech Republic, including quantifying the losses resulting from the zero variant (keeping the current state).

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