

## The Upper-Silesian conurbation on the path towards the “Silesia” metropolis

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**Abstract.** In its methodological context, the article, expands on the idea of the organization of the “Silesia” superstructure. The idea of establishing a common urban organism emerged with the local governments of the Upper Silesian conurbation cities and was dictated by the need to find a way to change the traditional image of the Silesian region and its post-industrial role in the economic space of the country, as well as Europe. Therefore, in 2009, the Metropolitan Association of Upper-Silesia, an association for the initial institutionalization of “Silesia”, was registered, because “Silesia” does not hold any administrative or legal force. Such an organizational “revolution” of the Upper Silesian conurbation initiated a wide social debate, in which the arguments of both supporters and opponents of such an enterprise in the Silesian region became apparent, together with misunderstandings related to the term “metropolis”, and the idea of establishing “Silesia”. Representatives of local governments chose the more prestigious term “metropolis” as if a complex metropolisation had taken place in the Upper Silesian conurbation. It would be adequate, however, to look only for the first features of metropolitan functions in this de-industrialized and restructured region, which are going to shape the long-lasting metropolisation process under the influence of globalisation.

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## 1. Introduction

Metropolisation, metropolis and metropolitan area are commonly used terms to illustrate contemporary urbanization processes. The omnipresent and progressive globalisation of human activity leading to an increased spatial mobility of people, goods and capital, as well as the diffusion of ideas, technological innovations and cultural models influences the form and dynamics of urbanisation processes. These terms are used to describe new spatial phenomena. In order to avoid discrepancies and controversies, the definitions of these terms should be recalled. Metropolisation, known for a long time (ancient metropolises) and currently highly dynamised by globalisation, is probably a new phase of urbanization, since it differs in quantity and quality from the previous urbanization stages because:

- 1) the principle of hierarchical spatial organization is disappearing (according to Christaller),
- 2) the impact force of the “potential” of physical proximity of the centre is weakening,
- 3) network connections between remote metropolises are increasing (Jałowiecki, 2000).

As J. Turowski states, “metropolisation is a feature of contemporary urbanization, i.e. gaining a dominating significance in economy and culture of a given country by large complexes and structures of towns and various settlement units also referred to as agglomerations, together with their main centre – metropolitan city” (Szymańska, 2009).

Metropolisation of space is a peculiar reaction of the settlement system to the phenomenon of globalisation. It is, therefore, a complex process of shaping a new type of spatial structure due to the concentration in fragments in space of large cities (centres, regions), which:

- 1) gather the economic, financial, administrative, academic, cultural and media world potential;
- 2) concentrate the superior (managerial) functions in economy management on the supranational scale;

- 3) join the international structure of dependency, connections and cooperation, and the network of cities with metropolitan functions;
- 4) change the nature of the centre-periphery relationship, where, with the dominating role of the centre, a clear synergy of functional connections is taking place;
- 5) transform the use of urban and suburban space into a large and complex settlement system, frequently of polycentric character with unclear borders between the city and its suburban zone;
- 6) export the urban model shaped in metropolises (Markowski, Marszał, 2006; Jałowiecki, Szczepański, 2002).

The metropolis is the main component of the metropolitan area that shall be understood as the metropolitan settlement system (mono-centric or poly-centric) consisting of many settlement units and highly urbanized areas (Markowski, Marszał, 2006). According to S. Liszewski (2008), it is a form of a large urban agglomeration comprising two poles of diverse spatial and functional scale: 1) the centre, where metropolitan functions are concentrated, and 2) the external area, where metropolisation processes take place.

The research aim of this article is to highlight the process of metropolisation of the Upper-Silesia conurbation in its methodological context. Therefore, study aims to:

- 1) analyse the location of the Upper-Silesia conurbation in the typology of Polish metropolises;
- 2) present an attempt to empower the Upper-Silesian conurbation;
- 3) present the social perception of the “Silesia” enterprise;
- 4) monitor the emergence of metropolitan functions – their institutionalisation.

## 2. Materials

The empiric material for reconstructing the social regional discourse and the analysis of the institu-

tional base of the origin of metropolitan functions is, next to subject literature, statistics and cartographic material, as well as numerous articles in the regional press, regional radio broadcast and television programmes, and also the proceedings of meetings and conferences. Moreover, it has been complemented and revised by authorized websites.

The analysis of the metropolitan potential in the GOM has been made on the basis of the institutional basis identified with 11 institution categories, which were metropolitan features, determining the level of metropolisation (Table 1). A point-based evaluation has been applied, following Kaminski (1971), based on which the degree of centrality of cities has been calculated, taking into account the

presence of certain metropolitan features. These included: 1) embassies and consulates, 2) four- and five-star hotels, 3) sports events of international range, 4) international clothing stores, 5) exclusive car showrooms, 6) banks (headquarters, branches or local offices exceeding 10 in a city), 7) higher education, 8) technology parks, business incubators and innovation centres, 9) entertainment and sports institutions (entertainment parks – amusement parks, large shopping centres (1), aqua parks and golf courses), 10) hospitals and specialized clinics or rehabilitation institutes of national range, 11) motorway junctions (existing or in progress) and junctions of more important national roads and express-ways, as well as international airports.

**Table 1.** Metropolitan institutions in the cities of the GOM (Upper Silesian Metropolitan Area)

GOM Structure	Borough	1	2	3	4	5	6	7	8	9	10	11	Total of services/ /institutions	Total of $C_j$	The $C_{i\text{ index}}$	Metropolitan functions
Central metropolitan complex	Katowice	+	+	+	+	+	+	+	+	+	+	+	11	737	1.00	A
	Gliwice			+	+	+		+	+	+	+	+	8	482	0.65	B
	Chorzow		+					+	+	+	+		6	371	0.50	B
	Tychy		+							+	+	+	5	271	0.37	C
	Sosnowiec			+				+		+	+	+	5	265	0.36	C
	Zabrze					+		+		+	+	+	5	260	0.35	C
	Dabrowa Gornicza								+	+	+	+	4	171	0.23	D
	Ruda Slaska					+					+	+	3	144	0.20	D
	Myslowice				+						+	+	3	144	0.20	D
	Bytom								+		+	+	3	127	0.17	D
	Siemianowice Sl.								+	+			2	105	0.14	D
	Swietochlowice				+								1	78	0.11	D
	Piekary Slaskie									+		+	2	77	0.10	D
	Jaworzno											+		1	33	0.04
External metropolitan zone	Tarnowskie Gory								+	+	+		3	138	0.19	D
	Czeladz						+						1	78	0.11	D
	Bedzin											+	1	33	0.04	E
	Mikołow											+	1	33	0.04	E
TOTAL		1	3	3	4	4	4	5	6	10	12	12		65		
$C_{j\text{ INDEX}}$		94	83	83	78	78	78	72	61	44	33	33				

$$\sum_{j=1}^n C_j = 737$$

Explanation: 1 – Bank headquarters, 2 – Sports events of international range, 3 – Shops, salons of exclusive foreign brands, 4 – Embassies, consulates, 5 – Technology parks, business incubators, innovation centres, 6 – Hotels of \*\*\*\*\* and \*\*\*\*\*, 7 – Exclusive car showrooms, 8 – Amusement parks, golf courses, operas, operettas, concert halls, 9 – Hospitals, Specialist Clinics, Supraregional health institutions, 10 – Colleges and universities, 11 – Existing motorway junctions or in progress, major express road junctions; A – very high degree of centrality (1.00–0.71), B – high degree of centrality (0.70–0.41), C – medium degree of centrality (0.40–0.31), D – low degree of centrality (0.30–0.11), E – lack of degree of centrality (<0.10)

Source: Zuzańska-Żyśko E. (2012)

Afterwards, on the basis of the degree of centrality, a typology of cities has been created, which distinguishes 5 types:

- A – a very high degree of centrality (1.00–0.71);
- B – a high degree of centrality (0.70–0.41);
- C – a medium degree of centrality (0.40–0.31);
- D – a low degree of centrality (0.30–0.11);
- E – lack of degree of centrality (<0.10),  
(Zuzańska-Żyśko E., 2012).

### 3. The Upper Silesian conurbation among Polish metropolitan centres

Since metropolises are a globalisation product, they must be defined and classified according to international standards. But these standards are usually conditioned by the specific features of the country and depend on formulated aims, namely: cognitive aims require exact criteria, while political aims assume a regional differentiation stimulated by the policies of shaping the settlement system in a given territory. Identification of centres and metropolitan areas in Poland has strong regional and political connotations.

Literature on the subject reveals that exogenous functions are metropolitan functions (supraregional, according to Christaller); that is, the services of the highest rank that belong to the 4<sup>th</sup> sector institutionalized by the following institutions: political, economic, financial, communication, educational, academic, cultural, and in particular, decisive institutions (institutions of regulation, management and control on an international scale). It shall be expressly stated that the factor that determines the metropolitan extent of a given function is, most of all, its range (the minimal range is national) and interrelationships with other metropolises (Markowski, Marszał, 2006).

Bassand M. (1997), focusing the discussion on the subject of metropolises in world literature, states that they are admittedly important due to their shape and structure; however, the most important factor is metropolisation itself due to the fact that world metropolises are changing as far as their shape and connections in the network of the global economy are concerned. Therefore, their metropolitan features will depend on their position in this network.

Attention shall be paid to the proposal by Soldatos P. (1987) listing 10 characteristic features of a world metropolis, namely:

- 1) it imports foreign production factors, such as: investments, goods and services as well as the workforce;
- 2) it hosts international companies, headquarters and branches of international businesses, banks and non-governmental, academic, educational institutions and universities with a noticeable participation of foreign students, and also diplomatic posts;
- 3) it exports production factors in the shape of: businesses, banks and other economic, academic, social and cultural institutions;
- 4) it is a part of the foreign transportation network (systems of motorways, rapid rail and international airports);
- 5) it intensifies infrastructure (international postal, telecommunication and tourism movement);
- 6) it develops the service sector for foreign customers: congress and exposition centres, luxurious hotels, international schools, high standard office buildings, international law firms, international centres and academic institutes;
- 7) it concentrates mass media of an international range (television, radio, press);
- 8) it organizes various types of international meetings: congresses, expositions, festivals, sports and arts events with the participation of foreign artists;
- 9) it houses national and regional institutions with an international brand, e.g. associations and clubs;
- 10) it practices paradiplomacy through public or private institutions and by the agency of its own representation in other foreign cities (membership in international organizations, Jałowiecki, 1999; Szymańska, 2009).

In Polish conditions, in the group of metropolises one can rank a city (an urban complex), which fulfils the following functional criteria:

- 1) population (minimum 0.5–1.0 million inhabitants);
- 2) economic potential with highly developed sector of high rank service;
- 3) academic potential (institutions of higher education and institutions of research and development);

- 4) metropolitan functions – “central” functions with at least national range;
- 5) junction in the network of transportation, organization and information connections;
- 6) stimulation of a global model of economy and management (Bassand, 1997; Szymańska, 2009).

Therefore, the definition of a metropolis includes both quantity and quality features, and the awareness of the fact should accompany all researchers of metropolisation issues, who frequently do not respect the regional scale of the studied “metropolis” and select metropolitan criteria. According to Jałowiecki B. and Szczepański M. (2008), as a matter of fact, no Polish city, including Warsaw, fulfils the majority of the conditions and, in the case of Polish cities, the above mentioned criteria shall be relativised related to the nature of a settlement system as well as the level of economic development of the country, and should be used to analyse not yet the state, but the process of metropolisation.

With respect to the above view, Polish cities are only of a metropolitan nature, which they gain with the development of metropolitan functions. According to this degree of metropolisation, T. Markowski and T. Marszał (2006) proposed the following typology of Polish metropolitan centres:

- type A – Warsaw: accumulates exogenous functions of international importance and range, i.e. services classified in sector IV (administrative, political, financial, economic, cultural, educational, scientific, information, communication, especially those of decisive character (international administration, management and control), with a demographic potential of over 1.7 million;
- type B – Cracow, Tri-City; Cracow – in terms of metropolitan functions, it is a close match to Warsaw, and the functions are still being developed, especially academic, scientific and cultural ones; it is a main international tourism centre; and together with its integrated infrastructure, it has a population of about 1 million; Tri-City – with its streaked, spatial arrangement and population of about 1 million, it has many metropolitan functions (academic, scientific, cultural and is a tourism centre),
- type C – Wrocław, Poznań; Wrocław – about 0.8 mill. inhabitants, dynamically developing metropolitan functions and international connections (academic, scientific, cultural and as a sports

centre); Poznań – about 0.8 mill. inhabitants, dynamic development of metropolitan functions and international connections (scientific, academic, cultural and as a sports centre),

- type D – Łódź with its suburban zone – about 1 mill. inhabitants, highly developed academic, cultural and tourism functions,
- type E – the Upper-Silesian conurbation: huge demographic potential (about 3 mill. inhabitants), developed and complex settlement and urban arrangement, poorly developed metropolitan functions, apparent modernization processes, regeneration of degraded post-industrial areas.

Due to promotional and marketing endeavours, the term metropolis is abused, hence the hazard of depreciating metropolitan concepts into the group of metropolises. This creates inconsistencies in the definition.

The above hierarchy of Polish metropolitan centres shows that the Upper Silesian conurbation is only ranked as number 7, despite its complex settlement and urban system and a large demographic potential. It does not possess, however, distinct constitutive features, such as developed metropolitan functions and high quality urban space. Possibly, in the future, the Upper Silesian conurbation will become a “group of cities” characterized by division and complementarity of functions, and will develop a functional urban system. At present, it is still a group of cities which do not form a functional entirety. It is demonstrated by a slight degree of integrity in the sphere of spatial development, management, municipal services, and weak transportation networks. These cities compete with each other rather than cooperate.

The Upper Silesian conurbation has been, in a specific economic and social situation, created by the system transformation. Now, it is a decadent industrial region with traditional industry branches (mining, metallurgy and heavy chemical industry), a contaminated natural environment and a devastated settlement system, and; therefore, the space is of poor quality, which distances it from the group of future metropolises.

Admittedly, industrial regions (centres) under the influence of organizational and technological progress undergo functional and spatial transformations (deindustrialization – liquidation of heavy industry, reindustrialization – development of small

and medium enterprises, tertiarization of economy, globalisation – mergers of enterprises and integration of economy). After the reform of the system, in traditional regions, a multi-stage restructuring process was initiated, whose aim was to: decrease technological backwardness, increase the effectiveness of manufacture, make the economy international, improve the living standards of the population and the quality of the natural environment (Szajnowska-Wysocka, 2009; Tkocz, 2001). Revitalization of urban space is connected with the restructuring processes in their functional and spatial meaning. As a result of progressive restructuring and modernisation, several examples of post-mining revitalization may be pointed out in the Silesia region (in the area of a liquidated “Cleophas” (“Gottwald”) mine the Silesia City Center complex was built, and a housing estate (“Debowe Tarasy”) and office buildings (“Silesia Office Towers”) are under construction). At the same time, in the area of the former “Katowice” mine, a project of constructing a new Silesia Museum is taking place and also; there are also plans to locate there a Congress Centre, an Archdiocesan Museum and a housing estate (Szajnowska-Wysocka, 2008). The first signs of technological innovation are observed (the Technopark Gliwice and the Sosnowiec Science and Technology Park) as an origin of a technopolis in the Upper Silesian conurbation (Szajnowska-Wysocka, 2009).

The development possibilities of metropolitan centres depend on their potential generated by several types of capital, such as human and social, infrastructural, financial and environmental. In the case of the Upper Silesian conurbation, it is difficult to valorise even one of the mentioned capitals. Taking into account their resources, the inclination would be towards the demographic potential – over 3 million; however, its potential for stimulating the activation of metropolitan functions is not going to depend on the state of population, but on its human and social capital.

It is known that since the time of Aristotle, the middle class has been the class predestined to hold power and social dominance. Therefore, the idea of creating this class as a carrier of a country’s development, the factor creating social capital, and the basis of political order and stability appeared in political programmes of post-socialist transformation. But it is very difficult to have a middle class in regions which

the civilizational mission of the socialist formation endeavoured to construct as industrial centres, where the mainstay was the working class. Their economic appreciation and prestige (the graduates of vocational schools), and depreciation of higher education, have deformed the social structure. The regions of Silesia, Walbrzych and Lodz are the best examples of such sociological processes. Especially in the Upper Silesian conurbation, where historical events caused that local elites (middle and upper class) were very modestly represented, the more so that some of them willingly or unwillingly conversed their nationality. This is particularly visible in the Upper Silesian conurbation, according to B. Jałowiecki and M. Szczepański (2002), in such regions, in cities of real socialism, the creation and shaping of the middle class is going to be difficult, but possible in the long term, based on their intellectual, economic and academic potential. Here, Bassand’s opinion (1997) may be recalled, according to which the process of metropolisation does not rely on the creation of large metropolises and shaping their world network, but on the transformation of the social structure of the metropolis itself, together with its infrastructure. Metropolisation shall contribute to the transformation of urban community (society).

#### **4. An attempt to empower the Upper Silesian conurbation**

The idea of empowering the Upper Silesian conurbation, that is creating an urban superstructure (“Silesia”), has a long history. As early as after World War II, the Upper Silesian Industrial Region presented itself as a prestigious industrial region in the country, but, due to their traditional industrial monoculture (mining and metallurgy), none of its cities formed metropolitan functions to compete with Cracow or Wrocław. Therefore, in the plans for the spatial development of the Śląskie Voivodship, there began to emerge various concepts of shaping the space of the Upper Silesia conurbation, e.g. a coherent “superstructure” or diversely “fragmenting” the conurbation into separate units. In the 1970s, a concept for the new GOP’s centre based on a hexagonal transportation system was developed, but it was not implemented.

The post-socialist transformation, however, led not only to a change in the economic role of the region in the national economy, but also to democratization of social life, which allowed for growth of regional and local initiatives in the form of strategies, projects and scenarios of economic restructuring of the region. In the process of forming the new economic order (functional and spatial) of the region and its role in the newly shaping space of Poland in the beginning of the 21<sup>st</sup> century, its crisis situation is revealed. This region was the economic core in the territorial organization of the country at the turn of the 19<sup>th</sup> and 20<sup>th</sup> centuries. During the following turn of centuries (20<sup>th</sup> and 21<sup>st</sup>), however, a turn in the structure of Polish space took place, namely the Silesia region lost its status as a core area. What is more, it became peripheral, far beyond the reach of the new centre of Poland in the 21<sup>st</sup> century, which is shaped along the European Axis of Development in the 21<sup>st</sup> century: Paris – Berlin – Poznan – Warsaw – Minsk – Moscow (Szajnowska-Wysocka, 1999).

It was only access to the EU, that re-inspired activities aimed at the creation of a uniform, large urban system (“Silesia”) from the Upper Silesian conurbation. The idea of local government members provided for the organization of the conurbation (a group of hierarchical cities with a common transportation network) managed by a “supramayor” but with the preservation of own distinct identity and functional structures of individual cities in default of an administrative and legal act. Such an attempt was made at the end of 2007, i.e. local governments of 14 cities registered an urban association, the Metropolitan Association of Upper Silesia (GZM), integrating 14 cities with county rights (Górnośląski..., 2008). According to the intentions of the initiators of uniting Upper-Silesian conurbation cities into a communal union, it will allow for the elimination of disadvantages resulting from the individual activities of separate cities, including: weak competitiveness in comparison to larger cities (e.g. Cracow or Wrocław), the consequences of heavy industry restructuring, and the functional structure and municipal property ownership structure.

The main statutory tasks of the GZM include:

- 1) a common development strategy for the cities of the union, in accordance with the act on spatial planning and development;

- 2) management of roads taken over by the GZM;
- 3) labour market activation in the cities of the GZM;
- 4) obtaining national and foreign financing (special purpose funds);
- 5) application for EU budget resources;
- 6) supporting the innovation of economic programs that increase the competitiveness of the cities;
- 7) cooperation with local governments and, local and regional communities, and national administration authorities.

This image was going to be changed by the idea of constituting the “Silesia” metropolis, which, after forming its metropolitan functions, would compete with national metropolises. Such an idea of “Silesia” was supported by local governments and the national government but there needed to be a relevant administrative and legal act which would enable the functioning of such a structure (Chmielewska, Szajnowska-Wysocka, 2010).

The constructive activity of the GZM shall mostly bring effects in the continuous improvement of conurbation management, enhancing economic activity of member cities as well as the common, integrated promotional actions. The Metropolitan Association of Upper Silesia, in its first stage of activity and in a multiple-stage process, prepared a document entitled “Promotional strategy of the Upper-Silesia and Zagłębie Metropolis Silesia”, 2009, which showed the awareness of the need for unified management for the poly-centric group of cities. Then, due to the lack of the “metropolitan act”, further dynamic actions were undertaken to prepare the “Strategy of Development for the Upper-Silesia and Zagłębie Metropolis Silesia up to 2025”, 2010. This strategy, as a multiple-aspect task, is indispensable for coordinating the union of the GZM cities and, increasing actions towards a competitive position of the Upper-Silesian conurbation against other national agglomerations, and for aspiring to the category of the international range of metropolises.

## 5. Social perception of the “Silesia” undertaking

The idea of creating “Silesia” ever since the first information appeared in the mass media (2006), the

idea of creating “Silesia” has evoked strong emotions and released discussion, which has been publicized in the regional and national press. The first controversial issue became the name for this urban community, which is territorially delimited by the Metropolitan Association of Upper Silesia (GZM). According to public opinion, the name should be short and easy for foreigners, but it should be associated with the region. Among the proposed names of “Katowice”, “the Agglomeration of Upper Silesia”, “the Southern Conurbation”, “the Agglomeration of Silesia and Zagłębie”, the name “Silesia” was recognized as unambiguous and historically natural.

Further issues were the registered office of the “Silesia” authorities, their structure and source of financing. As for the office, a centrally located small city was suggested, i.e. Siemianowice Śląskie. The mentioned issues did not reduce historical antagonisms between Silesia and Zagłębie, especially on the part of Zagłębie.

Silesia is a historic region with a diverse identity that has been shaped since the Middle Ages. It has been under various administrative, political, economic and cultural systems due to the fact that, as a region abounding in mineral resources, it was the object of rivalry between several adjacent countries (Germany, Poland, and the Czech Republic). Therefore, its inhabitants have always been a mix that wanted to be united with its structures in order to be separate from areas located outside the Upper-Silesian region. That is why its inhabitants have always been mixed, and wanted to be united through a structure that would separate them from areas outside the Upper-Silesian region. The inhabitants of the historic region have created their own regional identity, detached from changeable national systems with diverse politics towards them (Bahlcke, 2011). Multiculturalism and the border location of Upper Silesia made the region open towards the inhabitants of the Southern Borderlands, who frequently settled in Upper Silesia after 1945 (Gliwice, Zabrze, Tychy); (Szajnowska-Wysocka, 2003, 2006).

The administratively and politically stable part of the coal basin, called Zagłębie, was, on the other hand, mostly inhabited by Polish people with Polish national identity. They have not been under the influence of different economic or cultural systems, nor have had to “shelter” in a diverse regional identity. For the purpose of distinctiveness, the north-

eastern part of the Upper-Silesian Industrial Region is traditionally referred to as Zagłębie, but it is not a historic region.

In the social debate over the “Silesia” undertaking, there are arguments for and against. The arguments for the creation of “Silesia”, presently institutionalized by the GZM association, may be grouped in the following manner:

- 1) the unification of cities will ensure their better future due to the fact that on the European arena of region competition at present, only large metropolises count, and cities of the conurbation may not compete with even with Polish metropolises, less the European ones;
- 2) the Upper Silesian conurbation is already an urban superstructure formed in the agglomeration process of heavy industry and, whose inhabitants take advantage of specialist functions (administrative, educational, academic, health, tourism, economic) of particular cities;
- 3) “Silesia” will make it possible to solve common problems. In a conurbation which is morphologically unified and functionally linked, many problems are shared, such as: transportation, water supply, roads, parks, green areas and promotional programmes (Szajnowska-Wysocka, 2011).

Arguments against “Silesia” are numerous and are subject to social reflection. Together with positive emotions, they form a profit and loss balance of such an undertaking:

- 1) the cities of the conurbation do not cooperate, but compete. Particular local governments do not understand the idea of metropolisation and examine the process in the category of individual profitability, regardless of common interests of the urban complex;
- 2) inhabitants are afraid of losing the autonomy of their cities. They do not understand the idea of a consolidation of cities against the massed tabloids with sensational slogans: the new city of “Silesia”, the mega city of “Silesia”, without the explanation that empowering “Silesia” serves the purpose of joint management and financing of the common technical and economic infrastructure;
- 3) Warsaw does not need competition – a large southern metropolis in terms of territory and population;



- 4) the inhabitants of Zagłębie are afraid of the dominant Silesia (the predominance of Silesian cities);
- 5) the Silesians and the Zagłębie people are not going to live in a joint city – the historic conflict has been emotionally revived.

Having analysed the above arguments, several conclusions may be drawn:

- 1) the arguments of “Silesia” supporters are rational. The cities of the conurbation should cooperate in order to solve common problems in a more effective way;
- 2) the arguments of “Silesia” opponents are emotional and rational, and they are historically conditioned. These arguments express worries in relation to the idea of “uniting” the conurbation. What becomes apparent is the lack of good will to cooperate and competition for dominance, which disagrees with the idea as a whole (Szajnowska-Wysocka, 2011).

## 6. Research results: the metropolitan potential of the Upper Silesian Metropolitan Area (GOM)

At the stage of diagnosing metropolisation in the Silesian region, an attempt was made to monitor the institutional basis indispensable for creating metropolitan functions, which are a prerequisite for the creation of a metropolis that is to authenticate the metropolisation process and shape a metropolitan area. In order to achieve it, an attempt was made to delimit the Upper-Silesian Metropolitan Area (GOM) and to define its inner structure (Fig. 1) (Zuzanska-Żyśko, 2011). A metropolitan area may be differently delimited, depending on the criteria applied. Figure 1 presents according to the settlement criterion. The centre of the examined area was named as the central metropolitan group. It was singled out according to the administrative criterion of cities of the district rights, which create a uniform area. It is a group of 14 centres with the highest population and rank. These cities simultaneously create a voluntary municipal union named the

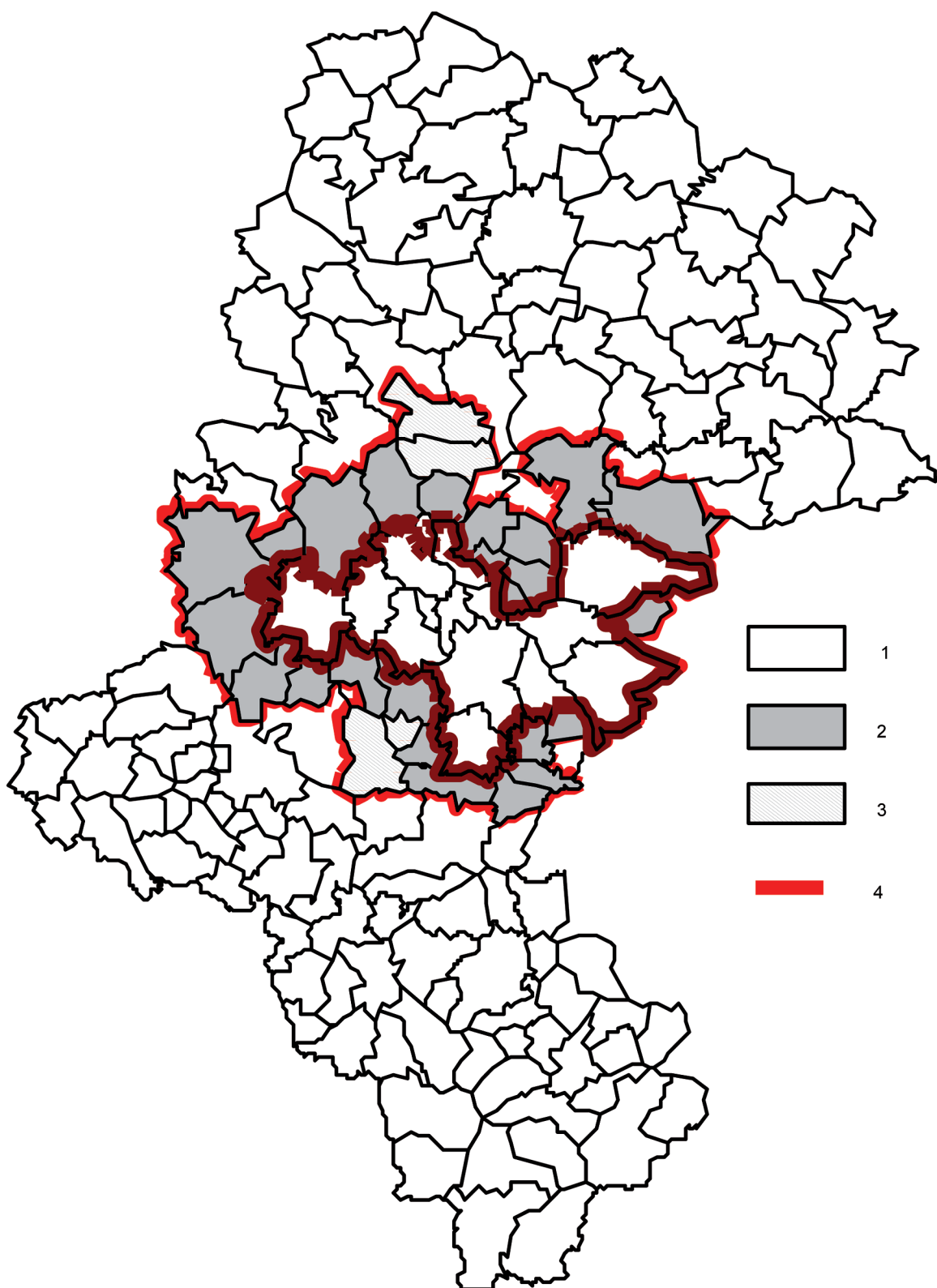
Metropolitan Association of Upper-Silesia (GZM). These cities create the core of the future metropolis. All the adjacent boroughs make the outer metropolitan zone. These are towns as well as rural boroughs. This zone was extended by 4 small towns that, due to their adjacent borders, make up a cohesive settlement area (the neighbourhood criterion). They are referred to as border towns.

The metropolitan potential of the GOM may, to some extent, be evaluated when analysing the frequency of occurrence of metropolitan features and the index of their centrality (Table 1). For this purpose, a hierarchy of cities (according to the degree of centrality) was used, which is reflected by the following typology:

- A – Katowice;
- B – Gliwice, Chorzow;
- C – Tychy, Sosnowiec, Zabrze;
- D – Ruda Śląska, Mysłowice, Bytom, Siemianowice Śląskie, Swietochłowice, Dąbrowa Górnicza, Piekary Śląskie, Tarnowskie Góry, Czeladź;
- E – Jaworzno, Bedzín, Mikołów.

Type A (Katowice) is characterized by the presence of all metropolitan features and simultaneous occurrence of well-developed metropolitan functions. The institutional base confirms the presence of advanced metropolisation processes in the city. Type B (Gliwice, Chorzow) agglomerates a significant group of institutions and services of national rank. This serves a complementary role for Katowice and participates in metropolisation through developed metropolitan functions. Type C (Tychy, Sosnowiec, Zabrze) represents cities where metropolitan functions are still being shaped. The institutional base represents selected services of national and international importance (Table 1). Poor metropolisation processes, though, are observed in type D. Here, metropolitan institutions are sparsely represented. Simultaneously, the cities of Ruda Śląska, Mysłowice, Bytom, Siemianowice Śląskie, Swietochłowice, and Piekary Śląskie have a low degree of centrality. Type E (Jaworzno, Bedzín, Mikołów) does not participate in the process of metropolisation. Its institutional base is not developed and neither are its metropolitan functions.

The hierarchy and types of cities are presented in Fig. 2.



**Fig. 1.** The Range of the Upper-Silesian Metropolitan Area (administrative criterion)

Explanation: 1 – central metropolitan complex (core), 2 – external metropolitan zone, 3 – border towns of the external metropolitan zone, 4 – USMA's border

Source: Zuzńska-Żyśko E. (2012)

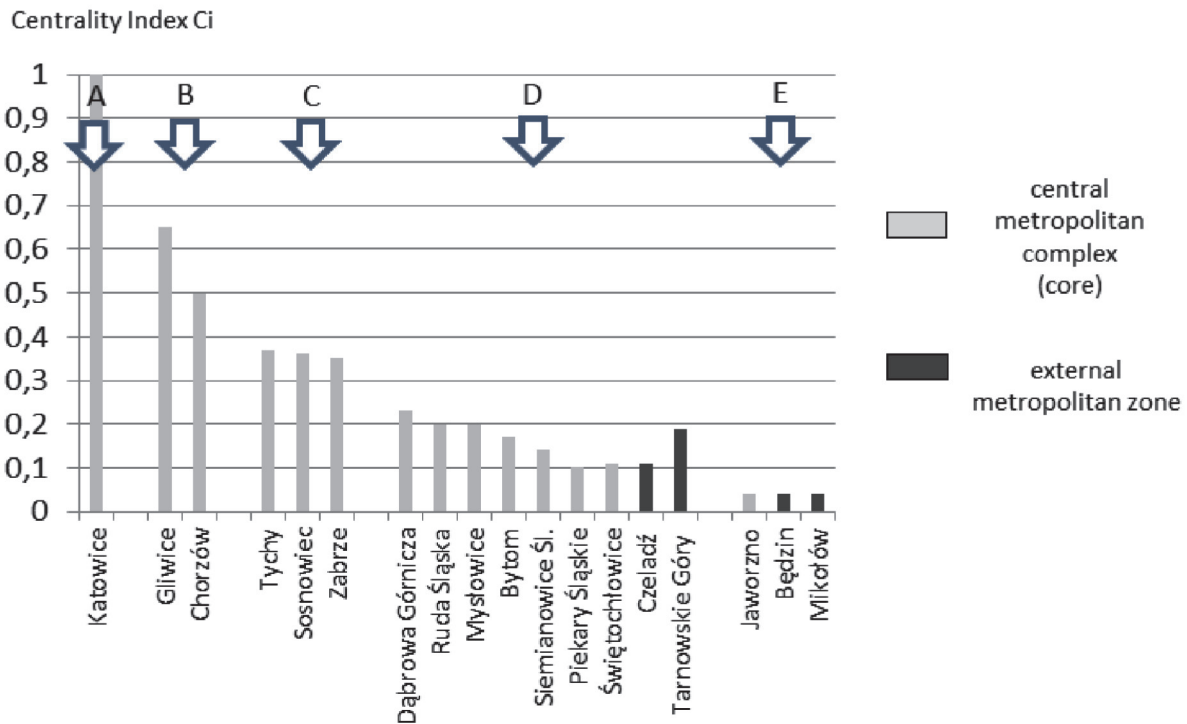


Fig. 2. The Hierarchy of Cities

Explanation: A, B, C, D, E – city types

Source: Author's own study

The above typology, complemented by the ranking of centrality of specific features, makes it possible to evaluate the metropolitan rank of features, and therefore their participation in the stimulation of the development of metropolitan functions (Table 1). As Table 1 shows, high centrality characterizes institutions such as: bank headquarters ( $C_j=94$ ) and shops (salons) of exclusive clothing ( $C_j=83$ ); in the examined area they are sparse since they are only present in 3 cities (Katowice, Gliwice and Sosnowiec). A similar degree of centrality characterizes international sports events (Katowice, Chorzow, Tychy). However, a medium level of centrality ( $C_j=78-61$ ) is typical for the majority of features (embassies and consulates, technology parks, business incubators and innovation centres as well as high standard hotels, technology parks and cultural institutions), which are more common – they are present in 8 cities. Exclusive car showrooms, transport junctions and health institutions are placed much lower in the hierarchy of centrality.

The analysis of the upper right matrix box in Table 1 points out the expected regularity, i.e. the maximum and large number of examined features in the biggest cities, which is proportional to their position in the institutional hierarchy and vice versa (their lack in the left bottom matrix box, due to the fact that such institutions (supra-regional) are still not existent in smaller GOM's centres). The monitoring of metropolitan features requires a thorough characteristics of the examined features in order to diagnose their metropolitan character, which has been done in a detailed study (Zuzanska-Żyśko, 2012).

The ranking of the centrality of metropolitan features and the hierarchical typology reveal that a new phase of urbanisation in metropolisation is becoming apparent in the GOM in the form of the first supra-regional institutions with a national range, which appeared in Katowice with Chorzow and Gliwice. Other cities to be mentioned are Tychy, Sosnowiec and Zabrze because they (together

with Gliwice and Chorzow) might become complementary centres in the future. Such a position in the settlement hierarchy is the conclusion of numerous functional and spatial studies of the cities (Klasik, 2008, 2009, 2010; Sobala-Gwosdz A, 2010; Petryszyn, 2011).

J. Petryszyn (2005), having examined the institutional base of centres at the district level in Poland, points out the fully developed district functions of the analysed centres.

The examined area has also been the subject of analysis of the scope of central functions by D. Sokołowski (2006), who defined regional sub-systems of central areas. The high centrality of Katowice, among other province capitals in Poland, confirms its intra-regional importance. In the examined area, research on regional foresight has been conducted (Bondaruk, 2011). The presented vision of the development of metropolitan public services in the Upper-Silesian Metropolitan Area refers to four theme aspects: transport, health services, culture and the environment management system. At the present, initial stage of metropolisation, it is difficult, or rather not recommended, to re-evaluate the scenarios of development. The progressive metropolisation of selected public services will verify them and establish further directions of development.

## 7. Conclusions

In conclusion, it is observed that:

- 1) In the atmosphere of a peculiar metropolitan renaissance, the term “metropolis” is abused, which is very relatively justified;
- 2) The use of the name: the common city (mega city) of “Silesia”, at the point of creation, had influenced the perception and debate on the idea of unifying 14 federal cities;
- 3) Lack of preparation of local governments with respect to methodological aspects, e.g. “a workshop on metropolisation” with academic researchers of this issue (Department of Settlement Geography and Regional Studies, Faculty of Earth Sciences, University of Silesia);
- 4) In the Upper-Silesian conurbation, symptoms of the metropolisation process are noticed in the

form of a small institution basis with suprar-regional character, which creates the basis for shaping metropolitan functions depending on their supraregional and international range;

- 5) On the basis of conducted research, it may be concluded that the Upper-Silesian conurbation is in its initial phase of the metropolisation process. This phase is fully reached only by the fully developed metropolitan functions of Katowice. The remaining institutional base of metropolitan importance is scattered in various cities, and its present state and range shows the first signs of the initial phase.

## Notes

- (1) Shopping centers such as Plaza or M-1 have not been accounted for due to their commonness.

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