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URBAN CREATIVITY IN THE SOCIOLOGICAL PERSPECTIVE

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Abstract: In a rapidly changing environment due to globalization, we are constantly looking for appropriate paths and strategies for cities and regions while taking into account the territorialisation of growth factors.
As a result, we can observe an increase in development concepts that seek to define the conditions for urban resilience that could result in sustainable development despite an unstable environment.
The author places his reflections in the context of Upper Silesia's conurbation development challenges. He examines the current path of the region's development and analyses the role that the application of "smart city" and "creative city" concepts could play in this process.
Rather than comparing the efficacy of the two approaches, he suggests a reflection on the proportions of different bundles inside the development process. He also highlights the limits of a smart city approach and shows to what extent those limits can be exceeded through the application of a creative city strategy. Due to the economic and social diversity of the Upper Silesian metropolitan area, there is a significant opportunity for the development of the creative economy that could determine the competitive advantage of this area in the coming decades.

Keywords: Creative city, creative economy, creative industries, conurbation of Upper Silesia, metropolitan area, metropolis, smart city, Silesia region.

JEL codes: O180, O3

Introduction

According to Beck in his concept of a risk society, the dynamic nature of economic processes, the acceleration of global flows, and the correlation of events at a global level result in a sense of liquidity, volatility, and thus instability (2012). Therefore, we tend to seek new paths and models of development, the majority of which are territorialised and focused on a region, and in particular on a city. Cities, the most

common human habitat of the 21st century, are perceived as the key space where development is generated. All attempts to build a universal model of a resilient city (*i.e.* a city that is resistant to the changes in the environment and its own substance) are accompanied by an inflation of concepts according to which cities should be capable of learning, compact, vital, smart, and even creative, although at first glance it may seem those features should be attributed to individuals only.

The joint objective of the authors of these concepts is to create a model of a city that is capable of permanently restoring the social and economic basis of its existence and maintaining its competitive advantage on the global market. An equally important requirement for modern concepts of urban development is to preserve a city that is a friendly place for people and that contributes to a high quality of life for its residents and visitors. Therefore, it is of fundamental importance to find a balance between those two imperatives, namely, economic efficiency and quality of life, as nowadays they are more correlated than ever before. This is due to the role of human capital and innovation in economic processes. The production of dematerialized products and flow of symbolic goods like network services, software, and any information processing tools require workers who are satisfied with their physical health, family, education, wealth, and environment.

In this article, we will focus on two increasingly popular urban development concepts. The first one is the smart city model, which is literally (albeit not fully correctly) translated into Polish as "intelligent city" (*miasto inteligentne*). What is often referred to as a smart city is usually in fact a city that is managed in a smarter manner with the use of IT tools. By identifying the limitations resulting from the implementation of smart city solutions, we will be able to present the concept of a smart city that is not merely a city with a creative economy, but rather where its creativity is related to the general mobilisation of residents, which makes such a smart city a sustainable city at the same time. We will apply each of these considerations to the processes taking place in the Upper Silesian metropolitan area which, although past the most difficult stage of post-industrial transformation, faces challenges relating to sustainable development in the coming decades.

1. Towards a creative economy

Nowadays, we are in a situation where raw materials and their availability no longer play a key role in economic development, as they can be transported from the most remote parts of the world. On the other hand, information, knowledge, and its application in the creation of new values and needs, and thus new goods and services, have become extremely important. These developments are related to notions of knowledge-based economy and information society, but also to the so-called creative economy (Fr. *economie creative*), which takes these trends one step further by depicting the limitations resulting from innovations derived solely from the accumulation of scientific and technical knowledge.

The paradox of modern capitalism, already noted by Thurow, is that an economic system that independently prevails at the global level and is determined by the

imperative of effectiveness, requires investments that seem unreasonable based on the typical short-term approach (1999). These investments are necessary in order to further develop or even to survive. Obviously, this implies investing in people and their intellectual potential. Thurow refers to this as the period of balance disorder and questions the effectiveness of a system based on competition that is deprived of competition from other economic systems, thus eliminating the eternal motivation for improvement.

We can define creativity as the ability to create new values by transforming knowledge into new knowledge, which is the source of inventions and new solutions. Such defined creativity is often connected with the creative class, clusters, and districts. One of the first authors who emphasised the role of creativity as a force in changing the face of modern capitalism was Schumpeter, who referred to creative destruction as a characteristic of a modern economic system (1950: 82). However, creativity within the meaning adopted herein cannot be merely defined as technological innovation; instead, it is enriched by cultural and artistic aspects. Under this definition, creativity is related to the sector of cultural industries which, as this branch of activity developed, have begun to be recognised as a new economic sector. In the 2001 census conducted in the United Kingdom, two more subgroups of activity were distinguished; the first one included industries producing cultural goods (film, art, interactive games), while the second one was related to advanced services for businesses (advertising, marketing, architecture, design, software and website development). Further evolution and an increase in the importance of those forms of activity resulted in a replacement of earlier categories with the notion of creative industries, which spring from individual creativity, skills, and talents and which are capable of generating goods and jobs using creative activity and intellectual property (Liefooghe 2010: 185). Although the boundary between cultural industries and creative industries can seem blurry, they can be differentiated by their valorisation of creative (artistic) activity, which formerly had been treated as unprofitable, and currently has gained economic viability, often generating niche products of high added value. Creative industries are a stage in the development of creative economy where creative producers are confronted by creative consumers, and intellectual property as a source of added value is undermined by digital and social networks (*ibidem*).

Key development factors are related to people and their hidden potential. Hence, we seek the sources of development in specific communities where people, often the most creative ones, gather, communicate, meet, affect each other, and share their ideas. Therefore, development is territorialised, as its vehicles are nowadays sought in cities, and in particular in metropolitan areas.

In this context, when analysing the situation and economy in the Śląskie voivodeship, the prevailing sector is market and non-market services with the share in gross value added amounting to 60%. Industry, including both the traditional mining sector and the modern industrial production (mainly automotive), remains an important branch of economy with a share of 33%. The rapid development of both of these sectors is related to an intensive inflow of foreign investors, attracted by advantageous geography, attractive labour costs, and low fiscal burdens offered by

the special economic zone. Local demand and infrastructural investments supported by the availability of European Union structural funds have also reinforced the economic growth rate. However, the creative sector does not play any important role in the voivodeship's economy and the related entities account for 3% of the total number of entities registered in the region, compared to the national average of about 3.3%. Although every tenth creative entity in Poland operates in the Śląskie voivodeship, their number per 1,000 residents is only 2.9, compared to the national average of 3.4. The industry prevailing in the creative sector in the region is advertising, followed by architecture, publishing, and cultural institutions. The added value generated in the Śląskie voivodeship by the creative sector is 1.4%, which is much lower than the national average of 2.6% (IBS 2012). Thus, the generally high share of the Śląskie voivodeship in the national Polish GDP (13.1%) is mainly related to traditional services and industrial production sectors, and the share of entities using creative and artistic potential in the region is lower than the national average.

2. Smart city or smart management?

Matters related to urban development, as is the case with other areas of scientific research and activity, are not free from certain trends and fashions, which leads to a situation where the public becomes aware of some concepts more than others, and such concepts affect the strategies of operation of the actors. The concept of a smart city, which assumes construction of an "intelligent" city, is an example of a trend disseminated in the last decade.

How did the smart city concept become so popular? Firstly, a smart city promises an economically efficient city, which also implies an environmentally friendly city. This concept is perfectly in line with strategies of cities (*e.g.* former industrial cities) that attempt to build their new positive image as modern cities offering a high quality of life; the aim of such a strategy is also to attract new residents. Nevertheless, international corporations play an important role in the generation of demand for the technical components of a smart city. Corporations seek effective sales channels and in a very smart manner, by actually selling specific technological solutions (active monitoring, management of parking lots) and offering their vision of a city of the future to local governments, a vision which, albeit distant, might be within their reach with the gradual digitisation of urban infrastructure. In this context, city decision makers may be convinced to not only purchase ICT systems that allow for smart management, but also to open a path to being part of an exclusive group of next generation cities, which shift from smart management to smart cities.

Under the smart city concept, a city is perceived as an ecosystem (a system of systems), whose respective subsystems of communications, transport, healthcare and safety, energy, water management, etc. could coordinate and communicate with the use of digital technologies, sharing information generated in those subsystems and also by residents who use mobile applications (Rochet 2014: 25-26). It is assumed that such solutions would allow for the improvement of city authorities'

operations such as the quality of services, the accuracy of response to residents' needs, the reduction of costs (like energy use), and the reduction of pollution, but also the optimisation of residents' operations. For example, residents could gain access to current information (like traffic or road works), which would help them modify their activities accordingly. It is a cybernetic approach whose main result is the synergy effect. In other words, by combining and coordinating specific measures we are able to obtain better results than the sum of results obtained individually. From this point of view, the concept of a smart city is considered a tool supporting urban development, although it cannot be definitively stated whether it could be the engine of development as such. It is thus worth discussing the limitations resulting from the application of the smart city concept.

One of the main constraints results from system architecture. There is a specific limit to the complexity of such systems and the quantity of information that can be processed. Technically, it is possible to install sensors and cameras on every street and to register even the number of pigeons flying by. An open question is what to do with such information, how to transform it into knowledge and thus apply it in a manner facilitating the functioning of the urban system. The best architecture of a smart city system should combine three key features: 1. the ability to carry out tasks, 2. steerability, and 3. economic efficiency, or the relationship between the investments and the obtained utility (*ibidem*). We may thus ask about the number of kilometres of cable and the number of sensors and cameras, fully aware that after surpassing a certain level of technological saturation, utility will be decreasing until its growth reaches zero. At the same time, we should also take into account the sensitivity of such systems and the related security matters, as well as the cost of maintenance, operation, and potential repairs of those systems. Logically, there is a specific peak level of the development of a smart city's system architecture where the highest possible utility of the system is obtained. With the optimisation of costs and energy, theoretically it is possible to achieve the level of optimisation after which any further savings could only be made by abandoning certain activities, operations, or services. This could mean a decline in residents' subjectively perceived comfort, or could require changes to behavioural patterns. Herein lies another challenge for the development of smart city infrastructure, which is increasing the quality of life of its residents.

Founding urban development on increasing a city's attractiveness and improving its residents' quality of life is in line with the concept formulated by Florida, who emphasised the importance of non-economic development factors, such as the mood, the sense of security, the natural environment, the cultural activities, etc. (2010) Under this concept, cities compete with each other to attract the best human capital, which would imply that an urban creative class would develop, a vehicle for urban development in the 21st century. However, we should keep in mind that the positive correlation between the development of smart technologies in a city focused on economic efficiency and the improvement of the quality of life, and thus the city's attractiveness, ends at a certain level, after which the paths of both those strategies begin to diverge. This is the case in a situation where a city becomes "technicised", closed, and dominated by large businesses; it loses its human

dimension. It can also result from too high frequency of the expected interactions between residents-users and impersonal smart infrastructure, for which a resident is merely the provider of information. These interactions cannot replace the sense of closeness gained from contact with other people, or the awareness of community and personal ties. The latter, as an autotelic value, requires financial investments that can only be considered a cost without any economic viability according to the collective activity optimisation logic. However, a city in technical terms is only a material artefact, its primary nature being a complex social system (Laugie 2013; Rochet 2014).

Key challenges related to applying the smart city concept include the question of protecting the freedom and privacy of residents, excluding part of them (know as the digital divide), and risking their rejection of the proposed digital facilities due to disinterest. Although in theory the smart city concept places residents at the centre, one may be under the impression that such residents are often "forcibly blessed" with solutions in which they have not been included at the stage of preparation and implementation. After implementation, residents are expected to adjust to these solutions, including frequent attempts to generate new needs for these solutions that may or may not be in line with the residents' actual priorities. This is in fact related to the already mentioned policy of large corporations offering ready solutions to the cities on the assumption that if such solutions proved effective in other cities, they should also be effective in the ones in question. The last challenge that should be discussed is emergence, i.e. the processes and events that cannot be deduced from the analysis of smart city architecture subsystems (Rochet 2014: 38). Emergence includes the unexpected and often undesired effects of the correlation between subsystems. It is thus a challenge to anticipate and tackle those events under a system that, by definition, should reduce uncertainty by parameterising events, their anticipation, and their management in the future.

To sum up our discussion of the smart city concept as a trigger for urban development, it should be assumed that the digitisation of urban space and infrastructure is a process that cannot be stopped. The application of digital technology undoubtedly supports urban development by improving its economic efficiency, environmental conditions, and, to a certain extent, quality of life. For instance, results could include timely arrivals and departures of buses due to the smart transport systems applied. However, the optimisation of urban processes with information technologies has a specific peak value both in terms of its economic effects and in terms of the quality of life that can be achieved. The growing interest in smart technologies in the cities of the Śląskie voivodeship, which came to the attention of international corporations offering such solutions, has already translated into the implementation of specific solutions (smart monitoring, parking lot management system, and transport management systems). However, at the current stage of implementation those cities can hardly be referred to as smart; the application of the abovementioned solutions merely supports smart management of certain components of city infrastructure.

The focus on urban digitisation is so strong that stopping this trend no longer seems possible; as it has been discussed, such a trend has positive consequences,

but also implies certain limitations. Nevertheless, it is also worth mentioning two sources of digitisation of urban space. The first one is digitisation that is more or less inspired and controlled by city authorities, mobilised by corporations that commercialise their technological solutions. However, there is also another source of digitisation of specific city resources; it is of a grassroots nature and involves social and economic developments such as the sharing economy and prosumer phenomenon. In this case, we might attempt to define it as "civic and consumer digitisation". Obviously, it applies to the currently developed practices of sharing housing resources (*e.g.* Airbnb) and means of transport (*e.g.* Uber), or self-producing specific resources (*e.g.* prosumer energy production), often colloquially referred to as *city uberisation*. Such initiatives can be treated as an attempt to protect consumers against the market domination of large corporations. Users take advantage of the information technology of mobile applications and network logic to develop a network of direct exchange of goods and services among users without the participation of the industrialised enterprise sector. An open question remains to what extent city authorities should support this path of digitisation as a counterbalance for "corporate digitisation", considering the fact that the former is a grassroots initiative of citizens. It is undoubtedly a massive challenge, as the sharing economy in its present form may limit the revenues of both businesses and local governments; however, it is a sector that has only begun to develop and city authorities should not underestimate its importance.

3. Creative city as sustainable city

The creative city approach responds to the limitations of the smart city concept as an engine of urban development. Obviously, it should be smart to a certain extent, but its development is not solely based on technology, but rather on the search for a new basis of development by combining science and the latest technological solutions with the fundamental experiences of human beings, their culture, aesthetic sense, and art. We live in a society of information overflow where too much information generates attention deficit. Attracting such attention is thus one of the main conditions of market success. New values and products are increasingly of a dematerialised nature and their success can depend on their typical distinguishing features, including whether they stimulate our senses, sensitivity, or cultural tastes. Therefore, nowadays the sources of development are sought not only in purely technological progress, but also in the combination of science and technology with art, aesthetics, and emotions.

Although creativity can be considered an individual resource of an entity, from the urban point of view it should rather be perceived as the effect of a collective process. In this sense, creativity results from interactions between concepts and ideas and the social and cultural context. To cite one definition, cities are creative *when their cultural and economic diversity enables individuals to seek new connections, ideas, both accepted and not accepted by the social environment* (Liefooghe 2010: 193). Therefore, it is a city that allows its residents to confront their ideas, to experiment,

to create new connections and practices, and to submit them to social assessment in the hope that part of them would be accepted. Thus, by combining art, science, and technology, broadly understood, the barrier for purely technological innovations is surpassed. This, in turn, opens the way for a creative economy that refers to human sensitivity and aesthetics, which offers new opportunities, including those related to the creation of new products, and thus also new commercial and economic prospects.

The importance of the creative city concept as a development strategy should thus be discussed at two levels. Firstly, it is a new impulse and trigger of capitalism as a result of the emergence of creative industries and, ultimately, creative economy, with a large share of the creative class, or so-called creative experts. In this context, cultural innovations falling within the scope of social innovations become a vehicle of development. In order to demonstrate the limitations of purely technological innovation, it is possible to consider what level of technical specifications (such as camera resolutions in smartphones) can motivate customers to purchase new models. It seems that creating new patterns of behaviour using the phone, giving it new social functions, is what has been the driving force for sales for some time now. Similarly, we may also consider how energy-efficient, modern, and punctual city buses or trams can be thanks to smart management systems. Just like phones or other technology, these improvements would encourage us to use them more often and to leave our cars in the garage. The example of the French city of Montpellier proves that combining technology with art offers great potential in this respect. Every tram line in the city has its own unique design, which not only makes public transport intriguing, interesting, and more attractive, but also makes it more functional as it facilitates the identification of different lines (Nowakowska 2015: 30-31).

Nowadays, cities are not only expected to be modern (steel and glass) and well-managed with the use of IT systems. We also want the surrounding buildings to be clean and energy-efficient and the items to be functional; we want items to fascinate us with their ergonomics, colours, and shapes, to intrigue us and encourage us to experiment with them.

The second aspect of operationalisation of the creative city concept is to a certain extent a response to the criticism of the exclusive nature of urban creativity. This has been already mentioned by Zukin, who perceived the concept of a creative city and creative class as an offer addressed mainly to the middle class and a new chapter of urban segregation (1993). The city should appeal to us with the language of colours, values, and art; it should be the space created by the residents. Therefore, urban creativity is not only the creativity of the city's productive capacity, but also the city's ability to constantly self-produce on the basis of the creativity of residents. This refers to the city's role as a culture-maker. Cities are creative due to the mobilisation of the creative potential of city residents. Therefore, they should be living labs, where residents create their city themselves by inspiring participatory creative activity. Thus, the city enhances its human dimension and becomes more sustainable in the midst of technological and growth pressure from large corporations, who tend to instrumentalise the idea of smart cities.

When analysing the Upper Silesian metropolitan area from the point of view of the two abovementioned aspects of the creative city concept, it should be stated that implementation of that approach in said area is at a very early stage. However, it is accompanied by large creative potential resulting from the cultural diversity and wealth of this region. Starting with so-called creativity experts and creative industries, new initiatives keep emerging, which proves an increase in awareness towards the creative economy in this area. This is confirmed by investments in metropolitan cultural centres, such as the Katowice Culture Zone and acceptance of the capital of the voivodeship to the UNESCO Creative Cities Network as a result of awarding Katowice the title of a creative city in the field of music. This allows the region to host large musical events, but also to create new cultural offerings like the joint concert of Miuosh, Jimek, and the Polish Radio Symphony Orchestra, combining different musical styles to achieve a new quality. Lastly, ideas have emerged to create spaces where young people could express their creativity, "freely experiment", and combine and test ideas where no idea is bad or wrong by definition. This is the direction of the plans to build creativity accelerators, such as MusicHab (Katowice Institute of Culture: City of Gardens), SpinPlace (University of Silesia), and the Katowice Innovation Zone, not to mention many clusters and research and technological parks which can be found in almost every city of the Silesian conurbation.

With regard to the second aspect, it should be kept in mind that a creative city is a city that constantly reinvents itself with the participation of its residents. In the case of medium-sized cities with limited financial resources, urban creativity may also consist of the ability to valorise already available cultural, historical, and natural resources, which allows for the generation of economic added value. There are many examples of such activity in the Śląskie voivodeship; for instance, the Industrial Monuments Route and Industriada, which allow for a new perception of the industrial past of the region, making it an asset instead of a burden. However, the current level of involvement of broad masses of residents on these projects is relatively limited. The development of community revitalisation programmes under the new Act on Revitalisation of 9 October 2015 defines this process as activity to benefit a local community, implemented with its direct participation (Article 2(1)). It is a perfect opportunity to inspire creative activity based on the participation of residents in the transformation of their surrounding environment. Although we are aware of the fact that the drivers of development are the residents themselves and their (sometimes hidden) potential, city authorities do not always seek to use that potential. In certain cities, community revitalisation programmes were limited to a form available online for several days where residents could submit their comments. Fortunately, other cities were more involved in the process of revitalisation of urban space based on the participation and creativity of residents. Such an example may be Dąbrowa Górnicza and its project entitled "A Factory Full of Life", aimed at the revitalisation of the local machine tool factory, which will become a friendly public recreation space, and at the same time the city's model project (http://fabrykapelnazycia.pl).

4. Metropolitan areas and urban creativity

Human creativity is not limited by geographic boundaries and creative and talented people can be met at any latitude and longitude. This does not mean, however, that this intellectual potential is identically used everywhere, in particular if, as it is the case with a city, creative efforts are to a great extent the result of collective processes that occur in a specific and favourable environment. It is our opinion that metropolitan areas particularly foster the creation of such environment.

As a result of globalisation, humankind became more than ever a community of destiny, and the world has been turning into a single common place (Robertson 1987: 23). The resulting global correlation of social phenomena (Giddens 1990) caused many important resources to circulate at a global level, and the multiplied flows accelerated without precedent. Metropolitan areas constitute the nodes of such a global network. This is where the actual critical mass of actors and capital of the world of science, culture, and economy is accumulated. This in turn fosters relationship density, experimentation, and the combination of skills. Obviously, creation of this type of relationships and connections requires favourable conditions which form collaborative governance, including incentives for actors to participate, mutual trust, power-balance, and appropriate institutional design (Ansell and Gash 2008). In favourable conditions, such areas "pulsate" or even "vibrate", to refer to the increasingly popular notion of a *vibrant city*, which also points to the spontaneity of creative processes in a city. It is not only a matter of the abovementioned synergy typical for a smart city which, as we remember, implies reinforcement of our activities in a situation where their vectors are turned in the same direction, but rather of a "clash of ideas and concepts" from which new values of high quality may emerge. Hence, another important difference between the concept of a smart city and the concept of a creative city, is that the former aims at containing complexity and control, often avoiding emergent events as unforeseeable and thus undesired, whereas the same emergence is the epitome of the idea of urban creativity.

Such highly diverse and internally complex social systems as large metropolitan areas may, and often do, reveal their emergent properties. E. Morin, when analysing the complexity of the modern world, defined emergence as looming into sight from complex and dense social systems of properties, features, and events that would not have happened had those components remained isolated. Those features cannot be deduced from system components; their occurrence may only be stated empirically, as they are values that cannot be limited to the properties of system parts (1990). Morin presents a vivid example of emergence, pointing out the individual properties of hydrogen and oxygen particles, but also the emergent properties of water which is created from the combination of those particles, whose features cannot be boiled down to the individual properties of those elements analysed separately.

Metropolitan areas also foster such emergent creativity, brand new trends and ideas appearing as a result of social and economic diversity. Though we may accept or reject these trends and ideas, they very well may decide our success, including economic success. Therefore, cities should be smart, which in the current state of affairs means smart management, but above all they should be creative. The best

conditions for the development of urban creativity are created by metropolitan areas and metropolises due to their diversity and accumulated potential. Therefore, it can be concluded that stimulating urban creativity is one of the greatest challenges faced by contemporary metropolises, including Polish ones.

Coming back to the situation in the Upper Silesian metropolitan area, we should analyse the issue of appropriate proportions of the implemented development paths. Development is not uniform in Upper Silesia; instead, it is a bundle of intersecting strategies which, if possible, should be implemented simultaneously. Thus, insofar as it is possible, we should use the comparative advantage components of this area, which is capable of attracting investors with still relatively low labour costs, business operation costs, and costs of land for investment, and low fiscal burdens. This contributes to a dynamic development of the sector of more or less advanced industrial production, but also remote ICT services that do not generate high added value (like call centres). Such economic development based on traditional foundations is supported by large-scale infrastructural projects financed from generally available EU funds. When using this development path, which allowed for a relatively fast exit from the decline caused by the fall of heavy industry, as a basis for further development, we should keep in mind that the premium from comparative advantage will be constantly decreasing due to factors such as the increase in labour costs and business operation costs in Poland. Moreover, considering the announced limitation of the inflow of EU funds after 2020, we may make a prudent estimation that a development path based on comparative advantage and external financing can be maintained for only about eight more years.

A development path based on advanced technologies in line with the smart city strategy, which is very popular in the Upper Silesian conurbation, is a path which, despite the abovementioned constraints, may become the source of savings, improved effectiveness, and better quality of life in Polish cities for at least two decades. The degradation of urban substance and the uncorrelated urban digitisation and modernisation result in a situation where Polish cities still resemble "leaking buckets", whose tightening by means of smart management brings measurable development benefits.

Nevertheless, we must also think about development within the timeframe of 20 to 30 years, when the inflow of foreign investors attracted by low costs will stop, when the flow of EU funds will be limited, and when the value of modernisation and integration of urban networks with the use of digital technologies will become so high that further digitisation would mean a significantly lower return on this type of investment. When anticipating those challenges, we should also focus on the creative potential of human capital in the Upper Silesian metropolitan area so that it can become the basis for creative cities and a creative metropolis in the future. Therefore, even today, while continuing the current development paths, with certain modification of proportions, we should invest in the creativity of residents, young people, including those who arrive there to study, in the hope that perhaps successors of the authors of such applications as Blablacar, or Snapchat, which nowadays generate millions in profits, will be among them. However, those people should be kept in the region somehow, by creating favourable living and development

conditions for them. It is of utmost importance considering the alarming statistical forecasts, according to which by 2030 population of cities forming part of the Upper Silesian Metropolis may drop by 28%, from 2 million to 1.35 million (GUS 2015: 22).

Looking into the future and anticipating the related challenges is not easy, in particular if the current economic conditions are relatively good, with the second-highest GDP in Poland generated in the Śląskie voivodeship. However, this reality might not be easy to maintain in the long term without creating a basis for the development of intellectual potential and creativity in the region. The fetishes of modern-day economists, like GDP and *per capita* GDP, should always be compared to the measures representing how the income generated in a given area translates into greater freedom, life opportunities, and the potential to develop for the residents of such a region. In this way, development is a gigantic process of expanding human capacity in which freedom is fulfilled (Sen 1999: 315). Therefore, when analysing the development of the Śląskie voivodeship in the context of, for example, the *Social Progress Index*, it turns out that out of 272 of the analysed European regions, the Śląskie voivodeship ranked 250th, whereas in terms of opportunities created for residents, it was on the 215th position (SPI 2016). This makes us wonder about the manner of reinvestment of the wealth generated in the region and what proportion is allocated to investment in creative potential of the regional human capital. The current prevailing trend seems to be concentration of pro-development activities on the elimination of technical and infrastructural deficits and delays in the region.

Innovation and creative potential form an important component of the process of metropolitan function development and are typical for metropolitan areas. Therefore, it should be expected that financial instruments used to develop metropolitan potential, such as the Integrated Territorial Investments (ITIs), should support such activity by means of specific metropolitan projects. However, according to the strategy for ITIs implemented in the Central Subregion (CS) of Śląskie voivodeship, *until 2020, the ITI instrument in CS will focus on the elimination of the current deficits... Other important and large projects in support of metropolisation and smart development will be implemented by local government authorities in the region and entities operating in CS under a different formula* (Strategia ZIT 2015: 11). Further reading reveals that the mission of ITI is *to achieve internal cohesion of CS and to eliminate problems preventing full activation of smart and metropolitan development potentials* (*ibidem:* 124).

The prospect of the creation of a Silesian Metropolis gives hope for a dynamic and sustainable development of the Upper Silesian metropolitan area. At the time of writing this article, the Act on the Metropolis is past the parliamentary working stage. In this context, experts from the Observatory of Urban and Metropolitan Processes at the University of Silesia in Katowice conducted surveys among members of local governments from the cities forming part of the Upper Silesia metropolitan area, asking about the priority areas of cooperation for the city. Certain concerns may be raised by the fact that creativity and innovation in businesses ranked only fifth according to city officials. Mayors basically failed to mention those issues, their first priority being transport, although health and education were also pointed out in the context of the coordination and complementarity of public services in the metropolitan area. The survey presents a probable image of the future

institutionalised metropolis, which is treated by local government officials mainly as a tool of technical cooperation focusing on transport, environmental problems, and spatial development. According to the officials, the stimulation of creativity and innovation in the metropolitan area is not a priority for cooperation (OPMiM Report 2017). Although an effective transport network can be compared to the bloodstream of a metropolis, a metropolis is more than just a transport network. It is also a certain mindset of its residents, an effect of their diversity, potential, openness, which leads to a situation where such areas emanate new ideas and become a source of innovation and creativity. A mayor of one of the cities from the metropolitan area shared our concerns, stating that, *If it is to end with public transportation only, let's face it: what do we need the metropolis for? Only for the buses and trams to arrive? It doesn't make sense...* (*ibidem:* 64).

Nevertheless, regardless of institutional support, the Upper Silesian metropolitan area is now a source of very creative and innovative projects. In 2012, "Red dot – best of the best", the preeminent award of the design world, was granted to a Katowice-based company, which was the first Polish company to receive this award (Echo Miasto 2012). Not much later, in 2013, it was reported that the fastest processors in history had been designed in Bytom, which were then applied in 270 m devices worldwide, including the rover used by NASA on Mars (Gazeta Wyborcza 2015). Another example of an initiative demonstrating the creative potential in the region emerging at the tangent of science and art can be the video games accelerator created in 2016 by artists and scientists from the Art Faculty of the University of Silesia in Cieszyn (Nauka w Polsce 2016). Virtual reality and computer games are another area of creative economy that combine the skills of graphic artists, musicians, and IT specialists, amongst many others.

Investments, creativity, and human capital offer the path of development for the Upper Silesian metropolitan area that should be actively supported as one of the priorities of the future metropolis. It is even more important if we consider the fact that Polish artists, designers, and scientists who make attempts to implement pioneer projects in the area of creative industries start from the same position as their Western colleagues. Young people from Śląskie voivodeship do not have worse ideas than those of their foreign colleagues, but very often they have worse conditions, or even fear of failure and punishment they may face if they do not succeed. Changing this situation is thus a key challenge for the development of the future Silesian Metropolis. Culture as a catalyst of creative industries is one of the vehicles of development in the region, but it is also a tool of changing its current image. These changes are already underway and, according to the latest research, culture is becoming increasingly important in the life of residents of the Upper Silesian metropolitan area. According to the Polish Central Statistical Office (GUS), between 2010 and 2015, the number of educational events in museums in the metropolitan area rose by 98%, and the participation of residents in the events organised in cultural centres and clubs increased by 52%. Only between 2013 and 2015, participation in culture-related mass events rose by 75% (GUS 2015: 36). Such demand for culture can also be confirmed by the results of 2015 research in Katowice, where residents, while generally satisfied with changes in the city centre,

mentioned an insufficient number of cultural events as one of the key deficits (Raport z badań 2015). Therefore, founding development also on culture seems to be an appropriate path of development for the Upper Silesian metropolitan area.

Conclusions

To sum up, it should be noted that this article does not promote a single specific path of development, which at the beginning of the 21st century should be solely the creative economy, but rather discusses the proportions of the simultaneously followed paths of development and anticipated future challenges for the former industrial region of the Śląskie voivodeship. Therefore, while using the comparative cost advantage and external sources of financing in the form of EU structural funds as long as possible, the region should simultaneously optimise the operation of urban systems by application of smart management systems in the metropolitan area. Not only will this allow for the improvement of its economic efficiency, but also the quality of life of its residents. Nevertheless, assuming the horizon is several decades and taking into account the favourable conditions of the Upper Silesian metropolitan area in terms of diversity potential and social and economic wealth, an equally important vector of development should be the realization of creative potential in the area, both on the basis of production (creative industries and creative economy) and of the potential of residents involved in the city creation process (creative city, creative metropolis). One of the foundations of this strategy is culture as a vehicle of sustainable development implemented with the participation of residents, but it is also an impulse for economic development when we confront the limitations to the development of innovations solely based on science and technology.

Since culture is becoming "en vogue" again as an area of productive human activity, human beings likewise become the creator and medium that create the foundation for development processes. The final question we may ask in this respect relates to the emancipation of this process in the context of the valorisation of human and cultural capital. The idea to adopt people and their needs as the starting point in accordance with the design thinking concept may suggest an increase in their autonomy in economic processes. This may be confirmed by the already mentioned dynamically developing sharing economy, which successfully enters new areas of life. However, it is but one of the possible options. The second prospect is far less optimistic and it is in line with the views of K. Polanyi, who noted many years ago that the 18th century faced a massive transformation consisting of a shift from the economy being the function of the society to the market which makes society dependent on it (1944). Therefore, while economy used to be closed within social relationships, it began encompassing those relationships and enclosing them within itself. The question thus remains whether valorisation of cultural activity under creative economy does not actually mean its economic inclusion[1] (Luhmann 1994), i.e. the enclosure of activities that have been free from market viability to date.

[1] We refer to Niklas Luhmann's notion of political inclusion.

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