Smart governance and metropolitan dimension, Case for Krakow, Poland

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Abstract

The paper presents a reflection on the process of strategic metropolitan governance in the context of the author's own experience. The author, since 2004 (sometimes with his own company), has prepared or participated in the preparation (as expert, researcher and manager) of many strategies and development programs e.g.: Malopolska Voivodship, Krakow Functional Urban Zone, City of Krakow, City of Rzeszow, and others. That experience allows the formulation of the objectives of the paper, which consist in the disclosing of real mechanisms undermining the strategic reflection of metropolitan governance. The idea of smart governance is then seen in the context of institutional conditionings and determinants. Regional, sub-regional and local scales differ in terms of administrative circumstances and institutional constraints. However those limitations reflect the deeper institutional dimension of governance. Participative, inclusive approaches compete with bureaucratic environment. The authorities, acting in a neo-weberian governance style, pretend to open themselves to new urban movements and civic groups. At the same time, they are still tightly bonded to legal procedures (which is a good custom) and a hierarchical system of making decisions (which – nowadays cannot be evaluated as a best practice). The author's observations, especially concerning the preparation of the Krakow Development Strategy and Krakow Revitalization Program are confronted with theoretical approaches to the strategic planning of raising the significance of the contractual approach and the territorial dimension. The conclusions of the paper form a set of recommendations concerning the implementation of the idea of smart governance at the metropolitan scale, comprising sub-regional and regional measures.

Keywords: smart city, metropolitan governance, development strategy, functional urban zone, institution of contract.

1. INTRODUCTION

The process of transforming urbanized areas is influenced by various phenomena, typical to the first half of the twenty-first century. Metropolitan governance has to take under consideration: technological progress, globalization and territorial competitiveness accompanying it, societal ageing, and the increasing awareness of climate changes on Earth. These processes create various types of challenges in the sphere of territorial development, particularly with reference to shaping the environment of human life. Moreover, the strategic attitude to contemporary governance must take into account multi-unit relations of shareholders from different sectors and different levels of territorial management. Those processes demand relatively new approaches, linked with such ideas as *Smart City* or *Smart Governance*. The author, since 1997 (sometimes with his own company), has prepared or participated in the preparation (as city official, expert, researcher or/and manager) of many strategies and development programs for, e.g.: Malopolska Voivodship (regional scale), Krakow Functional Urban Zone (sub regional scale), City of Krakow, City of Rzeszow, and others. So, the present paper is a result of a participant's observations of the management of city development in the context of institutional economics.

Smart Cities and Regional Development Journal (03-2018)

2. SMART CITY AND SMART GOVERNANCE

The concept of the Smart City is currently widely known and described (Chourabi et al., 2012; Giffinger et al., 2007; Nemteanu & Pinzaru, 2017; Sobczak, 1989). Based on the review of references a good working definition of a Smart City could be "...a city well performing in a forward-looking way in economy, people, governance, mobility, environment, and living, built on the smart combination of endowments and activities of self-decisive, independent and aware citizens" (Giffinger et al., 2007). Another definition, underlining the IT as well as humanistic aspects of the city management assumes that a Smart City is "connecting the physical infrastructure, the IT infrastructure, the social infrastructure, and the business infrastructure to leverage the collective intelligence of the city" (Harrison et al., 2010). Thus, the key concept of Smart City is using: smart technologies and solutions regarding the society of network and social communication, energy and transport efficiency, and what is more, management in the conditions of public participation. So, Smart Governance is a kind of public management where the following aspects play a predominant role: social participation in making decisions, transparency of actions as well as quality and accessibility of public services.

Management strategies are based on dialogue. Real time management connected with modern technologies as well as smart networks of infrastructure are of strategic importance for Smart Governance. Such a type of city governance relies on some other strategic elements of Smart City, being:

- economy/competitiveness (Smart Economy) built on the basis of high-tech industries and ICT, developed R&D sector and creativity, all of these acting in the spirit of innovativeness, entrepreneurship, high productivity and flexibility of labor market;
- human and social capital (Smart People) created by: high level of competences, life-long learning, social and ethnic diversity, creativity, openness and social activity;
- quality of life (Smart Living) guaranteed by integration at the level of city and quarter: conditions of social coherence, cultural and educational infrastructure, health conditions, safety, quality of residential development, attractiveness of public spaces;
- high level of multi-dimensional systems of traffic flow (Smart Mobility) consisting in safe and integrated transportation systems, using ICT solutions linking all type of resources;
- healthy environment (Smart Environment) based on the optimization of energy efficiency and reduction of pollution, sensitive to climate change issues and sustainable management of resources (Noworól, 2012).

Today, contemporary territorial management in the spirit of Smart Governance requires an approach that will take into consideration the following:

- popularizing participation in making public decisions,
- guaranteeing a high standard of public and social services,
- transparent information policies accompanying coherent political visions and strategies (Sudarskis, 2010).

The new and maybe even futuristic look at the understanding of territorial management must also include the forthcoming development of the Internet of Energy and Logistics that build the comprehensive intelligent infrastructure of the 21st century, dubbed the Internet of Things, using big data and indirectly creating advanced intelligent management solutions (Nemteanu & Pinzaru, 2017; Rifkin, 2016).

An important understanding of Smart Cities is given by A. Sobol stating that "The cities should, in fact, only create the chances for creative development and provide its residents with incentives to originally shape new urban spaces and socio-economic features." (Sobol, 2017, p. 86).

A quite new concept related to the idea of Smart City was recently developed by J. Hausner. He states that "The concept of City-Idea is based on the belief that in order for the city to develop, it must be constantly invented. Each successive generation of its inhabitants does not invent it anew, but should invent it further, push it along the next trajectory." And further "... shaping city space becomes tantamount to generating urban values. It contributes to reconciling the existential urban values with the instrumental ones and ensures a high quality of life for city inhabitants." (Hausner & Kudłacz, 2017, pp. 214–215)

3. ELEMENTS OF SMART GOVERNANCE INCLUDED IN STRATEGIC DOCUMENTS OF THE KRAKOW FUNCTIONAL URBAN ZONE AND THE CITY OF KRAKOW

The author has undertaken the issues of implementation of a new tool in regional policy, which is known as Integrated Territorial Investments (ITI), approved by Poland in the Partnership Agreement, the main document specifying the principles of intervention of EU funds in Poland in the financial perspective 2014-2020 (Programming the financial perspective for the years 2014-2020 - Partnership Agreement, 2014). This tool is strictly related to the recognition, in the national system of territorial development, urban functional areas as the so-called areas of strategic intervention of the state (National Regional Development Strategy 2020: Regions, Towns, Rural Areas (NSRD 2020), 2010, pp. 95-103). Urban functional area (UFA) is a spatially continuous settlement system, covering a compact urban area and connected with it functionally urbanized area (National Spatial Development Concept 2030, 2011, pp. 178-206). Included in the EU system, Integrated Territorial Investments is a development instrument used for the implementation of territorial strategies of functional urban areas. The implementation of Integrated Territorial Investments in Poland is supposed to promote a partner model of cooperation of various administrative units. The basic conditions for ITI implementation include the establishment of a new institutionalized form of partnership – the so-called ITI Union that fulfills the function of common representation of authorities of cities and areas related to them functionally towards national and regional authorities. Another condition for ITI implementation is preparing the ITI strategy, being the main document with regard to granting support from activities/priorities implemented in this formula. The institutional

Smart Cities and Regional Development Journal (03-2018)

integration as well as a cooperation of local self-governments during the preparation of ITI strategy and its projects, demand a certain level of mutual understanding and willingness to collaborate, being a good lesson for participants. In a way, that cooperation – highly evaluated till now – can be treated as a formula of how to make urban governance more "smart".

The idea of a Smart City constitutes one of the main concepts of the Development Strategy of Krakow 203. The document was prepared through a combination of community participation and an expert approach. The idea of Smart City has been the leit-motif during the debate and preparation of relevant reports. All six dimensions of Smart City (Smart Economy, Smart People, Smart Living, Smart Mobility, Smart Environment, Smart Governance) have been interpreted thru the strengths and weaknesses of the city Krakow. As the second Polish city – by number of habitants, whole input to the state economy, R&D capacity, as well as cultural wealth – Krakow still profits from its multilateral richness resulting from the past. The ancient capital of Poland, once dominated by heavy industry during the communist era, has recently become one of Europe's most important centers of shared international services. That sector attracts 60 thousands employees, nearly 20% of the Krakow workforce. The city is proud of its relatively high quality of living. The biggest challenge for public authorities is now related to environmental issues. Due to physiographic circumstances and weak winds, Krakow is a seriously polluted city. Even if the situation is constantly getting better, pollution is one of the most frequently discussed issues in the city. The new City Development Strategy gives the framework for future interventions in six areas, being: i. Smart and Modern Metropolis, ii. Modern (High Tech) Economy and R&D Potential, iii. Culture and Cultural Heritage, iv. Quality of Life, v. Social Capital, vi. City Governance. A participative approach undertaken by city authorities has encompassed many activities: workshops with habitants and representatives of various sectors (business, R&D institutions, NGOs, start-ups, public sector), conferences, public hearings, and such events like hackathon or nominating ambassadors for strategic areas of development. It appears that the document will be adopted by the end of 2017.

4. CONTRACTUAL APPROACH TO SMART GOVERNANCE

The mayor of the city of Krakow declared – during a TV interview – that "the city development strategy should be a contract with its inhabitants". In short words, that statement deeply corresponds with the challenges which contemporary strategic planning is confronted with. It matches to the fact that we can observe a significant change in the state's role as a guardian of the institutional order. We can define that order as "the set of institutions, which has exclusive legalized power of laying down the rules, which are governed by the people in one or in many societies, having internal and external sovereignty over a defined territory" (Stankiewicz, 2012, p. 182). The understanding of the problems of the state's changing role, in particular with respect to the animation of the development processes, was included in previous publications of the author (Noworól, 2013). This comprehension assumes the growing role of partnerships between

34 Smart Cities and Regional Development Journal (03-2018)

participants of the so-called hybrid (multi-sector) partnerships (Noworól, 2014). The relationships between the participants are increasingly related to the contractual dimension of the mentioned partnerships (Rhodes, 1997; Sroka, 2009). In fact, the entire strategic document, in terms of Multi-Level Governance (MLG), has to become a kind of agreement between the local community in question and the entity responsible for animating the development processes which is political authority / public administration. Multiplicity of decision-making centres, network connections, and the need to carry out public tasks in the borders of functional areas gradually shift the scope of responsibility of the authorities and public administration from the sphere of fulfilling strictly specified (statutory) tasks towards contractual activities, defined in cooperation with social and economic partners, or other levels of territorial governance (EU, national, and Voivodship).

Thus, an institutional model of local development strategy will be a relational contract (Litwincewa, 2003, p. 156; Stankiewicz, 2012, p. 112). It is also relevant to phenomena characteristic to the strategic Smart Governance. The features of such a contract encompass:

- long-term nature, resulting from the need for planning in the timeframe that allows for the implementation of constantly changing, advanced technological solutions;
- prolongation mechanism, due to the need to continue the work in programming periods covered by successive strategies;
- low level of formalization, especially when we meet various concepts of what a Smart City means;
- self-fulfilling protection mechanism, due to the fact that all parties to the contract are interested in its proper conduct;
- non-standardisation, resulting from the local specificity of the need for the enhancement of endogenous potentials of the city;
- the existence of an adaptation mechanism, which is necessary in the changing conditions and the socio-economic and political environment of cities and their functional urban zones.

Smart City strategy seems therefore to be a form of an agreement between the stakeholders of the process of local development management. The preparation of a such a plan, requires the conduct of the inter-organisational stakeholders' dialogue, which involves negotiation and bargaining, in the context of deliberation process. Behind that type of participative approach, there must be an understanding of what Smart City means, whether it is a narrow view, related to the implementation of high-tech solutions to the municipal governance, or a broad look, taking under consideration social demands and challenges related to such global phenomena as: demographic changes and migrations, climate issues, new forms of the work and role of the labour force, and finally – multicultural dimensions of governance. In such a context, the concept of City-Idea can emerge as more relevant and accurate.

5. CONCLUSIONS

Contemporary cities strive to be "smart". In the complexity of contemporary times they try to find solutions which allow the combination of their development and current management in the dimension of a functional urban area, as well as in relation to contemporary global challenges. Krakow is a good example of that type of approach, which has been presented on the basis of two recently formulated strategies. The essence of the attitude of public authorities toward municipal governance remains as a contract between the city hall and the community. Looking at quoted management concepts and implemented strategic solutions, we should observe further steps in city development. Time will show how far in the future it can be really called Smart Governance.

REFERENCES

- Chourabi, H., Walker, S., Gil-Garcia, J. R., Mellouli, S., Nahon, K., Pardo, T. A., & Scholl, H. J. (2012). Understanding Smart Cities: An Integrative Framework. 45th Hawaii International Conference on System Sciences. https://doi.org/10.1109/HICSS.2012.615
- 2. Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanović, N., & Meijers, E. (2007). Smart Cities: Ranking of European Medium-Sized Cities. Vienna, Austria: Centre of Regional Science (SRF). Vienna.
- Harrison, C., Eckman, B., Hamilton, R., Hartswick, P., Kalagnanam, J., Paraszczak, J., & Williams, P. (2010). *Foundations for Smarter Cities*. IBM Journal of Research and Development, vol. 54(4), pp. 1–16. https://doi.org/10.1147/JRD.2010.2048257
- Hausner, J., & Kudłacz, M. (2017). City-Idea how to ensure circular development. In *OPEN EYES* BOOK 2, Kraków: Fundacja Gospodarki i Administracji Publicznej. (pp. 189–222). Retrieved from http://oees.pl/wp-content/uploads/2017/11/OEB_2017_EN_www.pdf
- 5. Litwincewa, G. . (2003). Institucyonalnaja ekonomiczeskaja tieorija. Nowosybirsk: NGTUniw., Russia
- 6. National Regional Development Strategy 2020: Regions, Towns, Rural Areas NSRD 2020. (2010). Warsaw: Ministry of Development.
- 7. National Spatial Development Concept 2030. (2011). Warsaw: Ministry of Development.
- Nemteanu, F., & Pinzaru, F. (2017). Smart City Management based on IoT. Smart Cities and Regional Development (SCRD) Journal, vol. (1), 91–97. Retrieved from http://www.scrd.eu/index.php/ scrd/article/view/12
- 9. Noworól, A. (2012). "Smart governance" a zarządzanie rozwojem w mieście przyszłości "Smart governance" and management of development in the city of the future. Czasopismo Techniczne, 1–A(1), pp. 39–48.
- 10. Noworól, A. (2013). Ku nowemu paradygmatowi planowania terytorialnego. Warszawa: CeDeWu, Poland.
- 11. Noworól, A. (2014). The Role of Hybrid Partnerships in the Management of Development. in: I. P. Kovacs & C. M. Profiroiu (Eds.), *The 21st NISPAcee Annual Conference: Regionalisation and Interregional Cooperation, May, 16-18, 2013, Belgrad, Serbia.* Bratislava: NISPAcee, Slovakia.
- 12. Programming the financial perspective for the years 2014-2020 Partnership Agreement. (2014), Warsaw: Ministry of Development.
- 13. Rhodes, R. (1997). Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability. Buckingham: Open University Press, US.
- 14. Rifkin, J. (2016). Spoleczeństwo zerowych kosztów krańcowych. Internet przedmiotów. Ekonomia współdzielenia. Zmierzch kapitalizmu ("The Zero Marginal Cost Society") (e-book). New York -Warszawa: PALGRAVE MACMILLAN - "St. Martin's Press LLC" / Wyd. Polskie-Wydawnictwo Studio.
- 15. Sobczak, A. (1989). Model dostarczania wartości z budowy inteligentnego miasta. Academy of Management Executive, vol. 3(3), pp. 196–197. Retrieved from http://rocznikikae.sgh.waw.pl/ p/roczniki_kae_z33_28.pdf
- **36** Smart Cities and Regional Development Journal (03-2018)

- 16. Sobol, A. (2017). Inteligentne Miasta Versus Zrównoważone Miasta (Smart cities versus sustainable cities). Studia Ekonomiczne, Zeszyty Naukowe Wydziałowe Uniwersytetu Ekonomicznego w Katowicach, nr 320, pp. 75–86. Retrieved from https://www.ue.katowice.pl/fileadmin/user_upload/ wydawnictwo/SE_Artykuły_291_320/SE_320/05.pdf
- 17. Sroka, J. (2009). Deliberacja i rządzenie wielopasmowe. Teoria i praktyka. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego, Poland.
- 18. Stankiewicz, W. (2012). Ekonomika instytucjonalna, Zarys wykładu (III). Warszawa, Poland.
- 19. Sudarskis, M. (2010). *Metropolis now*. Gedafe: INTA International Symposium on Urbanism: Cities in Metropolitan Regions.