

APPLYING THE URBAN FUTURES METHODOLOGY FOR EVALUATING THE METROPOLITAN DEVELOPMENT IN TIMISOARA, ROMANIA

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Abstract: *Timisoara is one of the first five city from Romania, an important Growing Pole in DKMT Euro-region. Timisoara is also into an inner-periphery, among four European capital, Bucharest, Belgrade, Budapest, and Wien that are less than 600 km away. After the political change from 1990 the entire country was massive affected by economic, social, cultural and juridical reconfiguration. During 1990s the city has to deal with a significant population lose, due urban sprawl, negative birth rate and outmigration. Nowadays the municipality try to strengthen the Timisoara's resilience by developing the metropolitan area. This paper present how can be used the Urban Futures Methodology to evaluate the sustainability of public policies, actions, measures applied toward the transform the city into a metropole. This work was supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CCCDI-UEFISCDI, project number 66/2017 COFUND-ENSUF-3S RECIPE (I), within PNCDI III.*

Keywords: *Urban resilience, Inner periphery, Urban governance.*

1. INTRODUCTION

One of the main benefits of the fall of the Iron Curtin was the opening of the boundaries and the massive migration from East to West. A direct consequence of the restauration of the free circulation of the people was the depopulation of the Eastern countries. Almost all post-socialist cities from Central and Eastern Europe that are inner peripheries has known a significant process of shrinkage. The main cause was obviously the significant difference of living condition between West and East Europe. Another issue was related by the urban development, more strategic and functional in West comparatively with forced industrialization in East (Szelenyi). Thus, almost all medium and large cities in Romania, including Timisoara were developed over the historical configuration, with a non-functional mix of houses on ground neighborhoods and ten level block flats, with inadequate structure of urban services and utilities and, in many causes overcrowded due to extensive industrial facilities and demand of working forces. In this context, due to 1990s' Timisoara has lost around 50.000 inhabitants by urban sprawl toward nearby villages, by negative birth rate (after the liberalization of the abortion) and by outmigration. After 2010 the city has recovered a part from these demographic declines and now the official population volume is relatively stable at 330.000 inhabitants (Figure 1).

Urban shrinkage is nowadays a common stage into the evolution of medium and large cities all over the globe. Following the official statistics in Europe, in particular, 38 out of 100 cities have less population today than they did 25 years ago, before the fall of the Berlin Wall. By the mid-2000s, the share of shrinking cities across Europe's larger urban areas with 200,000 residents and above had reached 42% (Turok & Mykhnenko, 2007; Mykhnenko & Turok, 2008). Into the

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last quarter of century, the population loss, socio-economic decline or stagnation have had a profound impact on more than 2,700 municipalities in the European Union alone. Many cities, situated in close proximity to powerful centers of economic growth and cultural vibrancy, find themselves in their shadows – at the *inner periphery* – of regional, national, and global developmental trends (ESPON, 2013; Pike et al., 2016). During the last decade into the academic and public discourse it was made a great progress in recognizing the causes of the socio-economic *inner peripherality*, and in documenting the complexity of its consequences (see Boom & Mommaas, 2009; Ganser & Piro, 2012; Grossman et al., 2013; Martinez-Fernandez et al., 2012; Pallagst et al., 2014; Oswalt, 2005). A good deal of concerted action has already been taken on the part of many governments and local authorities in Europe and beyond, reacting to the most immediate, visible, and damaging consequences of urban shrinkage (Haase et al., 2016; Langner & Endlicher, 2007; Neill & Schlappa, 2016; Richardson & Nam, 2014).

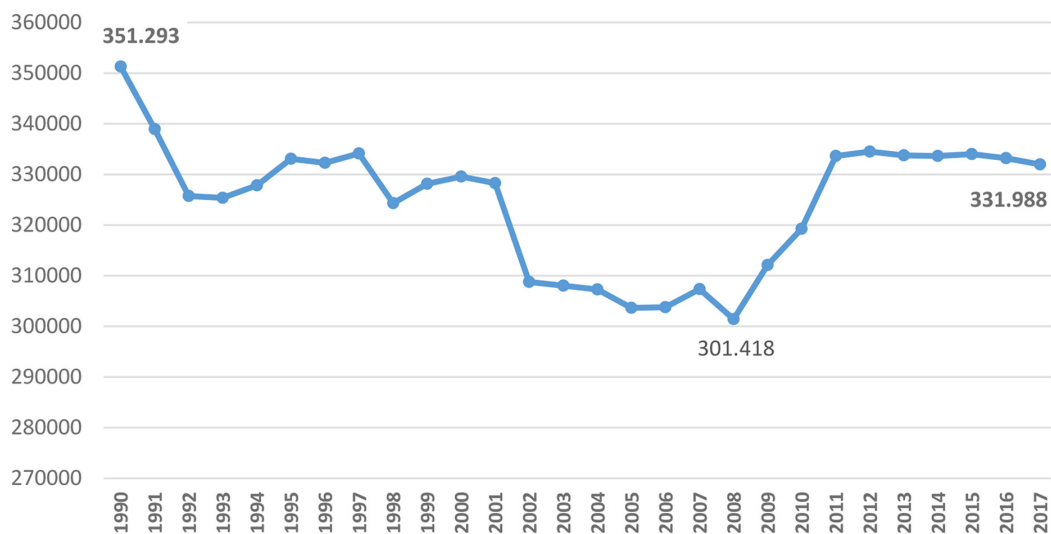


Figure 1 The evolution of the Timisoara's population after the 1989

Sources: Romanian National Institute of Statistics

2. METHODOLOGY

As an inner-periphery the further natural development of the Timisoara is limited by three big European capitals that are neighbor: Bucharest, Belgrade and Budapest. Starting from 2000 the Timisoara City Hall has prepared the Metropolitan master plan for defining a clear goal of urban planning. Since than there were develop several actions and projects to connect the city with the new residential neighborhoods, and to implement various urban services into these areas. Even the Timisoara's aerosolization can be considerate a very legitime purpose for further development of the city its implementation is not a surely and sustainable approach. Thus, for the evaluation of the viability of the development of the metropolitan area in Timisoara as a direct measure against the population decline for an inner periphery city, we have applied the Urban Future Method into the project 3S RECIPE *Smart Shrinkage Solutions. Fostering Resilient Cities in Inner Peripheries of Europe* financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CCCDI-UEFISCDI, project number 66/2017 COFUND-ENSUF-3S RECIPE (1), within PNCDI III.

Following the authors description, "*the Urban Futures Method aims to broaden the way we thing about the form and function of urban development and regeneration by focusing on the*

likely long-term performance of today's urban design solution and their associated risks. The Urban Futures Method is primarily for use when the stakeholders involved in implementing a sustainability solution consult together to make decisions as part of the redevelopment process. The greatest value comes when there is an opportunity for all partners involved to exchange knowledge and ideas and to create better solutions based upon their combined knowledge." (Lombardi et al., 2012). The UFM involve a group decision activity with the following steps: (i) identify a sustainability solution for an urban problem and its intended benefit (solution-benefit pair) for analysis; (ii) identify the conditions necessary for this benefit to be delivered; (iii) determine the performance of the necessary conditions in the future – *will the necessary condition be in place?* (iv) determine the resilience of the solution benefit pair to future change; (v) decide on the appropriate course of action: to implement the solution as is, adapt it to address vulnerabilities, or replace it with an alternative solution. Depending of the group structure the output can have different profile, but as the participants are mostly stakeholders or people connected with the analyzed topic the results remain into some frame.

The smart shrinkage solution analyzed by UFM may be strategic, as principle or detailed, focus on a specific target related to population decline and associated consequences. Whatever the short-term effect of a given solution, policy-makers must adopt a longer-term perspective to ensure its continued performance throughout its intended lifespan, despite changing conditions. The question to ask is, thus: *Will today's smart shrinkage solutions deliver their intended benefits over a 40-year regeneration cycle, typically used for planning investment and development proposals?* During this project, we have tested the likely future performance of each urban development and regeneration-related 'smart shrinkage solution-benefit pair' – that is, actions taken today in the name of sustainable urban development – in a series of possible future scenarios for the year 2060. If a proposed solution delivers a positive legacy, regardless of the future against which it is tested, then it can be adopted with confidence. Four plausible but distinct future scenarios were included into our analysis (see Lombardi et. al., 2012: Table 2). A summary of these four global archetypal urban future scenarios is provided below:

- (i) **The New Sustainability Paradigm:** equity and sustainability. *An ethos of "one planet living" facilitates a shared vision for more sustainable living and a much-improved quality of life. New socio-economic arrangements result in changes to the character of urban industrial civilization. Local is valued but global links also play a role. A sustainable and more equitable future is emerging from new values, a revised model of development and the active engagement of civil society.*
- (ii) **Policy Reform:** economic growth with greater equity. *Policy Reform depends on comprehensive and coordinated action for poverty reduction and environmental sustainability, negating trends towards high inequality. The values of consumerism and individualism persists, creating a tension with policies that priorities sustainability.*
- (iii) **Market Forces:** competitive, open global market. *Market Forces relies on the self-competitive markets. Current demographic, economic, environment and technological trends unfold without major surprise. Competitive, open and integrated markets drive world development. Social and environmental concerns are secondary.*
- (iv) **Fortress world:** protection and control of resources. *Powerful individuals, groups and organizations develop an authoritarian response to the threats of resources scarcity and social breakdown by forming alliances to protect their own interests. Security and defensibility of resources are paramount for these privileged rich elites. An impoverished majority exists outside the fortress. Policy and regulation exist but enforcement may be limited. Armed forces act to impose order, protect the environment and prevent a societal collapse.*

Into the 3S RECIPE project it was analyzed the urban resilience of the Timisoara's metropolization by Urban Future Method. For this it was organized one workshops with 16 local stakeholders from Timisoara City Hall, Romanian Development Agency, National Institute of Statistics, experts for the urban commission of County Council, Timisoara Intercultural Institute NGO, Vitamina NGO and West University of Timisoara. The starting point was the identification of the municipality response to the population decline due to 1990s. In Table 1 there are presented the identified policies responses for each cause of depopulation:

Table 1. Policies response of the Timisoara's Municipality to the causes of the depopulation during 1990s.

Causes	Policies responses
out-migration	<ul style="list-style-type: none"> • economical facilities for investors; • support for newcomers – to attract working force and to convince the students to remain in the city after graduate
negative birth-rate	<ul style="list-style-type: none"> • national financial support for new born child
urban sprawl	<ul style="list-style-type: none"> • Metropolitan Development Plan (2000)

Source: author work

The UFM was applied on the evaluation of the actions, projects and interventions implemented by the Timisoara City Hall toward the metropolization of the city. For this development the participants to the workshop have identified several benefits, such: urban planning and organization at a large scale, preserving local identity, access to social services for a large amount of population from closer villages, implementing of the principle of urban ecology, the improving of quality of life, the diversification of the occupation (due to a more developed labor market), the economic development, the extension of the infrastructure and of the transportation system and, last but not least, the diversification of the leisure activities. For each of these benefits the participants to the workshop have identified one afferent necessary condition that contribute to the existence of these benefits. Besides the ten necessary conditions directly related with the ten benefits synthetized for the developing of the metropolitan area, it was formulated a supplementary condition related by the increasing of the volume of population. It is obviously that if the Timisoara as an urban inner-periphery will don't attract more inhabitants the metropolitan plan is not sustainable.

Into the second part of the workshop it was analyzed each necessary condition from the perspective of the fourth archetypally scenario: The New Sustainability Paradigm, Policy Reform, Market Forces and Fortress World. The participants have to mark with yes/no/maybe and to formulate a short argue for each condition into the perspective of each scenario. It was obtained a grid where can be observed what it will happening with the Timisoara's metropolization if in the next 40 years the city will evaluate for one of other from these scenarios. As can be observed into the Table 2 the Policy Reform Scenario is the most adequate future evolution of the city for implementing the metropolization process, since the Fortress World is less adequate. The option for one or other of these future evolutions is not complete under the municipality control, they are depending also by several regional, national and euro-regional factors. Despite these, if there are clear sign for going toward others scenario with a less support for the developing of the metropolitan area the City Hall and other stakeholders will have at least the possibility to reconfigure the development strategy, and to reduce the allocated resources for this less sustainable project.

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	New sustainability paradigm	Policy reform	Market Forces	Fortress world
NC0. Increasing the population volume	YES – Increasing the population volume would be facilitated by this scenario aiming a better quality of life and active civic participation of citizens	YES – because this scenario aims to reduce poverty and social inequality, promoting welfare (although such living conditions may reduce the birth rate)	MAYBE – depending on the market forces dynamics, population may grow or decreases	NO – this scenario promotes a minority with access to the resources and drives away the poor majority
NC1. Linking of the development strategies to generate synergies at the metropolitan area	YES – raising awareness of public sphere and prioritizes solving common issues/ social problems into an integrative approach. The correlation of the Timisoara's and nearest villages' strategies generate a sustainable urban ecosystem.	YES – the only way to gather/focus the resources and achieve social integrated development on all levels so that the entire metropolitan population to can benefits of a better life	MAYBE – depending on the interest of actors (playing on the free market), could appear divergent mechanisms favourable for speculation which contravene common strategies	NO – in this scenario resources are available only for a privileged rich elite. This elite will promote only its agenda, independent by the common policies and regulations/social development.
NC2. Strengthening local values, construction of an integrative spirit and a metropolitan mentality	YES – Timișoara has a <i>green identity</i> , being called „The City of Roses” Timișoara's cosmopolitan identity should be preserved and transformed into a more inclusive, metropolitan identity. All these elements are favorable for a sustainable harmony cohabitation/conviviality with an active civic society and an increasing quality of life.	MAYBE – depends on the development of civil society and on the collaboration between the public institutions, political actors at the central level, local administration and local/ regional NGO's. The reform of the public policies can be oriented even at micro level (with promoting of the Timisoara's spirit) or at macro level (with promoting European values)	MAYBE –if the newcomers and the new economic agents will use and promote the local brands, local specificity. Market forces could increase the local entrepreneurship competitively or the multinational corporations.	YES – The focus on preserving local identity, Timisoara's values and habits, will highlight the differences/gaps at the metropolitan area's borders, and could increase the isolation of the metropolitan area.
NC3. Expand and diversification of social services, education and health facilities	YES – poverty reduction, increasing the quality of life and environmental sustainability could be achieved by coherent social strategies and policy offering diversification of social services, education, health facilities, social economy offer (depending on the community needs and problems).	YES – a shared vision of a more sustainable environment and improved quality of life will respond to the need and diversification of social services. The dynamics of metropolitan realities will claim a permanent adaptation of the social services to improve the quality of life and to ensure a sustainable environment.	MAYBE – if the social services private providers will get a profit by diversifying these services.	NO – the privileged elite have no interest in expanding social services, or to diversify social resources and social services for the fortress outsiders
NC4. Developing housing policies	YES – the active engagement of civil society will continuously remind and prioritizes on the public agenda the need of a coherent housing policy aiming an equitable future.	YES – the metropolitan area will continuously need a housing policy reform, with focus on better living conditions to reduce poverty and well-integrated regulation to ensure environmental sustainability. The housing policy is directly associated with the development, mobility, environment youth, education policies.	YES – the land owners and the real estate developers will compete for building houses with increased living conditions and residential areas well equipped (playing grounds, recreational facilities, transportation and so on)	NO –the powerful groups will not be interested to support the costs of a housing policy
NC5. The transfer of some urban functions to periphery (of the metropolitan area)	YES – a sustainable solution of development consists in the availability of urban functions (would be less time consuming and will reduce the pollution and the transportation costs). Also, the suburbs will develop real social life and would be transformed from the „residential dormitory” into a „living/ vivid social community”.	YES – there is a need for the stakeholders' consensus towards a master plan centered on the urban functions needed by the metropolitan areas	MAYBE –uncontrolled investments could produce irreversible effects on the community life. Urban functions at the peripheries can have or not have a potential competitiveness comparable with those of the city center	NO – the privileged group will tend to oppose the transfer of the urban functions at/outside the fortress borders

	New sustainability paradigm	Policy reform	Market Forces	Fortress world
NC6. A more diversified work opportunity	NO – caring for a sustainable living and effort for improving the quality of life assume rejection of specific work domains and limit the diversity of work opportunities that are not eco-friendly.	MAYBE –work opportunities may diversify in social services area, in education and health care, but also new domains that can facilitate the work integration for vulnerable categories of population (social entrepreneurship, social economy organisations for unqualified workers, but also encouraging IT industry and other high qualified jobs in sustainable, and eco-friendly domains).	YES – a powerful labour market creates a more diversified work opportunities, encourages start-ups, and increases the competition on the labour market.	NO – the powerful group tend to be more conservative and oppose to any diversity/diversification for outsiders.
NC7. Attracting new economic agents into metropolitan area (in the suburbs)	MAYBE – welcomes the eco-friendly investors and economic agents and reject the others.	YES – a well-planned and integrated strategy for the development of the metropolitan area will increase the trust of the economic agents to invest and the active measures for maintaining the environment sustainability (the development of industrial parks adequate equipped).	YES –stimulating the dynamics of labor market – ensures new jobs, available land and attract work force from the region (within a 200-250 km radius, near the metropolitan area).	MAYBE –if the dominant group will need more workers or other economic agents to control resources.
NC8. Improving and diversifying the public transportation system (e.g. new routes for public transportation, diversifying alternative transportation, car sharing services)	YES –facilitate and promote a healthy lifestyle, a cheaper and sustainable ways/alternatives for the present public transport services. The new geographical configuration of the metropolitan area allows changing and improving of the transportation system.	YES – an integrated development strategy for the metropolitan area should stimulate public investments in alternatives for the public transport services, to ensure the connectivity between different residential areas.	MAYBE – if stimulating public-private sustainable partnerships, or if economic agents will develop (new) transport facilities for their own employees.	NO – a better connectivity links different communities, but could not divide.
NC9. Developing routes infrastructure: fast routes, expanding the bicycle tracks, metropolitan train, commissioning the Bega navigable channel	MAYBE – reduces transport costs, increases connectivity in the metropolitan area; but is questionable if will improve the quality of life for the inhabitants and if will ensure the environment sustainability.	YES –increases the connectivity between residential areas, industrial facilities and urban facilities (saving time currently spent in traffic jams and reduce transportation costs); considerable investments for developing routes infrastructure.	MAYBE –limited possibility to co-opt private investors for developing routes infrastructure (the legislation states that the routes infrastructure should be in the exclusive administration of the public authorities).	NO –is not in the interest of the dominant group to develop routes infrastructure outside of fortress.
NC10. Developing community centres, cultural centres and leisure centres/entertainment	YES – it will ensure the „community life”, increases the role of the civil society and stimulates an active citizenship.	YES – stimulates cultural policies, cultural NGO’s, and cultural projects/events accessible for the large public (e.g. represents one of the pillars of programme Timișoara – European Cultural Capital 2021).	YES –increasing investments into entertainment facilities, cultural centres (as a profit opportunity, entrepreneurship development in the cultural field)	NO –limited access to culture facilities for a small elite.

3. CONCLUSION

The Urban Future Methodology represent a very usefully tool with an interdisciplinary background and with a direct applicability for the policies makers. It has some weakness related by the configuration of the participations at the workshop (various groups of stakeholders can generate various outputs). However, the UFM provide a very consistent image about what was made related with the specific subject and, most important, make a consistent prediction about what is possible to happen with all of these in the further decades.

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