

SOCIAL INNOVATIONS AND SUSTAINABILITY OF MODERN URBAN DEVELOPMENT MODELS IN KAPOSVÁR

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Abstract

In Central and Eastern Europe after the change of regime following crisis management new innovative models of urban development have emerged under the influence of the EU (sustainable city, green city, smart city, culture based, commuting city, resilience city...). In our country, however, these are primarily top-down initiatives, EU funds "direct" urban development: 2007-2013: Pole program, Integrated Urban Development Strategy, 2014-2020: Integrated Settlement Development Strategy, Modern Cities Program. Emphasis is placed on functional urban development (eg European Capital of Culture (ECC) - culture-based urban development), new models of urban development are emerging. During an empirical research, Four Hungarian medium-sized cities (Békéscsaba, Eger, Kaposvár, Sopron) have been examined with the aim of having a long-term overview of the given town's development and improvements, the problems affecting its everyday life, the internal and external challenges and the evaluation of responses thereto. In this publication, the case study of Kaposvár is examined: how current urban development can be described, what impacts influence the city, what function the local society has.



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1. Introduction, objectives

After the regime change in East-Central Europe, following crisis management, new, innovative urban development models have emerged, influenced by the EU (sustainable city, green city, smart city, cultural city, commuting city, resilient city...).

In Hungary, however, these are initiatives primarily coming from the top; urban development is “guided” by EU funds.

During an empirical research, four Hungarian medium-sized cities (Békéscsaba, Eger, Kaposvár, Sopron) have been examined with the aim of having a long-term overview of the given town’s development and improvements, the problems affecting its everyday life, the internal and external challenges and the evaluation of responses thereto. What social, economic, environmental issues are present in relation to urban development and urbanisation, what solutions are being sought for them, what innovative urban development model is used and what characteristics it has with regard to the examined city? In this publication, the results for Kaposvár are presented.

2. Description of innovative urban development models

The concept of sustainable city and eco city, having become a bit out-fashioned nowadays, are considered to be the oldest concepts. These can be obviously considered as a direct result of environmental awakening, responding to the urban view of the environmental crisis: on the one hand, the problem of heavy urban sprawl and air and water pollution in the Western and developed countries, and, on the other hand, the adverse environmental and social effects of accelerating urbanisation and urban growth recognized in developing countries. These topics were first discussed at the first international conference of UN Habitat (Centre for Human Settlements) in Vancouver in 1976, of course, without using the term, sustainable urbanisation, which has become widely known following the Brundtland Report (Whitehand 2012). The term has been created as a result of the institutionalisation of Europe and the European Union, the so called Aalborg process, commenced upon and named after the approval of the Aalborg Charter in 1994 at the first European Conference on Sustainable Cities and Towns. Later, another significant milestone was the Melbourne Principles approved in the Local 21 Agenda in 2002. In the conceptualisation of the sustainable city, which has become more and more popular since the 1990s, the three well-known pillars of sustainability proved to be decisive while others gave greater importance to the environment and others took a socio-economic approach. According to De Jong et al. (2015), the concept of the liveable city and the green city are also close to the sustainable city, the latter referring to a more ecological meaning. These days, the concept of sustainable cities has become an umbrella term as a synonym, covering many concepts (Fu, Zhang 2017).

The concept of eco city can be traced back to the formation of Urban Ecology in 1975. One of its founders, Richard Register has written *Ecocity Berkeley: Building Cities for a Healthy Future* (1973) in which eco city means a city planned and managed while considering ecological carrying capacity. The roots for the concept of resilient cities, in some cases translated to Hungarian as flexible city, go way back as well, however, its use become popular in relation to cities following the urban catastrophes in the 2000s (9/11, Hurricane Katrina).

Resilience was first used to describe ecosystems in 1973 by Holling, as a characteristic of ability to respond to external stress, changes and survivability. Its institutionalisation can be associated with the United Nations Office for Disaster Risk Reduction (UNISDR) which launched its “Making Cities Resilient” campaign in 2010 (Jabareen 2013).

The concept of knowledge-based urban development has been brought up by Knight (1995). The low-carbon or climate-friendly city is a political product, brought to the forefront by the climate or carbon discussions of the 2000s, and it has been put into practice in Hungary as well (Salamin et al. 2011). The first studies were published in the mid-1990s in connection with smart cities and the World Forum on Smart Cities in 1997 projected a major development of the concept. Numerous cities have announced smart city programs and international organisations have flagged the concept up, see e.g. the EU2020 Strategy announced in 2010 (Hollands 2008; Cocchia 2014). The paradigm of smart city is undergoing spectacular development, both in the scientific scene and in practice. Creativity-based urban development seems to be replaced by it, but as we have indicated, it is also taking the lead within eco-urbanism, overshadowing the environmental approach. However, there are reverse attempts, indicating an approach towards each other (slow city, smart food city – Mayer, Knox 2006; Matta, Caballero 2013; Maye 2018). Such development may be experienced in Hungary as well, however, it has not reached the international level yet. (Horváthné Barsi et al. 2011; Egedy 2017).

Table 1: The main concepts of eco-urbanism: the beginnings and characteristics

	Scientific/political beginning	Main characteristics
<i>Sustainable city</i>	UN Habitat, Vancouver 1976; Aalborg Charter, 1994	Three sustainability pillars and their indicators
<i>Eco city</i>	Richard Register, 1973	Ecological carrying capacity, being in harmony with nature – widely employed, no definition
<i>Low carbon city</i>	UK Energy White Paper: low carbon economy, 2003, UN Habitat 2011	Technological innovation and lower carbon dioxide emission
<i>Smart city</i>	World Forum on Smart Cities 1997, urban projects from the 2000s	Economic and administrative efficiency, economy-based urban development, inclusive society, high-tech and creative industries, social and relationship capital, social and environmental sustainability
<i>Knowledge city</i>	Knight 1995 – knowledge-based urban development	Knowledge-based economy, rich human capital, preserved environments, high-quality built environment
<i>Resilient city</i>	Holling 1973, UNISDR 2010	Resilience of a system against external stress

Source: Hollands (2008); Whitehead (2012); De Jong et al. (2015); Fu, Zhang (2017)

3. Methods employed

3.1. An overview of urban policies

The current situation, past and future of the city is examined and described by analysing different urban development documents (Településfejlesztési Konceptió 2014-2030 [*Concept of Urban Development 2014-2030*], Integrált Településfejlesztési Stratégia 2014-2020. (ITS) [*Integrated Urban Development Strategy 2014-2020 (IUDS)*], Integrált Területi Programok (ITP) [*Integrated Regional Programs (IRP)*], Integrált Városfejlesztési Stratégia (IVS) [*Integrated City Development Strategy (ICDS)*], Economic Programs, Energy Plan...).

3.2. Empirical research

3.2.1. Examinations by questionnaires

300 people were questioned per city. When sampling, it has been taken into account that the interviewees reflect the composition of the population of the chosen city with regard to gender, age, education, and geographical location. The basic data for sampling has been provided by the municipality of each cities. Therefore, the data regarding age, gender and geographical location are prepared on the basis of the newest information (2018, 2019). The data on educational attainment are collected from the data by settlements of the Population Census 2011 corrected by the data of the Microcensus 2016. In the course of the empirical research, primarily Likert scale questions were used. We intended to find out what urban problems the residents observe, consider as important or less important, in this context, what they perceive from urban development activities, what activities are visible for them, to whom the city is built, who the privileged groups are and which neighbourhood is of great importance in terms of development. We have examined the awareness and approval of urban development concepts and models and the approval of urban visions, changed as a consequence of urban development activities. The way the residents see the values and liveability of their city.

3.2.2. Interviews

15 in-depth-interviews have been made in each four chosen cities (Békéscsaba, Eger, Kaposvár, Sopron). The in-depth-interviews took 1-1.5 hour. Interviewees have been selected with the snowball method from actors having a decisive role in urban development, the personnel of the municipality (head architect, urban development employees, project developers etc.), policy makers, local intellectuals, people having skills in special fields, land developers, environmentalists, representatives of competent market and non-governmental organisations, estate developers, real estate investors, and actors having predominant economic role. The following questions were asked during the interviews:

What do you think of the directions of urban development? To whom has the city been built? What major urban issues do you observe, can you see any attempts to solve such problems in the long and short term? In which international urban development collaborations has the city participated? What were the major urban development projects in the city in the past few

years? How can you evaluate the success and impact of the urban development attempts of the past few years? What do you think is important with regard to the future? What is the greatest challenge for your city in the long and short term and how could be a solution found for such challenge?

4. The results of the research

4.1. An overview of urban policies

In urban development documents, the innovative model of “green city” is determined by the decision-makers as a direction for development. The document, approved in 2017, titled “Kaposvár Megyei Jogú Város Integrált Településfejlesztési Stratégiája 2014-2020” [*“Integrated Urban Development Strategy of Kaposvár, City with County Authority 2014-2020”*], defines green city as the vision of the city: “An economic centre that is based on regional resources and cooperation; a *green city* having more and more healthy families.”

Comprehensive and strategic objectives have been determined to achieve the vision of being a “green city”:

- Sustainable ecological and energy systems.
- Quality urban environment, active, healthy and cohesive society - and strategic objectives:
 - Modern, energy-efficient and environment-friendly urban infrastructure and services.
 - Harmonious city: attractive urban environment and active and healthy society.

The vision and comprehensive objectives are defined in the long-term concept of the city and the goal and the direction for development are determined for a period ending in 2030. Medium-term strategic objectives are thematic. One of the horizontal goals of the IUDS is the “Green approach, climate awareness and sustainability” which is the same as the main direction for development defined in the concept.

The long-term strategy of the city is defined by the Kaposvár Smart City 2050 program which is in accordance with IUDS. The actions of the economic programs, the Energy Plan and the Mobility Plan also serve the achievement of being a green city. The fourth priority of the “Helyi Közösségfejlesztési Stratégia 2014-2020.” [*Local Community Development Strategy 2014-2020*] is “Green Kaposvár” which aims to establish the environment-friendly attitude of the residents by depending on environmentally friendly traditions and by supplementing it with large environmental investments.

In accordance with the objectives set forth in the IUDS and with determining the Smart City strategy, the city takes serious actions to decrease the emission of greenhouse gases generated in the course of its everyday life. In addition to the modernisation of public buildings, public institutions and public events and campaigns on environmental issues, the achievement of the objectives is also helped by several initiatives in the field of transportation. These include replacing the entire local public transport fleet with alternative fuel vehicles, upgrading the public lighting system, new bike-friendly actions, but they also include smaller-scale improvements such as launching a bike-sharing scheme or the use of an electric troubleshooting and maintenance car at the municipal property manager. The “renewal program of green

spaces” has been launched which includes the conscious and planned supervision of green spaces and the schedule of any actions in order to help the adaptation elements of urban life and to achieve significant mitigation results. The city’s most comprehensive program is the Kaposmenti Hulladékgyűjtési Program [*Waste Management Program Along River Kapos*] covering the waste management of 118 towns and villages. The waste management centre, accomplished with a budget of 6.3 billion forints, enables to separate the waste by fractions. It intends to support the aid of waste disposals by establishing and forming environmentally friendly customer behaviour and advertising home composting and separate waste collection.

The city has defined indicators for measuring the achievement of the objectives set forth, see Table 2.

Table 2: Measuring green approach, climate awareness and sustainability

Indicator	Target value	Source of data	Method and frequency of collecting the data
Specific energy consumption (total energy consumption [kWh])	decreasing	Kaposvár, City with County Authority	annually
Number of companies employing environmental-friendly technologies as a consequence of aids	- 20 SMEs/year	FAIR	annually

Source: Kaposvár MJV Integrált Településfejlesztési Stratégiája 2014-2020, 2017. [*Integrated Urban Development Strategy of Kaposvár, City with County Authority 2014-2020, 2017.*]

Decision-makers have consequently set the same direction in all strategic documents on urban development, with a focus on green approach, climate awareness and sustainability.

4.2. Results of the empirical research

4.2.1. Processing questionnaires

The residents of Kaposvár are most satisfied with the cultural, recreational and sports facilities, the condition of the natural environment and landscape and the condition of their place of residence and its renovation. The organization of local and interurban transport is considered to be good as well. Residents are dissatisfied with health care services, employment opportunities and parking. As a result, improving the quality of health care services is considered to be one of the determining factors for the further development of the city. In addition to public safety, it was emphasized that people should like living in Kaposvár in order to stop the population decline and help the development of the city.

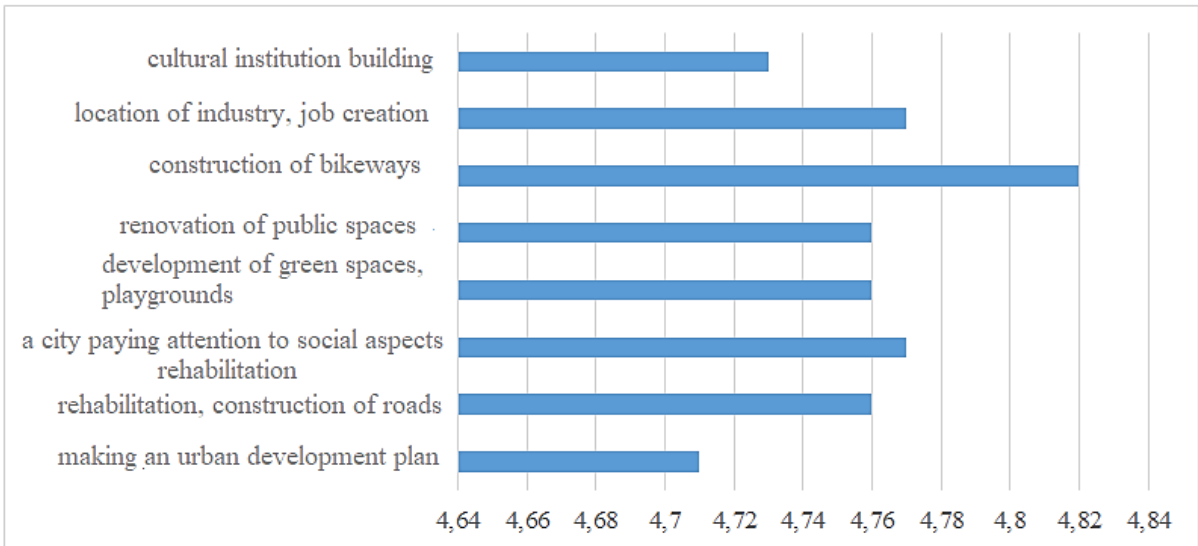


Figure 1: The importance of different urban development means in solving urban issues
Source: Own creation

The current city administration manages the improvement of cultural and sports facilities and the development of tourism the best, and the fields of population policy and economy the least. This is verified by Figure 2:

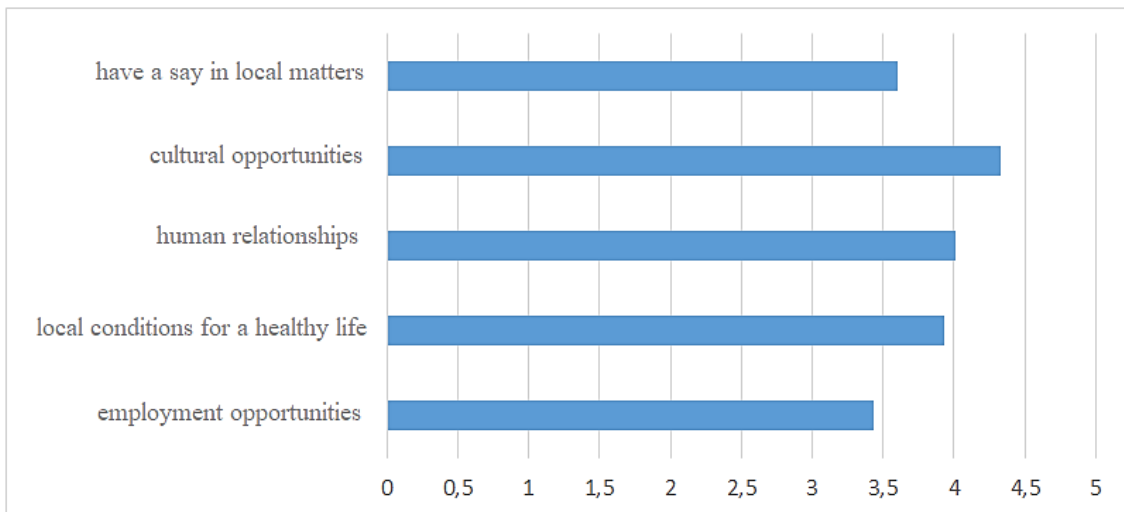


Figure 2: To what extent the city provides the above to its residents
Source: Own creation

One of the questions of our research is that to whom the city is being built, who the privileged groups are. Throughout the past ten years, the personal needs of the residents were considered the least by the decisions of the municipality. Primarily, foreign investors, the political leaders of the city and significant entrepreneurs of the city are the ones who influence such decisions. However, it is important to emphasize that the needs of intellectuals and non-governmental organisations, playing a decisive role regarding the life of the city, are important when decisions are made.

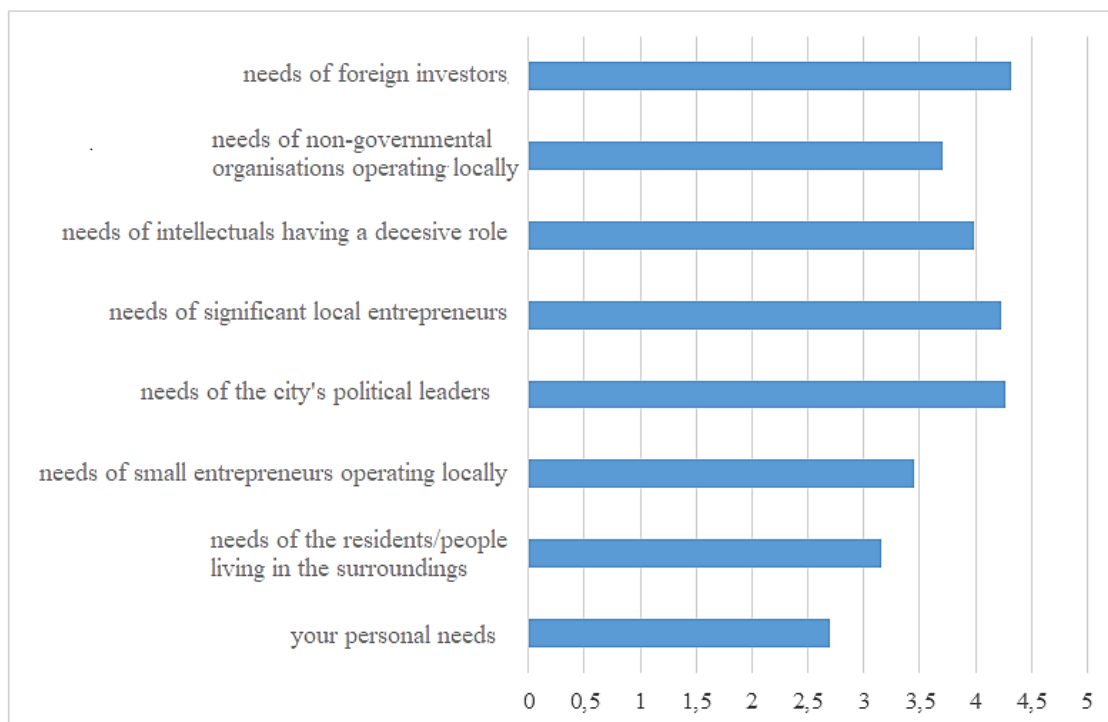


Figure 3: Whose needs are decisive when municipal decisions are made?

Source: Own creation

The most serious social issue is the increase of alcoholism, drug abuse and poverty. The geographical and social separation of the rich and poor is visible in the city. Poor people typically live in the outskirts, in the Szentjakab neighbourhood, while wealthy people live in the city centre and in the Kisgát neighbourhood.

Most of the residents is more optimistic in connection with the future of the city than in connection with their own future. The city is being developed steadily, however, they cannot see conditions that would directly influence their life, primarily conditions that would ensure the improvement of their financial situation.

Pursuant to opinions expressed via open-ended questions, the development of the city is visible and it can be experienced, however, the improvements focus on the central areas; the difference is significant between the city centre and the outskirts. The future greatly depends on the increase of employment opportunities and the growth of wages. An economic recovery is expected from the construction of the new expressway. By creating jobs demanding higher qualifications, the emigration of young people could be ceased.

The direction set forth by the mayor is good if such path will be followed in the future as well, the city is going to be developed and will be more liveable, however, residents struggle to earn a living.

Kaposvár is seen as a liveable and safe town by its residents.

4.2.2. Evaluation of the in-depth-interviews

According municipality experts and policy makers, Kaposvár has never been in such a good position as it is now. There has never been as much development and improvements as recently,

but it must be seen that the entire Southern Transdanubian region is very far from the rest of the country in terms of economic strength. The main reason for that is that the city is not connected to the motorway. Transportation and logistics, however, is one of the key determinants of the economy's situation. However, the construction works of the four-lane expressway R67 were commenced in 2017 which will connect Kaposvár and motorway M7 running along the shore of Lake Balaton. The construction of the road is expected to be finished by 2022. Decision-makers and market players expect the establishment of new companies in the city after the construction of the expressway. Besides new companies, the development of existing companies is an objective as well in order to become more efficient. VIDEOTON Elektro-PLAST Kft., being a significant part of the economy of Kaposvár, also highlighted that several fields are suffering from labour shortage: "the lack of professionals having adequate qualification (secondary and higher education) and the general labour shortage is a serious issue", companies need to increase wages in order to remain competitive. Another transportation development affecting the region will be the construction of motorway M9 which has been named in the competitiveness program associated with the financial and innovation portfolio. The purpose of the proposal is to improve transport links between Southern Transdanubia and the Western border having labour reserve and capacity for economic development.

All of the interviewees have declared the continuous decrease of the city's population as a serious issue therefore it is a task of high priority to increase the city's ability to encourage residents to remain in the city. The city administration, the professional intellectuals and the civil society regard the city as a good, cohesive community, which can be mainly attributed to the mayor's efforts to build a community for 25 years. He consciously pays attention to involve the city's residents in decision-making and thereby strengthening them. The city has a social strength. Economy need to be strengthened. For this purpose, a regulation on economic development was adopted in 2017 and a support scheme was established which primarily focuses on creating new jobs. In order to satisfy the labour needs of companies arriving to the city soon as a result of transportation developments, new trainings will begin in Kaposvár which will be provided by Óbuda University during the first couple of years.

According to the interviewees, the city's infrastructure has several issues:

- outdated, poorly maintained public institutions (schools, kindergartens, nurseries, health centres, hospital, theatre...),
- abandoned, unused monuments, building complexes,
- the swimming pool and the sports hall is of poor quality,
- poorly maintained municipality buildings,
- problems with transport and parking,
- poorly maintained roads, pavements,
- inadequate bikeways,
- problems with rainwater and sewage drainage,
- the industrial parks are full,
- lack of motorway...

The listed issues, however, according to municipality experts and policy makers, may be resolved soon thanks to the Németh István Program. Németh István was the mayor of Kaposvár during the beginning of the 20th century. At that time, the city underwent great development,

therefore the urban development program of 170 billion forints has been named after him. The description of the developments and the issues for which they provide solutions are included in Table 3.

Table 3: The developments of Németh István Program

Issues	Developments-Solutions
Not being connected to the motorway	2017-2022: Four-lane expressway R67: Connecting Kaposvár and motorway M7 running along the shore of Lake Balaton. Named in the competitiveness program: Motorway M9
Decline of the city's population	Strengthening the economy: <ul style="list-style-type: none"> - regulation on developing the economy which primarily focuses on creating new jobs - new companies coming to the city - expansion of the industrial park - launching new trainings (IT...) Creating a liveable city Supporting young people
Outdated, poorly maintained public institutions (schools, kindergartens, nurseries, health centres, hospital, theatre...)	Energy refurbishments in schools Installing solar panels on public institutions Improving nurseries, kindergartens Modernising health centres, nurses' rooms A new antenatal clinic in the building complex in Ezredév utca that needs to be completely refurbished Renovation and expansion of Csiky Gergely Theatre
Abandoned, unused monuments, building complexes	Utilisation of the southern block of the hospital: incubator units, IT training centre Reconstruction of the building that used to house the archives and establishing a new function thereof The reconstruction of and utilisation of Dorottya ház – used to be known as Csokonai fogadó – for touristic purposes, creating a visitor's centre in the city centre The development of the ruins of Szentjakabi Bencés Apátság [<i>Saint James Benedictine Abbey</i>] as a monument and for cultural and touristic purposes
Poorly maintained municipality buildings	Refurbishment of stores in the city centre owned by the municipality Rehabilitation of the ex-buildings of Nostra
Problems with transport and parking	Establishment of the Transportation Centre of Kaposvár (Intermodal Intersection) Bus depot in Kaposvár for the new buses Development of Túskevár intersection with regard to road safety
Poorly maintained roads, pavements	Expanding and renovating the road and pavement network
Inadequate bikeways	Improving the bikeway network of Kaposvár, expanding the bike-sharing scheme
Problems with rainwater and sewage drainage	Improving rainwater drainage Modernisation of the sewage treatment plant

The industrial parks are full	Development of industrial parks, industrial areas
The swimming pool and the sports hall is of poor quality	Building a new sports hall Building a new swimming pool Reconstruction of the Rákóczi Stadion
Labour shortage, lack of jobs requiring white-collar workers	Employment collaborations, employment pact New companies coming to the city

Source: The website of Kaposvár, City with County Authority, Own table

According to municipality experts and policy makers, the means of urban development represents the views and interests of all residents. Thanks to the widespread socialization, the residents are not only the beneficiaries of urban development but also the designers thereof. (e.g. 1. Residents may decide on the location of the new playground in the city within the framework of Gyermekmosoly Program [*Smiling Children Program*]. 2. Residents have managed to prevent the construction of a new tire recycling plant in the city as they were worried about air pollution. The residents are open to new ways of urban development. The programs mainly focus on health. More precisely, the aim is to motivate people, primarily children, to do sports and to achieve that anybody could do sports at any time in the city. The city administration has established a health council which aims to achieve for Kaposvár to become one of the healthiest county towns by 2020.

In the past, problems occurred regarding public safety, but now the city has become one of the safest county towns. This is mainly due to the fact that nearly 200 CCTVs are in operation, and another 120 will be installed in 2019. Thanks to this, criminals actually left the city.

Kaposvár also has an aging society, however, the positive effects of family protection programs can be experienced. Besides national programs, the city has its own programs which increase the efficiency of national programs (e.g. when participating IVF programs, the first couple of attempts is financed by the municipality). However, unfortunately, several people leave and the population is decreasing. The population of Kaposvár decreased by 6059 between 2011 and 2018, the number of residents in 2019 is 61 441.

With regard to the future, the city has a program of great importance: Smart City 2050 which aims to achieve the self-sufficiency of the city in terms of energy by 2050. To achieve this, an action plan, a program is in place. The basis of this that Kaposvár, after Szeged, is one of the cities having the highest level of sunshine. Almost all of the renovated buildings have or will have solar panels soon. What is more, one of the largest solar panel field of Central Europe will be installed near the city.

Segregation is present in the city, however, it is unintentional. A program is in place attempting to end segregation. The Hungarian Charity Service of the Order of Malta also helps this. There used to be a primary school in the city which has been criticized by a Roma politician and regarded as a segregated school. The court closed the school causing huge damages to everyone, but primarily to the minority.

Huge differences can be seen in the city in terms of income: in some neighbourhoods of the city, mansions are being built, typically used by young residents, while other neighbourhoods, which used to be more populated, are aging. Wealthy residents typically live in certain neighbourhoods, mainly in the suburbs and housing complexes.

The number of alcoholics and people suffering from depression is high. In contrast, there is a very wealthy social class belonging to the business sector, banking sector, earning a living from agriculture, and many of them are engaged in buying real estate.

In addition, there is a vast middle class; lots of them are quite interested in arts.

Interviewees unanimously emphasized that the city is quite liveable for families.

5. Conclusions/Summary

Responding to various economic, social and environmental changes, new models of urban development have emerged. In Hungary, following the regime change, these are typically controlled from the top and influenced by the EU by granting development funds. Sustainability has become a central element of all urban development and strategic documents. On that basis, the concepts of smart city and green city have been commonly used in Hungarian urban development policies. Among the cities examined during our research, Kaposvár also determined this direction. The vision of the city: “An economic centre that is based on regional resources and cooperation; a green city having more and more healthy families.” An analysis of urban development documents and the results of the in-depth-interviews show the same results as well. This concept is approved and accepted by the residents as well, however, they do not visualize as optimistic future for themselves as for the city. The biggest problem is the rapid decrease of the city’s population. The future greatly depends on the increase of employment opportunities and the growth of wages. This is the foundation for stopping emigration. The city administration expects a solution for the problem from the impacts of developments carried out within the framework of Németh István Program. The issues of the city – not being to the motorway, decrease of the city’s population, outdated, poorly maintained public institutions (schools, kindergartens, nurseries, health centres, hospital, theatre...), abandoned, unused monuments, building complexes, poorly maintained municipality buildings, problems with transport and parking, poorly maintained roads, pavements, inadequate bikeways, problems with rainwater and sewage drainage... - are seen in the same way by the city administration and the residents. However, in contrast with the opinion of decision makers of the municipality, residents do not feel to be involved in determining the direction for development; in their opinion, the personal needs of the residents were considered the least by the decisions of the municipality throughout the past 10 years. Primarily, foreign investors, the political leaders of the city and significant entrepreneurs of the city are the ones who influence such decisions. Urban development activities are carried out top-down. Despite, the direction for development is deemed to be good by the local residents; Kaposvár is seen as a liveable and safe town by its residents.

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