

SUSTAINABLE URBAN MOBILITY PLAN OF SZEGED

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Sustainable Urban Mobility Plan of Szeged

SEPTEMBER 2017

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1. SUMMARY

Driven by its commitment to sustainability, the Local Government of Szeged has decided to create a sustainable urban mobility plan (SUMP) to lay the foundations for the objectives and measures aimed at the development of transportation in the period between 2017 and 2030. The document is intended to contribute to the synthesis of Szeged's existing plans for urban development and those for the development of transportation. It offers sustainable and integrated solutions for the transportation problems of the city, thus contributing to the realisation of the objectives of climate protection and energy efficiency.

This Mobility Plan has been developed by a planning methodology that is based on the best international practices and, at the same time, it is integrated into the Hungarian professional context and adjusted to local circumstances. Compared to existing practices in transportation planning, the Mobility Plan takes a more people-oriented approach, and it lays more emphasis on the involvement of the public and various groups of stakeholders, as well as the reconciliation of different policies. It intends to break away from the one-sided approach of traditional professional policies in order to create a comprehensive approach to issues of mobility.

In terms of its time-frame the Mobility Plan is

- in part, a short- and medium-term operative action plan covering the period until 2023, the end of the investment phase of the current programming period;
- in part, a long-term development strategy with a vision for the next 30 years.

By creating the proper logical connections between the certain steps of the Mobility Plan the planning process was centred around the objective of the development of a well thought-out and consistent intervention logic.

PARTNERSHIP PLANNING

During the development of the Mobility Plan the Local Government of Szeged paid special attention to the active and continuous involvement of stake-holders into the planning process. It provided information about every phase of the work, and it co-operated in every important decision with local and regional stake-holders and actors concerned in mobility planning.

At the beginning of the planning process the frames of the partnership planning were defined in the Partnership Plan approved by the General Assembly. It was based on international and Hungarian guidelines related to mobility planning, and the practices of community planning applied in the city of Szeged.

Negotiations, workshops and surveys conducted on various levels provided room for the participation of professionals and that of the public.

Working groups were set up to provide for the management of the planning process, the co-operation of the competent departments of the Local Government, and the involvement of non-state actors and economic operators. The working groups held meetings at the milestones of the planning process.

In addition to the working groups, a number of institutional leaders were involved in professional negotiations, invited to provide written suggestions or share their opinion about various documents created. The neighbouring towns and villages were also invited to provide their suggestions and opinion in written form.

The wider public was involved by means of open consultations, including informative articles published on various websites¹, communication via the social media, public mobility surveys conducted in the status analysis phase, and the publication of various documents on the city's website.² The version of the document intended for open consultation was made publicly available for comments and observations. The city

¹ <http://szeged.hu/hirek/31673-segitsen-megtervezni-szeged-kozlekedeset.html>;

<http://szegedma.hu/hir/szeged/2016/10/fenntarthato-varosi-mobilitasi-terv-keszul-szegeden.html>;

² <https://www.szegedvaros.hu/sump/>



television also reported about the development of the Mobility Plan in relation to the evaluation of the public survey and the lot offered for those, who filled it out.

In addition to the survey made available for the public³, further surveys were conducted for the in-depth assessment of issues of job mobility by combining the methods of questionnaires and deep interviews.

The local comments and observations made during the partnership events were integrated into the document. In many cases, these drew attention to various, subjective factors that did not occur, or were not spelled out enough in available data and in the document analyses and surveys conducted.

STATUS ANALYSIS, IDENTIFICATION AND EVALUATION OF PROBLEMS

Szeged is the cultural, educational, and academic centre of South-Eastern Hungary, and one of the actual, comprehensive regional centres of the country. Due to its location in a tri-border area, it has significant functional cross-border connections. Szeged's role in education is one of its most significant regional functions, and it is most spelled out in higher education. The internationally renowned education programmes provided by the University of Szeged are supported by a high-level research background, which grants the city a leading position in research and development. In addition, the most important segments of local economy include services, food industry, and the production of rubber and plastic products and construction materials. There are three scenarios for the dynamics of population growth by 2051 based on current demographic processes and development plans:

- a pessimistic prognosis – the number of inhabitants will probably decrease to 157-159 thousand;
- a realistic prognosis – the number of inhabitants stagnates, and it is expected to be between 165 and 168 thousand;
- an optimistic prognosis – in the most favourable scenario, the number of

inhabitants is expected to be around 170 thousand.

Out of the three scenarios, the Mobility Plan is based on the realistic prognosis, i.e. it calculates with an approximately stagnating population.

The city of Szeged is also the administrative centre of Csongrád County: it hosts the central office of every county-level institution and organization. Since 2013 the city has been the centre of Szeged District, comprising of 13 settlements. The District covers an area of 741 km² and it has 206 thousand inhabitants.

Similarly to the other major cities of Hungary, Szeged lives in a close symbiosis with the settlements of its agglomeration, which fundamentally determines local traffic demands with regard to commuting to work or school, and receiving urban services. The agglomeration of Szeged amounts to the 5th largest group of settlements in Hungary. It comprises of 15 settlements and it has 204,301 inhabitants. All but one of the settlements in the immediate agglomeration are situated in Csongrád County. The indirect agglomeration of the city, within a radius of 80-100 km, includes larger settlements, some of which are situated over the border.

There are altogether 31 thousand people commuting to Szeged. The number of people commuting to work and that of those commuting to school are nearly the same. There are a significant number of people commuting from Hódmezővásárhely and from Sándorfalva. While people from Hódmezővásárhely typically commute to work, the inhabitants of Sándorfalva generally commute to school.

Although the city of Szeged is a centre of the railway infrastructure, the level of electrification, as well as the speed limits of the existing railway lines are far behind the European, or even the Hungarian average. The technical status of the lines is also insufficient. There are regular, hourly trains leaving for Budapest, while there are trains leaving for Békéscsaba every hour or every two hours. The journey on both lines



³ Results of the survey are made available:
<https://www.szegedvaros.hu/sump/>

takes about 25% more time than travelling by car. The service attitude of the railway company is also out of date.

The majority of travels in the agglomeration, i.e. daily commuting is done by coach services. The crowdedness of the bus terminal at Mars Square constitutes a problem. The ticket system used by the point-to-point bus services and that of the bus company in Szeged are not connected, commuters must buy separate tickets (passes) to use them.



Szeged's local public transportation is provided by two service providers. The lines with the biggest traffic in the internal parts of the city are provided by electromotive services, and they are well completed by the autobus lines that reach the suburban areas; the quality of service is sufficient. The decreasing number of passengers, especially on less frequently running lines serving the suburban areas, constitutes a challenge. The general perception of Szeged's public transportation, however, is relatively unfavourable, its environmental friendly features and economic efficiency have not yet become parts of public knowledge.



Cycling is an intensively growing and very significant form of traffic in Szeged. This can be traced back to the favourable topography and climate of the city and its coherent, cycling-friendly traffic policies dating back to several decades. As a result, the busiest sections of the main- and feeder road networks are generally completed by surfaces secured for cyclists, while traffic calming zones provide aid for cyclists in nearly all the residential areas of the city. In addition, the number of public bicycle stands is continuously growing. A number of road sections require an increase of capacity, due to the growth in bicycle traffic. Despite the favourable coverage of the bicycle network, nearly one third of the bicycle track infrastructure is characterized by problems in the road surface, certain network elements are missing, and at some places, the features of the network pose a risk of accident.



The methodical development of the bicycle infrastructure is guaranteed by the recently completed bicycle traffic network plan.

The comprehensible structure of the city, the wide streets and squares characteristic of the Great Hungarian Plain create favourable conditions for the development of pedestrian traffic, which has been continuously growing in the past period. The traffic-free zones of the city centre and the traffic calming zones covering the entire city provide favourable conditions for safe and undisturbed pedestrian traffic. There are sidewalks completely covering both sides of all the avenues, traffic circles, feeder roads, and the streets inside and outside the embankment surrounding the city. Most of the sidewalks by the main roads of the city centre are made accessible for PWD, but there are a number of frequently visited areas that are not accessible. A lack of sidewalks is characteristic in the garden district. Insufficiencies of the surfaces of the sidewalks are characteristic outside the embankment surrounding the city and in the garden districts, but there are also sidewalks with cracks, broken and sunk surfaces in other areas of the city. The sections with insufficient capacity are generally located in the city centre, the target of tourism, and their expansion and development are the tasks of the future.



Szeged has a characteristic, "rings-and-avenues" road network, which lacks a southern road bridge. The yearly urban road reconstruction program is insufficient, both in terms of technical content and volume, to compensate for the amortization of the local road infrastructure.



From the perspective of sustainable mobility, it is favourable that, compared to cities of similar size, Szeged is characterized by a lower level of motorization, and the proportion of motor vehicles is smaller. However, during rush hours, the busier sections of the traffic circles and those of the avenues show a slower traffic and there are sections with traffic jams.

For several decades, there have been public parking meter zones in the city centre of Szeged and around Mars Square. In addition, there are two parking garages situated in the northern and the southern part of the city centre: one of them is operated by the local government, while the other by a private enterprise. The internal – green and yellow – zones are generally characterized by a high level of capacity utilization.



The number of accidents with personal injuries has been stagnating for years. The total proportion of accidents with the most defenceless victims, cyclists and pedestrians, is 40%, most of which are caused by drivers.

In addition to its well-functioning roundabouts, Szeged has 62 intersections with traffic lights, most of them in an aligned system. There are a number of intersections equipped with a system, which gives preference to public transportation (especially trams), and gives way to vehicles of public transportation. The regular supervision of traffic light programmes is generally neglected, even though it is an intervention, which can save the most amount of time at the lowest cost.

In its current form, the airport of Szeged is generally used for pleasure flights, training, agricultural purposes, commercial and medical purposes by small airplanes, as well as for gliding and parachuting.



After the construction of the paved runway and the lighting equipment, the volume of the airport's traffic multiplied during a period of continuous growth. The international traffic is insignificant. The expansion of services is limited by the current infrastructure, while major investments are limited by the characteristics of the area. The establishment does not conduct goods traffic.

While the River Tisza is the border of the Schengen Zone, passenger transport on the river is only seasonal, and it primarily serves touristic purposes. A new, permanent border crossing is set up in the city centre. The order of magnitude of the passenger traffic crossing the border is in the hundreds, and it is modestly increasing. While the closed port of Szeged is suitable for goods traffic and it also has industrial railway connection, there has not been any transportation of goods in the port since 2006. On the other hand, the freight loading establishment by Boszorkánysziget, with its limited development opportunities, receives hundreds of thousand tons of construction materials in bulk.



OBJECTIVES

The Objectives of the Mobility Plan have been developed in accordance with the long-term

future vision laid down in the Urban Development Concept and the existing strategic documents of the city, with a special emphasis on:

- Szeged's active role in the inter-regional network of cities, the aim to restore the former unity of the network of cities among Szeged – Hódmezővásárhely – Makó – Arad – Timisoara – Subotica,
- the creation of an attractive environment for investment and development purposes, the strengthening of cooperation between businesses operating in knowledge-intensive sectors on one hand and the research sector on the other,
- the increasing long-term significance of the River Tisza and the River Maros, and their growing role in spatial organization, and
- the improvement of the value of life of the inhabitants of Szeged, and the development of the infrastructural background of the services available in the city.

Completed in cooperation with the parties concerned, the objectives of the Mobility Plan – in accordance with the Hungarian *National Transport Infrastructure Development Strategy* – have two levels, and it sets out

- on the 1. level: **comprehensive social objectives;**
- on the 2. level: **objectives of transport strategy.**

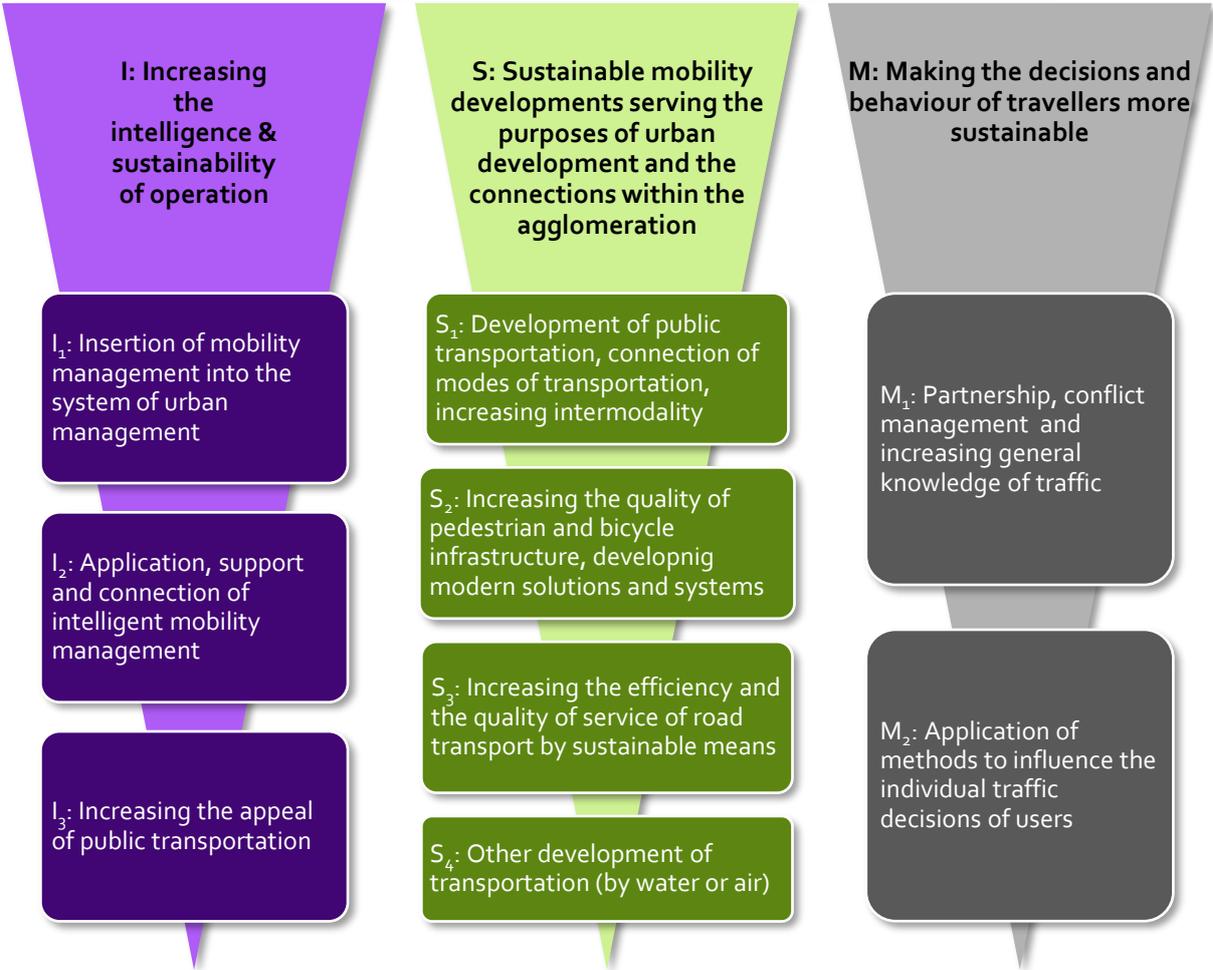
The **comprehensive** objectives include **social objectives** to be met, in part, by the area of transport. In accordance with the goals set out in the document *Transforming our world: the 2030 Agenda for Sustainable Development*, the comprehensive social objectives cover four areas (People, Planet, Prosperity, Partnership), and they practically affect all levels of the intervention logic.

The next level of objectives, i.e. **transport strategy objectives** are connected to the development of certain elements of the transport system, and they contribute to the achievement of comprehensive objectives together, in connection with one another. They basically aim at the creation of "efficient and intelligent mobility", which is based on three pillars:

Sustainable

People	Planet	Prosperity	Partnership
<ul style="list-style-type: none"> • SPe₁: Improving health conditions • SPe₂: Improving social justice and fairness • SPe₃: Improving sense of security • SPe₄: Info-communication society 	<ul style="list-style-type: none"> • SPI₁: Decreasing environmental pressure • SPI₂: Increasing quality of environment • SPI₃: Efficient use of resources and space 	<ul style="list-style-type: none"> • SPr₁: Competitive economy and employment • SPr₂: Improving the welfare of population • SPr₃: Improving the welfare of the town, efficient urban management 	<ul style="list-style-type: none"> • SPa₁: Cooperation among economic operators, inhabitants, the local government, and social organizations • SPa₂: Strengthening international connections

Efficient & Intelligent Mobility



METHODOLOGY

In accordance with the Hungarian *National Transport Infrastructure Development Strategy*, there are two types of methods supporting the achievement of the objectives set out in the Mobility Plan: development and management methods.

The (9) **development methods (DM)** created in accordance with the objectives include infrastructural developments, those related to rolling stock, and other system developments.

The (5) **management methods (MM)** include interventions into the transport system in the areas of operation, regulation, financing, and institutions. The content of management methods may include, in part, development-type method elements (e.g.: IT developments, creation of support systems).

The logical connections between objectives and methods are as follows:

CONNECTIONS BETWEEN THE OBJECTIVES OF TRANSPORT STRATEGY AND DEVELOPMENT METHODS

DM1	Development of the network of public transportation and its timetable	  
DM2	Developing the inter-modality and interconnectedness of public transportation	  
DM3	Giving preference to public transportation	  
DM4	Improving the comfort of public transportation by developing stops and vehicles	  
DM5	Developing attractive, pedestrian-friendly infrastructure	 
DM6	Developing a cyclist-friendly road network and services	  
DM7	Reducing the traffic of the city centre, related developments of the road network	 
DM8	Increasing the quality of service and the level of security on existing elements of the road network	 
DM9	Developing international, point-to-point and regional connections and services	 

CONNECTIONS BETWEEN THE OBJECTIVES OF TRANSPORT STRATEGY AND MANAGEMENT METHODS

MM1	Creating and operating an integrated urban management information system and data warehouse	 
MM2	Improving the efficiency of operators, decision makers, and institutions, developing a service attitude	  
MM3	Regulations and incentives to support sustainable and environmentally friendly solutions	  
MM4	Coordinated acts to shape public opinion to support achieving the objectives	  
MM5	Extensive application of ITS and Smart transport solutions	  

Objectives of transport strategy:

-  I: Increasing the intelligence and sustainability of operation
-  S: Sustainable mobility developments serving the purposes of urban development and the connections within the agglomeration
-  M: Making the decisions and behaviour of travellers more sustainable

PROJECTS, RESULTS OF PROJECT EVALUATION

Based on the intervention logic, the projects in the Mobility Plan have been deduced from the objectives and the methodology as a result of a long process of iteration. The project list is based upon:

- in relation to developments of local significance, the relevant development plans approved in Szeged's Integrated Urban Development Strategy and Integrated Territorial Investment, and in other strategic documents and General Assembly resolutions of the city;
- in relation to projects of national and regional significance concerning Szeged and its agglomeration, the *National Transport Infrastructure Development Strategy*, and the projects named in the government decrees defining the annual development funds of the Integrated Transport Development Operational Programme, and

- projects defined in the government decree, Modern Cities Programme regulating the tasks related to the implementation of the cooperation agreement between the Government of Hungary and the Local Government of Szeged, and
- new projects designed in relation to the intervention logic of the Mobility Plan.

After filtering out overlapping elements and reviewing by the relevant parties, the cleaned project list was confronted with the objectives and methodologies, and as a result, a project data base was created in accordance with the intervention logic.

THE METHOD OF PROJECT EVALUATION

The evaluation, ranking, and the consequent timing of the projects is based on two aspects: social usefulness and feasibility.

Based on the evaluation the projects are divided into three phases:

- **Phase I:** projects to be implemented before 2020/23 in accordance with the 2014-2020 EU programming period, i.e. the group of socially useful and properly prepared projects;
- **Phase II:** projects to be implemented before 2030, i.e. projects, which earned lower points, are less socially useful, or cannot be implemented in Phase I due to insufficient preparation or lack of funding;
- **Phase III:** long-term developments, i.e. the remaining projects, which earned the lowest points, to be possibly implemented after 2030.

The project evaluation only includes projects in the competence of the local government or the joint competence of the local and the national government, since these are the cases, where the Local Government of Szeged appears as a decision maker.

THE RESULTS OF PROJECT EVALUATION

The results of the project evaluation may be summarized according to groups of methods as follows:

- **Integrated transport** projects are aimed at the complex and multimodal development of mobility in a given territory. The group of methods include important projects of local significance, such as the Southern Tisza Bridge, which allows for the

completion of the Grand Traffic Circle, and thus, it reduces the traffic of the city centre and provides access to Újszeged (in a road bridge only version and in a multimodal, road- and railway bridge version), an intermodal nodal point intended to improve the quality of service and the efficiency of local and point-to-point transport, or the complex development of transport of particular sections of the city (e.g.: Újszeged, ELI etc.).

- The **individual not motorized** group of methods includes developments for pedestrian and bicycle traffic. Developments for pedestrian traffic primarily include the reconstruction of existing infrastructure and developing accessibility for PWD (e.g.: reconstruction of the sidewalk network in the internal areas, full accessibility Phase I and II, etc.). Developments for bicycle traffic include both infrastructure developments, and complex developments, including infrastructure (e.g.: bicycle road development towards Sándorfalva, and in Szeged's Tarján district [Algyői Street]) and management methods (e.g.: "minor interventions" into bicycle traffic, elimination of accident hotspots). It appears as a trend that, due to the high level of investment costs, the efficiency of infrastructure developments is generally lower.
- Projects in the **individual motorized** group of methods (public road developments) include a significant number of national projects. These interventions are only evaluated if they are directly related to the city of Szeged. Public road projects are usually characterized by high investment costs, and thus relatively low efficiency. The project under the title, "Traffic Engineering Interventions" is an exception, which can be considered highly efficient due to its low investment costs.
- By their very nature, projects in the group of **management methods** are characterized by outstanding social usefulness, while their implementation does not require much preparation. For this reason, they are proposed to be implemented in Phase I (before 2020/23), except for the programme aimed at the development of an Integrated Transport and Urban Management system. Although the implementation of these programmes in one phase would mean a major step



forward in the areas of urban management and mobility management, this is not feasible, due to the volume of necessary developments and the required training of personnel. Phase I includes the proposal of realistically feasible projects aimed at the development of services to significantly improve the current quality of services, while more complex developments are proposed to be implemented in Phase II.

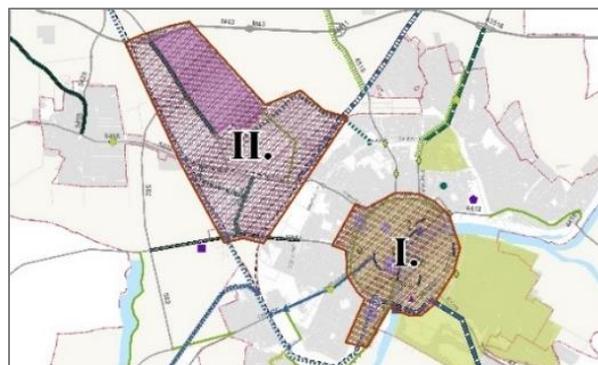
- The **international, point-to-point and regional** group of methods mostly includes national developments, which connect Szeged with its broader region. The

projects evaluated include projects aimed at the development of air traffic (development of Szeged Airport, Phase I and Phase II), water traffic (development of the functions of various elements of passenger transport on the river), and railway traffic (the reconstruction of Szeged's railway infrastructure). The social usefulness of the evaluated projects is low, due to the very high level of investment costs. Their impact on the city level tends to be difficult to estimate, and they often have impact on the national economy.

	Until 2020/23			2020-2030			2030-		
	Number of projects	Social usefulness	Feasibility	Number of projects	Social usefulness	Feasibility	Number of projects	Social usefulness	Feasibility
management	8,0	161,5	3,3	1,0	39,8	2,5	0,0	-	-
international, point-to-point and regional traffic	1,0	0,2	1,8	0,0	-	-	2,0	0,4	2,0
public transportation	4,0	23,8	3,3	0,0	-	-	3,0	1,3	2,6
individual not motorized	7,0	13,7	3,0	4,0	6,0	2,5	2,0	1,6	2,1
individual motorized	5,0	25,1	3,6	0,0	-	-	4,0	1,4	3,0
integrated transport	12,0	4,1	3,3	0,0	-	-	1,0	1,5	2,0
Total	37,0	44,8	3,2	5,0	12,7	2,5	12,0	1,2	2,5

Number of projects in each group of methods, average of points awarded for social efficiency and feasibility.⁴

The territorial connections among the projects examined in the Mobility Plan are best illustrated by the territorial distribution of the developments. The actual projects emerging during the process of mobility planning and assigned to a locality, show significant condensation and imply interventions with potential territorial connections or synergies, in the following areas of Szeged:



- I. City Centre
- II. ELI and its surrounding economic area

⁴ The evaluation of social usefulness is based on the simplified evaluation of the expected social usefulness and the costs of the projects. The social usefulness indicator is the quotient of the expected social advantages and the related costs.

The evaluation of social advantages is based on the evaluation of the expected impacts of the project by considering the number of users affected by the project. Consequently, a development with less impact but wider access of users may have the same social impact as a project with more impact but narrower access of users.

The social efficiency indicator is the quotient of the social usefulness points and the investment costs corrected by the operating costs.

Based on this method, the results of the evaluation of low cost (management type) projects are higher, while those of infrastructure developments with higher costs (in relation to their impact) are generally lower. The impact of the investment costs may be filtered out by the comparison of the evaluation of projects of similar volume.

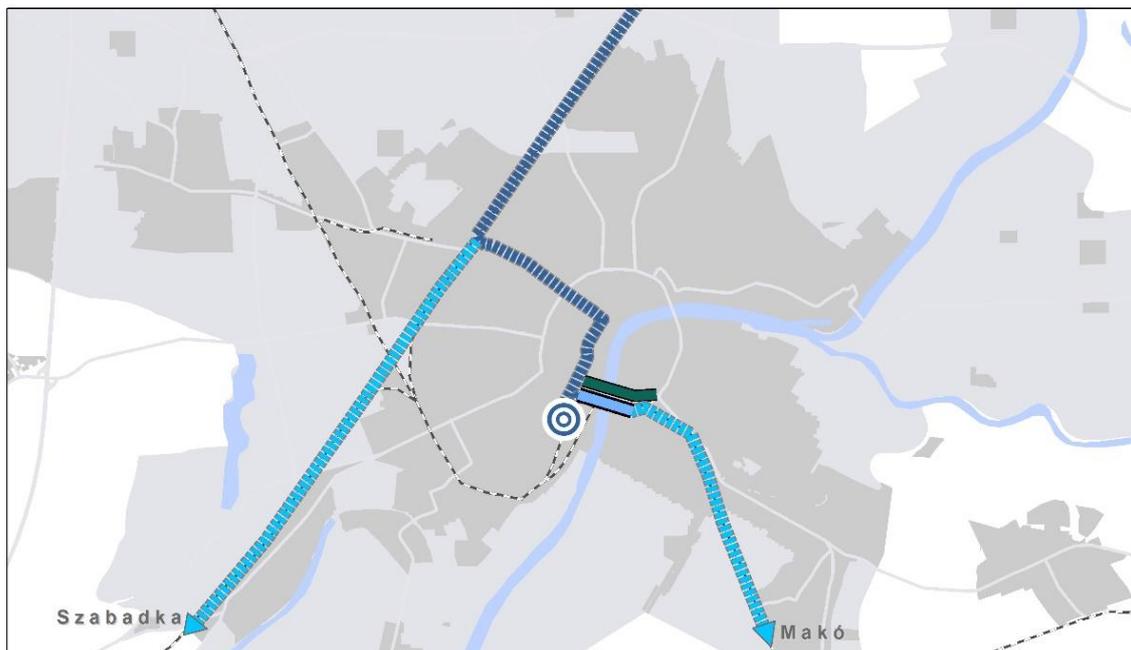
The Mobility Plan has also considered **city level versions** by selecting projects based on their importance and the synergies among them. The city level versions include key developments, which define the mobility of the city and its environment and have an impact on other projects as well, and therefore, they have a profound influence on the future of the city of Szeged.

The method of evaluating the versions was a simple cost-benefit analysis, in which impacts were estimated based on the collective traffic modelling of the particular project elements.

Based on the results of the evaluation, due to its outstanding social efficiency, the Mobility Plan proposes the realization of the Southern Tisza Bridge. Its impacts justify its proposal even if only as a bridge providing public road connection. Its realization would assist the management of passenger car traffic and reduce the pressure on the city centre, and it would provide significant development opportunities for the public transportation network connecting the city centre and Újszeged.

The development of the tram-train connection between Hódmezővásárhely and Szeged, and that of the railway line to Gyula would contribute to a significant increase of quality in track-based traffic. The development of the planned intermodal traffic centre in Szeged would amplify the positive impacts of both the Tisza bridge and the tram-train connection.

The realization of the Tisza bridge with both railway- and public road connection would create the opportunity to develop network connections between the Makó railway line and Szeged, and to possibly rebuild the track-based connection to major cities in Western Romania, such as Timisoara and Arad. Another international strategic goal aims at the development of the railway connection towards Serbia (Subotica), with the railway line extended towards Baja and the South-West of Hungary. This line may be the extension of the Timisoara – Szeged connection, if the Tisza bridge provides main line railway connection.



-  Intermodal nodal point
-  Construction of a road bridge on the River Tisza
-  Construction of a bridge on the River Tisza offering both railway and road connection
-  Szeged-Hódmezővásárhely tram-train
-  Possible development of railway, suburban train, or tram-train connection towards Makó and Subotica



COST AND FINANCING PLAN

The following tables show the investment costs of the projects in each phase divided by groups of methods.

	Until 2020/23	2020- 2030	2030- 2035	Total
individual motorized	1,2	0,0	33,0	34,2
individual not motorized	8,0	4,4	1,3	13,7
public transportation	4,2	0,0	24,5	28,7
management	0,9	0,3	0,0	1,2
international, point-to-point and regional traffic	3,0	0,0	25,2	28,2
integrated transport	81,6/91,6	0,0	19,0	100,6/110,6
Total*	98,9/108,9	4,7	103,0	206,5/216,5

Timing of projects (gross, Billion HUF)

* The line, "Total" includes projects, which exclude one another.

A significant part of the projects of the Mobility Plan, which either belong to the competence of the local government or to the joint competence of the local government and the national government, are proposed for implementation in Phase I. Most of these projects belong to the group of integrated transport methods. In Phase II the Mobility Plan proposes the realization of developments at the value of 4.7 Billion HUF, i.e. projects, which currently appear socially efficient, can be realistically implemented within 10 years after the approval of the Mobility Plan. Based on their efficiency, the realization of projects in Phase III is only proposed in the long term.

The following tables show the estimated total costs of the projects, which either belong to the competence of the local government or to the joint competence of the local government and the national government, divided by forms of financing:

- Projects may be considered projects with secure resources, if the costs of their realization are certainly or likely secured by resources of the local government, the EU, the national budget or other sources.
- The realization of projects with no financing requires the involvement of further development funds.

	Until 2020/23	Total
competence of the local government	9,8	9,8
individual motorized	0,9	0,9
individual not motorized	1,4	1,4
public transportation	1,1	1,1
integrated transport	6,4	6,4
joint competence of the local and the national government	87,5/97,5	87,5/97,5
individual not motorized	6,3	6,3
public transportation	3,0	3,0
international, point-to-point and regional traffic	3,0	3,0
integrated transport	75,1/85,1	75,1/85,1
Total*	97,3/107,3	97,3/107,3

Projects with no financing (gross, Billion HUF)

* The line, "Total" includes projects, which exclude one another.

	Until 2020/23	2020- 2030	2030- 2035	Total
competence of the local government	1,0	4,7	45,2	50,9
individual motorized	0,3	0,0	20,0	20,3
individual not motorized	0,2	4,4	0,6	5,2
public transportation	0,1	0,0	24,5	24,6
management	0,4	0,3	0,0	0,7
international, point-to-point and regional traffic	0,0	0,0	0,2	0,2
joint competence of the local and the national government	0,6	0,0	38,8	39,3
individual motorized	0,1	0,0	13,0	13,1
individual not motorized	0,0	0,0	0,8	0,8
management	0,5	0,0	0,0	0,5
international, point-to-point and regional traffic	0,0	0,0	25,0	25,0
Total*	1,5	4,7	84,0	90,2

Projects with no financing (gross, Billion HUF)

* The line, "Total" includes projects, which exclude one another.

The financial resources of the projects listed in Phase I are generally secured, while the accumulated cost of the projects with no financing amounts to nearly 1 Billion HUF.

INDICATORS, MONITORING

The goal of the monitoring system is to monitor the realization of the intervention logic set out in the Mobility Plan. The monitoring system is based on a set of indicators adjusted to the objectives and the methodology, as well as on a data collection and processing system required for the measuring of indicators. The set of indicators covers all the levels of the objectives and methodology of the Mobility Plan and it includes the following types of indicators:

- **output indicators** measure the direct changes in the parameters of the transport system (e.g.: change in the number of passengers or in the volume of emission, etc.);
- **impact indicators** measure broader, more indirect social impacts (e.g.: reduced social costs achieved by saving time due to faster mobility).

An important aspect of the selection of indicators is to keep the costs and the required labour of the measurement at reasonable levels, and to possibly rely on existing measurement methodologies. An additional goal may be the possibility to measure the indicators based on available databases and data collections in their current, or slightly modified or extended form.

The inclusion of two aspects into the monitoring system is especially important from the perspective of the Mobility Plan.

- A fundamental element of the monitoring of **traffic performances** is the application of traffic estimation systems, which provide relatively accessible data based on comprehensive and well-functioning methodologies.
- In addition, essential data are provided by surveying **user satisfaction** in general, and specifically and separately measuring user satisfaction in relation to public transportation in particular.

FRAMEWORK OF ACTIONS

For the timely realization of the Mobility Plan, a short-term framework of actions is proposed in relation to projects in Phase I, which defines the most important tasks, together with their deadlines for implementation and responsible persons, of short-term projects. The Framework of Actions is approved by the General Assembly, while the Deputy Mayor competent in urban development is responsible for its completion.

The significance of organizational development may be increased, if the Framework of Actions independently provides for

- the creation of an organizational background according to the Mobility Plan to support its realization, and
- the preparation and the realization of the other development and management projects in the Mobility Plan, together with the provision of their conditions.

Projects with existing financing and possible synergies to be implemented in Phase I are proposed to be prepared and implemented together, in a coordinated manner in a separate group of projects.

The Framework of Actions should also provide for the preparation of projects to be implemented in Phase II.

