





#### **UrbanSCOPE**

#### Urban Sustainable Mobility in Focus: Student Education, Community Involvement and Participative Planning

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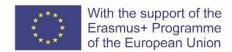
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### Urban Sustainable Mobility in focus: student education, community involvement and participative planning

## SUMP Scenario & Action Plan *Győr, Hungary*



July 2022

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## 1) Introduction: The necessity of Sustainable Urban Mobility Planning

A Sustainable Urban Mobility Plan is a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation and evaluation principles (ELTIS SUMP Guidelines 2014).

The main objective of the creation of alternative SUMP scenarios was to involve the City Councils of the participating cities, the civil society and other relevant organisations in joint planning of sustainable urban mobility interventions, resulting in a programme of actions aimed to enhance the sustainability of mobility modes in the previously selected case study areas.

As a concrete step, a Task Force has been set up, including the research partner (Széchenyi István University) and the local government (the City of Győr), as well as relevant associate partners, stakeholders and experts from the city. The first phase of the collaboration resulted in 3 alternative model scenarios referring to the future of mobility in Ménfőcsanak and Gyirmót. The following document will present the process of elaborating the scenarios, the main mobility problems concerning the area, as well as three possible directions of solutions and an ideal vision of the future.

#### 1.1 Why do we need SUMPs?

The main aim of sustainable mobility is to ensure the necessary mobility while validating environmental, social and economic aspects. Instead of "consumption ethic", sustainable mobility places "preserving ethic" in foreground, by preferring such structured production and consumption patterns that are accompanied by minimal resource usage and waste generation.

The question arises, why shall we deal with the topic of sustainable mobility more often nowadays? There are several reasons:

- Urban mobility is getting more difficult and inefficient.
- Urban mobility continues to depend on traditional fuels and personal cars, leading to high emission of CO2 (23% of the pollution concentrates on urban areas).
- Low air quality (pollutants, solid particles, regular excess pollution), leading to serious health problems.
- Constant traffic congestions (causing 80 billion EUR economic damage yearly).
- 38% of the road accidents concentrate in urban areas (causing 28.000 casualties yearly).
- Constantly growing negative externalities.

According to the model of sustainable mobility development, all transportation modes are equally important, and those transportation modes should be selected in all cases,

which most properly serve the reaching of the given destination. (Despite to the traditional planning method, where the development of mobility is directly proportional to the "linear" development tendency. This method focuses on the development of the newer, faster transportation modes, at the same time displaces the older, slower transportation modes.)

#### 1.2 Aims of the document

During the National Report conducted in the framework of UrbanSCOPE, it has been confirmed that by starting the implementation of a SUMP planning process for the territory of the case study area in Győr (Ménfőcsanak and Gyirmót), the project will fill a specific gap. A key milestone of the process is to invite stakeholders, in order to place in scope the existing situation, problems and policies related to sustainable mobility in the area, as well as the opinions, attitudes and behaviours of the inhabitants, the economic community and the civil society. Based on the reflections and discussions, several alternative SUMP scenarios have been worked out, that also provide basis for the further activities of the project.

The process of developing alternative scenarios have been facilitated by the establishment of a Task Force, in which the civil society was asked to participate, along representatives of the partners and municipal authority. The document will present the results of the Task Force discussions.

In Győr, the Task Force has been set up in November 2020. After a preparation phase, official inviting letters have been sent out to several organisations and individuals, who were invited to take part in the process. Among the key stakeholders we can find the members of the university/academia (Department of Regional Planning, Department of Transport Infrastructure and Water Resources Engineering, Doctoral School), the elected representatives of the local government (locally elected representative of Ménfőcsanak), civil society members (Keret Free Time and Cycling Association, Muszáj Nature Conservation Association, Hungarian Urban Planning Society), as well as students. Therefore, we can state, that the Task Force is quite diverse, and includes such organisations and individuals, who are interested in the results of the project.

Table 1: The members of the Győr Task Force

	Organisation	Profile	Name
_	SIU, Department of Regional Planning	Regional planning	Hardi Tamás
university	SIU, Department of Transport Infrastructure and Water Resources Engineering	Transport development	Szakonyi Petra
	Doctoral School of Multidisciplinary Engineering Sciences	Transport development/logistics	Sós Eszter
local gover nmen	Municipality of Győr, elected representative of the case study area	Urban planning	Laczkovits-Takács Tímea
O >	Keret Association (cycling assoc.)	Health/Cycling	Tóth Péter

	Muszáj Nature Conservation Association	Environment	Koncz Nóra
	Hungarian Urban Planning Society	Urban planning	Lados Mihály 🕇
ents	Sedondary education level	General interest/sustainability	Balogh Zsófia
students	University education level	General interest/sustainability	Vass Nikolett

The Task Force is operating through a mailing list and online meetings organised by the project partners. Within the first phase of the project, these meetings were focusing on the elaboration of the alternative SUMP scenarios. In Győr, so far altogether 6 Task Force meetings have been held (5 online and 1 face-to-face). The first two were mainly related to the overview of the current mobility situation of the case study area and the possibilities of the scenario-focuses; three meetings were devoted to the detailed description of the scenarios, while the last one was a field trip to the case study area, visualizing the main content of the scenarios. In the followings, you can read the short summaries of the Task Force meetings.

During the **first Task Force meeting (17.11.2020)**, project partners gave introductionary presentations about the UrbanSCOPE project and the achievements. A presentation was given about the importance of sustainable urban mobility planning by referring to the results of the questionnaire survey, focus groups and expert-interviews, and another presentation was made about how to formulate possible alternative SUMP scenarios. The role of the Task Force was also thoroughly discussed. After the presentations Task Force members started a discussion about the draft scenarios.

Az UrbanSCOPE projekt építőkövei

Három
Szcenárió:

Három
Szcenárió:

- Szemétygépkocsi fókuszű megközlekedés - bízva a technológial fejlődésben
- infrastruktúra bővítés
- parkolók a városban

- Jelenlegi autóbusz központú tőmegközlekedés továbbfejlesztése,
kiegészítése más tőmegközlekedési módokal – Gyór hizponttal
- Busszávok kilalákása, vasút fejlesztése, PeR
- Minőségi, mennysíegi javulás
- Hub-ok kilalákása (tómegközlekedésinezi jazitott egyéb szolgáltató
funkciók
- Okasas
- Gyrmót-Ménfőcsanak-Győrűpbarát-Nyúl
- Új típusi helyb buszközlekedés
- Belső ejlutás syavátsa
- Kerékozár és gyalogosztonság fejlesztése (csak a gépjármű
közlekedés rovására valósítható meg)
- A rendszerek összekapcsolása, ráfűzése egy elővárosi vasút/autóbusz
rendszerre)

Figure 1: Screenshots of the presentations (1st TF meeting)

Based on the ideas collected during the first Task Force meeting, and the additional documents sent around by Task Force members, SIU has prepared a draft list of possible scenarios. The main topic of the **second Task Force meeting (3.02.2021)** was to discuss the options and finalize the core direction of the 3 scenarios.

Figure 2: Draft list of possible scenarios

	(Sós Eszter)	(Szakonyi Petra)	(Hardi Tamás)
Szcenárió 1	Helyi úthálózatok	"Nem teszünk	Személygépkocsi-fókuszú
	fejlesztése	semmit"	megközelítés
Szcenárió 2	Tömegközlekedés	Kínálat növelése,	Tömegközlekedés
	továbbfejlesztése	infra fejlesztés	továbbfejlesztése
Szcenárió 3	Szemléletformálás	Kereslet csökkentése	Lokális központú hálózat kiépítése

The participants have discussed the possible options and content of the scenarios. Several comments and adjustments have been made. The results of the questionnaire survey showed the importance of suburban railways, so this should be taken into consideration when preparing the final scenarios. Developing the infrastructure is very expensive, however, there are several opportunities for the municipalities. Possibilities of community bicycles, e-bicycles, P+R parking, demand-driven vehicles, main line buses have all been discussed. After the brainstorming, members have jointly decided on the direction and main transport-focus of the 3 alternative scenarios.

In the followings, one meeting was devoted to each of the scenarios, in order to elaborate the content, vision, necessary interventions and possible indicators. The timeframe and content of the meeting was as follows:

• 3<sup>rd</sup> Task Force Meeting: **Scenario 1 (25.02.2021)** 

• 4<sup>th</sup> Task Force Meeting: **Scenario 2 (23.04.2021)** 

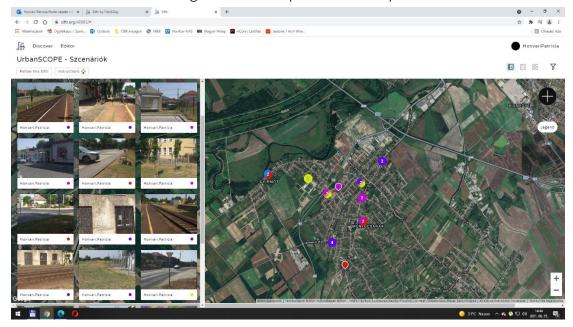
• 5<sup>th</sup> Task Force Meeting: **Scenario 3 (27.05.2021)** 

As the result of the discussion, the Task Force in Győr has elaborated three different scenarios for the mobility problems of the case study area, introducing several sustainable solutions. The difference between the scenarios are perceptible within the level of intervention, as well as the main supported transport mode. Detailed description of the scenarios can be found later in the document.

On the **6th Task Force meeting (24.06.2021)** members of the Task Force agreed to have a field tour along the problematic traffic spots of the case study area<sup>1</sup>. During the field visit, members collected photo documentation on the previously discussed mobility problems, infrastructure deficiencies, highlighting those aspects that are currently not ideal.

<sup>&</sup>lt;sup>1</sup> Due to the relief of the Covid situation, it was the first possibility to organize a face-to-face meeting with the Task Force members.

Figure 3: Siftr map of the field trip



After the field visit, the members also discussed how to improve the content of the scenarios, what are the possibilities for the evaluation and how to offer the results to the Municipality and to the local community.



To sum it up, the creation of the alternative scenarios has been reached through 6 meetings, however, a constant background work and dedication was needed from the Task Force members in the meantime. Members have actively contributed to the process by sending their own materials (suggestions for the scenarios, problems of the case study areas, photos of traffic problems) and by devoting their time to the online meetings. Task Force members are also committed to support and promote the future activities of the project, starting with the evaluation and presentation of the created scenarios. The following chapters present the results of the joint work. The document will first summarize the main problems and analysis of the case study area, followed by the detailed explanation of the created mobility scenarios.

#### 2) Preparation and Analysis

The starting point of preparing scenarios is to analyse the current situation and define the strategic direction of the Sustainable Urban Mobility Plan. Majority of the Task Force members already have a background in sustainable mobility planning and/or are familiar with the problems of the case study area. The following chapter will summarize the transport situation of the case study area, complemented with additions from the Task Force members.

#### 2.1 The planning context

The Municipality of Győr has taken part in the Pro-Motion (2006-2009) international project (Intelligent Europe Program), with the main aim of preparing a mobility plan for the neighbourhood of Győr-Ménfőcsanak (the case study area of UrbanSCOPE). Prior to the development of the mobility plan, a questionnaire survey examining the mobility habits of the residents have been conducted, which analysed the origin of the destinations, the chosen mobility modes as well as the inner motivations per travels and travel destinations. The travel habits in Ménfőcsanak have been examined in order to determine, what are the main areas of transport development that could serve the enhancement of a sustainable and environment-friendly mobility.

Ménfőcsanak is one of the outer suburbs of Győr, majority of the residents travel to Győr for work or school. Between Győr and Ménfőcsanak, the two main traffic roads are the No. 83 road and the Győri Road. On these streets the traffic congestions are constant during the morning and afternoon peak hours, and the negative environmental impacts are also sensible. During the Pro-Motion project, 600 residents were asked in 2008, at the beginning of the project, and in 2010, at the end of the project. Biggest part of the respondents commute to the Inner City for work (18%), however, popular destinations were Marcalváros (9%) and Gyárváros/Industrial Park (10%). Among the respondents, the most popular transportation mode for the commuting was definitely the personal car (with 42% driver and 18% passenger). This was followed by the bus (26%), and the bicycle (8%), 4% was walking and only 2% were travelling by train. (Figure 5)

2%

8%

42%

18%

By car (driver) By car (passenger) Bus Bicycle Walking Train

Figure 5: Modal-split in the case-study area for commuting to work or school (2008)

After the analysis of the travel habits, during the project timeframe, several transport development have been implemented, awareness-raising and educational programs were organised. The project was able to finance a P+R development plan, and a B+R parking was established at the long distance bus terminal. Apart from the project budget, the Municipality has financed a new bicycle lane, which combined the new residential areas of Ménfőcsanak (Mediterranean Resort 1. and 2.) with Győr. The bus service was also improved, introducing a new online trip-planning application. Due to the developments and awareness raising, by the end of the project the travel habits of the residents have changed accordingly. The rate of bicycle users have increased by 2%, while the rate of bus users have increased by 1% among the target group, while the share of car-drivers have decreased by 3%, simultaneously decreasing the energy consumption and CO2 emissions.

The Integrated Settlement Development Plan (ISDP) of Győr considers the two neighbourhoods Ménfőcsanak and Gyirmót as one unit. (Figure 6) It can be stated that the ISDP (2014-2020) has foreseen both cultural institution development and sport facility investments for the case study area, from which the former has been actually carried out. Regarding the industrial and commercial infrastructure developments it can be stated that the renovation of No. 83 road has been completed. As for Gyirmót, the ISDP has also allocated further developments of residential areas, which has been partly completed, further increasing the population of the neighbourhoods. Although there is no accurate data on the number of the current population, the robust growth is well illustrated with Table 2. Since then, the numbers have further grown.

Figure 6: Demarcation of Ménfőcsanak and Gyirmót in the ISDP (2014-2020)



The rising number of population is a consequence of the "housing boom" of 2017-2018. According to the Central Statistical Office, the number of residential constructions have been increased by nearly 20% from 2018 to 2019, however today the numbers are going down, and in the coming 4-5 years this decreasing tendency may continue. Despite the fact that both Gyirmót and Ménfőcsanak possess areas that are currently not built-in, a more consolidated growth of the population is expected in the future, giving an opportunity for the proper development of the transportation services, on the middle and long term.

Table 2: Population growth of the case study area (2001-2011)

Neighbourhood	Number of	population	Change (%)
	2001	2011	
Ménfőcsanak	6964	9521	36,7%
Gyirmót	1252	1359	8,5%

From the point of sustainable transport development it is remarkably progressive, that the ISDP encouraged the development of cycling and walking transport connections, together with the possibility of improving the fixed-tracked suburban public transportation. The valid need of the fixed-tracked transportation modes have been proved during the development of the first stage of M83 expressway, when due to the constant traffic congestions, more people have chosen the train for commuting than earlier.

#### 2.2. What are the main problems and opportunities?

In the frame of UrbanSCOPE (similarly to the Pro-Motion project), a questionnaire survey has been conducted, which also aimed to demonstrate the modal split of the local residents. It can be stated that the results of the survey present a bit favourable situation, than in 2009. During commuting, around 39% of the residents are still using the car, while the rate of the public transport users (bus, train) and cyclers has increased during the last decade.

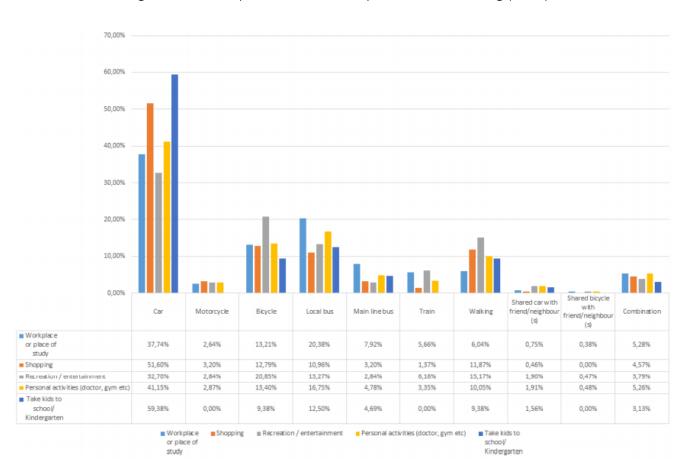


Figure 7: Modal-split in the case-study area for commuting (2020)

By comparing the results of 2009 and 2020 it can be established that there has not been any significant change in the transport habits during the last 10 years. The main reason for this can be that the population growth and the effects of the developments in road, bicycle and public transportation have balanced each other. Since the aim of the project is to ensure the sustainable mobility and settlement development, such transport development measures and tools need to be introduced, which favour the sustainable transportation modes. The scenarios presented in the next chapter are also serving this goal.

#### Main transport-problems of the area

The population of Ménfőcsanak and Gyirmót as well as the plot ratio increases year by year, causing serious traffic congestions during the morning and afternoon peak hours.

In Ménfőcsanak the bus lines No. 21 and 22 offer access to the city centre every 20 minutes during the morning and afternoon, while off-peak they run every 30 minutes. According to the ÉNYKK², the calculated travel time in peak hours is 34 minutes, however, the buses are often late, and the travel time is usually around 45-55 minutes, including a serious delay. Furthermore, buses are overcrowded, besides the seats, the capacity of standing places is also maximally used. It often happens that several residents waiting in the stops can not get onto the bus. Besides the above lines, from the city centre some of the longer distance buses (running to the settlements of the agglomeration) also stop at Ménfőcsanak (Bus line No. 32, 34, 36). However, these buses do not offer alternative for the other travel-direction (i.e. from Ménfőcsanak to the city centre), as they do not provide access to board.

From Gyirmót, bus line No. 1 is available, however, during the day time these buses only run hourly. According to the ÉNYKK, the calculated travel time in peak hours is 39 minutes until the city centre, in reality during the peak time these buses also have a significant delay, often 50-60 minutes are needed to get into the city centre. The other problem of the line is that is disregards the needs of the residents in Gyirmót, since it reaches the inner city without passing by several important places. For example the approach of the hospital, the market hall and several secondary schools is not possible without changing the line. Bus line No. 37 supports the transportation of Gyirmót during the morning peak hours (2 buses) and the afternoon hours (3 buses). The official peak travel time is 41 minutes, and due to the better itinerary residents prefer to use this line (it reaches the hospital, market hall, etc.).

The public transport connection of the two neighbourhoods is only partly solved. All of the buses starting from Gyirmót have a stop at the northern part of Ménfőcsanak,

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<sup>&</sup>lt;sup>2</sup> Regional bus company

however there is not a single line, which stops at the southern part, where the school is located<sup>3</sup>. Therefore, parents are usually bound to use personal cars to take their children, since the safe conditions for the bicycle travel are not given in Gyirmót.

Further improvement of public transport, supplement with other transportation modes Increasing the frequency of scheduled buses would not mean a solution to the residents. Naturally, travelling would be more comfortable, however, these buses would alike be part of the morning and afternoon peak hour traffic.

A solution could be the utilization of rail transport. By train it is possible to reach the inner city in 12 minutes, and if the train timetable would be adjusted, that would mean a serious relief to the road transportation. The fixed track (platforms) are given, there are 2 train stations in Ménfőcsanak. However, at the moment trains only stop at one of the stations, in the northern part of the neighbourhood ("Ménfőcsanak Felső"). At this station, the parking is not solved, only a few bicycle storages are nearby, and their number compared to the population is very low. On the southern part of Ménfőcsanak the train station ("Ménfőcsanak Alsó") is currently out of order (no trains stop here). As it is also visible on the photo, the station would be suitable to serve a bigger crowd as well (there are empty spaces for parking), however, it would demand a serious modernization.



Figure 8: Unused train station in Ménfőcsanak (*Photo by Sós E.*)

<sup>&</sup>lt;sup>3</sup> It needs to be mentioned that although the district school of Gyirmót is located in Marcalváros, many parents prefer the primary school in Ménfőcsanak because of the family atmosphere and children centred attitude of the school.

Apart from the technical conditions, the fixed track is given, there is enough space, therefore the railway transport could be introduced in the local mobility network. By offering a reasonable timetable and local season tickets, a significant share of the residents could be diverted to the use of railway. The traffic congestions in the morning and afternoon peak hours could be majorly reduced, meaning also that through the No. 83 road the city would also be reachable in less time.

Launch of the railway transport could be experimental in the beginning, followed by the establishment of P+R parking and the introduction of 'feeder' buses, offering a comfortable and fast traffic solution (both for the residents of the further streets of Ménfőcsanak and Gyirmót). Later on, the establishment of a third train stop should also be considered.

Naturally, the suburban lines could also be extended to every places within the city and the agglomeration where there is already a constructed railway track, giving an opportunity for a fast and effective development.

In the case of Gyirmót, the restructuring of the local bus lanes (changing the bus line No 1 to No 37; or introducing both lines at the same time) would already mean a significant progress. The overview of the timetable would also be necessary (the hourly frequency could be increased), furthermore a bus line connecting Gyirmót with the southern part of Ménfőcsanak (including the school and community centre) should be introduced.

#### Development of the local road networks

At the moment, Gyirmót can only be accessed from the main road No. 83, which means that all public transport vehicles as well as personal cars need to use the same line. The road network of the neighbourhood could be developed in two directions. First of all, at the end of the Gerle road, there is a dirt road that enables the access to Koroncó (a nearby agglomeration settlement). Many people use this road by bicycle or scooter under appropriate weather conditions. By creating an asphalt surface, commuters could use the road to bypass the No 83 road. On the embankment next to Gyirmót, the neighbourhood Marcalváros can be accessed. Many people use this by bicycle, however the quality of the pavement is not suitable for personal car use. The development of the road would again ensure an opportunity to bypass the main road.

Both in Gyirmót as well as in Ménfőcsanak, the establishment of a safe bicycle lane network would be necessary.

#### Awareness raising among the residents

One of the important elements of environmental consciousness is the negligence of personal cars. If the appropriate alternatives would be available, it is expected that significant part of the residents would choose a different transportation mode. If the suburban railway gets into operation, the current 45-55 minutes of travel time to the inner city could be reduced to 12 minutes. This in itself would attract a great deal of passengers. Furthermore, the bus transport could also be unloaded, therefore those who would still use the buses, could travel more comfortable and without congestion.

Both Ménfőcsanak and Gyirmót kept its semi-rural character, however there was a great increase in the population number in the last years. By establishing an adequate cycle lane network, and by broaden the traffic knowledge of local residents, an environmental awareness raising could also be started, supporting the sustainable urban mobility of the future. When transforming the local mobility network, an emphasis should also be placed on the importance of nature conservation (and not only on the renewed infrastructure).

#### 2.3 Options for the future

The core mobility problems (the transport demand is higher than the supply) can be generally treated by the following ways:

- 1) Everything remains as it is (no intervention)
- 2) Increase the supply (capacity)
- 3) Decrease the demand (demand-management)

These three directions of solutions are also applicable in the case of Ménfőcsanak and Gyirmót, and it gave the starting point of the creation of the alternative scenarios. In the followings, the options and content of these three directions will be explained.

#### 1) Everything remains as it is (no intervention)

If we do not want to use the tools of capacity increase or demand-management, according to previous experiences it can be established that a rate of the commuters will still change their habits by themselves. Examples:

- Departs at a different time (to school/to work)
- Chooses a different itinerary
- Chooses a different travel destination (for shopping, or spending free time)
- Does not even leave (home office)

Although this is not considered as a solution, however, certain behaviour-changes can serve the sustainable trends (especially in the light of low budgetary resources).

#### 2) Increase the supply (capacity)

According to the traditional transportation planning, the road transportation shall be satisfied, namely the supply and capacity needs to be increased. However, in many cases the road transportation demands can not be satisfied, and usually not because of the lack of finance, but because of the scarcity of available spaces, as well as environmental reasons. Furthermore, the changes in supply can have an impact on the demand, and may generate further traffic.

According to the traditional transport model, the serving of **the road transportation needs** is being planned and implemented at the moment also in the case study area. By August 2018 the first stage of the expansion of No. 83 main road has been completed. During this development, the road will be broaden to 2x2 lanes between Győr and Pápa. The construction has started in August 2017 within the intersection of M1 highway and No. 83 main road. The aim of the investment was to make the access to the highway safer and faster. On a one km distance, the former 2x1 lane has been broaden to 2x2 lanes with physical separation. The two intersections accessing the M1 highway has been rebuilt to turbo roundabouts in December 2017. The construction will continue in the coming years, with further line expansions and intersections.



Figure 9: Expansion of the No. 83 main road

#### 3) Decrease the demand (demand-management)

In today's transport development we are not talking about needs, but demands, which is not an absolute size, but it is depending on the costs in the generic sense, therefore through different measures (for example fees, prohibitions, marketing) it can be influenced and managed.

One possible method of demand management is **the reduction of transportation needs**, which can be achieved by the development of local services or the improvement of accessibility. Apparently, in the case of Ménfőcsanak and Gyirmót the service and grocery coverage is adequate, however this question should be further investigated with other examinations. If necessary, the appearance of services can also be supported through urban planning measures (for example by designating a settlement centre).

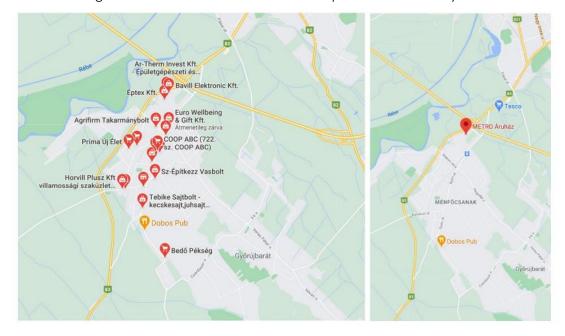


Figure 10: Number and location of shops in the case study area

Another possible tool of influencing the demand is the **reorganisation of traffic**, which is possible through the redistribution, redesign or development of cross sections. Within the neighbourhood in several places there are no sidewalks, however there are a lot of pedestrians, who need to move on the side of the road. The parking situation is also chaotic is several places. In order to improve the safe pedestrian travel, one possible but not necessarily effective solution is the application of traffic control measures (for example traffic calming, 30 km/h speed limit, speed bump).

The other, probably more effective solution is the rethinking and **redesign of residential street crossings**. Within the municipality's contracts with the developers, the establishment of roads, pavements, rainwater drainage and public lighting should be an obligation, while the already missing developments should be continuously supplied

from municipal budget. Decreasing the cross section of roads in itself contributes to the selection of lower speed.

Parking problems can be treated, if the dwelling authorisation is only permitted in the case of purchasing parking spaces, or the public parking is forbidden. During the new developments it would be worthwhile to introduce practices already existing in Western European countries, by designating **car-free residential areas**. International studies prove that car-free residential areas are extremely popular, in many cases the price per square metre is significantly higher than in traditional residential areas.



Figure 11: Example of car-free residential area (Freiburg, Germany)

Less popular, however undoubtedly effective method of demand management is the **introduction of road tolls**. Introducing such tolls on No 83 main road would definitely decrease the road traffic between Ménfőcsanak and Győr, as well as Gyirmót and Győr.

Apart from influencing the demand, the selection of transport modes can also be affected in order to move to a more sustainable direction. Among the measures supporting public transportation, there are several possibilities. One example is to create bus lanes on No. 83 main road, or giving "green-ways" in intersections with traffic lights. Furthermore, development of passenger information in bus stops, on buses and train stations, placing ticket machines in several spots in the neighbourhood (for example at the schools), involving long distance buses to local transportation, decreasing the travel time, establishing covered bus stops, or improving the suburban railway lines can all contribute to the higher quality of public transportation services and the demand coverage of public transport users.

The previous **school bus service** run on an experimental basis, which could be introduced in the long run and continuously. This would also effect positively the traffic and air pollution of the neighbourhoods.

Among the measures supporting bicycle transportation, the development and improvement of cycle lanes between the neighbourhoods and within the neighbourhood is suggested. Between the neighbourhoods, along the high traffic main road lines the building of separated bicycle lane is suggested (for example between Ménfőcsanak-Győrújbarát, Ménfőcsanak-Gyirmót and Tét-Győrújbarát-Ménfőcsanak). While, within the neighbourhood the safer bicycle travel can be supported by speed limits and the painting of cycle lanes and trails.



Figure 12: Open bicycle lanes in the Netherlands

Near the single institutions and services (school, kindergarten, nursery, groceries, church, restaurants, cafés, shops and railway station) proper bicycle storages should be established (with the possibility to fix the bicycle on 3 spots).

In order to improve the pedestrian traffic, it is extremely important to increase the traffic safety of pedestrians, especially regarding the pedestrian crossings. The accessibility of sidewalks is also important, by removing obstacles and facilitate the movement of disabled persons or parents with baby carriages. In order to promote bicycle and pedestrian traffic, local actions/events also prove to be very effective, for example "bike-train" and "pedestrian bus".

Figure 13: An example of "bike-train"



Last, but not least we shall not forget that for the realization of sustainable urban mobility it is essential to find the equal and correct ratio of introducing measures on restricting vehicle traffic and on supporting environmental friendly transportation modes.

#### 3) Alternative scenarios in the case study area

Based on the Preparation and Analysis, and the future trends, the Task Force has determined **three alternative scenarios** in order to handle the specific transport/mobility challenges and problems of the case study area. The scenarios follow three different directions, and there is a difference among them in the scope of intervention, the main transportation focus as well as the investment-intensity. The following table summarizes the main ideas of the scenarios.

Table 3: Alternative scenarios for Ménfőcsanak and Gyirmót

	Name of scenario	Short description
Scenario 1	BAU & Technological development	This scenario builds on the focus of passenger car mobility and road transport (as it is today). Hoping for a technological development for sustainability issues. Infrastructure expansion (for example roads, parking places, etc.) is foresee.
Scenario 2	Encouraging public transportation (Central)	Development of the public transport options, with the main focus of a suburban rail transport. Further development of the current bus-based public transport, complement with other methods. Central developments (City): Bus lanes, Railway, P+R, mobility hubs.
Scenario 3	Developing a Local Network (Local) Focusing on the demand of needs of local residents	Local network of functional areas, new type of local public transport, focus on alternative methods of mobility (walking, bicycle), connection of networks.  Decentralised developments, public participation, "soft" solutions (Local area)

The following scenarios give a short description and summary of the planned interventions. The descriptions contain the vision, the main transportation focus as well as the list of necessary interventions. In some cases, possible indicators are also included. The Task Force was trying to formulate the scenarios in a way that they do not contain prejudice. None of the scenarios considered "better" or "worse" than the other; the difference lies within the intervention and the focus.

#### 3.1 Scenario 1: BAU & Necessary changes

#### Vision of the scenario

Scenario 1 focuses on the personal car transport, however, the aim is not to ease the car traffic. The vision recalls that we have to accept that the number of personal cars will increase in the future, and the suburban zones (Ménfőcsanak, Gyirmót and the surrounding settlements) will expand. This means that the current trends will not change. Although the priority will be given to the car-traffic, the aim is to move towards sustainability.



Vision Scenario 1 People are still using their cars, and it is a fact that the number of personal cars and the population of the suburban zones have further increased. However, in many cases people are encouraged to leave their cars behind. Children of the area have several possibilities to reach their education institutions on their own. There is a regular and reliable school-bus, collecting the students every morning and transferring them back in the afternoon. Those, who like walking or cycling, can take advantage of the home escort, where volunteers accompany children back and forth from school.

Increasing share of commuters use the car-pooling applications, resulting in considerable less cars on the main roads.

Several community offices has also been established in the area, where the co-workers of different (inner-city based) companies can work together in an office environment, without the need of commuting every day.

Furthermore, many people are using the newly developed (and safe) bicycle lanes, while the car-traffic within the residential areas slows down due to the speed limits, speed bumps and redesigned crossings.

Beneficiaries of the scenario are definitely those, who travel by car, however, in the name of the sustainability it will be important to introduce a more strategic mobility, and encourage people to leave their cars behind.

In order to reach the goal, it is necessary to establish infrastructure elements, which are able to reduce the car-use. These developments do not need serious investments; in many cases the success depends on the appropriate space use and reorganisation.

#### Main focus of the scenario

The scenario is car-centric, but tries to make car-use more sustainable. The biggest problem is caused by taking the children to school/kindergarten as well as commuting to work, therefore alternative solutions should be introduced to solve these problems. Naturally, car-sharing possibilities as well as bicycle lane development also get into foreground.

One of the most important interventions would be to lighten the load of parents to take their children to school. For this purpose, ideal would be if many of the neighbourhood's children would attend the primary school in Ménfőcsanak. Generally, by selecting a school the accessibility and logistic is also a core aspect. The solution form the mobility perspective would be to interconnect the surrounding settlements and schools by a **school bus lane**. Willingness and support of the parents could be easily surveyed.

The introduction of the solution should not depend on the bus service company, and the operation of schools have been taken out from the municipalities' budget several years ago. Therefore, an important disadvantage is the uncertainty of the financer. Nevertheless, the school bus program would be important (also as a national program), and most probably the local education authority should start the initiative. As a result of this action a mass amount of crowd would leave the cars and be removed from the morning peak hours (since this is now a non-existing line.)

However, this service has many conditions, and there are several open questions: a teacher should accompany the children, necessity of bus drivers. (However, the service could also generate workplaces). On the other hand, no infrastructure-development is needed.

Another solution would be offered by **car-pooling**. In order to get to schools, primarily acquaintance parents can come into question, however this could also be given an organised format (for example through an application, where parents can communicate with each other). A serious doubt is, whether there is any openness, and the question of responsibility is a disadvantage.

The implementation of a "home escort" service (and a school bag carrier trolley) would also offer a solution, with the involvement of teachers, parents and/or volunteers. In Ménfőcsanak, the school has a quite central location, 3-4 km is the farthest point of the settlement, but the majority of children is living within 2 km distance (half an hour walking).

Not only the access to schools, but the commuting to work is also a critical question. In their case, the following possibilities should be considered: car-pooling and the **establishment of community offices**. This would mean small offices for 5-8 people, where different (city centre based) companies could rent tables. Employees of different companies could work together without the need to leave their neighbourhood and commute to the city centre. This solution does not equal to home office, because the office environment is given.

Further infrastructure-elements to implement the scenario and to reduce the car-use:

- Establishment of parking spaces near the city centre (10-15 minutes walking). In many cases commuters also cause mobility problems within the city.
- Designation of short parking zones in front of the schools (in order to avoid the congestions).
- Bicycle lane developments (primarily between Gyirmót and Győr, between Gyirmót and Ménfőcsanak and within Gyirmót). At the moment, cycling here is not safe.

- Checking of speed limits (monitoring and penalties)
- Application of speed bumps (especially in Gyirmót)
- Other transport-related solutions: raising the pedestrian crossings from street levels, narrowing the lanes, implementation of self-explaining roads. (The paintings do not need high investment.)

#### Possible indicators to measure the implementation

- Number of built traffic control devices (number of locations/tools)
- Establishment of suitable number of parking spaces (number/year)
- Planned new P+R and/or B+R parking spaces (number)
- Built new P+R and/or B+R parking spaces (number)
- Establishing the system of rules concerning the construction of new residential areas
- Monitoring the correspondence to the rules concerning the construction of new residential areas (sanctions)
- Newly established bus stops
- New school bus lines
- Application of car-pooling solutions (occasion)
- Service development regarding car-pooling solutions (number of developed applications, number of users)
- Number of registered users in car-pooling services (persons)
- Number of volunteers taking part in car-pooling services (persons)
- Number of volunteers taking part in school bus services (persons)
- Number of users of school bus services (persons)
- Bicycle road development (km)
- Bicycle lane development (km)
- Bicycle track development (km)

#### 3.2 Scenario 2: Encouraging public transport

#### Vision of the scenario

Scenario 2 is focusing on the strengthening and development of public transport. The scenario is generally envisages intensive investment in order to develop a public transportation supply that will perceptively and definitely reduce the personal car use.



Considerable share of residents are using the renewed suburban railway. Commuting is not a nightmare anymore, the inner city and other important locations (hospital, Industrial Park) are reachable within 10 minutes.

P+R and B+R spaces are waiting for residents to arrive to the train station, offering a safe, nice and green environment for their cars and bicycles while they are away.

A decentralized bus-transport system is helping the residents, by offering connection from all over the neighbourhood to the train stations, or a viable alternative to the train transport.

Vision Scenario 2 There are no blank spaces left, residents of all streets can easily reach the bus stations or ask for a demand-driven vehicle through modern applications. Easily, from their smartphones.

Naturally, residents can buy season tickets, valid for all transportation methods, no matter if they want to travel by train or by bus, or if they want to choose the community bike services.

More and more people use the newly installed community bike stations, where several e-bicycles are stored and easily accessed.

Residents of the nearby agglomeration zone can also enjoy these advantages and services, and as a result, the roads are predominantly occupied by the main line buses and cargo transport during the day time.

#### Main focus of the scenario

During the further development of public transport, the main emphasis is placed on the **suburban railway**, since it can save a significant amount of time during peak hours (40 minutes vs 10-15 minutes to the city centre). However, several problems should be solved regarding the railway transportation. At the moment, trains stop only at one station ("Ménfőcsanak-Felső"), although at this location the development of P+R parking is not possible or only very limited. The reintegration of the second (currently unused, but available) train station is necessary, since the conditions for a new parking block are much better around this station.

The other pillar of the scenario is the **bus transport**, which is facing an excessive centralization at the moment. From the two neighbourhoods, buses are only leaving towards the city centre (through Marcalváros). Intruding **local round lines** and **demand-driven vehicles** would be ideal. The current bus lines have a very long travel time, due to the long distances and many stops. Because of the main problems, the target audience of the buses are students and elderly people.

The **community bike-system** (Győr-Bike) can have a supplementary role in the scenario. Since the inner city is further away, it could contribute to the transportation within the neighbourhoods.

It is expected that the Municipality can get financial resources therefore, it is worthwhile to consider the following options.

#### *Necessary interventions & actions*

Regarding the **development of the railway**, there are several interventions to mention.

- Reintegration of the second (currently unused but available) train station in Ménfőcsanak.
- It is necessary to establish enough P+R parking places near the train stations, adapted to the recent traffic volume. Further analysis of a suitable location of the parking space is necessary.
- It is necessary to establish parking places not only for personal car, but for bicycles as well. Establishment and capacity development of current bicycle storages will be required.
- At the moment, the Ménfőcsanak-Győr direction is offering trains only every 2 hours, the frequency should be increased during peak hours.
- For the combination of train and bicycle transport, the more frequent use of low-floor rakes would be necessary.

Furthermore, the train service (at the moment) leaves out several, important intersections. In order to encourage the mass utilization, multidirectional improvement is needed:

- Opening towards the Industrial Park/AUDI Factory. There have been ideas previously to create a passenger station here.
- The location of the train station in Szabadhegy is not ideal, the relocation of the station would allow to ensure a proper connection with the mall and the hospital. This development would also effect the residents of Szabadhegy.
- There is a cargo station between the neighbourhood Marcalváros I. and II., which could also be extended to the passenger traffic. (However, this is already a long-term perspective).

As for the **bus transportation**, in the case of Gyirmót, one bus leaves hourly towards the city centre (bus line No. 1). However, even this line does not approach several important destinations (for example the hospital or the market hall). The travel time is long (50-55 minutes), and buses are crowded. There is another option to get to the inner city (bus line No. 37), however this departs very rarely. A systematic review of the bus lines, frequency and itinerary would be necessary.

As for Ménfőcsanak, the residents of Hegyalja street are not connected to the local public transport, although there is a demand. The hospital, and two important neighbourhoods (Szabadhegy, Adyváros) can not be reached without changing bus lines. More frequent bus services is a real need, furthermore the reintegration of the old bus line No. 40 should be considered.

An obvious goal of the scenario is to create bus lanes along the main road No. 83.

Since there is also an emphasis on the Győr-Bike system, it is advised to install further stops within Ménfőcsanak and Gyirmót (currently there is only one community bike station). A new function of the system could be the integration of electric bicycles, which would offer a better alternative for commuters. However, the economic feasibility of the action should also be considered.

Among the long-term objectives it can be mentioned that together with the surrounding agglomeration settlements, a significant number of residents is assembled. The goal is to reach a high quality connection of these settlements, the case study area and the city centre of Győr. The conscious development and coordination of different public transport modes (i.e. train and buses) can contribute to this goal. It is advised to handle these settlements together and establish a real suburban transportation system.

#### 3.3 Scenario 3: Local Network Development

#### Vision of the scenario

The main idea of Scenario 3 is that Ménfőcsanak and Gyirmót can not be treated separately, these areas are core part of the south-western agglomeration region. In order to implement the scenario, municipalities have to think in complex systems and it is not enough to only deal with the transport-issues of the single settlements or neighbourhoods.



Vision Scenario 3 The transportation system of the South-Western agglomeration region is completely renewed and changed. The development focus is the establishment of sub-centres within the area.

Although the daily routine (commuting) is not completely eliminated, people are motivated to travel less — and even if they do, they select sustainable modes. The transport systems are more flexible, occasionally demand-driven.

People are now using the local, high-quality services (shops with a wide supply of goods, medical centre, entertainment facilities and sport centres). Several local offices were also open, so employees, who live in the agglomeration do not have to commute in the city centre on a daily basis.

Because of the new services, the decrease of demand is outstanding, the neighbourhood is now a local centre and micro-system.

Not only the transport system of the agglomeration, but the transport development of the inner places is also highlighted. The mobility within Gyirmót and Ménfőcsanak is more tolerable.

#### Main focus of the scenario

The main transportation method is the **fixed track transport** (similarly to Scenario 2), however, it is more complex than that. Besides the development of feeder services, the main aim is the satisfaction of the local structure. This means the appearance and/or **extension of different services within the area** (for example shops, medical services, office for government-issued documents, etc.). Bearing in mind the whole agglomeration area, it is the matter of developing the inner (horizontal) connections of a city-wide territory.

An important aspect is the expansion of services and the development of settlement subcentres, at the same time **reducing the car-use of the inner space**. Scenario 3 does not deal with meeting the needs of the traffic flowing towards the centre of Győr, but it focuses on the solution of the demand with local (inner) services.

By looking at the main transportation modes, both the Győr-Pápa and the Győr-Veszprém railway line could be used, however a more uniform and balanced system should be planned. The investment needs of this scenario is completely different than the previous ones.

**Necessary interventions & actions** 

It needs to be emphasized that the complex development of the agglomeration, the rational settlement-development of the inner centres, as well as the thinking in zones is also a matter of external factor, and it requires a shift in the development focus.

Nevertheless, if the external factor is given, several interventions can support the development of the scenario, in order to make the living space of Ménfőcsanak and Gyirmót viable. First step of establishing a local centre is the satisfaction of the different needs and demands. In other words, it should be analysed, why people commute to the city centre, and create the alternatives locally.

The following aspects should be taken into consideration:

- The number of local shops is appropriate, however the variety of products do not necessarily serve all the needs of the residents. There are two hypermarkets nearby, however, travelling to here also burdens the traffic of the main road No. 83.
- It is necessary to establish service buildings. In the case of rentable offices several (inner city) workplaces could be evoked. This means that the Győr-based companies would develop local units for their co-workers living in the area, reducing the traffic flow towards the city. Motivation could be given by the lower rental fees.
- Expansion of sport-facilities (workshops for children, swimming pool or sports hall).
   From the side of the Municipality there is a concrete idea already, therefore this can be realized in the near future. Although the planned area is at the border of Ménfőcsanak, the commuting towards Győr can be reduced.
- Expansion of entertainment facilities. For this, the given infrastructure could be utilized and better used. The programme of the community centre should be directed more towards the local youth. (At the moment, there is an ongoing survey about their needs).
- Establishment of a Medical Centre (doctor's office). Other (nearby) examples prove that these facilities are very popular among the local population (since the central medical services are usually very crowded). It is important to broaden the service palette.

The above interventions and the satisfaction of the local needs should be attained by the least possible personal-car use. Therefore, the residents should be encouraged to cycling or walking (placing bicycle storages around the neighbourhood).

In order to ease the inner personal car traffic, the further development of the bicycle lanes are necessary, so that not only adults but children can also safely use them.

An idea to ease the bicycle and pedestrian traffic is the **redesign of the streets** (paintings, sings) or the designation of bicycle street (for example in Ménfőcsanak the Hármashatár street). Within the residential areas speed limits could be introduced.

Nevertheless, these interventions as well as the better utilisation of local services definitely need the education and behaviour change of people.

#### 4) The future steps: Discussion and evaluation of scenarios

After the formulation of the alternative scenarios, the document was discussed with citizens and stakeholders.

The Task Force planned a two-level consultation and discussion of the document:

- Stage 1: Scenarios will be presented to the local authority in the frame of a consultation/meeting, where the evaluation of the scenarios will also be presented and discussed.
- Stage 2: Scenarios will be presented to the local community/general public, however, the previous evaluations and scoring will not be presented here. Within the public consultation a voting is also planned, in order to select the most "preferred" scenario.

After the two-level evaluation, the Task Force will be confident to select the preferred vision, that both the local authority and the local community consider as their own, and this can be referred as the common vision. Furthermore, the evaluation and discussion can be **considered as part of a campaign** that aims to raise awareness among the citizens of the necessity and possibilities of sustainable urban mobility within their local area. The campaign in the wider sense promotes the project and its results and includes demonstrations of the learning and awareness raising tools developed in the frame of UrbanSCOPE project.

Experiences of the consultation meetings, feedbacks and opinions regarding the created alternative scenarios will be summarized in this chapter.

#### 4.1 Evaluation with the local authority: consultation and scoring

In order to discuss the prepared scenarios with the professionals from the local authority, a face-to-face consultation and meeting has been summoned that took place on 08.04.2022 at the City Hall. (The detailed agenda and invitation is available in Annex 1). Main target group of the event were the officials of the Municipality, dealing with transportation or sustainability issues, with the main aim to discuss and objectively evaluate the designed scenarios. Besides the employees of the municipality, Széchenyi István University and several Task Force members were also invited. Altogether, 9 participants took part in the event.

The workshop lasted for an hour, and the programme included a short introduction on the UrbanSCOPE project and a longer presentation on the content of the three scenarios. Prior to the consultation, the invited participants also got some information documents about the previous work of the Task Force. After the presentations, the participants discussed the content of the scenarios, and several remarks and feedbacks were collected.

- Participants emphasized their commitment towards the environment-friendly mobility, and explained that the most significant positive affect can be expected from Scenario 2 and 3. Naturally, the financial/investment aspects should also be taken into consideration.
- From this sense, Scenario 3 might have the lowest investment costs, as this focuses
  more on territorial/settlement development measures, rather than the hard
  infrastructure development. Even now, there are already such actions in place (for
  example the development of a local health centre).
- Furthermore, a higher emphasis should be placed on the transport-relations between the two neighbourhoods (Ménfőcsanak and Gyirmót), also including the possibility of a sub-centre in Gyirmót.

Photos of the scenario-consultation with the local authority (22.04.2022)







- The suburban transport-development concept of Győr (together with a feasibility study) has already been prepared in 2013. This concept also focuses on how to develop the railway systems and integrate these into the urban mobility.
- Scenario 2 (on encouraging public transportation) is a very good idea, however, it would require an intense commitment from the side of the local government, as well as the public. Although the main question will be the financial sources, it should not be forgotten that the MÁV (the Hungarian railway company) as an important (further) stakeholder should be also included in the coordination. Several regulations should be taken into consideration (for example the distance between train stops, railway information systems, etc), that can make the development more difficult.
- Possibly the worst scenario would be the first ('BAU & Necessary changes'), however, this could be selected as a back-up solution.
- As a cost-effective solution, it would be good to revise the local public transportation, as the timetable of Gyirmót and Ménfőcsanak is not very logical, and does not really serve the needs of the local residents. This does not necessarily mean the need for more buses, but it should become more structured.
- It is undeniable that Scenario 2 and 3 are serving a viable vision, however the best solution would be the combination of these two. Not only considering the case study area, but the whole city as well. From transportation aspect, financial sources as well as the mentality-change is required, however we shall not forget that there are physical boundaries too, and in many cases simply there is not enough space for the development. Also from this aspect, the railway could be the best alternative, since it is a fixed-track transportation, and the line network is already given.

After the discussion, all of the participants received **an evaluation sheet**, where all of the scenarios needed to be evaluated separately, based on a complex scoring system. (*The sample of the scoring sheet is available in Annex 2.*) The evaluation had two parts:

- The first part was focusing on the <u>evaluation of the possible impact</u> of each of the scenarios. There has been a list of different transportation modes and several different criteria (for example time efficiency, safety, comfort, health effects, energy consumption or ecological footprint). All aspects could be scored on a 1-5 scale (per transportation mode), where 1 meant "significant negative impact" and 5 meant "significant positive impact". All given scores can be cumulated, and naturally, the higher the number is, the more positive impact it is able to bring.
- The second part was focusing on the <u>overall evaluation of the scenarios</u>. There has been a list of different aspects (for example the infrastructure investment demand, financial feasibility, transport safety measures, economic impacts, social impacts). All aspects could be scored on a 1-5 scale, where 1 meant "least favourable" and 5 meant "most favourable". Again, the total scores can be calculated and the higher the number is, the more favourable the overall evaluation of the scenario was.

After the explanation of the scoring system, participants of the consultation meeting started the evaluation process, however, some of them asked for more time, and promised to send the evaluation later on digitally. Altogether 6 evaluation sheets were completed and collected.



Figure 14: Average scoring of possible impacts (out of 30 points maximum)

Source: own edition, based on the evaluation questionnaires

As it is visible from the evaluation results, the average scoring of the possible impacts shows an obvious tendency (Figure 14). Regarding all of the aspects, Scenario 3 (Local Network Development) got the highest score, while Scenario 1 (BAU & Necessary changes) got the lowest. The highest deviation between these two categories can be found in the safety and time efficiency category. This is no wonder, since Scenario 1 still builds on the personal car traffic, and although it anticipates that the traffic will be lower and more evenly distributed, peak-hour congestions would still be an issue, that also involves the higher possibility of accidents. Furthermore, a relatively high deviation was also observable in the health effects and ecological footprint categories – two aspects of sustainable urban mobility that should be higher emphasized through alternative modes of transportation.

On the other hand, the lowest difference was formulated in the comfort and energy consumption categories. These two refer to the obvious advantage of the personal car traffic (especially regarding comfort), and highlight the biggest challenge of moving towards public transportation and local service development.

By looking at the average scoring of the overall scenario-evaluation, the results are not so univocal (Figure 15). Although the preference of Scenario 2 and 3 are still visible, there were two aspects, where Scenario 1 performed equally or even better, namely the

necessary infrastructure investments and the financial feasibility. In Scenario 3, the establishment of local service buildings, and the expansion of different facilities, while in Scenario 2, the reintegration of the railway transport and the development of public transport modes can mean a significant financial and infrastructure burden.



Figure 15: Average scoring of overall evaluation, based on different aspects (out of 5 points maximum)

Source: own edition, based on the evaluation questionnaires

These results underline the fact that without the financial commitment of local (or regional/national) government, there is a lower chance to transform the urban mobility trends. Naturally, the side of infrastructure supply is a crucial factor in selecting a transportation mode. On the other hand, in all other aspects Scenario 2 and Scenario 3 were performed way better than Scenario 1, including the economic, social and environmental impacts too. It is also interesting, that by moving towards Scenario 2 and 3, there is a higher chance to create a SUMP together with the community (as these scenarios can serve as a common vision).

As a conclusion, it can be seen that the local authority experts have **selected as a preferred vision 'Scenario 3'** (Local Network Development), with a **strong support of 'Scenario 2'** (Encouraging public transport).

#### 4.2 Evaluation with the public: campaign and National Workshop

In order to widen and deepen the consultation on the prepared scenarios, an actual and more intense involvement of the community was realized during the **National Multiplier Event (Workshop)** that took place on 29.04.2022 at the City Hall. (*The detailed agenda and invitation is available in Annex 3*). Main target group of the event were locals, citizens (both students and teachers from the secondary as well as university education), with the main goal to promote the activities of UrbanSCOPE project, and get a feedback from them. The event has been widely disseminated, both in online and printed media:

- Győr+ (local weekly printed media), article about UrbanSCOPE project, the National Workshop and the competition (issued: XII/16, 22.04.2022)
  - https://drive.google.com/file/d/1ss0tUzly7Du ZfxcGkmA2IDEcgxQpC d/view?usp=sharing
- Promotion of the National Workshop on the webpage of Municipality of Győr: <a href="https://gyor.hu/workshop-a-fenntarthato-varosi-mobilitas-sum-tervezesrol-versenyezzunk-nemzetkozi-szinten/">https://gyor.hu/workshop-a-fenntarthato-varosi-mobilitas-sum-tervezesrol-versenyezzunk-nemzetkozi-szinten/</a>
- Promotion of the National Workshop on the Facebook page of Széchenyi István University, Department of Transport (posted: 25/04/2022)



Szeretettel ajánljuk Hallgatóink figyelmébe az alábbi versenyt, illetve rendezvényt. Akit érdekelne, kérjük az awinkler@sze.hu címre szíveskedjen üzenetet küldeni. Az alábbi honlapon további információk olvashatók a projektről: http://urban-scope.eu/?page\_id=113



Tetszik Hozzászólok Megosztás

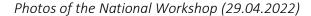
Altogether 39 participants took part in the event. The location of the workshop was the City Hall, with the main organiser of the Municipality. The arrangement of the professional program was the task of the Széchenyi István University. The workshop lasted for 2 hours, and had several core elements:

- Introduction of the UrbanSCOPE project and the 3 alternative scenarios
- Selecting the preferred scenario by involving the local community
- Introduction of the UrbanSCOPE competition and the digital tools

After the welcoming speeches, the first part of the programme was focusing on the introduction of the UrbanSCOPE project, highlighting the main goals, aims and activities. A special attention was given to the presentation of the SUMP Learning Methodology and the experiences of the pilot phase, as well as the work of the Task Force and the content of the 3 elaborated scenarios. After the presentations, the participants were asked to vote

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and select their preferred scenario – a common vision, which they think would best serve the realization of a more sustainable urban mobility.









Photos by Ács T. (Győr+ Media)

The scenario documents were printed and placed on a flip chart prior to the meeting. After the introduction of the core content, each of the participants could take 1 post-it, and place it under the document of the scenario, that they liked the most. After a short break, the evidence of the voting was discussed. Scenario 1 did not get any votes, while a smaller part of the participants preferred Scenario 3, and the major part selected Scenario 2 ('Encouraging public transport').

The second part of the National Workshop was focusing on the launching of a wider campaign, and the presentation of the UrbanSCOPE competition. Participants got to know the details of the competition, how they can enter and participate, what are the submission terms, and what prizes will be hand out. Furthermore, a detailed presentation was also made about the digital tools (in particular the MEES application and the Siftr) that are

necessary to use within the competition. All participants were asked to disseminate the competition to other interested parties.

About the event, the Győr+ local media presented a short article on Facebook and a video-report, with the title "Chance to design sustainable routes". The video report is available on the following link:

https://www.youtube.com/watch?v=DawXuf3Sm38



As a conclusion, it can be stated that the alternative scenarios indeed can serve as a basis for discussion, in order to designate the preferred directions for future implementation plans – both in the case study areas, but also in the wider sense of the whole city. There is an emerging trend and need from the public to transform the mobility habits, but this will only happen, when the supporting infrastructure is given. Bearing in mind that the experts of the local municipality also showed willingness and agreed to the content, it is safe to establish that this Scenario 2 has been selected during the consultation phase as the most favoured vision.

In this sense, it is advised to focus on the development of the railway and the establishment of a real suburban transportation system. In order to reach this goal, a conscious development will be needed, however it is important to emphasize that the core infrastructure (railway track) is already given. Naturally, it needs to be complemented with other infrastructure (like P+R or B+R parking, reintegration of the unused train stations) and service developments (frequency of trains, low-floor rakes, etc.).

Furthermore, it is also obvious that by looking at the long-term development strategies, the encouragement of the public transport (Scenario 2) and the local network development (Scenario 3) do not necessarily exclude each other. In the long-term, it is advisable to also focus on the surrounding areas and settlements, that could be integrated into the suburban transportation system.

As a closing remark, it is important to emphasize that the City of Győr has committed itself to prepare a Sustainable Urban Mobility Plan (SUMP), which elaboration has started during the summer of 2022. It is expected that the above presented work of the Task Force, the discussed scenarios and the applied methodology can serve as a well-established and valuable basis for the implementation.

### Annex 1: Invitation and detailed agenda of the consultation workshop (08/04/2022)





#### MEGHÍVÓ Szakmai egyeztetés

Győr Megyei Jogú Város Önkormányzata és a Széchenyi István Egyetem tisztelettel meghívja Önt az "*UrbanSCOPE - Urban Sustainable Mobility in focus: student education, community, involvement and participative planning*" (Erasmus+ KA2 Stratégiai Partnerség) projekt keretében meghirdetett szakmai egyeztetésre.

<u>Időpont:</u> 2022. április 8. (péntek) 9:00-10:00 <u>Helyszín</u>: Győr, Városháza, Zechmeister terem

#### PROGRAM:

9:00-9:10 Fenntartható városi mobilitás: az UrbanSCOPE projekt (Szörényiné Dr. Kukorelli Irén, professzor emerita, projektvezető)

9:10-9:30 A projekt keretében kialakított szcenáriók bemutatása (lásd mellékelt tájékoztató anyag az Akciócsoport munkájáról) (Honvári Patrícia, egyetemi adjunktus, résztvevő kutató)

9:30-9:50 Tanácskozás és diszkusszió a szcenáriók tartalmáról: fókuszban az előnyök és a hátrányok. A cél a preferált szcenárió meghatározása.

9:50 A program zárása, az elkövetkező időszak feladatai (Szörényiné Dr. Kukorelli Irén, professzor emerita, projektvezető)

Megjelenésükre feltétlenül számítunk.





# SZCENÁRIÓ 1 – BAU & Technológiai fejlesztés

Az alábbiakban értékelje az egyes szcenáriókat!

## A) Közlekedési módok értékelése

Az egyes közlekedési módok értékelésénél minden szempontot annak függvényében értékeljen, hogy a bemutatott szcenárió milyen hatást tud elérni (a jelenlegi trendekhez képest). Az értékeléshez 1-5ig terjedő pontskálát használjon, az alábbiak szerint:

- 1: jelentős negatív hatás
  - 2: kisebb negatív hatás
- 3: semleges hatás (nincs változás a jelenlegi trendhez képest)
  - 4: kisebb pozitív hatás

5: jelentős pozitiv hatás	tív hatás								
Közlekedési módok	Időhatékonyság	Átlagos költség/km	Biztonság	Komfort és kényelem	Zajszennyezés Egészségügyi hatás	Egészségügyi hatás	Energia- i fogyasztás km- enként (k	Ökológiai Iábnyom (környezeti hatás)	Teljes pontszám közlekedési módonként
Konvencionális személygépjárművek, autós közlekedés									
Helyi és helyközi buszos közlekedés									
Kötöttpályás közlekedés									
Gyalogos közlekedés									
Kerékpáros közlekedés									
Alternatív közlekedési módok (e-roller, e-kerékpár, segway, stb.)									
Teljes szcenárió pontszám									

## B) Szcenárió tartalmának értékelése

A szcenáriók esetében minden egyes szempontnál 1-5-ig terjedő pontszámmal tud értékelni, ahol az 1 a "legrosszabb" és 5 a "legkedvezőbb". (A pontértékek a szcenáriók életképességét és a fenntartható mobilitás megteremtésének elősegítését tükrözik – ebből az aspektusból végezze el az értékelést.)

Szempont	Pontérték (1-5)
A szcenárió megvalósíthatósága az infrastrukturális beruházási igény szempontjából	
A szcenárió megvalósíthatósága pénzügyi szempontból	
A szcenárió közlekedésbiztonsági hatásai (közúti forgalmi balesetek csökkentése, gyalogos biztonság, kerékpáros biztonság)	
A szcenárió által előidézett gazdasági hatások	
A szcenárió által előidézett társadalmi hatások	
A szcenárió által előidézett környezeti hatások	
A szcenárió hatása a fenntartható városi mobilitás megteremtésére	
Teljes szcenárió pontszám	





#### **MEGHÍVÓ**

#### Workshop a fenntartható városi mobilitás (SUM) tervezésről Versenyezzünk nemzetközi szinten!

Győr Megyei Jogú Város Önkormányzata és a Széchenyi István Egyetem tisztelettel meghívja Önt az "*UrbanSCOPE - Urban Sustainable Mobility in focus: student education, community, involvement and participative planning*" (Erasmus+ KA2 Stratégiai Partnerség) projekt keretében meghirdetett workshopra.

<u>Időpont:</u> 2022. április 29. (péntek) 9:00-11:00

Helyszín: Győr, Városháza, Zechmeister terem

A workshop fő témája az UrbanSCOPE projekt keretében meghirdetett nemzetközi verseny bemutatása és a versenyeszközök részletes ismertetése. A versenyre egyetemisták, középiskolások, helyi lakosok jelentkezését várjuk. Továbbá, a résztvevők megismerkedhetnek a projekt keretében kidolgozott alternatív mobilitási jövőképekkel, és a legjobbra értékeltre leadhatják szavazataikat is – alakítsuk együtt a jövő fenntartható városát!

Az eseményen való részvétel ingyenes, de előzetes regisztrációhoz kötött. Kérjük, a részvételhez <u>ITT REGISZTRÁLJON!</u>

A regisztráció határideje 2022. április 27. (szerda).

Kérdés esetén, keresse kollégáinkat az alábbi elérhetőségen: honvari.patricia@krtk.hu

További információért látogasson el honlapunka! <a href="http://urban-scope.eu/">http://urban-scope.eu/</a>

Megjelenésükre feltétlenül számítunk.









#### PROGRAM:

8:45-9:00	Helyszíni regisztráció
9:00-9:10	Köszöntések és a program indítása
9:10-9:20	Fókuszban a fenntartható városi mobilitás: Az UrbanSCOPE projektről dióhéjban (Szörényiné Dr. Kukorelli Irén, professzor emerita, projektvezető)
9:20-9:30	Az alternatív mobilitási szcenáriók bemutatása (Dr. Honvári Patrícia, főiskolai docens, résztvevő kutató)
9:30-9:40	SUMP módszertan a Széchenyi Egyetemen - tapasztalatok (Dr. Makó Emese, tanszékvezető, egyetemi docens)
9:40-10:10	Szavazás a szcenáriókról: válasszuk ki együtt a legjobb mobilitási jövőképet!
10:10-10:20	Az UrbanSCOPE nemzetközi verseny: részvétel, nevezés és egyéb tudnivalók (Dr. Honvári Patrícia, főiskolai docens, résztvevő kutató)
10:20-10:40	A MEES applikáció: hogyan tervezzünk mobilitási szcenáriókat? Egy kis technikai tudnivaló és a program működése (Dr. Honvári Patrícia, főiskolai docens, résztvevő kutató)
10:40-10:50	Visszajelzések és kérdések
10:50-	A program zárása, fogadás (Szörényiné Dr. Kukorelli Irén, professzor emerita, projektvezető)