

JUNE 2022

INTEGRATED ACTION PLAN DEBRECEN





Integrated Action Plan

Debrecen

Final version

30.06.2022

Written by



EDC Debrecen Urban and Economic Development Center

A blue ink signature of Zoltán Pécskay.

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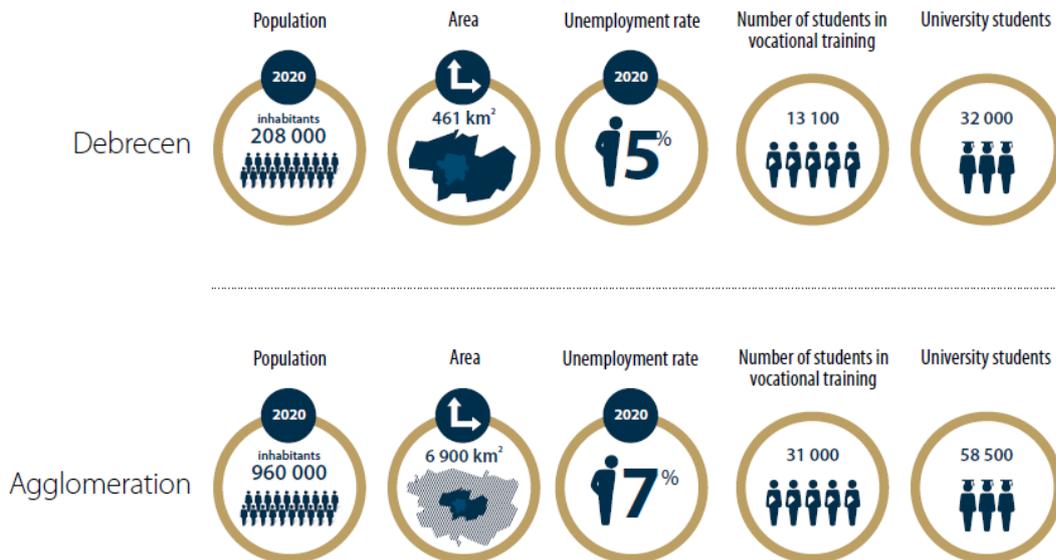
1.1. CITY PROFILE

POPULATION

After the capital city, Debrecen is the Hungarian settlement with the biggest force of territorial integration, and at the same time also the center of the North Great-Plains region and Hajdú-Bihar County, located at a distance of 220 km east from Budapest and 35 km west from the Romanian border. The city plays an important role in international trade, thanks to its proximity, in addition to Romania, also to the Slovak and the Ukrainian borders, which can be reached in less than 2 hours.



Debrecen is the second-largest city in Hungary with approximately 208,000 inhabitants. Although the demographic processes in Debrecen are unfavorable due to the declining and aging population, an improving trend in terms of education can be observed.



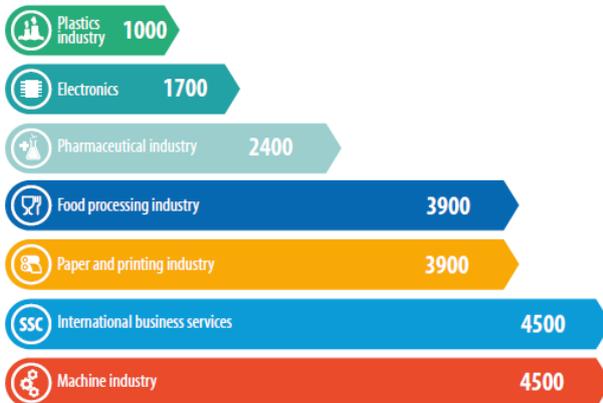
The main direction of the labor movement is from the villages to the cities, as the economic organizations employing a significant number of people are mainly concentrated in the larger cities of the country. Regarding commuting, Debrecen shows a positive balance: half as many commuters from Debrecen as commuters arriving in Debrecen. According to the 2011 census data, about 21,000 people commute to Debrecen from other settlements.

ECONOMY

In the case of Debrecen, the relatively high weight of agriculture can also be seen in employment, as it is high compared to the urban nature of the area due to its favorable agricultural conditions. The share of employment in the industry was 22%, while in the tertiary sector was 76%.

In Debrecen, income is growing at a higher rate than nationally, in the capital and western Hungary. The sales revenue of Debrecen-based companies has been growing significantly above the national average since 2012, as a result of which several medium-sized companies have been able to develop into large companies. The increase in the number of employees in companies and the increase in the GDP generated by them also exceed the national value. Due to its nature, the largest sales revenue is generated by trade, but also by the pharmaceutical, service, electronics, food, and machinery industries. The largest GDP is generated by the pharmaceutical industry, while most employees are employed in the service industry.

Number of employees in the leading economic sectors of Debrecen



Thanks to Debrecen's investment promotion activities, it is also a key area for investment. Between 2018 and 2021, 1.3 billion EUR of investments flowed into Debrecen. The most significant investments were made by BMW, Vitesco, FAG, Gedeon Richter, Krones, and Semcorp, creating almost 3,200 jobs.

Among the industries, the automotive and machinery industries, the pharmaceutical industry, the food industry, electronics, and business service centers (SSCs) stand out the most. The list includes both the expansion investments of the companies already operating in the city and the investments of the newly established companies.

The interest of private participants in investment opportunities in Debrecen remained unbroken, which was not rejected by the pandemic situation caused by the coronavirus. Although the construction project of the BMW plant stands out (both in terms of amount and volume and significance), it is only one in a row. Its significance is strengthened by the fact that it acted as a catalyst in the process of finding international investors for Debrecen, so more large players are expected to settle in the near future. This heightened interest is evidenced by the fact that even during the pandemic, the city is conducting dozens of investor negotiations, primarily with major investors in the electromobility, automotive, electronics, and business services sectors.

Automotive and machine industry

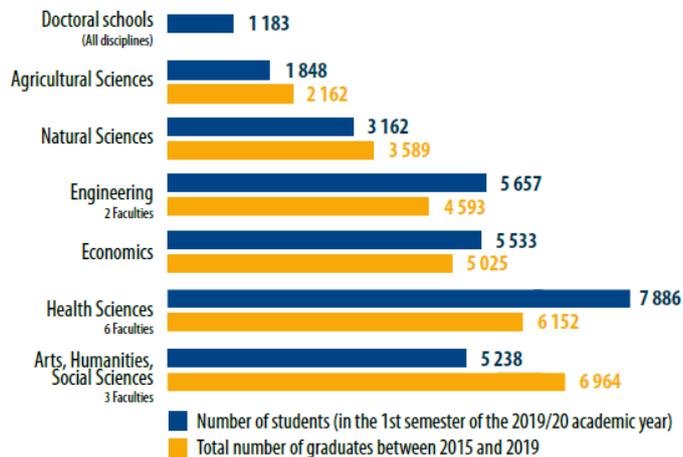
Business Service Centers

Health industry

EDUCATION AND CULTURE

Debrecen is in a favorable position in terms of economic competitiveness and infrastructure: good accessibility (road, rail, and air), well-developed large industrial areas and logistics centers are under construction, and significant office capacity is available in the city, which has a strong educational system.

The number of students at the University of Debrecen



The University of Debrecen is the most significant institution of higher education in the region, as well as one of Hungary's five research universities. It has nearly 32,000 students at 14 different faculties. The University of Debrecen has a very diverse international community: in 2020 nearly 6,500 international students from 120 countries studied here. According to the 2020 university statistics, 6,438 foreign students studied at the university, most of them from Romania, Nigeria, China, Iran, and Jordan. The presence of foreign students has a beneficial effect on the city's economy, as they also use the services available locally, but it also generates a price-increasing effect in certain sectors.

In addition to foreign students, the presence of foreign managers and executives of local multinational companies is growing in the city, and their needs are being met as widely as possible. In parallel with the investments announced in recent years (eg Deufol, BMW, Krones, Vitesco, etc.), the city has strengthened its position in this field, as evidenced by the construction of the International School in Debrecen (ISD) or the concept of the German Primary School. Debrecen has been one of the most important educational and religious centers in the country for centuries, and as a result, its prominent role in Hungarian culture is undeniable.

The range of cultural events is also expanding, although in the case of Debrecen the most outstanding event is still the Flower Carnival and the related programs running in parallel (eg. Wine and Jazz Festival). Cultural events are predominantly concentrated in the city center, the Kossuth Square and the Great Forest, while other parts of the city are somewhat "in the shadows".



1.2. THE ACTION AREA

According to the Sustainable Urban Development Strategy of Debrecen, the settlement consists of 79 city districts. During the Thriving Streets project, we are focusing on the downtown area, which is the historical city center. The action area, which covers 1.2 km², includes the most significant and busiest part of the city center. It contains the main street of the city, part of which is a pedestrian zone, making it one of the busiest places in the city in terms of pedestrian traffic. The area is significant from both cultural and tourist points of view, with theatres, cinema, a lot of clubs and restaurants. Moreover, the action area contains the symbol of Debrecen, the Great Church that stands on the main square of the city. Although there are many squares in the action area, there is a low proportion of parks or a connected green areas downtown.



FUNCTIONS IN THE DOWNTOWN AREA



RESIDENTIAL FUNCTIONS – Although the residential population in the district has been declining since 1990, the area is one of the more densely populated parts of Debrecen. The quality of the flats is improving, due to the demolition of lower quality flats and the construction of new, high-comfort flats.



ECONOMY – In the action area, there are several companies with extremely high turnover and employing many people. There are 18,000 m² of office buildings. Most of the retail units are located on Piac Street, our city's main street. The action area also includes the Forum Debrecen shopping center, which is the most important commercial facility in the city, as well as a popular leisure space for youths. In the Forum, residents can find everything in one place, such as shops, restaurants, cafes, spacious parking houses, and in the meantime, they are not exposed to the weather conditions.



PUBLIC INSTITUTIONS – 55-60% of the public institutions of Debrecen are situated in the city center. Many primary and secondary schools are in the city center, and higher education is also present through the Reformed Theological University of Debrecen. In all cases, the scope of these institutions extends beyond the action area.



HOSPITALITY – In the downtown there are many popular restaurants, fast food restaurants, and canteens as well. And there is also a large number of bars and pubs, which shows the importance of the leisure function of the downtown. This is confirmed by the fact, that accommodation services are relatively over-presented: according to the data provided by the Mayor's Office in 2020, there were 73 accommodations with more than a thousand beds. Among them are the most famous hotels in Debrecen: the three-star Centrum Hotel with 159 beds, the four-star Hotel Lycium with 192 beds and the four-star Hotel Aranybika with 300 beds. Furthermore, there are 4 more pensions and 64 other accommodation establishments (apartments, hostels, etc.) in the district.



HEALTHCARE – The district also plays an important role in terms of healthcare. The city’s largest specialized clinic is located in the heart of downtown, and there are smaller healthcare units in the action area as well.



CULTURE – The city center is a rich area in terms of monuments – 40% of the monuments in Debrecen are located here –, museums, and cultural heritage. (e. g. Museum of Modern Arts, Déri Museum, the Reformed Church, Csokonai Theatre and so on) These institutions are playing a key role in the city’s cultural life and are the major tourist attractions.

MOBILITY

The city center plays a special role in the mobility conditions of Debrecen. The most important transport axis of the action area has been the main street for decades. As the millennium came, the northern part of the main street was closed down and classified as a pedestrian zone, which provides only tram transport. The southern part of the main street is still a major urban highway, and today it is the only significant north-south connection in the area.

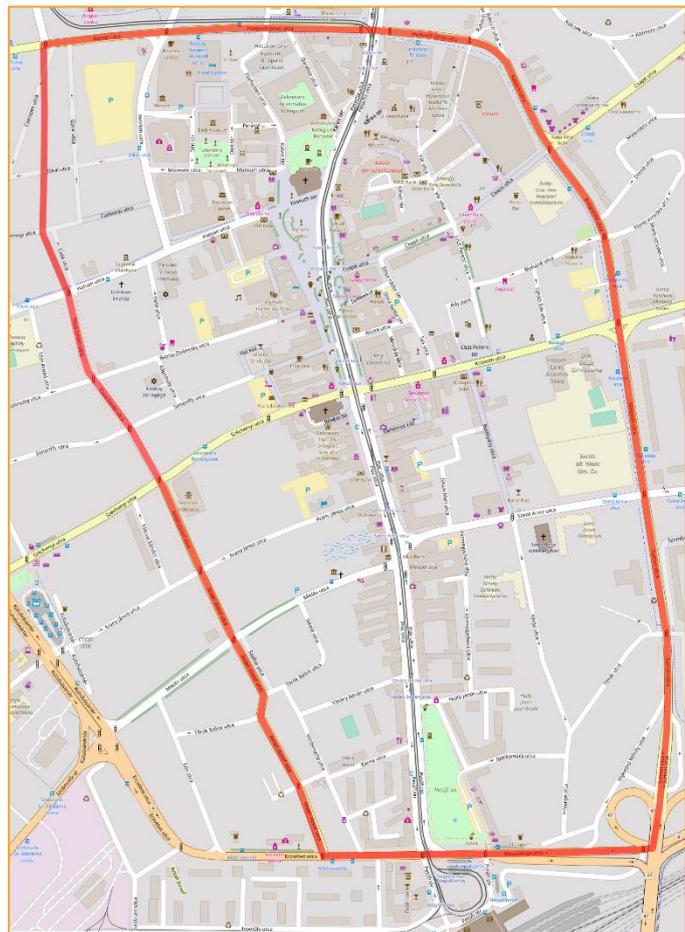
The accessibility of the downtown from the eastern and western districts is provided by several paths, and these routes are extremely busy. The streets forming the eastern and northern borders of the district are one of the main traffic roads of the city, and there are also two high traffic, one-way main roads crossing through the action area on the east-west axis. The southern border of the action area has also an exceptionally high traffic volume.

The action area is also the most important hub of public transport in Debrecen, both in the north-south and east-west directions. The management and operation of local public transport in Debrecen have been the responsibility of DKV Ltd. (ULG member) since the summer of 2009.

Local public transport is used by 60 million passengers a year. On weekdays, this means an average of about 200,000 trips a on local flights. Due to the characteristics of the network, most passengers are transported by buses.

Local public transport in Debrecen provides service in most areas of the city, at the same time, its competitiveness is weakening and its role in the city's mobility is constantly growing decrease.

Intercity and long-distance bus transport do not burden the internal road network of the action area, the bus station is located on the western edge of the district, about 15 thousand passengers turn up daily.



The main train station and the terminus of the two tramlines of Debrecen are situated on the southern border of the city center. These tramlines have great importance in the traffic of the city, they connect the railway stations to the most important public institutions (e.g. the municipality buildings) and also the university districts and the north-western housing estates.

The parking capacity in the action area is considerable, the number of parking spaces on the surface is about 2,400, in addition to which there are also private car parks. There are 1,858 parking spaces in underground garages and multi-level garages. The action area belongs entirely to the toll zone, the paid surface parking lots, and the underground garages are operated by DV Parking Plc. (ULG member). Occupancy of car parks in the city center is high.

The first official bicycle route in Debrecen was handed over in 1989, which was 4,700 meters long. Since then, cycling has become increasingly important, with a consequent emphasis on the development of cycle paths. **As a result, by the end of 2020, the length of cycling infrastructure had exceeded 80 km, which has been steadily expanding ever since.** However, the network is not yet connected, further improvements are needed and demanded. They lack the connection of the city with certain parts of the city as well as the surrounding settlements relationships.

The northern and western parts of the city have more extensive cycling infrastructure than the other districts. (The biggest housing estates are situated in these districts.) The conditions of the city are favorable, however, increasing network size is in many cases accompanied by outdated or cyclical solutions that cause conflicts.

The proportion of bicycle traffic is around 7-8% based on the 2011 census and the Debrecen household survey. The largest proportion of residents in garden cities and suburbs use bicycles for their daily transport, here the proportion is over 10%. The increase in demand is currently not limited to the length of the network, but even more so the lack of a coherent network.

The commuter traffic in Debrecen is significant in the city's transport, 41.5 thousands visit the city on a daily basis. Most of them come by public transport, however they travel by nearly 10,000 cars. Within Debrecen, compared to other big cities, more people drive and use public transport less. Walking is also a "common" mode of transport, in several cases, the residents of Debrecen choose this instead of public transport. Cycling is also an increasingly common way to urban mobility. It is a popular tool, especially among young people, combining the freedom and flexibility of individual transport with low-cost transport.

1.3. CHALLENGES

During the action planning process, we have created jointly with the ULG members a problem tree, which aims to show the most important problems of the action area and it represents their causes and consequences.

We have identified three main problems:



Too many cars in the city center: The city traffic has a centric nature, from one part to another is mainly possible by crossing the downtown. This situation has changed partly, by building a ring road (the Great Ring road) which crosses several city parts. And it is also a problem, that too many valuable downtown public spaces are occupied by the surface parking lots.

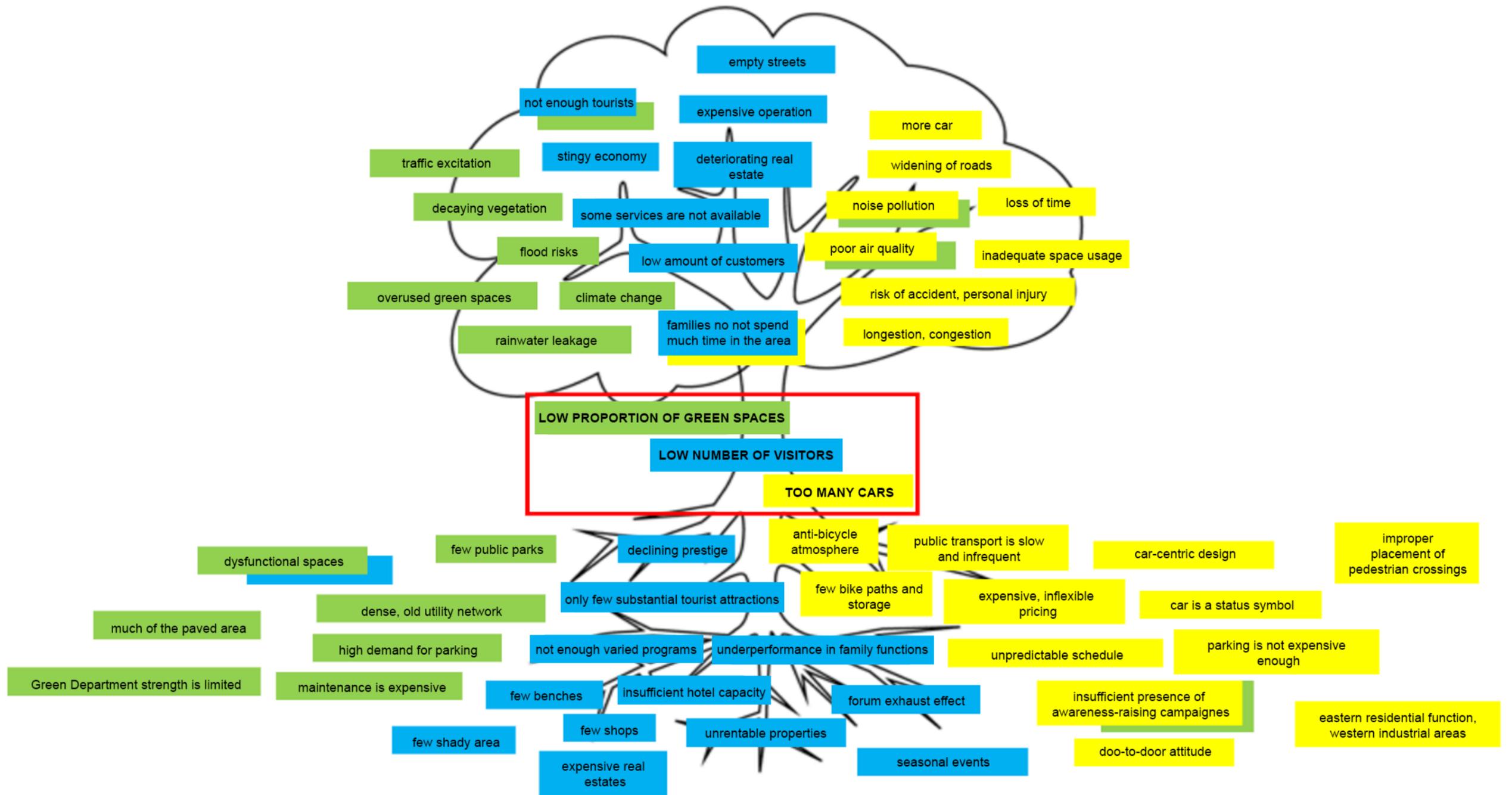


Low proportion of green spaces: The downtown hasn't got any recreational green spaces or public parks. Unless the reconstruction projects have made after 2002 contained some natural elements, and improved the ratio of the green spaces, these places have rather community and cultural functions. Because of the gradually strengthening effect of climate change the absence of green spaces is becoming a more and more serious problem.

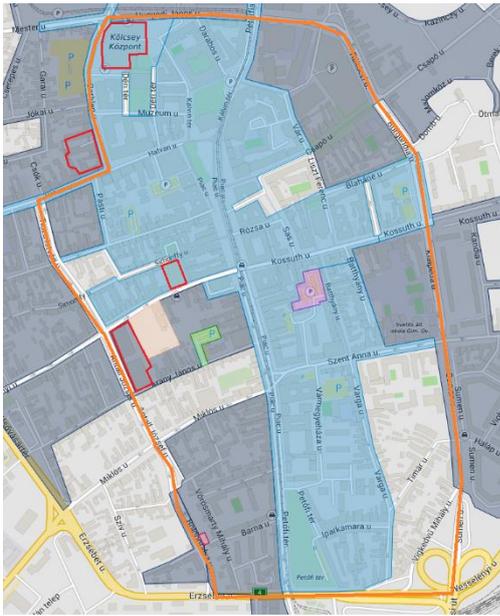


Not enough purchasing power in the city center: The less developed parts of the main street are loaded with car traffic and in this area, there are too many unrented premises which are owned by the municipality. These empty rental properties are spoiling the street view and have the possibility to serve more residents than nowadays. The Forum shopping mall is situated on the edge of the action territory and it has a remarkable exhaustive effect on the customers.

These problems were validated by a representative community survey. The action planning process was completed with a small-scale action. During this action, we have temporarily terminated the car traffic on a part of the main street. The attitudes of the residents towards the closure were also monitored by the survey mentioned above. The conclusions had extremely valuable inputs to the action planning process.



PARKING CONFLICTS



The structure of the downtown was formed way before people get started to use automotive, the urban conditions are not suitable for the residents to park in their properties. For those people who want to reach public buildings, schools, stores, restaurants, car parking is only available at public spaces or paid parking lots.

The picture shows the parking zones, dark grey locations are cheaper zones, and the blue ones are more expensive locations, so it is easy to see, that in the action area is almost impossible to find a free parking lot.

The parking lots can be found in the public spaces are maintained by the DV Parking Plc. (ULG member), and there are private parking lots as well. Although the toll parking zone has been gradually expanded in the past few years, the demand for parking lots is very high.

There can be also found several private parking lots and underground garages (marked with red lines). The available number of private parking lots is 775. Their price is lower than the surface ones.

The general problem, that only surface parking lots and underground garages are available, but multi-level parking garages are missing opportunities. There's one exception though, the Forum shopping mall, located on the edge of the action area can offer 800 parking spaces for paying customers.

Another problem is that there is no available data or transport counting system in the city, which would be helpful for data-based developments. With that, problems could be more easily identified and the solutions could focus on them while data would be taken into account.

THE PARKING SPACES OCCUPY EXTREMELY VALUABLE DOWNTOWN SPACES. THE SURFACE PARKING LOTS SHOULD BE REPLACED BY MULTI-STORY PARKING GARAGES. THIS WAY THE CITY COULD REACH A MORE COMPACT CITY STRUCTURE AND OFFER A SOLUTION FOR EXISTING PARKING CONFLICTS AND OFFERING THE POSSIBILITY TO ENHANCE THE GREEN AREAS.



LOW PROPORTION OF GREEN SPACES

In the city, green spaces are not shaping connected systems, in many cases, they need to be revitalized. The public parks (green spaces are bigger than 1 hectare, vegetation ratio is at least 70%, and have residential recreation function) can be found only in the north and eastern part of the city and in the surrounding of the housing estate locations. The absence of green spaces in the downtown is very clear.

The city center has a low vegetation ratio, because of the high density of residential, commercial, public institutional functions and the covered public places. In the past few years, we can experience some development in the quality of the existing green spaces as the public spaces are getting renovated and revitalized. Continuous green spaces can be found only in smaller spots like alleys, bushy areas, or flower belts. The public squares have a high pavement ratio and function mainly as seasonal event locations.

We can also see the effects of climate change, the downtown has a high exposure because of the heat island effect, which is very harmful to the existing vegetation.

Although the air quality of the downtown is admissible, if the transport-related pollutants won't decline, the air quality situation will deteriorate in the long run. According to Debrecen's noise map, traffic is the most important source of noise. The expansion of the green spaces (especially with creating public parks) would help to reduce air pollution and noise exposure.



It is a remarkable problem, that the city does not have a digital database of its green spaces.

THE DOWNTOWN DOESN'T HAVE ANY RECREATIONAL GREEN SPACES OR PUBLIC PARKS. UNLESS THE RECONSTRUCTION PROJECTS HAVE MADE AFTER 2002 CONTAINED SOME NATURAL ELEMENTS, AND IMPROVED THE RATIO OF THE GREEN SPACES, THESE PLACES HAVE RATHER A COMMUNITY AND CULTURAL FUNCTIONS. BECAUSE OF THE GRADUALLY STRENGTHENING EFFECT OF CLIMATE CHANGE THE ABSENCE OF GREEN SPACES IS BECOMING A MORE AND MORE SERIOUS PROBLEM.

PROFITABILITY OF THE LOCAL BUSINESSES

The city center is one of the most frequented locations of Debrecen for investments. In the action area, several large-scale projects have been realized from the complex urban rehabilitation to the reconstruction of the Déri Museum or building bicycle roads and so on. These developments are defining the cityscape remarkably. In addition to these, the touristic development of the Reformed Great Church and the developments of the Reformed College must be emphasized. The frequent position of the action area is shown by the fact numerous private investments have been made here in recent years, including hotel improvements and the construction of office buildings and condominiums. However, in some places, the renovation of old buildings has not yet taken place, which is significantly destroying the cityscape.

Not only the development of the infrastructure is significant, but the main street is also a prominent scene of cultural life. Unfortunately, it can also be said that the program offer is more seasonal, with larger events related to major church holidays beyond the August carnival period. Although there has been significant progress in the improvement of the seasonality of the program offer over the last few years, it can be said that the public spaces used as event spaces will be vacated during the quieter parts of the year.

The development of infrastructure and the expansion of the programs have contributed to making the city center an increasingly attractive destination for city dwellers and tourists. Accordingly, the role of the area is also outstanding in terms of commercial units and hospitality: the relative values of retail shops and



restaurants are the highest in the city. Nevertheless, in many cases, the fluctuation of the units as they move away from the Great Church towards the train station is increasing, and there are more and more unrented municipally-owned street-front business premises. However, renting fees of business premises are relatively high.

One of the main reasons for this recent shift is the Forum Shopping Center. The Forum has numerous functions available in one place (restaurants, shops, hairdressers, beauty salons, retail, etc.), and the building also provides a multi-story parking lot. This circumstance gives the Forum a “city within a city” role. This is reinforced by the all year convenient environment: a heated or air-conditioned space provides a significant competitive advantage for a shopping center in adverse weather conditions.

THE LESS DEVELOPED PARTS OF THE MAIN STREET ARE LOADED WITH CAR TRAFFIC AND IN THIS AREA, THERE ARE TOO MANY UNRENTED PREMISES WHICH ARE OWNED BY THE MUNICIPALITY. THESE EMPTY RENTAL PROPERTIES ARE SPOILING THE STREET VIEW THOUGH THEY HAVE THE POTENTIAL TO SERVE MORE RESIDENTS THAN NOWADAYS. THE FORUM SHOPPING MALL IS SITUATED ON THE EDGE OF THE ACTION TERRITORY AND IT HAS A REMARKABLE EXHAUSTIVE EFFECT ON THE CUSTOMERS.

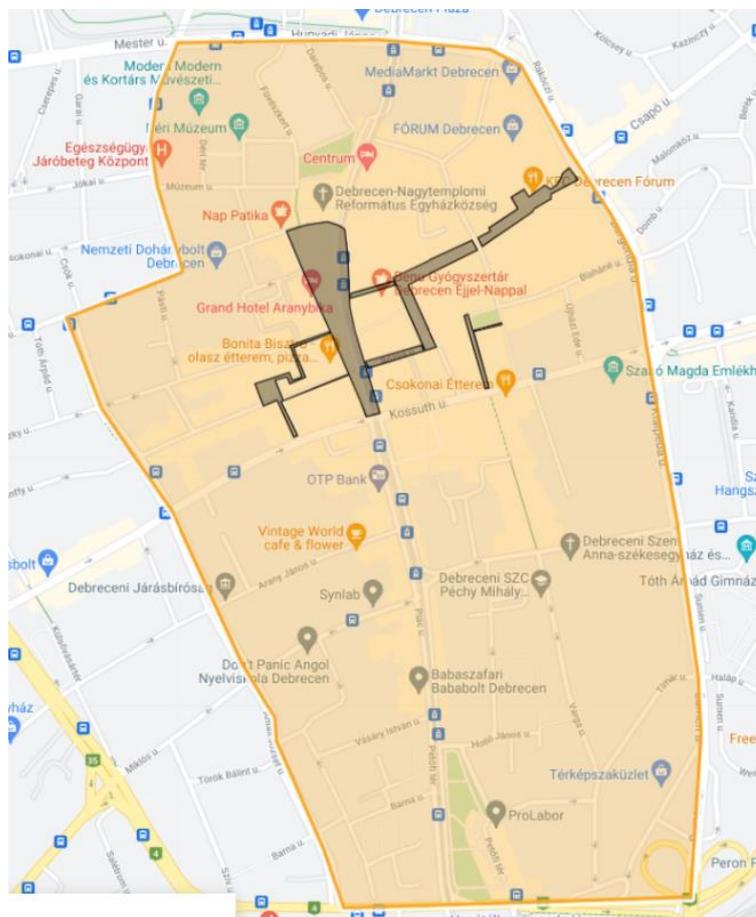
1.4. FOCUSING ON THE PEDESTRIAN ZONES

During the action planning process, the ULG members mostly have a common understanding that in the long run, the solution should be to displace the car traffic from the city center. These kinds of changes are not unknown to the people who live in Debrecen. In the last two decades, there were several smaller or bigger projects aimed to create a pedestrian zone instead of roadways. From these projects, we can show successful examples, but failed attempts too.

The situation in the city center should be emphasized related to the pedestrian zones, where the first significant step was taken in the mid-1990s with the construction of the pedestrian zone on Batthyány Street, but its impact was minimal due to the peripheral location of the street. The first development that brought about a remarkable change was the reconstruction of Kossuth Square in 2001, which significantly increased the extent of the pedestrian zone.

Over the past two decades, the Municipality has been constantly striving to further increase the pedestrian zone. These were realized in several stages: with the construction of the Debrecen Forum shopping center on the edge of the action area, the part of Csapó Street east of Vár Street became a pedestrian zone, then in the early 2010s the section of Hal Alley and Simonffy Street close to the main street. The pedestrian zone continued with the renovation of Rózsa-Zamenhoff Street in 2014. With the transformation of the section of Csapó Street between Piac Street and Vár Street and Dósa nádor Square into a pedestrian zone in 2020, the largest continuous cohesive zone has developed in the city center.

The map illustrates pedestrian zone developments in the action area handed over since the early 2000s. Developments were not exclusively traffic-focused, but in many cases were accompanied by functional urban rehabilitation.



The most spectacular change is the case of Hal Alley, which is in the next pair of pictures. The public area used to be a surface car park, but through the rehabilitation of the area, the car parks were moved to an underground garage under the storehouse next to the square, handing over the space to those who want to have fun. Hal Alley is one of the most popular entertainment venues among young people in the city today. There can be found numerous restaurants, bars, terraces, and functionates as a truly lively meeting point.



In contrast, the space in front of the MODEM Center for Modern and Contemporary Art, built on the site of the Kölcsey Cultural Center, which was demolished in the mid-2000s, hasn't really been taken over by the citizens. In this case, only a partial change of function took place, the community house remained as a scene of cultural life, and even expanded with a hotel function, so that the parking spaces previously on the surface were moved to the underground garage under the building. The space in front of the building is still barren, it only serves as a venue for one or two events a year, so it can be said to be extremely underused.



1.5. THE VISION OF THE PROJECT

The IAP prepared within the project provides an opportunity to interpret the city center as an action area, to develop a unified development concept with the widest possible involvement of urban stakeholders, and to define the downtown functions from a strategic point of view.

The URBACT III Thriving Streets project provides an excellent opportunity for Debrecen to rethink its urban planning concept by adopting good practices. One of the added values of the project is that it provides tools for urban development professionals that operate on the principle of participatory planning, future developments can take place in a way that involves stakeholders as widely as possible at an early stage in the planning phase. Participatory planning projects are more likely to lead to developments that the public will welcome, take advantage of, and feel part of it.

In the long run, the city government is committed to developing sustainable mobility in Debrecen.

The ring road around the action territory is traffic-wise the busiest area in the city. The number of cars doubled from 55,000 to 90,000 in the past 20 years. The prognoses are that mobility demand will increase even further. Even the most optimistic scenarios forecast an increase of 30-40%, which places a heavy burden on the city's air quality as well, as 1/3 of total CO₂ emissions are caused by transportation. At the same time, the number of users of public transport, regardless of the current epidemic situation, is decreasing. All industrial parks and large retail stores are in the Western part of the city, while most of the low-density residential areas are in the East and South. This structure generates heavy car traffic through the city center, therefore, it is very important how

we shape its functions in the future. Car-free zones have been gradually created in the city center since the early 2000s, continuously expanding from the main street onwards. The pedestrian areas are accessible by cyclists and trams as well.

The goal of the project is to create a multi-stakeholder long term action plan addressing all aspects and questions arising with the further expansion of the pedestrian zones in the city center (1.16km²), with special attention to mobility and the area’s accessibility, parking, and the different functions within the city center.

Furthermore, we also intend to find methods and solutions to address local resistance and to make better use of the existing already car-free zones.

The main square of the city is hosting the city’s main seasonal events, like the flower carnival, gourmet festivals, Christmas market, and various sport events. Without having recreational areas, parks in the center, in the absence of events there are much fewer people out on the streets – except for Hal Alley, which has a dedicated function and is the pub and party zone of the city center. Due to the success of shopping malls and shopping centers, many traditional stores had to close in the past years.

THE MAIN CHALLENGE IS TO DEFINE THE OPTIMUM SIZE OF THE PEDESTRIAN AREA, TO BALANCE THE PURCHASING POWER AND THE FUNCTIONS THAT CAN BE FOUND IN THE CITY CENTER.

OUR VISION IS TO FIND THOSE KINDS OF FUNCTIONS, WHICH MAKE THE CITY CENTER ATTRACTIVE, CAN PROVIDE THE POSSIBILITY TO SPEND QUALITY TIME IN VARIOUS WAYS, AND ALSO ENSURE PROFITABLE OPERATION TO THE LOCAL BUSINESSES. THESE OPPORTUNITIES SHOULD BE AVAILABLE FOR THE RESIDENTS TO REACH SUSTAINABLY, TO MODERATE THE ENVIRONMENTAL IMPACTS.





1.6. DESCRIPTION OF THE ACTION PLANNING PROCESS

ADAPTING THE URBACT PROCESS

At the international kickoff meeting of Phase 1 of Thriving Streets in Parma in October 2019, the partners shared their thoughts on the project, the problems and challenges affecting their cities, and the participants learned about URBACT, city networks, and ULG. The leader of the ULG also introduced himself from Debrecen.

Transnational meetings, thematic webinars, URBACT e-University, the URBACT TOOLBOX, and the URBACT Method have all contributed to the transfer of international good practices, building up the commitment of the URBACT ULG and the channelling of their knowledge. The most useful tools proved to be stakeholder analysis, the problem tree, the “newspaper of tomorrow” methods. Due to the pandemic situation, digital communication came to the fore, and to which we also gained useful knowledge. Thanks to URBACT, we got to know the MIRO and MURAL platforms.

Transnational meetings enabled the opportunity for cities to learn from each other through their presented good practices. On the **transnational meeting to Southwark**, watching the presentations, we could see how British partners had used available **data for planning** in the city of London. Transport for London Website for us is a good example, where residents and tourists can plan their journey in London. The application helps to calculate the time of the journey, whether an elevator or escalator is available at the station, etc. Website visitors also find maps of the city and all the information about fares. Open data is also available with different databases for example cycling infrastructure database with the asset of cycle lanes and tracks, cycle parking, restricted points, advanced stop lines, etc.

This is a good example of collecting all kinds of data in one place which is helpful for travellers and traffic planning. As we mentioned in chapter 1.3., data shortage is an existing problem in Debrecen. During the implementation of the Integrated Action Plan, inspired by the good practice of Southwark we would like to collect data about the number of pedestrians and cyclists on each street, cycling routes of the action area. A database could help plan data-based decision-making and future developments. Therefore, one of our actions is dedicated to data collecting and transport system development (S.1.3. Strategic objective).



During the transnational meeting in Santo Tirso, we visited **Pontevedra in Spain**, where we could experience a realisation of a fantastic vision. Conventional city models focus their attention on private motorized vehicles, while pedestrians are almost completely ignored. Pontevedra has placed **pedestrians** (and wheelchair users) at **the top of the mobility hierarchy**, followed by bicycles, public transport and, lastly, private cars.

The new mobility model prevents search and through-traffic with the enforcement of active dissuasive measures (tight police control, deterrent sanctions, camera network). Structural traffic calming measures ensure the priority and safe crossing of pedestrians, and also a tool for backlog intensive car use. Furthermore, there are about 3,500 parking spaces available free of charge throughout the perimeter of the inner ring –a 10-minute walk from the center– and almost 4,500 underground paid parking spaces in the city.

From our point of view we explored solutions that are closely relevant to the problems identified in our Integrated Action Plan, therefore we pay attention to relevant links in the design and implementation of our proposed actions. The actions connected to smart parking and integrated traffic management, the expansion of

the pedestrian zone and the support of active mobility (see in chapter 2.1) are confirmed to lead towards a people-centred city.

Other great example to follow is the **intensive pedestrianisation of Ljubljana**, the creation of high-quality public spaces and the promotion of sustainable mobility. Following the idea of putting people's needs at the centre of any strategy (like we experienced it in Pontevedra as well), they aimed to turn the transport modal pyramid on its head – from most trips being undertaken by car to most trips being taken on foot. Consequently, cars started to be restricted from the inner city from 2007 onwards.

Ljubljana also significantly invested in the promotion of cycling: cyclists are allowed to cycle in the entire pedestrianised area of the city considering the safety of pedestrians, and there is a functional and popular bike sharing system which can be used via integrated public service card. The city also invested in Park + Ride facilities to allow commuters to reach the centre by public transport at a very low fare. In order to help residents with reduced mobility face the challenges of the large scale pedestrianisation of the inner city, Ljubljana also installed the free-of-charge "Kavalir" service.

The **main success factors** were political commitment and continuity, communication with inhabitants and stakeholders, and learning from and implementing actions in the framework of EU projects, as well as a lively civic society engaged in the improvement of public space in Ljubljana. Their story taught us, that if you make sustainable mobility more and more reachable and convenient, it is much more accepted by the people. Also strong political support and timing is crucial: „The early bird gets the worm” - when you have a strategy start to implement it early to see results before next elections.

Good examples, practices can be found outside of the Thriving Streets project as well. The **“Copenhagen Style”** cycle path is a good example of how to protect cyclists from car traffic. These lanes are raised up with a small curb, low enough that vehicles can mount it but high enough to discourage that. This can be used on streets where cyclists can't ride on a separate path from cars, and they don't have a dedicated path on the pavement either. This model could solve the pedestrians-cyclists-drivers conflict in Debrecen and in our action Environmental renewal of the city center II. milestone.

By those future developments where bike paths are constructed, this proposal will be transmitted in the city administration.

Other inspiring initiative is the **15-Minute City concept** implemented in Paris. The core objective of the concept is to reduce travel demand and give room for the streets to serve individuals rather than cars. To achieve this, it requires:

- a massive spatial decentralization;
- a transformation of existing infrastructure;
- the development of new services for each neighbourhood;
- the transformation of streets into bike lanes and pedestrian areas;

new economic models that attract local businesses. As the 15-Minute Concept covers a wide range of possible solutions we can identify multiple connections between the Parisien model and the strategic goals defined in the SUDS. Many actions of this model are capable to serve as good examples to follow, and can solve the problems identified during the action planning process. For example, traffic decentralization actions would offset the problems connected to centralized urban structure, and can also relieve the parking conflict problem.

Some of our actions are inspired by this concept and we would like to implement measures dedicated to develop transport infrastructure in a way that promotes spatial decentralization, like construction of bypass roads and decentralised traffic centers (see chapter 2.1.). The development of bike lanes and pedestrian areas are also key elements of the Integrated Action Plan completed with awareness-raising programmes and smart solutions (e.g. developing a smart parking system). These actions all serve as a counterweight to „too many cars” problem in the city centre.

In addition, of course, we implemented the Small-Scale Action (SSA), which provided valuable inputs during the action planning process.

EDC Debrecen is currently preparing the Sustainable Urban Development Strategy of Debrecen for the 2021-2027 EU funding period in parallel with the URBACT IAP. Certain parts of the Integrated Action Plan are based on chapters of the Sustainable Urban Development Strategy, which ensured the use of the most up-to-date data possible. In addition, the problems identified during the action planning process and the results of the public questionnaire will be integrated into the Sustainable Urban Development Strategy. In this way, the two documents reinforce each other to ensure an integrated approach. The timing is excellent because the Urban Development Plan, which is part of the Sustainable Urban Development Strategy, incorporates the good practices gained in the Thriving Streets project, defining urban development interventions for the next 7 years.

SETTING UP THE ULG, RESULTS ACHIEVED

The members of the group were selected based on the URBACT method and the methods learned at the international partner meeting. We conducted a stakeholder analysis before the kickoff meeting. An important factor was that the group should be diverse, with both urban organizations and private actors present. A key aspect was the involvement of local actors who have an interest in the selected action area, the work of the organization is related to or has an impact on the action area, and vice versa.

The first ULG meeting was held in January 2020. The approx. of the 35 guests, 30 were represented. However, the pandemic situation somewhat rewrote the circumstances, which did not allow for larger gatherings. To maintain continued interest, we needed to find more flexible ways to operate ULG than online meetings. The following aspects were taken into account:

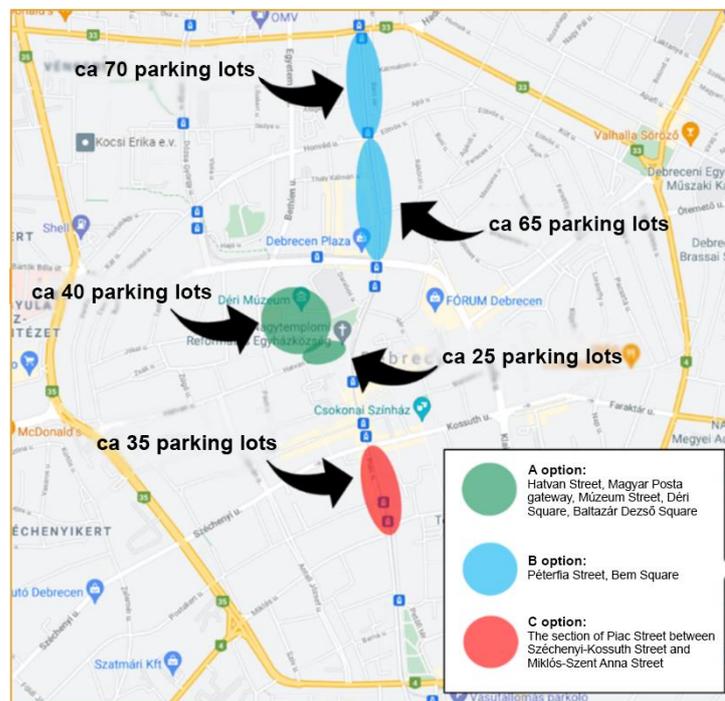
- We worked with **an open ULG group**, and allowed new members to join during the implementation of the project - for example, the group expanded during the implementation of the SSA action.
- **Thematic discussions** - by the experience of the previous stakeholder analysis, we tried to convene the group members according to the selected topics. (This was also necessary due to the relatively large size of the group.)
- Experience has shown that there were enthusiastic but less active members in the group. Accordingly, members **with a higher level of commitment were more actively involved in the process**, and others were informed in the form of a newsletter.
- We have paid special attention to the **involvement of the city administration** to ensure political commitment.

Flexibility proved to be a good decision in retrospect, with many stakeholders contributing during the months of the action planning period, from problem identification to the implementation of a small-scale pilot action. The figure below summarizes the ULG members involved in the process. Many of them (such as urban companies responsible for public transport and parking) have already been mentioned. In the middle of our stakeholder map lies the project owner EDC Debrecen Nonprofit Ltd. as the catalyst for the action planning process together with the Municipality, where strategic decisions are made. Stakeholders included those ULG members who were actively involved in the implementation of the SSA action, thus actively contributing not only to their ideas but also to their activities. Of course, all ULG members were informed of the progress of the negotiations and the next steps.

The cooperation has four main outputs:

1. **Problem tree** - It was designed according to the ULG personal interviews and validated by a community survey.
2. **The possible expanding directions of the pedestrian zone** - One of the most important questions of the ULG interviews was the possible expansion of the pedestrian zone. Our main purpose was to know if the ULG members could imagine the downtown without car traffic and which directions are the most suitable for the expansion. The outputs were submitted to the Mayor's Office as a suggestion.

We presented our results of the interviews to the Urban Development Department of the Municipality and the Chief Gardener. Besides the directions for the expansion of the pedestrian zone marked by the ULG Group, the Chief Gardener of the City of Debrecen has suggested an additional site proposal. Subsequently, we prepared a proposal for the mayor about the possible directions. As a result, the city government supported two of the three possible expansion sites offered, options A and C.
3. **Proposal to make a preparatory study on the expansion of the existing pedestrian zone of the main street** - The Cívus Ház Zrt.'s (ULG member) most important task is to manage and develop the municipal properties in the city center. After the suggestions mentioned above, the city administration instructed the Cívus Ház Zrt. to order a preparatory study for the area of option C. It aims to investigate the possibilities of the pedestrian zone expansion especially from the traffic management, parking and green spaces point of view. It also needs to explore the timing and financial dimensions.
4. **SSA** - It was designed to make an experimental road closure, a Car-Free day during the European Week of Mobility. The selected area was the same which needs to be investigated in the preparatory study, so the conclusions of the SSA were useful inputs to the preparatory process of the study. The ULG members were not only co-designed the SSA, but many of them participated in the events as organizers held during the road closure.



We have shared our experiences and the outputs (e.g. the problem tree) of the action planning process and also the results of the public opinion poll prepared for the SSA with the urban planner, who is making the study on the action area. The study plan is currently being prepared, and its content will be integrated into the IAP during next year's review.

Another important achievement of the ULG group is that the small-scale action have been organized related to the area covered in the study plan mentioned above.

SMALL-SCALE ACTION (SSA) – CAR-FREE DAY IN THE CITY CENTER

As part of the action planning process, a small-scale action was testing a temporary solution among the population that promotes the spread of sustainable modes of transport in the action area. In parallel with the discussions related to the pedestrian areas, the ideation and planning process related to the small-scale action also started. Originally, we were supposed to examine perception on the newest car-free zone of the district, which was handed over (August 2020). The ULG agreed on the most favourable direction of pedestrian zone expansion, which was confirmed by the city administration by ordering a preparatory study on the selected location. Therefore it was an obvious step to design our SSA related to the location mentioned above. **During the SSA we temporarily closed a part of the main street from car traffic and investigated the reactions of the residents.**

For many years our public transportation company called DKV Inc. (ULG member) organizes the Car Free Day during the European Week of Mobility. In August 2021 DKV Inc. came up with the idea to link the Car Free Day with the Thriving Streets project, so as a part of the action we had the opportunity to make an experiment related to defined in the preparatory study. The Car Free Day lasted for one day, in the closed area, the organizers waited for the visitors with colorful programs, including traffic tests, mini-cycling tracks and, so on.



The event took place on 18th September 2021, and the organizers were DMJV Municipality (ULG member), DKV Inc. (ULG member), DV PARKING Inc. (ULG member) the Debrecen Vocational Training Center, the Hajdú-Bihar County Police Headquarters, Debrecen City Police Headquarters (ULG member), Hajdú-Bihar County Disaster Management Directorate (ULG member), DERKE (ULG member), DKSI - Bicycle Department, INTER-TANKER Inc., „ZSUZSI“ Forest Train, the Red Cross, the Foundation for Transport Safety and EDC Debrecen Nonprofit Ltd.

One of the aims of the Car Free day was **to draw attention to the alternative utilization of our public spaces**. On the closed road section, many of the parking lots were covered with artificial grass on a 700 m² area, imagining our main street as a green oasis and picnic place. At the Thriving Streets booth our team invited the visitors on historical sightseeing, we showed the pedestrian zone developments constructed in the last two decades to the residents through gamification. For example, we made puzzles from historic and new pictures, to show the evolution of the public spaces as time goes by, or the children had the opportunity to redesign the action area by sticking the pictograms of the desired functions on the picture of the action area. Our idea box was popular too, almost a hundred ideas were written and thrown into about the future of the main street.

During the event, we launched a **public opinion poll** as mentioned above, to find out what the residents think about the closure experienced on the Car-Free day, which functions are suitable for the city center instead of parking lots, or how are the people imagine the future downtown of Debrecen.

One of the **most important added values of the SSA is that the ULG members were not only co-designers but co-creators too**. It was a huge success, that using the SSA, the problems identified by the ULG were validated by the public. A significant part of residents has welcomed the pedestrian zone developments, realized in the last two decades, they have experienced an improvement in the quality and quantity of local services. (e. g. events, hospitality) They are happy with the functions available, although they see the opportunity to expand them. (e. g. playgrounds)



The most important conclusions of the poll:

- According to the majority of the population, both the range of downtown services and tourism are moving in the right direction.
- According to the population, the closure of the main street from car traffic would have a positive effect on noise and air pollution and would improve the street image. However, this change would have a definite negative impact on car transport, including parking. It is a matter of concern that this area has already been named problematic by the population.
- If the closure will be done, the population would like to use the area in various ways, but green areas are essential. **The establishment of green spaces is unavoidable, as more than 80% of the population would like to see it.** In addition, the event space, restaurant terrace functions are popular, and the playground also appears as a currently missing feature.
- The overall perception of downtown pedestrian zones is positive. The renovation of Dósa Nádor square and Csapó street won the greatest popularity. However, it is important to note that these two developments took place in time at the latest, the experience of this change is the most recent.
- Only 15% of the population park regularly in the city center. Those who rarely or never park in the city center can do their thing without using a car. In addition, the limited number of free parking spaces and expensive parking tickets are a deterrent.
- Regarding downtown parking, the opinion of the population is quite clear: there are few free parking spaces, and the tickets are expensive.
- Those living in the northern part of the city are more likely to be able to reach the city center entirely by bike, while those living in the eastern and southern parts are only partially able to use the cycle path. This is in line with the city's cycling infrastructure.

BASED ON THE CONCLUSIONS OF THE ANALYSIS, THE PROBLEMS IDENTIFIED BY THE ULG GROUP CAN BE CONFIRMED.

THE RESIDENTS ARE HAPPY WITH THE PAST YEARS' PEDESTRIAN ZONE DEVELOPMENTS, THEY ARE SATISFIED WITH THE FUNCTIONS, BUT THEY SEE A POSSIBILITY TO INVOLVE MORE. (E. G. PLAYGROUNDS)

THE NEED TO INCREASE GREEN AREAS IS CLEAR, BUT THE DEMAND FOR FREE PARKING PLACES STILL IS HIGH. THIS CONCLUSION CONFIRMS THE LOW PROPORTION OF GREEN AREAS AND THE EFFICIENCY OF SURFACE PARKS.

PART 2. ACTION PLAN

2.1. SPECIFIC OBJECTIVES AND STRATEGY

One of the most important aspects of the IAP was to provide answers to the problems identified in the challenges section. Based on this, a SWOT analysis of the city center was prepared, which summarizes the situation.

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Public administration, health, and cultural institution concentrated presence • High touristic attractiveness and remarkable religious and cultural heritage • The prominent role of commercial, financial, and hospitality functions • Existence of cultural events having national and international significance 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Parking conflicts • Aging demographic structure • Relatively low ratio of green spaces • Poor quality of road network • Neglected buildings and facades in the historic environment
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Increasing the attractiveness of the city center as a residential area • Completion of the Small Ringroad • Renovation of residential real estate and public institutions • Strengthening community functions, incorporating additional institutions • Reconstruction and expansion of green surfaces • Increasing no/low emission zones 	<p>THREATS</p> <ul style="list-style-type: none"> • High air pollution and noise • Strong vehicle traffic • The competitiveness of retail stores vis-à-vis shopping centers is declining • Further deterioration of the buildings in the historic downtown

Because of the hierarchical structure of the urban planning documents, the strategic goals of the Integrated Action Plan are in parallel with the Sustainable Urban Development Plan's (SUDP) dedicated objectives. The SUDP included the action area, incorporated the problems and objectives identified in the Thriving Streets project, and dedicated territorial objectives as well. These objectives are complemented by thematic objectives, which apply to the entire city. The thematic goals have an integrated nature, the city needs to coordinate several thematic fields to achieve them.

TERRITORIAL GOAL: BUILDING A PEDESTRIAN-FRIENDLY CITY CENTER FOR ALL SEASONS

- Strengthening the administrative functions in the city center with further developments (e. g. reconstruction on the Old Town Hall)
- Developing public cultural institutions and community spaces will significantly contribute to the development of community functions (for example, the extension of the pedestrian zone of the city center, landscaping, etc.)
- The planned rehabilitation investments will significantly contribute to the improvement of the quality of the built environment by strengthening the architecturally unified cityscape of the historic city center.
- The increase of the green area ratio and the creation of public parks will create a healthier environment.
- The development of public transport and the conditions of environmentally friendly individual transport modes aim to reduce the traffic load in the city center.
- Increasing the number of underground and/or multi-level car parks will help to create the conditions for healthier land use, thus offsetting the unfavorable impact on the cityscape, and scarcity of parking spaces.
- The conditions of quality tourism will be improved by raising the existing facilities to a higher level and by developing new attractions.

- The interventions planned in the city center must not result in the deterioration of the environmental conditions.
- Concerning the city center, the higher density of functions, as well as their further expansion and development, could increase the traffic load. So the completion of the Small Ring Road will significantly take the burden off the city center by deflecting the traffic and improving cycling conditions. The city's transport network will be transformed consistently so that the outer parts of the city will not feel the disproportionately negative effects of the increasing traffic load.
- By expanding the pedestrian zone, reducing surface parking, building underground car parks, increasing the proportion of green space, and rehabilitating existing ones, green space will have a more significant existence, improving its microclimate by reducing direct heating and evaporation. In addition, the level of dust and noise pollution, and their harmful effects on the environment are reduced due to the reduction of motorization emissions.
- It can be said that the implemented developments serve to reduce air pollution and noise pollution, as well as to reduce and transform the infrastructure serving road traffic in the use of space, thus indirectly conserving both climate protection and natural resources.

S1. IMPROVING TRANSPORT CONDITIONS AND ACCESSIBILITY BOTH IN AND AROUND THE CITY

The competitiveness of individual settlements is greatly influenced by their accessibility and internal transport. The settlements located at the junction of several modes of transport and routes are particularly favorable for development. As a result of the implemented and planned investments in the city, Debrecen's regional role and the number of jobs will increase. This process predicts an increase in passenger and freight traffic to the city. In the relationship between the city and its agglomeration, labor mobility should be facilitated by suburban transport, according to regional needs. This includes the modernization of the International Airport, the railway lines and roads affecting the city, the expansion of capacity, and the growing demand for the development of cycling infrastructure in the urban area.

The economic development and the intensifying individual mobilization also pose challenges to Debrecen's internal transport system, which can be met by developing transport infrastructure which fits the city's structure. There is a need to increase the capacity of road sections leading to the city, to create missing bypasses and ring road sections, to create separate level railway crossings and other internal road network developments to divert traffic and relieve the interior of the city. It is justified to increase the role of fixed-track public transport by creating new lines and ensuring intermodality.

With the improvements, the primary goal is to reduce the environmental impact of transport by reducing through traffic, shifting targeted passenger traffic to other means, decentralizing certain high-traffic public functions in the long run, and reducing off-peak traffic.

Today, one of the biggest challenges for urban development is the development and organization of urban transport sustainably and intelligently, which requires the modernization of all branches of public transport, the development of intelligent transport management, intermodality, and parking, and the strengthening of alternative modes (eg cycling and walking).

S4. DEVELOPING AN EFFICIENT URBAN STRUCTURE THAT PRESERVES THE BUILT HERITAGE

With the effects of global challenges (e. g. climate change, pollution, rising energy, and raw material prices), the more efficient operation and management of cities and the more rational use of available resources are becoming increasingly important. One of the basic conditions for this is the development of a balanced, compact urban structure, which avoids the unjustified spreading of the city, and thus more expensive operation of utilities, transport, and other systems.

The development of urban decentralization and related services can lead to appropriate building intensity and mixed land use, which helps to implement the "short distance principle". The motorized transport won't be a priority if the people are living close to the everyday locations like schools, shopping centers and so on.

The city's ambition to play a regional central role is greatly enhanced by its built-in memories and unique character from its past. The special built environment and image strengthens the identity of the settlement, improves its image, and contributes to increasing its attendance, therefore the sustainable use of the built heritage must be ensured by renovating monuments and other protected buildings, using function changes if necessary, and preserving valuable building characters.

S5. HEALTHY, GREEN, VALUE PRESERVED URBAN ENVIRONMENT AND URBAN MANAGEMENT

In addition to the dynamic development of Debrecen, the challenge is to preserve the quality of life of its residents and workers, one of the most important elements of which is to ensure a healthy living and working environment, which affects the health, and mental state which is also a significant factor on the competitiveness of the city.

Efforts should be made to create a healthy green urban environment, as the development and enhancement of green spaces will not only ensure ecological links but also reduce the impact of heat islands and improve air quality, thereby improving the health and well-being of the population. The innovative operation of green spaces can lead to significant cost and efficiency gains through the use of modern technologies and data-driven digital systems.

There is great potential in the design and operation of digital, remote utility, and building management systems, which, in addition to reducing consumption, human resource requirements, and operating costs, also significantly support the implementation of resource-efficient management.

The protection of natural values has great importance in Debrecen, as the protected values and areas of nature conservation in the city have remarkable importance in terms of climate and recreation from the point of view of biodiversity and rich wildlife. These functions should be improved in the downtown as well.

Achieving the goals is inconceivable without the involvement of the population and citizens, the implementation of well-targeted awareness-raising actions, and related community programs.

<i>Territorial objective</i>	<i>V1. Downtown: creating a service and pedestrian-friendly, four-season downtown</i>	
<i>Strategic objectives</i>	<i>S1. Improving transport conditions and accessibility both in and around the city</i>	S.1.2. Development of the transport infrastructure adjusted to the city structure
	<i>S4. Developing an efficient urban structure that preserves the built heritage</i>	S.1.3. Sustainable and intelligent urban transport development and organisation
	<i>S5. Healthy, green, value preserved urban environment and urban management</i>	S.4.1. Designing a compact urban structure
		S.4.2. Development of urban decentralization and related services
		S.4.3. Sustainable use of the built heritage
		S.5.1. Designing and maintaining a healthy, green urban environment
<i>Horizontal objective</i>	H1. Ensuring equal treatment, opportunities, and access to public services	
	H2. Implementing digital transition in urban services	

2.1. ACTIONS

Planned action	Expected cost (million HUF)
S.1.2. Development of the transport infrastructure adjusted to the city structure	
Finishing the Small Ring	1 400
Construction of the intermodal center	28 200
Eastern ring road outside of the city	20 900
Residential road improvement	1 500
S.1.3. Sustainable and intelligent urban transport development and organisation	
Reconstruction of tram line 1	18 700
Construction of tram line 3	38 400
Expansion of pedestrian zone in the city centre	130
Development of an integrated traffic management system	2 700
Collecting data and developing a system to support sustainable transport	TBD
Cycle network developments	2100
Active mobility awareness-raising programs	50
Environmental renewal of the city center II.milestone	1 000
S.4.1. Designing a compact urban structure	
Development of a smart parking system	TBD
S.4.2. Development of urban decentralization and related services	
Development of transport decentrals in two parts of the city	2 500
S.4.3. Sustainable use of the built heritage	
Infrastructural development of municipally owned premises for rent	TBD
S.5.1. Designing and maintaining a healthy, green urban environment	
Renewal of Petőfi Square	900
Environmental renewal of the city center II.milestone	1 000

PLANNED ACTION	Which problem it reflects on			Directly/indirectly connected to the action area
	Low proportion of green spaces	Not enough purchasing power	Too many cars	
Finishing the Small Ring			X	Direct
Construction of the intermodal center			X	Indirect
Eastern ring road outside of the city			X	Indirect
Residential road improvement			X	Direct
Reconstruction of tram line 1			X	Indirect
Construction of tram line 3		X	X	Indirect
Expansion of pedestrian zone in the city centre	x		x	Direct
Development of an integrated traffic management system		X	X	Indirect
Collecting data and developing a system to support sustainable transport	X	X	X	Indirect
Cycle network developments			X	Indirect
Active mobility awareness-raising programs		X	X	Direct
Development of a smart parking system			X	Direct
Development of transport decentrals in two parts of the city			X	Indirect
Infrastructural development of municipally owned premises for rent		X		Direct
Renewal of Petőfi Square	X	X		Direct
Environmental renewal of the city center II.milestone	X	X	X	Direct

ACTION	RESPONSIBLE FOR THE ACTION
Finishing the Small ring road	Municipality of Debrecen
LINK TO STRATEGIC OBJECTIVE	
S.1.2. Development of the transport infrastructure adjusted to the city structure	
SHORT DESCRIPTION	
<p>The construction of the final section of the Small Ring along the western boundary of the action area, with 2x2 traffic lanes and 1-1 public transport lane in each direction, paved walkways, at hubs with traffic lights at crossings, and a green lane with splashes in the middle, planting of trees and green areas alongside the pavements. In addition, new cycling facilities will be added on sections of roads around the ring road, and missing sections of existing cycling facilities will be connected.</p>	
EXPECTED RESULT	
<p>The construction of the Small ring road has been planned by the municipality for a long time, and the road is expected to improve the accessibility of the residential areas in the northern part of the city and to relieve the internal road network. The network development should ensure that different forms of transport are available in the right place and at the right capacity, while at the same time not increasing the environmental burden.</p> <p>One of the main objectives of the project is to increase the share of people choosing public transport and cycling through better quality infrastructure. The project will improve accessibility to the city center by sustainable modes of transport and is expected to shift a significant amount of vehicle traffic from the interior to the edge of the action area. The development will lay the foundations for pedestrian extensions and other interventions to reduce vehicular traffic within the action area.</p>	
FINANCIAL SOURCE/COST	EQUALITY/ DIGITALIZATION
<p>Territorial and settlement development operative program</p> <p>Self-financing by the municipality</p> <p>1.4 Billion HUF</p>	<p>The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements.</p> <p>For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.</p>
IMPLEMENTATION SCHEDULE	INDICATOR
2018. Q1 – 2022. Q3	<ul style="list-style-type: none"> • Length of built or reconstructed bicycle road (km) • Length of built or reconstructed road (km) • Proportion of users of active modes of transport (%)

ACTION Construction of the intermodal center	RESPONSIBLE FOR THE ACTION National Infrastructure Development Ltd; Municipality of Debrecen DKV Ltd. (ULG); Hungarian Rail Association Ltd.; Volán Ltd.
LINK TO STRATEGIC OBJECTIVE S.1.2. Development of the transport infrastructure adjusted to the city structure	
SHORT DESCRIPTION <p>The construction of the Debrecen Intermodal Community Transport Center would be one of the largest infrastructure investments in the city and would be of the major importance of commuting. The city is connected by rail on the southern border of the action area, while the bus station is located not far from the western border of the city center in a small location, and in conditions that do not meet today's needs. The planned development will make transfers easier for people arriving in the city (especially commuters), thus significantly reducing the inconvenience and redundancy of public transport between stations within the city. The development also includes cyclist-friendly elements, including B+R parking.</p> <p>There is a need for P+R and B+R parking facilities, and for the provision and development of services at transfer points, creating a humanized environment, so that transport movements (including those of people with reduced mobility, vision, and hearing) are assisted by significant technical equipment (escalators, moving walkways, modern information systems, barrier-free environment).</p>	
EXPECTED RESULT <p>A key advantage of an intermodal hub is that it can significantly reduce transit times and improve the quality of connections. A key consideration in the design of the new station was to provide a hub with the possibility of convenient interchange between rail, intercity bus, local public transport, and motorized modes. The terminus of tram lines 1 and 2 also starts from this point, and the planned line 3 would also serve the interchange. A valuable area close to the city center will be freed up on the site of the current bus station.</p>	
FINANCIAL SOURCE/COST Government contribution (D2030 Programme) Integrated Transport Operational Programme 28,2 Billion HUF	EQUALITY/ DIGITALIZATION <p>The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements.</p> <p>For the future, the possibility of automated measurement and monitoring of the number of transport users.</p>
IMPLEMENTATION SCHEDULE 2023 Q1 – 2027 Q4	INDICATOR <ul style="list-style-type: none"> • Passenger traffic on local public transport (number of trips) • Proportion of users of active modes of transport (%)

ACTION	RESPONSIBLE FOR THE ACTION
Eastern ring road outside of the city	National Infrastructure Development Ltd.
LINK TO STRATEGIC OBJECTIVE	
S.1.2. Development of the transport infrastructure adjusted to the city structure	
SHORT DESCRIPTION	
<p>Debrecen is located at the junction of nationally important routes, so its road network carries significant transit traffic, which is reinforced by the international traffic generated by its proximity to the border. The national roads are located in a radial direction, and outside the city, there are only sporadic connections between them, mainly on the western side, which only partially relieves the city, so the construction of the eastern part of the ring road is also necessary. The construction of bypasses, as elements of the national road network, is a governmental task. The city's role is twofold: on the one hand, to define the route and influence the timetable, and on the other hand, to prepare the plans for the road network and start preparing the urban investment as soon as possible. The aim of the transport investment is to reduce the negative environmental impact of transport in the city (noise and air pollution) and to divert transit traffic away from the city.</p>	
EXPECTED RESULT	
<p>The construction of the Debrecen Eastern Bypass and the restriction of transit and internal freight traffic will reduce congestion on the ring roads protecting the city and the city center.</p>	
FINANCIAL SOURCE/COST	EQUALITY/ DIGITALIZATION
<p>Integrated Transport Operational Programme Territorial and Settlement Development Operational Programme Plus Government contribution (D2030 Programme) 20,9 Billion HUF</p>	<p>The aim is to inform drivers about congestion and disruption on the bypass and access routes. To this end, a traffic management system based on real-time data is planned, too.</p>
IMPLEMENTATION SCHEDULE	INDICATOR
<p>2022 Q3 – 2026 Q4</p>	<ul style="list-style-type: none"> Length of built or reconstructed road (km)

ACTION Residential road improvement	RESPONSIBLE FOR THE ACTION Municipality of Debrecen EDC Debrecen Urban and Economic Development Center
LINK TO STRATEGIC OBJECTIVE S.1.2. Development of the transport infrastructure adjusted to the city structure	
SHORT DESCRIPTION <p>There is nearly 1200 km of public roads in the administrative territory of Debrecen, 564 km are owned by the municipality in the inner area and are mostly paved, compared to only 10% of the roads in the outer area. The condition of the paved inland roads, which is mainly budget-dependent, would require more frequent upgrading in the central inland areas. The collector roads should be designed to accommodate the traffic volumes required to meet transport policy objectives, while at the same time protecting residential properties and institutions next to them from the polluting effects of traffic.</p> <p>Both road upgrades and new road construction should be designed with sustainability in mind and should only provide capacity where justified. In addition to road transport, attention must be paid to cycling, not only at the level of cycle paths but also in parallel with the provision of cycle storage facilities and possible service points.</p>	
EXPECTED RESULT Newly built or renewed road sections will meet the needs of the 21st century, promoting sustainable ways of mobility, in particular cycling.	
FINANCIAL SOURCE/COST Territorial and Settlement Development Operational Programme Plus 1,5 Billion HUF	EQUALITY/ DIGITALIZATION <p>The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements.</p> <p>For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.</p>
IMPLEMENTATION SCHEDULE 2023 Q1 - 2026. Q4	INDICATOR <ul style="list-style-type: none"> • Length of built or reconstructed road (km) • Length of built or reconstructed bicycle road (km) • Proportion of users of active modes of transport (%)

ACTION Reconstruction of tram line 1 – Phase 1	RESPONSIBLE FOR THE ACTION Municipality of Debrecen DKV Inc. (ULG)
LINK TO STRATEGIC OBJECTIVE S.1.3. Sustainable and intelligent urban transport development and organisation	
SHORT DESCRIPTION Rehabilitation of the deteriorated sections of the tramway crossing the action area, modernization of the bus stops, and accessibility. Replacement of the old vehicles, which are nearing the end of their useful life and are increasingly uneconomical to operate, with higher capacity, low-floor, accessible vehicles.	
EXPECTED RESULT One of the main objectives of the project is to increase the proportion of people choosing tram transport by improving the quality of service, thereby improving accessibility to the downtown action area.	
FINANCIAL SOURCE/COST Government contribution 18.7 Billion HUF	EQUALITY/ DIGITALIZATION The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements. For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.
IMPLEMENTATION SCHEDULE 2022 Q2 – 2025 Q4	INDICATOR <ul style="list-style-type: none"> • Passenger traffic on local public transport (number of trips) • Proportion of users of active modes of transport (%)

ACTION Construction of tram line 3	RESPONSIBLE FOR THE ACTION Municipality of Debrecen DKV Ltd. (ULG)
LINK TO STRATEGIC OBJECTIVE S.1.3. Sustainable and intelligent urban transport development and organisation	
SHORT DESCRIPTION One of the most significant developments of the next few years is the tram line 3, which would connect the Dobozi Housing Estate in the eastern part of the city, next to the main train station, to the Tócsövölgyi Railway Station via the city center, while the Tócsóskert Housing Estate would also be fully served by tram transport. It would thus connect to another rail link serving industrial parks, the Debrecen International Airport and the MÁV railway station.	
EXPECTED RESULT As a result, in the longer term, the city center could become a zero-emission city in terms of public transport, as it would be possible to use only trams and trolleybuses. In addition, two large housing estates would be sustainably connected to the city center, improving accessibility to the action area.	
FINANCIAL SOURCE/COST Government contribution (D2030 Programme) 38.4 Billion HUF	EQUALITY/ DIGITALIZATION The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements. For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.
IMPLEMENTATION SCHEDULE 2022 Q3 – 2026 Q4	INDICATOR <ul style="list-style-type: none"> • Passenger traffic on local public transport (number of trips) • Proportion of users of active modes of transport (%)

ACTION	RESPONSIBLE FOR THE ACTION
Expansion of the pedestrian zone in the city centre	Municipality of Debrecen
LINK TO STRATEGIC OBJECTIVE	
S.1.3. Sustainable, intelligent urban transport development and organisation	
SHORT DESCRIPTION	
<p>The city of Debrecen has set itself the goal of expanding pedestrian streets and increasing the number of car-free areas. In the frame of pedestrian zone expansion the section of Bajcsy-Zsilinszky street between Halköz and Pásti street will be paved with plant beds.</p> <p>The development will bring the following changes to the affected section:</p> <ul style="list-style-type: none"> – A co-existent traffic zone will be created, where pedestrians will have priority, – Cyclists will be able to use the section without restrictions, thus increasing the cycling zone, – Part of the surface, which is currently almost entirely paved, will be converted into green space, – Previously missing bicycle storage facilities will be installed. – Currently this part of the road is occupied by parking cars. Parking lots will be terminated with some exceptions. <p>Once the construction has been completed, car drivers will be able to enter the new pedestrianized section only with a permit.</p>	
EXPECTED RESULT	
<p>The investment will increase the number of recreational areas in the heart of the city centre, making this tourist destination a bright spot for the city in the future. Increasing green areas support the fight against heat island effect.</p> <p>The development also encourages sustainable and active mobility by expanding the pedestrian and cycling zone and installing bike storage facilities. Along with this vehicular traffic within the action area will decrease, with a positive effect in reducing traffic, air and noise pollution in the action area.</p>	
FINANCIAL SOURCE/COST	EQUALITY/ DIGITALIZATION
Self-financing by the municipality 0,13 Billion HUF	The action initiates the whole public to use sustainable mobility methods, like walking and cycling.
IMPLEMENTATION SCHEDULE	INDICATOR
2022 Q3 – 2022 Q4	<ul style="list-style-type: none"> • Number of abolished surface parking lots (pcs) • Renovated or built green infrastructure (m²)

ACTION Development of an integrated traffic management system (as a part of development of sustainable and smart transport solutions)	RESPONSIBLE FOR THE ACTION Municipality of Debrecen DKV Ltd. (ULG)
LINK TO STRATEGIC OBJECTIVE S.1.3. Sustainable and intelligent urban transport development and organisation	
SHORT DESCRIPTION <p>Further development of existing digital solutions for transport is needed, in particular for coordinated centralized monitoring and intelligent management of the transport system, traffic management, and traffic planning, and the integration of public transport.</p> <p>The road information system should be developed from the out-of-town sections of the access routes (and even bypasses) to the city center, so that information is provided uniformly. Efforts should be made to ensure that the information is based on data from the traffic management center, that it is consistent with its current management strategy, and that roadside signs and traffic information in the media are consistent with this.</p> <p>There is also a need to link the further development of parking information/management with passenger information, as the search for parking spaces is crucial in terms of cost and travel time. A significant proportion of metropolitan traffic is parking-seeking traffic, which obstructs other cars, wasting time, causing unnecessary fuel consumption and air pollution. It is essential to provide dynamic information on the available capacity of underground car parks and car parks and to suggest access routes.</p>	
EXPECTED RESULT <p>This solution enables data-based decision-making. These digital solutions could help reduce congestion and improve the quality and reliability of public transport and parking services by using real-time data. With a higher quality of public transport service, we expect an increase in the number of people preferring sustainable transport modes.</p>	
FINANCIAL SOURCE/COST Government contribution (D2030 Programme) Integrated Transport Operational Programme 2.7 Billion HUF	EQUALITY/ DIGITALIZATION Improving the quality of services related to public transport modes includes the use of info-communication accessibility. Digitization and real-time data processing are key requirements for the solutions used.
IMPLEMENTATION SCHEDULE 2023 Q1 – 2025 Q4	INDICATOR <ul style="list-style-type: none"> • Number of data types collected digitally by automated means • Passenger traffic on local public transport (number of trips) Proportion of users of active modes of transport (%)

<p>ACTION</p> <p>Collecting data and developing a system to support sustainable transport (as a part of development of sustainable and smart transport solutions)</p>	<p>RESPONSIBLE FOR THE ACTION</p> <p>Municipality of Debrecen</p>
<p>LINK TO STRATEGIC OBJECTIVE</p> <p>S.1.3. Sustainable and intelligent urban transport development and organisation</p>	
<p>SHORT DESCRIPTION</p> <p>The action includes a system developed to monitor the streets, collecting data of the number of people cycling, walking, or driving. All data will be collected and managed on a system. The collected data will be used for data-based decision-making and future developments.</p> <p>The action reflects on the data shortage problem in the city and inspired by the Transport for London website, one of the good practices of Southwark.</p>	
<p>EXPECTED RESULT</p> <p>Developed system to collect data on traffic (cyclists, pedestrians, drivers).</p> <p>Data-based solutions on the traffic problems in the downtown and the city.</p>	
<p>FINANCIAL SOURCE/COST</p> <p>Territorial and Settlement Development Operational Programme Plus</p> <p>Government contribution (D2030 Programme)</p>	<p>EQUALITY/ DIGITALIZATION</p> <p>The aim is to encourage the whole public to use cycling and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements.</p> <p>For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.</p>
<p>IMPLEMENTATION SCHEDULE</p> <p>2023 Q1 – 2025 Q4</p>	<p>INDICATOR</p> <ul style="list-style-type: none"> • Number of data types collected digitally by automated means

ACTION Cycle network developments	RESPONSIBLE FOR THE ACTION Municipality of Debrecen EDC Debrecen Urban and Economic Development Center
LINK TO STRATEGIC OBJECTIVE S.1.3. Sustainable and intelligent urban transport development and organisation	
SHORT DESCRIPTION Cycling is becoming increasingly important in Debrecen, and as a result, a particular emphasis has been placed on the development of cycle routes. As a result, by the end of 2020, the length of cycling infrastructure exceeded 80 km. The project aims to develop the cyclepath network and improves the accessibility of the downtown. . The action includes newly built paths and bicycle zones too.	
EXPECTED RESULT The development results more bicycle-friendly city center, which will meet the needs of the 21st century, promoting sustainable ways of mobility.	
FINANCIAL SOURCE/COST Territorial and Settlement Development Operational Programme Plus 2, 1 Billion HUF	EQUALITY/ DIGITALIZATION The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements. For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.
IMPLEMENTATION SCHEDULE 2024 Q1 – 2026 Q4	INDICATOR <ul style="list-style-type: none"> • Length of built or reconstructed bicycle road (km) • Passenger traffic on local public transport (number of trips) • Proportion of users of active modes of transport (%)

ACTION Active mobility awareness-raising programs	RESPONSIBLE FOR THE ACTION Municipality of Debrecen EDC Debrecen Hungarian Cycling Federation(ULG)
LINK TO STRATEGIC OBJECTIVE S.1.3. Sustainable and intelligent urban transport development and organisation	
SHORT DESCRIPTION <p>Traffic management elements alone will not lead to an increase in cycling. To increase the acceptance, appreciation and attractiveness of cycling we need to change the perception of road users while creating the infrastructure to make cycling an equal mode of transport. The basic aim of promoting cycling is not only to develop a general cycling culture but also to promote a balance between modes of transport and to strengthen the role of environmentally friendly modes of transport.</p> <p>The action will include a Bike Roadshow, the presentation of new cycle routes, and safe transport events and also Bike Breakfasts with the Hungarian Cycling Federation. This initiative is a good opportunity to involve the local companies.</p> <p>The action will be linked to the LIFE HungAIRy project's cycling awareness campaign to improve air quality.</p> <p>A further opportunity is the organisation of programmes linked to the successful Car Free Day organised as a part of the SSA.</p>	
EXPECTED RESULT Possible public resistance to traffic management will be reduced through awareness-raising activities, and social acceptance of sustainable mobility improvements will increase.	
FINANCIAL SOURCE/COST Territorial and Settlement Development Operational Programme LIFE HungAIRy project 50 Million HUF	EQUALITY/ DIGITALIZATION The aim is to encourage the whole public to use bicycle and public transport.
IMPLEMENTATION SCHEDULE 2021 Q3 - 2025 Q3 except for winter months (Q1, Q4)	INDICATOR <ul style="list-style-type: none"> Proportion of users of active modes of transport (%)

ACTION Development of a smart parking system	RESPONSIBLE FOR THE ACTION Municipality of Debrecen DV Parking Ltd. (ULG)
LINK TO STRATEGIC OBJECTIVE S.4.1. Designing a compact urban structure	
SHORT DESCRIPTION <p>In able to solve the parking problems in the city center, a coherent approach is needed, based as far as possible on traffic counts, needs assessments, and an analysis of the current use of parking spaces. To relieve the city center of surface parking spaces, at least the following steps are needed:</p> <ol style="list-style-type: none"> 1) There is a need to develop P+R car parks on the outskirts of the city and to coordinate public transport with them to reduce car traffic into the city center. Where necessary, interchanges should be designed to accommodate other functions (e.g. commercial), ensuring equal access requirements. 2) At the edge of the downtown action area, suitable parking lots should be used for underground parking and/or parking garages, preferably with green roofs and/or green walls, to increase the amount of green space in the downtown. 3) The intervention should not only include infrastructural elements but should also be aligned with the digital elements of the "transport model" action. 	
EXPECTED RESULT <p>The action will result in a concept that will help to reduce the size of parking zones by eliminating surface parking, thereby freeing up valuable inner-city land for other functions. By pushing parking spaces to the edge of the action area, the urban image will also be improved.</p>	
FINANCIAL RESOURCE/COST TBD N.A	EQUALITY/ DIGITALIZATION Newly developed parking spaces should take into account equal access criteria and be linked to the digital developments included in the "transport model" action.
IMPLEMENTATION SCHEDULE 2024 Q1 - 2025 Q4	INDICATOR <ul style="list-style-type: none"> • Number of parking spaces provided in underground car parks/parking garages • Number of surface parking spaces removed

ACTION Development of transport decentrals in two parts of the city	RESPONSIBLE FOR THE ACTION Municipality of Debrecen
LINK TO STRATEGIC OBJECTIVE S.4.2. Development of urban decentralization and related services	
SHORT DESCRIPTION <p>In the case of Debrecen, it is an important goal that as few traffic as possible enter or pass through the city center in order to reduce downtown congestion. Development of transport decentrals helps to implement the so-called „short distance principle”, i.e. the motorized transport is not a priority if everyday locations are close enough to each other.</p>	
EXPECTED RESULT <p>Traffic decentralization processes would help to reduce traffic in the city centre, which can also relieve the parking conflict problem (especially parking needs due to transit traffic). The development of urban decentralization and related services will also help to improve sustainable urban mobility. The action should be implemented according to the 'Paris 15 minute city' concept.</p>	
FINANCIAL RESOURCE/COST Territorial and Settlement Development Operational Programme Plus 2.5 Billion HUF	EQUALITY/ DIGITALIZATION Developed transport decentrals should take into account equal access criteria and be linked to the digital developments included in the "transport model" action.
IMPLEMENTATION SCHEDULE 2023 Q1 - 2026 Q4	INDICATOR <ul style="list-style-type: none"> • Number of new district centers (pcs)

ACTION Infrastructural development of municipally owned premises for rent	RESPONSIBLE FOR THE ACTION Municipality of Debrecen Cívis Ház Ltd. (ULG)
LINK TO STRATEGIC OBJECTIVE S.4.3. Sustainable use of the built heritage	
SHORT DESCRIPTION <p>In many cases, the rentable premises owned by the municipality and managed by Cívis Ház Ltd. on Piac Street and in its annex are no longer suitable for today's needs. To fill the rental premises, it would be necessary to draw up an investment promotion strategy specifically for these properties, to define the desirable functions of the rental premises, which are often located in a historic environment, and to help them to be developed, more efficiently rented out and economically operated. The action should include a review of the condition of each property and should identify areas for intervention to make the premises more attractive to prospective renters, based on a common set of criteria. A specific focus should be given to the allocation of potential investors. A business model for financing the renovation should be developed, sharing the burden between the landlord and the property renters (e.g. the renter would carry out the infrastructure improvements in return for a more favorable rent).</p>	
EXPECTED RESULT <p>In the long term, the strategy is expected to reduce the fluctuation of renters, reduce the number of unoccupied rental properties and improve their condition, while at the same time providing economic and urban image benefits.</p>	
FINANCIAL SOURCE/COST Financed by the government N.A	EQUALITY/ DIGITALIZATION <p>Full accessibility is an essential criterion, and the current buildings only meet this criterion to a limited extent, while the development would improve equal access.</p> <p>The range of rental properties and their parameters should be made available to all in a digital register, which would facilitate the rental process.</p>
IMPLEMENTATION SCHEDULE 2023 Q1 - 2024 Q4	INDICATOR <ul style="list-style-type: none"> • Number of parking spaces provided in underground car parks/parking garages • Number of removed surface parking spaces

ACTION Renewal of Petőfi Square	RESPONSIBLE FOR THE ACTION Municipality of Debrecen EDC Debrecen Urban and Economic Development Center
LINK TO STRATEGIC OBJECTIVE S.5.1. Designing and maintaining a healthy, green urban environment	
SHORT DESCRIPTION The action includes the regeneration of a degraded public park in the southern part of the action area. The project will revitalize around 14,000 m ² of green space and create a modern fenced playground for all ages. A 500 m ² artificial lake and a barbecue terrace will be created in the center of the park. New benches, street furniture, and bicycle storage will be installed in the area.	
EXPECTED ARRIVALS The rehabilitation of the currently abandoned and degraded public space will bring two new features to the city center that residents have identified as missing: a public park and a playground.	
FINANCIAL RESOURCE/COST Territorial and Settlement Development Operational Programme Financed by the government 900 Million HUF	EQUALITY/ DIGITALIZATION The development will ensure equal access opportunities.
IMPLEMENTATION SCHEDULE 2021 Q4 - 2022 Q4	INDICATOR Renovated or built green infrastructure (m2)

<p>ACTION</p> <p>Environmental renewal of the city center II.milestone</p>	<p>RESPONSIBLE FOR THE ACTION</p> <p>Municipality of Debrecen EDC Debrecen Urban and Economic Development Center</p>
<p>LINK TO STRATEGIC OBJECTIVE</p> <p>S.5.1. Designing and maintaining a healthy, green urban environment</p>	
<p>SHORT DESCRIPTION</p> <p>Improve the traffic system of the city center and make it more pedestrian and cycle-friendly by extending the pedestrian zone, creating cycle zones, making certain streets one-way, and creating public transport lanes, in line with the study plan mentioned above in the IAP, and possibly increasing the green space ratio.</p>	
<p>EXPECTED RESULT</p> <p>One of the main objectives of the project is to increase the share of people choosing public transport and cycling through better quality infrastructure. The intervention will shift a significant amount of vehicle traffic from the inner to the outer edge of the downtown action area.</p>	
<p>FINANCIAL SOURCE/COST</p> <p>Territorial and Settlement Development Operational Programme Plus 1 Billion HUF</p>	<p>EQUALITY/ DIGITALIZATION</p> <p>The aim is to encourage the whole public to use bicycle and public transport. The project will also take into account pedestrians, with accessible and, where necessary, upgraded pavements.</p> <p>For the future, the possibility of automated measurement and monitoring of the number of cyclists and public transport users.</p>
<p>IMPLEMENTATION SCHEDULE</p> <p>2023 Q2 - 2025 Q4</p>	<p>INDICATOR</p> <ul style="list-style-type: none"> • Length of built or reconstructed bicycle road (km) • Passenger traffic on local public transport (number of trips) • Proportion of users of active modes of transport (%) • Size of newly created pedestrian zones (m²) • Number of abolished surface parking lots (pcs) • Number of created underground/multi-story parking lots (pcs) • Renovated or built green infrastructure (m²)

2.3. GANTT CHART

Planned implementation period of the actions	2021				2022				2023				2024				2025				2026				2027			
	Q1	Q2	Q3	Q4																								
Finishing the Small Ring Road																												
Construction of the intermodal center																												
Eastern ring road outside of the city																												
Residential road improvement																												
Reconstruction of tram line 1																												
Construction of tram line 3																												
Expansion of the pedestrian zone in the city centre																												
Development of an integrated traffic management system																												
Collecting data and developing a system to support sustainable transport																												
Cycle network developments																												
Active mobility awareness-raising programs																												
Development of a smart parking system																												
Development of transport decentral in two parts of the city																												
Infrastructural development of municipally owned premises for rent																												
Renewal of Petőfi Square																												
Environmental renewal of the city center II.milestone																												

PART 3. IMPLEMENTATION FRAMEWORK

3.1. FRAMEWORK FOR THE DELIVERY OF THE IAP

The Municipality of Debrecen is the main actor of settlement development through its general assembly, the committees of the general assembly, and the organizational units of the mayor's office. Strategic decision-making is the task of the General Assembly, which decides on the funds available for certain purposes, approves the long- and medium-term strategic development documents of the city, and decides on the settlement structure plan, local construction regulations, and the regulatory plan.

Within the office, the Urban Development Department, the Chief Architect, and the Chief Architect's Office, and the Mayor's Office also perform settlement development tasks directly. The task of the Chief Architect's Office is to coordinate urban planning and development. The operative tasks of the Urban Development Department are extremely diverse: it has a decisive role in the preparation, planning, and supervision of the implementation of the investments.

A key player in the implementation of the urban development activities is Debrecen Trustee Inc. and its member companies (eg preparation and sale of industrial areas, management, and development of urban real estates, development, and operation of public transport, and so on.)

EDC Debrecen Nonprofit Kft. plays a preparative role in strategic planning, deals with project management, economic and business development, and investment promotion.

The implementation of the Thriving Streets project is also carried out by EDC Debrecen as a project partner. In the project, the municipality is represented by the Vice-Mayor for environmental protection and urban management, the Department of Urban Development, and the Chief Architect. These stakeholders play a key role as they understand past changes, plans, and details about the Debrecen 2030 development program.

Representatives of city-owned companies are the managers of the public transport company DKV, parking management company DV Parking, Visit Debrecen for tourism, waste management company DHK and the Debrecen Public Area Inspectorate.

The companies listed above will be involved in the implementation of the Integrated Action Plan according to the strategic directions defined by the Municipality and their respective areas of expertise. In Chapter 2, the descriptions of the actions include the companies that are substantially involved in the implementation of the action.

The task of EDC Debrecen is to carry out the action planning process, establish and operate the ULG group, ensure continuous communication between the parties involved in the project, and prepare the IAP. During the implementation of the IAP, the involvement of EDC Debrecen in project management tasks may arise in the case of several projects. (e. g. in the case of the reconstruction of Petőfi Square)

3.2. RESOURCING AND FUNDING

It is a priority for the development of the city to make the best use of the available development resources in the implementation of the IAP. The resource mix can be broadly grouped into three main categories according to the origin of the resources, which can be further subdivided:

I. European Union Funds

- Available resources of relevant Operational Programmes in the EU Structural and Investment Funds (e.g TDSOP+)
- Financial aid linked to the EU Structural and Investment Funds (Recovery and Resilience Facility (RRF)
- International projects, usually from interregional programmes (e.g. RO-HU, CEF, Culture, Creative Europe)

II. Domestic financial resources

- the Kisfaludy Programme for tourism development
- for the innovation-research area, the NRDIFund
- other national funds (e.g. D2030 programme)
- Development funds from state-owned bodies/companies

III. Own resources for development

- own resources from municipal revenue
- own resources of municipal companies
- capital from private investors

This subchapter describes the key actors that can be involved in the financing of urban interventions/areas of intervention. Their role can be threefold:

- provide funding for a specific intervention/intervention area, but the implementation is carried out by DMJV Municipality
- provide funding for a specific intervention/intervention area and become the implementers themselves
- they do not provide funds for a specific intervention/intervention area, but they act as operators for the asset created as an investment

The table below identifies the actors according to the types of development resources presented:

Financial resources	Actors
Available resources of relevant Operational Programmes in the EU Structural and Investment Funds	Ministry, Ministry of Finances, Ministry of Innovation and Technology, Ministry of Human Resources
Financial aid linked to the EU Structural and Investment Funds (Recovery and Resilience Facility (RRF)	Ministry, Ministry of Interior, Ministry of Innovation and Technology, Ministry of Human Resources
International projects	European Commission (its designees)
tourism development	Hungarian Tourism Agency
innovation-research area	NRDI Fund

other domestic resources	Ministry, Ministry of Innovation and Technology, Ministry of Human Resources
Development funds from state-owned bodies/companies	General Directorate for Water and Forest; National Infrastructure Development Ltd. MÁV Ltd
own resources from municipal revenue	Municipality of Debrecen
own resources of municipal companies	Debrecen Asset Management Ltd. and its member companies, Debrecen Infrastructure Development Ltd. and its member companies
private capital	private investors

3.3. MONITORING FRAMEWORK

Specific objective	Result indicator	Baseline value	Target value	Source of information
S.1.2. Development of the transport infrastructure adjusted to the city structure	Length of built or reconstructed road (km)	0	42	Municipality data
S.1.3. Sustainable and intelligent organization and traffic management	Number of data types collected and monitored (pcs)	0	TBD	Sustainable Urban Development Plan
	Proportion of users of active modes of transport (%)	26 (2016)	35%	SUMP/Updated SUMP
	Length of built or reconstructed bicycle road (km)	80 (2017)	105,2	Cycling network plan /Municipality data
	Passenger traffic on local public transport (number of trips)	60 000 000	118 000 000	DKV data
	size of newly created pedestrian zones (m ²)	TBD	TBD	Sustainable Urban Development Plan
S.2.5. Development of tourist attractions and services	Number of buildings under protection that have been renovated in function and/or structure (pcs)	TBD	TBD	Sustainable Urban Development Plan

S.4.1. Designing a compact urban structure	Number of abolished surface parking lots (pcs)	0	31	Concept plan on the main street
	Number of created underground/multi-story parking lots (pcs)	0	200	Concept plan on the main street
S.4.2. Development of urban decentralization and related services	Number of new district centers	0	2	Sustainable Urban Development Plan
S.4.3. Sustainable use of the built heritage	Number of buildings under protection that have been renovated in function and/or structure (pcs)	TBD	TBD	Sustainable Urban Development Plan
S.5.1. Designing and maintaining a healthy, green urban environment	Renovated or built green infrastructure (m ²)	0	TBD	Sustainable Urban Development Plan
	Proportion of green areas with accurate digital cadastral data (%)	0	100	Sustainable Urban Development Plan

3.4. OVERVIEW AND ANALYSIS OF RISKS

Risk assessment table

RISK	PROBABILITY ¹	IMPACT ²	MITIGATION PLAN
Changing legal environment	Medium	High	Close co-operation with institutions setting legal and regulatory requirements should be continuous. In addition, changes in relevant legislation and procedures should be kept under review.
The cost of the developments exceeds the original budget	Medium	High	During the preparation of developments, costs should be carefully planned and, where possible, cost-effective solutions should be sought.
Unsuccessful public procurements	Low	Medium	The risk can be minimized by careful preparation and the use of a public procurement expert.
Delays in construction	Medium	Medium	An appropriate implementation schedule should be defined. In the business contract, a penalty that covers the risk of the Local Government must be set.
Civil resistance	Medium	Medium	The population and non-governmental organizations are already involved in the process of creating the strategy; during the preparation of the developments, the population had the opportunity to submit their development proposals to the city management.
Commuting to the city puts a heavier-than-expected strain on the local transport network	Medium	High	In addition to the development of transport, the municipality is examining the possibility of dealing with the problem in other areas besides. (e.g. increasing the number of municipal dwellings, launching rental housing programs will help provide affordable housing in the city, which will also be supported by the establishment of workers' housing.)
Excessive use of individual motorized mobilization	High	High	Influencing transport habits through raising awareness.
The service mix cannot keep up with the residential needs	Medium	High	The needs of the population must be constantly monitored and changes have to be made accordingly.
The city devours (incorporates) green, untouched areas	Medium	High	It is necessary to apply "brakes" in the regulatory environment. The conscious planning of green spaces, the preservation of the natural values, and the avoidance of overuse have high importance.
The livability of public spaces is declining due to the unfavourable development of the urban microclimate.	High	High	Urban planning can have a positive effect on the microclimate by reducing street and indoor heat stress, creating green, spacious open spaces and airflow, planting trees, increasing albedo, and reducing anthropogenic heat production.

The spread of the city has a negative impact on intra-city traffic	High	High	Regulatory measures must be taken to prevent the further spread of the city, and the development of the infrastructure of already inhabited places must be planned and implemented taking into account public services.
Deployment of urban digital data integration systems and continuous data updates are at “infant” stage.	Medium	High	To support urban data-based decision-making and the development of digital services, it is justified to explore, digitize, automate and, where possible, manage urban data generation processes in a GIS system.