

PROSPERA LOCAL ACTION PLAN DEBRECEN



EDC DEBRECEN URBAN AND
ECONOMIC DEVELOPMENT CENTER



PROSPERA
Interreg Europe

 European Union
European Regional
Development Fund

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Part I – General information

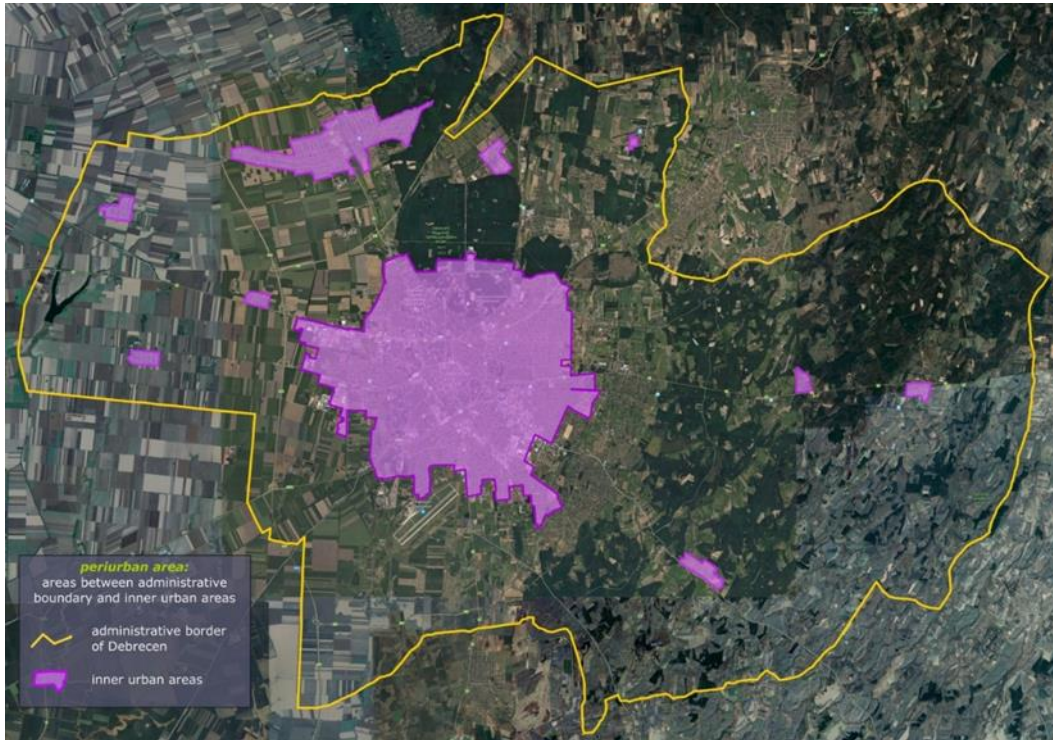
Project:	PROSPERA
Partner organisation:	EDC Debrecen Urban and Economic Development Center
Other partner organisations involved:	Municipality of Debrecen
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Local Context

The city of Debrecen is situated in Eastern-Hungary, in the **Northern Great Plain region** (NUTS2). It is the seat of Hajdú-Bihar County (NUTS3). The administrative area of the city is 461.6 km².

Debrecen is a growing, liveable city, the second largest one in Hungary in terms of population (more than 200,000). Debrecen is the economic, cultural and knowledge centre of the Eastern part of Hungary, an innovatively developing macro-regional centre, offering a high quality of life. The **economy** of the city **shows a strong development trend**; therefore, **population growth is expected** in the future.

Its topographical appearance is beyond the built-in centralized area, there are an extensive periphery with **different land characteristics and land use**. The whole city area is 461.6 km², of which approximately 362 km² are peri-urban areas and 99.7 km² are inner-urban areas (see *Map 1*). Small residential areas, protected natural and cultural values, forests, intensive arable lands of high quality, other agricultural fields, gardens and areas for industrial exploitation (e.g., industrial parks, sites) are located in the peri-urban areas. The municipality is committed to the sustainable development of the city through the preservation of the natural heritage and local ecosystem and aligning with the achievement of the EU climate neutrality and zero pollution ambitions by 2050.



Map 1: Identification of peri-urban areas

As a local development agency, **EDC Debrecen** was established in 1999 by the Municipality of Debrecen (majority owner). EDC Debrecen provides consultancy and support for the municipality in the field of economic, business and urban development. With an experience of 23 years, the urban development unit is responsible for urban planning, i.e., compiling and regularly updating urban strategy documents such as the Sustainable Urban Development Strategy, for the Municipality of Debrecen.

Based on the lessons learnt and using the results of the project, **EDC Debrecen aims to integrate the preservation of the natural and cultural heritage of peri-urban areas** as well as their sustainable use into the objectives and measures of the Sustainable Urban Development Strategy, which enables the provision of high-quality ecosystem services through efficient economic development.

Challenges

Related to the action plan, the main challenges assessed in the PROSPERA Regional Report of Debrecen are as follows:

1. Preservation of natural heritage

- *Urban sprawl*: in the last few decades, the expansion of enclosed garden structure, industrial-commercial sites has been observed both in areas with high-fertility soils and in valuable natural areas.
- *The decline of indigenous-species* and, at the same time, the *spread of invasive species* are problems in the case of forest and meadow land use.

2. Environment

- *Lack of green corridors and forest belts* and due to this deflation, erosion and dust pollution. Large-scale arable lands without forest belts in the Western part of the city increase dust pollution in residential and transport areas and cause deflation thus decrease in yield.

- *Uncertainty of water supply:* The resupply of surface waters is uncertain, the water supply of green areas, especially forest lands is inadequate, and the groundwater level is dropping. The water level of reservoirs located in the Eastern part of the city is low, they are drying up thus losing their recreational function.
- *Wounds and brown fields:* there are some abandoned industrial areas, brownfields in Debrecen (e.g., illegal sand mines) illegal landfills in Debrecen. The recultivation of these areas must be solved.
- *Air pollution* as a consequence of geographical and meteorological conditions and increasing number of cars

3. Climate change

- *Rising temperature*
- *Groundwater level is dropping* (it will damage the flora and the fauna)
- *Extreme weather conditions* (with high daily precipitation amounts)
- *Droughts*






Interregional knowledge exchange

The overall objective of PROSPERA project is to improve regional policies on protection and promotion of natural heritage by tackling loss of ecosystem services and to improve sustainable development in peri-urban areas threatened by urban sprawl. The ultimate aim of PROSPERA is to prevent biodiversity loss, soil consumption and further degradation of natural assets, by in parallel leveraging on those challenges as a way to favour regional attractiveness and economic sustainable development.

To obtain these goals, PROSPERA set up a process of interregional learning that included study visits and knowledge exchange sessions. The focus was on getting a better understanding of the partners' local situation, finding common challenges and getting inspired through the best practices they showcased.

The **common challenges** were revealed through a 'Bingo' workshop organized within the Launching event in Debrecen. Several of them are related to the LAP of Debrecen shown in the following table:



	 Aristoteli	 Debrecen	 Ghent	 Reggio Emilia	 Varberg
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THEME 7 – NATURAL HERITAGE						
20	Constructing green infrastructure in the peri-urban area		X	X	X	
21	Afforestating the peri-urban area		X	X	X	
22	Mapping, valuating and communicating about ecosystem services		X		X	X
THEME 9 – ENVIRONMENT						
29	Reducing air pollution	X	X	X		
THEME 10 – CLIMATE CHANGE						
33	Needing to plan for too much and too little water	X	X	X	X	X
34	Facing a new, unfamiliar climate challenge: drought	X	X	X	X	X
35	Mitigating the urban heat island		X	X	X	

Table 1: Common challenges related to the LAP

During the study visits, EDC Debrecen consulted on the transferability of each good practices with its stakeholders. The learning experiences and potentially transferable good practices have been involved in the Learning Report.

Based on the interregional knowledge exchange, this Local Action Plan was developed, supported by our stakeholders, in order to improve the local policy instrument for the peri-urban areas of Debrecen.

Part II – Policy context

The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- European Territorial Cooperation programme
- Other regional development policy instrument**

Name of the policy instrument addressed: *Debrecen Megyei Jogú Város Fenntartható Városfejlesztési Stratégiája 2021-2027 – Sustainable Urban Development Strategy of Debrecen 2021-2027*

Background behind the Policy Instrument change

In the application form, Integrated Urban Development Strategy (IUDS) was addressed as the policy instrument to be improved. However, this document related to the MMF 2014-2020, and is therefore no longer valid after 2020. Its target system is linked to the focus of PROSPERA project at several points, though it does not deal with peri-urban areas in an integrated manner.

During the implementation period of PROSPERA, the responsible bodies for Hungarian development policy started the territorial planning for the period 2021-2027. The national framework has provided the opportunity for larger cities to develop their own new planning document, the so-called Sustainable Urban Development Strategy (SUDS).

The new SUDS is a medium-term strategy that outlines the main development directions for Debrecen (including Structural Funds projects). EDC Debrecen is exclusively responsible for the development and regular revision of SUDS and will prepare the proposal of the SUDS document for the decision-making process. The proposal is submitted to General Assembly of Municipality which ratifies the SUDS. The development of the new strategy document coincides with the development of the Local Action Plan in the PROSPERA project. This will provide an opportunity for EDC Debrecen to benefit from the learning process, adapting good practices at local level to improve the addressed policy instrument via the Action Plan. For the reasons listed above, we decided to address SUDS as the new policy instrument to be improved.

The new strategy is expected to be ratified by the end of Phase 1.

Part III – Details of the actions envisaged

The link between PROSPERA and the new policy instrument

In connection with the previous chapter, it is worth mentioning how the PROSPERA project is linked to and has influenced the new strategy.

One of the conclusions of the workshops at the Launching event (05/02/2020) was that the term “peri-urban” should be applied in the local strategic thinking. This process was further facilitated by the writing of the Regional Report, with methodological advice from ILVO. The first step for the EDC Debrecen team in writing the Report was to translate the term “peri-urban” – as this is not a terminology used in national strategic thinking. This was followed by the territorial delimitation: we had to define what we meant by peri-urban areas in our own administrative area (which is the geographical scope of the policy instrument) - this is illustrated in Map 1. In addition to the peer-review process of the partner regions, the Regional

Report was developed, which concluded that **the missing link** (window of opportunity) where improvements can be made **in the strategy is: including peri-urban areas in strategic planning** as key leverage for sustainable growth & attractiveness of the region.

Thanks to the participation in project activities, increased attention was drawn to natural heritage protection in peri-urban areas. Relevant departments of the Municipality were involved in the project as stakeholders in order to better understand the importance of good practices and exchange of experiences.

In the second semester, the planning phase of the 2021-2027 MFF period began, so consultations started with the county development agency and with responsible ministries. Therefore, internal meetings were held in semester 2 and 3 between the responsible departments of the Municipality and EDC Debrecen. During the meetings it was found that **peri-urban areas were not in the focus of the strategy in force that time**. Therefore, the **importance of the peri-urban areas should be highlighted and given specific priority in the next policy instrument**. This was fully in line with the PROSPERA partnership's view that the term peri-urban should be included in the strategy.

In semester 4 a contract was signed between EDC Debrecen and the Municipality of Debrecen for the elaboration of the new urban development strategy (SUDS). Work has started on the writing of a situation analysis work package, which included statistical and status analyses etc. This analysis can be considered as a baseline document of the strategy.

In semester 5 the elaboration of the SUDS was taking place. Thanks to this, we have been in active contact with different stakeholders (e.g. from public and private sector). Several working groups were set up on different topics. The working group meetings have led to an active dialogue on the challenges the city is facing. Following discussions and feedbacks, the objectives of the new strategy could be set up, which formed the basis for the development of the Strategic Working Document. The draft version of the Strategy was developed at the end of SEM5. In SEM6, further consultations, working group meetings will take place, at the end of which the new Strategy will be finalised and adopted by the City's General Assembly.

For strategic objective *"S5. Healthy, green, value-preserving urban environment and urban management"*, five sub-objectives have been identified. Due to the participation in PROSPERA project, a new sub-objective related to peri-urban areas was introduced in the new policy instrument (see Figure 1).

Strategic objectives	S1. Improving the external and internal transport conditions and accessibility of the city	S2. Strengthening an internationally competitive economy, improving the business environment	S3. Creating services adapted to the needs of the modern economy in the fields of vocational training, higher education and R&D	S4. Developing an efficient urban structure that preserves the built heritage	S5. Healthy, green, value-preserving urban environment and urban management	S6. Improving the quality of education, health, social and cultural services	S7. Providing affordable housing
Sub-objectives					5.1. Planning and innovative maintaining of healthy green urban environment 5.2. Preservation and sustainable use of peri-urban areas 5.3. Promoting circular economy, increasing green energy production 5.4. Digital, remote-controlled utility and building management 5.5. Protection of natural values, adaptive water management		

Figure 1: Objectives of the SUDS of Debrecen

Action 1 – Monitoring of the measures related to peri-urban areas in SUDS

Lessons learnt

As described above, the first and most important lesson learnt was at the Launching event and then during the writing of the regional report, when we realised that we have to use the term “peri-urban” and the territorial focus in the new policy instrument.

This was followed by online study visits on good practices, including the ones to Reggio Emilia and Ghent.

Debrecen could benefit from the lessons learned from the *Green Climate Axes* good practice of the City of Ghent, which was presented on 1st December 2020 in an online study visit. One of the goals in Space for Ghent 2030 is to develop 8 green climate axes that bring green and nature in the city center, within reach for the citizens. These green climate axes also contribute to the climate adaptivity of the city. Moreover, they can be combined with soft mobility axes, stimulating people to come to the city by bike or on foot. This good practice can help Debrecen in how to connect green spaces in the peri-urban areas with the green spaces in the inner-urban area, which is a challenge for Debrecen as well. It is also unique in the design of green spaces within the city: it uses solutions that increase green spaces and links blue and green infrastructure. These aspects are also elements that can be adopted in the measures related to peri-urban areas in Debrecen.

Another good practice is the *Variation to the urban planning tool* of Reggio-Emilia which seeks to optimise the resources of a given area across the whole city. The elaboration phase of this good practice included the delimitation of areas according to different criteria, at the end of which peri-urban areas were defined. The focus is on peri-urban areas, which are the target areas for urban expansion, and hence resource management fits in with the wise governance model. In the case of Debrecen, it was also necessary to establish the territorial focus and then to raise it to a strategic level.

Connection to the PI

The whole interregional exchange process and these good practices inspired us to introduce a new sub-objective “5.2. Preservation and sustainable use of peri-urban areas” to the SUDS, which means a **policy change** taking place in Phase1. Several measures were also defined related to this sub-objective such as providing water supply, developments of green areas and projects for enhancing biodiversity. The monitoring of the implementation of those measures is the objective of the action.

Nature of the action

In the new strategy, “Preservation and sustainable use of the peri-urban areas” is identified as a sub-objective (see Figure 1). This sub-objective was inspired by the PROSPERA project, which drew Debrecen's attention to the fact that peri-urban areas should be addressed separately and should be integrated into strategic thinking. Inclusion is not only about setting targets, but also about identifying the different measures. The measures set out in the strategy can be linked to several sub-objectives. Table 2 shows the measures planned in peri-urban areas and the related interventions in the adjacent columns. The measures will be further broken down into different projects.

Measures	Interventions
Preservation of natural assets	Ensuring water supply
	Green space developments
	Urban biodiversity projects
Supporting digitisation processes in decision making	Digital data development in the Municipality
	Development of digital databases for city management

Table 2: Measures and interventions related to peri-urban areas

The traceability of the effectiveness of the strategic and sub-objectives defined in the SUDS is ensured by measuring the indicators assigned to the objectives during the period of the strategy. The measurement of the indicators assigned to the strategic goals and the monitoring activity during the implementation of the strategy are continuous.

The management's task is to operate a monitoring system that is suitable for the interim feedback of the results, i.e., the achievement of the goals set in the strategy can be determined and appropriate corrections can be initiated.

The aim of this action is to monitor the implementation of measures in the peri-urban areas. This means quantifying the results achieved by the strategic objectives over one year (Phase2).

For the action, monitoring means regularly checking to which extent the sub-objective and measures described in the SUDS are implemented on the ground, evaluating the results of these measures and gathering evidence of success to be reported to the INTERREG EUROPE programme.

Monitoring for the action means measuring the following factors:

1. The amount of funding allocated to implement projects
2. Number of projects generated related to the measures/sub-objective
3. Indicators to be defined in relevant calls for proposals
4. Indicators to be defined regarding different projects (e.g.: revitalised green spaces)

EDC will monitor the effectiveness of the strategy based on its own internal and external data. The source of the databases needed for monitoring is illustrated in the table below.

Type of data source	Designation of data source	Data collection methodology	Management
Primary data source	Internal databases	Extraction of data from EDC's databases	Storage of the electronic database in respect of the electronic reporting system
	Institutional survey, data provision	Provision of data from the relevant departments of the relevant local government organizations (such as the Debrecen Public Transport Ltd., Debreceni Asset Management Ltd. etc.)	Storage of the electronic database in respect of the electronic reporting system
	Data extracted from municipal databases	Extraction of data from municipal databases	1. Digitization of paper-based databases, storage and preservation of electronic databases 2. Storage of the electronic database in respect of the electronic reporting system

Table 3: Sources of databases related to monitoring

Players involved

- EDC Debrecen Urban and Economic Development Center
- Departments of the Mayor's Office:
 - Green Area Department
 - City management Department
 - Cabinet Office
 - Urban Development Department
- Chief Architect's Office
- Local and regional authorities (e.g.: Water Directorate, National Park etc.)

Timeframe

01/08/2022 – 31/07/2023

Costs

Labour costs of the staff of Urban Development Department of EDC Debrecen
Labour costs represent 5% of the annual salary of 15 colleagues: ~ 11 500 EUR

Indicative funding sources

Labour costs will be covered by EDC budget
Projects in the PI will be funded by different Operative Programmes (ERDF)

Action 2 – Digital, high accuracy cadastre of green areas and trees

Lessons learnt

Some elements of the *Urban Forestation Plan* of the Municipality of Reggio Emilia have been an inspiration for Debrecen. This good practice was demonstrated in an online study visit on 3rd March 2022, but Debrecen Team also had the opportunity to experience it within a field visit during the thematic workshop in Reggio Emilia (29/03/2022). The good practice refers to forestation interventions to plant several thousand trees on public areas with the aim of increasing the city's resilience to climate change and pollution effects. The areas chosen by the Municipality have been selected based on scientific studies on the city's heat islands, a

database on public green areas held by the Municipality (GDWH), citizens' requests for shaded areas (collected through social media), open laboratories and online surveys.

For green space developments, it is important to rely on an urban database such as the one which was used in the Urban Forestation Plan GP of Reggio Emilia: this good practice was based, among other things, on a GIS database. Debrecen lags significantly behind Western European cities in terms of mapping and evaluating the values and real land-use.

In the case of Debrecen, there is currently no digital cadastral stock of green spaces, which corresponds to the present day. Compliance with the challenges of the 21st century, the EU's climate neutrality ambitions and green goals cannot be achieved without such databases, because in the absence of them, it is not possible to set up baseline indicators and to monitor the impact of interventions.

The good practice of Reggio Emilia could support Debrecen to start working on the creation of a database of this kind. During the planning phase of this GP, several aspects were considered by the criteria of land selection: creation of a GIS database, analysis of heat island maps, availability of irrigation system, etc. During implementation, the specified tree species were also analysed. Good practice of urban afforestation contributes to the concept of a climate-adaptive city, which cover different themes (natural heritage, environment, climate change), which are also essential aspects for Debrecen.

Connection to the PI

Table 2 lists the measures and interventions that can be linked to the Local Action Plan. This action, which will be the **implementation of a new project**, can be categorized under the measure of "Supporting digitisation processes in decision making". The project is therefore included in the strategy. The projects included in the strategy will be implemented from different financial sources (including different Operational Programmes); the cadastre will be financed by the Territorial and Settlement Development Operational Programme+ (TSDOP+).

Nature of the action

The goal of the action is to produce a digital cadastre that provides real and factual data for the processes taking place in green spaces and for the natural, economic, cultural etc. values. This means the development of a database that will contain information on the condition of green spaces and trees such as their age, species, health status, etc. The development of the specific technical content of the inventory will also be part of the action.

In Debrecen, afforestation is currently taking place, but its impact has not been measured yet at the city level. This is partly due to the fact that there are no digital databases that could lay the foundations for a project similar to the good practice of Reggio Emilia.

The resulting database will enable comprehensive decisions to be taken, either for the whole city or for a specific action area, based on facts. Exact information on green spaces can be used as a basis for interventions for their management, renewal or for new green space developments.

Players involved

- Entrepreneur responsible for cadastre (it will be selected by public procurement)
- Municipality of Debrecen

Timeframe

Application – 18/05/2022 (was submitted)

Approval – 01/09/2022 (expected)

Project Implementation – 09/2022-07/2023

Costs

350 000 EUR

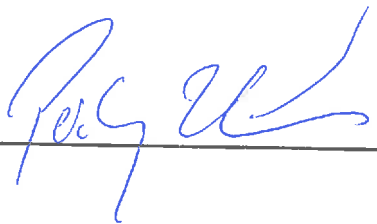
Indicative funding sources

SDUS (using ERDF - Territorial and settlement development OP +)

Date: 05/07/2022

Name of the organisation: EDC Debrecen Nonprofit Kft.

Signature of the representative of the relevant organisation: _____



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