



ODOLNÉ  
SÍDLISKÁ

DELIVER: DEveloping resilient,  
low-carbon and more LIVable urban Residential area  
Sídlská ako živé miesta odolné voči zmene klímy

**Deliverable:**

**After-LIFE Plan**

**Action:**

F2

**Author:**

Coordinating Beneficiary:  
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*Project DELIVER - DEveloping resilient, low-carbon and more LIVable urban Residential area  
DELIVER: Sídlská ako živé miesta odolné voči zmene klímy, kód LIFE17 CCA/SK/000126 - LIFE DELIVER.  
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After-LIFE Plan  
project DELIVER



**DELIVER:**  
**D**Eveloping  
resilient,  
low-carbon and  
more **LIV**able urban  
**R**esidential  
area



December 2023



## Table of contents

1. Overview of the project .....	4
2. Overview of the goals and activities .....	5
3. SWOT analysis .....	10
4. Objectives and methodology of AFTER LIFE project implementation plan .....	12
5. Activities after the completion of the LIFE project, necessary financing .....	12
6. Communication and dissemination activities .....	18



## 1. Overview of the project

**Project name:** DEveloping resilient, low-carbon and more LIVable urban Residential area

**Project number:** LIFE17 CCA/SK/000126

**Duration:** June 15, 2018 - December 15, 2023

**Total cost:** 2 446 523 EUR

- EU contribution: 1 467 913 EUR
- Co-financing from the state budget, Ministry of the Environment SR: 793 367 EUR



### Coordinating Beneficiary and Associated Beneficiaries:

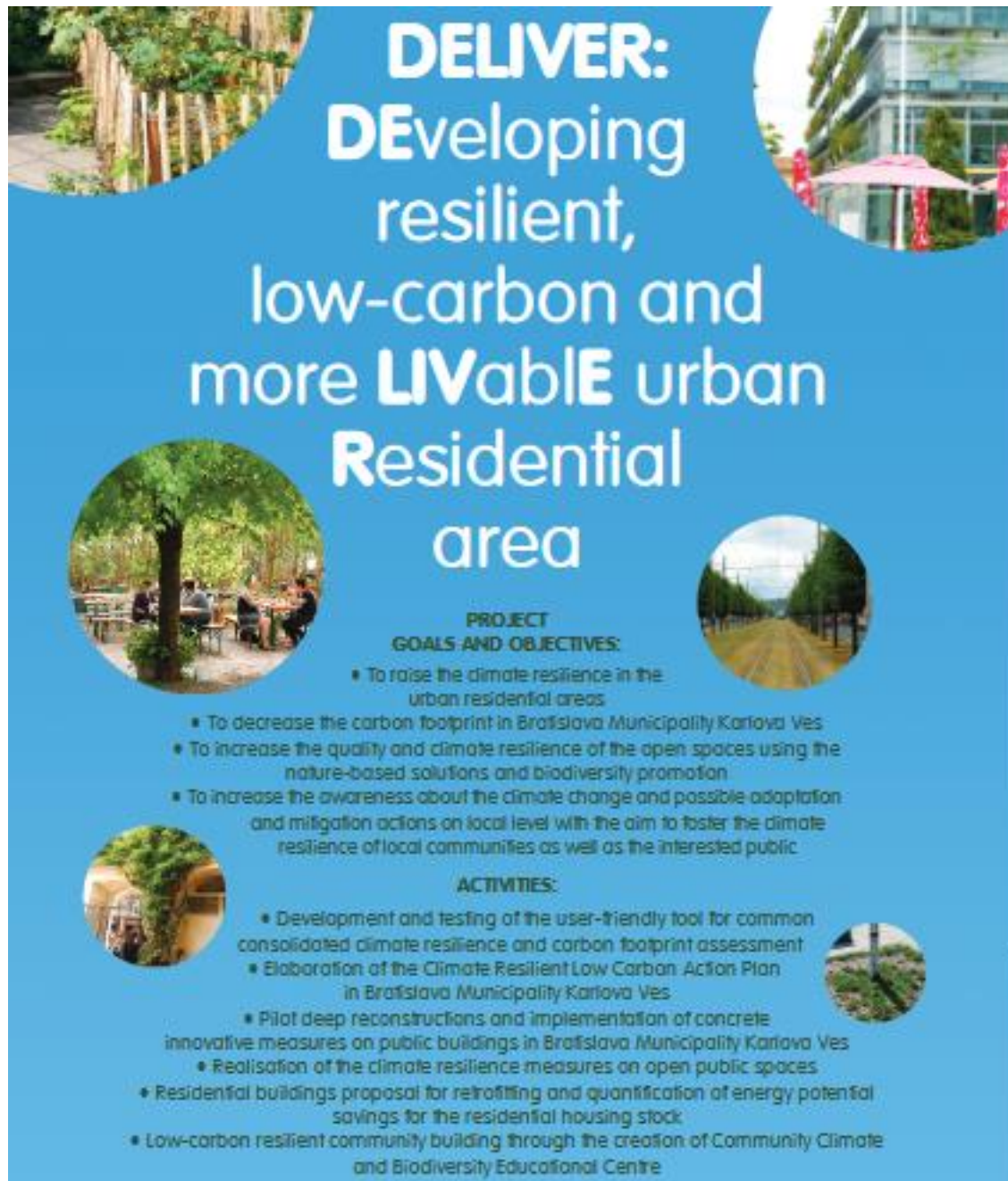
- Bratislava-Karlova Ves Municipality – coordinating beneficiary
- BROZ – Bratislava regional nature conservation association
- CI2, o.p.s.
- IEPD – Institute for passive houses
- CDI – Institute for Climate and Development

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## 2. Overview of the goals and activities



- Project objective 1: To raise the knowledge base in the area of common consolidated climate resilience and carbon footprint assessment and monitoring progress in the urban residential areas consisting of prevalingly prefabricated buildings.
- Project objective 2: To promote and demonstrate the integrated adaptation and mitigation approach with emphasis on nature-based climate solutions and biodiversity promotion, demonstrated in the residential areas of the Bratislava-KV Municipality.
- Project objective 3: To increase participation of residents into the process of combating the climate change to strengthen residents' climate resilience and the promotion of biodiversity.
- Project objective 4: To propose changes and improvements in the national climate legislative environment.
- Project objective 5: To increase awareness and promote project DELIVER approach to enable other cities in the EU with similar climate problems access to project results.



### Monitoring

Assessment of climate resilience, CO<sub>2</sub> emissions reduction and effectiveness of adaptation measures



### Action plan

Elaboration of a strategy document on mitigation and adaptation to climate change



### Refurbishment

In-depth refurbishment of buildings and reconstruction of public spaces including nature-based solutions and biodiversity promotion



### Awareness

Raising awareness and engagement of local communities



### Legislation

Strategies, standards, methodologies and supporting policies

## Project actions planned in the project proposal

<b>A. Preparatory actions</b>
A1: Preparatory actions to the demonstration activities and implementation of concrete innovative measures on public buildings
A2: Preparatory action of concrete innovative measures on open public space with public participation method in the pilot residential areas of Bratislava Municipality Karlova Ves
<b>C. Implementation actions</b>
C1: Development and testing Climate Resilient Low Carbon Factor (GRELOCAF), the simple “user friendly” methodology “tool” for common consolidated climate resilience and carbon footprint assessment in residential areas
C2: Development, implementation and evaluation of Climate Resilient Low Carbon Action Plan (CReLoCa AP) in the given residential areas of the city Bratislava Municipality Karlova Ves
C3: Demonstration activities and implementation of concrete innovative measures on public buildings
C4: Demonstration actions to the demonstration activities and implementation of concrete innovative measures on residential buildings in the pilot residential areas of Bratislava Municipality Karlova Ves
C5: Demonstration activities and implementation of concrete innovative measures on open public space with public participation method in the pilot residential areas of Bratislava Municipality Karlova Ves
C6: Implementation of demonstration adaptation measures on buildings and open spaces for enhancing biodiversity resilience within the cities
C7: Low-carbon resilient community building through the creation of Community Climate and Biodiversity Educational Centre (CoCliBEC)
C8: Proposition of the national and local legislation changes and active collaboration on preparation of amended or new relevant acts/documents towards supporting climate resilient measures in construction and retrofitting of public and residential building and surrounding open spaces
<b>D. Monitoring of the impact of the project actions (obligatory)</b>
D1: Monitoring of the effectiveness of project adaptation and mitigation actions and impact of the project actions on biodiversity within the residential area of Karlova Ves
D2: Monitoring of socio- economic impact of the project
<b>E. Communication and dissemination of results (obligatory)</b>
E1: Communication and dissemination of results to general public in local, national and international media (workshops, conferences, seminars, study tours, guidebook,...). Dissemination actions to decision makers.
E2: Networking and information sharing with other relevant projects and institutions in EU
<b>F. Project management (obligatory)</b>
F1: Overall project management
F2: After Life Plan



## Overview of the goals and implemented project actions

### C: Implementation actions

**C1:** The aim of this activity was to develop and test the Climate Resilient Low Carbon Factor (CRELOCAF), an online tool for monitoring, evaluation, and presentation of information on the adaptation and mitigation activities of cities. The tool was created and renamed to the more expressive name KLIMASKEN. It was created in three language variants - SK, CZ, and EN: <https://www.klimasken.sk/>. The testing of the tool was more difficult as originally expected, especially due to the influence of the COVID-19 pandemic, when cities had to address more urgent issues to ensure pandemic measures. Nevertheless, the tool was tested on cities according to proposal: Bratislava-Karlova Ves, Košice, Hlohovec, Prešov, Prague, Holice, and Opava. Testing also took place on several residential buildings.

**C2:** The activity was oriented to the elaboration, implementation, and evaluation of an Action Plan with the aim to reduce the carbon footprint and increase resilience to climate change in the Bratislava-Karlova Ves municipality. The Climate Action Plan for the Bratislava-Karlova Ves municipality for the years 2020-2030 was presented and discussed with the local citizens as well as to the local council. The Climate Action Plan was unanimously approved on June 30, 2020: <https://www.karlovaves.sk/zverejnovanie/strategicke-dokumenty/klimaticky-plan/>: <https://www.karlovaves.sk/zverejnovanie/strategicke-dokumenty/klimaticky-plan/>. Monitoring of the implementation and evaluation of the activities implemented in the plan is ongoing.

**C3:** The aim of this activity was to implement demonstrative activities and implement specific innovative measures within deep renovation of two public buildings: MŠ Kolískova 14 Kindergarten and ZŠ A.Dubčeka Elementary School. The comprehensive renovation of both buildings should serve as a prototype model for the renovation of similar public buildings in Slovakia.

A deep green renovation of MŠ Kolískova 14 Kindergarten consisted of the following measures: insulation of the roof and building envelope, replacement of some windows and doors, installation of the solar panels for heating hot water, shading with external blinds, cooling building with climbing greenery - 3 green walls, 15 vertical cable systems with winding plants, renovation of two interior atriums, electrical installation, energy-efficient lighting, installation of the controlled ventilation with heat recovery, sanitary engineering - use of rainwater (underground retention tank 33m<sup>3</sup>), construction of two climate cooling ponds with rainwater in the interior atriums, nest boxes for bats and swallows in the façade. At the end, an energy certificate was prepared, which confirms that the building reached the A0+ category for the primary energy indicator.

A deep green renovation of ZŠ A.Dubčeka Elementary School consisted of the following measures: insulation of the roof and building envelope, replacement of some windows, installation of the solar panels for heating hot water, installation of the photovoltaic panels for the production of electricity, shading with external blinds and fixed sunshades, cooling building with climbing greenery - 2 green walls, vertical cable systems with winding plants, construction of the green roof above the main entrance, electrical installation, energy-efficient lighting, installation of the controlled ventilation with heat recovery, sanitary engineering - use of rainwater (underground retention tank 20 m<sup>3</sup>, above-ground tanks 3x1,6 m<sup>3</sup>, decorative tank in front of the entrance 300l), nest boxes for dark swift, bats and swallows. The construction of the Community Education Centre for Climate and Biodiversity presentation room was made by reconstructing part of the heat exchanger station. At the end, an energy certificate was

prepared, which confirms that the building reached the A0 category for the primary energy indicator.

**C4:** The objective was to develop an analysis of the potential of energy savings using a methodology for the energy efficiency of buildings, such as the passive house standard in combination with the use of local renewable sources. As part of the individual project phases, architectural studies of two selected panel apartment buildings were prepared, which served as model solutions for assessment of the potential of energy savings in further research activities. The energy efficiency of the buildings was calculated based on the PHPP (Passive House Planning Package) methodology for passive houses, which created the basic framework for quantifying the potential for CO<sub>2</sub> emission savings. The individual results of the activities are clearly summarized and described in the brochure Deep renovation is smart solution for apartment buildings.

**C5:** The aim of this activity was to implement demonstrative activities and the implementation of specific innovative measures in open public spaces carried out with public participation. The innovative nature of the solution was based on the combination of various mitigation and adaptation measures with an emphasis on biodiversity support, which also emerged with the help of public involvement. The implementation of measures on the originally selected public space of Jurigovo Square had to be abandoned, as it is being addressed by the owner of the space - the Bratislava City Municipality. The measures will be implemented only depending on the completion of the comprehensive renovation of the square and the acquisition of financial resources by the owner - Bratislava City Municipality. As an alternative solution for the public space, the public space of Kaskády in Karlova Ves municipality was selected. In this space, within the framework of the 1<sup>st</sup> and 2<sup>nd</sup> phases, according to the project documentation, elements of sustainable rainwater management were created with the character of blue-green infrastructure supporting the infiltration of rainwater from paved walkways and the surrounding sloping terrain. Rainwater is gravitationally fed into infiltration areas - rain lawn gardens of saucer shape, crevices and wetland gardens. Gray infrastructure is used in the form of 2 underground retention tanks, where rainwater is diverted from part of two surrounding apartment buildings (from roofs and terraces). 21 trees and 84 shrubs were planted, to which irrigation is supplied from rainwater from underground tanks. As a follow-up activity, the 3<sup>rd</sup> phase was also implemented from other financial resources, which added 2 more retention tanks, the construction of an artificial stream, a cooling fountain and a children's water corner.

**C6:** The aim of this activity was to implement the demonstration adaptation measures on public buildings and public spaces for enhancement of biodiversity resilience within the cities. The measures mainly included the planting of various plants, including trees and shrubs, and the creation of several different shelters for animals. The fulfilment of the objectives of this activity took place most often in the form of practical workshops with pupils or with company volunteers, which were also connected with a lecture on the topic of biodiversity support in the urban environment. As part of this activity, we planted 100 trees and 400 bushes, established 2,282 m<sup>2</sup> of meadows with a limited mowing regime and 145 m<sup>2</sup> of flowering meadows, created 2 vegetation walls with climbing plants and 2 vegetation roofs with succulents, supported the natural growth of trees in five places, installed 42 nesting and feeding boxes for birds, created 10 drinking places for animals, 4 shelters for hedgehogs and 6 for reptiles, 3 large and 19 small insect hotels, 2 places with installed dead wood, we established four apiaries and two climatic ponds with an area of 70.5 m<sup>2</sup>, transformed 100 m<sup>2</sup> of impermeable surfaces to semi-permeable ones, built a water-retaining gazebo/environmental classroom with a wooden rain



barrel for collecting 500 l of rainwater, reconstructed 5 roofs for collecting rainwater. Most of these measures were implemented in the Sports and recreation area of Elementary school A. Dubčeka and Kindergarten Kolískova.

**C7:** The aim of this activity was to support the development of a low-carbon and climate-resilient community by creating the Community Education Centre for Climate and Biodiversity (CoCliBEC, hereinafter KVC). As part of the deep renovation of A.Dubček Elementary School at Majerníkova 62, one part of the heat exchanger station was converted into KVC presentation room premises. The centre is open to schools and the public as a space for education. The presentation room with a capacity of 20-30 people is used to organize educational lectures, workshops and seminars on ecology and climate change issues. The exhibition in the school's interior atria consists of information panels and functional prototypes of interactive 3D models that illustrate the consequences of climate change in settlements and show adaptation and mitigation measures (all of them implemented in the frame of deep renovation of the building of this elementary school). In the other on eatrium a space was created dedicated to supporting biodiversity, growing edible and medicinal plants, and a demonstration of sustainable rainwater management. As part of this activity, an educational trail was created in the sports and recreation area Majerníkova 61-62, which points out the importance of the implemented measures. It is supplemented by an information leaflet - a guide to the educational trail, in which individual measures to support biodiversity are briefly described with GPS coordinates for each one of them.

**C8:** The aim of this activity was to assess the current national legislative and regulatory framework in terms of its support for the design and implementation of urban climate policies with an emphasis on the residential environment, and also to contribute to the improvement of the current situation as much as possible. First, relevant laws and policies were identified, the next step was the analysis of the shortcomings of selected parts of this legislation and strategic documents, as well as the identification of problematic areas based on practical experience during the implementation of pilot adaptation and mitigation measures of the DELIVER project. Within the project, the members of the expert team (MUWOG) were involved in the creation of new policies and laws, as well as the modification of existing legislation and regulations. The expert team participated in the preparation of the Water Policy Concept of the Slovak Republic, the Action Plan for the Implementation of the Slovakia's Adaptation Strategy to Climate Change (Specific Goal 6: Adapted Residential Areas) and was also represented in the Working Group for Adaptation for Implementation of the action plan's tasks. The experts delivered comments during the preparation of the Climate Act, the Act on Landscape Planning, the Act on Nature and Landscape Protection, but also initiated changes in the field of classification of water structures (Water Section at the Ministry of the Slovak Republic) and conditions for replacement planting of trees (Section of nature protection, biodiversity and landscape of the Ministry of the Environment SR). Other concrete results of the team's efforts were the amendment of Decree no. 170/2021 Coll. Ministry of the Slovak Republic, which implements Act no. 543/2002 Coll. on the protection of nature and the landscape as amended, where it was possible to enforce some conditions that take into account the issue of climate change; a recommendation basis for the legislation of sustainable management of rainwater (Draft of technical standards "Sustainable management of rainwater"), but also a Methodological guideline to the water structure of the Director General of the Water Section at the Ministry of the Slovak Republic, which will facilitate the implementation of adaptation measures in the field of rainwater management.



### 3. SWOT analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>- The project highlighted the importance of synergies between mitigation and adaptation measures.</li> <li>- The implementation of the project provided examples of complex solutions for building climate resilience in settlements in practice.</li> <li>- Measures within the framework of deep green renovation of public buildings and public spaces are sustainable and their effectiveness has been proven.</li> <li>- Project activities and results are appreciated and supported by local residents.</li> <li>- Awareness raising has been fostered through the practical publications have been elaborated and distributed as well as the Community Education Center for Climate and Biodiversity were opened to public and school children.</li> </ul>	<ul style="list-style-type: none"> <li>- The COVID-19 pandemic caused a slowdown in the implementation of the project, which led to a delay in the completion of some activities. This delay had a number of consequences, including the inability to disseminate some of the project's outputs at the European level to the extent that was originally planned. For example, the project was unable to publish an input to the European Climate Adaptation Platform (Climate-ADAPT) that would have highlighted the project's case studies on climate solutions implemented in public buildings and open spaces.</li> <li>- Due to the several reasons, the project management department of the Bratislava-Karlova Ves Municipality was understaffed in the final phase of the project implementation and this posed a challenges for the project finalisation</li> <li>- The local council of the Bratislava-Karlova Ves Municipality provided the basic political support for the implementation of the project. However, the support due to the several political priorities led to a lack of clearer political direction and stronger support.</li> </ul>

## OPPORTUNITIES

- The project provided a valuable opportunity to learn about the challenges and opportunities of implementing climate adaptation and mitigation measures in a real-world setting. These experiences can be used by the planning and implementation of future projects in Bratislava-Karlova Ves and in other municipalities.
- The Community Education Center for Climate and Biodiversity provides opportunities for further education for residents as well as other institutions at the national level. The Community Education Center for Climate and Biodiversity is a valuable resource for residents of Bratislava-Karlova Ves and other interested parties. The center offers a variety of educational programs and activities on climate change and biodiversity. These programs can help to raise awareness of these important issues and empower people to take action.
- The project created a platform for collaboration between a variety of stakeholders, including the municipal district, local residents, and environmental organizations. This collaboration was essential to the success of the project. The platform can be used to continue collaboration on climate adaptation and mitigation efforts in Bratislava-Karlova Ves.
- These opportunities provide a foundation for the continued implementation of climate adaptation and mitigation measures in Bratislava-Karlova Ves. The project has made a significant contribution to the city's efforts to address climate change.

## THREATS

- The global economic crisis, caused by the COVID-19 pandemic and the war in Ukraine, has led to a reduction in the financial resources of municipalities. This could make it difficult for municipalities to implement new activities to address climate change, as these activities often require significant investment.
- High administrative burden in obtaining subsidies and grants and subsequent implementation and reporting of projects.
- The process of obtaining subsidies and grants from the European Union and other sources can be complex and time-consuming. This can be a barrier for municipalities, which may not have the capacity to manage the administrative burden of applying for and implementing these funding opportunities.

## 4. Objectives and methodology of AFTER LIFE project implementation plan

The long-term usability of the DELIVER project results will be ensured by several supporting tools, the foundations of which were built as part of the project activities. Such tools are:

- **Standard procedures in accordance with strategic documents:** Standard procedures for the management and maintenance of public buildings and public spaces have been developed and will be controlled by the municipality management in accordance with the Economic and Social Development Plan, Investment Plan and Climate Action Plan of the Municipality.
- **Tools for monitoring and maintenance:** Supporting documents containing procedures for monitoring the maintenance and operation of buildings and open space after revitalisation, for evaluating the success of the measures and for their optimization were developed (Technology Guide at the Kolískova 14 Kindergarten and A.Dubček Elementary School, Evaluation of operating costs and experience after the in-depth renovation of the building - the Kolískova 14 Kindergarten facility, Operating and manipulation order of the public space of Kaskády).
- **Education space:** Activities in the Community Education Center for Climate and Biodiversity will be continued and additional educational materials will be developed to support the implementation of standard procedures within the strategic documents of the municipality. The created materials will be available in electronic form and will include practical instructions and recommendations. Education in the field of using the KLIMASKEN tool will also be continued.
- **Cooperation expert platform:** A cooperative platform will be created to allow stakeholders to share information and experiences. The platform will also provide a space to discuss new challenges and to identify opportunities to improve the resilience of settlements to climate change. The foundations for the creation of the platform were laid within the implementation of the project thanks to the creation of a multi-professional expert working group (MUWOG).

## 5. Activities after the completion of the LIFE project, necessary financing

### Action C1

Leading responsible institution: Ci2 o.p.s

- In 2024, we will prepare a syllabus for a training seminar for those interested in working with the KLIMASKEN evaluation tool for municipalities and buildings. This training will be offered to already pre-registered 2023 applicants and further promoted. We anticipate one cycle each year.
- We will work on further updating, revising and refining the methodologies of each indicator and the necessary recalibration of the scales according to the development of technologies and practices for climate change adaptation. We will issue information on updates, publish them on the website and actively send them to registered users.



- Ci2, o.p.s. will provide operations, IT maintenance and updates to the KLIMASKEN web application and website. Based on the experience gained from cities with implemented KLIMASKEN indicators, necessary modifications will be proposed to further improve its functioning and faithful representation of climate resilience. Furthermore, we will be involved in content updates including validations of the available data for each indicator and the methodology for converting input data into the resulting indicator scores.
- Information on the KLIMASKEN tool, the topics covered and the benefits of its use will be disseminated through Ci2 communication channels towards local governments and other target groups. The possibilities of using the tool for increasing the climate resilience of territories and buildings will be presented. The tool will be recommended and demonstrated to cities and districts individually, as well as in the context of wider cooperation and other Ci2 activities in the field of climate change adaptation and mitigation.
- Depending on the interest and needs of specific users, Ci2 will also provide expert assistance to cities and municipalities (or building owners/managers) in the reparation of input data and the implementation of KLIMASKEN indicators.
- These activities will be funded through multiple sources - primarily from available grant programmes and also from the applicant's own resources as part of future CI2 projects addressing current climate change adaptation and mitigation issues
- Institute for Climate and Development - CDI - plans also to participate in the process of updating the content and improving the effectiveness of the KLIMASKEN tool after the end of the project, based on feedback in the test phase, as well as on the basis of new own professional knowledge. This updated tool will be used by the KRI not only for the assessment of climate risks of settlements (those that will not have detailed territorial and sector analyses - they will be assessed as a whole), but also for the assessment of progress in reducing climate risks.

## Action C2

Leading responsible institution: BA-KV Municipality

The planned measures of the Climate Action Plan for the Bratislava-Karlova Ves Municipality will be implemented in accordance with available financial resources. The Climate Action Plan (KAP) will be continuously updated and a new KAP will be approved once every ten years.

## Action C3

Leading responsible institution: BA-KV Municipality

The completed deep renovations of MŠ Kolískova Kindergarten and ZŠ A.Dubčeka Elementary school will be monitored and an evaluation of the operation of the measures will be prepared, as well as a possible proposal for the optimization of the operation of the measures. Within the implementation of the Climate Action Plan for the Bratislava-Karlova Ves Municipality, further deep renovations of public buildings in the management of the Municipality will be implemented, depending on the available financial resources. For the year 2024, the preparation of the project documentation for the deep renovation of another elementary school - ZŠ Karloveská 61 - is planned.

## Action C4

Leading responsible institution: iEPD

As part of the Recovery and Resilience Plan program, the results of the C4 activities are a good example of the approach and solution to building renovation in general. At the same time, they create a prospective framework for cooperation with the professional public, as well as the state and financial sectors. In the next period, the iEPD team will therefore focus on creating cooperation with the aim of promoting quality solutions for the renovation of buildings, as well as new constructions, which will contribute to raising awareness and spreading good practice, creating a prerequisite for supporting the application of best practice in the development of the building sector in Slovakia.

## Action C5

Leading responsible institution: BA-KV Municipality

The Bratislava-Karlova Ves district will be involved in the process of revitalisation of the public space on Jurigovo Square, which will be led by the Bratislava City Municipality. The completed renovation of the public space Kaskády will be monitored and an evaluation of the operation of the measures will be prepared, as well as a possible proposal for the optimization of the operation of the measures. Within the implementation of the Climate Action Plan for the Bratislava-Karlova Ves Municipality, further measures will be implemented in open public spaces, depending on the available financial resources.

## Action C6

Leading responsible institution: BROZ

After the end of the project, we will ensure the preservation of the implemented biodiversity measures in the future, mainly with volunteers. For several years now, we have been successfully actively involved in the nationwide event "*Naše Mesto*" (Our Town), which is covered by the Pontis organization. The goal of the event is to connect company volunteers to organisations that need help in various activities. For carrying out the event, the organisation receives a financial contribution, which can cover the financial costs associated with the event (material, aids, tools, etc.). We have created a good and rich network of cooperation with several companies that repeatedly sign up for our activities. As part of the "*Naše Mesto*" event, we will be able to ensure the repair, maintenance and aesthetic value of biodiversity measures once a year with the active help of volunteers and with a financial contribution. In addition, BROZ has extensive experience in organising volunteer events. For the second time a year, we are able to provide care for implemented measures thanks to volunteers from companies. From the financial contribution received for organising the event, we can cover the costs related to maintaining the measures. We actively involved pupils and teachers in taking care of the greenery, especially the fruit and herb garden. After the end of the project, in addition to the volunteers, the teachers themselves will continue gardening with the pupils. In the form of a donation contract, we will transfer some of the measures to Bratislava-Karlova Ves Office, which will be able, through its departments, to ensure the maintenance of trees, bushes, a gazebo with a barrel, renovated roofs and climatic lakes. In the case of apiaries, we were able to successfully cooperate with beekeeper Peter Brezovský.

He was looking for a place in the city where he could start beekeeping and we needed a beekeeper. Thanks to the DELIVER project, we bought apiaries and the necessary material for bee care, and he takes care of bee families with enthusiasm. The grateful residents of the nearby apartment building take care of the fruit trees and bushes planted on the slope near Hlaváčiková street.

We will continue to spread awareness about the implemented measures of the project and their replication possibilities at planned events with volunteers in the provision of After Life.

### Action C7

Leading responsible institution: BA-KV Municipality and BROZ

The Bratislava-Karlova Ves Municipality will manage the activities within the Community Education Centre for Climate and Biodiversity. It will implement educational activities according to the availability of financial resources and will establish cooperation with similar educational centres in Slovakia. The educational trail is freely accessible in the area Majernikova and thus ensures the dissemination of information about the biodiversity activities of the DELIVER project to all visitors. We will continue to distribute leaflets about the implemented measures to participants in volunteer activities and those interested in lectures.

### Action C8

Leading responsible institution: CDI and BA-KV Municipality

After the end of the project, the experts of the project team will continue to communicate and lobby their professional opinions on the challenges associated with climate change with central authorities and their organizations (Ministry of the environment, Slovak agency of the environment, Slovak hydro-meteorological institute, Ministry of the transportation - the Section of Housing Policy, Construction and Urban Development section). Communication and consultation will continue with the Union of Slovak Cities, in order to develop and present joint opinions in commenting processes of new or updated legislative acts, in the field of climate change. Even after the end of the project, the members of the expert team will participate in the preparation of the Climate Act, where they will also promote the knowledge gained from the DELIVER project.

CDI will be one of the partners of the international team that will prepare a new National strategy for adaptation to climate change (delivered in 2025), where it will co-create the basis for smart and latest knowledge-based climate adaptation territorial and sectoral policies at the regional and local level.

CDI will also participate in the creation of new local regulations with regard to climate change, including changes in the creation of territorial plans; and also co-creating relevant generally binding regulations.

## Overview of the After-LIFE activities

WHAT Goals and actions	WHEN Periodicity	WHO Leading responsible institution for After-LIFE plan	SOURCE Financing	HOW MUCH Financing needed (estimation in tens, thousands, etc. €/yea €/rok)
C1 – KLIMASKEN – actualisation, education, maintenance	2024-2029, action on an ongoing basis	Ci2	Own resources, relevant call for proposals, subsidy / grant schemes	€€€
C2 – Climate Action Plan for Bratislava- Karlova Ves Municipality – implementation of planned actions	A new plan every 10 years (2030, 2040, ...), implementation on an ongoing basis	BA-KV Municipality	BA-KV Municipality budget, relevant call for proposals, subsidy / grant schemes	€€€ €€€
C3 – maintenance and implementation of the follow-up measures – deep renovation of public buildings	2024-2029, action on an ongoing basis	BA-KV Municipality	BA-KV Municipality budget, relevant call for proposals, subsidy / grant schemes	€ €€€ €€€
C4 – raising awareness and promotion of smart solutions in the field of renovation of residential buildings	2024-2029, action on an ongoing basis	iEPD	Own resources, relevant call for proposals, subsidy / grant schemes	€€€
C5 - maintenance and implementation of the follow-up measures – revitalisation of public spaces	2024-2029, action on an ongoing basis	BA-KV Municipality	BA-KV Municipality budget, relevant call for proposals, subsidy / grant schemes	€€€ €€€
C6 - trees and shrubs	2024-2029, twice a year	BA-KV Municipality, residents of the apartment building on Hlaváčiková, BROZ with volunteers	BA-KV Municipality budget, financial contribution for organising a volunteer event	€€
C6 - Meadows with a limited mowing	2024-2029, twice a year	BA-KV Municipality,	BA-KV Municipality	€€



regime and flowering meadows		BROZ with volunteers	budget, financial contribution for organising a volunteer event	
C6 - Vegetation walls	2024-2029, twice a year	BROZ with volunteers	Financial contribution for organising a volunteer event	€€
C6 Support of the natural growth of trees	2024-2029, twice a year	BROZ with volunteers	Financial contribution for organising a volunteer event	€€
C6 - Nesting and feeding boxes for birds	2024-2029, twice a year	BROZ with volunteers	Financial contribution for organising a volunteer event	€€
C6 - Drinking places for animals	2024-2029, twice a year	BROZ with volunteers	Financial contribution for organising a volunteer event	€€
C6 - Shelters for hedgehogs, reptiles and insects	2024-2029, twice a year	BROZ with volunteers	Financial contribution for organising a volunteer event	€€
C6 - Apiaries	2024-2029, action on an ongoing basis	Beekeeper Peter Brezovský	Own resources	€€
C6 - Climate ponds	2024-2029 action on an ongoing basis	BA-KV Municipality	BA-KV Municipality budget	€€
C6 - Water-retaining gazebo with a wooden rain barrel	2024-2029, twice a year	BA-KV Municipality, BROZ with volunteers	BA-KV Municipality budget, financial contribution for organising a volunteer event	€€€
C6 - Reconstructed water-retaining roofs	2024-2029, twice a year	BA-KV Municipality, BROZ with volunteers	BA-KV Municipality budget, financial contribution for organising a volunteer event	€€
C7 – Maintenance	2024-2029, action	BA-KV	BA-KV	€€€

and organisation of activities in v KVC	on an ongoing basis	Municipality, BROZ, other collaborators - educational institutions and NGOs	Municipality budget, relevant call for proposals, subsidy / grant schemes	
C7 - Educational trail	2024-2029, twice a year	BA-KV Municipality, BROZ with volunteers	BA-KV Municipality budget, financial contribution for organising a volunteer event	€€
C8 – creation of expert platform for collaboration	2024-2029, action on an ongoing basis	BA-KV Municipality, CDI	public resources, relevant call for proposals, subsidy / grant schemes	€€€

## 6. Communication and dissemination activities

The results and follow-up activities of the After-LIFE plan will continue to be communicated through the following main communication tools and channels:

- Social media: Facebook ([https://www.facebook.com/karlovavesonline/?locale=sk\\_SK](https://www.facebook.com/karlovavesonline/?locale=sk_SK)), <https://www.facebook.com/resilientdistricts/>
- Websites: <https://odolnesidliska.sk/>, <https://www.karlovaves.sk/zivotne-prostredie-a-projekty/>
- Print media: Karloveské noviny (<https://www.karlovaves.sk/karloveske-noviny/>)
- Community Education Centre for Climate and Biodiversity: <https://www.karlovaves.sk/zivotne-prostredie-a-projekty/komunitne-centrum-pre-klimu-a-biodiverzitu>, information board in front of the centre with information about activities
- Online tool KLIMASKEN: <https://www.klimasken.sk/>, <https://www.klimasken.cz/>
- Interactive map of Green, Climate-Resilient and Nature-Friendly Karlova Ves: <https://mapy-karlovaves.hub.arcgis.com/>
- Information boards: in the sports and recreation area as part of the educational trail, in front of the building next to the main entrance MŠ Kolískova and ZŠ A.Dubčka

Communication and spreading awareness about the KLIMASKEN tool will be carried out mainly by Ci2 in the following ways:

- public communication channels (social networks, informational articles, web information resources dedicated to local governments' adaptations to climate change),
- by directly addressing and informing local governments (cities and municipalities) from Ci2,

- by disseminating information within thematic events organized for the target groups for which the KLIMASKEN tool is intended,
- through partner cooperation with experts and collaborating organizations dedicated to climate protection and adaptation of cities to the consequences of climate change.

Communication and dissemination of information about the importance of biodiversity support will be carried out primarily by BROZ in the following ways:

- events with volunteers focused on the maintenance of biodiversity measures (min. 2 per a year) supplemented by expert interpretation,
- presentations focused on biodiversity for company employees and schools,
- replication of proven methods in other projects aimed at supporting biodiversity not only in the urban environment,
- social media and BROZ website.

Awareness raising in the field of renovation of residential buildings, raising public awareness, communication of the outputs of the activities will be carried out particularly by lePD in the following ways:

- by organizing awareness-raising events for municipalities, which is planned to start in 2024 as part of a series of events, supported by the grant program of the *Deutsche Bundesstiftung umwelt*, DBU, the project is in the process of approval,
- we plan to approach SAŽP - Slovak Environment Agency, section of Home renovation, to inform about the Deliver project outputs, to communicate the need for support for apartment buildings (currently the support from the Recovery and Resilience Plan is directed to the renovation of family and public buildings),
- we plan to approach *Prvá stavebná sporiteľňa* (First Savings Bank) to report on DELIVER outputs, communicate the need for support for housing.

Partner CDI will disseminate information about the results of the project through its website, profile on the social network (Facebook), but also through expert articles and participation in conferences and educational events, as well as through direct communication during individual consultation meetings with representatives of local self-government, and also as part of teaching at the Technical University in Košice. The dissemination of information will also take place through cooperation with expert partners in the field of adaptation to climate change.





**DELIVER:**  
Developing  
resilient,  
low-carbon and  
more **LIVable** urban  
Residential  
area

