

Part A - Project summary

Call EUI-IA Call 2

A.1 Project Identification

Acronym B-CONNECT

Title Bio-Centric Communities: Navigating Nature, Embracing Ecosystems, Championing Technology

Project Number EUI02-036

(Main) Urban Authority Municipality of Bistrita

ERDF rate 80 %

Project Duration

Start Date	01/12/2024
End Date	31/05/2028
	31/05/2028
Total Months	42

Topic

Greening cities

Greening cities

A.2 Project summary

Description

B-CONNECT is driven by the urgent need to address critical environmental issues in Bistrita. The project pioneers a multifaceted solution through a new approach: biophilic-centered tactical urbanism. It uses small-scale community-driven interventions to bring impactful changes to the urban landscape.

Despite relevant achievements for green transition, Bistrita recognised the need for bolder approaches, aspiring to be Romania's most innovative city—a biophilic city, NBS-driven, with a real-time environmental monitoring and adaptive response system, striving for clean air and a green city, achieved through Intertwining:

PEOPLE-PLACES connection: a real-time monitoring and response digital platform, which combines hard data with community-driven insights. Residents are empowered with information about their city's environment, encouraging more eco-conscious behaviour and acting pathways.

PEOPLE-NATURE connection: actions addressing challenges like biodiversity loss and GI management through innovative approaches, such as mobile hydroponic towers and pollinator-friendly and drought-tolerant NBS, which will enhance the city's green landscape, provide cleaner air and revitalize urban spaces.

PEOPLE-PEOPLE connection: a key for urban resilience, empowering actors for decision-making and creating a SHARED and ASSUMED VISION. Urban resilience is helped by enhanced collaboration through citizen platforms, citizen reward tokens, and mobile creative hubs.

Partner		ERDF co-financing		Contribution			Total	
Partner	Country	EUR	ERDF rate	Public	Private	Total	Budget	% of project budget
PP 1 - Municipality of Bistrita	RO	2,129,104.00	80.00 %	532,276.00	0.00	532,276.00	2,661,380.00	49.90 %
PP 2 - Indeco Soft	RO	422,188.80	80.00 %	0.00	105,547.20	105,547.20	527,736.00	9.89 %
PP 3 - Urbasofia	RO	421,664.00	80.00 %	0.00	105,416.00	105,416.00	527,080.00	9.86 %
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	RO	229,790.40	80.00 %	57,447.60	0.00	57,447.60	287,238.00	5.39 %
PP 5 - Babes-Bolyai University	RO	177,523.20	80.00 %	44,380.80	0.00	44,380.80	221,904.00	4.16 %
PP 6 - Bistrita - Youth for the Community	RO	79,392.00	80.00 %	0.00	19,848.00	19,848.00	99,240.00	1.86 %
PP 7 - E-Civis Association	RO	58,176.00	80.00 %	0.00	14,544.00	14,544.00	72,720.00	1.36 %
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	RO	209,395.20	80.00 %	52,348.80	0.00	52,348.80	261,744.00	4.91 %
PP 9 - Technical University of Cluj-Napoca	RO	179,843.20	80.00 %	44,960.80	0.00	44,960.80	224,804.00	4.21 %
PP 10 - Municipality of Monza	IT	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
PP 11 - Municipality of Kavala	EL	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
PP 12 - ALMERIA CITY COUNCIL	ES	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
Total (€)		4,267,076.80	80.00 %	821,414.00	245,355.20	1,066,769.20	5,333,846.00	100.00 %

DRAMA

Part B - Partnership

B.1.1 Relevance of the partnership: why are these partners needed to implement the proposed solution and to achieve project objectives

MUA is a forward-thinking administration, with the aim of making Bistrița one of the greenest cities in Romania. For this MUA has assembled an interdisciplinary team capable of delivering efficient solutions, composed of 4 universities, 1 IT company, 1 urban planning SME, 2 NGOs.

PP2 having wide experience in digital urban innovation and capacity building with public authorities, will be collaborating with all PP for delivering the citizens digital services/platforms and the integration of real-time multi-level data for operating semi-automatic response solutions.

PP3 having wide experience in citizen science and urban innovation, will be leading the co-creation processes for urban regeneration, including landscape designs, urban plans, scenarios, and resilience strategies.

PP4 has ample experience with analyzing, researching, and implementing innovative NBS solutions, especially those related to polluted areas.

PP5 plays an integral part of the work deployed, leveraging its expertise in urban climate and sustainable development assessment, for the deployment of the monitoring systems, and interpreting the data. Within the PP5 team, a group of sociological experts will be involved in the component of citizen perception of the environment.

PP6 will be working very closely with MUA, concerning local events and participation of local actors and residents. PP6 plays an important role in improving eco-behaviors, working with educational institutions and empowering youth.

PP7 is delivering expertise for one of the Eco-Guilds focused on IT&Robotics.

PP8 involvement is transversal, working closely with PP3 and all partners, coordinating urban studies supporting innovation, and providing expertise for the deployment of investments.

PP9 tackles a niche of green city development – autonomous delivery services. Their previous experiments have positioned them to pilot a real-world prototype, providing valuable insights into how cities can adopt these solutions.

B.1.2 Relevance of the partnership: contribution and role of the partners in the implementation of the proposed solution

- In the realm of digital and mobility solutions, PP2, a national leader in the IT industry, is coordinating the implementation of the real-time monitoring and response system (B(reeze)Net) and B(reeze)Flow. Their expertise is complemented by urban environment analyses and studies from PP5, while PP3 and PP8 contribute insights into urban regeneration and mobility. The mobility solution models (integrated into the digital platform) are co-created with local actors under the coordination of PP8. Furthermore, PP9 is leading the technological progress of autonomous delivery systems on cycle lanes and will collaborate with PP8 and PP3 in what concerns the urban impact the solution imposes. The Token-Based Reward system, a customized solution based on previous successful implementations (ILEU – UIA SPIRE Baia Mare), is led by PP2 with support from PP3 and PP4.

- Concerning green regeneration, PP4 provides horticultural expertise for the NBS Toolkit. PP3 collaborates closely with PP4 to deliver co-designed landscape plans for site interventions, leveraging expertise in NBS-driven regeneration strategies. The deployment of hydroponic towers in urban environments, a highly innovative solution, involves collaborative efforts between PP3 and PP4, with PP4 leading the technological aspects and PP3 assessing utilization scenarios in alignment with urban regeneration priorities. PP8 leads the retrofitting intervention of green walls on the school gym, supported by PP4.

- For community-oriented infrastructures, PP8 takes charge, ensuring the coherent realization of safe and sustainable small-scale constructions, including mobile hubs (Eco Guilds), Smart Mobility Hubs, and the Data Centre.

For a co-owned urban resilience strategy, MUA activates key stakeholders and ensures capacity building for public representatives - able to carry out and adapt the B-CONNECT solutions in the long term. Helped by MUA, PP6 plays a significant role in engaging youth and organizing civic events.

B.2 - (Main) Urban Authority

Organisation name (Original)	Primăria Municipiului Bistrița		
Organisation name (English)	Municipality of Bistrița		
Legal status of the organisation	Public	Organisation type	Local public authority
Member state	Romania		
Number of inhabitants	94,139		
Comment	According to the latest 2021 National-level Census, Bistrița city has a total population of 78,877. The administrative area is 145,5 km2, resulting in a population density of 542.2 inh / km2. Since the last Census (2011), there has been an increase of 0.49%		

Department(s)/unit(s)/division(s) concerned	Department for Information Technology and Innovation. The department will be collaborating with PPs to deploy the real-time monitoring and response systems and coordinate the extension of city applications for enhancing community involvement and collaboration, as well as raising awareness about environmental conditions. Department for Sustainable Development 2030. The department is highly relevant for the coordination of NBS interventions, mobility actions, and co-creation activities.
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Address	Street	6, Piața centrală	Contact Person	Position	Director
	Post Code	420009		Title	Mr
	Town	Bistrița		Forename	Nicolae
	NUTS 2	Nord-Vest		Surname	Chirlesan
	NUTS 3	Bistrița-Nasaud		Email Address	nicolae.chirlesan@primariabistrita.ro
			Phone Number	+40	756 222 008

Legal representative	Position	Mayor
	Title	Mr
	Forename	Ioan
	Surname	TURC
	Email Address	primaria@municipiulbistrita.ro
	Phone Number	+40 263 224 706

VAT number	4347569
VAT recoverable	Yes
Staff costs claimed on the basis of	20% flat rate

Total Partner Budget	
ERDF (€)	Total Eligible Cost (€)
2,129,104.00	2,661,380.00

B.4 - Delivery Partner (Partner 2)

Organisation name (Original)	Indeco Soft				
Organisation name (English)	Indeco Soft				
Legal status of the organisation	Private	Organisation type	SME		
Member state	Romania				
Partner description and department/unit/division concerned	<p>Indeco Soft, a leading eGovernment and eAdministration solutions provider delivered Romania's National Electronic Payment System for local and national taxes with over 1.8 million users and 1.6 billion lei collected in 2023 alone. Indeco Soft provides all the tools a smart administration needs to function, including budgeting, infrastructure and assets administration, administrative income, social aids management, document flows, urban planning, land and agricultural management. The company is involved in RDI projects in partnership with academia and cities, including Urban Innovative Action SPIRE - Smart Post-industrial Regenerative Ecosystem renaturing and reinventing the city of Baia Mare in ,ICT-PSP, I-scope, providing an interoperable Smart City service including environmental monitoring through a real-time environmental noise mapping service, Horizon 2020 SME Instrument, GREENTOP-Gamification of cRowdcomputing to Enhance Earth Observation Data Processing, ESA funded EOCLIMLab A cloud-based collaborative environment for rapid prototyping of innovative Earth Observation products&services to enhance climate change resilience, or CEF Telecom-eDelivery Romania. The company implements R&D projects on precision agriculture (AGROCLIM.RO), environmental protection (GREENTOP Agro-Biodiversity), and Urban Heat Islands (INTEGRATE)</p>				
Address	Street	5, Magnoliei	Contact Person	Position	Project Manager
	Post Code	430090		Title	Mr
	Town	Baia Mare		Forename	Sorin
	NUTS 2	Nord-Vest		Surname	POP
	NUTS 3	Maramures		Email Address	sorin.pop@indecosoft.ro
				Phone Number	+40 755 078 097
Legal representative	Position	Administrator			
	Title	Mr			
	Forename	Dorin Traian			
	Surname	BARBUL			
	Email Address	projects@indecosoft.ro			
	Phone Number	+40 745 332 598			
VAT number	RO12960504				
VAT recoverable	Yes				
Staff costs claimed on the basis of	Standard Scale of Unit costs				
Total Partner Budget					
ERDF (€)	422,188.80		Total Eligible Cost (€)	527,736.00	

B.4 - Delivery Partner (Partner 3)

Organisation name (Original)	Urbasofia		
Organisation name (English)	Urbasofia		
Legal status of the organisation	Private	Organisation type	SME
Member state	Romania		
Partner description and department/unit/division concerned	<p>URBASOFIA is a Bucharest-based town and regional planning company founded in 2011 which provides European-wide expertise for urban development, policy design and territorial cohesion. We conduct high-level academic research and applied studies and support the implementation of concrete solutions aiming at a more integrated, participatory, realistic and smart-oriented approach to pressing environmental and socio-economic urban problems.</p> <p>The company has a robust representation in the Horizon 2020, Urban Innovative Actions, JPI, Erasmus+ and Interreg programmes, as well as nationally in Romania and several other European countries.</p> <p>Our core expertise in Research and Innovation Actions (RIA) is baseline research and coordination of planning and design processes which allow the transposal, testing and scaling of smart and sustainable solutions in cities and urban contexts. Through participatory approaches, we support bridging the gap between innovative tools, local needs and relevant global sustainability challenges.</p> <p>URBASOFIA has a well-established team specialising in urban planning, territorial analysis, strategic planning, landscape and urban design, participative methodologies, geography, governance and planning process. The international team (RO, IT, FR, DE) works for applied research projects funded under prestigious European Union programs, crossing their various competences to achieve the best results in every activity handled by the company.</p>		
Address	Street Iancu de Hunedoara blvd. no. 2, H6, Office 030 Post Code 011741 Town Bucharest NUTS 2 Bucuresti-Ifov NUTS 3 Bucuresti	Contact Person	Position Deputy Director Title Ms Forename Sabina Surname Dimitriu Email Address sabina.dimitriu@urbasofia.eu Phone Number +40 773 702 216
Legal representative	Position Director Title Mr Forename Pietro Surname Elisei Email Address dr.pietro.elisei@gmail.com Phone Number +40 731 159 785		
VAT number	RO29280537		
VAT recoverable	Partly		
Staff costs claimed on the basis of	Standard Scale of Unit costs		
Total Partner Budget			
ERDF (€)	421,864.00	Total Eligible Cost (€)	527,080.00

B.4 - Delivery Partner (Partner 4)

Organisation name (Original)	Universitatea de Științe Agricole și Medicină Veterinară Cluj Napoca				
Organisation name (English)	University for Agricultural Science and Veterinary Medicine Cluj Napoca				
Legal status of the organisation	Public	Organisation type	Higher education and research organisations		
Member state	Romania				
Partner description and department/unit/division concerned	<p>UASVM partner has ample competence in delivering scientific studies concerning soil and plant pollution with heavy metals in contaminated areas, and also in performing pollution risk assessments (case studies). It is best placed to implement the project because of the recognized scientific expertise in the field and due to a successful tradition, accumulated during the last 20 years. In implementing and managing international projects (FP5, PHARE, FP7, Leonardo da Vinci, INTERREG, H2020, ERANET, SPIRE etc.)</p> <p>www.usamvcluj.ro</p> <p>UASVM partner was involved in consortium efforts concerning the design of the project proposal. The UASVM partner contributes to the formulation of project WPs and elaboration of main tasks, where involved (Field and soil analysis, Preparation of workshops - preliminary designs, Renaturing, of Pilot Sites, Assessment & future monitoring) and also design the strategy of project management.</p>				
Address	Street	3-5 Manastur street	Contact Person	Position	Dean of the Faculty of Agriculture
	Post Code	400372		Title	Ms
	Town	Cluj Napoca		Forename	Roxana
	NUTS 2	Nord-Vest		Surname	Vidican
	NUTS 3	Cluj		Email Address	roxana.vidican@usamvcluj.ro
			Phone Number	+40	747 355 291
Legal representative	Position	RECTOR of UASVM Cluj			
	Title	Mr			
	Forename	Cornel			
	Surname	CATOI			
	Email Address	rector@usamvcluj.ro			
	Phone Number	+40	264 586 384		
VAT number	RO21616390				
VAT recoverable	No				
Staff costs claimed on the basis of	Standard Scale of Unit costs				

Total Partner Budget

ERDF (€)	Total Eligible Cost (€)
229,790.40	287,238.00

B.4 - Delivery Partner (Partner 5)

Organisation name (Original)	Universitatea Babeş-Bolyai		
Organisation name (English)	Babes-Bolyai University		
Legal status of the organisation	Public	Organisation type	Higher education and research organisations
Member state	Romania		
Partner description and department/unit/division concerned	<p>Universitatea Babeş-Bolyai (UBB) it is one of the top Romanian education and research institutions, according to most national and international ranking schemes. UBB considers scientific research as one of its main missions; for us, within UBB, as well as in interactions with the national and international community, research represents the main criterion for evaluation of academic standing. As such, to further reaffirm the central position that research has in the university, in 2020 UBB became part of the Guild of Intensive Research Universities (https://www.the-guild.eu/).</p> <p>Units: The project will be implemented in four units of the Babes-Bolyai University: Institute of Geographical Research (IGR), Interdisciplinary Center for Data Science (CISD), Cluj Atmospheric Remote Sensing Station (RADO) and UBB TechTransfer</p>		
Address	Street	1, Mihail Kogalniceanu Street	Contact Person
	Post Code	400084	Position
	Town	Cluj-Napoca	Title
	NUTS 2	Nord-Vest	Forename
	NUTS 3	Cluj	Surname
			Email Address
			Phone Number
Legal representative	Position	Rector	
	Title	Mr	
	Forename	Daniel Ovidiu	
	Surname	DAVID	
	Email Address	rector@ubbcluj.ro	
	Phone Number	+40 264 405 300	
VAT number	RO13837268		
VAT recoverable	No		
Staff costs claimed on the basis of	Standard Scale of Unit costs		

Total Partner Budget

ERDF (€)

177,523.20

Total Eligible Cost (€)

221,904.00

B.4 - Delivery Partner (Partner 6)

Organisation name (Original)	Asociatia Tineri pentru Comunitate Bistrita		
Organisation name (English)	Bistrita - Youth for the Community		
Legal status of the organisation	Private	Organisation type	Interest groups including NGOs
Member state	Romania		
Partner description and department/unit/division concerned	<p>Asociatia Tineri pentru Comunitate Bistrita (Youth for the Community Association Bistrita) was founded in 2013 by a group of young people who wanted to carry out their own projects that aim at promoting the active citizenship of youth through personal development and community projects and activities. Our usual activities include recruiting and training young people between 13 and 30 who are interested in becoming volunteers, and organising different volunteering activities in schools or the community whenever we identify a need. Moreover, we organise workshops that aim at developing the creativity of our volunteers as they produce creative products such as recycled paper handbags, postcards and different ornaments. As a youth NGO, we are interested in helping our volunteers develop personally and professionally by facilitating their participation in various local, national and international programmes. Thus, we have developed solid cooperation with local, national and European institutions or NGOs. Since 2023 we have implemented a number of projects with EU funding, namely through the Erasmus+ programme. Moreover, in 2014 we won national recognition at "Gala Nationala a Societatii Civile Tinere din Romania" for the project "I love volunteering", a YOUTH EXCHANGE implemented between May and September 2014 with the financial support of the European Commission through the Youth in Action Programme.</p>		
Address	Street 52, Independentei street Post Code 420184 Town Bistrita NUTS 2 Nord-Vest NUTS 3 Bistrita-Nasaud	Contact Person	Position President Title Ms Forename Cristina Maria Surname Hangea Email Address telciancristinamaria@yahoo.com Phone Number +40 756 814 385
Legal representative	Position President Title Ms Forename Cristina Maria Surname Hangea Email Address telciancristinamaria@yahoo.com Phone Number +40 756 814 385		
VAT number	If applicable		
VAT recoverable	No		
Staff costs claimed on the basis of	Standard Scale of Unit costs		

Total Partner Budget

ERDF (€)	Total Eligible Cost (€)
79,392.00	99,240.00

B.4 - Delivery Partner (Partner 7)

Organisation name (Original)	Asociatia E-Civis		
Organisation name (English)	E-Civis Association		
Legal status of the organisation	Private	Organisation type	Interest groups including NGOs
Member state	Romania		
Partner description and department/unit/division concerned	<p>E-Civis is a Romanian NGO, established in 2009, https://e-civis.eu/en/, focusing on digital education from the perspective of preparing all children and teenagers, with a special focus on vulnerable groups, to adapt to the future labour market and have equal access to technology education.</p> <p>E-Civis founded RoboHub – a physical place for teaching programming and robotics for children and teachers implementing projects in the field of digital education.</p> <p>Robotics for ICT Teachers – proposed a method of teaching robotic lessons included in the national Curriculum for classes VII and VIII as a result of changing the framework plans and school curriculum at the gymnasium in 2017 leading to 150 trained teachers, 1 support course, 1 network of teachers, a training plan and didactic materials that can be used by teachers in schools, and public or private robotics clubs.</p> <p>E-Civis is a partner in the Horizon funded project METRICS: https://metricsproject.eu/. E-Civis' role in the project is to develop the benchmarking methodology for assessing the economic and social impact of robots in 4 Industries.</p> <p>Another project was European Youth Alliance for Green Future, under ERASMUS+ PROGRAMME, KA205– STRATEGIC PARTNERSHIPS FOR YOUTH in which we contributed to the manual Green Deal Handbook and to create a carbon footprint application through which teenagers can assess the impact of their daily action.</p>		
Address	Street	Contact Person	Position
	Post Code		Title
	Town		Forename
	NUTS 2		Surname
	NUTS 3		Email Address
			Phone Number
Legal representative	Position		
	Title		
	Forename		
	Surname		
	Email Address		
	Phone Number		
VAT number	RO25753950		
VAT recoverable	No		
Staff costs claimed on the basis of	Standard Scale of Unit costs		

Total Partner Budget

ERDF (€)

58,176.00

Total Eligible Cost (€)

72,720.00

B.4 - Delivery Partner (Partner 8)

Organisation name (Original)	Universitatea de Arhitectură și Urbanism „Ion Mincu” – București (UAUIM)				
Organisation name (English)	"Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)				
Legal status of the organisation	Public	Organisation type	Higher education and research organisations		
Member state	Romania				
Partner description and department/unit/division concerned	<p>Established in 1952, "Ion Mincu" University of Architecture and Urban Planning (IMUAUP) is a non-profit public higher education institution located in the urban setting of the large capital city of Bucharest and Officially accredited by the Ministry of National Education, Romania, IMUAUP is a small (uniRank enrollment range: 3,000-3,999 students) co-educational higher education institution leading the group of romanian universities focused on vocational disciplines (arts and humanities). Through its +250 academic staff (PhD holders), IMUAUP offers courses and programs leading to officially recognized higher education degrees in several areas of study. It has a selective admission policy based on entrance examinations. International applicants are eligible to apply for enrollment numerous Erasmus exchange and educational projects agreements are in place.</p> <p>Research experience in the titular fields of sustainable architecture, urban planning and mobility, landscape design, interior and object design and cultural heritage, has increased exponentially in the last decade, with over 30 national-level projects and +50 internal-based grants being carried out since 2020.</p> <p>IMUAUP is also currently leading the consortium developing the General Urban Masterplan of Bucharest.</p> <p>Recent European level involvement includes participation in the JPI ENUTC Circular City Challenge Project, the Living Danube Limes Project (Interreg Danube TP), DANURB+, DANUBIAN-SMCs, VVITA, CO-LAND, InClimate etc.</p>				
Address	Street	Academiilor, 18-20	Contact Person	Position	Prof
	Post Code	010014		Title	Ms
	Town	București		Forename	Cerasella
	NUTS 2	Bucuresti-Iltov		Surname	CRĂCIUN
	NUTS 3	Bucuresti		Email Address	cerasella.craciun@uauim.ro
				Phone Number	+40 723 254 204
Legal representative	Position	RECTOR			
	Title	Ms			
	Forename	Marian			
	Surname	MOICEANU			
	Email Address	rector@uauim.ro			
	Phone Number	+40 213 077 112			
VAT number	4283996				
VAT recoverable	No				
Staff costs claimed on the basis of	Standard Scale of Unit costs				

Total Partner Budget

ERDF (€)	Total Eligible Cost (€)
209,395.20	261,744.00

B.4 - Delivery Partner (Partner 9)

Organisation name (Original)	Universitatea Tehnica din Cluj-Napoca				
Organisation name (English)	Technical University of Cluj-Napoca				
Legal status of the organisation	Public	Organisation type	Higher education and research organisations		
Member state	Romania				
Partner description and department/unit/division concerned	Technical University of Cluj-Napoca, university of advanced research and education according to Order of the Ministry of National Education no. 5262 of September 5, 2011, is today one of the higher education institutions with tradition, nationally and internationally recognized. Link TUCN: https://www.utcluj.ro/ . Our university strongly emphasizes the Robotics specialization to foster skills and practical expertise in utilizing technologies relevant to the industry. There is a significant difference between learning on educational systems and learning from school on industrial systems. Link Robotics: UlcN-Robotica.ro				
Address	Street	Boulevard Muncii 103-105	Contact Person	Position	Director of the Robotic Program
	Post Code	400641		Title	Mr
	Town	Cluj Napoca		Forename	Stelian
	NUTS 2	Nord-Vest		Surname	BRAD
	NUTS 3	Cluj		Email Address	stelian.brad@staff.utcluj.ro
			Phone Number	+40	730 017 126
Legal representative	Position	Rector			
	Title	Mr			
	Forename	Vasile			
	Surname	TOPA			
	Email Address	Vasile.Topa@ethm.utcluj.ro			
	Phone Number	+40	264 202 202		
VAT number	RO4288306				
VAT recoverable	No				
Staff costs claimed on the basis of	Standard Scale of Unit costs				

Total Partner Budget

ERDF (€)

179,843.20

Total Eligible Cost (€)

224,804.00

B.5 - Transfer Partner (Partner 10)

Organisation name (Original)	COMUNE DI MONZA				
Organisation name (English)	Municipality of Monza				
Legal status of the organisation	Public	Organisation type	Local public authority		
Member state	Italy				
Partner description and department/unit/division concerned	National Recovery and Resilience Plan and European Projects				
Address	Street	Piazza Trento Trieste	Contact Person	Position	Head of Department National Recovery and Resilience
	Post Code	20900		Title	Ms
	Town	Monza		Forename	Manuela
	NUTS 2	Lombardia		Surname	ARMATI
	NUTS 3	Monza e della Brianza		Email Address	marmati@comune.monza.it
				Phone Number	+39 3 299 061 054
Legal representative	Position	Mayor			
	Title	Mr			
	Forename	Paolo			
	Surname	Pilotto			
	Email Address	sindaco@comune.monza.it			
	Phone Number	+39 2 372 309			
VAT number	00728830969				
VAT recoverable	No				

Total Partner Budget

ERDF (€)	Total Eligible Cost (€)
120,000.00	150,000.00

5 - Transfer Partner (Partner 11)

Organisation name (Original)	Δήμος Καβάλας		
Organisation name (English)	Municipality of Kavala		
Legal status of the organisation	Public	Organisation type	Local public authority
Member state	Greece		
Partner description and department/unit/division concerned	Mayors Office		
Address	Street	Contact Person	Position
	10, Kyprou str.		EU Projects Advisor
	Post Code	Title	Ms
	65403	Forename	Io
	Town	Surname	CHATZIVARYTI
	Kavala	Email Address	euprojects@kavala.gov.gr
	NUTS 2	Phone Number	+30 6 974 476 511
	Anatoliki Makedonia, Thraki		
	NUTS 3		
	Thasos, Kavala		
Legal representative	Position		
	Mayor		
	Title		
	Mr		
	Forename		
	Theodoros		
	Surname		
	MOURIADIS		
	Email Address		
	mayor@kavala.gov.gr		
	Phone Number		
	+30 2 513 500 300		
VAT number	997582067		
VAT recoverable	No		

Total Partner Budget	Total Eligible Cost (€)
ERDF (€)	150,000.0
120,000.00	

B.5 - Transfer Partner (Partner 12)

Organisation name (Original)	AYUNTAMIENTO DE ALMERIA				
Organisation name (English)	ALMERIA CITY COUNCIL				
Legal status of the organisation	Public	Organisation type	Local public authority		
Member state	Spain				
Partner description and department/unit/division concerned	ALMERIA2030				
Address	Street	PLAZA DE LA CONSTITUCIÓN, S/N	Contact Person	Position	Technical Manager
	Post Code	04003		Title	Ms
	Town	ALMERIA		Forename	Josefina
	NUTS 2	Andalucía		Surname	LOPEZ GALDEANO
	NUTS 3	Almería		Email Address	JLOPEZG@AYTOALMERIA.ES
Legal representative	Position	CITY MAYOR	Phone Number	+34 650 586 800	
	Title	Ms			
	Forename	MARIA DEL MAR			
	Surname	VÁZQUEZ AGÜERO			
	Email Address	mvazquez@aytoalmeria.es			
Phone Number	+34 950 210 000				
VAT number	ESP04013001				
VAT recoverable	No				

Total Partner Budget

ERDF (€)	Total Eligible Cost (€)
120,000.00	150,000.00



Part C - Project description

Part	Title
C.1	Project relevance and innovativeness
C.2	Partnership and co-creation
C.3	Project objectives, results and outputs
C.4	Project sustainability, scaling up and transferability

C.1 Project relevance and innovativeness

C.1.1 Main challenge(s) to be addressed

The primary challenge is the city's poor air quality, marked by a consistent increase in atmospheric pollutants like NO₂ and O₃. Between 2016 and 2020, NO₂ levels more than doubled, to 23.19 µg/m³ from 10.72 µg/m³, and O₃ levels rose to 41.77 µg/m³ from 19.43 µg/m³. Several factors have contributed to this pressing issue: (i) heavy traffic (car index of 439 cars/1000 inh.) on major city axes and in the city centre, which lacks relevant green infrastructure; (ii) industrial activities, particularly in sectors such as battery and brick manufacturing, which generate emissions of heavy metals that further degrade air quality and expose residents to high pollutant levels (notably in residential areas often adjacent to these industrial zones); (iii) under-developed GI with un-resilient vegetation, that is heavily affected by intense summer heat and unable to improve the thermal comfort and environmental conditions of key areas of the city.

The city has been experiencing a consistent rise in its average annual temperature from 2016 to 2020, exceeding the climatological norm of the past three decades. This temperature increase affects urban comfort and livability. Despite its valuable natural surroundings, the inner city's green system is limited and cannot expand due to its compact urban structure. Therefore, there is an urgent need to improve and enhance the existing GI through the implementation of innovative interventions.

Furthermore, Bistrița experienced substantial urban expansion, with a 30% increase in the built-up area between 2006-2020, despite only a 10% population increase during the same period. This new growth lacks adequate GI expansion and environmental monitoring infrastructure. Currently, only 1 semi-automated air quality station provides data on AQ near a major city park, which distorts the real situation of local environmental conditions and creates an inaccurately favourable image of the urban conditions. Lack of data is considered a relevant challenge in order to deploy informed development and regeneration decisions.

Bistrița's public authorities recently made substantial efforts to improve the city's environmental profile, resulting in the city becoming a finalist for the 2024 Green Leaf award: extensive 36km network of bike lanes + free public transport corridor. However, there is still a lack of public transport users, and the number of cyclists is low. Additional innovative measures are required to promote green mobility behaviours.

C.1.2 Proposed solution

B-CONNECT pioneers a biophilic-centred tactical urbanism approach to improve air quality and overcome challenges of limited green mobility behaviours, underdeveloped GI, and dense urban fabric. This is a community-driven transformation that enhances urban resilience through data and adaptive innovative solutions.

(1) People-places connections: a real-time monitoring platform that seamlessly integrates hard data (e.g., environmental quality, urban climate, pollution, traffic) with citizen-driven environmental perception data, supporting a sense of community. Additionally, an adaptive platform for solving mobility issues will include the installation of LED panels in key areas of the city. These panels activate semi-automatically for rerouting traffic, reducing speed, and informing about air quality and traffic capacity. Smart Mobility Hubs are introduced at the neighbourhood level to encourage citizens to travel by bike, along with an autonomous bike-lane robot for last-mile deliveries.

(2) People-Nature connections: actions to address biodiversity loss, GI resource management, and urban landscape regeneration through integrated adaptive-NBS management. This includes the use of innovative mobile hydroponic towers to combat pollution paired with an adaptive plan to act dynamically in response to emerging environmental issues. Efforts are also focused on recovering degraded land, creating NBS-oriented multi-functional public spaces, enhancing green landscapes, and improving ecosystemic services in green and blue-green corridors. Experimental approaches like xeriscaping, drought-tolerant landscaping, and riparian regeneration are explored.

(3) People-people connections: an integral involvement of citizens in every step of the transformation process, creating the frameworks for the long-term sustainability of novel solutions and ensuring proper ownership, from technology to place-making. Urban resilience is enhanced through multi-level capacity building of local actors who will operate B-CONNECT solutions in the long term. This includes harnessing young talents via mobile creative hubs - Eco-Guilds, introducing 3 thematic hubs, each modernising the historical guild concept. Citizens are also empowered through digital platforms, especially environmental reward tokens promoting eco-friendly behaviours.

These 3 connections work together to address identified challenges and further enhance urban resilience in the long term.

C.1.3 Ownership of the Urban Authority(ies)

Bistrița's authorities were recognized as a 2024 Green Leaf award finalist and honoured at the Green Cities Forum for sustainable urban planning. They introduced the iReport app for citizen reports and made progress in green mobility, with 36 km of bike lanes and free-of-cost public transportation on the main corridor.

Despite commendable efforts, Bistrița recognized the need for bolder approaches, leading to the B-CONNECT project.

MUA reached out to all PP with the objective of creating an interdisciplinary team that can take on innovative COMMUNITY-DRIVEN TRANSFORMATION, starting from already mapped priorities. Therefore, the project places significant emphasis on co-designing, co-assessing, and co-implementing B-CONNECT to foster responsive communities.

The proposed solutions, if planned and deployed coherently, can create a synergistic impact for a resilient city. More specifically: proven successful, hydroponic towers will solve the issues of no space for GI expansion - a solution integrated into public space regeneration projects; real-time environment monitoring systems will contribute and inform decision-making; creative-mobile hubs will open up new opportunities for harnessing local talent; NBS experimentation results will be translated into a new local standard for managing green spaces system; Smart Mobility Hubs will demonstrate the impact of community-oriented flexible circular economy facilities - further integrated in regeneration projects.

C.1.4 The proposed solution has not been previously tested

The innovative approach utilizes biophilic-centred tactical urbanism, integrating cost-effective interventions, digital frameworks, and community engagement to promote pro-eco behaviours.

The Digital pillar provides a real-time environmental monitoring framework incorporating data from fixed, mobile and DIY sensors provided to citizens, along with traffic counters and citizen perception, aggregated for immediate response.

The Mobility pillar integrates community-driven solutions into adaptive models for LED panel operations for traffic rerouting and real-time city updates (promoting environmentally friendly behaviours). Current TRL 2/3 - aim 7.

Deploying community-centred facilities - Smart Mobility Hubs, supports green mobility and contributes to the circular economy. The city is regarded as highly forward-thinking, aiming to become the first Romanian city to experiment with autonomous vehicles in a real urban environment, with the pilot program being utilised inter-institutional deliveries operating on the bike lanes. Current TRL 4 - aim 7.

The Nature pillar introduces novel approaches, including hydroponic towers in public spaces, presenting untested solutions adapted for real urban environments, which are particularly significant for densely built cities. Current TRL 3 - aim 7/8. Paired with efficient NBS practices ranging from xeriscaping initiatives to community gardening, it creates a highly replicable context for resilient and liveable cities. Current TRL 5 - aim 9.

C.1.5 The proposed solution builds on and goes beyond existing practices

For air quality and environment, B-CONNECT builds on the UIA AIR-HERITAGE and DIAMS projects (focused on air quality and monitoring systems), which provided valuable insights into deploying versatile methods for monitoring air quality and creating integrated platforms that exchange data, benefiting the quadruple helix landscape. The project goes beyond these experiences, deploying a dynamic network for air quality that also integrates citizen perception and urban climate data. This more comprehensive data sets supports citizens in engaging in eco-oriented behaviours and enhances informed decision-making for future urban rehabilitation and regeneration investments.

Addressing challenges identified by the DIAMS project, B-CONNECT will ensure the implementation of an efficient and user-friendly data system connected to innovative traffic infrastructure response systems - adaptive LED panels designed to improve mobility.

B-CONNECT builds upon the experiences and outcomes of UIA UPPER and H2020 proGireg projects. For the regeneration of misused areas (UPPER), B-CONNECT aims to pioneer affordable and impactful NBS practices, addressing issues like the heat island effect and air pollution. This involves engaging citizens in co-owned regeneration efforts, focusing on the local landscape and underused GI assets.

Drawing from proGireg's experiences (experimented with soil regeneration, community gardening, green capillarity, and pollinator-friendly plantations), B-CONNECT innovates in regenerating green corridors and creating resilient landscapes. By combining different practices, B-CONNECT establishes a productive, low-maintenance GI, and multi-use NBS-driven public spaces.

The innovation deployed in UIA SPIRE concerning the environmental compensation token (ILEU), B-CONNECT integrates a similar approach, but in a different framework, closely connected with physical/tangible and very valuable community-oriented amenities - Smart Mobility Hubs.

C.1.6 Relevant specific objectives of the EU Cohesion policy 2021-2027

Specific objective 2.7 "Enhancing nature protection and biodiversity, green infrastructure in particular in the urban environment, and reducing pollution" (Greener Europe)

C.1.7 Link to Policy and Specific Objectives of the EU Cohesion Policy (2021-2027)

B-CONNECT contributes to the EU Cohesion policy SO 2.7, especially through WP8 NBS-Driven Urban Regeneration: Biophilic Design for Air Quality, Environment, and People-Nature Connection. The WP encompasses the innovative use of hydroponic towers, retrofitting solutions for building green capillarity (green walls), green infrastructure development (xeriscaping, drought-tolerant landscaping, and riparian spaces) and complementary participative processes throughout the implementation.

The solution contributes to the specific objectives of the EUI Call for Proposals by providing Place-based, integrated, participatory, multi-stakeholder approaches and addresses several of the priority themes promoted by the Urban Agenda for EU, such as: air quality, climate adaptation, digital transition, energy transition, sustainable use of land and nature-based solutions and urban mobility.

At national level, B-CONNECT addresses relevant priorities of the National Recovery and Resilience Plan: biodiversity protection in urban areas, sustainable mobility, and digital transformation and good governance (real-time monitoring systems that support informed decision-making).

At a regional level, the innovative solution is in line with the regional strategy for sustainable urban mobility and smart cities of the North-West development region (2021-2027), by directly addressing smart mobility, smart environment, and smart governance topics.

C.1.8 New Leipzig Principles: Integrated approach

B-CONNECT provides an integrated approach to sustainable urban development from the following points of view: 1) social, engaging a multi-level stakeholder network through participative processes; 2) environmental, implementing NBS, hydroponic towers, green infrastructure development through a biophilic design approach; and 3) economic, saving resources, creating jobs, health and wellness impacts, and testing cutting-edge technology with potential industrial impact.

There is a balanced territorial distribution of interventions at city level, offering a holistic approach from functional area to neighbourhoods, from punctual interventions on Municipality-owned plots to linear connections, urban regeneration and city-level policies. It focuses on an underdeveloped neighbourhood, not included in the Municipality's plans in the last decade, and key areas of the city (i.e. the historic centre, main boulevards).

The innovative solution will be implemented in a timely manner that will allow accurate monitoring and adjustments of interventions. Co-creation events with synergic effects are designed to gain momentum while keeping local communities and international networks of experts engaged. Each Thematic Work Package encompasses strategic workshops and activities with relevant stakeholders to balance diverging interests and align forces towards a unified vision. In this way, residents will become vectors of change and Bistrița a protagonist city European innovative stage.

C.1.9 Green and digital transitions

The WP6 (Real-Time Digital Green Resilience ecosystems) is especially focused on providing digital components coherent with the European Green Deal goals. It correlates with WP8 Green Mobility in delivering cutting-edge solutions to tackle climate challenges. B(reeze) Net provides an integrated fixed and mobile sensor network for monitoring air quality, and urban environment indicators, while B(reeze) Flow allows for quality assessments of the citizens' perception (enhancing the existing eGovernance app. iReport). Traffic Sensors Network Deployment and LED Panels Integration represent real-time monitoring options distributed in strategic locations to improve mobility and reduce pollution levels. To assess whether local data centres can fulfil the needs of a mid-sized city that is highly oriented toward procedural digitalization and enhancing ICT through digital means, a sustainable data hub will be developed.

The Bike-lane Autonomous Vehicle will be powered through solar panels to provide a time and energy-saving innovative solution that can enhance inter-institutional communication while promoting digitalization in the public space. A7.2 will integrate project-generated data sets, taking advantage of the IoT network in a series of urban mobility scenarios aiming at reducing GHG emissions. The system will support environmental modelling, planning, and positive impact traffic management simulations, optimising routes and driving behaviours using AI for ongoing adjustments.

C.2 Partnership and co-creation

C.2.1 Involvement of wider stakeholders in project design and implementation

The key stakeholders relevant to the proposed solution are well represented through the quadruple helix model, which establishes the major actors of the innovative process: government, academia, industry and civil society. Considering the ambitious goals of B-CONNECT, we involved a core group of local actors from the inception of the design phase, to align the potential interventions with the vision of Bistrița residents. Citizens, NGOs (such as youth or environment NGOs or associations), public service providers (i.e. public domain administration), SMEs and private actors, and public schools are some of the stakeholders who have been involved in the project design. Based on the existing e-governance app IReport, we as MUA have an overview of the requests, needs and desires of the local communities. Moreover, we engaged with the Administration of Romanian Waters to ensure that future activities (experiments for riparian landscape regeneration) abide by the legislation.

Besides the design phase, the wider group of stakeholders will be involved in the implementation phase, in the communication and dissemination as well as in the monitoring and evaluation of the project results. Within WP5 a Local Actors Network will be created and activated to assess how stakeholders can be involved in future activities. Within the A5.3 Tactical Urbanism Frameworks and through the B(reeze)Flow platform, citizens and local businesses will be involved in the monitoring, decision-making processes, and co-management of infrastructures. Regarding C&D, stakeholders will participate in pop-up events, will have access and be encouraged to distribute the social media channels, as well as be interviewed for the mini-documentary. In the implementation phase, co-management plans will be developed for the smart mobility bicycle parking hubs. Local communities and NGOs will also be involved in co-implementing the river rehabilitation and wide-scale planting events. The PP5 extension in Bistrița will collaborate in project activities and the National College Liviu Rebreanu will co-implement (with teachers and pupils) a green wall on the school gym. 3 local schools will host creative mobile hubs. The local police will advise and agree upon the delivery of real-time mobility solutions. Citizens will take ownership of the project outputs through proactive involvement, thus enabling the upscaling and sustainability of activities, for instance through A8.5.

C.2.2 Participation and co-creation

Participative processes and co-creation activities are key pillars of the B-CONNECT. An extensive series of actions will allow citizens to be directly involved in each step of the project. WP5 is particularly focused on creating collaborative frameworks and providing strategic solutions through community-oriented actions. The Citizen Observatory Platform and CLIN (Collaborative Learning and Innovation Network), will enable interconnected networks of actors to experiment and take ownership the tools and practices developed. A key aspect for ensuring urban resilience is the multigenerational approach, empowering the younger generation through Creative Mobile Hubs (Eco Guilds). The Urban Resilience Plan will be developed through co-design and provide for co-implementation and joint monitoring. In terms of innovative participation, B(reeze)Flow will enhance the IReport app, providing everyone access to real-time data collected through B(reeze)-Net sensors, environmental alerts and feedback modules, hence fostering environmental awareness and providing the opportunity to submit new eco-initiatives. The token-based reward system will grant tokens to residents who choose eco-friendly transport, use the B(reeze)Flow platform and participate in project activities. The earned tokens can be redeemed for various local services and amenities, such as access to smart mobility hubs. Other activities that involve co-creation/co-design phases are A7.2, A7.3, A8.1, A8.3.

C.2.3 Target groups

Bistrița Citizens and local communities: 7,500 - through the B(reeze)Flow app (environmental awareness), real-time traffic management through led panels (saving time and resources in traffic, avoiding high pollution levels), multi-use NBS social spaces, green pockets, river rehabilitation (higher quality of life), smart mobility hubs (smart bicycle parking), co-creation events (increasing social cohesion and raising awareness)
Disadvantaged groups: 100 - one of the most underdeveloped areas in Bistrița (Ștefan cel Mare neighbourhood) will host a series of B-CONNECT co-creation activities and solutions (smart mobility hubs, green spaces enhancement).

Local associations and NGOs: 7 organisations - promoting social or political change by engaging in social, environmental or advocacy actions (enhancing citizen participation and strengthening communities). The Citizen-owned tactical urbanism guerrilla gardening activity is an example.

Municipal public service provider: 10 providers - will be involved in piloting actions based on tangible changes at the city level (i.e. green pockets development). Novel infrastructure, as well as process optimization and upgrades, represent some of the direct benefits.

Local SMEs and private actors: 15 SMEs - new opportunities resulted through working closely with the Municipality - valorizing and attracting new business in smart city or sustainability topics.

Cultural/creative industry representatives: 35 - active involvement in the Art & Design-oriented pop-up interventions, B-CONNECT Festival; one of the mobile creative hubs (ECO-Guild) is focused on Art, Design & Place-Making - arts, culture, and community design in green-urban transformation.

Schools: 8 schools - gaining knowledge on modern topics (creative mobile hubs, hydroponic towers) and green capillary (co-implemented NBS).

Higher education: 5 Institutions - collaborating on and gaining access to the B-CONNECT innovative solutions, participation in high-level workshops.

C.3 Project objectives, results and outputs

C.3.1 Overall objectives and expected results (changes in the local situation)

The main objective is to transform Bistrița into an environmentally RESILIENT CITY capable of adapting to emerging environmental pressures, based on the nexus between biophilic-centred solutions, participative processes, and evidence-based strategic thinking. Local actors are empowered to take ownership of solutions and have a proactive behaviour to ensure long-term effectiveness. The main advantage of B-CONNECT solutions lies in the customization and adaptation potential: real-time data used for future developments; eco-guilds, hydroponic towers and smart mobility hubs that can be relocated as needed, while NBS become the new local standard.

C.3.2 Specific objectives

Specific objectives

Enhancing evidence-based decision-making, with a focus on governance and active participation, through the effective operation of the Real-time Environmental Monitoring and Response system. This objective will be achieved by: deploying the B(reeze)net infrastructure, integrating fixed and mobile sensor data digitally; utilizing LED panels in public spaces as the physical interface to communicate the data and operate the real-time decisions; active participation of local actors and citizens in the open access platform, also contributing to the collection of quantitative and qualitative data (B(reeze)Flow platform).

Improved livability standards of the key areas of the city: peripheral collective housing neighbourhoods, historic city centre, and key public spaces that are impacted by pollution and poor environmental conditions. Including schoolyards. This is achieved through: the innovative deployment of mobile GI modules – hydroponic towers (which can be installed in relevant spaces, based on the data of the real-time monitoring system); NBS-based regeneration of neglected green spaces (areas for multifunctional use, and new productive green areas – green pockets of collective housing units); new NBS practices for the affordable and sustainable management of GI at the city level.

Enhanced eco-behaviors and environmental perception among citizens while empowering local talents, promoting increased participation in eco-activities, and encouraging green mobility. This is achieved through the implementation of the Token-Based Reward system, incentivizing eco-actions and green mobility choices. The system will be closely linked to the Smart Mobility Hubs, fostering a sense of environmental responsibility. Additionally, the establishment of mobile creative hubs, known as Eco-Guilds, will provide youth with skills and knowledge in emerging technologies and professions, motivating them to take proactive steps and drive meaningful changes within their city.

C.3.3 Expected results

Expected results

NBS interventions will regenerate valuable unused spaces and the local landscape, converting degraded sites into multi-use ecological productive spaces. These spaces will feature low-maintenance resilient landscape designs that support biodiversity, reduce surface temperatures, and provide additional value to the communities by connecting them with nature through gardening activities, leisure, and socializing. The NBS experiments will be upscaled as new local standards – having a sustainable biophilic management of the entire GI. By offering community-focused amenities like Smart Mobility Hubs, B-CONNECT enhances social interactions and maximizes the utilization of existing public spaces.

The combined measures implemented by B-CONNECT aim to influence citizens' pro-environmental behaviour, leading to an increase in pedestrian, bike, and public transportation travels (facilitated by the B(reeze)Flow app and Smart Mobility Hubs), enhanced city mobility through reduced traffic and cleaner air (thanks to the adaptive real-time response system operated via LED panels addressing traffic issues in real-time), heightened awareness about environmental concerns and the promotion of eco-conscious communities (through the dissemination of real-time data in easily understandable formats), and increased awareness of the value of public spaces by enhancing the comfort through hydroponics.

B-CONNECT profoundly impacts the city's socio-economic fabric. It provides valuable opportunities for knowledge and awareness – youth engaged in Eco-Guilds. Incentives for pro-environmental behavior, offered as tokens, promote green practices among communities and local businesses (tokens can be exchanged for eco-friendly items and experiences such as bikes, e-bikes, hydroponic towers, gardening sets, eco-tours). Moreover, the tested NBS sets a new local standard, reducing maintenance costs for authorities. By strategically placing hydroponic towers, key areas' attractiveness and comfort are enhanced, fostering a vibrant and welcoming urban environment for local communities and businesses.

C.3.4 Rationale for result indicators

Result indicators have been developed based on the project's outputs and expected results, which have been strategically designed through a comprehensive assessment of local baselines. This assessment includes dysfunctions and challenges identified in previous specialized studies, analysis of existing databases, and qualitative input from authorities who precisely understand which key areas of the city require strategic interventions. This assessment was further supported by feedback from users of iReport Bistrița, a platform that enables citizens to report identified issues in public spaces.

The result indicators are aligned with the project's 3 core intervention strands. For people-nature connections, indicators assess citizens' environmental perception, regenerated land coverage, reduced surface temperature, and improved biodiversity. People-people connections are measured through citizen involvement in sustainable behaviours, successful deployment of eco-guilds, and utilization of real-time monitoring systems. People-places connections focus on Smart Mobility Hub usage, the impact of LED panels in traffic mitigation, and the increased comfort of public spaces due to hydroponic towers. Result indicators related to air quality, GHG reduction, co-creation participation, and new users of digital services span all 3 connections.

C.3.5 Result indicators

Name	Description	Unit	Baseline	Target Value
Improvement of air quality	Improvement of air quality	fine particulate matter (PM2.5) concentrations	8.00	4.00
Users of new and upgraded d	Users of new and upgraded digital services, products and processes	users/year	0.00	5,000.00
Estimated greenhouse emissi	Estimated greenhouse emissions	tonnes of CO2eq/year	356,538.00	285,230.00
Other				
Rehabilitated land - degraded green areas converted through co-owned NBS	Rehabilitated land - represents the total surface of unused GI elements transformed into community-orientend ecologic public spaces	square meters	0.00	20,000.00
Other				
Heat Island effect mitigation	The indicator reports on the reduced average temperature in key sites of intervention, where NBS are being deployed. The baseline is determined by M12 of implementation, and monitored constantly.	% of temperature reduction (baseline in M12)	0.00	20.00
Other				
Biodiversity index	Biodiversity index will be measured in key areas of intervention, where NBS are being deployed, monitoring the variety and abundance of species. The baseline is determined by M12 of implementation, and monitored constantly.	% increase	0.00	100.00
Level of participation achieved	Level of participation achieved in the engagement with local communities – information, consultation, co-creation, co-decision	percentage of the local population engaged	0.00	20.00
Other				
Users of the new community oriented facilities that supports green mobility and eco-behaviour (Smart Mobility Hubs)	It represents the no. of user of the newly created infrastructures - Smart Mobility Hubs, representing a direct indicator of increased no. of bike travels. For example: the cover the costs of using the facilities, the users have to pay in tokens, that are gained through green/travels (min. 3 green travels per week cover the "rent" costs of the Smart Mobility Hub).	no. of persons	0.00	500.00
Other				
Perception of citizens on quality of the environmental sustainability	Based on qualitative surveys and wide-scale questionnaires, the indicator will monitor citizens perception on the quality and improvement of local environmental conditions, local landscape regeneration, and mobility. The Likert scale-survey will pose 10-15 preference questions, measuring the change in citizens' perceptions and awareness at different stages of B-CONNECT	Delta %	0.00	50.00
Other				
Youth Empowerment through Eco-Driven Guilds	The indicator measures the total number of mobile creative hubs users (the EcoGuild participants). Students and teachers are involved through training processes. The infrastructure will be hosted by different schools for fixed periods of time. Being mobile, the hubs have a wider reach, having the possibility to be used by more schools than the ones listed in the project.	No. of youth empowered	0.00	150.00

Name	Description	Unit	Baseline	Target Value
Other Sustainable Behaviours	The indicator will monitor the success of the Token-based Reward System, which aims to reward citizens for eco-behaviours, and support green mobility. By walking/ biking/ using public transportation/ participating in civic eco-events, the users are rewarded 1 token per travel (or more depending on the event) - equivalent of 1 RON. Tokens are used for: the Smart Mobility Hubs, acquisition of bikes, household hydroponics, sustainable gardening kits, eco tours or outdoor experiences.	total amount of tokens rewarded from deployment until the end of the project	0.00	30,000.00
Other Green mobility (reducing the proportion of cars as participants in traffic)	The indicator will measure the average proportion of car as participants in traffic helped by traffic counter/sensors. The proposed solutions (LED panels as a solution to mitigate traffic congestion real-time, while raising awareness on green mobility solutions and environmental protection, paired with Token-Based Reward System). The Indicator will be measured on main mobility corridors and city entrances.	% of cars as participants in traffic (among public transport vehicles, cyclist, and motorcycles)	69.00	55.00
Other Environmental impact of autonomous last-mile vehicle operating on the bike lanes	The indicator measures the potential reduction of the carbon footprint of travels in-between public institutions for bureaucratic operations. Starting from the no. of travels estimation per week undertaken by public servants, PP8 (supported by PP5) will estimate the reduction of the environmental impact due to autonomous services.	% of CO2 levels reduction	0.00	50.00

C.3.6 Outputs

WorkPackage	Output Number	Project output	Output indicator	Unit	Target value of project expected output(s)
WP 5 Enabling Urban Resilience (People-People connection)	O 5.1	B-CONNECT stakeholders constellation (3 pillars: people-people, people-nature, people-places)	Citizens involved in the preparation and co-implementation of the project	persons	500.00
WP 5 Enabling Urban Resilience (People-People connection)	O 5.2	B-CONNECT Nexus - an interconnected network of capacitated actors	People supported (trained, upskilled, accompanied or assisted)	persons	50.00
WP 5 Enabling Urban Resilience (People-People connection)	O 5.3	Convergent Impact: Creative Mobile Hub Driving Green, Digital, and Mobility Innovations	Infrastructure supported (new, renovated, reconverted or modernised)	supported infrastructures	3.00
WP 5 Enabling Urban Resilience (People-People connection)	O 5.4	Memorandum of Understanding for Urban Resilience - Local Climate Pact	Level of Stakeholder Agreement	Number of Agreements	1.00
WP 6 Real-Time Digital Green Resilience Ecosystems (Connections Enhancement)	O 6.1	Working B(reeze)Net platform - for real-time monitoring of air quality and urban climate	Systems for monitoring air pollution installed	number of systems	3.00
WP 6 Real-Time Digital Green Resilience Ecosystems (Connections Enhancement)	O 6.2	Sensors network and automatic traffic management system deployed	Systems for monitoring traffic impact on urban climate and air quality	number of systems	1.00
WP 6 Real-Time Digital Green Resilience Ecosystems (Connections Enhancement)	O 6.3	Integrated pro-environment citizen-driven digital platforms and sustainable data centre	New products and services created	new products/services	3.00
WP 7 Green Mobility Adaptive Frameworks (People-Places connection)	O 7.1	Trained team on traffic management and real-time response evaluation	People supported (trained, upskilled, accompanied or assisted)	persons	15.00
WP 7 Green Mobility Adaptive Frameworks (People-Places connection)	O 7.2	Smart city solutions for mobility and environment solution evaluation (city-level simulation)	New products and services created	new products/services	1.00
WP 7 Green Mobility Adaptive Frameworks (People-Places connection)	O 7.3	Co-managed community-centric facilities for soft mobility	Infrastructure supported (new, renovated, reconverted or modernised)	supported infrastructures	6.00
WP 7 Green Mobility Adaptive Frameworks (People-Places connection)	O 7.4	Autonomous delivery vehicle (solar powered)	New equipment created and/or supported	new equipment	1.00
WP 8 NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	O 8.1	Hydroponics Towers Model for adaptive use in urban settings	New equipment created and/or supported	new equipment	50.00
WP 8 NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	O 8.2	Affordable Modular Green Walls Technological Roadmap	New equipment created and/or supported	new equipment	1.00
WP 8 NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	O 8.3	Regeneration of under-used GI resources through affordable and low-maintenance NBS designs	Surface area of green infrastructure supported in urban areas	square meters	20000.00
WP 8 NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	O 8.4	NBS solutions for GI management and riparian landscape regeneration	New sustainable practices embedded within local management frameworks	% of local authorities representatives willing to adopt the biophilic solutions at city-scale	80.00



WorkPackage	Output Number	Project output	Output Indicator	Unit	Target value of project expected output(s)
WP 8 NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	O 8.5	Biophilic-oriented communities: shaping a new green-driven identity of citizens	Citizens involved in the preparation and co-implementation of the project	persons	300.00

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C.4 Project sustainability scaling up and transferability

C.4.1 Sustainability and self-sufficiency of the proposed solution

The innovative solution will be owned by the Municipality, who will ensure its long-term maintenance. The proposal develops co-management plans with the communities, assessing from the very beginning the potential pathways of including local stakeholders in the future co-management of solutions. Overall, residents will play an important role in the sustainability of the solution: within WP5, a multi-level stakeholder group will be identified and engaged, through Bistrița's Resilient Local Actors Network. This group will also be involved in developing the Urban Resilience Plan that anticipates the following years in terms of City development. The Plan will include a financing chapter that will identify potential sources to cover the costs. Those sources may vary from public funding, such as ERDF, domestic sources, but also private investing and Public-Private Partnerships. Regarding the self-sufficiency of the B-CONNECT solutions, the innovative elements that will be embedded in some of the components will require specific expertise (for instance, the autonomous delivery vehicle, and smart mobility hubs). Through CLIN, the Municipality will gain a competent department in managing and interpreting the data resulting from the network of sensors, but additional expertise will be required in case of system errors or damage. A percentage of the MUA budget will be assigned to ensure the sustainability of the piloted elements for the following 5 years.

C.4.2 Durability of project outputs and results

B-CONNECT puts into place several levers to ensure that the outcome creates relevant behavioral change in the local communities, as prerequisite for an important and lasting effect at the territorial level. Local communities represent the main target group in the case of various outcomes, such as the modular autonomous hydroponic towers and the Multi-use NBS-based social interaction and ecologic spaces, aiming to increase the quality of public space and improve the environmental conditions. Regarding the Smart mobility hubs, local communities are direct beneficiaries, especially vulnerable groups such as the elderly, younger generations and women, as well as SMEs providing connected services (supporting the facilities by supplying tools and maintenance). Educational institutions such as Liviu Rebreanu National College will host the green wall retrofitting on the school gym solution. By introducing new value chains through novel infrastructure, complementary SMEs or NGOs and municipal service providers will increase their net endogenous economic potential, their resilience and the stakeholder ecosystem. Additionally, private property owners and developers stand to benefit by gaining easy access to the technological roadmap for implementing similar green solutions, enabling actors to perform cost-benefit analyses effectively. These outcomes will provide valuable insights and returns to the municipality and public authorities, particularly in managing nature-based solutions.

C.4.3 Link with other local/regional/national strategies and policies

The B-CONNECT solution contributes to a series of strategies, such as: Local Strategy for Sustainable Development (2010-2030), the Plan for Sustainable Urban Mobility, the Integrated Action Plan for Carbon Neutrality. The Plan for Sustainable Urban Mobility envisions major interventions focused on the Bistrița river and the city-level bicycle system. It also focuses on measures related to traffic congestion, especially on the B-CONNECT intervention areas (i.e. historic centre). The Carbon Neutrality Action Plan stipulates a series of goals related to participative processes involving citizens and local actors in carbon neutrality actions, as well as putting in place monitoring systems for specific indicators related to this topic. Regarding the environment and biodiversity, sustainable area-based interventions are one of the priorities. Within the Local Development Strategy, the vision for the Bistrița Municipality states that the emerging sectors of micro-mobility, circular and green economy represent priority areas for attracting workforce. The B-CONNECT innovative solution provides roadmaps and additional value chains in this regard, contributing to the wider local framework of development. The reduction of air pollutants represents another main pressing matter (that can also be found in the Regional Strategy for Development of the Bistrița-Năsăud County). The proposed solution is therefore aligned and directly contributes to the specific goals of the local strategies.

C.4.4 Potential for scaling up of the proposed solution

Building on the results of the B-CONNECT solutions, MUA will use the D8.5.1 Toolkit for biophilic-centred tactical urbanism to up-scale novel sustainable interventions, based on a comprehensive set of requirements, methods, and guidelines for the implementation of the 7 NBS: NBS1 Hydroponics mobile towers (A8.1); NBS2 urban prairie projects and pollinator-friendly plantations; NBS3 drought tolerant and xeriscaping interventions; NBS4 climate shelters: planting for shade and humidity optimization; NBS5 community gardens; NBS6 riparian landscapes restoration; NBS7 green walls systems (A8.2). A series of additional municipality-owned sites will be identified through the support of the cadaster and topography department. The public sites will be either centrally located or in peripheral areas, depending on the logic of the expected intervention and the sought-out environmental effects. The specific plans for scaling up are yet to be developed based on the experience gained through the project lifetime. In terms of resources, the necessary political will has already been assessed, but the financial means to facilitate the up-scaling process still need to be secured. This part will be contained in the D8.5.1 project fiches and the Urban Resilience plan. Regarding the educational component, the 3 Eco Guilds will be initially piloted for 4 schools, but the initiative will be upscaled for the rest of the city's schools (meaning other schools will be able to host creative hubs).

C.4.5 Evidence of demand for your project in other urban areas, identification of Transfer Partners

Regarding the transferability component, existing cooperation platforms have already been identified beyond the EU: CORP, ISOCARP, URBACT and IFLA. City networks will be engaged through the dissemination of results and relevant outputs (such as toolkits). Interested urban authorities will need to undertake a process of analysing the current state of GI and environmental sensors infrastructure and data, mapping critical areas in the city requiring green regeneration, and pinpointing key challenges from the citizen's perspective (including mobility). In terms of Transferability Partners, three cities have actively participated in the pre-design phase, making an initial assessment of potential targets and challenges: Kavala, Monza, and Almería. In the Kavala case, the historic city has a very dense urban environment that doesn't ensure opportunities for GI expansion. Therefore, mobile hydroponic towers paired with real-time environment monitoring and response systems represent relevant solutions to critical urban challenges. Additionally, areas of high traffic overlap with touristic areas, making the LED panels' operation seen as suitable to be adapted locally. Lastly, the historic centre - Panagia has a complex urban tissue with narrow streets and high elevations in which the autonomous delivery systems can heavily impact the quality of life, especially for elders who have difficulties travelling given the steep slope of the streets. The city of Monza hosts the third largest enclosed park in Europe (700 ha), with an incredible variety of flora and fauna. Through the collaboration agreement, "the garden of biodiversity", several aims have been set: enhancing biodiversity and pollinators, and fostering sustainable behaviour in local communities. The municipality wants to co-create an open-air laboratory aimed at restoring and protecting urban biodiversity, organising events and workshops open to citizens and schools, focused on sustainability. Almería's geography is predominantly hilly, which makes it overlap with Kavala's motivation related to autonomous delivery systems. The vegetation has been identified as very degraded in some areas, due to the arid soils and climate combined with anthropic intervention. Considering the high endemic index of vegetation, the municipality has a high interest in NBS, developing GI with locally-adapted species, and increasing the overall green spaces at city-level through participative processes.

C.4.6 Transferability of the main elements of the solution

The solution is highly replicable in many urban areas across the EU, based on a series of criteria. The replicability is most fitting in small and middle-sized cities or neighborhood local contexts, preferably with a pre-existing repository of mapped GI and surfaces. The ownership of the GI needs to be evaluated. The reason is that public spaces, specifically municipality-owned, represent secure sites that can withstand immediate intervention. Another reason is the fact that for those types of locations, the state-of-the-art assessment can be done by Public Authority departments, fast-tracking processes and avoiding additional bottlenecks (such as private owner financial requirements). Technical skills will be developed through the B-CONNECT packages, providing documentation for any capacity-building programs needed to take up the innovative solutions. Bistrița lacks those competencies within its existing departments, which imposed the need for creating dedicated sessions of training. Peer-to-peer sessions will be organised with transfer candidates, and facilitated knowledge exchange will improve the transferability kit. The initial budget will be enhanced with additional financial instruments and methodologies for accessing public or private funding depending on the scale and type of interventions. Engaging a critical mass of local stakeholders pertaining to the quadruple helix model will be encouraged from the very beginning of the project, to foster co-management processes, as well as public-private partnerships. Empowering public authorities to replicate the project is one of the EU goals, therefore, dedicated outputs on transferability will be covered through: EU Innovation Solution Model, Replication feasibility and opportunity study, NBS Toolkit and the Resilience Plan.

Part D - Work plan

WP Nr.	Title	Work package type	Start date	End date
1	Project Preparation and Initiation Phase	Project Preparation and Initiation Phase	05/2023	11/2024
2	Project Management	Project Management	12/2024	05/2028
3	Monitoring and Evaluation	Monitoring and Evaluation	12/2024	05/2028
4	Communication and Capitalisation	Communication and Capitalisation	12/2024	05/2028
5	Enabling Urban Resilience (People-People connection)	Thematic	12/2024	11/2027
6	Real-Time Digital Green Resilience Ecosystems (Connections Enhancement)	Thematic	12/2024	11/2027
7	Green Mobility Adaptive Frameworks (People-Places connection)	Thematic	01/2025	11/2027
8	NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)	Thematic	12/2024	11/2027
9	Transfer	Transfer	08/2025	05/2028
10	Closure	Closure	06/2028	08/2028

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Work Plan Per Work Packages - Work Package 1 Project Preparation and Initiation Phase

Title Project Preparation and Initiation Phase

Number	Title	Start Date	End Date	Budget
1.1	Project Preparation	Start date 31/05/2023	End date 05/10/2023	Budget 25,000.00
1.2	Project Initiation Phase	Start date 01/06/2024	End date 30/11/2024	Budget 75,000.00

Partners Involvement

Responsible Partner PP 1 - Municipality of Bistrita

Involved Partners PP 1 - Municipality of Bistrita

Summary

Work Package Project Preparation and Initiation Phase covers two stages related to project development and getting ready for the implementation, prior the start of the project Implementation phase. Under Project Preparation, the Work Package includes activities needed for the definition and the design of the project proposal (Application Form). Under Initiation Phase, the Work Package includes all tasks that are carried out before the official start of the project implementation and dedicated solely to administrative preparation to receive the EU funds and the set-up of the project management team. Please note that start and end dates for the listed below deliverables are indicative and should serve applicants to understand the logic and sequencing of the Initiation Phase steps, as well as to prepare in advance for on-time delivery of the expected deliverables.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 1.1	Project Preparation		Project Preparation		Start date	End date
					31/05/2023	05/10/2023
D 1.1.1	Deliverable number	Deliverable		Target value	Start date	Delivery date
	Title	Application Form submitted		Target value	Start date	Delivery date
	Description	Preparation and submission of the Application Form version 1.		1	31/05/2023	05/10/2023



A 1.2	Project Initiation Phase	Project Initiation Phase	Start date	End date
			01/06/2024	30/11/2024

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Deliverable number	Deliverable		Target value	Start date	Delivery date
D 1.2.1	Title	Initiation Meeting			
	Description	Remote meeting between the project managers and the Permanent Secretariat to initiate the first contacts, present the overall Initiation Phase process, steps, and calendar, and notably discuss the recommendations from the Selection Committee and the project readiness check.	Target value 1	Start date 01/06/2024	Delivery date 14/06/2024
D 1.2.2	Title	Signature of the Subsidy Contract			
	Description	The Subsidy Contract is the legally binding document between the project and the EUI-IA. It sets out all the conditions under which the project is approved and stipulates the legal basis for funding. It is issued by the EUI Entrusted Entity and sent to the Main Urban Authority to be signed at the beginning of the Initiation Phase.	Target value 1	Start date 01/06/2024	Delivery date 31/07/2024
D 1.2.3	Title	Set up of the project management team and administrative prerequisites for EU funds receipt			
	Description	The project management team is hired to carry out the Initiation Phase and set up the main administrative prerequisites for project management. Information on the composition and contact details of the project management team and bank account details must be filled on the EEP system.	Target value 1	Start date 01/06/2024	Delivery date 31/07/2024
D 1.2.4	Title	EUI – Innovative Actions training seminar			
	Description	Compulsory training seminar for project managers to present the basic information to manage an EUI-IA project: project and financial management, reporting, monitoring, control, deviations, changes, communication, and transfer.	Target value 1	Start date 01/06/2024	Delivery date 31/07/2024
D 1.2.5	Title	Addressing Selection Committee Recommendations and other adjustments			
	Description	To address the list of Recommendations issued by the Selection Committee, the project managers submit to the Permanent Secretariat for validation a proposal reflecting how they intend to address each recommendation (either by providing a clarification and/or by explaining how the necessary adjustments will be reflected in the Application Form).	Target value 1	Start date 01/06/2024	Delivery date 31/08/2024
D 1.2.6	Title	Updated Application Form			
	Description	Based on the joint work with the Permanent Secretariat carried out in 1.2.5 and 1.2.7, the project Application Form (version 1) must be updated accordingly and submitted in the EEP system within 3 months following the Initiation Meeting. The new version must reflect the Selection Committee Recommendations, (ii) include approved minimum set of Results Indicators, and (iii) potentially reflect minor adjustments to the project Work Plan addressing the readiness check. This new version validated by the Permanent Secretariat becomes the new official project document.	Target value 1	Start date 01/06/2024	Delivery date 31/10/2024
D 1.2.7	Title	Readiness check and ex-ante audit			
	Description	Project readiness check is carried out by the First Level Control during the ex-ante audit and by the Permanent Secretariat. It covers project management, administrative, financial, and operational issues likely to affect the sound execution of the project and the achievement of targeted project results and examines if the project has a reliable strategy and sufficient anticipation regarding the topics addressed in the Application Form risk management section. A positive outcome is conditional to the successful completion of the Initiation Phase.	Target value 1	Start date 31/08/2024	Delivery date 31/10/2024
D 1.2.8	Title	Project Monitoring Plan			
	Description	Based on the latest version of the Application Form (1.2.6), project managers draft a Monitoring Plan including the main project milestones. This document is jointly agreed with the Permanent Secretariat and will be the basis for the ongoing monitoring throughout project implementation.	Target value 1	Start date 01/06/2024	Delivery date 30/11/2024
D 1.2.9	Title	Partnership Agreement signed by all Project Partners and formalized identification of Transfer Partners			
	Description	The Partnership Agreement is the legally binding document signed between all Project Partners, setting out all the duties and responsibilities of each Project Partners before, during and after the project implementation. A Partnership Agreement Template is provided by the Permanent Secretariat but needs to be tailored to the Partnership needs. An electronic copy of the Partnership Agreement signed by all Partners shall be sent to the Permanent Secretariat. At the end of the Initiation Phase, Transfer Partners must also be formally identified (e.g., letter of intent).	Target value 1	Start date 01/06/2024	Delivery date 30/11/2024



Work Package Budget

Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Total (€)
Municipality of Bistrița	0.00	0.00	0.00	100,000.00	0.00	100,000.00

Work Plan Per Work Packages - Work Package 2 Management

Title	Project Management
Start Date	01/12/2024
End Date	31/05/2028
Budget	166,950.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Bistrita
Involved Partners	PP 1 - Municipality of Bistrita PP 2 - Indeco Soft PP 3 - Urbasofia PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca PP 5 - Babes-Bolyai University PP 6 - Bistrita - Youth for the Community PP 7 - E-Civis Association PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP) PP 9 - Technical University of Cluj-Napoca

Summary

WP2 is led by MUA and is responsible for achieving the sound management and coordination of the partnership, guaranteeing the achievement of project goals and objectives. MUA ensures effective and efficient coordination and management:

- Defining management structures and procedures to ensure efficient and effective project governance and partnership cohesion (internal communication);
- Management control and strategic direction, through Work Plan management, elaboration of reporting, progress monitoring and QA methods;
- Coordination of activities with the EUI-IA Permanent secretariat, ensuring that the project runs smoothly in accordance with the Subsidy Contract;
- Preparation of legal proceedings towards implementation of investments, permitting, other legal procurement documentation

MUA's Project Manager is responsible for the day-to-day coordination of the project and interfacing with the PO and Permanent Secretariat. Decision-making will be conducted at three levels (strategic, operational and technical and administrative) through appointed structures consisting of representatives of the Urban Authority and partners.

WP2 will also manage project risks, prepare procurements and ensure sound legal and audit compliance.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 2.1

Set Up of the Project Management
Structures and Governance
framework

With the coordination of the MUA, the first three months of the project will be dedicated to setting up the right configuration and structures for functional project management, involving all PP. The draft of the Rules of Procedures (RoP) will be set up by MUA. RoP defines the following: proposed members of the project bodies (Content and Strategic Management, Operational Management, Technical and Administrative Management), internal procedures for operation, division of tasks among the members, and decision-making processes. The RoPs and plan will be adopted by the partnership at the Kick-off Meeting.

Start date

01/12/2024

End date

28/02/2025

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

Project Management Structures, Governance framework and Rules of Procedures (RoP)

D 2.1.1

Description

D.2.1.1 will set up the management and governance framework for the project execution at the strategic, operational and technical levels. In addition, it appoints expertise resources, and the appropriate decision-making bodies committed to the project objectives. The partnership organisational chart and representatives of the Content and Strategic Management (CSM), Project Coordination Team (PCT), and Technical and Administrative Management (TAM) will be appointed, clarifying the RoP on the three levels. The created framework will support the PM (MUA) in the coordination of the project and ensure a smooth collaboration between partners, work packages and outputs. The PM is in charge of controlling expenditure and procurement procedures.

Target value

Delivery date

28/02/2025

Title

Project Management and Risk Plan (PMRP)

D 2.1.2

Description

The PMRP defines the objectives, budget, timeline and risk mitigation to ensure successful completion. It explains the operational rules, associated roles and procedures required for a well-organised execution among beneficiaries, providing a periodically updated comprehensive and practical guide. In addition, the plan will include a management structure and procedure guide, quality control and contingency. It will also detail workflows, to ensure full development control, from the financial and technical standpoint. The PMRP will analyse and classify identified risks, compiled in a Qualitative & Quantitative risk impacts chapter. The assessment of potential risks may require mitigation measures.

Target value

Delivery date

28/02/2025

A2.2

Project Coordination and Internal
Communication among
Partnership

Project coordination is crucial at each stage of the project and highly depends on fluent communication between all levels within the project. A2.2 will foster and facilitate the daily internal communication and operational management within the partnership. This activity will be led by the MUA and involve all the PP, while providing liaison with the Permanent Secretariat. A2.2 foresees a number of Project Meetings as instruments for progress monitoring, and operational alignment while improving collaboration and innovation within the working teams. Digital tools and meetings will facilitate optimal cooperation, while a reporting framework will safeguard a common awareness about the project's progress, delays and achievements.

Start date

01/12/2024

End date

31/05/2028

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

Project Coordination and Operational Management Toolkit

D 2.2.1

Description

The report will clarify the internal communication activities among the PPs. The project coordination team (PCT) will communicate with the consortium using email, meetings (online, hybrid or in-person) and digital platforms. MUA as leader, ensures that all the partners have the necessary information to carry out their tasks and notifies if external factors might impact or influence the project. The operational competencies of the coordinator and team are set in D.2.1.1. For quality assessments and early interventions in case of need, the coordinator, working closely with the WP Leaders, will correlate the implementation of carried-out activities. Decision-making will be ensured through consensus-based procedures and a majority vote.

Target value

Delivery date

1

31/03/2025

Title

Internal Communication Partnership Protocol

D 2.2.2

Description

To ensure efficacy, an Internal Communication Protocol will be prepared to facilitate communication cohesion and decide upon standardised communication methods. The protocol will define the communication rules and timeframes while providing a comprehensive partner contact list. The list will establish contact links for different situations and complementary communication means, clarifying the management organisational structure. To facilitate information flow within the Partnership, proper communication and meet document-sharing requirements, easy-to-use collaborative tools will be selected (i.e.: Microsoft Teams, Sharepoint, Google Drive). The specific toolkit provided by the MUA will follow European and national regulations.

Target value

Delivery date

1

28/02/2025

Title

Operational Project Meetings

D 2.2.3

Description

In order to maintain project momentum and strengthen collaboration, regularly scheduled meetings will be arranged. The Kick-off meeting will take place in M1. The CSM, PCT and TAM will meet bi-monthly, while annual plenary meetings (M12, M24, M36) will give a progress overview. Consortium Meetings will be organised by MUA quarterly with the participation of all partners to liaise activities, assess financial performance, and anticipate thematic and administrative tasks. In case of a course change, daily or ad hoc meetings can be organised. The agendas and minute reports will be available on the internal file-sharing system. Annual meeting reports D2.2.3 will be delivered by MUA and be further integrated into A2.3 deliverables.

Target value

Delivery date

1

31/05/2028

A23

Project Work Plan Management
and Reporting

Coordinated by MUA, A.2.3 is implemented throughout the project, ensuring continuous implementation, data collection, integrated work plan delivery and prompt and complete technical reporting to the PS. A.2.3 also ensures continuous communication with the Permanent Secretariat (PS). This activity is led by the PM, working closely with the WP Leaders. Any project changes following periodic reporting outcomes and review of the Risk Plan will be carried out under the coordination of MUA, with interim reporting allowing the assessment of work quality and ensuring early intervention in case of necessity.

Start date

01/12/2024

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 2.3.1	Title	Annual Progress Reports (APR)		
	Description	<p>After the end of each year, the PM, with the support of delivery partners, will produce an APR, providing an overview of the implemented activities and achieved results, following the template to be provided by PS. The APR will report on: State of the partnership, Status of WP (activities, deliverables, Outputs, Partners involvement), Evaluation, Risks management, Changes and deviations to the initial plans, spending profile, and target groups. Depending on the state of expenditure, the second APR will be accompanied by a Financial Claim (FC).</p> <p>APR3 will report on achieved Thematic WP results, including the reach of proposed indicators, analyse outcomes and provide an outlook on the final 6 months of monitoring and transfer.</p>	Target value 3	Delivery date 31/05/2028
D 2.3.2	Title	Calendar of co-creation activities for synergic efforts		
	Description	<p>Leveraging co-creation methodologies expertise, PP3 will elaborate the calendar by M03. Participatory processes follow the project throughout all stages, with the scope of integrating public requirements and preferences into the innovative solution. Local communities will be engaged on a variety of topics: baseline and thematic analysis, co-designing green interventions, co-assessment of development priorities, exploring the urban settings and collaborating for a set of requirements for planned interventions, pro-active involvement in urban climate monitoring platforms.</p> <p>The deliverable will strategically cluster thematic events from WP5-8, in order to deploy smooth interdisciplinary collaboration.</p>	Target value 1	Delivery date 01/02/2025

A24

Project Financial Management

Financial management and technical reporting will be coordinated by MUA, with the involvement of all PP. The activity will oversee the accounting of project earned value and consumed resources while tracking any potential deviation from the forecast. Sound financial management will be ensured through periodic reports as well as audits, which will be an aggregated part of the APR (3 reports in total, counting the last APR in Closure). The scope is to ensure proper receipt and accurate expenditure of the EC financial contribution through EUI-IA funding. Financial managers will be appointed by each delivery partner, in order to have strict control on control on budget management in accordance with the programme rules and regulations.

Start date

01/12/2024

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 2.4.1	Title	Project Financial Management and Reporting Procedures		
	Description	The Procedures will be delivered by the MUA in the month 3 of the project (coherent with the PMP and RoP) and will include the internal financial monitoring system (templates and reporting tools for continuous reporting), budget monitoring, internal procedure for managing ERDF payments, Audit Trail Management and archiving of financial records. It will include an initial forecast of budget as a live document updated in internal biannual financial reports (D 2.4.2).	Target value 1	Delivery date 28/02/2025
D 2.4.2	Title	Internal Biannual Financial Progress Reports		
	Description	The internal progress monitoring system assists the partnership in successfully implementing the activities within the foreseen resources and timelines. To facilitate prompt development of FCs, avoid risks and manage spending effectively, using the tools and procedures in D.2.4.1, all partners will report progress internally every 6 months. Progress will be discussed at the six-monthly all-hands management meetings. Beside monitoring and evaluation, these reports will include budget forecasting updates and audit preparation documentation, fast-tracking official financial reporting to the PS.	Target value 8	Delivery date 31/05/2028
D 2.4.3	Title	Financial Claims		
	Description	The submission through EUI-IA EEP and approval of the three Financial Claims, including project expenditure validated by the FLC (complying with the approved ERDF rate). The first two years will be financed through advance payment, while the third, through reimbursement, therefore pre-financing options for expenditures will need to be anticipated during the last phase of project implementation. It is foreseen to reach 35% expenditure after deployment of WP7 investments - August 2026, contingencies included.	Target value 2	Delivery date 31/05/2028

A 2.5

Procurement and Legal
proceedings

The MUA will coordinate with the support of all the consortium, PCT, TAM team and CSM team, and will collaborate to guarantee the safeguarding of all procurement, tenders and Infrastructure/construction work regarding the legal proceedings and audits trail purposes with transparency in the decision-making process. B-CONNECT will follow the European Union legislation (Directive 2014/24/EU) on public procurement, by preparation of the tender documents, adequate publication, evaluation and executive decision, and also contracts with the application of exemption rules. All the project partners participate in the activity by informing the legal bodies about their procurement procedures which will be in line with the MUA directives.

Start date

01/12/2024

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 2.5.1	Title	Procurement Plan and Work Authorisations		
	Description	It includes the technical documentation and work authorisation to adhere to the public procurement procedures for I.5.1-I.8.3 through detailed documentation, such as public procurement notes, evaluation process, timeframe, ToR, offers, and contracts. It is structured as a reference point for financial control and audit. Deliverables will contain the legislation that will have to be followed, the specification and the law to follow and how partners will implement it. Scope: permits for green interventions, requirements for green interventions, legislation compliant measures for mobility, building permits or requirements for Hubs (I.5.1, I.8.1) and Data Centre (I.6.1). Draft elaborated M05, final plan M11. Annual revision might be needed.	Target value 1	Delivery date 30/11/2025
D 2.5.2	Title	First Procurement follow-up report		
	Description	The D.2.5.2 follows a periodic reporting scheme to the Secretariat. All procurements and tenders will be reported at this deliverable, including all the details for the subcontractors, the contract number, project partner, type of contract, description of the purchased items/services, estimated amounts, timeframe, description of the procedure, stages of the acquisition process, date and value of the contract. Main achievements: I.5.1 Mobile Creative Hubs - Eco-guilds and I.6.1 Integrated System and Data Centre for Urban Climate and Pollution Monitoring, I.8.1 Modular autonomous hydroponic towers.	Target value 1	Delivery date 18/12/2026
D 2.5.3	Title	Second Procurement follow-up report		
	Description	The D.2.5.3 follows a periodic reporting scheme to the Secretariat. All procurements and tenders will be reported at this deliverable, including all the details for the subcontractors, the contract number, project partner, type of contract, description of the purchased items/services, estimated amounts, timeframe, description of the procedure, stages of the acquisition process, date and value of the contract. Main achievements: Infrastructure works - green interventions in WP7.	Target value 1	Delivery date 31/05/2028

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	20% flat rate	N/A	N/A	meetings facilitation and management support		
Amount (€)	0	0.00	0.00	0	0	0.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3 FTE	N/A	N/A			
Amount (€)	23,550	3,532.50	1,177.50	0	0	28,260.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3,7 FTE	N/A	N/A			
Amount (€)	23,550	3,532.50	1,177.50	0	0	28,260.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	2,5 FTE	N/A	N/A			
Amount (€)	16,375	2,456.25	818.75	0	0	19,650.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3 FTE	N/A	N/A			
Amount (€)	17,950	2,692.50	897.50	0	0	21,540.00
PP 6 - Bistrita - Youth for the Community	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3 FTE	N/A	N/A			
Amount (€)	16,550	2,482.50	827.50	0	0	19,860.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,6 FTE	N/A	N/A			
Amount (€)	5,250	787.50	262.50	0	0	6,300.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3 FTE	N/A	N/A			
Amount (€)	17,950	2,692.50	897.50	0	0	21,540.00

PP 9 - Technical University of Cluj- Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	3 FTE	N/A	N/A			
Amount (€)	17,950	2,692.50	897.50	0	0	21,540.00
Total (€)	139,125.00	20,888.75	6,356.25	0.00	0.00	166,950.00



Indicative budget breakdown per year						
Year	2024	2025	2026	2027	2028	Total
Amount (%)	4 %	34 %	31 %	31 %	0 %	100.00 %
Budget (€)	6,678.00	56,763.00	51,754.50	51,754.50	0.00	166,950.00

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Work Plan Per Work Packages - Work Package 3 Monitoring and Evaluation

Title	Monitoring and Evaluation
Start Date	01/12/2024
End Date	31/05/2028
Budget	29,400.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Bistrita
Involved Partners	PP 1 - Municipality of Bistrita PP 2 - Indeco Soft PP 3 - Urbasofia PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca PP 5 - Babes-Bolyai University PP 6 - Bistrita - Youth for the Community PP 7 - E-Civis Association PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP) PP 9 - Technical University of Cluj-Napoca

Summary
WP3, led by MUA and facilitated also through external expertise and collaboration with all PPs, ensures continuous monitoring, providing an assessment of the progress and performance and evaluating if the intermediate and final objectives have been achieved. WP3 will pay attention to the project timeframe and expected results, following the SPOs in correlation to related indicators and KPYs. WP3 contributes to reaching the best results in terms of implementation, experimentation, accomplishment, transfer and sustainability. Beyond the project development, WP3 ensures the monitoring and assessment of the innovative solution proposed by B-CONNECT. The assessment of the B-CONNECT proposed solutions will be achieved through collecting quantitative and qualitative information, by: Integrating citizen-driven information and performing environmental lab analysis beyond desk research and site observations. The WP will finalise with evaluation factsheets and potential contributions to policy upgrades for other European cities, sharing good practices raised from the project implementation with a special focus on outputs and upstream research.

Activities and Deliverables				
Activity number	Activity title	Activity description and partners involved	Start date	End date

A 3.1

Monitoring of project performance

Lead MUA with the support of all PPs. Following the monitoring plan (D.1.2.8) established during the Initiation phase, the activity will monitor and report the project's progress and performance. Led by the MUA and through the support of all PPs, A3.1 will systematically collect relevant data and assess results on key dimensions of the project and if complementary deliverables and outputs have been produced. Monitoring and Meeting reports will be drafted to keep the project's implementation on track and in line with the EUI-IA program requirements and the application form, the Partnership Agreement, the project management plan, and the project risk plan defined in activity A.2.1.

Start date

01/12/2024

End date

31/05/2028

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

Project Monitoring

D 3.1.1

Description

The deliverable will be an evolving document, to measure quarterly the ongoing project activities ('where we are') and what progress has been made to meet the expected outputs. Project Monitoring Plan (D1.2.8) is delivered in M12. Led by MUA, D3.1.1 aims to assess the progress evaluation provided by constant monitoring of the B-CONNECT project. Specifically, it will look at the level of success of the project's outreach plan and its public reception at national and international levels; the local activities as well as the implementation of B-CONNECT solutions – delivered in M42.

Target value

Delivery date

31/05/2028

Title

Site visits and Ad-Hoc Meetings - Final Report

D 3.1.2

Description

Led by MUA. In order to facilitate the capitalisation process from the research and implementation phases, Activity 3.1 will also encompass the organisation of the Project Site Visits by the Permanent Secretariat, meetings, walkthroughs and investment site visits, arrangement of PS interviews with local stakeholders, ad-hoc meetings and generally, the operational interfacing. D3.1.2 report, on the outcome of the site visits and Ad-Hoc meetings, will be delivered at the end of the project.

Target value

Delivery date

30/11/2027

Title

Milestone Reviews

D 3.1.3

Description

Lead MUA with the support of all PPs. D3.1.3 is a live document that reports on the milestone achievement - in communication with the Permanent Secretariat. It will ensure that the evaluation framework is implemented as planned and that there are no gaps in data that will hinder the implementation of counterfactual methodologies. The annual report will also address issues about scoping, piloting and other risks that might hinder the successful assessment of the innovation action. In case corrective actions will be needed, D3.2.1 will be amended accordingly to ensure that the innovative solution will be evaluated successfully.

Target value

Delivery date

30/11/2027

A3.2

Establishment of the evaluation framework of the innovative solution

Led by MUA, A.3.2 will prepare the methodology to evaluate the project and how to achieve it. The activity will define a set of indicators that will measure the success of the implemented activities. Following the project targets and objectives, the indicators will define the goals of the innovative solution. Once the indicators are clearly identified and developed, a step-by-step methodology will be planned. The plan will present the tools and instruments needed to assess the innovative solution with regards to the defined key indicators. The establishment of the framework will be led by PP5 and finalised in M11. This will allow a fine-tuning of KPYs during the initial stages of the project.

During the Initiation Phase, the Consortium will have a preliminary plan to create the baseline data set - with the deadline of March 2025 for collecting the baseline data. PP4 deals with soil, biodiversity and vegetation (using their lab equipment), and PP5 will use their mobile laboratory and other equipment to provide baseline data for urban climate and air quality. Based on the baseline data delivered in March 2025, the Consortium will refine a coherent project evaluation methodology and plan, after the technical aspects of the sensors deployed in WP6 are clarified - hence the deadline of the deliverable is 30/11/2025.

Start date	End date
01/09/2025	31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 3.2.1	Title	Project evaluation methodology and plan	Target value 1	Delivery date 30/11/2025
	Description	Lead MUA with the support of all PPs. The measuring of B-CONNECT results will be done through the indicator framework (not exclusive) provided through the AF and completed with data from the WP5, WP6, WP7 and WP8. The output indicators are used to measure the main results of project activities and corresponding WPs. Finally, the result indicators are used to measure the changes sought by the project from environmental, economic, and ecological points of view. Regarding the territorial expected change, the evaluation provided through WP3 will make use of local information and will lay out the evaluation of perceptions of the local group identified in the project and of the citizens towards project actions. The main categories of tools that will be developed to collect quantitative and qualitative data are the following: 1. citizen-related data (PP2&PP3), 2. air quality, urban microclimate and mobility (PP5&PP2), 3. soil health, biodiversity and vegetation (PP4). These three categories are related to the three conceptual dimensions of the project: the people-people connection, the people-places connection and the people-nature connection. Environmental data, urban climate indicators, mobility-related metrics, and digital participation data are collected throughout the project's lifespan, with bi-annual or seasonal NBS impact monitoring in spring and autumn, coordinated co-creation events every three months, and comprehensive data collection during these events to avoid local participation fatigue. The anticipatory risk management plan ensures the harmonisation of investment, technical requirements, and co-creation schedules, with approximately 37 co-creation activities planned across various work packages.		
D 3.2.2	Title	Innovative actions evaluation report	Target value 1	Delivery date 31/05/2028
	Description	Responsible: MUA with the support of PP2, PP3, PP4, PP5 (corresponding to the three pillars of the project and their connection to specific Work Packages: WP5 People-People, WP6 - providing the development framework for the rest of thematic WPs, WP7 People-Places, WP8 People-Nature). The deliverable will address the final evaluation of the innovative actions of the project. The evaluation will follow the methods identified in D.3.2.1. The deliverable will be implemented shortly after the completion of the innovative action to ensure that the impact of the action corresponds to the collected data. The deliverable will contribute to the D3.4.1 final evaluation.		

A 3.3

Data collection on the
implementation/performance of the
innovative solution

Lead MUA with PP2, PP3, PP4 and PP5 support. A3.3 will collect multilevel sets of data determined in the initial phases of the project as well as with the network of sensors (WP6), and additional measurements done by PP4, and PP5. The data needed to monitor the expected outputs and results will be internally collected by the project partners and externally, through the local networks of stakeholders engaged in the project to evaluate the implementation and performance of the innovative solution and the main project output(s) (quantitative and qualitative data collection). MUA will closely monitor the overall procedure, advise responsible Partners about the data collection responsibilities, send frequent reminders about their upcoming tasks, and check the quality and completeness of the data uploaded on the database.

The data collection starts after the first year and lasts 24M until the end of the project. This component is needed to gather a robust and comprehensive database for the final evaluation of the innovative solution following indicators.

Start date

01/03/2025

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 3.3.1	Title	Baseline Data and Thematic Analysis: Integrating user-driven Insights	Target value 1	Delivery date 31/07/2025
	Description	Led by PP3 with MUA coordination, and involvement of PP2-4-5, supported by PP8-8-9 (for outreach), it represents the process for collecting quantitative and qualitative information, by: (1) Performing desk research and site observations. (2) Integrating citizen-driven information (see A5.1) (3) Lab analysis for: urban meteorological and air quality (using PP5 ACTRIS lab), soil health and contamination levels (using PP4 infrastructure and equipment). This evaluation establishes a baseline to be compared with the D.3.2.1 Final report to assess project impact. Activity starts M01, and ends in M08, documenting the initial on-site conditions, including urban climate, mobility, urban landscape, and green infrastructure before interventions.		
D 3.3.2	Title	Data Management and Repository Establishment	Target value 1	Delivery date 30/06/2025
	Description	Activity managed by PP2 in collaboration with scientific partners PP4, PP5, PP8, PP9. The deliverable outlines the infrastructure and procedures for data collection, management, and repository setup (in compliance with up-to-date national and international privacy regulations). The data repository will centralise real-time datasets, facilitating cross-analysis and evaluation, making the impact assessment concrete and valuable, especially for TP and for the development of urban resilience strategy (see A5.5).		
D 3.3.3	Title	Final Report on Data collection and Indicators' achievement	Target value 2	Delivery date 31/05/2028
	Description	Led by MUA, with the support of all PPs. The deliverable will be developed in two stages: an intermediate one - the Mid-term data collection status (Delivery Date 30/05/2026) and the Final report on data collection and indicators' achievement (Delivery Date 31/05/2028). The Mid-term report will be led by MUA and PP3, to ensure that the data collected so far is in line with the Baseline Data and Thematic Analysis as established in D3.3.1. The aim is to ensure that provided information is of high quality while setting out areas of improvement and step-up activities where necessary. The data provision will use the same tools for qualitative and quantitative as provided in D3.3.1 to achieve continuity. The Final report will be led by MUA and PP3, the deliverable represents the latest iteration of the data collection, reporting on the achievement of result indicators' and innovative Interventions impact.		

A 3.4

Final evaluation of the innovative solution and reporting on result indicators

Led by MUA, with the support of all PPs. The Final evaluation will assess the project's success, impact, scalability indicators and contributions towards the overarching development goals of Bistrița, determining whether B-CONNECT has achieved what was initially planned. The gathered data will build on interim reports, continuous project monitoring, WP6 sensors as well as results of individual assessments conducted through feedback factsheets (WP5). It will derive policy learning outputs, specifically targeting replication in other contexts. EUI networks will be engaged by the MUA, Urbasofia and partners to disseminate the final toolkit of lessons learned and recommendations. The activity will be implemented in the last 6 months of the project.

Start date

01/07/2027

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 3.4.1	Title	Innovative solution - Final assessment report		
	Description	<p>Led by MUA, with the support of all PPs. Starting from the analysis and evaluation of resulting datasets, D3.4.1 will assess whether expected objectives, results and indicators have been met. It will measure the level of success of the project's outreach plan and its public reception at local, national, and international levels; the innovative tested activities as well as the integration of the solution in the urban environment, the efficiency of the system; the overall community engagement and involvement. It will also include a knowledge exchange section, describing activities in which external stakeholders were engaged, i.e. through expertise, events with EUI Experts, etc. A final round of interviews with project participants will also be included to support MUA and PP3 in performing the final evaluation and potentially complement the data collected so far (with the delivery date: 30/04/2028). The report will also define the provisions for future monitoring, capitalization, and knowledge transfer.</p>	Target value 1	Delivery date 31/05/2028
D 3.4.2	Title	Lessons learned and Evaluation Factsheets		
	Description	<p>Led by MUA, with the support of all PPs. This deliverable will discuss bottlenecks in terms of evaluation and how the team tackled them. Limitations, challenges, drivers and tips and tricks will be integrated. Furthermore, the lessons learned report is crucial in providing answers to the "how" and "why" in terms of project continuation after it has been closed. A section related to the knowledge stock that PPs and Transfer Cities gain access to will be included. The lessons learned component and most relevant findings from D2.4.1 will be synthesised through Evaluation Factsheets, which will allow for an easy-to-follow understanding of the project development. The Factsheets will be publicly available on social media channels, as well as be displayed in an open space in Bistrița.</p>	Target value 1	Delivery date 31/05/2028
D 3.4.3	Title	Policy and EUI contributions		
	Description	<p>Led by MUA, with the support of all PPs. D.3.4.3 will draw out and capitalise on learnings, pinpointing strengths, and challenges of the B-CONNECT approach. It will provide the PS with methodological guidelines aimed at maximising effectiveness, as well as ensuring the best adaptation of project solutions to other contexts. D.3.4.2 will share good practices raised from the project implementation with a special focus on outputs and upstream research. The document will include a section on policy implementation scenarios and how they were tackled. The report could be used by other municipalities and policymakers to enhance their capacity in terms of carbon neutrality under the NEB and co-owned green transformation.</p>	Target value 1	Delivery date 30/04/2028

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	20% flat rate	N/A	N/A			
Amount (€)	0	0.00	0.00	0	0	0.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	1,2 FTE	N/A	N/A			
Amount (€)	7,000	1,050.00	350.00	0	0	8,400.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	1,2 FTE	N/A	N/A			
Amount (€)	7,000	1,050.00	350.00	0	0	8,400.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	87.50	0	0	2,100.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	87.50	0	0	2,100.00
PP 6 - Bistrita - Youth for the Community	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	87.50	0	0	2,100.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	87.50	0	0	2,100.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	87.50	0	0	2,100.00

PP 9 - Technical University of Cluj- Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,25 FTE	N/A	N/A			
Amount (€)	1,750	262.50	67.50	0	0	2,100.00
Total (€)	24,500.00	3,675.00	1,225.00	0.00	0.00	29,400.00

Indicative budget breakdown per year						
Year	2024	2025	2026	2027	2028	Total
Amount (%)	0 %	35 %	33 %	32 %	0 %	100.00 %
Budget (€)	0.00	10,290.00	9,702.00	9,408.00	0.00	29,400.00

Work Plan Per Work Packages - Work Package 4 Communication and Capitalisation

Title Communication and Capitalisation

Start Date 01/12/2024

End Date 31/05/2028

Budget 75,600.00

Partners Involvement

Responsible Partner PP 1 - Municipality of Bistrita

Involvement Partners

PP 1 - Municipality of Bistrita
PP 2 - Indeco Soft
PP 3 - Urbasoftia
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca
PP 5 - Babes-Bolyai University
PP 6 - Bistrita - Youth for the Community
PP 7 - E-Civis Association
PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAP)
PP 9 - Technical University of Cluj-Napoca

Summary

An integrated, multichannel, and participative C&D strategy led by MUA with all partners' participation will support the project implementation, combining exchange on the project's contents at the EU and National level with strong, interactive communication and engagement activities at a local level. Communication will support transversally WP5 (urban resilience and social connections) and WP6 (digital ecosystem development), leading to green mobility realisation in WP7 and NBS-driven urban regeneration and biophilic design solution (WP8). It will also boost the transfer process, assure the proper visibility to TPs and enhance the replicability of the solution (WP9). Target groups at the local level will be engaged to gain knowledge and take ownership of B-CONNECT's innovative solutions while promoting scalability. The multichannel strategy will capitalise on the existing partners' ecosystems by introducing innovative content in a regular and interactive way. Citizens and stakeholders will be directly involved in the design of the content. Visibility in local & EU events, social media activation, video interviews, and scientific articles will ensure a large-scale impact. The capitalization activities will promote the project outside the city, opening an exchange channel at the EU level with Policymakers and practitioners, supporting replicability.

Communication Objectives

- Disseminating the project outcomes and activities among all target groups, of the relevant local, regional, national and international actors.
- Communicating and promoting the project and its results to the general public at national, European and International levels.
- Raising awareness, introducing and promoting the B-CONNECT model
- Raise awareness on how cities can implement a different approach in construction and renovation/reuse of historical and abandoned buildings
- Developing synergies with other EU projects and other partners
- To increase city co-design participation through digital tools, Immersive events and promotion of creative art and diffuse interventions

Target groups

In order to bring together a B-CONNECT community and create momentum, the following target groups are defined:

- 1) European and national-level target groups:
EU cities transfer and other EU cities: 15 Municipalities
Researchers and academics: 100
Policymakers: 50
EU and national institutions: 26 institutions
- 2) Internal target groups:
Citizens: 7,500
Disadvantaged / unemployed groups: 100
Local associations (organisations, NGOs): 7 associations
Municipal public service provider: 10 providers
Local SMEs and private actors: 15 SMEs
Cultural creative industry representatives: 35
Schools: 8 schools
Higher education: 5 institutions

Reach out and engagement of target groups

B-CONNECT will use a multi-channel approach to reach the target groups described above.

- 1) Scientific community, cities and urban practitioners: EU channels, capitalising the connection of MUA and partners at the EU level and by organising 3 exchange visits, 3 International Conferences (such as ISOCARP, IFA, ISOP, CORP), by activation of a LinkedIn account, contribution of UIA expert and involvement of institutions in 2 high-level workshops
- 2) Local stakeholders: In cooperation with the WP5 through local in-presence events, social media platforms, daily feeding, interviews, local newspaper and TV, stand at local fairs and events, producing a B-CONNECT mini-documentary.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 4.1	Kick off communication activities		The visual identity of the project will be produced following a participative process with PP and local stakeholders. Within M3, all the social media channels (Instagram, YouTube, Facebook, Twitter, LinkedIn) will be open and used for launching the in-presence kick-off event organised in Bistrița and video-streamed. A Communication and dissemination plan will be presented during the KoM, including a monitoring and evaluation component. MUA will coordinate the activities with the support of the consortium. The activities will aim to ensure sustainability of the design of materials and events; inclusiveness for vulnerable groups; consistency with the project's objective		Start date	End date
					01/12/2024	31/05/2028
Deliverable number	Deliverable and partners involved			Target value	Delivery date	
D 4.1.1	Title	Communication and Dissemination Toolkit				
	Description	Mapping of the PP's channels and assessment of the tools used in the city ecosystem will be carried out as a preparatory activity. Based on the B-CONNECT work plan and the preliminary assessment, target groups will be identified in detail, tools, a timeline, and a tailored communication strategy will be developed. Targets and indicators will be defined and monitored every 6 months. A mid-term and final evaluation report on communication will be delivered in M18 and in M36. MUA will be responsible for the C&D plan and the PP for the dissemination report. Communication toolkit will be delivered by MUA in M1 considering: Ecological impact of the communication; Inclusiveness and accessibility of vulnerable groups; Proper visibility to EU.			Target value	Delivery date
D 4.1.2	Title	Communication channels (social media and project website)				
	Description	MUA and PP2 will set up the project website and the following social media project's accounts: Instagram, Facebook, LinkedIn, Twitter and Youtube. Each channel serves a different goal and it's used by different targets (age or interest dependent); the content will reflect the different characteristics of each social media channel, maintaining a coherent visual identity. The individual social media networks of the consortium will be exploited, weekly posts will be distributed, monitoring of the no. of followers the engagement, additional advertising will be made if needed. The baseline followers' number is approx. 1000 – some project features will be integrated into Municipality's application iReport (having an already established audience).			Target value	Delivery date
D 4.1.3	Title	B-CONNECT Launch Event (Kick-off Meeting)				
	Description	To guarantee proper visibility for the launch event (KoM) to be held in Bistrița in M3, PPs, MUA, local elected representatives and staff from relevant networks will be involved as well as the wider group of stakeholders. The event aims at presenting the B-CONNECT objectives to the wider public, introducing the stakeholders to the main project activities and expected results. MUA will make sure that the event will be organised paying attention to the sustainability impact and the media coverage of the initiative, by involving local press and exploiting all the EU channels/platforms/newsletters.			Target value	Delivery date

A 4.2

Promotional and informational
activities

The project objectives will be achieved by reaching out to national and EU-level target groups. Project updates will be provided on the EUI project page; 5 informative videos in Ro and En will be produced; two high-level workshops will be organised. To reach local target groups: one mid-term conference and 5 local events will be organised to present the project; a tailored digital campaign (social media platforms, newsletter); 5 videos will be produced. MUA and PP6 will coordinate the design and implementation of the activities in cooperation with MUA. Already existing networks are going to be mobilised and further extended through this activity. Input will be collected from PPs for the development of newsletters, posts and press releases.

Start date

01/12/2024

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Social Media Campaign and promotional materials		
D 4.2.1	Description	<p>Partners will agree on the design of dissemination and promotional materials (flyers, informative leaflets on the innovative and Nature-Based solutions, posters, pens etc.). Each social media channel will be correlated to a target group, for max. engagement. There is a minimum number of required posts per channel: 52 posts/year on FB, IG, LinkedIn and Twitter; the content will accommodate persons with visual or auditory impairment.</p> <p>5 informative videos on YouTube and 5 narrations/interviews with stakeholders' contributions. All the videos will be uploaded with subtitles in Ro and En.</p> <p>This activity aims to ensure that relevant stakeholders and identified target groups understand the project and are well-informed upon the latest updates.</p>	Target value 1	Delivery date 30/04/2028
	Title	Final Report on Conferences and Events		
D 4.2.2	Description	<p>This report will outline results of:</p> <ul style="list-style-type: none"> - Kick-off meeting and Mid-term conference held in Bistrița (60 participants each) - 2 High-level workshops involving national and EU institutions, to increase visibility (30 participants) in Bucharest through UAUIM and Cluj through USB - 5 B-CONNECT local events in Bistrița - Participation in at least three International Conferences (such as ISOCARP, IFA, ISOP, CORP) to foster interest in the developed model. Sustainable practices will be followed: short and clear publications mainly disseminated electronically, the use of QRCode, printing foreseen only if strictly necessary; using recycled materials and/or sustainable supplies. Publications will be in accordance with communication rules (ERDF/EUI). 	Target value 1	Delivery date 31/05/2028
	Title	Final Report on communication activities		
D 4.2.3	Description	<p>Online Communication Activities:</p> <ol style="list-style-type: none"> 1. B-CONNECT Website development as a public dissemination tool informs on the project context, goals, and progress. PP2 and MUA will be responsible for setting up and constantly updating the website, with the PPs contributions. 2. EUI project 'page, which will be developed following the characteristics of the EUI platform, highlighting the impact generated by the project, and producing 9 articles in EN with PP4, PP5, PP8, and PP9 support. 3. Newsletters. A database will be created with the support of all the PPs, and a CRM opened, bi-annual newsletters will update stakeholders on the project's development. The newsletter (RO) will be complemented by one updated article (EN). 	Target value 1	Delivery date 31/05/2028

A4.3

Capitalisation and dissemination
activities

A4.3 focuses on activities that will safeguard knowledge dissemination and ensure capitalization of project outputs and findings, with long-lasting effects. MUA will lead this activity with the support of all PPs. MUA/PPs will participate in EUI policy labs, knowledge, and capacity-building events. To maximise impact and visibility, the academic and professional network will publish scientific articles and present the project at events and conferences. Through EUI-IA exposure, it will create a network involving relevant projects, experts, cities, and industries. D4.3.3 will be a visual representation of the B-CONNECT roadmap displaying in a visual and easy-to-understand the innovative solution and integration of the NBS piloted results.

Start date

01/12/2024

End date

31/05/2028

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title			
D 4.3.1	Description	<p>Participation to EUI events / EUI financing events</p> <p>Led by PP3 there are planned 3 exchanges with sister EUI projects financed under the Greening the Cities topic. The project foresees the development (i.e. in international conferences or workshop sessions) of joint capitalisation activities with other EUI projects financed under the same call, paired with physical and/or digital site visits. The reports will summarise the work carried out and conclusions, and will be submitted by PP3, with contributions from all partners. Workshops are planned in the second half of the implementation phase: M26, M27, M28.</p>	Target value 3	Delivery date 30/04/2027
D 4.3.2	Description	<p>B-CONNECT publications (scientific reports, conference publications, journals, etc.)</p> <p>This component focuses on developing 4 publications based on the B-CONNECT findings. The academic partners – PP8, PP4, PP9, and PP5 will be directly involved in the process, providing guidance and offering support to obtain quality content that can be further used by other interested stakeholders. Out of the 4 publications, one will be a conference publication, presented during the participation in the A4.2 activity, to increase international visibility and exposure.</p>	Target value 1	Delivery date 30/04/2028
D 4.3.3	Description	<p>B-CONNECT Green TRANSFORMATION Guidebook</p> <p>The Guidebook represents the visual representation of the B-CONNECT story, an illustrative publication created throughout the project lifetime, explaining the project roadmap, milestones, processes, and multi-stakeholder approaches that brought life to the 3 years journey in Bistrița. The activity will be coordinated by PP3 and PP8 and will serve as an easy-to-understand visual synthesis of the project goals and how to achieve them.</p>	Target value 1	Delivery date 30/09/2027

A 4.4

Final closing and dissemination
activity

The final dissemination activity will start 6 months before the end of the project and it will be coordinated by MUA with the support of the rest of the partners. The activity will include 1 final event in Bistrița integrating and displaying an interconnected series of B-CONNECT innovative solutions and interventions. Relevant stakeholders, target groups as well as the transfer cities will be invited. 1 final video will also be produced. The aim is to showcase the results obtained during the implementation and investment phase combining scientific evidence with dynamic storytelling representing the participative process triggered. The event and the video will be important to contribute to the project's sustainability and replicability.

Start date

01/05/2027

End date

31/05/2028

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

D 4.4.1

Description

Title

B-CONNECT - Final Event

The Final Event will take place in the historic centre of Bistrița and will last 1 day, integrating and displaying the innovative solutions of the project. The streets will be closed so the traffic can be rerouted through LED panels and real-time monitoring. Hydroponics towers will be displayed, while Mobile Creative Hubs will host workshops with the local communities. Pedestrian itineraries will be arranged, guiding residents through green capillary interventions (such as the green wall or the interventions on the main boulevards), green pockets, ecological spaces, and the river rehabilitation plantations. Additional activities will expand information on the project solutions or have an educational nature.

Target value

Delivery date

1

14/10/2027

D 4.4.2

Description

Title

Mini documentary film

Led by PP8, a 15-minute film will be created documenting the whole project implementation (from preparatory activities at the initiation phase to the closing) to recap the different project activities and to show the impact generated by the project. The video will integrate different interviews with PPs, local institutions, and citizens discussing the B-CONNECT impact in Bistrița from their perspectives. The video will have subtitles to accommodate those with hearing impairments and will be released both in Romanian and English to guarantee a wider distribution. The documentary will be distributed through the YouTube channel of the project but also streamed through other social media channels and project partner networks.

Target value

Delivery date

1

31/08/2027

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	20% flat rate	N/A	N/A	subcontracting for dissemination and communication material		
Amount (€)	2,000	300.00	100.00	10,000	0	12,400.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	1 FTE	N/A	N/A	subcontracting for communication material development - artistic visualizations		
Amount (€)	8,000	1,200.00	400.00	20,000	0	29,600.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
PP 6 - Bistrita - Youth for the Community	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00

PP 9 - Technical University of Cluj- Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	0,5 FTE	N/A	N/A			
Amount (€)	4,000	600.00	200.00	0	0	4,800.00
Total (€)	38,000.00	5,700.00	1,900.00	30,000.00	0.00	75,600.00

Indicative budget breakdown per year

Year	2024	2025	2026	2027	2028	Total
Amount (%)	0 %	0 %	50 %	50 %	0 %	100.00 %
Budget (€)	0.00	0.00	37,800.00	37,800.00	0.00	75,600.00

DECLASSIFIED

Work Plan Per Work Packages - Work Package 5 Thematic

Title Enabling Urban Resilience (People-People connection)

Start Date 01/12/2024

End Date 30/11/2027

Budget 749,824.00

Partners Involvement

Responsible Partner PP 1 - Municipality of Bistrita

Involved Partners
PP 1 - Municipality of Bistrita
PP 2 - Indeco Soft
PP 3 - Urbasofia
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca
PP 5 - Babes-Bolyai University
PP 6 - Bistrita - Youth for the Community
PP 7 - E-Civis Association
PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)
PP 9 - Technical University of Cluj-Napoca

Summary

Urban resilience can be achieved by mixing tactical urbanism practices in a biophilic-centred urban transformation approach that integrates digital solutions in tangible and fragile urban environments, leveraging on the capacity of citizens to take actions for creating a greener city.
Led by MUA with PP3 support, this WP aims to create collaboration frameworks and strategic solutions for urban resilience against climate change, mobility issues, and ecological challenges. It focuses on community-oriented actions to build lasting local capacity for diverse urban climates and development scenarios.
The first step is to create a good momentum of collaboration between local actors. MUA coordinates the process with the support of all PP, creating a Citizen Observatory Platform and CLIN (Collaborative Learning and Innovation Network), representing interconnected networks of actors and capacitated to operationalise the tools and practices developed in the project.
The second step in ensuring urban resilience empowers the younger generation to develop skills and knowledge, through 3 Creative Mobile Hubs - Eco Guilds. These hubs revive the local identity of historical arts and crafts, fostering local talent and heritage.
The third step involves using project knowledge to create an Urban Resilience Plan through collaboration with capacitated actors and stakeholders. This plan envisions how Bistrita can adapt to emerging crises using newly tested tools and solutions.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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Bistrita's Resilient Local Actors Network (LAN) Activation (Empowerment through Collaborative Action)

Working with local stakeholders from the beginning of project implementation is crucial in order to coherently frame the real-time monitoring and response systems, and understand custom requirements for greening initiatives and mobility interventions. This activity aims to engage with the relevant constellation of local stakeholders that are relevant for the 3 connectivity levels: people-people (WP5/6), people-nature (WP7/6), and people-places (WP8/6). This activity debuts with an open survey through the city app for the purpose of raising awareness and mapping relevant local stakeholders. MUA together with PP7 organises a civic event, with the purpose of kick-starting the project at the local level and activating the LAN.

Start date
01/12/2024

End date
31/10/2027

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Open Survey - Awareness and Openness Report

D 5.1.1

Description

The aim is to comprehend the residents' awareness and contentment regarding areas of interest: comfort of public space and urban climate, mobility, and regeneration of green areas. This investigation will be facilitated through a digital platform, iReport city app – approx. 10,000 residents, ensuring a substantial and representative cross-section of the city's population. The study will generate valuable insights into the perceptions of residents, thereby contributing to a better framing of the planned actions. PP5 sociological experts will construct the survey with input from all partners. The survey will occur in M01-M02 of project implementation and during midterm and final stages, adapting as necessary to assess the project's impact. The open survey will be disseminated through the social media channels of the project to increase awareness and participation (see A4.2).

Target value

Delivery date

31/10/2027

Title

Stakeholders engagement: bridging the gap between cities, local authorities, experts and industry.

D 5.1.2

Description

MUA, with the support from all PP, organises a kick-off event as a place for dialogue and alignment, engaging relevant stakeholders, introducing project goals, and establishing a foundation for multi-faceted collaboration - representing the first target of the deliverable (M01/M02). The event aims to establish a comprehensive understanding of the project's mission by all local actors and assess the potential role they can play in its realisation. Discussions will be conducted, focusing on key project dimensions. Participants will discuss how the B-CONNECT interventions can harmonise with the goals of other ongoing local initiatives. The Mid-term conference is also an important milestone for demonstrating project progress and reaching out to an extended pool of actors - replicating the activities from Kick-off, representing the second target of the deliverable (Nov 2026). With the occasion of the Final Conference, the third exercise in bridging the gap between cities, local authorities and industry will be deployed, representing the 3rd target of the deliverable (Oct 2026 - see D4.4.1)

Target value

Delivery date

31/10/2027

Title

B-CONNECT Local Actors Network - Activation and sustained connection

D 5.1.3

Description

As a result of the citizen's survey and stakeholder engagement activities, MUA with the support of PP8 will activate the Local Actors Networks, as a growing constellation of actors relevant to the project mission, and with similar aims/ambitions. Constant engagement will be ensured, and facilitated by MUA and PP8. The deliverable will describe the methodology used for sustained connections (M20) and it will report on the progress and results (M35).

Target value

Delivery date

31/10/2027

A 5.2

Empowering actors (Co-assessment and co-implemented pop-up events)

Led by PP3 with support from all PP, this activates local actors playing a vital role in implementation:
1- Assessing and Modeling B-CONNECT Solutions: Local actors work on assessing and modelling B-CONNECT solutions based on user-driven requirements.
2- Co-Implementing Pop-Up Interventions: Citizens are actively involved in co-implementing pop-up interventions aimed at greening the city and promoting "green" behaviours.
Building resilience through biophilic-centred tactical urbanism is a matter of acknowledging the transformative power of small-scale and affordable interventions IF properly deployed in collaboration with citizens. This activity aims to create a shared and assumed transformative green VISION for all actors

Start date

01/12/2024

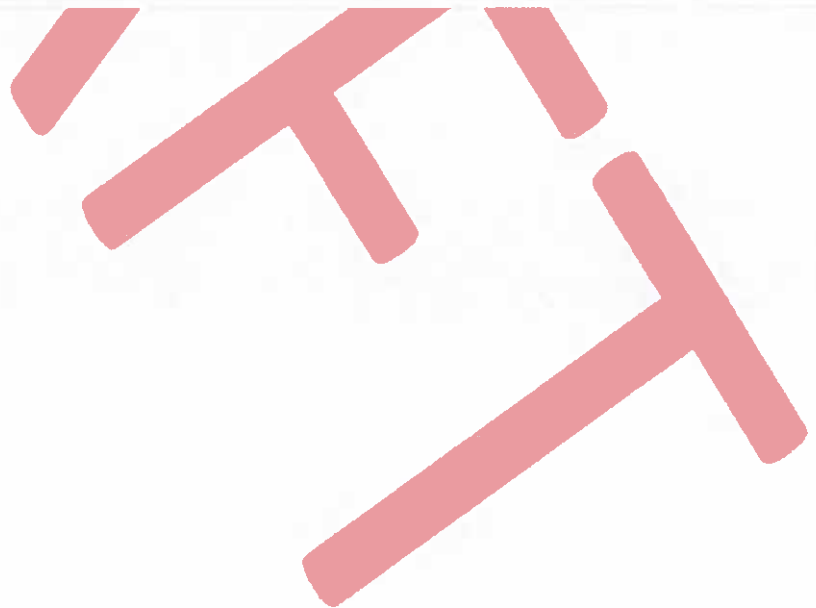
End date

31/03/2027

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 5.2.1	Title	Citizen-driven assessment and What if analysis - modelling of B-CONNECT solutions		
	Description	B-CONNECT proposes an integrated set of measures through co-design activities to refine its project philosophy, focus and scope of co-creation events, for a better alignment with local priorities. In M05-M07, PP5 will conduct a sociological study during local events to understand citizen behaviour preferences regarding mobility and environmental choices, as well as factors that define favourable public spaces (contributing at sensors network deployment, green interventions, and platform operation). These insights serve as valuable data for designing B-CONNECT solutions, especially for shaping the digital interface with citizens - B(reeze)Flow platform, ensuring user-friendliness and effectiveness.	Target value 1	Delivery date 31/05/2025
D 5.2.2	Title	Citizen-owned tactical urbanism: pop-up events		
	Description	Led by PP3 in collaboration with PP4-7-8, there are going to be three events which follow the concept of Art&Design oriented pop-up intervention for raising awareness about the environment, community, and urban resilience. The three "Guerilla" events will be implemented as follows: Event 1. Garden-in-a-day: transforming pre-identified unused land, by co-creating the design and performing the planting in 1 day through the collaborative effort of citizens - organised in M16. Event 2. Seed-bombs: mixing clay, compost, seeds, and water, form into balls, and toss to grow wildflowers - organised in M22. Event 3. Adaptive use of public space - a more complex event organised in M28 in two spaces (i) B-Connect Festival Temporarily convert the historic centre into a pedestrian area to display project results; and (ii) Open Schoolyards. Both events follow a common theme - Nature-oriented community identity.	Target value 3	Delivery date 31/03/2027

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A5.3	Tactical Urbanism Frameworks for citizen-centred Urban Resilience		For long-lasting effects, the activity will: (i) create interconnected networks of actors that will carry out the B-CONNECT after the project lifetime; (ii) involve citizens in monitoring, decision-making, and co-management of infrastructures. Capacity-building is deployed for involved actors and multigenerational interaction is supported (see A5.4). The innovation lies in the ability to merge the local actors' capacity with affordable green solutions to strengthen urban resilience. Led by PP3, MUA, A5.3 establishes an expanding citizen platform that contributes perception data to the B(reeze)-Flow – see D5.3.1. Simultaneously, it seeks to develop interdisciplinary capacity, enhancing the capabilities of municipal departments – see D5.3.2.	Start date	End date
				01/12/2024	30/11/2027
	Deliverable number	Deliverable and partners involved		Target value	Delivery date
D5.3.1	Title	Establishing Citizen Observatory platform			
	Description	Led by PP3 with input from all partners, the platform represents a participatory framework that engages communities in monitoring and evaluating specific urban challenges and assessing the impact resulting from the implemented eco-actions. D5.3.1 will detail the methodologies for creating a Citizen Observatory. The group will initially be formed of volunteers from the partnered schools and members of the LAN. There are three main domains: public space comfort, mobility, and biodiversity. The responsibilities are: (i) feed the B(reeze)-Flow app by notifying real-time aspects about these various urban aspects; (ii) feed Breeze Net with observation data on urban climate and air quality through the mobile sensors given to each member.		Target value 1	Delivery date 30/11/2025
D5.3.2	Title	CLIN Bistrita - Collaborative Learning and Innovation Network			
	Description	Led by MUA, with support from all PP, this initiative aims to foster collaboration between municipal departments, local experts and emerging new professionals for CLINing the city. An interdisciplinary team will be formed, gradually empowered with tools developed by the project to promote urban resilience and long-term sustainability. The team will include experts in IT, environment, nature-based solutions, public relations, community involvement, mobility, and urban planning. Through three capacity-building workshops, the team will receive instruments developed by the project. Additionally, a specialised team will be established for real-time traffic management within the mobility aspect, as detailed in A8.1 and D8.1.3.		Target value 1	Delivery date 31/03/2027
D5.3.3	Title	Urban Explorer events			
	Description	Led by PP3, supported by PP8. Urban resilience is achieved when local communities' level of awareness is in line with the actual reality of the urban environment. Only after that, the strategies put in place can generate impact. Thus, the aim is to provide participants with a deeper understanding of their city's dynamics, including infrastructure, public spaces, mobility, environmental, and social interactions. Three events are planned: (i) sensory analysis of public spaces, identifying requirements for B(reeze)Net sensors, and areas with green space deficit (for hydroponics towers installation); (ii) identifying locations for the Smart Mobility Hubs; (iii) assessing regeneration requirements of green areas within peripheral neighbourhoods. The three events will be disseminated through ex-ante and ex-post social media campaigns to promote and encourage the involvement of local actors, and through this anticipate their participation in the co-management and co-implementation of B-CONNECT initiatives. The perspective of local citizens is critical for aligning the project with the actual needs of residents, therefore gaining a high level of participation, as well as showcasing the aftermath of the events is necessary. (see A4.2).		Target value 3	Delivery date 30/11/2025



A 5.4

Design and launch of Mobile
Creative HUB - New Eco-Guilds

Since the 14th century, Bistrița was a commerce and craftsmanship hub with 18 guild-occupied citadel towers. Today, only a few towers remain, preserving heritage. Industrialization transformed culture and landscape, erasing the guild history. B-CONNECT revives this history and empowers youth to form new eco-driven guilds.
Instead of traditional towers, Bistrița will have 3 Creative Mobile Hubs integrated with the project's framework, representing modern ECO-GUILDS: 1: Urban Resilience HUB - environment and greening initiatives; 2: Digital-IT & Robotics - urban sensory networks and mobility; 3: Art, Design & Place-Making - arts, culture, and community design in green-urban transformation.

Start date	End date
01/12/2024	30/11/2026

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title			
		Mobile Creative HUB Design Plan		
D 5.4.1	Description	Led by MUA with support from PP4&PP5, PP7&PP2, PP8&PP3. This deliverable will outline one comprehensive design plan for the establishment and operation of the three Creative Mobile Hubs in Bistrița. Initially, one type of mobile platform will be acquired for each of the three hubs. This plan will then serve as the foundation for three customised adaptations, detailing the architectural layout, functionality, and technological integration. Each hub will be tailored to meet the specific requirements of the different EcoGuild themes: botanic and horticultural, robotization and eco-technology, and eco-artistic. These hubs will be designed to be mobile, modular, and realised from ecological materials, using mainly solar energy with storage capacity. By using a unified base plan with bespoke customizations, we ensure coherence while addressing the unique needs of each theme.	Target value 1	Delivery date 30/11/2025
	Title			
		Eco-Guild Training and Curriculum Framework		
D 5.4.2	Description	The Eco-Guilds firstly operate within schools, spending dedicated periods in each – see Annex. It outlines the curriculum and operation framework. It will outline the training modules, educational content, and hands-on activities designed to empower the younger generation with modern tools and knowledge in the fields of botanical and horticultural practices, robotization and eco-technology, and eco-artistic personal and place-making. The development of the Training and Curriculum Framework benefits from the collective efforts of all project partners, particularly PP4&PP5 for Eco-Guild 1, PP7 for Eco-Guild 2, PP8&PP3 for Eco-Guild 3. It will seamlessly integrate with the expanding network of empowered stakeholders and CLIN (see - D5.3.2).	Target value 1	Delivery date 30/11/2026

WATER

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A 5.5	Urban Resilience Strategy 2050		<p>Led by PP3 and MUA, A5.5 is dedicated to the development of a strategic blueprint aimed at ensuring the long-term sustainability and enhancement of all B-CONNECT tools and solutions. This initiative will encompass an evaluation of the replication and upscaling potential as well as the formulation of complementary governance frameworks. Additionally, it will involve an assessment of funding opportunities and strategic trajectories leading up to 2050.</p> <p>A5.5 will explore how B-CONNECT solutions can address challenges posed by severe climate change, as well as ensure a smooth transition to digital platforms and solutions for greening the city (this includes countering the trend of talent drain to larger cities).</p>		Start date	End date
					01/03/2027	30/11/2027
Deliverable number	Deliverable and partners involved		Target value		Delivery date	
D 5.5.1	<p>Title</p> <p>Co-creation workshops for strategy elaboration</p>					
	<p>Description</p> <p>Under the guidance of PP3, a series of three workshops will be organised, contributing to the elaboration of D5.5.2 and D5.5.3. These workshops encompass the following themes:</p> <ul style="list-style-type: none"> - Assessment of upscaling requirements for B-CONNECT solutions across digital, green, and mobility domains. - Collaborative Scenario building, examining potential risks (and eventual environmental crisis scenarios) and the ability of the city and its community to overcome them. - Urban governance mechanism assessment, focusing on identifying frameworks necessary for securing the sustainability and adaptability of B-CONNECT initiatives. <p>The three co-creation workshops are going to approach the subject of elaboration of the D 5.5.2 Urban Governance Mechanisms and D 5.5.3 Urban Resilience plan – 2050. The last of the workshops is planned to take place two months prior to the end of the project for calibration</p>		<p>Target value</p> <p>1</p>		<p>Delivery date</p> <p>30/09/2027</p>	
D 5.5.2	<p>Title</p> <p>Urban governance mechanisms</p>					
	<p>Description</p> <p>It refers to the policy frameworks, and decision-making processes put in place to manage and enhance a city's ability to withstand, adapt to, and recover from various shocks and stresses. These mechanisms play a critical role in coordinating actions among different stakeholders, such as government agencies, community organisations, educational institutions, research and academia, private sector entities, and citizens, to ensure the city's overall resilience. Based on case studies and analysis of the local frameworks, a series of resilience guidelines, co-management solutions and urban governance recommendations will be developed.</p>		<p>Target value</p> <p>1</p>		<p>Delivery date</p> <p>30/11/2027</p>	
D 5.5.3	<p>Title</p> <p>Urban Resilience Plan - 2050 (approved by Local Council)</p>					
	<p>Description</p> <p>Led by MUA and PP3, D5.5.3 represents the final result of the project, a strategy for enhancing the urban resilience of the city. Through co-creation workshops, the project outcomes are translated into local policies and development programmes, as well as recommendations for upscaling and replicating the tested solutions. Methodology:</p> <ol style="list-style-type: none"> 1. Analyse the input gathered through the participative processes and integrate the civic requirements; 2. Set up projects, actions and policies for city-level resilience solutions; 3. Develop a monitoring and evaluation plan; 4. Recommendations for upscaling and replicability options for the tested solutions. <p>The Plan will be formalised through a Memorandum of Understanding - Local Climate Pact.</p>		<p>Target value</p> <p>1</p>		<p>Delivery date</p> <p>30/11/2027</p>	

Outputs

Number	Title	Description	Output indicator	Unit	Target value	Delivery date
O 5.1	B-CONNECT stakeholders constellation (3 pillars: people-people, people-nature, people-places)	Through open surveys and local events, the project consortium will engage with multi-level stakeholders. The output represents the landscape of local actors relevant to the project results deployment.	Citizens Involved in the pre	persons	500.00	31/10/2027
O 5.2	B-CONNECT Nexus - an interconnected network of capacitated actors	Led by MUA, and extracted from the wider stakeholder constellation, B-CONNECT Nexus represents the actors that have been capacitated, empowered and responsible within the project for carrying out relevant work and continuing to operate the solutions: monitoring and response frameworks, creative hubs, eco-actions. It is closely connected with the aim and measures proposed within Urban Resilience Plan.	People supported (trained,	persons	50.00	28/02/2027
O 5.3	Convergent Impact Creative Mobile Hub Driving Green, Digital, and Mobility Innovations	It represents the operating infrastructure of Mobile Creative Hubs - the Eco-Guilds. 3 modules will be equipped with relevant equipment for each theme (mentioned above). The mobile HUBS are operated long-term by MUA, with CLIN support. Responsibility will be slowly translated to schools, but the mobility component is the responsibility of MUA. MUA will ensure that other schools and actors will make use of the Eco-Guilds - see Urban Resilience Plan.	Infrastructure supported (n	supported infrastructures	3.00	31/10/2026
O 5.4	Memorandum of Understanding for Urban Resilience - Local Climate Pact	Led by MUA, The Urban Resilience Plan will be adopted through a Memorandum of Understanding - Local Climate Pact, signed by relevant local stakeholders and agreed upon by citizens. A public event will be organised to raise awareness and ensure transparency and greater ownership among Bistrița citizens. The output will measure the level of agreement in percentages across all objectives and measures proposed.	Other Level of Stakeholder Agreement	Number of Agreements	1.00	31/10/2027

Investments

Number	Title	Description	Budget	Delivery date
I 5.1	Mobile Creative Hubs - Eco-Guilds	MUA will either: acquire already built mobile platforms in the form of mobile tiny houses or contract construction companies to produce 3 such modules. The approximate dimensions are: 5,4x3x2.2m, with an area of 15-25 sqm. Allocated budget 30K per module, in total 120K. (I) Equip the Eco Guilds: Urban Resilience HUB, which focuses on environment and greening initiatives with tools for gardening and hydroponics; the Digital-IT & Robotics HUB, equipped with programmable robots and urban sensory network hardware; and the Art, Design & Place-Making HUB, which integrates arts, culture, and community design into green-urban transformation. All hubs also come with basic equipment such as computers and 3D printers, with a total budget allocation of 30K. (II) Energy-efficient Mobile Hubs. Hubs will be equipped with solar panels and storage capacity in order to operate autonomously. Allocated budget – 10K per unit.	150,000.00	30/11/2025

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	20% flat rate	N/A	N/A	trained employee related to Investment 5.1 Equip the 3 Hubs - Eco-Guilds.	Investment 5.1 Equip the 3 Hubs - Eco-Guilds.	Investment 5.1 Hub build/aquisition	
Amount (€)	35,600	5,340.00	1,760.00	40,900	24,000	114,000	220,720.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	2,15 FTE	N/A	N/A				
Amount (€)	17,200	2,560.00	660.00	0	0	0	20,640.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	23,25 FTE	N/A	N/A				
Amount (€)	148,000	22,200.00	7,400.00	0	0	0	177,600.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	8,5 FTE	N/A	N/A				
Amount (€)	64,520	9,578.00	3,226.00	0	0	0	77,424.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	12,3 FTE	N/A	N/A				
Amount (€)	85,680	12,852.00	4,284.00	0	0	0	102,816.00
PP 6 - Bistrita - Youth for the Community	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	5 FTE	N/A	N/A				
Amount (€)	40,000	6,000.00	2,000.00	0	0	0	48,000.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	3,6 FTE	N/A	N/A				
Amount (€)	28,800	4,320.00	1,440.00	0	0	0	34,560.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	9 FTE	N/A	N/A				
Amount (€)	48,720	7,308.00	2,436.00	0	0	0	58,464.00

PP 9 - Technical University of Cluj- Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	1 PM	N/A	N/A				
Amount (€)	8,000	1,200.00	400.00	0	0	0	9,600.00
Total (€)	476,520.00	71,478.00	23,826.00	40,000.00	24,000.00	114,000.00	749,824.00

DRIVER

Indicative budget breakdown per year

Year	2024	2025	2026	2027	2028	Total
Amount (%)	4 %	57 %	13 %	26 %	0 %	100.00 %
Budget (€)	29,992.96	427,399.68	97,477.12	194,954.24	0.00	749,824.00

Indicative budget breakdown per activities and investments

Activity	Amount (%)	Budget (€)
A 5.1	31.00 %	232,410.24
A 5.2	15 %	112,473.60
A 5.3	18 %	134,968.32
A 5.4	4 %	29,992.96
A 5.5	12 %	89,978.88
I 5.1	20.00 %	150,000.00
Total	100.00 %	749,824.00

Investment 1			
Title		Mobile Creative Hubs - Eco-Guilds	
Investment Description (including indicative budget of the main cost items)		<p>MUA will either: acquire already built mobile platforms in the form of mobile tiny houses or contract construction companies to produce 3 such modules. The approximate dimensions are: 5,4x3x2.2m, with an area of 15-25 sqm. Allocated budget 30K per module, in total 120K.</p> <p>(I) Equip the Eco Guilds: Urban Resilience HUB, which focuses on environment and greening initiatives with tools for gardening and hydroponics; the Digital-IT & Robotics HUB, equipped with programmable robots and urban sensory network hardware; and the Art, Design & Place-Making HUB, which integrates arts, culture, and community design into green-urban transformation. All hubs also come with basic equipment such as computers and 3D printers, with a total budget allocation of 30K.</p> <p>(II) Energy-efficient Mobile Hubs. Hubs will be equipped with solar panels and storage capacity in order to operate autonomously. Allocated budget – 10K per unit.</p>	
Delivery date		30/11/2026	
Budget		150,000.00	
Investment aspects	Questions	Project answers	
	Explain why this investment is needed.	<p>The investment aims to nurture young talents in eco-driven and innovative fields. The Eco Guilds play a significant role in shaping the city's creative identity and align with B-CONNECT's strategic directions. They are integral to the emerging urban resilience infrastructure. It's essential to introduce youth to these themes and encourage creative and innovative education. The mobile nature of these hubs aligns with B-CONNECT's philosophy of tactical urbanism, being a solution that is dynamic, adaptive, flexible and INCLUSIVE.</p> <p>Eco-Guilds will play a role in WP 4, WP 5, WP 6 and WP 8. They will facilitate stakeholder engagement and community activation, especially in WP 4 and 5. The Eco-Guilds will provide resources for youth activities (see D 6.1.2). It will also assist with design tools and engaging students in environmental activities (see D 8.2.1 and D 8.2.2).</p>	
Justification of the investment	Clearly describe the thematic relevance of the investment.	Regarding the greening of cities, the Eco Guilds will play a vital role in the co-implementation and pilot testing of the planned innovative solutions. Additionally, these hubs serve as a crucial component of the long-term infrastructure needed for the operation of B-CONNECT solutions. At the same time, Eco-Guilds operation in collaboration with local schools will generate relevant impact in the case of youth and pursuing future careers, thus harnessing local talents and offering them opportunities to grow and contribute at the city regeneration.	
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	The main beneficiary is the city, but the target group who benefits more are the schools within Bistrița city and its students. Project partners will use the Eco Guilds' facilities/equipment for co-piloting the green solutions.	
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	Eco Guilds came in response to the lack of opportunities at the local level for youth to be exposed to different technologies, creative tools, new emerging professions, or how existing professions have to adapt to new innovations.	
Location of the investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	<p>The 3 Eco Guilds will be piloted for 4 schools during the project's lifetime and integrated into other public events. The initiative will be upscaled for the rest of the city's schools.</p> <p>1. Gimnazial School Ștefan cel Mare: Str. Gen. Grigore Bălan No. 36 A, Bistrița.</p> <p>2. General School Lucian Blaga: Str. Garafelei No. 8, Bistrița.</p> <p>3. General School nr. 1, Bld Independenței No. 46, Bistrița.</p> <p>Add additionally,</p> <p>4. National College Liviu Rebreanu, Bld. Republicii No. 8, Bistrița.</p>	
		Country	NUTS 2 level
	Romania	Nord-Vest	Bistrița-Nasaud
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	<p>Being mobile hubs, the deployment of Eco-Guilds requires no specific permits. If financed, MUA will formalize a collaboration agreement with the involved schools.</p> <p>MUA will either: acquire already built mobile platforms in the form of mobile tiny houses or contract construction companies to produce 3 such modules. The approximate dimensions are: 5,4x3x2.2m, with an area of 15-25 sqm. Allocated budget 30K per module, in total 120K. (I) Equip the Eco Guilds: Urban Resilience HUB, which focuses on environment and greening initiatives with tools for gardening and hydroponics; the Digital-IT & Robotics HUB, equipped with programmable robots and urban sensory network hardware; and the Art, Design & Place-Making HUB, which integrates arts, culture, and community design into green-urban transformation. All hubs also come with basic equipment such as computers and 3D printers, with a total budget allocation of 30K. (II) Energy-efficient Mobile Hubs. Hubs will be equipped with solar panels and storage capacity in order to operate autonomously. Allocated budget – 10K per unit.</p> <p>In D 5.1.3 B-CONNECT Local Actors Network - Activation and sustained connection is specified that the deliverable will describe the methodology used for sustained connections.</p>	
	Who owns the site where the investment is located?	The sites are represented by the 4 schools courtyards, under the administration of the municipality. Being mobile infrastructures, the hubs can be moved to other schools, or in public spaces with the occasion of local events.	
Ownership	Who will retain ownership of the investment at the end of the project?	MUA retains ownership after project implementation. The hubs will be operated long-term by the partnered schools. The network of schools involved can be expanded. The management of the activities will continue to be under MUA responsibilities.	
	Who will take care of the maintenance of the investment? How will this be done?	MUA will continue to ensure the maintenance and operation of the hubs, after project implementation. This includes mobility of the hubs for different events or to other schools, maintenance of the infrastructure, equipment supplies, as well as calendar of operation.	

Work Plan Per Work Packages - Work Package 6 Thematic

Title Real-Time Digital Green Resilience Ecosystems (Connections Enhancement)

Start Date 01/12/2024

End Date 30/11/2027

Budget 1,059,028.00

Partners Involvement

Responsible Partner PP 2 - Indeco Soft

Involved Partners
PP 1 - Municipality of Bistrita
PP 2 - Indeco Soft
PP 3 - Urbasofia
PP 5 - Babes-Bolyai University
PP 9 - Technical University of Cluj-Napoca

Summary

Led by MUA and PP2, this WP represents the digital component of the project, transgressing all physical and social dimensions, contributing to the people-people (WP5), people-places (WP7), people-nature (WP8) connections enhancement.

WP6 implements the dynamic & adaptive digital set of measures helping to overcome traffic problems, better assess environmental issues, and support mobility and eco-oriented behaviours. The aim is twofold:

- 1) Create a comprehensive digital infrastructure for real-time environmental monitoring supported by a dynamic network of fixed and mobile air quality sensors, urban climate monitoring stations, and traffic counters/sensors. The deployment of WP6 investments - B(reeze) is critical to assess how tactical urbanism practices are impacting the environment and communities – in the pursuit of a greener city. At the same time, congregating all of the real-time generated data will help at building environmental and mobility models to mitigate, "crises" or day-to-day challenges, in real-time by: using a strategically-placed network of led panels to inform about air-quality, traffic, re-routing options; moving hydroponics towers in critical areas of the city; informing and involving citizens about the urban dynamics.
- 2) Empower eco-actions, by allowing citizens to access the real-time data and to contribute by providing feedback on the perception of the environmental/traffic situation, and by rewarding eco-behaviors through a city-level token system.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 6.1

B(reeze) Net - Smart network for real-time monitoring of air quality and urban climate

Led by PP2, with ownership by MUA and support from PP5, it represents a GIS-based tool that merges crowdsourced and multi-level sensor data (see investment I6.1) with Earth Observation. It provides real-time mapping and an overview of air quality and the urban climate while simultaneously recognizing citizens' eco-actions. More specifically, it integrates data from fixed weather stations, mobile sensors, and DIY sensors deployed in D6.1.2, paired with information resulting from the Smart Digital Traffic Infrastructure. The platform is scheduled for delivery in M12 and will be tested and adjusted according to the local context continuously by the end of the project. To ensure a correct assessment on functionality and continuous activity there will be two status updates. The first target value will be on M12, reporting on initial deployment and functionality assessment, preliminary data integration and effectiveness in recognizing and incorporating citizens' eco-actions. The final target value on M35, will provide a comprehensive evaluation of the platform after continuous testing and adjustments, analysis of the long-term data collected, and impact of the platform on citizen engagement and eco-actions. (synergy with D3.3.3)

Start date	End date
01/12/2024	30/11/2027

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	B(reeze)-Net Platform (integrated fixed and mobile sensors)		
D 6.1.1	Description	<p>Led by PP2, with ownership by MUA and support from PP5, it represents a GIS-based tool that merges crowdsourced and multi-level sensor data (see investment I6.1) with Earth Observation. It provides real-time mapping and an overview of air quality and the urban climate while simultaneously recognizing citizens' eco-actions. More specifically, it integrates data from fixed weather stations, mobile sensors, and DIY sensors deployed in D6.1.2, paired with information resulting from the Smart Digital Traffic Infrastructure. The platform is scheduled for delivery in M12 and will be tested and adjusted according to the local context by the end of the project. First target M18, final report M35.</p> <p>Target value 1 (by M12): Evaluate the platform's functionality in real-time mapping, air quality monitoring, and urban climate analysis, integrating data from fixed weather stations, mobile sensors, DIY kits, and Smart Digital Traffic Infrastructure.</p> <p>Target value 2 (by M35): Reports on the overall platform performance throughout the project, and showcases why potential adjustments were needed and how they have been implemented.</p>	2	30/11/2027
	Title	Empowering Citizens: DIY Air Quality Kits for Cleaner Cities		
D 6.1.2	Description	<p>Co-creation process led by PP2. It begins with one main session in M11, and continues until the end of the project M35. Citizens, with a focus on youth participation, will assemble and pilot DIY air quality kits, thereby creating a city-wide network. The interactive sessions bridge the gap between science and public awareness, allowing sensor data to be visualised in real-time and fostering collaborative decision-making. This initiative at the intersection of technology, academia, and community engagement marks a paradigm shift in addressing environmental challenges. The activity will make use of the Eco Guild: Digital-IT & Robotics (see A5.4 and I5.1). Budget for DIY kits is considered under the Equipment budget line.</p> <p>Considering the novel approach towards the nexus between community involvement and eco-solutions, the process is going to be shared through the social media channels of the project - allowing for a better traceability of the initiative and its potential uptake as a best practice by other organisations/ public administrations. (see A4.2).</p>	2	31/10/2027
	Title	Fixed and mobile sensors for monitoring air quality, urban climate (Ground-truth analysis)		
D 6.1.3	Description	<p>Led by UBB with ownership by MUA and supported by PP2, the urban climate monitoring system will deploy 25 strategically placed fixed weather stations to measure parameters like air temperature, humidity, wind, solar radiation, and air pressure. Sensor locations will ensure comprehensive city coverage for thermal comfort assessment. Additionally, 100 mobile sensors will monitor urban air quality on the move. By M12, all sensors should be installed and operational, with activity concluding in M36. PP5 will perform early analyses using their own mobile equipment to provide data from project start to finish.</p> <p>This data will be used for improving early warning systems - see A6.3, real-time response and informed decision-making.</p>	1	30/11/2025

A6.2

Smart Digital Traffic Infrastructure -
Traffic Sensors Network
Deployment and LED Panels
Integration

This activity performs:

1) Location Selection: traffic counters will strategically be placed in congestion-prone areas based on citizen data, mobility and environmental studies. Locating digital led panels is more complex as they serve multiple functions: relaying urban climate information, promoting eco-behaviors, providing real-time traffic capacity updates and rerouting options to maintain optimal environmental conditions.
(2) Integrated platform functionality involves the methodology for automated data-driven decisions displayed on led-panels. The goal is to develop an algorithm that automatically selects messages or solutions based on aggregated data (environmental, traffic, and citizen-related), with minimal human intervention.

The activity uses citizen data obtained from the sources implemented in:
D 6.1.2, in which citizens participate in assembling and deploying DIY air quality kits, which will collect data that feeds into the B(reeze)-Net platform;
D 6.3.1, which will integrate citizens feedback and real-time environmental data through the iReport app, which allows citizens to contribute with information about their perception of the environment and report issues.

Start date

01/03/2025

End date

30/11/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

D 6.2.1

Description

Title

Legal/technical and regulation analysis

Led by PP2 and MUA. For the installation and operation of traffic counters, an analysis will be performed, including data security, secrecy, authentication, access control, secure middleware, trust management and policy enforcement.
The impersonal data used for surveillance or service purposes (risks may include security breaches and data abuse) may have more or less sensitive ramifications.
A regulatory framework will be set in place, to incorporate privacy concerns in the Local Authority's policy and operational decisions (i.e. guidelines and compliance in establishing communication among heterogeneous devices, block-chain use, Software Defined Networking or Storage).

Target value

Delivery date

20/12/2026

D 6.2.2

Description

Title

Traffic sensors network deployment and Led Panels Integration

Led by MUA, with support from PP2, a network of traffic sensors will be deployed, providing valuable data for the operation of LED panels in public spaces to enhance urban climate and traffic management.
The key tasks are:
- Methodology for selecting the placement of traffic sensors and LED panels, based on data from previous analysis (D 6.2.1, D 5.2.1, D 5.3.3) and initial air quality and urban climate assessment done by PP5.
- Integration of B(reeze)Net data (see A8.1) with B(reeze)Flow app (see A6.2).
- Installation details for the location of LED panels in central areas and city gates (Republicii Bd., Decebal Bd., NE and SW gates).

Target value

Delivery date

30/04/2027

D 6.2.3

Description

Title

Digital automatization of led panels

Led by PP2, this report addresses the digital automation of LED panels, based on mobility models developed in A7.2. These solutions will be developed through a co-design process - see D7.2.2. The LED panels, with a 480X640 resolution, can display various real-time messages and information based on different environmental and traffic scenarios. CLIN Bistrita will oversee the system. Potential solutions: re-routing options if the street reaches the max capacity, displaying key environmental data and messages, raising awareness about issues of private car travels vs bike and public transportation, etc ...

Target value

Delivery date

31/08/2026

A6.3

B(reeze) Flow - Integrated
Community Response and Action
System

Led by PP2 with support from PP3, PP5.
A6.3 main objective is integrating and sharing real-time data collected by B(reeze)-Net sensors for environmental protection, as a result of D 6.1.1, D6.1.2 and D 6.1.3 deployment. It enhances the existing eGovernment app, iReport, in Bistrița, giving citizens access to real-time data, environmental alerts, and opportunities to provide feedback on pollution reduction efforts. It encourages citizen involvement and the proposal of new eco-initiatives. B(reeze) Flow combines technology, civic engagement, and environmental action to create a more sustainable city. CLIN and Citizen Observatory are crucial groups for kick-starting the app functionality. B-CONNECT aims to develop a tested MVP by M13, ready for transfer and upscaling as a practical urban solution.

Start date

01/05/2025

End date

30/11/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

B(reeze) Flow app functionality co-design and testing

D 6.3.1

Description

It reports on the integration and expansion of the existing citizen app, iReport. Led by PP2, in M12, an MVP will be deployed for testing until M31. The B(reeze)Flow will enable citizens to access real-time information, receive environmental notifications, and contribute to pollution reduction efforts and more (see D6.3.2).

iReport, an already innovative approach, allows concerned citizens to report various issues to the authorities, including road surface damage, unauthorized waste disposal, littering, and other similar issues, using their mobile devices. Therefore, the scope aligns with and complements B(reeze)Flow functionality. With both sets of features, the app will promote active citizen involvement, strengthening communities.

Promoting the extended features of the B(reeze) app will be done through the social media channels and communication means of the project with the scope of raising awareness over the new upgrades. (see A4.2).

Target value

Delivery date

1

30/11/2025

Title

Citizen Feedback Functionality for Urban Climate and Mobility Initiatives

D 6.3.2

Description

Besides the notification component of B(reeze)Flow (see D6.3.1), active citizen involvement is a crucial feature of the newly expanded city app. Led by PP2, the deliverable reports on the results of co-design activities aimed at enhancing B(reeze)Flow's functionalities, including a dedicated section for citizen feedback on urban climate and mobility. Synergies with D5.2.2 are also considered. The scope is the consolidation of community interactions and the sense of ownership. The qualitative set of data is considered valuable information to be integrated into the informed decision-making of the Smart Digital Traffic Infrastructure and for assessing the impact of greening initiatives and landscape regeneration interventions planned in WP8.

Target value

Delivery date

1

30/11/2027



A 6.4

Empowering EcoActions: Token-Based Rewards system

MUA and PP2 are leading efforts to enhance Bistrița's eGovernance mobile app, adding sustainability features. It will include a reward system, granting tokens to residents (see D 6.4.1 Co-designing reward system functionalities and co-implementing the reward system) who choose eco-friendly transport during peak hours (using the real time data provided by D 6.2.2 Traffic sensors network deployment and Led Panels Integration). The initiative aims to reduce emissions and promote healthier lifestyles. Rewards are offered also for active involvement in B(reeze)Flow platform (see D 6.3.1 B(reeze) Flow app functionality co-design and testing), participation in the B-CONNECT project activities, such as planting activities (civic events - see D 6.4.2, D 8.4.1, D 8.5.2), crowdsourcing, and co-creation events, fostering community engagement (see A 5.2, D 5.2.1, D 5.2.2, D 5.5.1, D 6.1.2, D 8.1.2) and environmental consciousness. The earned tokens can be redeemed for various local services, such as secure bike parking in solar-powered facilities (see D7.3.2 Smart Mobility Hubs), and access to various local amenities.

Start date

01/12/2024

End date

30/11/2027

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Co-designing reward system functionalities and co-implementing the reward system		
D 6.4.1	Description	Led by PP2 and MUA, the reward system will be inspired by the Baia Mare UIA project SPIRE - the iLEU, taking the points of lessons learned and delivering a legally compliant, downsized but functional solution to enrich the local ecosystem by a transferable, usable reward system (integrated in the eGovernance city app). The design will start from achievable goals and a series of quick wins, to maximise usage and deduce inherent risks.	Target value 1	Delivery date 12/12/2025
	Title	Involvement of the local community and businesses		
D 6.4.2	Description	Led by PP2 and MUA, this report emphasizes community engagement and business involvement in adopting and popularizing the reward system. We aim to promote a culture of eco-responsibility among local businesses and residents, encouraging their active participation in environmental stewardship. Local communities are incentivized to adopt green practices, and local businesses are encouraged to participate by accepting tokens, thus creating a new local economy based on pro-environmental actions. The result is a symbiotic relationship between businesses, residents, and the environment, leading to a holistic transformation towards a sustainable city. The report includes actions performed, including launch event in M18. Disseminating the involvement of local businesses and residents and proactive behaviour through the B-CONNECT communication channels, as well as the lunch event. Individual stories and other means of showcasing involvement will be integrated. (see A4.2).	Target value 1	Delivery date 31/10/2027
	Title	Green Rewards: Encouraging Eco-Behaviors with Annual Token Campaign		
D 6.4.3	Description	Led by MUA and PP2, an annual token reward campaign is organised (M22, M34). A budget of 20,000 EUR is allocated under External Expertise and Services to support the distribution of prizes, vouchers, or grants to third parties, whether individuals or organisations. The prizes are meant to support eco-behaviours, exchanging tokens with: bike or e-bikes, household hydroponic towers, planting sets for sustainable gardening, composting kits, eco-tours or outdoor experiences (or similar services in relation with business sectors). Sharing the Green Rewards prizes for eco-behaviours through the social media channels of the project to promote sustainable actions among Bistrița communities and businesses (see A4.2)	Target value 2	Delivery date 30/09/2027



A 6.5	Sustainable Data Hub		Led by MUA, PP2, support PP8. The entire planned digital green resilience ecosystem requires the necessary hardware infrastructure to operate. Data servers are known to have high energy demands, which can result in pollution. B-CONNECT aims to operate its digital infrastructure locally rather than relying on larger infrastructure located outside the city limits. Therefore, the investment in creating a Sustainable Data Centre is highly relevant, as it allows for greater control over data security and environmental impact. Security is a top priority, but CO2 emissions is also a key focus. This Activity reports on the efforts to create an energy-efficient data HUB by utilising green technologies such as solar panels and heat recovery systems.	Start date	End date
				02/12/2024	30/11/2027
Deliverable number		Deliverable and partners involved		Target value	Delivery date
D 6.5.1		Title		Target value	Delivery date
		Description		2	30/11/2027
		Data HUB deployment and Resource Efficiency report			
		The concept of Sustainable Data Hubs is not widely recognized or established; however, several data centres have oriented themselves toward using clean energy. This project aims to assess whether a local data centre can fulfil the needs of a mid-sized city focused on digitising procedures and enhancing citizen connections through digital means. Led by MUA with support from PP2, the project involves the creation and evaluation of a Sustainable Data Hub. Initially, the Data Hub will be established and made operational by M18, ensuring it can support the city's digital infrastructure needs. Following this, a comprehensive report will be produced by M38, analysing the energy efficiency of the Data Hub based on its performance.			

Outputs

Number	Title	Description	Output Indicator	Unit	Target value	Delivery date
O 6.1	Working B(reeze)Net platform - for real-time monitoring of air quality and urban climate	The platform encompasses real-time data regarding urban microclimate, and air quality and compares it to EO data while empowering and educating citizens and controlling traffic. There are 3 integrated systems: fixed sensors for urban climate, mobile sensors, and DIY sensors.	Systems for monitoring air	number of systems	3.00	29/06/2026
O 6.2	Sensors network and automatic traffic management system deployed	The output represents the infrastructure for monitoring real-time data concerning road traffic, including the infrastructure related to real-time response measures (LED panels in public spaces). The 2 types of equipment function synergistically, leveraging data from B(reeze)Net platform.	Other Systems for monitoring traffic impact on urban climate and air quality	number of systems	1.00	30/07/2026
O 6.3	Integrated pro-environment citizen-driven digital platforms and sustainable data centre	The existing city apps: iReport, and eGovernance, are enriched with new functionalities: urban climate citizen-driven monitoring, and environmental reward token platform. The 3rd service created is the centralisation of all of the data managed (including B(reeze)Net) in 1 sustainable data centre.	New products and services	new products/services	3.00	29/09/2026

Investments

Number	Title	Description	Budget	Delivery date
I 6.1	Integrated System and Data Centre for Urban Climate and Pollution Monitoring	The investment consists of all the equipment and infrastructure required for creating a self-sustainable, experimental data centre for storing and processing real-time sensors' data and crowdsourced data with EO multispectral imagery. It includes: air-quality sensors, urban climate sensors, vehicle counters (using the traffic counters/sensors), and smart traffic signs (LED panels), all deployed throughout the city. The data integration will not be done by a third party, but it will be performed locally, creating a sustainable data centre (converted modular container), that uses RES and innovative solutions for being a modular, low-carbon data centre. Breakdown is: 1. Fixed sensors for air quality and urban climate (15 locations): 98K EUR. ~M09 The process is usually straightforward, involving site assessment and compliance with national environmental regulations. It requires submitting an application with project details, and the permit is obtained within 3 months. The A 6.1 starting date is M1, giving enough time for the permits to be obtained before the delivery of the D 6.1.1 B(reeze)-Net Platform (integrated fixed and mobile sensors) by M12. 2. Mobile sensors (100 sensors): 50K EUR. ~M09 Mobile sensors require minimal regulatory approval, involving mainly coordinating with MUA for deployment in public areas. The approvals required are obtained faster than fixed installations, within 1 month. The A 6.1 starting date is M1, giving enough time for the permits to be obtained before the delivery of the D 6.1.1 B(reeze)-Net Platform (integrated fixed and mobile sensors) by M12. 3. Traffic counters - counters/sensors (25 locations): 50K EUR. ~M13 4. Digital led panels (15 locations): 98K EUR. ~M15 The installation of traffic counters and LED panels in public spaces requires a permit which is usually obtained within 2 months. The period of obtaining approval was taken into consideration, as D 6.2.1 Legal/technical and regulation analysis is delivered 4 months before D 6.2.2 Traffic sensors network deployment and Led Panels Integration. 5. Sustainable data center: 138K EUR. ~M16.	500,000.00	31/05/2027

Work Package Budget

PP 1 - Municipality of Blatrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
	20% flat rate	N/A	N/A	The budget entails prizes, vouchers or grants, for supporting eco-behaviors, exchanging tokens with: bikes or e-bikes, household hydroponic towers, planting sets for sustainable gardening, composting kits, eco-tours or outdoor experiences (or similar services in relation with business sectors). The values of the individual awards: Max 500 EUR each prize for: bikes, household hydroponic towers, planting sets for sustainable gardening, composting kits, eco-tours or outdoor experiences. We plan to award min 30 winners. Max 1000 EUR for e-bikes. We plan to award min 5 winners.	Investment 6.1 sensors and traffic monitoring, datacenter equipment	Investment 6.1 works for sustainable dalacentre	
Description							
Amount (€)	90,800	13,620.00	4,540.00	20,000	296,000	138,000	562,960.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
	37,5 FTE	N/A	N/A	components for DIY kits	equipment for platform and DIY kits development		
Description							
Amount (€)	294,250	44,137.50	14,712.50	20,000	16,000	0	389,100.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
	4,8 FTE	N/A	N/A				
Description							
Amount (€)	31,000	4,650.00	1,550.00	0	0	0	37,200.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
	5,3 FTE	N/A	N/A				
Description							
Amount (€)	34,560	5,184.00	1,728.00	0	0	0	41,472.00
PP 9 - Technical University of Cluj-Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
	3,8 FTE	N/A	N/A				
Description							
Amount (€)	23,580	3,537.00	1,179.00	0	0	0	28,296.00
Total (€)	474,190.00	71,128.50	23,709.50	40,000.00	312,000.00	138,000.00	1,059,028.00

Indicative budget breakdown per year

Year	2024	2025	2026	2027	2028	Total
Amount (%)	5 %	69 %	14 %	12 %	0 %	100.00 %
Budget (€)	52,951.40	730,729.32	146,263.92	127,063.36	0.00	1,059,028.00

Indicative budget breakdown per activities and investments

Activity	Amount (%)	Budget (€)
A 6.1	23.79 %	251,909.88
A 6.2	4 %	42,361.12
A 6.3	14 %	148,263.92
A 6.4	10 %	105,902.80
A 6.5	1 %	10,590.28
I 6.1	47.21 %	500,000.00
Total	100.00 %	1,059,028.00

Investment 1

Title Integrated System and Data Centre for Urban Climate and Pollution Monitoring

**Investment Description
(including indicative
budget of the main cost
items)**

The investment consists of all the equipment and infrastructure required for creating a self-sustainable, experimental data centre for storing and processing real-time sensors' data and crowdsourced data with EO multispectral imagery. It includes: air-quality sensors, urban climate sensors, vehicle counters (using the traffic counters/sensors), and smart traffic signs (LED panels), all deployed throughout the city. The data integration will not be done by a third party, but it will be performed locally, creating a sustainable data centre (converted modular container), that uses RES and innovative solutions for being a modular, low-carbon data centre. Breakdown is:

1. Fixed sensors for air quality and urban climate (15 locations): 98K EUR. ~M09
2. Mobile sensors (100 sensors): 50K EUR. ~M09
3. Traffic counters - counters/sensors (25 locations): 50K EUR. ~M13
4. Digital led panels (15 locations): 98K EUR. ~M15
5. Sustainable data center: 138K EUR. ~M18.

The process is usually straightforward, involving site assessment and compliance with national environmental regulations. It requires submitting an application with project details, and the permit is obtained within 3 months. The A 6.1 starting date is M1, giving enough time for the permits to be obtained before the delivery of the D 6.1.1 B(reeze)-Net Platform (integrated fixed and mobile sensors) by M12.

Mobile sensors require minimal regulatory approval, involving mainly coordinating with MUA for deployment in public areas. The approvals required are obtained faster than fixed installations, within 1 month. The A 6.1 starting date is M1, giving enough time for the permits to be obtained before the delivery of the D 6.1.1 B(reeze)-Net Platform (integrated fixed and mobile sensors) by M12.

The installation of traffic counters and LED panels in public spaces requires a permit which is usually obtained within 2 months. The period of obtaining approval was taken into consideration, as D 6.2.1 Legal/technical and regulation analysis is delivered 4 months before D 6.2.2 Traffic sensors network deployment and Led Panels Integration.

Delivery date 31/05/2027

Budget 500,000.00

Investment aspects	Questions	Project answers
Justification of the investment	Explain why this investment is needed.	The Integrated System and Data Centre for Urban Climate and Pollution Monitoring consists of the required infrastructure for hosting and managing the digital components of B-Connect. The Data Centre is viewed as an experimental implementation of the model proposed by the City of Bistrița for its future ICT infrastructure. The role of the sensor network is to monitor pollution and assess the impact of measures undertaken to reduce traffic and improve air quality, as well as to implement those measures through smart road signs and remote management. The mobility impact is also assessed. Also, through real-time data resulting from the network the impact of green investments (WP8) and the impact of improved eco-behaviours can be analysed.
	Clearly describe the thematic relevance of the investment.	Greening the city of Bistrița is an undergoing process. Static measures, such as the creation of bike lanes or urban regeneration are often disconnected and the effects are only partly monitored. The city-wide investment in terms of monitoring infrastructures has a threefold impact on the city's climate change resilience, helping with: informed decision-making and data-driven tactical urbanism, assessment of soft measures for greening the city and promoting eco-behaviors, sustainable and efficient management of both under-used GI and mobility infrastructures.
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	The Integrated System and Data Centre is a cornerstone of our project, benefiting various groups. Residents: it empowers them with real-time urban information, enabling informed decisions on climate, environment, air quality, and mobility for a healthier city. Public Authorities & Infrastructure Owners. Access to critical data enhances evidence-based decision-making, improving urban life. Research: Supports in-depth assessment of greening initiatives, boosting project effectiveness and enabling future solutions. Decision-Makers: This innovative system aids in coordinating and prioritising projects, benefiting the city and its residents.
Location of the investment	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	- Air Quality Monitoring: Currently, air quality is monitored by a semi-automatic station located in the south of the city, near the Municipal Park. There is a need for a comprehensive real-time air quality analysis infrastructure. - Environmental Pressures: The city saw a 30% increase in built-up areas in 2020 compared to 2006/2000, despite only a 10% population growth. Battery and brick manufacturing generates heavy metal emissions, impacting residential areas near these industries. Despite the city's natural beauty, fragmented green infrastructure cannot handle climate change. A comprehensive, spatially and temporally coherent dataset is required for targeted green interventions. - Traffic: The motorization index is very high at 439 vehicles per 1000 residents. Local authorities have taken measures like creating 36km of bike lanes and offering free public transportation, but the impact remains insignificant. Innovative measures to change citizen behaviour are needed.
	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	The Sustainable data Centre will be installed at location Street Cuza Vodă, no. 17A, Bistrița, in proximity of the Local Police, ensuring the physical integrity and security of the Investment. It is situated in a central location, adequate connectivity, water and visibility being ensured. The fixed sensors are installed in public space, on already existing poles, or in open areas.
Investment documentation		<div> <div>Country</div> <div>Romania</div> </div> <div> <div>NUTS 2 level</div> <div>Nord-Vest</div> </div> <div> <div>NUTS 3 level</div> <div>Bistrița-Năsăud</div> </div>
	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	For the air quality and urban climate sensors, the installation does not require complex processes, being small-scale equipment installed in public spaces, under the administration of MUA. For the Sustainable Data Centre installed Street Cuza Voda, no. 17A, the container to be converted to host the equipment is subject to simple permits. There are no foundations planned, like a typical building, meaning that it will be considered an annex in the lot. PP8 will provide expertise and support for smooth implementation and compliance with local regulations. Even though the last investment ends in M16, I 6.1 ends in M30 because we need to allow 14 months, in case technical difficulties are encountered, and other acquisitions are required. During the 14-month adjustment period, solutions will be calibrated and ensured to function properly. Activities will continue until, M36, even if I 6.1 is technically finalised by M16, and closed by M30.
Ownership	Who owns the site where the investment is located?	The City of Bistrița is the owner of the investment sites. In the case of mobile sensors, they can be given to citizens or installed in municipality fleets: public transportation, police cars, garbage trucks etc...
	Who will retain ownership of the investment at the end of the project?	The City of Bistrița will retain ownership. The infrastructure represents a valuable investment for having informed decision-making. The utility and flexibility of infrastructure can be further extended.
	Who will take care of the maintenance of the investment? How will this be done?	The City of Bistrița will maintain the investment as part of its digitalization strategy. The maintenance will be performed by the technical staff - IT department, through its own human and technical resources.



Work Plan Per Work Packages - Work Package 7 Thematic

Title Green Mobility Adaptive Frameworks (People-Places connection)

Start Date 01/01/2025

End Date 30/11/2027

Budget 736,148.00

Partners Involvement

Responsible Partner PP 1 - Municipality of Bistrita

Involved Partners

- PP 1 - Municipality of Bistrita
- PP 2 - Indeco Soft
- PP 3 - Urbasofia
- PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca
- PP 5 - Babes-Bolyai University
- PP 7 - E-Civis Association
- PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)
- PP 9 - Technical University of Cluj-Napoca

Summary

Considering the high motorization index, the increase in the concentration level of atmospheric pollutants and the average annual temperature, it is necessary to take action through integrated mobility actions, reducing congestion, fighting car dependency and supporting the transition to alternative modes of transportation.

The WP7 innovative solutions aim to enhance the effort already put in by public authorities (extensive network of bike lanes and free public transportation). In order to improve urban mobility for citizens, new facilities and reward mechanisms are deployed to promote soft mobility alternatives, raise awareness, manage the traffic flow and provide intermodal mobility/transportation structure.

WP7 includes measures that combine cutting-edge technology with community engagement actions, to provide real-time solutions, modular units to facilitate the use of alternative transportation, and autonomous delivery systems. By analysing robust data, a thorough process of adaptive measures is deployed.

Following tactical urbanism methodology, it tackles different key components of the mobility system in Bistrita, with a high impact on greening the city, deploying:

- i. Real-time intelligent traffic management to solve traffic problems.
- ii. Community-centred facilities for Mobility and Circular Economy facilitate the transition to alternative modes of transportation.
- iii. Prototype of autonomous vehicles considering last-mile deliveries.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A7.1

Real-Time Intelligent Traffic Management: Combating Air Pollution, Prioritizing Green Mobility, and Enhancing Pedestrian-Cyclist Safety

Lead: PP2, with support of PP3-8-9.

A data-driven approach to intelligent traffic management implies generating and compiling large volumes of data, that are analysed with the scope of achieving positive environmental impact (see A7.2). The main objective of A7.1 is to ensure proper operation of the adaptive framework and to capacitate the representatives of public authorities for managing the new solutions. The activity is in strong synergy with WP6 actions, especially A6.2 - Smart Digital Infrastructure. In WP6 all the infrastructure and digital integration is ensured, in A7.1 background management of the framework is being developed, and in A7.2 mobility solutions are being modelled.

Start date

01/04/2025

End date

31/07/2026

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 7.1.1	Title	Regulatory assessment for real-time adaptive mobility solutions		
	Description	Led by PP2, with the support of MUA and PP3, D7.1.1 is a crucial step in developing solutions for LED panels operation, with the aim of enhancing mobility and creating a greener city. In collaboration with legal advisors and the local police department, an assessment of the spectrum of viable options for LED panel operation is evaluated. Furthermore, in accordance with traffic regulations, determining the optimal locations for placing the LED panels is vital. It is essential to select strategic areas with respect to areas where regular congestion occurs. The deliverable will report on the findings and requirements for LED panels operation for mobility solutions (as a starting point for D7.1.2 and A7.2).	Target value 1	Delivery date 31/07/2025
D 7.1.2	Title	Capacity building programme for operating the adaptive system		
	Description	Real-time adaptive solutions for greening the city are developed in A7.2. D7.1.2 main purpose is to extend the technical skills of the public authorities (empowered with the innovative solution) in order to understand how to interpret and compile the data. The scope is to fast-track decision-making on mobility solutions with a positive environmental impact. 3 capacity building events: 1 - data collection and management, 2 - traffic analysis and indicators, 3 - real-time traffic management. The main goal of adaptive traffic signal controls is to attenuate air quality. Increase citizen awareness and take immediate action in this regard.	Target value 3	Delivery date 31/07/2026

A 7.2

Co-designing the Real-time
adaptive mobility response system

Led by PP2, with the support of PP3-PP8, this activity aims to take further advantage of the infrastructure and the gathered data, in order to provide a novel tool for understanding the environmental impact of mobility solutions.

The activity uses the B(reeze)Net&B(reeze)Flow data pool to evaluate traffic-related measurements and integrate the results into adaptive mobility solutions. The interoperability of the data sets facilitates the development of tailored mobility solutions, with an immediate impact at the city level to improve and organise traffic flow through a live evaluation of indicators. The activity will co-design a set of standard solutions (for led panels operation) in respect to different environment and mobility scenarios.

Start date

01/07/2026

End date

31/05/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

D 7.2.1

Title

Mobility digital simulation - Analysis of traffic scenarios

Description

Led by PP2, with support from PP3-8, B(reeze)Net data is used for creating mobility simulations for key areas of the city. It includes parameter calibration of traffic, with an aim for automation. A GIS-based network model will enhance data consistency and efficiency. The system will support environmental modelling, planning, and positive impact traffic management simulations, optimising routes and driving behaviours using AI for ongoing adjustments.

Results are synthesised into standardised scenarios, tracking predictability patterns in key areas, covering major and minor roads. Efficiency is a priority for both environmental and mobility impacts, utilising a critical mass of behavioural models to evaluate user preferences and responses.

Target value

Delivery date

1

31/03/2027

D 7.2.2

Title

Co-created models (for adaptive traffic signal control/ digital signalling panels)

Description

Based on quadruple helix mode, the activity aims to co-develop a series of optimal solutions for mobility management, specifically the information to be displayed on the led panels, based on the real-time collected data (see A6.2). The co-created models for adaptive traffic signal control will make use of the outputs of WP6 real-time digital green resilience ecosystems, specifically the O6.1 B(reeze) platform, O6.2 sensor network and O6.3 citizen-driven digital platforms. Those tools will collect, centralise and enhance the data gathered at local level within the second year of the project, providing the necessary support for WP7 to be developed through a participative approach. The last item of the WP6 Investment 16.1 finalises in M16 (03/2026) which makes it possible for the harmonisation of activities.

Target value

Delivery date

1

31/03/2027

Model example: Collected data sets pollution thresholds. When streets have high atmospheric pollutant levels, LED panels suggest alternative routes to alleviate traffic. Drivers get real-time pollution and traffic information with rerouting suggestions and options triggered by high traffic situations. In case of road incidents, drivers will access estimative clearance times and traffic diversion options.

The models will be co-designed through 1 workshop and wide-scale surveys/questionnaires through the city app.

The co-developed results will be shared and promoted through the social media channels of the project, as well as the workshop and dissemination of wide-scale survey (see A4.2).

A7.3

Smart Mobility Hubs: Community-Centric Facilities for Mobility (solar powered)

Led by MUA, PP8, support PP3.
This activity enhances soft mobility through innovative neighborhood-level infrastructure. Modular interventions in public spaces target peripheral neighbourhoods in need of regeneration and are especially addressed to vulnerable groups: youth, elderly, women. The Hubs combine a secured closed-circuit bicycle parking space and a customizable part (from tools workshop to charging stations). This will create a network of facilities that have a strong social focus while promoting sustainable mobility. This service requests no monetary contribution, by introducing a reward system based on a blockchain token: see A6.4 Token-Based Rewards system. Ex: the tokens can be collected to pay the rent, by just biking weekly.

Start date

01/04/2025

End date

30/11/2027

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 7.3.1	Title	Co-designing smart mobility hubs		
	Description	<p>Report on participative process that will enable local communities to gain awareness of the initiative and take ownership of the process and proactive behaviour.</p> <p>The preparation phase contains 3 topics:</p> <ul style="list-style-type: none"> -Urban analysis and needs assessment -Design -Co-management <p>The urban analysis will be led by specialists, to identify the most fitting spaces that can host future activities and assess the interest of residents. Design requirements will be determined, in order to be integrated into the final solution. A co-management plan will be developed, in order to establish internal guidelines and rules for the users (who has access, between what hours, potential risks and how to handle them - i.e. burglary, fire hazard, etc.)</p>	Target value 1	Delivery date 31/12/2025
D 7.3.2	Title	Smart Mobility Hub Final Design		
	Description	<p>PP8 will integrate the requirements collected from the local communities (working with vulnerable groups), make an assessment of existing practices regarding this type of infrastructure and compile all information in a prototype.</p> <p>The modules will make use of novel technologies such as green roofs and photovoltaic panels. The module will accommodate 80-100 bicycle slots and a common bicycle workshop. Besides promoting green mobility, the infrastructure is a social coagulant for the local communities. Multi-functional purposes can be attributed, according to locals' requirements and involvement. Hubs will trigger social cohesion and integration - becoming more than mobility infrastructure, transforming into a social coagulant.</p>	Target value 1	Delivery date 30/04/2026
D 7.3.3	Title	Smart Mobility Hubs as community-centric facilities (co-implementation)		
	Description	<p>6 modules will be developed and constructed in pre-selected locations (see D7.3.1). The aim is to support urban regeneration in peripheral neighbourhoods (densely built collective housing districts, with low quality of public spaces and facilities). An opening event will be organized together with locals, advocating for the modules' added value for the community spirit and urban dynamics, informing about usage guidelines, and methods of operation.</p> <p>Furthermore, the deliverable will assess neighbourhood-level impacts, evaluating both quantitative (e.g., number of users) and qualitative indicators (community feedback on the effectiveness of encouraging soft mobility alternatives).</p> <p>The "co-implementation" in the period April 2026 - September 2027 is about the refinement of the business model and user interaction, which is why D7.3.3 is delivered towards the end of the implementation phase, in order to showcase the refined set of guidelines and methods of operation, having 1,5 years of piloting as experience.</p> <p>Disseminating the process of developing the Hubs, the opening event as well as the final results will be done by the B-CONNECT communication means. Encouraging sustainable behaviours and the adoption of alternative modes of transportation is critical for the green transition of the city (see A4.2).</p>	Target value 1	Delivery date 30/09/2027

A 7.4	Bike-lane Autonomous Vehicle: Efficient Delivery (solar powered)		Based on the fact that delivery services are gaining more interest, the automatisalation of mobility solutions is initiated. Led by PP9, the solution proposed consists of an autonomous vehicle that can move between a series of nodes (i.e.: administrative buildings) to facilitate transportation at the local level. The routes that provides possible pathways between destinations is the network of bicycle lanes at the city level. The technology is already developed by PP9, but has never been traduced in a real-case scenario. This autonomous vehicle will be powered through solar panels to provide a time and energy-saving innovative solution that can enhance inter-institutional communication while promoting digitalization in the public space.		Start date	01/01/2025	End date	30/11/2027
Deliverable number		Deliverable and partners involved			Target value		Delivery date	
D 7.4.1		Technical solution & Pilot development			Target value		Delivery date	
Description		The Pilot Development envisions creating an autonomous vehicle by UTCN, through integrating the already developed technology with solar power solutions. The goal is to obtain a safe, efficient and sustainable prototype that can drive itself without human intervention. A series of indicators will be set, such as route optimization, material flow optimization, gas emission reduction, and cost-savings. Some of the key aspects of the process involve: developing sensors (to perceive the environment and detect surrounding objects), computers (to process sensor data and integrate artificial intelligence), software (for vehicle control and communication with other traffic participants) and standards (for achieving the above-mentioned indicators).			1		30/09/2026	
D 7.4.2		Testing in real-life scenarios + Impact Assessment			Target value		Delivery date	
Description		The autonomous vehicle will perform daily routes with documentation between the City Hall and the Prefecture. It has been established with Municipality representatives that this would be an adequate testing environment, as much physical documentation is transported every day between the two institutions. A weight sensor could be installed so that when it has reached a certain threshold, the vehicle can begin travelling to the other destination. The main goal of this phase of the process is to evaluate how efficient the solution is and what is the transferability potential. An Impact assessment will be developed to measure the initially selected KPIs and indicators. Disseminating the Autonomous Vehicle prototype will increase the visibility of an innovative solution at local level, but also outside the partnership, especially taking into consideration the specific utility developed in B-CONNECT (in supporting exchange of documentation for the Municipality) (see A4.2).			1		31/03/2027	
D 7.4.3		Legislative approach - Romania's first regulation on Autonomous Vehicles			Target value		Delivery date	
Description		Developing the enabling legislation to authorise the use of autonomous vehicles at the Bistritja level - the first policy of this kind in Romania. Led by PP9, the scope is to ensure that appropriate regulatory and financial instruments are set, for an effective deployment of this technology. Potential options to integrate into local policy: Develop design guidance standards/ flexible parking policies/ encourage shared mobility strategy. Relevant stakeholders from technology, industry, government and university will be engaged to develop standards for secure data communication and interoperability. The next step involves developing the adoption of policies related to certification, licensing, training and liabilities.			1		30/09/2027	

Outputs

Number	Title	Description	Output Indicator	Unit	Target value	Delivery date
O 7.1	Trained team on traffic management and real-time response evaluation	An internal team at the Municipality level trained at understanding key aspects regarding traffic management and the attenuation of air pollution. They will be ready to understand city challenges related to mobility and come up with potential solutions. The team will have a transdisciplinary composition of local experts.	People supported (trained,	persons	15.00	28/09/2027
O 7.2	Smart city solutions for mobility and environment solution evaluation (city-level simulation)	The simulation will be an innovative product at the city level that feeds on the data collected through the sensor infrastructure. It will evaluate different mobility scenarios based on the environmental impact, in order to allow for the best option to be implemented.	New products and services	new products/services	1.00	29/06/2027
O 7.3	Co-managed community-centric facilities for soft mobility	The community-centred facilities - Smart Mobility Hubs (total of 6) will be co-managed by the local communities based on a co-management plan so that citizens can take ownership of the infrastructure developed through the project and be encouraged to use alternative modes of transportation. The Smart Mobility Hubs are located in peripheral neighbourhoods. Involvement of disadvantaged communities is encouraged.	Infrastructure supported (nr	supported infrastructures	6.00	30/08/2027
O 7.4	Autonomous delivery vehicle (solar powered)	The first autonomous delivery vehicle in Bistrița developed by UTC will facilitate the transportation of documentation between institutions in the pilot phase. The vehicle can be further adapted to the local needs.	New equipment created an	new equipment	1.00	29/09/2027

Investments

Number	Title	Description	Budget	Delivery date
I 7.1	Smart Mobility Hubs (Community-centre facilities at the neighbourhood level - solar-powered modules for bicycle parking with adjacent amenities)	<p>The sites where I7.1 will be implemented are owned by the Municipality. Moreover, within the Initiation Phase the Consortium collaborated closely with the Public Authority and External Experts to analyse and establish the authorization procedures necessary to develop the Smart Mobility Hubs (for instance, the connection to electricity). This also implies identifying all bureaucratic and technical requirements for deploying the Investment and connecting the necessary type of permit with the expected length of the procedure and ways to obtain it. The Smart Mobility Hubs won't require a construction permit, as they have been imagined as light constructions positioned on concrete precast.</p> <p>This innovative network of community facilities will be assembled as modules that can be easily installed in different premises.</p> <p>Different types of containers / modular constructions will be evaluated and the most fitting will be chosen.</p> <p>The materials will be chosen based on short supply chains, preferably locally produced. An assessment of the necessary tools for the workshop will be developed and further procured.</p> <p>Budget breakdown: container/modules (total of 6), solar panels and green roofs adaptation for each, converting the module with bike racks and the related token-based locking mechanism, equipping the hubs with a repair workshop, minor infrastructural works for installing the Smart Mobility Hubs (such as pillars, pavement improvements, utilities, public lighting, security/surveillance). For these works, there is an estimated 25-28K EUR per unit. I7.1 is finalised in April 2026, based on the co-design requirements elaborated in D7.3.1 (delivered Dec 2025). The Final Hubs Design (delivered in April 2026) is showcasing the technical details of the Investment.</p> <p>I7.1 costs is divided in 132,276 EUR co-financing (in kind representing the cost of the land where the investment will be located), and 167,724 EUR for the infrastructural works required to construct the Smart Mobility Hubs.</p>	300,000.00	30/04/2026

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	20% flat rate	N/A	N/A			Investment 7.1 - works and infrastructure for Smart Mobility Hubs	
Amount (€)	60,000	9,000.00	3,000.00	0	0	300,000	372,000.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	6,54 FTE	N/A	N/A				
Amount (€)	52,280	7,842.00	2,614.00	0	0	0	62,736.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	8,19 FTE	N/A	N/A				
Amount (€)	47,150	7,072.50	2,357.50	0	0	0	56,580.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	1,25 FTE	N/A	N/A				
Amount (€)	8,500	1,275.00	425.00	0	0	0	10,200.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	1,25 FTE	N/A	N/A				
Amount (€)	8,500	1,275.00	425.00	0	0	0	10,200.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	1,6 FTE	N/A	N/A				
Amount (€)	6,400	960.00	320.00	0	0	0	7,680.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	9,69 FTE	N/A	N/A				
Amount (€)	70,100	10,515.00	3,505.00	0	0	0	84,120.00
PP 9 - Technical University of Cluj-Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	13,98 PFTE	N/A	N/A		components for the Autonomous vehicle		
Amount (€)	93,860	14,079.00	4,693.00	0	20,000	0	132,632.00

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Total (€)	348,790.00	52,618.50	17,339.50	0.00	20,000.00	300,000.00	736,148.00
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Indicative budget breakdown per year

Year	2024	2025	2026	2027	2028	Total
Amount (%)	0 %	76 %	14 %	10 %	0 %	100.00 %
Budget (€)	0.00	559,472.48	103,060.72	73,614.80	0.00	736,148.00

Indicative budget breakdown per activities and investments

Activity	Amount (%)	Budget (€)
A 7.1	25.25 %	185,857.68
A 7.2	6 %	44,168.88
A 7.3	12 %	88,337.76
A 7.4	16 %	117,783.68
17.1	40.75 %	300,000.00
Total	100.00 %	736,148.00

Investment 1

Title

Smart Mobility Hubs (Community-centre facilities at the neighbourhood level - solar-powered modules for bicycle parking with adjacent amenities)

Investment Description (including indicative budget of the main cost items)

The sites where I7.1 will be implemented are owned by the Municipality. Moreover, within the Initiation Phase the Consortium collaborated closely with the Public Authority and External Experts to analyse and establish the authorization procedures necessary to develop the Smart Mobility Hubs (for instance, the connection to electricity). This also implies identifying all bureaucratic and technical requirements for deploying the Investment and connecting the necessary type of permit with the expected length of the procedure and ways to obtain it. The Smart Mobility Hubs won't require a construction permit, as they have been imagined as light constructions positioned on concrete precast.

This innovative network of community facilities will be assembled as modules that can be easily installed in different premises.

Different types of containers / modular constructions will be evaluated and the most fitting will be chosen. The materials will be chosen based on short supply chains, preferably locally produced.

An assessment of the necessary tools for the workshop will be developed and further procured.

Budget breakdown: container/modules (total of 6), solar panels and green roofs adaptation for each, converting the module with bike racks and the related token-based locking mechanism, equipping the hubs with a repair workshop, minor infrastructural works for installing the Smart Mobility Hubs (such as pillars, pavement improvements, utilities, public lighting, security/surveillance). For these works, there is an estimated 25-28K EUR per unit.

I7.1 is finalised in April 2026, based on the co-design requirements elaborated in D7.3.1 (delivered Dec 2025). The Final Hubs Design (delivered in April 2026) is showcasing the technical details of the investment.

I7.1 costs is divided in 132,276 EUR co-financing (in kind representing the cost of the land where the investment will be located), and 167,724 EUR for the infrastructural works required to construct the Smart Mobility Hubs.

Delivery date

30/04/2026

Budget

300,000.00

Investment aspects	Questions	Project answers	
	Explain why this Investment is needed.	The municipality has relevant accomplishments related to soft mobility: a recently finalized network of 36 km bike lanes. Despite the extensive network, the no. of cyclists has not increased as expected. For youth, the elderly and women, it is considered difficult to take the bike in and out of the apartment (especially for buildings without elevators). The investment addresses this challenge, providing a secure way of storing bicycles at the neighbourhood level. Local communities need to be encouraged to use alternative modes of transportation. By installing them in the peripheral neighbourhoods - densely built urban environments, the Smart Mobility Hubs will contribute to the district's regeneration. The Hubs will trigger social cohesion and integration - becoming more than mobility infrastructure, transforming into a social coagulant. Hubs' installation advocates for affordable community-oriented facilities and demonstrates how modular solutions can impact the local landscape.	
	Clearly describe the thematic relevance of the investment.	The relevance of the investment consists in providing all necessary facilities to securely use the bicycle as a citizen of Bistrița. From secure parking spots to a repair workshop, the investment will function as an important component of the bicycle infrastructure. A sustainable approach will be used for energy production, as solar panels will be integrated. Greening the city is a process subject to eco-behaviors. These modules - Smart Mobility Hubs represent a template for community-oriented facilities that support and empower green behaviours.	
Justification of the Investment	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	Local communities adjacent to the smart mobility hubs will directly benefit from the investment, including vulnerable groups such as the elderly, younger generations and women. Women have different mobility patterns than men, and studies reveal that they prefer alternative modes of transportation to the personal vehicle. The youth will get used from an early age to using soft mobility options. On the other hand, SMEs providing connected services can support the facilities by supplying tools and providing maintenance. It is expected that an increase in the overall quality of life will be perceived in terms of health, well-being and environmental impact (for example reduced air pollutants).	
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	The issue centers on the detrimental effects of motorized transportation, evident in alarming increases in atmospheric pollutants like NO ₂ (23.19 ug/m ³ in 2020 compared to 10.72 ug/m ³ in 2016) and O ₃ (41.77 ug/m ³ in 2020 compared to 19.43 ug/m ³ in 2016). The municipality grapples with the challenge of promoting sustainable urban mobility - motorization index is exceptionally high at 439 vehicles per 1000 inhabitants. This initiative will assess citizen engagement and the rise in bicycle usage. Smart Mobility Hubs act as catalysts to amplify the impact of existing investments, particularly the 36km bike lanes. Given the modular design, these facilities can be easily replicated in diverse urban conditions. Encouraging citizens and municipalities to invest in and adopt alternative transportation methods is a pressing concern, not just in Bistrița but throughout Romania. Therefore, if this initiative proves successful, it could serve as a model for other cities in Romania and beyond.	
Location of the Investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	Given their modular design, the Smart Mobility Hubs will not require building permits. The Hubs will be installed in public domains within the relevant public spaces of peripheral neighbourhoods: Independenței Nord, Independenței Sud, Ștefan cel Mare, Andrei Mureșanu, and Decebal (areas identified as needing regeneration). Location options within these neighbourhoods include degraded green mineral pavement areas (for public space rehabilitation), replacement of 2-3 parking spots (owned by the municipality), or former/demolished infrastructure sites (e.g., garages).	
	Country	NUTS 2 level	NUTS 3 level
	Romania	Nord-Vest	Bistrița-Nasaud
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	Required: an urbanistic certificate, permit for installing the hubs, and building permit - based on the detailed project. PP8 offers expertise for realizing the Smart Mobility Hubs and achieving all requirements in compliance with National Law 50/1991.	
	Who owns the site where the investment is located?	The Municipality of Bistrița owns the site - the interventions will be done in the public domain, not on private lots.	
Ownership	Who will retain ownership of the investment at the end of the project?	The legal ownership is retained by the municipality of Bistrița, and part of the responsibilities will be slowly transferred to the local communities, based on a co-management contract.	
	Who will take care of the maintenance of the investment? How will this be done?	The investment will be taken care of by the Municipality. Some responsibilities regarding the maintenance of the investment will be split between the Municipality and the local communities - housing associations. A co-management plan will be formalized by both parties.	



Work Plan Per Work Packages - Work Package 8 Thematic

Title	NBS-Driven Urban Regeneration: Biophilic Design for environment enhancement (People-Nature Connection)
Start Date	01/12/2024
End Date	30/11/2027
Budget	1,861,296.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Bistrita
Involved Partners	PP 1 - Municipality of Bistrita PP 2 - Indeco Soft PP 3 - Urbasofia PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca PP 5 - Babes-Bolyai University PP 6 - Bistrita - Youth for the Community PP 7 - E-Civis Association PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP) PP 9 - Technical University of Cluj-Napoca

Summary

Despite valuable natural surroundings, city residents face disconnection from nature: (1) an extensively mineral historic city centre, including schoolyards, (2) an inaccessible and degraded river corridor, and (3) collective housing neighbourhoods from the 1960s-1980s containing neglected green spaces. Led by MUA, in collaboration with PP4 and PP3, WP8 addresses these challenges by adaptively utilizing affordable NBS to create a more resilient and greener city. Specifically, B-CONNECT seeks to strengthen the connection between People and Nature, combat air pollution, and restore neglected land. The end goal of the WP is to create valuable GI Management Options (Designing a Biophilic city) for a green and clean (air) city, that is based on comprehensive testing and monitoring of NBS in relevant urban contexts. The first step of the transformation process is the elaboration of the NBS Toolkit that will detail species and methods deployment – see D8.5.1. Using a biophilic-oriented tactical urbanism approach, the city's green system will be enhanced, connecting two peripheral neighbourhoods through community-driven green transformations. These initiatives are enhanced by green corridor regeneration: a corridor along the main boulevard and a blue-green corridor along the Bistrita. The historic city centre, concrete/paved schoolyards, and high air pollution areas will be transformed using hydroponics. The school gym's new green wall will set a new local standard.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 8.1

Hydroponics Modular Solutions:
Regulating Environment, Comfort,
Air Quality, and Biodiversity
(NBS1)

Usually used for food systems, Hydroponic towers in cities offer innovative solutions for improved microclimate and landscape regeneration. Led by PP4, tower designs can be customised for air purification, shade provision, and local food production. Continuous monitoring tracks their impact on urban climate, pollution reduction, landscape enhancement, public perception, and food cultivation. B-CONNECT will test 50 (up to 100) solar-powered mobile towers, addressing air pollution across the city. Schoolyards: Ștefan cel Mare, Lucian Blaga, and Șc. Generală nr. 1, are ideal locations due to their proximity to high-traffic areas, accommodating a stock of towers for "climate emergencies" (to be moved on a needs basis). It is expected to complete the acquisition procedures of hydroponic towers (I8.1) by end of March 2026. Immediately after that the actual piloting of the innovative solution will be deployed (D8.1.3), first in a controlled environment, then tested in actual urban environments, and final results and conclusions will be reported in Nov 2027.

Start date

01/03/2025

End date

30/11/2027

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 8.1.1	Title	Urban Hydroponics Towers - developing the technical solution (NBS1)		
	Description	<p>Led by PP4, the prototype for autonomous hydroponic systems will be developed and tested for a wide variety of use-case scenarios, including:</p> <ul style="list-style-type: none"> - Anti-smog species and purifying plants. - Plants that optimise humidity in outdoor spaces. - Plants for sustainable local food production. <p>Key requirements for these prototypes include autonomy (solar-powered), mobility, resilience, and an adaptable design for a variety of plant species, as well as a visually pleasing aesthetic. The deliverable represents a detailed report, covering the chosen solutions, the selection of plants to be used, requirements for watering and overall maintenance, as well as how to move them. The dimensions: 0.8-1 m in diameter and 2.2-3 m in height.</p>	Target value 1	Delivery date 30/11/2025
D 8.1.2	Title	Co-creation process for utilisation scenarios and co-implementation of adaptive solutions		
	Description	<p>Led by PP3, PP4 and MUA. Following the biophilic-centred tactical urbanism philosophy, this activity will involve co-design and co-implementation workshops to assess optimal and concrete locations, as well as the spatial conformation and composition of hydroponic towers in various public spaces and schoolyards. 3 workshops are planned to determine the location, arrangement, and function of towers in each scenario:</p> <ul style="list-style-type: none"> - Towers in Public Spaces – Greening the historic centre. - Towers in High-Traffic Areas and Intensely Used Public Spaces – Combating air pollution and regenerating the urban landscape. - Towers in Schoolyards – Improving the local climate and enabling Interactive didactic activities. <p>Disseminating the three workshops results through the social media channels of the project to increase awareness over the initiative and encourage proactive behaviour. (see A4.2)</p>	Target value 1	Delivery date 31/03/2026
D 8.1.3	Title	Piloting Hydroponic Towers for urban environment enhancement		
	Description	<p>Led by PP3 and PP4, supported by all PPs, the deliverable will report on the piloting and demonstration activities. Based on D8.1.2, MUA will install all of the towers in the designated locations (impact is monitored in WP3). The deliverable will contain:</p> <ul style="list-style-type: none"> Adaptive schedule/model for towers' mobility (in relation to real-time monitoring systems concerning urban climate). The recommended period for 1 location is min 3 months. Hydroponics stock within schoolyards can be used in the case of "local climate crises". Map with locations: open/vacant and in-use locations. Vegetation status – reporting the suitability of tested plants in hydroponics systems in real-life urban environments. Citizen perception (Is it sustainable? Is it impactful?) <p>Disseminating the piloting and demonstration activities through the social media channels of the project. (see A4.2)</p>	Target value 1	Delivery date 30/11/2027



A8.2

Green capillary renovations works
(NBS2)

Led by PP8, the activity is designed to address the imperative of adapting urban environments to changing climate conditions, particularly by retrofitting existing buildings with innovative techniques. B-CONNECT project will focus on the affordable implementation and assessment of a modular green wall system that aligns with the local environmental context. This activity aims to popularise sustainable retrofitting solutions while establishing a practical technological roadmap and compiling essential data to support informed decision-making for future renovation projects across the city. The design is achieved through participatory workshops and it will be in accordance with environmental and urban analysis assessment done in A8.5, D8.5.1.

Start date

01/09/2025

End date

31/03/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

Modular Green Wall prototype – National College Liviu Rebreanu (NBS7)

D 8.2.1

Description

Led by PP8 and PP4, under the coordination of MUA, a modular green wall system will be implemented on the outside of the school gym. Partners will ensure that the solution is specifically tailored to the local climatic and environmental conditions of the city, encompassing the use of sustainable materials, efficient irrigation systems, and compatibility with a variety of building structures. Testing of technology costs, suitability and impact for: 1 - grid panel structures, 2 - pocket panel structures, and 3 - trellis panels (for climbing plants). A project fiche will be elaborated for NBS2, stating the location and the site criteria/requirements, co-developed design, and outcomes of the intervention. - Integrated in D8.5.1 NBS Toolkit.

Target value

Delivery date

31/03/2026

Title

Participatory and didactic events Report

D 8.2.2

Description

Led by PP3, the process of creating a green wall in the school gym is deployed in collaboration with students and teachers. The overall aesthetic requirements will be the subject of the 1st event – Designing with nature. The 2d event represents the involvement of students in the co-implementation of the installation, with the thematic: Horticultural Skills. The 3rd event theme is Biodiversity Lessons, informing students about the main benefits of green infrastructure and teaching them how to monitor biodiversity impact (pollinators). Showcasing the process of creating the green wall with students and teachers through the B-CONNECT communication channels to increase traceability of the process and provide a best case for other schools to follow. (see A4.2)

Target value

Delivery date

31/03/2027

Title

Technological assessment for green capillary mainstreaming at the city level

D 8.2.3

Description

Based on a performance evaluation report (part of WP3), led by PP4 and PP3, the deliverable encompasses the to-dos and not-to-dos for creating modular green walls. It will outline the steps needed for retrofitting modular green walls on existing buildings. It will serve as a guide for future renovation works on public buildings and beyond. For each type of technology, the costs of implementation & maintenance, impact on the outside and inside environment, perception of citizens, and suitability of retrofitting on other buildings will be reported. Project fiches for key sites will be elaborated in parallel. Deliverable requires only 1 target to report on the results of the co-creation process.

Target value

Delivery date

31/03/2027

A 8.3

Community-driven Regeneration of
collective housing neighbourhoods

Led by MUA with PP3-4, this activity aims to transform collective housing neighbourhoods into vibrant, resilient spaces. Interventions focus on peripheral neigh., characterised by deteriorating and neglected urban landscapes. The goal is to improve microclimate regulation, regenerate the urban landscape, promote social interactions, and foster environmentally conscious communities. There are 2 categories of sites for NBS adaptation: (i) key sites at the neigh. level, requiring a multi-use approach and ecologic design; (ii) modular green pockets, which require flexible NBS deployment. Real-time monitoring of interventions will help refine the NBS Toolkit. Urban explorer events will determine key requirements for the site transformation.

Start date

01/03/2025

End date

30/11/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

D 8.3.1

Description

Title

NBS design for multi-use social interaction ecological spaces (NBS2-5)

Led by PP3 and PP8, with support of PP4. There are 5 key intervention sites: 3 in the Independentel neighbourhood, 1 in Stefan cel Mare, and 1 near the driving school site in a newly developing neighbourhood. Total - 10,000 sqm. In contrast to other green pockets, these sites have a larger area and can act as both ecological catalysts and social coagulants. Leveraging D8.5.1 - NBS Toolkit and led by PP3 there are planned 1 co-design workshop per neighbourhood (total of 3) aiming to assess NBS adaptation measures in a coherent public space design including leisure and social activities. A project fiche will be elaborated for each key site, stating the location and the site criteria/requirements - see D8.5.1 NBS Toolkit. D8.3.1 is focusing on the sites with a bigger area (more than 1000sqm), which can accommodate some small scale interventions for the community: social interaction spaces, leisure areas, etc.. Considering the complexity of the landscape design, D8.3.1 sites may include a mix of multiple NBS solutions (NBS2, NBS3, NBS4, NBS5).

Target value

Delivery date

1

31/03/2026

D 8.3.2

Description

Title

Flexible NBS design for Green Pockets Regeneration (NBS2-5)

Led by PP3 and PP8, PP4. The modular characteristics of green pockets within collective housing neighbourhoods allow for easy replication and design adaptation. The typologies of these sites, as well as the specific challenges and environmental conditions, are explored in detail in D.8.5.1. 3 workshops are planned: 1 needs assessment and presentation of the NBS set, 2 location and requirements for NBS adaptation and opportunities, and 3 discussing the intervention plan and NBS designs. Related NBS: 2,3,4,5 (see D8.5.1). A project fiche will be elaborated for each NBS implemented, stating the location and the site criteria/requirements, co-developed design, and outcomes of the intervention. Total surface of the intervention areas: 8000 sqm. D8.3.2 tackles small scale green spaces, of average areas 200-400 sqm, that can accommodate only simple landscape interventions, and 1 NBS. The D 8.3.2 results will be shared over the social media channels of the project: sharing before and after images and other materials that follow the process. (see A4.2)

Target value

Delivery date

1

31/03/2026

D 8.3.3

Description

Title

Final Report on the NBS deployment in collective housing neighbourhoods

The deliverable will report the I8.1 work deployment (D8.3.1 and D8.3.2 results), and the achievement of O8.3 and O8.5. It will include seasonal monitoring/observations of the efficiency and success of the intervention. Delivery 31/10/2027.

Target value

Delivery date

1

31/10/2027

A8.4

Urban Biodiversity Enhancement
and Green Cooling Solutions
(experiments)

Led by PP4, MUA, with the support of PP3, it experiments with biophilic solutions to transform neglected or resource-intensive GI corridors. The primary objective is to assess the effectiveness of biophilic design principles in addressing these issues and enhancing the overall quality of the urban environment, through planning and seedling. Leveraging D8.5.1, this activity includes strategic NBS adaptation for creating low-maintenance green areas for cooling and biodiversity in high-traffic and heat-affected areas, as well as restoration of riparian landscapes. It promotes the creation of a nature-integrated urban fabric, with the two green corridor pilots connecting spatially with greening initiatives in 3 neighbourhoods mentioned in A8.3.

Start date

01/03/2025

End date

31/10/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

Title

Reconnecting with the river - river rehabilitation plantations (NBS6)

D 8.4.1

Description

Led by PP4 and PP3, the report details the interventions planned for the renaturalization of green strips of land along water areas (1 site Willow Canal, 2 sites Bistrița River). The aim is to collaboratively transform the sites (min. 1500 sqm) into biodiversity-friendly ecologic riparian landscapes that do not require intensive cutting or high amounts of water for irrigation. Led by PP4, and MUA, with the support of PP3, the deliverable will report on the co-implementation activities (planting events) and will record the seasonal progress of the newly realised NBS. A project fiche will be elaborated for reporting on the site criteria/requirements, co-developed design, and outcomes of the intervention (integrated into D8.5.1 NBS Toolkit). Target 1 - Nov 2025, will report on the analysis results and key conclusions resulted from the cooperation with Water Agency SGA Bistrița, and then conclude the concrete solutions to be piloted and key requirements for implementation. Investment process will start immediately after. Target 2 - March 2027 will conclude the investment success/results, reporting on seasonal observations. The planting events and final results will be shared via the social media channels of the project to encourage the adoption of sustainable behaviours and participatory processes at city level (see A4.2).

Target value

2

Delivery date

31/03/2027

Title

Rethinking green corridors related to mobility corridors

D 8.4.2

Description

Led by PP4 and PP3, the report details the interventions planned for the main axis Bld. Republicii, within the available strip of green areas (now landscaped with lawn turf - highly degraded due to intense summer heat). Testing plots will be subject to NBS experimentation for (NBS2) urban prairie projects and pollinator-friendly plantations, (NBS3) drought tolerant and xeriscaping interventions; and (NBS4) climate shelters: planting for shade and humidity optimization. A project fiche will be elaborated for reporting on the site criteria/requirements, co-developed design, and outcomes of the intervention, integrated into the D8.5.1 NBS Toolkit. There are planned 5 experimental plots of approximately 100 sqm each. Target 1 - Nov 2025, will report on the analysis results and key conclusions resulted from the cooperation with Water Agency SGA Bistrița, and then conclude the concrete solutions to be piloted and key requirements for implementation. Investment process will start immediately after. Target 2 - March 2027 will conclude the investment success/results, reporting on seasonal observations.

Target value

2

Delivery date

31/03/2027

A8.5

Biophilic city: Bistrița Climate
Adaptation and Green
Transformation

Led by PP3, PP4, support of PP8, A8.5 assumes a pivotal role in facilitating the upscaling of the piloted green solutions. This activity aims to maximize GI resources in public spaces, outlining NBS measures for a Biophilic city. Changing the current practices is a gradual process: (1) elaborate NBS Toolkit for co-implementation of pilots; (2) foster citizen co-ownership for a new green identity; (3) deploy the co-assessment of upscaling potential.
The NBS Toolkit is elaborated based on the thematic analysis done in D3.3.1, including: the concentration of heavy metals, especially lead (highly present in urban areas due to traffic), soil health & biodiversity, analysis of locally adapted vegetation, and urban landscape requirements.

Start date

01/12/2024

End date

30/11/2027

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

D 8.5.1

Title

NBS Toolkit for biophilic centrad tactical urbanism

Description

Led by PP4 and PP3. The objective is to develop a comprehensive set of requirements, methods, and guidelines for the implementation of the 7 NBS: NBS1 Hydroponics mobile towers (A8.1); NBS2 urban prairie projects and pollinator-friendly plantations; NBS3 drought tolerant and xeriscaping interventions; NBS4 climate shelters: planting for shade and humidity optimization; NBS5 community gardens; NBS6 riparian landscapes restoration; NBS7 green walls systems (A8.2); Phase 1: Set of NBS requirements (M12), and Phase 2: Final Toolkit (M36)– containing detailed project fiche about each NBS / intervention site (conditions, solution implemented, impact evaluation, key learnings).

Target value

Delivery date

31/10/2027

D 8.5.2

Title

Green community events - report

Description

Led by PP6 and MUA, with the support of PP3 and PP4, the deliverable will report on the min. 3 wide-scale planting events – M12, M13, M14, for the implementation of co-designed solutions in A8.3, A8.4. The activities are in conjunction with D5.2.2 Citizen-owned tactical urbanism: pop-up events. Participants are rewarded via the Empowering EcoActions: Token-Based Rewards system (A.6.4).

Target value

Delivery date

30/11/2026

D 8.5.3

Title

Collaborative assessment - Designing Biophilic City: Bistrița

Description

There are planned 3 participatory events/workshops with citizens and local stakeholders in order to co-assess the potential of replicating the developed NBS. The aim is to develop a strategy/masterplan for GI transformation – creating a biophilic city. Led by PP3, the deliverable will report on: workshop 1 – upscaling requirements/potential sites for replication; workshop 2 – city-level GI priorities; workshop 3 – synthetic masterplan and strategy for Bistrița Biophilic transformation. The master plan will be an integral component of the D5.5.3 Urban Resilience Plan.

Target value

Delivery date

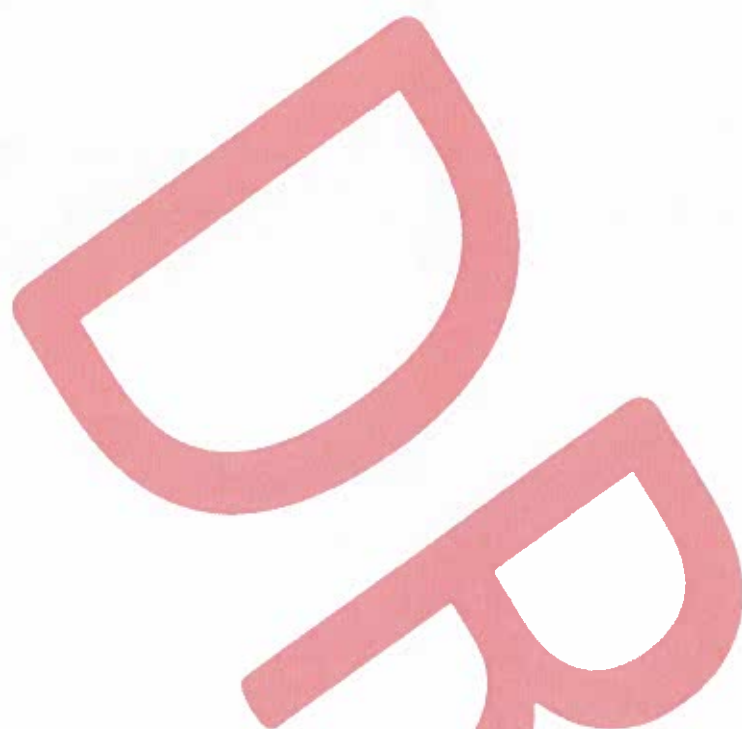
31/10/2027

Outputs



Number	Title	Description	Output indicator	Unit	Target value	Delivery date
O 8.1	Hydroponics Towers Model for adaptive use in urban settings	The output summarizes the technological solutions for adapting hydroponics technology in urban settings for each of the tested scenarios: the historic centre, high-traffic areas & public spaces, and schoolyards. It will also detail how B-CONNECT manages the entire stock of towers for adaptive remediation of air quality.	New equipment created an	new equipment	50.00	31/10/2026
O 8.2	Affordable Modular Green Walls Technological Roadmap	Based on the testing process of the modular green wall on the 150 sqm wall of the school gym, the output will outline the technological roadmap for each of the tested solutions, with the aim of promoting retrofitting interventions on other public (or even private) buildings. It will detail the pros and cons of each version: grid panels, pocket panels, and trellis panels (a total of 3 tested solutions).	New equipment created an	new equipment	1.00	28/02/2027
O 8.3	Regeneration of under-used GI resources through affordable and low-maintenance NBS designs	The output represents the total amount of regenerated green areas through NBS deployment, including: NBS2 urban prairie projects and pollinator-friendly plantations; NBS3 drought tolerant and xeriscaping interventions; NBS4 climate shelters, planting for shade and humidity optimization; NBS5 community gardens; NBS6 riparian landscapes restoration (mixing the previously mentioned practices). D8.3.1 - 10.000 sqm, D8.3.2 - 8.000 sqm, A8.4 - total of 2000 sqm.	Surface area of green infra	square meters	20,000.00	30/06/2027
O 8.4	NBS solutions for GI management and riparian landscape regeneration	It represents a new GI management standard at the local level. It consists of affordable solutions: a mix of locally adapted seeds and plants accommodating different requirements imposed by the green strips along roads - for creating green corridors, and green strips along the rivers - for riparian landscape regeneration	Other New sustainable practices embedded within local management frameworks	% of local authorities representatives willing to adopt the biophilic solutions at city-scale	80.00	30/06/2027
O 8.5	Biophilic-oriented communities: shaping a new green-driven identity of citizens	Awareness and empowerment are achieved through constant and intense co-creation processes. B-CONNECT achieves that by shaping ecological behaviours and citizens' perceptions of Nature and the Environment. The output will report the progress made in terms of constructing a community oriented towards nature, as well as recording the participation of residents/stakeholders in all GI-related workshops/local events planned	Citizens involved in the pre	persons	300.00	31/10/2027

Investments



Number	Title	Description	Budget	Delivery date
18.1	Modular autonomous hydroponic towers	<p>Hydroponic towers in urban settings are a green infrastructure element that has not been tested before. Thus, the investment has several unique requirements: (i) the tower operation has to be autonomous (including water pumps and heating systems to ensure plant survival in the winter) - using solar panels, (ii) the entire stock of towers acquired and modified has to be mobile - not requiring a crane, (iii) the towers have to accommodate a wide range of plants (traditionally not planted in hydroponic towers): outdoor-adapted plants for purifying air and retaining air pollutants, plants for shade and humidity, or plants with the purpose of local food production.</p> <p>The investment involves the purchase and modification (according to specific requirements) of 50 towers (up to 100 if prices of modules drop).</p> <p>The average costs for 1 tower are approximately 1K EUR, vegetation is required between 500-800 EUR, and retrofitting works are required to be at a max of 1K EUR. Approximate costs for 1 tower = 2.800,00 EUR.</p>	140,000.00	31/03/2026
18.2	Green wall retrofitting on the school gym	<p>The investment will test 3 different retrofitting approaches of green walls - using the school gym as a pilot: 1 - grid panel structures, 2 - pocket panel structures, and 3 - trellis panels (for climbing plants). The main aim is to assess cost/benefits of each technology in order to mainstream the retrofitting technique at the city level (also relevant for any region in Dfb climate area). The investment has the following cost breakdown:</p> <ol style="list-style-type: none"> 1. Design and planning 2. Site preparation 3. Materials 4. Labor and installation 5. Maintenance 6. Contingency and miscellaneous costs <p>The costs can differ depending on materials and type of vegetation used (prices can vary a lot). As a baseline, we use the average cost for 1 sqm is 500 EUR. Testing the 3 solutions on a 150 sqm wall results in a cost of 75.000 EUR. 10% of the total sum will be allocated to maintenance and eventual correcting measures (replacing vegetation, eventual repairs, etc...) for the first 24 months of piloting.</p>	62,500.00	01/07/2026
18.3	Multi-use NBS-based public spaces and co-managed transformation of green-pockets	<p>The investment represents the basis for the green experimentation and co-creation process deployed in A8.3, for the: (1) 5 key sites subject converted into NBS-based multi-use social interaction spaces, and (2) NBS-driven regeneration of the green pockets within collective housing neighbourhoods.</p> <p>400,000,00 EUR represents part of the co-financing (in kind, in land provision for the green investments), and 400,000 EUR represents the infrastructural works to implement the planned NBS.</p> <p>Phases:</p> <ol style="list-style-type: none"> 1. Cleaning, preparing, and securing the sites (~ 3-5 EUR per sqm) 2. Infrastructural works, (including ecologically designed pedestrian and bike paths), fencing, surveillance, and additional lighting (~6-10 EUR per sqm - 180K) 3. Planting: NBS deployment, mixing: urban prairie and pollinator-friendly plantations (NBS2), drought-tolerant and xeriscaping interventions (NBS3), climate shelters with optimized planting for shade and humidity (NBS4), community gardens (NBS5). (~10 to 15 EUR per sqm - 270K) 4. Thematic interventions: 1-3 thematic areas per each of the 5 key sites, and minimal interventions for green pockets regeneration. 	800,000.00	31/07/2027
18.4	Green corridors experimental plots	<p>Experimental plots for:</p> <p>a - Green corridors along the street: - identifying several plots for adapting NBS, with the purpose of having resilient and low-maintenance vegetation, that will reduce the heat-island effect, and capture pollution.</p> <p>b - Riparian landscapes corridors - experimenting with affordable restoration measures, in the case of small-scale strips of green areas, related to river corridors. The sites are under the management of the Administration of Romanian Waters, SGA Bistrita. Collaboration agreement is being realized, for allowing the municipality to test green solutions on the respective terrains.</p> <p>For green corridors along the streets (a) the costs are soil preparation (10K EUR), and planting: seedling measures (flowerbeds and urban prairie interventions) and new plants: grasses and low-height arboretum (30K EUR). For riparian landscape experiments (b), an added cost is related to cleaning measures of the river banks, resulting in a total of 41K EUR.</p>	81,000.00	31/03/2027



Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
20% flat rate	N/A	N/A		1.8.4. Green corridors experimental plots 41.000 - required for carrying out riparian landscape NBS-driven regeneration, in collaboration with National Administration of Romanian Waters, SGA Bistrita		Investment 8.1. hydroponic towers 140.000; investment 8.2. green wall - 82.500, Investment 8.3. NBS implementation 800.000, Investment 8.4 green corridors experiments - 40.000.	
Description							
Amount (€)	220,700	33,105.00	11,035.00	41,000	0	1,062,500	1,368,340.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
0,5 FTE	N/A	N/A					
Description							
Amount (€)	3,500	525.00	175.00	0	0	0	4,200.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
18,05 FTE	N/A	N/A		equipment for project activities			
Description							
Amount (€)	134,500	20,175.00	6,725.00	5,000	0	0	166,400.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
13,75 FTE	N/A	N/A					
Description							
Amount (€)	136,220	20,433.00	6,811.00	0	0	0	163,464.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
3,6 FTE	N/A	N/A					
Description							
Amount (€)	24,480	3,672.00	1,224.00	0	0	0	29,376.00
PP 6 - Bistrita - Youth for the Community	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
2,55 FTE	N/A	N/A					
Description							
Amount (€)	20,400	3,060.00	1,020.00	0	0	0	24,480.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
0.8 FTE	N/A	N/A					
Description							
Amount (€)	8,400	960.00	320.00	0	0	0	7,680.00

PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)							
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	9,69 FTE	N/A	N/A				
Amount (€)	67,660	10,140.00	3,380.00	0	0	0	81,120.00
PP 9 - Technical University of Cluj-Napoca							
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Total
Description	2,06 FTE	N/A	N/A				
Amount (€)	13,530	2,029.50	676.50	0	0	0	16,236.00
Total (€)	627,330.00	94,099.50	31,366.50	46,000.00	0.00	1,062,500.00	1,861,296.00

Indicative budget breakdown per year

Year	2024	2025	2026	2027	2028	Total
Amount (%)	1 %	29 %	33 %	37 %	0 %	100.00 %
Budget (€)	18,612.96	539,775.84	614,227.68	688,679.52	0.00	1,861,296.00

Indicative budget breakdown per activities and investments

Activity	Amount (%)	Budget (€)
A 8.1	20.72 %	385,536.80
A 8.2	2 %	37,225.92
A 8.3	5 %	93,064.80
A 8.4	4 %	74,451.84
A 8.5	9 %	167,516.64
I 8.1	7.52 %	140,000.00
I 8.2	4.43 %	82,500.00
I 8.3	42.98 %	800,000.00
I 8.4	4.35 %	81,000.00
Total	100.00 %	1,861,296.00

Investment 1

Title Modular autonomous hydroponic towers

Investment Description
(including indicative
budget of the main cost
items)

Hydroponic towers in urban settings are a green infrastructure element that has not been tested before. Thus, the investment has several unique requirements: (i) the tower operation has to be autonomous (including water pumps and heating systems to ensure plant survival in the winter) - using solar panels, (ii) the entire stock of towers acquired and modified has to be mobile - not requiring a crane, (iii) the towers have to accommodate a wide range of plants (traditionally not planted in hydroponic towers): outdoor-adapted plants for purifying air and retaining air pollutants, plants for shade and humidity, or plants with the purpose of local food production. The investment involves the purchase and modification (according to specific requirements) of 50 towers (up to 100 if prices of modules drop). The average costs for 1 tower are approximately 1K EUR, vegetation is required between 500-800 EUR, and retrofitting works are required to be at a max of 1K EUR. Approximate costs for 1 tower = 2.800,00 EUR.

Delivery date

31/03/2026

Budget

140,000.00

Investment aspects	Questions	Project answers
Justification of the investment	Explain why this investment is needed.	<p>This investment stands as a pivotal innovation within the project, with the potential to introduce novel practices for improving Green Infrastructure impact and addressing urban micro-climate challenges. Successfully proving these concepts will foster innovative urban approaches for adaptive GI. Furthermore, this investment is not only affordable but also holds the promise of scalability. If proven effective, it could revolutionize the management of microclimate conditions in cities, particularly in densely populated areas.</p> <p>Helped by real-time monitoring systems for air quality and urban climate, a comprehensive set of indicators will be evaluated in order to compile a cost/benefit analysis.</p>
	Clearly describe the thematic relevance of the investment.	<p>Hydroponic solutions in urban environments serve as an innovative experiment, contributing to urban resilience. These towers act as adaptive measures to address climate issues by efficiently utilizing limited land resources and vertically expanding GI. They regenerate urban spaces and value to existing green corridors.</p> <p>Moreover, this initiative is in line with key GI and EU climate policies: Green Deal, Biodiversity Strategy, Green Infrastructure Strategy, and Strategy on Adaptation to Climate Change. It underscores a commitment to sustainable urban development practices, showcasing how cities can adapt and thrive in the face of environmental challenges. The solution is considered in line with NEB principles, being a sustainable and circular economy solution (adapting existing spaces with new modular and autonomous insertions). It brings new aesthetic values to existing areas, and it has a strong community engagement component.</p>
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	<p>The primary target group for these investments is the residents. By strategically implementing hydroponic towers, the comfort and appeal of public spaces will increase, air quality will improve, and residents will directly benefit from the additional value chains it generates (e.g., local food production in schools). MUA serves as the primary beneficiary, responsible for operating the towers to bring value to local communities.</p>
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	<p>Affordable, modular, and mobile, hydroponic towers will tackle a broad spectrum of challenges by accommodating various plant species tailored to specific local issues such as air pollution, summer heat, winter wind, biodiversity decline, and efficient food production. Simultaneously, this newly created infrastructure is easily replicable and can play a vital role in advancing climate neutrality and mitigating land resource scarcity in dense urban environments.</p>
Location of the investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	<p>The capability of being a mobile green infrastructure element means that the specific location of the hydroponic towers will vary. The primary focus is on installing them in critical areas of the city, with consideration for air quality and urban climate conditions. These locations will be determined based on real-time monitoring data - see WP5. However, there are several fixed locations that will host a significant stock of towers. These include the historic city centre and the following schools:</p> <ol style="list-style-type: none"> 1. Gimnazial School Ștefan cel Mare: Str. Gen. Grigore Bălan No. 36 A, Bistrita. 2. General School Lucian Blaga: Str. Garoafel No. 8, Bistrița. 3. General School nr. 1, Bld Independenței No. 46, Bistrița.
<div>Country</div> <div>Romania</div>		<div>NUTS 2 level</div> <div>Nord-Vest</div>
		<div>NUTS 3 level</div> <div>Bistrita-Nasaud</div>
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	<p>An agreement with the schools for the installation of long-term hydroponic towers will be formalized.</p> <p>Importantly, no building permits will be required for their installation, as these solutions do not necessitate foundations.</p> <p>This arrangement ensures the seamless integration of hydroponic towers into the urban landscape, allowing for their placement in strategic public areas and eliminating the need for complex permitting processes. It represents a collaborative effort between the city and its educational institutions to enhance the environment and engage in sustainable urban practices.</p>
Ownership	Who owns the site where the investment is located?	<p>MUA owns the sites where the towers will be located.</p> <p>The location of the towers will be limited to public space areas or private terrain owned by the public administration.</p>
	Who will retain ownership of the investment at the end of the project?	<p>MUA will retain ownership, making use of the practices and strategies developed within WP5 and WP7 to operate the infrastructure in the long term.</p> <p>Several towers will be maintained on the school's premises for didactical purposes, under MUA ownership with the schools being empowered and responsible for using them as didactic material.</p>
	Who will take care of the maintenance of the investment? How will this be done?	<p>In the project lifetime, the maintenance of the investment will be MUA responsibility, with expertise and support from PP4 (for vegetation maintenance and monitoring), PP6 (for automatization systems - water pumps/heating/insulation) and PP7 (for solar panels).</p>

Investment 2

Title

Green wall retrofitting on the school gym

Investment Description (including indicative budget of the main cost items)

The investment will test 3 different retrofitting approaches of green walls - using the school gym as a pilot: 1 - grid panel structures, 2 - pocket panel structures, and 3 - trellis panels (for climbing plants). The main aim is to assess cost/benefits of each technology in order to mainstream the retrofitting technique at the city level (also relevant for any region in Dfb climate area). The investment has the following cost breakdown:

1. Design and planning
2. Site preparation
3. Materials
4. Labor and installation
5. Maintenance
6. Contingency and miscellaneous costs.

The costs can differ depending on materials and type of vegetation used (prices can vary a lot). As a baseline, we use the average cost for 1 sqm is 500 EUR. Testing the 3 solutions on a 150 sqm wall results in a cost of 75.000 EUR. 10% of the total sum will be allocated to maintenance and eventual correcting measures (replacing vegetation, eventual repairs, etc...) for the first 24 months of piloting.

Delivery date

01/07/2026

Budget

82,500.00

Investment aspects	Questions	Project answers
Justification of the Investment	Explain why this investment is needed.	Green walls are known for their ability to contribute to temperature regulation (by acting as an insulation layer), noise reduction, biodiversity support, improved air quality, carbon sequestration, and mitigation of the urban heat island effect. Therefore, with the assistance of real-time monitoring systems (also installed on the premises of Liviu Rebreanu School), the pilot project will yield valuable insights into the impact of these solutions. The investment aims to demonstrate the effectiveness of modular retrofitting solutions for landscape regeneration and the enhancement of environmental conditions. Following the project's biophilic-centred tactical urbanism philosophy, the strategy for greening cities involves combining small-scale interventions to achieve a wide-scale transformation of the urban environment, which green walls have the potential to accomplish.
	Clearly describe the thematic relevance of the investment.	The thematic relevance of this investment lies in the mainstreaming of green practices for the renovation of public buildings. By adopting green wall solutions and implementing a replication strategy at the city level, the investment will significantly reduce CO2 emissions, combat the urban heat island effect, and enhance urban biodiversity. The initiative will improve energy efficiency, contributing towards climate neutrality. Furthermore, this investment aligns perfectly with the NEB, emphasizing sustainability and circular economy approaches through innovative interventions in existing spaces. It also complements several key EU policies, including the European Green Deal, the Biodiversity Strategy, the Green Infrastructure Strategy, and the Strategy on Adaptation to Climate Change. Additionally, it supports the Renovation Wave strategy and the Mission for Climate-Neutral Cities, further reinforcing its thematic relevance and alignment with broader European sustainability goals.
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	The primary focus of this initiative is the Liviu Rebreanu National College, comprising its students and teachers. Beyond the immediate stakeholders, the positive outcomes of this pilot intervention hold significant relevance for various other parties. These outcomes will provide valuable insights to the municipality and public authorities, particularly in managing the renovation of public building stocks. Additionally, private property owners and developers stand to benefit by gaining easy access to the technological roadmap for implementing similar green solutions. This accessibility enables them to perform cost-benefit analyses effectively.
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	The green wall will have a significant impact on the energy efficiency of the school gym, decrease the heat island effect in the schoolyard, promote biodiversity, and serve as a valuable element for educational events. This modular green wall represents a crucial investment that will showcase the practicality of green solutions as retrofitting measures. It will invalidate any misconceptions held by citizens, developers, and construction workers, who often perceive such solutions as overly expensive and purely aesthetic. Demonstrating the cost-effectiveness and the value of the impact will encourage replication in other city buildings and among transfer partners.
Location of the Investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	The location is the school gym of National College Liviu Rebreanu, located on Boulevard Republicii, nr 8, 420057, Bistrița, Romania.
	<div>Country</div> <div>Romania</div> <div>NUTS 2 level</div> <div>Nord-Vest</div> <div>NUTS 3 level</div> <div>Bistrița-Năsăud</div>	
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	For retrofitting greenwall on the school gym there is required a building permit in order to ensure that the intervention does not modify/impact the structural integrity of the building. According to "Law no. 193/2019 amending and supplementing Law no. 50/1991 on the authorization of construction works", any intervention that implies changing the architectural design (in this case the building facade), requires a building permit. MUA will formalize an agreement with the school board for piloting the intervention. The process is coordinated and supported with key expertise by PP8 (having in-house all the resources need to ensure proper deployment).
Ownership	Who owns the site where the investment is located?	The Liviu Rebreanu National College is owned and operated by MUA, making it the primary beneficiary.
	Who will retain ownership of the investment at the end of the project?	MUA will retain ownership.
	Who will take care of the maintenance of the investment? How will this be done?	MUA will be responsible for the green wall management, with support from PP8 (architectural details and expertise for construction works) and PP4 (type of plants). Further, the teachers and students will be capacitated to carry on the maintenance and educational activities. In case of emergencies or lack of resources, MUA will be able to provide support to the school staff in the long-term.



Investment 3

Title Multi-use NBS-based public spaces and co-managed transformation of green-pockets

Investment Description (including Indicative budget of the main cost items) The investment represents the basis for the green experimentation and co-creation process deployed in A8.3, for the: (1) 5 key sites subject converted into NBS-based multi-use social interaction spaces, and (2) NBS-driven regeneration of the green pockets within collective housing neighbourhoods. 400,000,00 EUR represents part of the co-financing (in kind, in land provision for the green Investments), and 400,000 EUR represents the infrastructural works to implement the planned NBS. Phases:
1. Cleaning, preparing, and securing the sites (~ 3-5 EUR per sqm)
2. Infrastructural works, (including ecologically designed pedestrian and bike paths), fencing, surveillance, and additional lighting. (~6-10 EUR per sqm - 180K)
3. Planting: NBS deployment, mixing: urban prairie and pollinator-friendly plantations (NBS2), drought-tolerant and xeriscaping Interventions (NBS3), climate shelters with optimized planting for shade and humidity (NBS4), community gardens (NBS5). (~10 to 15 EUR per sqm - 270K)
4. Thematic interventions: 1-3 thematic areas per each of the 5 key sites, and minimal interventions for green pockets regeneration.

Delivery date 31/07/2027

Budget 800,000.00

Investment aspects	Questions	Project answers						
	Explain why this investment is needed.	<p>According to official studies, peripheral neighbourhoods: Independenței Nord, Independenței Sud, and Andrei Mureșanu require urban regeneration operations to improve the local microclimate and enhance the quality of life through new community facilities that support social interaction and community spirit.</p> <p>(1) Transformation of the 5 key sites (D8.3.1) in multi-use NBS-based public spaced addresses specifically the challenges related to the lack of green facilities for the local communities.</p> <p>(2) Adaptation of NBS in the case of green pockets (D8.3.2) will: regenerate the local landscape of the entire neighbourhood.</p> <p>The aim is to create a productive GI that enhances the ecosystemic services provided by Nature: human-nature connection, biodiversity, air quality, temperature levels, and potentially local food production. The investments are highly valuable for the city and local communities, testing NBS measures and measuring its impact, for adopting them as the new local standard.</p>						
Justification of the investment	Clearly describe the thematic relevance of the investment.	<p>Greening cities involves implementing innovative solutions tailored to local conditions. This process entails the adoption of new NBS that address urgent challenges such as global warming and climate change, in an affordable, and easily replicable scalable approach. These challenges adversely affect urban vegetation, leading to phenomena like desertification, contributing to escalating levels of air pollution, biodiversity loss, and a disconnect between humans and nature.</p> <p>To combat these issues, investments are being made to test 5 different affordable NBS interventions. These interventions are rooted in biophilic-centered tactical urbanism, aiming to revive the city's degraded and limited GI system. Using real-time environmental monitoring systems, B-CONNECT aims to showcase the significant impact of this unique set of NBS.</p> <p>B-CONNECT seeks to revolutionize how cities manage their green spaces, advocating for biophilic design and planning principles.</p>						
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	<p>Considering the impact at the local scale, the main beneficiaries are the local communities – the direct users of the interventions, benefiting from an improved landscape, new multi-functional public spaces, improved air quality, improved comfort, community gardening, etc....</p> <p>Considering the impact of the interventions at city-scale, the municipality is considered the main beneficiary. Through the current investment, the municipality will be able to have informed decision-making processes for having sustainable and affordable management of the green spaces system at the city level.</p>						
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	<p>The problems that the investment is addressing include degraded public spaces, lack of resilient vegetation, absence of productive use of green areas, lack of human-nature connection, and biodiversity loss. The city is characterized by a relatively densely built urban fabric with very few opportunities for extending the green spaces network. Therefore, it is crucial to consider how the city manages its current green space resources and enhances the ecosystem services provided through proper management of Green Infrastructure (GI).</p> <p>The investments serve as pilots for testing novel Nature-Based Solutions (NBS) and creating a set of "locally-fit formulas" that can be upscaled and replicated at the city level, thereby making Bistrița the first biophilic city in Romania. Moreover, the principles for deploying NBS will be applicable to all regions in the Dfb climate areas.</p>						
Location of the investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	<p>The Intervention areas are separated in 2 categories: (type A) NBS sites for multi-use social interaction ecological spaces (see D8.3.1); and (type B) Green Pockets Regeneration (see D8.3.2). Each identified site has an indicative for easy reference to the Annex. There are 5 sites type A, totalling 10.101,76 sqm, and 13 sites type B, totalling 6.866 sqm.</p> <p>Sites A location, streets: A1 - Grănicariilor; A2 - Vasile Conța nr1; A3 - Gh. Pop de Băsești B11-3-5; A4 Ciopoteilor B12 and Ciopoteilor B11; A5 - Împăratul Traian B153;</p> <p>Sites B location, streets: B1 - Vasile Lupu B121; B2 - Vasile Lupu B118; B3 - Tudor Vladimirescu B118; B4 - Intrarea Parcalabului B12; B5 - Intrarea Parcalabului B13; B6 - Vasile Lupu B13; B7 - Constantin Roman Vîlv B11; B8 - Ion Minulescu B13-5; B9 - Ion Minulescu B11-3; B10 - Ion Minulescu B17; B11 - Aleea Străjerului B12; B12 - Rodnei B122-24; B13 - Garoafel B18.</p> <p>Sites A1, A2 and B7 have been selected as land provisions for co-financing - see part F.</p>						
		<table border="1"> <thead> <tr> <th>Country</th><th>NUTS 2 level</th><th>NUTS 3 level</th></tr> </thead> <tbody> <tr> <td>Romania</td><td>Nord-Vest</td><td>Bistrița-Năsăud</td></tr> </tbody> </table>	Country	NUTS 2 level	NUTS 3 level	Romania	Nord-Vest	Bistrița-Năsăud
Country	NUTS 2 level	NUTS 3 level						
Romania	Nord-Vest	Bistrița-Năsăud						
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	<p>According to the national legislation: issuing notices and agreements, as well as the administrative act of the competent authority for environmental protection regarding the investments evaluated from the point of view of the impact on the environment;</p> <ul style="list-style-type: none"> - the preparation of the technical documentation necessary for the authorization of the execution of construction works, hereinafter referred to as technical documentation; - submission of the documentation for the authorization of the execution of the works constructions at the competent public administration authority; - issuing the building permit. <p>The proposed solutions will not include constructions. The focus of the investment is on newly planted areas, and minimal interventions in terms of facilities and infrastructure, as described above.</p> <p>PP8 will provide expertise to ensure an optimal implementation process from a bureaucratic point of view, transitioning from co-designed plans to concrete interventions.</p>						
Ownership	Who owns the site where the investment is located?	<p>The municipality of Bistrița is the owner of all sites for intervention, including the 5 key sites to be transformed into multi-use NBS-based public spaces, and all of the green pockets within collective housing units. These green spaces are under the responsibility of local authorities.</p>						
	Who will retain ownership of the investment at the end of the project?	<p>The municipality of Bistrița will retain ownership after the end of the project, ensuring inclusive access to all members of the local communities, and assessing the potential of upscaling the intervention in other neighbourhoods.</p>						

Investment
aspects

Questions

Project answers

Who will take care of the maintenance of the investment? How will this be done?

The municipality of Bistrita, through the Land Valorization and Strategy Implementation Service - formations for Green Spaces, will be responsible for the maintenance of the interventions. Municipality has the responsibility of maintaining and managing all of the green areas within the city. Due to the lack of resilient vegetation, and lack of cooperation with local communities (direct users of the spaces), the municipality spends a relevant amount of resources for seasonal maintenance (that can be intensive for cuttings watering, and plant replacements). These high costs forced the authorities to prioritize between well-maintained areas (which consume a lot of effort) and the rest of the green spaces. Deployment of the planned NBS aims to reduce the amount of resources the municipality uses for green space management, thus creating a new local standard biophilic design - creating a productive and adaptive GI.

DRAMA

Investment 4

Title

Green corridors experimental plots

Investment Description
(including indicative
budget of the main cost
items)

Experimental plots for:

a – Green corridors along the street: – identifying several plots for adapting NBS, with the purpose of having resilient and low-maintenance vegetation, that will reduce the heat-island effect, and capture pollution.

b – Riparian landscapes corridors - experimenting with affordable restoration measures, in the case of small-scale strips of green areas, related to river corridors. The sites are under the management of the Administration of Romanian Waters, SGA Bistrita. Collaboration agreement is being realized, for allowing the municipality to test green solutions on the respective terrains.

For green corridors along the streets (a) the costs are soil preparation (10K EUR), and planting: seedling measures (flowerbeds and urban prairie interventions) and new plants: grasses and low-height arboretum (30K EUR). For riparian landscape experiments (b), an added cost is related to cleaning measures of the river banks, resulting in a total of 41K EUR.

Delivery date

31/03/2027

Budget

81,000.00

Investment aspects	Questions	Project answers
	Explain why this investment is needed.	<p>The investment will address the challenge of managing linear green spaces: green corridors along roads and green corridors along water areas. The main aim of the investment is to ensure the proper ecological restoration of these green spaces, thus contributing to the creation of a more resilient urban environment.</p> <p>The increasing annual temperature, combined with the effects of climate change (intense summer heat with no precipitation, followed by short periods of intense precipitation), has significantly impacted local vegetation, which is no longer resilient to these conditions. The project aims to test a combination of seedling measures and affordable planting interventions to create a resilient and sustainable green area, thus the intention is to see what works best and to further upscale at the city level.</p>
Justification of the investment	Clearly describe the thematic relevance of the investment.	<p>The city contains two major corridors: 1 - the Bistrița River and adjacent canals form the main blue-green corridor, and 2 - the longitudinal major mobility corridor, designed with relevant adjacent open areas for greenery. Together, these two main corridors measure 12km in total length. The solutions tested in these areas have the potential to be scaled up, also in other significant areas - a 6km-long railway corridor and secondary streets that have adjacent greenery.</p> <p>The impact of implementing these sustainable solutions on a wider scale is highly significant. It contributes to the creation of a more resilient city in several ways, including reducing greenhouse gas emissions, capturing CO2, and providing protection against elements such as hot winds during summer and cold winds during winter. This comprehensive approach not only enhances the city's environmental quality but also sets a model for sustainable urban development, by creating low-maintenance and productive green areas.</p>
	Describe who is benefiting (e.g., Partners, city, region, target groups, etc.) from this investment, and in what way.	<p>The main beneficiary of the successful NBS experiments is the municipality, which is able to engage in informed decision-making for the sustainable management of the green corridors at the city level.</p> <p>If upscaled and replicated, the local residents will benefit from an improved urban environment.</p>
	Please clarify which problem it tackles, which findings you expect from it, how it can be replicated, and how the experience coming from it will be used for the benefit of the programme area.	<p>Analyzing the urban landscape, there can be observed a clear discrepancy between highly maintained green corridors (which require regular watering and cuttings), and partly neglected green corridors (that due to insufficient watering, has burned vegetation). The use of lawn turf grass is not sustainable - it requires high amounts of resources to be kept green. It is considered a monoculture that does not prove relevant ecosystemic services. The investment plans to test alternatives by experimenting with a variety of seedlings and affordable planting measures to create heat resistant, and low-maintenance areas, that will have more capacity to capture pollution, combat the heat island effect, and support biodiversity. Thus, if proven successful, the experiment will change the way the green areas along the corridors are being managed.</p>
Location of the investment	Describe the location of the physical investment; if possible, a specific address where the investment will be located.	<p>Concerning green corridors along the streets, 5 experimental plots of approximately 100 sqm each will be delineated on the Bld Republicii and Independenței (with a priority of choosing highly degraded areas).</p> <p>Concerning the riparian landscape interventions, there 3 intervention areas identified: (i) Green areas alongside Willow Alley street; (ii) Green areas along Petru Maior Street, across the street from Lucian Blaga schools; (iii) Green area along Simion Barnutiu Street. See the annex for concrete locations.</p>
	Country	NUTS 2 level
	Romania	Nord-Vest
		NUTS 3 level
		Bistrița-Năsăud
Investment documentation	Please list all technical requirements and permissions (e.g., building permits) required for the investment according to the respective national legislation.	<p>The interventions do not require building permits - no infrastructural work will be realized that includes mineral areas, pavements, curb replacement, lighting poles, or any type of construction. The experiments consist of planting measures and seedlings.</p>
Ownership	Who owns the site where the investment is located?	<p>Concerning:</p> <p>(a) green corridors along the streets and all the adjacent greenery are owned and managed by the Municipality of Bistrița. Thus the areas for the 5 experimental plots are under the MUA ownership.</p> <p>(b) riparian landscapes corridors, the areas identified represent the upper river bank, and according to national law is under the jurisdiction of the Administration of Romanian Waters, SGA Bistrița. SGA Bistrița and the Consortium have engaged in several discussions to elaborate a collaboration agreement, for allowing the municipality to test green solutions on the respective terrains. The success of the experimentation is highly relevant for SGA Bistrița, that are facing difficulties in managing invasive vegetation - requiring constant cuttings.</p>
	Who will retain ownership of the investment at the end of the project?	<p>Concerning:</p> <p>(a) green corridors along the streets - the Municipality of Bistrița will continue to have ownership.</p> <p>(b) riparian landscape corridors - the areas will continue to be under the jurisdiction of Romanian Waters, SGA Bistrița.</p>
	Who will take care of the maintenance of the investment? How will this be done?	<p>Management of the interventions of the experimental plots will be an effort of the Municipality of Bistrița, respecting the obligations as a public authority to manage and maintain the green areas, as well as ensuring optimal conditions for the experimental plots along the riparian landscape corridors (details of the responsibilities are subject of the collaboration agreement put in place between SGA Bistrița and Municipality of Bistrița).</p>



Work Plan Per Work Packages - Work Package 9 Transfer

Title	Transfer
Start Date	01/08/2025
End Date	31/05/2028
Budget	535,600.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Bistrita
Involved Partners	PP 1 - Municipality of Bistrita PP 2 - Indeco Soft PP 3 - Urbasofia PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca PP 5 - Babes-Bolyai University PP 7 - E-Civis Association PP 8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP) PP 9 - Technical University of Cluj-Napoca PP 10 - Municipality of Monza PP 11 - Municipality of Kavala PP 12 - ALMERIA CITY COUNCIL

Summary

All 3 TP (Kavala, Monza, Almeria) have actively participated in the pre-design transfer program, engaging in the identification of targets and challenges. WP9 will be overseen by MUA and PP3, PP2-3-4-5-8-9. In the initial phase, each TP will focus on understanding the preconditions necessary for the adaptation of B-CONNECT solutions. This involves analyzing GI, and assessing existing environmental sensors infrastructure and data, mapping critical areas in the city requiring green regeneration, and pinpointing key challenges from the citizen's perspective (including mobility). The subsequent step involves applying lessons learned from PPs and MUA, tailored to address local challenges. MUA will share knowledge about activating stakeholders and communities, along with managing acquisition procedures related to innovative solutions and technologies. MUA will also share insights on working with schools and youth, particularly in piloting Creative Hubs - Eco Guilds. PP2 will transfer insights about real-time monitoring systems and platforms for citizen reward tokens. PP3 will share expertise regarding urban regeneration through NBS. PP4 will offer knowledge related to NBS design. PP5 will provide expertise in urban climate analysis and impact assessment. PP8 will transfer knowledge on green wall technologies/practices, multifunctional public spaces, and HUB design.

B-CONNECT solutions are designed with the intention of being easily replicated and adapted to various contexts. The transfer process follows a logical sequence of steps: Firstly, it involves assessing the specific requirements of the city for real-time environmental monitoring frameworks and mapping fragile urban environments (including degraded GI). Secondly, active engagement with local stakeholders and citizens is crucial. This is achieved through the deployment of city apps, ensuring a wide-scale reach. The aim is to identify which type of green behaviours can be improved. Additionally, a co-assessment of community-oriented facilities is conducted to provide the necessary support for the required transition. In the third phase, the emphasis lies on assessing biophilic-centred tactical urbanism solutions, encouraging co-owned transformation, and adapting NBS from the B-CONNECT Toolkit. Lastly, the goal is to assess how the tactical urbanism solutions can be translated into a Resilience Strategy for long-term development (integrated into O9.2 EUI - Innovative Solution Model).

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 9.1

Coordination of the transfer
cooperation

Start date

01/11/2025

End date

31/05/2028

Deliverable
number

Deliverable and partners involved

Target value

Delivery date

DRAFT



A.9.2	Knowledge exchange and peer to peer learning		Start date	01/11/2025	End date	31/05/2028
Deliverable number	Deliverable and partners involved	Target value	Delivery date			

DRAFT

A 9.3	Formulation of the frameworks for the transfer of innovative solution		Start date	End date
			01/11/2025	31/05/2028
	Deliverable number	Deliverable and partners involved	Target value	Delivery date

Outputs

Number	Title	Description	Output indicator	Unit	Target value	Delivery date
O 9.1	EUI - Innovative Solution Model	The EUI - Innovative Solution Model – is a final document focused on the transferability and scaling up of the tested innovative solution in order to allow others to learn about the findings of the experimentation and receive some guidance on how to approach replication. The EUI - Innovative Solution Model will be publicly available on the EU Knowledge Exchange Sharing Platform and EUI webpage.	Other			
			Number of EUI – Innovative Solution Model delivered	Quantity	1.00	Delivery date 30/05/2028
O 9.2	Replication Feasibility and Opportunity Study	The Replication Feasibility and Opportunity study summarizes what is the local challenge, how transferred innovative solutions can be adapted to the local context, what are the necessary steps to implement it, what are the identified funding sources, how management structure and key management processes can be shaped, etc. (investment output).	Other			
			Number of Replication Feasibility and Opportunity Study delivered	Quantity	3.00	Delivery date 30/05/2028

Work Package Budget

PP 1 - Municipality of Bistrita	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	20% flat rate	N/A	N/A	External Expertise for organisation of deep dive study visits.		
Amount (€)	800	120.00	40.00	4,000	0	4,960.00
PP 2 - Indeco Soft	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00
PP 3 - Urbasofia	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 3 person month	N/A	N/A			
Amount (€)	19,200	2,880.00	960.00	0	0	23,040.00
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00
PP 5 - Babes-Bolyai University	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00
PP 7 - E-Civis Association	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00

PP 9 - Technical University of Cluj-Napoca						
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	Staff costs for knowledge and innovation transfer, 1 person month	N/A	N/A			
Amount (€)	8,000	1,200.00	400.00	0	0	9,600.00
PP 10 - Municipality of Monza						
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	N/A	N/A	N/A	Expertise for development of the project outputs.	N/A	
Amount (€)	0	0.00	0.00	150,000	0	150,000.00
PP 11 - Municipality of Kavala						
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	N/A	N/A	N/A	Expertise for development of the project outputs.	N/A	
Amount (€)	0	0.00	0.00	150,000	0	150,000.00
PP 12 - ALMERIA CITY COUNCIL						
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Total
Description	N/A	N/A	N/A	Expertise for development of the project outputs.	N/A	
Amount (€)	0	0.00	0.00	150,000	0	150,000.00
Total (€)	68,000.00	10,200.00	3,400.00	454,000.00	0.00	535,600.00



Indicative budget breakdown per year						
Year	2024	2025	2026	2027	2028	Total
Amount (%)	0 %	20 %	20 %	20 %	40 %	100.00 %
Budget (€)	0.00	107,120.00	107,120.00	107,120.00	214,240.00	535,600.00



Work Plan Per Work Packages - Work Package 10 Closure

Start Date	01/06/2028
End Date	31/08/2028
Budget	20,000.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Bistrita
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Summary

As explained in the EUI-IA Guidance, Chapter 1.7, Administrative Closure phase (lasting 3 months), is related to all administrative activities taking place after the Implementation phase in order to close the project and obtain validation of the narrative and financial reporting documents. It is also expected that during this phase, EUI-IA project representative(s) are still available to take part in the knowledge capitalisation and dissemination activities initiated by the Permanent Secretariat (see EUI-IA Guidance, Chapter 8 for details).Lump sum of EUR 20,000 will be paid when all compulsory deliverables are provided and validated.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A 10.1	Closure		Closure	Start date	End date
				01/06/2028	31/08/2028
	Deliverable number	Deliverable		Target value	Delivery date
D 10.1.1	Title	Drafting and submission of the final Annual Progress Report (APR4)		Target value	Delivery date
				1	30/06/2028
D 10.1.2	Title	Preparation and submission of final Financial Claim (FC2)		Target value	Delivery date
				1	31/08/2028
D 10.1.3	Title	Preparation and submission of the Final Qualitative Report (FQR)		Target value	Delivery date
				1	31/08/2028

Work Package Budget

Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Total (€)
Municipality of Bistrița	0.00	0.00	0.00	20,000.00	0.00	20,000.00

Part E - Project Budget

E.1 Project Budget Co-Financing Source (Fund) - Breakdown per Partner

Partner		ERDF co-financing		Contribution			Total	
Partner	Country	EUR	ERDF rate	Public	Private	Total	Budget	% of project budget
PP 1 - Municipality of Bistrita	RO	2,129,104.00	80.00 %	532,276.00	0.00	532,276.00	2,661,380.00	49.90 %
PP 2 - Indeco Soft	RO	422,188.80	80.00 %	0.00	105,547.20	105,547.20	527,736.00	9.89 %
PP 3 - Urbasoft	RO	421,864.00	80.00 %	0.00	105,416.00	105,416.00	527,080.00	9.88 %
PP 4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca	RO	229,790.40	80.00 %	57,447.60	0.00	57,447.60	287,238.00	5.39 %
PP 5 - Babes-Bolyai University	RO	177,523.20	80.00 %	44,380.80	0.00	44,380.80	221,904.00	4.16 %
PP 6 - Bistrita - Youth for the Community	RO	79,392.00	80.00 %	0.00	19,848.00	19,848.00	99,240.00	1.86 %
PP 7 - E-Civis Association	RO	58,176.00	80.00 %	0.00	14,544.00	14,544.00	72,720.00	1.36 %
PP 8 - "Ion Mincu" University of Architecture and Urban Planning - Bucharest (IMUAUP)	RO	209,395.20	80.00 %	52,348.80	0.00	52,348.80	261,744.00	4.91 %
PP 9 - Technical University of Cluj-Napoca	RO	179,843.20	80.00 %	44,960.80	0.00	44,960.80	224,804.00	4.21 %
PP 10 - Municipality of Monza	IT	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
PP 11 - Municipality of Kavala	EL	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
PP 12 - ALMERIA CITY COUNCIL	ES	120,000.00	80.00 %	30,000.00	0.00	30,000.00	150,000.00	2.81 %
Total (€)		4,267,076.80	80.00 %	821,414.00	245,355.20	1,066,769.20	5,333,848.00	100.00 %

E.2 Project Budget - Overview per Partner/ per Period

Partner	Preparation (Period 0)	Jan - Dec 2024	Jan - Dec 2025	Jan - Dec 2026	Jan - Dec 2027	Jan - Dec 2028	Closure	Total
PP 1	100,000.00	50,660.20	1,194,783.40	618,332.20	675,620.20	1,984.00	20,000.00	2,661,380.00
PP 2	0.00	21,453.00	343,609.56	83,178.84	75,654.60	3,840.00	0.00	527,736.00
PP 3	0.00	11,758.40	235,313.20	122,069.80	148,722.60	9,216.00	0.00	527,080.00
PP 4	0.00	5,517.60	108,824.24	76,540.74	92,715.42	3,840.00	0.00	287,238.00
PP 5	0.00	7,341.60	113,470.44	41,984.64	55,267.32	3,840.00	0.00	221,904.00
PP 6	0.00	2,959.20	41,946.60	23,568.00	30,766.20	0.00	0.00	99,240.00
PP 7	0.00	1,711.20	32,560.20	15,068.40	19,540.20	3,840.00	0.00	72,720.00
PP 8	0.00	4,011.36	130,759.08	57,837.12	65,296.44	3,840.00	0.00	261,744.00
PP 9	0.00	2,822.76	140,483.60	40,826.20	36,831.44	3,840.00	0.00	224,804.00
PP 10	0.00	0.00	30,000.00	30,000.00	30,000.00	60,000.00	0.00	150,000.00
PP 11	0.00	0.00	30,000.00	30,000.00	30,000.00	60,000.00	0.00	150,000.00
PP 12	0.00	0.00	30,000.00	30,000.00	30,000.00	60,000.00	0.00	150,000.00
Total (€)	100,000.00	108,235.32	2,431,550.32	1,169,405.94	1,290,414.42	214,240.00	20,000.00	5,333,846.00
% of total budget	1.87 %	2.03 %	45.59 %	21.92 %	24.19 %	4.02 %	0.37 %	100.00 %

E.3 Project Budget - Overview per Partner/ per Work Package

Partner	Preparation (WP 1)	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	WP 8	WP 9	Closure (WP 10)	Total
PP 1	100,000.00	0.00	0.00	12,400.00	220,720.00	562,960.00	372,000.00	1,368,340.00	4,960.00	20,000.00	2,661,380.00
PP 2	0.00	28,260.00	8,400.00	4,800.00	20,640.00	389,100.00	62,736.00	4,200.00	9,600.00	0.00	527,736.00
PP 3	0.00	28,260.00	8,400.00	29,600.00	177,800.00	37,200.00	56,580.00	168,400.00	23,040.00	0.00	527,080.00
PP 4	0.00	19,850.00	2,100.00	4,800.00	77,424.00	0.00	10,200.00	183,464.00	9,600.00	0.00	287,238.00
PP 5	0.00	21,540.00	2,100.00	4,800.00	102,816.00	41,472.00	10,200.00	29,376.00	9,600.00	0.00	221,904.00
PP 6	0.00	19,860.00	2,100.00	4,800.00	48,000.00	0.00	0.00	24,480.00	0.00	0.00	99,240.00
PP 7	0.00	6,300.00	2,100.00	4,800.00	34,560.00	0.00	7,680.00	7,680.00	9,600.00	0.00	72,720.00
PP 8	0.00	21,540.00	2,100.00	4,800.00	58,464.00	0.00	84,120.00	81,120.00	9,600.00	0.00	261,744.00
PP 9	0.00	21,540.00	2,100.00	4,800.00	9,800.00	28,296.00	132,632.00	16,236.00	9,600.00	0.00	224,804.00
PP 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150,000.00	0.00	150,000.00
PP 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150,000.00	0.00	150,000.00
PP 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150,000.00	0.00	150,000.00
Total (€)	100,000.00	166,950.00	29,400.00	75,600.00	749,824.00	1,059,028.00	736,148.00	1,861,296.00	535,600.00	20,000.00	5,333,846.00
% of total budget	1.87 %	3.13 %	0.55 %	1.42 %	14.06 %	19.85 %	13.80 %	34.90 %	10.04 %	0.37 %	100.00 %

E.4 Project Budget - Overview per Work Package/ per Period

Work Package	Preparation	Jan - Dec 2024	Jan - Dec 2025	Jan - Dec 2026	Jan - Dec 2027	Jan - Dec 2028	Closure	Total
WP 1	100,000.00							100,000.00
WP 2		6,678.00	56,763.00	51,754.50	51,754.50	0.00		166,950.00
WP 3		0.00	10,290.00	9,702.00	9,408.00	0.00		29,400.00
WP 4		0.00	0.00	37,800.00	37,800.00	0.00		75,600.00
WP 5		29,992.96	427,399.68	97,477.12	194,954.24	0.00		749,824.00
WP 6		52,951.40	730,729.32	148,263.92	127,083.36	0.00		1,059,028.00
WP 7		0.00	559,472.48	103,060.72	73,614.80	0.00		736,148.00
WP 8		18,612.96	539,775.84	614,227.68	688,679.52	0.00		1,861,296.00
WP 9		0.00	107,120.00	107,120.00	107,120.00	214,240.00		535,600.00
WP 10							20,000.00	20,000.00
Total (€)	100,000.00	108,235.32	2,431,550.32	1,169,405.94	1,290,414.42	214,240.00	20,000.00	5,333,846.00
% of total budget	1.87 %	2.03 %	45.59 %	21.92 %	24.19 %	4.02 %	0.37 %	100.00 %

E.5 Project Budget - Overview per Partner/ per Budget Line

Partner	Staff costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and works (€)	Total (€)
PP 1	409,900.00	61,485.00	20,495.00	235,000.00	320,000.00	1,614,500.00	2,661,380.00
PP 2	409,780.00	61,467.00	20,489.00	20,000.00	16,000.00	0.00	527,736.00
PP 3	418,400.00	62,760.00	20,920.00	25,000.00	0.00	0.00	527,080.00
PP 4	239,365.00	35,904.75	11,968.25	0.00	0.00	0.00	287,238.00
PP 5	184,920.00	27,738.00	9,246.00	0.00	0.00	0.00	221,904.00
PP 6	82,700.00	12,405.00	4,135.00	0.00	0.00	0.00	99,240.00
PP 7	60,600.00	9,090.00	3,030.00	0.00	0.00	0.00	72,720.00
PP 8	218,120.00	32,718.00	10,906.00	0.00	0.00	0.00	261,744.00
PP 9	170,670.00	25,600.50	8,533.50	0.00	20,000.00	0.00	224,804.00
PP 10	0.00	0.00	0.00	150,000.00	0.00	0.00	150,000.00
PP 11	0.00	0.00	0.00	150,000.00	0.00	0.00	150,000.00
PP 12	0.00	0.00	0.00	150,000.00	0.00	0.00	150,000.00
Total (€)	2,194,455.00	329,168.25	109,722.75	730,000.00	358,000.00	1,614,500.00	5,333,846.00
% of total budget	41.14 %	6.17 %	2.06 %	13.69 %	6.67 %	30.27 %	100.00 %

E.6 Project Budget - Overview per Work Package/ per Budget Line

Work Package	Staff costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and works (€)	Total (€)
WP 1	0.00	0.00	0.00	100,000.00	0.00	0.00	100,000.00
WP 2	139,125.00	20,868.75	6,956.25	0.00	0.00	0.00	166,950.00
WP 3	24,500.00	3,675.00	1,225.00	0.00	0.00	0.00	29,400.00
WP 4	38,000.00	5,700.00	1,900.00	30,000.00	0.00	0.00	75,600.00
WP 5	476,520.00	71,478.00	23,826.00	40,000.00	24,000.00	114,000.00	749,824.00
WP 6	474,190.00	71,128.50	23,709.50	40,000.00	312,000.00	138,000.00	1,059,028.00
WP 7	346,790.00	52,018.50	17,339.50	0.00	20,000.00	300,000.00	736,148.00
WP 8	627,330.00	94,099.50	31,366.50	46,000.00	0.00	1,062,500.00	1,881,296.00
WP 9	68,000.00	10,200.00	3,400.00	454,000.00	0.00	0.00	535,600.00
WP 10	0.00	0.00	0.00	20,000.00	0.00	0.00	20,000.00
Total (€)	2,194,455.00	329,168.25	109,722.75	730,000.00	356,000.00	1,614,500.00	5,333,846.00
% of total budget	41.14 %	6.17 %	2.06 %	13.69 %	6.67 %	30.27 %	100.00 %

Part F - Partners contribution

Source(s) of Contribution

Total Contribution 1,066,769.20 Total Contribution Target 1,066,769.20

PP1 - Municipality of Bistrita

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Land co-financing A1	Public	70.71 %	376,377.53	in-kind	<p>Site indicative "A1", area: 4865 sqm. Address: Street Grănicerilor.</p> <p>On the basis of the Study of the real estate market of Chamber of public notaries, valid for 2024 (link here: http://www.unnpr.ro/files/expertize2024/CNPCluj/StudiuPiata_Imobiliara_CNP_BN_2024.pdf), the sqm price for zone 2 semi-central area is 500 RON (for terrains >2500sqm).</p> <p>The approximated terrain total value is 2,432,500.00 RON / 489,436.62 EUR (without VAT, for EUR prices 06.08.2024).</p>
Land co-financing A2	Public	27.11 %	144,320.35	in-kind	<p>Site indicative "A2", area: 1155 sqm. Address: Street Vasile Conta, no. 1.</p> <p>On the basis of the Study of the real estate market of Chamber of public notaries, valid for 2024 (link here: http://www.unnpr.ro/files/expertize2024/CNPCluj/StudiuPiata_Imobiliara_CNP_BN_2024.pdf), the sqm price for zone 1 central area is 700 RON (for terrains 1001-2500 sqm).</p> <p>The approximated terrain total value is 3,951,100.00 RON / 280,704.23 EUR (without VAT, for EUR prices 06.08.2024).</p>
Land co-financing B7	Public	2.18 %	11,578.12	in-kind	<p>Site indicative "B7", area: 338mp. Address Constantin Roman Vivu, Bl 1.</p> <p>On the basis of the Study of the real estate market of Chamber of public notaries, valid for 2024 (link here: http://www.unnpr.ro/files/expertize2024/CNPCluj/StudiuPiata_Imobiliara_CNP_BN_2024.pdf), the sqm price for zone 1 central area is 700 RON (for terrains <1000 sqm).</p> <p>The approximated terrain total value is 236,800.00 RON / 47,605.63 EUR (without VAT, for EUR prices 06.08.2024).</p>
Total (€)		100.00 %	532,276.00		Contribution Target 532,276.00

PP2 - Indeco Soft

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Indeco Soft	Private	100.00 %	105,547.20	cash	<p>The partner will ensure its own co-financing in cash, via personnel costs for the experts involved, as well as the other types of costs (equipment, external expertise) in the implementation of the B-CONNECT project.</p>
Total (€)		100.00 %	105,547.20		Contribution Target 105,547.20

PP3 - Urbasofia

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Urbasofia cash contribution	Private	100.00 %	105,416.00	cash	<p>The partner will ensure its own co-financing in cash, via personnel costs for the experts involved, as well as the other types of costs (equipment, external expertise) in the implementation of the B-CONNECT project.</p>
Total (€)		100.00 %	105,416.00		Contribution Target 105,416.00

PP4 - University for Agricultural Science and Veterinary Medicine Cluj Napoca

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
University for Agricultural Science and Veterinary Medicine Cluj Napoca	Public	100.00 %	57,447.60	cash	Lab equipment, studies, analysis and lab testing for soil and plant: -Scanning electron microscope TescanSem LSU -Electronic Herbometer -UV-VIS double-beam spectrophotometer V-630 - pure water system Direct Q3 UV SMART - Multi-parameter EC 863 - Fast digestion system - Perkin Elmer Spectrometer Module A Analyst 800 - Analytical scale - Portable system for measuring plant photosynthesis - Vegetable waste shredder - GPS Station TRIMBLE R3 - Opticalsystemwithreflected - AVANA PM spectrophotometer
Total (€)		100.00 %	57,447.60		Contribution Target 57,447.60

PP5 - Babes-Bolyai University

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Babes-Bolyai University	Public	100.00 %	44,380.80	cash	The BBU contribution consists of performing in-situ and in-lab analysis using the ACTRIS mobile lab and resources for evaluating multi-seasonal parameters of climate (temperature, pressure, humidity, wind) and air-quality (CO,NO,SO,O3) for assessing the proposed positioning of weather sensors as well as research work for compiling data. Usage of research and workshop infrastructure in BBU's extension in Bistrita will also be provided as in-kind contribution for project workshops and activities.
Total (€)		100.00 %	44,380.80		Contribution Target 44,380.80

PP6 - Bistrita - Youth for the Community

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Bistrita - Youth for the Community	Private	30.23 %	6,000.00	in-kind	Equipment depreciation for the equipment used for project implementation activities
Bistrita - Youth for the Community	Private	30.23 %	6,000.00	in-kind	Work by Bistrita Youth for the Community volunteering work for the community co-creation and involvement activities
Bistrita - Youth for the Community	Private	9.31 %	1,848.00	in-kind	Printing materials for community workshops and co-creation processes, as well as dissemination (flyers, posters, booklets, etc)
Bistrita - Youth for the Community	Private	30.23 %	6,000.00	cash	Money from the organization funds (own budget) used for cofinancing staff costs.
Total (€)		100.00 %	19,848.00		Contribution Target 19,848.00

PP7 - E-Civis Association

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
E-Civis Association	Private	100.00 %	14,544.00	cash	The partner will ensure its own co-financing in cash, via personnel costs for the experts involved, as well as the other types of costs (equipment,external expertise) in the implementation of the B-CONNECT project.
Total (€)		100.00 %	14,544.00		Contribution Target 14,544.00

PP8 - "Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
"Ion Mincu" University of Architecture and Urban Planning – Bucharest (IMUAUP)	Public	100.00 %	52,348.80	in-kind	Co-financing is ensured by internal invoicing of conference rooms for international event in Bucharest and equipment depreciation for local co-creation events, including: - Valve Index + Trackers - Google Cardboard for AR: Axyzon Original - Virtual production studio: Sony A7 Mk III + Tamron 28-75mm F2.8 RXD III (used for the mini-doc) - Manual 3D scanner: Einscan Pro2X-Plus - Photo-video cameras: Sony A7 Mk III + Tamron 28-75mm F2.8 - RXD III + Andoer panoramic head PH-720B, Graphline drone
Total (€)		100.00 %	52,348.80		Contribution Target 52,348.80

PP9 - Technical University of Cluj-Napoca

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Technical University of Cluj-Napoca	Public	100.00 %	44,960.80	in-kind	Equipment depreciation used for the development of the autonomous vehicle and internal invoicing : - AMR System: Purpose: physically test and validate the robotic delivery concepts in real urban environments. - Simulation and Optimization Software for Complex Ecosystems: simulate and optimize the behaviour of AMRs in complex urban ecosystems. - Virtual Reality System: Purpose: visualize, interact with, and refine the robotic delivery concepts in a virtual urban environment
Total (€)		100.00 %	44,960.80		Contribution Target 44,960.80

PP10 - Municipality of Monza

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Municipality	Public	100.00 %	30,000.00	in-kind	The municipality will provide in-kind contributions to the project for the specified amount of 30,000,00€ by assigning municipal personnel to the activities that will be carried out on our local level, and support the correct transfer and pilot creation of the project.
Total (€)		100.00 %	30,000.00		Contribution Target 30,000.00

PP11 - Municipality of Kavala

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Municipality	Public	100.00 %	30,000.00	in-kind	The municipality will provide in-kind contributions to the project for the specified amount of 30,000,00€ by assigning municipal personnel to the activities that will be carried out on our local level, and support the correct transfer and pilot creation of the project.
Total (€)		100.00 %	30,000.00		Contribution Target 30,000.00

PP12 - ALMERIA CITY COUNCIL

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Municipality	Public	100.00 %	30,000.00	in-kind	The municipality will provide in-kind contributions to the project for the specified amount of 30,000,00€ by assigning municipal personnel to the activities that will be carried out on our local level, and support the correct transfer and pilot creation of the project.
Total (€)		100.00 %	30,000.00		Contribution Target 30,000.00

PART G – RISK MANAGEMENT

G.1 Risks at project strategy level

B-CONNECT is an ambitious project aiming at transforming the local community and inspiring behavioural change for the local community. Greening the cities through repurposing unused land, placemaking and co-creation poses risks in terms of community acceptance and involvement. Reducing pollution through traffic restrictions based on real-time data has not been performed in urban areas, thus leading to an initial discomfort for drivers. Aggregating relevant volumes of real-time data and acting in real-time based on that is again an untested terrain. Similarly, to new proposed technologies: hydroponic towers (never tested in real urban environments), and autonomous delivery systems. A good communication framework, both at consortium level and outwards is crucial towards risk reduction and mitigation. In terms of partner competencies, small overlaps between project partners facilitate giving support in case one partner cannot fully deliver. The consortium has been selected based on previous cooperation and the ability to work together. A Risk Management Committee formed of project coordinators from each partner will be organized on risk materialization. Furthermore, if the committee is unable to find solutions, a fast response from institutional managers is required.

G.2 Risks at project implementation level

Project management capacity risks

Risk	Description	Properties		Actions to mitigate the risk
Structures and procedures	Limited capacity or availability of the Project Management Team to manage the project.	Impact	Major	Bistrita has distributed management tasks to 2 departments which constantly manage innovation activities and development funding. All WP leaders from project partners are experienced in leading large R&D&I projects. Urbasofia and Indeco are ready to provide the expertise acquired through UIA.
		Likelihood	Improbable	
Project Partnership	Project partners withdrawing from the project or not being able to fulfill their activities at certain times.	Impact	Incident	The consortium is built upon previous cooperation between partners in delivering innovative projects. PP3, PP2 and PP4 have implemented the UIA SPIRE project, PP2 and PP9 previously cooperated with the City of Bistrita, and PP5, PP4 and PP2 delivered research proposal Agroclim.ro.
		Likelihood	Remote	
Financial flows	Cashflow issues for project partners or limited capacity of sustaining project activities	Impact	Major	The project partners are sound organizations with sufficient resources and cash flow to sustain project activities. Public partners are mature organizations with sufficient budgets for R&I while private partners are experienced in ensuring project cashflows and have financial resources available.
		Likelihood	Improbable	
Political environment	Elections in 2024 may bring a new vision in the City, with different priorities.	Impact	Serious	The risk is mitigated by delegating project activities to 2 departments, one leading innovation and one ensuring Sustainable development. Furthermore, the project is aligned with the city's Urban Sustainable Development Strategy, which is mandatory for any political leadership.
		Likelihood	Possible	

Workplan implementation risks

Risk	Description	Properties		Actions to mitigate the risk
Legal framework and regulations regarding innovation (local, national, EU level)	Regulatory constraints towards innovation and the absence of legislation, especially in terms of autonomous vehicles or reward systems may conduct to delays or limited results in implementation.	Impact	Serious	The lack of legislation can be compensated by Local Council rulings. In terms of reward systems, the lessons learned by project partners from previous projects have led to a feasible scale of the project activities involving rewards.
		Likelihood	Remote	
Delays in the delivery of project activities	The implementation of the traffic measures to reduce pollution is dependant on the deployment to the Sustainable Datacentre (IG.1), network of sensors and the B(reeze)-Flow platform. Delays in WP6 activities can generate further impact on WP7.	Impact	Serious	Mitigation measures include temporary usage of partners' resources, including cloud platform from PP2, mobile and fixed sensors from PP5 and PP9 and the DIY kits distributed towards the community. Traffic restrictions can be temporarily implemented by the Local Police.
		Likelihood	Remote	
Participatory approach	Lack of interest or involvement from the local community, considering people's resistance to change and innovation, as well as difficulties in exiting the comfort zone.	Impact	Major	PP6 specialises in working with the community. The City has a specialized PR department and uses digital tools for citizen interaction. Rewards are aimed towards early innovators who become drivers for the rest of the community. Dissemination towards own students carried out by PP5 and PP9.
		Likelihood	Possible	

Investment risks

Risk	Description	Properties		Actions to mitigate the risk
(Public)procurement procedure	Delays in procurement procedures or a limited number of tender offers can generate delays in the project implementation.	Impact	Serious	The city of Bistrita has an excellent, specialized department of Public Acquisitions and a great track record for implementing infrastructure works with local and remote contractors. Consortium members have extensive experience in public procurement and will provide support for technical aspects.
		Likelihood	Remote	
Ownership & location of the site	Some of the experimental plots used in WP8 Activity 8.4 (riparian zones) are owned by the Administration of Water Basins. Exclusively for these plots, a risk of changing usability exists. The rest of the sites are owned by the city.	Impact	Minor	A partnership Agreement is being signed with the site owners for the interventions. Furthermore, the NBSs deployed are reducing the owner's efforts and costs for maintenance, leading to an increased interest on their behalf towards the project implementation.
		Likelihood	Possible	
Delivery of investments	Investment delays due to unforeseen conditions related to infrastructure works can put pressure on B-CONNECT. Cost increases can be a challenge for complying with the project budget.	Impact	Serious	The areas selected for investment are currently unused. The investment schedule has been set up in order to compensate for potential delays. Costs for building materials have escalated in the previous years, while the market currently is steady, with small decreases in some material costs.
		Likelihood	Remote	
Obsolescence of technical solutions	The B(reeze) Net network of sensors, traffic signs, vehicle counting and the sustainable datacentre model become obsolete during the project's lifecycle or sustainability period, due to rapid technological developments.	Impact	Minor	The equipment corresponding to the investment will be selected with support from technical experts from P9 and P2. The software modules are built upon mature, long-lasting software solutions, and are compliant to industry standards ensuring long usability as well as web-service connectivity
		Likelihood	Possible	

WORK IN PROGRESS

Part H - Confirmation

(Main) Urban Authority confirmation and signature

(Main) Urban Authority

Municipality of Bistrita

By signing the application form the (Main) Urban Authority hereby confirms that:

1. The information provided in the Application Form is accurate and true to the best knowledge of the Main Urban Authority.
2. The Urban Authorities involved in this project proposal are not involved in other proposals submitted to the European Urban Initiative – Innovative Actions as part of this current Call for Proposals.
3. The Main Urban Authority and Project Partners listed in the Application Form:
 - a. are committed to participate in the action,
 - b. have stable and sufficient sources of funding to maintain the activities throughout the action and to provide any counterpart funding necessary,
 - c. have or will have the necessary resources needed to implement the action.
4. The Main Urban Authority and the Project Partners commit to comply with the eligibility criteria and all other conditions set out in the Call for Proposals conditions for the entire duration of the project.
5. The Main Urban Authority and the Project Partners will act according to the provisions of the relevant national and EU legislation and policies (especially regarding structural funds, public procurement, state aid, environment and equal opportunities) as well as the specific provisions of the European Urban Initiative.
6. The Main Urban Authority and the Project Partners are NOT subject to an administrative sanction (i.e. exclusion or financial penalty decision).
7. The Main Urban Authority and the Project Partners (or persons with unlimited liability for debts) are NOT in one of the following exclusion situations :
 - a. bankrupt, being wound up, having the affairs administered by the courts, entered into an arrangement with creditors, suspended business activities or subject to any other similar proceedings or procedures
 - b. in breach of social security or tax obligations
8. The Main Urban Authority and the Project Partners (or persons having powers of representation, decision-making or control, beneficial owners or persons who are essential for the award/implementation of the action) are NOT in one of the following exclusion situations :
 - a. guilty of grave professional misconduct,
 - b. committed fraud, corruption, links to a criminal organisation, money laundering, terrorism-related crimes (including terrorism financing), child labour or human trafficking,
 - c. shown significant deficiencies in complying with main obligations under an EU procurement contract, grant agreement, prize, expert contract, or similar,
 - d. guilty of irregularities within the meaning of Article 1(2) of Regulation No 2986/95,
 - e. created under a different jurisdiction with the intent to circumvent fiscal, social or other legal obligations in the country of origin (including creation of another entity with this purpose).
9. The Main Urban Authority and the Project Partners are NOT subject to a conflict of interest in connection with this grant and will notify — without delay — any situation which could give rise to a conflict of interests.
10. The Main Urban Authority and the Project Partners neither in whole nor in part have or will receive any other EU funding for the project implementation (except for the funding indicated in this Application Form) during the whole duration of the project.
11. General information about this project can be used by the European Urban Initiative to liaise with national and regional authorities in charge of implementation of operational programmes funded by the European Structural and Investment Funds.

Forename, Surname

IOAN TURC

Date

22/09/2023

Position

Mayor

Place

Bistrița

Authorized signature
of (Main) Urban
Authority