ALBA IULIA MUNICIPALITY – ECOCORE PROJECT

Integrated Action Plan

Alba Iulia Municipality, 2025

URBACT

Co-funded by the European Union
Interreg

The EcoCore Project
Green Transition in Small Cities along Transport Corridors

theother capital
ALBA IULIA

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Introduction

The development vision for Alba Iulia outlines an inclusive, open, and Smart City. Alba Iulia aims to become a territory where strategic urban management facilitates growth, and improves living standards and competitiveness. The city also aims to become an area where urban quality, with its various facets, attracts and maintains local and foreign businesses, as well as a talented workforce, a place where jobs are created and promoted through different forms of sustainability, coherent and resilient development, following European Union's territorial and urban policies.

In Alba Iulia our EcoCore efforts will focus on:

a. industrial area development - Alba Iulia is making efforts to transform its industrial area into a green one. This includes adopting sustainable building practices, integrating renewable energy systems, and implementing waste reduction and recycling protocols.

b. enhancement of the public and freight transport system to and from the industrial area: This will involve transitioning to electric or hybrid buses, creating incentives for the use of electric vehicles, and developing charging infrastructure throughout the city.

c. engagement of local stakeholders: The city will support innovation by encouraging startups and existing businesses to develop green technologies and solutions, particularly those that enhance energy efficiency in industrial applications etc.

1. Local context

1.1 City context and definition of the initial problem/ policy challenge

General information: Alba Iulia is a 74000 inhabitants city located in Transylvania, in the central part of Romania. The city is an emergent European tourist destination, due to its impressive 2000-year historic and cultural heritage. It is the symbol city of Romanian unity (in 1918, the unification of Romanian provinces took place here) and it is marketing itself as "The Other Capital".

According to a study developed by the Harvard University, Romania has the 19th most complex economy in the world. A study by the Harvard Kennedy School reveals the complexity of Romania's economy, ranking it 19th globally. The increase in market share in the global economy is the consequence of the fact that Romania has completed the process of structural transformation, entering all major sectors with high productivity. The production of cars increased in the previous decade, and the factories located in our territory had a very high port in this process. However, the growth of Romania's exports in the last five years was determined, massively, by the service sector. This growth of Romania in services was not due to luck, but is a consequence of focusing attention, resources and policies in a growing global sector. Rather, the increase in exports in services was driven by the expansion of its global market share.

According to the ISUDS' city audit, the main community needs in Alba Iulia, structured around the five challenges of Article 7, are the following:

Economy: Average net income in Alba County was approximately 4,100 RON/month in 2023, slightly below Cluj and Sibiu but competitive for mid-sized Romanian cities. Employment is concentrated in services, manufacturing, trade, and public administration, with

Map 1: Location of Alba Iulia in the Central Region of Romania

cultural tourism also contributing to economic activity. The unemployment rate in Alba Iulia Municipality was only 0.7% of the total active labor force (July 2025). This places the city well below both the national and regional averages, reflecting its role as a strong economic and administrative center in the Central Region of Romania.

Society: inclusive and performant infrastructure in the field of education, health, social services, and housing, as well as an effective and transparent administration.

Gender equality: the Municipality of Alba Iulia has 548 employees (233 women, 229 men); 30 management positions (12 women, 18 men); 518 executive positions (221 women, 211 men, 86 vacant). At directorate level the leadership is equally shared (3 women / 3 men); at service level 2 women / 3 men; in public services 2 women / 2 men; and in the Local Assets Administration 1 woman / 4 men.

Climate change: extend green spaces and build adequate river embankments. Alba Iulia is a member of the new Covenant of Mayors for Climate and Energy and along with the other signatories, shares the vision for making the city decarbonized and resilient, where citizens have access to secure, sustainable, and

affordable energy. AIM has an Action Plan for Sustainable Energy and the goal is to reduce greenhouse gas emissions by 40% by 2030. Another important initiative that Alba Iulia is part of, in the Covenant of Mayors, is the Climate Partnership – a local platform for dialogue and action in the field of climate change, which facilitates networking and provides access to dedicated funding opportunities. Also, Alba Iulia Municipality is committed to the Green City accord. The climate change mitigation and adaptation plan of the city was updated recently for the 2030 horizon.

Demography: encourage natality and tackle aging. At the beginning of 2021, there were 74.617 inhabitants in Alba Iulia, an increase of more than 10.000 persons since 2011. The population density is 721 inhabitants/km2. The gender distribution is 906 men for 1000 women. Average life expectancy in 2016 was 76.08 years, while the birth rate was 8.13‰. In terms of workforce/entrepreneurship this is a very good opportunity, having dedicated EU funds also, for women to start a business or develop further.

Environment: There is 176 ha of green space in Alba Iulia. This is an average of 14m2 of green space/inhabitant. At the present moment, the sources of CO2 emissions are electricity production (29% of emissions); natural gas consumption (50% of emissions); urban transportation (21%). Solar energy (with 1500 kwh/m2) and biomass (wood especially) have significant growth potential, unlike wind energy due to the low annual average speed of 3-4m/second.

Measures that support the local administration's vision in the area of climate change mitigation and adaptation:

A. Making investments in green areas.
B. Increasing green transport sector and optimizing the road network.
C. Environmental risk monitoring system.
D. Developing and updating studies on the impact and intervention concerning extreme environmental phenomena at the local level.
E. Increasing the resilience of urban infrastructure from the perspective of climatic hazards.
F. Developing local regulations for promoting energy independence.
G. Campaigns for awareness and simulation of natural disasters together, in schools, public spaces etc.

1.2 General pain-points mapped by the municipality and stakeholders

- Incentives to promote modal shift away from car dependency
- Initiatives to grow and nurture an effective innovation ecosystem
- Industrial branding & marketing
- Measures to support entrepreneurship
- Strategic lobbying for city projects
- Reimagining old industrial spaces
- Fast tracking industrial infrastructure
- Data visualisation as a communication tool to grow environmental awareness
- Capitalising on strategic European networks and initiatives in support of local policy objectives
- Mapping industrial skills and machinery needs for new dual education campus project
- Students climathon experience
- City branding
- Large firm good practices e.g. Kangoo Pack – packaging reduction solutions, VCST energy capture and reuse, internal innovation process.
- Digitalization of the planning system
- Energy poverty mapping
- Sustainable mobility initiatives (e-car charging infrastructure, low taxes and free parking for electric and hybrid cars, e-buses, cycle lanes, school bus etc.)
- The necessity of conducting training programs for public officials and employees of local companies to understand and implement principles of the circular economy.
- The benefits of participating in technical workshops on new technologies and methods for improving energy efficiency, especially in old buildings and public infrastructure.
- Education on efficient energy management, including the use of consumption monitoring software and the implementation of energy management systems in public institutions and private companies.
- Calculating the carbon footprint and methods to reduce it through operational and strategic changes at the community level.
- These needs and contributions reflect a joint effort to improve resource and energy management, while also promoting sustainability within the local community.
- Provided expertise in developing strategies and practices that promote circular economy, including waste management and recycling.
- Proposed innovative circular economy models applicable to urban infrastructure to reduce resource consumption and waste production.
- Presented research and case studies on effective ways to implement energy efficiency measures in historic buildings and campuses.
- Contributed to educational initiatives and raised awareness among the local community about the benefits of the circular economy.
- Provided data and analysis on the current energy consumption in the city.

1.3. The main priorities of the city

The main priorities of the city are disseminated within the Integrated Strategy for Urban Development 2021-2030:

- Smart, sustainable and inclusive economic growth.
- Sustainable tourism based on the rich cultural heritage;
- Reducing pollution and increasing energy efficiency;
- Developing a coherent, inclusive and efficient environment for local businesses;
- Developing mobility infrastructure and public services by using smart solutions;
- Transforming Alba Iulia into „a more livable city" in order to reduce workforce migration towards Cluj-Napoca and Sibiu.

1.4. The strategic objectives contributing to the achievement of Alba Iulia vision

- Alba Iulia – A SMART, accessible and coherent city;
- Alba Iulia – A GREEN city with efficient public services;
- Alba Iulia – A COMPETITIVE and CREATIVE city;

2. Strategic documents and policies

2.1 Relevant strategies at the national level:

- The Romania's Territorial Development Strategy, Polycentric Romania 2035
- Romania's National Strategy for Sustainable Development supports the 2030 Agenda and the SDGs
- The National Integrated Energy and Climate Change Plan 2021-2030 and National Recovery and Resilience Plan 2020-2023
- Sustainable Transport Strategy and the General Transport Master Plan of Romania
- The National Housing Strategy

Romania aligned itself to the European Union policy objectives (OPs) to support growth and development over this period

- OP 1 'Smarter Europe' - through innovation, digitisation, economic transformation and support for small and medium-sized enterprises
- OP 2 'Greener Europe' - carbon-free, with a focus on implementing the Paris Agreement and investing in energy transition, renewable energy and combating climate change
- OP 3 'More connected Europe' - with strategic transport and digital networks
- OP 4 'More social Europe' - to deliver the European pillar of social rights and support quality jobs, education, skills, social inclusion and equal access to healthcaret
- OP 5 'A Europe closer to its citizens' - by supporting locally-led development strategies and sustainable urban development in the EU

2.2 Regionally relevant strategies

- Mobility and connectivity strategy in Alba County 2022-2027
- Development Strategy for the Centre Region 2021-2027, which has the overall objective that the Centre Region will reach an economic convergence level of 70% of the EU average in 2027
- Smart Specialisation Strategy 2021-2027 of the Centre Region
- Regional Development Plan 2021-2027 (PDR Centru)

2.3 Relevant strategies at local level

- Integrated Urban Development Strategy (SULP)
- Alba Iulia Smart City Strategy
- Bold City Vision 2050
- Action Plan for Sustainable Energy and Climate of the Municipality of Alba Iulia SECAP 2030
- Sustainable Urban Mobility Plan horizon 2030
- General Urban Plan of Alba Iulia 2012-2022
- Alba Iulia Energy Efficiency Improvement Programme
- Local Development Strategy – Alba Iulia Inclusive Local Action Group
- Equality Action Plan

3. Alba Iulia`s IAP Focus

The city has identified 200 hectares of land for industrial development adjacent to an existing industrial zone owned by the neighbouring village, where a high percentage of workers in Alba Iulia commute to daily. The technical planning documents to guide the development of the publicly owned 30 hectares have been published and there is high level of interest from firms wishing to locate there, somehow similar to Balbriggan's and Tuusula's initiatives, both partners in the EcoCore network. The plan is already in place to install this infrastructure in partnership with a private automotive company in need of local expansion. Plans include the development of a 1 hectare photovoltaic plant to power the industrial area, built by the municipality with EU funding, finished in April 2024.

Aligned with the initiatives of the city, within the integrated action planning process, stakeholders are defining additional actions that promote and align with the green transition such as the greening of this industrial zone, sustainable mobility solutions, as well as softer actions that can support the green transition within the businesses themselves, thereby promoting competitive advantage.

A series of mobility projects are finished in the city at present including the construction of 37km of protected cycle ways. These will reduce traffic congestion, however behavioural change programs as well as extensive measures to incentivise people away from car dependency will be essential to ensure effective modal shift. This will be a key challenge to be tackled in the IAP.

3.1 Challenges&Key areas of interventions

Alba Iulia, like many cities globally, faces challenges in enhancing sustainable transportation and decarbonizing freight operations, especially in the development areas. To effectively address these issues, a comprehensive focus on green transport and freight decarbonization is essential. Here's how such a strategy will be approached:

1. Promoting active mobility and public transport:

- Cycling Infrastructure: Develop a network of safe cycling lanes and bike-sharing systems to encourage cycling as a viable mode of transport.
- Pedestrian Zones: Create pedestrian-friendly zones in key areas to reduce reliance on cars and improve air quality.
- Enhanced Public Transport: Invest in efficient and accessible public transport, including buses and trams, with increased frequency and coverage to reduce private car use.

2. Greening of public transport:

- Transition to electric buses: Introduce electric buses in the city's public transport fleet to reduce emissions and improve air quality.
- Charging infrastructure: Install sufficient charging infrastructure for electric vehicles across the city to support electrification efforts.

3. Managing freight transport:

- Urban freight distribution hubs: Establish centralized urban freight distribution centers to consolidate deliveries and reduce the number of vehicles entering the city center.
- Encourage low-emission vehicles usage: Provide incentives for freight companies to use low-emission vehicles or switch to electric or hydrogen-powered trucks.
- Off-Peak deliveries: Implement policies to encourage off-peak deliveries to reduce traffic congestion during peak hours.

4. Policy and regulation:

- Low-emission zones: creation of low-emissions zones in the development area, where only low-emission vehicles are allowed, gradually expanding these zones over time.
- Emission standard: Enforce strict emission standards for vehicles entering the city, promoting cleaner fleets and reducing air pollution.
- Parking policies: Implement parking policies that prioritize electric and low-emission vehicles, encouraging their adoption.

5. Partnerships and community engagement:

- Collaboration with businesses: Engage with local businesses to develop sustainable delivery strategies and incentivize green transport practices.
- Education and awareness: Conduct campaigns to raise awareness about the benefits of green transport among residents and businesses.
- Collaboration with schools in the municipality by getting involved in road safety education campaigns.

6. Monitoring and evaluation:

- Data collection: Establish mechanisms to monitor air quality, traffic flow, and emission levels to evaluate the effectiveness of green transport initiatives.
- Adaptive planning: Use collected data to adapt and refine strategies over time, ensuring continuous progress toward decarbonization goals.
- Mapping the data collected by the Municipality's Mobility Dispatcher, which is in the advanced testing phase.

7. Integration with urban development:

- Land use planning: Integrate green transport strategies into urban planning and development, ensuring that new infrastructure supports sustainable transport modes.
- Mixed-use development: Encourage mixed-use developments to reduce the need for long-distance commuting and promote walkability.
- Developing interconnected pedestrian paths and green corridors connecting residential, commercial and recreational areas.

Implementing these strategies will require collaboration between local government, businesses, residents, and transportation stakeholders. By prioritizing green transport and freight decarbonization, Alba Iulia can become a model city for sustainable urban development in Romania.

4. Urban Local Group

4.1 Stakeholders contribution to a greener city

Creating a green industrial area near Alba Iulia requires thoughtful consideration and input from a diverse range of stakeholders to ensure its success and alignment with sustainable development goals. Within the EcoCore project, the stakeholders' engagement involve representatives from local government, industry leaders, environmental organisations, academic institutions, and community members, firstly identified and mapped at the first ULG Meeting, and then enlarged within the following ULG Meetings. Each stakeholder group offer valuable insights and perspectives that are critical in shaping the design and implementation of a sustainable and green industrial zone.

Involving stakeholders (21 males and 10 females) in the municipality`s planning process has the potential to lead to the integration of innovative concepts such as smart mobility and smart energy efficiency solutions. For instance, input from transportation experts will help design efficient transport networks that prioritise electric and shared mobility options, reducing carbon emissions and traffic congestion. Collaboration with energy providers and technology experts can drive the adoption of smart energy grids and renewable energy sources within the industrial area, promoting energy efficiency and reducing environmental impact. Moreover, engaging community representatives, business representatives, and environmental organisations will ensure the incorporation of green spaces and sustainable landscaping, enhancing the area's biodiversity and overall quality of life for residents and workers alike. By harnessing the collective expertise and perspectives of stakeholders, the development of a green development area in Alba Iulia can become a model of sustainable urban planning and economic development, showcasing the benefits of integrating green technologies and good practices into industrial zones.

4.2 Stakeholders map

1 December 1918 University *Public institution*	Chamber of Commerce *Public institution*	Alba Iulia Mun. Police Department *Public institution*
Electrica SDEE *Private company*	Kangoo Pack *Private company*	Carolina Mall *Private company*
VSCT *Private company*	IRCEM *NGO*	Alba Iulia Mun. Investment Dep. *Public authority*
Alba Iulia Mun. Urban Planning Dev. *Public authority*	Alba Iulia Municipality Technical Dep. *Public authority*	Alba Iulia Mun. Urban Innovation Dep. *Public authority*
Electromoldo SRL *Private company*	TBL Group *Private company*	ALEA *NGO*

4.3 Stakeholders list

No.	Name and Surname	Meeting participation	Entity	Type	Gender
1	Eugen Moșneag	M1	VCST	PRIVATE	M
2	Sorina Leah	M1	VCST	PRIVATE	F
3	Gyongyi Huniadi	M1	VCST	PRIVATE	F
4	Anca Orzea	M1	Commerce Chamber in Alba Iulia	PUBLIC	F
5	Paul Cosma	M1	Carolina Mall	PRIVATE	M
6	Mihai Corcheș	M1, M6	„1 December 1918" University in Alba Iulia	PUBLIC	M
7	Dan Toma	M1	Municipal Police	PUBLIC	M
8	Alexandru Damian (core group)	M1	Alba Iulia Municipality - Chief Architect	PUBLIC	M
9	Mariel Petric	M1	Kangoo Pack	PRIVATE	M
10	Viorel Niță	M2	IRCEM Cluj-Napoca	PRIVATE	M
11	Roxana Druță	M2	IRCEM Cluj-Napoca	PRIVATE	F
12	Loredana Bîrgovan	M2	IRCEM Cluj-Napoca	PRIVATE	F
13	Laurențiu Miheț	M2	ALEA Alba Iulia	NGO	M
14	Adrian Tulbure	M1, M2	„1 December 1918" University in Alba Iulia	PUBLIC	M
15	Liviu Stanciu (core group)	All	Alba Iulia Mun. - Urban Innovation Dep.	PUBLIC	M
16	Nicolae Neag (core group)	All	Alba Iulia Mun. - Urban Innovation Dep.	PUBLIC	M
17	Tudor Drâmbărean (core group)	All	Alba Iulia Mun. - Urban Innovation Dep.	PUBLIC	M
18	Maria-Elena Seemann (core group)	All	Alba Iulia Mun. - Urban Innovation Dep.	PUBLIC	F
19	Dorin Sava (core group)	All	Alba Iulia Mun. - Urban Innovation Dep.	PUBLIC	M
20	Lucian Morgovan (core group)	M1, M7	Alba Iulia Mun. - City manager	PUBLIC	M
21	Cornel Oargă	M1	Electrica SDEE	PRIVATE	M
22	Dana Nicoară	M3	CJRAE Alba	PUBLIC	F
23	Vlad Crehul	M4	AIVA	PRIVATE	M
24	Călin Sunzuiană	M4	Alba Iulia Municipality	PUBLIC	M
25	Iulian Bunea	M5, M7	Alba Iulia Municipality	PUBLIC	M
26	Robert Bandi	M5	Alba Iulia Municipality	PUBLIC	M
27	Claudiu Nemeș	M6	Alba Iulia Municipality	PUBLIC	M
28	Simina Lakatos	M6	IRCEM	PRIVATE	F
28	Adela Toader	M7	Transilvania Construct SRL	PRIVATE	F
29	Adrian Hang	M7	Sun Power Systems SRL	PRIVATE	M
30	Nicoleta Prejban	M7	CJ Alba	PUBLIC	F

5. SWOT Analysis

STRENGTHS

- Strategic transport corridor location
- Economic and administrative centre of significant influence in the region
- Open minded municipality
- Safe and secure location
- Great place to raise families
- Geographically compact
- Smart city pilots
- Eco-mobility projects underway
- Alba Iulia was the first city in Romania to launch a professional brand, and a marketing strategy, in 2010
- City brand attractive for businesses
- Tourism assets
- Small city where stakeholders know each other
- Employment opportunities
- Long experience in the field energy management energy efficiency and use local renewable sources
- Alba Iulia, being a historic city, attracts numerous visitors, which can be leveraged in the development of green tourism.
- The local community is engaged in environmental activities such as tree planting and recycling, creating a strong foundation for broader sustainability initiatives.

WEAKNESSES

- Insufficient green spaces
- High car dependency
- Insufficient city hygiene
- Pollution (noise, air, water)
- Lack of leisure offerings for youth
- Lack of cultural offerings e.g. theatre
- Lack of community spirit
- Too much bureaucracy
- Lack of sewage and road infrastructure in some areas
- Lack of e-vehicle charging stations
- Lack of attractions to retain youths
- Lack of grid capacity to support prosumers
- Insufficient funds and a lack of coherent policies to attract green investment consistently
- Reliance on conventional energy sources with outdated distribution infrastructure
- Stock of public buildings in high need of renovation
- Internal resources focused on the implementation of the proposed projects, with a high degree of occupation
- Infrastructure capabilities to support large-scale projects in the field of renewable energies are still insufficient.

OPPORTUNITIES

- Potential to be a regional pioneer city in the urban circular economy.
- Becoming destination for major companies investing in Romania
- Potential for expanding and upgrading the public transport network, including the development of electric mobility
- Extension of bus lanes, increase km of bike lanes
- Increase collaboration between university and public & private sectors
- Education, awareness & mobility behavior change
- Develop an innovation ecosystem (Ministry of Investments and EU Projects, National Agency for Digitalization)
- Dual education campus development (Ministry of Education coordination)
- Sustainability education & awareness campaigns
- Green space development
- European and national policies that support and even require decarbonization Collaborations with academic institutions can foster innovation and bring the necessary expertise to the city.

THREATS

- Bureaucracy snd lack of ambition and faith in possibilities to make positive change
- Traffic jams and lack of alternative traffic routes from main settlements
- Emigration – brain drain
- Regular political and legislative changes
- Over-focus on tourism
- Magnetism of bigger Romanian cities
- Unwillingness to adopt more sustainable transport modes.
- Lack of skilled workers
- Energy price volatility and risks associated with regulatory changes
- Increased car traffic may lead to congestion of existing infrastructure
- Legislative and policy changes may adversely affect the continuity and effectiveness of investment in green projects
- Other cities in Romania might attract green investments due to more developed infrastructure or more aggressive investor attraction policies.
- Global or national economic uncertainties can limit the availability of capital for investments in new technologies and environmental projects.

5. 1 Small scale action proposals

- Small pilot creating a green electric bus route dedicated to the economic area near the city for the daily commuters/employees of the companies placed in the development area in the proximity of the city. The line is meant to start from the Southern part of the city (the Train Station area) and to end in the Northern part of the city (the Industrial area).

- Creation of an Integrated Urban Mobility Dispatch Center in Alba Iulia, enable real-time monitoring and traffic light adjustment, reducing congestion and traffic jams, prioritize public transport – by adapting traffic lights and introducing dedicated public transport lanes, the efficiency of public transportation will be improved, enhance road safety – traffic monitoring and the installation of modern equipment will contribute to reducing road accidents and protecting traffic participants, and to collect and analyze traffic data for valuable insights in terms of planning future mobility projects. Moreover, the dispatch will have a deep integration with the intelligent transport systems and will allow rapid interventions in case of incidents.

- Signing two Local Green deals for the green transition within the Intelligent Cities Challenge EU program (Mobility). The first LGD is focused on "Changing the behavior of using local means of transport", and the second one is focuses on "Data sharing framework among transport stakeholders".

SMALL SCALE ACTION NR. 1

SSA 1 - Green electric bus route

The first small scale action is focused on creation of a green electric bus route dedicated to the economic area near the city for the daily commuters/employees of the companies placed in the development area in the proximity of the city. The line is meant to start from the Southern part of the city (the Train Station area) and to end in the Northern part of the city (the Industrial area).

What did we (pre)test

We tested the commitment of the municipality and citizens to adopt and use green means of transportation, respectively the green municipal busses.

What did we learn

By piloting this pre-test/pre-small scale action, we discovered the eagerness of the decision-makers of the municipality to further endorse and promote the green public means of transport not only in the administration field but also at political level. Moreover, we discovered as well an impressive response to our call to action on behalf of the employees of the Alba Iulia City Hall and its subordinated institutions.

Scale plan

The scale plan is to further promote the use of green transport means in Alba Iulia in order to contribute to a more clean and livable city. This will be done by acquiring more electric busses, by creating more green routes in the city, and to push more and more the usage of bikes, that are already in place in various places spread along the city.

High level action correspondence

ACTION - Acquire and deploy at least 40 new electric buses by 2027, ensuring they are equipped with modern amenities and meet sustainability standards to increase the capacity of public green transport in Alba Iulia (13 electric buses deployed into operation).

ACTION - Upgrade 100% of public transport infrastructure, including bus stops and terminals, by 2028 to improve accessibility for all users, with a focus on individuals with disabilities and those in underserved areas (all the transport infrastructure 100% modernized).

SSA 2 - An integrated Urban Mobility Dispatch Center

Creation of an Integrated Urban Mobility Dispatch Center in Alba Iulia, enable real-time monitoring and traffic light adjustment, reducing congestion and traffic jams, prioritize public transport – by adapting traffic lights and introducing dedicated public transport lanes, the efficiency of public transportation will be improved, enhance road safety – traffic monitoring and the installation of modern equipment will contribute to reducing road accidents and protecting traffic participants, and to collect and analyze traffic data for valuable insights in terms of planning future mobility projects. Moreover, the dispatch will have a deep integration with the intelligent transport systems and will allow rapid interventions in case of incidents.

What do we test

- Smart traffic lights;
- Data collection related to the number of vehicles;
- Efficiency of the smart mobility projects.

What did we learn

- Developing a dispatch for urban mobility it's a very challenging task, and the municipality needs specialized people to run this dispatch;

- Technical stuff can be overwhelming for the employees of the municipality;

- The smart services provided by private operators need lots of hours of training before starting to use the smart systems.

Scale plans

- Extending the smart traffic lights system;

- Testing new traffic scenarios based on data collected and processed by the dispatch.

High level action correspondence

ACTION - Design and implement a digital platform by 2026 that integrates AI and IoT technologies to monitor real-time traffic flow, identify congestion points, and provide actionable insights for optimizing urban mobility.

ACTION - Deploy an integrated tracking system by 2028 within the platform to measure and report on urban transport emissions, ensuring progress towards achieving a 20% reduction by 2030.

SSA 3 - Signing of 2 Local Green Deals (Intelligent Cities Challenge)

Signing two Local Green deals for the green transition within the Intelligent Cities Challenge EU program. The first LGD is focused on "Changing the behavior of using local means of transport", and the second one is focuses on "Data sharing framework among transport stakeholders".

What did we test

- The commitment of public and private sectors, joining together for a more sustainable city;
- The adhesion of the local stakeholders to our ideas;
- The capacity of the municipality to involve the stakeholders and to convince them to become signatories of the LGDs.

What did we learn

- Mobilization of a very diverse group of stakeholders, including public sector, and their commitments to be real drivers of change in urban sustainability is difficult and takes lot of energy;
- Explaining concepts as „twin cities" to local businesses, which are more focused on the real problems of the city is very challenging;

Scale plans

- Expanding LGD partnerships: encouraging additional stakeholders to join existing LGDs and initiate new agreements;
- Securing sustainable funding: leveraging EU funding programs, national grants, and private investment to support LGD implementation;
- Monitoring and scaling: establishing a structured performance monitoring system to track LGD impact and scale successful initiatives;
- Strengthening the governance framework: institutionalizing LGDs as long-term governance tools, ensuring that they become standard practice in urban planning and policy-making.

High level action correspondence

ACTION - Establish partnerships with at least five local businesses and relevant institutions by 2025, securing commitments for their involvement in the pilot projects, including access to necessary resources, infrastructure, and data for testing sustainable freight solutions (2 Local Green Deals signed: Mobility 1: "Changing the behaviour of using local means of transport in Alba Iulia".

Test action summary (Related to SSA1)

Creation of a green electric busses route dedicated to the economic area near the city for the daily commuters/employees of the companies placed in the development area in the proximity of the city.

The Challenge

Highly carbonized industrial area, in the northern part of the city.

What If

What if this area could become a green line in terms of public transport?

Our Idea

Decarbonization of the economic area, the entrance of the city, the northern part, by creating a green public transport line in the area.

We wanted to test if...

We tested the commitment of the municipality and passengers to use green means of transport instead of personal cars. In the same time, we test the capacity of the public transport company to provide electric busses specifically in this transport line, in order to make it green.

Roles

- The EcoCore team – coordinator of the test
- Members of the Urban Innovation Dep. – to engage people and to sustain the promotion of the test
- The decision makers – to participate in the test and move forward with the implementation of a green public transport line in the economic area.

Target groups

- Members of the Urban Innovation Dep.;
- The decision makers of the municipality;
- All the employees of the municipality;
- Citizens.

Date of the happening :)

16–20 September 2024

Documentation

List of signatories from the municipality and from outside, participating in the action.

Indicator

Creation of a green public transport line towards and from the economic area.

Expected output

Creation of a green public transport line towards and from the economic area.

Measurement

- Publications monitoring after the action is finished
- Quantitative data related to the number of passengers - list of signatories from the municipality;
- Qualitative data related to the impact of the action: the openness of the citizens to use the public transport instead of personal car, the pulse of the social media related to the action, the involvement of the municipality employees etc.

Actions

- Promotion Campaign and press releases for the local media + Radio promotion;
- Social media campaign, coordinated by the Communication Department in the municipality and EcoCore team;
- Implementation;
- A Mayor signed invitation for all the employees of the municipality to be part of the action;
- Coordination of the action made by the EcoCore team and Urban Innovation Department;
- Evaluation and measurement;
- Publications monitoring after the action is finished;
- Quantitative data related to the number of passengers - list of signatories from the municipality and other people from the city;
- Qualitative data related to the impact of the action: the openness of the citizens to use the public transport instead of personal car, the involvement of the municipality employees etc.

Decision-makers involved in the action

- **Gabriel Pleșa** - Mayor
- **Marius Filimon** - Deputy Mayor
- **Emil Popescu** - Deputy Mayor
- **Lucian Morgovan** - City Manager
- **Maria Seemann** - Public Manager
- **Crina Dumitrescu** - Director, Programs Directorate
- **Daniel Stan** - Executive Director, Technical and Development Directorate
- **Claudiu Nemeș** - Executive Director, Public and Private Domain Maintenance and Administration Directorate
- **Călin Badiu** - Executive Director, Revenue Directorate
- **Monica Dicoi** - General Director, Education and Nurseries Directorate
- **Alexandru Nicola** - Head of the Public Community Service for Cadastre and Agriculture
- **Claudia Cânța** - Head of the Investments and Public Works Service
- **Constantin Joldeș** - Head of the Control and Inspection Service, General Directorate of Local Police of Alba Iulia
- **Gheorghe Edveș** - Head of the Public Utilities and Public Buildings Maintenance Service
- **Florin Magda** - Head of the Contracts and Patrimony Service
- **Olga Hașegan** - Head of the Programs and Social Services Service, Social Assistance Directorate

6. Alba Iulia
Green city vision

Alba Iulia envisions a transformative green transition, positioning itself as a leader in sustainability and innovation while aligning with local and EU urban policies. By developing greener transport corridors, the city aims to promote sustainable mobility, stimulate economic growth, enhance the quality of life for its residents, and strengthen its competitiveness as a benchmark for sustainable urban development.

Integration of URBACT Good Practices and Transnational Learning

Through its active participation in the URBACT EcoCore project, Alba Iulia consolidated its experience in sustainable industrial transformation and circular innovation. The city drew valuable lessons from the transnational exchange between partner cities — Balbriggan, Villena, Pärnu, Ormož, Dubrovnik, Kekava, Santo Tirso, and Tuusula — adapting each partner's strengths to the local context of the city and the AIDA metropolitan area.

This knowledge transfer strengthened the strategic, spatial, and participatory dimensions of Alba Iulia's Integrated Action Plan, contributing to new approaches in mobility, energy efficiency, governance, and inclusive growth.

Learning from Balbriggan (Ireland)

As lead partner, Balbriggan offered Alba Iulia a strong reference model for how to combine investment readiness, community participation, and green transition within a single strategic framework. Balbriggan's method of establishing a multi-actor Urban Local Group (ULG) inspired Alba Iulia to reinforce cross-sector collaboration — engaging local authorities, universities, business associations, NGOs, and citizens.
The Irish partner also emphasized the importance of spatial planning linked to economic promotion. Balbriggan's preparation of "investment-ready" industrial land and its integration within the Dublin–Belfast corridor informed Alba Iulia's approach to pre-feasibility, infrastructure design, and branding of its Green Industrial Zone within the AIDA-TL metropolitan framework. Finally, Balbriggan's commitment to social inclusion and gender equality in green transition influenced Alba Iulia's IAP principles, prompting the integration of actions that promote equitable access to employment, skills, and entrepreneurship opportunities in the sustainable economy.

Villena (Spain)
Villena demonstrated how sustainability and regional positioning can reinforce one another. Its model for green logistics and business hubs guided Alba Iulia's planning for a clean industrial ecosystem, linking renewable energy and circular design. Villena's success in branding sustainability as a competitive advantage inspired Alba Iulia's communication strategy for the industrial park.

Parnu (Estonia)
Pärnu's example of triple-helix governance showed how to organize cooperation between public authorities, private sector, and academia. Alba Iulia applied this approach through its Urban Local Group, integrating universities and businesses into local innovation actions, and embedding lifelong learning on sustainability and digitalization.

Ormož (Slovenia)
Ormož provided a tangible example of integrating cycling and walking infrastructure with economic and environmental goals. Its success motivated Alba Iulia to propose a city-wide bikesharing network, linked to the digital Mobility Dispatch Center, encouraging modal shift and reducing carbon emissions.

Dubrovnik (Croatia)
Dubrovnik's framework for energy-efficient business zones helped Alba Iulia define the technical parameters for sustainable industrial areas: smart buildings, renewable energy integration, and circular waste management. The Croatian example also reinforced the importance of green public spaces and human-scale design to enhance investor attractiveness.

Kekava (Latvia)
Kekava's industrial symbiosis model demonstrated the benefits of cooperation between enterprises to share resources and reduce waste. This inspired Alba Iulia to include pilot measures for resource efficiency and circular partnerships between companies in its industrial park — aligning with EU Green Deal and regional circular economy goals.

Santo Tirso (Portugal)
Santo Tirso emphasized the value of infrastructure readiness for attracting sustainable investment. Its approach to combining spatial planning with early utilities and environmental standards informed Alba Iulia's investment roadmap and feasibility studies for its industrial development zone.

Tuusula (Finland)

Tuusula's participation in the Helsinki Ring of Industry offered Alba Iulia a practical example of how regional cooperation and joint branding can enhance competitiveness and sustainability. By sharing marketing resources, infrastructure data, and investor outreach, Finnish municipalities built a unified platform to attract green investment while maintaining high environmental standards.

Inspired by this model, Alba Iulia has worked to strengthen partnerships within the AIDA Metropolitan Area, aligning mobility, energy, and industrial development strategies with neighboring municipalities. This cooperative approach now underpins Alba Iulia's goal of promoting the AIDA-TL region as a Green Growth Corridor — a shared identity and investment destination that combines innovation, sustainability, and regional resilience.

7. STRATEGIC Objectives

7.1 Specific objectives

01

Optimizing traffic flow by implementing smart traffic lights solutions and real-time mobility monitoring, starting 2025

Create a digital platform that monitors and optimizes traffic flow and promotes low-emission transportation options, to reduce urban transport emissions by 20% until 2030.

Implement real-time traffic management and adaptive traffic lights control, to reduce by 15% the mobility efficiency in Alba Iulia by 2030.

Increase by 70% the public green transport by acquiring more electric busses, enhancing accessibility, and optimizing transport routes by 2030.

Expand the cycling lanes with 15km and create at least 5 public awareness campaigns to promote the usage of bikes in the city, by 2030.

Increase the adoption of low-emission transport means by providing at least three types of public incentives (e.g., financial subsidies, tax reductions) by 2030, leading to a measurable reduction of at least 20% in CO2 emissions.

30% increasing of EVs charging stations by 2030.

02

Promoting the sustainable transport by increasing the number of bike lanes, charging stations for electric vehicles, and other green infrastructure to significantly reduce transport-related emissions by 2030

03

Developing future urban projects to incorporate sustainable transport principles, and to promote greener and healthier commercial areas, by 2030

100% of new urban development projects initiated by 2030 incorporate sustainable transport principles, such as public transit accessibility, cycling infrastructure, and pedestrian-friendly designs.

Transform at least 50% of existing commercial areas into greener and healthier environments by 2030 through measures like expanded green spaces, improved air quality standards, and low-emission zones.

5 public yearly campaigns to engage residents and businesses in adopting and supporting sustainable transport and greener urban commercial spaces, achieving a 30% increase in public participation by 2030.

Launch at least three pilot projects in collaboration with local businesses, NGOs, and institutions by 2027 to implement and test innovative sustainable freight solutions, such as eco-friendly delivery vehicles.

Organize 5 training sessions for stakeholders starting in 2025 to raise awareness and build capacity on sustainable freight practices, targeting a 30% increase in stakeholder engagement by 2030.

Develop and implement a policy framework by 2026 that includes incentives for businesses adopting sustainable freight solutions, aiming for a 25% reduction in emissions from urban freight operations by 2030.

04

Expanding the collaboration with local businesses, NGOs, and institutions to promote sustainable freight solutions for a greener urban mobility network, starting 2025

05

Establish a designated sustainable development hub in Alba Iulia by 2030, integrating advanced logistics infrastructure, tailored support services, and eco-friendly practices to foster local business growth, attract investment, and strengthen the city's business ecosystem.

Construct and operationalize a logistics and business support center within the sustainable development hub by 2030, providing essential facilities such as co-working spaces, storage solutions, and access to green energy.

Create at least 3 tailored programs by 2030 to promote the hub, and to support local SMEs, including training sessions, financial incentives, and mentorship opportunities to enhance their competitiveness and sustainability.

100% of businesses operating within the development hub adopt at least two sustainable practices, such as waste reduction, energy efficiency, or green transportation, starting 2030.

Alba Iulia is committed to **shaping a greener, more efficient, and connected future** through a series of transformative objectives aimed at sustainable mobility and urban development. Starting in 2025, the city will implement advanced smart traffic light systems and real-time mobility monitoring tools to optimize traffic flow and reduce congestion. These technologies, powered by artificial intelligence and real-time data, will enhance safety and efficiency for all road users.

By 2030, Alba Iulia seeks to significantly **reduce transport-related emissions through investments in green infrastructure**. The city plans to expand its network of bike lanes, increase the number of charging stations for electric vehicles, and introduce eco-friendly urban spaces to encourage sustainable transportation. Future urban development projects will integrate sustainable transport principles, focusing on creating greener, pedestrian-friendly commercial areas that enhance both environmental preservation and the quality of life for residents.

To further promote sustainability, Alba Iulia will collaborate with local businesses, NGOs, and institutions starting in 2025 to **develop innovative freight solutions that minimize environmental impact**. These partnerships aim to establish a greener urban mobility network, benefiting both the economy and the environment.

By 2030, the city plans to create a **designated sustainable development hub**, designed to drive local business growth and attract investment. This hub will incorporate advanced logistics infrastructure, tailored support services, and eco-friendly practices, positioning Alba Iulia as a leader in sustainable urban development. It will serve as a focal point for fostering innovation, promoting a circular economy, and strengthening the city’s business ecosystem.

Through these initiatives, Alba Iulia is building a sustainable and smart future, where collaboration, technology, and green infrastructure work together to create a cleaner, healthier, and more prosperous city for all.

8. High level Actions&Funding

OB1: Optimizing traffic flow by implementing smart traffic lights solutions and real-time mobility monitoring, starting 2025						
SP1: Create a digital platform that monitors and optimizes traffic flow and promotes low-emission transportation options, to reduce urban transport emissions by 20% until 2030.						
Action	**Result**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Design and implement a digital platform by 2026 that integrates AI and IoT technologies to monitor real-time traffic flow, identify congestion points, and provide actionable insights for optimising urban mobility.	A continuos monitoring of the traffic in real time by creating a digital platform to engulf data capable of generating scenarios and rapid interventions	Project submitted to (Regional Funds): 500.000 euro	Alba Iulia Municipality	10 horizontal partners: all the public authorities in the metropolitan area (FUA) Private operators	2026-2027	28 people trained to use digital solutions. A data visualization platform, intuitive and user-friendly. A solution to optimize response times to accidents and improve the readiness of first response teams, using Artificial Intelligence (Intelligent Emergency Response). A solution for traffic monitoring and analysis of vehicle and pedestrian flow, using Artificial Intelligence (Traffic Flow Intelligence).
Deploy an integrated tracking system by 2028 within the platform to measure and report on urban transport emissions, ensuring progress towards achieving a 20% reduction by 2030.	An integrated monitoring system for urban transport emissions	ERDF est. 500.000 euro	Alba Iulia Municipality	Private operators in the transport sector. Technology providers for emissions monitoring and reporting. Local environmental agencies.	2028-2029	The existing digital platform, expanded with an emissions monitoring and reporting module. Data on urban transport emissions and mobility patterns

OB1: Optimizing traffic flow by implementing smart traffic lights solutions and real-time mobility monitoring, starting 2025						
SP2: Implement real-time traffic management and adaptive traffic lights control, to reduce by 15% the mobility efficiency in Alba Iulia by 2030.						
Action	**Result**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Deploy adaptive traffic lights systems at 5 key intersections across Alba Iulia by 2027, equipped with sensors and AI algorithms to adjust signal timings based on real-time traffic conditions.	5 key intersections in Alba Iulia equipped with adaptive traffic light systems	ERDF funds + local budget, est. 500.000 euro	Alba Iulia Municipality	Private operators responsible for traffic light infrastructure. Providers of AI technologies and traffic sensors.	2027-2028	Adaptive traffic light systems equipped with sensors and AI. Real-time traffic flow data from the targeted intersections. The existing digital platform for traffic data integration.

OB1: Optimizing traffic flow by implementing smart traffic lights solutions and real-time mobility monitoring, starting 2025						
SP3: Increase by 70% the public green transport by acquiring more electric busses, enhancing accessibility, and optimizing transport routes by 2030.						
Action	**Results**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Acquire and deploy at least 40 new electric buses by 2027, ensuring they are equipped with modern amenities and meet sustainability standards to increase the capacity of public green transport in Alba Iulia.	A network of 40 electric buses deployed into operation.	National Resilience and Recovery Plan funds: 14 mil. Euro. Project submitted, fund secured	Alba Iulia Municipality	Electric bus manufacturers. Suppliers of electric charging infrastructure. Regional and national authorities (for funding and regulations). Local public transport operators. Local community (for feedback and adoption).	2025-2026	27 electric busses Optimisation of the bus routes 28 Charging stations
Upgrade 100% of public transport infrastructure, including bus stops and terminals, by 2026 to improve accessibility for all users, with a focus on individuals with disabilities and those in underserved areas.	1 transport infrastructure 100% modernised	ERDF 46 mil. Euros secured	Alba Iulia Municipality	Public transport operators in Alba Iulia. Suppliers of accessibility equipment and technologies. Local and regional authorities. Support organisations for people with disabilities. Funding programs for urban infrastructure (e.g., Region Center Program, PNRR).	2020-2026	Modernised public transport infrastructure Accessible equipment and facilities (e.g., ramps, signage adapted for people with disabilities). Data on public transport usage and community needs.

OB2: Promoting the sustainable transport by increasing the number of bike lanes, charging stations for electric vehicles, and other green infrastructure to significantly reduce transport-related emissions by 2030						
SP1: Expand the cycling lanes by 17km and create at least 5 public awareness campaigns to promote the usage of bikes in the city, by 2030.						
Action	**Results**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Construct 17km of dedicated cycling lanes across key urban areas by 2030, ensuring safe and accessible routes for cyclists, including connections to major public transport hubs.	17 km of dedicated cycling lanes	National Resilience Plan funds. Estimation: 5 mil euros.	Alba Iulia Municipality	Providers of design and construction services. Local and regional authorities. Cycling organisations and associations. Local community (for consultation and usage). Public transport operators (for integration with transport hubs).	2026-2030	The new cycling infrastructure Reduction of CO_2 emissions Increase in the use of bicycles for daily mobility, Improvement of road safety
Introduce a city-wide bike-sharing program by 2028, with strategically placed stations across urban areas to encourage residents to adopt cycling as a sustainable mode of transport.	1 city-wide bike-sharing system	ERDF funds. Already secured and included in the mobility project Alba Iulia implemented	Alba Iulia Municipality	Providers of bicycles and bike-sharing infrastructure. Regional and national authorities (for co-financing and regulation). Private companies interested in public-private partnerships. Local cycling and urban mobility organisations. Local community (for usage and feedback).	2020-2028	Bicycles for the bike-sharing program (including electric options). Strategically placed bike-sharing stations equipped with adequate infrastructure (e.g., racks, charging for electric bikes). Digital system for managing and monitoring bike usage. Promotion and awareness campaigns to encourage cycling adoption.

OB2: Promoting the sustainable transport by increasing the number of bike lanes, charging stations for electric vehicles, and other green infrastructure to significantly reduce transport-related emissions by 2030						
SP2: Increase the adoption of low-emission transport means by providing at least three types of public incentives (e.g., financial subsidies, tax reductions) by 2030, leading to a measurable reduction of at least 20% in CO2 emissions.						
Action	**Result**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Create at least three types of public incentives, such as financial subsidies for electric vehicle purchases, tax reductions for businesses adopting low-emission transport, and subsidies for installing charging infrastructure.	1 Campaign to promote public incentives	Local budget: est. 5000 euros.	Alba Iulia Municipality	Manufacturers and dealers of electric vehicles. Suppliers of electric charging infrastructure. Local companies interested in low-emission transport. Local community (for participation and feedback).	2026-2030	3 types of public incentives Legislative framework and public policies for implementing incentives. Partnerships with the private sector for charging infrastructure. Awareness and promotion campaigns for the incentives Public budget for financial subsidies and fiscal incentives.
Launch a public awareness campaign by 2027 to educate citizens and businesses on the available incentives and the environmental benefits of low-emission transport options, aiming to increase participation in the incentive program by 30% by 2030.	At least 15% of Engaged citizens within the city	Local budget est. 2000 euros	Alba Iulia Municipality	Public transport company Taxi private companies	2024-2030	Adoption of sustainable mobility ways Rising awareness related to the safety and rapid mobility by walking and biking.

OB2: Promoting the sustainable transport by increasing the number of bike lanes, charging stations for electric vehicles, and other green infrastructure to significantly reduce transport-related emissions by 2030						
SP3: 30% increase in EVs charging stations by 2030.						
Action	**Results**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Develop and implement a detailed plan by 2026 to increase the number of electric vehicle (EV) charging stations by 30%, focusing on high-traffic areas, commercial zones, and residential neighbourhoods to ensure broad accessibility across the city.	Increase of the number of electric vehicle (EV) charging stations by 30% 1 city-wide bike-sharing system	Funding from public, European, or public-private partnership sources. One resource for funds can be the Interreg Europe Programme.	Alba Iulia Municipality	Providers of bicycles and bike-sharing infrastructure. Regional and national authorities (for co-financing and regulation). Private companies interested in public-private partnerships. Local cycling and urban mobility organisations. Local community (for usage and feedback).	2026-2030	A city-wide bike sharing system in place A digital system for managing and monitoring bike usage.

OB3: Developing future urban projects to incorporate sustainable transport principles, and to promote greener and healthier commercial areas, by 2030						
SP1: 100% of new urban development projects initiated by 2030 incorporate sustainable transport principles, such as public transit accessibility, cycling infrastructure, and pedestrian-friendly designs.						
Action	**Results**	**Resources**	**Lead agency**	**Key partners**	**Timescale**	**Indicators**
Develop and implement a comprehensive set of sustainability guidelines by 2025 for urban developers, ensuring all new projects include key sustainable transport principles such as integrated public transit access, cycling lanes, and pedestrian-friendly pathways.	A set of sustainability guidelines for urban developers	Local budget. Est. 10.000 euros	Alba Iulia Municipality	Urban developers and architects. Regional and national authorities (for approval and legislative support). Academic institutions and experts in sustainability and mobility. Environmental and community organisations. Local community (for feedback and adoption).	2025	Data on urban mobility needs and the impact of existing projects. Tools for monitoring the compliance of new projects with the guidelines.
Establish partnerships with at least five local businesses and relevant institutions by 2025, securing commitments for their involvement in the pilot projects, including access to necessary resources, infrastructure, and data for testing sustainable freight solutions.	2 Local Green Deals signed: "Changing the behaviour of using local means of transport in Alba Iulia" and „Data sharing framework among transport stakeholders"	Only human resources and knowledge involved in the Intelligent Cities Challenge programme	EU Commission, Intelligent Cities Challenge programme	Public Transport Company LIME Technology Network SRL FLOREA TAXI - FLOREA GRUP S.R.L. BICICLIM ASSOCIATION TECHNICAL UNIVERSITY CLUJ - NAPOCA	2023-2030	Signed LGDs

OB5: Establish a designated sustainable development hub in Alba Iulia by 2030, integrating advanced logistics infrastructure, tailored support services, and eco-friendly practices to foster local business growth, attract investment, and strengthen the city's business ecosystem

SP1: Construct and operationalize a logistics and business support center within the sustainable development hub by 2030, providing essential facilities such as co-working spaces, storage solutions, and access to green energy.

Action	Results	Resources/Assets	Lead agency	Key partners	Timescale	Indicators
Build a logistics and business support center in the industrial area of the city.	1 Logistics hub to help businesses to develop	Est. 5.000.000 euros. Funds not yet secured.	Alba Iulia Municipality	Private Sector Small businesses SMEs	2026-2030	Accomodating at least 20 SMEs in the logistics hub

9. Prioritization of Actions&Funding

Detailed core action 1

Name of the action	*Establish partnerships with at least five local businesses and relevant institutions by 2025, securing commitments for their involvement in the pilot projects, including access to necessary resources, infrastructure, and data for testing sustainable freight solutions.*
Description of the tasks for the action	- Organizing workshops with the stakeholders - Presenting the opportunity of becoming an active local actor and the benefits of being a LGD signatory - Presenting the funding opportunities both for the public and the private sector by the Regional Development Agency - Signing 2 Local Green Deal (partnerships between the local authority and private/education/NGO sector)
Link to the city's vision	Alba Iulia envisions a transformative green transition, positioning itself as a leader in sustainability and innovation while aligning with local and EU urban policies.
Area of intervention	Transport and mobility data sharing

Responsibilities			
Lead	Motivation	Partners	Role of the municipality
Alba Iulia Municipality	Aligning with EU goals in terms of green deal policies	Public Transport Company, LIME Technology Network SRL, FLOREA TAXI - FLOREA GRUP S.R.L., BICICLIM ASSOCIATION, TECHNICAL UNIVERSITY CLUJ - NAPOCA	Lead
Contact	office@apulum.ro		

Implementation timeframe: 2023-2025

Quarter	**2023**			**2024**			**2025**
Tasks	Planning of submitting an application within the Intelligent Cities Challenge programme	Preparation of the application	Approval of the application and allocation of lead expert	Workshops with the secretariat of the Intelligent Cities Challenge	Allocation of thematic experts	Working on the templates of the LGDs Meetings with the stakeholders	Signing the LGDs together with the stakeholders	Submitting the LGDs to the ICC programme platform

Costs				
Cost category	**Amount**	**Total costs**	**Resources secured**	**Needs**
Equipment	N/A	9000 euro	0	382.400 euro
Training&Monitoring	Allocated by ICC			
Staff&Operations	-			
Communication	In house			

Monitoring of delivery				
Output indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	**Risk assesment**
Creation of the data sharing framework among transport stakeholders	Data sets in place collected	Q1 2026	Q1 2026 - Q4 2028	- Low community engagement (medium). Mitigation: Solid marketing awareness campaigns - Lack of specialists to work with data (medium). Mitigation: contracting external expertise
Changing behaviour towards local urban mobility	Number of public campaigns	Q2 2026	Q2 2026 - Q4 2030	
Result indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	
Number of public information campaigns Percentage of eco-friendly mobility from 41% in 2021 to 50% in 2030	Monitoring the number and the quality of the campaigns	Q1 2026	Q1 2026 - Q4 2030	
Public transport users: 2021: 3.5 million - 2030: 4.5 million Reducing the number of accidents by 25% until 2030		Q1 2026	Q1 2026 - Q4 2030	

Detailed core action 2

Name of the action	*Upgrade 100% of public transport infrastructure, including bus stops and terminals, by 2026 to improve accessibility for all users, with a focus on individuals with disabilities and those in underserved areas.*							
Description of the tasks for the action	- Infrastructure workings on the main street of the city; - CO_2 reduction: 3.9% decrease in road transport emissions in the project area, through measures from Alba Iulia's Sustainable Urban Mobility Plan (public transport, pedestrian, and cycling infrastructure). - Active mobility: +28.6% cyclists and +5.4% pedestrians, supported by 11.4 km of pedestrian infrastructure, 6.5 km of bike lanes, and a new bike-sharing system. - Public transport: +18.5% passengers by 2022, through 8.9 km of bus lanes, 6.5 km of upgraded infrastructure, and 24 modernized bus stops. - Private car traffic: 6.5% reduction by 2022 via improved pedestrian and cycling paths, new bus lanes, upgraded public transport, and awareness campaigns promoting alternatives.							
Link to the city's vision	By developing greener transport corridors, the city aims to promote sustainable mobility, stimulate economic growth, enhance the quality of life for its residents, and strengthen its competitiveness as a benchmark for sustainable urban development.							
Area of intervention	All the city's main streets							
Responsibilities								
Lead	Motivation			Partners			Role of the municipality	
Alba Iulia Municipality	Poor state of the public roads and transport infrastructure			Private sector (contractors for all the workings and providers of the bikes and smart equipments)			Lead	
Contact	office@apulum.ro							
Implementation timeframe: 2020-2026								
Quarter	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	
Tasks	Approval of the projects and contracts signing	Preparation of the workings	Heavy interventions on the mains streets of the city	Heavy interventions on the mains streets of the city	Finishing the main interventions and starting the implementation of smart solutions	Smart traffic equipments and dispatch. Installation of smart bike racks	Smart bikes, smart traffic, smart surveillance	Data acquisition and processing within the mobility dispatch

Costs				
Cost category	**Amount**	**Total costs**	**Resources secured**	**Needs**
Equipment	2.680.000 euro	46.476.747,00 euro	46.476.747,00 euro	0
Training&Monitoring	43.785.747 euro			
Staff&Operations				
Communication	11.000 euro			

Monitoring of delivery				
Output indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	**Risk assesment**
7,4% reducing of CO2	Air quality monitoring	Q4 2025	Q1 2026 - Q4 2030	- Low engagement (medium) in adoption public transport. Mitigation: Awareness campaigns dedicated to the usefulness of using public transport compared to personal car (time spent in traffic, parking costs, security etc.) - Lack of specialists to work with data (medium). Mitigation: training the personnel of the dispatch
11.9% reduction in the use of private cars	Traffic flow monitoring by the dispatch	Q2 2025	Q2 2025 - Q4 2030	
26,4% increase public transport passengers	Data acquisition from the STP public transport operator	Q2 2026	Q2 2026 - Q4 2030	
Result indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	
Better air quality	Air quality monitor provided by the national environment agency	Q4 2025	Q1 2026 - Q4 2030	
Reduction of the numbers of private cars in the traffic and increase the public transport passengers	Data provided by STP	Q4 2025	Q1 2026 - Q4 2030	

Detailed core action 3

Name of the action	*Launch a public awareness campaign by 2027 to educate citizens and businesses on the available incentives and the environmental benefits of low-emission transport options, aiming to increase participation in the incentive program by 30% by 2030.*				
Description of the tasks for the action	– Design and implement an integrated communication campaign (print, digital, social media, local radio/TV). – Create and distribute informative materials on available public incentives for electric and hybrid vehicles. – Organize local information events and workshops targeting citizens, companies, and taxi operators. – Collaborate with schools and universities to promote awareness on low-emission transport. – Evaluate campaign impact through surveys, participation metrics, and feedback forms.				
Link to the city's vision	By strengthening awareness and public understanding of green incentives, Alba Iulia advances its vision of a Green City where sustainability and innovation guide citizens' choices, supporting decarbonized, accessible, and inclusive mobility.				
Area of intervention	Sustainable transport – Awareness and behavior change campaigns.				
Responsibilities					
Lead	Motivation	Partners	Role of the municipality		
Alba Iulia Municipality	To increase participation in low-emission mobility programs and align with EU Green Deal communication objectives.	Local public transport company, local media, schools, universities, NGOs (ALEA, IRCEM), private sector (EV suppliers, taxi companies).	Coordination, funding, monitoring, and ensuring campaign alignment with mobility policies.		
Contact	office@apulum.ro				
Implementation timeframe: 2020-2030					
Quarter	**2026**	**2027**	**2028**	**2029**	**2030**
Tasks	Planning, partnership setup	Launch of the awareness campaign	Campaign continuation and media monitoring	Impact evaluation and reinforcement actions	Final reporting and dissemination of results

Costs				
Cost category	**Amount**	**Total costs**	**Resources secured**	**Needs**
Communication & Media Production	10,000 euro	16,000 euro	0 euro	16,000 euro (Interreg, URBACT, Local budget)
Staff & Operations	4,000 euro			
Training & Monitoring	2,000 euro			

Monitoring of delivery				
Output indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	**Risk assesment**
Number of information events organized	Events reports and participant lists	Q2 2026	Q2 2026 – Q4 2028	Low attendance – increase media partnerships.
Number of citizens reached via media and social channels	Traffic flow monitoring by the dispatch	Q3 2027	Q3 2027 – Q4 2029	Medium engagement – targeted social ads and influencer outreach.
Result indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	
+30 % increase in participation in incentive program	Municipal registry and application data	Q1 2028	Q1 2026 - Q4 2030	
Increased awareness about low-emission mobility (survey-based)	Pre- and post-campaign citizen survey	Q1 2028	Q1 2026 - Q4 2030	

Detailed core action 4

Name of the action	*Introduce a city-wide bikesharing program by 2025, with strategically placed stations across urban areas to encourage residents to adopt cycling as a sustainable mode of transport.*			
Description of the tasks for the action	– Develop the operational and financial plan for the bikesharing program, including the public–private partnership model. – Identify and secure locations for bikesharing stations, prioritizing proximity to public transport hubs, universities, and residential areas. – Procure and install docking stations and smart bicycles (electric and mechanical). – Integrate the bikesharing service within the existing urban mobility platform and dispatch center. – Promote the service through awareness campaigns and community engagement events. – Monitor usage data and user satisfaction to optimize station placement and service quality.			
Link to the city's vision	The bikesharing program supports Alba Iulia's vision of becoming a Green and Smart City by improving sustainable mobility options, reducing CO_2 emissions, and promoting a healthy, active lifestyle among residents.			
Area of intervention	Urban mobility and sustainable transport infrastructure.			
Responsibilities				
Lead	Motivation	Partners	Role of the municipality	
Alba Iulia Municipality	To expand green mobility options and reduce short-distance car trips.	Regional Development Agency Centru, local transport company, private operators providing bikesharing technology, local NGOs (BICICLIM), and local universities.	Project coordination, infrastructure facilitation, awareness promotion, and ensuring data integration into the urban mobility dispatch system.	
Contact	office@apulum.ro			
Implementation timeframe: 2020-2028				
Quarter	**(Mobility projects started in 2020) 2025**	**2026**	**2027**	**2028**
Tasks	Implementing the bike racks all over the city, installation of bikes, app	Launch an awareness campaign	Campaign continuation and media monitoring	Impact assesment, final reporting and dissemination of results

Costs				
Cost category	**Amount**	**Total costs**	**Resources secured**	**Needs**
Implementarion of bike racks, 300 purchased bikes, app and digital system implementation, Staff & Operations Training & Monitoring	2,2 mil. euro	2,2 mil. euro	2,2 mil. euro	0

Monitoring of delivery				
Output indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	**Risk assesment**
Number of operational bikesharing stations installed across the city.	Operator installation logs, GIS inventory, photo documentation, acceptance reports	Q2 2025	Q2 2025 – Q1 2026	Low adoption rate: Mitigate through marketing, integration with public transport, and free trial campaigns. Maintenance and vandalism risks: Reduce via public–private service contract with clear maintenance clauses.
Number of bicycles available for public use (including electric bikes).	Monthly operator asset reports; API export from fleet management system	Q1 2026	Q1 2026 – Q4 2028	
Result indicator	**Mechanism of monitoring**	**Starting**	**Timeline**	
+20% increase in bicycle usage for daily mobility by 2030	Automated bike counters on key corridors; app/OTP usage analytics; annual mobility survey	Q1 2026	Q1 2026 - Q4 2030	
–5% reduction in CO_2 from short-distance trips by 2030	Emissions model based on modal shift (vkt replacement), trip length data, dispatch analytics	Q1 2026	Q1 2026 - Q4 2030	

Monitoring and Evaluation Framework

The implementation of the IAP will be supported by a clear monitoring and evaluation framework, structured in two stages:

Mid-point evaluation (2026–2027): focus on implementation progress, including the number of electric buses deployed, kilometers of cycling lanes completed, new charging stations installed, number of awareness campaigns conducted, and stakeholder participation in Local Green Deals. Adjustments will be introduced based on mid-term findings.

End-point/ex-post evaluation (2030): assess the overall impact of the actions on CO_2 emissions, modal shift, public transport ridership, adoption of low-emission transport, and establishment of the sustainable development hub.

Each action will include specific output, outcome, and impact indicators, such as:

Outputs: km of cycling lanes, number of electric buses, number of charging stations, SMEs supported.

Outcomes: % reduction in CO_2 emissions, % increase in sustainable transport usage, % increase in public transport ridership.

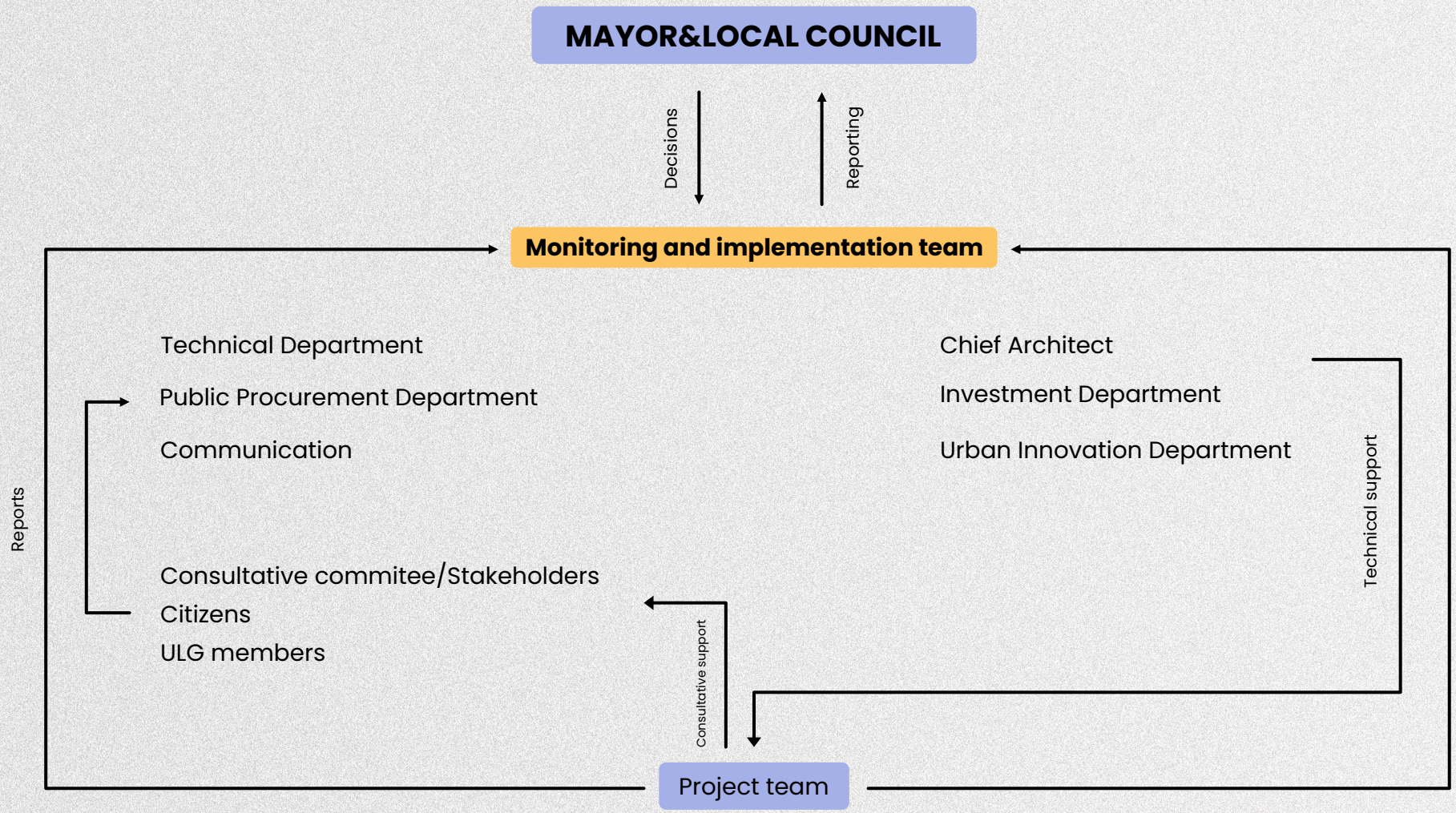
Impacts: improved air quality, reduced congestion, improved accessibility, enhanced quality of life.

The Municipality of Alba Iulia will take the lead in coordinating the overall monitoring and evaluation process, ensuring that all actions are implemented according to the agreed timeline and objectives. This coordination role will be supported by the Urban Innovation Department, which will manage the technical aspects of data collection and reporting. In addition, academic institutions will contribute with research expertise and independent evaluation, private sector stakeholders will provide practical insights and data from implementation on the ground, while NGO partners will play a crucial role in community engagement, awareness-raising, and independent oversight. Together, this multi-actor partnership will ensure transparent, reliable, and comprehensive monitoring of the IAP's progress and impacts.

Funding Strategy (relevant examples)

Action / Measure	Estimated Cost (€)	Funding Source(s)	Secured	Gap
Electric buses	14 mil. €	PNRR	✅ Secured	-
Rehab. of mobility infrastructure	46 mil. €	ERDF (Reg. Centru)	✅ Secured	-
Bike-sharing smart system	2,2 mil. €	ERDF	✅ Secured	-
17 km cycling lanes	5 mil. €	PNRR (Mobility), Local budget	⏳ Pending	€5M
Digital platform & mobility dispatch	1 mil. €	ERDF + Local Budget	⏳ Partial	€0.5M
EV charging stations expansion (+30%)	2 mil. €	PPP, LIFE, Interreg	❌ Not secured	€2M
Logistics&Business support hub	5 mil. €	Horizon, CEF, PPP	❌ Not secured	€5M

10. **Governance** of the implementation and role of ULG



11. Risk assesment

Risk	Risk type	Classification of risk	Reduction/Mitigation actions
Lack of political support	Operational	Low	Communication and cooperation with the Mayor and City Council
Lack of budget	Financial	Medium	Access EU funds and governmental funding opportunities
Technical problems	Operational	Medium	Realising feasability studies
Lack of human resources (staff)	HR/Operational	High	Engage more contractuals
Low interest of ULG members	Operational	Medium	Engaging ULG members in other initiatives of the municipality
Delays in the implementation of the actions	Operational/Financial	High	Accelerating the documentation phase Using local budget for the preparations of the actions

12. GANNT - timescale for the High level actions&Monitoring

Action/Measure	2025	2026	2027	2028	2029	2030
Electric busses (27)	Procurement ►	27 busses	Routes optimisation	Monitoring	-	Final evaluation 🔎
Cycling lanes (17km)	Planning	8km	9km	-	-	Final evaluation 🔎
Digital platform and dispatch	Procurement&Testing ►	Live - in action ✅	Extended ✅	Monitoring	-	Final evaluation 🔎
EV Charging (+30%)	Planning	Deployment phase 1	Deployment phase 2	Expansion	-	Final evaluation 🔎
Logistics Hub	Feasibility study ►	Funding application	Construction phase 1	Construction phase 1	Operational pilot	Full operation 🔎
Local Green Deals	6 LGDs signed ✅	Stakeholders expansion	Funding secured	Implementation phases	Scaling	Final evaluation 🔎

ALBA IULIA MUNICIPALITY – ECOCORE PROJECT

Integrated Action Plan

Elaborated by:
Alba Iulia Municipality
2025

URBACT

Co-funded by the European Union
Interreg

The EcoCore Project
Green Transition in Small Cities along Transport Corridors

theother capital
ALBA IULIA