



IN4GREEN

Greener Industrial Cities
Greener Industrial Cities



INTEGRATED ACTION PLAN

**MUNICIPALITY OF
LARISSA**

IN4GREEN

URBACT



Co-funded by
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TABLE OF CONTENTS

SECTION 1: Context, Needs and Vision	3
Green Transition in European Industrial Cities.....	3
Current Situation in My City	4
Population Statistics, Demography & Education	4
Industrial/Economic Composition, Employment Statistics	5
Social Challenges and Inequality, Access to Services	5
Existing Strategies and Policies.....	8
Sustainable Urban Mobility Plan (SUMP)	10
Sustainable Urban Development Strategy (SUD)	10
Sustainable Energy and Climate Action Plan (SECAP)	11
Electric Vehicle Charging Plan (EVCP).....	11
Problem Identification.....	11
Main Integration Challenges	14
Testing Action - World Café Workshop.....	14
SECTION 2: Overall Logic and Integrated Approach	16
Overall Vision.....	16
Challenging Areas & Specific Objectives	16
Actions.....	17
Integration Approach	19
SECTION 3: Action Planning Details.....	20
SECTION 4: Implementation Framework.....	33
Governance	33
Ongoing Stakeholders Engagement	35
Overall Costings and Funding Strategy.....	36
Overall Timeline	38
Risk Assessment	41
Monitoring & Reporting	45
Conclusion.....	46

SECTION 1: Context, Needs and Vision

Green Transition in European Industrial Cities

The URBACT In4Green network aims to empower and build the capacity of local actors in industrial areas to overcome the barriers that prevent the transition to greener economies while remaining competitive and inclusive cities.

The overall challenge that the In4Green network wants to address is the green transition in small and medium-sized European cities with an industrial past.

The green transition in industrial cities is a major challenge. These areas face obstacles to adopting more sustainable practices due to their dependence on traditional industry and lack of resources. However, it is crucial to include these cities in the transformation towards a greener economy. They contribute significantly to the economic development of their territories and represent an important part of EU employment and GDP.

The green transition can be an opportunity to revitalise these areas, improve the quality of life of inhabitants and reduce pollution. To achieve this, public authorities need to be empowered and industrial actors need to be trained.

It is also essential to involve all stakeholders and civil society in the development and implementation of local green transition policies.

Collaboration and networking are key to overcoming challenges and moving towards a more sustainable future. Modernising industries and improving urban management are key elements in this process. Only through the joint efforts of all actors involved will we be able to lead the transformation towards a more efficient and environmentally friendly economy, improving the quality of life of our communities.

In short, the green transition in industrial cities is essential to achieve sustainable development. Despite the challenges, these areas have much to gain by adopting more sustainable practices and promoting innovation. Working together, we can drive positive change and make these cities examples of success in the transition to a greener economy.

Current Situation in My City

This section provides an overview of the current socioeconomic and environmental conditions in Larissa. It highlights key demographic trends, economic activities, infrastructure, and sustainability initiatives that shape the city's development. Understanding these factors is essential for identifying challenges and opportunities that will inform future strategic planning and policy-making.

Population Statistics, Demography & Education

According to the 2021 census, the population of the Municipality of Larissa is estimated to be 164,095 inhabitants, making it one of the largest urban centers in central Greece. As the capital of the Thessaly region, Larissa serves as a key economic, administrative, and cultural hub, attracting residents from surrounding rural areas.

Below, the educational attainment & gender distribution as well as educational attainment (by sex) in Larissa is presented. This data provides information about the level of education among the population, highlighting gender-specific differences in educational achievement.

Table 1: Educational Attainment & Gender Distribution

Educational Attainment & Gender Distribution	
Female	Male
79,869 (48.7%)	84,226 (51.3%)

Table 2: Educational Attainment (by sex)

	Educational Attainment (by sex)	
	Female	Male
PhD/Master/University degree	17,155	16,237
Post-secondary graduates	3,958	2,787
High school graduates	27,171	31,849
Primary school graduates	18,001	14,284
Left primary school but can read and write / Completed pre-school education / Can't read and write	10,495	8,172
Unclassified (born after 1/1/2005)	6,049	6,433

Industrial/Economic Composition, Employment Statistics

Per Capita GDP: The per capita GDP for the Region of Thessaly is 13,071 euros, and for the Larissa Regional Unit, it is 14,571 euros (2019 data).

Following, the employment, unemployment and the sectoral employment in Larissa is presented. This information highlights key labor market trends, workforce participation, and sectoral distribution of employment, providing crucial insights into economic activity and labor dynamics in the city.

Table 3: Employment and Unemployment

Employment and Unemployment	
Employed	56,186
Unemployed	12,713 (18.45% unemployment rate)
Employed Women	23,377
Unemployed Women	6,069
Employed Men	39,453
Unemployed Men	6,644

Table 4: Sectoral Employment

	Sectoral Employment	
	Female	Male
Public Sector	6,801	7,794
Private Sector	11,925	18,010

Larissa has a relatively strong economic performance compared to the Thessaly Region as a whole, evidenced by a higher per capita GDP. However, there are significant challenges reflected in the high unemployment rate. While the number of employed individuals is substantial, there remains a notable disparity between men and women in both the public and private sectors, indicating potential gender-related disparities in employment opportunities or access.

Social Challenges and Inequality, Access to Services

The social challenges of Larissa are varied and include long-term planning of projects and urban development, addressing the everyday needs of the city and its citizens, maintaining the urban

environment and infrastructure, providing assistance to vulnerable members of the local society, operating cultural spaces, and organizing events. Furthermore, there is a need for cooperation with different local bodies and the everyday operation of the city administration. A crucial aspect of addressing these challenges is the engagement of local stakeholders from the industrial area in the goal of the green transition. By fostering strong collaboration between the municipality and local businesses, Larissa aims to enhance communication and cooperation, which are essential for creating a more sustainable and competitive local economy. This involves integrating green practices and technologies in industrial operations, promoting environmentally friendly transportation options, and ensuring that economic growth is inclusive and sustainable.

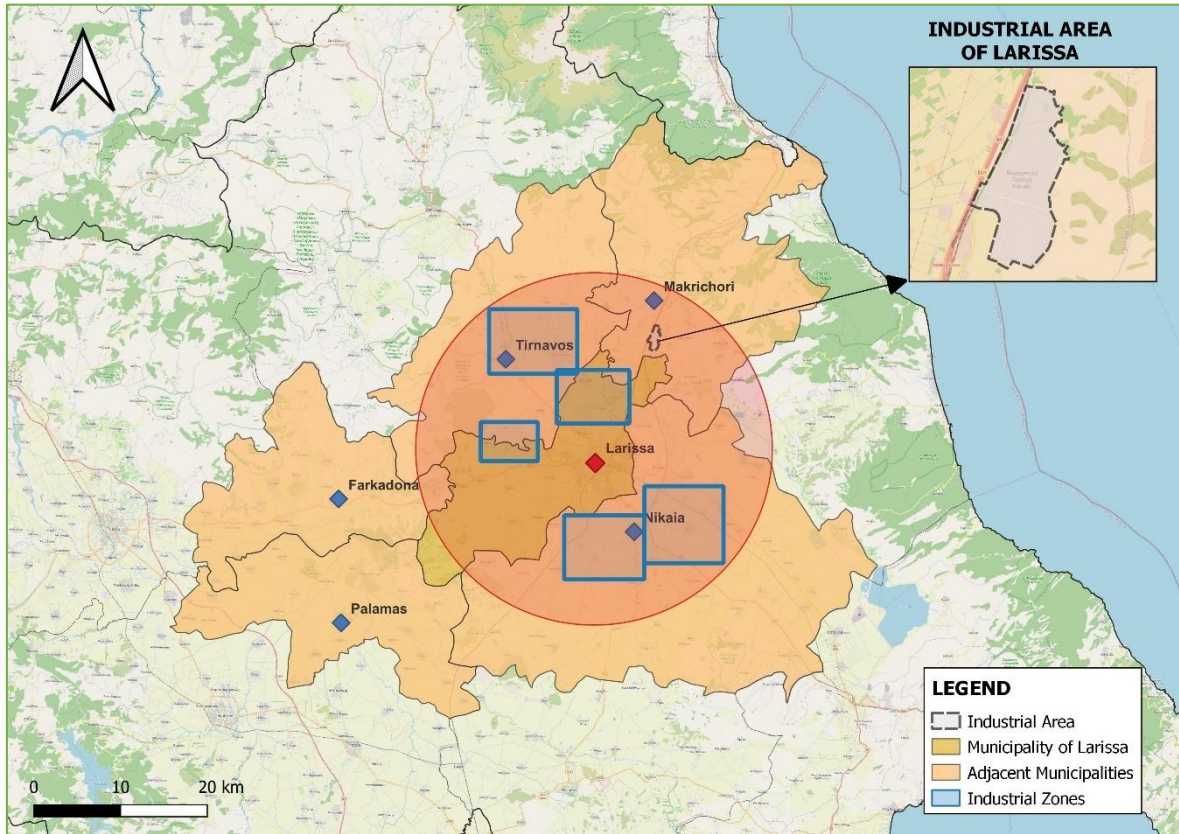
Location, territorial

The Municipality of Larissa covers an area of 335.12 square kilometers and it is located in the center of the Region of Thessaly. Larissa is the largest city in Central Greece in terms of area and population. It is the capital of both the Larissa Regional Unit and the Region of Thessaly. The city of Larissa holds a position of significant economic importance along the PATHE road axis (Patras – Athens – Thessaloniki – Evzoni), which connects the two major urban centers of Athens and Thessaloniki (northern and southern Greece). Additionally, it is situated on Greece's main railway axis and is connected by road to the western part of the country (Epirus). Larissa serves as a first-level settlement and is one of the most important urban centers in the country. These characteristics make it one of the most dynamic urban areas due to its geographical location.

The city of Larissa is surrounded by municipal units with predominantly agricultural land use, which lend a distinctly rural character to the city's outskirts and reinforce its connection to the region's farming tradition.

Air quality, CO2 emissions context

Figure 1: Functional Urban Area of Larissa and Surrounding Industrial Zones



The pollution of the atmospheric environment in the wider area of Larissa is caused by human activities, including urban, industrial, and productive activities. Significant industrial concentrations have developed around the city of Larissa, especially along national roads and in the Industrial Area. The household sector emerges as a significant consumer, reflecting the energy demands of residential areas. Additionally, the tertiary sector, encompassing commercial and service industries, demonstrates substantial energy consumption, underscoring the importance of these sectors in the local economy. Municipal infrastructure and school facilities also represent notable energy consumers, highlighting the energy requirements for public services and education. Efforts to improve energy efficiency across these sectors, particularly in households and transportation, could yield significant benefits in terms of sustainability and environmental impact reduction for Larissa.

Existing Strategies and Policies

At the European level, the **Pact of Amsterdam**, which establishes the **Urban Agenda for the European Union**, does not mention industry directly. However, many priority themes are linked to the industrial sector, in fact most of them are: Air quality, Circular economy, Jobs and skills in the local economy, Energy transition, Sustainable use of land and Nature-Based solutions, Urban mobility, and Digital transition.

The **European Union Cohesion Policy** is a set of funds aimed at supporting regional development and economic cohesion in the EU Member States. The policy is based on the principle that all EU citizens, regardless of where they live, should have access to the same economic and social opportunities.

Cohesion policy has been used to support a wide range of industry-related projects, including:

- The construction of industrial infrastructure, such as factories, ports and airports.
- Funding for industrial research and development.
- Supporting industrial innovation.
- Promotion of industrial cooperation between European companies.
- Helping small and medium-sized enterprises (SMEs) to access financial markets and technical assistance.

Cohesion Policy has had a positive impact on the EU's industrial sector. It has helped to create new jobs, increase investment and improve the competitiveness of European companies. Cohesion Policy has also helped to reduce regional disparities in the EU by providing stronger support to regions lagging behind.

Today, Cohesion Policy is being reoriented to focus on the challenges of the green and digital economy. The policy is being used to support European businesses to adapt to the transition to a more sustainable and digital economy. Cohesion Policy is also being used to support European regions most affected by the COVID-19 pandemic.

The **European Green Deal** is a European Union policy initiative that aims to **make the EU the first climate-neutral continent by 2050**. The Green Deal focuses on a number of areas, including energy, mobility, agriculture and industry. In the field of industry, the Green Deal sets out a number of targets, including:

- Reduce greenhouse gas emissions from industry by 40% by 2030 and 80% by 2050.

- Promote the development of clean and innovative technologies in industry.
- Increase energy efficiency in industry.
- Reduce the EU's dependence on fossil fuels.
- Create new jobs in green industry.

The Green Deal is an ambitious initiative, but it is necessary to tackle climate change and to ensure a sustainable future for the EU. Industry has a key role to play in the transition to a greener economy, and the Green Deal offers a number of opportunities for European industry to become a world leader in clean and innovative technologies. In this framework, the European Commission updated the **EU Industrial Strategy** in 2022 to ensure that its industrial ambition takes full account of the new circumstances following the COVID-19 crisis and helps drive the transformation towards a more sustainable, digital, resilient and globally competitive economy.

Small and medium-sized enterprises (SMEs), as the main innovation actors in the different ecosystems, must be taken into account in all actions carried out under this Strategy. This is reflected across the board in the increased focus on regulatory burdens for SMEs. New actions will greatly benefit SMEs and start-ups, whether through a strengthened Internal Market, reduced supply chain dependencies or accelerated green and digital transitions. The Strategy also includes some specific measures for SMEs, such as increasing resilience, tackling late payments and supporting solvency.

Across all these initiatives and policies, the European Commission has identified the following **main challenges facing European industry**:

- **The transition to a greener and digital economy**: the EU is committed to achieving climate neutrality by 2050 and to being a leading digital economy. This will imply major changes for European industry, which will need to adapt to new technologies and forms of production.
- **Competition from other regions**: European industry faces strong competition from other regions, such as China and the United States. These regions are investing heavily in research and development, enabling them to develop new technologies and products.
- **Talent shortage**: European industry faces a shortage of skilled talent. This is due to a number of factors, such as an ageing population, low scientific literacy and a lack of investment in education and training.
- **Lack of investment**: European industry faces a lack of investment. This is due to a number of factors, such as the 2008 financial crisis, legal uncertainty and lack of public funding.

Larissa has adopted and integrated these European strategies into its local policies through several key initiatives.

Sustainable Urban Mobility Plan (SUMP)

Larissa was the first city in Greece to implement an integrated Sustainable Urban Mobility Plan (SUMP), aiming to enhance mobility while reducing environmental impact. The plan includes measures such as:

- Expanding pedestrianized areas and introducing low-traffic streets.
- Developing an integrated network of cycling routes.
- Implementing controlled parking for visitors and residents.
- Improving public transport operations and accessibility.
- Establishing a smart monitoring system for traffic and pedestrian movement.

By prioritizing sustainable transport modes and reducing car dependency, the SUMP contributes to reducing congestion, improving air quality, and enhancing the overall urban environment.

Sustainable Urban Development Strategy (SUD)

The SUD strategy focuses on holistic urban development, encompassing infrastructure projects and soft actions like marketing and digital applications. It aims to interconnect the historical and commercial center with cultural landmarks, aligning with international and European conventions such as the Leipzig Charter. The Sustainable Urban Development Strategy (SUD) aims at the holistic transformation of the city by integrating environmental, social, and economic sustainability. The strategy follows European urban policies such as the Leipzig Charter and is structured around three key principles:

- **Functionality:** Enhancing urban infrastructure and services.
- **Accessibility:** Improving mobility and connectivity within the city.
- **Aesthetics:** Promoting urban renewal and cultural heritage.

This strategy is part of the Regional Operational Programme of Thessaly 2021-2027, which includes objectives for social, economic, and environmental development. One of the main initiatives of the SUD is the development of a cultural and economic corridor that links key historical sites, public spaces, and cultural institutions, fostering a more inclusive and vibrant urban environment.

Sustainable Energy and Climate Action Plan (SECAP)

Larissa is a signatory of the Covenant of Mayors, committing to reducing CO₂ emissions by at least 40% by 2030. The Sustainable Energy and Climate Action Plan (SECAP) sets out targeted actions to improve energy efficiency and promote renewable energy sources. The key pillars of the SECAP include:

- Retrofitting public and private buildings to improve energy efficiency.
- Enhancing municipal lighting with LED technology.
- Encouraging the adoption of renewable energy solutions in public and private sectors.
- Promoting green mobility through electrification and alternative fuels.

Through these initiatives, the SECAP contributes to mitigating climate change impacts while enhancing energy security and sustainability.

Electric Vehicle Charging Plan (EVCP)

The EVCP aims to facilitate the charging of electric vehicles by establishing a network of charging stations at strategic locations within the municipality. This initiative supports the adoption of electromobility, contributing to the reduction of greenhouse gas emissions and improving urban air quality.

By aligning with European policies and implementing these local strategies, Larissa demonstrates a strong commitment to a sustainable and green future. The municipality's efforts focus on integrating green practices, enhancing energy efficiency, and promoting sustainable urban development, positioning Larissa as a pioneer in environmental sustainability.

Problem Identification

The Functional Urban Area (FUA) of Larissa encompasses a wide industrial ecosystem that includes both the Industrial Area of Larissa and multiple industrial zones in adjacent municipalities such as Municipality of Kileler, Municipality of Tirnavos and Municipality of Tempi. This spatial distribution contributes to Larissa's role as a regional hub for industrial activity in Central Greece.

However, the city and its surrounding areas face a series of complex challenges. The Industrial Area of Larissa, for instance, currently hosts 68 businesses of which approximately 53 are active, 12 are inactive, and several others own undeveloped land. The area suffers from inadequate logistical

support, insufficient infrastructure, and fragmented planning, which collectively hinder the growth potential of these enterprises.

Moreover, there is a persistent lack of effective communication and structured cooperation between the local administration and the industrial sector. This disconnect limits the municipality's ability to coordinate sustainability efforts, develop integrated urban-industrial strategies, and fully capitalize on the green transition. Without a shared vision and cross-sector collaboration, opportunities for innovation, circular economy initiatives, and environmental upgrades remain underexploited across the FUA.

Addressing these challenges requires not only technical solutions but also a new governance approach that fosters trust, stakeholder engagement, and strategic alignment among the key actors operating in and around Larissa's industrial zones.

ULG Stakeholders list

- Development Organization of Municipality of Larissa - OLON S.A.
- Association of Thessalian Industries & Enterprises – STHEV
- Larissa Chamber of Commerce
- Technical Chamber of Larissa
- JOIST Innovation Park
- Municipal Departments
- University of Thessaly

The following SWOT Analysis provides an assessment of the key strengths, weaknesses, opportunities, and threats related to the implementation of green initiatives in Larissa. This analysis highlights the city's existing advantages, identifies challenges that need to be addressed, explores opportunities for sustainable development, and acknowledges potential risks that could hinder progress.

Figure 2: SWOT Analysis



Local priorities

- Focus on improving communication channels and collaboration between the local administration and businesses.
- Conduct educational campaigns and provide training to increase awareness and build the capacity of local stakeholders.
- Secure funding and financial incentives to support green initiatives

Main Integration Challenges

The main integration challenges for Larissa focus on incorporating the adjacent functional area with the industrial area of the Municipality of Larissa. Additionally, Larissa aims to align with the principles of green territorial planning as outlined in the attached Special Framework of Spatial Planning and Sustainable Development for Industry, particularly following the directions for the Region of Thessaly.

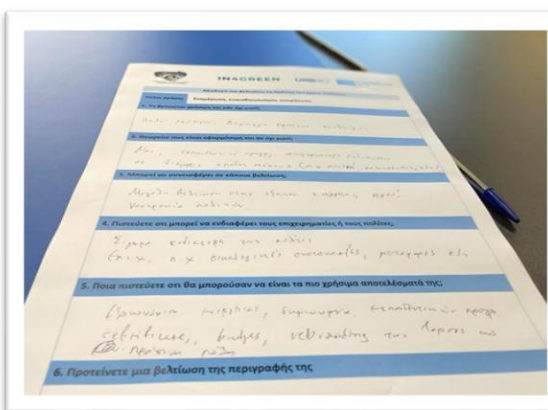
Testing Action - World Café Workshop

As part of the small-scale testing actions within the In4Green – Greener Industrial Cities project, the Municipality of Larissa organized an Interactive World Café Workshop on October 14th, 2024, at JOIST Innovation Park. The workshop brought together 27 participants from a diverse range of sectors, reflecting the quadruple helix model—government, industry, academia, and civil society. This inclusive approach ensured that the evaluation of the city's Integrated Action Plan (IAP) for the green transition was grounded in multi-stakeholder dialogue. Participants included representatives from local businesses, academic and research institutions, public authorities, as well as civil society, notably the Municipal Youth Council, which provided valuable input from the perspective of younger generations. This composition fostered a holistic discussion on improving the proposed actions and ensuring their alignment with local needs and sustainability goals.

The main objective of this testing action was to assess the effectiveness of participatory methodologies in refining the proposed sustainability initiatives. Using URBACT methodologies, participants were divided into three working groups, each tasked with evaluating specific IAP actions based on structured guiding questions. The evaluation process focused on:

1. Identifying the usefulness and potential impact of each action.
2. Assessing feasibility and practical implementation within the local industrial ecosystem.
3. Determining whether the action could contribute to sustainable improvements in Larissa.

4. Exploring the level of interest from businesses and citizens in each initiative.
5. Defining the most valuable expected outcomes of the proposed action.
6. Proposing improvements to the action's description for better clarity and applicability.



Through this structured participatory process, participants provided critical insights and constructive feedback, leading to the refinement and enhancement of the IAP actions. The interactive approach successfully validated the co-creation methodology as an effective tool for engaging stakeholders in decision-making processes related to urban sustainability.

Next Steps & Implementation Potential

The results of this collaborative testing action will be used to adjust and optimize the final version of the IAP before its implementation. The Municipality of Larissa will continue fostering stakeholder engagement through similar participatory formats, ensuring that local industry, businesses, and communities remain actively involved in the city's green transition efforts. By integrating these methodologies into policy development, Larissa reinforces its commitment to inclusive, sustainable, and innovation-driven urban and industrial transformation.

SECTION 2: Overall Logic and Integrated Approach

Overall Vision

“Larissa envisions becoming a more resilient and environmentally-friendly city with a green local economy founded on sustainability”.

Challenging Areas & Specific Objectives

The Integrated Action Plan (IAP) of the Municipality of Larissa aims to address the key challenges associated with the green transition and industrial sustainability by defining targeted intervention areas and strategic objectives. This chapter outlines the main areas of intervention, focusing on the critical aspects that need to be addressed to achieve a more sustainable, innovative, and resilient industrial ecosystem.

Through a comprehensive analysis of local challenges, stakeholder input, and strategic priorities, the IAP identifies strategic objectives that align with EU policies, national strategies, and Larissa’s long-term development goals. These objectives serve as a roadmap for the successful implementation of the proposed actions, ensuring a coherent, integrated, and forward-thinking approach to industrial modernization, environmental sustainability, and economic competitiveness.

1st Area of Intervention – Communication & Collaboration

Strategic Objective 1 (SO1): Establish dedicated communication channels between local administration and the business sector.

2nd Area of Intervention – Urban Infrastructure Improvement & Sustainable Practices

Strategic Objective 2 (SO2): Promote green practices, transportation routes and infrastructure for the industrial area.

3rd Area of Intervention – Training & Capacity Building

Strategic Objective 4 (SO4): Conduct awareness campaigns to build local capacity and promote green practices.

1st Area of Intervention - Communication & Collaboration



(SO1): Establish dedicated communication channels between local administration and the business sector

2nd Area of Intervention - Urban Infrastructure Improvement & Sustainable Practices



(SO2): Promote green practices, transportation routes and infrastructure for the industrial area.

3rd Area of Intervention - Training & Capacity Building



(SO3): Conduct awareness campaigns to build local capacity and promote green practices.

Actions

Strategic Objective 1 (SO1): Establish dedicated communication channels between local administration and the business sector.

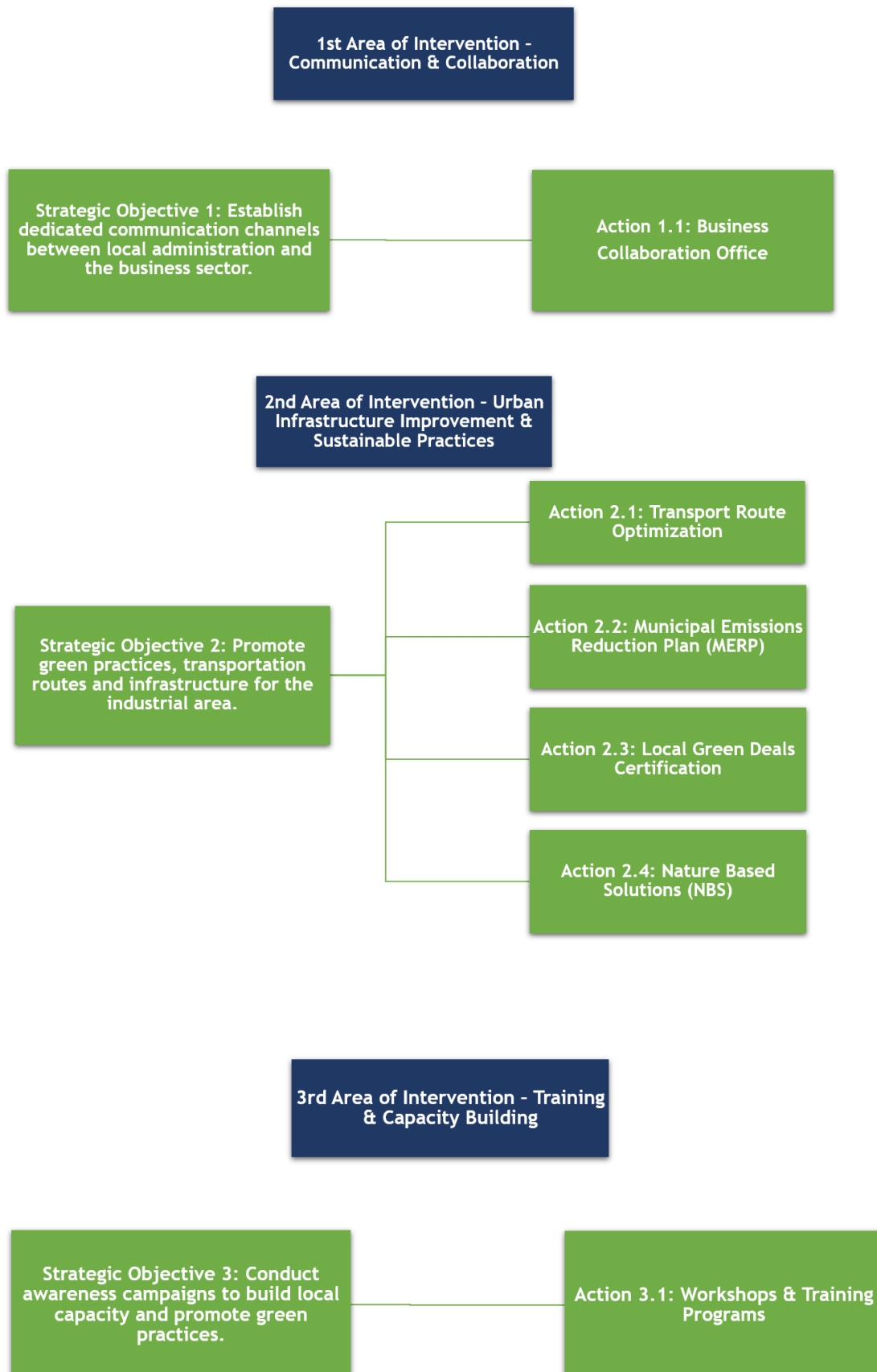
- **Action 1.1:** Business Collaboration Office

Strategic Objective 2 (SO2): Promote green practices, transportation routes and infrastructure for the industrial area.

- **Action 2.1:** Transport Routes Optimization
- **Action 2.2:** Municipal Emissions Reduction Plan (MERP)
- **Action 2.3:** Local Green Deals Certification
- **Action 2.4:** Nature Based Solutions (NBS)

Strategic Objective 3 (SO3): Conduct awareness campaigns to build local capacity and promote green practices.

- **Action 3.1:** Workshops & Training Programs



Integration Approach

The Integrated Action Plan (IAP) of the Municipality of Larissa follows a comprehensive approach to ensure a sustainable, resilient, and competitive industrial transition. However, achieving full integration across all governance levels, sectors, and funding mechanisms presents several challenges that must be addressed to maximize the plan's impact.

One of the primary integration challenges is the long-term coordination of multiple stakeholders. While stakeholder involvement is strong in the planning phase, ensuring continuous engagement during implementation requires structured collaboration mechanisms. The integration of local businesses, academia, and public authorities must go beyond consultations, incorporating them into decision-making structures that promote co-ownership of the plan's actions. Establishing formalized partnerships through Memorandums of Understanding (MoUs) or advisory boards will help sustain stakeholder engagement in the long run.

Another challenge is the alignment of the IAP with existing municipal, regional, and EU-level strategies. The risk of overlapping or duplicating efforts must be mitigated by integrating adaptive monitoring systems that assess policy coherence and ensure the IAP remains aligned with new funding opportunities and legislative frameworks.

Furthermore, the sectoral and territorial integration of the plan remains a complex issue. The IAP outlines actions that target specific industrial areas, yet ensuring cross-sector collaboration and regional synergies is essential. Industrial modernization must be linked with urban mobility, environmental sustainability, and smart infrastructure development to create a cohesive and interconnected territorial strategy. Strengthening regional alliances and ensuring multi-level governance mechanisms that connect municipal, regional, and national stakeholders will be critical in addressing this challenge.

Lastly, mobilizing diverse funding sources and investment mechanisms remains a key challenge. While the IAP highlights potential EU, national, and private funding opportunities, a detailed financial roadmap is needed to secure long-term financial sustainability. Encouraging public-private partnerships (PPPs), impact investment funds, and EU funding applications will help bridge financial gaps and ensure the successful implementation of green industrial initiatives. By addressing these integration challenges, Larissa's IAP can play the role of a robust blueprint for sustainable industrial transformation, ensuring economic growth, environmental responsibility, and social inclusion in the years to come.

SECTION 3: Action Planning Details

This section provides a detailed breakdown of the planned actions within the Integrated Action Plan (IAP) of the Municipality of Larissa, outlining the key steps required to facilitate green industrial transition, sustainable urban development, and business innovation. Each action has been carefully designed to align with local, national, and EU strategies, ensuring an integrated and impact-driven approach.

The Action Tables presented in this chapter offer a structured analysis of each initiative, covering essential elements such as:

- ✓ Action Owner: The responsible entity leading the implementation.
- ✓ Short Description: A brief overview of the action's purpose and expected impact.
- ✓ Stakeholders: Key actors involved in execution and collaboration.
- ✓ Intervention Area & Strategic Objective: The broader policy context and goals addressed by the action.
- ✓ Links to Strategy: Connections to existing municipal and EU frameworks.
- ✓ Action Summary: A concise explanation of how the action will be carried out.
- ✓ Risks & Barriers: Potential challenges that may impact successful implementation.
- ✓ Action Readiness: The current level of preparedness for execution.
- ✓ Indicators: Measurable outcomes that will be used to track progress and success.
- ✓ Budget & Financing: Estimated costs and potential funding sources.
- ✓ Timescale: Expected timeframe for implementation.
- ✓ Monitoring & Governance: Mechanisms to oversee progress and ensure accountability.

By presenting each action in a comprehensive and structured format, this section provides a clear roadmap for implementation, ensuring that all proposed initiatives contribute effectively to Larissa's sustainable industrial and urban transformation.

Action 1.1	Business Collaboration Office	Action Owner Municipality of Larissa		
Short Description Establish a dedicated office to enhance collaboration between the local administration and businesses, providing support, guidance, and facilitating partnerships for sustainable industrial development.	Stakeholders Association of Thessalian Industries & Enterprises Larissa Chamber of Commerce Technical Chamber of Larissa	Intervention Area 1st Area of Intervention – Communication & Collaboration	Strategic Objective SO1: Establish dedicated communication channels between local administration and the business sector.	Links to Strategy Sustainable Urban Development Strategy 2021-2027
Action Summary The Business Collaboration Office will act as a liaison between local businesses and the public administration, facilitating information exchange, supporting sustainable industrial initiatives, and providing assistance in navigating regulatory frameworks and funding opportunities. The office will also organize regular networking events, consultation meetings, and training programs to ensure a continuous dialogue between businesses and local authorities.		Risks Limited business engagement due to lack of awareness or interest. Bureaucratic challenges in setting up a new office within the municipality. Resource constraints in terms of staffing and funding.	Barriers Resistance to change from traditional businesses. Lack of digital infrastructure for streamlined communication. Coordination challenges between multiple stakeholders.	Action Readiness The municipality has identified the need for improved collaboration and has engaged stakeholders in preliminary discussions. Further steps involve securing funding, defining operational procedures, and launching the office.
Indicators Number of businesses engaged. Number of partnerships facilitated. Number of support services provided. Number of events and workshops organized. Stakeholder satisfaction rate.		Outputs - Results Improved business-municipality communication. Increased adoption of green and digital practices. Greater participation in funding and innovation programs. Enhanced competitiveness of local businesses.		
Budget 100.000,00 €		Timescale March 2026 – December 2027		
Financing Thessaly Regional Operational Programme 2021–2027		Monitoring, governance The Municipality of Larissa will oversee the office, with a steering committee comprising representatives from business associations, academia, and regional authorities to provide strategic guidance and monitor progress. Regular reports will be published to assess impact and adjust strategies accordingly.		

ACTION TITLE: 1.1 Business Collaboration Office								
DESCRIPTION: Establish a dedicated office to enhance collaboration between the local administration and businesses, providing support, guidance, and facilitating partnerships for sustainable industrial development.								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
1.1.1 Launch of physical and digital office	Municipality of Larissa	Thessaly ROP 2021–2027	Sustainable Urban Development Strategy 2021-2027	Medium	Based on the Microentrepreneurship Office model	-	Operational office and online presence	March 2026
1.1.2 Stakeholder outreach and promotion	Municipality of Larissa	Thessaly ROP 2021–2027	Sustainable Urban Development Strategy 2021-2027	Medium	Low engagement risk from SMEs	-	Number of businesses informed	April 2026
1.1.3 Events and continuous dialogue	Municipality of Larissa	Thessaly ROP 2021–2027	Sustainable Urban Development Strategy 2021-2027	Medium	Stakeholder availability	-	Number of events and participants	June 2026 – August 2027
1.1.4 Monitoring and improvement	Municipality of Larissa	Thessaly ROP 2021–2027	Sustainable Urban Development Strategy 2021-2027	Medium	Needs clear KPIs and reporting	-	Evaluation reports	September 2027- December 2027

Action 2.1	Transport Route Optimization	Action Owner Municipality of Larissa		
Short Description	Stakeholders	Intervention Area	Strategic Objective	Links to Strategy
Conduct a demand-driven analysis to optimize transportation routes to the industrial area and adjacent functional zones, improving efficiency, reducing congestion, and promoting sustainable mobility solutions.	Development Organization of Municipality of Larissa Association of Thessalian Industries & Enterprises Larissa Chamber of Commerce Technical Chamber of Larissa Municipal Departments	2nd Area of Intervention – Urban Infrastructure Improvement & Sustainable Practices	SO2: Promote green practices, transportation routes and infrastructure for the industrial area.	Sustainable Urban Mobility Plan (SUMP)
Action Summary		Risks	Barriers	Action Readiness
This action aims to enhance accessibility and efficiency in the transportation network serving Larissa's industrial zone by analyzing current traffic patterns, identifying bottlenecks, and proposing optimized routes for freight, employee transport, and logistics operations. The study will also explore green transport solutions, including electric and hybrid vehicle incentives, cycling infrastructure, and public transport enhancements.		Resistance to change from businesses used to existing transport routes. Limited data availability for comprehensive analysis. Infrastructure constraints requiring long-term investment.	High implementation costs for sustainable transport solutions. Lack of integration between different transport modes. Regulatory and bureaucratic delays in modifying transport policies.	Initial stakeholder engagement has been conducted, and data collection plans are in progress. The next steps include securing funding and conducting the detailed transport analysis.
Indicators		Outputs - Results		
Reduction in travel times and congestion levels.		Optimized and more efficient transport routes.		
Increase in public transport and green mobility use.		Increased accessibility for industrial workers and logistics.		
Number of businesses engaged in sustainable transport solutions.		Reduced environmental impact from industrial transport.		
CO2 emission reductions from industrial transportation.		Improved integration of smart mobility solutions.		
Budget		Timescale		
80.000,00 €		May 2026 – December 2027		
Financing Municipal Budget		Monitoring, governance		
		The Municipality of Larissa will oversee the implementation, with monitoring conducted by transport authorities and key industrial stakeholders. Progress reports will be prepared, and adjustments will be made based on stakeholder feedback and data-driven evaluations.		

ACTION TITLE: 2.1 Transport Route Optimization								
DESCRIPTION: Conduct a demand-driven analysis to optimize transportation routes to the industrial area and adjacent functional zones, improving efficiency, reducing congestion, and promoting sustainable mobility solutions.								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
2.1.1 Stakeholder consultation and data collection	Municipality of Larissa	Municipal Budget	Sustainable Urban Mobility Plan (SUMP)	Initial consultations done	Risk of limited participation from logistics operators	-	Stakeholder database and mobility survey results	May 2026 - July 2026
2.1.2 Analysis of current transport patterns and bottlenecks	Municipality of Larissa	Municipal Budget	Sustainable Urban Mobility Plan (SUMP)	Initial data collection planned	Data gaps may hinder full analysis	-	Transport analysis report	August 2026 - September 2026
2.1.3 Proposal of optimized routes and sustainable mobility options	Municipality of Larissa	Municipal Budget	Sustainable Urban Mobility Plan (SUMP)	To be defined based on analysis outcomes	Resistance from businesses to proposed changes	-	Optimized transport strategy document	October 2026 – November 2026
2.1.4 Feasibility study and cost-benefit analysis	Municipality of Larissa	Municipal Budget	Sustainable Urban Mobility Plan (SUMP)	Requires stakeholder validation	Need for reliable cost data and KPIs	-	Feasibility report with investment options	December 2026 - February 2027
2.1.5 Development of implementation roadmap and pilot design	Municipality of Larissa	Municipal Budget	Sustainable Urban Mobility Plan (SUMP)	Planned after feasibility results	Requires coordination with regional transport bodies	-	Implementation roadmap and pilot design	March 2027 – December 2027

Action 2.2	Municipal Emissions Reduction Plan (MERP)	Action Owner Municipality of Larissa		
Short Description	Stakeholders	Intervention Area	Strategic Objective	Links to Strategy
Development of a Municipal Emissions Reduction Plan (MERP) to systematically identify, quantify, and reduce greenhouse gas (GHG) emissions across municipal operations and the broader urban ecosystem. The plan will align with national and European climate policy frameworks and contribute to Larissa's sustainable transition.	Directorate of Environment, Quality of Life and Cleanliness Services	2nd Area of Intervention – Urban Infrastructure Improvement & Sustainable Practices	SO2: Promote green practices, transportation routes and infrastructure for the industrial area.	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021–2027
Action Summary		Risks	Barriers	Action Readiness
The MERP will be a strategic planning tool to assess current emission levels (with 2019 as the reference year), set clear reduction targets, and propose actions such as promoting renewables, upgrading municipal infrastructure, advancing sustainable transport, supporting circular economy initiatives, and increasing community participation. The plan will also introduce monitoring indicators and allow for adaptive policy adjustments.		Incomplete emissions data. Low engagement from certain community segments. Delays in interdepartmental coordination.	Limited financial and human resources. Complexity of aligning local actions with broader EU targets. Need for specialized technical expertise for GHG inventorying.	The action is currently under development. A contractor was appointed in April 2025 and the elaboration of the Plan is in progress.
Indicators		Outputs - Results		
Completion and public adoption of the MERP		Municipal Emissions Reduction Plan approved and submitted		
Number of implemented measures from the MERP		Clear local emission targets and action pathways		
% reduction in municipal GHG emissions (baseline 2019)		Strengthened policy coherence with national/EU climate strategies		
Annual progress reports produced		Higher community engagement in climate action		
		Progress monitoring through structured KPIs		
Budget		Timescale		
30.000,00 €		April 2025 – December 2025		
Financing		Monitoring, governance		
Municipal Budget		The MERP will be coordinated by the Environmental Department of the Municipality of Larissa, with technical support from certified consultants. An internal steering group will monitor progress and ensure alignment with the Covenant of Mayors and national reporting requirements. Progress will be reviewed annually, and findings shared with the public to ensure transparency and civic accountability.		

ACTION TITLE: 2.2 Municipal Emissions Reduction Plan (MERP)								
DESCRIPTION: Development of a Municipal Emissions Reduction Plan (MERP) to systematically identify, quantify, and reduce greenhouse gas (GHG) emissions across municipal operations and the broader urban ecosystem.								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
2.2.1 Commissioning of study and data collection	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021–2027	Contractor appointed in April 2025; elaboration in progress	Risk of delays in data availability; need for interdepartmental coordination	-	Draft version of MERP, stakeholder consultation reports	April 2025 – May 2025
2.2.2 Consultation with Regional Directorate of Environment	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021–2027 National climate legislation	To be launched once draft is ready	Must receive opinion from Regional Directorate of Environment within 60 days; process may delay if response is late	-	Official opinion or automatic progression after deadline	June 2025 – July 2025
2.2.3 Plan approval by Quality-of-Life Committee (Municipal Committee)	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021–2027 National climate legislation	After opinion or lapse of deadline	Risk of delay due to political or procedural issues	-	MERP officially approved by municipal body	August 2025
2.2.4 External verification and certification	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021–2027	Certification process planned after final approval	Coordination with accredited verification body needed; budget may limit options		Verification certificate issued by recognized external auditor	September 2025 – December 2025

Action 2.3	Local Green Deal Certification	Action Owner Municipality of Larissa		
Short Description Design and implement a Local Green Deal (LGD) Certification Scheme for public and private stakeholders, recognizing and incentivizing environmentally sustainable practices through formal agreements and performance monitoring	Stakeholders Municipal Water Supply and Sewerage Company of Larissa (DEYAL) University of Thessaly Citizens and civic organizations Local businesses and SMEs ICC Local Team	Intervention Area 2nd Area of Intervention – Urban Infrastructure Improvement & Sustainable Practices	Strategic Objective SO2: Promote green practices, transportation routes and infrastructure for the industrial area.	Links to Strategy Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027
Action Summary This action aims to establish a formal Local Green Deal Certification Program in Larissa, capitalizing on existing LGD agreements. It will serve as a framework to recognize local sustainability partnerships, incentivize good practices, and scale innovation across sectors. The action is part of the city’s broader engagement in the Intelligent Cities Challenge (ICC)—a European Commission initiative supporting over 100 cities in using advanced technologies to foster green, digital, and socially responsible urban transformation. Larissa's involvement in ICC has provided valuable tools, peer learning, and strategic momentum for embedding the LGD approach into its long-term sustainability strategy.		Risks Limited business or public sector interest in adopting certification. Challenges in creating a standardized and transparent certification framework. Lack of human or financial resources for long-term monitoring.	Barriers Insufficient awareness or understanding of the LGD concept. Resistance to change or reluctance to undergo certification audits. Technical or administrative complexity in implementing new sustainable practices.	Action Readiness The Municipality of Larissa has already signed two Local Green Deals demonstrating both political will and active stakeholder engagement. The first, titled “UNI eBikes” was signed in March 2025 with the University of Thessaly, promoting sustainable micromobility on campus. The second, titled “WELL”, was signed in April 2025 with the Municipal Water and Sewerage Company of Larissa (DEYAL) and focuses on reducing plastic waste through smart water refill stations. These agreements form the foundation for scaling up the Local Green Deal Certification Program.
Indicators Number of LGD agreements signed Number of certified public or private actors Estimated environmental impact (e.g., CO ₂ emissions avoided, waste reduction) Public awareness and engagement levels		Outputs - Results Operational LGD Certification framework Broader adoption of sustainable practices across sectors Increased visibility of Larissa as a green city model Quantifiable contributions to circular economy goals		
Budget -		Timescale February 2025 – December 2026		

Financing Own Resources	Monitoring, governance The Municipality of Larissa will coordinate the LGD certification with an intersectoral advisory body including representatives from Municipal Water Supply and Sewerage Company of Larissa (DEYAL), the University of Thessaly, business networks, and civil society. Evaluation reports and environmental KPIs will be published annually.
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ACTION TITLE: 2.3 Local Green Deal Certification								
DESCRIPTION: Design and implement a Local Green Deal (LGD) Certification Scheme for public and private stakeholders, recognizing and incentivizing environmentally sustainable practices through formal agreements and performance monitoring								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
2.3.1 Co-design certification framework and criteria	Municipality of Larissa	Own Resources	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	High - existing LGDs are a best-practice example	Requires alignment with EU and national standards; risk of complexity in criteria formulation		Draft of certification framework, approved evaluation criteria	February 2025 – March 2025
2.3.2 Engage stakeholders and promote benefits	Municipality of Larissa	Own Resources	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Medium – initial interest exists	Requires targeted outreach and business engagement strategy	-	Number of businesses informed; awareness raised	March 2025 – December 2026
2.3.3 Finalize and launch LGD Certification Program	Municipality of Larissa	Own Resources	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Medium	Resource-intensive coordination required; risk of limited uptake	-	LGD program launched, promotional campaign, early adopters certified	March 2025 – December 2026
2.3.4 Monitor and improve certification scheme	Municipality of Larissa	Own Resources	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Medium	Need to ensure transparency and trust; must respond to feedback		Annual report, stakeholder feedback loop	November 2026 – December 2026

Action 2.4	Nature Based Solutions (NBS)	Action Owner Municipality of Larissa		
Short Description	Stakeholders	Intervention Area	Strategic Objective	Links to Strategy
Implement Nature-Based Solutions (NBS) in and around the industrial area of Larissa to enhance biodiversity, improve microclimate conditions, and manage stormwater through natural processes.	Association of Thessalian Industries & Enterprises (STHEV) Larissa Chamber of Commerce Technical Chamber of Larissa	2nd Area of Intervention – Urban Infrastructure Improvement & Sustainable Practices	SO2: Promote green practices, transportation routes and infrastructure for the industrial area.	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027
Action Summary		Risks	Barriers	Action Readiness
<p>This action will introduce targeted green infrastructure projects within the industrial zone of Larissa. These interventions aim to improve air quality, reduce the urban heat island effect, and contribute to climate resilience, ultimately enhancing the well-being of workers and citizens.</p> <p>The action builds upon Larissa’s previous participation in the CLEVER Cities project (Horizon 2020), which promoted Nature-Based Solutions through co-creation, stakeholder engagement, and pilot planning. The methodologies and insights gained—particularly from the development of an NBS plan for post-industrial areas—will inform and strengthen the design and implementation of this action.</p>		<p>Limited space availability in the industrial area.</p> <p>Lack of maintenance over time.</p> <p>Delays due to permitting or design challenges.</p>	<p>Lack of technical knowledge in nature-based design among local stakeholders.</p> <p>Limited initial buy-in from private sector.</p>	<p>The concept has been positively received in ULG discussions. Pilot areas have been preliminarily identified, and best practices from other cities are under review.</p>
Indicators		Outputs - Results		
Area (m ²) of green infrastructure installed.		Improved environmental performance of the industrial zone.		
Number of NBS elements (e.g., trees, bioswales) implemented.		Enhanced ecosystem services and climate resilience.		
Biodiversity indicators or air temperature reduction.		Better aesthetic and working conditions.		
Budget		Timescale		
200.000,00 €		May 2026 – December 2027		
Financing		Monitoring, governance		
Recovery and Resilience Facility, Greece 2.0		The Municipality of Larissa, through its technical and environmental services, will coordinate implementation. A monitoring plan will be developed to track environmental and social impacts.		
Horizon Europe				

ACTION TITLE: 2.4 Nature Based Solutions (NBS)								
DESCRIPTION: Implement Nature-Based Solutions (NBS) in and around the industrial area of Larissa to enhance biodiversity, improve microclimate conditions, and manage stormwater through natural processes.								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
2.4.1 Design and planning of NBS interventions	Municipality of Larissa	Recovery and Resilience Facility, Greece 2.0 Horizon Europe	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Initial mapping under discussion	Need for technical studies, design adaptation to industrial landscape	-	NBS design plans	May 2026 – December 2026
2.4.2 Implementation of pilot NBS projects	Municipality of Larissa	Recovery and Resilience Facility, Greece 2.0 Horizon Europe	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Ready to implement after design	Possible resistance from businesses regarding space usage	-	NBS elements installed	January 2027 – August 2027
2.4.3 Awareness & capacity building for businesses and citizens	Municipality of Larissa	Recovery and Resilience Facility, Greece 2.0 Horizon Europe	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	Awareness activities to be scheduled after the implementation of the monitoring system	Lack of knowledge regarding the benefits of NBS	-	Awareness materials, workshops held	September 2027 – October 2027
2.4.4 Monitoring of environmental impact and maintenance plan	Municipality of Larissa	Recovery and Resilience Facility, Greece 2.0 Horizon Europe	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027	After implementation of pilot projects	Need for long-term maintenance and care	-	Monitoring reports, maintenance plan	November 2027 – December 2027

Action 3.1	Workshops & Training Programs	Action Owner Municipality of Larissa		
Short Description	Stakeholders	Intervention Area	Strategic Objective	Links to Strategy
Organization of a series of workshops and training programs targeted at businesses, employees, students, and local stakeholders to raise awareness and build capacity on green practices.	<p>Development Organization of Municipality of Larissa</p> <p>Association of Thessalian Industries & Enterprises</p> <p>Larissa Chamber of Commerce</p> <p>Technical Chamber of Larissa</p> <p>JOIST Innovation Park</p> <p>Municipal Youth Council</p> <p>University of Thessaly</p>	3rd Area of Intervention – Training & Capacity Building	SO4: Conduct awareness campaigns to build local capacity and promote green practices.	<p>Sustainable Energy and Climate Action Plan (SECAP)</p> <p>Sustainable Urban Development Strategy 2021-2027</p> <p>Sustainable Urban Mobility Plan (SUMP)</p>
Action Summary		Risks	Barriers	Action Readiness
This action will deliver interactive training sessions, hands-on workshops, and educational seminars focusing on topics such as energy efficiency, circular economy, green technologies, and digital skills for Industry 5.0. The programs will be tailored to meet the needs of various target groups and implemented in cooperation with academic institutions and NGOs.		<p>Low participation rates.</p> <p>Mismatch between training content and local needs.</p> <p>Limited awareness about the events.</p>	<p>Lack of training infrastructure in some areas.</p> <p>Limited human resources to deliver frequent workshops.</p> <p>Difficulty engaging small and micro businesses.</p>	<p>Stakeholders have expressed strong interest in participating.</p> <p>Training topics are being co-designed with the academic and industrial community.</p>
Indicators		Outputs - Results		
<p>Number of training sessions held.</p> <p>Number and profile of participants.</p> <p>Participant satisfaction rate.</p> <p>Number of follow-up actions or pilot initiatives.</p>		<p>Improved awareness and technical knowledge on green transition topics.</p> <p>Increased capacity among SMEs and the public sector.</p> <p>Stronger community engagement.</p>		
Budget		Timescale		
50.000,00 €		January 2026 – December 2027		
Financing		Monitoring, governance		
Municipal Budget		The Municipality of Larissa, through its training and development department, will oversee coordination. Evaluation forms, feedback tools, and learning impact metrics will be used to monitor progress.		

ACTION TITLE: 3.1 Workshops & Training Programs								
DESCRIPTION:								
Activity	Activity Owner	Finance & Resources	Links to Strategy	Activity Readiness	Implementation Details & Possible Problems or Other Issues	Other IAP Connected Activities	Outputs	Timescale
3.1.1 Organization of Workshops & Training Sessions	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027 Sustainable Urban Mobility Plan (SUMP)	Medium – Not planned yet	Need for targeted communication to ensure high participation. Challenge to engage SMEs and citizens		Number of workshops organized, Number and profile of participants	January 2026 – October 2027
3.1.2 Evaluation & Feedback Collection	Municipality of Larissa	Municipal Budget	Sustainable Energy and Climate Action Plan (SECAP) Sustainable Urban Development Strategy 2021-2027 Sustainable Urban Mobility Plan (SUMP)	Low, after the organization of the Workshops	Need for systematic collection and analysis of feedback to improve next workshops	-	Evaluation reports, Participant satisfaction rate, Suggestions for improvement	November 2027 – December 2027

SECTION 4: Implementation Framework

The successful delivery of Larissa’s Integrated Action Plan (IAP) requires a clear and coherent implementation framework that transforms strategic vision into concrete, measurable outcomes. This section presents the mechanisms and structures that will guide the execution of the IAP actions, ensuring alignment with the city’s sustainability goals and the broader objectives of the In4Green network.

It details the roles and responsibilities of key stakeholders—including municipal departments, local businesses, academic institutions, and civil society—and describes the governance structures that will support coordination and decision-making. The section also outlines the financial tools and funding sources, including regional, national, and EU-level instruments, that will be mobilized to support implementation.

Moreover, this framework includes a monitoring and evaluation system to track progress, measure impact, and enable continuous adaptation based on feedback and changing local needs. Through this structured approach, the Municipality of Larissa aims to ensure the long-term effectiveness, transparency, and scalability of its green transition initiatives, while fostering inclusive participation and cross-sector collaboration.

Governance

Effective governance is a cornerstone for the successful implementation of Larissa’s Integrated Action Plan (IAP). The Municipality of Larissa will serve as the main coordinating authority, ensuring strategic alignment, policy coherence, and cross-sectoral collaboration throughout the duration of the plan. The governance structure is designed to be participatory, transparent, and adaptive, enabling inclusive engagement and shared ownership among key local stakeholders.

To support implementation, a multi-stakeholder governance model will be adopted, bringing together public, private, academic, and civic actors who are directly or indirectly involved in Larissa’s green transition. The core governance structure will include the following entities:

Municipality of Larissa: Acts as the lead coordinator, responsible for overseeing implementation, mobilizing resources, aligning policies, and managing stakeholder engagement. The municipality also ensures integration with broader urban, regional, and European strategies (e.g., SECAP, SUMP, RIS3).

Municipal Youth Council: As Larissa holds the title of National Capital of Youth for 2025, the Municipal Youth Council plays a vital role in amplifying youth voices in local governance. Through its experience in organizing participatory activities and civic engagement campaigns, it contributes to shaping inclusive climate action and ensuring long-term continuity. Its involvement strengthens the Quadruple Helix approach and fosters intergenerational ownership of the green transition.

Development Organization of Municipality of Larissa – OLON S.A.: Supports the operational roll-out of key actions, especially in areas requiring technical assistance, procurement, and project delivery. OLON also facilitates business outreach and innovation partnerships.

Association of Thessalian Industries & Enterprises (STHEV): Represents the interests of industrial stakeholders and ensures that private sector needs and capacities are reflected in the design and delivery of IAP actions. STHEV also facilitates the adoption of green practices in industrial operations.

Larissa Chamber of Commerce: Provides technical advice and business engagement support, particularly for SMEs. It will promote awareness campaigns and help coordinate participation in training, Net Metering, and Local Green Deal initiatives.

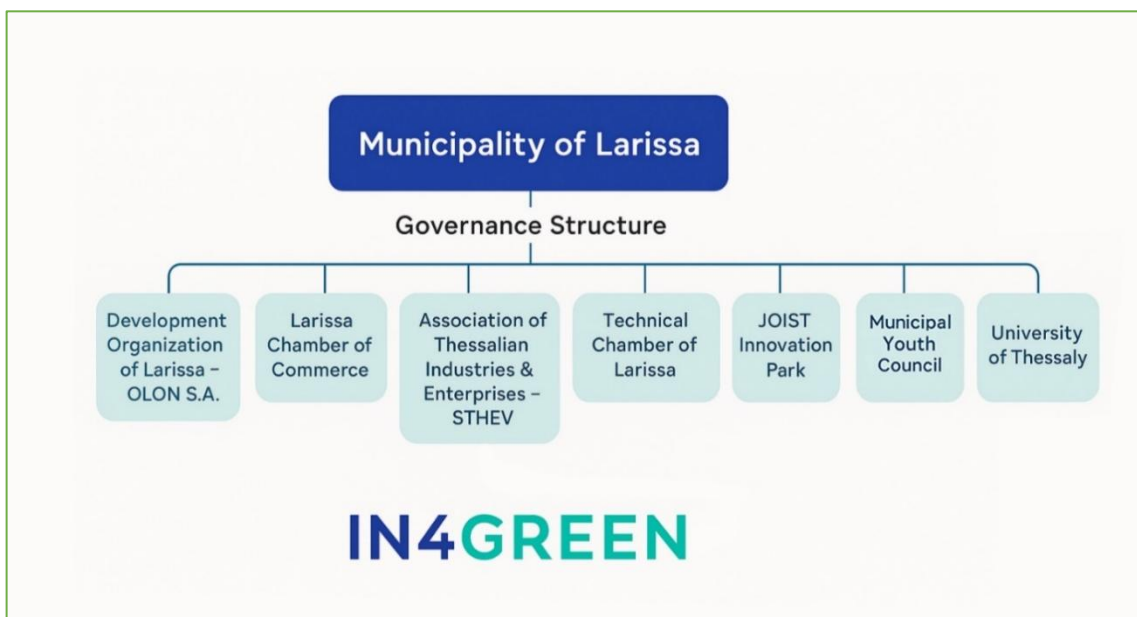
Technical Chamber of Larissa: Contributes technical and engineering expertise, particularly for actions related to infrastructure improvement, energy systems, and nature-based solutions. It may also support feasibility assessments and design reviews.

JOIST Innovation Park: Acts as a hub for research, innovation, and entrepreneurship. JOIST will support training programs, pilot projects, and testing actions under the IAP, while linking local innovation ecosystems with green and digital transition goals.

University of Thessaly: Provides academic expertise, research-based insights, and capacity-building support. The University plays a key role in designing training content, conducting evaluations, and monitoring the environmental and social impacts of the actions.

The governance framework will be supported by a structured meeting schedule, including regular coordination meetings, thematic working groups, and an annual progress review. This multilevel and cross-sectoral approach ensures that governance is not only efficient but also reflective of Larissa's broader community priorities and development vision.

Figure 3: Governance Structure



Ongoing Stakeholders Engagement

Stakeholder engagement is a cornerstone of Larissa’s approach to implementing the Integrated Action Plan for a greener, more sustainable industrial ecosystem. Building on the participatory processes initiated during the design phase, the city will continue to actively involve local actors in all stages of implementation, ensuring that interventions are grounded in local needs and supported by the community.

The URBACT Local Group, composed of key institutional, academic, industrial, and civic actors, will remain the central platform for stakeholder dialogue. Regular meetings, workshops, and thematic working sessions will be organized to maintain momentum, gather feedback, and co-create solutions as the actions of the IAP evolve.

Key stakeholders, as mentioned before, engaged throughout the process include:

- Development Organization of Municipality of Larissa – OLON S.A., supporting coordination and outreach.
- Association of Thessalian Industries & Enterprises (STHEV), representing industrial interests and ensuring alignment with business needs.
- Larissa Chamber of Commerce, providing insights into SME engagement and competitiveness.

- Technical Chamber of Larissa, contributing technical expertise to support infrastructure and energy initiatives.
- University of Thessaly, leading research-based support and facilitating training and capacity-building actions.
- JOIST Innovation Park, offering innovation infrastructure and support for pilot projects.
- Municipal Youth Council, representing the voice of young citizens and civil society. Its ongoing involvement ensures continuity of civic engagement and integration of youth perspectives into the IAP.
- Municipal Departments, ensuring policy integration, regulatory oversight, and public resource mobilization.

The stakeholder engagement strategy is designed to be dynamic and inclusive, adjusting to new challenges and opportunities as they arise. A special focus will be placed on:

- Maintaining transparency in decision-making and resource allocation.
- Promoting knowledge-sharing between the public sector, academia, and private enterprises.
- Encouraging continuous feedback loops through surveys, evaluation forms, and interactive events such as World Café-style workshops influenced by the Testing Action process.
- Strengthening co-responsibility among all actors involved in green transition actions.

Through this structured and inclusive engagement framework, the Municipality of Larissa ensures that the IAP is not only technically sound but also socially accepted and collectively implemented.

Overall Costings and Funding Strategy

The successful implementation of the Integrated Action Plan (IAP) of the Municipality of Larissa relies on a realistic and diversified funding strategy. The plan combines regional, national, and European funding sources to support its implementation, ensuring financial sustainability and alignment with strategic development priorities.

The total estimated cost of the actions currently included in the IAP amounts to €460,000, allocated across seven key interventions covering communication, infrastructure, monitoring, training, and certification. The following table summarizes the indicative budget per action:

Table 5: Financial Planning for In4Green Implementation Actions

Action	Estimated Budget	Funding Sources
1.1 Business Collaboration Office	100.000,00 €	Thessaly Regional Operational Programme 2021–2027
2.1 Transport Route Optimization	80.000,00 €	Municipal Budget
2.2 Municipal Emissions Reduction Plan (MERP)	30.000,00 €	Municipal Budget
2.3 Local Green Deal Certification	-	-
2.4 Nature Based Solutions (NBS)	200.000,00 €	Recovery and Resilience Facility, Greece 2.0 Horizon Europe
3.1 Workshops & Training Programs	50.000,00 €	Municipal Budget

To ensure the successful implementation of the proposed actions in Larissa’s Integrated Action Plan (IAP) under the In4Green framework, a combination of public, regional, national, and European funding sources will be mobilized. The funding strategy focuses on aligning each action with the most relevant financial mechanism based on eligibility, thematic priorities, and implementation readiness.

1. Thessaly Regional Operational Programme 2021–2027 (ROP):

As part of the EU Cohesion Policy, the Thessaly ROP supports regional development priorities, including innovation, energy efficiency, and business support. Actions such as the Business Collaboration Office and Transport Route Optimization align closely with the program’s strategic objectives and will be financed through this mechanism.

2. Municipal Budget:

The Municipality of Larissa will allocate local funds to support foundational actions such as Workshops & Training Programs, stakeholder engagement activities, and partial costs of pilot projects, including Transport Route Optimization and the Municipal Emissions Reduction Plan (MERP). These allocations demonstrate the city’s strong commitment to the green transition and act as a catalyst for attracting complementary funding from national and EU sources.

3. Horizon Europe:

As the EU's research and innovation framework programme, Horizon Europe offers opportunities for smart, green, and digital transformation projects. Larissa aims to tap into Horizon Europe for the technological components of the NBS interventions, and the design of smart, replicable solutions in areas such as energy, mobility, and circular economy.

4. Recovery and Resilience Facility – “Greece 2.0”:

For capital-intensive actions like Nature-Based Solutions, the Greek National Recovery and Resilience Plan provides funding opportunities aimed at climate adaptation, green urban infrastructure, and industrial transition. The municipality intends to integrate relevant IAP actions into future RRF calls.

5. Intelligent Cities Challenge (ICC) and Other EU Technical Assistance Platforms:

Technical support and limited seed funding from the ICC initiative and related platforms will be utilized for developing the Local Green Deal Certification Scheme, stakeholder engagement, and pilot testing activities.

By leveraging this diversified funding ecosystem, the Municipality of Larissa seeks to de-risk implementation, promote innovation, and ensure continuity across actions. The city will also explore synergies between funding sources to enable integrated and scalable solutions for the green transition.

Overall Timeline

The successful implementation of Larissa's Integrated Action Plan (IAP) requires careful coordination and scheduling of all proposed actions across the defined Areas of Intervention. The timeline ensures that each action aligns with available funding opportunities, stakeholder engagement cycles, technical preparation needs, and monitoring milestones.

To provide a clear overview of the proposed sequencing and interdependencies of actions, a Gantt chart is presented below. This visual timeline illustrates the expected duration, starting and ending points of each action and sub-activity, as well as the responsible entity for implementation.

The planning horizon extends until the end of 2030, reflecting both short-term priorities and medium-term objectives. Some actions, such as those involving stakeholder engagement and institutional setup (e.g., the Business Collaboration Office), begin earlier to establish foundational

support. Others, such as infrastructure upgrades and environmental interventions (e.g., Nature-Based Solutions, Municipal Emissions Reduction Plan), span over multiple years to accommodate permitting, procurement, and evaluation phases.

This timeline will serve as a flexible project management tool, allowing the Municipality of Larissa and its partners to monitor progress, coordinate efforts, and adjust implementation plans in response to emerging needs or opportunities. Regular reviews will ensure that all actions remain aligned with strategic goals and available resources.

The following Gantt chart outlines the indicative implementation schedule of all proposed actions.



IAP - MUNICIPALITY OF LARISSA				Start :	End:																																		
				1/2/2025	31/12/2027																																		
Code	Name	Responsible	Start	Finish	02/2025	03/2025	04/2025	05/2025	06/2025	07/2025	08/2025	09/2025	10/2025	11/2025	12/2025	01/2026	02/2026	03/2026	04/2026	05/2026	06/2026	07/2026	08/2026	09/2026	10/2026	11/2026	12/2026	01/2027	02/2027	03/2027	04/2027	05/2027	06/2027	07/2027	08/2027	09/2027	10/2027	11/2027	12/2027
ACTION 1.1 Business Collaboration Office			1/3/2026	31/12/2027																																			
1.1.1	Launch of physical and digital office	Municipality of Larissa	1/3/2026	31/3/2026																																			
1.1.2	Stakeholder outreach and promotion	Municipality of Larissa	1/4/2026	30/4/2026																																			
1.1.3	Events and continuous dialogue	Municipality of Larissa	1/6/2026	31/8/2027																																			
1.1.4	Monitoring and improvement	Municipality of Larissa	1/9/2027	31/12/2027																																			
ACTION 2.1 Transport Route Optimization			1/5/2026	31/12/2027																																			
2.1.1	Stakeholder consultation and data collection	Municipality of Larissa	1/5/2026	31/7/2026																																			
2.1.2	Analysis of current transport patterns and bottlenecks	Municipality of Larissa	1/8/2026	30/9/2026																																			
2.1.3	Proposal of optimized routes and sustainable mobility options	Municipality of Larissa	1/10/2026	30/11/2026																																			
2.1.4	Feasibility study and cost-benefit analysis	Municipality of Larissa	1/12/2026	28/2/2027																																			
2.1.5	Development of implementation roadmap and pilot design	Municipality of Larissa	1/3/2027	31/12/2027																																			
ACTION 2.2 Municipal Emissions Reduction Plan (MERP)			1/4/2025	31/12/2025																																			
2.2.1	Commissioning of study and data collection	Municipality of Larissa	1/4/2025	31/5/2025																																			
2.2.2	Consultation with Regional Directorate of Environment	Municipality of Larissa	1/6/2025	31/7/2025																																			
2.2.3	Plan approval by Quality-of-Life Committee (Municipal Committee)	Municipality of Larissa	1/8/2025	31/8/2025																																			
2.2.4	External verification and certification	Municipality of Larissa	1/9/2025	31/12/2025																																			
ACTION 2.3 Local Green Deal Certification			1/2/2025	31/12/2026																																			
2.3.1	Co-design certification framework and criteria	Municipality of Larissa	1/2/2025	31/3/2025																																			
2.3.2	Engage stakeholders and promote benefits	Municipality of Larissa	1/3/2025	31/12/2026																																			
2.3.3	Finalize and launch LGD Certification Program	Municipality of Larissa	1/3/2025	31/12/2026																																			
2.3.4	Monitor and improve certification scheme	Municipality of Larissa	1/11/2026	31/12/2026																																			
ACTION 2.4 Nature Based Solutions (NBS)			1/5/2026	31/12/2027																																			
2.4.1	Design and planning of NBS interventions	Municipality of Larissa	1/5/2026	31/12/2026																																			
2.4.2	Implementation of pilot NBS projects	Municipality of Larissa	1/1/2027	31/8/2027																																			
2.4.3	Awareness & capacity building for businesses and citizens	Municipality of Larissa	1/9/2027	31/10/2027																																			
2.4.4	Monitoring of environmental impact and maintenance plan	Municipality of Larissa	1/11/2027	31/12/2027																																			
ACTION 3.1 Workshops & Training Programs			1/1/2026	31/12/2027																																			
3.1.1	Organization of workshops & training sessions	Municipality of Larissa	1/1/2026	31/10/2027																																			
3.1.2	Evaluation & feedback collection	Municipality of Larissa	1/11/2027	31/12/2027																																			

Risk Assessment

The implementation of Larissa's Integrated Action Plan involves a diverse set of stakeholders, financing mechanisms, and thematic areas, ranging from infrastructure investments and digital monitoring systems to public awareness campaigns and institutional capacity building. Given the plan's complexity and long-term horizon, a thorough risk assessment is essential to anticipate and manage potential challenges.

This section outlines the main administrative, financial, operational, and external risks that could impact the delivery of the proposed actions. Each identified risk has been evaluated based on its likelihood and impact, and corresponding prevention and mitigation measures have been proposed.

By proactively identifying these risks, the Municipality of Larissa aims to increase preparedness, reduce implementation delays, safeguard the quality of outputs, and ensure the sustainability of the IAP outcomes. A combination of institutional coordination, technical readiness, financial planning, and stakeholder involvement will form the backbone of a robust risk management approach.

The following table summarizes the key risks associated with the IAP and outlines appropriate response strategies:

Table 6: Risk Analysis Table

Risk Analysis Table	Description of the Risks	Likelihood (high, medium, low)	Impact (high, moderate, low)	Prevention	Mitigation
Administrative Risks	1. Delays in internal coordination and approval of project-related decisions across departments.	Medium	High	Establish clear governance structures and communication channels early in the process.	Assign project managers and establish regular progress review mechanisms.
	2. Change in political leadership or shifting municipal priorities.	Medium	High	Embed IAP actions into broader strategic municipal plans (SECAP, SUD).	Secure cross-party consensus and institutional continuity.
	3. Limited municipal staff capacity to oversee technical or innovative actions (e.g., SECAP monitoring tools).	High	Moderate	Provide training and allocate roles according to expertise.	Contract external experts for specialized tasks.
Financial Risks	1. Delays in funding disbursement from EU or national programs (e.g. ROP, LIFE).	Medium	High	Early preparation of funding applications and close liaison with managing authorities.	Plan buffer periods; phase implementation to match cash flow.

Risk Analysis Table	Description of the Risks	Likelihood (high, medium, low)	Impact (high, moderate, low)	Prevention	Mitigation
	2. Underestimated costs for infrastructure-heavy interventions (e.g. NBS).	Medium	High	Conduct feasibility and technical studies during the planning phase.	Allow budget contingencies; prioritize scalable or modular interventions.
	3. Reduced municipal funding due to macroeconomic shocks.	Low	Moderate	Diversify funding sources (e.g. Horizon Europe).	Explore public-private partnerships and co-financing models
Operational Risks	1. Resistance from businesses to change transport habits or participate in LGD certification.	Medium	Moderate	Tailor engagement strategies; involve business associations early.	Offer incentives or recognition for early adopters.
	2. Technical or procurement delays in deploying digital tools	Medium	Moderate	Prepare detailed specifications and vendor evaluation procedures.	Include milestone-based contracting with performance reviews.
	3. Limited participation in training programs and workshops.	Medium	Moderate	Conduct outreach campaigns and involve local institutions (e.g. JOIST, University of Thessaly).	Adjust topics and formats based on participant feedback; use hybrid formats.

Risk Analysis Table	Description of the Risks	Likelihood (high, medium, low)	Impact (high, moderate, low)	Prevention	Mitigation
Other Risks	1. Public disengagement or low awareness of green initiatives.	Medium	Moderate	Plan integrated communication campaigns in coordination with NGOs and media.	Use interactive methods (e.g. World Café, digital surveys) to increase engagement.
	2. Delays due to extreme weather affecting outdoor actions (e.g. NBS implementation).	Low	Moderate	Plan for flexible timelines and choose resilient seasons for activities.	Use contingency scheduling and ensure contractor flexibility.

Monitoring & Reporting

Effective monitoring and reporting are essential components for ensuring the successful implementation of the Integrated Action Plan (IAP) in Larissa. These processes will enable the Municipality and its partners to track progress, identify potential bottlenecks, measure results against expected outputs, and ensure alignment with the city's broader green transition goals.

Monitoring Framework

The monitoring of the IAP will be coordinated by the Municipality of Larissa, in close collaboration with key stakeholders including OLON S.A., the Association of Thessalian Industries & Enterprises (STHEV), the Larissa Chamber of Commerce, the Technical Chamber of Larissa, and the University of Thessaly. Each action within the IAP will have defined indicators—both quantitative and qualitative—linked to its specific objectives and expected outputs.

Dedicated municipal departments and technical experts will be assigned responsibility for tracking these indicators across the short- and medium-term timelines. Particular emphasis will be given to:

- Monitoring the implementation status of each activity as per the Gantt timeline.
- Evaluating the effectiveness of stakeholder engagement.
- Tracking environmental, social, and economic impacts of key interventions such as the Municipal Emissions Reduction Plan and the Nature-Based Solutions.
- Ensuring compliance with funding regulations and reporting obligations to relevant EU and national authorities.

Reporting Procedures

Progress will be documented in biannual and annual internal reports. These will include:

- Status updates on each action and its deliverables.
- Updates on budget execution and funding absorption.
- Analysis of key performance indicators (KPIs).
- Identification of challenges, risks encountered, and corrective actions taken.

An Annual Progress Report will be presented to the City Council and shared with stakeholders, including businesses, civil society, and academic partners. Where applicable, the report will also feed into monitoring obligations linked to European funding programmes.

Additionally, periodic workshops will be held to review results, gather stakeholder feedback, and adjust the implementation strategy where necessary. The participatory tools tested during the In4Green network, such as the World Café method, will be integrated into the monitoring feedback loop to maintain high levels of transparency and engagement.

Digital Monitoring Tools

Digital tools and dashboards will be explored to streamline data collection and enable real-time reporting for selected actions, especially those involving environmental performance. These platforms will enhance transparency, improve decision-making, and promote public accountability.

Conclusion

The Integrated Action Plan of the Municipality of Larissa, developed in the context of the In4Green URBACT network, outlines a coherent roadmap for a greener, more sustainable, and resilient industrial ecosystem. Grounded in participatory methodologies and informed by transnational cooperation, the IAP responds to local challenges by linking the needs of the industrial area with the city's strategic sustainability goals.

With a focus on green transition, the Plan introduces concrete actions across four key intervention areas: business collaboration, sustainable infrastructure, environmental innovation, and capacity building. Initiatives such as the establishment of a Business Collaboration Office, the implementation of the Municipal Emissions Reduction Plan (MERP), and the design of Local Green Deal certifications, are designed to enhance energy efficiency, promote circular economy practices, and strengthen public-private partnerships.

Through close collaboration with stakeholders, including business associations, academia, and civic actors, the IAP fosters shared ownership and long-term commitment to its objectives. Governance mechanisms, funding strategies, and monitoring frameworks have been integrated to ensure that actions are both impactful and measurable.

The IAP not only reflects Larissa's ambition to lead in the green transformation of its local economy but also positions the city as a national example of how industrial zones can be reimagined through collaboration, innovation, and environmental responsibility. The path ahead will require ongoing coordination, resource mobilization, and citizen engagement but with the foundations laid through this plan, Larissa is well-equipped to realize a sustainable industrial future.