

DELIVERABLE D.T2.3.1

IMPLEMENTATION STRATEGIES FOR URBAN ENVIRONMENTAL ACUPUNCTURE ACTION PLANS

City of Alessandria

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1. Introduction

Interreg Central Europe “SALUTE4CE” project is the framework within which the Alessandria Action Plan was carried out. The project involves a consortium of 10 partners from five countries working together from 2019 to 2022.

The project partnership will implement the concept of Urban Environmental Acupuncture (UEA), which consists of a surgical and selective intervention in the urban environment instead of large-scale projects covering thousands of hectares and incurring enormous costs.

Urban Environmental Acupuncture (UEA) is based on the assumption that the effects of a small intervention, such as planting trees on an area of a few thousand hectares, can have great resonance.

The Action Plan takes into account small urban acupuncture projects that can be used to recover or revitalise marginal areas. In this way, the urban fabric is regenerated by involving the community to respond to a deficit of public space, and in particular, green space.

The local action plan is based on a Transnational Concept of Action Plans for urban environmental acupuncture (D.T2.1.1).

Green spaces, trees and urban gardens become necessary factors for increasing urban resilience to current environmental challenges (climate change, reduction of biodiversity) and their use determines policies other than traditional urban planning and architecture.

In a broader context, a site where an urban acupuncture project has been implemented can be considered as a place that brings citizens closer to nature. These small interventions in the urban context bring well-being to the community, promoting a process of revitalisation of the area, as well as improving ecological aspects.

The SALUTE4CE project is integrated in a general vision of improvement of public green areas and foresees the application of a methodology defined as Action Plan.

The most important parts of the Action Plan, in summary, are the following:

- General (municipal) project to improve public green spaces, biodiversity and to increase resilience to climate change.
- The SALUTE4CE project in the general strategies for the improvement of public green spaces.
- Establish objectives.
- Establish a programme to achieve the objectives.
- Identify resources to achieve the objectives.
- Schedule deadlines and indicators.
- Apply the established programme.

The Municipality of Alessandria, and its Action Planning Team in particular, is preparing an implementation strategy for planning local UEAs on further small green areas in the City.

The Municipality of Alessandria has been planning for some time to adopt an urban green strategy that sets criteria and guidelines for the promotion of urban and peri-urban forests that are consistent with the environmental, historical-cultural and landscape characteristics of the places.

Policies should be based on three essential elements: increasing green infrastructure, reducing asphalt surfaces and adopting urban forests as a structural and functional reference of urban green. The urban forest includes all aspects of urban greenery such as forest patches, tree-lined avenues, large parks, urban gardens, historic villas, neighbourhood greenery, and architectural greenery including vertical forests and green roofs.

The involvement of stakeholders and necessarily multidisciplinary skills is essential to develop suitable public policies for the implementation of plans and projects based on ecosystem services and green infrastructure networks, defined to achieve precise social, environmental, financial and employment objectives.

The action planning on green areas is therefore an important element in the regeneration of the urban environment. Urban greenery is a vehicle for well-being thanks to the eco-systemic services provided by nature, such as landscape improvement and social, recreational and functional contributions.

2. Results of Action Planning

In order to carry out the project, as foreseen in the action plan, a preliminary phase of analysis and identification of the criteria for choosing potential sites for the urban green acupuncture process was carried out, which included two important phases

- the application of a decision analysis system based on the selection of different criteria in order to explore alternative options;
- the next stage of the decision-making process through the use of selection criteria with a scoring mechanism aimed at selecting the four functional areas where the four different urban acupuncture projects would be implemented. To make this selection, the principle of multi-criteria decision analysis (MCDA) was applied.

The selection of the sites was carried out by implementing the following procedure:

- Checking the availability by the municipal administration of land potentially useful for the project: small abandoned and degraded areas.
- Consultation of cadastral information and the intended use of the areas.
- Planning of inspections.
- Implementation of site visits.
- Identification of sites and production of documentation on the identified areas.

Subsequently, this information was shared with citizens in dedicated public meetings.

The review led to the selection of the following sites:

1. Viale Teresa Michel
2. Via Milite Ignoto
- 3.1 Via Cavalli
- 3.2 Via Fausto Coppi
4. Via Croce/Via Pasino - School Morando
5. Via Galvani ang. Via De Gasperi - School Villaggio Europa

6. Lungo Tanaro Magenta -Parco Italia
7. Via Cavour - Giardini Pittaluga
8. Via Raschio
9. Via D'Angennes - Zona School Campi
10. Via Aldo Moro/Via Casabagliano
11. Via Don Bosco

The selection criteria identified by the working group were used for the preliminary selection of 11 sites from which to choose, with the collaboration of citizens, four areas where to implement the urban green acupuncture plan of the SALUTE4CE project. A checklist was thus designed and a score was given for each of the parameters.

Each project was designed for its subsequent didactic/scientific usability in the environmental field and for its cost-effective reproducibility.

The Municipality of Alessandria then proceeded to define the four actions to be applied on the FUAs (Functional Urban Areas):: "The Urban Orchard", "The Refuge Forest ", "City's Green Lung" and " Greenery in City Centre ".

2.1. Table of UEA sites

Site Coordinates	Initial criteria for selecting this site	Land use at time of evaluation
Sites selected and considered in the Action Plan		
1. Via De Gasperi - Via Galvani - School "Villaggio Europa" 44.900589, 8.622435	Municipal property, abandoned status, votes from public consultations	Abandoned
2. Via Croce via Pasino - School "Morando" 44.917629, 8.628502	Idem	Abandoned
3. Viale Teresa Michel 44.921144, 8.628540	Idem	Abandoned
4. Urban city center (all) 100 Planters in different streets of the city (just as example 44.911818, 8.613727)	Idem	Uncared
Sites not selected but considered in the Action Plan		
5. Via San Giovanni Bosco 44.898650, 8.624458	Municipal property, abandoned status, votes from public consultations	Abandoned
6. School "Campi" 44.900304, 8.606232	Idem	Abandoned

7. Via Raschio 44.899607, 8.615184	Idem	Abandoned
8. Pittaluga Gardens 44.910711, 8.615826	Idem	Housing
9. Lungo Tanaro Magenta 44.934270, 8.625624	Idem	Abandoned
10. Via Aldo Moro 44.898154, 8.584371	Idem	Housing
11. Via Fausto Coppi 44.903840, 8.627561	Idem	Commercial

2.2. Overview of all UEA sites and overview of selected sites

The Action Plan 

Action Plan: 10 UEA potential application sites in Alessandria



I3 Investment: pilot actions 

- Via Galvani ang. Via De Gasperi – School Villaggio Europa District**
 Aluola V0402 Sup. 2353.77 mq – GPS 44°54'02.7"N 8°37'20.3"E
 82
- Via Croce/Via Pasino – School Morando District**
 Aluola V0450 Sup. 789.07 mq – GPS 44°55'04.6"N 8°37'40.5"E
 Aluola V0073 Sup. 4062.81 mq – GPS 44°55'02.2"N 8°37'43.2"E
 75
- Viale Teresa Michel – Near Urban Graveyard**
 Aluola V0694 Sup. 7095.11 mq – GPS 44°55'17.0"N 8°37'42.7"E
 75
- City Center Metamorphosis**
 Over 100 planters equipped with environmental monitoring units


2.3. UEA actions in the selected sites

2.3.1. The urban orchard: via De Gasperi - via Galvani - School “Villaggio Europa”



2.3.2. Via Croce via Pasino - School “Morando”



2.3.3. V.le Teresa Michel



2.3.4. Greenery in the City Centre



2.4. Structure and perspectives of the Action Plan

PRELIMINARY PREPARATORY PHASE

Programming the types of interventions to be implemented in the Municipality of Alessandria

C2.1 The working group

C2.2 A vision on the choice of urban functional areas

C2.3 The selection of functional areas for the implementation of urban green acupuncture in the city of Alessandria

C2.4 Criteria for choosing urban functional areas where to install new green infrastructures

C2.5 Designing intervention plans according to the principles of urban green acupuncture

C2.5.1 Criteria for choosing plant species

ANALYTICAL PHASE: GATHERING INFORMATION

C2.6 General information on the city of Alessandria

C2.7 Soil consumption in Piedmont

C2.8 The state of health of water in Piedmont

C2.9 Animal husbandry and the protection of water resources in Piedmont

C2.10 Bees: indicators of the state of health of the agricultural environment in Piedmont

C2.11 SALUTE4CE: urban green acupuncture and functional areas in Alessandria shared with citizenship

C2.12 SALUTE4CE: The selection of functional urban green areas shared with stakeholders

C2.13 The four actions for functional urban areas in Alessandria

DEVELOPMENT PHASE: SELECTION AND PLANNING OF ACTIONS

C2.14 Climatic conditions

C2.15 Soil analysis

C2.16 The spontaneous vegetation of the Alessandria territory

C2.17 Urban acupuncture interventions in functional green areas in Alessandria

C2.17.1 PROJECT NO. 1. The urban orchard

C2.17.2 PROJECT NO. 2. The refuge forest

C2.17.3 PROJECT NO. 3. The city's green lung

C2.17.4 PROJECT NO. 4. Greenery in the city centre

C2.17.5 Equipment and instruments supporting the SALUTE4CE project

IMPLEMENTATION PHASE

C3.1 The final project of the interventions

C3.2 The FUA Maintenance Plan

C3.3 The Benefits Monitoring Plan

C3.4 Analysis of the Operational Phase

C3.5 Publicity Strategies and Actions

The decision to plan, design, build and maintain green infrastructures according to "sustainable management" criteria must be shared with local communities, in order to give them an overall vision of the objectives set and how to achieve them.

For public administrations, a crucial issue in the management of relations with citizens is external communication, which must be simple, correct and constantly updated, in order to avoid problems linked to citizen dissent and to make them participate in the management of public assets. The promotion of public green policies can stimulate the development of good practices by citizens and achieve an improvement in the management of private green areas as well.

The SALUTE4CE project is integrated in the activities of promotion of public green areas, citizens' involvement and environmental dissemination carried out by the Municipality of Alessandria, the Botanical Garden and environmental associations such as RNA (Associazione Natura e Ragazzi).

Some institutional activities are now effectively integrated and connected with the SALUTE4CE project:

- Educational workshops and environmental dissemination at the Botanical Garden of Alessandria
- Public participation in the management of green spaces
- Micro-projects by organised citizens.

3. Implementation Strategy

The rehabilitation of degraded or abandoned urban green spaces through an Implementation Strategy based on Urban Environmental Acupuncture techniques is fundamentally based on two important pillars:

- on the one hand, interventions aimed at mitigating the effects of climate change are intended to be as effective as possible, seeking the most advantageous compromise between reducing investment/maintenance costs and minimising environmental impact during their implementation;
- on the other, the involvement of stakeholders in all phases of the work, strongly promoted by SALUTE4CE project, is a fundamental aspect for the conception, design, implementation and maintenance of local effective interventions.

The management of green areas is complex and requires specific planning and management tools in order to give substance to enhancement and protection policies. For this purpose, three

sector instruments for the management of urban green areas have been identified: census, regulation, plan.

The approval of the Implementation Strategy will follow an “institutional path” as detailed hereby and will be preceded by the signing of the official letter of commitment (D.T2.3.2).

The Implementation Strategy will be part of the Municipal Green Plan, established by municipal resolution: this is a tool designed to create the green system in the urban environment and provides a medium to long-term strategic approach.

To this end, the working group has drawn up a maintenance plan, a document that identifies and quantifies the interventions in a precise manner and thus allows monitoring of maintenance operations.

3.1 Legal basis of urban green development

The process of urban greening concern the FUA n. IT518 (Alessandria) and is led by the City Council and the City Board, through different strategic and operational documents, which, from the most general to the most specific, can be summarised as follows:

General Municipal Regulatory Plan (PRGC)

The City Council adopts the first relevant document, which is the “General Municipal Regulatory Plan (PRGC)”. The Plan, in the Italian legal system, is an urban planning instrument that regulates building activities within a municipal territory (greenery planning procedures included), which every Italian municipality must have, according to the Legislative Decree 267/2000.

Single Programming Document (SPD)

The City Board adopts the “Single Programming Document (SPD)”, which is the main tool for the strategic and operational guidance of an Italian municipality, and is the necessary prerequisite for all other programming tools. The City Board must submit it to the City Council for approval. The SPD is the fundamental tool for the strategic and operational planning of local authorities: it is of a general nature and constitutes the strategic and operational guide on which all other accounting and management documents are based.

The SPD is composed of two sections, the strategic section and the operational section.

The strategic section defines the strategic objectives with respect to the choices of the administration in the context of the general analysis of the external and internal situation of the authority, while the operational section is particularly important because it contemplates essential planning documents for the administration of the local authority, such as the Three-year Public Works programme.

Three-year Public Works Programme

The Three-year Public Works Programme is the tool with which the municipality identifies the major interventions and works that will change the city (roads, school buildings, parks, public buildings, etc.). It indicates the timeframe and resources allocated to the works to be carried out in the three-year period. The programme, together with the annual list, is adopted by the City Board and must be approved by the City Council together with the budget, of which it is an integral part.

Executive Management Plan (EMP)

After the approval of the budget, the Council approves the Executive Management Plan (EMP). The Executive Management Plan contains the objectives, methods and timing of administrative

actions and investment expenditure. In the Executive Management Plan the expenditure is divided into cost centres in relation to the organisational structure that activates them.

Municipal Urban Green Regulation

Concerning more specifically the urban greenery, the value of the landscape is protected by Article 9 of the Constitution of the Italian Republic. Urban green areas are linked to this protection norm in relation to their important environmental, urban planning and social functions, as well as for their considerable role in nature education and in improving urban quality, with beneficial effects also on the tourist and economic development of the city.

The Municipal Administration recognises its value in all its complexity, including its cultural and recreational aspects, and intends to safeguard its characteristics and peculiarities through a specific Regulation, called Municipal Urban Green Regulation, approved by the City Council approved by resolution no. 64 of 26 April 2017 apply.

The Regulation concerns both the work to be carried out on public and private green spaces and establish standards for the planting, maintenance and protection of green areas, trees and single specimens, indicate criteria to be followed when planning new areas, protect public parks and gardens, areas of environmental, historical and landscape value, areas designated as parks by current town planning instruments etc., in order to guarantee the protection and rational management of the city's green spaces.

The aims of the Regulation are the following:

- to protect and promote green areas as a qualifying element of the urban context, as a factor for improving the quality of life of the inhabitants and as an attractor of new economic and tourist initiatives in the area, developed with environmentally friendly criteria;
- to contribute to a rational management of the existing green areas;
- to develop a correct and professional design and implementation of new green works;
- to encourage a use of the municipal green areas compatible with the natural resources;
- to encourage citizens' participation on issues relating to the management and development of urban green areas;
- to indicate the most suitable ways of intervening on green areas and transforming the territory in order to maintain and develop the existing vegetation, to increase the presence of green areas in the urban context and to connect green areas, in order to allow a greater accessibility and a connection between them, with the aim of defining a real green system and to favour the creation of urban ecological networks;
- to encourage the protection and increase of biodiversity;
- to disseminate a culture of respect and knowledge of the city's natural heritage by informing citizens and promoting public events aimed at raising awareness and improving knowledge of plant and animal life and the functions they perform.

3.2 Implementation in the city/FUA administration

The process of urban greening in Alessandria is led by the City Council and the City Board. The City Council and the City Board, on the basis of the above-mentioned planning documents, indicate public green policies and entrust the implementation of the works to the different Departments of the Municipality.

In particular, urban green works are managed by the Public Works Department, which has two offices to carry out the activities: Public Green Service and Botanical Garden "Dina Bellotti". The responsible of these offices are part of the "Salute4Ce" team and constantly involved in the implementation of the activities.

The Municipal Urban Green Regulation provides that "projects concerning, even if only partially, green areas and trees in public works entrusted to sectors inside or outside the Administration of

Alessandria must involve the Public Green Service when checking the project”. And “the design of any public work that envisages the simultaneous or subsequent inclusion of green areas and therefore the planting of plant species must, at every stage (implementing urban plan - agreed building permit - preliminary project - final - executive), obtain the approval of the Public Green Service”.

The design of interventions is regulated by law, in particular by the public contracts code (Legislative Decree 50/2016). Following the Art. 23 of the law, “the design of public works is divided according to three levels of successive technical details, into a technical and economic feasibility project, a final project and an executive project.

Finally, every new project must be presented by the Public Works Department to the City Board for formal approval. The same procedure is necessary to approve new partnership or collaboration with external organisations or institutions.

The Implementation Structure and the Implementation methodology are represented graphically in the following points **3.1** and **3.2**.

3.3 Involvement and public participation

Through the phase of sharing with the stakeholders both the choice of the sites on which the interventions were implemented and the purposes of the equipped green areas, the Action Planning Team duly translated the desires and hypotheses into a final project that was approved by the City Council, together with the administrative acts necessary to prepare the public tender.

Stakeholder engagement, a tool for listening, dialogue and involvement with which administrators deal with their interlocutors in a logic of mutual collaboration and responsibility, is of fundamental importance. Participation of citizens and stakeholders is commonly understood as the practice of involving them in the public policy-making process. Stakeholder involvement also has an instrumental value, as it enhances transparency and the knowledge base on which policy-making is based, and reduces implementation costs. Involving citizens, in a context of transparency, can be seen as an enrichment of representative democracy and can, in some cases, avoid controversy and mistrust and dissatisfaction among citizens.

In the context of the Alessandria implementation Strategy, the stakeholder engagement is implemented through:

- Public communication: public policy makers transmit information to stakeholders. The information flow is one-way: stakeholders are not actively involved, no input from them is expected or required.
- Public consultation: policy-makers receive information from stakeholders as part of a process initiated by them. The contributions collected are perceived as representative of social views on the issue.
- Public participation: citizens, stakeholders and policy-makers exchange information.

The preliminary phase, the phases of research and selection of areas, the design phase and, finally, the implementation phase were shared, through a joint action, with both citizens and schools.

About schools, in agreement with the headmasters and teachers, the pupils were involved in the implementation phase: with the assistance of the municipal technicians, the students actively participated in the field measurements and staking out phases, during which the precise positioning of all the plants and furnishing materials in the project was decided.

Unquestionably, this method of proceeding generates different "added values", that favour a more correct and careful use of urban green areas by citizens.

There have been also important episodes of spontaneous involvement: among these, a first example was an unexpected letter written by the children of the Villaggio Europa School and addressed to the Botanical Garden of Alessandria, with which the children wanted to signify their weekly commitment to the care of the Urban Orchard.

A second example concerns the Refuge Forest, which saw the creation of a "Morando School Parents Committee" that wanted to contribute, through extraordinary maintenance and permanent artistic creations, to making the area even more pleasant and significant.

A third example has been the welcoming reserved by the schoolchildren to the participants of the international delegation during the project mission held in Alessandria in October 2021.

In addition to these examples of spontaneous participation, it is worth highlighting the birth of more structured collaboration projects, such as the collaboration with private companies, which have made themselves available for ordinary maintenance, or the project approved by the Municipal Council through which funds will be raised to finance work grants for the reintegration of inmates from the S. Michele prison, built through maintenance of green areas.

In case of more structured projects, the Administration usually establishes specific agreements with the external partners to regulate objectives and responsibilities.

Thus the Implementation Strategy can be considered as part of the future "vision" of Alessandria. The vision can be assimilated to the general vision of the city and the territory and is constructed from the composition of the present values and, once fulfilled and pursued, becomes the local identity.

The construction of the vision is important to orientate the strategies of territorial development, to promote the local values, including potential and/or latent ones, in order to plan a future for the city and the territory in accordance with the future planning priorities.

The construction of a vision is a guiding criterion for selecting actions and priorities, fostering co-operation between local actors.

To stay on the subject, it is crucial that, over the next decade, a "cross-fertilisation" (exchange, stimulation, synergies) is achieved between these resources, whether they are already present or to be created, so as to strengthen the image, economic importance and innovative capacity of the city of Alessandria.

4. Implementation Structure



5. Implementation Methodology

