

INVESTMENT PLAN



Aranciera e Semenzaio di San Sisto ROME

INVESTMENT PLAN *Urban Social Greenhouse*

*Cultivating Communities:
the Aranciera and the Semenzaio of San Sisto as a place of social inclusion*

August 4, 2026

Foreword and acknowledgements

Within the framework of URBACT IV, the Investment Plan represents the culmination of the H² CU.RE.N.T. project – *Hydro-Heritage: CUlture REvives Nature Through integrative, participative and sustainable management*, more immediately referred to as *Hydro-Heritage Cities (HHC)* – which concludes in August 2026. At the same time, it provides the basis for the project's potential further development beyond the “seeding” phase carried out from September 2024 to the present.

The project's key objectives have been achieved through the activities carried out within the URBACT Local Group (ULG) of Roma Capitale, coordinated by Sapienza University of Rome. In this regard, particular thanks are extended to the Italian Geographical Society (SGI), the *Domizia Lucilla* Upper Secondary School – Agricultural Section and, lastly, the Centre for Modern Studies (CSSM).

Recognition is also due to the Department of Social Policies and Health of Roma Capitale and the Regina Margherita Comprehensive Institute – Ugo Foscolo Unit, for their valuable contributions and active participation until January 2025.

The following page presents the complete overview of the ULG participants.

In addition to the meetings held within the framework of HHC with the experts made available through the project, this final update of the Investment Plan follows the Rome Transnational Meeting of 17 June and the exchange among the six HHC cities, together with other experts and institutional stakeholders, held in Rome during the Final Event of Hydro-Heritage Cities on 18 June 2026.

In this regard, special thanks are extended to Sandra Rainero, in her capacity as Lead Expert of the HHC project, and to Chiara Lucchini for their continuous exchange and support throughout the completion of this document.

In addition to the actions and activities already completed, other actions and activities whose design has been developed by the ULG are more specifically addressed in this Investment Plan, which looks ahead to the coming years. This document therefore constitutes a consolidated preliminary reference, open to discussion with political decision-makers and both current and future stakeholders

Rome, August 4, 2026

Programme URBACT IV

Project *Hydro-Heritage Cities* (HHC)

Water and Cultural Heritage: Culture Revives Nature Through Integrated, Participatory and Sustainable Management

Roma Capitale - Aranciera di San Sisto

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TABLE OF CONTENTS

Foreword and acknowledgements	2
SECTION 1 – The policy context	6
1.1 Needs and resources analysis in the territorial context.....	6
1.1.1 The territorial, historical and cultural context of the Aranciera and the Seedbed of Old San Sisto	7
1.1.2 Local opportunities and general strategies.....	14
1.2 The policy response	15
SECTION 2 – The investment proposal	18
2.1 Background to the proposal	18
2.2 Our starting point	18
2.3 The adapted version of the innovative practice	19
2.4 The integrated approach and participative process	22
SECTION 3 – The adapted innovation project	25
3.0 The Aranciera of San Sisto as Urban Social Greenhouse	25
3.1 Goals and actions: warp and weft	25
3.2 The workplan	32
Action 1 - Hypertexts or similar products on the Aranciera, the Celio area and water as cultural, landscape and natural heritage	33
Action 2 - Involvement of students and teachers from schools and interaction with other school projects	34
Action 3 – Experimentation in the field of urban gardens and floriculture	34
Action 4 – Promotion of participation and social interaction in urban horticulture and floriculture.....	35
Action 5 – Training courses for migrants on low environmental impact cultivation techniques	35
Action 6 – Awareness-raising on the effects of climate change.....	35
Action 7 – Awareness-raising against water waste.....	36
Action 8 – Framing of HHC–Aranciera as a pilot project for the city	36

Action 9 – Mapping of city Hydro-Cultural heritage.....	36
Action 10 – Programme of post-HHC activities connected to the HHC–Aranciera project	37
Action 11 – Establishment project of the ULG Association - Urban Social Greenhouse ..	37
Action 12 – Cooperation Agreement	38
3.3 Governance and delivery model	40
3.4 Overall project schedule	41
3.5 Actions with the Highest Short- to Medium-Term Feasibility and Their Potential Beneficiaries	42
SECTION 4 – Budget.....	44
4.1 Project costs.....	44
4.2 Investment sources.....	46
SECTION 5 – Monitoring and evaluation	48
5.1 The monitoring and evaluation approach	48
5.2 The monitoring and evaluation framework	49

SECTION 1 – The policy context

1.1 Needs and resources analysis in the territorial context

The City of Rome is currently facing a complex urban challenge that brings together two closely interconnected dimensions: on the one hand, the difficulty of effectively enhancing its lesser-known cultural and environmental heritage; on the other, the need to strengthen urban regeneration policies capable of integrating environmental sustainability, climate adaptation and social inclusion. Many historical and landscape assets, particularly those located outside the main tourist circuits, remain underused, little known even to local residents, and only marginally integrated into the city's everyday life. At the same time, increasing water stress and growing climate vulnerability make it ever more urgent to rethink the relationship between the urban environment, cultural heritage, water resources and quality of life.

This situation is particularly well represented by the *Aranciera* of the *Semenzaio di San Sisto Vecchio*, which is currently undergoing a major restoration and environmental and energy retrofitting programme. It is a building of significant architectural, historical and landscape value, located within a highly stratified urban context but characterised by limited civic use and weak collective recognition. Despite its location in a central area of the city, the *Aranciera*, and to some extent the surrounding urban and territorial system, have remained at the margins of cultural enhancement processes and active public participation. The site is historically linked to important Roman water systems, such as the *Acqua Mariana* and the *Fonte delle Camene*, which testify to a deep relationship between water, landscape and urban practices. Over time, however, this hydro-cultural dimension has become increasingly less visible, despite being extensively documented from both historical and geological perspectives.

For many years, the building remained substantially underused in relation to its historical, environmental and social potential, with limited accessibility and an almost complete absence of functions open to the public. The restoration project currently underway therefore represents a strategic opportunity that would be difficult to replicate. Without a parallel programme of social, cultural and governance activation, there would be a risk of returning to the city a building that has been physically restored but lacks a permanent function and a lasting impact on the local community. The Investment Plan has therefore been developed to accompany the completion of the restoration works with a model of use, governance and participation capable of ensuring long-term benefits and fully enhancing the value of the public investment.

Within the Rome HHC project, therefore, the restoration of the *Aranciera* has been interpreted as an opportunity to rebuild the relationship between cultural heritage, water resources and the local community, transforming a restored historic building into a permanent place for environmental education, social innovation and the experimentation of sustainable practices. The historical relationships recalled here constitute the cultural foundation of the intervention strategies presented in the following sections.

From this perspective, the restored *Aranciera* represents not only the recovery of a historic building, but also a demonstration site where the memory of the city's water heritage is translated into contemporary practices of environmental sustainability. Indeed, the restoration project includes solutions aimed at improving energy efficiency and promoting the sustainable management of resources. At the same time, the activities envisaged by the Investment Plan are intended to transform the *Aranciera* into a permanent space for education, awareness-raising and participation, where water culture becomes a tool for promoting responsible behaviours, strengthening urban resilience and rebuilding the relationship between citizens, cultural heritage and the environment.

The main beneficiaries of the planned actions will be local residents, with particular reference to the community of Municipio I and the surrounding areas; schools and universities involved in educational programmes; cultural, environmental and Third Sector organisations; young people and families; as well as visitors interested in discovering the city's lesser-known cultural heritage. The project will also benefit the Capitoline Administration and the stakeholders involved in the management of public heritage through the testing of an integrated and replicable model of governance, cultural enhancement and environmental sustainability.

1.1.1 The territorial, historical and cultural context of the Aranciera and the Seedbed of Old San Sisto



The Orangerie for rare plants, built to a design by Raffaele de Vico in 1926, and its Seedbed—also restored and reorganized that same year by de Vico with Alberto Galimberti—are located on the southern slopes of the Caelian Hill, one of the seven founding hills of the city of Rome, which in earlier periods was already characterized by a rich system of spring waters, small tributaries of the Tiber, and ponds/pools.

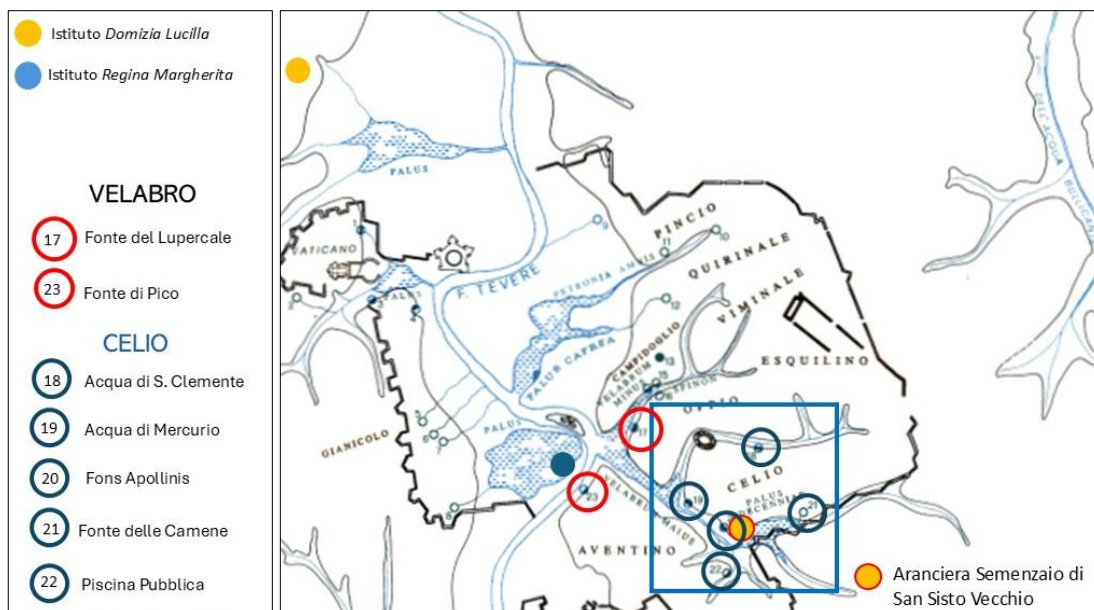


fig. 1 - Image elaborated from the map published in Corazza A., Lombardi L., *Chapter III – Hydrogeology of the Historic Centre of Rome*, in *The Geology of Rome. The Historic Centre*, ISPRA Ambiente, 1995.

The area therefore appears, in the ancient world, as a Sacred Landscape devoted to the cult of the *Camēnae* (and other deities such as Fons, Hercules and Mercury), protectors of natural springs of potable and mineral waters, which were believed to be curative and thus sacralized through rituals and cultic constructions (fig. 1). A nymphaeum dedicated to the *Camēnae*, in fact, was likely situated approximately on the present site of the Seedbed, in the ancient “Sacred Grove.” The Orangery and the Seed Nursery — within the framework of the HHC Rome project — provided an opportunity to investigate Rome’s complex and multi-millennial relationship with its own “soul,” which is made eternal through the “divinization” of water as an expression of respect and gratitude because it quenches, heals and above all regenerates, shaping forms and cultural and civic values within an ongoing cyclic/evolutionary process. This complex relationship, built on the interaction between humans and nature, was extensively examined in the research carried out during the development of the HHC project, and is here condensed for the sake of necessary brevity.

The hydrogeological setting described has changed profoundly over time, and many stratifications have followed one another: the springs have disappeared, partly as a result of water-regulation works—above all those on the Tiber—and of the urbanization that followed the proclamation of Rome as the capital of Italy in 1870. In a sense the “modern” city erases the deep relationship between the city and its waters, a relationship that today is being partly recovered in regeneration strategies affecting the Tiber’s urban corridor. More specifically, however, the fountains of Villa Celimontana (figs. 2, 4) and of the Seed Nursery (figs. 3, 5), together with the memory of the route of the Acqua Mariana and, not least, the underground “ponds” corresponding to the footprint of the archaeological remains of the foundations of the Temple of the Divine Claudius, still attest to the Celian Hill’s water richness and that of the city’s founding area, as do the archaeological remains of archaic wells (5th–2nd centuries BCE) used for water extraction, now on display in the museum spaces recently fitted out in the Fori Imperiali–Colosseo “archaeo-station” of the new Metro Line C (fig. 6).



fig. 2 – River Fountain, Villa Celimontana



fig. 3 – Fountain of the *Semenzaio di San Sisto Vecchio*



fig. 4 – Fountain of the Tritons, Villa Celimontana



fig. 5 – R. de Vico, fountain of "casaletto"

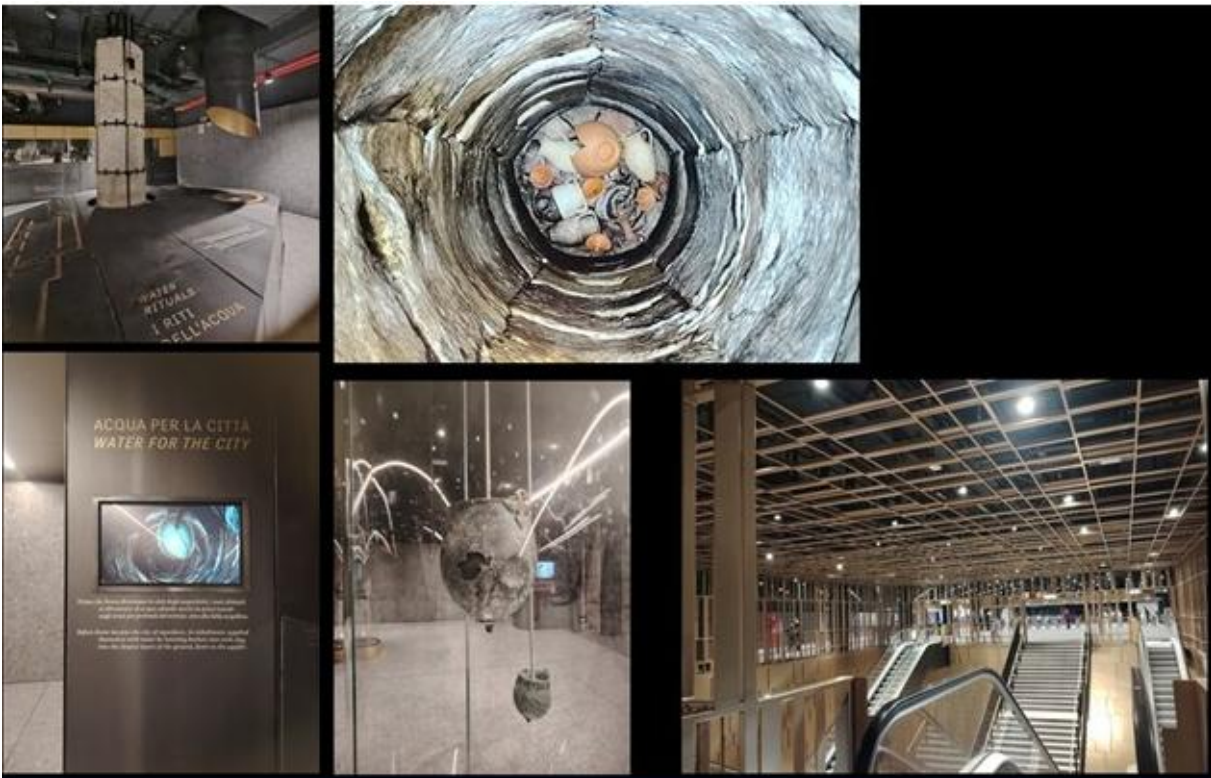


fig. 6 – Archaeological Metro Station, Metro Line C

The southern slopes of the Caelian Hill currently form a protected landscape unit because of their particular geomorphological, archaeological, historical/cultural, and environmental features. We can distinguish three interrelated parts connected by the Villa Celimontana–Palazzetto Mattei complex (fig. 7):

1. the upper (northern) zone of the “Celian Archaeological Park,” reopened to the public in its present form in 2024, together with the arrangement of the new Forma Urbis Romae Museum, the redevelopment of the Casina del Salvi (2025), and the start of works on the Antiquarium. In addition, a complete rehabilitation of the site's vegetation system and new links with the adjacent monumental areas are planned. The entire area had already been conceived in the first half of the nineteenth century (1835) by Pope Gregory XVI as a “public promenade” and botanical garden;
2. the central core of Villa Mattei–Celimontana, opened as a public garden in 1928, with the Palazzetto Mattei housing the Italian Geographical Society since 1926 (whose centenary is being celebrated this year);
3. lower (southern) area: the Seedbed and the Orangery.

The entire area/unit currently functions as a connecting node between the Central Archaeological Area (Fori Imperiali–Colosseum–Palatine and Circus Maximus) and the Appian Way Regional Park (Valle della Caffarella, Parco degli Acquedotti and the new park expansion zones), and represents an important strategic area for regeneration interventions. Starting from the Orangery, these interventions—now being implemented—follow strategies to: enhance the environmental system, increase social cohesion and conserve and protect the historical components; strategies capable of combining history, nature, and active citizenship.

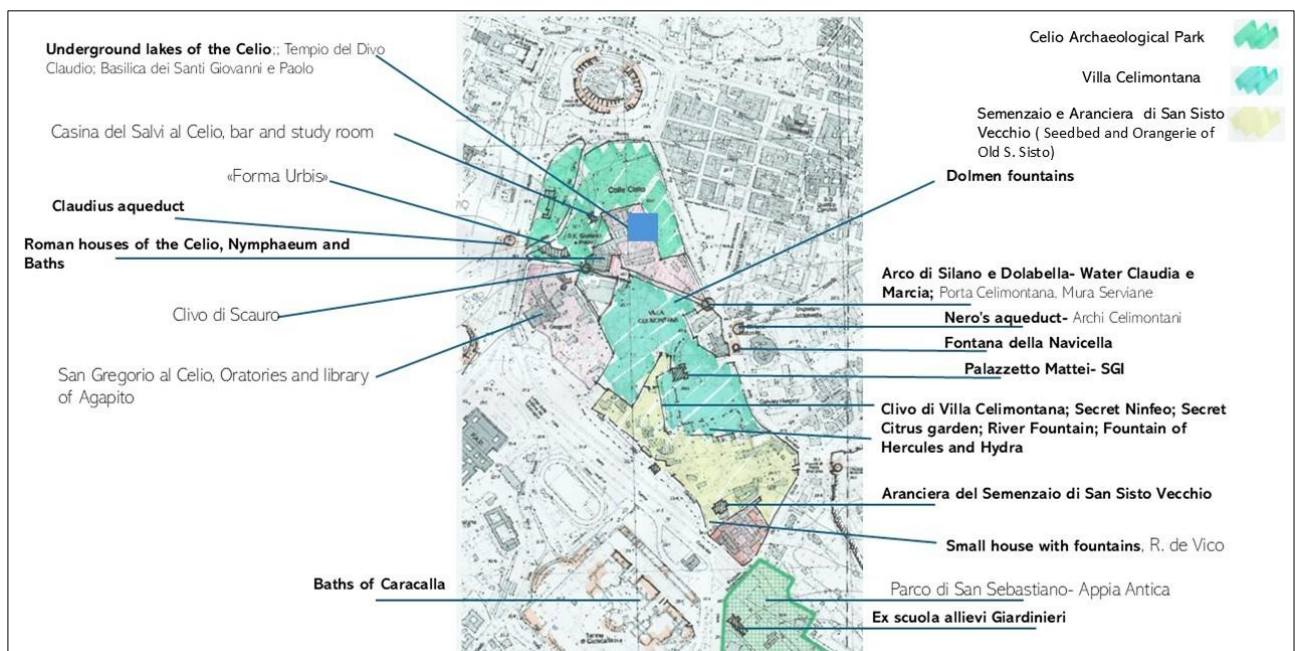


fig. 7 – Landscape Unit of the Southern Slopes of the Caelian Hill (elaboration by M.T. Cutri)

Rome has a long tradition of *Horti*, villas and gardens in which water plays a leading role in perfect fusion with vegetation and archaeology, so much so that, over time, it helped shape an image of the city that also became the symbolic hallmark of Napoleon Bonaparte’s “dream” for Rome and his urban projects—initiatives that began with the first archaeological excavations and the design of promenades and public parks open to all. Thus in 1811 the “Pepiniere,” the Plant Nursery (later the Seedbed of San Sisto Vecchio), was established for cultivating plants destined for parks, gardens and public promenades—symbols of a modern culture and civic education rooted in the values of Antiquity (fig. 8).

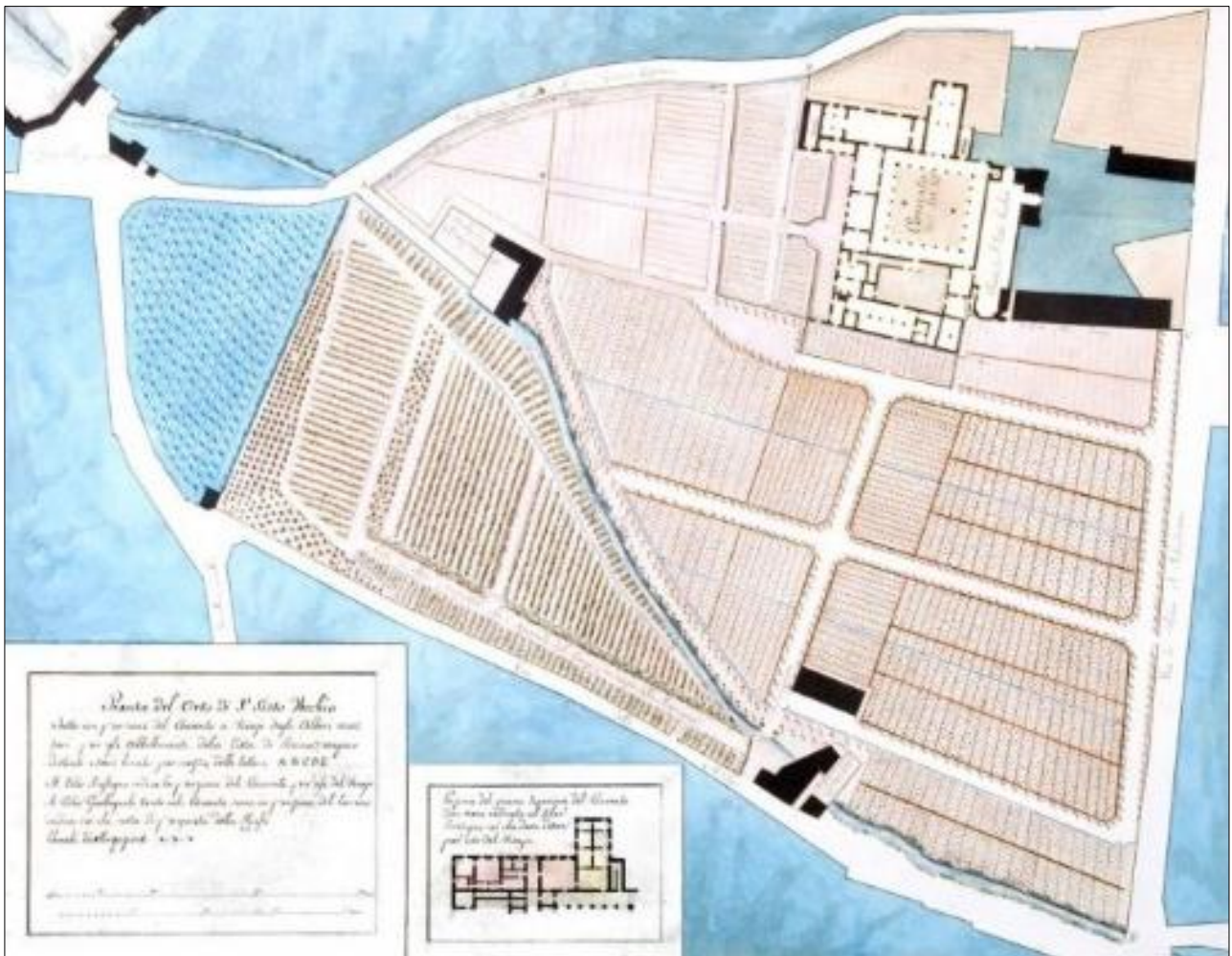


fig. 8 – Establishment of the *Pépinière* (Plant Nursery) in the *Orti di San Sisto Vecchio*, 1811

At that time the Nursery was still crossed by the channel of the Acqua Mariana, a branch of the Acqua Crabra, commissioned in 1122 by Pope Callixtus II to make up for water shortages partly caused by the failure of some aqueducts (apart from the Acqua Vergine, still in use) and possibly also related to the climatic warming of the period. The Acqua Mariana supplied the crops of the Agro Romano, the wool mills and the grain mills; from the springs near Grottaferrata it entered Rome through Porta Metronia, crossed the Horti of San Sisto Vecchio and the Circus Maximus, and emptied into the Tiber near the Cloaca Maxima (fig. 9).

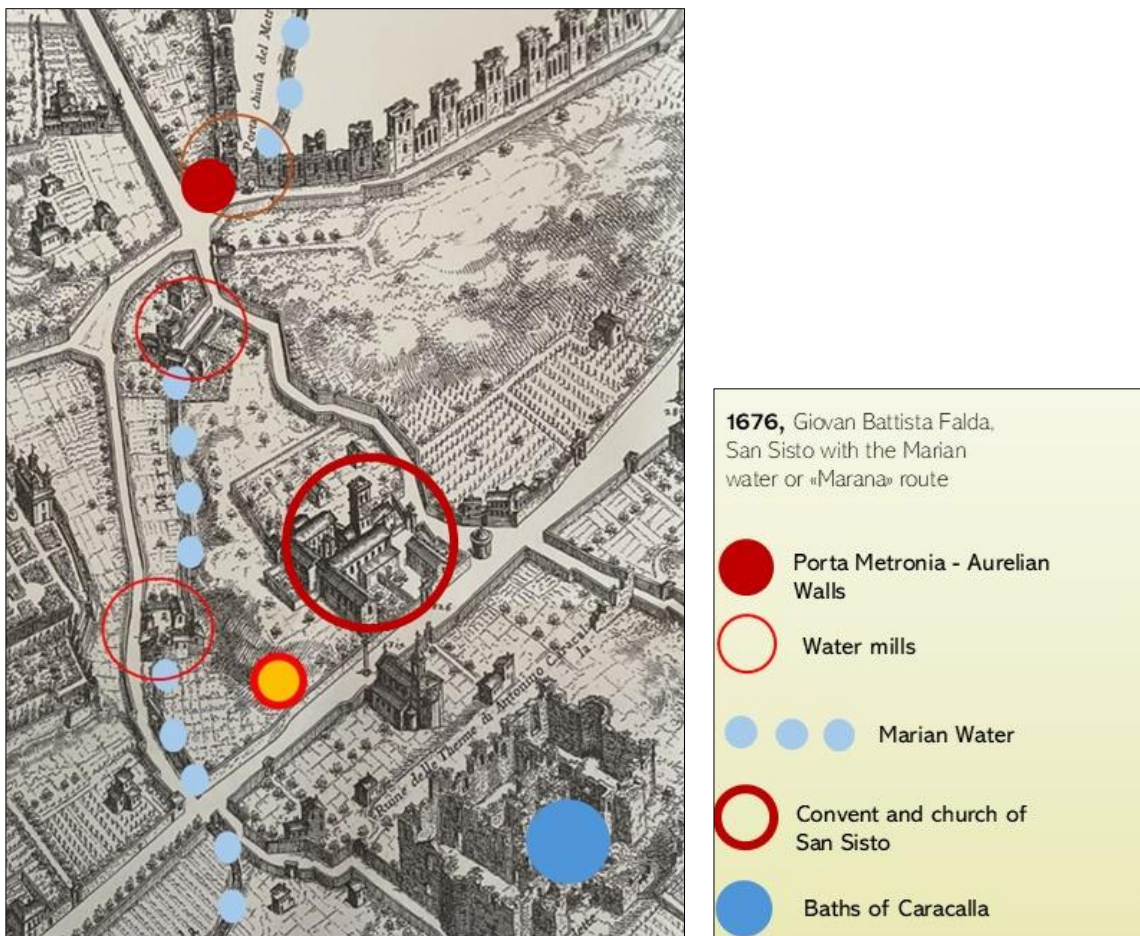


fig. 9 – G.B. Falda, 1676. Detail of the *Pianta et Alzata della città di Roma* (elaboration by M.T. Cutri)

From the Napoleonic nursery to the Seedbed we know today there followed years of neglect and functional changes until Raffaele de Vico's intervention in 1926; de Vico had already served as landscape architect for the Governorate of Rome since 1915. Raffaele de Vico is responsible for the most beautiful (and nearly all) of modern Rome's gardens. In addition to the Orangery project, he undertook the restoration of the buildings within the Seed Nursery, including an old "Casaletto" (the Guardian House) with a fountain—now almost forgotten—set in a corner and built with *spolia* discovered during excavations for the construction of modern districts, and another fountain-nymphaeum that has since been lost (figs. 10, 11, 12). Likewise, and using the same construction techniques, he probably recommended as a consultant to the Governorate the layout of the urban garden of Villa Celimontana, from the new entrance portal on Via della Navicella (sourced from the demolitions of Villa Giustiniani) to the creation of the garden "folies" such as the "dolmen fountain" (figs. 13, 14, 15) and the placement of the "imperial she-wolf" drinking fountains (figs. 16, 17).

The restoration, consolidation and energy-requalification project for the "Orangerie of San Sisto" was launched in 2024 by Rome Capital's Department for Environmental Protection.



figg. 10, 11, 12 - Images of the *Casaletto* and the Fountain



figg. 13, 14, 15 - Images of the Fountain of the Dolmens, Villa Celimontana



figg. 16, 17 - Fountain of the "Imperial She-Wolf", Villa Celimontana

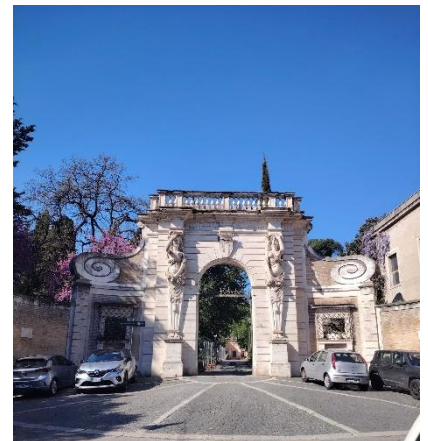


fig. 18 – Entrance Gateway to Villa Celimontana

1.1.2 Local opportunities and general strategies

The context analysis therefore highlights that the need for greater civic use concerns not only the physical restoration of the building, but also, more broadly, the need to reactivate its meaning, functions and management models within the framework described above, both as a recovery in its own right and as a cultural, historical-landscape and environmental “addition” over the long-term continuity of the city's history. The challenge is to transform the *Aranciera* from a simply restored space into a shared urban resource, capable of connecting cultural heritage, environmental education, social practices and awareness of water use through participatory and sustainable governance models.

The urgency and relevance of the intervention stem from the convergence of several factors. On the one hand, the building required significant structural and functional interventions; on the other hand, these interventions, which are already underway, form part of a broader green and digital transition strategy, offering a particularly favourable window of opportunity to integrate environmental, social and cultural objectives. At the same time, the intensification of the climate crisis and the increasing pressure on water resources reinforce the strategic value of water-related heritage as a tool for education, awareness-raising and climate adaptation. This is complemented by the launch of participatory processes involving schools, universities and civil society: a valuable network of relationships and expertise that has already been activated but would risk being dispersed without a structured medium- to long-term vision. In an urban context characterised by increasing social fragmentation, the *Aranciera* can also assume the role of a civic and educational hub, helping to strengthen the sense of belonging and territorial cohesion.

The *Hydro-Heritage Cities (HHC) – Aranciera* project is fully consistent with the main strategic and policy frameworks at the local, national and European levels. In particular, it is aligned with the *Rome Climate Plan*, which promotes actions for climate adaptation, the sustainable management of water resources, and the strengthening of urban green and blue infrastructure, as well as with the intervention priorities set out in the *Strategic Plan of the Metropolitan City of Rome Capital*. The latter promotes the enhancement and valorisation of minor cultural sites and/or sites located outside the central areas of Roma Capitale, involving Municipalities I and VII, while recognising the role of minor cultural heritage assets and public spaces as places of social interaction, learning and inclusion. At the national level, the project is consistent with the objectives of the *National Recovery and Resilience Plan (PNRR)*—Mission 1, dedicated to digitalisation, innovation and culture, and Mission 2, focused on the green revolution and ecological transition—strengthening the integration between heritage conservation, environmental sustainability and innovation in the use and management of public assets.

The initiative also contributes to the achievement of several Sustainable Development Goals of the 2030 Agenda. In particular, it contributes to SDG 11 by promoting inclusive and accessible urban regeneration processes; to SDG 6 through the enhancement of water heritage memory and the promotion of the sustainable use of water resources; to SDG 13 by strengthening urban resilience to climate change; to SDG 4 through the creation of educational programmes dedicated to environmental and cultural heritage issues; and to SDG 5, thanks to its inclusive approach and the broad female representation already present within the composition of the HHC URBACT Local Group.

At the European level, the project contributes to the objectives of the European Green Deal, by integrating culture, the environment and civic participation as drivers of the sustainable transition; the New European Bauhaus, by promoting the regeneration of public spaces through a balance between aesthetic quality, sustainability and inclusion; and the Urban Agenda for the European Union,

particularly within the Partnerships dedicated to Culture and Cultural Heritage, Green Transition and Inclusion.

Within this framework, the *Aranciera di San Sisto* represents a pilot opportunity to address a systemic challenge facing the City of Rome: reconnecting minor cultural heritage, climate resilience, social innovation and civic participation. The underlying strategy is to move beyond an approach limited to a single project or a single heritage asset, in order to establish a governance and implementation model capable of ensuring continuity, sustainability and potential replicability beyond the timeframe of the URBACT programme. The project is conceived as a replicable model of governance and activation for under-recognised and/or underused water-related cultural heritage sites, contributing to a broader urban strategy for sustainable and inclusive regeneration. Indeed, within the Investment Plan proposed here, particular importance is attributed among the overarching strategies envisaged and recommended to Action 8 – Framing HHC–Aranciera as a Pilot Project for the City (see Sections 3.1 Goals and Actions: Warp and Weft and 3.2 The Workplan).

1.2 The policy response

The *Aranciera di San Sisto* project plays a significant role within the policies and strategies of Roma Capitale aimed at the continuous enhancement of urban environmental sustainability. In addition to the policy frameworks mentioned above, the following broader strategic plans should also be considered:

- **The Strategic Plan of the Metropolitan City of Roma Capitale**, particularly with regard to the development of new ways of creating and enjoying cultural heritage that enhance its historical and landscape assets, including minor and peripheral sites. In particular, the Plan identifies the enhancement of widespread cultural heritage, improved accessibility to public assets and the development of territorial networks as fundamental elements for promoting local development, social inclusion and sustainable attractiveness;
- **The Climate Change Adaptation Strategy (2025)**, particularly in relation to the objective of “*Rethinking the relationship between the city and water*”. The Strategy also promotes interventions aimed at the sustainable management of water resources, the expansion of green and blue infrastructure, the strengthening of climate resilience and the development of awareness-raising initiatives targeting citizens;
- **The Rome Climate City Contract (2025)**. The Climate City Contract recognises the role of public spaces, civic participation and nature-based solutions as instruments for supporting the city's climate transition through integrated initiatives of environmental and social innovation.

More specifically, in recent years the Capitoline Administration has consistently renewed its interest in and attention to the *Aranciera* greenhouse building, which has traditionally formed part of the city's culture of urban greenery, as a potential “*venue for scientific, educational and cultural initiatives on urban green spaces and environmental issues*”. More recently, attention has also focused on the Gardens Office, located within the *Semenzaio di San Sisto*, in synergy with the characteristics and future activities planned for the *Aranciera*, including those envisaged within the HHC project.

Once the restoration has been completed, the *Aranciera* will be able to activate resources that are currently only partially utilised. In particular, it will bring together the expertise already available within

the URBACT Local Group, strengthen collaboration among the Capitoline Administration, universities, schools, associations and Third Sector organisations, provide a permanent venue for educational, cultural and environmental activities, and improve accessibility to the territorial system comprising the *Semenzaio di San Sisto*, *Villa Celimontana* and the *Celio Archaeological Park*. In this way, the public investment will generate benefits that go beyond the restoration of the building itself, contributing to the development of new collaborative networks, educational opportunities and initiatives for active citizenship.

More specifically, within the action of the Deputy Mayor's Office for Agriculture, Environment and Waste Management for Agriculture, Environment and Waste Management, the main expected outcomes, including at the political level, are:

- the full restoration of the building and its surrounding areas, particularly from the architectural and functional perspectives, while ensuring high standards of energy efficiency and environmental sustainability for the greenhouse building;
- the use of the building not only as a greenhouse, but also for social and cultural purposes;
- its role as tangible evidence of the political commitment to a city capable of rediscovering and enhancing its lesser-known resources and making them accessible to its inhabitants.

The actions envisaged in the Investment Plan translate these strategic directions into concrete interventions. The educational activities addressed to schools and citizens contribute to the environmental education and participation objectives set out in the Rome Climate Plan; the initiatives dedicated to the sustainable management of water and the enhancement of water-related heritage reinforce climate adaptation strategies and the protection of natural resources; while the activities promoting social inclusion, training and local community engagement support the objectives of social cohesion and urban regeneration highlighted both in the Strategic Plan of the Metropolitan City and in the New European Bauhaus. In this way, the project not only aligns with existing policies but also constitutes an operational instrument for their implementation at the local level.

In practice, the HHC–Aranciera project can contribute to the achievement of these objectives, which explains its endorsement, including recently, by the political decision-makers. With reference to the stakeholders active within the ULG and to some of the activities envisaged—both those already underway and those included in the Investment Plan (see the following sections)—the political commitment currently provides for and supports:

a) as a preliminary step, the inclusion in the Investment Plan of the activities currently being carried out within the ULG in collaboration with the stakeholders involved (schools, the Italian Geographical Society, the Third Sector Forum and other departments of Roma Capitale), together with the integration of the activities and the spaces designated for them (*Aranciera* and *Semenzaio di San Sisto*), as a qualifying element and distinctive feature of the project, to be consolidated as a characteristic practice of the *Aranciera*'s activities and urban role;

b) accordingly, the availability of the *Aranciera* building on a monthly basis, together with the continuous availability of some spaces within the *Semenzaio*, to support the planned activities.

The political commitment therefore goes beyond supporting the completion of the physical restoration of the *Aranciera*: it recognises the value of the Investment Plan as an instrument for consolidating a new model of integrated management of the city's cultural and environmental heritage, based on

collaboration among public institutions, the local community and territorial stakeholders. From this perspective, the availability of the *Aranciera* and *Semenzaio* spaces constitutes the enabling condition for developing the actions envisaged by the project over time and ensuring their continuity beyond the conclusion of the URBACT programme.

SECTION 2 – The investment proposal

2.1 Background to the proposal

As with the other partner cities in Hydro-Heritage Cities (originally: *H² CU.RE.N.T. – Hydro-Heritage: CULture REvives NATure Through integrative, participative and sustainable management*), the *Aranciera di San Sisto* project is framed within the broader perspective of interventions aimed at the recovery and sustainable enhancement of cultural heritage and the water-related heritage associated with it. In this context, the participation of Roma Capitale in HHC was intended to identify and adapt further opportunities emerging from the experience and successful outcomes of the previous UIA project implemented in Chalandri, *Cultural Hidden IDentities ReAppear through Networks of WaTer (Cultural HIDRANT)*.

That project made it possible to restore the Hadrianic Aqueduct to the city after it had long remained forgotten and hidden, regenerating the latent potential and resources of the local heritage, both tangible and intangible, cultural as well as natural.

Similarly—and with the necessary adaptation of this "model" to the specific characteristics of the *Aranciera* greenhouse structure, its site and the City of Rome—the restoration and adaptive reuse project for the *Aranciera* constitutes an objective in itself, providing the city with a facility that is highly advanced in terms of environmental sustainability. At the same time, drawing on the example of Chalandri, it is intended to serve as a strong catalyst for raising awareness across the city of hidden or lesser-known cultural heritage, particularly where it is associated with water resources. This applies both specifically to the *Aranciera* and its *Semenzaio* and, more broadly, has the potential to extend to significant parts of the city, including as a driver for future interventions aimed at developing forms of urban green and blue infrastructure, as already highlighted.

Furthermore, although the project pursues a long-term vision, it also includes immediately implementable initiatives (*quick wins*) designed to activate the site, engage stakeholders and generate an early impact.

2.2 Our starting point

The participation of Roma Capitale in the Hydro-Heritage Cities (HHC) project stems from the need to engage with other European cities on strategies for enhancing cultural and lesser-known heritage while, at the same time, supporting the transformation process of the *Aranciera di San Sisto* through an integrated approach based on environmental sustainability, civic participation and innovation in the management of public assets.

The project is set within a particularly favourable institutional context. In recent years, Roma Capitale has launched a programme for the restoration, structural consolidation and energy retrofitting of the *Aranciera*, recognising its historical, architectural and environmental value and choosing to return to the city a building that had long remained underused in relation to its potential. The decision to proceed with the restoration of the building has progressively broadened the objectives initially associated solely with the physical intervention, shifting attention towards defining the future functions of the *Aranciera*

and its role as a public space dedicated to educational, cultural, environmental and social activities, in close connection with the *Semenzaio di San Sisto* and with the urban regeneration strategies of the Capitoline Administration.

Within this framework, the HHC project has represented an opportunity to complement the infrastructure investment with a participatory process aimed at jointly defining the future use of the building. Although the completion of the restoration works constitutes a necessary condition for the full implementation of the planned activities, many elements of the transformation process have already been initiated. Through the work of the URBACT Local Group, institutional partnerships have been consolidated, dialogue with schools and stakeholders has been initiated, and a number of proposals concerning the future functions and management arrangements of the *Aranciera* have progressively been developed. These activities make it possible to prepare, already at this stage, the organisational and relational context required so that, once the restoration works have been completed, the building can rapidly become operational as a vibrant space fully integrated into the city's network of cultural, educational and environmental services.

The experience gained during the project has also shown that the main conditions for implementing the Investment Plan do not concern solely the completion of the restoration works. It will also be necessary to consolidate collaboration among institutional and local partners, establish a stable governance model, plan the activities to be developed within the *Aranciera* and the *Semenzaio*, and identify the organisational arrangements and resources required to ensure their continuity over time. Many of these conditions can already be established during the final phase of the construction works, making it possible to accompany the transition progressively towards the full operational functioning of the facility.

In light of the work carried out, sufficient elements are now in place to define the operational outcome of the HHC–Aranciera project, namely an Investment Plan conceived not merely as a strategic document, but as an operational tool capable of consolidating the results already achieved, guiding the subsequent decisions of the Administration, and supporting the progressive implementation of the actions presented in the following sections of this document.

2.3 The adapted version of the innovative practice

The main aspect of the Chalandri experience that this project seeks to transfer is the ability to make the invisible visible. Indeed, the City of Rome possesses an extensive and highly valuable historical and archaeological heritage that is recognised worldwide. Within this heritage there are numerous minor assets which are not only little known but whose historical value is often not even recognised. As in the case of Chalandri, *making the invisible visible* in the Roman context means bringing to citizens' attention a historical, landscape and hydro-cultural heritage that is currently little known, taking the *Aranciera di San Sisto* as a pilot site through which to experiment with new approaches to heritage enhancement, participation and sustainable management. The aspects of the Cultural H.ID.R.A.N.T. project that provide the greatest inspiration for the *Aranciera* project are:

- **the urban regeneration of public spaces that make the aqueduct visible;** similarly, the *Semenzaio di San Sisto* could become accessible and be used as a public green space;

- **the collection of historical memories;** likewise, it would be possible to collect testimonies from former gardeners;
- **digital storytelling;** similarly, storytelling tools could be developed for the *Aranciera* in order to communicate and disseminate information about the site.

The adaptation of the Chalandri experience is therefore not limited to transferring individual practices, but aims to develop a model consistent with the specific characteristics of Rome. The added value of the proposed approach lies in its ability to integrate the restoration of a recently renovated historic asset with new educational, environmental and social functions, strengthening the role of the *Aranciera* as a meeting place for cultural heritage, water culture, civic participation and innovation in the management of public spaces. From this perspective, the project aims to generate benefits that extend beyond the individual building, contributing to the enhancement of the city's lesser-known cultural heritage, increasing environmental awareness and consolidating permanent networks of collaboration among public institutions, schools, universities, associations and citizens.

With reference to the “**Innovative Building Blocks of Cultural H.ID.R.A.N.T.**”:

1) “**Reintroducing the Hadrian Aqueduct as a Living and Resourceful Heritage**”

Also in the case of the *Aranciera*, rediscovery, restoration and the rehabilitation project go beyond an approach centred exclusively on the monument and tourism, aiming instead to create a space for the community—a place for participation and sharing that remained unknown to the population for many years.

2) “**Urban Regeneration of Green and Blue Public Spaces**”

The public space surrounding the *Aranciera* is not affected by degradation but rather by limited accessibility. As in the H.ID.R.A.N.T. project, public access to nature could be improved, thereby creating a public space in direct relationship with the *Aranciera*.

3) “**Participatory Design, Civil Society and Citizen Engagement**”

In the case of the *Aranciera*, the restoration project had already been undertaken by the Municipal Administration before the launch of the HHC project. Consequently, it was not possible to organise participatory workshops during the design phase. However, significant participatory processes are currently being developed with schools, Third Sector organisations and Sapienza University to define the future functions and activities of the site. In April 2026, several classes of students aged between 12 and 16 completed a series of educational and participatory activities (partly carried out during the first phase of HHC, September–December 2025; see below under FIRST PHASE (A)). These activities were intended to increase awareness of the value of lesser-known—or even forgotten—cultural heritage, particularly where associated with the use of water resources, both in the history of the city and in its present-day reality. These initiatives also constitute the basis for the potential development of further actions and activities envisaged within the Investment Plan.

4) “**Digital Tools for Community Building and Sustainable Lifestyles**”

Similarly, and pursuing the same objectives, the ULG has benefited from the contribution of the Italian Geographical Society, which made available both its facilities—closely connected with those of the *Aranciera*—and its expertise during the first phase of the project referred to above. Looking ahead, the expectation is that this level of expertise will continue to be available throughout the implementation of

the Investment Plan, supporting further developments aimed at broader communication and dissemination among the relevant communities. This would include both knowledge and methodological approaches through tools and channels such as story maps, online platforms and similar digital media capable of making the narrative of the HHC *Aranciera* project and its surrounding urban area publicly accessible and widely shared.

At the same time, adapting the Chalandri experience also required clearly identifying those elements that cannot be transferred to the Roman context. Unlike the Greek case, the intervention cannot include the functional restoration of a historic water infrastructure or urban transformation measures comparable to those implemented along the route of the Hadrianic Aqueduct. Consequently, the Roman project focuses its innovation not on the physical reactivation of historical water systems, but on the enhancement of their cultural heritage, the sustainable management of water resources, and the development of new approaches to participation, education and governance.

With reference to the **“Modules and Units”**:

1) “MODULE 1: STRATEGIC DIMENSION – Water Resource Management, Innovation, Monitoring and Evaluation”

With regard to the first module, three main objectives have been identified. First, the project focuses on rediscovering the historical value of water as a resource. Second, it promotes sustainable use through the reinterpretation of the site's historic horticultural and nursery activities. Third, it considers this rediscovered heritage as a tool for fostering social participation.

2) “MODULE 2: GOVERNANCE, PROCUREMENT AND FUNDING”

With regard to the second module, governance has first been broadened through collaboration among several departments of Roma Capitale. This has resulted in the creation of a broader and more integrated governance model, enabling stronger coordination and enhanced institutional support. Secondly, new funding opportunities are being explored through the involvement of both public and private actors. These include existing municipal initiatives as well as partnerships with external stakeholders, opening up new channels for investment and long-term sustainability. Together, these two elements strengthen the foundations for future development, ensuring that ongoing actions can be expanded and maintained over time while also enabling new initiatives to be launched.

3) “MODULE 3: COMMUNITY ENGAGEMENT AND EDUCATION”

Another key dimension of the project concerns education and dissemination. First, the project ensures the involvement of schools through a wide range of activities. These are implemented in collaboration with other stakeholders, creating opportunities for the active participation of students and teachers while promoting a fruitful exchange of knowledge and expertise. Secondly, also within the perspective of the Investment Plan, dissemination materials are envisaged, potentially complemented by technical and scientific insights (e.g. educational materials on the water requirements of different horticultural crops or ornamental plants). This will both strengthen the research dimension of the project and make its results accessible to a wider audience. Taken together, these actions help bridge the gap that typically exists between institutional objectives, academic research and community participation.

Overall, the transfer of the innovation proposed by Cultural H.ID.R.A.N.T. therefore takes the form, in the Roman context, of a methodological adaptation rather than a straightforward replication of the original

actions. What is transferred is, above all, the integrated approach that links cultural heritage, environmental sustainability and community participation; what is adapted are the operational methods, developed on the basis of the historical, institutional and territorial characteristics of the *Aranciera* and the *Semenzaio di San Sisto*.

2.4 The integrated approach and participative process

The project simultaneously addresses environmental, cultural, social and economic challenges:

- **from an environmental perspective**, the restoration project envisages that the building will be entirely powered by renewable energy sources;
- **from a cultural perspective**, the project provides for the restoration and rediscovery of an architectural asset of significant value, representing an example of twentieth-century modern architecture;
- **from a social and economic perspective**, the *Aranciera* will provide a venue for a wide range of activities centred on sharing, participation and learning, while also including vulnerable groups such as migrants and people with disabilities.

Integration concerns not only the objectives of the project but also the governance model developed throughout the HHC process. Coordination among the different Departments of Roma Capitale, Sapienza University of Rome and local stakeholders has made it possible to complement the building restoration project with a shared process aimed at defining the future use of the *Aranciera*, fostering continuous dialogue among technical, institutional, educational and social expertise.

It is through the work of the URBACT Local Group (ULG) that an integrated and participatory approach to project development has been established. The process involved a wide range of stakeholders, resulting in the development of productive collaborations oriented towards sustainable long-term outcomes. During this initial phase, the composition of the ULG prioritised those organisations best placed to contribute to the definition of the project's cultural, educational and institutional content, consistently with both the objectives of the HHC programme and the stage reached by the restoration works. Other potential users and beneficiaries of the *Aranciera*—such as neighbourhood associations, informal citizen groups, cultural operators and additional Third Sector organisations—may be progressively involved during the operational start-up phase, once the spaces become fully available. The approach adopted should therefore be understood as a process of progressive participation, intended to expand in parallel with the development of the *Aranciera*'s functions.

The work of the ULG was organised around two main components:

- **The ULG Core Team**, composed of:
 - **Roma Capitale – Department of Environmental Protection**, responsible for the restoration works of the *Aranciera* and acting as HHC Project Manager;
 - **Roma Capitale – Department for Strategic Planning and PNRR**, responsible for coordination activities and for the management of the Municipality's European projects;

- **Sapienza University of Rome – Department of Planning, Design and Architecture Technology (PDTA)**, responsible for the overall coordination of the ULG and for the development of the project's main HHC contents.

Within this organisational framework, the Department of Environmental Protection acted as the institutional lead for the intervention, HHC Project Manager and liaison with the restoration project; Sapienza University of Rome ensured the overall methodological and scientific coordination of the ULG and the development of the project's main conceptual and technical contents; while the Department for Strategic Planning and PNRR ensured alignment with European programming, institutional coordination and the identification of potential post-project development opportunities.

- **Institutional, public and private stakeholders**, including:
 - **Italian Geographical Society (SGI)**: contribution to documentary research through its cartographic, bibliographic and archival collections relevant to the project, together with the possibility of developing digital storytelling; support for the final stages of the narrative pathways and for additional activities involving schools;
 - **Domizia Lucilla Upper Secondary School – Agricultural Section**: contribution focused on the historical and contemporary relationship between agriculture, landscape and water in Rome, with particular attention to the *Aranciera di San Sisto* area;
 - **Roma Capitale – Department of Social Policies and Health**: proposals for participatory activities involving Third Sector organisations;
 - **Regina Margherita Comprehensive Institute**: contribution aimed at transferring knowledge of historical heritage and water heritage to lower secondary school students (activities carried out until January 2025);
 - **Centre for Modern Studies (CSSM)**, Third Sector Organisation (ETS): contributions on the project's disciplinary and thematic issues.

As the architectural project for the *Aranciera* had already been approved and the restoration works had commenced before the launch of the HHC project, the contribution of the ULG did not concern the architectural design of the intervention. Instead, the participatory process focused on establishing the conditions necessary for the future management of the site: identifying the functions to be developed, defining the main target groups of the activities, building long-term partnerships, testing educational and cultural initiatives, and identifying possible collaborative governance models. In this sense, the participatory process influenced not the physical form of the building, but rather the way in which it may be used and experienced by the community once the restoration has been completed.

The ULG Core Team carried out its work through internal coordination meetings and bilateral meetings with individual stakeholders. It was through this process that the project's needs and objectives were defined. In a second phase, plenary meetings and further bilateral meetings were used to define the roles of the different stakeholders and to develop collaboration among them. A clear example is provided by the educational activities carried out in schools in collaboration with the ULG Core Team and the Italian Geographical Society, as previously described.

The role of the ULG Core Team proved crucial from several perspectives:

- defining the project's needs, objectives and methodological approach, while taking into account the observations and contributions of the various stakeholders;
- coordinating stakeholder activities;
- acting as a facilitator for activities requiring collaboration among multiple organisations;
- mediating and reconciling different needs and expectations;
- evaluating the various proposals and ensuring overall coherence.

The activities of the ULG helped shape the priorities of the Investment Plan, strengthening a number of directions that had not initially been explicitly envisaged. In particular, dialogue with schools, Third Sector organisations, Sapienza University and the Italian Geographical Society highlighted the need to give greater prominence to educational activities, the promotion of water culture, the establishment of permanent participatory pathways and the testing of a collaborative management model for the *Aranciera*. These elements now constitute a defining component of the actions proposed in this Investment Plan.

The constant objective has been to structure these collaborations so that they could progressively consolidate and become as integrated as possible during the course of the project, while also providing a solid foundation for the future management of the activities to be carried out within the *Aranciera di San Sisto* and the *Semenzaio*, for which the Investment Plan is intended to provide the operational and implementation framework.

Among the future development opportunities emerging from the process initiated, particular importance is attached to the possibility of consolidating the URBACT Local Group into a stable organisational structure capable of supporting the Administration in planning and managing the future activities of the *Aranciera*, ensuring continuity for the partnerships established during the HHC project and fostering the progressive expansion of the stakeholder network

SECTION 3 – The adapted innovation project

3.0 The Aranciera di San Sisto as Urban Social Greenhouse

At the completion of the architectural and functional restoration works currently underway, the *Aranciera di San Sisto* will once again operate as a greenhouse, characterised by high environmental sustainability performance and fully suited to, and consistent with, the significant urban role of the historic *Semenzaio di San Sisto* in which it is located.

Its restoration to a high level of energy performance constitutes the first defining feature of the *Aranciera* project, including from an economic perspective, in addition to fulfilling the essential operational function of a greenhouse within the facilities and activities of the Department of Environmental Protection of Roma Capitale. While remaining closely linked to the building's original greenhouse function, further opportunities should also be considered, all of which relate to the concept and practice of sustainability in its fullest and most comprehensive sense, encompassing social, community, cultural and representative dimensions, with both public and private applications.

It is within this perspective that the participation of Roma Capitale in the URBACT – Hydro-Heritage Cities project is most effectively situated, building upon the restoration of the *Aranciera* as a model for the sustainable management of hidden or lesser-known cultural heritage, with the potential to be replicated across the municipal territory.

It is from this vision that the objectives of HHC–Aranciera di San Sisto originate, as well as the title proposed for the Investment Plan, "Urban Social Greenhouse", which effectively expresses the added value that the project seeks to achieve for the *Aranciera di San Sisto* through the implementation of the URBACT–HHC project, both by its completion in 2026 and throughout the years that follow. Indeed, one of the medium-term objectives of HHC–Aranciera is that it should become a pilot project for the restoration and sustainable enhancement of the widespread lesser-known and hidden cultural heritage across the extensive territory of Rome, particularly where such heritage is associated, in various ways, with water resources.

3.1 Goals and actions: warp and weft

The Three Phases of the HHC Project: Understand, Adapt, Prepare for Reuse

Following the initial "**Understand**" phase of the project (September 2024 – February 2025), and the first months of the subsequent "**Adapt**" phase, dedicated to establishing the ULG and formulating proposals for actions aimed at achieving the objectives of the HHC project (March – July 2025), several of the planned activities and actions were completed during the period September – December 2025. This made it possible to consolidate the Roma Capitale – Sapienza ULG and to lay the foundations of the Investment Plan for the development of the *Aranciera/Semenzaio di San Sisto* project (January – February 2026), whose comprehensive proposal took shape during the period March – July 2026 ("**Prepare for Reuse**").

The common thread linking activities, actions, phases and stakeholders was particularly confirmed through the implementation of the first planned actions (September–December 2025), and now

constitutes a credible basis for the continuation of the project. The initial objectives have been validated and confirmed:

- the architectural and functional restoration of the *Aranciera*, aimed at achieving full environmental sustainability in its operation and management (despite the extension of the completion timetable);
- increasing environmental awareness—specifically regarding water resources—and awareness of the value of lesser-known or hidden cultural heritage, both among the stakeholders directly involved and through the wider dissemination of project-related information via the communication activities of the HHC project;
- starting from the greenhouse building itself, interest in issues relating to water resources and hidden or under-recognised heritage has progressively expanded first to the *Semenzaio* area in which it is located and, through the actions and activities implemented by Sapienza, also to the urban areas associated with the schools, students and teachers involved;
- defining and provisionally scheduling the availability of the *Aranciera* spaces for future educational, communication and management activities related to sustainability and social inclusion, addressed to the local neighbourhood and the wider city;
- verifying that the URBACT–HHC Aranciera project may serve as a pilot project for the widespread lesser-known and hidden cultural heritage across the territory of Rome, with the prospect of launching a scientific survey aimed at developing similar actions and activities focused on the restoration and sustainable enhancement of cultural heritage assets associated with water resources.

Most of the planned actions have now been completed. Several reached an important milestone during the **Night of Geography**, held at the **Italian Geographical Society** in April 2026, which was also featured in the project's communication activities. Together, these actions contribute coherently to the achievement of the project's objectives, including the broadest possible involvement of significant sectors of the city, alongside the additional actions proposed within the Investment Plan, particularly those aimed at ensuring its feasibility in terms of human, institutional and financial resources, as well as appropriate programming.



fig. 19 - GeoNight Event Poster



fig. 20 - Photo from the GeoNight event

The actions and activities can be grouped into two phases.

FIRST PHASE (A) – Voluntary and collaborative activities completed by/with stakeholders and/or further developed by April/June 2026 (including activities preparatory to some of the actions envisaged in the Investment Plan)

September–December 2025 / April 2026

Narrative and experiential pathways for students and teachers, "**From School to the Aranciera**", structured into four stages:

a) Knowledge and awareness: introductory lessons and educational discussions at school;

b) Path 1: the route within the urban context surrounding the school;

Path 2: from the school to the *Aranciera* of the *Semenzaio di San Sisto*;

c) At the conclusion of Path 2, meetings at the *Aranciera* and **Villa Celimontana** (with the **Italian Geographical Society**);

d) Production of educational graphic and textual works by students (under the guidance of their teachers), intended to further disseminate the knowledge and experiences acquired and to support their replication in other schools (as a pilot initiative, also within the perspective of the Investment Plan). These outputs include **travel notebooks (carnets de voyage)**, **video podcasts** and **artistic installations**.

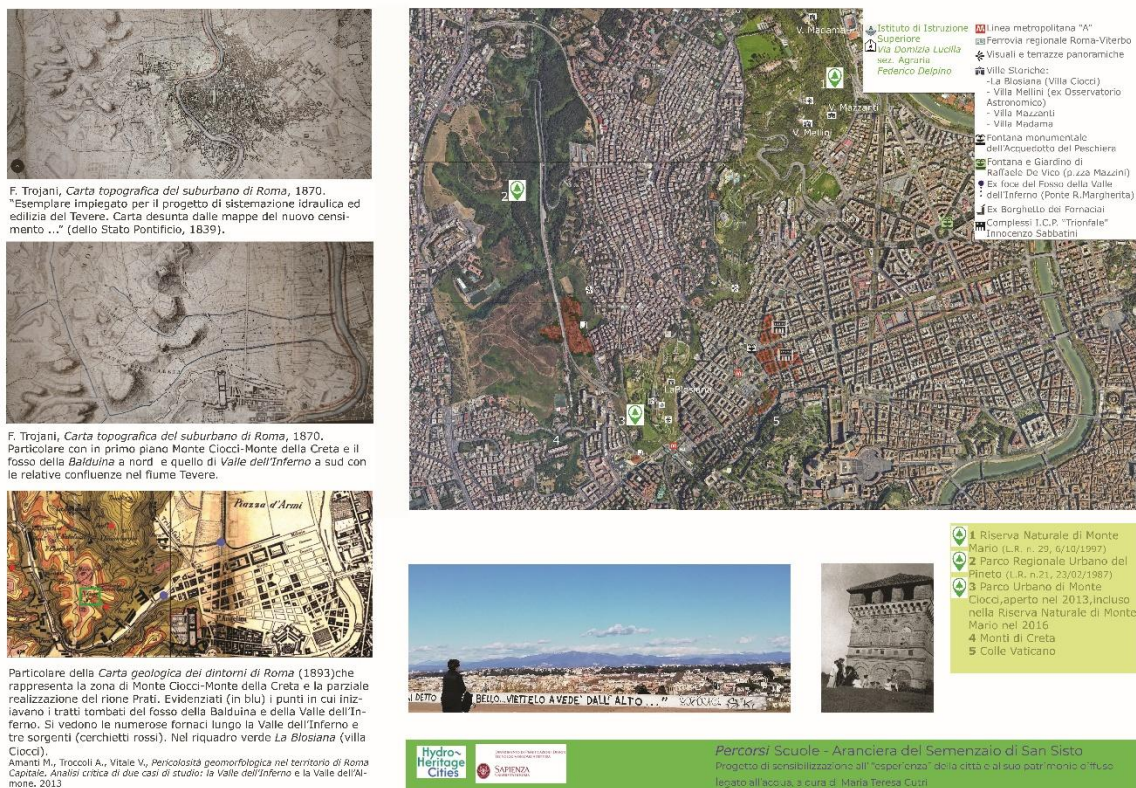


fig.21 - Narrative Paths - Domizia Lucilla Agricultural Institute (elaboration by M.T. Cutri)



fig.22 - Narrative Paths – I.C. Regina Margherita (elaboration by M.T. Cutri)



Fig. 23 – 24 – Photos from Narrative paths

L'Acqua e il patrimonio culturale «nascosto» a Roma.
Percorsi narrativi: dalla Scuola all'Aranciera del Semenzaio di San Sisto

Noi, Roma e l'Aranciera !

Esercizi di "riflessione".

Un pensiero, un disegno, una
suggerione a partire da quello
che hai visto e ascoltato.

Esempi

Cos'è l'Aranciera del Semenzaio di San Sisto?

Perché ha un ruolo così importante nel
nostro progetto?

Perché abbiamo fatto dei percorsi "a
passo d'uomo" sia intorno alla vostra
scuola sia verso l'Aranciera?

Come racconteresti a un tuo amico
l'Aranciera e il Semenzaio?

L'acqua Mariana e i molini
nel semenzaio, hai memoria della loro
storia?

I francesi a Roma, il valore civico dei
parchi urbani

Raffaele de Vico l'architetto dell'Aran-
ciera e dei giardini e parchi romani

La ricchezza e la diversità delle piante
e il tempo lungo e creativo del seme e
del giardino



fig. 25 - School Activity: Noi, Roma e l'Aranciera Game (elaboration by M.T. Cutri)

SECOND PHASE (B) – ULG activities proposed by/with stakeholders and included within the Investment Plan

June – December 2026

Projects and activities specifically related to the new *Aranciera* greenhouse and the *Semenzaio di San Sisto*, already sufficiently developed to be translated into concrete and implementable Actions.

B1. Continuation of the preliminary activities carried out during FIRST PHASE (A), worthy of further diversification, development and dissemination

- **B1.1** – Development of hypertexts, story maps and similar digital products related to the narrative pathways linking schools and the *Aranciera*, involving the students and teachers of the schools participating in the project. The objective is to integrate the content produced by the participants concerning the architectural, landscape and territorial contexts in which water has historically played a distinctive role. These materials will be presented and disseminated consistently with the project's objective of promoting awareness and knowledge of the cultural and environmental heritage of the *Aranciera di San Sisto* and its surrounding area;
- **B1.2** – With regard to the activities already undertaken by the participating schools, further development is envisaged through the involvement of additional classes and more in-depth exploration of the themes addressed.

2027 onwards

B2. New activities consistent with the objectives of HHC–Roma Capitale and the *Aranciera* and *Semenzaio di San Sisto* project

- **B2.1** – Experimentation and monitoring of urban gardens and floriculture in relation to ongoing climate change and the more efficient use of resources, together with the dissemination of results and good practices to all users of public areas dedicated to urban gardening and/or horticulture throughout the city;
- **B2.2** – Promotion of the forms of participation and social interaction associated with these activities and spaces, including opportunities for migrant communities to engage in them through small-scale income-generating activities and integration opportunities;
- **B2.3** – Organisation of vocational training courses for migrants and asylum seekers on cultivation techniques and nature conservation in urban areas and/or areas at risk of desertification (in cooperation with the Urban Gardens Network and the gardening services of the Deputy Mayor's Office for Agriculture, Environment and Waste Management);
- **B2.4** – School outreach activities and the production of textual and audiovisual documentation featuring refugees affected by climate change;
- **B2.5** – Promotion of awareness-raising initiatives aimed at reducing water waste in buildings owned by Roma Capitale, including the provision of advice and appropriate water-saving tools to tenants (where possible encouraging support initiatives involving utilities and organisations such as ACEA, which is directly engaged in water-related issues);
- **B2.6** – Positioning HHC–Aranciera as a pilot project for the city;

- **B2.7** – Mapping of the city's hydro-cultural heritage;
- **B2.8** – Post-HHC programme of activities connected with the HHC–Aranciera project;
- **B2.9** – Establishment of the Urban Social Greenhouse Association;
- **B2.10** – Cooperation Agreement.

For the actions envisaged under B2, a comprehensive implementation timetable will be developed once the detailed content of each activity and the respective responsibilities have been defined. Coordination and support for the content of some activities may be provided by Sapienza University – PDTA within the framework of the Roma Capitale ULG.

Phase	Period	Nature	Main Outcome
A	September 2025 – June 2026	Voluntary and collaborative	Educational pathways and narrative outputs
B1	June 2026 – December 2026	ULG operational development	Story maps, hypertexts and expansion of the pilot activities
B2	2027 onwards	Strategic and structural	Urban Social Greenhouse and permanent HHC–Aranciera programme

3.2 The workplan

The planned **Actions**, organised into the four packages **(a)**, **(b)**, **(c)** and **(d)**, are presented below according to a logical and chronological sequence that reflects a unified strategy of **progressive feasibility**.

Furthermore, although some Actions are appropriately associated with one another (e.g. Action 3 and Action 4 should be regarded as complementary, the former being technical and experimental in nature, the latter focusing on social interaction and community engagement), each Action included in the first and second packages, (a) and (b), may be considered both independently feasible and contributory to the overall strategy. The latter is expressed through the Actions included in the third package (c). Indeed, Actions 8 and 9 are specifically intended to assess and promote the URBACT HHC–Aranciera di San Sisto project and its associated Investment Plan (Urban Social Greenhouse) as a pilot project for an urban policy of green-blue urban regeneration of cultural heritage sites, in line with the objectives of the Hydro-Heritage Cities project (see, for example, the *Pre-visit Partners' Questionnaire*).

Finally, the Actions included in the fourth package (d) represent the working hypotheses that can currently be considered reasonably achievable regarding the organisational arrangements best suited to enabling the stakeholders involved to pursue, in the short and medium term, the core objectives of the HHC project, while also integrating them with the city's environmental and territorial policies (including those referred to in Section 1.2 of this document).

(a) Actions relating to issues already tested and validated through the development of HHC–Aranciera

Action 1 (B1.1) – Hypertexts and similar digital products on the *Aranciera*, the *Celio* area and water as cultural, landscape and natural heritage

Action 2 (B1.2) – Engagement of students and teachers and interaction with other school projects

(b) Actions relating to additional issues directly consistent with the development of HHC–Aranciera

Action 3 (B2.1) – Pilot activities on urban gardening and floriculture

Action 4 (B2.2) – Promoting participation and social interaction through urban gardening and floriculture

Action 5 (B2.3) – Training courses for migrants on low-impact cultivation techniques

Action 6 (B2.4) – Raising awareness of the impacts of climate change

Action 7 (B2.5) – Raising awareness to prevent water waste

(c) Actions aimed at maximising and capitalising on the actions and activities included in packages (a) and (b)

Action 8 (B2.6) – Positioning **HHC–Aranciera** as a pilot project for the city

Action 9 (B2.7) – **Mapping of the City's Hydro-Cultural Heritage**

(d) Actions supporting the organisational framework and/or maximising the achievement of the objectives of the HHC–Aranciera project through the implementation of the Investment Plan

Action 10 (B2.8) – Post-HHC programme of activities connected with the HHC–Aranciera project

Action 11 (B2.9) – Establishment of the **ULG Association – Urban Social Greenhouse**

Action 12 (B2.10) – Cooperation Agreement

Package	Objective	Time Horizon
(a)	Consolidate the educational and narrative activities already tested	2026–2027
(b)	Develop environmental and social pilot initiatives related to the <i>Aranciera</i>	2026–2029
(c)	Capitalise on the results and develop a replicable urban strategy	2028–2030
(d)	Ensure governance, continuity and implementation of the Investment Plan	2026–2030

This framework illustrates the progressive sequence of the Workplan: experimentation → consolidation → capitalisation → institutional governance, consistently with the objective of transforming HHC–Aranciera / Urban Social Greenhouse into a pilot project for green-blue urban regeneration for Roma Capitale.

(a) Actions related to issues already tested and verified in the development of Aranciera HHC

Action 1 - Hypertexts or similar products on the *Aranciera*, the *Celio* area and water as cultural, landscape and natural heritage

Description

Development of hypertexts or similar digital products (e.g. story maps), appropriately interconnected through hyperlinks, focusing on the key themes of the HHC project, with particular emphasis on the *Aranciera* and the *Semenzaio di San Sisto*. The Action also aims to enhance the narrative and experiential pathways developed by students and teachers through the "From School to the Aranciera"

initiative. The resulting outputs will be presented and disseminated in line with the project's objective of promoting awareness and knowledge of the cultural and environmental heritage of the *Aranciera di San Sisto* and its surrounding areas.

Indicators

- Output: Dissemination of the HHC–Aranciera Project – Urban Social Greenhouse Investment Plan.
- Result: Increased awareness of cultural and water-related heritage.

Risk & Mitigation

- Risks: Occasional or limited dissemination of information; limited lifespan and static nature of the communication products.
- Mitigation: Long-term availability and regular updating of the materials through the future *Aranciera* digital platform.

Timeframe

2026–2027

Action 2 - Involvement of students and teachers from schools and interaction with other school projects

Description

Development of collaborations with school projects, particularly those focused on film education, addressing topics consistent with the themes of water resources and cultural heritage. The Action also includes further educational activities and thematic in-depth exploration of these subjects.

Indicators

- Output: Regular educational activities carried out with schools.
- Result: Education and capacity building.

Risks & Mitigation

- Risks: Ongoing difficulties in engaging schools.
- Mitigation: Regular dissemination of information and updates to potential school contact persons.

Timeframe

2026–2029, subject to the availability of financial and other necessary resources.

(b) Actions related to further issues directly consistent with the development of Aranciera HHC

Action 3 – Experimentation in the field of urban gardens and floriculture

Description

Pilot activities and monitoring aimed at addressing the impacts of ongoing climate change and promoting the more efficient use of natural resources, with particular emphasis on water resources. The knowledge, experience and results generated through these activities will be disseminated to all users of public areas across the city dedicated to urban gardening and ornamental horticulture, with the aim of encouraging the adoption of more sustainable cultivation practices.

Indicators

- Output: Online agri-help desk for horticulture, together with on-site meetings and demonstration events.
- Result: Increased knowledge and dissemination of low-impact cultivation techniques.

Risks & Mitigation

- Risks: Insufficient human and financial resources.

- Mitigation: Involvement of volunteer associations, agricultural schools, Third Sector organisations (ETS) and universities.

Timeframe

2026–2029, depending on the availability of financial and other resources.

Action 4 – Promotion of participation and social interaction in urban horticulture and floriculture

Description

Promotion and support of forms of participation and social interaction through the management of urban gardens and urban floriculture, including the involvement of migrant communities who may engage in these activities as opportunities for small-scale income generation and social integration.

Indicators

- Output: As for Action 3.
- Result: As for Action 3, with the additional outcome of strengthened social integration.

Risks & Mitigation

- Risks: As for Action 3.
- Mitigation: As for Action 3.

Timeframe

2026–2029, depending on the availability of financial and other resources.

Action 5 – Training courses for migrants on low environmental impact cultivation techniques

Description

Organisation of semi-professional training courses for migrants and asylum seekers on sustainable cultivation techniques and nature conservation, to be delivered in urban areas and/or areas at risk of desertification, in collaboration with the Urban Gardens Network and the gardening services of the Deputy Mayor's Office for Agriculture, Environment and Waste Management.

Indicators

- Output: As for Action 3.
- Result: Delivery of semi-professional training in sustainable cultivation techniques and nature conservation.

Risks & Mitigation

- Risks: Difficulties in implementing practical, application-based training activities.
- Mitigation: Collaboration with the Urban Gardens Network, Third Sector organisations (ETS), agricultural schools and universities.

Timeframe

2026–2029, depending on the availability of financial and other resources.

Action 6 – Awareness-raising on the effects of climate change

Description

Organisation of school testimony sessions featuring refugees affected by climate change, together with the production of textual and audiovisual documentation to raise awareness of the social and environmental impacts of climate change.

Indicators

- Output: Informational and educational documentation.
- Result: Increased education and awareness.

Risks & Mitigation

- Risks: Insufficient human and financial resources.

- Mitigation: Involvement of volunteer and assistance organisations, Third Sector organisations (ETS) and universities.

Timeframe

2026–2029, depending on the availability of financial and other resources.

Action 7 – Awareness-raising against water waste

Description

Promotion of awareness-raising initiatives aimed at reducing water waste in residential buildings owned by Roma Capitale, including the provision of practical advice and water-saving tools to tenants in order to encourage more efficient water use and reduce household costs.

Indicators

- Output: Public awareness events and information activities.
- Result: Increased awareness and education on the responsible use of water.

Risks & Mitigation

- Risks: Difficulties during the initial engagement phase with residents.
- Mitigation: Involvement of the relevant Roma Capitale departments responsible for public housing (ERP – Edilizia Residenziale Pubblica).

Timeframe

2026–2029, depending on the availability of financial and other resources.

(c) Actions aimed at maximising and capitalising on the actions/activities envisaged in (a) and (b)

Action 8 – Framing of HHC–Aranciera as a pilot project for the city

Description

Assessment of HHC–Aranciera as a pilot project for the enhancement of hidden cultural heritage associated with water resources across the extensive territory of the City of Rome, with the aim of identifying elements that may be replicated and integrated into a broader urban strategy.

Indicators

- Output: A methodology for assessing the replicable elements and the potential integration opportunities arising from the HHC–Aranciera project.
- Result: A preliminary pilot programme for the systematic survey of significant areas within the municipal territory.

Risks & Mitigation

- Risks: Uncertainty regarding political endorsement and the availability of financial and organisational resources.
- Mitigation: Potential access to European, national and local funding opportunities.

Timeframe

2028–2030, depending on the availability of financial and other resources.

Action 9 – Mapping of city Hydro-Cultural heritage

Description

Preparation of a preliminary scientific survey and mapping project aimed at identifying cultural heritage assets associated with water resources, with a view to their restoration and sustainable enhancement. This Action, one of the most significant within the Investment Plan, is included in the shortlist referred to in Section 3.5.

Indicators

- Output: Inclusion of the initiative within urban planning and environmental policy programmes.
- Result: Development of guidelines for the sustainable enhancement of water-related cultural heritage.

Risks & Mitigation

- Risks: As for Action 8.
- Mitigation: Support from environmental policies and access to European Union funding.

Timeframe

2028–2030, depending on the availability of financial and other resources.

(d) Actions that provide organisational support and/or potentially maximise the achievement of the objectives of the Aranciera HHC project through the implementation of the Investment Plan

Action 10 – Programme of post-HHC activities connected to the HHC–Aranciera project

Description

Operational definition, in agreement with the political decision-maker, of the future uses of the *Aranciera* spaces once the restoration works have been completed, together with those of the *Semenzaio di San Sisto*, including the corresponding implementation timetable. The Action concerns the planning of the post-HHC activities envisaged by the project—educational, communication and management activities related to sustainability and social inclusion, addressed to the local community and the wider city—for which it is considered reasonable to seek external funding.

Indicators

- Output: Activity timetable for 2027.
- Result: Implementation of the expected outcomes of the planned Actions.

Risks & Mitigation

- Risks: Uncertainty regarding the availability of funding for the planned activities and Actions.
- Mitigation: Continued support from the political decision-maker.

Timeframe

2026–2027, depending on the availability of financial and other resources.

Action 11 – Establishment project of the ULG Association - Urban Social Greenhouse

Description

This Action aims to ensure the medium-term sustainability, continuity of governance and scalability of the *Aranciera* project through the establishment of a formal association bringing together the members of the URBACT Local Group (ULG) and new stakeholders who, in light of the work completed by July 2026, may be interested in contributing to the broader, more effective implementation of the project. To this end, contacts with potential new stakeholders will be initiated by March 2027.

The Action would begin with the signing of a Memorandum of Understanding (MoU), immediately after, or concurrently with, the conclusion of the URBACT project, by all participating stakeholders. Through the MoU, the signatories would commit to:

- continuing the activities co-designed within the HHC project;
- formally establishing an association within one year of the project's completion;
- jointly developing the *Aranciera* as an Urban Social Greenhouse, conceived as a facility belonging to the broader category of Urban Centres, but distinguished by its strong environmental, social and cultural focus, with particular attention to lesser-known cultural heritage and its potential to trigger urban green-blue regeneration processes.

The MoU would represent one of the key forward-looking outputs of the URBACT project, providing the link between the pilot phase and the project's medium-term implementation.

The Association would be responsible for:

- managing and programming activities at the *Aranciera*;
- coordinating educational, cultural and social initiatives;
- serving as a platform for future urban regeneration projects related to water heritage and lesser-known urban cultural heritage;
- developing funding applications and partnerships at the local, national and European levels.

Indicators

- Output: One Memorandum of Understanding (MoU) signed.
- Output: One legally established Association.
- Result: Number of jointly managed activities per year (baseline: 2; target: ≥ 5 per year).
- Result: Number of new urban regeneration proposals developed (target: ≥ 2).

Risks & Mitigation

- Risks: Lack of long-term commitment from stakeholders.
- Mitigation: Clear commitments established through the MoU; shared governance arrangements; low barriers to participation.
- Risks: Overly complex governance structure.
- Mitigation: Lightweight organisational structure; rotating coordination; clearly defined roles and responsibilities.
- Risks: Financial sustainability.
- Mitigation: Diversified funding strategy; involvement of additional stakeholders; gradual expansion of activities.

Timeframe

2026–2028 (three years)

Year 1 (*immediately after, or concurrently with, the conclusion of the HHC project, by the end of 2026*)

- Drafting and signing of the Memorandum of Understanding (MoU);
- Identification of the founding members.

Year 2

- Preparation of the Association's Statute and governance structure;
- Formal registration of the Association;
- Pilot management of activities at the *Aranciera*;
- Planning and launch of the Urban Social Greenhouse.

Year 3

- Consolidation of activities;
- Development of new urban regeneration proposals;
- Replication of the experience at other sites of hidden water-related cultural heritage across Rome.

Action 12 – Cooperation Agreement

Description

As part of the development of the network of relationships among the members of the URBACT Local Group (ULG) of the Rome unit of the Hydro-Heritage Cities (HHC) project, and following the establishment of the Association described in Action 11, it is considered particularly important to develop a Cooperation Agreement involving Roma Capitale, through its relevant departments, Sapienza University of Rome (Department of Planning, Design and Architecture Technology – PDTA), and the Association established under Action 11. Should the Investment Plan be implemented, this Association would take forward the legacy of the HHC project by supporting the implementation of the programme envisaged.

The Cooperation Agreement is essentially an arrangement through which public institutions and, more broadly, active citizens define forms of cooperation for the stewardship and enhancement of tangible

and intangible common goods. More specifically, the Agreement identifies the common good concerned, the objectives pursued, the public interest to be safeguarded, the capacities, expertise and resources contributed by the signatories, together with the duration of the Agreement and the respective responsibilities of each party.

One of the main strengths of this instrument lies in its ability to involve stakeholders who are often outside traditional associative networks but who nevertheless have a genuine interest in the stewardship of common goods or in civic engagement initiatives. Allowing neighbourhood committees, associations, informal groups and individual residents of a district or neighbourhood to participate—united solely by a shared commitment to the care and enhancement of a common good—is the distinctive feature of this instrument, making it particularly advantageous compared with more conventional arrangements commonly adopted by public administrations, such as procurement contracts or concession agreements.

The Cooperation Agreement to be signed by the organisations involved in the URBACT HHC project should therefore be structured around a set of social, cultural and environmental objectives. In this regard, particular importance is attached to the specific objectives of the project, which combine the enhancement of public awareness with the promotion, for the benefit of the *civitas*, of Rome's lesser-known—or in some cases under-recognised—cultural heritage. Within this framework, the *Aranciera* building and the *Semenzaio di San Sisto* represent the project's principal catalyst, together with the hydrographic dimension of the urban area, particularly that encompassing Municipalities I and VII, and the development of participatory democracy approaches applicable to urban regeneration processes centred on the cultural heritage of the area concerned.

The Cooperation Agreement should provide for the organisation of an annual programme of activities within the *Aranciera*, over a four-year period (2027–2030), to be implemented during agreed time slots compatible with the overall functions assigned to the complex by the Administration. As reflected in the title proposed for the Investment Plan—Urban Social Greenhouse—the *Aranciera* should become both a physical meeting place and a digital networking hub, dedicated to designing and promoting activities that enhance the *Aranciera* and the artistic and cultural heritage it embodies as a common good available to the city, while serving as a hub for the promotion of environmental awareness and the sustainable use of water resources.

Lead Organisations and Involved Stakeholders

HHC Partners

- Roma Capitale – Department of Environmental Protection, responsible for the restoration works of the *Aranciera* and HHC Project Manager;
- Roma Capitale – Department for PNRR and European Funding, responsible for coordination activities and the management of the Municipality's European projects;
- Sapienza University of Rome – Department of Planning, Design and Architecture Technology (PDTA), responsible for ULG coordination and the development of the project's main technical and methodological contents.

Institutional Stakeholders

- Roma Capitale – Department of Social Policies and Health, responsible for proposals concerning participatory activities involving Third Sector organisations;
- Roma Capitale – Department of Urban Planning and Implementation, contributing to the project content in relation to the urban transformation processes currently taking place within Roma Capitale;
- Mayor's Office – Participation Unit, providing expertise on governance arrangements and opportunities for institutional integration.

Public and Private Stakeholders (illustrative list)

- Italian Geographical Society, contributing documentary research through its cartographic, bibliographic and archival heritage relevant to the project;

- Domizia Lucilla Upper Secondary School – Agricultural Section, contributing expertise on the historical and contemporary relationship between agriculture, landscape and water in Rome;
- Regina Margherita Comprehensive Institute, contributing to the dissemination of knowledge on historical heritage and water heritage among lower secondary school students;
- Other schools of the same educational level located within the Municipalities covered by the project's urban area;
- Lazio Third Sector Forum, supporting networking with Third Sector organisations and the development of collaborative activities;
- Other relevant stakeholders to be involved before the conclusion of the project, in accordance with the implementation of the Investment Plan.

Indicators

- Periodic monitoring reports assessing the implementation timetable and the content of the activities carried out by the lead organisations, project partners, institutional actors and other stakeholders.

Risks & Mitigation

- Risks: Limited risks due to the relatively low implementation costs.
- Mitigation: Joint execution of the notarial procedures together with Action 11, combined with the availability of appropriate venues and meeting spaces for monitoring the implementation and progress of the project phases, as well as the provision of resources to support the staff involved (researchers, administrative personnel and other contributors).

Timeframe

2027–2030 (*duration of the Cooperation Agreement*).

3.3 Governance and delivery model

The proposed governance model is structured around three complementary levels:

1. Strategic Level – Roma Capitale

- Ownership of the asset;
- Strategic alignment with the city's planning instruments, policy frameworks and environmental policies;
- Institutional support, together with strategic guidance and oversight.

2. Operational Level – ULG Association

- Planning and coordination of activities;
- Operational management of the *Aranciera*, within the timeframes established by Roma Capitale, for the activities agreed with the members of the ULG and, more broadly, for its operation as the Urban Social Greenhouse;
- Fundraising activities and project development.

3. Advisory and Network Level (*Advisory Committee within the ULG Association, integrated by additional community organisations*)

- Sapienza University of Rome and, where appropriate, other research centres;
- Schools and educational institutions;
- Third Sector organisations and community-based organisations.

This governance model would:

- ensure continuity beyond the duration of the project and the availability of its funding;
- enable responsibilities to be shared without resorting to full outsourcing of the management functions;

- facilitate the replication of the experience at other urban heritage sites.

The proposed governance model is intended as a basis for discussion with stakeholders and will be further refined through a participatory process prior to the signing of the Memorandum of Understanding (MoU). The governance model will be further developed on the basis of the outcomes of the operational planning phase defined under Action 10, with the objective of establishing the long-term governance structure, roles, responsibilities and management arrangements.

3.4 Overall project schedule

The overall schedule for the operation of the *Aranciera* and the *Semenzaio di San Sisto* as the Urban Social Greenhouse, within the timeframe established by Roma Capitale, envisions the site primarily as a space dedicated to social, participatory and cultural-educational functions, as well as a pilot project to be subsequently extended to other lesser-known historical and water-related heritage sites across the city. It provides for a coherent and progressive implementation over a five-year period (2026–2030). The objective is to progressively consolidate the activities tested during the project until they become structural components fully integrated into the ordinary management of the *Aranciera* and the *Semenzaio*.

The implementation schedule has been designed to initiate the transformation process already during the final phase of the building's restoration, establishing from the outset the organisational, institutional and collaborative conditions necessary to ensure that the reopening of the *Aranciera* coincides with the immediate activation of the functions envisaged by the Investment Plan. The progressive involvement of the community and the active role of the various stakeholders—beginning with those already participating in the URBACT Local Group—represent cross-cutting elements throughout all phases of the process.

Phase 1 – Establishing the Institutional and Operational Framework (2026–2027)

Actions 10, 11 and 12

During this phase, the enabling conditions for the full operational functioning of the *Aranciera* are established. Activities include the definition of the governance model, the formalisation of partnerships among the project partners, the joint planning of future activities, the development of organisational and management tools, and the consolidation of the stakeholder network. At the same time, community engagement, communication activities, and the preparation of educational and cultural content continue, ensuring that the project is ready to become fully operational immediately upon completion of the restoration works.

Phase 2 – Pilot Implementation of Activities (2026–2029)

Actions 1, 2, 3, 4, 5, 6 and 7

Educational, participatory and awareness-raising activities are progressively piloted and expanded, including through initiatives that can already be implemented within the available spaces of the *Semenzaio* and at the premises of the project partners. As the restored *Aranciera* gradually becomes available, all the functions envisaged by the Investment Plan are progressively activated. Continuous monitoring of the results makes it possible to assess the effectiveness of the actions, introduce any necessary adjustments and progressively consolidate the management model.

Phase 3 – Dissemination and Capitalisation (2028–2030)

Actions 8 and 9

The final phase is dedicated to the dissemination and capitalisation of the experience gained. The objective is to promote the model tested at the *Aranciera* as a reference for the enhancement of other lesser-known water-related and cultural heritage sites across the city, facilitating the transfer of the methodologies developed, strengthening the network of organisations involved, and increasing public awareness of the value of cultural heritage and water resources.

3.5 Actions with the Highest Short- to Medium-Term Feasibility and Their Potential Beneficiaries

Without prejudice to this overall strategy, the most recent discussions with the political decision-maker have highlighted greater opportunities for advancing, in the short to medium term, those activities considered to have the highest feasibility among those included in the overall Investment Plan proposal, also on the basis of a preliminary estimate of the financial resources required for their implementation:

- **Aranciera di San Sisto as the Urban Social Greenhouse:** annual programme of post-HHC activities related to the HHC–Aranciera project;
- **The Celio, the Aranciera and water as cultural, landscape and natural heritage:** engagement of students and teachers from schools;
- **Pilot activities on urban gardening and floriculture,** together with the promotion of participation and social interaction through urban gardening and floriculture;
- **Positioning HHC–Aranciera as a pilot project for the city;**
- **Survey and mapping for a Hydro-Cultural Heritage project at the urban sector scale** (this activity/action could be carried out by Roma Capitale's in-house companies, potentially in cooperation with the URBACT HHC ULG, acting through the Association proposed in this Investment Plan).

The last two activities/actions could benefit significantly from their mutual integration. A further advantage would derive from the proposed involvement of Roma Capitale's in-house companies among the organisations participating in the initiative.

The selection of the activities/actions considered to have the highest feasibility is consistent with the initial, albeit still preliminary, assessment of their potential beneficiaries. In view of the inevitable political and administrative uncertainties associated with the end of the current municipal administration's term of office, preference has been given, from a feasibility perspective, to those activities/actions that appear most promising according to a cost-benefit approach which also takes into account the categories of beneficiaries.

- **The Aranciera di San Sisto as the Urban Social Greenhouse**

This represents one of the most ambitious objectives of the HHC project in Rome and, in many respects, may be regarded as its flagship outcome and defining symbol. The primary beneficiaries would be the residents of the neighbourhoods surrounding San Sisto. However, given the central location of the *Aranciera* and its significantly improved accessibility following the opening of the Porta Metronia station on Metro Line C, its role as a place for social interaction, community integration, and cultural and

environmental learning would extend benefits to the entire surrounding urban area.

- **The Celio, the *Aranciera* and water as cultural, landscape and natural heritage**

The involvement of students and teachers from schools could establish the Urban Social Greenhouse as a stable point of reference and an operational hub for city-wide educational networks, capable of multiplying opportunities for the exchange of knowledge and experience, while promoting collaboration, synergies and innovation in the fields of environmental awareness and ecological education, including activities addressed to older generations.

- **Pilot activities on urban gardening and floriculture, and the promotion of participation and social interaction through urban gardening and floriculture**

Similarly, the Urban Social Greenhouse could become the city's principal reference centre for pilot activities related to urban gardening and floriculture, within the broader framework of urban agriculture already present in Rome. In particular, it could serve as a centre for experimentation with crops and cultivation techniques suited to the challenges of climate and environmental change, increasing water scarcity, population ageing, and the growing phenomenon of climate, environmental, economic and political migration.

- **Positioning HHC–Aranciera as a pilot project for the city**

As anticipated in the previous sections (see 1.1.3 Local Opportunities and General Strategies), this activity/action, which has a distinctly political and cultural character, aims to translate the pilot experience of the *Aranciera di San Sisto* into urban policies applicable to significant parts of the city, focusing on those areas characterised by lesser-known historical and cultural heritage associated with water resources across the extensive territory of Roma Capitale. In this way, the initiative would also benefit peripheral and more disadvantaged neighbourhoods and urban areas.

- **Survey and mapping for a Hydro-Cultural Heritage project at the urban sector scale**

Finally, an instrumental and preparatory activity/action for the entire set of initiatives would consist of a scientific survey and mapping programme aimed at replicating and adapting the Hydro-Cultural Heritage approach at the scale of urban sectors and Municipalities. The objective would be to promote and support the emergence and consolidation of a widespread milieu of cultural practices and initiatives capable of becoming an integral part of the city's broader urban culture.

SECTION 4 – Budget

4.1 Project costs

Although the most realistic short-term perspective is the implementation of the selected activities outlined above, it is nevertheless considered preferable and more appropriate to refer to the overall implementation scenario described in this Investment Plan, and consequently to the related estimated costs. Indeed, it is within this broader scenario of participation by the full range of potentially interested stakeholders that the core objectives of the HHC project appear most likely to be achieved over the proposed implementation period.

Accordingly, the definition of the overall budget is initially based on the first three years of implementation of the twelve Actions identified in the Investment Plan. The estimate takes into account the costs associated with the use of the *Aranciera* spaces, including both "virtual" costs—estimated at $150 \text{ m}^2 \times \text{one month} = €5,000$ —and actual operating costs (energy, water and general operating expenses), estimated at €2,000.

This financial assessment is complemented by a scoring system applied to each individual Action, based on:

- the contribution of each Action to defining the *Aranciera* project as a pilot project;
- the expected level of effort required for implementation (according to a descending scale, where a higher score corresponds to a lower estimated implementation effort);
- the potential fundability and feasibility of each Action.

On this basis, the estimated cost for the first three years of operation (2027–2029) is expected to range between €130,000 and €172,000.

Action	Estimated Cost (€)	Contribution to the Pilot Project(1–2–3)	Estimated Level of Effort*(3–2–1–0)	Fundability and Feasibility(1–2–3)	Total Score
Action 1 – Hypertexts and similar digital products on the <i>Aranciera</i> , the <i>Celio</i> area and water as cultural, landscape and natural heritage	3,000 + 1,000	2	1	2	5
Action 2 – Engagement of students and teachers and interaction with other school projects	2,000–3,000	2	0	1	3

Action	Estimated Cost (€)	Contribution to the Pilot Project(1–2–3)	Estimated Level of Effort*(3–2–1–0)	Fundability and Feasibility(1–2–3)	Total Score
Action 3 – Pilot activities on urban gardening and floriculture - Action 4 – Promoting participation and social interaction through urban gardening and floriculture	7,000 + 3,000	3	1	2	6
Action 5 – Training courses for migrants on low-impact cultivation techniques	15,000–25,000	–	1	1	2
Action 6 – Raising awareness of the impacts of climate change	4,000	2	1	1	4
Action 7 – Raising awareness to prevent water waste	6,000–8,000	2	1	1	4
Action 8 – Positioning HHC–Aranciera as a pilot project for the city	10,000–15,000	3	1	2	6
Action 9 – Mapping of the City's Hydro-Cultural Heritage	50,000–80,000	2	1	1	4
Action 10 – Post-HHC Programme of Activities Connected with the HHC–Aranciera Project	5,000	3	2	2	7
Action 11 – Establishment of the ULG Association – Urban Social Greenhouse	20,000	2	1	1	4
Action 12 – Cooperation Agreement	5,000	2	1	1	4

* The scale is descending: the higher the score, the lower the estimated implementation effort.

4.2 Investment sources

Funding Strategy

The implementation of the actions envisaged by the Investment Plan for the *Aranciera di San Sisto* is based on a mixed funding strategy, combining public and private resources, direct and indirect financial contributions, as well as in-kind support. This approach is well suited to the nature of the project, which is strongly oriented towards experimentation, participation and the development of sustainable governance models over the medium and long term. Naturally, the Investment Plan will be further adapted and calibrated according to the requirements and formats of the funding programmes that prove to be the most suitable and accessible.

Public Funding Sources

At the municipal level, the principal funding sources are expected to come from Roma Capitale, through its ordinary budget and the sectoral funds of the Departments involved (Department of Environmental Protection, Department of Social Policies and Health, Department of Schools and Education, and Department for PNRR and European Funding). These resources may primarily support the educational, cultural and awareness-raising actions (Actions 1, 2, 6 and 7), the post-HHC programme of activities (Action 10) and the operation of the *Aranciera* as the Urban Social Greenhouse (Action 11). A complementary role could also be played by Municipalities I and VII, through funding for neighbourhood initiatives, cultural and educational activities, and co-programming instruments, including Cooperation Agreements (*Patti di collaborazione*) for the shared management of common goods.

Also at the municipal level, funding should be allocated for additional pilot and mapping actions (Actions 8 and 9), promoting the integration of the *Aranciera* project within a broader city-wide strategy. At the regional level, the Lazio Region may support several actions through programmes and calls dedicated to cultural heritage enhancement, environmental education, social inclusion and policies for migrants. In particular, Actions 3, 4 and 5 (urban gardening, participation and training) are consistent with regional programmes and with the European Social Fund Plus (ESF+), which may contribute to financing training activities and pathways for social and labour-market inclusion. Action 11, concerning the establishment and consolidation of the ULG Association, may also benefit from regional funding schemes supporting the strengthening of the Third Sector and local partnership networks.

At the national level, the project is closely aligned with the objectives of the National Recovery and Resilience Plan (PNRR), particularly Mission 1 (*Digitalisation, Innovation and Culture*), with regard to actions related to digital storytelling, mapping and cultural heritage enhancement (Actions 1, 8 and 9), and Mission 2 (*Green Revolution and Ecological Transition*), with regard to actions addressing climate, water resources and urban resilience (Actions 3, 6 and 7). Additional opportunities may arise through programmes and funding calls promoted by the Ministry of Culture, particularly those supporting lesser-known cultural heritage and pilot projects, and by the Ministry of Environment and Energy Security, especially for environmental education and climate change awareness initiatives.

At the European level, beyond the URBACT programme that supported the pilot phase, the project presents significant potential synergies with programmes such as LIFE (environment and climate), Horizon Europe (research and innovation on cultural heritage, governance and urban resilience), Creative Europe (cultural activities and storytelling) and Erasmus+ (education and training), particularly for those actions involving partnerships with universities, schools and Third Sector organisations.

Private and Complementary Funding Sources

Alongside public funding, the project may also draw upon private funding sources, playing a complementary and targeted role, particularly in supporting educational, awareness-raising and pilot activities.

Banking foundations and charitable foundations, active in the fields of culture, education, social inclusion and the environment, represent potential supporters of Actions 1 and 2 (school activities and storytelling), Actions 4, 5 and 6 (social inclusion and climate-related initiatives), as well as the consolidation of the *Aranciera* as the Urban Social Greenhouse (Actions 11 and 12) and Actions 8 and 9, including through multiannual funding programmes.

Public utility companies, particularly those operating in the water and energy sectors, may be involved through Corporate Social Responsibility (CSR) programmes, technical sponsorships or in-kind contributions, especially in support of Actions 6 and 7, dedicated to raising awareness of climate change and the responsible use of water resources, as well as demonstrative initiatives related to environmental sustainability.

Additional resources may come from companies and foundations committed to sustainability and social impact, interested in supporting pilot projects on urban regeneration, urban agriculture and training (Actions 3–5), as well as the role of the *Aranciera* as a hub for social innovation. These opportunities may be complemented by cultural sponsorships and partnership agreements for events, communication activities and public initiatives, to be developed selectively and in a manner consistent with the public nature of the project.

Finally, a significant contribution to the overall sustainability of the project is expected to come from in-kind contributions and other forms of support—both financial and non-financial—provided by Third Sector organisations, universities, schools, professionals and local communities, through the contribution of expertise, staff time, the use of facilities and technical assistance. These resources will strengthen the project's territorial embeddedness while enhancing its overall efficiency.

SECTION 5 – Monitoring and evaluation

5.1 The monitoring and evaluation approach

The monitoring and evaluation approach has been designed to address the project's two main challenges: the development of an ecosystem of actors cooperating to deliver social, participatory and educational activities within the *Aranciera* and the *Semenzaio di San Sisto*, and the transfer of the "Aranciera model" to other lesser-known historical and water-related heritage sites across the city.

The approach combines theory-based evaluation, which examines how and why change occurs through the implementation of the project, with developmental evaluation, which focuses on real-time learning in complex and continuously evolving contexts, supporting reflection and adaptive management throughout the implementation process. Indeed, the Aranciera Project is characterised by the experimentation of actions carried out by a variety of actors within the *Aranciera* and the *Semenzaio di San Sisto*. These actors may evolve over time and/or assume different roles as the project develops.

The monitoring process is structured around four main stages:

- **Phase 1 – Ongoing monitoring during implementation**

For all the Actions presented in Section 3, monitoring activities will be carried out throughout their implementation. This phase consists primarily of collecting data while each individual activity is being implemented.

- **Phase 2 – Annual review**

At the end of each year, the data collected during the first monitoring phase will be consolidated and analysed in order to assess the extent to which the planned objectives and expected results have been achieved.

- **Phase 3 – Mid-term evaluation (after the first two years)**

Overall assessment of the implementation of the activities, with particular reference to the potential transfer of the "Aranciera model" to other sites of the city's lesser-known historical and water-related heritage.

- **Phase 4 – Final evaluation (2030)**

Drawing upon the monitoring data collected during the previous phases, together with the evidence gathered from the application of the Aranciera model at other lesser-known heritage sites, a comprehensive assessment of the overall social impact of the project will be undertaken.

Monitoring phase	Participants	Purpose	Expected decision
Continuous monitoring during implementation	Action leaders and responsible organisations	Verify implementation progress and collect output data	Operational adjustments to ongoing activities
Annual Review	Core ULG, Roma Capitale, Sapienza University and key stakeholders	Assess achievement of annual objectives and outcome indicators	Revision of annual work plan, adjustment of activities and stakeholder involvement
Mid-term Review (2028)	Core ULG, Roma Capitale and key stakeholders	Assess effectiveness of the Urban Social Greenhouse model and replication potential	Review priorities, update indicators where necessary and prepare the pilot transfer strategy
Final Evaluation (2030)	Roma Capitale, Core ULG and project partners	Evaluate overall social, environmental and governance impact	Consolidate the governance model and define the long-term implementation and replication strategy

The monitoring results will be reviewed periodically by the Core Team of the URBACT Local Group, comprising Roma Capitale, Sapienza University of Rome, and the principal organisations responsible for implementing the Actions, and will be shared annually with the entire partnership. The evidence collected will provide the basis for assessing the achievement of the planned objectives, identifying any critical issues, and informing decisions concerning the programming of activities, the involvement of new stakeholders, the possible revision of indicators, and the definition of priorities for the subsequent phases of the project.

Monitoring therefore serves a dual function. On the one hand, it ensures transparency and accountability in the implementation of the Investment Plan; on the other, it constitutes a permanent instrument for learning, adaptation and the continuous improvement of the Urban Social Greenhouse model. The main decisions arising from the monitoring process will be formally adopted during the annual meetings of the URBACT Local Group and will feed into the updating of the operational programmes and activities planned for the following year, thereby ensuring a continuous feedback loop between project implementation, evaluation and governance.

5.2 The monitoring and evaluation framework

The monitoring and evaluation framework translates the project's objectives into a structured set of Specific, Measurable, Achievable, Relevant and Time-bound (SMART) indicators. For each indicator, the baseline values, target values, data sources, data collection methods, monitoring frequency, and the entities responsible for monitoring are defined, ensuring a coherent and operational system consistent with the approach described in Section 5.1.

The framework has been designed to focus on the elements that are genuinely relevant for decision-making, supporting a monitoring process that is both proportionate and effective. The indicators include both output and outcome measures, enabling the assessment not only of the products and activities delivered but also of the changes generated in relation to the project's objectives, the effectiveness of

the governance arrangements, and the quality of stakeholder participation. The monitoring results will be used to guide the implementation of the Actions, update the annual work programme, and support the decisions of the URBACT Local Group and Roma Capitale throughout the implementation of the Investment Plan.

Action	Outcome Indicator (SMART)	Baseline	Target	Data source	Method / Tool	Frequency	Responsible
Action 1 Hypertexts and multimedia products on Aranciera, Celio and water heritage	% of visitors/users reporting increased awareness of the hydro-cultural heritage after using project materials	0% (2025)	70% (2027)	Visitor questionnaires; web analytics	Pre/post survey; digital analytics	Annual	Sapienza University + Roma Capitale
	Number of multimedia products produced	0	10	Project records	Document review	Annual	Sapienza University
Action 2 Schools involvement	% of students demonstrating improved knowledge of cultural heritage and environmental issues (pre/post activity)	10%	70%	Student questionnaires	Pre/post survey	Annual	Schools + Sapienza University
	Number of schools involved	2	5	Participation records	Attendance register	Annual	Roma Capitale
Action 3 Urban horticulture experimentation	Number of participants regularly involved in urban horticulture activities	0	100	Attendance records	Registration forms	Every six months	Roma Capitale
	Number of pilot horticultural initiatives implemented	0	5	Project reports	Activity monitoring	Annual	Roma Capitale

Action 4 Participation and social inclusion through horticulture	% of participants reporting improved social participation and community interaction	0%	70%	Participant survey	Post-activity questionnaire	Annual	Roma Capitale + Third Sector organisations
	Number of community events organised	0	20	Event reports	Attendance records	Annual	Roma Capitale
Action 5 Training courses for migrants	% of trainees completing the training programme	0%	80%	Training records	Attendance + completion certificates	Annual	Roma Capitale + Third Sector
	% of participants applying acquired cultivation techniques after training	0%	60%	Follow-up survey	Follow-up questionnaire	Annual	Roma Capitale
Action 6 Climate change awareness	% of participants reporting increased awareness of climate change adaptation	10%	70%	Participant survey	Pre/post survey	Annual	Sapienza University
	Number of awareness materials produced	0	10	Project documentation	Document review	Annual	Roma Capitale
Action 7 Water-saving awareness	% of participants declaring adoption of at least one water-saving behaviour	10%	60%	Participant survey	Follow-up questionnaire	Annual	Roma Capitale
	Number of awareness events organised	0	15	Event reports	Attendance records	Annual	Roma Capitale
Action 8 Aranciera Pilot Project	Pilot methodology formally adopted by Roma Capitale	No	Yes (2030)	Municipal documentation	Document review	Mid-term & Final	Roma Capitale

	Number of dissemination initiatives addressed to other municipal sites	0	5	Project reports	Activity monitoring	Annual	Roma Capitale
Action 9 Mapping of Hydro-Cultural Heritage	Number of heritage sites mapped and assessed	0	20	GIS database; project reports	GIS analysis	Annual	Sapienza University
	Guidelines for replication completed	No	Yes	Project documentation	Document review	Final	Sapienza University
Action 10 Post-HHC Activity Programme	Annual programme approved	No	Yes (2026)	Administrative documents	Document review	Annual	Roma Capitale
Action 11 ULG Association	Association formally established	No	Yes	Statute and registration documents	Administrative verification	Once	ULG partners
Action 12 Cooperation Agreement	Cooperation Agreement signed	No	Yes	Signed agreement	Administrative verification	Once	Roma Capitale + Partners