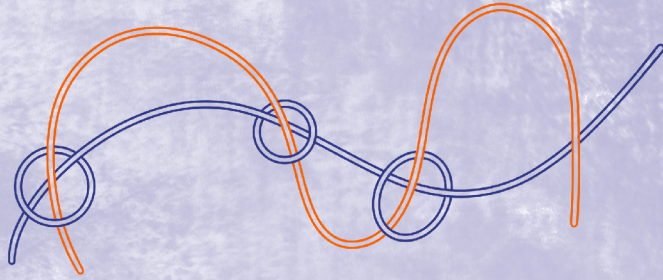


IDENTITY NODES



CONNECTING COMMUNITIES



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INTRODUCTION

Urban Regeneration in Pantelimon–Fundeni

The site under analysis is located in Bucharest, in Sector 2, and is part of the Pantelimon–Fundeni neighborhood, a typical post-socialist residential area consisting predominantly of P+10-story apartment complexes, built mainly between 1974 and 1979. The urban character of this area reflects the development model of large housing neighborhoods from the second half of the 20th century, characterized by high density, spacious but underutilized interior spaces, and an existing social infrastructure that can serve as the basis for contemporary regeneration.

The project concept, Identity Nodes, stems from the idea of redefining and reactivating the neighborhood's key points as identity-forming nuclei, capable of regenerating the relationships between space, community, and urban memory. The proposed intervention aims to transform the inner courtyards and residual spaces between the blocks into active urban nodes with social, ecological, and functional roles, restoring a sense of coherence and belonging to the place.

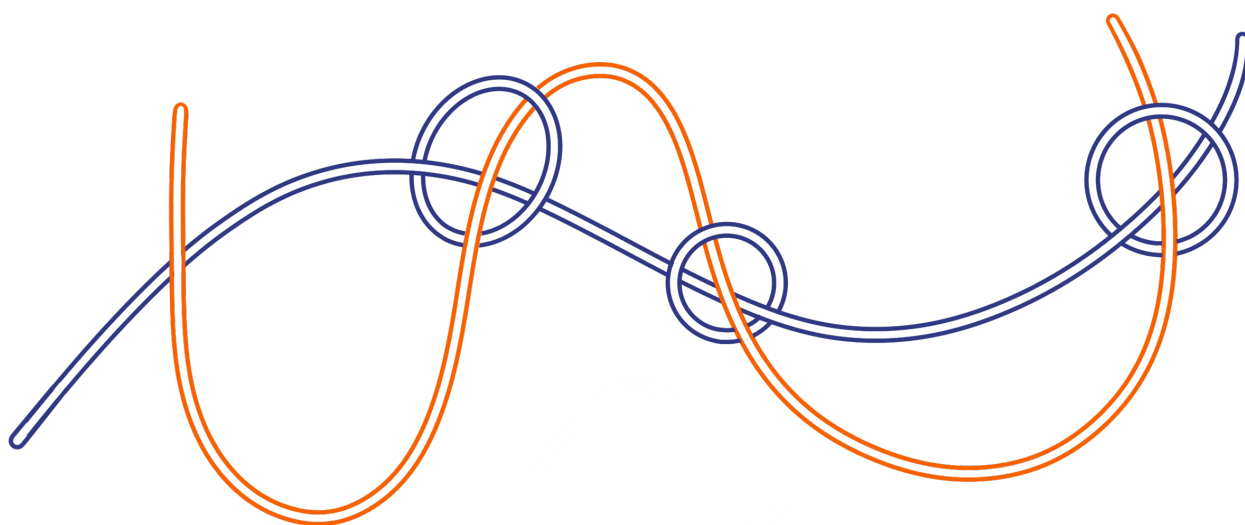
The project aims to revitalize the urban regeneration process of the Pantelimon–Fundeni area, transforming a typical post-socialist neighborhood into a model of climate resilience and social cohesion. Thus, the inner courtyards are reinterpreted as shared green spaces that transcend their decorative role and become living infrastructure for the community.

By integrating nature-based solutions (NBS), the project addresses current challenges posed by the urban heat island effect, the lack of quality public spaces, and poor stormwater management. At the same time, through a participatory design process, residents become direct actors in defining the neighborhood's new identity, ensuring the relevance and long-term sustainability of the intervention.

At the same time, the proposed intervention is grounded in the integration of the 10 principles of sustainable urban development, which serve as the strategic framework and direction for the project's evolution. The Identity Nodes concept aims for each urban node created to simultaneously meet multiple objectives: the formation of complete neighborhoods, the improvement of people-centered streets and low-emission mobility, as well as the development of smart and connected spaces.

At the same time, the project promotes the idea of an accessible and inclusive space for all, integrating green building solutions, energy efficiency, and responsible resource use. Green spaces, urban nature, and climate resilience play an essential role, becoming key tools in combating the effects of climate change and improving residents' quality of life.

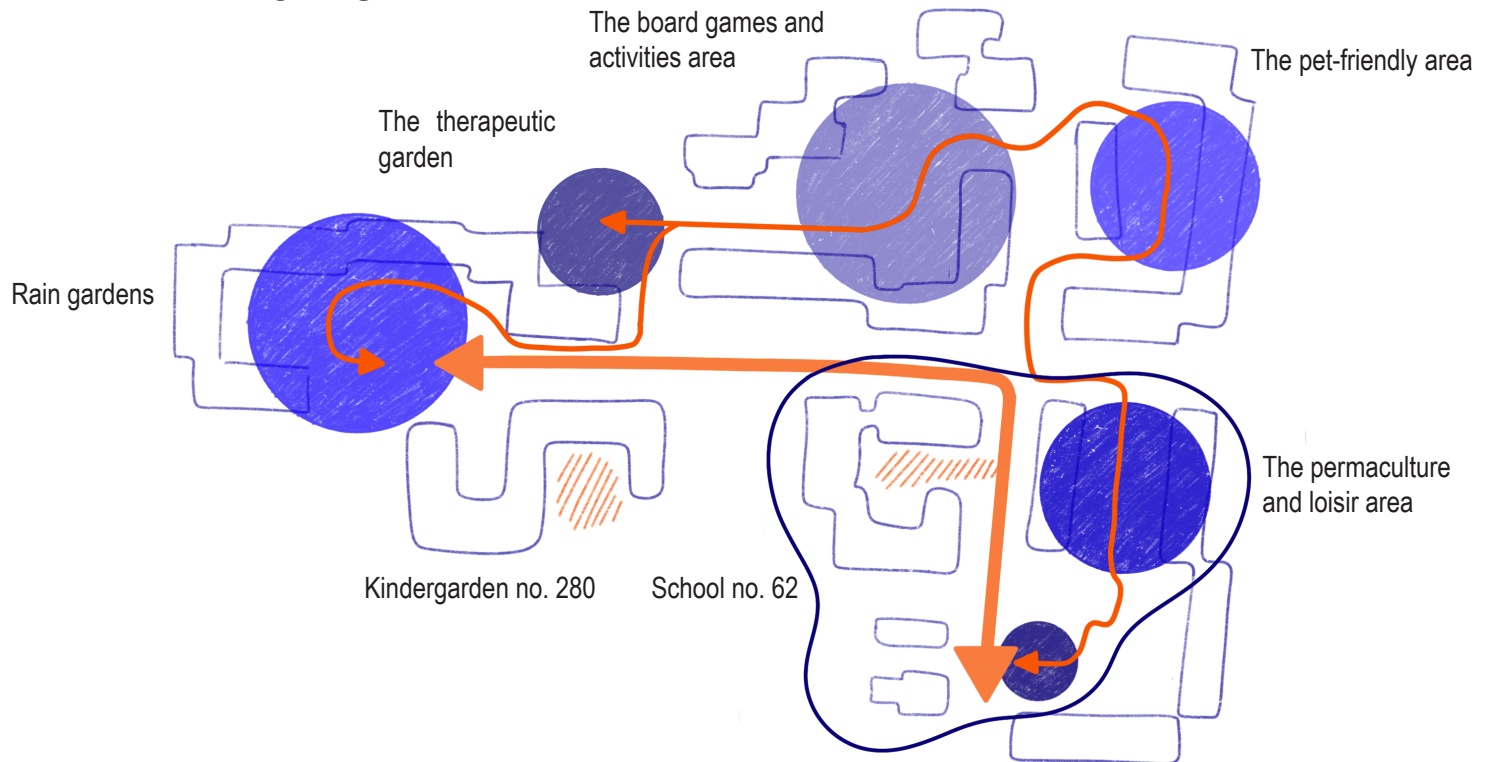
Through this integrated approach, the project proposes not merely a one-off intervention on the site, but a comprehensive strategy oriented toward a sustainable lifestyle and support for the green economy, in which all 10 principles must be interconnected and implemented as a unified whole to generate authentic, coherent, and sustainable urban regeneration.



“CONNECTING COMMUNITIES”

CONCEPT

IDENTITY NODES



The proposed strategy for the public space is structured around the concept of “Identity Nodes,” through which each space bounded by the facades of the apartment blocks acquires a distinct character, a specific function, and a direct relationship with its immediate surroundings. The intervention is organized as a coherent pedestrian route that connects all these nodes and extends along Delfinului Street, creating spatial continuity from the first node—which is directly connected to School No. 62—to the last node, connected to Kindergarten No. 280. This route not only improves pedestrian accessibility and permeability but also strengthens the area’s identity, offering a clear succession of thematic public spaces.

The concept directly addresses the needs expressed by residents: preserving privacy, maintaining the area’s existing character, and creating semi-private spaces sheltered from urban congestion. To meet these requirements, the ends of the route are configured as active nodes that connect directly with nearby functions and institutions, while the interior area becomes a protected space for community interaction, where locals can build connections with one another and use the space in a way that benefits all age groups.

The permaculture and loisir area is designed as a space of common interest for both students and locals. For residents, shaded street furniture and rest areas offer comfort and encourage daily use of the space, while for students, the permaculture area becomes an educational and participatory space where they can grow their own vegetables. Through a partnership with the church cafeteria, the harvest can be used for charitable cooking activities, reinforcing the social and educational aspects of the project

The pet-friendly area is designed as a dedicated walking path for animals, integrated into the site’s green landscape. By pruning the existing trees, the resulting wood will be recycled and reused to develop the walking path and create street furniture, using natural and sustainable materials. At the same time, specific elements designed for pets are included, transforming the space into a functional and welcoming place for users who own pets.

The board games and activities area is designed as an intergenerational social space. In the evening, it will feature special lighting, allowing teenagers and young adults to use the space as well, while simultaneously increasing the perceived safety of the area. The therapeutic garden serves as a focal point on Ciocârliei Street, becoming a visual and functional landmark along the route. The space is organized through sensory paths and plantings of aromatic species, offering a setting for relaxation, contemplation, and therapeutic experiences.

In the area adjacent to Kindergarten No. 280, rain gardens are proposed as a sustainable solution for stormwater management, in conjunction with the nearby steam-to-hot-water conversion station. The soil resulting from the excavation of these gardens is reused to create green mounds and varying elevations that enrich the spatial experience, as well as to construct planters for community gardens.

CONCEPT ANALYSIS, 10 GUIDING PRINCIPLES

The project concept is based on the idea of “identity nodes,” through out each space between the building facades takes on a distinct character, a specific function, and a direct relationship with it's immediate context. These nodes are connected by a coherent pedestrian route that structures the public space and ensures continuity between the educational and community functions in the area. The intervention aims to create semi-private, green, and inclusive spaces dedicated to social interaction, recreation, and climate resilience, responding to residents' needs and strengthening the neighborhood's identity.

1. COMPLETE NEIGHBOURHOODS

The Identity Nodes proposal transforms a fragmented post-socialist residential block into a self-sufficient neighbourhood at a local scale. By designing five identity nodes directly connected to the adjacent School No. 62 and Kindergarten No. 280, the project ensures that educational, recreational, and community amenities are accessible within walking distance for all residents. The permaculture and loisir area bridges the gap between student life and daily neighbourhood activity, while the partnership with the church's social canteen integrates charitable services into the fabric of public space. The intervention does not introduce isolated elements, it stitches together existing institutions through a coherent pedestrian route, creating a complete neighbourhood where daily needs are met locally.

2. PEOPLE-CENTERED STREETS AND LOW-CARBON MOBILITY

The structural backbone of Identity Nodes is a continuous pedestrian route running along Delfinului Street, linking all five nodes from the permaculture area at School No. 62 to the rain gardens adjacent to Kindergarten No. 280. The primary path, surfaced in red rectangular pavers on a sand base, prioritises pedestrian movement and eliminates vehicular access within the regenerated zone. Secondary paths in fine cream gravel slow the pace further, encouraging exploration and social interaction. Safe routes for children and elderly residents are embedded in the design logic, where the nodes are positioned to be visible from apartment windows, lighting is integrated at three levels along the route, and the sensory pathway in the therapeutic garden creates a protected, accessible walking experience for all mobility levels.

3. SMART AND CONNECTED PLACES

The five nodes are designed to be functionally and visually connected, each one readable from the next along the pedestrian route, creating a sequence of thematic spaces rather than isolated interventions. Smart LED lighting integrated within the board games and activities area extends safe use into evening hours, directly addressing residents' concerns about perceived security. The project establishes physical connections between the neighbourhood and its surrounding public network, anchoring the route at both ends to the street-level pedestrian flow of Delfinului and Ciocârliei Streets.

4. A PLACE FOR EVERYONE

The Identity Nodes concept is explicitly intergenerational. The permaculture and loisir area near School No. 62 serves students and adults simultaneously, children learn to grow and compost while residents find shaded seating and rest areas. The therapeutic garden is designed for contemplation and sensory stimulation, accessible to elderly residents, people with limited mobility, and individuals with sensory sensitivities through its textured pathway of natural materials. The pet-friendly area responds directly to a need expressed by residents, providing a designated walking zone with appropriate surfaces and pet-specific furniture. The board games area activates the space for teenagers and young adults in the evening. No age group, no user profile is left without a dedicated node along the route.

5. CLEAN CONSTRUCTION

Identity Nodes operates on a principle of minimal intervention and maximum material efficiency. No permanent structures are proposed, all elements are temporary, modular, or lightweight, compliant with the site's planning constraints. The most distinctive clean construction strategy is the direct reuse of wood from the pruning and removal of dead trees identified on site: trunks are cut into 30 cm diameter discs and reused as stepping elements in the pet-friendly pathway and the sensory trail, eliminating the need for imported materials and reducing embodied carbon to near zero for these elements. Natural materials: stone, sand, gravel, mulch, untreated timber are prioritised throughout all five nodes. The Florium planters and Urban Islands furniture from mmcité are selected for their FSC-certified timber and long-term durability, reducing replacement cycles and lifecycle emissions.

6. GREEN ENERGY AND BUILDINGS

While Identity Nodes operates at landscape scale and does not directly intervene on building fabric, it establishes conditions for future energy-related improvements. LED lighting integrated along the pedestrian route operates at low wattage with motion sensors, reducing operational energy consumption. The rain gardens adjacent to Kindergarten No. 280 are positioned in coordination with the existing technical infrastructure of the nearby steam-to-hot-water conversion station, creating potential for future integration with district energy networks. The green mounds created from excavated soil provide natural thermal buffering for the kindergarten's outdoor spaces. Green façades on the adjacent apartment blocks using self-clinging *Parthenocissus tricuspidata* are proposed for the final implementation phase, reducing surface temperatures by 2–4°C in summer and lowering cooling energy demand.

7. CIRCULAR RESOURCES

Identity Nodes applies circular economy principles at the most local possible scale. Excavated soil from the rain garden construction in Zone 5 is not removed from the site — it is directly reused to form the green mounds that create topographic variation and spatial enclosure in the same zone. Dead wood from the dry trees identified on site is reprocessed into pathway discs used across Zones 2 and 3, giving material life to resources that would otherwise be discarded. The composting system in Zone 1 closes the organic waste loop: food scraps from the school canteen and the church's social kitchen feed the compost bays, and the resulting compost enriches the soil of the planters and garden beds throughout the route. Rainwater collected from the composting pavilion's canopy irrigates the permaculture beds without drawing on the potable water network.

8. GREEN SPACES, URBAN NATURE AND CLIMATE RESILIENCE

The five nodes collectively increase the neighbourhood's green surface, permeable area, and biodiversity capacity. Rain gardens in Zone 5 manage stormwater at source, infiltrating runoff that currently contributes to flooding and urban heat accumulation. Aromatic plantings of *Lavandula*, *Salvia*, and *Mentha* throughout the therapeutic garden and loisir zones reduce the urban heat island effect through evapotranspiration and provide year-round habitat for pollinators. The sensory trail in Zone 2 introduces a layered planting palette — ground cover, shrub, and small tree — that creates microhabitats and increases canopy coverage in a currently degraded environment. The green mounds in Zone 5 add topographic complexity, improving air circulation between the apartment blocks and reducing wind channelling effects. Together, these interventions address the three environmental priorities identified by the City of Bucharest: heat adaptation, stormwater management, and biodiversity enhancement.

9. SUSTAINABLE LIVING

The design of each node actively promotes sustainable behaviour without imposing it. The composting system in Zone 1 is the most direct behavioural intervention: students at School No. 62 manage the bays as part of their curriculum, learning the organic waste cycle through direct responsibility. The Florium planters in Zone 1 and the community jardinières in Zone 4 invite residents to grow flowers and herbs, transforming passive green space into productive, cared-for landscape. The harvest from the permaculture beds supports the church's social canteen, creating a short food circuit visible to the entire community. The board games area in Zone 4 provides a reason to be present in the outdoor space daily, shifting habits away from indoor isolation. The therapeutic garden in Zone 2 offers a model of nature-based wellbeing accessible to all residents without cost or membership.

10. GREEN ECONOMY

The economic model of Identity Nodes is built on reuse, local production, and community maintenance. By sourcing dead wood from site trees, excavated soil from on-site earthworks, and mineral materials from local Romanian suppliers, the project minimises procurement costs while keeping economic value within the neighbourhood. The partnership with the church's social canteen creates a direct economic link between the permaculture harvest and the charitable food service — reducing ingredient costs for vulnerable beneficiaries. Community involvement in maintenance — organised through residents' associations, the school's eco-committee, and the parish volunteers — reduces long-term operational costs while building social capital. Identity Nodes is designed as a replicable pilot: its modular components, locally available materials, and community governance model can be transferred to other post-socialist residential blocks across Bucharest and Eastern Europe, multiplying economic and ecological impact at no additional design cost.

CONFORMITY WITH PLANNING REGULATIONS

The Identity Nodes project operates within a clear and permissive regulatory framework that allows full implementation without the need for a building permit. The site falls within the **M2 and M3 mixed urban zones defined by the Bucharest General Urban Plan (PUG-MB)**, which permit public space amenity works, landscaping interventions, and the installation of lightweight or temporary structures within the public domain. All five nodes are located exclusively on public domain land administered by District 2 City Hall.

The critical regulatory basis for the project is **Article 2, paragraph 4, letter c) of Law 50/1991**, which explicitly exempts landscaping works and public space amenity installations from the building permit requirement, provided no permanent structures are erected. Identity Nodes complies fully with this condition: every element in the project, from composting bays to lighting posts, planters, furniture, and sensory trail surfaces, is modular, removable, and non-permanent. This means the project can move directly from design approval to execution without passing through the standard building permit procedure.

At district level, the **Local Urban Regulation (RLU) of Sector 2** supports green infrastructure interventions in residential neighbourhoods. The project also aligns with the **Bucharest Strategic Concept 2035**, which identifies the greening of inter-block spaces as a municipal priority.

The implementation framework is further secured by the ReGreenation Feasibility Study, already approved by **District 2 City Hall and validated by UTCB and Climatosfera under the EU Horizon Europe** programme which constitutes the binding programmatic document within which Identity Nodes operates as the designated demonstration zone. This means the project has an existing, approved institutional basis from which to proceed directly into Phase 1 execution in 2026.

KEY ACTORS AND RESPONSIBILITIES

District 2 City Hall — Project lead, primary funder, and implementation authority. Coordinates and supervises the full project, secures the principal financing, collaborates directly with ADP Sector 2 for the execution of construction and landscaping works, and ensures coordination between all actors throughout the implementation period.

ADP Sector 2 — Responsible for the effective execution of all construction, landscaping, and public infrastructure works across the five nodes. Interacts with private investors regarding infrastructure integration and collaborates with specialists in the design and execution of public amenity works.

School No. 62 — Primary custodian of Zone 1. Students and teaching staff manage the composting bays as part of the school curriculum, participate in planting sessions in the Florium jardinières, and maintain the permaculture area as an ongoing educational programme. The school also acts as the principal liaison with the church's social canteen for the organic waste collection circuit.

Kindergarten No. 280 — Anchor institution for Zone 5. Teaching staff and parents are involved in the chromatic connection design and in the activation of the Urban Islands seating area, establishing a direct spatial and programmatic relationship between the kindergarten's outdoor educational activities and the public space of the node.

Parish of Saint John the Baptist — Volunteers support the maintenance of all garden zones, particularly Zone 1 and Zone 2. The church's social canteen participates in the circular composting circuit, providing organic food waste and receiving finished compost for charitable cooking activities, creating a direct social and economic link between the project and the neighbourhood's most vulnerable residents.

UrbanizeHub / Climatosfera / UTCB — Technical and academic partners of the ReGreenation project. Provide expertise in nature-based solutions, climate resilience monitoring, and community engagement methodology. Responsible for the technical validation of the rain garden design, the monitoring of stormwater retention performance, and the production of the replication manual at project completion.

Residents associations — Co-managers of all five nodes following handover at the end of Phase 3. Organised through the existing residents' association structure, they take on responsibility for routine maintenance tasks, seasonal planting updates, and the activation of community programmes within the nodes. Their involvement from Phase 1 onward ensures ownership and long-term stewardship.

Design and execution team — Landscape architect (lead designer, planting design, technical documentation), infrastructure engineer (drip irrigation system, electrical installation for three-level lighting), and specialist landscape contractor (execution of all mineral surfaces, planting, and furniture installation).

TECHNICAL CHALLENGES

Compacted and degraded soil

The inter-block spaces have been subjected to decades of foot traffic and vehicle encroachment, resulting in severely compacted soil with low permeability and minimal organic content. All planting zones and permeable surfaces are addressed through a systematic sub-base strategy: geotextile membrane followed by ballast drainage layer, ensuring adequate load distribution and water infiltration regardless of existing soil conditions.

Dense shade from 10-storey apartment blocks

The orientation and height of the surrounding blocks create extended shadow patterns across the site for most of the day, particularly in Zones 1 and 2. The planting palette has been specifically selected to address this constraint — shade-tolerant species including *Hakonechloa macra* 'Aureola', *Carex morrowii* 'Variegata', *Pachysandra terminalis*, and *Physocarpus opulifolius* replace sun-dependent species throughout the shaded nodes, ensuring year-round green coverage without plant failure.

Existing underground utilities

The site contains an unknown network of gas, electricity, water, and drainage infrastructure typical of Romanian socialist-era residential developments. Prior to any excavation works — particularly for the rain garden basins in Zone 5 — a full underground utilities survey is mandatory. All foundation and excavation works are designed to minimum depths wherever possible, and the rain garden basins are positioned to avoid the primary utility corridors identified in the existing technical documentation.

Natural terrain slope and drainage

The natural gradient of the terrain between the school end and the kindergarten end of the route creates differential drainage conditions. The green mounds in Zone 5 are designed to work with this slope rather than against it — the excavated soil from the rain garden basins is redistributed as mounds that direct surface water toward the infiltration basins, transforming a topographic constraint into the project's primary stormwater management feature.

BUDGET BREAKDOWN

The total project budget of 700,000 EUR is distributed across three implementation phases over five years (2026–2030), each with a distinct scope and investment logic.

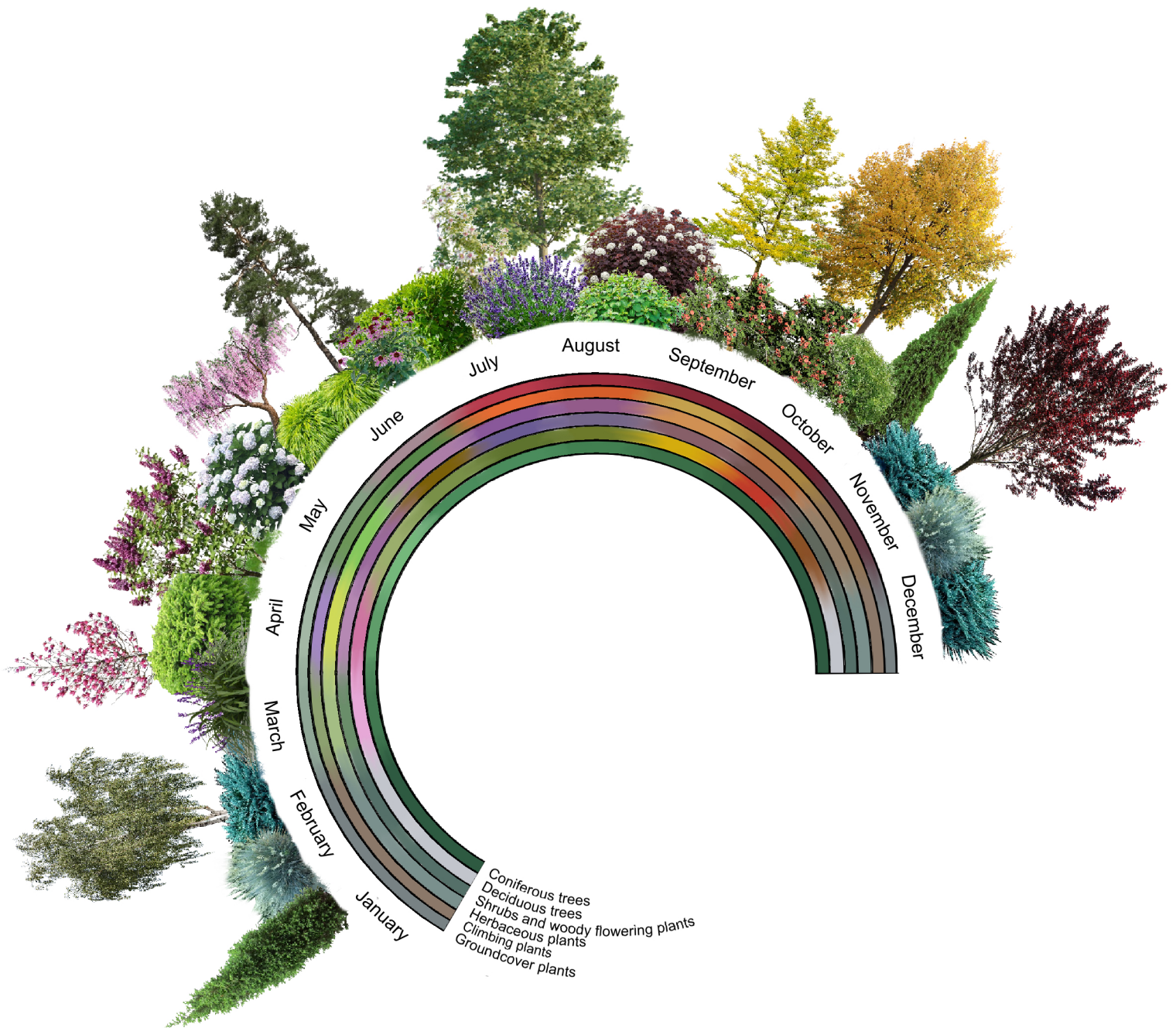
Phase 1 (2026) absorbs approximately 180,000 EUR, covering the primary red paver pathway, the full three-level lighting system along the route, Zone 3 pet-friendly area, and Zone 4 board games and community jardinières — the two lowest-complexity nodes, designed to deliver visible transformation within the first season and establish community trust before the more involved interventions begin.

Phase 2 (2027–2028) represents the largest investment at approximately 320,000 EUR, reflecting the higher complexity of Zone 1 and Zone 2. This phase covers the composting bay structure, the full Florium and semi-circular jardinière installation, the complete sensory trail with its layered drainage sub-base and drip irrigation system, the LPC110 bench series, and the stratified therapeutic planting palette — as well as the launch of the school composting programme and the formal partnership with the church's social canteen.

Phase 3 (2029–2030) closes the system with approximately 200,000 EUR allocated to Zone 5, the most technically demanding node. This covers the rain garden excavation and drainage layers, the green mound earthworks, the Urban Islands furniture installation, the chromatic surface treatment connecting to Kindergarten No. 280, and the green façade cable support systems on adjacent blocks. This phase also includes the production of the replication manual, the monitoring equipment installation, and the formal handover to residents' associations, school, and parish.

Of the total 700,000 EUR, approximately 118,000 EUR represents direct material costs — mineral elements, vegetation and substrate, and urban furniture with lighting — distributed across all three phases. The remaining budget covers site preparation, underground utilities survey, earthworks, irrigation and electrical infrastructure, labour, project management, community engagement, and documentation.

VEGETATION DIAGRAM



This detailed diagram serves as a comprehensive phenological calendar for landscape planning, tracking the garden's evolution throughout all twelve months of the year, from January to December. Its visual structure stratifies the vegetation into essential categories for a balanced design, integrating coniferous trees and deciduous trees , shrubs and woody flowering plants , herbaceous plants , climbing plants , and groundcover plants.

LIST OF QUANTITIES

QUANTITY LIST OF VEGETATION

Proposed species	Nr. piece	Image piece	Characteristics		Price per unity (euro)	Total price (euro)	Link supplier
			height (cm)	Diameter canopy			
I. CONIFEROUS TRREES							
Pinus sylvestris	5		210	60-80	190	950	https://verdena.ro
Picea abies 'Nidiformis'	8		45-55	50-70	73	584	https://verdena.ro
Juniperus scopulorum 'Skyrocket'	10		100-150	20-30	4	40	https://www.gardenexpert.ro
II. DECIDUOUS TREES							
Gleditsia triacanthos 'Sunburst'	8		100-150	100	17	136	https://www.gardenexpert.ro
Magnolia grandiflora	4		120-150	80	40	160	https://vitadeviealtoita.ro
Tilia cordata 'Green-spire	6		150-200	100	15	90	https://www.gardenexpert.ro
Prunus cerasifera 'Nigra'	5		75-100	75-100	55	275	https://copacei.ro
Acer palmatum red emepor	4		200-250	200-250	260	1.040	https://verdena.ro
Betula pendula 'Youngii'	4		150-200	150-200	80	320	https://www.gardenexpert.ro
III. SHRUBS AND WOODY FLOWERING PLANTS							
Hortensia macrophylla	20		50-60	50-60	14	280	https://bulbshop.ro
Physocarpus opulifolius 'Diabolo'	15		40	40	6	90	https://copacei.ro
Prunus laurocerasus 'Caucasica'	20		30	35	3	60	https://copacei.ro
Juniperus horizontalis 'Blue Chip'	25		50-60	50-60	4	100	https://copacei.ro
Syringa vulgaris	8		100	100	35	280	https://copacei.ro
Lavandula angustifolia 'Hidcote'	50		10	10	4	200	https://copacei.ro
IV. SHRUBS AND WOODY FLOWERING PLANTS							
Hakonechloa macra 'Aureola'	30		40-60	40-50	7	210	https://copacei.ro
Festuca glauca 'Elijah Blue'	40		15	15-20	5	200	https://copacei.ro
Carex morrowii 'Variegata'	40		20-30	30-40	5	200	https://copacei.ro
Echinacea purpurea	30		60-80	40-50	2	60	https://copacei.ro
Agapanthus africanus	20		60-80	40-50	24	480	https://copacei.ro
Liriope muscari	50		20-30	20-30	4	200	https://copacei.ro

Proposed species	Nr. piece	Image piece	Characteristics		Price per unity (euro)	Total price (euro)	Link supplier
			height (cm)	Diameter canopy			
V. CLIMBING PLANTS - LIANAS							
Clematis vitalba	10		60	-	10	100	https://secretgarden.ro
Wisteria sinensis	5		120	-	23	115	https://copacei.ro
Campsis radicans	8		150	-	10	80	https://secretgarden.ro
VI. GROUND COVER PLANTS							
Pachysandra terminalis	80		25	20	2	160	https://www.gardenexpert.ro
Sedum spurium 'Dragon's Blood'	60		15	30	2	120	https://plant-shop.ro
Stachys byzantina	50		30	30	2	100	https://gradinado.ro

QUANTITY LIST OF MINERAL SURFACE AND OBJECTS

Surface type	Nr. piece	Image piece	Characteristics		Price per unity (euro)	Total price (euro)	Link supplier
			height (cm)	length (cm)			
I. PROPOSED PATHS AND SUBSTRACTS							
Concrete paving slab	750		8	40x20	13	9.750	https://global.ro
Sand	145 bags		0-1 mm	-	2	290	https://www.leroymerlin.ro
Ballast	25 mc		5-6 mm	-	22	550	https://depo-materiale-constructii.ro
Rounded stone	20.000		1-3	-	0.3	6.000	https://www.depozitpiatra.ro
Quartz sand	120		0-1 mm	-	3	360	https://www.hornbach.ro
Geotextile fabric	420 sqm		-	1 sqm	1.6	672	https://www.hornbach.ro
Structural geogrid	3		10	6	133	400	https://www.glowmania.ro
Wooden curbs	120		30	200	10	1.200	https://www.hornbach.ro
Wooden discs	20		5	30	8.5	160	https://www.heliumking.ro
Rich soil	7.070		-	-	1.4	9.900	https://www.hornbach.ro
Compost	131		-	-	8	1.048	https://www.hornbach.ro
Concrete	166		-	-	3	498	www.dedeman.ro
Threaded rod m10	40		1	100	7	280	www.dedeman.ro
Compost bin	15		72	100x100	115	1.725	https://www.emag.ro
Transparent polycarbonate	2		0.4	300x210	13	26	https://www.leroymerlin.ro

Surface type	Nr. piece	Image piece	Characteristics		Price per unity (euro)	Total price (euro)	Link supplier
			height (cm)	length (cm)			
II. URBAN FURNITURE							
Bench LPC110 *	8		120	320	4.200	33.600	https://www.mmcite.com
Planter box florum *	6		80	80	950	5.700	https://www.mmcite.com
Semicircular planter box *	2		80	340	1.700	3.400	https://www.mmcite.com
Square planter bench *	1		120	200	5.000	5.000	https://www.mmcite.com
Urban islands set *	1		160	600	5.000	5.000	https://www.mmcite.com
Water fountain	4		120	60	1.500	6.000	https://www.kronemag.com
Bicycle rack *	2		220	300	400	800	https://www.mmcite.com
Bollards	10		80	8	270	2700	https://www.dnctrafic.ro
II. URBAN LIGHTNING							
Street lightning - high	8		185	10	178	1.424	https://www.lucente.ro
Street lightning - medium	12		100	8	85	680	https://www.luminam.ro
Street lightning - low	20		30	5	680	13.600	https://www.lampisilumini.ro
Electric cable	6		300	1	67	335	https://www.hornbach.ro
Electrical panel	4		30	40	30	120	https://www.hornbach.ro

TOTAL

117.923

* - estimated price