



D6.6: Participatory supporting system for the Replication of the Visionary Solutions

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Authors	E2ARC: Eleni Goni, Georgia Papamarkou, Sara Van Rompaey TUC: Katerina Lilli, Elisavet Tsekeri, Thanasis Malisovas, Dionysia Kolokotsa, Eurac: Sara Biancifiori, Adriano Bisello

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Abbreviation list

Term	Description
BMC	Business Model Canvas
CAPEX	Capital Expenditure
EC	European Commission
EIA	Environmental Impact Assessment
EU	European Union
GPP	Green Public Procurement
H&WB	Health and Well-Being
ICT	Information and Communications Technology
IoT	Internet of Things
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
NbS	Nature- based Solution
NPV	Net Present Value
OPEX	Operational expenditure
O&M	Operation & Maintenance
PPP	Public Private Partnership
SPP	Sustainable Public Procurement
SROI	Social Return On Investment
SWOT	Strengths, Weaknesses, Opportunities, Threats
VS	Visionary Solution
WP	Work Package
SDG	Sustainable Development Goals



Executive Summary

This demonstrator deliverable presents the VARCITIES Online Replication Tool, a participatory supporting system designed to facilitate the transfer and scaling of Visionary Solutions (VSs) developed within VARCITIES. From the outset of the project, 28 VSs were implemented across seven pilot cities with the aim of improving health, well-being, and sustainability in urban environments. While each solution was conceived as replicable, their consolidation into 18 grouped “good practice examples” has further maximized their replication potential and enhanced their adaptability across diverse urban contexts.

The VARCITIES Online Replication Tool has been co-created through an inclusive participatory process, involving follower cities, external stakeholders, and sister projects. Feedback was collected through surveys, workshops, interactive discussions, and events, including co-organized activities with sister projects, as well as international conferences and the Helix events. This process ensured that the VARCITIES Online Replication Tool responds to the needs of its target audiences and supports multiple user profiles, from city planners and policymakers to practitioners and civil society actors.

A central element of the VARCITIES Online Replication Tool is the VSs Catalogue, which outlines the constituting parts of the grouped solutions, including implementation packages, sustainability plans, co-creation stories, co-benefits and spatial impact assessments. To enhance usability, the Catalogue is supported by a Glossary of key definitions and a decision-support system. The VARCITIES Online Replication Tool also incorporates user-friendly filters, enabling navigation by Sustainable Development Goals (SDGs), expected benefits, solution type, and other dimensions.

Last, to guarantee long-term impact, the VARCITIES Online Replication Tool is accompanied by a sustainability plan that ensures its continuation beyond the lifetime of the project. This plan includes a Business Model Canvas (BMC), an assessment of operational costs, and a review of potential funding mechanisms. Together, these elements create a robust participatory supporting system that empowers cities and stakeholders to replicate and adapt proven solutions, contributing to healthier, more sustainable, and more resilient urban environments across Europe and beyond.

1 Development process of the online tool promoting the replication of the VS

The present report has been developed within the framework of Task 6.3 “Participatory Supporting System for the Replication of the Visionary Solutions”. The VARCITIES Online Replication Tool is conceived as a guiding and supporting system for its targeted users, including citizens, cities, and researchers. Its main purpose is to facilitate the replication of the VARCITIES VSs by supporting informed decision-making throughout the stages of identification, design, implementation, and evaluation of future projects. As illustrated in Figure 1 the development of the VARCITIES Online Replication Tool followed a structured and participatory process, designed to ensure both scientific rigor and practical usability.

The process began with the definition of the VS groups and the design of a common catalogue template, ensuring a consistent structure for documenting results. Building on this foundation, the VS Catalogue content was developed through the consolidation and enrichment of existing knowledge derived from several project Deliverables, such as the BMC, the Implementation and the Monitoring (KPI) frameworks. In parallel, new knowledge was generated through post-implementation reviews, co-creation reviews, co-benefits and spatial impact assessments, as well as the identification of beneficiaries and the specification of required expertise levels.

A strong participatory dimension was embedded in the process, with the design of surveys and interactive sessions to collect input from diverse stakeholders (i.e., cities with interest in VARCITIES). These activities were implemented during key events such as the Mikser Festival, Helix Event, Clustering Event, NEB Festival, Follower Cities Workshops, and the ISOCARP Final Conference, to gather feedback with respect to a) the replication potentials of the VSs and b) the desired functionalities to form part of a decision support system.

The tool development also drew on the findings of the VS Post-Implementation Review and was complemented by supporting outputs such as the VARCITIES Glossary and the Tool's Sustainability Plan, ensuring alignment and long-term relevance.

On the technical side, the tool's functionalities and user interface were first explored through the creation of mockups, followed by the establishment of the tool itself. Feedback from stakeholders was continuously integrated, with the tool being iteratively updated and refined based on their input. This ensured that the outputs were user-friendly, relevant, and adaptable to different contexts. The process concluded with a final review and usability testing, leading to the preparation of a comprehensive report and the dissemination of the tool to ensure accessibility and long-term sustainability.

Through this integrated approach, the VARCITIES Online Replication Tool not only consolidates the knowledge generated throughout the project but also transforms it into a practical and transferable resource that supports the replication and scaling of Visionary Solutions across European cities. In the following paragraphs, the key outcomes of the process, informing the “Participatory Supporting System for the Replication of the Visionary Solutions”, are presented.

The VARCITIES Online Replication Tool includes the following key features:

- A Visionary Solutions catalogue outlines the constituting parts of the solutions (i.e., implementation packages, sustainability plans, co-creation stories, lessons learned, etc.).
- Complementary supporting outputs such as: A dedicated Glossary containing key definitions, a sustainability plan supporting the tool's continuation beyond the project.

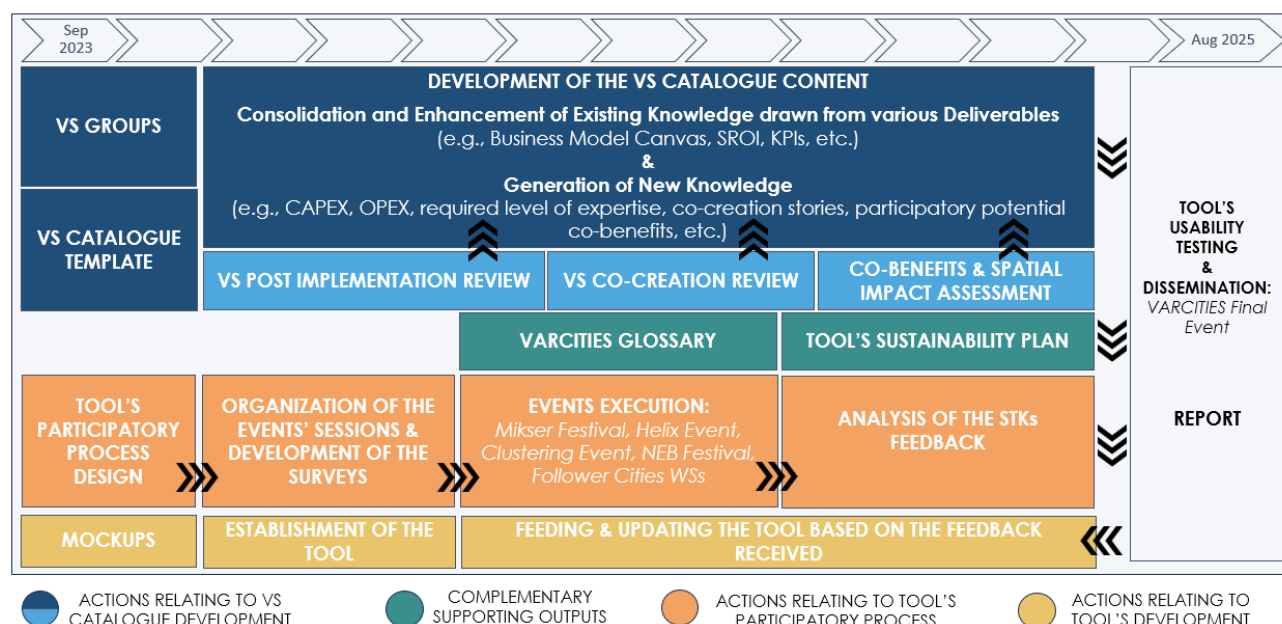


Figure 1: Development process of the VARCITIES Replication Tool

2 VS Catalogue Development

2.1. Grouped Solutions – Good Practices

From the outset of the project, the 28 Visionary Solutions developed across the seven pilot cities were conceived as replicable interventions, ensuring that their benefits could extend well beyond the local contexts of their initial implementation. To further maximise replication potential and scalability, these solutions were consolidated into 18 grouped “good practice examples.” The grouping followed a thematic logic, clustering solutions with similar objectives and scope into autonomous practices that can function independently, without requiring additional solutions. Each group was also given a clear title to highlight and communicate its focus. Table 1 presents the grouped Solutions following this consolidation process.

Title of Grouped Solution	Visionary Solutions
Mobile urban living room (MULaR)	VS 1: Mobile urban living room (MULaR)
Sensors on bikes and bike stations	VS2 Sensors on bikes and bike stations
Blue and green areas enhancement for citizens' H&WB	VS 1: Creation of garden access routes to ensure an improved access according to the needs of the garden users
	VS3: Full monitoring of microclimatic conditions in the different areas of the garden (forest area, Open area, lake area)
	VS4: Development of a green public spaces (re)design toolbox and establishment of the “Local observatory on therapeutic effects of the landscape “
	VS5: Implementation of virtual and ICT tools to support a rewarding experience of garden users & for the assistance of visitors with disabilities
	VS6: Adaptive & intelligent visitor information systems
Analysis and monitoring of psychological and physiological Well-being for elderly people and people affected by Alzheimer	VS2: Analysis and monitoring of psychological and physiological Well-being for elderly people and people affected by Alzheimer
Learning Pod	VS1: Creation of Outdoor Learning Pod between Dundalk Library & Museum Quarter to showcase the newest technologies and host shared functions
Outdoor Urban Green Learning & Sensory Garden	VS 2: Outdoor Urban Green Learning and Sensory Garden for health and well-being Status: Operational

Title of Grouped Solution	Visionary Solutions
Bike stations with sensors and maintenance facilities	VS3: Bike Stations and Sensors on Bikes
Micro-greening Interventions through a Participatory Design Process	VS 1: Rue D' Argens: Micro-greening Interventions through a Participatory Design Process.
Citizen Science on Air/Noise quality to increase H&WB awareness	VS2: Citizen Science on Air/Noise quality to increase H&WB awareness.
Educational community garden / Art Playground	VS3: Urban Biodiversity, Education and Engagement through a Co-Created Community
Brownfield remediation & greening	VS1: Brownfield remediation and greening with plant species indigenous to the nearby Natura 2000 areas.
Inclusive design of recreational & therapeutic facilities	VS2: Creating sustainable forest trails
	VS3: Interconnectedness of sports, recreational and therapeutic facilities
	VS5: IoT solutions for measuring the H&WB-being of visitors
Integrated management of facilities	VS4: Integrated management of the facilities
Natural infrastructure to increase resilience in blue spaces	VS1: Build natural infrastructure to create urban resilience
	VS2: Creation of a wetland bed to increase biodiversity.
Smart lighting	VS3: Installation of smart lighting to contribute to an inviting environment and encourage activities in the park.
Open air educational infrastructure	VS4: Educating and engaging citizens in the area to level up their awareness of climate change and the importance of biodiversity
	VS5: Creation of space in the park with bee hotels/insect habitats, permanent school-material
(Mobile) Urban Living Room & data collection as part of an integrated re-development intervention	VS1 - VS3: Mobile urban living room for cultural activities - Health trail: the "Olevodroom"
	VS2: Sensors for Health and Water measurements
IoT infrastructure for smart lighting & noise measurements	VS5: Measuring sustainable mobility

Table 1: Grouped Solutions

2.2. Post implementation review: Drawing lessons learned from the different implementation stages of the VSs

The seven European municipalities participating as Pilot Cities of VARCITIES presented from the beginning different profiles, different needs and different levels of relevant experience within their teams. In these pilots, 28 NbS/ Socio-cultural and Digital VS, comprised of many different components, were implemented to increase the health and well-being of citizens. Building on the co-creation framework provided by WP4, the implementation framework provided by WP6 and the monitoring framework developed within WP7, the VARCITIES pilots developed their individual implementation plans. This facilitated the close follow up of the progress of the implementation process in a concise manner for all, documenting all the key stages. Considering that apart from the direct benefits from the Visionary Solutions, a significant added value from the implementation process derives from the lessons learned, following the completion of the Visionary Solutions, and a year into operation and maintenance phase, relevant feedback was collected from VARCITIES pilots: Questionnaires were distributed within the pilot representatives in order to evaluate the experiences from the implementation (1st round of questionnaires) and O&M process (2nd round of questionnaires) of the different Visionary Solutions. Through 2 separate rounds of questionnaires, the following core topics were addressed:

- 1st round of questionnaires: How were the Visionary Solutions designed, built, launched?
- 2nd round of questionnaires: Now that the Visionary Solutions are up and running - how do we keep them running?"

2.2.1. Changes in the concept design

In the majority of the pilots, changes occurred after the initial sketching of the solutions (Figure 2). In most VS the type of changes had to do with the design itself, followed by the location and the scope of the intervention (Figure 3).

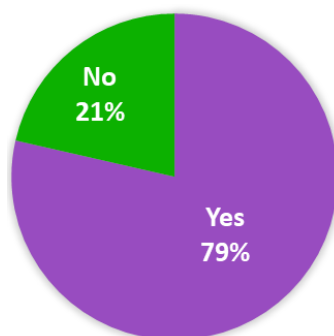


Figure 2: Changes in the concept design

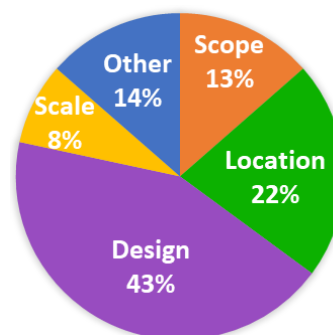


Figure 3: Type of changes

Looking into the reasons behind any changes, stakeholder input actively obtained through the co-creation process significantly impacted and improved the concept design. Technical and financial issues also played a role in the evolution of the solutions. Political decisions

and budgetary issues also impacted the final designs in certain cases. Among the “other” reasons for changes in the concept design, the pilots reported facing difficulties with the procurement (Figure 4). Finally, the main consequence of changes in the concept design was the delays experienced. Also affected were the procurement procedures and the budget planning (Figure 5).

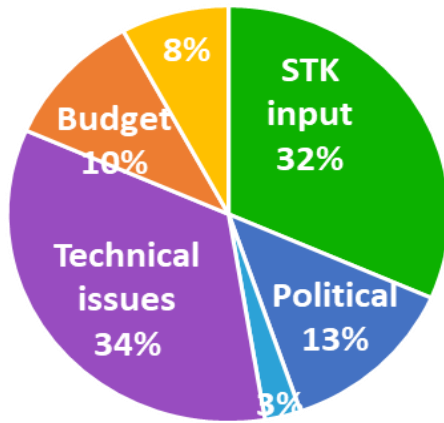


Figure 4: Reasons for changes

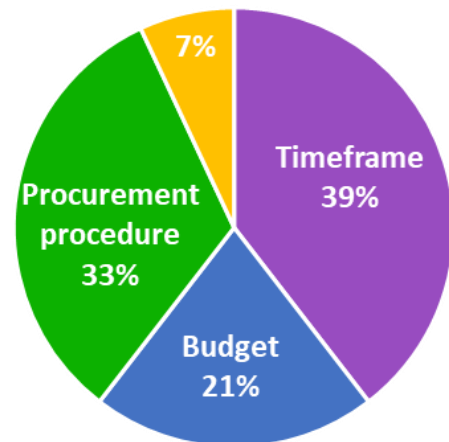


Figure 5: Effect of changes

2.2.2. Procurement process

When it came to procurement, many of the pilots reported difficulties (Figure 6). These difficulties were related mainly to the challenge of preparing the specifications and bureaucracy followed by overcoming existing regulatory hurdles. The level of expertise required by the relevant actors was also a challenge (Figure 7).

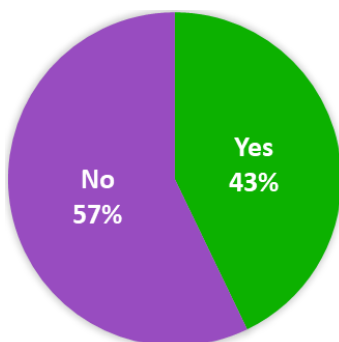


Figure 6: Difficulties in procurement

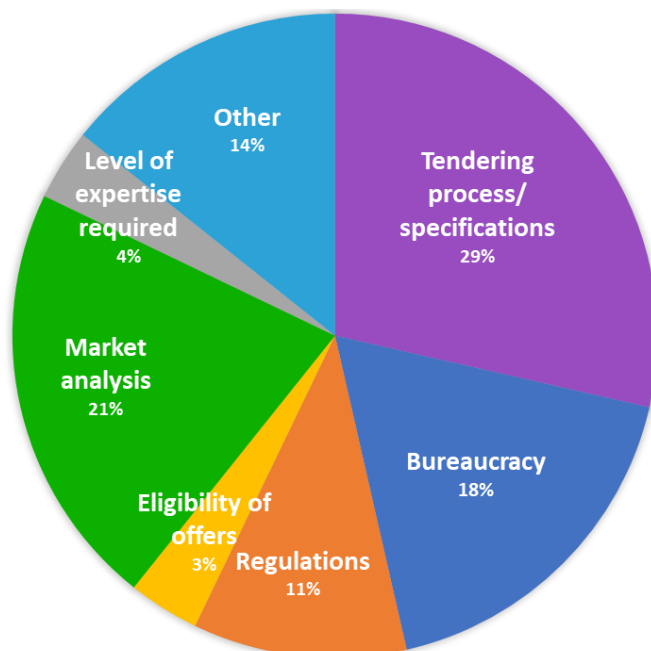


Figure 7: Difficulties related to:

2.2.3. Required expertise for the implementation of VS

Multiple disciplines were needed to implement the VS (Figure 8).



Figure 8: Experts involved

Moreover, apart from requiring multidisciplinary teams, the level of expertise required both in house (meaning within the pilot) but also from the services providers was characterized as high to very high (Figure 9).

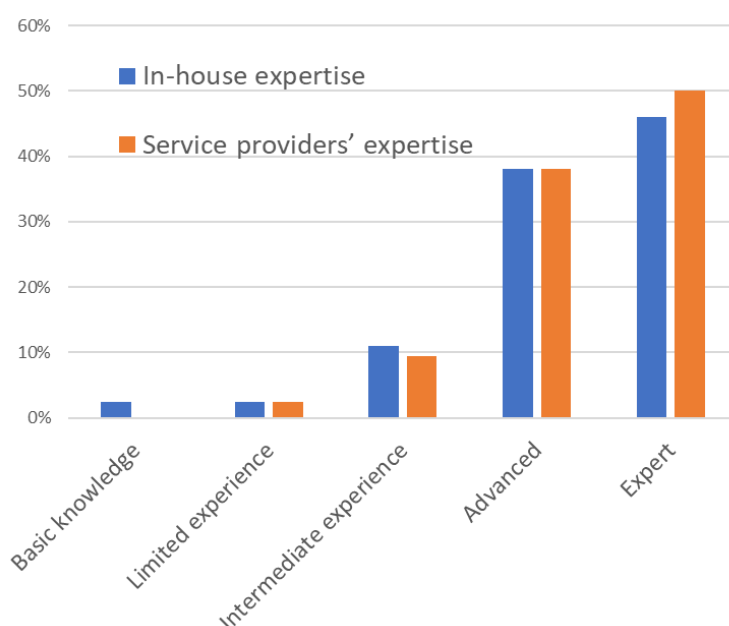


Figure 9: Required level of expertise

2.2.4. Deviations in budget planning and timeline of the VS

One out of three Pilots reported significant changes with respect to their initial planning (Figure 10). Main reasons for these variances were external factors (e.g. market conditions that led to shortages and inflation), followed by changes in the concept design, and unforeseen costs (Figure 11).

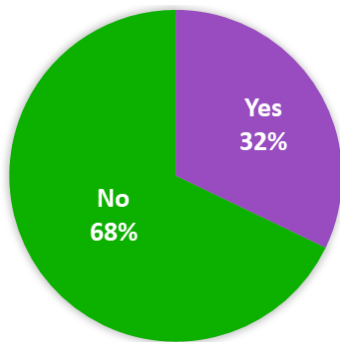


Figure 10: Significant budget variations (+25%)

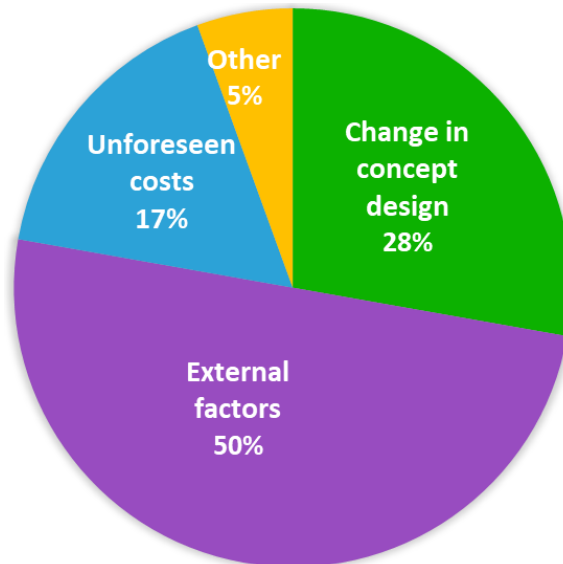


Figure 11: Reason for budget variations

2.2.5. Assigned responsibilities and regular maintenance of the VS

There is a maintenance plan in place for all VS whereas mostly various city departments are appointed with this task, followed by contractors and the local community (Figure 12).

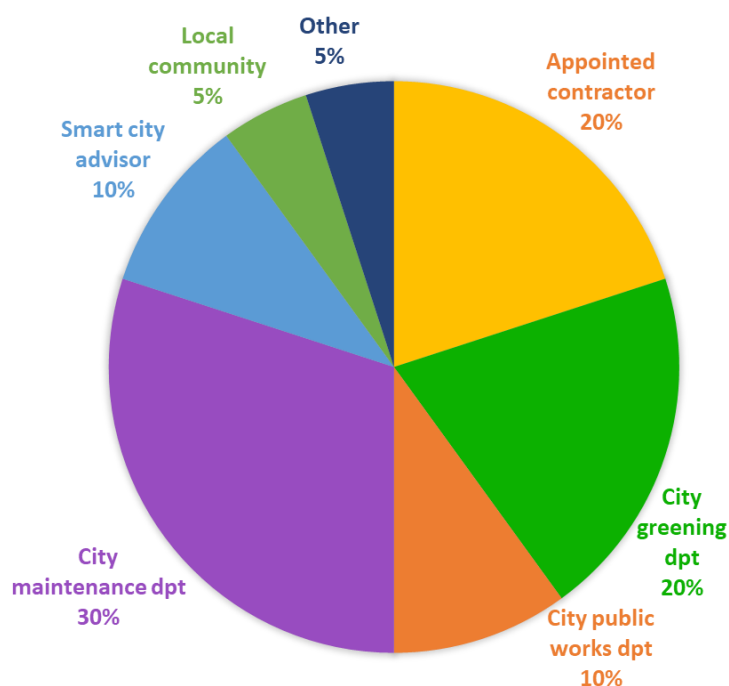


Figure 12: Actor primarily responsible for the regular maintenance activities

The regular maintenance activities reported by the pilots were mainly cleaning, infrastructure inspections, watering and pruning. With respect to the digital components of the VS, sensor's calibration and battery replacement was required (Figure 13).

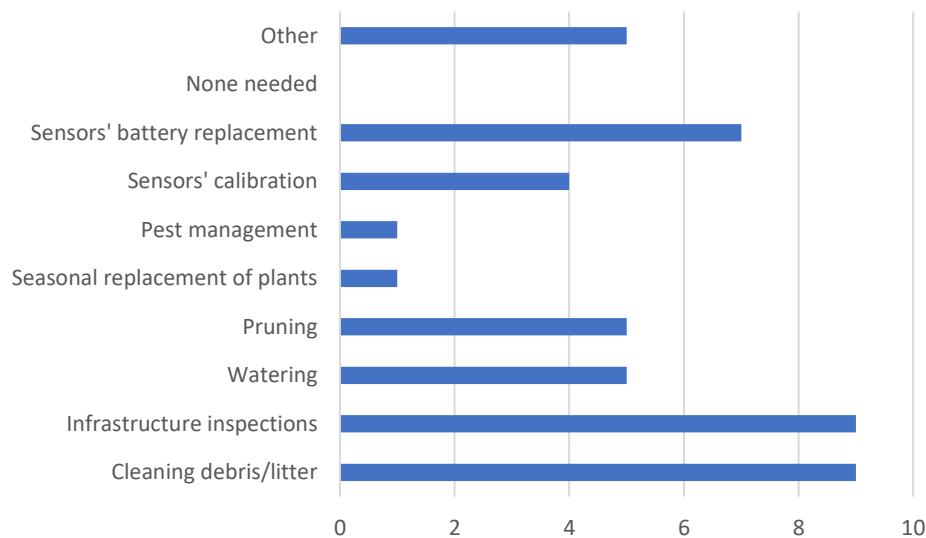


Figure 13: Type of regular maintenance activities

2.2.6. Role of local communities in VS maintenance

Local communities were reported to have some role in VS maintenance in almost half of the cases (Figure 14), with their role primarily being regular hands-on maintenance and monitoring/ reporting issues (Figure 15).

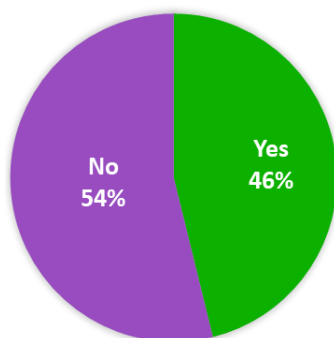


Figure 14: Local community involved in the operation and maintenance

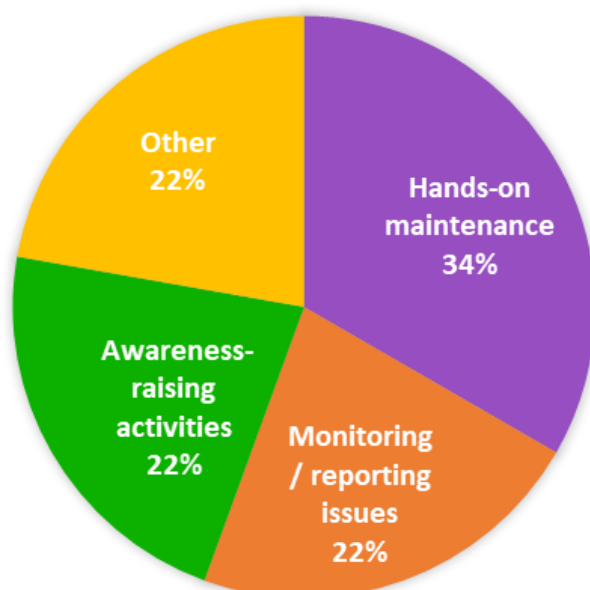


Figure 15: Role of local community in O&M

2.2.7. Unexpected maintenance needs and faced challenges

The majority of the pilots reported having faced unexpected maintenance needs during the O&M phase of their VS (Figure 16). As for the main causes, vandalism together with equipment failure prevailed, followed by accidental damage and structural failure, faulty installation and damages from extreme weather events (Figure 17).

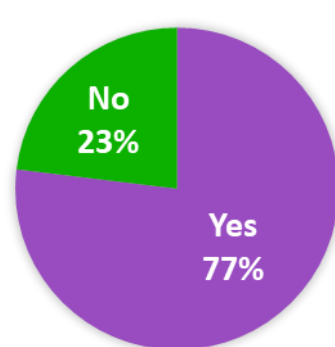


Figure 16: Reported unexpected maintenance needs

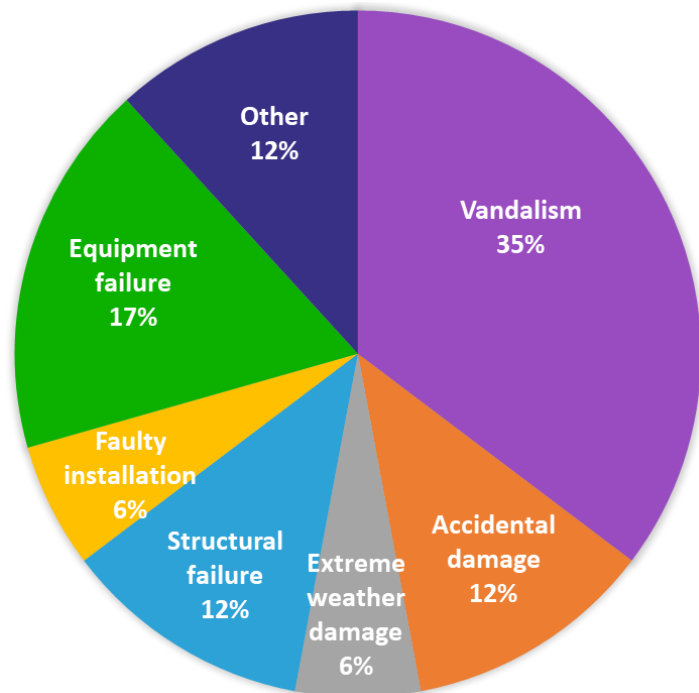


Figure 17: Unexpected maintenance needs

Operational & Maintenance risks differ across component types: Digital components have the highest challenge prevalence, whereas Nature-based & Infrastructural components present less Maintenance Issues (Figure 18).

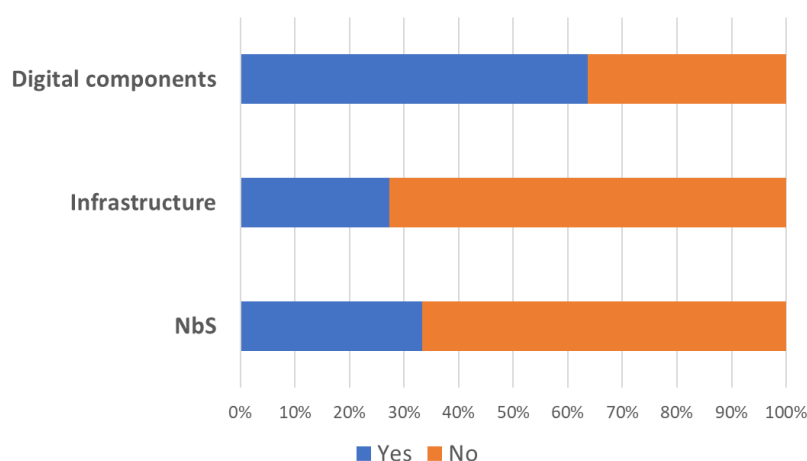


Figure 18: Challenges per component category

2.2.8. Maintenance costs & identified patterns

The analysis of maintenance costs across Nature-based Solutions (NbS), Infrastructure, and Digital components implemented in the pilots demonstrates a generally favourable cost profile (Figure 19). The vast majority of components were reported to have annual maintenance costs below €5,000, with no instances exceeding €10,000. Both NbS and Digital components show highly predictable low costs, supporting their scalability and ease of integration into ongoing operations. Infrastructure components generally follow this pattern, though with some potential for moderate cost increases. This suggests that future budgeting should incorporate minor contingency buffers for infrastructure while confidently scaling up NbS and Digital components.

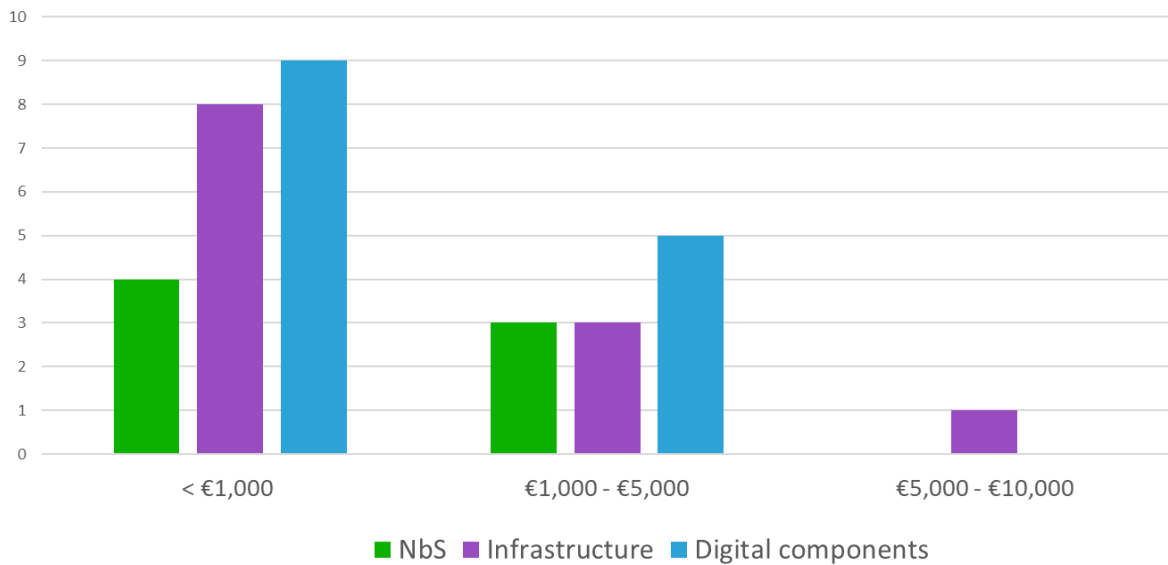


Figure 19: Estimated annual maintenance costs per category of VS components

	Lack of expertise	Lack of equipment	Insufficient funding	Excessive maintenance	Other
 (low-cost profile)	Low	Low	Med-High	None	Low
 (varied cost profile)	Med	Low-Med	Low-Med	Low-Med	Low
 (low-cost profile)	High	Low	Low-Med	None	Low

Figure 20: "Heat map" of nature of challenges by VS component types

The outcomes of this analysis, together with the information presented in D6.4 and D6.5 (realised risks and cost management) informed the search/ filter criteria embedded in the tool with respect to the lessons learned from the implementation process, level of complexity, the CAPEX and OPEX.

- Looking across component types, clear patterns are identified in both cost and maintenance challenges (Figure 19).
- Nature-based Solutions (NbS) show a very low and stable cost profile, with relatively few challenges, mainly around securing consistent funding for maintenance."
- Infrastructure components show more varied costs and more diverse challenges, including expertise, equipment, and sometimes funding needs. They generally require more careful planning and risk management."
- Digital components maintain a low- cost profile, but they have the highest rate of reported challenges, driven mainly by gaps in technical expertise."
- This tells us that while Digital solutions are affordable to run, scaling them will depend on investing in skills and capacity-building."
- Overall, the data provides a very actionable view: NbS and Digital can easily be replicated/ upscaled, but targeted support is necessary around Infrastructure and training for Digital."

2.3. Reviewing of the VSs co-creation process

The review of the co-creation process led to the development of dedicated co-creation roadmaps for each integrated VS, which were included in the VS catalogue. In parallel, lessons learned from the co-creation process were produced and are presented in detail in D4.3. The outcomes of this analysis also informed the characterisation of the "Participatory planning potential" of the integrated VS presented in the tool, which was further embedded in the search criteria and filters to guide users in identifying relevant solutions.

The co-creation process itself was structured around an interactive roadmap, guiding stakeholders through four main phases: co-identification of needs, co-design, co-implementation, and co-evaluation (Figure 21). Each phase incorporated feedback loops to ensure continuous integration of stakeholder inputs. A detailed illustration of this methodology is shown in the co-identification of needs stage (Figure 23), where stakeholders were invited to reflect on PESTLE factors, potential uses, locations, forms, KPIs, and the type of data to be collected. This structured approach ensured that interventions were tailored to real needs, while enhancing their replicability and alignment with community expectations.

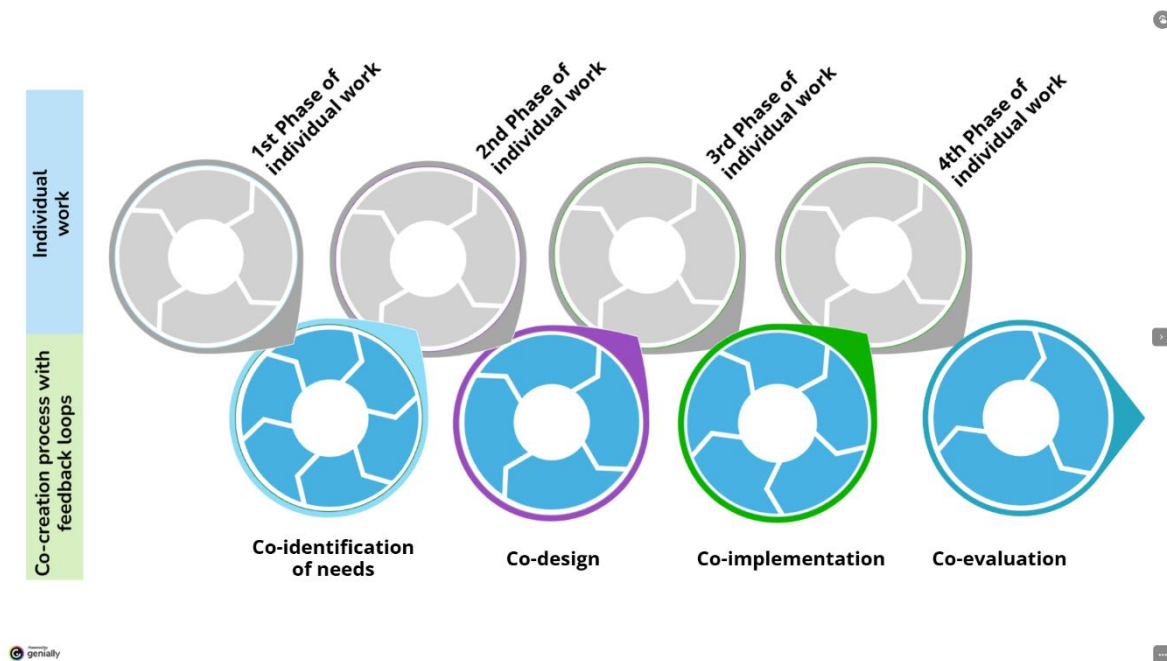


Figure 21: Overview of (interactive) co-creation roadmap as presented in the online tool

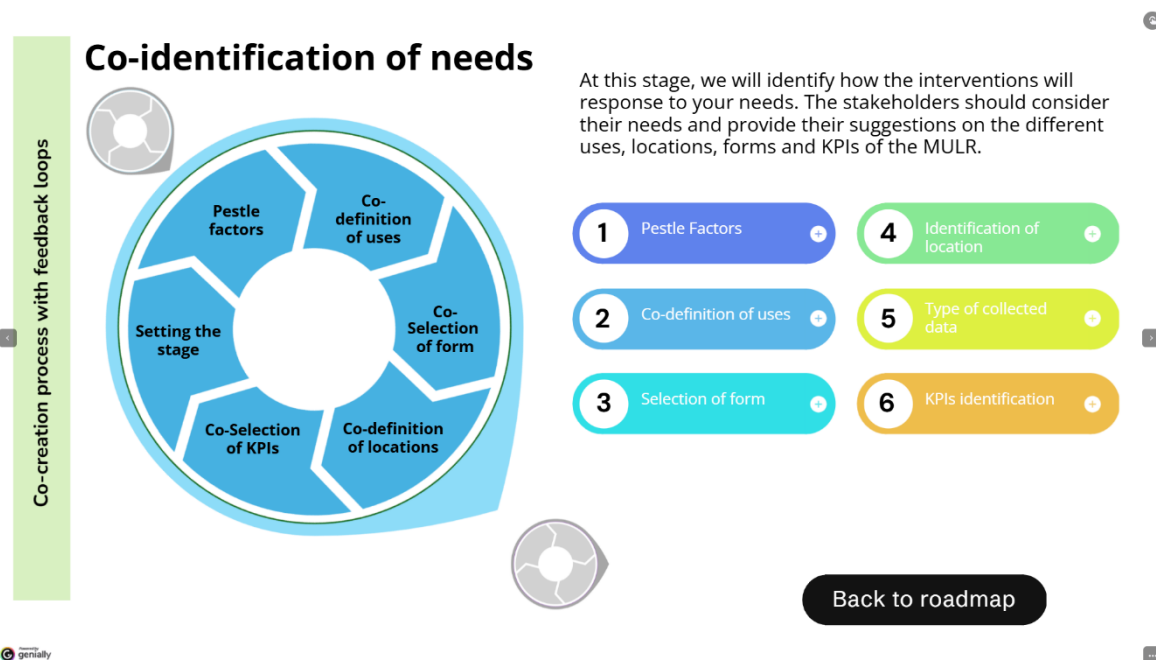


Figure 22: Overview of co-identification of needs stage (with links to addressed topics)

2.4. Co-benefits/ Spatial impact assessment

The VARCITIES Online Replication Tool also integrated a dedicated section on co-benefits and spatial impact assessment. A comprehensive co-benefits analysis was carried out alongside a spatial impact assessment with outcomes documented in detail in D7.4 & D7.5. These results were subsequently incorporated into the (VS) catalogue, ensuring that each solution is presented not only in terms of its design and implementation but also its wider societal, spatial, and economic value. Importantly, the findings of this exercise also informed the development of the search and filter criteria embedded in the tool, helping users to identify solutions based on their expected co-benefits, spatial impacts, or cost-effectiveness (Figure 23) while also building on the co-benefits analysis presented in Deliverable D3.4.

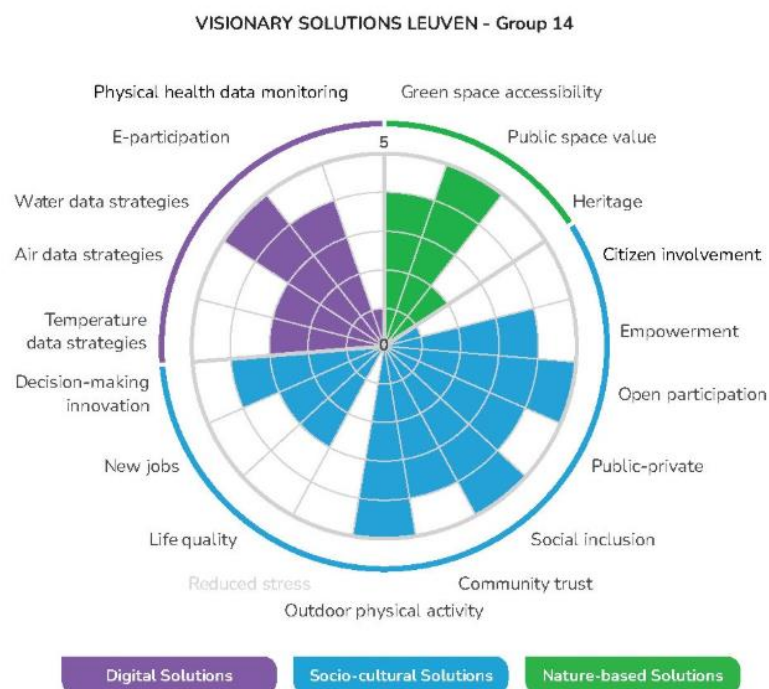


Figure 23: Example of visualized co- benefits for Leuven’s integrated VS

3 Glossary

The Glossary of Terms has been included in the online VARCITIES Online Replication Tool as an integral resource to support clarity, knowledge sharing, and consistency across stakeholders. It brings together and explains key concepts used within VARCITIES, covering guiding principles for Visionary Solutions development, examples of nature-based, digital, and socio-cultural interventions, and strategies for implementation, measurement, and impact. By being made openly accessible through the online tool, all users, from city officials and practitioners to citizens and researchers, can navigate technical terms with ease, ensuring a common understanding and a stronger basis for replication.

The methodology behind the glossary was grounded in co-creation and systematic classification. Terms were identified and defined in relation to their role within the project, drawing on academic literature, international standards, and practical applications in the pilot cities. The glossary was structured into three parts: (1) guiding principles (e.g., human-centered design, green urban spaces), (2) examples of Visionary Solutions (e.g., micro-greening interventions, digital totems, citizen science), and (3) implementation and evaluation strategies (e.g., KPIs, SWOT, PESTLE, Theory of Change). This organization reflects both the conceptual foundations of VARCITIES and its practical dimensions, making the glossary not only a reference tool but also a methodological bridge between theory and practice in urban health and well-being.

VARCITIES		VARCITIES	
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Figure 24 Glossary

4 Sustainability plan



Figure 25: Scaling Visionary Solutions

The purpose of this sustainability plan is to define how the VARCITIES Online Replication Tool can remain operational, credible, and useful after the end of the VARCITIES project. Rather than presenting a generic continuation strategy, this chapter assesses the tool from the perspective of an external user and potential host, clarifying what the tool offers as a service, who it is for, what it realistically costs to maintain, and how those costs can be justified.

The sustainability approach is based on three principles:

- Practical post-project readiness: the tool must remain usable without reliance on project funding or informal partner contributions.
- Clear service definition: long-term maintenance must be justified by a recognisable service proposition rather than by archival value alone.
- Lean stewardship: sustainability is achieved through light but continuous coordination, curation, and support rather than through platform expansion.

The topline objectives of the platform are as follows:

Mission

Maintain and improve the VARCITIES Online Replication Tool as a practical support service that helps cities replicate and adapt integrated Visionary Solutions (green, digital, and socio-cultural) that improve health and well-being.

What it is

A step-by-step, co-created roadmap and resource set (templates, KPIs, infographics, decision support linkages) distilled from real pilot experiences across the VARCITIES project.

Who it's for

Municipalities and urban authorities, policy and public health agencies, EU consortia and Smart City initiatives, NGOs and community groups, and education/research institutions.

Why now

Cities need practical, interoperable guidance to move from pilots to scaled implementation aligned with EU Missions (Climate-Neutral Cities, Adaptation) and national climate/health agendas.

How we sustain it

Sustainability is achieved through a two-layer model:

- Open access core: the catalogue and core guidance remain openly accessible under a Creative Commons licence, preserving public value and re-use.
- Funded stewardship: a named custodian provides light but continuous maintenance, periodic updates, and user support. Optional onboarding and tailored support activities can be delivered when funded (through projects, network activity, or city support budgets). The objective is reliability and relevance, not continuous expansion.

Year-1 objectives

- Keep the platform live and maintained; publish v1.1 updates and 3–5 new city case add-ons.
- Onboard 6–10 adopter cities; run two training cohorts; establish a Replication Champions network.
- Formalize governance (custodian + steering group) and publish licensing & contribution guidelines.

4.1. Value Proposition & Product

From a post-project perspective, the VARCITIES Online Replication Tool functions as a replication support service rather than a static knowledge repository. Its core value lies in reducing uncertainty for cities that wish to move from pilot concepts to implementable, evidence-informed interventions in the fields of health, well-being, and nature-based solutions.

Core Product

For an external user, the “product” offered by the VARCITIES Online Replication Tool is a coherent package of knowledge and guidance that can be reused without reconstructing methodologies from scratch. It combines a structured catalogue of grouped Visionary Solutions with replication roadmaps, templates, and indicators that reflect how these solutions were actually designed, procured, implemented, and maintained in the pilot cities. The inclusion of decision-support linkages and monitoring logic allows users to navigate from an identified challenge to a short list of relevant solution types, while maintaining transparency around complexity, dependencies, and operational implications.

Core Value

The core value of the tool is its ability to reduce uncertainty and transaction costs at an early stage of replication. Cities considering new interventions often face fragmented information, optimistic assumptions, and limited insight into delivery risks. By consolidating lessons learned, implementation patterns, and indicative cost and responsibility profiles, the tool helps users form a realistic picture of what replication entails before detailed feasibility studies or formal procurement begin. This early clarity supports more informed internal discussions, more credible project concepts, and better alignment between ambition, capacity, and available resources. In essence it helps to define a practical, adaptable, and interoperable pathway from vision to implementation, accounting for:

- Modular roadmaps following a common structure (Theory of Change, Lessons, Best Practices, Synergies & Trade-offs, KPI outcomes).
- Flexible VS templates to mix and match green/digital/socio-cultural solutions.
- Interoperable metrics aligned with EU/SDG/OECD frameworks; radar diagrams and multiple-benefits mapping.
- Data linkages to H&WB dashboards, IoT/open APIs, and the WP6 Decision Support Tool (DST).
- Plain-language guidance designed for easy translation and broad accessibility.

Differentiators

What distinguishes the VARCITIES Online Replication Tool in a post-project context is not the novelty of the solutions presented, but the way they are framed for replication. All solutions are described using a comparable structure that makes differences in scope, complexity, and enabling conditions visible. Guidance is grounded in implemented pilots rather than theoretical models, including reported challenges related to procurement, skills, timelines, and maintenance. Monitoring and outcome framing are aligned with commonly used policy and reporting frameworks, enabling cities to connect early planning decisions with later evaluation and reporting requirements without redefining indicators.

The value proposition becomes clearer when considered by user group. For municipal teams and city authorities, the tool offers a structured reference that supports early-stage planning and cross-departmental alignment, particularly in situations where responsibility for green, digital, and health-related interventions is distributed across units. For intermediaries such as city networks, regional authorities, and coordinators of EU-funded consortia, the tool provides a reusable replication support package that can be applied across multiple cities, creating a shared language and structure for learning, comparison, and proposal preparation. For practitioners and advisors working with cities, the tool functions as credible evidence base and a set of practical materials that can accelerate advisory work and improve consistency across projects.

The tool does not aim to replace detailed feasibility studies or local planning processes. Its role is to act as a pre-implementation support instrument, enabling cities to assess relevance, complexity, and resource implications before committing to further investment. This clear definition of value and scope underpins the sustainability of the tool. By addressing a concrete and recurring need in urban replication processes, and by doing so in a way that saves time and reduces risk for its primary users, the tool provides a defensible basis for continued stewardship beyond the VARCITIES project.

4.2. Business Model Canvas

To define the value proposition and key building blocks necessary to sustain the VARCITIES Online Tool and its Visionary Solutions (VSs) beyond the VARCITIES project, the following Business Model Canvas was developed (Figure 26).

Key Partners - Former VARCITIES pilot cities - VARCITIES consortium members - EU-level replication initiatives and follow-up projects - Networks like EIT Urban Mobility, UCLG, or WHO Europe	Key Activities - Toolkit dissemination and awareness raising - Maintenance and content updates - Tailoring roadmap templates to new urban contexts - Monitoring and collecting feedback from replication cases	Value Proposition A step-by-step, co-created roadmap to replicating integrated Visionary Solutions (green, digital, socio-cultural) for health and well-being in cities. The toolkit is designed for ease of use by city authorities, planners, and practitioners, drawing from real pilot experiences.	Customer Relationships - Co-creation processes to ensure relevance and adoption - Community-building around the toolkit for peer exchange - Advisory and technical support options for first adopters	Customer Segments - Municipalities and urban authorities - Policy makers and public health agencies - EU project consortia and Smart City initiatives - NGOs and community organizations involved in urban transformation - Educational and research institutions
Cost Structure - Operational platform hosting - Coordination and moderation of replication support activities - Updating indicators and templates - Outreach and stakeholder engagement		Revenue Streams - EU and national funding (e.g. Horizon Europe, Interreg) - City subscriptions or memberships for enhanced support - Paid workshops or consulting packages - Integration into city resilience or climate action plans		

Varcities Replication Toolkit



Figure 26: VARCITIES Online Tool Business Model Canvas

Key Elements:

- Value Proposition:**

A step-by-step, co-created roadmap to replicating integrated Visionary Solutions (green, digital, socio-cultural) for health and well-being in cities. The VARCITIES Online Replication Tool is designed for ease of use by city authorities, planners, and practitioners, drawing from real pilot experiences.

- Customer Segments:**

- Municipalities and urban authorities
- Policy makers and public health agencies
- EU project consortia and Smart City initiatives
- NGOs and community organizations involved in urban transformation
- Educational and research institutions

- Channels:**

- VARCITIES project website and open-access repositories
- Presentations in EU-funded project proposals
- Policy support instruments and advisory services
- Workshops and stakeholder webinars
- Academic and practitioner networks (e.g., CEN, CENELEC, ECTP, ICLEI)

- Customer Relationships:**

- Co-creation processes to ensure relevance and adoption
- Community-building around the VARCITIES Online Replication Tool for peer exchange
- Advisory and technical support options for first adopters

- **Key Activities:**
 - VARCITIES Online Replication Tool dissemination and awareness raising
 - Maintenance and content updates
 - Tailoring roadmap templates to new urban contexts
 - Monitoring and collecting feedback from replication cases
- **Key Resources:**
 - The roadmap templates, infographics, KPI diagrams, and multiple benefits assessments already created
 - Institutional knowledge from pilot teams and WP leaders
 - A potential governance entity or hosting platform post-project
- **Key Partners:**
 - Former VARCITIES pilot cities
 - VARCITIES consortium members
 - EU-level replication initiatives and follow-up projects
 - Networks like EIT Urban Mobility, UCLG, or WHO Europe
- **Cost Structure:**
 - Operational platform hosting
 - Coordination and moderation of replication support activities
 - Updating indicators and templates
 - Outreach and stakeholder engagement
- **Revenue Streams / Funding Sources:**
 - EU and national funding (e.g. Horizon Europe, Interreg)
 - City subscriptions or memberships for enhanced support
 - Paid workshops or consulting packages
 - Integration into city resilience or climate action plans

Business Model Logic

The sustainability of the VARCITIES Online Replication Tool is not based on commercialisation of access, but on maintaining a credible public resource through funded stewardship. For this reason, the Business Model Canvas presented above should be read as a logic model for operation, rather than as a market-facing business plan. Its purpose is to clarify who the tool serves, what activities must continue after the project, and how those activities can realistically be supported.

At the centre of this logic is a hybrid model that combines open public access with a clearly defined service layer. The core content of the VARCITIES Online Replication Tool, including the catalogue of Visionary Solutions, replication roadmaps, templates, and indicators, remains openly available in line with Horizon dissemination principles. This ensures that the tool continues to deliver public value and remains reusable by cities and intermediaries regardless of their financial capacity.

Sustainability is achieved through funded coordination and stewardship rather than through restricting access. In practical terms, this means that while any user can consult and download the material, the continued quality, relevance, and usability of the tool depend on a small set of ongoing activities that require dedicated resources. These activities include maintaining the platform, curating and updating content, supporting first-time users, and ensuring that the tool remains aligned with evolving policy and reporting frameworks.

The primary “customers” in this model are not individual end-users in a commercial sense, but organisations that benefit from the tool being reliable and current. These include municipal administrations using the tool to prepare implementable projects, city networks and regional bodies that broker replication across multiple cities, and coordinators of EU-funded consortia who integrate the tool into proposal preparation and learning activities. Their engagement justifies investment in stewardship because the tool reduces duplication of effort, shortens preparation time, and improves the consistency and credibility of replication work.

Costs

Costs in this model arise from maintaining this stewardship function. Platform hosting, coordination of updates, limited user support, and governance oversight represent predictable and recurring expenses. These costs are not optional if the tool is to remain trustworthy and usable; without them, the tool would quickly become outdated or underused.

Funding to cover these costs is expected to come from a combination of institutional hosting, integration into future EU-funded projects, and limited service-based contributions linked to funded activities such as onboarding, training, or tailored support. This approach avoids over-reliance on speculative subscription models while reflecting how comparable tools are sustained in practice.

Comparison to Similar Tools

The proposed operating and funding models reflect established practice in the sustainability of comparable EU-supported tools and platforms. In several cases, long-term viability has been achieved through a combination of open access, institutional hosting, and periodic project-based funding, rather than through commercialisation of access or reliance on subscription revenue.

Examples include the *Urban Nature Atlas*¹ developed under the Urban Agenda for the EU, which is maintained as an open repository of nature-based solutions through institutional support and integration into follow-up projects, without a standalone revenue model. Similarly, the *CLEVER Cities Guidance and Replication Framework*² and the *Connecting Nature Framework*³ have been sustained through a mix of host institution stewardship, continued use in EU-funded projects, and targeted capacity-building activities, rather than through paywalled services.

At a network level, platforms such as ICLEI's *Urban Nature Programme resources*⁴ follow a comparable approach. Core materials remain openly accessible, while ongoing maintenance, updates, and user support are financed through membership structures, institutional budgets, or inclusion in funded programmes and city support actions. In these cases, the value proposition is not the sale of the tool itself, but the efficiency and credibility it brings to cities and intermediaries undertaking implementation and replication work.

The sustainability model proposed for the VARCITIES Online Replication Tool aligns with these precedents. By focusing on funded stewardship, brokerage through trusted intermediaries, and integration into future projects and programmes, it avoids dependence on speculative or high-risk revenue streams, while remaining consistent with the way EU-funded knowledge assets are typically maintained and used in practice.

4.3. Customers & Market

The VARCITIES Online Replication Tool is intended for public-sector-led implementation contexts, where decisions are shaped by policy objectives, budget constraints, accountability requirements, and cross-departmental coordination rather than by commercial market dynamics. As such, the “market” for the tool should be understood as an institutional and policy-driven environment, where value is created by reducing duplication, lowering early-stage risk, and improving the quality and credibility of project preparation.

The tool is not designed to compete with commercial planning software or consultancy services. Instead, it occupies a specific niche in the urban innovation landscape: supporting

¹ Urban Nature Atlas: <https://una.city/>

² Clever Cities Project: <https://clevercities.eu/clever-guidance-sub/nbs-roadmap/>

³ Connecting Nature Project:

<https://connectingnature.eu/sites/default/files/images/inline/Connecting%20Nature%20Framework.pdf>

⁴ ICLEI'S Urban Nature Program: <https://urbanbynature.eu/>

cities and intermediaries at the stage where ambitions must be translated into structured, feasible, and fundable actions.

Primary segments

- City governments & planning departments
- Environmental and public health agencies
- Horizon Europe / LIFE project consortia; Smart City leaders
- Policy/decision-makers in regional development

Secondary segments

- NGOs & civil society implementing NbS & social interventions
- Universities & research centres
- Urban practitioners, designers, architects, consultants
- Citizen groups and community organisers

Target Users and Brokerage

Post-project, the primary target users of the VARCITIES Online Replication Tool are:

- Medium-sized European municipalities and city administrations seeking replication-ready approaches for health, well-being, and nature-based interventions.
- City networks, regional authorities, or EU project coordinators acting as intermediaries between cities and funding programmes.

Secondary users include NGOs, research organisations, consultants, and community organisations who support or advise cities during planning and implementation phases.

Primary customers: Municipal Users

The primary customers of the VARCITIES Online Replication Tool are municipal administrations and public-sector delivery teams within cities. This includes staff working in urban planning, environment and climate, public health, parks and green infrastructure, and smart city or digital innovation units. These users typically operate under tight resource constraints and must justify new interventions internally before committing to procurement or external funding applications.

For this group, the tool provides value by offering a common reference that supports internal alignment across departments, clarifies roles and responsibilities, and makes implementation requirements visible at an early stage. The ability to draw on structured pilot experience helps municipal teams avoid underestimating complexity, maintenance needs, or coordination effort, which are common causes of delay or redesign in later project stages.

Brokerage customers: intermediaries and programme coordinators

A second, strategically important customer group consists of organisations that act as brokers for replication. These include city networks, regional authorities, and coordinators of EU-funded project consortia. Their role is to support multiple cities simultaneously by providing guidance, shared frameworks, and learning structures that can be applied across different local contexts.

For these intermediaries, the VARCITIES Online Replication Tool functions as a reusable support package. It allows them to structure learning activities, replication planning, and proposal preparation using a common language and methodology, without developing new tools for each initiative. This brokerage role is central to the sustainability of the tool, as it creates recurring use across multiple cities and projects, rather than one-off consultation by individual users.

Importantly, the sustainability of the tool depends on active brokerage, rather than passive availability. This brokerage role consists of:

- Promoting the tool through trusted city and policy networks.
- Supporting first-time users in navigating and interpreting the content.
- Ensuring that new replication experiences can be fed back into the tool in a structured way.

Without this brokerage function, the tool would risk becoming outdated or underused, regardless of technical availability.

Secondary users and enabling actors

Secondary users include NGOs, research organisations, consultants, designers, and community organisations that support cities during planning and implementation. While these actors are not the primary focus of the sustainability model, their engagement strengthens the ecosystem around the tool. They contribute to uptake, provide feedback from practice, and may act as multipliers by introducing the tool into local processes or project proposals.

Their use of the tool is enabled by its open-access nature and by the clarity of its structure. However, long-term maintenance priorities are defined by the needs of municipal and brokerage users, as these groups drive repeated and institutionalised use.

Demand drivers and timing

Demand for replication support tools such as VARCITIES is driven by several converging factors. Cities are under increasing pressure to demonstrate delivery against EU Missions,

national climate and health strategies, and funding programme requirements. At the same time, there is growing scrutiny of how public funds are used, with stronger expectations around monitoring, evaluation, and evidence of impact.

In this context, cities and intermediaries are seeking tools that help them move more efficiently from pilot concepts to implementable actions, while maintaining alignment with policy frameworks and reporting obligations. The VARCITIES Online Replication Tool responds to this demand by providing a structured, experience-based reference that reduces the need for ad hoc approaches and repeated methodological development.

4.4. Operational Cost Assessment

This section defines the minimum level of recurring investment required to keep the VARCITIES Online Replication Tool reliable, current, and credible after the end of the VARCITIES project. It is structured to support an external host or funder decision: what must be done each year to provide a usable service, what the main cost drivers are, and what budget range is realistic for different levels of activity.

Operating model assumptions

The estimates below assume a lean stewardship model, as discussed previously. The platform remains stable, updates are planned and versioned, and user support is delivered primarily online. The budget covers continuity and service quality rather than major new feature development or large-scale localisation. Where translation or significant integration work is pursued, this is treated as additional, time-bound activity rather than a baseline requirement.

Cost breakdown and ranges

A. Technical hosting, security, and maintenance (estimated €6,000–€14,000/year)

This cost line covers reliable hosting, domain and certificate management, backups, monitoring, and periodic patching. The low end assumes a stable site with limited integration points and standard security maintenance. The high end reflects more frequent security updates, more active monitoring, and occasional technical changes needed to preserve compatibility or accessibility standards. In practice, costs in this category remain relatively predictable year-on-year, but can spike when platforms require upgrades or when security requirements change.

B. Content stewardship and editorial control (estimated €10,000–€22,000/year)

This is the core cost driver if the tool is to remain credible. It covers structured review of templates and guidance, consistency checks across the solution catalogue, quality control of indicators and terminology, and preparation of periodic releases with a short changelog. The low end reflects a single annual release with limited new content and a focus on maintaining accuracy. The high end reflects two releases per year, incorporation of a small number of new replication cases, and stronger editorial checking to ensure that the tool reads as “replication-ready” rather than archival.

C. User support and brokerage (estimated €12,000–€26,000/year)

This category turns the platform from a static repository into a service that cities can actually use. It includes responding to enquiries, supporting first-time users in navigating the tool, and delivering a small number of structured onboarding sessions aimed at municipal teams and intermediaries. The lower end assumes reactive support and one to two onboarding sessions per year. The higher end includes active brokerage through a small set of network channels and a defined adopter cohort approach. The practical cost driver here is not the number of registered users, but the number of cities that actively attempt to apply the material and therefore require guidance at the point of use.

D. Monitoring, feedback, and evidence capture (estimated €3,000–€10,000/year)

Even a lightweight tool benefits from basic monitoring, both to demonstrate value to funders and to inform updates. This includes tracking usage patterns at a high level, collecting structured feedback, maintaining a simple log of replication cases, and producing a short annual note on uptake and improvements. The lower end assumes basic analytics and occasional user feedback. The higher end assumes a more structured evidence-capture approach, including short replication case summaries where cities share information.

E. Governance and administration (estimated €4,000–€12,000/year)

This covers custodian coordination, basic administration, and engagement with a steering or advisory function where used. It includes practical tasks such as maintaining access credentials, managing contribution requests, confirming licensing and reuse rules, and ensuring continuity when personnel change. The higher end reflects a more active steering function and more frequent coordination with intermediaries.

Consolidated annual operating range

On the basis of the ranges above, a realistic annual operating envelope is €35,000–€60,000, consistent with a lean but credible stewardship model. At the lower end, the tool remains live, secure, and accurate, with limited updates and responsive support. At the upper end, the tool functions as an active replication support service, with planned releases, clearer brokerage, and structured onboarding.

This range can be expressed as three practical operating “modes” for budgeting purposes:

- A continuity mode at approximately €35k–€40k, focused on keeping the tool live, secure, and accurate, with one planned annual update and limited user support.
- A service mode at approximately €45k–€55k, adding structured onboarding, stronger brokerage through one or two intermediary channels, and more active editorial control.
- A growth-ready mode at approximately €55k–€60k, supporting two planned releases, a small adopter cohort approach, and more systematic evidence capture, while still avoiding significant new development.

Benchmarking against comparable EU platform costs

The cost estimates above are modest when compared with budgets typically associated with maintaining and developing EU data and knowledge platforms at scale. By way of reference, EU procurement notices for platform-related maintenance and development frequently reach six-figure totals. For example, a TED notice related to services covering the Climate Data Store and the climate-adapt platform lists an estimated value of €250,000 (excluding VAT)⁵. In a separate example, a Copernicus Climate Change Service procurement notice for maintenance and development support to an EEA-facing interface lists an estimated total value of €600,000 (excluding VAT)⁶. These examples relate to substantially larger technical and data infrastructures than VARCITIES, but they demonstrate that recurring maintenance and development costs for EU-scale platforms are commonly well above the level proposed here.

In parallel, several EU project families have sustained toolkits and “knowledge platform” outputs by embedding them in established host structures rather than treating them as standalone commercial products. For instance, Oppla was explicitly positioned as a long-term knowledge platform with a dedicated legal entity established to manage and develop it beyond the originating projects⁷. Similar approaches appear in project deliverables that describe ongoing hosting arrangements and the practical need to assign responsibility for content maintenance and updating independently of where the platform is hosted.
incredibleforest.net

On this basis, the €35,000–€60,000/year operating envelope for VARCITIES should be understood as a lean stewardship budget that is consistent with EU practice, while remaining proportionate to the tool’s intended scope and service level.

Main cost drivers

The key drivers that move annual costs within the proposed range are the cadence of planned releases, the depth of editorial review required to keep content replication-ready, the intensity of onboarding and brokerage activity, and the extent to which replication evidence is actively collected and curated. These factors are controllable through governance decisions and can be matched to the level of funding secured in any given year.

⁵ EC Tendering Platform: <https://ted.europa.eu/en/notice/-/detail/272632-2019>

⁶ Copernicus Climate Service Tender: <https://climate.copernicus.eu/c3s2430a-maintenance-and-development-support-c3s-eea-interface-european-climate-data-explorer>

⁷ OPPLA Project Results: <https://cordis.europa.eu/project/id/308428>

4.5. Governance & Ownership

To scale confidently beyond VARCITIES, the Online Replication Tool needs governance that is credible, neutral, and durable, with clear decision rights, transparent oversight, and room for broad contribution. This section proposes an ownership model that separates stewardship from authorship: a custodian ensures day-to-day reliability, a steering group safeguards strategic direction and policy alignment, and a contributor network keeps content living and city tested. Open licensing under Creative Commons protects access and re-use, while a lightweight, rotating operational role avoids lock-in and supports long-term legitimacy across Europe's urban ecosystem.

Proposed Ownership Model:

Post-project ownership of the VARCITIES Online Replication Tool should be assigned to a single, clearly identified custodian. The custodian is responsible for day-to-day operation and continuity, including hosting, access management, coordination of updates, and acting as the primary point of contact for users and partners.

Suitable custodians are organisations with demonstrated experience in EU-funded projects, urban sustainability, and knowledge dissemination, and with sufficient institutional stability to ensure continuity over time. Potential candidates include a former VARCITIES partner with a relevant mandate, such as a university or research institute involved in the development of the tool, or a neutral intermediary organisation with a strong link to cities and EU policy processes. Joint custodianship arrangements may also be considered, provided that operational responsibility is clearly assigned and does not rely on informal coordination.

Ownership of the content should remain collective and transparent. The tool and its materials should continue to acknowledge VARCITIES and its contributors, while being managed in a way that allows future updates without reopening questions of intellectual ownership.

Lead Entity (Custodian): The VARCITIES Online Replication Tool should be hosted and maintained by a trusted organisation with demonstrated experience in urban sustainability, EU project dissemination, and VARCITIES Online Replication Tool governance. Suitable candidates may include:

- The University of Malta (UM), as WP7 lead and VARCITIES Online Replication Tool co-developer.
- A neutral platform such as ICLEI Europe, EIT Urban Mobility, or ESPON EGTC, for greater external uptake.
- A joint steering arrangement among several former pilot cities or partners (e.g., IES, UNIPD, EURAC) to reflect co-ownership.

Governance structure and roles

A simple, tiered governance structure is proposed to support stewardship without creating unnecessary administrative burden.

At the strategic level, a small steering or advisory group provides oversight and guidance. This group would typically include representatives of former pilot cities, thematic experts relevant to the tool's scope, and, where appropriate, representatives of city networks or programmes that actively broker replication. Its role is advisory rather than executive, focusing on strategic direction, prioritisation of updates, and alignment with evolving policy and practice. The steering group would not be involved in day-to-day management.

At the operational level, the custodian assumes responsibility for implementation. This includes maintaining the platform, coordinating updates, managing contributions, and ensuring that agreed governance rules are applied consistently. To avoid lock-in and reduce dependency on individuals, the operational role should be institutionally anchored rather than person-specific, with internal handover procedures in place, making a University or Company partner an ideal custodian.

A broader contributor network complements these roles. This network includes cities, practitioners, and organisations that use the tool and may wish to contribute feedback, replication experiences, or updates. Participation in this network does not confer decision-making authority, but it provides a structured channel for keeping the tool connected to practice and for identifying when updates are needed.

Licensing and content management

The VARCITIES Online Replication Tool and its core materials should remain available under a Creative Commons licence, such as CC-BY or CC-BY-SA. This ensures open access and reuse while preserving attribution to VARCITIES and subsequent contributors. Clear licensing reduces legal uncertainty for users and supports integration of the tool into other initiatives, proposals, and platforms.

Governance documentation should explicitly set out rules for content reuse, modification, and branding, including how derivative works or local adaptations should reference the original tool. This clarity supports wider uptake while protecting the integrity of the core content.

Risk management and continuity

The proposed governance model directly addresses the main risks associated with post-project tools. Clear custodianship reduces the risk of abandonment. Defined roles and procedures reduce reliance on informal arrangements. Open licensing reduces barriers to

reuse and adaptation. Finally, the separation of stewardship from authorship allows the tool to remain current without undermining its provenance.

Early confirmation of custodianship, transfer of administrative access (domains, repositories, hosting accounts), and documentation of governance procedures are therefore critical early actions. Together, these measures provide a realistic foundation for sustaining the VARCITIES Online Replication Tool as a trusted and usable resource beyond the VARCITIES project lifecycle.

4.6. Future Funding Options

The long-term sustainability of the VARCITIES Online Replication Tool depends on securing predictable support for stewardship activities rather than on generating revenue from access to the tool itself. Funding options are therefore considered in relation to the specific functions described in the operational cost assessment: hosting, content curation, user support, brokerage, and governance. The objective is to assemble a diversified and low-risk funding mix that reflects how similar EU-supported tools are maintained in practice.

Rather than relying on a single source, sustainability is strengthened by aligning the tool with multiple funding pathways that correspond to different use cases: maintaining core operations, supporting growth or adaptation, and enabling targeted replication activities.

Integration into EU-funded projects and programmes

One of the most realistic funding pathways is continued integration of the VARCITIES Online Replication Tool into EU-funded research, innovation, and implementation projects. In this model, the tool is not funded as a standalone product, but as a recognised replication or support component within new consortia.

Horizon Europe, particularly within clusters addressing climate, cities, health, and nature-based solutions, offers opportunities to include the tool as a work package component supporting replication, stakeholder engagement, or impact assessment. Similarly, programmes such as *LIFE* and *Interreg* can support the use and maintenance of the tool where it contributes to transnational learning, capacity building, or policy implementation. In these cases, stewardship costs are justified as part of delivering project outcomes rather than as overhead. This approach also reinforces relevance, as updates to the tool are driven by active use in new contexts and projects rather than by abstract planning.

Institutional and network-based support

A second funding pathway is institutional support from organisations that directly benefit from the tool being available and current. This includes city networks, regional authorities, and public agencies that use the tool to support multiple cities or programmes.

In this model, modest annual contributions or in-kind support help cover core stewardship costs in return for reliability, priority access to onboarding activities, or the ability to reference the tool in their own programmes. Importantly, this does not imply exclusive ownership or restricted access. The value lies in shared maintenance of a common resource that reduces duplication of effort across participating cities. This type of support is particularly well suited to covering baseline costs such as hosting, coordination, and limited user support.

City-level and programme-linked funding

Cities that actively apply the *VARCITIES Online Replication* Tool may also support its sustainability indirectly through programme-linked funding. For example, when cities allocate budgets for innovation, planning, or capacity building, a small portion of these funds can be used to support onboarding sessions, tailored guidance, or participation in replication cohorts linked to the tool. This approach keeps the core resource open while allowing costs associated with more intensive use to be covered by the beneficiaries of that support. It also aligns funding with actual demand rather than with projected uptake.

Foundations and philanthropic funding

Foundations and philanthropic organisations with interests in urban health, climate adaptation, and social well-being represent an additional, complementary funding source. Such funding is particularly relevant for activities that enhance inclusivity and accessibility, such as translation, adaptation for underserved regions, or dissemination beyond the original project geography. While philanthropic funding is typically time-limited, it can play an important role in supporting specific enhancements or outreach efforts without increasing the baseline operating budget.

Taken together, these funding options support a pragmatic and resilient sustainability strategy. Core stewardship is maintained through integration into projects and institutional support, while growth or targeted activities are funded separately. This diversified approach reduces exposure to funding gaps, aligns costs with use, and supports the long-term availability of the *VARCITIES Online Replication* Tool as a trusted replication support service.

4.7. Adaptability & Interoperability

The VARCITIES Online Replication Tool has been designed to balance two requirements that are often in tension in urban replication work: the need for local adaptation and the need for comparability across cities and interventions. From a sustainability perspective, this balance is critical. A tool that is too rigid risks limited uptake, while a tool that is too flexible risks losing coherence and usefulness over time.

Adaptability and interoperability are therefore treated as core design principles rather than optional features. They ensure that the tool can remain relevant across different urban contexts and policy environments without requiring continuous redevelopment.

VARCITIES Online Replication Tool Adaptability Across Contexts

The structure of the VARCITIES Online Replication Tool allows cities to adapt content to their specific conditions while working within a shared framework. Replication roadmaps follow a common logic, but they can be applied selectively depending on local priorities, delivery capacity, and governance arrangements. This enables cities to engage with the tool at different depths, ranging from early exploration to preparation for implementation.

Visionary Solutions are presented as modular components rather than fixed packages. This allows cities to replicate individual elements or to combine green, digital, and socio-cultural components into integrated interventions that reflect local needs. Guidance within the tool supports contextual embedding, for example by highlighting considerations relevant to historic urban centres, peri-urban areas, or vulnerable neighbourhoods.

The inclusion of diverse pilot examples demonstrates how similar solution types can be implemented in different ways. This diversity supports adaptation while reinforcing the credibility of the underlying replication logic.

Interoperability with Tools and Platforms

Interoperability is essential for post-project use, as cities are unlikely to adopt tools that require parallel reporting or duplicate data structures. The VARCITIES Online Replication Tool therefore aligns its indicators and outcome framing with widely used European and international frameworks, including EU policy objectives, Sustainable Development Goals, and established well-being and urban monitoring approaches.

Where digital components are involved, the tool promotes integration rather than replacement. References to health and well-being dashboards, environmental sensor data, and open APIs illustrate how cities can link the tool to existing smart city or open data

infrastructures. This approach reduces technical barriers and supports continuity between planning, implementation, and monitoring.

The tool also builds on the Decision Support Tool developed within WP6. This linkage supports evidence-based selection of Visionary Solutions and reinforces consistency across VARCITIES outputs. By maintaining these connections, the tool remains part of a broader methodological ecosystem rather than an isolated platform.

Scalability Considerations

Adaptability and interoperability together support scalability. The tool can be applied to small, low-cost interventions as well as to larger, district-scale or city-wide programmes. Guidance makes explicit that replication does not imply uniform scale, and that different entry points are possible depending on ambition and resources.

This scalability is important for sustainability, as it allows the tool to remain relevant to cities at different stages of maturity and with varying capacities, without requiring structural changes to the platform.

Language and Accessibility

To support wide uptake, content is presented in plain, non-technical language wherever possible and structured for ease of translation. Visual elements such as diagrams and process charts are used to complement text and support understanding across professional backgrounds.

By reducing cognitive and technical barriers, the tool lowers the cost of adoption for users and intermediaries alike. This, in turn, supports sustained use and justifies ongoing stewardship beyond the project lifecycle.

4.8. Dissemination & Uptake Strategy

The dissemination and uptake strategy for the VARCITIES Online Replication Tool is designed to support sustained use rather than one-off visibility. From a post-project perspective, the objective is not broad awareness among all potential audiences, but meaningful adoption by those actors who are positioned to replicate solutions in practice. Dissemination is therefore closely linked to brokerage, capacity building, and feedback, ensuring that the tool remains relevant and used rather than simply available.

Target audiences for uptake

Uptake efforts focus primarily on municipal administrations and public-sector delivery teams, as well as on intermediaries that support multiple cities. These groups are the most likely to integrate the tool into planning, learning, and proposal development processes.

Secondary audiences, including practitioners, NGOs, and research organisations, are addressed insofar as they contribute to these primary uptake pathways.

This prioritisation ensures that dissemination resources are directed toward actors with the mandate and capacity to act on the guidance provided by the tool.

Dissemination channels and mechanisms

The VARCITIES Online Replication Tool is disseminated through channels that are already trusted by its primary users. These include the VARCITIES project website and repositories, which serve as the authoritative access point, as well as established city and policy networks that regularly engage with municipal practitioners. Presentation of the tool at relevant European and international events supports peer-to-peer learning and reinforces credibility, particularly when pilot cities or early adopters are involved.

Targeted online sessions, such as webinars or short onboarding workshops, play a central role in moving from awareness to use. These sessions focus on how the tool can be applied in concrete planning or replication scenarios, rather than on general promotion.

Capacity building and peer exchange

Capacity building is a critical element of uptake. Even well-designed tools require orientation before they can be used effectively in a local context. The sustainability model therefore includes periodic onboarding activities aimed at municipal teams and intermediaries. These activities are designed to be lightweight and repeatable, providing practical guidance on navigating the tool, interpreting content, and adapting materials to local needs.

Peer exchange further supports uptake by making replication visible. Identifying a small number of early adopters and enabling them to share their experience helps demonstrate practical value and lowers the perceived risk for other cities. Over time, this can evolve into a loose community of practice centred on replication, without requiring formal membership structures.

Feedback, iteration, and versioning

Dissemination and sustainability are closely linked to feedback. The tool includes mechanisms for collecting user feedback and replication experiences, which inform periodic updates. Rather than continuous change, updates should be planned and versioned, typically on a 12- to 18-month cycle. This provides users with stability while ensuring that content does not become outdated.

Maintaining a visible changelog and clearly dated releases supports transparency and trust, particularly for users who rely on the tool in funding applications or planning processes.

Indicators of uptake and success

Uptake is assessed using a small set of practical indicators, such as the number of cities engaging with the tool in a structured way, references to the tool in project proposals or strategies, participation in onboarding activities, and documented replication cases. These

indicators provide sufficient evidence of continued relevance without creating a heavy monitoring burden.

By focusing dissemination on active use, supporting users through targeted capacity building, and closing the loop through feedback and iteration, the uptake strategy reinforces the overall sustainability model. It ensures that the VARCITIES Online Replication Tool remains a living support service embedded in practice, rather than a static output of a completed project.

4.9. Summary & Next Steps

The sustainability plan for the VARCITIES Online Replication Tool is grounded in a realistic assessment of how EU-funded tools are used and maintained after project closure. Rather than relying on broad dissemination or speculative revenue models, the plan defines the tool as a replication support service that provides ongoing value to a clearly identified group of users: municipal administrations and the intermediaries that broker replication across cities.

The core of the approach is funded stewardship. Open access to the catalogue, guidance, and templates preserves public value and supports wide reuse, while a modest but clearly defined operating budget enables the activities that keep the tool credible in practice. These activities include maintaining technical reliability, curating and updating content, supporting users at the point of application, and providing light governance and coordination.

The sustainability model is intentionally conservative. It prioritises continuity, clarity of roles, and proportional costs over scale or commercialisation. This reflects both the scope of the tool and the experience of similar EU-supported platforms, where long-term impact depends on stewardship rather than expansion.

Key elements supporting post-project readiness

Post-project readiness is ensured through explicit definition of ownership, governance, and operational tasks. Assigning a named custodian, supported by a small advisory function, provides accountability and reduces the risk of abandonment. Clear licensing and contribution rules support reuse while protecting the integrity of the content. Periodic versioning and a visible update process ensure that users can rely on the tool in planning and funding contexts.

The identified annual operating envelope of €35,000–€60,000 is proportionate to these requirements and consistent with comparable EU practice. It provides sufficient capacity to keep the tool usable and relevant without introducing unnecessary complexity or cost.

Next steps for implementation

The immediate next steps following project closure are primarily organisational rather than technical. These include identifying custodianship and transferring administrative access, agreeing on a first post-project release and update schedule, and establishing the basic governance and feedback mechanisms described in this chapter.

In parallel, initial brokerage pathways should be confirmed by engaging one or two city networks or programme coordinators who can actively promote and use the tool in replication activities. Early onboarding sessions targeted at these intermediaries and their member cities will help translate availability into practical use.

Over the medium term, sustainability will be reinforced by integrating the VARCITIES Online Replication Tool into follow-up projects and programmes, documenting early replication cases, and refining guidance based on feedback from practice. Through these steps, the tool can continue to function as a credible and useful support for cities seeking to move from pilot initiatives to scaled, evidence-informed implementation.

5 Participatory process involving external STKs for the VARCITIES Online Replication Tool

The VARCITIES Online Replication Tool was developed through a participatory process that actively engaged external stakeholders. Throughout this process, valuable feedback was collected on the VS and their potential for replication in diverse urban contexts. The methodology underpinning the VARCITIES Online Replication Tool combines the structured presentation of grouped Visionary Solutions with the systematic collection of feedback through multiple channels. Input was obtained via online surveys hosted on Type form as well as hardcopy questionnaires distributed at event booths.

The co-creation of the VARCITIES Online Replication Tool was further reinforced through workshops with follower cities, interactive discussions, and targeted stakeholder engagement at dedicated events. Beyond project-specific activities, additional feedback was gathered during events co-organized with the sister projects EUPOLIS, IN-HABIT, and GO-GREEN ROUTES. VARCITIES' active participation in conferences and initiatives hosted by these projects, such as the Mikser Festival, expanded opportunities to exchange knowledge, share experiences, and validate the VARCITIES Online Replication Tool's methodology. Complementary perspectives were also collected during the Helix events, ensuring that a broad spectrum of expertise contributed to the VARCITIES Online Replication Tool's continuous refinement and overall robustness. In parallel, during the Final VARCITIES event, dedicated booths were installed to facilitate direct interaction with participants. Feedback collected on the usability testing tool informed the final design and optimization of the VARCITIES Online Replication Tool.

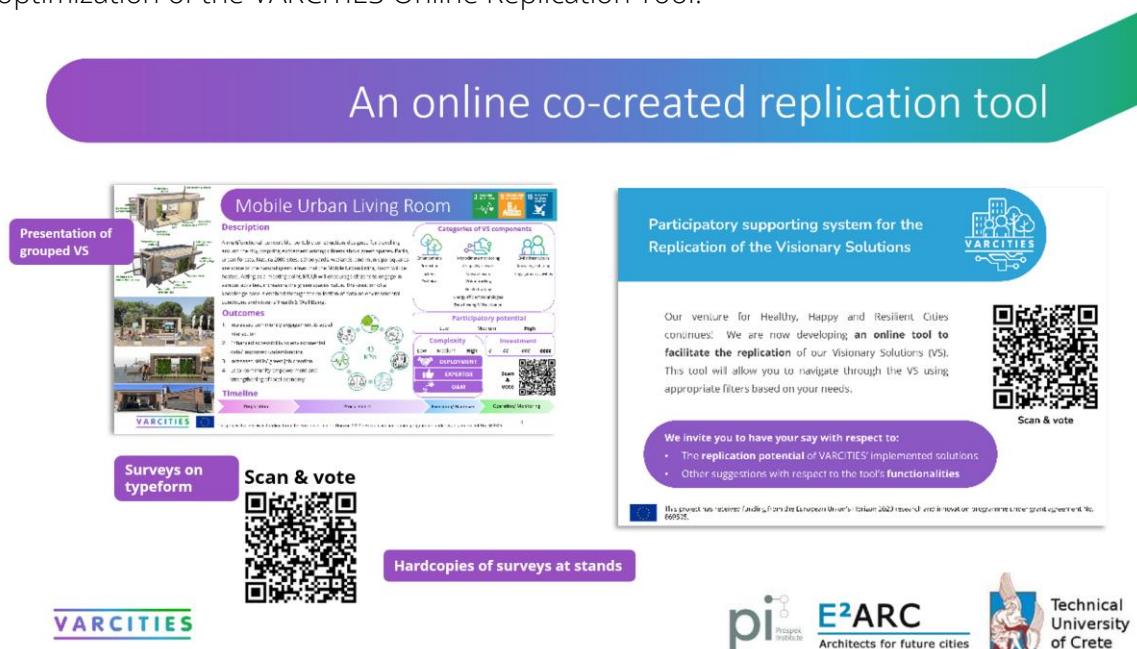


Figure 27: Overview of outreach strategy towards collecting external STK feedback

Figure 27 illustrates the structure and participatory methodology of the VARCITIES Online Replication Tool, emphasizing both the content provided and the mechanisms for feedback

collection. On the left, the figure presents an example of a Visionary Solution, such as the Mobile Urban Living Room, to demonstrate how solutions are described and structured within the VARCITIES Online Replication Tool. The layout highlights descriptive information, expected outcomes, implementation timeline, and categories of solution components. Crucially, it also integrates indicators of replication potential, such as complexity, required investment, and participatory potential. This standardized presentation ensures comparability across solutions and facilitates informed decision-making by potential adopters. On the right, the figure shifts to the participatory dimension of the VARCITIES Online Replication Tool, showcasing the supporting system designed for stakeholder engagement. Here, stakeholders are explicitly invited to provide feedback on two aspects: the replication potential of implemented VARCITIES solutions and suggestions for improving the VARCITIES Online Replication Tool's functionalities. The inclusion of a QR code ("Scan & vote") underscores the digital-first approach, encouraging simple and immediate engagement through mobile devices. Through conferences, and events, as well as participation in festivals such as NEB and Mikser, feedback was collected from more than 50 European and international cities and organisations, ensuring that a wide and diverse set of perspectives informed the development of the VARCITIES Online Tool (Table 2).

Conferences/Events	External Stakeholders / Cities
Mikser Festival	City of Burgas, City of Lahti, City of Limerick, City of Tallinn, City of Umea, City of Versailles, City of Bogotá, City of Limassol, City of Gladsaxe, City of Lodz, City of Palermo, City of Belgrade, City of Lodz, City of Piraeus, City of Trebinje, City of Castelfranco Veneto, City of Chania, City of Dundalk, City of Gzira, City of Leuven, City of Novo mesto, City of Skelleftea, Yugo cycling campaign, Embassy for Urban Planning,
Helix Event	City of Castelfranco Veneto, Province of Treviso
Final Clustering Event	City of Castelfranco Veneto, City of Chania, City of Dundalk, City of Gzira, City of Leuven, City of Novo mesto, City of Skelleftea, City of Gladsaxe, City of Lodz, City of Belgrade, City of Piraeus, City of Cordoba, City of Riga, City of Nitra, City of Lucca, City of Burgas, City of Lahti, City of Limerick, City of Tallinn, City of Umea, City of Versailles
NEB Festival	Feedback received from various city across Europe
Follower Cities	Marienstad (SV), Bühl (DE), Prijedor (BiH), Herceg Novi (Montenegro), Torun (PL), Sint-Niklaas, Mechelen (BE), Bruges, Ghent, Aalst, Hasselt and Roeselare, Cork, Daugavpils, Belfast, Szombathely (HU), Ixelles (BE), Maltese Western Regional Council, Maltese Northern Regional Council, the Comune di Sezze (IT), Heraklion (EL), Platania (EL), Corfu (EL), Sliema (MT), Valletta (MT), Langenhagen (DE), Padova (IT), Helsingborg (SV), Zadar (HR), Osteraker (SV)

Table 2: External STKs that produced feedback

5.2. Replication potential of the VS

External stakeholders participating in the workshops and events were invited to answer a central question regarding the replicability of the solutions. They were asked to rate, on a scale from 1 (not replicable at all) to 5 (highly replicable), how feasible it would be to replicate the presented solution in different contexts. Figure 28 combines this evaluation framework with a photograph of a solution (e.g. the Mobile Urban Living Room), capturing the intervention in practice and illustrating its function as a community-oriented and spatially innovative measure. By grounding the assessment in a concrete example, stakeholders were able to reflect more effectively on barriers, enabling factors, and overall feasibility.

1 → **(Mobile) Urban Living Room & data collection as part of an integrated re-development intervention:** On a scale of 1 to 5, how would you rate the replicability of the presented solution(s)?
(1 being not replicable at all, 5 being highly replicable)



- ☐ **5 - Highly replicable** (minimal to no barriers)
- ☐ **4 - High replicability** (minor barriers/ challenges to be addressed)
- ☐ **3 - Moderate replicability** (both strengths and limitations)
- ☐ **2 - Low replicability** (there is some potential but also significant challenges)
- ☐ **1 - Not replicable at all** (significant barriers to replication)

Figure 28: Survey distributed to external STK towards evaluating the replication potential of the VS

5.4. Desired functionalities of the online tool

As part of the participatory process, external stakeholders were invited to identify the most relevant types of information and functionalities they would like to see included in the VARCITIES Online Tool. Their responses provide valuable insights into user expectations and priorities, ensuring that the VARCITIES Online Replication Tool design is demand-driven and aligned with real-world needs (Figure 29).

a. What information would you like to see displayed in the online tool with respect to the Visionary Solutions?

Choose as many as you like

A Challenges addressed

B Categories based on the VS components/ functions

C Beneficiaries

D Participatory planning potential

E Required level of expertise (in-house)

F Required level of expertise (contractors)

G CAPEX & OPEX

H Timescale (implementation & reaching full potential)

I Innovation potential

J Health & Well-being aspect

OK press Enter ↵

Figure 29: Survey distributed to external STK towards identifying the desired functionalities of the online tool

Stakeholders (total replies=182) highlighted several categories of information as particularly relevant (Figure 30Figure 28). The highest demand was for the Health & Well-being aspect (29 replies), followed closely by Timescale for implementation and reaching full potential (28 replies) and Challenges addressed (27 replies). These results underscore the importance of clarity on both the impacts of solutions (well-being, challenges) and their practical feasibility (time requirements). Other significant areas included the Required level of expertise in-house (20 replies) and the identification of Beneficiaries (18 replies). Less emphasis was placed on categories such as CAPEX & OPEX and Required expertise for contractors, suggesting that stakeholders may prioritize broader contextual and societal information over strict financial or technical details.

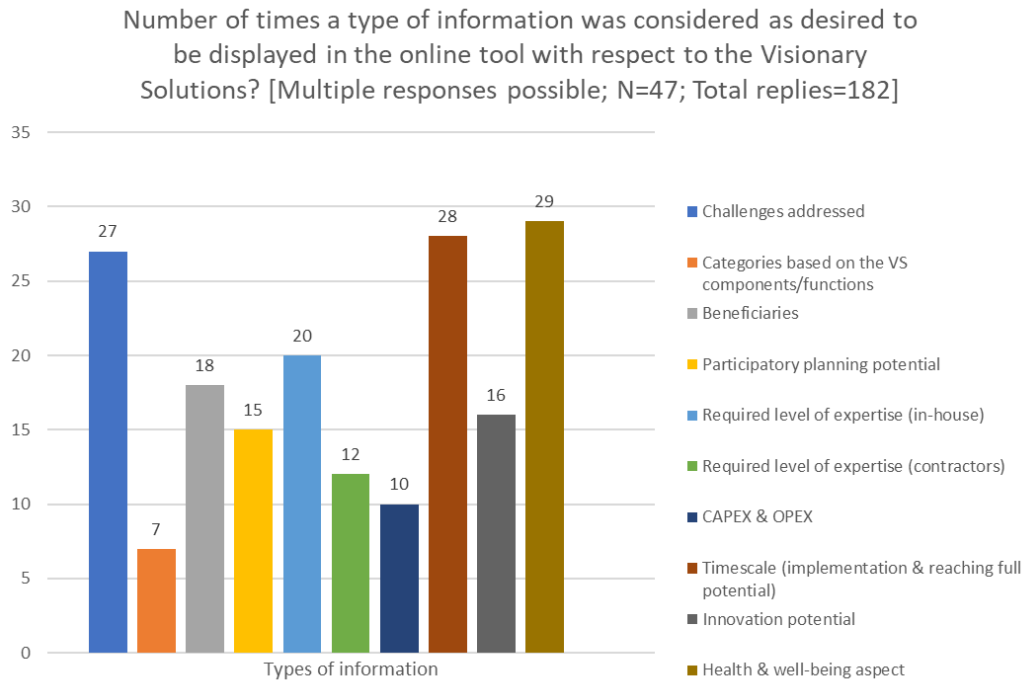


Figure 30: Received feedback with respect to what STK consider as useful information to be displayed

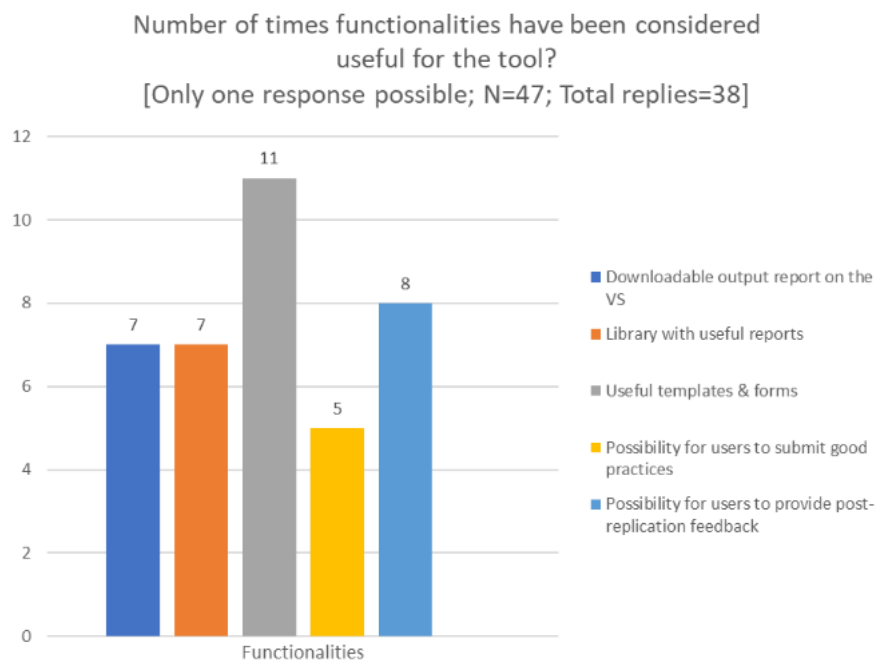


Figure 31: Received feedback with respect to what STK consider as useful functionalities of the tool

When asked to select the most useful functionalities for the VARCITIES Online Tool, stakeholders placed the highest value on Useful templates and forms (11 responses), highlighting a demand for practical, ready-to-use materials that can facilitate the replication process (Figure 31). The second most requested functionality was the Possibility for users

to provide post-replication feedback (8 responses), showing the importance of creating a continuous learning loop between solution implementation and refinement. Other functionalities, including Downloadable output reports on the VS and a Library with useful reports (7 responses each), were also considered valuable. The Possibility for users to submit good practices received fewer responses, although it still points to interest in peer-to-peer knowledge sharing.

6 The VARCITIES Online Replication Tool

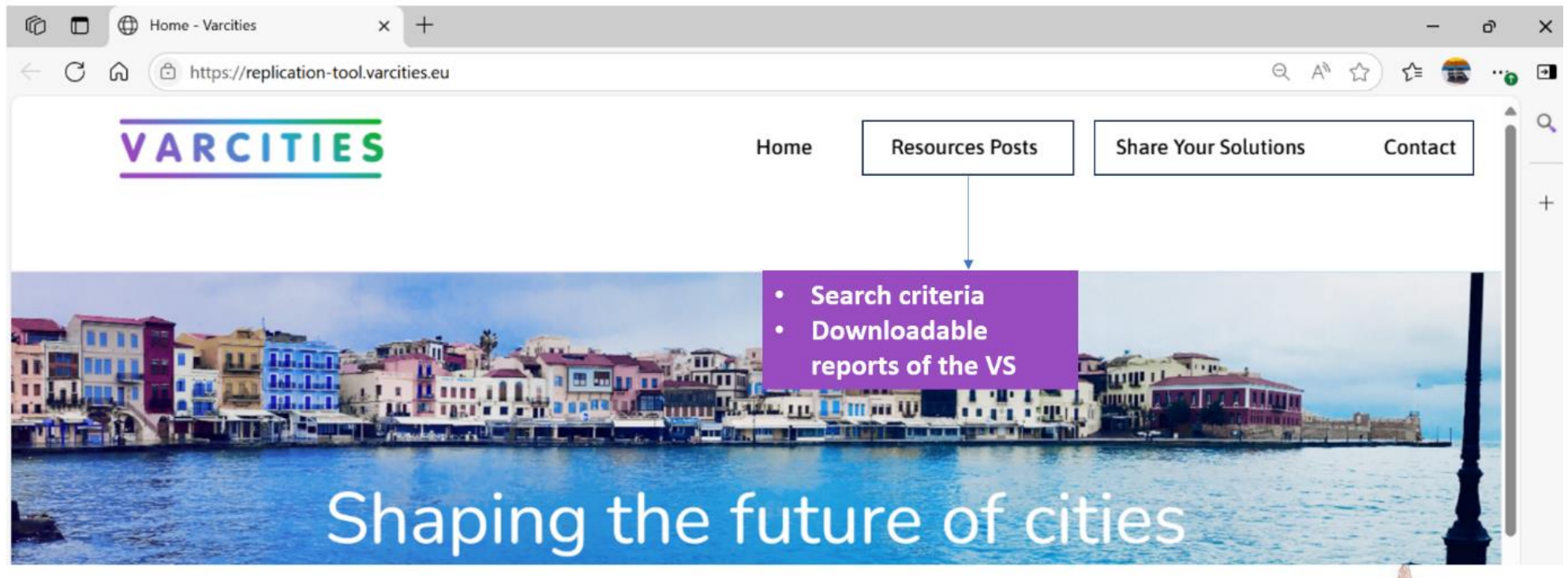


Figure 32: Landing page of the online tool

Figure 32 presents the landing page of the VARCITIES VARCITIES Online Tool, which is directly linked to the VARCITIES Health & Well-Being Platform and is openly accessible to all users. From this entry point, users can explore the available resources and upload their own solutions, thereby enriching the co-created knowledge base. The VARCITIES Online Replication Tool offers several key functionalities, such as downloadable output reports on the VS, a library with useful reports, ready-to-use templates and forms, the possibility for users to submit good practices, and the option to provide post-replication feedback.

In addition, Figure 33 presents the VSs' Catalogue, including 18 grouped solutions, which functions as the central component of the VARCITIES Online Tool. It provides a structured overview of the different solutions developed within VARCITIES project.

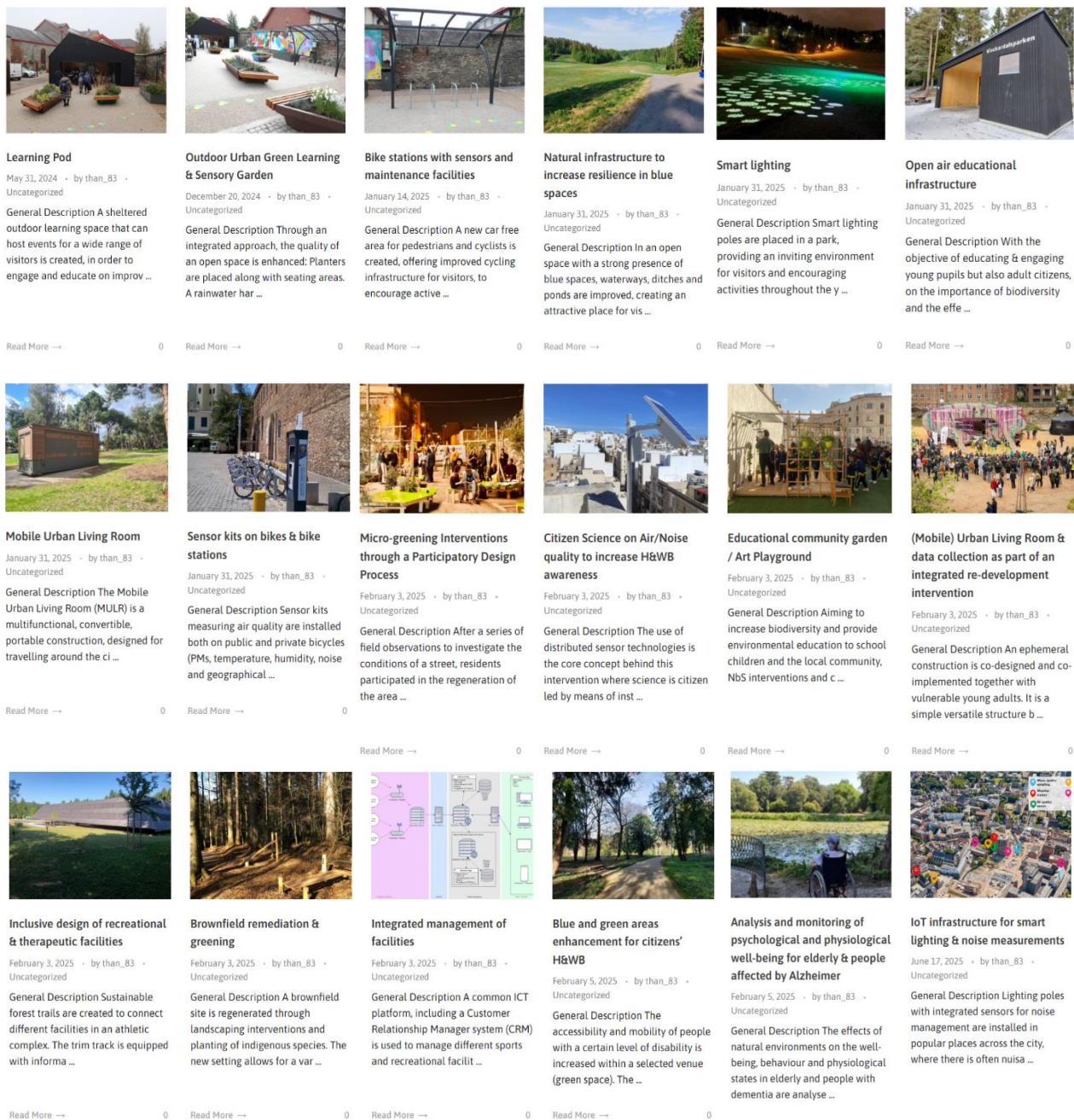


Figure 33: The VS catalogue

To enhance usability, filters have been integrated into the VARCITIES Online Replication Tool, allowing users to easily navigate the Visionary Solutions Catalogue and identify the entries most relevant to their needs. These filters cover multiple dimensions, including links to the Sustainable Development Goals (SDGs), expected benefits (e.g., ecological connectivity, health monitoring, empowerment, public space value, community trust), and the type of solution, such as nature-based, digital, or socio-cultural interventions. They also include practical aspects such as timescale for implementation, required level of expertise, and innovation potential, ensuring that users can tailor their search according to both contextual priorities and technical feasibility (Figure 34 & Figure 35).

SDGs	Benefits	Benefits	Benefits	Nature based Solutions	Digital Solutions
☐ 3 16	☐ E-participation 11	☐ Ecological connectivity 1	☐ Physical health data monitoring 2	☐ Enhancement / Protection actions 8	☐ Energy efficient technologies 10
☐ 9 6	☐ Temperature data strategies 5	☐ Green space accessibility 4	☐ E-learning 2	☐ Green infrastructure 2	☐ Data hosting and visualisation 14
☐ 11 13	☐ Territorial attractiveness 2	☐ Derelict land 1	☐ Reduced stress 1	☐ Building greens 2	☐ Noise pollution monitoring 9
☐ 8 2	☐ Noise data strategies 2	☐ Water data strategies 1	☐ Air quality 4	☐ Technical 2	☐ Visitor tracking 12
☐ 10 3	☐ Air data strategies 8	☐ Decision-making innovation 9	☐ Heatwave 2	☐ Urban Green Spaces connected to grey infrastructure 1	☐ Microclimate monitoring 11
☐ 13 5	☐ Public-private 7	☐ Outdoor physical activity 6	☐ Digital value of public space 3	☐ Socio - cultural Solutions	☐ Air quality monitoring 10
☐ 16 8	☐ Ecosystems learning 3	☐ Community trust 4	☐ Heritage 4	☐ Civil Infrastructure 13	☐ Health tracking 5
☐ 4 4	☐ Citizen involvement 3	☐ Open participation 2	☐ Place attachment 1	☐ Knowledge sharing 18	☐ Water quality monitoring 1
☐ 15 3	☐ Institutional networks 1	☐ Empowerment 10	☐ Ecosystem learning 1	☐ Engagement activities 11	
☐ 14 1	☐ Life quality 7		☐ Native plants 1		
	☐ Social inclusion 4		☐ Animal and plant biodiversity 3		
	☐ Public space value 9		☐ Water storage 1		
			☐ Surface runoff 1		
			☐ Efficient design 3		

Figure 34: The incorporated filters- part A

Participatory planning potential ☐ Medium 7 ☐ Low 1 ☐ High 10	Expertise (In House) ☐ Advanced 7 ☐ Expert 8 ☐ Intermediate 3	Main Beneficiaries	Health and Well - Being Aspects
CAPEX (€ / €€ / €€€ / €€€€) 1 4 <input type="range"/>	Expertise (Contractors) ☐ Advanced 4 ☐ Expert 12 ☐ Intermediate 2	☐ Local Administrations 17 ☐ Local Community 16 ☐ Engineers & Technical Experts 15 ☐ Health & Social Care 12 ☐ Research & Academia 6 ☐ Communication Experts 7 ☐ Disadvantaged groups or minorities 12 ☐ Local businesses 12 ☐ Urban & Spatial Planning 14 ☐ School Community 11 ☐ Cultural/Art Producers 8 ☐ Environmental & Natural Sciences 11	☐ Mental health enhancement 17 ☐ Enhancement of quality of life 18 ☐ Physiological health enhancement 14 ☐ Enhancement of physical activity 11
OPEX (€ / €€ / €€€ / €€€€) 1 3 <input type="range"/>			
SROI (€ / €€ / €€€ / €€€€) 1 4 <input type="range"/>			
Complexity ☐ Medium 7 ☐ High 6 ☐ Low 5			

Figure 35: The incorporated filters- part B

The following provides an example of a solution and illustrates how it is displayed when downloaded by the user.



(Mobile) Urban Living Room & data collection as part of an integrated re-development intervention



Figure 36: Example of information provided for Leuven's integrated VS

(Mobile) Urban Living Room & data collection as part of an integrated re-development intervention					
	Preparation Stage	Selection of service providers	Execution Process	Handover	Operation
	Core task 1. Preliminary study • Sketching: Create a board collecting all the elements and functions of the Urban Living Room. Work on different scenarios, multiple uses, possible locations covering all age groups • Identify possible microclimate and other variables to be monitored • Draft the health trail in relation to the Urban Living Room • Based on the above, list key components of the whole intervention • Preliminary Work plan: Provide the desired time-frame for the study and the construction/ installation • Preliminary Cost plan: Provide an estimation of the cost of the study and the construction/ installation • Risk Management plan • Record keeping throughout all the phases	Core task 5a. Procurement of works Procurement process may be required for each desired service or component not available within the municipality services. The type of procurement is selected following the local legislations in force (open, restricted, negotiated, etc.) • Define the procurement process and administration clauses • Define technical specifications and standards • Launch the procurement(s) • Analyse the received offers, select and award the contract(s)	Core task 6. Execution study The awarded contractor elaborates an execution study of the intervention, incorporating all the equipment and digital features in collaboration with other experts, as required. • Elaborate Execution Plans & Details • Define the final materials • Definitive Workplan & Cost plan • Risk Management plan updates	Core task 8. Reception of the works • Perform a final inspection and reception of the Urban Living Room (closing of the contract) • Testing of the ICT components and quality control • Reception of ICT components • Reception of the equipment and quality control • Define & Coordinate the rectification of defects • Final Cost plan including invoices and final AS BUILT plans • On-site coordination of the different compents	Core task 9. Operation & Maintenance • Appoint facilities manager • Apply the operation & maintenance plan • Organize Publicity and Events
	1st STK workshop: Co-identification of Needs		3rd STK workshop: Co-implementation	• Set up the Operation and Maintenance plan	4th STK workshop: Co-evaluation
	Core task 2. Feasibility study Based on the preliminary study, conduct an analysis to evaluate all the practical aspects of implementing the project. • Define the permit(s) required: - for installing the Urban Living Room on the selected location(s) - protocols to respect / approval for specific products - related to GDPR and data management - other permits/ local authorities' restrictions • Check the availability of: - of the selected location(s) - artist/ architects/ experts to undertake the study - of the desired digital components • Identify any new risks (Risk Management plan updates) • Evaluate the feasibility of the project by cross-checking the above with the available budget, the timeline & risks	Core task 5b. Procurement of supplies • Define the procurement process and administration clauses • Specifications for ICT components & equipments • Launch the procurement(s) • Analyse the received offers, select and award the contract(s) / place orders	Core task 7. Execution and Monitoring of the works Monitoring the execution progress involves regular inspection of the construction works & installations • Inspect the construction works on a regular basis • Resolve arising problems and update accordingly plans and execution details • Installation of the ICT components • Installation of the equipment • Update the Workplan, Cost plan & Risk Register		Core task 10. Monitoring & Evaluation • Monitor KPIs based on the monitoring protocol • Record keeping
	2nd STK workshop: Co-design				
	Core task 3. Definitive study A procurement process maybe required beforehand (see 5). The awarded experts deliver a definitive version of the Urban Living Room with also serving as the reference documents for applying for permits. • Elaborate Plans, Sections, Facades, 3D visualizations (Permit / Architectural/ Technical/ Implementation) • Select the main construction materials • Finalize the design of the health trail and define all required equipment (e.g. moving bench) • Define type of sensors & location to be installed, prepare specifications • Perform a market analysis (where applicable) • Work plan, create a list of tasks with timeline • Budget & Cost Plan, with list of components • Risk Register updates	Core task 5c. Procurement of services • Define the procurement process & administration clauses • Define specifications and standards • Launch the procurement • Analyse the received offers, select and award the contract(s)			
	Core task 4. Submission of permit application file • Prepare the permit(s) file, based on the definitive study • Submit the file to the authorities • Approval / Remarks / Rejection • Effectuate modifications (if required) • Reapply for permit(s) (if required)				
Key Milestones	• Feasibility of the project checked • VS fully defined • Permits obtained • Monitoring framework established	• Procurement procedures completed • Evaluation & Award of tenders • Contracts implemented / components ordered	• VS execution study completed • Construction of the Urban Living Room completed • ICT components received & installed • Equipment received & installed	• Handover of the VS • Contracts concluded • O&M plan fully defined	• VS successful operation, monitoring & maintenance

Figure 37: General workplan as a pop-up window through "timeline to reach full potential"

Implementation process

General

- **Engagement with decision makers** is needed from an early stage and on a regular basis to ensure their support.
- **Adaptability in Concept Design:** Changes in the concept design can be necessary to address unforeseen challenges and complexities. Flexibility in the design phase allows for adjustments that aligned with the will of decision makers, as well as with dependencies on timelines of wider adjacent projects.
- **Need for Specialized Expertise:** High levels of expertise required both from the city staff (project team members) and from the external contractors.

Level of required expertise - in house



Level of required expertise - contractors



Sustainability plan

Key Partners • Municipal and local government agencies • Educational, social, and cultural institutions • Urban planning and design technical partners • Environmental organizations and sports agencies • Architects, engineers, and cultural design experts • Local businesses and the Chamber of Commerce • Community organizations and volunteer groups	Key Activities • Co-design, construction, and maintenance of sustainable urban regeneration • Multi-stakeholder engagement and co-creation events • Installation and operation of environmental sensor data quality, water quality, noise tracking • Data collection, analysis, and visualization • Organization of educational, cultural, and community engagement activities • Events and safety management (public installations)	Value Proposition • Enhanced community engagement through participatory urban design • Improved physical, mental health, and overall quality of life • Promotion of sustainable urban regeneration and sustainable economic • Data-driven insights for better urban planning and management • Strengthening community resilience and social cohesion	Customer Relationships • Active social connectivity and emotional or engagement relationships and participatory workshops and events • Ongoing feedback loop for improved community resilience and improved sustainability strategies	Customer Segments • Sustainable practitioners and community groups • Local residents and neighborhood associations • Urban regeneration and urban planning • Educational institutions and cultural organizations • Local businesses and commercial partners • Environmental, health, and social experts
Cost Structure • CAPEX (construction and installation of urban living room, sensors, monitoring infrastructure) • OPEX (maintenance, minor requirements, data management) • Personnel (project management, technical expertise, community facilitators) • Costs associated with engagement activities and events • Costs of monitoring, storage, and dissemination		Revenue Streams • Public and municipal funding • Partners and business grants and subsidies • Sponsorship and advertising slots and social media content • Revenue generated from community or educational events • Licensing of best practices or technological innovations		

Replication potential



Want to create interactive content? It's easy in Genially!

Lessons learnt

Co-creation process

- **Involving Communities:** Involving youngsters from the neighbourhood in the construction of the velodrome proved beneficial for the integration of the VS into the neighbourhood.
- **Stakeholder Fatigue:** From the co-identification to the co-implementation phase, some stakeholders seemed to lose interest due to one design being rejected.
- **Social Cohesion:** The implementation had a great effect on a neighbourhood scale, bringing together people from the community. The co-implementation phase was especially beneficial to create this.

- Urban & Spatial Planning
- Engineers & Technical Experts
- Environmental & Natural Sciences
- Health & Social Care
- Communication Experts

Health and Well - Being Aspects

- Enhancement of quality of life
- Mental health enhancement
- Enhancement of physical activity
- Physiological health enhancement

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Main Beneficiaries

- Local Administrations

- Local Community
- Disadvantaged groups or minorities
- School Community
- Cultural/Art Producers
- Local businesses

Summary of realised risks:

Dependency of the implementation to the timeline of wider projects running in parallel/
Rejection of original permit/ Expertise required for the ICT components

Realised risks in the implementation process			
Risk Description	Risk category	Risk Impact	Mitigation Action
Unavailability of location: Due to the timeline of the greater regeneration project running in the site, the park was not ready to receive the installation in the originally envisioned location.	Schedule	Increased budget.	Alternative locations to host the urban living room were identified. The urban living room was designed as a moveable lightweight structure.
Permit rejection: Decision makers only in a late stage of the project expressed that they did not want to proceed with the original design proposed for the urban living room.	Political	The implementation of the urban living room was delayed since the solution had to be designed from scratch, cancelling 15M of preparation work	The urban living room was redesigned as a lightweight moveable structure.
There is a risk that sensors' data are not reliable	Quality	So that data is of no value	Regular preventive maintenance actions of air quality sensors (replacing of filters)

7 Conclusions

The development of the VARCITIES Online Replication Tool marks a major milestone in securing the long-term impact of the VARCITIES project. Designed as a structured and accessible resource, it provides cities and stakeholders with clear pathways to adopt, adapt, and replicate solutions that have already demonstrated success in improving urban health, well-being, and sustainability.

Building upon the knowledge generated across different parts of the project, the VARCITIES Online Replication Tool consolidates methodological insights, pilot experiences, and stakeholder feedback into a practical system that can serve as a navigator for future urban interventions. By doing so, it offers a resource that is both grounded in evidence and tailored to the needs of its diverse audiences. Its robustness and usability have been ensured through a co-creation process that actively involved follower cities and external stakeholders. By drawing on feedback collected through surveys, workshops, interactive discussions, and international events, the VARCITIES Online Replication Tool incorporates a wide spectrum of perspectives and responds directly to the practical needs of different user profiles engaged in urban governance and planning.

Beyond serving as a catalogue of grouped solutions, the VARCITIES Online Replication Tool integrates key methodological components such as implementation packages, sustainability plans, co-benefits, spatial impact assessments, and SROI analyses. These are complemented by a glossary of key terms and integrated decision-support functions, which together enhance both clarity and applicability. Importantly, a sustainability plan, including a Business Model Canvas, an assessment of operational costs, and a review of future funding opportunities, ensures the continuation of the VARCITIES Online Replication Tool beyond the project's lifetime. By combining evidence-based knowledge with practical guidance and ensuring open accessibility, it guarantees that the legacy of VARCITIES will extend far beyond its pilot sites, fostering replication, adaptation, and innovation across Europe and beyond.

8 References

VARCITIES Project – D3.6: Reports of the Sketched Solutions

VARCITIES Project – D6.2: Implementation and Execution Plan for All Pilots

VARCITIES Project – D4.3: Overview Report on STK Engagement Activities in Pilots

VARCITIES Project – D7.4: M&E Handbook

VARCITIES Project – D7.5: Replication VARCITIES Toolkit

VARCITIES Project – D3.4: Reports on Multiple Benefits Expected from Visionary Solutions