



See the [CHECKLIST](#) on the final page!

- ⚠ Please note that you can only fill in the form fields, all other content is blocked. For automatic evaluation purposes, please ensure that you submit the report as a **Word document**. You can submit a pdf in addition.

# Driving Urban Transitions Partnership (DUT)

## Project Progress Report

### CONTENT

1.	KEY DATA OF THE PROJECT.....	2
2.	DESCRIPTION OF WORK, OBJECTIVES AND (PRELIMINARY) RESULTS .....	2
3.	IMPACT .....	6
4.	DISSEMINATION AND COMMUNICATION ACTIVITIES.....	10
5.	OUTLOOK .....	12
6.	PROJECT ORGANISATION AND MANAGEMENT.....	14
7.	YOUR COMMENTS FOR THE DUT PARTNERSHIP .....	18
8.	ELECTRONIC SIGNATURE.....	18
9.	FORMALITIES CHECKLIST .....	19





## **1. KEY DATA OF THE PROJECT**

**SHORT TITLE:** aRTes

**LONG TITLE:** Active RoofTops South Europe

**PROJECT NUMBER:** F-DUT-2023-0154

**YEAR OF CALL:** DUT Call 2023

**PROJECT START:** 01/01/2025

**PROJECT END:** 31/12/2027

**PROJECT COORDINATOR:** Ester Higuera, UPM (ES)

**NUMBER OF REPORT:** Annual Report 1

**REPORTING PERIOD:** from 01/01/2025 to 31/12/2025

### **1.1 Publishable Project Summary** (max. 2 pages) - *only for the Final Project Report*

*[INFO: Your text should be easy to read, that is, written in an understandable and accessible way for a broader public. Its purpose should aim to promote the dissemination and support the exploitation of your results. You should refer only to publicly available information and must not include any confidential or personal data (e.g. names and addresses). The Publishable Project Summary must be drafted as a "stand-alone" text. No references should be made to other parts of the report. You may also wish to provide diagrams or photographs illustrating and promoting the work of your project (only as images). Please structure your summary along the following sub-sections:*

- *Context and overall objectives*
- *Work performed and main achievements*
- *Results and socio-economic impacts*
- *Policy relevance of your project]*

Non applicable. Project Summary will be provided on Final Project Report

## **2. DESCRIPTION OF WORK, OBJECTIVES AND (PRELIMINARY) RESULTS**

### **2.1 Project Progress in the Reporting Period**

**Is the project progressing as planned and as described in the proposal?**

NO

**If NO, please explain the reasons therefore in Chapter 2.2 below (deficiencies, risks and bottlenecks).**

### **2.2 Description of Work** (max. 3 pages)

- **What are the most important objectives you have accomplished (in line with the ones listed in the Online Survey) in the reporting period?**

- **Please describe the work accomplished in the reporting period, structured according to the work packages. Describe the preliminary innovations and results as indicated in the Online Survey (Product/service/process/policy/social innovations).**
- **Describe how you have worked together with the main target group(s)/stakeholder(s); describe your experiences and key takeaways (please refer to interactions with the urban actors included in the Online Survey).**
- **Describe deficiencies, risks and bottlenecks in the project progress. Describe deviations from the proposed work plan, deliverables and milestones, if any. What helped you or would have helped you to overcome these issues?**

aRTes project kicked off in January 2025 on a reduced capacity, with only four of the ten co-applicant partners (UPM Spain, ECO Spain, RSS France, UCY Cyprus) able to contribute on full capacity due to delays on funding and/or hiring approval by their respective national agencies or institutions (Portugal, Italy and Greece). Funding for two partners VUrb (ES), BKG (FI) was subsequently denied, and the remaining partners were able to join the project progressively, lastly incorporating InfoDim Greece in M9.

The staggered kick-off allowed nevertheless to begin work as planned for all WP except for WP5, which had to overcome a major reorganization, due to the unsuccessful funding approval of co-applicant BKG. This led to substantial delay in the WP; however, the consortium has managed to reorganize the project schedule to meet both the original goals and the overall project deadline.

A full description of the re-focused WP5, and other restructuring measures, is provided in chapter 6.

Overall, the project progress after the first year is aligned with the planned milestones and timeline, with the exception of WP5, as shown in the following description structured by work package.

On its Project Manager role, UPM led project initiation (T9.1), including the creation of the Consortium Agreement, signed by all partners on M3, the attendance to DUT events on M4 and M9, as well as the organization of General Assemblies and Executive Boards on M5, M6, M9 & M12.

### **WP1: Setting the scene, co-design and consultancy package**

T1.1 Regulatory and technical landscape. Progress: 70%. A team of 8 UCY researchers have undertaken desk-based research of the regulatory and policy frameworks at the EU, national and regional / municipal level for the six countries under study, with the collaboration of UA for research related to Portugal. Primary research also involved online questionnaires, face-to-face stakeholder interviews and knowledge exchange at relevant events. Exemplary case studies have been identified and visited, aligned with stakeholder interviews, for analysis. To date 29 responses to questionnaires have been received – surveys are open until early February 2026 – while desk-based research, interviews and case study visits are ongoing. Researchers are compiling findings into national reports outlining regulatory and technical frameworks, following a shared structure to support future comparability and applicability of results.

Events covered for knowledge exchange include (1) the Paris Rooftop Days 2025, a professional forum on regulatory and environmental frameworks + rooftop visits, (2) Green Roofing Workshop in Trieste, organised by the Italian Institute of Bioarchitecture. Addressing technical, regulatory, and design aspects of green roofs, (3) Four workshops for the GoNaturePositive project organised by the European Federation of Green Roofs and Living Walls and (4) Panel discussions on housing and urban retrofit in Seville and Madrid, focusing on community involvement, regulatory barriers, and policy impacts.

T1.2 Atlas of existing trends, barriers, solutions and stakeholder needs. Progress: 50%. UPM and UA conducted research of existing trends and solutions on related projects and scientific literature. State-of-the-art reports have been elaborated for photovoltaic pergola, perimetral wall and raised floor solutions. Collaborative documents are kept updated with information related to rooftop uptake initiatives, market solutions and scientific publications related to aRTes field of interest.

T1.3 Assessment of rooftop potential and co-design process modelling. Progress: 20%. Impacted by delay of Greek National Agency in preparing the grant agreement. Researchers have now scoped data availability for performing GIS analysis, and collated dataset for selected cities. Initial data quality assessment has been performed, experimenting with machine learning models and manual digitalization to compare different methods and results to achieve results expected on D1.3 Rooftop Potential Assessment.

T1.4 Consultancy toolkit. Progress: 20%. This task functioned as the main conductor of all other WP1 tasks. Regular meetings were held to set goals and requirements for precedent tasks, to be incorporated into a comprehensive guide for public administrations. Production phase of the task has been postponed, starting on M15, to allow for required studies to be completed and compiled in the D1.4 deliverable.

## **WP2. Physical solutions towards new ways of using rooftops**

T2.1 LCA & Circularity. ECO received the initial bill of materials from all partners regarding modular roof solutions, beginning LCA analysis and presenting preliminary results to UPM on T2.2 Perimetral Wall. During M13, individual reports will be issued to each partner, and the decarbonization and circularity recommendations contained in these reports will be considered by the respective design teams.

T2.2 Perimetral Wall. UPM has produced state-of-the-art analysis of perimetral wall retrofit solutions, concluding that integrated NBS-BIPV solutions are currently not available on the market or at research stage, showing great potential for innovation. D2.1 Design of the solutions report has been produced outlining the results of the preliminary research and the proposed schematic design for the next phase.

T2.3 Photovoltaic Pergola. UPM has produced state-of-the-art analysis of PV pergolas, finding solutions at TRL 3-4 that incorporate NBS and BIPV solutions, however not available as market products, therefore showing potential for development on TRL 5-6 and beyond. In collaboration with Roofscapes, D2.1- Design of the solutions report has been generated, outlining preliminary research results and the proposed schematic design.

T2.4 Rooftop Access. RSS worked on access systems that connect building interiors with outdoor spaces. Q1 2025 served to define design intentions. Q2 and Q3 focused on design iterations and detail development. Q4 marked the implementation of a first prototype featuring a staircase that goes through a zinc roof, with waterproofing details and a movable skylight enabling physical access. The prototype's testing period begins Q1 2026 while additional prototypes are being developed.

T2.5 Raised floor. Progress: 40%. UAveiro is progressing according to schedule, despite the Portuguese agency initial three-month approval delay. The preliminary design develops an innovative multifunctional modular raised floor system integrating flooring, green roof, and photovoltaic functions, with technical specifications defined according to project requirements. Report elaborated as part of D2.1 with the preliminary design of the *raised floor* solutions and respective technical specifications.

## **WP3. Rooftop innovation digitalisation**

T3.1 Urban microclimate simulation. ECO worked closely with UPM to establish selection criteria for building case studies. Furthermore, in replacement of BKG's expertise on green solutions, ECO has worked on state-of-the-art analysis of green roof solutions. This report will serve as the baseline for microclimatic simulation.

T3.2 Rooftop renovation collaborative design tool. Solution design and main functionalities produced by UPM. Mockup development ongoing by TDev. Working session was held in Perugia on Nov.10th to refine design requirements. Current challenges include creating a comprehensive 3D furniture and elements library to enable full rooftop design and ensuring platform access and sharing capabilities among neighbors. Upcoming actions: tracking mockup evolution and developing the Minimum Viable Product (MVP) to validate usability and collaborative features.

T3.3 Safe rooftop planning and use / socio-technical monitoring. Solution design and main functionalities produced by UPM. Mockup development ongoing by TDev. Key challenges for next phase involve

implementing a booking method for rooftop use and integrating socio-technical monitoring features. Upcoming actions include tracking mockup evolution and developing the Minimum Viable Product (MVP) to ensure safe, user-friendly rooftop planning and management.

T3.4 3D Virtual Tours and Digital Twins. Task successfully re-focused while maintaining the original commitment from R2M, TDev, ECO, and UPM substituting VUrb, to achieve initial goals without budget or person-month changes. Task will develop an advanced 3D digital twin of a reference rooftop, maximizing educational and operational values of the solution. The “Fonderie Ozanam” site in Turin has been selected as the official Italian pilot, and its suitability for this demonstration is confirmed through initial site visits. In addition to the site selection, a definitive agreement has been reached to execute a specialized 3D scan of the entire rooftop area.

T3.5 Holistic Rooftop Dataspace Integration Middleware. Currently under development by TDev. Designed to enable monitoring, control and management of rooftop assets, ensuring scalability, flexibility and reliability, integrating heterogeneous digital resources deployed on rooftops and making them available for internal reuse or exposure to external services. The first fully integrable release is planned for June, in line with the project schedule.

#### **WP4. Drone-ready rooftops**

T4.1 Existing legal and technical barriers for drone flights in urban areas. Task completed by UPM. Report D4.1 consolidates European and national regulations governing drone operations in urban environments, focusing on safety, privacy, and airspace integration under EASA’s framework. It reviews key acts, national and EU regulations and national adaptations in Spain, France, Italy, Greece, Cyprus, and Portugal. The analysis identifies regulatory challenges -fragmentation, privacy concerns, and liability—as well as technological barriers like navigation reliability, BVLOS limitations, and infrastructure gaps. A SWOT analysis highlights rooftop potential for drone operations and associated risks. These findings will guide subsequent WP4 tasks on GIS mapping, control prototypes, and business models.

#### **WP5. Urban food services and platform**

T5.3 - Democratizing Rooftop Development: A GenAI Tool for Simplified Legal Navigation. R2M developed a prototype of **AI Expert Chatbot** as a 24/7 consultant to simplify the technical and regulatory complexities of building green rooftops. By utilizing a knowledge base from UCY and Turin pilot research, the tool provides accurate, plain-language answers strictly grounded in official documentation. To ensure scientific reliability, the system avoids speculation and is currently optimized for Turin’s specific climate and building codes. This pilot serves to validate the technology using real-world data and expert oversight before broader application.

#### **WP6. Pilot Validation and Lessons Learned**

This work package is expected to start in M12, according to the initial schedule of the proposal.

#### **WP7. Communications, stakeholder outreach, innovation and exploitation management.**

UCY, WP7 communication leader, coordinated project-wide communication and stakeholder engagement. A key milestone was the development of the **Dissemination and Communication Plan (D7.1)**, which outlines communication objectives, target audiences, tools, key messages, timeline, and branding strategy. UCY developed the project’s visual identity and templates for consistent communication. In **May 2025**, the [official website](#) and social media accounts were launched, followed by **18 posts** aligned with an editorial calendar. The biannual newsletter series began with **Newsletter #1 (June)** introducing the project and **Newsletter #2 (November)** highlighting early developments and pilot activities. Internal tools such as a dissemination of contact lists and shared content calendar were established. Stakeholder engagement has been initiated through the mapping of relevant groups, coordinated with other WPs, and integrated into the communication strategy. As the pilot activities progress in 2026, this strategy will shift towards active co-creation, with local workshops and targeted on-site communication planned.



## **WP8. DUT Knowledge Hub**

UPM participated in the three KH sessions organized by DUT leadership, contributing to the generation of know-how in the CUE Transition Pathway through collaborative online sessions with other DUT projects.

## **3. IMPACT**

### **3.1 Impact of the Project** (max. 1.5 pages)

- **What is your project's contribution to urban transitions (societal, economic, cultural and environmental changes) that you would like to highlight as an achievement so far?**
- **How is that linked to the DUT Roadmap<sup>1</sup> and to the DUT Transition Pathway(s)? Please ensure consistency with your answer on *Contribution to the Transition Pathway Missions* in the Online Survey.**
- **What is your project's expected impact in a long-term perspective, both in terms of urban transitions and regarding the DUT Roadmap and the relevant Transition Pathway(s)? Which actions do you plan to take for reaching the expected impact?**

*[INFO: Be as concrete as possible, for example: "establishing a good citizen interaction with the urban planning department in terms of gentrification" or "municipality is using a strategy or an app for upkeeping the green in the city".]*

### **1. Contribution to green and social urban transition by fostering a widespread transformation of rooftops, including tailored guidance to public administrations, the development of key physical and digital solutions and dissemination and piloting activities to maximize the impact of the project. RELATED TO DUT TOPICS: CUE T1, CUE T3, PED T2**

WP1 research has strengthened the project by grounding it in a robust comparative understanding of the regulatory, technical, and social conditions shaping rooftop transformation across Europe. Participation in international events and professional workshops has enabled early validation of challenges and opportunities related to rooftop retrofit, fostered collaboration with key stakeholders, and informed the identification of regulatory barriers and enabling frameworks. In parallel, the targeted questionnaire gathers expert insights that help quantify rooftop potential, map viable uses, and assess existing solutions and limitations. These actions underpin the development of an evidence-based methodology for assessing rooftop potential while embedding co-design processes that actively involve professionals, citizens, and institutions. This integrated approach enhances the feasibility, relevance, and scalability of innovative rooftop solutions aligned with sustainability, resilience, and European policy goals.

Progress on Task 3.4-3D Virtual tours & Digital Twins -supports aRTes implementation across all current and future pilot projects. More specifically, the dual-scenario models—the "As-Is" scan and the "To-Be" virtual reality model—will serve to showcase aRTes innovations to stakeholders and the wider public, providing a compelling vision of the project's potential.

The work outlined in T5.3 contributes to urban transitions by making green roof knowledge accessible through a specialised Smart Expert Chatbot. It simplifies complex regulations and technical standards, empowering citizens and building owners to adopt nature-based solutions. This aligns with the DUT

---

<sup>1</sup> Document can be found at <https://dutpartnership.eu/wp-content/uploads/2022/09/DUT-Roadmap-2022-komprimiert.pdf>



Roadmap and the Green Regenerative Cities and Inclusive Urban Governance Transition Pathways by supporting climate-resilient design and transparent access to expert information. Long-term, the project will expand the validated knowledge base, with the support of local partners, integrate the tool into local platforms, and collaborate with experts to ensure lasting impact.

**2. Provision of social services for vulnerable populations offering an adapted, proximity open space for residents, and enhancement of community cohesion through co-design and space sharing practices, facilitated by dedicated technological solutions and improvements to physical infrastructure.** RELATED TO DUT TOPICS: **CUE T1, CUE T3**

The digitalization tools of WP3 aim to support the design, use and management of rooftops as key assets for regenerative urbanism, green infrastructure development and transition to renewable energy. The **Design Tool** enables a multiparametric and multifaceted configuration of rooftops, supporting transparent, dynamic and collaborative co-design processes that incorporate technical constraints and community sensitivities. It's focused on the **CUE** approach, promoting solutions such as PV pergolas, green infrastructure and shared rooftop gardens. The **Safe Rooftop Planning and Use Tool** supports simulations and calculations related to rooftop safety, including structural loads, wind effects and occupancy conditions, as well as continuous monitoring of rooftop usage, access management and automated alerts in case of detected risks, contributing to safer and more resilient rooftop environments. In parallel, the **Social KPI Tool** is being developed to assess the social impact of rooftop interventions, collecting user feedback and perceptions to support planners during the design phase and public authorities in evaluating urban regeneration initiatives. All tools are integrated through the **holistic rooftop data integration middleware**, which ensures interoperability, monitoring, security control and overall livability of rooftop spaces.

**3. Improvement of existing building's Energy Efficiency, Carbon Emissions Reduction & Improved Indoor Comfort by means of new physical solutions aimed at improving thermal insulation levels, heat and water retention at rooftops, and innovative BIPV systems to produce clean, local energy.** RELATED TO DUT TOPICS: **CUE T3, PED T2**

The state-of-the-art research regarding physical solutions that will enable the transformation of rooftops, has uncovered a space of opportunity and significant potential for innovation in the combination of nature-based solutions with building-integrated photovoltaics for various components of the rooftop, such as PV pergolas, perimeter walls and raised floors. After completion of the concept design phase, the project is preparing to take these innovations to the prototyping phase. aRTes physical solutions are considered a key facilitator of rooftop transformation, as they allow to overcome existing technical challenges and provide safe, energy-efficient, affordable and attractive shared spaces.

**4. Reducing street-level urban mobility, by developing urban drone delivery studies and methodologies in relation to rooftop spaces, to assist municipalities in the implementation of this new model that will reduce dependency on road transportation for delivery and logistics.**

RELATED TO DUT TOPICS: **15mC T1**

Research carried out on WP4 confirms that rooftop drone operations offer significant potential to transform urban logistics, security, and emergency response. Advantages such as accessibility and strategic location make rooftops an attractive option, while opportunities in deliveries and surveillance highlight their versatility. However, weaknesses such as structural limitations and regulatory hurdles, along with threats like public opposition and technological obsolescence, require careful management. By addressing these challenges through strategic planning, stakeholder collaboration, and technological innovation, rooftop drone operations can become a cornerstone of urban air mobility, generating substantial benefits for cities worldwide.

**5. Increase the Circularity and Sustainability of existing buildings, transforming them into energy and food producers, enabling a local sustainable way of life that reduces organic, rainwater and resource waste, while ensuring all new infrastructure is built to the highest circularity standards.** RELATED TO DUT TOPICS: **CUE T2**

Prospective urban studies carried out on WP1 and WP3 show a significant potential for intervention on existing urban rooftops, that would extend the lifespan of buildings and align them with this projected impact. Data from Spanish statistics suggest that an estimate of 29% of residential buildings would be eligible for a rooftop retrofit according to aRTes principles. Numbers across southern European countries are expected to be at the same levels (Italy) or above, where flat rooftops are even more prevalent (Greece, Cyprus). Forecasted prospective work in the following months will provide an accurate estimate of the projected income thanks to GIS urban analyses.

### **3.2 Scaling, Replication and Mainstreaming** (max. 2 pages) - *only for the Final Project Report*

- **Which of your innovative solutions (product / service / process / policy / social innovations) could be mainstreamed / replicated / scaled-out by cities, businesses or other stakeholders?**
- **Which of these innovative solutions could change citizens' behaviour/mind-sets, and how?**
- **Which of these innovative solutions could make an impact on different governance levels / system level if taken up by policymakers and used for political decisions, new/adapted regulations, etc.?**

*[INFO: Think about what your project could possibly achieve within 5-10 years, for example: more integrated transport systems, more localised economies, improved resilience and adaptation to extreme events, inclusive societies with respect to migration and ageing.]*

Non applicable.

### **3.3 Interdisciplinarity / Transdisciplinarity** (max. 0.5 page)

**Did any new insights arise because of the interdisciplinary or transdisciplinary setup of your project?**

*[INFO: For example: using a methodology from another discipline; engaging non-academic partners, e.g. civil society, local governance, or business actors, in project activities / tasks]*

The nature of a large (6 countries) and regional (Mediterranean) consortium implies significant interdisciplinarity and transdisciplinarity among many partners, skills and teams, organized with a single target: improve rooftops livability.

The work carried out in WP1 and WP2 on the regulatory and technical landscape integrated architecture, engineering, policy, and social research through participation in workshops, conferences, and technical studies on rooftops. In parallel, it advanced transdisciplinarity by engaging municipalities, industry actors, and civil society through professional questionnaires and promotional material.

Regarding WP3 and WP5, the project adopts an interdisciplinary approach by combining expertise in digital tools, urban design, safety engineering and social impact assessment. To strengthen the transdisciplinary dimension, interaction with the working group responsible for Social KPIs has been intensified, ensuring that citizen and user feedback are effectively incorporated into the monitoring and evaluation tools.

In relation to WP4, the very concept of Urban Air Mobility constitutes a framework in which different actors are involved, intervening in the social, regulatory, and technological ecosystem of society, and particularly in the urban sphere. The application of this new logistics mobility to the use of rooftops and

urban buildings as protagonists of a new, efficient, and future-oriented use is therefore an example of where different disciplines and technical and urban planning concepts can coexist in the search for innovative solutions.

### **3.4 Experiences from Experimental Approaches, like ULL (if applicable)** *(max. 1 page)*

**Describe your activities and experiences from experimental approaches, like Urban Living Labs (ULL), that can facilitate the co-design of radical transitions towards greater liveability in urban areas. How did you engage different target groups, such as local public administrations and residents, businesses, NGOs, civil society organisations, and more?**

Experimental approaches have emerged and are planned in the aRTes project through the combination of real-world testing, participatory engagement, and iterative knowledge production. Key experiences include exposure to experimental green roof infrastructures, such as performance monitoring laboratories and rainwater testing facilities, which provide empirical data on ecological, technical, and climatic performance under realistic conditions. Public rooftop openings and guided activities function as living laboratories, allowing observation of social use, accessibility, and user interaction. In parallel, the structured questionnaire operates as a socio-technical experiment, testing assumptions about rooftop potential, regulatory constraints, and stakeholder priorities across diverse European contexts. The iterative compilation of findings into comparable national reports further supports experimentation by enabling cross-case comparison and refinement of assessment frameworks. Together, these approaches allow aRTes to test, validate, and adapt design, regulatory, and co-design methodologies on site, supporting evidence-based and scalable rooftop transformation strategies.

During the current reporting period, initial interactions have started with the municipalities of Madrid and Turin, focusing on understanding local contexts, rooftop typologies and potential use cases. Although the experimental phase is still at an early stage, these exchanges represent an important step toward the validation of project concepts in real urban environments. Future activities will aim to strengthen collaboration through more structured engagement, including joint definition of pilot scenarios, alignment of technical requirements and identification of priority rooftop use cases (e.g. Food production in Turin). Additional interaction with other stakeholders will be explored to enrich the experimental framework and ensure that the developed tools respond to practical needs. Lessons learned from these early engagements will inform the refinement of methodologies and support the preparation of subsequent pilot activities.

All aRTes Constructive solutions on WP2 have strong experimental approaches on the physical models design to be developed as initial prototypes, that will facilitate the transitions towards greater livability of rooftops.

The concept of utilizing rooftops as essential elements for incorporating them into the last-mile logistics chain in cities is inherently a completely innovative approach. Given the lack of precedent, the entire development and study process constitutes an example of experimental development. The introduction of air mobility in European cities is supported by the **U-Space** concept, which is currently being implemented. While the objectives of the **WP4** package are being met, a series of regulations, standards, and technologies are being deployed in various European countries to enable Urban Air Mobility (**UAM**). All the experimental content being developed within **aRTes** regarding the use of rooftops for this purpose has an initial theoretical phase, although it is entirely focused on something truly innovative. As we progress through the different parts that make up the entire project, we will introduce completely experimental approaches that will lead us into the implementation of a new mobility that has not been used until now and that will bring numerous advantages in improving the sustainability and inter-mobility of cities.

## 4. DISSEMINATION AND COMMUNICATION ACTIVITIES

Please describe in what way you promoted dissemination and implementation of the results to the scientific community, policymakers, urban actors as well as citizens/general public and in what way you created new market opportunities?

### 4.1 Description of dissemination / communication activities (max. 1.5 pages)

Highlight your most important dissemination or communication activities (1 to 3 activities) and how they have contributed to achieving your project goals in more detail. Write the text as a short story:

- **Introduction**
- **What has been done concretely?**
- **Result(s) from these actions**

[INFO: If applicable, please include information on the following: Type of activity (see activity types below), website/social media page used, target group(s), number of participants, aim of the activity, what are the main takeaways or resulting effects, describe any impact from your activity obtained through follow-up you did (media reach, feedback, change in perspectives, attitudes, type of users, etc.), next steps or a lesson learned.]

Work Package 7 (WP7) Dissemination, Communication & Stakeholders' Engagement focuses on establishing visibility, stakeholder engagement, and ensuring long-term impact for the aRTes project. During the first year of implementation, activities focused on establishing a strong and coherent project identity, setting up core communication channels, and initiating outreach actions across European and local contexts. UCY, as the WP7 leader, has been responsible for coordinating project-wide communication, visibility, and stakeholder outreach across the consortium, ensuring consistency, alignment with the project objectives, and compliance with DUT communication requirements.

#### What has been done concretely?

##### 1. Establishment of core communication tools and project identity

During 2025, WP7 prioritized the development of the project's foundational communication infrastructure. This included the preparation of the **Dissemination and Communication Plan (Deliverable D7.1)**, which defines objectives, target audiences, key messages, tools, timelines, and responsibilities across consortium. In parallel, UCY coordinated the creation of the project's visual identity, including logo, color, palette, typography, and templates for digital communication. These assets were shared with all partners to support consistent dissemination at both EU and local levels. In May 2025, the project launched both its [official website](#), the central hub for public information providing an overview of project objectives, partners, pilot cities, and ongoing activities. In addition, official social media accounts on [Instagram](#) (31 followers so far) and [LinkedIn](#) (231 followers and 98 subscribers) were activated to reach professional audiences, urban stakeholders, and the general public. Since then, UCY has coordinated and published a total of **18 original posts**, aligned with an editorial calendar designed to ensure thematic coherence and regular visibility.

##### 2. Digital dissemination and newsletter communication

The project launched its **biannual newsletter series**, scheduled for distribution **twice a year** throughout the project's duration. In 2025, two editions were successfully published and shared across the consortium and external stakeholders:

- [Newsletter #1](#) (June 2025) introduced the project, the consortium, and the pilot cities.

- [Newsletter #2](#) (November 2025) highlighted early developments, co-creation methodology, stakeholder mapping, and upcoming pilot activities.

Content was collected from all partners, edited centrally by UCY, and disseminated through social media channels to keep stakeholders informed and engaged. with 254 followers and 98 subscribers. Additionally, the aRTes website regularly publishes [articles](#) highlighting the project's importance, progress, and key milestones, and will continue to do so throughout the entire duration of the project. To facilitate internal communication, UCY compiled the aRTes Dissemination Contact List, ensuring that each partner nominated a responsible person for dissemination and communication. This supports timely collaboration, particularly in the preparation of newsletters, press releases, and local promotion.

### 3. *Participation in events, conferences, and stakeholder-facing activities*

Consortium partners actively contributed to dissemination through participation in conferences, workshops, policy discussions, and professional events across Europe. Notable examples include participation in sustainability and built environment conferences, green roof and urban regeneration workshops, academic teaching activities, DUT network events, and policy-oriented panel discussions:

Site visit to the Torino pilot at Fonderie Ozanam (3 March 2025) / Second site visit to the Torino pilot at Fonderie Ozanam (16 May 2025) / Participation in the workshop "The Integration of Green Roof Landscapes into Architecture" (21 May 2025) / Organization and participation in the Sustainable Places Conference 2025, Milan (8–10 October 2025) / Completion of a state-of-the-art review on stormwater retention performance of green roofs (analysis of 2,692 samples across 24 countries) / Dissemination activity related to Madrid's Special Plan for Green Roofs (May 2025) / Presentation of the aRTes project as a case study at the Master in Climate Change Management, UNED / Preparation of a collaboration agreement with UNED for the development of the circularity index (WP2-related) / Participation in Paris Rooftop Days 2025, including conferences, professional meetings, workshops, and public rooftop visits (26–28 September 2025) / Launch of the aRTes stakeholder survey with French stakeholders during Paris Rooftop Days / Participation in the New European Bauhaus Sur+ Meetings, Seville (8 October 2025) / Participation in a panel discussion on housing retrofit challenges at Espacio Arquia, Madrid (5 November 2025) / Participation in a Green Roofing Workshop organised by the Italian Institute of Bioarchitecture (June 2024 – referenced as background activity) / Initiation of collaboration with the European Federation of Green Roofs and Living Walls (EFB) / Dissemination of Madrid's Plan Regenera Madrid urban regeneration strategy (March 2025) / Organisation of the aRTes Executive Meeting & General Assembly (second half of 2025) / Participation of the Project Coordinator in the NESI Proximity Week Forum (September 2025) / Participation in the Ecómetro–LCBI Partnership Event at COAM Colegio Oficial de Arquitectos de Madrid (23 October 2025) / Participation in the DUT Knowledge Hub Workshop – Circular Urban Economies (7 November 2025) / Participation and presentation of the aRTes project at the DUT Projects Event 2025, Milan (30 September – 1 October 2025) / Engagement with the DUT Knowledge Hub and cross-project discussions on CUE.

### **Result(s) from these actions**

The 1<sup>st</sup> year of WP7 implementation successfully established the foundation for effective dissemination and communication. Core tools are operational, visual identity, and regular digital communication is in place. Early engagement events and newsletters has increased awareness of the aRTes project and positioned it within relevant scientific, professional, and policy networks. With the official website and social media channels under continuous update, WP7 has successfully laid the groundwork for a strong digital and institutional presence. With all foundational deliverables in place, regular content dissemination, and two newsletters already issued, WP7 is well positioned to scale up in 2026, making dissemination efforts more targeted, impactful, and locally relevant in the second year of the project.

## **4.2 Provide statistical data on your dissemination / communication activities**

**In reference to chapter 4.1, please specify the (estimated) number of dissemination and communication activities linked to your project for each of the following categories. For the evaluation it is important that you only enter numbers:**

**Communication activities**

- Event (conference, meeting, workshop, internet debate, round table, group discussion, etc.): >15
- Exhibition: n/a
- Interview: n/a
- Media article: n/a
- Newsletter : 2 biannual editions
- Print materials (brochure, leaflet, posters, stickers, banners, etc.): 1 poster
- Social media : Instagram & LinkedIN accounts, 18 posts
- TV / radio campaign: n/a
- Press release: Press & online articles (including partners websites: >10
- Other communication activities: n/a

**Dissemination activities**

- Clustering activities: 2
- Collaboration with EU-funded projects: 2
- Conferences: 3
- Education and training events: 1
- Meetings: 4
- Other scientific collaboration: 2

**Specify the (estimated) number of persons reached, in the context of all dissemination and communication activities, in each of the following categories:**

- Industry, business partners: 100
- Innovators: 80
- Investors: 20
- EU Institutions: 60
- National authorities: 70
- Regional authorities: 90
- Local authorities: 120
- Civil society: 200
- Citizens: 400
- Research communities: 300
- Specific end user communities: 150
- International organisation (UN body, OECD, etc.): 40
- Other: 50

**5. OUTLOOK** (*max. 1 page*)

**Only for annual reports:**

**Describe the work planned for the next reporting period, structured according to the work packages. Discuss envisaged changes as compared to the original work plan, if any, reflecting the deficiencies, risks and bottlenecks described in Chapter 2.2.**

**Only for final reports:**



➤ **Follow-up Investments and Opportunities**

**Based on your previous responses in the Online Survey (under *Follow-up Activities*), how has your participation in the DUT Partnership:**

- **Facilitated further investments or funding opportunities to expand your project activities?**
- **Created follow-up opportunities with new partners, organisations, or networks?**
- **Opened new perspectives or innovative approaches that could help transform urban areas?**

➤ **Impact on Future Research and Innovation (R&I) Work**

**What has been the most beneficial impact of participating in the DUT Partnership on your future research and innovation work? Please consider aspects, such as:**

- **Enhanced knowledge, expertise, or capacity-building for future projects.**
- **New collaborations, partnerships, or networks that have emerged.**
- **Any other significant outcomes that you attribute to your involvement with the DUT Partnership.**

**WP1 Deliverables:** D1.4 Consultancy toolkit (M18) / D1.3 Rooftop potential assessment tool (M24)

WP1 will consolidate and expand the foundations for rooftop retrofit projects, refining the consultancy package with the identified trends, barriers, solutions, and stakeholder needs, GIS analysis outcomes and visits to best practice case studies. Actions will include stakeholder visits, collaborative sessions, and cross-country exchanges to enhance validation, comparability, and co-design readiness, preparing the ground for prototyping, testing, and scalable implementation across partner contexts.

**WP2 Deliverables:** D2.1 Design of the solutions (Update) (M16) / D2.2 First prototypes & BIM model, D2.3 LCA & circularity analysis (Update) (M18) /D2.4 Technical documentation & prototypes (M24)

Design development phase will extend to M16, including contact with industry partners and consultants to refine solutions and produce initial scaled-down prototypes. Development will culminate in M24 with the production of the technical documentation that will enable real-life implementation of prototypes on the pilot project, expected to be finalized on M30.

**WP3 Deliverables:** D3.1 Urban microclimate simulation (M18) /D3.2 Prototype of rooftop codesign tool, D3.3 Prototype of rooftop occupancy tool, D3.4 3D models & Digital Twin prototype (M24)

Case study analysis will begin on T3.1, providing first results on M14 and final report on M18. On T3.2 & T3.3, main app functionalities and design goals are established, mockup presented and functional analysis done. Software development will start on M13. KPIs selection is in progress, and the development of the user feedback collection tool begins M14. Outlook for T3.4 includes the 3D scan of Fonderie Ozanam rooftop on M13 and "as-is" model scheduled for M24, to be populated with rooftop renovation insights and real time data from sensors. Contextual information will be collected to enrich the model and prepare the virtual scenario. Collaboration with TDev will be strengthened for integration of IoT hardware. Internal development will be focused on developing ICT solutions that will enable the model's interactive web interface and robust back-end functionality.

**WP4 Deliverables:** D4.2 Prototype of Drone Rooftop manager (M18)

WP4 aims to integrate rooftops into the urban air mobility ecosystem. To this end, a model is being developed to assess the potential of each building for this use, allowing for the design of a typical topology that will generate a methodology for establishing the usage values of each rooftop.

**WP5 Deliverables:** No deliverables expected for Y2. Draft versions for D5.1 (M30) and D5.2 (M36)



Next steps include distributing the tool online for consortium testing, gathering structured feedback from Alpha/Beta users, and refining responses. The tool will, expand to Italian, Greek and Spanish contexts, and prepare for a public launch by embedding the tool into the project website.

**WP6 Deliverables:** D6.1 Piloting plan & evaluation protocol (M18)

WP6 kicks-off on M13 with the goal of reaching Milestone 4 on M24, going through selection, approval by stakeholders and permitting of physical implementation on pilot projects. Currently, pilots in Madrid, Spain (General Consortium Pilot) and Torino, Italy (WP5 Pilot) are scheduled, however selection remains open to additional candidates.

**WP7 Deliverables:** D7.3 Scientific Dissem. & Comm. Plan and activities, D7.4 Exploitation plans (M18)

WP7 will focus on targeted dissemination of aRTes pilot activities and emerging results through website and social media, ensuring implementation of Dissemination and Communication Plan, with content structured around technical progress, pilot implementation, and co-creation activities. The biannual newsletter series will continue, linked to concrete outputs and local stakeholder engagement actions. At European level, active engagement with the DUT network and relevant knowledge-exchange platforms will be maintained.

**WP8 Deliverables:** *No deliverables are planned for Year 2. D8.1 report will be produced at M36.* aRTes Knowledge Hub expert will continue to participate and provide input in KH activities.

## **6. PROJECT ORGANISATION AND MANAGEMENT** *(no page limit)*

**Please provide information on coordination activities during the reporting period, such as communication between project participants, possible cooperation with other projects etc.**

**Have changes occurred in terms of project organisation and management in the reporting period?**

YES - please explain:

### **6.1 PROJECT ORGANIZATION:**

aRTes project kicked off in January 2025 on a reduced capacity, with only four of the ten co-applicant partners (RSS, UCY, UPM, ECO) able to contribute on full capacity due to delays on funding and/or hiring approval by their respective national agencies or institutions. Funding for two partners VUrb (ES), BKG (FI) was subsequently denied, and the remaining partners were able to join the project progressively, as stated in the list below:

Nov 2024 – Roofscapes (RSS)

Dec 2024 – University of Cyprus (UCY), Ecómetro (Eco)

Jan 2025: Universidad Politécnica de Madrid (UPM), , R2M Solution (R2M), TeamDev (TDev)

February 2025 – University of Aveiro (UA)

April 2025: Ecometro incorporate 1 doctorate into their team

May-Aug 2025 – UCY incorporates 7 researchers

Sept 2025 – InfoDim (InfoD). UPM incorporates 3 researchers. UCY incorporates 1 researcher

Oct 2025 – UA incorporates 1 researcher

Nov 2025 – UCY incorporates 1 researcher

The staggered kick-off allowed nevertheless to begin work as planned for all WP except for WP5, which had to overcome a major reorganization, due to the unsuccessful funding approval of co-applicant BKG. This led to substantial delay on the WP; however, the consortium has managed to reorganize the project schedule to meet both the original goals and the overall project deadline. A full description of the re-focused WP5 is provided below.

Co-applicant VUrb didn't get funding approval and was substituted by UPM as leader of T1.3 of WP1, T3.2 & T3.3 of WP3 and T4.3 & T4.4 of WP4 without modifications to the tasks, while other team members such as UCY, InfoDim, TeamDev and Eco provide the required expertise in the fields of GIS and urban analysis. Co-applicant ALWA didn't get funding approval and was substituted by TeamDev as software specialist in WP3 and WP4.

Below is the final list of project partners and their respective roles, described as follows:

**Name of Organisation**-[Country]-[Role]-[Type of Organisation]-[Type of Partner]-[Funding agency]

- **Universidad Politécnica de Madrid (UPM)**-[Spain]-[Project Coordinator / Main Applicant]-[University]-[Funded]-[AEI]
- **University of Aveiro (UA)** -[Portugal]-[Co-Applicant]-[University]-[Funded]-[CCDR-C]
- **University of Cyprus (UCY)** -[Cyprus]-[Co-Applicant]-[University]-[Funded]-[RIF]
- **Ecómetro (Eco)** -[Spain]-[Co-Applicant]-[Business-SME]-[Funded]-[CDTI]
- **Roofscapes Studio (RSS)** -[France]-[Co-Applicant]-[Business-SME]-[Funded]-[ADEME]
- **TeamDev (TDev)** -[Italy]-[Co-Applicant]-[Business-SME]-[Funded]-[MIMIT]
- **R2M Solution (R2M)** -[Italy]-[Co-Applicant]-[Business-SME]-[Funded]-[MIMIT]
- **Infodim (InfoD)** -[Greece]-[Co-Applicant]-[Business-SME]-[Funded]-[GSRI]
- **Foro NESI (NESI)** -[Spain]-[Cooperation Partner]-[NGOs]-[Not Funded]
- **Community of Madrid (CoMAD)** -[Spain]-[Cooperation Partner]-[Public/Municipality]-[Not Funded]
- **City of Madrid (MAD)** -[Spain]-[Cooperation Partner]-[Public/Municipality]-[Not Funded]
- **Île-de-France Region (IFR)** -[France]-[Cooperation Partner]-[Public/Municipality]-[Not Funded]
- **CEREMA (CER)** -[France]-[Cooperation Partner]-[Public/Municipality]-[Not Funded]
- **City of Paris (PAR)**-[France]-[Cooperation Partner]-[Public/Municipality]-[Not Funded]

## 6.2 PROJECT MANAGEMENT

Overall, the project progress after the first year is aligned with the planned milestones and timeline, with the exception of WP5, as shown in the following description structured by work package.

Project organization and management tasks for the reporting year are part of Work Package 9, and have included the following milestones:

- aRTes project initiation (T9.1) in January 2025
- Consortium Agreement written by UPM and signed by all consortium members in March 2025
- Attendance to DUT Kickoff event in April 2025.
- Organization of 2 Executive Board & General assembly meetings on M5 & M12.
- Attendance to DUT Milano event on Sept.2025
- Creation and support of a dedicated aRTes server based on UPM services, for streamlined cloud collaboration between consortium members.
- Coordination, writing and submittal of DUT Annual Report.

Full description of revised tasks following the described team reorganization and additional development based on team capacities and project goals:

### **Work Package 3**

The workload in Task 3.4 (T3.4) has been re-shaped to refine the technical scope and maximize the educational and operational value of the resulting solution. To ensure maximum utility for all subsequent pilots and stakeholders, the consortium has clarified the development process for the **Advanced 3D Digital Twin for a Reference Rooftop Implementation** without modifying the allocated budgets or person-months for the partner teams (**R2M, TDev, Eco, and VUrb**).

Below is the new description of work for T3.4.

T3.4 - Development of an Advanced 3D Digital Twin for a Reference Rooftop Implementation [M5– M36]  
Lead R2M, Participants: TDev, Eco, VUrb. This task involves creating detailed, interactive, and immersive 3D models of a reference pilot rooftop including two scenarios: First, starting from a 3D scan of the original rooftop a digital twin will be created, with intuitive street-level navigation, enriched with comprehensive contextual information to highlight renovation challenges and opportunities. Second, a 3D virtual model of the rooftop will be developed and will showcase aRTes potential innovations, such as social spaces, greenery, PV pergolas, and raised floors. These models will serve as a key reference for aRTes implementation across all pilots and will be utilised for both advanced educational purposes and remote monitoring. The models will be hosted on a web application that will incorporate interactive features to display static information as well as real-time data (e.g., weather data) from the pilot rooftop, enabling users to explore the potential challenges and benefits of each integrated component.

#### **Deliverables**

**D3.1** Urban microclimate simulation tool (M18): tool ready to support assessment (WP1)

**D3.2** Rooftop co-design, occupancy & social tools (M24, M36): tool for pilot validation and final version

**D3.3** Holistic Rooftop Dataspace Integration Middleware (M18): full version ready for integrations

**D3.4** 3D virtual tour and Digital Twin prototype (M24, M36): Initial pilot model (M24) and final pilot model (M36)

### **Work Package 5: Urban Food Services and Platform - Rationale for Consortium Adjustment**

The workload in Work Package 5 (WP5) has been re-structured to accommodate the withdrawal of BlockGarden from the consortium. This situation, though unforeseen, has been managed through a coordinated re-allocation of tasks to maintain the scope and high ambition of the aRTes project. The remaining partners involved committed to undertake the work described without modifying their allocated budgets or person-months. This internal redistribution ensures the delivery of all planned activities by leveraging the complementary strengths of the remaining members, guaranteeing the expected scientific, technical, and societal impacts will not be affected. The consortium remains fully aligned and prepared to execute the tasks as initially envisioned.

To secure continuity, development tasks have been re-assigned to the leading technical and academic partners. The development of the Urban Food Platform (UFP) for site management and gamification (now New T5.2) has been transferred to TeamDev as the new lead, with critical support from R2M and UPM. This strategic move ensures the continuous technical delivery of the digital platform, which is essential for realizing the social and ecological benefits of urban farming on rooftops. The platform will still provide simplified management, real-time weather monitoring, Decision Support Systems (DSSs), and a 3D Digital Twin prototype showcasing real-time production, preserving the core technical functionality.

A critical adjustment involves the replacement of a former partner's specialized commercial offering with an innovative, high-impact digital product. To compensate for the loss of BlockGarden's specialized services for "urban farming start-up services" and the explicit "AI-enabled prediction and guidance tool" (Original T5.1 and T5.4), the consortium is introducing a cutting-edge new task: T5.3 - Democratizing Rooftop Development: A GenAI Tool for Simplified Legal Navigation. Led by R2M with contributions from

UPM and UCY, this tool directly addresses the project's overarching goal of overcoming complex legal and regulatory barriers, a key challenge identified in WP1.

This innovative Generative AI application is designed to translate intricate legal texts and local ordinances into clear, actionable information via natural language queries. This capability significantly enhances the societal impact of aRTes by democratizing specialized legal knowledge, fostering greater transparency, and promoting compliant, accelerated rooftop development among a wide range of end-users, including citizens, tenants, homeowners, and building managers. This deliverable, with a planned replication approach in key Mediterranean countries like Spain and Cyprus, is a robust substitution that delivers on the principles of empowerment and accessibility central to the New European Bauhaus initiative.

Furthermore, the integrity of core planning and integration activities remains paramount. The task dedicated to Streamlining the permission process (New T5.1, led by UPM with UCY) remains essential for simplifying administrative procedures for end-users and Public Administrations (PAs). Similarly, the Study of integration with aRTes constructive solutions and configurator (New T5.4, led by UPM with TeamDev, UA, and RSS) will continue to ensure the vital link between the digital tools and the physical elements of the project (perimeter wall, PV pergola, raised floor).

The remaining consortium members, comprised of top-tier academic institutions, technical SMEs, and research organizations, have the requisite multidisciplinary expertise to assume these new responsibilities efficiently. This decisive re-allocation not only preserves the total budget and person-months commitment but also introduces a higher-impact tool for regulatory guidance, ultimately strengthening the project's value proposition and ensuring its successful execution.

Below is the new description of work.

## **WP5. Urban Food Services**

### **T5.1 Streamlining the permission process [M6 – M24] Lead UPM, Participants: UCY.**

Analysis of existing regulations to define consultancy and digital support services to streamline paperwork and permit processes, simplifying regulatory compliance and administrative.

### **T5.2 Urban Food Platform (UFP) for site management and gamification [M6 – M30] Lead TDev, Participants: R2M, UPM.**

A digital platform for simplified management of vegetable gardens and green roofs, which offers tools for monitoring the real-time weather conditions necessary for the well-being of plants, ensuring their optimal growing conditions and DSSs enabling informed decisions ensuring optimal growth conditions for crops. A 3D digitalization of the pilot will be produced, a digital twin capable of showing the production of the vegetable garden and the development of the plants in the green area in real time, with the addition of educational labels and tags for real-time navigation. The digital platform will be tested and validated in the Italian Pilot. Through achievements and badges, users are motivated to actively participate in their gardening journey, fostering a sense of accomplishment and community belonging.

### **T5.3 - Democratizing Rooftop Development: A GenAI Tool for Simplified Legal Navigation [M6–M30] Lead R2M, Participants: UPM, UCY**

This task focuses on an innovative Generative AI (GenAI) tool to enhance understanding of complex regulations for rooftop utilization, including permissible installations like green roofs and urban gardens. Designed for diverse users (e.g., tenants, homeowners, building managers), *the interactive tool will translate intricate legal texts and local ordinances into clear, actionable information via natural language queries*. The core objective is to democratize specialized legal knowledge, empowering users with their rights and obligations. This will foster greater transparency, promote sustainable and compliant rooftop development, and facilitate informed decision-making in urban environments. The approach used in Italy will be shared and replicated in other countries in the consortium, in particular in Spain and Cyprus and lead to innovation at European level thanks to the aRTes project: facilitating end users' access to the laws governing the use and implementation of green roofs throughout Europe.



**T5.4 - Studying the integration with aRTes constructive solutions and configurator [M18 – M36] Lead UPM, Participants: TeamDev, UA, RSS.**

This task will study how the urban farming solutions can be physically integrated with the constructive solutions offered by aRTes (perimeter wall, PV pergola, raised floor). Finally, the urban farming services are integrated into WP3 configurator.

**Deliverables** (brief description and month of delivery)

**D5.1 Digital platform for management** [M30]. UFP prototype ready for validation

**D5.2 Democratizing Rooftop Development** [M36]: GenAI Tool for Simplified Legal Navigation

**D5.3 Preliminary design of integrated solutions** [M36]: a study for Urban Farming integration within rooftop regeneration projects

## **7. YOUR COMMENTS FOR THE DUT PARTNERSHIP** *(no page limit)*

**Do you have any comments for the DUT Partnership?**

n/a

## **8. ELECTRONIC SIGNATURE**


**This report is fully agreed among all partners of the project.**

**Date:** 30.01.2026

**Name of coordinator:** Ester Higuera, UPM

## **9. FORMALITIES CHECKLIST**

- All sections of this reporting template must be filled in and answered.
- Please submit the Project Progress Report / Final Project Report in .pdf format via the Online Project Monitoring System accessible at: <https://ffg.countit.at/#/login>
- In case of questions with regard to this reporting template, please send an email to the **Projects Contact Point:** [projects@dutpartnership.eu](mailto:projects@dutpartnership.eu)

 Please note that you can only fill in the form fields, all other content is blocked. For automatic evaluation purposes, please ensure that you submit the report as a **Word document**. You can submit a pdf in addition.