SmartUrbanity

Project Deliverable

D1.1 Technical and Financial Day-to-Day Management Strategy

Document Information

Version:	Version 1.4
Date:	12/09/2025
Status:	Final
Dissemination Level	Sensitive

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This project has been funded by MIMIT, NKFIH, BMFTR, TUBİTAK, Innosuisse, and ANR, under the Driving Urban Transitions Partnership, which has been co-funded by the European Commission.

Document Control

1.1. Version History

Version	Date	Description	Author(s)
0.1	13/06/2025	Initial version	Sevket Oguz Kagan Capkin and Davide Shingo Usami (CTLup)
0.6	11/07/2025	Second version	Sevket Oguz Kagan Capkin and Davide Shingo Usami (CTLup)
0.9	01/09/2025	First Review	Lukas Barthelmes (KIT)
1.1	06/09/2025	Second Review	Pelin Onelcin (EGE)
1.4	12/09/2025	Final Version	Sevket Oguz Kagan Capkin and Davide Shingo Usami (CTLup)

1.2. Distribution List

Organization	Recipient	Date
All Partners	Project Consortium	10/29/2025

1.3. Disclaimer

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Executive Summary

SmartUrbanity is an applied R&I project under the Driving Urban Transitions (DUT) Partnership, aiming to make the 15-minute city (15mC) a scientifically measurable, socially inclusive, and digitally actionable urban transformation model. It does so through an integrated suite of data-driven tools, real-world multi-city pilots, and a modular development architecture that balances technical complexity with urban and user realities.

This document defines the technical and financial day-to-day management strategy, implemented by Sapienza & CTLup under WP1, to ensure precise, traceable, and inter-operable execution of project objectives. It establishes the procedural and systemic basis through which SmartUrbanity's outputs are delivered, validated, and scaled across five cities.

This deliverable provides the operational technical and financial management strategy for SmartUrbanity in accordance with WP1 requirements described in the SmartUrbanity approved proposal. The D1.1 document defines coordination mechanisms, reporting structures, cost allocation methods, task responsibilities among beneficiaries, and synchronization between Work Packages, clearly mapped to official tasks and obligations.

The strategy is operationalized through three digitally interlinked components:

- Citizen Engagement App (CEA) – a mobile-first platform enabling geolocated behavioral data capture, trip annotation, and community-based feedback loops, built around privacy-preserving design and passive-active sensing fusion.
- Accessibility Analysis Platform (AA) – a geospatial decision tool calculating and visualizing multi-criteria accessibility surfaces using disaggregated data and mobility networks, linked to user profiles and inclusive KPIs (e.g., by gender, age, mobility impairment).
- Decision Support System (DSS) – a scenario engine integrating agent-based modelling (MATSim, mobiTopp), behavioural simulation, and AI-enhanced impact prediction, designed to assist municipalities in policy testing and infrastructure prioritization.

Each system is built and delivered using a Task Monitoring Model (TMM) framework: technical features are developed, tested, and deployed incrementally in verifiable units, linked to sprint logic and pilot integration plans. This ensures early utility, alignment with pilot capacities, and iterative responsiveness to urban-specific needs.

Given the complexity of operating across diverse institutional, infrastructural, and demographic contexts (Rome, Lyon, Zürich, İzmir, Karlsruhe), the project requires a

coordination framework that is not only compliant but scientifically and operationally robust. The management approach emphasizes:

- Function-level budget traceability using Functional Cost Units (FCUs)
- Cross-WP integration via sprint-linked validation cycles
- Change and risk management protocols that link decisions directly to TMM and pilot implications
- Continuous alignment of software, modelling, and field validation via a shared delivery logic

By treating "technical and financial management" not as administrative overhead but as a science of delivery, SmartUrbanity ensures that digital innovation leads to urban impact, grounded in rigorous methodology and daily execution clarity.

The technical and financial day-to-day management strategy adopted in SmartUrbanity is grounded in the principle of function-based execution management, wherein each unit of activity—whether development, deployment, or validation—is defined, tracked, and assessed as a discrete functional asset. Technically, this is achieved through a structured TMM architecture, in which all software and model components are modularized into testable, sprint-aligned units with verifiable outputs, pilot linkage, and interface dependencies. Financially, the strategy uses FCUs to map declared person-months and expenses directly to TMMS and WP deliverables, ensuring full traceability between resources consumed and outputs delivered. Sapienza & CTLup executes this strategy through an integrated management loop comprising: (i) agile sprint coordination, (ii) pilot-feedback synchronization, (iii) real-time budget monitoring via FCU trackers, (iv) milestone-gated budget release protocols, and (v) an escalation-capable change request workflow. The result is a dynamic, evidence-linked control structure that treats coordination not as static compliance, but as an applied operational science—ensuring consistency, accountability, and iterative alignment across modelling, tool development, pilot feedback, and policy relevance.