



METACITIES Excellence Hub in South-Eastern Europe

METACITIES Methodology and Implementation Plan

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1 Introduction

The METACITIES Joint Strategy represents an ambitious and multifaceted framework aimed at transforming urban environments in South-East Europe through coordinated efforts in research, innovation, digitalisation, sustainability, and social inclusion. The strategy, developed by the METACITIES Excellence Hub and its partner clusters, provides a methodological foundation and an implementation roadmap to guide the development and integration of advanced Smart City technologies and practices across different regions. At its core, the Strategy envisions more connected, efficient, resilient, and inclusive urban ecosystems, enabled by cutting-edge digital tools such as Digital Twins and Metaverse applications, robust infrastructure, and citizen-centred planning.

The methodology adopted in this strategy is not merely theoretical but operational. It begins with a foundational SWOT analysis, identifying the strengths, weaknesses, opportunities, and threats of each participating cluster region. This analysis is essential in understanding the local R&I landscapes, shaping a common understanding, and enabling the alignment of strategic goals across regional boundaries. The process culminated in the formulation of a shared vision: to enhance urban quality of life by integrating innovation, digital connectivity, data-driven decision-making, and sustainable resource use. This vision informs all other aspects of the Strategy. It is supported by a set of SMART goals (Specific, Measurable, Achievable, Relevant, and Time-bound) that address key sectors, including digital transformation, infrastructure development, sustainable economic growth, social inclusion, environmental resilience, education, and entrepreneurship.

The METACITIES Strategy identifies four Priority Areas that form the backbone of its thematic focus: A) Smart and Safe Mobility, B) Smart Environment, C) Smart Urban Planning, and D) Green and Climate Adaptive Resource Management. Each of these areas is cross-referenced with the Strategy's overarching goals and further broken down into clearly defined objectives. For example, within Smart and Safe Mobility, objectives range from creating real-time digital platforms for traffic management to promoting inclusive mobility options and fostering research and development in transportation technologies. In Smart Environment, the emphasis is on digitizing environmental services, advancing smart energy management, promoting eco-conscious behaviours, and developing green entrepreneurship. The Smart Urban Planning area focuses on leveraging digital mapping and IoT infrastructure to enable adaptive, sustainable development, while the Green and Climate Adaptive Resource Management priority champions climate-responsive technologies, renewable energy, and education for environmental sustainability.

Each objective is translated into specific actions that are categorised and mapped across METACITIES Work Packages (WPs). These actions include deploying sensors and IoT infrastructure, creating digital platforms for citizens and decision-makers, offering training and skills development, building smart energy systems in public buildings, fostering start-up ecosystems, and funding R&I in areas like urban mobility and circular economy. The implementation of these actions follows a phased approach, progressing from pilot studies to large-scale deployment, depending on the readiness of technologies and local contexts.

A central feature of the METACITIES methodology is its focus on stakeholder engagement using the Quadruple Helix model (government, academia, business, civil society). The Strategy emphasises the importance of raising awareness, enabling co-creation, validating interventions, and ensuring the adoption of solutions through collaborative governance. This ensures that local communities are not passive beneficiaries, but active contributors to urban innovation. The plan also foresees a robust monitoring and evaluation (M&E) framework based on KPIs that track performance, impact, and

progress across thematic areas. M&E is not only seen as a tool for accountability but as a mechanism for adaptive learning and iterative improvement throughout the lifecycle of the Strategy.

Another key pillar is the emphasis on infrastructure and resource mobilization. The Strategy identifies the need for deploying financial, human, technological, and physical resources efficiently. Financial resources include leveraging EU structural funds, national budgets, and private investments. Human resources are to be cultivated through training, education, and partnerships, while physical and technological infrastructure, such as IoT networks and Digital Twin platforms, are critical for data generation, analysis, and service optimization.

Education and skills development are also at the heart of the Strategy, recognizing that technological transformation cannot succeed without a competent, adaptable workforce. METACITIES promotes cooperation between educational institutions and industries to foster curricula aligned with emerging needs in Smart Specialisation, Industry 4.0, and environmental management. Through dedicated training programs, hackathons, workshops, and scholarships, the initiative aims to reduce skills mismatches and empower both youth and professionals to engage in innovation ecosystems.

The Implementation Plan itself is methodically structured into several stages: goal definition, action mapping, activity selection, role assignment, resource allocation, scheduling, performance monitoring, and communication. Tools such as Gantt charts, action templates, and collaborative planning frameworks help partners turn strategic objectives into concrete, measurable results. Importantly, the plan embeds communication and outreach as core functions, ensuring that the public and stakeholders are informed, engaged, and inspired. WP6, in particular, is dedicated to dissemination, stakeholder involvement, and knowledge transfer.

Sustainability and long-term impact are addressed through WP5, which focuses on Business Models, Investment Plans, and Sustainability Plans. This ensures that METACITIES does not remain a project with a limited timeframe but becomes a catalyst for ongoing urban innovation. By embedding the Strategy within regional development plans and policy frameworks and by promoting a culture of continual improvement and adaptability, METACITIES creates a durable foundation for interregional cooperation and innovation scaling.

In conclusion, the METACITIES Methodology and Implementation Plan exemplify an integrated, participatory, and strategic approach to urban transformation. It brings together technology, governance, education, and community engagement to build cities that are not only smart and efficient but also inclusive, green, and future-ready. The Strategy sets a precedent for how collaborative R&I initiatives can drive systemic change at the urban and regional level, offering a replicable model for other European territories seeking to harness the potential of digital and sustainable transitions.

2 Action Plan Template

Action Number	Action Title	Deliverable	STATUS	ASSIGNED TO	START DATE	END DATE	KPIs	COMMENTS
	(Fill in the title of the Action)	(Fill in the name of the expected output)	For example: - Not Started - In Progress - On Hold - Completed	Name of partner organisation or person	date	date	Relevant KPI(s)	

3 Detailed Description of the Action Template

ACTION Number and Title:
Description of the action. (Please list and describe the actions to be implemented and, if applicable, their most important phases)
Stakeholders involved. (Please indicate the organisations that are involved in the development and implementation of the action and explain their role)
Expected output/deliverable. (Please describe the result(s) and/or product(s) of the action)
Timeframe. (Please describe the expected starting and ending date of the action and, if applicable, mention important milestones)
Cost. (Please indicate the budget required to implement this action)
Funding Sources. (Please mention potential funding schemes or means of financing to be exploited for funding the cost of the action)
KPIs. (Please describe the relevant KPIs and/or other means of monitoring the effectiveness and impact of the action)