Blueprint for Smart Communities Skills Development in Europe

May 2026



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About SMARCO

Smart Communities Skills Development in Europe (SMARCO) is an EU-funded Erasmus+ Blueprint project that aims to become a one-stop shop for skills development in smart communities. The project supports the creation of resilient and sustainable smart communities by addressing critical skills gaps among smart city engineers and planners/procurers through targeted upskilling courses and forward-looking training programmes. SMARCO promotes flexible, user-centred and transnational learning pathways, ensuring wide recognition of learning outcomes through micro-credentials, training certificates and a broader certification scheme. In parallel, the project fosters a sustainable European community of stakeholders to exchange, scale and institutionalise smart communities skills and best practices, notably through participation in the Pact for Skills and the organisation of policy roundtables with decision-makers.



SCOPE OF THE DELIVERABLE

SMARCO Deliverable 3.2 *Strategy and Blueprint for Smart Communities Skills Development in Europe* is the core output of Work Package 3 of the SMARCO project, translating prior research into a concrete strategy and action plan for developing skills needed in smart communities across Europe. It builds on two earlier deliverables — one mapping skills gaps and future trends (D2.1), and one reviewing existing policies and practices (D3.1) — to produce an integrated, forward-looking framework.

The scope of this report is sixfold:

1 SKILLS ECOSYSTEM OVERVIEW

Synthesises evidence on skills supply and demand, emerging trends, gaps, and structural barriers in the Smart Communities landscape.

2 LESSON LEARNED

Draws on reviewed policies and initiatives to identify what works, what's transferable, and where current approaches fall short.

3 NEEDS, PRIORITIES & OBJECTIVES

Defines priorities and objectives to guide future investments and interventions at a European level.

4 POLICY RECOMMENDATIONS

Offers targeted actions for a broad range of stakeholders: policymakers, higher education institutions, VET providers, industry and SMEs, research actors, and civil society.

5 IMPLEMENTATION ROADMAP

Provides a timeline and KPIs to support deployment, evaluation, and continuous improvement of the strategy.

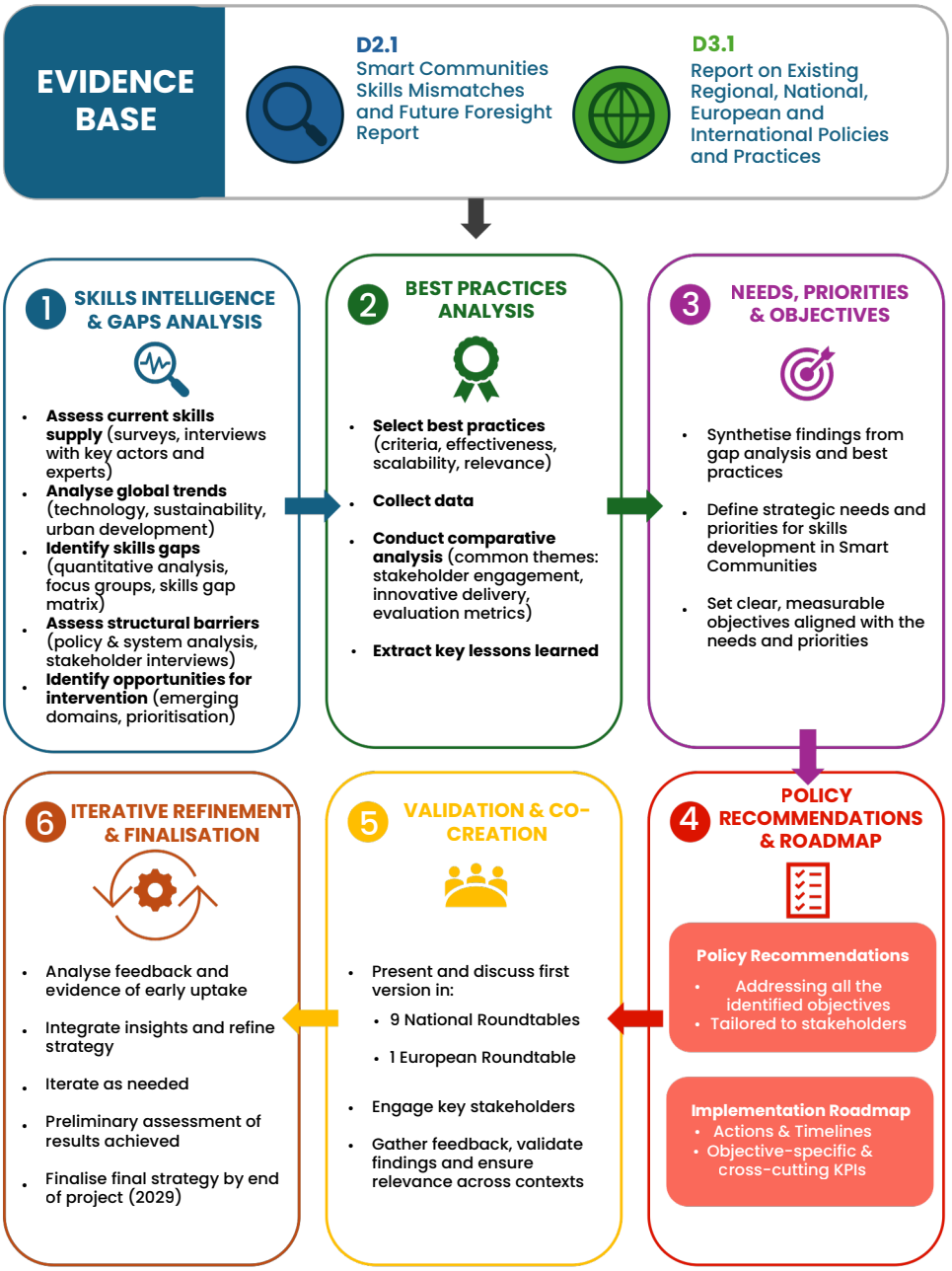
6 EUROPEAN BLUEPRINT

Delivers a reusable, scalable blueprint designed to drive coordinated action and policy uptake beyond the life of the SMARCO project.

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METHODOLOGY

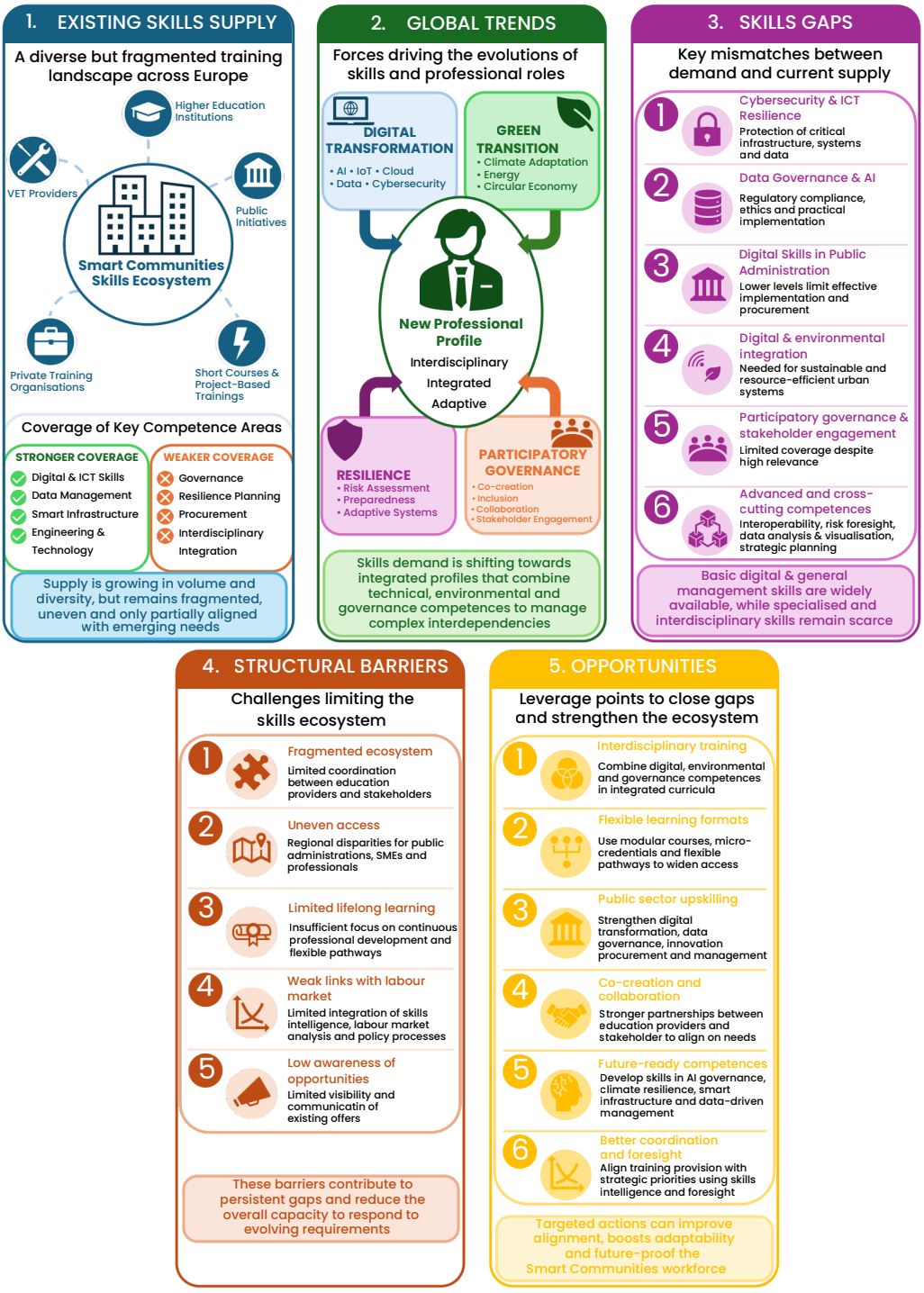
The work carried out in the drafting of the Strategy for the Smart Communities Skills Development in Europe followed the methodology outlined below:



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SKILLS INTELLIGENCE AND GAPS ANALYSIS

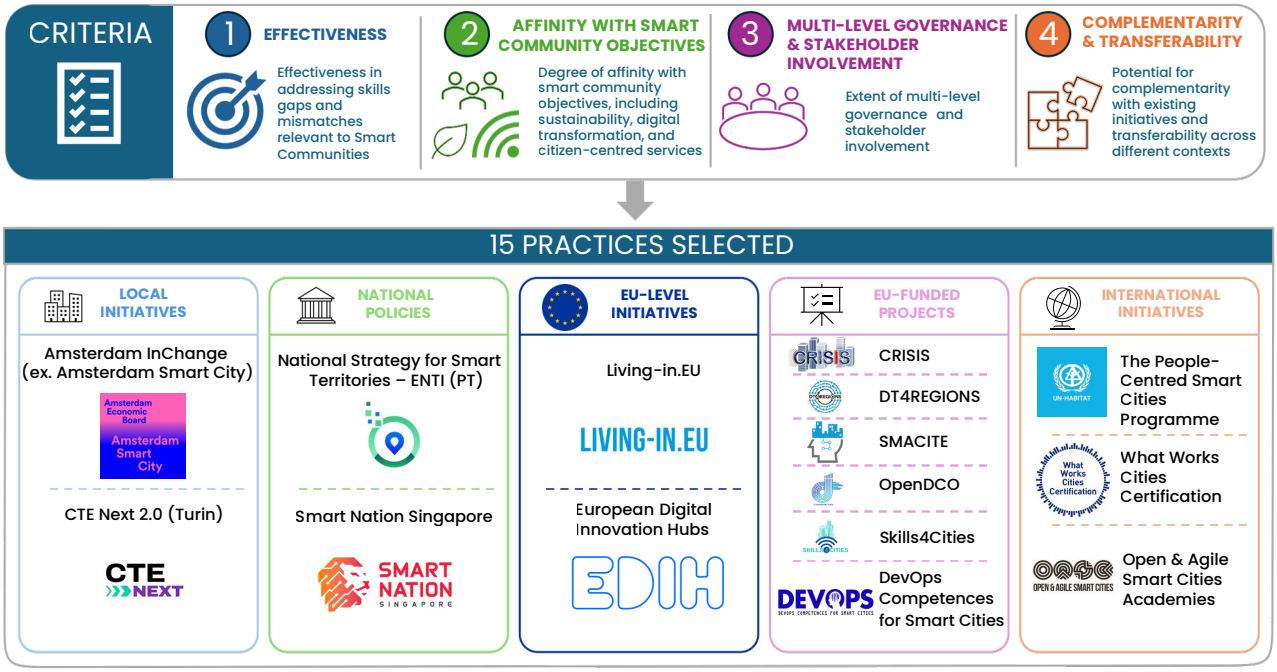
The following visual reflects the findings of Deliverable 2.1 *Skills Mismatches and Future Foresight Report*



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SELECTION CRITERIA AND RESULTING PRACTICES ANALYSED

The visual below outlines the process followed to identify best practices in smart communities skills development in Deliverable 3.1 *Report on Existing Regional, National, European and International Policies and Practices* and highlights the 15 practices selected accordingly.



KEY INSIGHTS

Best practices show a clear shift towards integrated and people-centred skills strategies for smart communities. Successful initiatives combine digital, green, governance, and transversal competences within flexible and interdisciplinary learning models. Strong emphasis is placed on practice-based learning, real-world experimentation, lifelong learning, and data-driven governance capacities.

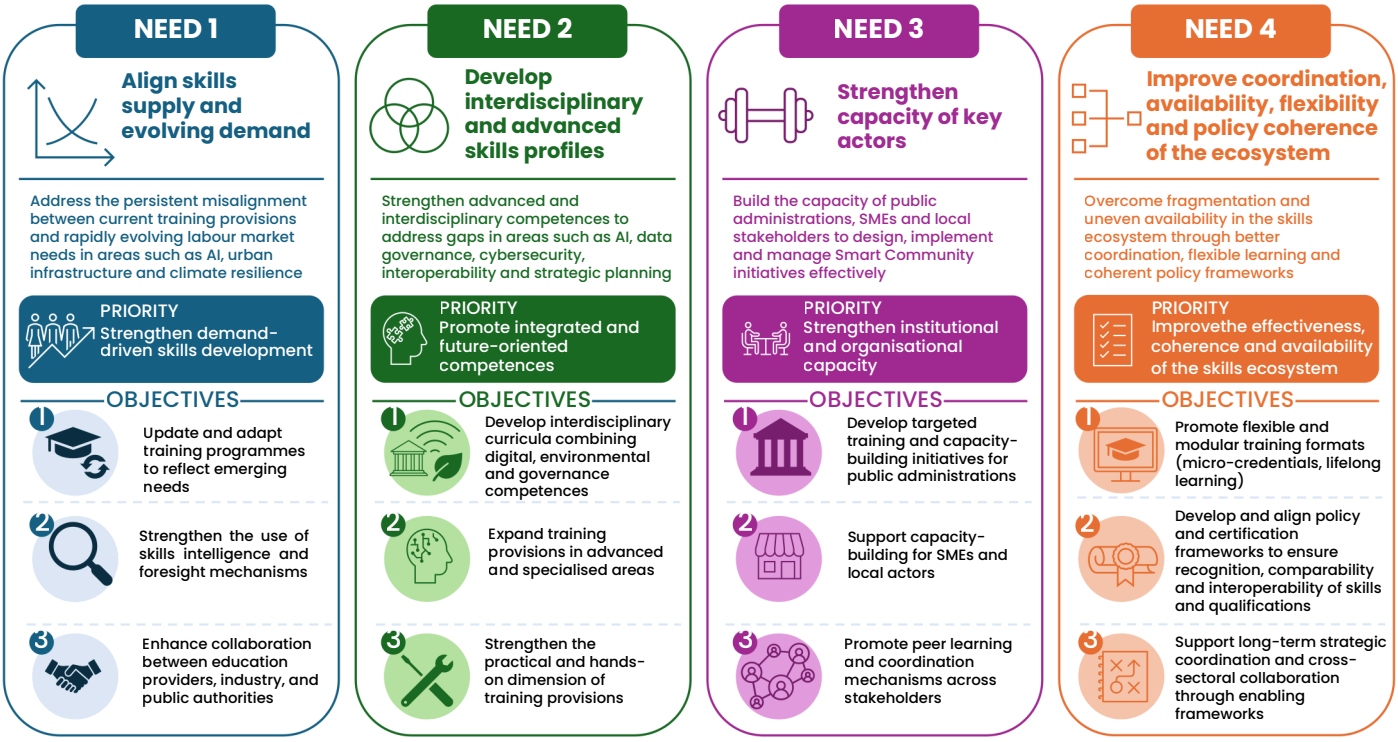
At the same time, several structural gaps remain. The current ecosystem is fragmented, with limited coordination between initiatives and governance levels. Many programmes still lack robust impact measurement, stronger links with labour market needs, and structured support for local public administrations and SMEs. In addition, the absence of a shared European competence framework limits comparability and transferability across initiatives.

Overall, the analysis highlights the need for a more coherent and long-term skills ecosystem, better aligned with policy strategies, labour market evolution, and local implementation needs.

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SMART COMMUNITIES SKILLS DEVELOPMENT: KEY NEEDS, PRIORITIES AND OBJECTIVES

The needs identified from gaps in skills provision, structural barriers, and evolving labour market demands are translated into corresponding priorities that are then concretised into operational objectives.



The strategic needs, priorities, and objectives presented in the image above have been developed through the combined assessment of two complementary analytical components:

- The skills intelligence and gaps analysis draws on the findings of Deliverable 2.1 *Skills Mismatches and Future Foresight Report*
- The analysis of best practices is based on Deliverable 3.1 *Report on Existing Regional, National, European, and International Policies and Practices for Smart Communities Skills Development.*

Together, these analyses provide the evidence base underpinning the SMARCO Skills Strategy.

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POLICY RECOMMENDATIONS AND STRATEGIC ACTIONS

Policy recommendations and strategic actions have been formulated for five stakeholder groups to address all the identified needs, priorities and objectives.

Category	Recommendation	Description	Links to
Policymakers and Public Administrations	Incentivise the Upskilling and Reskilling of Public Administration Employees	Provide financial support, incentives, and dedicated time for public administration employees to develop digital, interoperability, and strategic planning skills.	Need 1, Objective 1
	Integrate Skills Intelligence into Policy and Funding Frameworks	Embed labour market data, stakeholder input, and foresight into policy and funding decisions to align training with emerging skills needs.	Need 1, Objectives 1 and 2; Need 4, Objective 3
	Develop Dedicated Smart Communities Skills Strategies	Create national and EU strategies with clear objectives, governance structures, and funding to build Smart Communities skills and coordinate action across sectors and levels of government.	Need 4, Objective 3
	Establish Coherent Policy and Certification Frameworks	Align policy and certification systems to ensure skills and qualifications are recognised, comparable, and transferable across sectors and countries.	Need 4, Objective 2
Education and Training Providers (HEIs and VET)	Adapt Training Provision to Emerging Skills Needs	Leveraging skills intelligence and foresight mechanisms, regularly update training programmes to cover emerging skills, particularly in AI, data governance, and strategic planning, using flexible and modular formats.	Need 1, Objectives 1 and 2; Need 2, Objectives 1, 2, and 3; Need 4, Objective 1
	Strengthen Stakeholder Collaboration in Curriculum Design	Ensure education providers, public administrations, industry, and communities collaborate continuously to design relevant and responsive training programmes.	Need 1, Objectives 1 and 3; Need 3, Objectives 1 and 2
	Develop Interdisciplinary and Cross-Sectoral Learning Pathways	Create interdisciplinary programmes and practical learning opportunities that combine digital, environmental, and governance competencies.	Need 1, Objective 1; Need 2, Objectives 1 and 2; Need 4, Objective 1
	Align Training with Certification and Micro-Credential Frameworks	Link training to recognised certifications and micro-credentials to improve transparency, transferability, and recognition of learning outcomes.	Need 4, Objectives 1 and 2
Industry and SMEs	Engage in the Co-Design of Training Programmes	Involve industry, especially SMEs, in designing training to ensure it reflects real-world applications and labour market needs.	Need 1, Objectives 1, 2, and 3; Need 2, Objective 3; Need 3, Objective 2; Need 4, Objective 2
	Support Work-Based and Experiential Learning	Expand internships, apprenticeships, and on-the-job learning to help learners develop practical and interdisciplinary skills.	Need 2, Objectives 2 and 3; Need 3, Objective 2

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Industry and SMEs	**Promote Workforce Upskilling and Reskilling**	Encourage employers, particularly SMEs, to invest in continuous training through flexible programmes, incentives, and dedicated learning time.	Need 3, Objective 2
	Contribute to Certification and Skills Recognition Systems	Involve industry in developing certification frameworks to ensure skills are recognised and aligned with practical and labour market needs.	Need 1, Objective 1; Need 3, Objective 3; Need 4, Objective 2
Research and Innovation Actors	**Contribute to Skills Intelligence and Foresight Activities**	Engage research and innovation actors in identifying emerging trends and supporting evidence-based skills development.	Need 1, Objectives 1 and 2; Need 2, Objective 2
	Support Co-Creation of Training Programmes and Knowledge Exchange	Foster collaboration between researchers, educators, industry, and policymakers to co-design training and share innovative practices.	Need 1, Objective 3; Need 2, Objective 3; Need 3, Objective 3
Civil Society and Communities	**Contribute to Identifying Local Skills Needs and Co-Creation**	Involve civil society and local communities in identifying local skills needs and ensuring training is inclusive and context-sensitive.	Need 1, Objectives 2 and 3; Need 3, Objective 3
	Promote Awareness and Inclusive Participation in Training	Raise awareness of training opportunities and address barriers to participation, especially for underrepresented groups.	Need 3, Objective 2; Need 4, Objective 1

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CROSS-CUTTING KPIS

The following cross-cutting KPIs are intended to provide a system-wide diagnostic framework for policymakers and stakeholders to enable continuous monitoring of coherence, responsiveness, and future-readiness of the smart communities skills ecosystem.

Categories	KPIs	Description
Skills and Labour Market Alignment	**Skills Mismatch Reduction Rate (%)**	Decrease in identified gaps between labour market needs and training provision over time
	Forecast Accuracy of Skills Intelligence Systems (%)	Alignment between forecast projections and actual labour market development
	Demand-to-Supply Alignment Index	Degree of correlation between emerging skills needs and available training provisions
Stakeholder Collaboration	**Cross-sector Partnership Density**	Number of active collaborations between education providers, industry(especially SMEs), public authorities, research and innovation actors and civil society
	Number of Co-Designed Training Programmes	Number of upskilling and reskilling initiatives jointly developed across multiple stakeholder groups
Policy and Certification Frameworks	**Certification Interoperability**	Number of qualifications recognised across training providers, public authorities and industry
	Adoption of Vendor-Neutral Certification Frameworks	Adoption rate of common standards across providers and recognised employers
Flexibility and Lifelong Learning	**Micro-credential Uptake**	Number of learners enrolled in modular or short-cycle learning pathways
	Lifelong Learning Participation	Number of active workers engaged in continuous upskilling/reskilling
	Flexibility Ratio	Proportion of training offered in modular, online, or hybrid formats
Capacity Development	**SME Participation**	Number of SMEs engaged in training programmes and skill initiatives
	Public Administration Upskilling Coverage	Number of relevant public sector staff trained in Smart Communities competences
	Equity in Participation Index	Distribution of training access across gender, age, geography, and socio-economic groups
	Digital and Advanced Skills Penetration	Number of active workers with validated competencies in AI, data governance, cybersecurity, and related fields
Scalability and Sustainability	**Sustainability of Coordination Mechanisms**	Existence and continuity of governance structures over time
	Investment Leverage Ratio	Level of private/public co-investment in skills development initiatives
	Scalability Index of Training Initiatives	Number of pilots to transitioning into systemic, long-term programmes

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Editorial note on AI usage

This deliverable was prepared using AI-supported tools as an auxiliary resource. All content was developed, supervised, reviewed and validated by human experts within the SMARCO consortium, who retain full responsibility for the accuracy, integrity and quality of the information presented.

EU Disclaimer

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