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SMART Communities Skills Development in Europe

Smart City Features

Unit 3 — Stakeholders & Planning in Smart City Projects

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Unit 3 – Aim and objectives

- This unit introduces the role of stakeholders in Smart City planning and examines how their needs, interests and influence shape urban strategies. Learners explore methods to identify and map stakeholders, understand their expectations, and integrate them into structured planning frameworks. The unit also presents the Smart City Guidance Package (SCGP) as a tool for guiding the planning cycle, and develops the ability to transform stakeholder inputs, sustainability criteria and data evidence into coherent Smart City implementation plans.

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Unit 3 – Learning Outcomes

By the end of this unit, learners will be able to:

- Define the concept of stakeholders and explain their relevance in Smart City planning and decision-making processes.
- Describe the main stakeholder groups involved in Smart City initiatives and how their interests, needs and expectations influence planning outcomes.
- Identify and classify stakeholders using analytical tools such as power–interest mapping, influence matrices and engagement profiles.
- Analyze how structured stakeholder engagement strengthens transparency, alignment and effectiveness in municipal planning processes.

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Unit 3 – Structure and Flow

Stakeholder Identification
Mapping and categorising key actors in Smart City ecosystems

Planning Frameworks
Structured approaches to strategic Smart City development

Strategic Alignment
Ensuring coordination between vision and implementation

Implementation Plans
Translating stakeholder needs into actionable programmes

This unit provides practical tools and methods for engaging diverse stakeholders and applying recognized planning methodologies to ensure Smart City projects deliver sustainable, community-centred outcomes.

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Who Are Smart City Stakeholders?

Smart City initiatives involve a diverse ecosystem of actors, each bringing unique perspectives, expertise, and interests to urban transformation projects.

Understanding this complex landscape is essential for ensuring inclusive, effective, and sustainable outcomes.

- Citizens and community groups – End users and beneficiaries
- Municipal departments – Urban planning, transport, environment
- Private companies – Technology vendors, service providers
- Utilities – Energy, water, waste management operators
- Non-governmental organizations – Advocacy and social groups
- Academia – Research institutions and universities
- Technology providers – IoT, data platforms, infrastructure

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Why Stakeholders Matter

Alignment of Objectives

When all actors understand shared goals, projects move forward with clarity and purpose, reducing conflicts and delays.

Informed Decision-Making

Diverse perspectives lead to better-informed choices, reducing risk and ensuring solutions address real community needs.

Active Engagement

Participation builds trust, fosters ownership, and increases the likelihood of long-term project success and adoption.

Transparent Processes

Open communication and clear governance structures enhance accountability and public confidence in Smart City initiatives.

Smart City projects succeed when all actors are aligned, informed, and engaged in transparent decision-making processes that prioritize community benefit and sustainable outcomes.

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Stakeholder Categories

Primary Stakeholders

Directly affected by project outcomes and implementation

Secondary Stakeholders

Indirectly influenced or supporting project delivery

Vulnerable Groups

Hard-to-reach populations requiring targeted engagement

Decision-Makers

Authority to approve, fund, or halt initiatives

Beneficiaries

Receive direct value from implemented solutions

Influencers

Shape opinion and affect project perception

Categorizing stakeholders enables tailored engagement strategies that address specific interests, influence levels, and communication preferences, ensuring no voice is overlooked.

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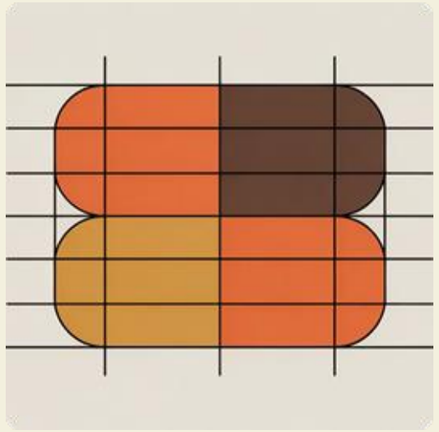
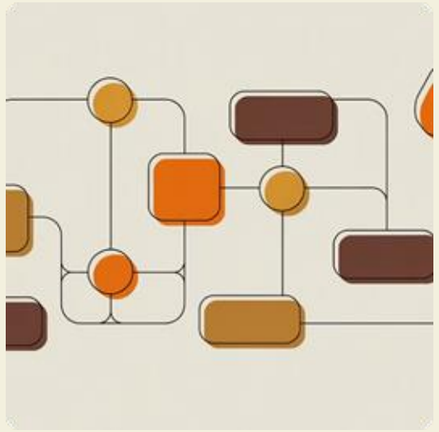
Mapping Stakeholders

Analytical tools provide structured approaches to understanding stakeholder relationships, power dynamics, and engagement priorities within Smart City ecosystems.



Power–Interest Matrix

Plots stakeholders by influence and interest to prioritize engagement approaches



Influence Maps

Visualises relationships and communication pathways between actors

Ecosystem Diagrams

Illustrates interdependencies and value flows across stakeholder groups

These mapping exercises should be conducted early in project planning and revisited regularly as stakeholder landscapes evolve and new actors emerge.

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Understanding Stakeholder Needs

Mobility

Efficient transport, accessibility, multimodal integration

Environment

Air quality, green spaces, climate adaptation

Governance

Transparency, participation, service efficiency

Safety

Public security, emergency response, resilience

Energy

Renewable sources, efficiency, grid reliability

Accessibility

Universal design, inclusive services, equal access

Digital Literacy

Skills development, training, capability building

Local Priorities

Context-specific challenges and opportunities

Stakeholder needs arise from diverse urban challenges. Identifying these requirements through consultation ensures Smart City solutions address real priorities rather than imposing technology-led approaches.

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Communication Strategies

Tailoring Messages

Effective stakeholder engagement requires adapting communication style, format, and content to match audience characteristics, expertise, and information needs.

Different stakeholder groups require distinct approaches to ensure clarity, relevance, and meaningful participation throughout Smart City project lifecycles.

Technical Briefings

Detailed specifications, data, methodologies for expert audiences

Public Presentations

Accessible overviews, visual aids, non-technical language

Community Meetings

Interactive sessions, Q&A, localised examples

Digital Platforms

Online engagement, social media, mobile applications

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Participation Methods

Workshops

Structured sessions bringing diverse stakeholders together for collaborative problem-solving and idea generation

Focus Groups

In-depth discussions with selected participants to explore specific topics and gather detailed insights

Digital Participation Tools

Online platforms enabling asynchronous engagement, idea submission, and virtual collaboration

Surveys

Quantitative and qualitative data collection from broad population samples to identify needs and preferences

Co-Design Sessions

Collaborative design activities where stakeholders actively shape solutions alongside technical teams

Pilot Projects & Living Labs

Real-world testing environments where stakeholders experience and refine solutions iteratively

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Challenges in Participation

Lack of Trust

Historical disappointments, scepticism about consultation sincerity, and concerns over data privacy can inhibit meaningful engagement.

Digital Divide

Unequal access to technology, connectivity, and digital skills excludes vulnerable populations from online participation channels.

Misinformation

False narratives and misunderstanding of technical concepts can derail projects and erode public confidence.

Conflicting Interests

Divergent priorities among stakeholder groups require careful mediation and transparent trade-off decision-making.

Limited Capacity

Resource constraints, time pressures, and expertise gaps within municipal teams can compromise engagement quality.

Recognizing these barriers is the first step towards designing inclusive participation strategies that proactively address obstacles and ensure all voices are heard throughout Smart City development.

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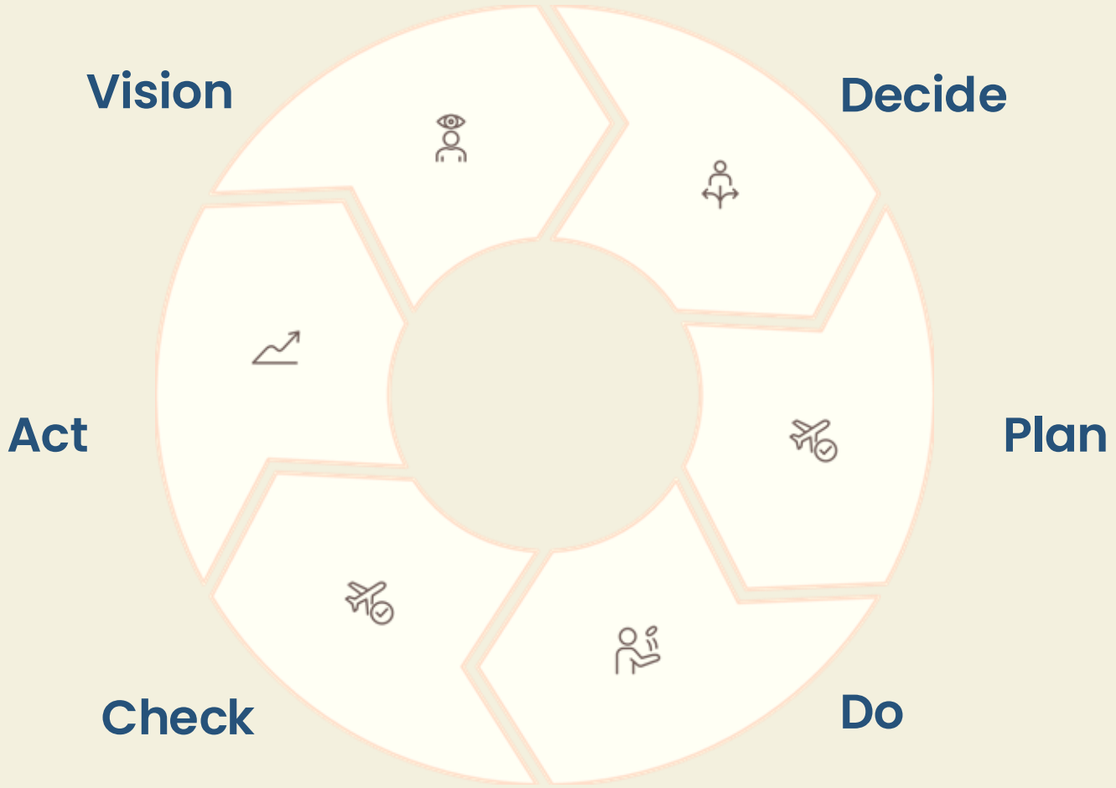
Smart City Guidance Package (SCGP)

The Smart City Guidance Package provides a comprehensive framework guiding cities through systematic Smart City transformations, from initial vision to continuous improvement.



This iterative cycle ensures continuous learning, adaptation, and improvement throughout the Smart City journey, aligning stakeholder needs with strategic objectives and implementation realities.

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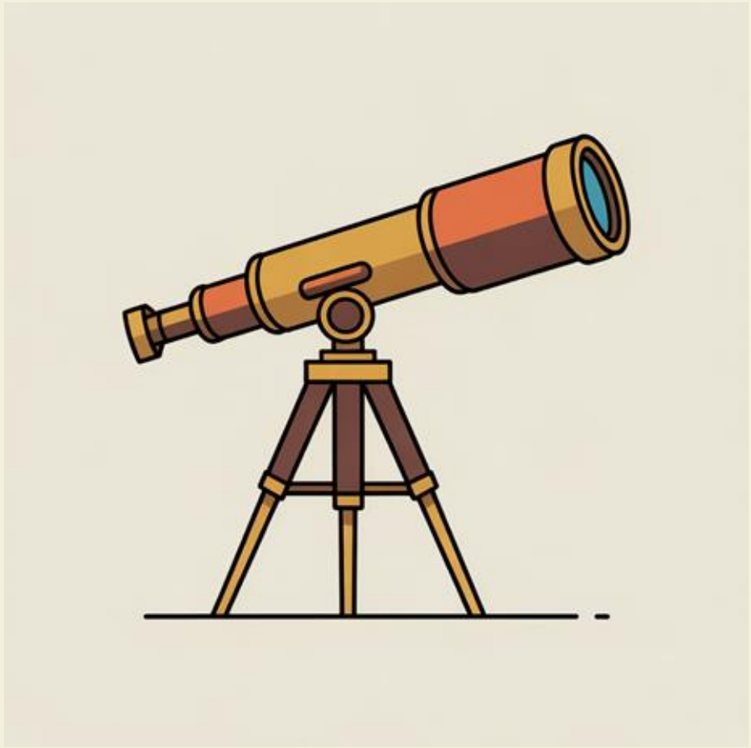
Vision Phase



Establishing Direction

The Vision phase sets the foundation for Smart City transformation by defining what the city aspires to achieve and why.

Define Priorities

Identify key urban challenges and opportunities requiring attention

Long-Term Goals

Establish ambitious but achievable objectives spanning 5-15 years

Sustainability Objectives

Align with climate neutrality, circular economy, and SDG targets

Community Expectations

Incorporate citizen aspirations and quality-of-life improvements

A clear, shared vision creates alignment across stakeholders and provides a reference point for subsequent decision-making throughout the project lifecycle.

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Decide Phase

Evaluate Options

Assess alternative approaches, technologies, and implementation pathways

Assess Feasibility

Analyse technical viability, financial sustainability, and organisational readiness

Compare Scenarios

Model outcomes, costs, and impacts of different intervention strategies

Align Constraints

Balance political priorities, budget limitations, and regulatory requirements

The Decide phase translates vision into concrete choices, ensuring selected initiatives are realistic, achievable, and aligned with stakeholder priorities and municipal capacity. Transparent decision criteria and stakeholder involvement build trust and support for chosen directions.

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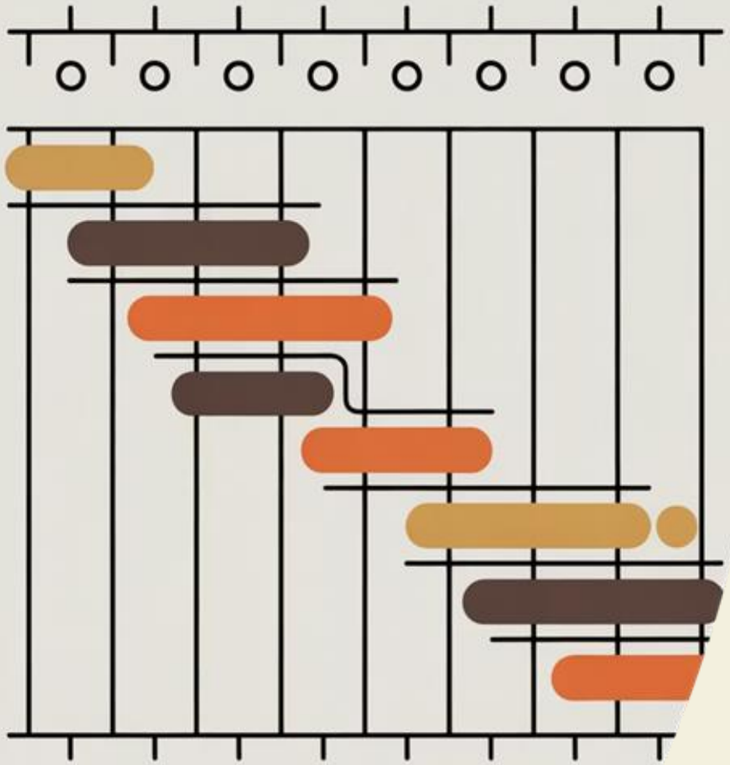

Plan Phase

Translating Decisions into Action

The Plan phase converts strategic decisions into detailed implementation roadmaps, specifying what will be done, by whom, when, and with what resources.

Key Planning Elements

- Implementation plans – Detailed project schedules and milestones
- Timelines – Phased delivery with critical path identification
- Responsibilities – Clear allocation of tasks and accountabilities
- Resource allocation – Budget distribution, staffing, procurement

Planning Considerations

- Risk assessment and mitigation strategies
- Interdependencies between work packages
- Stakeholder communication schedules
- Procurement and contracting timelines
- Quality assurance and governance structures

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Do Phase

1

Procurement

Tender processes, vendor selection, contract negotiation

2

Deployment

Installation, integration, testing of systems and infrastructure

3

Monitoring

Real-time tracking of progress, issues, and early performance indicators

4

Coordination

Continuous stakeholder communication, change management, problem-solving

The Do phase brings plans to life through systematic execution. Success requires strong project management, clear communication channels, adaptive problem-solving, and ongoing stakeholder engagement to navigate inevitable challenges and maintain momentum.

Effective coordination mechanisms ensure technical teams, municipal departments, vendors, and community representatives remain aligned throughout implementation, preventing siloed delivery and integration failures.

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Check Phase

Evaluate Performance

Compare actual outcomes against planned objectives and success criteria

Monitor KPIs

Track key performance indicators covering technical, social, environmental, and economic dimensions

Analyse Compliance

Verify adherence to regulatory requirements, data protection standards, and contractual obligations

Assess Risks & Impacts

Identify emerging challenges, unintended consequences, and opportunities for improvement

The Check phase provides evidence-based assessment of Smart City initiatives, revealing what works, what doesn't, and why. This learning is essential for accountability, continuous improvement, and informed decision-making in subsequent cycles.

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Act Phase

Closing the Loop

The Act phase completes the improvement cycle by translating evaluation findings into concrete adjustments and strategic refinements.

Adjust Strategies

Modify approaches based on performance evidence and stakeholder feedback

Optimise Systems

Fine-tune technical configurations, processes, and service delivery models

Refine Long-Term Planning

Update road maps reflecting lessons learned and changing contexts

Update Policies

Revise governance frameworks, standards, and operational procedures

This phase ensures Smart City initiatives remain dynamic, responsive, and continuously improving rather than static, one-time interventions.

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Practical Considerations

Transparency

Open communication about decisions, trade-offs, and outcomes builds trust and accountability across all stakeholder groups.

Inclusiveness

Proactive outreach to marginalised and hard-to-reach populations ensures equitable participation and benefit distribution.

Clear Governance

Well-defined roles, responsibilities, and decision-making structures prevent confusion and streamline project delivery.

Data Sharing Agreements

Formal protocols governing data access, privacy, security, and interoperability protect citizens and enable innovation.

Strategic Alignment

Integration with broader municipal plans, regional strategies, and national frameworks ensures coherence and resource efficiency.

These practical considerations should be embedded throughout all phases of Smart City development, from initial vision through to continuous improvement, ensuring initiatives deliver sustainable value whilst maintaining public trust.

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Exercise: Stakeholder Engagement Plan

Apply the concepts from this unit by developing a practical stakeholder engagement strategy for a hypothetical Smart City initiative in your local context.

Identify Key Stakeholders

List primary and secondary stakeholders relevant to your chosen Smart City project (e.g., smart mobility, energy efficiency, digital services)

Define Their Interests

For each stakeholder group, describe their main concerns, priorities, and potential benefits or risks from the initiative

Map Their Influence

Create a power-interest matrix positioning stakeholders according to their influence level and interest in the project

Create an Engagement Plan

Develop tailored communication and participation strategies for each stakeholder category, specifying methods, frequency, and responsible parties

Reflection questions: How will you address participation barriers? What mechanisms ensure vulnerable groups are heard? How will you maintain engagement throughout the project lifecycle?

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Conclusion

Stakeholder Analysis and Structured Planning: Foundations of Smart City Success

Effective Smart City transformation requires systematic stakeholder engagement and rigorous application of planning frameworks such as the Smart City Guidance Package

By identifying diverse actors, understanding their needs, and facilitating meaningful participation throughout the Vision-Decide-Plan-Do-Check-Act cycle, cities can ensure initiatives deliver sustainable, community-centred outcomes.

Coordination, transparency, and inclusiveness are not optional extras but essential prerequisites for Smart City projects that genuinely improve urban life whilst maintaining public trust and democratic accountability

6

SCGP Phases

Iterative framework guiding transformation

8

Stakeholder Need Categories

Diverse urban challenges addressed

7

Participation Methods

Tools for inclusive engagement

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Further Reading

- EIP-SCC / EC. *Smart City Guidance Package (SCGP): Vision, Decide, Plan, Do, Check, Act.*
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Unit Completed - What's Next?

To consolidate your learning and reflect on the key concepts covered, please take a moment to complete this quiz.

Your feedback and results will help you track your progress and support continuous improvement of the training experience.

By completing this quiz, you will also become eligible to receive a certificate of successful training completion.

Click the link to begin the quiz!

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