Toolkit on Digital Transformation for People-Oriented Cities and Communities

Module 2:
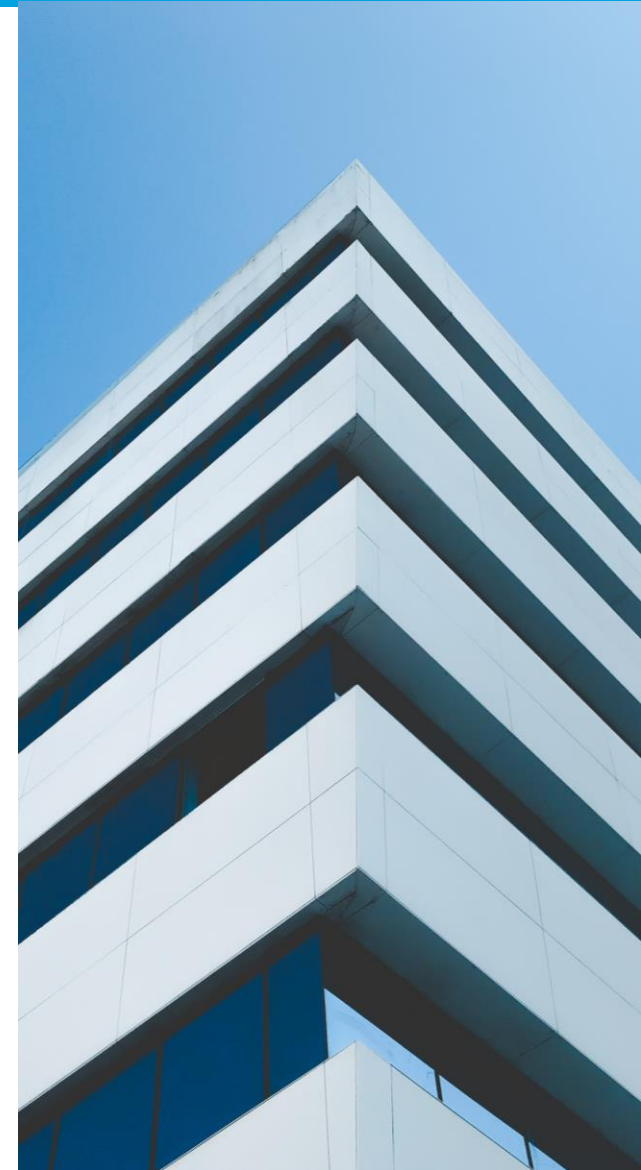Developing a Digital Transformation Strategy for Cities

2

Jointly developed by: ITU, UN-Habitat, UNDP, UNDESA

Module 2 –
Developing a Digital Transformation Strategy for Cities

- This Module of the ITU Toolkit on Digital Transformation for People- Oriented Cities and Communities focuses on developing a digital transformation strategy for cities and communities.

- Cities and communities that are starting on their digital transformation journey will find the resources highlighted within this Module useful towards general planning and initiating the development of a strategy.

- This Module is also useful for cities and communities that have already made some headway into their general planning process but would like to validate the efficacy and completeness of their measures.

Module 2 –
Developing a Digital Transformation Strategy for Cities

This Module will cover the following topics:

1. Defining Digital and Digital Transformation Strategy
2. Assessing City's Level of Digital Maturity
3. Strategy Development Challenges in Cities and Communities
4. Digital transformation Strategy Opportunities in Cities and Communities
5. Key Tools for Developing a Digital Transformation Strategy for Cities and Communities
    1. Tool #1: City Leaders' Guide
    2. Tool #2: Smart Sustainable City Strategy
    3. Tool #3: Engaging Stakeholders
    4. Tool #4: Local Online Service Index (LOSI)
    5. Tool #5: Case Studies & Handbook

1. Defining Digital and Digital Transformation Strategy

Digital and Digital Transformation Strategy Terminology

Digital	Digitization	Digitalization	Digital Transformation	Digital Transformation Strategy
• encompasses electronic technologies that generate, store, and process data.	• involves creating a digital representation of records, i.e. from analog to digital.	• Is about enabling or improving processes using digital technologies and digitized data.	• is about using digitization and digitalization to transform traditional processes and create new services and value for inhabitants.	• Agreed upon plan of action describing organizational shifts and changes to better harness digital technologies.

Building Blocks of Digital Transformation Strategy

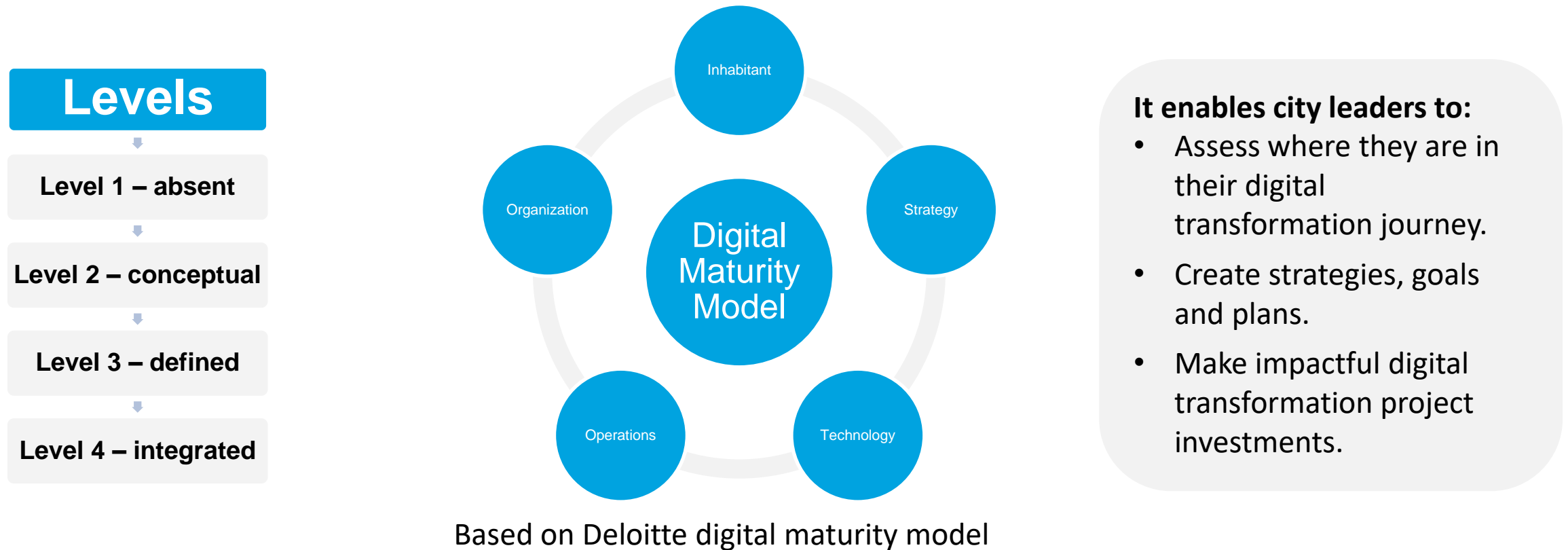|		
Highest level of political and administrative support	Continuous engagement and organizational culture change	Simple and easy to communicate digital vision and objectives
Foundational infrastructure – digital and data infrastructure and architecture	Digital talent – staff with the right digital skills and experience in leading implementing urban digital transformation	Digital governance – institutional arrangements including governance structure to manage and govern digital technologies
Roadmap – clearly defined action plan	Funding and investment to implement the strategy	Change management and awareness

2. Assessing City's Level of Digital Maturity

Digital Maturity Model
A Tool to Enable Digital Transformation in Cities

Levels

Level 1 – absent

Level 2 – conceptual

Level 3 – defined

Level 4 – integrated

Inhabitant

Strategy

Organization

Digital Maturity Model

Operations

Technology

Based on Deloitte digital maturity model

It enables city leaders to:

- Assess where they are in their digital transformation journey.

- Create strategies, goals and plans.

- Make impactful digital transformation project investments.

Digital Maturity Model
A Tool to Enable Digital Transformation in Cities

Five clearly defined dimensions to assess digital maturity holistically across the city

- considering services to inhabitants and different interaction channels, inhabitant's experience and engagement, inhabitant's level of awareness and control of data

Inhabitants and Visitors

- assessing how it aligns to the overall city strategy and goals, how digital can enable the city, digital outcomes that the city needs to work towards and the optimal digital portfolio of the city

Strategy

- in terms of how to create, process, store, secure and exchange data, how to interact and engage inhabitants in the digital environments, how to connect and manage devices, and applications to deliver and manage services

Technology and Data

- defining how to execute processes and tasks using digital, how to streamline and improve processes, and how to operate digital infrastructure.

Operations

- assessing if the right organization culture to foster digital transformation exists, frameworks and policies to govern digital technologies, talent and skills to enable execution of digital strategy.

Organization

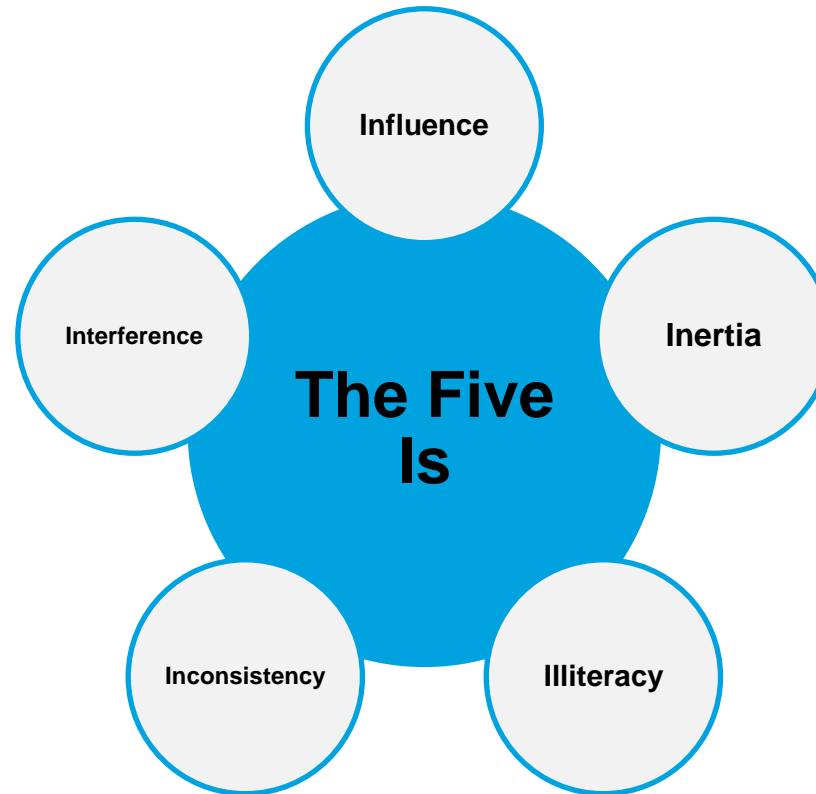# 3. Strategy Development Challenge in Cities and Communities

Strategic Challenges for Cities and Communities

Transforming cities as a response to digital change is challenging and requires a structured approach particularly as cities comprises of different entities with different technological and social elements all of which can govern the success or failure of digital transformation.
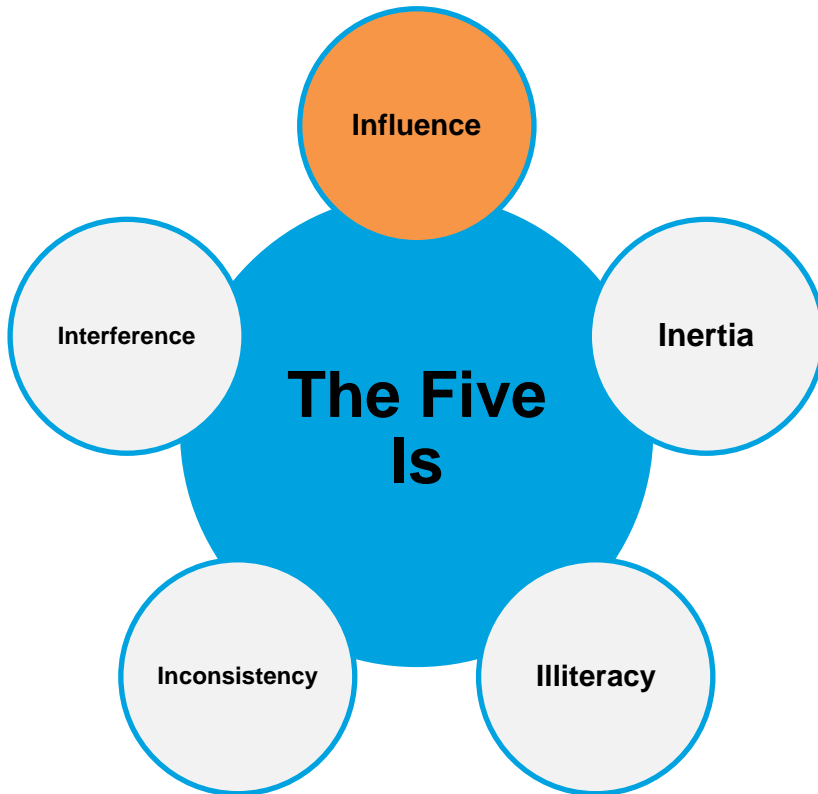
Strategy Development Challenges

The Five Is

- Influence
- Inertia
- Illiteracy
- Inconsistency
- Interference

Reasons for failure during the Smart Sustainable City Strategy Development process

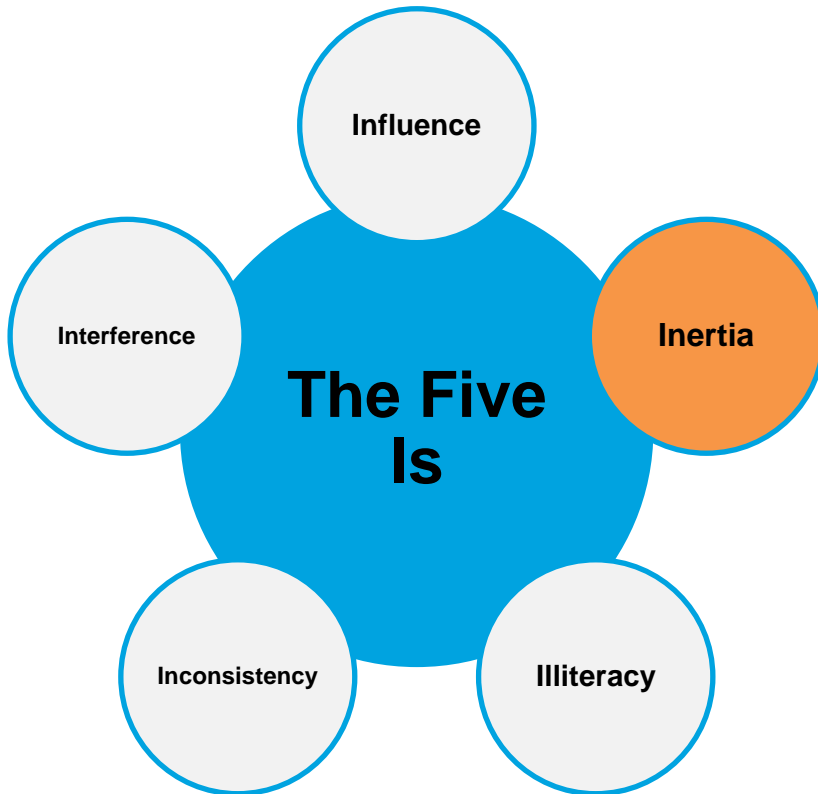# Strategy Development Challenges

Influence

The Five Is

Interference

Inertia

Inconsistency

Illiteracy

Influence can happen when any parties have undue say in the in strategy development or decision-making by having access to certain resources or to planners and politicians.

Reasons for failure during the Smart Sustainable City Strategy Development process

Strategy Development Challenges

The Five Is:
- Influence
- Inertia
- Interference
- Inconsistency
- Illiteracy

Inertia can occur when old and out-of-date standards, technologies, attitudes or methods can hinder forward smart sustainable city momentum.

Reasons for failure during the Smart Sustainable City Strategy Development process

Strategy Development Challenges

The Five Is

- Influence
- Inertia
- Illiteracy
- Inconsistency
- Interference
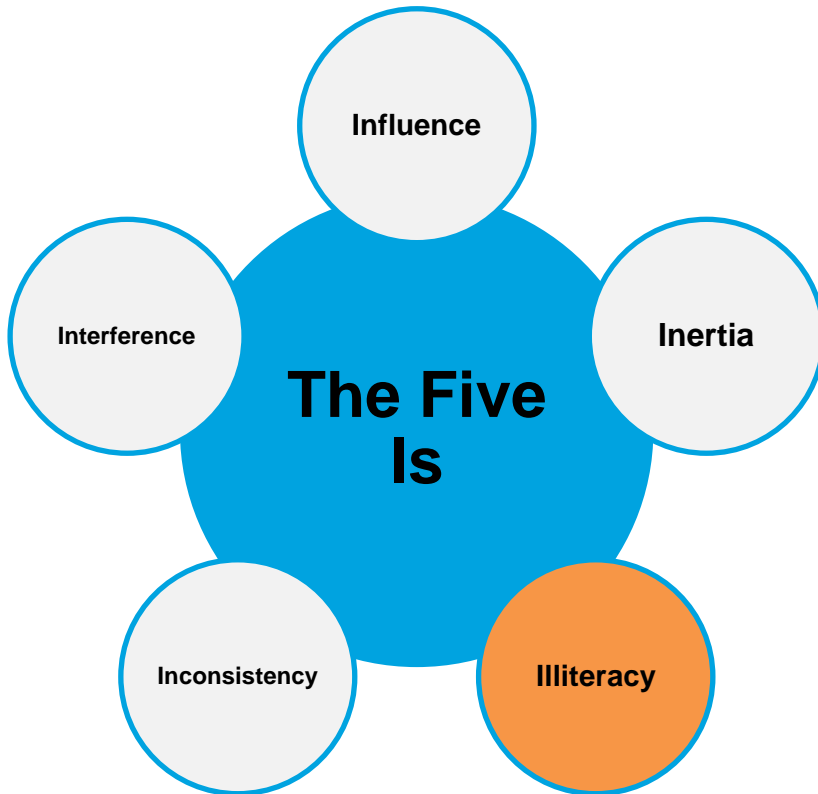
Illiteracy in this case refers to a failure to explain the smart sustainable city undertaking to the public and other stakeholders, which affects public debates and discussions on planning issues.

Reasons for failure during the Smart Sustainable City Strategy Development process
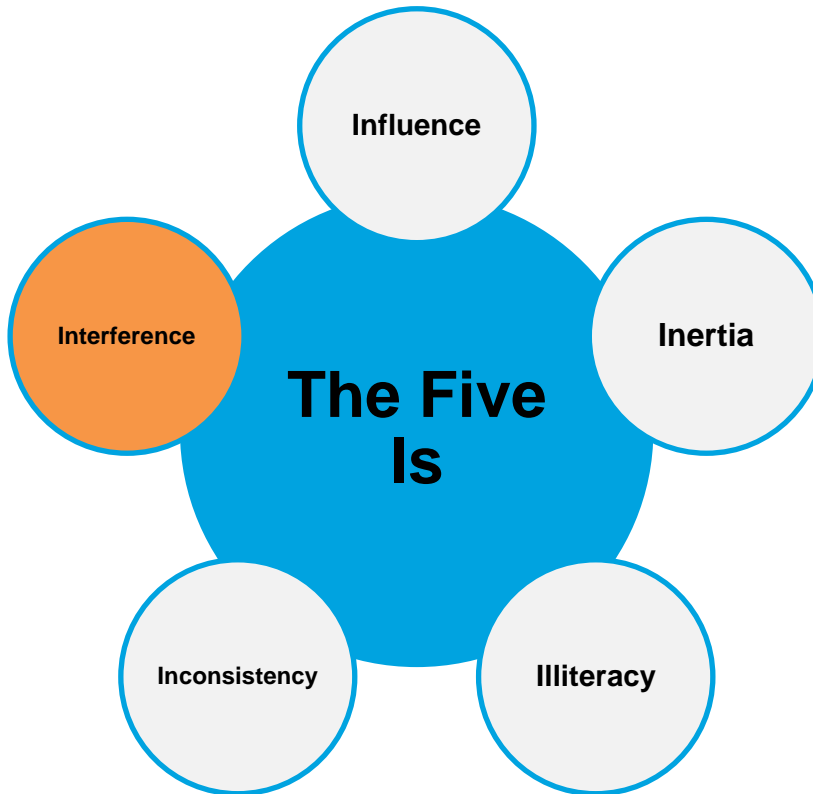
Strategy Development Challenges

Influence

Interference

Inertia

The Five Is

Inconsistency

Illiteracy

Inconsistency stems from not following best practices or the principles / requirements of master planning documents.

Reasons for failure during the Smart Sustainable City Strategy Development process

Strategy Development Challenges

Influence

Interference

Inertia

The Five Is

Inconsistency

Illiteracy

Interference refers to unnecessary intervention by influential parties or stakeholders in the strategy development processes. This may take the form of rejection of planning advice or application of political pressure.

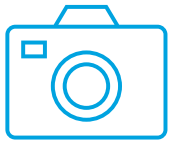Reasons for failure during the Smart Sustainable City Strategy Development process

2. Digital Transformation Strategy Opportunities in Cities and Communities

Digital Transformation for the Sustainable Development Goals
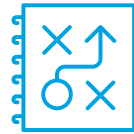
Benefits of Digital Transformation Strategy Planning

Helping Cities visualize the bigger picture

Help provide a strong framework for investment

Adaptable to a changing environment

Responsive to citizens' needs

Participation from citizens at all levels

Accountability to help monitor results

Opportunities for Cities Implementing a Digital Transformation Strategy

→ Support Service Delivery

→ Improve Data management and Data Analysis

→ Increase Citizen Engagement

→ Improve Automation

→ Support City Level Governance

→ Promote Coordination

→ Improve Administration and Project Management

→ Promote Geospatial Mapping

→ Support City Wide Integration

3. Key Tools for Digital Transformation Strategy for Cities and Communities

Introduction to Tools for Developing a Digital Transformation Strategy

Tool #1: City Leaders' Guide

Tool #2: Smart Sustainable City Strategy

Tool #3: Engaging Stakeholders
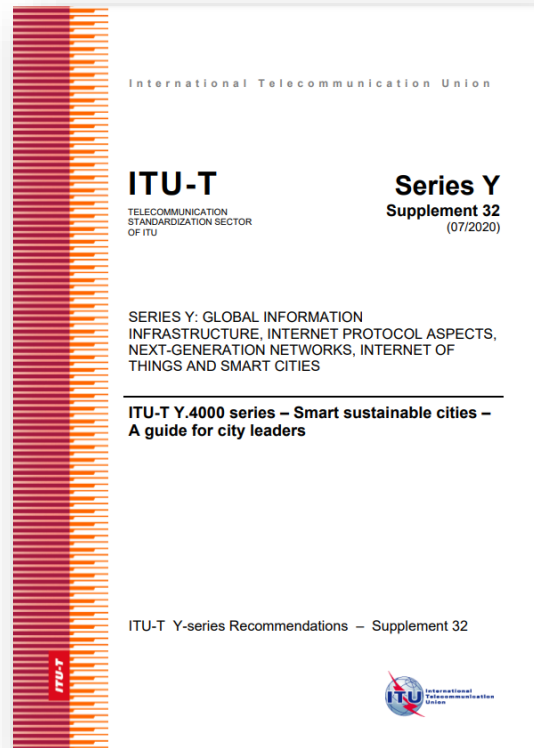
Tool #4: Case Studies & Handbook

Tool #1

City leaders' guide

A Guide for City Leaders

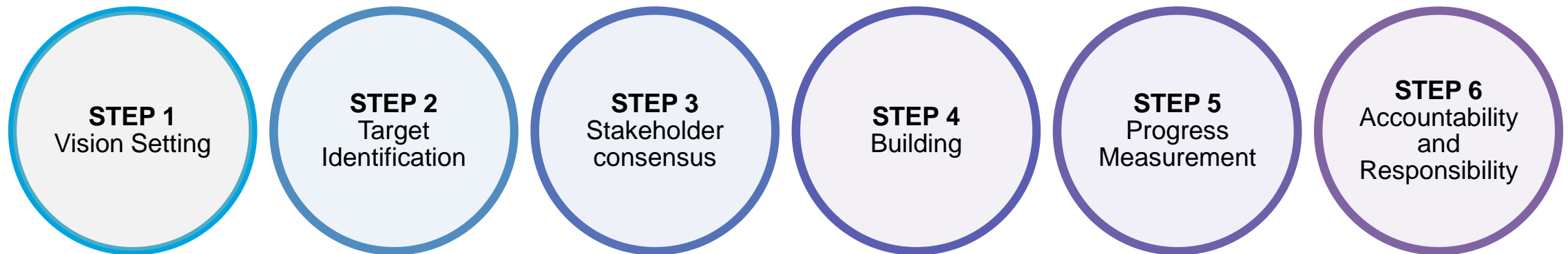ITU-T Series Y Supplement 32: 'Smart sustainable cities - A guide for city leaders'

A Guide for City Leaders

As this is a cyclical process, a city may revisit the various stages as needed, even once it achieves its desired level of smartness and sustainability.

ITU-T Series Y Supplement 32: 'A guide for city leaders'

A Guide for City Leaders

STEP 1
Vision Setting

STEP 2
Target Identification

STEP 3
Stakeholder consensus

STEP 4
Building

STEP 5
Progress Measurement

STEP 6
Accountability and Responsibility

A guide for City Leaders
Step 1: Vision Setting

| 1. Identify a smart sustainable city vision | → | 2. Gather data on status of technology infrastructure & its usage | → | 3. Identify smart sustainable city stakeholders | → | 4. Identify existing governance and organizational mechanisms | → | 5. Identify mechanisms for multi-stakeholder involvement, citizen engagement, communication and information sharing |

A Guide for City Leaders
Step 1: Vision Setting

① Asking questions such as:

- What are our current strengths as a city?

- Who are our potential smart city stakeholders?

- Where are some of our weaknesses as a city

- What are some short term and long-term opportunities?

- What are the current trends in cities?

- What are the associated threats?

A Guide for City Leaders
Step 2: Target Identification

| 1. Develop smart sustainable city infrastructure and an integrated platform | → | 2. Identify and develop smart sustainable city services | → | 3. Define smart sustainable city KPIs | → | 4. Educate the stakeholders on the advantages of the smart sustainable city |
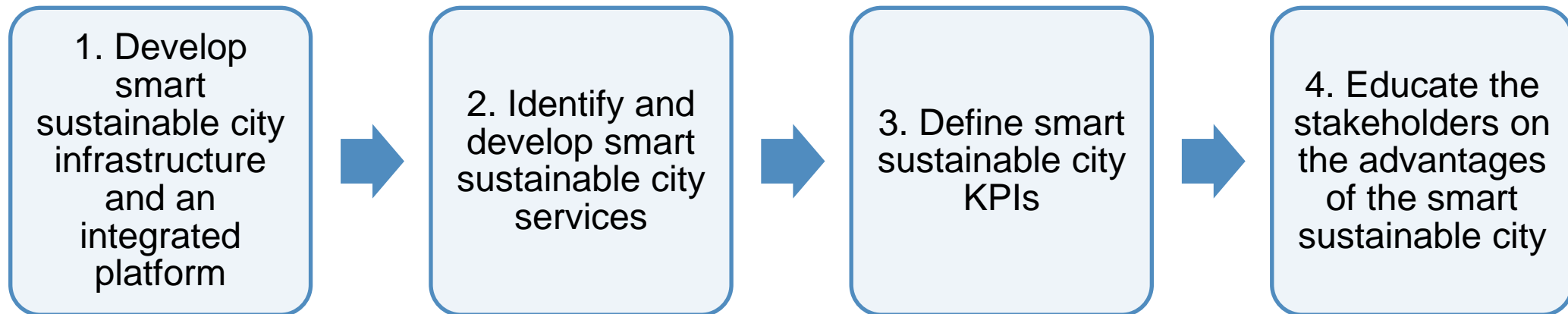
A Guide for City Leaders
Step 3: Stakeholder Consensus

1. Obtain the necessary stakeholder consensus, approval and backing for the smart sustainable city strategic programme

2. In accordance with: UN-Habitat's New Urban Agenda

3. Aligned with: Connect 2030
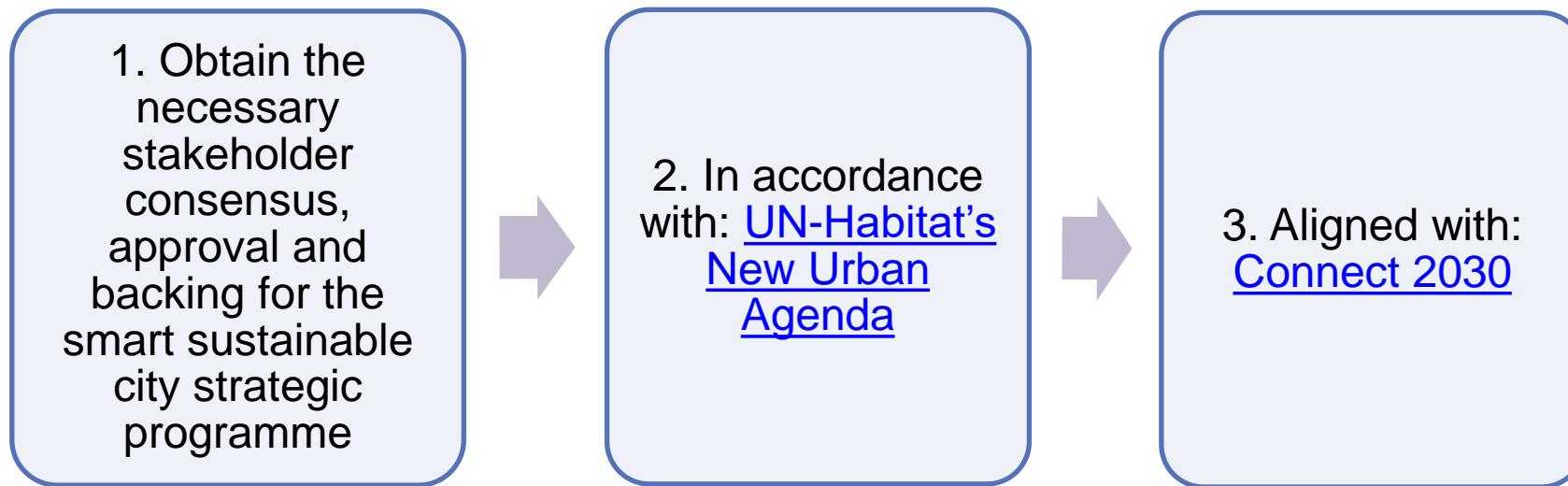
A Guide for City Leaders
Step 4: Building

1. Make a feasible master plan for your smart sustainable city journey

→

2. Conform to appropriate construction models

→

3. Ensure long term services via good operation and maintenance post infrastructure implementation

A Guide for City Leaders
Step 5: Progress Measurement

Monitor and evaluate a work programme required to achieve the smart sustainable city targets, including close coordination and collaboration among smart sustainable city stakeholders, as well as an assessment on basis of KPIs

A Guide for City Leaders
Step 6: Accountability and Responsibility

Evaluate, report and learn from the smart sustainable city process and related experiences, including through an assessment of implementation of the work programme and analysis of strengths and shortcomings

Tool #2

Smart Sustainable City Strategy

Smart Sustainable City Strategy
ITU Resources

International Telecommunication Union

ITU-T
TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Series Y
Supplement 33
(07/2020)

SERIES Y: GLOBAL INFORMATION
INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS,
NEXT-GENERATION NETWORKS, INTERNET OF
THINGS AND SMART CITIES

ITU-T Y.4000 series – Smart sustainable cities – Master plan

ITU-T Y-series Recommendations – Supplement 33
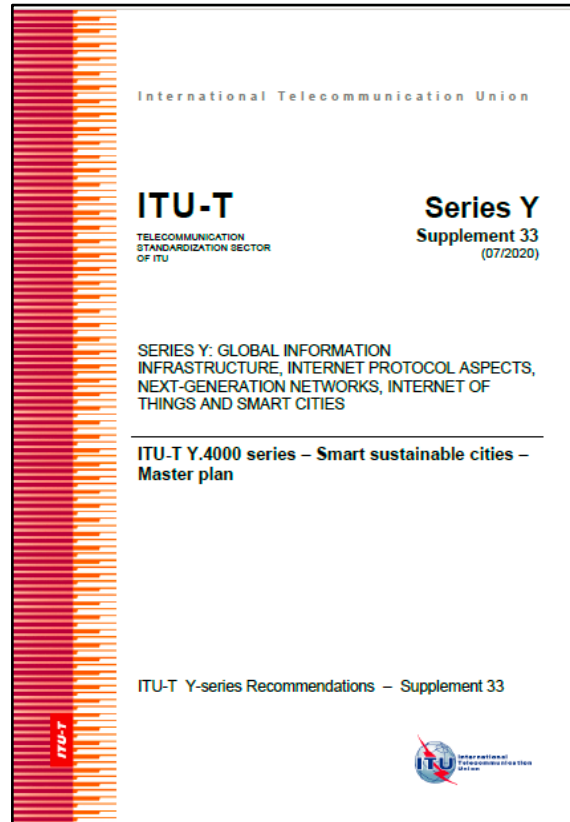
ITU-T Series Y Supplement 33: 'Smart sustainable cities – Master Plan

Smart Sustainable City Strategy
The Smart Sustainable City Strategy Planning Framework
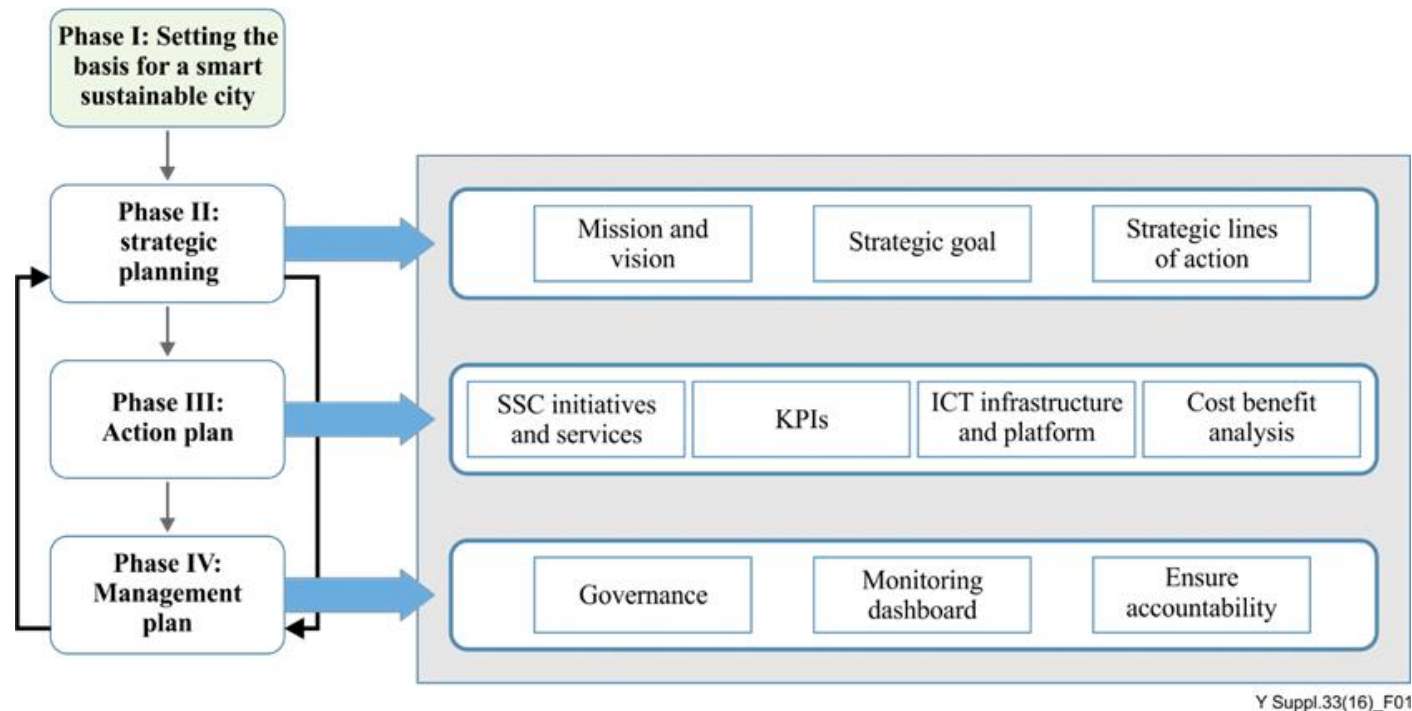
ITU-T Series Y Supplement 33: 'Master Plan'

Smart Sustainable City Strategy
Four Phases

There are four general phases that every city can use to develop its smart sustainable city strategy:

Phase I: Setting the basis for a smart sustainable city

Phase II: Strategic planning

Phase III: Action plan

Phase IV: Management plan

Smart Sustainable City Strategy Planning
Phase 1: Setting the basis for a smart sustainable city

When embarking on the city's smart sustainable city master planning process, it is important to ask some key questions to establish the purpose, importance and tone of the planning process:

?

Why is Smart Sustainable City Strategy Development important for our city?

Where is our city starting its Smart Sustainable City Strategy Development from?

Smart sustainable City Strategy Planning
Phase 1: Setting the basis for a smart sustainable city

This self-assessment can determine which components should be included in the Smart Sustainable City Strategy Development process.

	Description	ITU guide	Already exists?	Include in workplan?
Key city facts and data	A document that summarizes the relevant information for strategy development purposes	• ITU-T Supplement Y.39: Key performance indicators definitions for smart sustainable cities and communities	◯ Yes ◯ No	◯ Yes ◯ No
Stakeholder list	A list of all potential smart sustainable city stakeholders	• ITU-T Supplement Y.34: Setting the stage for stakeholders' engagement	◯ Yes ◯ No	◯ Yes ◯ No
Stakeholder engagement plan	A plan for engaging the identified smart sustainable city partners and stakeholders	• ITU-T Supplement Y.34: Setting the stage for stakeholders' engagement	◯ Yes ◯ No	◯ Yes ◯ No
Strategic assessment	The strengths, areas of improvement and areas of opportunities and investment for the city or community from an smart sustainable city lens	• ITU-T Supplement Y.32: A guide for city leaders • ITU-T Supplement Y.33: Master plan	◯ Yes ◯ No	◯ Yes ◯ No
Smart sustainable city vision	A smart sustainable city vision to provide an ultimate goal that the smart sustainable city strategy is working towards	• ITU-T Supplement Y.32: A guide for city leaders • ITU-T Supplement Y.33: Master plan	◯ Yes ◯ No	◯ Yes ◯ No

Smart Sustainable City Strategy Planning
Phase 1: Setting the basis for a smart sustainable city

Table Continued

	Description	ITU guide	Already exists?	Include in workplan?
Strategic areas and goals	The broad smart sustainable city strategic areas or subjects to focus on, along with specific goals for each smart sustainable city strategic area	• ITU-T Supplement Y.32: A guide for city leaders • ITU-T Supplement Y.33: Master plan • ITU-T Supplement Y.53: IoT use cases	◯ Yes ◯ No	◯ Yes ◯ No
Prioritized action items	The specific action items to activate the smart sustainable city plan	• ITU-T Supplement Y.33: Master plan	◯ Yes ◯ No	◯ Yes ◯ No
Master plan	A written plan to convey the smart sustainable city undertaking	• ITU-T Supplement Y.33: Master plan	◯ Yes ◯ No	◯ Yes ◯ No
Action plan	A smart sustainable city implementation workplan	• ITU-T Supplement Y.33: Master plan	◯ Yes ◯ No	◯ Yes ◯ No
Measurement and evaluation plan	The key performance indicators to measure outcomes against the smart sustainable city plan	• ITU-T Supplement Y.32: A guide for city leaders • ITU-T Supplement Y.39: KPI definitions for SSC	◯ Yes ◯ No	◯ Yes ◯ No

Smart Sustainable City Strategy Planning
Phase 1: Setting the basis for a smart sustainable city

Key success factor assessment: Some sample questions

	Yes	Maybe	No
Is developing a smart sustainable city plan seen as necessary by the key stakeholders?	☐	☐	☐
Will the Smart sustainable City Strategy Development process be seen as objective and transparent?	☐	☐	☐
Are key stakeholders ready to collaborate and work together?	☐	☐	☐

Smart Sustainable City Strategy Planning
Phase 1: Setting the basis for a smart sustainable city

Smart Sustainable City Project Planning Team and Terms of Reference:

Element	Details
Purpose	
Responsibilities	
Membership	
Governance	
Meetings	
Resources	

Smart Sustainable City Strategy Planning
Phase 2: Strategic Planning

Key city facts and data

City profile	City technology asset categories	Current smart sustainable city programmes or initiatives	Past smart sustainable city programmes or initiatives
• Population: • Size: • Urban Density: • GDP: • Total Budget:	• Category 1 (e.g,. Transportation Network) • Category 2	• Programme 1 • Programme 2	• Programme 1 • Programme 2

Smart Sustainable City Strategy Planning
Phase 2: Strategic Planning

Smart sustainable city strategic assessment:
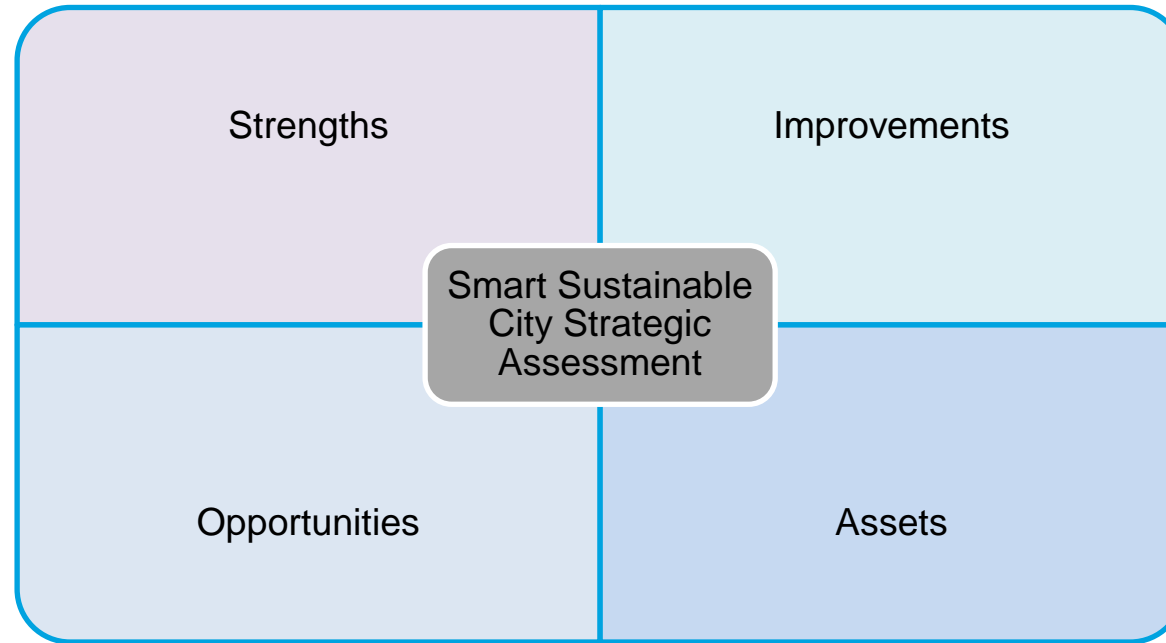
Smart Sustainable City Strategy Planning
Phase 2: Strategic Planning

Smart sustainable city visioning: A vision is necessary for providing direction to the Smart Sustainable City Strategy Development process. Developing the smart sustainable city vision statement includes the following steps.

1 Asking questions such as:

- What may the city look like in a given number of years, e.g., 10 years?

- What could the economic aspects of the city look like then?

- What may be different then from the present?

- What may be similar then to the present?

2 Shortlisting descriptive words, images or phrases that capture the ideal smart sustainable city vision of the city in the aforementioned timeframe.

3 Bringing these together in a smart sustainable city vision statement for the city.

Smart Sustainable City Strategy Planning
Phase 2: Strategic Planning

Smart sustainable city strategic area identification:

The smart sustainable city vision can be recorded at the centre of this map, and all brainstormed strategic areas in boxes A to E.

The darker boxes A, B and C would signify those chosen by voting / consensus as the top three target smart sustainable city strategic areas.
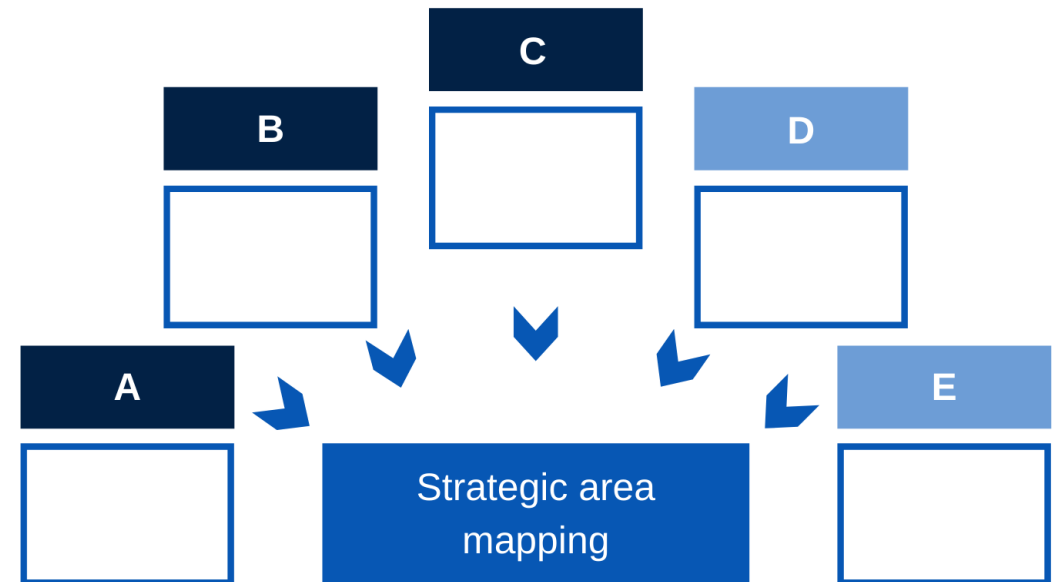
Smart Sustainable City Strategy Planning
Phase 2: Strategic Planning

Smart sustainable city strategic area goals:

Vision	
Strategic Area	Strategic Goals(s)
1.	
2.	

Action plan development:

Vision	
Strategic Area	Action Ideas(s)
1.	
2.	

Smart Sustainable City Strategy Planning
Phase 3: Action Plan

Prioritizing activities (with some examples filled in):

Action	Financially Realistic	Ease of Implementation	Partner Benefits	Score
	(1=low degree; 3=moderate degree; 5=high degree)			
Develop the smart sustainable city website	5	6	4	15
Smart sustainable city marketing campaign	3	4	5	12
Smart sustainable city initiative 1	3	3	5	11
Action X				
Action Y				
Action Z				

Smart Sustainable City Strategy Planning
Phase 3: Action Plan

Prioritizing activities (with some examples filled in):

Vision	Strategic Area	Strategic goal (if applicable)	Action
Record your vision here			

Smart Sustainable City Strategy Planning
Phase 4: Management plan

Strategic Area	Evaluation Question	Information Source	Method	Responsibility
XX				
Overall				

Smart Sustainable City Strategy Planning
Phase 4: Management plan

Monitoring using U4SSC KPIs for smart sustainable cities

The U4SSC KPIs are a tool that cities and communities can use to monitor, benchmark, compare and analyze their smart sustainable city implementation results.

The Collection Methodology document provides cities and communities with a methodology on how to collect the data or information linked to the U4SSC KPIs. Cities and communities are encouraged to periodically check their performances against the recommended indicators listed in Recommendation ITU-T Y.4903/L.1603 and the Collection Methodology document in order to improve their performance.
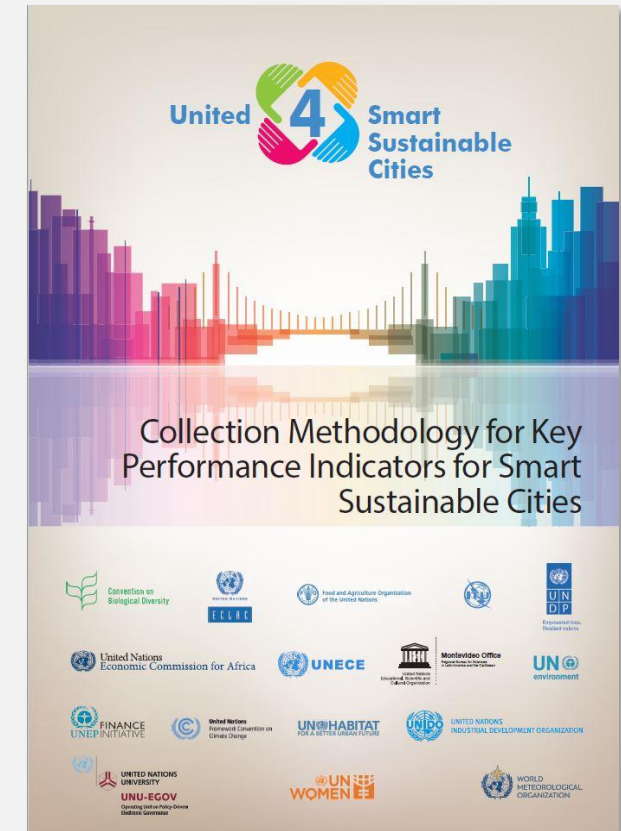
Smart Sustainable City Strategy Planning
Phase 4: Management plan

Accountability through maturity model
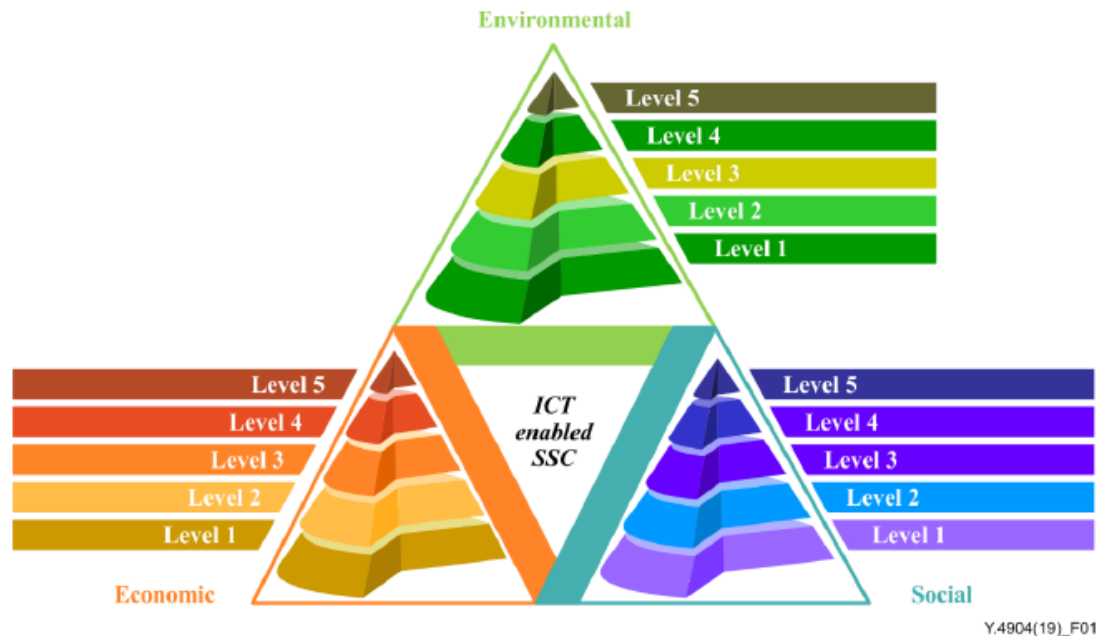
Smart sustainable city maturity model (SSC-MM)
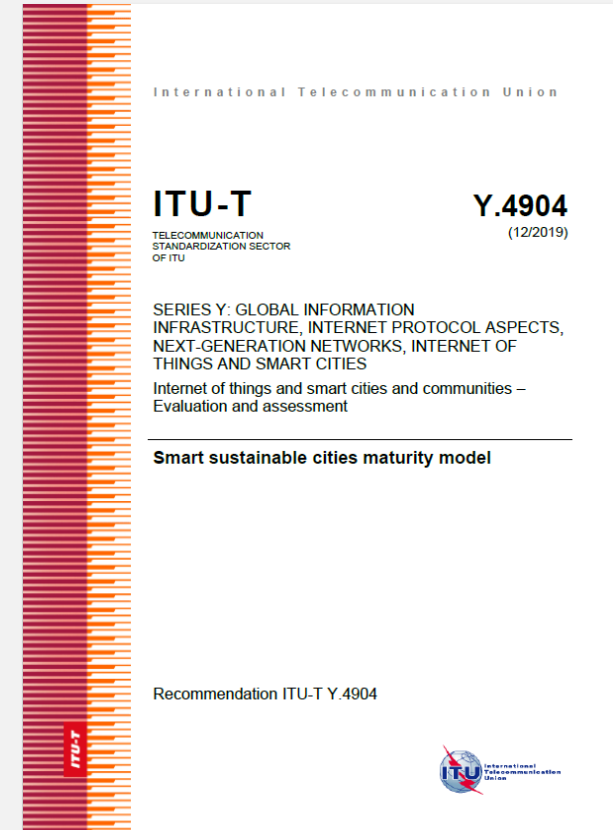
Smart Sustainable City Strategy Planning
Phase 4: Management plan

Accountability through impact assessment

Smart sustainable city impact assessment types
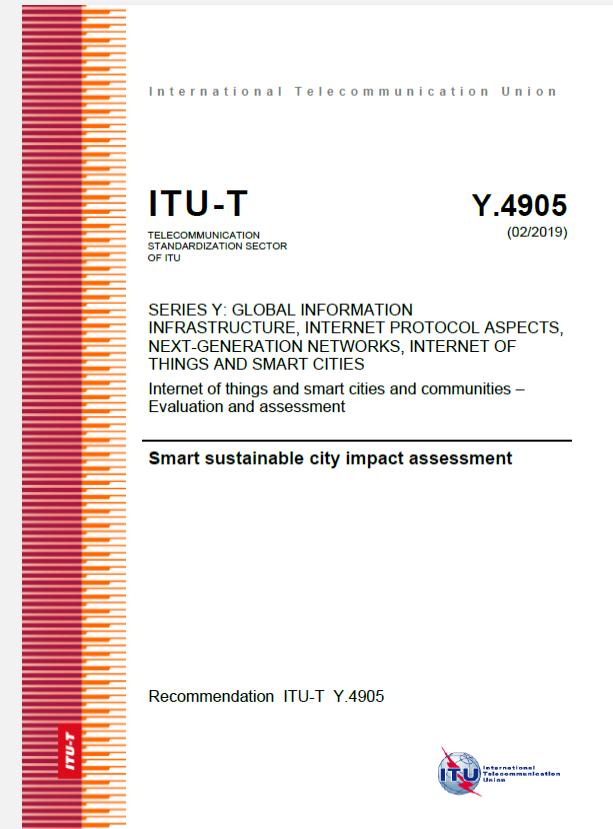
Smart Sustainable City Strategy Planning
Phase 4: Management plan

Accountability through sector assessment
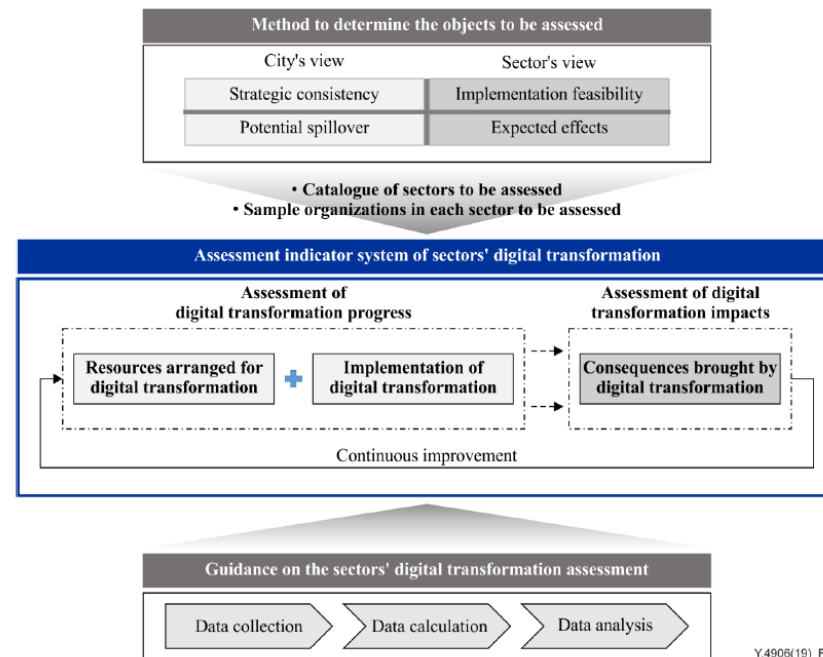
Overview of the assessment framework for digital transformation of sectors
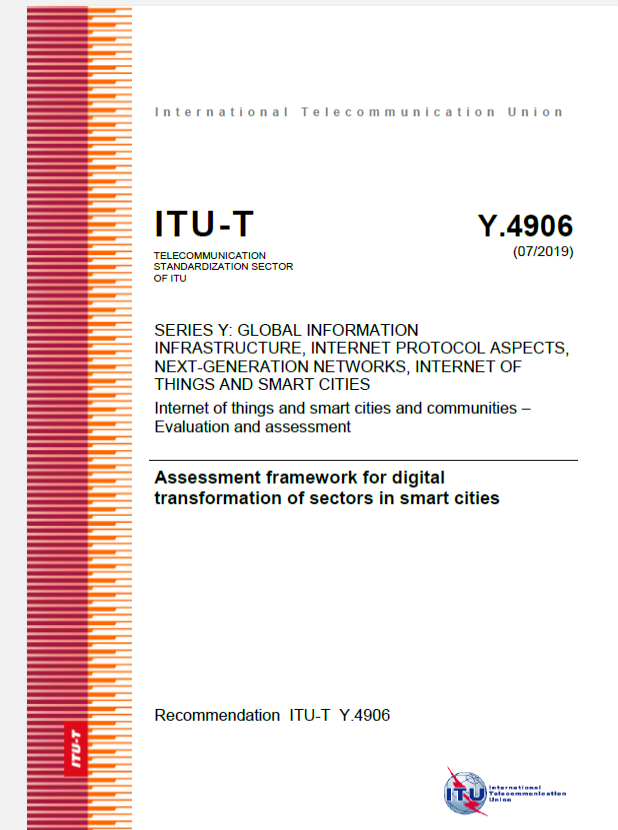
Tool #3

Engaging Stakeholders

Setting the Stage for Stakeholder Engagement

Full smart sustainable city stakeholder analysis process:
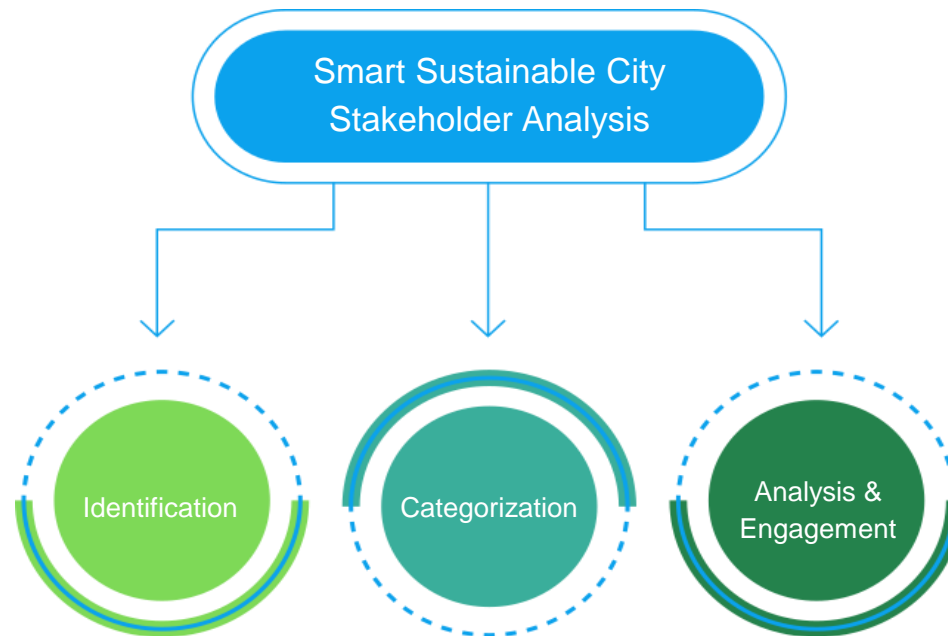
ITU-T Series Y Supplement 34: 'Setting the stage for stakeholder engagement'
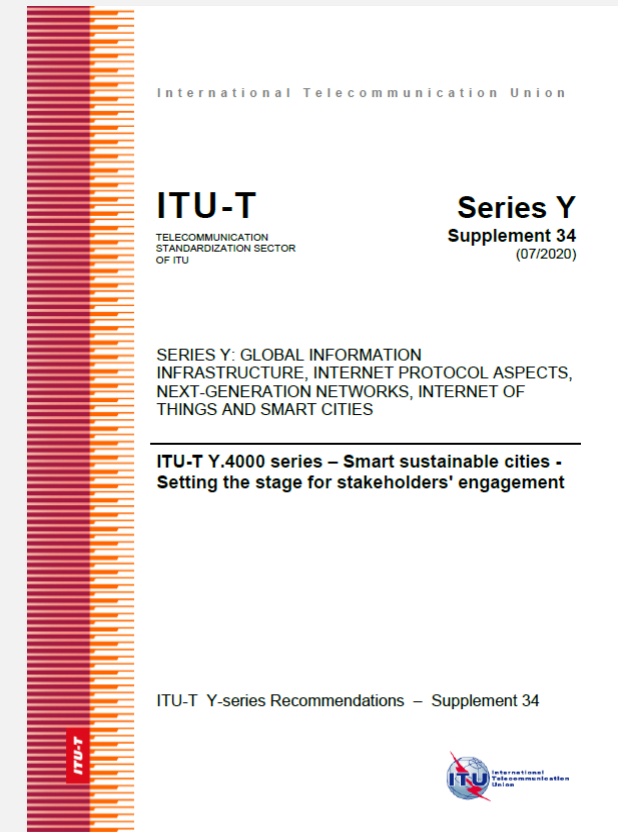
Setting the Stage for Stakeholder Engagement
Step 1: Identification

Identification
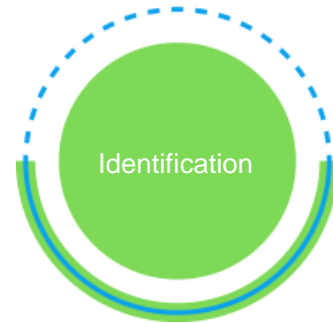
Stakeholder selection questions:

Questions	List of Partners/Stakeholders
Who should/could be involved?	
Who might benefit?	
Who might be negatively affected?	
Who should be included because of their relevant formal position?	
Who should be included because they have control over relevant resources?	
Who has the power to hinder or block implementation?	
Which groups are excluded?	

Setting the Stage for Stakeholder Engagement
Step 1: Identification

Identification
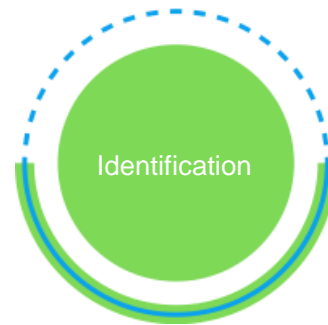
The following checklist can be used to narrow down your city's stakeholders:

☐	Municipalities, city councils and city administrations	☐	International, regional and multilateral organizations
☐	National and regional governments	☐	Businesses and business associations
☐	City services companies	☐	Academia, research orgs. & specialized bodies
☐	Utility providers	☐	Residents and residents' organizations
☐	ICT companies	☐	Urban planners
☐	NGOs	☐	Standardization bodies

Setting the Stage for Stakeholder Engagement Step 2: Categorization
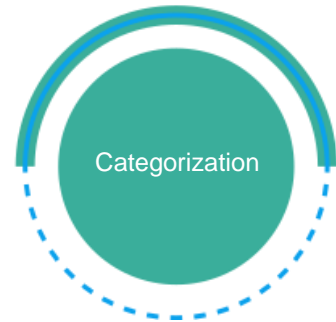
General classification of stakeholders:
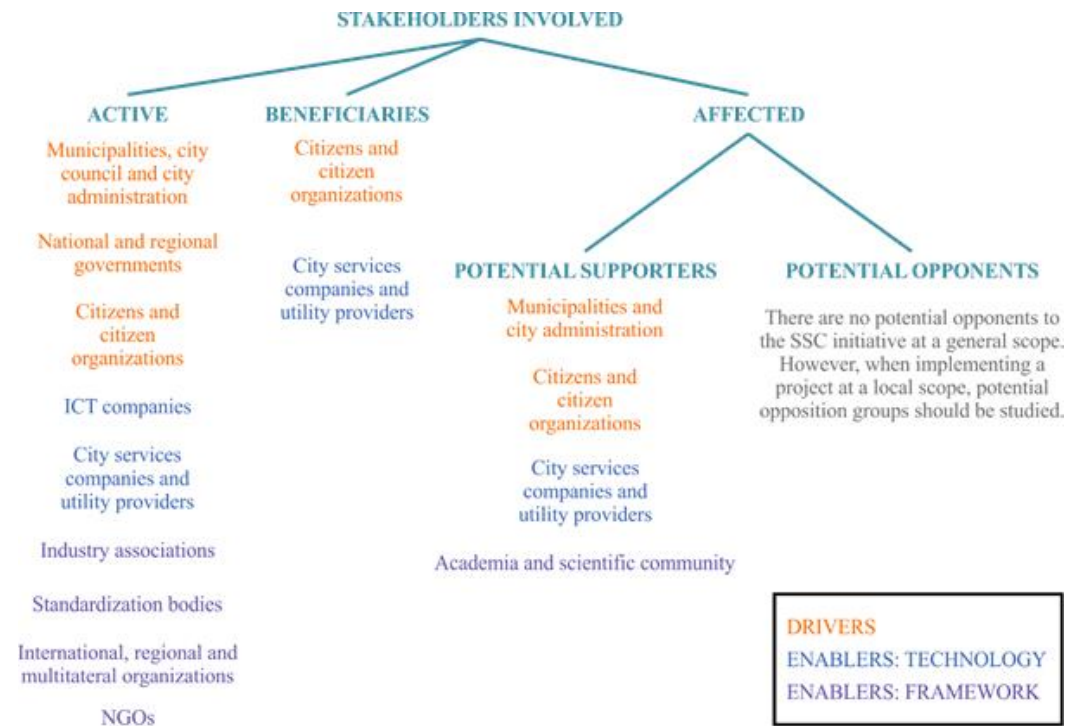
Setting the Stage for Stakeholder Engagement
Step 3: Analysis & Engagement

The components of stakeholder and engagement analysis are:
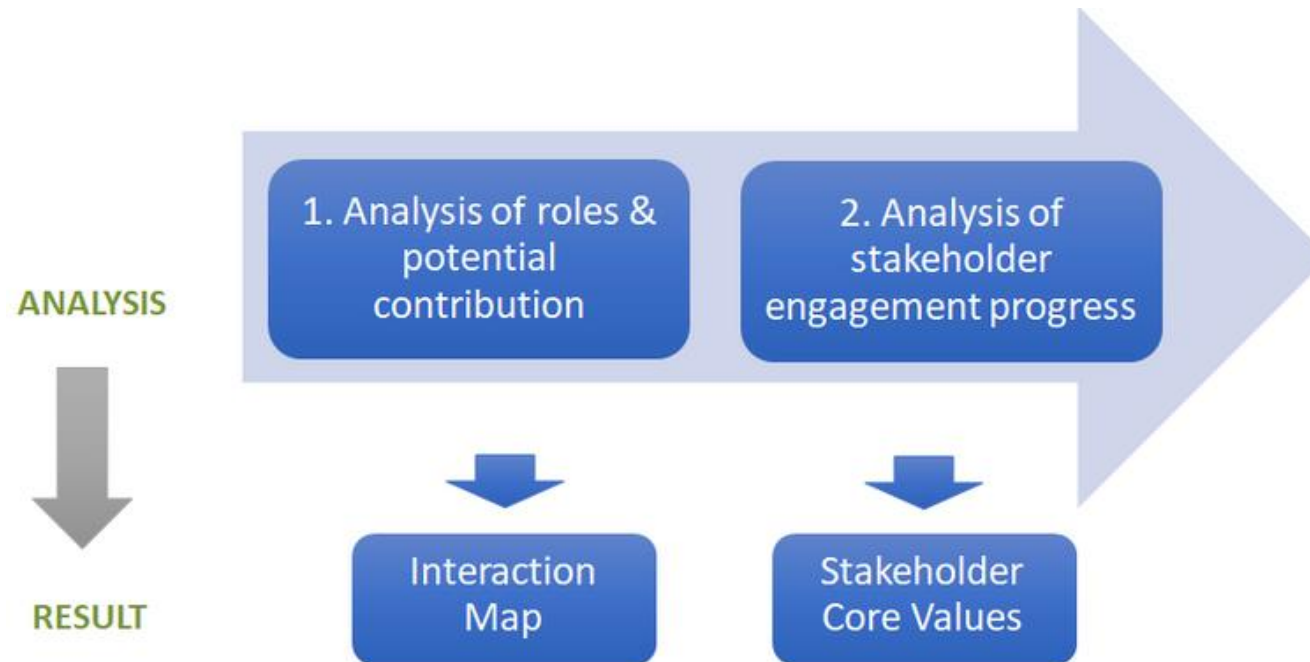
Setting the Stage for Stakeholder Engagement
Step 3: Analysis & Engagement

A   Stakeholder analysis:

No	Aspect	Details
1	**Scale and Sector**	The scale at which the stakeholder operates e.g. local, regional or national scale e.g. public or private sector
2	**Aims & Challenges**	The key objectives or advantages they seek from their involvement in SSCs
3	**Potential**	Their knowledge, experience and know-how
4	**Constraints**	The issues that limit the realization of their role within SSC, including lack of coordination, lack of expertise, limited financial resources, etc.
5	**Role and Contributions**	The role of the stakeholder with respect to SSC's goals, and the contributions towards their achievement.

Reiterative Process

Setting the Stage for Stakeholder Engagement
Step 3: Analysis & Engagement

B Stakeholder analysis:

City services companies and utility providers

ICT companies

Municipalities, city council and city administration

Citizens and citizen organizations

NGOs

National and regional governments

Industry associations

Academia, research organizations and specialized bodies

International, regional and multilateral organizations

Standardization bodies
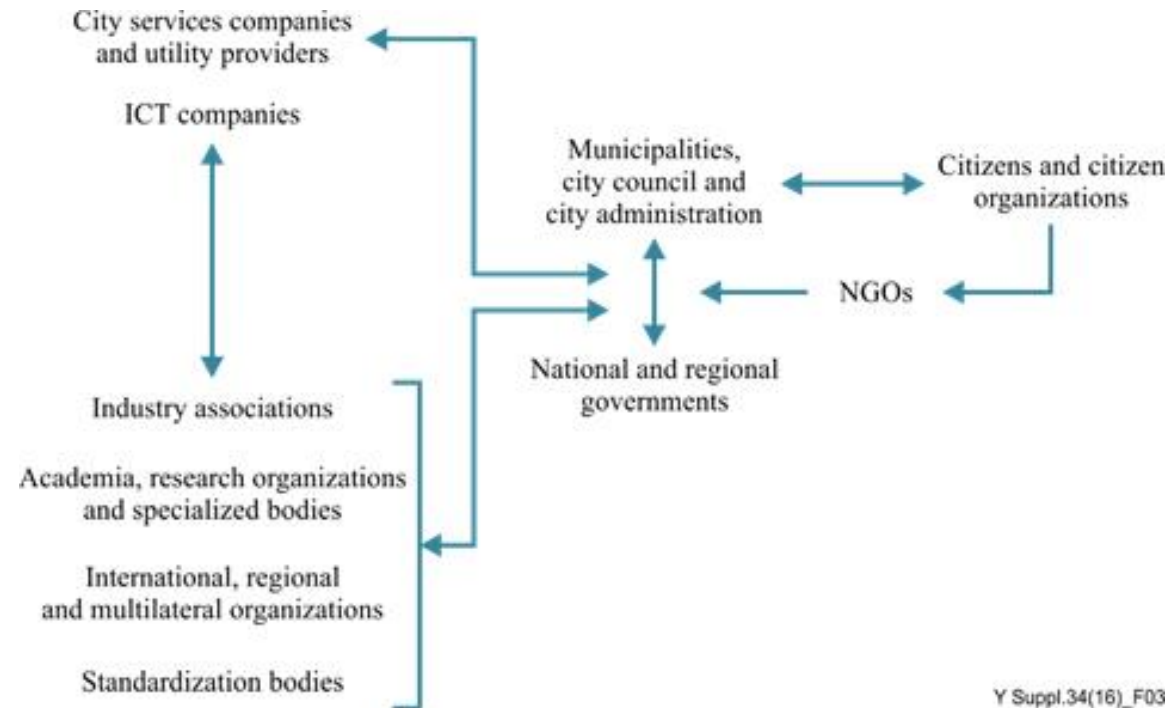
Y Suppl.34(16)_F03

Setting the Stage for Stakeholder Engagement Results

A complete smart sustainable city stakeholder analysis table can look like the following example:

Stakeholder	Scale or Sector	Aims and challenges		Potential and constraints		Role in smart sustainable city rollout
Municipalities, city council and administration	Local Public	• Increase efficiency (energy and economy) • Increase environmental sustainability • Aim to provide residents the best service	• Shrinking budgets • Growing voter demand for transparency and resident participation • Pressure by local, national and international agreements & targets for sustainable development	• Expertise on city management • In-charge of city services provision	• Lack of inter departmental coordination • Lack of professionals with smart sustainable city specific knowledge • Budget allocation constraints	• Strong driver of SSC • Promote smart sustainable city initiatives and decide the roadmap to follow and specific solutions to be implemented • Engage residents and communicate benefits of SSC • Monitor city services; define KPIs & evaluate • Promote smart sustainable city services provision and integrated management

Innovation and Participation in Cities

Smart Governance

| Dubai Government Electronic shared services | Singapore: A Smart Sustainable City on the horizon | Fit-for-purpose land register |

Smart People

| The Seoul Open Data Plaza | Skill development and entrepreneurship - India |

Smart Economy

| Dubai: The first city on the blockchain | Airport PPP experience in India | Maribor, Slovenia PPP | London Green Fund |

Tool #4

Local Online Service
Index (LOSI)

United Nations E-Government Survey Local Online Service Index (LOSI)

Municipalities are closer to people more than national/federal government as it deals with daily activities of citizens

Assessment initiatives designed toward assessing e-Government development **at the local level** still seem to **be at an early stage**

Help cities measure their progress, what they have achieved, and where they stand now against a set of clearly defined criteria

Shape wide agreement toward consider **LOSI as a common and acceptable base ground** that allows accurate international comparisons among cities as well as easing the process of cities comparability over time.

A **motivation for cities to improve** and further develop online public services and also a healthy competition among cities themselves.

E-Government Survey
Local Online Service Index (LOSI)

Launched in 2018, the Local Online Service Index (LOSI) represents the latest major addition to the E-Government Survey methodology. The UN DESA-developed LOSI assessment captures the state of the development of e-government service provision at the city level across the United Nations Member States.
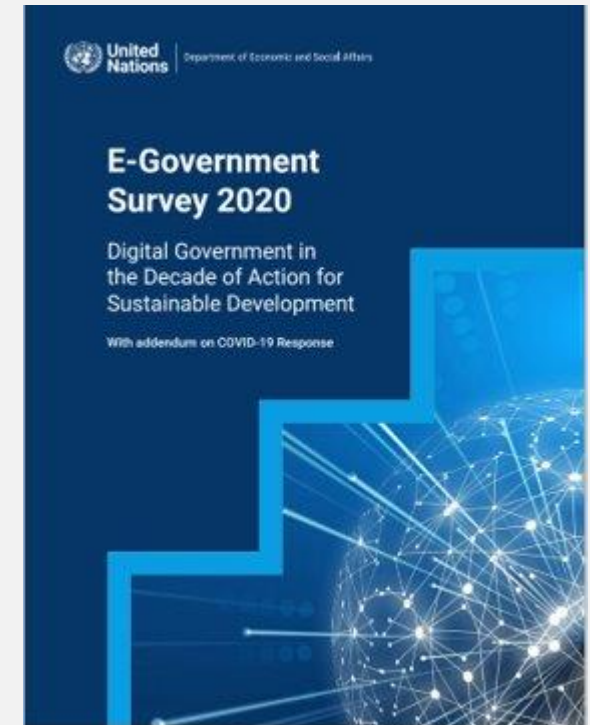
Local Online Service Index (LOSI) Methodology

The Local Online Service Index (LOSI) is composed of 86 indicators in 2022 edition

Each indicator is a binary question in the Local Government Online Service Questionnaire (LSQ) – similar to Online Service Index (OSI) at national level

Each city portal was assessed by at least two researchers who conducted the assessment in the country's national language the city belongs to

Indicators fall in 5 Categories

What is LOSI?

The Local Online Service Index (LOSI) was initiated in 2018 as a pilot study assessing portals in 40 cities and seeks to continue to provide evidence-based data to contribute to the assessment of progress made in local e-government development.

The latest 2022 edition with 86 indicators looked at the most populous city in each of the 193 UN member states. The indicators fall in 5 criteria: institutional framework (8), content (25), services (18), participation (17), and technical (18).

Local Government Questionnaire (LGQ)

Local Government Questionnaire (LGQ)

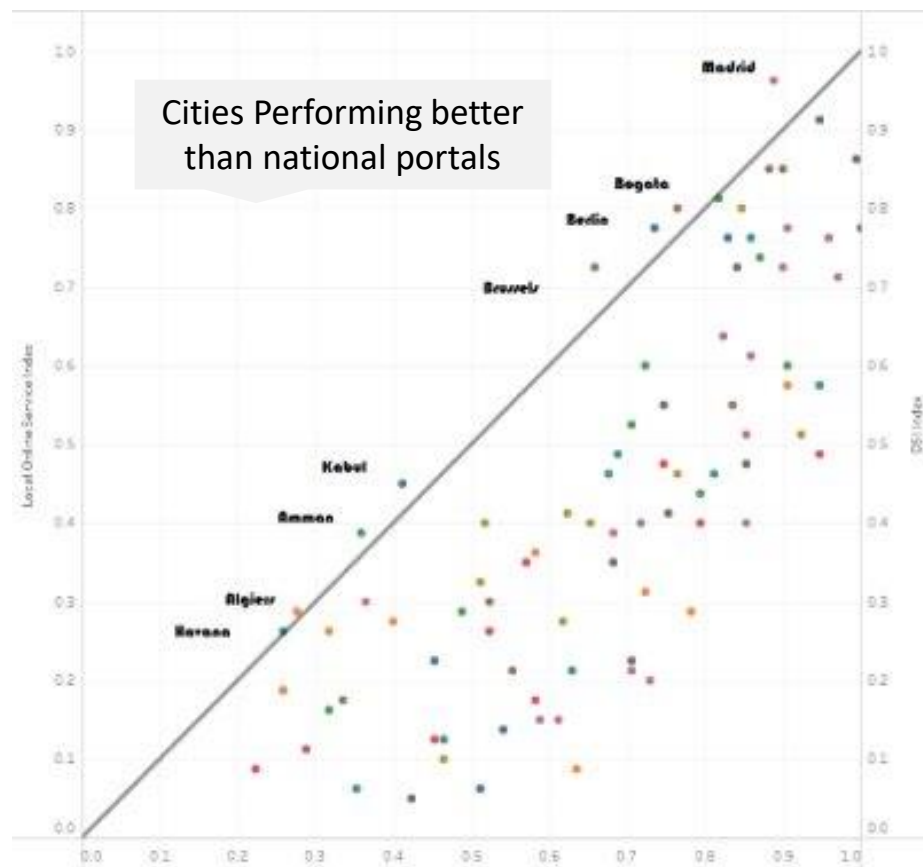
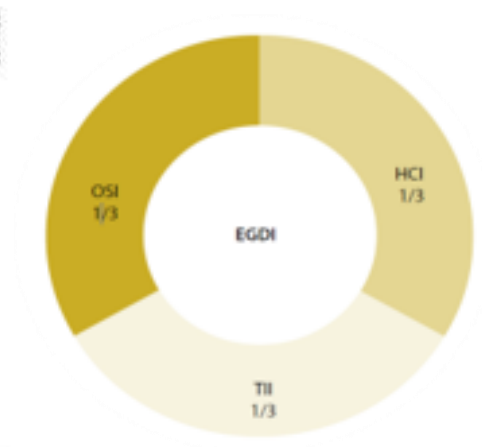Cities Performing better than national portals

Table 4.1   LOSI and OSI levels: convergence and divergence. (Number and percentage of cities)

	Very high OSI 2020	High OSI 2020	Middle OSI 2020	Low OSI 2020
Very high LOSI 2020	13 (15.1%)	1 (1.2%)	None	None
High LOSI 2020	12 (13.9%)	4 (4.7%)	None	None
Middle LOSI 2020	9 (10.5%)	16 (18.6%)	8 (9.3%)	None
Low LOSI 2020	None	11 (12.8%)	12 (13.9%)	None

LOSI vs. OSI

In 2020, around 70 percent of the cities surveyed have LOSI levels that are lower than the OSI levels for the countries in which they are located

Further Information and Getting Involved

For more information about previous LOSI studies including detailed methodology, evaluation results, challenges, opportunities and recommendation for local e-governance, etc., **please visit the City Data Page on UN E-Government Knowledgebase at:** https://publicadministration.un.org/egovkb/en-us/Data/City

UN DESA welcomes collaboration in applying LOSI methodology in different countries. Interested parties are encouraged to **visit the LOSI Pilots Page on UN E-Government Knowledgebase at** https://publicadministration.un.org/egovkb/en-us/About/LOSI-PILOTS **or send an email at** dpidg@un.org.
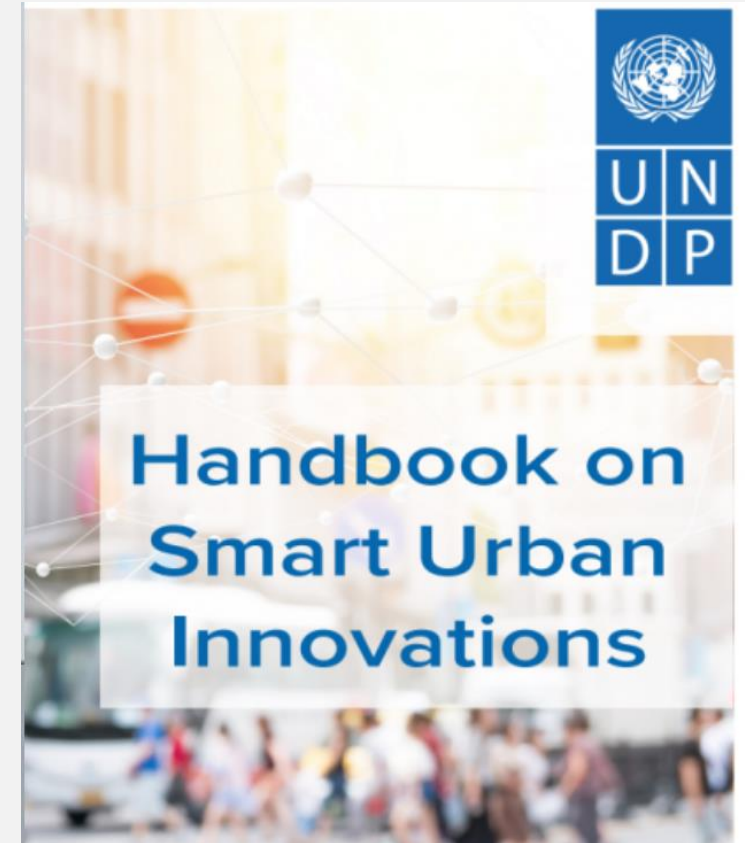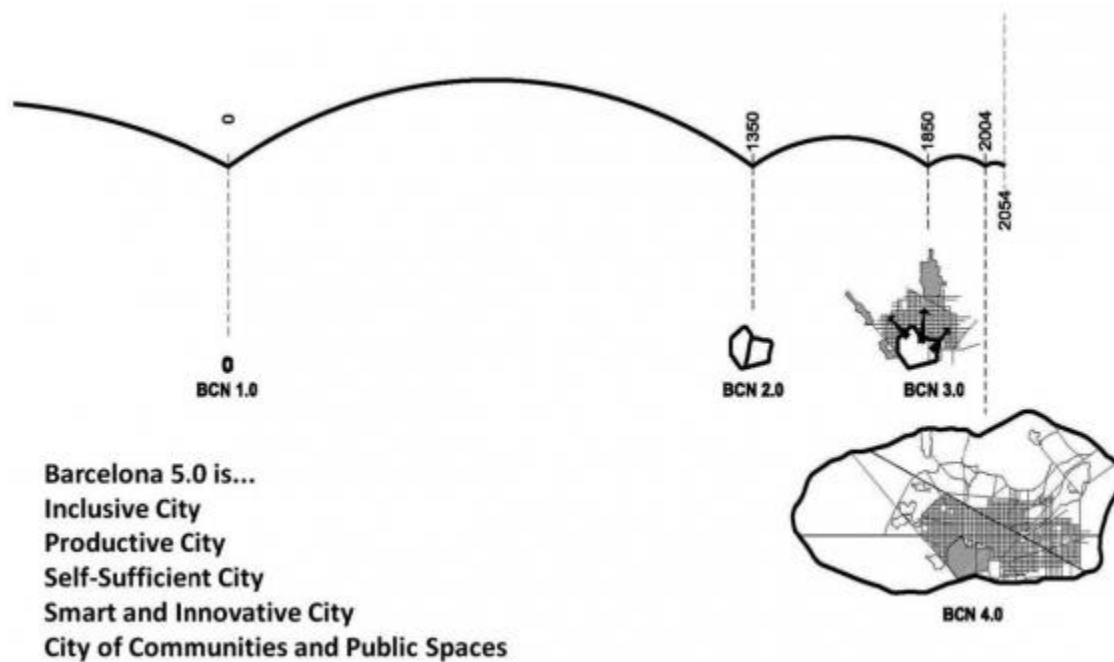
Tool #5

Case Studies & Handbook

Smart Sustainable City Strategy
Handbook

[Handbook on Smart Urban Innovation](i)

Digital Transformation Strategies
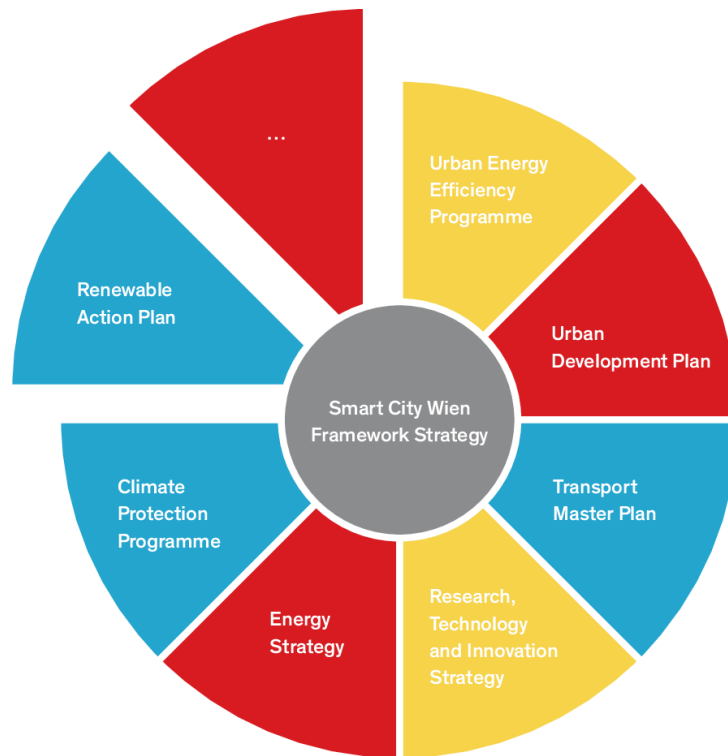## Case Study: Barcelona, Spain

Barcelona 5.0 is...
Inclusive City
Productive City
Self-Sufficient City
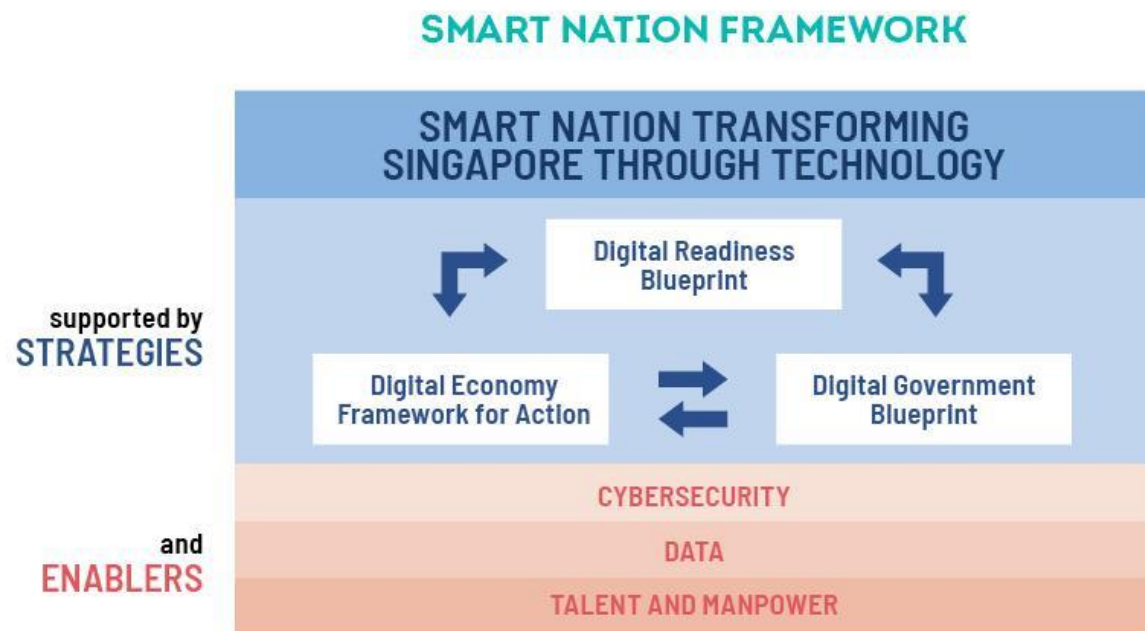Smart and Innovative City
City of Communities and Public Spaces

(Image Source)

Digital Transformation Strategies
Case Study: Vienna, Austria

(Image Source)

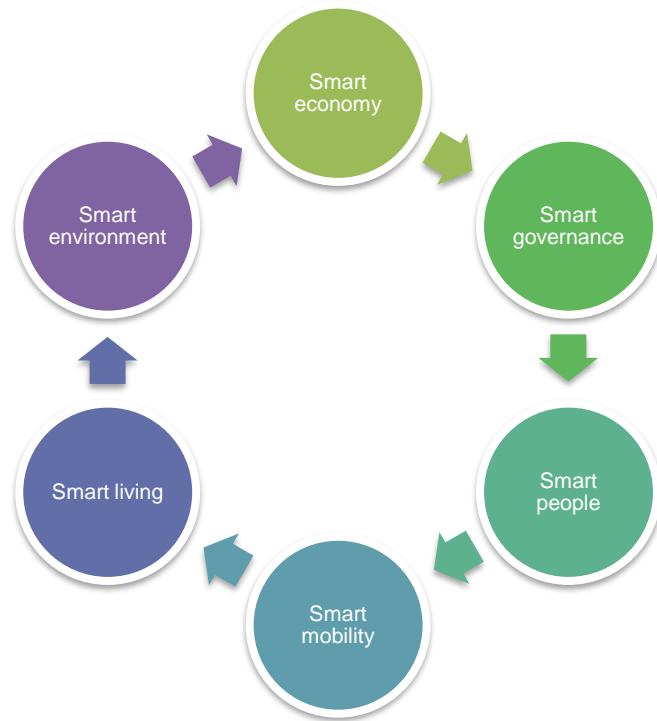# Digital Transformation Strategies
Case Study: Singapore

SMART NATION FRAMEWORK

SMART NATION TRANSFORMING SINGAPORE THROUGH TECHNOLOGY

Digital Readiness Blueprint

supported by STRATEGIES

Digital Economy Framework for Action

Digital Government Blueprint

and ENABLERS

CYBERSECURITY

DATA

TALENT AND MANPOWER

([Image Source](#))

Digital Transformation Strategies
Case Study: Jakarta, Indonesia.

- Smart economy
- Smart governance
- Smart people
- Smart mobility
- Smart living
- Smart environment

Six components of the Jakarta Smart City framework

Digital Transformation Strategies
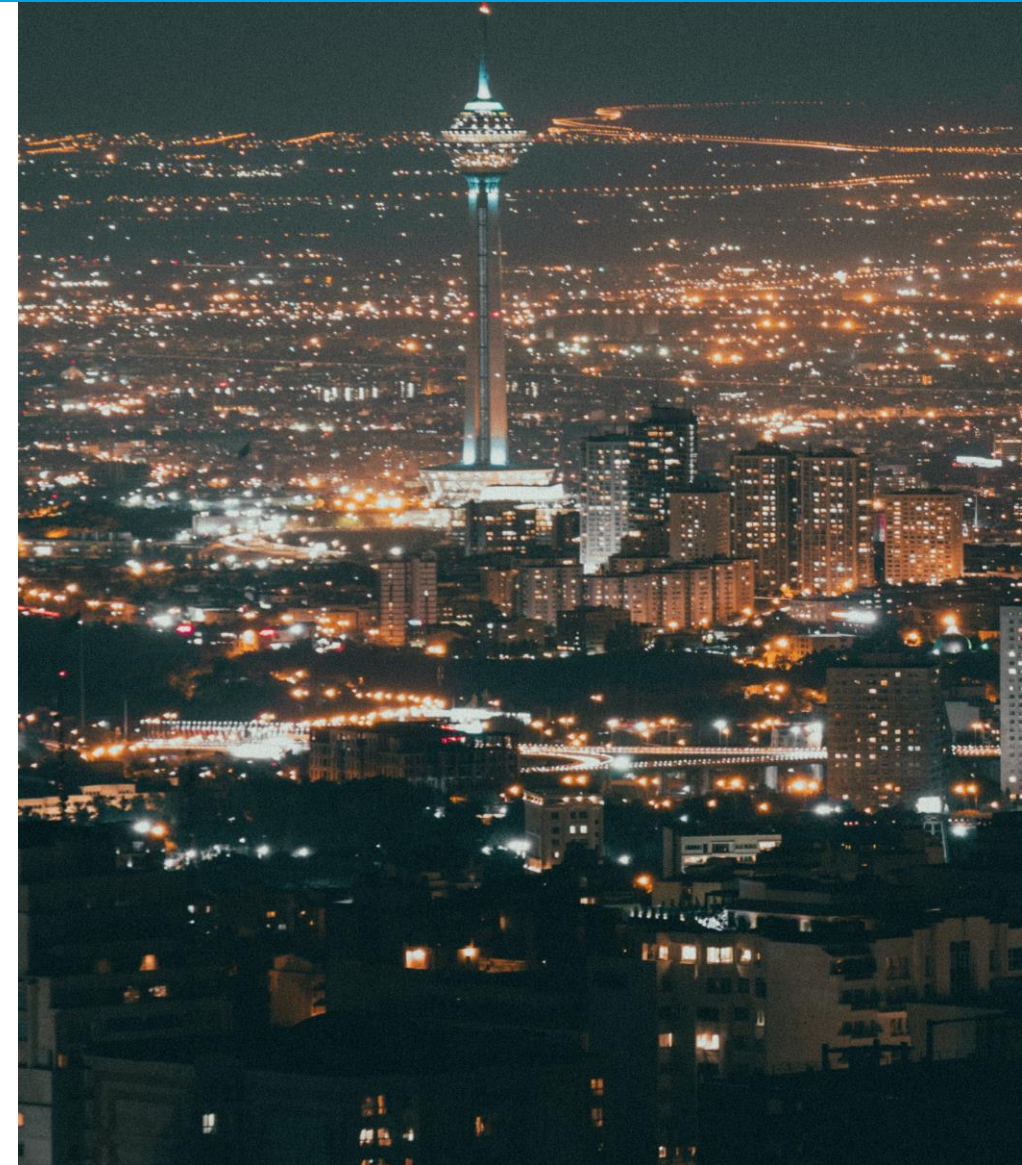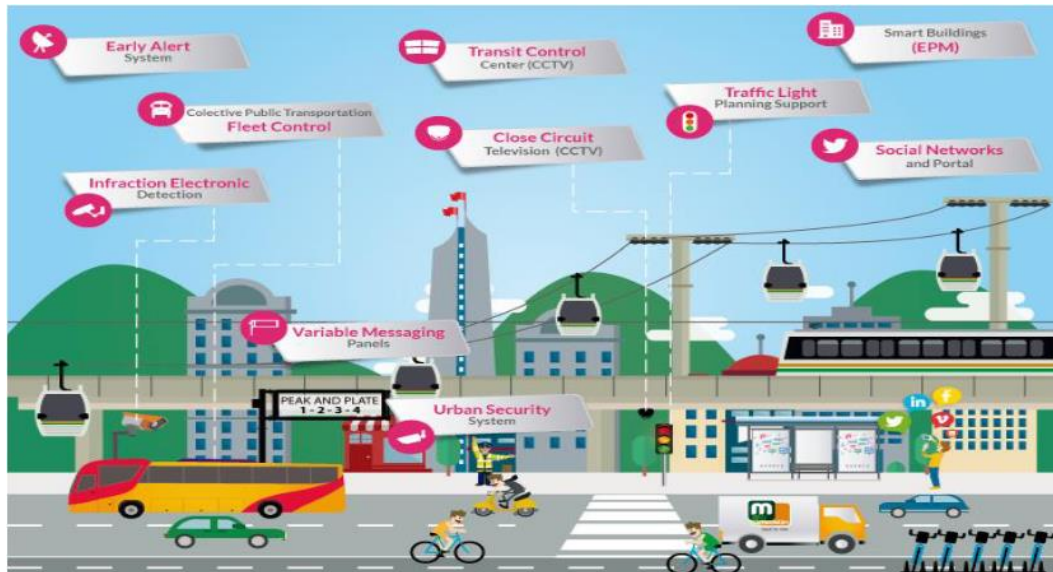## Case Study: Kampala Smart City — Uganda

Image Source

Digital Transformation Strategies
Case Study: Smart Tehran Program — Iran

Digital Transformation Strategies
Case Study: Medellin, Colombia

Image Source

Module 2 –
Developing a Digital Transformation Strategy for Cities and Communities

Thank you for completing this Module of the ITU Toolkit on Digital Transformation for People-Oriented Cities and Communities.

We hope that you found the information in this Module useful toward planning and initiating your city or community's digital transformation process.

Please review the resources highlighted within for further details, including valuable real-world use cases, on how to get started on – and optimize from the onset – your city or community's digital transformation journey.

[Toolkit on
Digital Transformation for
People-Oriented Cities
and Communities](#)

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