

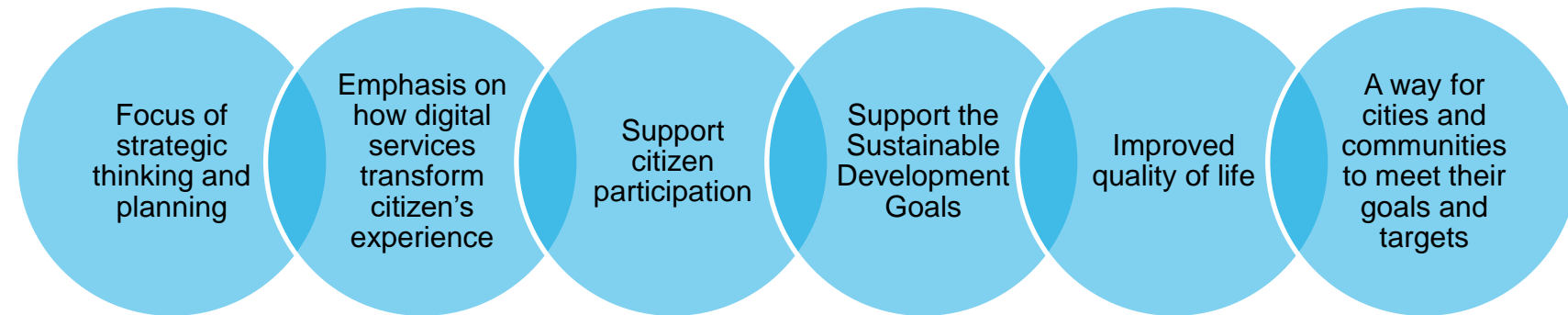
Overview of the Toolkit on Digital Transformation for People-Oriented Cities and Communities

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Project Officer ITU

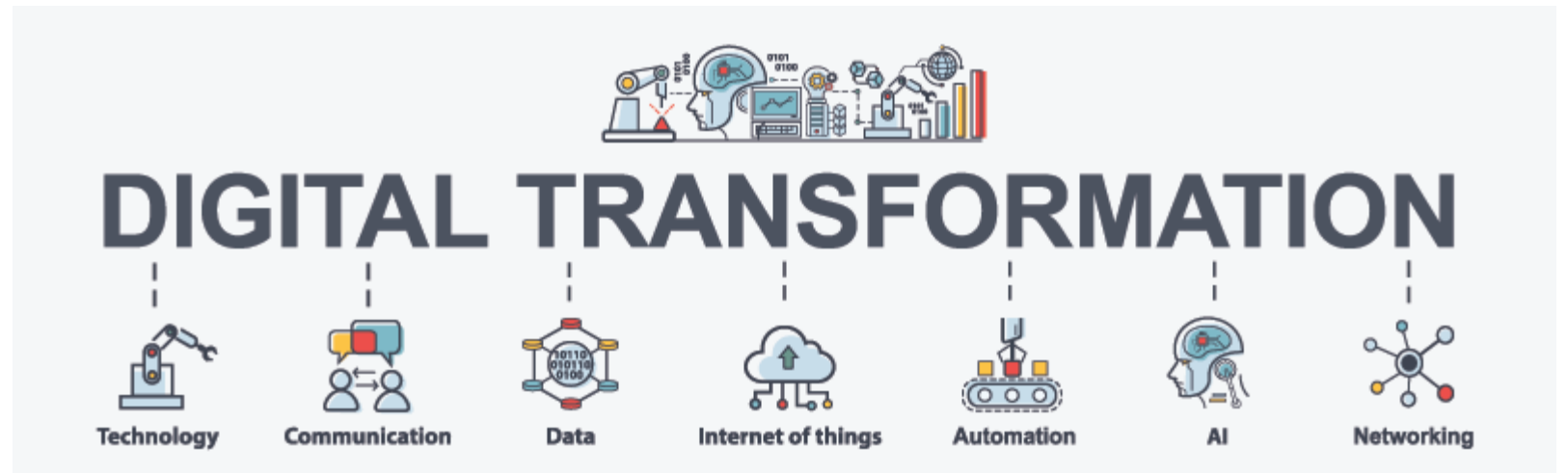
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What is Digital Transformation in the Context of People-Centred Cities?



Digital Technology Opportunities



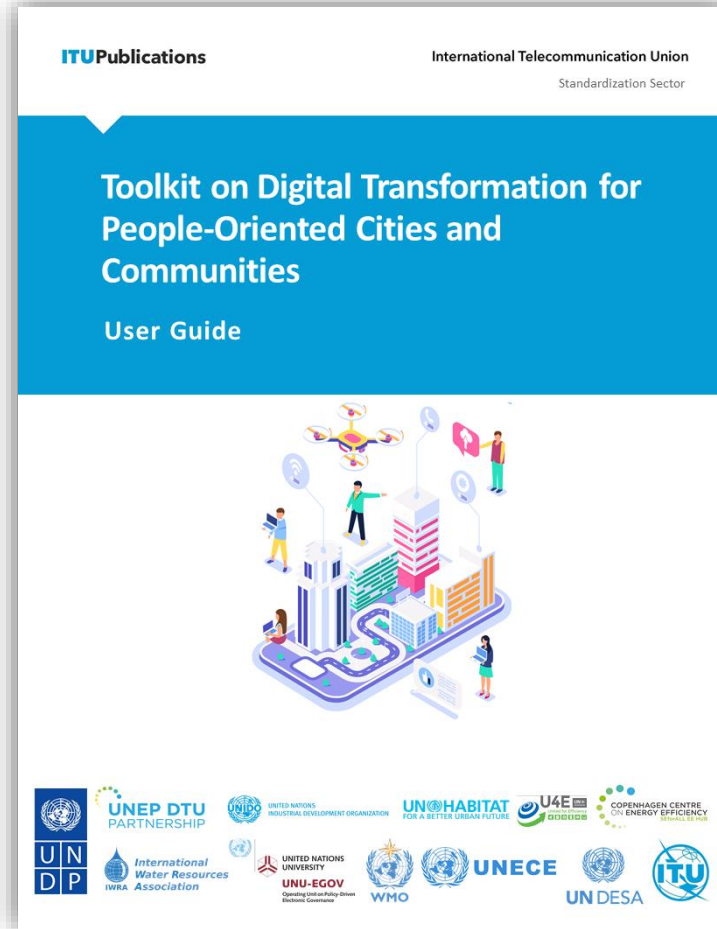
What is a Smart Sustainable City?



A smart sustainable city is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, environmental as well as cultural aspects“

Recommendation ITU-T Y.4900

Toolkit on Digital Transformation for People-Oriented Cities and Communities



Digital Transformation of Cities and Communities

Digital Transformation of Cities and Communities will help set the framework and provide an overview of what digital transformation is, and what it means for cities and communities.

Module 1 – Digital Transformation for People-Oriented Cities and Communities

- This Module of the ITU Toolkit for Digital Transformation for People-Oriented Cities and Communities focuses on providing the foundations of implementing digital technologies in cities and communities.
- Cities and communities that are starting on their digital transformation journey will find the resources highlighted within this Module useful towards putting the foundations in place.
- This Module is also useful for cities and communities that are beginning their journey towards digital transformation and need to understand the various opportunities available to them.

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Contributing UN Agencies



The Toolkit is ...

- ✓ A one-stop guide containing latest international standards (such as ITU-T Recommendations) and other ITU resources, publications and reports.
- ✓ An endeavor to identify the climate impacts affecting the ICT sector as well as potential solutions offered by the same sector.
- ✓ A comprehensive, yet non-exhaustive collation of information that is meant to inspire and support global action to address climate change.

The Toolkit is not ...

- × A strategy document.
- × A call-to-action to government entities or the ICT sector to obligatorily implement every solution that is recommended.
- × An exhaustive list of all challenges or possible solutions as they relate to digital technologies.
- × A promotion of any specific country, city, community, company or external organization – or of any specific product or service.

Who are the Intended Users of the Toolkit?



Government managers, city planners, and administrators



Trainers of smart sustainable city technologies, platforms and solutions in cities



Technology procurement officials, technology suppliers, and developers who design smart sustainable city networks, platforms, apps and solutions



Policy-level staff in government or non-government organizations who are in a position to influence policy development and resource allocation for urban projects



Social and community professionals or advocates working with neighbourhoods and communities in cities on revitalization and revamp projects.

How Should the Toolkit be Used?

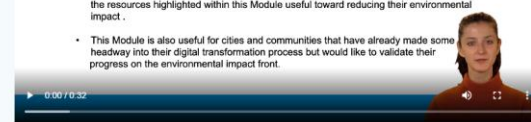


Reduce the Environmental Impact of Cities

Digital transformation to reduce the environmental impact of cities helps urban stakeholders identify, promote and enact approaches and solutions that use technology and data to address major challenges that cities and communities face to improve sustainability, climate and environmental outcomes for residents.

Module 6:
Digital Transformation to Reduce the Environmental Impact of Cities

- This Module of the Toolkit on Digital Transformation for People-Oriented Cities and Communities focuses on employing digital transformation to reduce the environmental impact of cities.
- Cities and communities that are starting on their digital transformation journey will find the resources highlighted within this Module useful toward reducing their environmental impact.
- This Module is also useful for cities and communities that have already made some headway into their digital transformation process but would like to validate their progress on the environmental impact front.



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4IR and Smart Manufacturing

4IR and Smart manufacturing helps deploy Industry 4.0 technologies and next-generation manufacturing capabilities that revolutionize how products and components are designed, manufactured, distributed and repaired across a spectrum of industries and climate conditions in the urban space.

Module 10 – 4IR and Smart Manufacturing

This Module of the Toolkit on Digital Transformation for People-Oriented Cities and Communities focuses on how Fourth Industrial Revolution (4IR) technologies can be leveraged to address various manufacturing challenges in the context of a smart sustainable city.

Cities and communities that are starting on their digital transformation journey will find the resources highlighted within this Module useful toward encouraging the use of smart technologies, devices and systems to promote enhanced manufacturing, e-commerce and retail outcomes.

This Module is also useful for cities and communities that have already made some headway into their digital transformation process but would like to validate the effectiveness of fourth industrial revolution technology in their process.

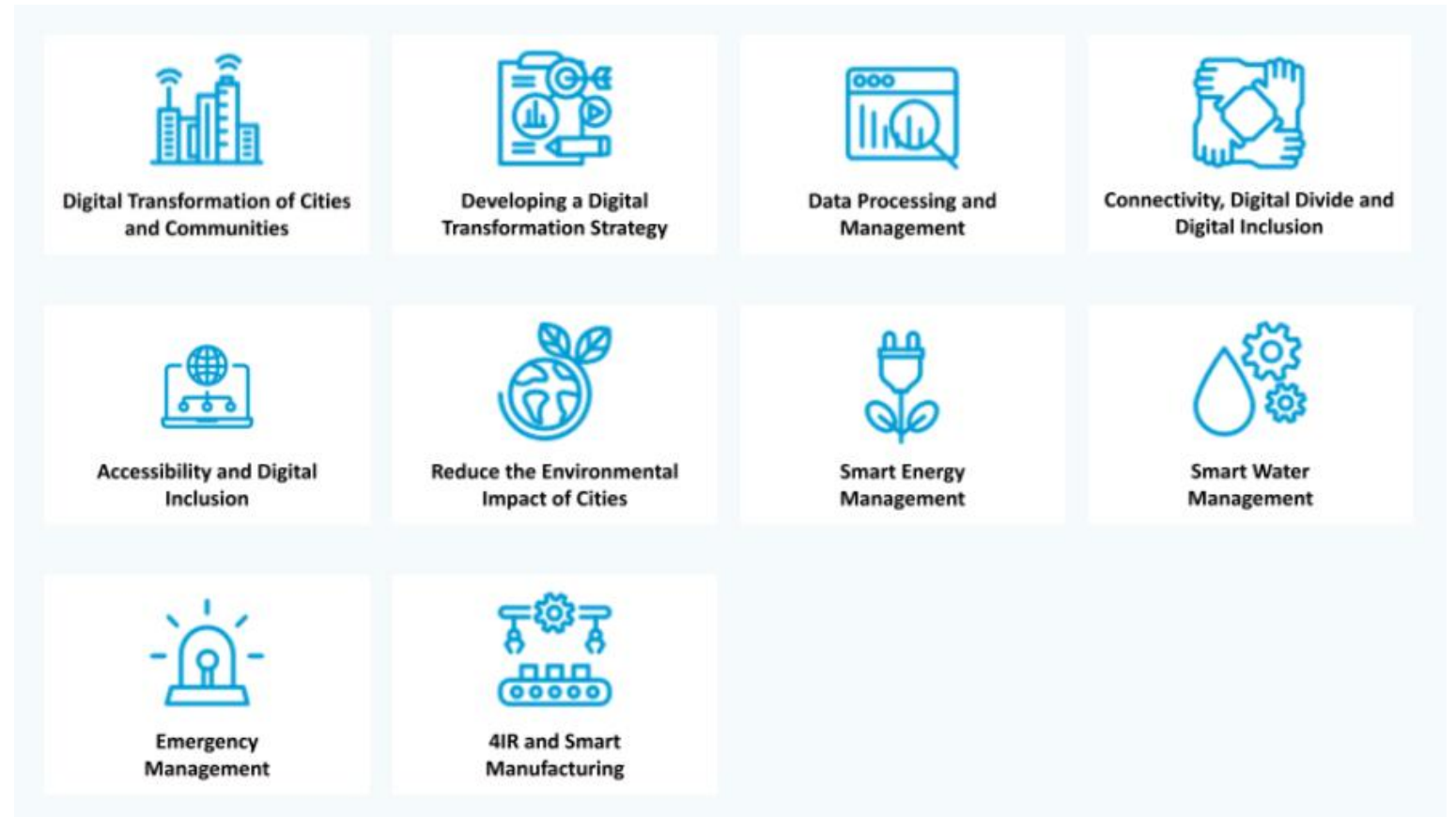


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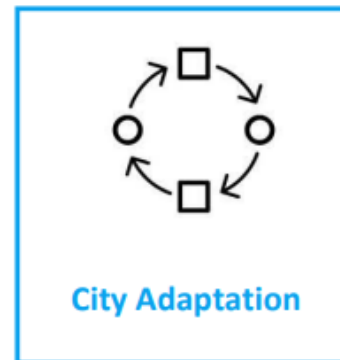
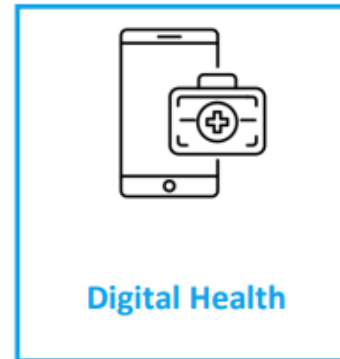
What Does the Toolkit Contain?



Module Tools and Resources

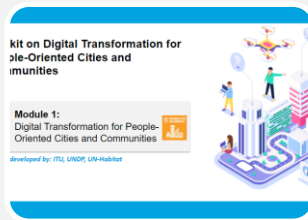


How Often will the Toolkit be Updated?



Content Highlights

Modules 1-3



Digital transformation of people-oriented cities and communities

- set the framework and provide an overview of what digital transformation is, and what it means for cities and communities.



Developing a digital transformation strategy,

- set cities and communities on the path to assessing their smartness capability; developing a digital transformation strategy; planning resources; and establishing a partnership model to bring key stakeholders and groups into the city's digital transformation planning and decision-making framework.



Data processing and management

- provides cities and communities guidance in setting up, optimizing and maintaining the management of the data generated by city applications and services.

Content Highlights

Modules 4-6



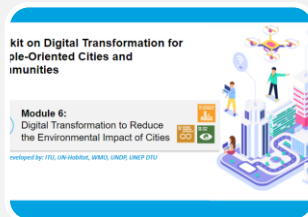
Connectivity, digital divide and digital inclusion

- ensures digital service delivery with a focus on ensuring universal connectivity, bridging the digital divide, removing digital inclusion and accessibility barriers, and enhancing inclusive end-user experience.



Accessibility and digital inclusion

- focuses on accessibility aspects in smart sustainable cities and communities highlighting IoT and smart systems implementation to ensure inhabitants' inclusion and accessibility to services.



Digital transformation to reduce the environmental impact of cities

- helps urban stakeholders identify, promote and enact approaches and solutions that use technology and data to address major challenges that cities and communities face to improve sustainability, climate and environmental outcomes for inhabitants.

Content Highlights

Modules 7 & 8



Smart energy

- helps introduce and incentivize digital and technology-enabled solutions to deliver automated building performance management, reduce overall energy usage and improve energy efficiency, facilitate smart home optimization, and promote sustainable connected streetlighting.



Smart water management

- illustrates how to use smart water technology to collect, share and analyze data from water equipment and water networks in order to find leaks within distribution, lower energy use, predict equipment failure and ensure regulatory compliance.

Content Highlights

Modules 9 & 10



Emergency management

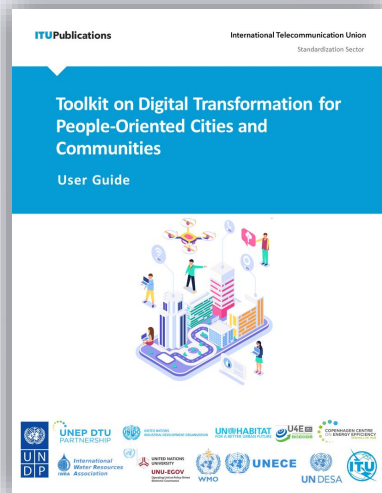
- helps optimize digital and technological preparedness and operations to effectively handle all local emergencies and disasters.



4IR and smart manufacturing

- helps deploy Industry 4.0 technologies and next-generation manufacturing capabilities that revolutionize how products and components are designed, manufactured, distributed and repaired across a spectrum of industries and climate conditions in the urban space.

Toolkit on Digital Transformation for People-Oriented Cities and Communities



<https://toolkit-dt4c.itu.int/>

A one-stop guide containing latest international standards and other ITU and UN resources, publications and reports.

An endeavour to identify the challenges faced by cities as well as potential solutions that they can leverage for maximum positive impact.

A comprehensive, yet non-exhaustive collation of information that is meant to inspire and support progress toward the SDGs, especially SDG 11, at the local level.

Thank you!

Questions? Interested in learning
more?
Let us know!



Email

u4ssc@itu.int



Website

<https://toolkit-dt4c.itu.int/>

