

منتدى الدوحة للبيانات

من أجل الابتكار في التنمية المستدامة

22-23 أكتوبر 2024

DOHA DATA FORUM

FOR INNOVATION IN SUSTAINABLE DEVELOPMENT

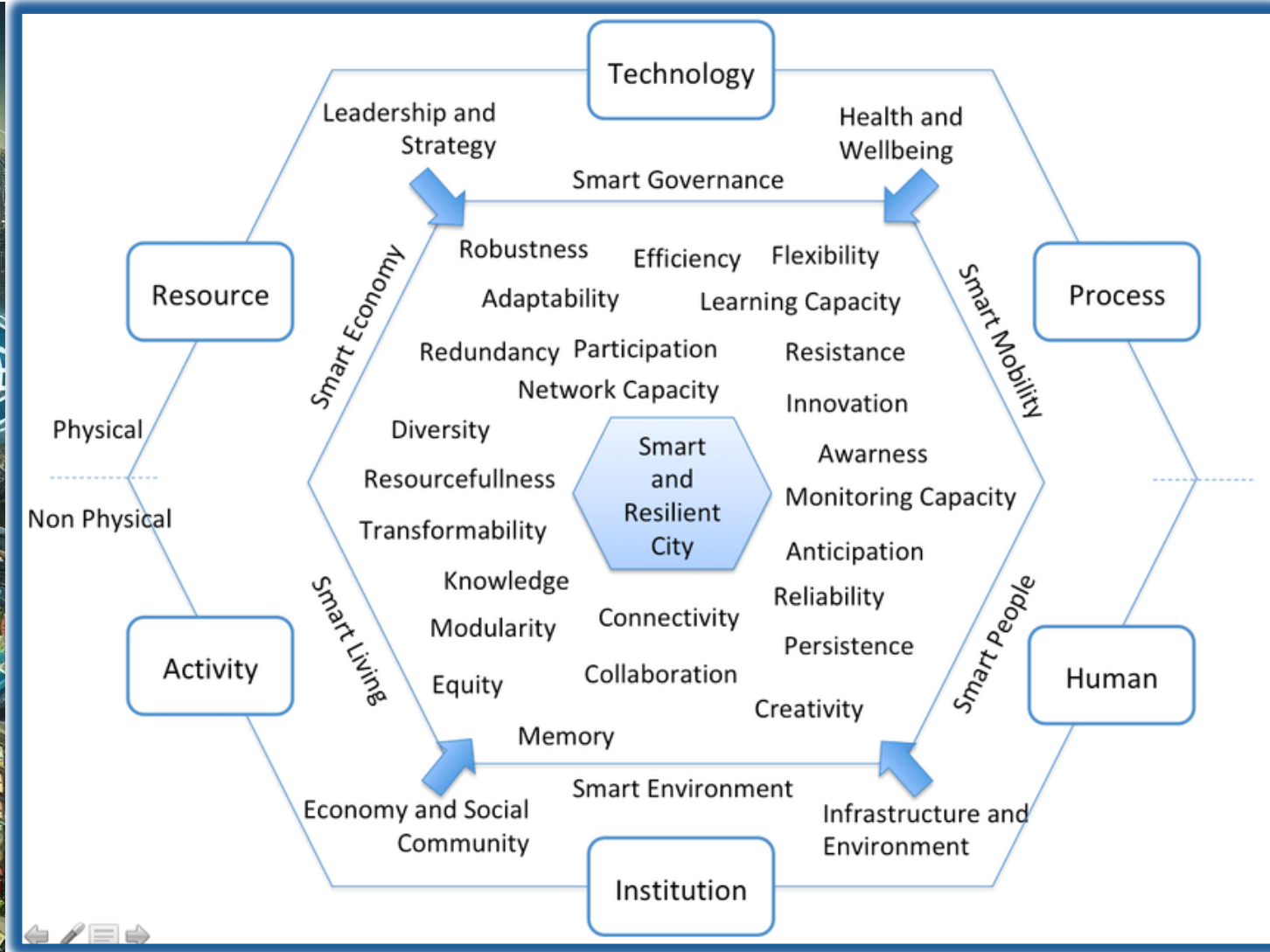
October 22-23, 2024

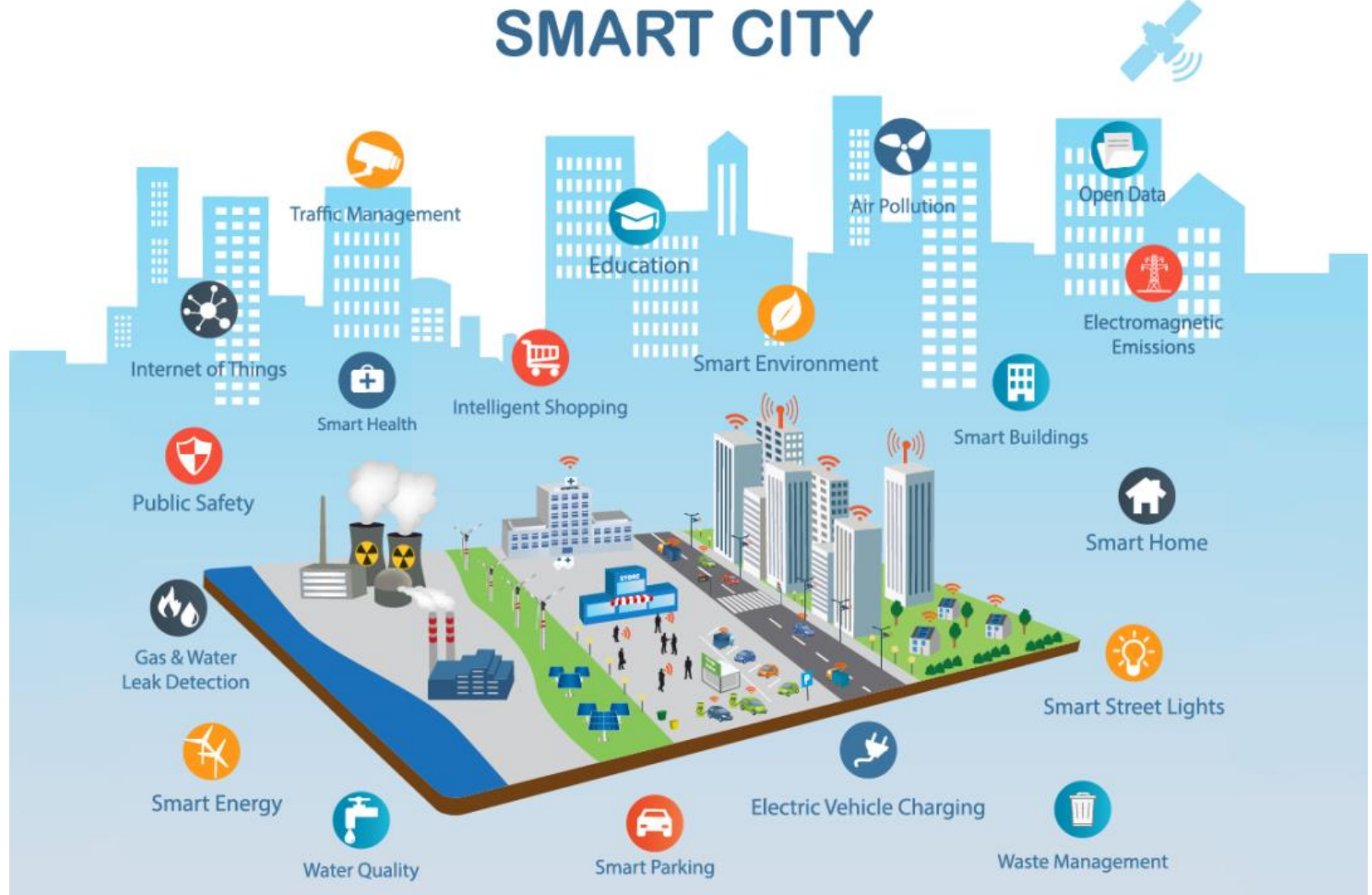
Leveraging Data-driven Transformation for Resilient and Smart Cities

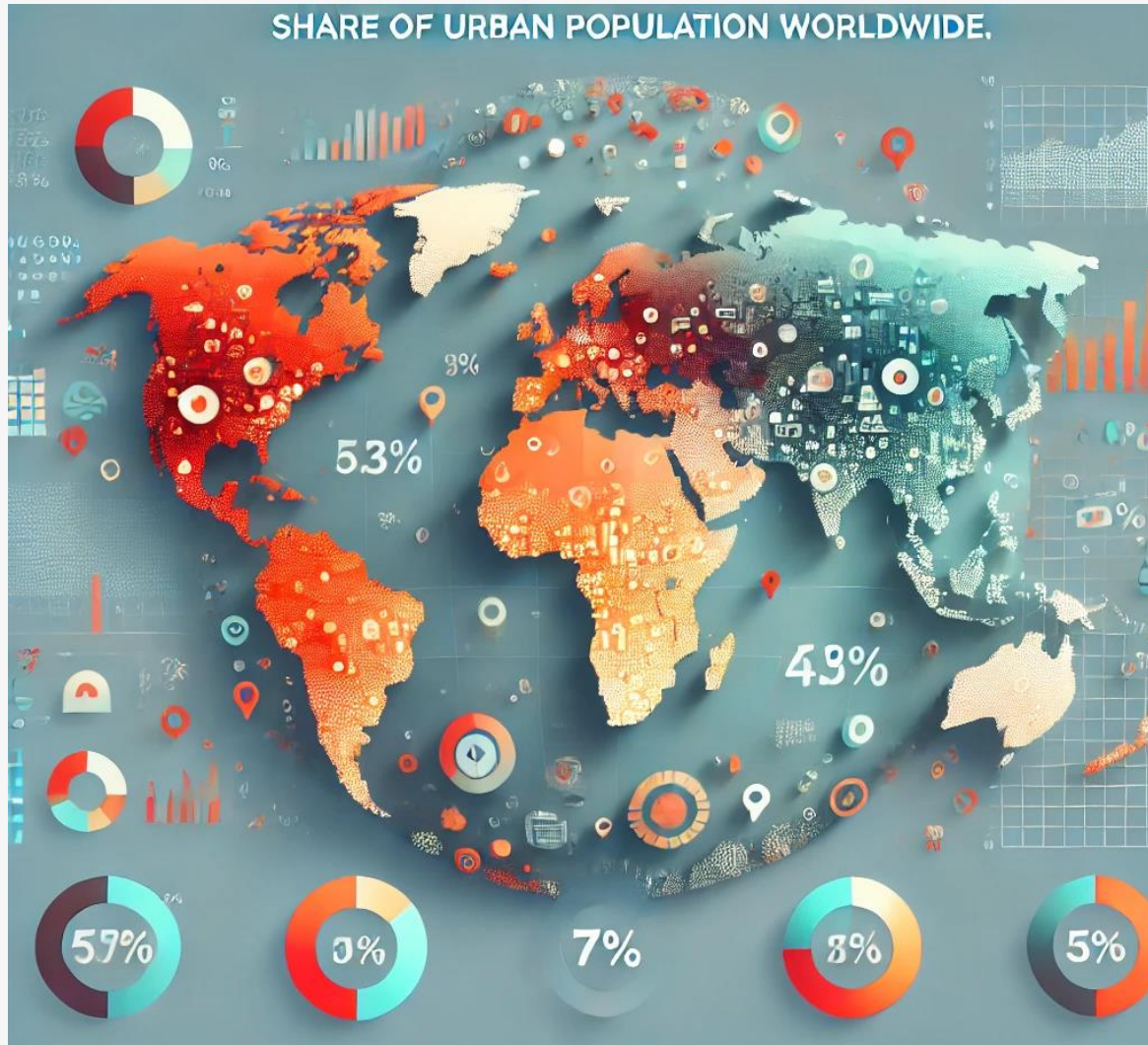


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What is a Smart and Resilient City?







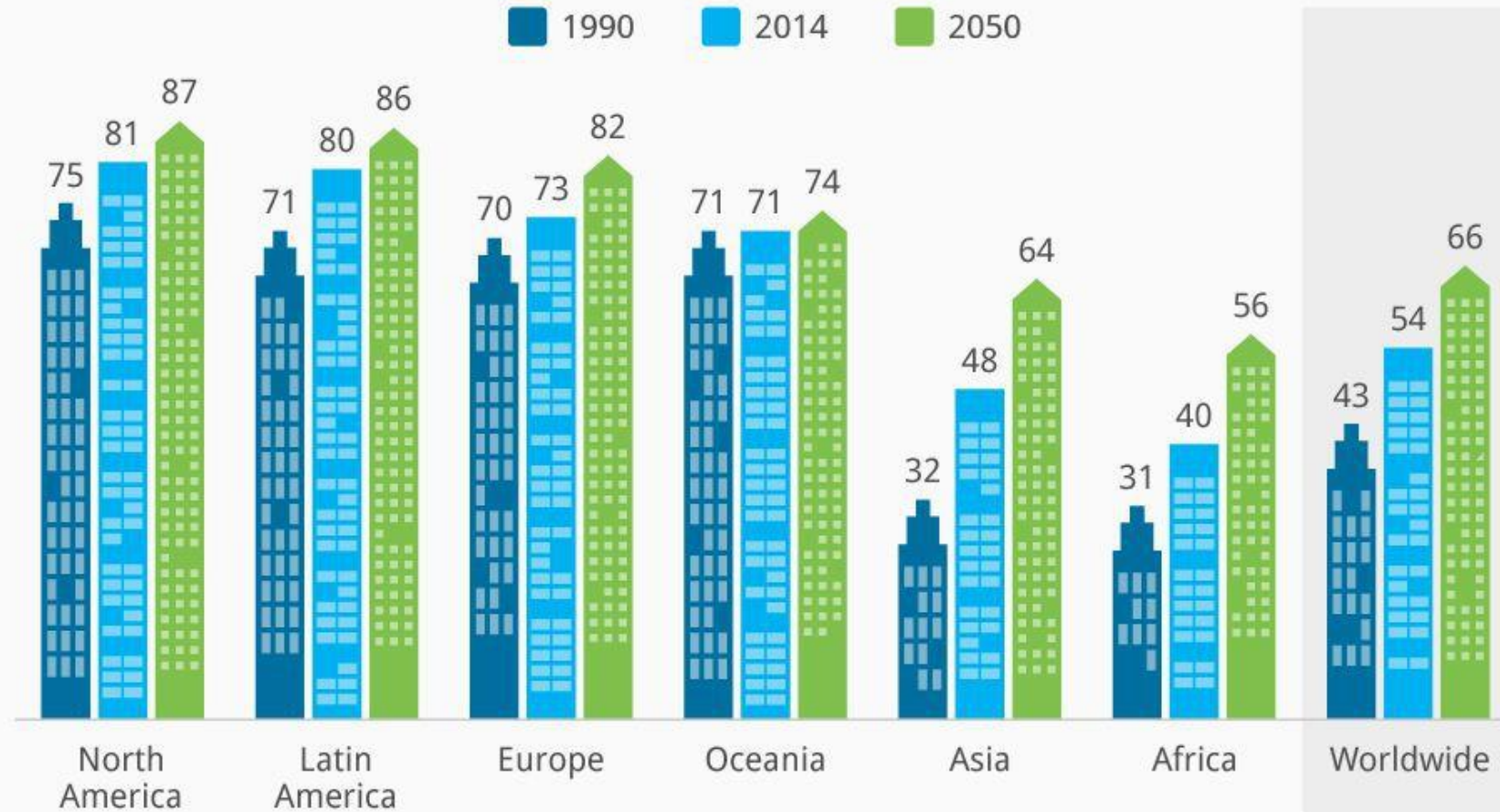
Global Trends in Urbanization

- Over 55% of the world's population currently lives in urban areas, and this number is projected to rise to 68% by 2050, driven by economic opportunities and migration.
- The number of mega-cities (cities with more than 10 million people) is increasing, with over 40 mega-cities expected by 2030, primarily in Asia and Africa.
- Rapid urbanization poses challenges such as increased pressure on infrastructure, housing, and services while contributing significantly to climate change and environmental degradation.

BY 2050

54% of the World's Population Now Lives in Cities

% of the population living in urban areas



Data-driven approaches are catalysts for smart cities

Helping to achieve the SDGs



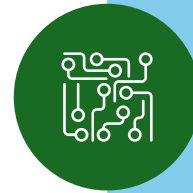
Enhanced Urban Planning

Data-driven insights allow city planners and authorities to make informed, real-time decisions regarding traffic management, energy consumption, and emergency response, enhancing overall efficiency.



Energy Efficiency and Sustainability

Cities can utilize predictive data models to forecast future urban challenges, such as population growth, infrastructure needs, and environmental impacts, enabling proactive planning.



Inclusivity, Equity and Resilience

By integrating IoT and Big Data, cities can better allocate water, energy, and public transportation resources, reducing waste and improving accessibility, inclusivity and resilience.



Data-Driven Monitoring and Accountability

Open data platforms empower citizens to engage with city governance, provide feedback, report issues, and contribute to the urban development process, leading to more responsive and inclusive cities.

Driving Smart Cities with Data

A Path to Achieving the SDGs

Enhanced Urban Planning

Data-driven approaches use real-time information from IoT sensors, AI, and Big Data analytics to optimize urban infrastructure, transportation systems, and public services, ensuring efficient resource management aligned with **SDG 11 (Sustainable Cities and Communities)**.

Energy Efficiency and Sustainability

Data helps cities monitor and reduce energy consumption by enabling smart grids, optimizing renewable energy sources like solar and wind, and promoting sustainable building practices. This supports **SDG 7 (Affordable and Clean Energy)** and **SDG 13 (Climate Action)**.

Inclusive Services and Equity

Smart cities leverage data to ensure equal access to essential services such as healthcare, education, and transportation, particularly for underserved communities. This aligns with **SDG 10 (Reduced Inequalities)** by promoting inclusivity and improving the quality of life for all citizens.

Data-Driven Monitoring and Accountability

By collecting and analyzing urban data, cities can track progress toward achieving various SDGs, fostering transparency and allowing for data-driven policymaking that addresses challenges like waste management, pollution control, and public safety.



The Power of Data in Urban Transformation

DECISIONS

Data-driven insights allow city planners and authorities to make informed, real-time decisions regarding traffic management, energy consumption, and emergency response, enhancing overall efficiency.



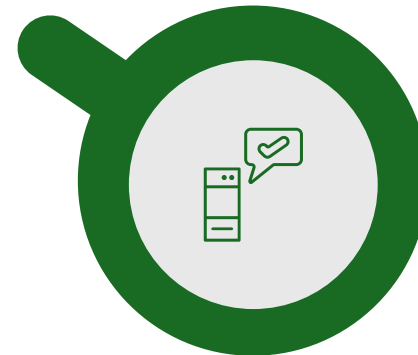
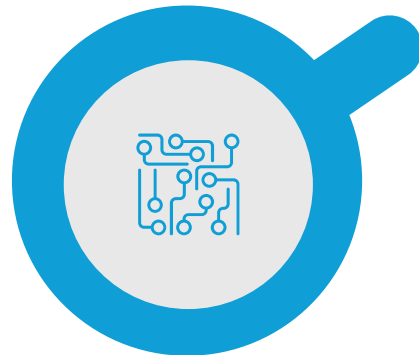
PLANNING

Cities can utilize predictive data models to forecast future urban challenges, such as population growth, infrastructure needs, and environmental impacts, enabling proactive planning.

FOUR PHASES OF BIG DATA

RESOURCING

By integrating IoT and Big Data, cities can better allocate water, energy, and public transportation resources, reducing waste and improving sustainability.



INCLUSIVITY

Open data platforms empower citizens to engage with city governance, provide feedback, report issues, and contribute to the urban development process, leading to more responsive and inclusive cities.

UNDP's Integrated Approach

Resilient Infrastructure



UNDP promotes the integration of advanced technologies and data analytics to create a robust urban infrastructure that can withstand climate change, natural disasters, and other shocks, ensuring the continuity of essential services.

Accessible Public Spaces



UNDP promotes smart technologies to design public spaces and transportation systems that are accessible and welcoming to all, enhancing community integration and inclusivity for all residents regardless of age, gender, and (dis)ability..

Smart Governance



Leveraging digital tools to enhance public administration's transparency, accountability, and efficiency, enabling data-driven decision-making and greater citizen engagement in governance processes.

Sustainable Development



UNDP supports cities in adopting sustainable practices, such as renewable energy, efficient resource management, and reducing environmental impact, to ensure long-term ecological balance and economic growth.

Social Equity



Ensuring that the benefits of smart city initiatives reach marginalized communities by promoting equitable access to digital services, public resources, and opportunities is in line with the "leave no one behind" principle.

Inclusive Innovation



UNDP fosters collaborations between governments, private sectors, and civil society to develop innovative solutions that address both local and global challenges. It ensures that technological advancements contribute to equitable and inclusive urban growth.

Why Leverage Data?



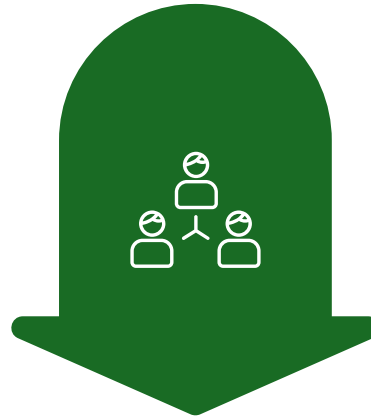
Enhanced Infrastructure Management

Utilize real-time data to manage urban infrastructure to reduce downtime and maintenance costs.



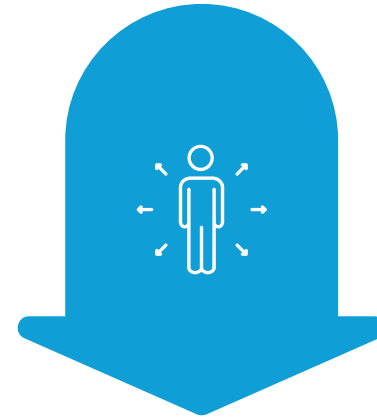
Improved Quality of Life

Implement data-driven solutions to enhance public services, transportation, and healthcare, fostering a better living environment for residents.



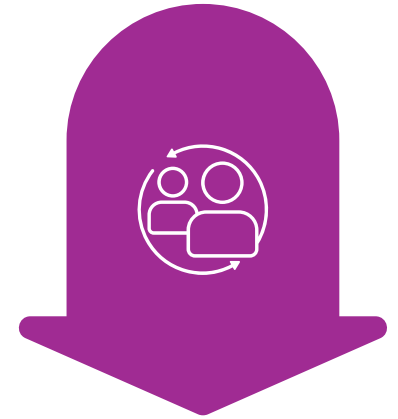
Sustainable Urban Development

Use data analytics to promote eco-friendly initiatives and optimize resource usage, contributing to sustainable urban growth.



Increased Economic Competitiveness

Leverage AI and IoT to drive innovation and attract investments, boosting cities' economic standing.



Resilient Communities

Strengthen city resilience against natural disasters and emergencies through predictive analytics and efficient resource allocation

Data Resilience

Safeguards Against Data Loss



Backup and Recovery

- Regularly scheduled backups ensure that critical data is always recoverable during system failure or data corruption.
- Automating backup processes can significantly reduce human error and ensure data is consistently secured.



Disaster Recovery Plan

- A well-structured disaster recovery plan ensures business continuity and minimizes downtime during unforeseen events.
- Define clear recovery objectives to restore systems and data following a disruption quickly.



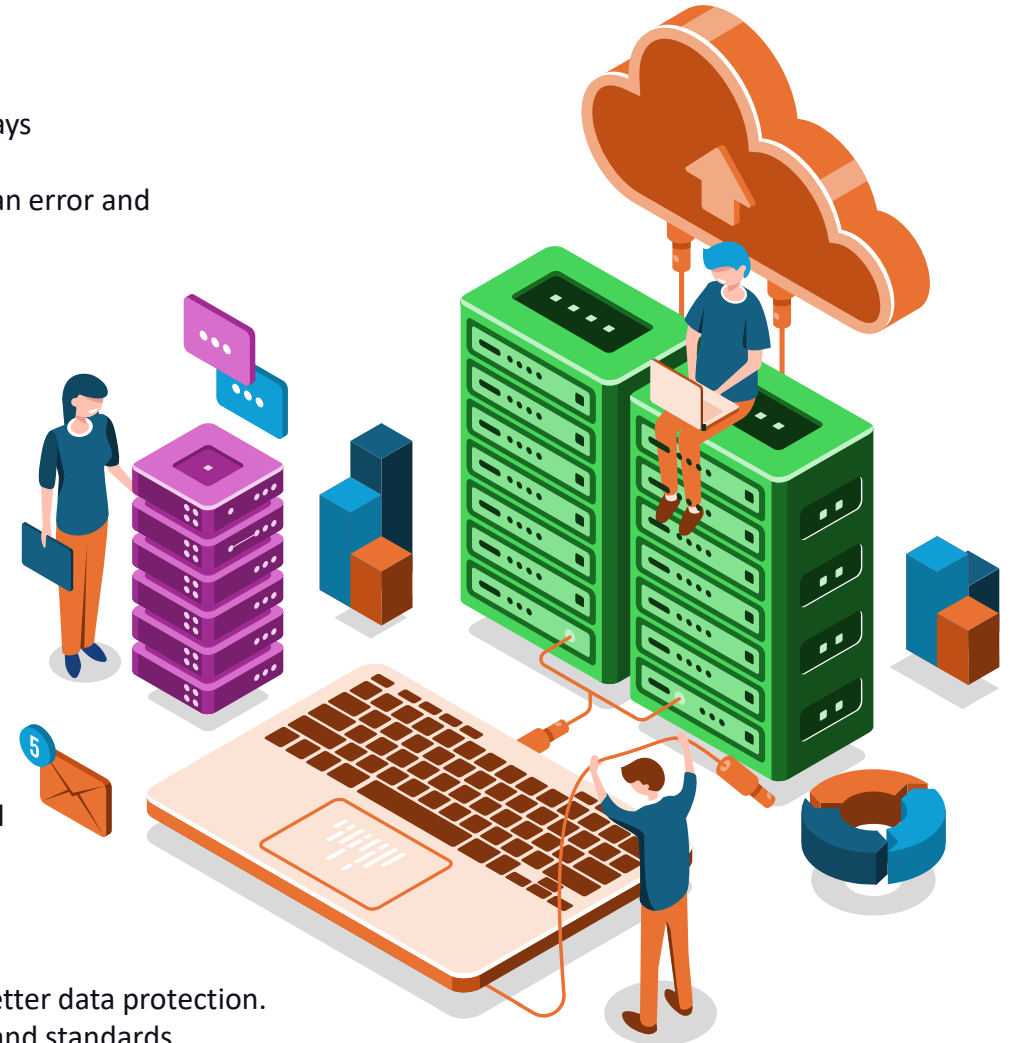
Cybersecurity Measures

- Multi-layered security protocols to protect sensitive data, including firewalls, encryption, and multi-factor authentication.
- Regular security audits and vulnerability assessments to detect potential threats and improve defenses.



Partnerships and Collaboration

- Partnerships with other organizations to share knowledge and resources for better data protection.
- Work with **regulatory bodies** to ensure compliance with data protection laws and standards, reducing legal risks associated with data loss.



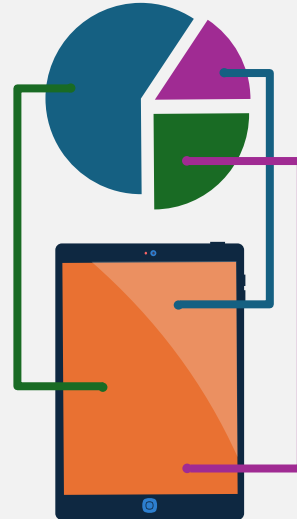
Embracing the Future of Smart Living by Leveraging Data



Transformative Potential

Data

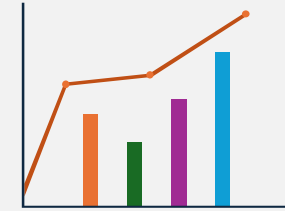
driven strategies revolutionize city management.



Sustainability & Resilience

Data

analytics drive eco-friendly and resilient growth.



Enhanced Quality of Life

Data

analytics drive eco-friendly and resilient growth



Let us
collaborate to create smart, sustainable, and resilient cities.





Thank you **شكراً**



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