IBM Institute for Business Value

How Smart is your city?

Helping cities measure progress

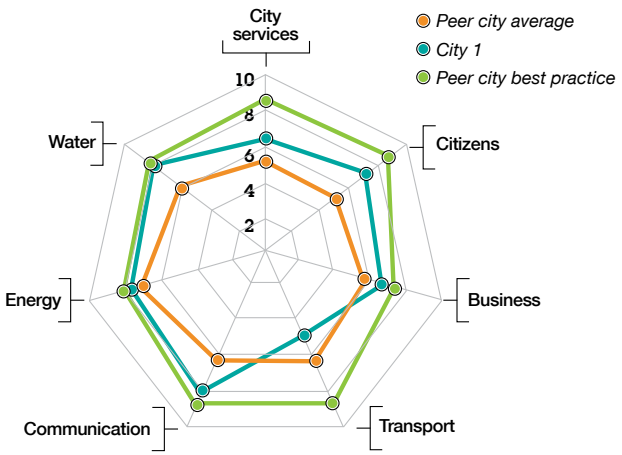
Overview

The performance of core systems of today's cities is fundamental to social and economic progress. Faced with major challenges, these systems can be improved and optimized through the application of smart solutions. This IBM Institute for Business Value study on creating smarter cities shows how cities can assess and monitor progress in optimizing core systems against a set of key parameters, as well as determine how they measure up to their peers.

Today's cities, home to more than half the world's population, can be seen as complex networks of components: citizens, businesses, transport, communications, water, energy, city services and other systems.[1] Cities have the chance to address the challenges they face across these core systems, accelerating their journey toward sustainable prosperity by making use of new "smart" solutions and management practices that are instrumented, interconnected and intelligent in nature.

Instrumentation enables cities to gather more high-quality data from systems in a more timely fashion than ever before. Interconnection creates links among data, systems and people in ways not previously possible. Intelligence, in the form of new computing models and algorithms, enables cities to generate predictive insights for informed decision making and actions across the city's core systems.

We have created a "roadmap" that cities can follow to deploy this new generation of instrumented, interconnected and intelligent capabilities to deliver continuous improvement in their core systems. Key elements of this roadmap include developing a long-term strategy and short-term goals, prioritizing and investing in a few select systems that will have the greatest impact and integrating across systems to improve citizen experiences and efficiencies. City authorities and stakeholders also need to understand how their city is performing today, which calls for a systematic assessment of a city's position in relation to its peers (see Figure).



Source: IBM Institute for Business Value analysis.

Example of assessment results for target city and selected peers.

Such an assessment should:

- Be tailored to the city's vision and the impact of external factors.
- Take a holistic view of the city.
- Be comprehensive in measuring system-wide progress.
- Be comparative and benchmark a city against peer cities.

Cities continue to develop and refine their economic and social goals and the strategies to achieve them. To take advantage of how smarter city approaches can help advance those strategies, city authorities and stakeholders need to understand how their city is performing today and where progress is being achieved in infusing intelligence into their systems. Because a systematic assessment of a city's position in relation to its peers can identify and communicate emerging strengths and weaknesses, we encourage city leaders to consider such an assessment to gauge their maturity and help guide their development plans.

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How can IBM help?

- ***Business Consulting and Delivery Services:*** IBM helps clients in the public sector formulate, implement and operationalize citizen-centric programs, including business models, organizational structures and practices and performance models.
- ***Business Analytics and Optimization:*** IBM provides new intelligence services through deep, information-centric and mathematics-enabled business analytics capabilities.
- ***IBM Global Location Strategies – Smarter City Assessment Tool:*** This tool measures a city's performance for each city system, allows benchmarking of a city's overall capabilities against peer locations and best practice, and identifies where improvements can be made.

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Reference

1 "World population prospects: The 2008 revision." Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. United Nations. Department of Economic and Social Affairs, Population Division. 2008.

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