Finally, clear performance data for comparing the world's cities

June 4, 2014   By Neal Peirce

A new international standard known as "ISO 37120" lays out 46 measures that cities on any continent can measure their performance by. (Dabarti CGI/ Shutterstock)

T he phrase "ISO standard" is something you might find on the base of a light bulb, under your computer keyboard or in the owner's manual for your refrigerator. It means that these products are made in a way that complies with international standards of quality and compatibility. There are ISOs for financial management, electrical engineering, chemical technology — you name it.

But now, the first-ever set of ISO standards for world cities has been created. And the implications are dramatic. City policymakers will have objective standards to compare their services and performance with other cities around the world. And just as significant, the people of cities — civic, business organizations, ordinary citizens — will be able to access the same

new global standards. This means they can ask city leaders tough questions, stoking debate about their own city's performance on the basis of verified measures ranging from education to public safety to water and sanitation.

The late May start-up list of city indicators by the Geneva-based International Organization for Standardization seems, at a glance, straightforward enough. What's the particulate matter in a city's air? Debt service as a percentage of the city's own revenue? Average life expectancy? Green area per 100,000 residents? The percentage of the city population with regular solid waste collection? The share of the city population that lives in slums?

But many cities, up to now, haven't recorded data on all those indicators. Or if they did, they were inconsistent in their precise definitions, making it difficult to make apples-to-apples comparisons of cities across

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Here are the 46 measures cities will be judged by
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continents and diverse societies. Many organizations, in independent media and special interest groups, issue rankings of cities. But in 2008, when the Global Cities Indicators Facility at the University of Toronto compared rankings that had been applied to seven prominent world cities, it turned out that only six of the 1,200 indicators being applied were exactly the same.

Now, cities everywhere will have an internationally agreed upon set of standards indicating data that should be collected, and the definitions and criteria to use in collecting it. They won't be legally required to do so, but they're likely to be under pressure from citizen, business, academic and other groups insisting they use the ISO standards so that their performance can be benchmarked clearly against peer cities, both in-country and — in today's increasingly globalized economy — across the globe.

"It's a potential game changer for world cities and everyone who works for cities, for journalists evaluating city performance, for the World Bank in determining grants and more," notes Dan Hoornweg, a former World Bank official, professor at the University of Toronto and an early proponent of world city standard setting.

Global game changer

The goal, say Hoornweg and other supporters, is to encourage higher levels of city service delivery by making the data open and transparent. The need to collect and verify data could improve cities' credit and bond ratings, appealing to investment decision-makers. Cities that show high performance will be able to argue more forcefully for higher national government assistance and tax sharing.

Conversely, the system could make politically motivated manipulation of data tougher and inefficiencies in city policies and administration more difficult to hide.

The ISO organization is hailing the new standards as a significant breakthrough. Cities, notes ISO Deputy Secretary General Kevin McKinley, share many patterns of behavior "regardless of geography, politics or economic model." He contends that the new standard, officially known as ISO 37120, establishes a uniform approach to what's measured and how — "a cornerstone of needed consistency and confidence to improve our cities." But, he adds, "the standard doesn't spit out a value judgment on what a particular city should choose as targets. Instead the standard helps provide more consistent expressions of city performance and quality of life."

Initial city response to the new standards for cities seems positive. "There's never been a time where it's been more important to understand how we as a global city compare with other cities," says Andrew Collinge, assistant director for intelligence and analysis at the Greater London Authority. "We can learn from them and actually use data so we can address challenges facing all of our cities."

Another city that is excited about the news of the ISO standard is Minna, Nigeria. "To us in Minna, this is an important milestone in city management," says Abdul Husaini, a town planner and geospatial analyst in Minna. "The presence or absence of information on an indicator is in itself an indication of the adequacy of basic services in a city."

Rotterdam, notes Nico Tillie, an indicators expert there, strives to be an attractive, resilient, economically successful city. But, he adds, "How do we perform? If we want to improve, we need to know why we rank 3 or 50. If you can't measure it, you can't manage it." But in a study Tillie worked on with the Delft University of Technology, the researchers found that

verified and standardized third-party data not only was missing from the rankings but in many cases the entire ranking process was performed in "a black box" without clear definitions. This made it totally impossible to analyze the data outcomes.

New World Council on City Data

London, Minna and Rotterdam, plus a dozen other cities including Shanghai, Dubai, Chicago, Johannesburg and Buenos Aires, are inaugural members of a body called the World Council on City Data. Launched at a Global Cities Summit in Toronto in late May, the council will play the important role of verifying that cities are collecting the right data the right way. The council intends to be "a global hub for cities, international organizations, corporations and academia," sharing ideas for city performance improvement broadly.

The path to an ISO standard aimed at broad global city buy-in was not an easy one. Supporters acknowledge a heroine behind the story — Patricia McCarney, director of the University of Toronto's Global Cities Indicators Facility, who has made creation of good global data on cities an all-consuming goal for close to a decade.

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The project began in 2008, McCarney relates, when Hoornweg and his World Bank colleagues approached her to start working on a uniform set of indicators for cities. Nine pilot cities, including Bogotá, Toronto, São Paulo and Belo Horizonte helped to devise a list of some 115 initial indicators. Over time the number of participating cities would rise to 258 across 82 countries.

But as McCarney and her allies pushed forward on the project, it became clear that independent audits including ISO-like third-party verification of the data would be critical to its acceptance. ISO

central in Geneva was approached in 2011 and initially seemed lukewarm to the idea. But as French, Japanese and Canadian bodies showed interest in some form of city standards management, that changed.

A technical committee was formed. With McCarney's institute acting as a de facto secretariat, meetings were held in urban centers from Japan to France and Britain to Canada. Comments were received from cities worldwide — "fantastic for us, really strengthening the set of indicators we started with back in 2008," notes McCarney. The analysis winnowed down and rejuggled the list to 100 candidate indicators. Finally, 46 (see them all here) were selected as well-tested core measures that cities must report to prove they're in conformance with the new ISO 37210 standard.

"Now Geneva is fully behind us," says McCarney. "Usually an ISO process takes six years. We did it in two. They took a big leap of faith with us."

And, she notes, there's been a big change in cities' attitudes about releasing data on their performance indicators. "In the early days when we were testing and fine-tuning," she notes, "cities were willing to give us data confidentially and share it with other cities. But they were very uncomfortable releasing it to the public." But, she notes, cities seem more comfortable opening up this sort of data now and making it public, as it will be under the ISO standard.

Plus, McCarney observers, "researchers in universities and international agencies can now access the data — for analytics, for visualization, for performance analysis," in a way never before possible.

Looking forward, the ISO city crafters are considering new measures focused on risk and resilience for cities. Indicators might include such things as the presence of early warning systems focused on such threats as stormwater surges and tornados, or seismic preparedness in cities prone to earthquakes. Both for the initial and added measures, auditors in each case will check the data to ensure that the definitions and methodologies in the formal ISO 37210 standard are being followed.

Special cases

Most of the new city ISO standards apply all across the globe — for example the number of police officers or firefighters per 100,000 population are equally applicable in a Toronto or a Bogotá. But developed-world city standards, for such services as fresh water supply and sanitation

services, are tough for developing-world cities of Asia, Africa and Latin America that have fast-filling slums triggered by cascading levels of immigration from poor rural migrants.

European and North American cities did, McCarney notes, "have a strong voice" in planning sessions for the new standards. But "we were very careful," she asserts, to include special recognition of the conditions developing-world cities face in many of their poorest neighborhoods — "what's possible for them, what they can report on."

Another concept the process is encouraging is a focus on "peer" cities. London, New York and Tokyo, for example, may be in a class to themselves, notwithstanding their geographic separation. Toronto's best global match may be halfway across the globe in Melbourne.

And the expanding data collection possibilities may, over time, identify more global peers — and exchanges — between cities. Potential advocates range from business and citizen groups within individual cities to globally active consulting groups and NGOs, all debating and pushing for expanded standards that correspond to their missions.

"With the initial ISOs, the city-standards issue has made a big leap forward," says Hoornweg. "But now that the process is launched, it's sure to spread widely."

MORE: Here are the 46 performance measures the world's cities will be judged by

See more at: http://www.citiscope.org/story/2014/finally-clear-performance-data-comparing-worlds-cities#sthash.zpUvTJfI.dpuf

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How good or bad of a job are cities doing serving their citizens? Cities haven't always collected much data on such matters. And when they have, they've tended to use widely different indicators to measure their performance, making comparisons across countries, continents and cultures nearly impossible.

As *Citiscope* reported this week, the Geneva-based International Organization for Standardization has issued a new standard for cities to follow in their data collection. Compliance with this new standard, known as ISO 37120, is not mandatory for any city. But cities that do participate will have new ways to compare themselves with peer cities around the globe. Below are the 46 performance indicators that participating cities will need to track.

Economy

- City's unemployment rate
- Assessed value of commercial and industrial properties as a percentage of total assessed value of all properties
- Percentage of city population living in poverty

Education

- Percentage of female school-aged population enrolled in school
- Percentage of students completing primary education
- Percentage of students completing secondary education
- Primary education student/teacher ratio

Energy

- Total residential electrical use per capita (kWh/year)
- Percentage of city population with authorized electrical service
- Energy consumption of public buildings per year (kWh/m2)
- Percentage of total energy derived from renewable sources, as a share of the city's total energy consumption

Environment

- Fine particulate matter (PM2.5) concentration
- Particulate matter (PM10) concentration
- Greenhouse gas emissions measured in tonnes per capita

Finance

- Debt service ratio (debt service expenditure as a percent of a municipality's own-source revenue)

Fire and emergency response

- Number of firefighters per 100 000 population

- Number of fire related deaths per 100 000 population
- Number of natural disaster-related deaths per 100 000 population

Governance

- Voter participation in last municipal election (as a percentage of eligible voters)
- Women as a percentage of total elected to city-level office

Health

- Average life expectancy
- Number of in-patient hospital beds per 100 000 population
- Number of physicians per 100 000 population
- Under age five mortality per 1 000 live births

Safety

- Number of police officers per 100 000 population
- Number of homicides per 100 000 population

Shelter

- Percentage of city population living in slums

Solid waste

- Percentage of city population with regular solid waste collection (residential)
- Total collected municipal solid waste per capita
- Percentage of city's solid waste that is recycled

Telecommunication and Innovation

- Number of internet connections per 100 000 population

- Number of cell phone connections per 100 000 population

Transportation

- Km of high capacity public transport system per 100 000 population
- Km of light passenger transport system per 100 000 population
- Annual number of public transport trips per capita
- Number of personal automobiles per capita

Urban Planning

- Green area (hectares) per 100 000 population

Wastewater

- Percentage of city population served by wastewater collection
- Percentage of the city's wastewater that has received no treatment
- Percentage of the city's wastewater receiving primary treatment
- Percentage of the city's wastewater receiving secondary treatment
- Percentage of the city's wastewater receiving tertiary treatment

Water and Sanitation

- Percentage of city population with potable water supply service
- Percentage of city population with sustainable access to an improved water source
- Percentage of population with access to improved sanitation
- Total domestic water consumption per capita (litres/day)

See story: [Finally, clear performance data comparing the world's cities](#)