WORLD COUNCIL ON CITY DATA

WCCD

ISO 37120

DATA FOR BUILDING EFFICIENT AND INNOVATIVE CITIES

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Professor & Director, Global Cities Institute
University of Toronto

www.dataforcities.org

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Global Cities Institute

BUILDING STANDARDIZED CITY INDICATORS SINCE 2006

WORLD BANK 2006-2008 – NINE PILOT CITIES

1. Belo Horizonte, Brazil
2. Bogotá, Colombia
3. Cali, Colombia
4. King County, WA, USA
5. Montréal, Canada
6. Toronto, Canada
7. Vancouver, Canada
8. Porto Alegre, Brazil
9. São Paulo, Brazil

1100 indicators across nine pilot cities
Only two comparable

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The WCCD has created the first certification program and Global Cities Registry™ for ISO 37120

Manage

Manage and make informed decisions through data analysis

Benchmark

Foster comparative learning with other cities locally and internationally

Investment and Creditworthiness

Leverage funding and demonstrate responsible management practices to attract investment and improve creditworthiness

Smart, Resilient and Sustainability

Data driven planning for smart, resilient and sustainable cities

Demonstrate management rigor in building resilient cities for insurability

Monitoring and Evaluation

Monitor the impact of infrastructure projects and city programming

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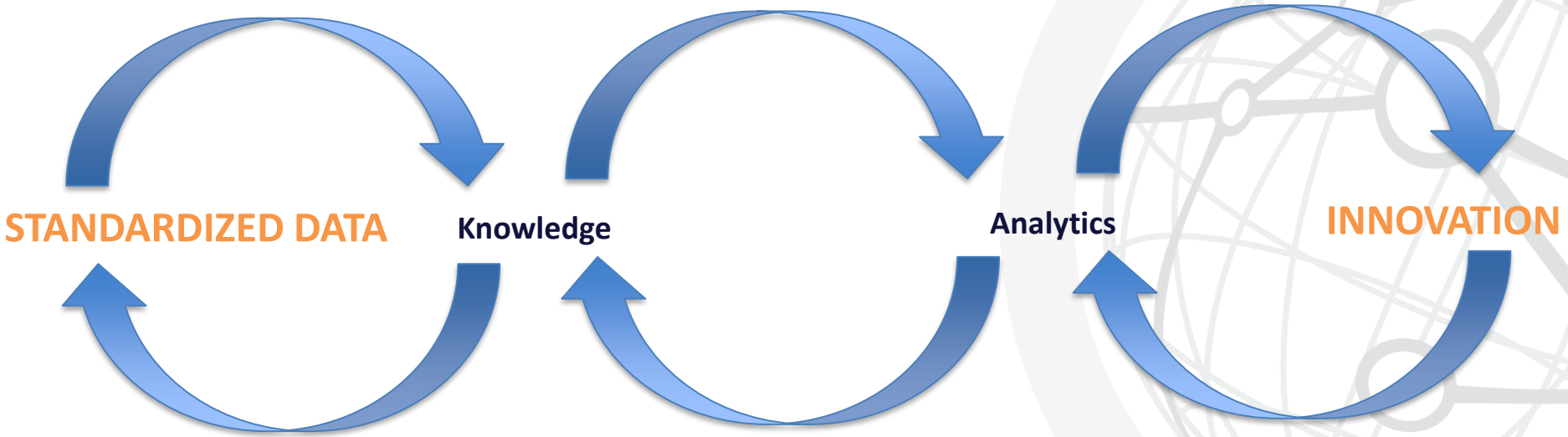
BUILDING A CULTURE OF DATA IN CITIES TO INFORM SOLUTIONS AND DRIVE INNOVATION



Standardized data facilitates CITY TO CITY LEARNING, encourages CITY SOLUTIONS TO TRAVEL GLOBALLY and fosters INNOVATION

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WCCD'S ISO 37120 – A TOOL FOR SMART CITIES

*"What **ISO 37120** provides city leaders and citizens, for the first time, is a set of clearly defined city performance indicators and a standard approach for measuring each…"*

- Jesse Berst, Smart Cities Council Chairman

"WHY THIS NEW SMART CITY STANDARD IS GOOD NEWS FOR CITIES"

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ISO 37120 OVERVIEW

ISO 37120 includes **100** indicators (46 core and 54 supporting), which are structured around the following **17** themes

- Economy
- Education
- Energy
- Environment
- Finance
- Fire & Emergency Response
- Governance
- Health
- Recreation
- Safety
- Shelter
- Solid Waste
- Telecommunications
- Transportation
- Urban Planning
- Wastewater
- Water & Sanitation

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WCCD CERTIFICATION LEVELS

WCCD certification levels are based on the number of indicators reported by the city. The WCCD offers a wide range of certification levels.

ASPIRATIONAL	BRONZE	SILVER	GOLD	PLATINUM
30-45 Core Indicators	**46-59 Indicators** 46 Core + 0-13 Supporting	**60-75 Indicators** 46 Core + 14-29 Supporting	**76-90 Indicators** 46 Core + 30-44 Supporting	**91-100 Indicators** 46 Core + 45-54 Supporting

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WCCD FOUNDATION AND ISO 37120 CERTIFIED CITIES

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ISO 37120

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WELCOMING CITIES OF ALL SIZES TO BECOME ISO 37120 CERTIFIED

0 – 250,000
250,000 – 500,000
500,000 – 750,000
750,000 – 1,000,000
1,000,000 – 5,000,000
5,000,000 – 10,000,000
10,000,000 +

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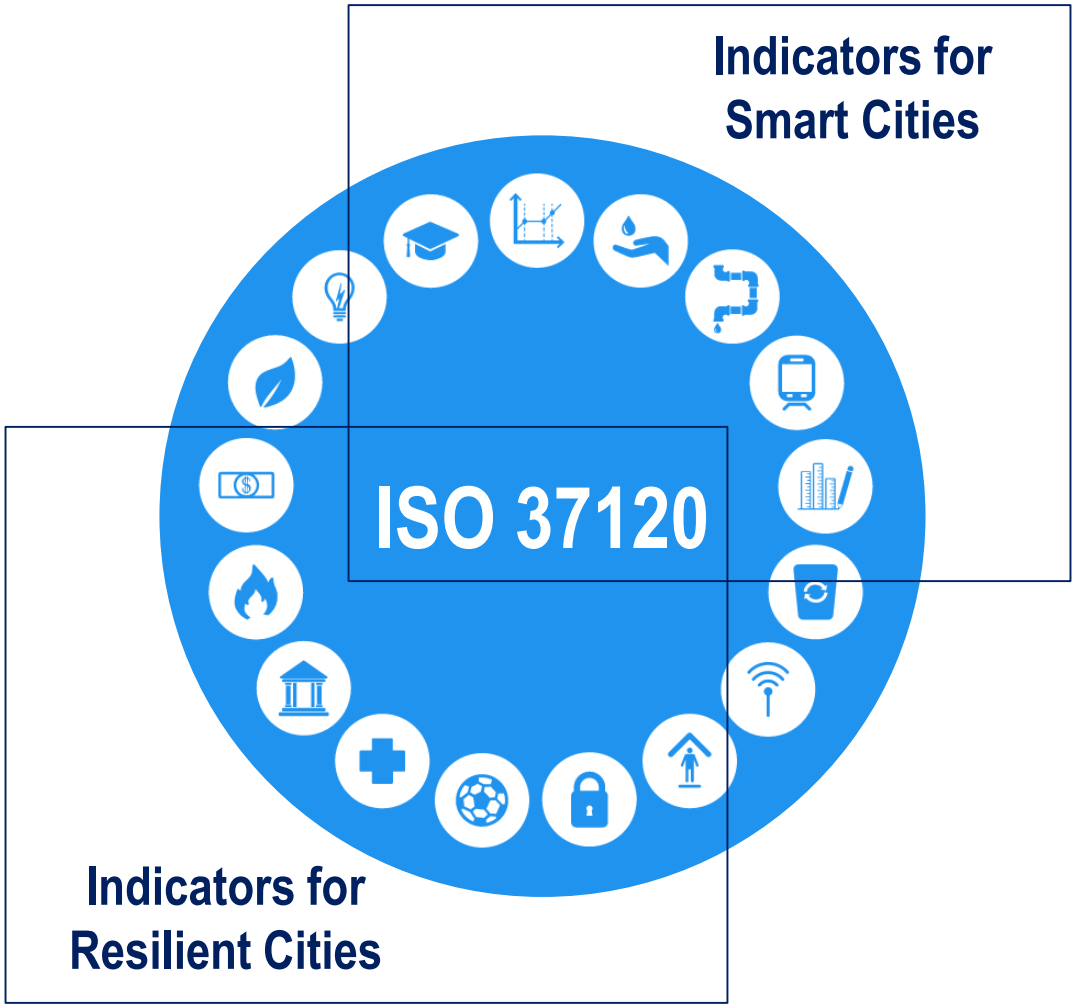
ISO FAMILY OF STANDARDS



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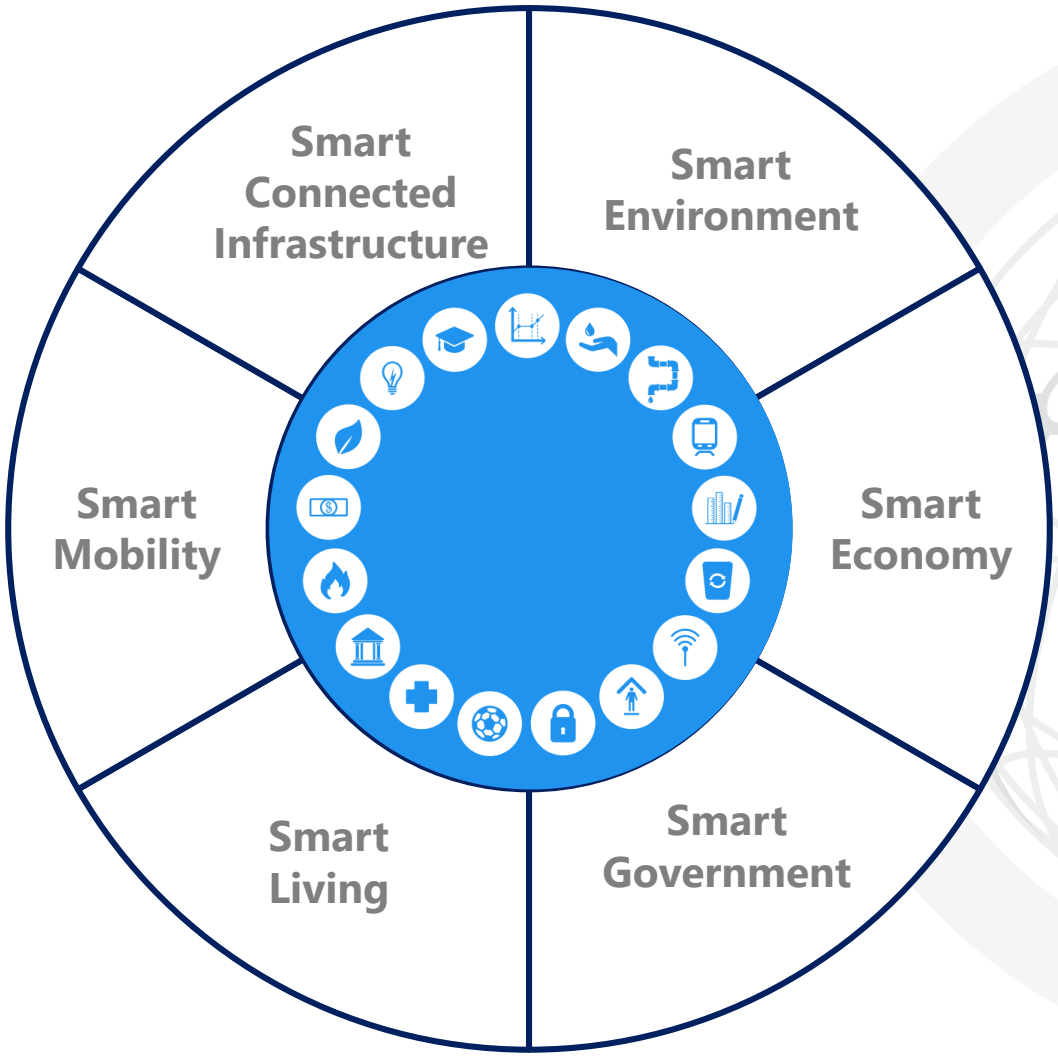
SMART CITY COMPONENTS



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THE WCCD OPEN CITY DATA PORTAL

BUILDING HIGH QUALITY DATA FOR CITIES GLOBALLY

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HOW DO PEOPLE MOVE AROUND MY CITY?
High percentage of commuters using alternative transportation
LONDON, UNITED KINGDOM
74%

HOW INNOVATIVE IS MY CITY?

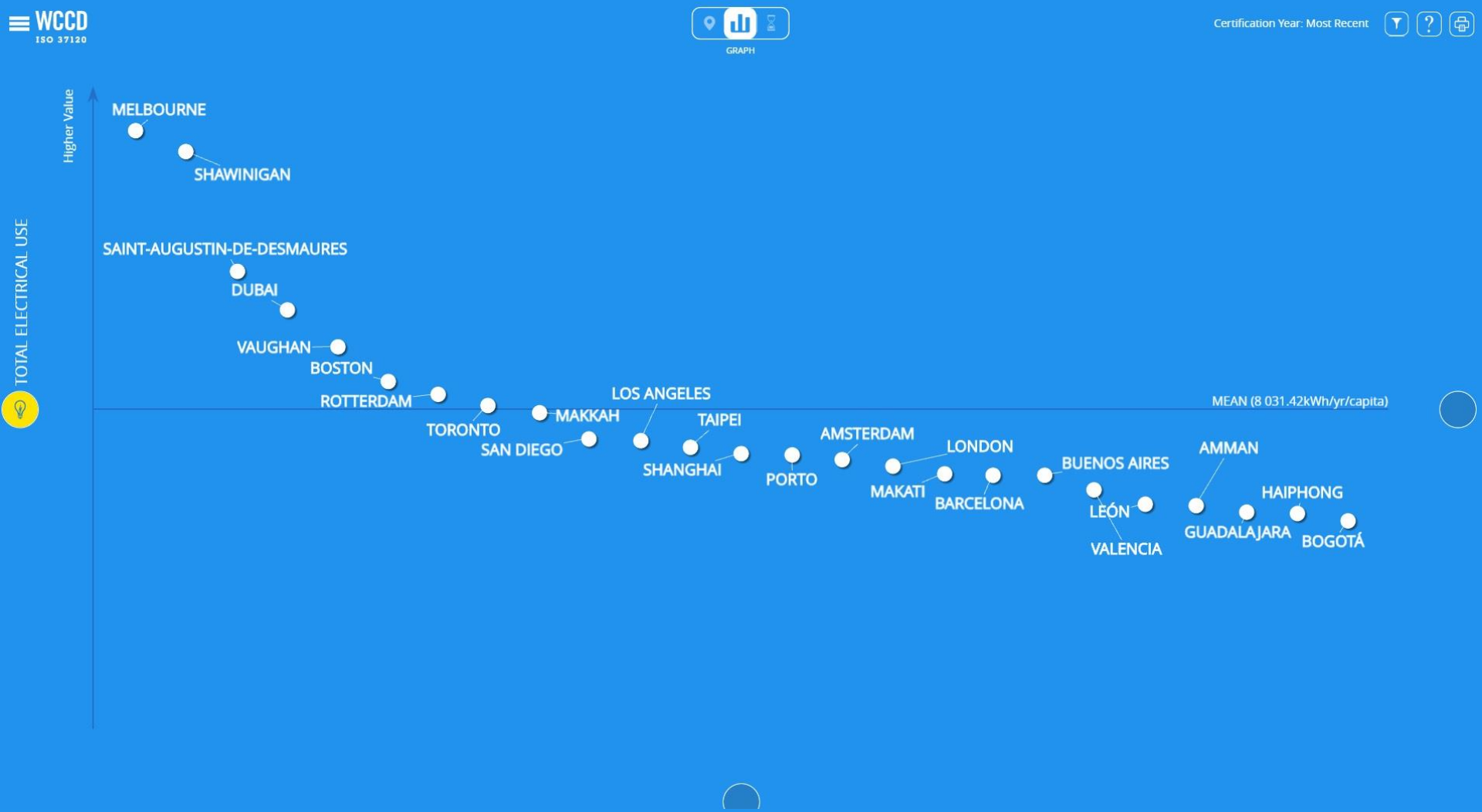
High number of new patents registered per 100,000 population

BOSTON, USA

190

HOW INNOVATIVE IS MY CITY?
High number of higher education degrees per 100,000
TORONTO, CANADA
45,875

TOTAL ELECTRICAL ENERGY USE PER CAPITA (KWH / YEAR)



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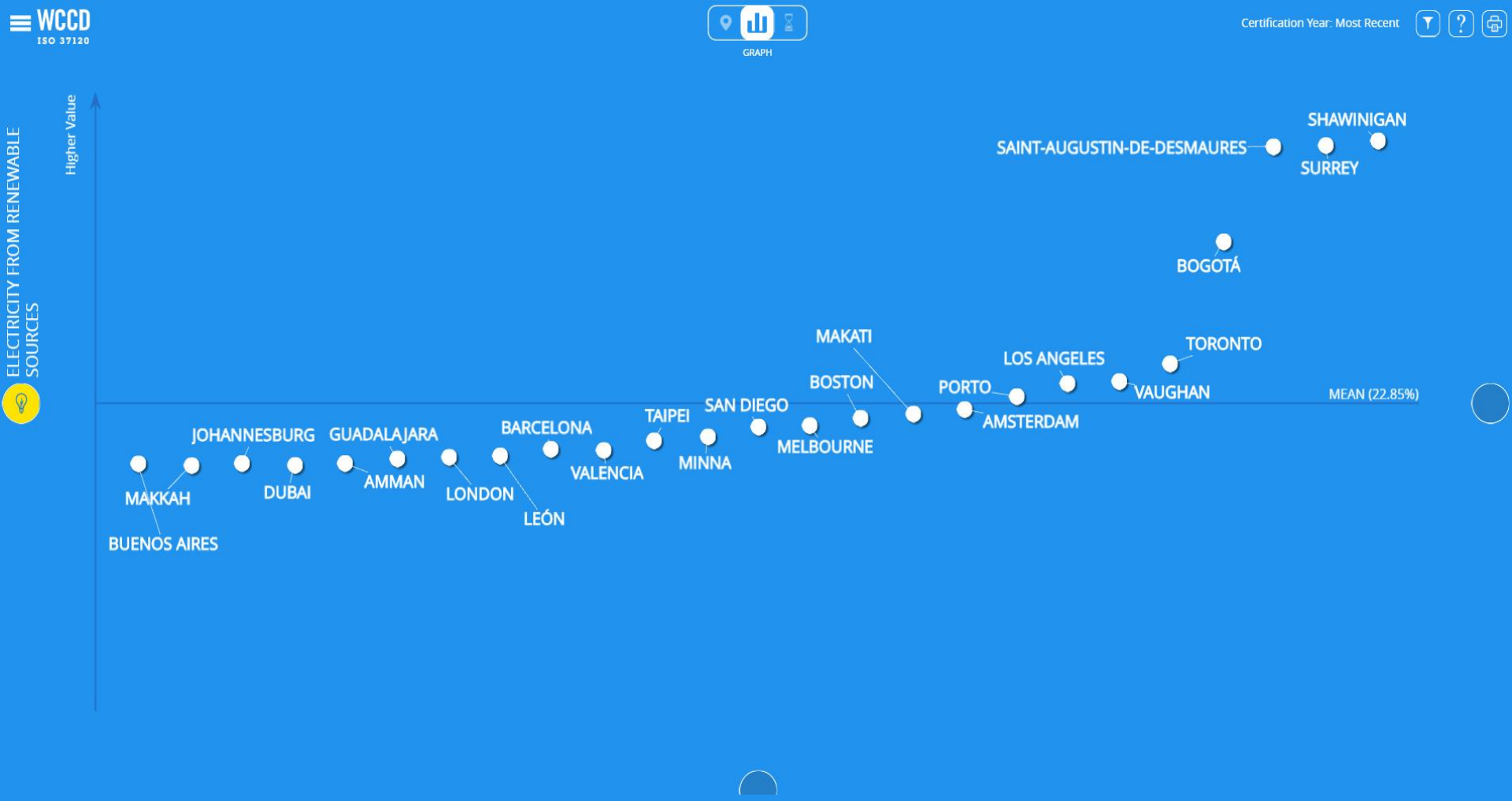
ENERGY FROM RENEWABLE SOURCES (PERCENTAGE OF TOTAL ENERGY CONSUMPTION)



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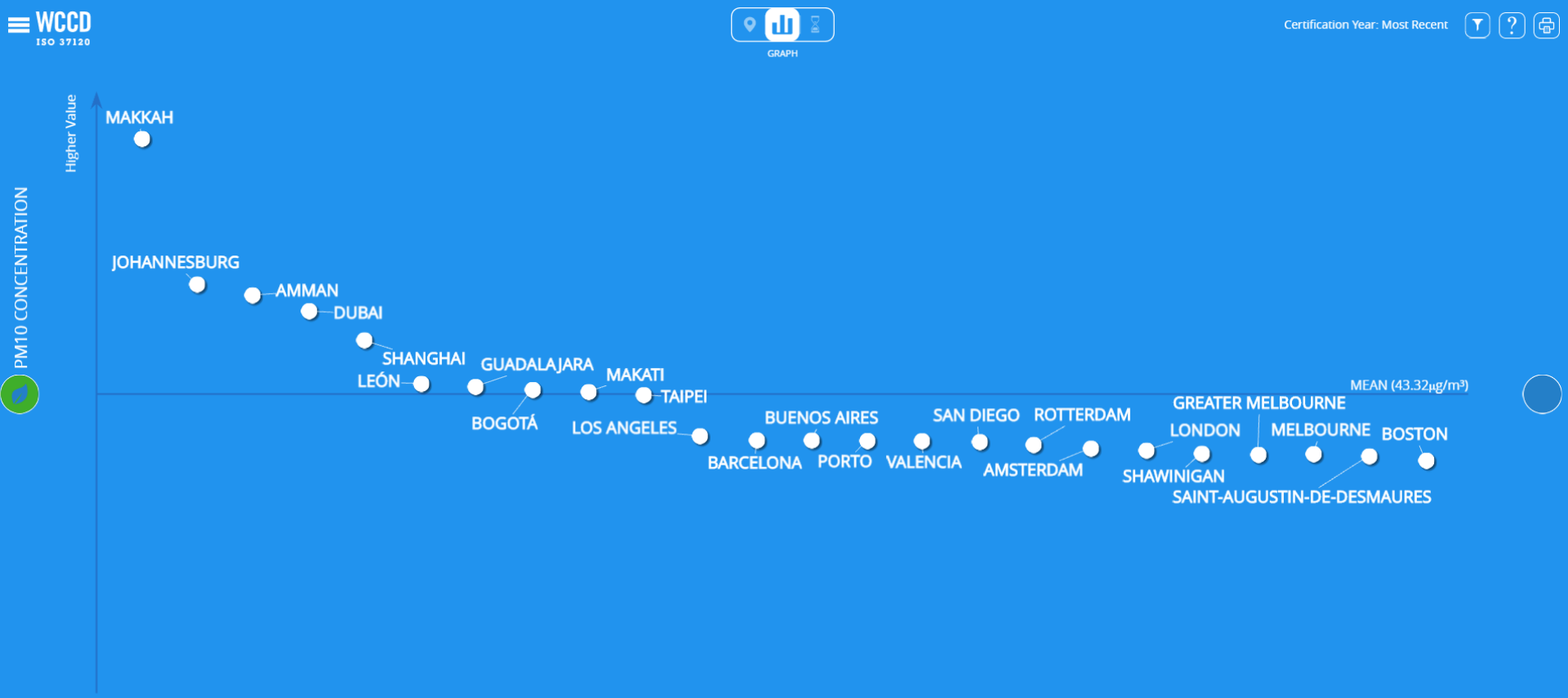
PM10 CONCENTRATION



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DATA TO DRIVE
CITY-TO-CITY LEARNING

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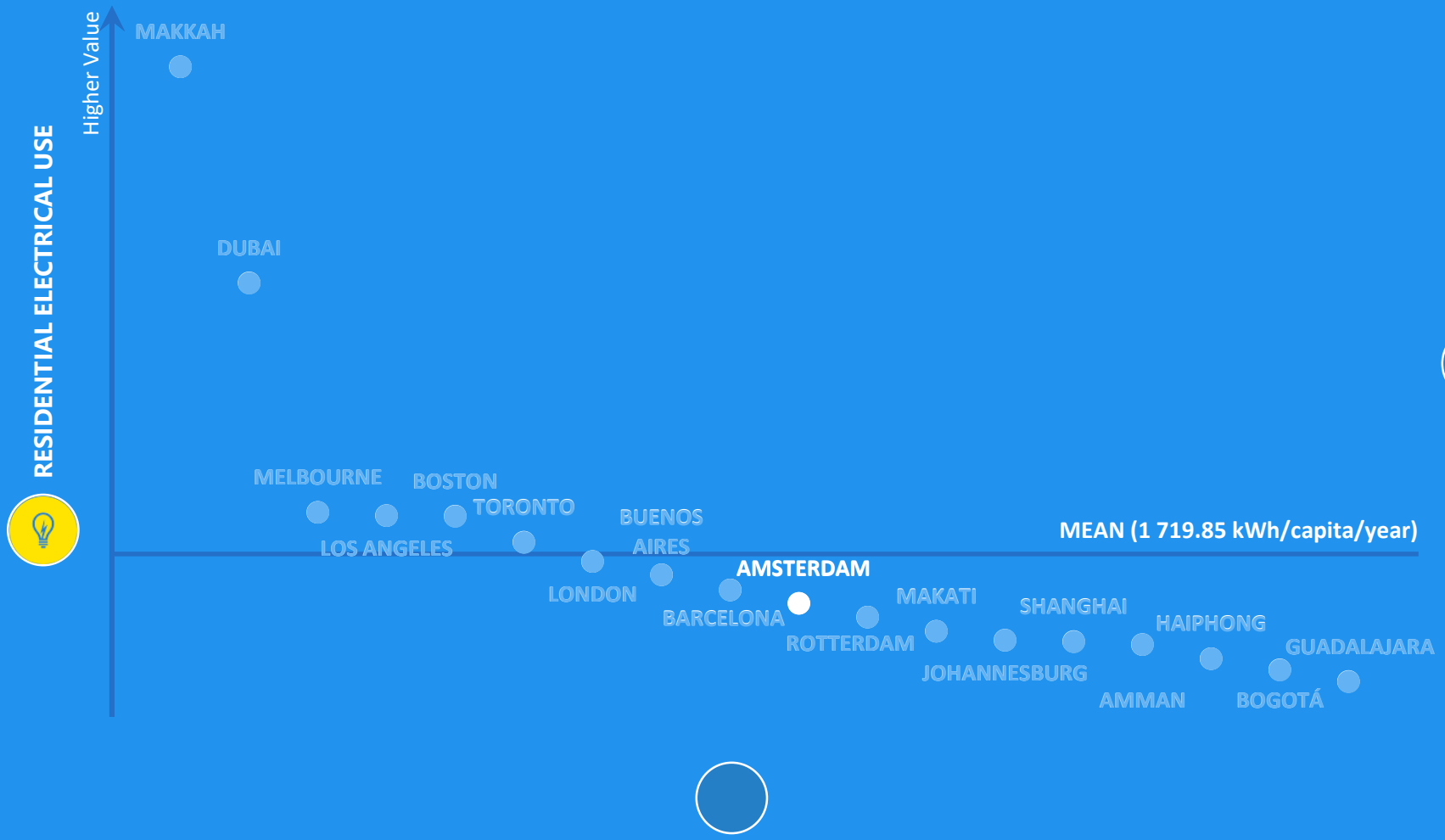
STANDARDIZED DATA DRIVES CITY-TO-CITY LEARNING

RESIDENTIAL ELECTRICAL ENERGY USE IN KWH PER CAPITA



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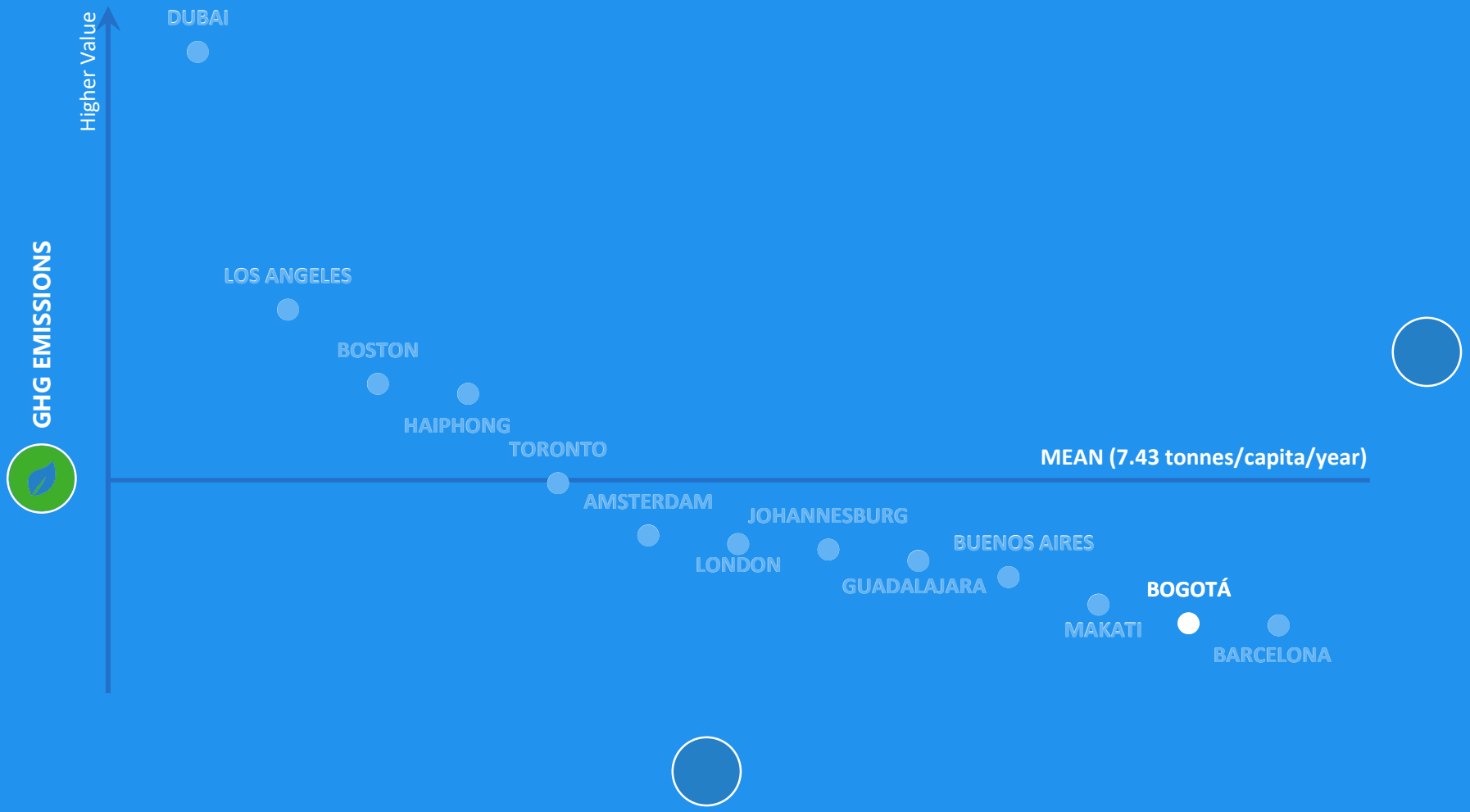
SMART CITIES BOOST ENERGY EFFICIENCY: AMSTERDAM

- Regulation and incentives for energy-efficient buildings
- All municipal buildings to be carbon-neutral by 2015
- District cooling is reducing CO_2 emissions in some areas by 70%
- Smart energy meters are providing detailed feedback and analysis on household energy use

STANDARDIZED DATA DRIVES CITY-TO-CITY LEARNING

GREENHOUSE GAS EMISSIONS IN TONNES PER CAPITA



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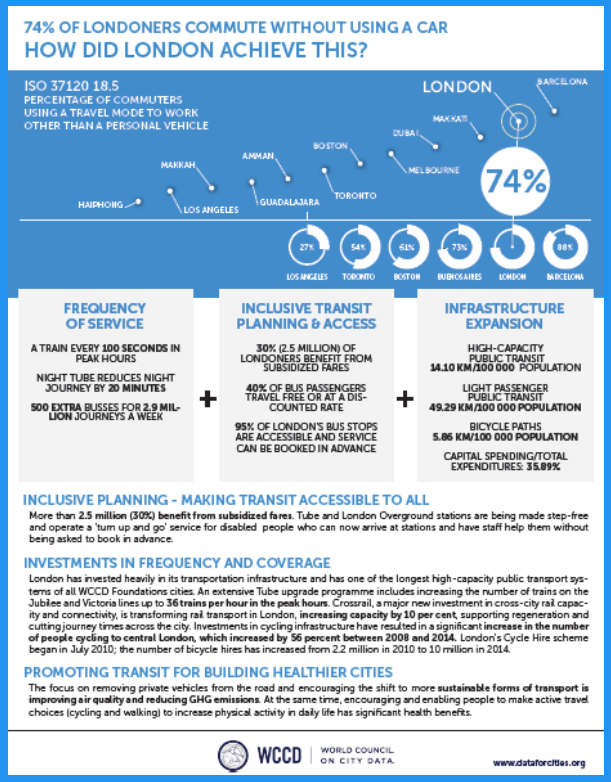
SMART CITIES TACKLE CLIMATE CHANGE: BOGOTÁ

Smart cities invest in new technologies to improve environmental sustainability as well as services for their population, and face the growing challenges presented by climate change and population growth.
Bogota implemented its award-winning Bus Rapid Transit (BRT) system in 2000.

- TransMilenio reduces emissions by over 350 000 tons per year
- Diesel buses are being replaced by electric buses
- A greener taxi fleet is expected to reduce greenhouse gas emissions by more than 70%

LONDON



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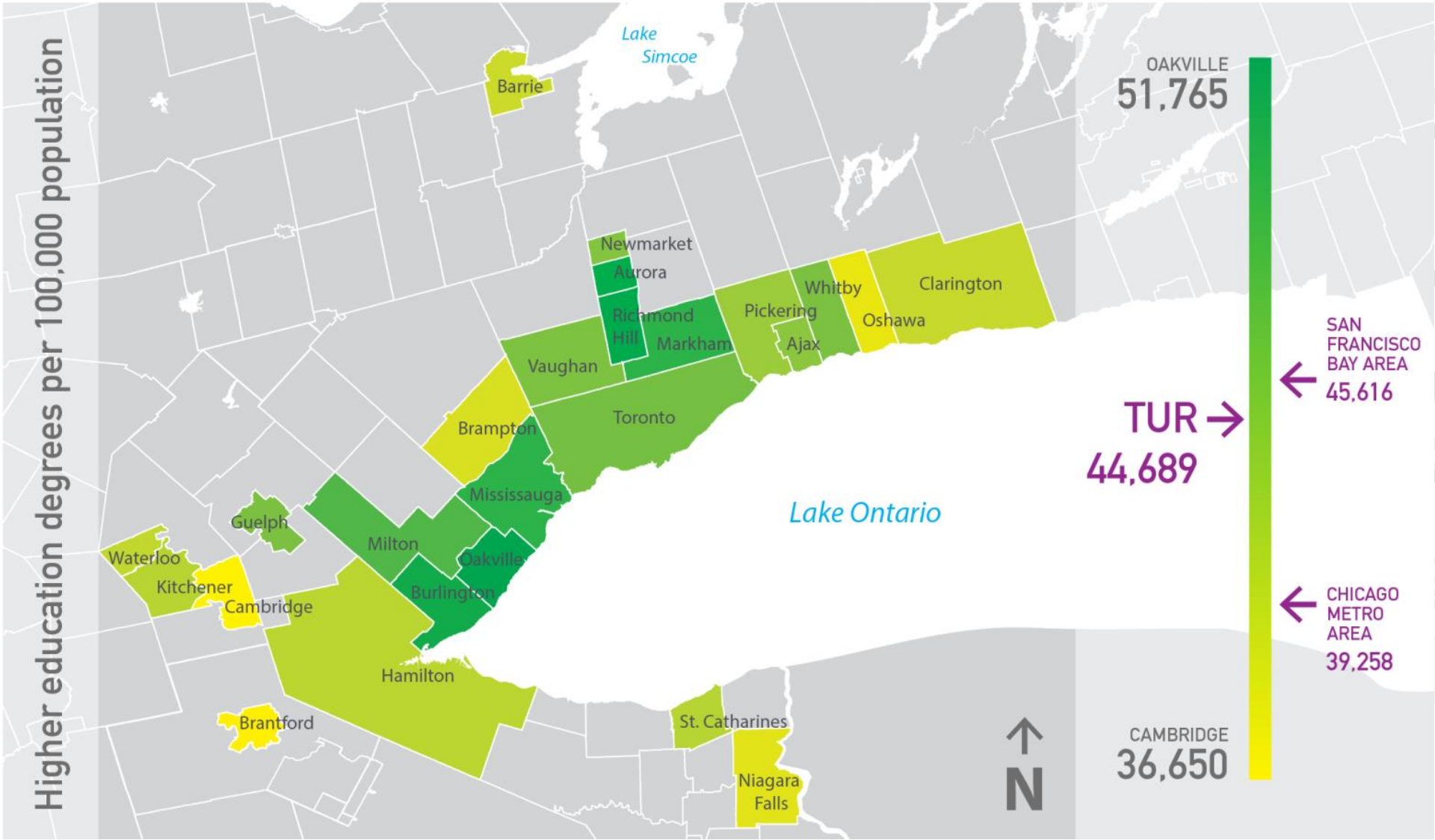
CITY DATA AND REGIONAL DATA – THE AGGREGATION EXERCISE

AS ONTARIO CITIES BECOME ISO 37120 CERTIFIED IN 2016 THE NEW DATA CAN BE USED TO AGGREGATE AND RE-DRAW THE BOUNDARIES
FOR EXAMPLE – NORTH TO BARRIE,
EAST TO KINGSTON & WEST TO WINDSOR AND LONDON

HIGHER EDUCATION DEGREES



BUILDING AGGREGATED DATA FOR REGIONAL COMPETITIVENESS

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WORKING WITH NATIONAL GOVERNMENTS IN BUILDING CITY DATA

- MOU signed with Smart Cities Joint Lab – MOHURD, China
- Building data for competitiveness & smart cities
- ISO 37120 being adopted by Standards Association of China
- WCCD Office in Beijing (MOHURD)

- Agreement with National Government of Mexico
- Monitoring progress for SDGs

- Mission to India in December 2015
- City Data for India Initiative with Tata Trusts to support the Smart Cities Initiative in India

WORKING WITH GLOBAL PARTNERS TO BUILD ANALYTICS AND TOOLS FOR EVIDENCE BASED DECISION MAKING

Ontario

UNIVERSITY OF TORONTO

SIEMENS

PHILIPS

UNEP

UNISDR
The United Nations Office for Disaster Risk Reduction

TATA TRUSTS

مجمع شهرداری های جهان اسلام
WORLD ASSEMBLY OF ISLAMIC CITY

CITYNET

المجلس التنفيذي
THE EXECUTIVE COUNCIL

ICLEI
Local Governments for Sustainability

UN-HABITAT

South African CitiesNetwork

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GLOBAL CITIES SUMMIT
MARCH DUBAI 2017

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ISO 37120

THANK YOU

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