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ISO 37120

WORLD COUNCIL ON CITY DATA



DATA FOR BUILDING EFFICIENT AND INNOVATIVE CITIES

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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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ISO 37120

Sustainable development of communities

Indicators for city services and quality of life

First edition
2014-05-15

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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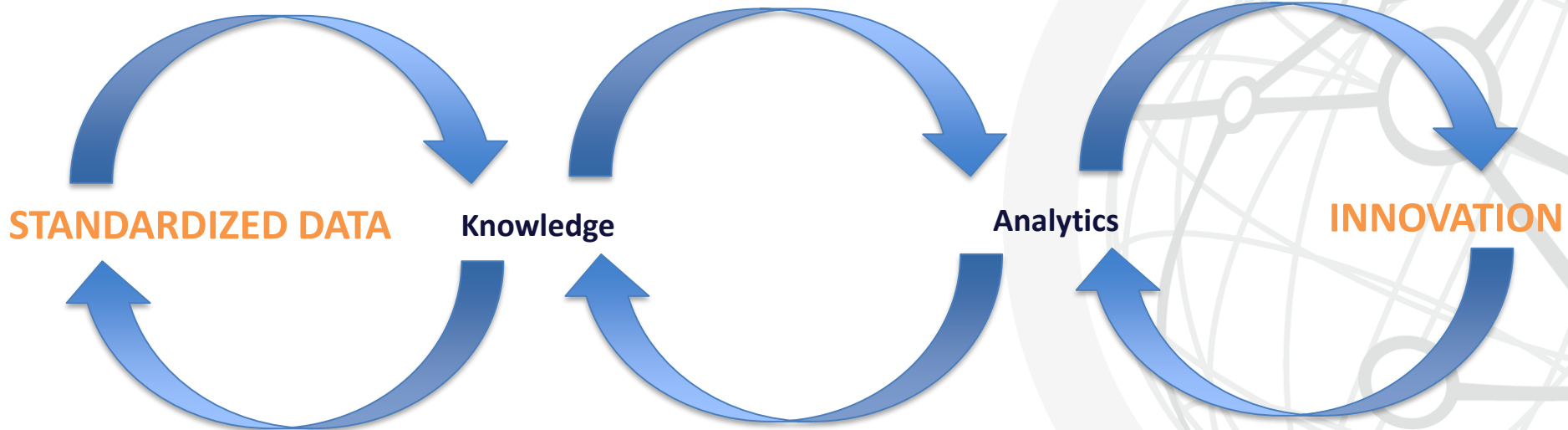


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BUILDING A CULTURE OF DATA IN CITIES TO INFORM SOLUTIONS AND DRIVE INNOVATION



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***



Dissecting ISO 37120: Why this new smart city standard is good news for cities

Wed, 2014-07-30 00:00 -- SCC Staff

SHARE



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



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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.

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



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WCCD FOUNDATION AND ISO 37120 CERTIFIED CITIES



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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

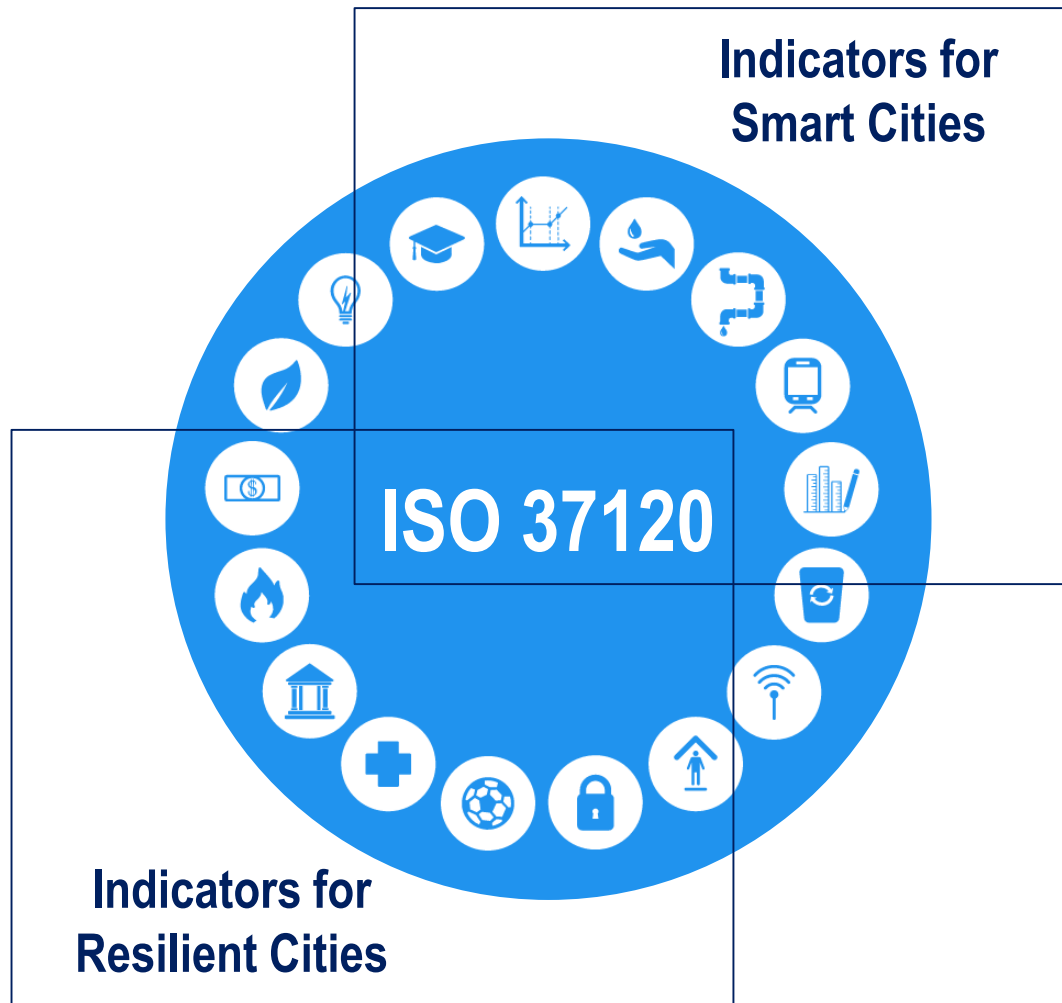
750,000 – 1,000,000

1,000,000 – 5,000,000

5,000,000 – 10,000,000

10,000,000 +

ISO FAMILY OF STANDARDS

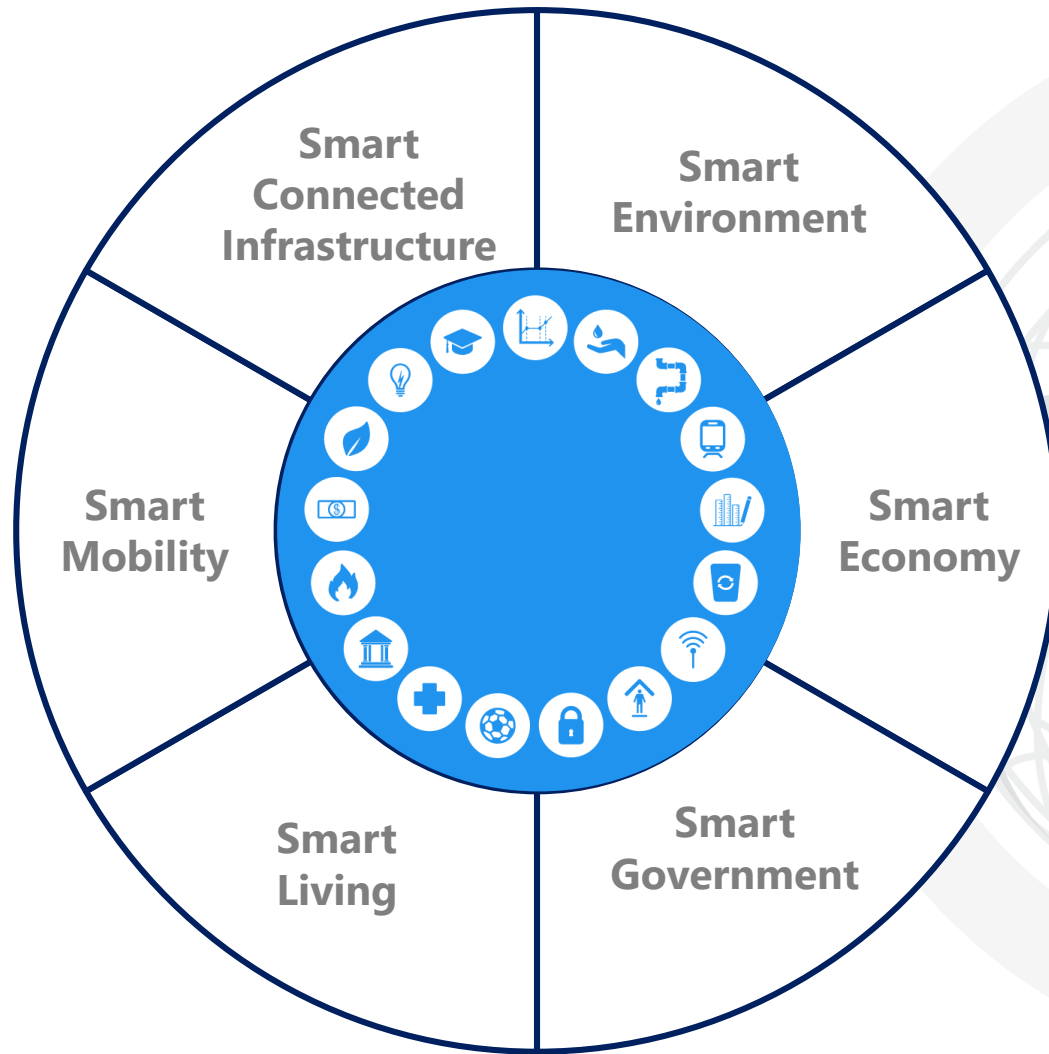


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SMART CITY COMPONENTS



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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)

TOTAL ELECTRICAL USE



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ENERGY FROM RENEWABLE SOURCES (PERCENTAGE OF TOTAL ENERGY CONSUMPTION)

ELECTRICITY FROM RENEWABLE SOURCES



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 CO₂ emissions in some areas by 70%
- Smart energy meters are providing detailed feedback and analysis on household energy use



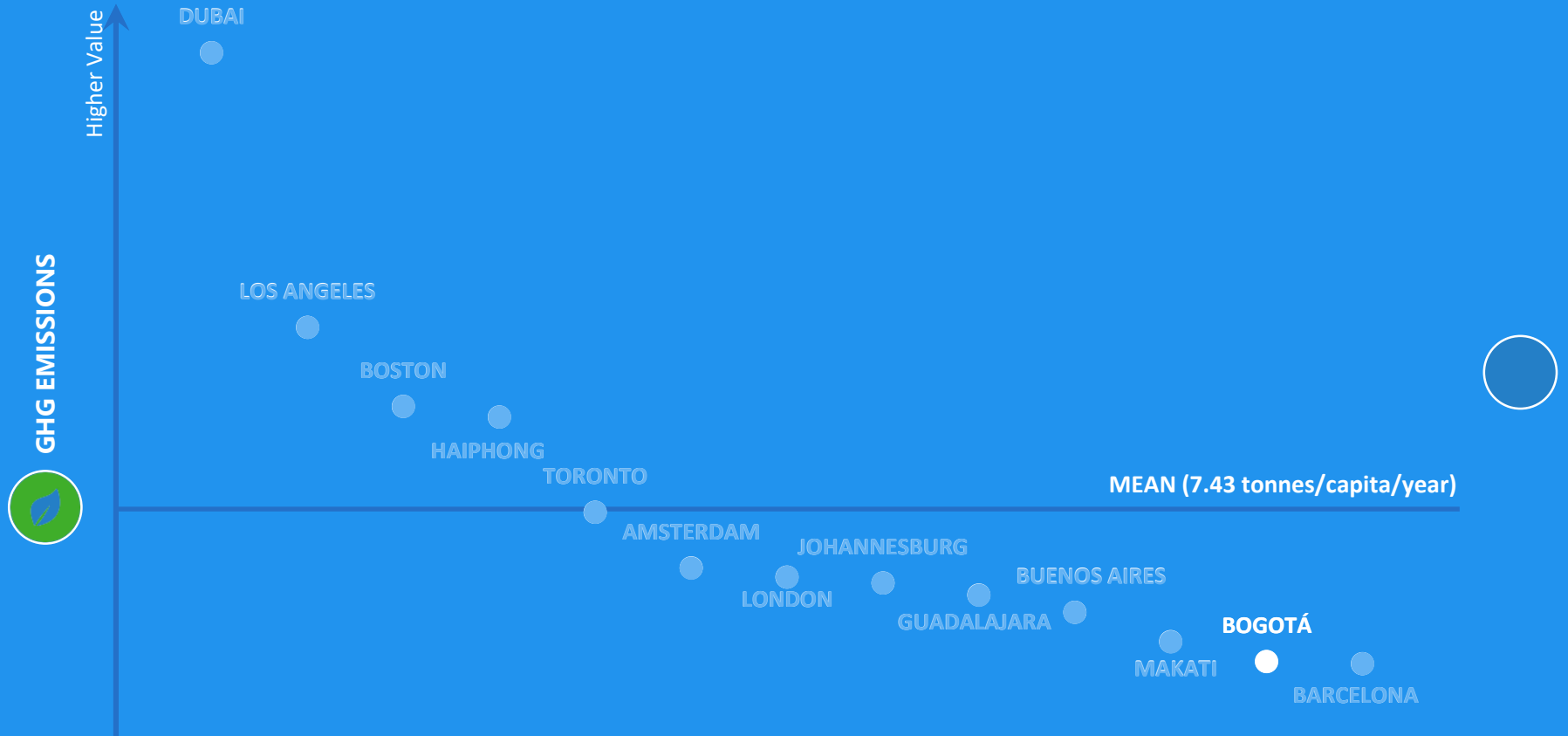
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STANDARDIZED DATA DRIVES CITY-TO-CITY LEARNING

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%



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LONDON

LONDON

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HOW DO LONDONERS GET TO WORK?

74%

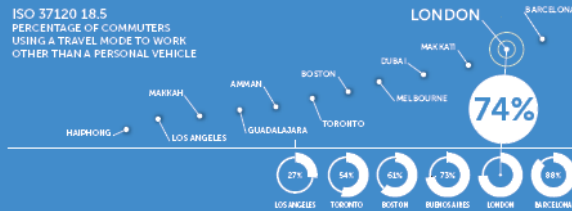
OF LONDON'S RESIDENTS COMMUTE WITHOUT USING A CAR

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74% OF LONDONERS COMMUTE WITHOUT USING A CAR HOW DID LONDON ACHIEVE THIS?

ISO 37120 18.5
PERCENTAGE OF COMMUTERS USING A TRAVEL MODE TO WORK OTHER THAN A PERSONAL VEHICLE



FREQUENCY OF SERVICE

A TRAIN EVERY 100 SECONDS IN PEAK HOURS
NIGHT TUBE REDUCES NIGHT JOURNEY BY 20 MINUTES
500 EXTRA BUSES FOR 2.9 MILLION JOURNEYS A WEEK

INCLUSIVE TRANSIT PLANNING & ACCESS

30% (2.5 MILLION) OF LONDONERS BENEFIT FROM SUBSIDIZED FARES
40% OF BUS PASSENGERS TRAVEL FREE OR AT A DISCOUNTED RATE
95% OF LONDON'S BUS STOPS ARE ACCESSIBLE AND SERVICE CAN BE BOOKED IN ADVANCE

INFRASTRUCTURE EXPANSION

HIGH-CAPACITY PUBLIC TRANSIT
14.10 KM/100 000 POPULATION
LIGHT PASSENGER PUBLIC TRANSIT
49.29 KM/100 000 POPULATION
BICYCLE PATHS
5.86 KM/100 000 POPULATION
CAPITAL SPENDING/TOTAL EXPENDITURES: 35.89%

INCLUSIVE PLANNING - MAKING TRANSIT ACCESSIBLE TO ALL

More than 2.5 million (30%) benefit from subsidized fares. Tube and London Overground stations are being made step-free and operate a 'turn up and go' service for disabled people who can now arrive at stations and have staff help them without being asked to book in advance.

INVESTMENTS IN FREQUENCY AND COVERAGE

London has invested heavily in its transportation infrastructure and has one of the longest high-capacity public transport systems of all WCCD Foundations cities. An extensive Tube upgrade programme includes increasing the number of trains on the Jubilee and Victoria lines up to 36 trains per hour in the peak hours. Crossrail, a major new investment in cross-city rail capacity and connectivity, is transforming rail transport in London, increasing capacity by 10 per cent, supporting regeneration and cutting journey times across the city. Investments in cycling infrastructure have resulted in a significant increase in the number of people cycling to central London, which increased by 56 percent between 2008 and 2014. London's Cycle Hire scheme began in July 2010; the number of bicycle hires has increased from 2.2 million in 2010 to 10 million in 2014.

PROMOTING TRANSIT FOR BUILDING HEALTHIER CITIES

The focus on removing private vehicles from the road and encouraging the shift to more sustainable forms of transport is improving air quality and reducing GHG emissions. At the same time, encouraging and enabling people to make active travel choices (cycling and walking) to increase physical activity in daily life has significant health benefits.



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74% OF LONDONERS COMMUTE WITHOUT USING A CAR WHAT DOES THIS MEAN FOR THE PEOPLE OF LONDON?



LONDON IN A GLOBAL CONTEXT

ISO 37120 9.1

PM2.5 CONCENTRATION (µg/m³)



ISO 37120 9.3

GHG CONCENTRATION (ppm/capita)



ISO 37120 14.3

PUBLIC TRANSPORT TRIPS (per capita/year)



ISO 37120 5.6

NUMBER OF BUSINESS SEES (per 100 000 population)



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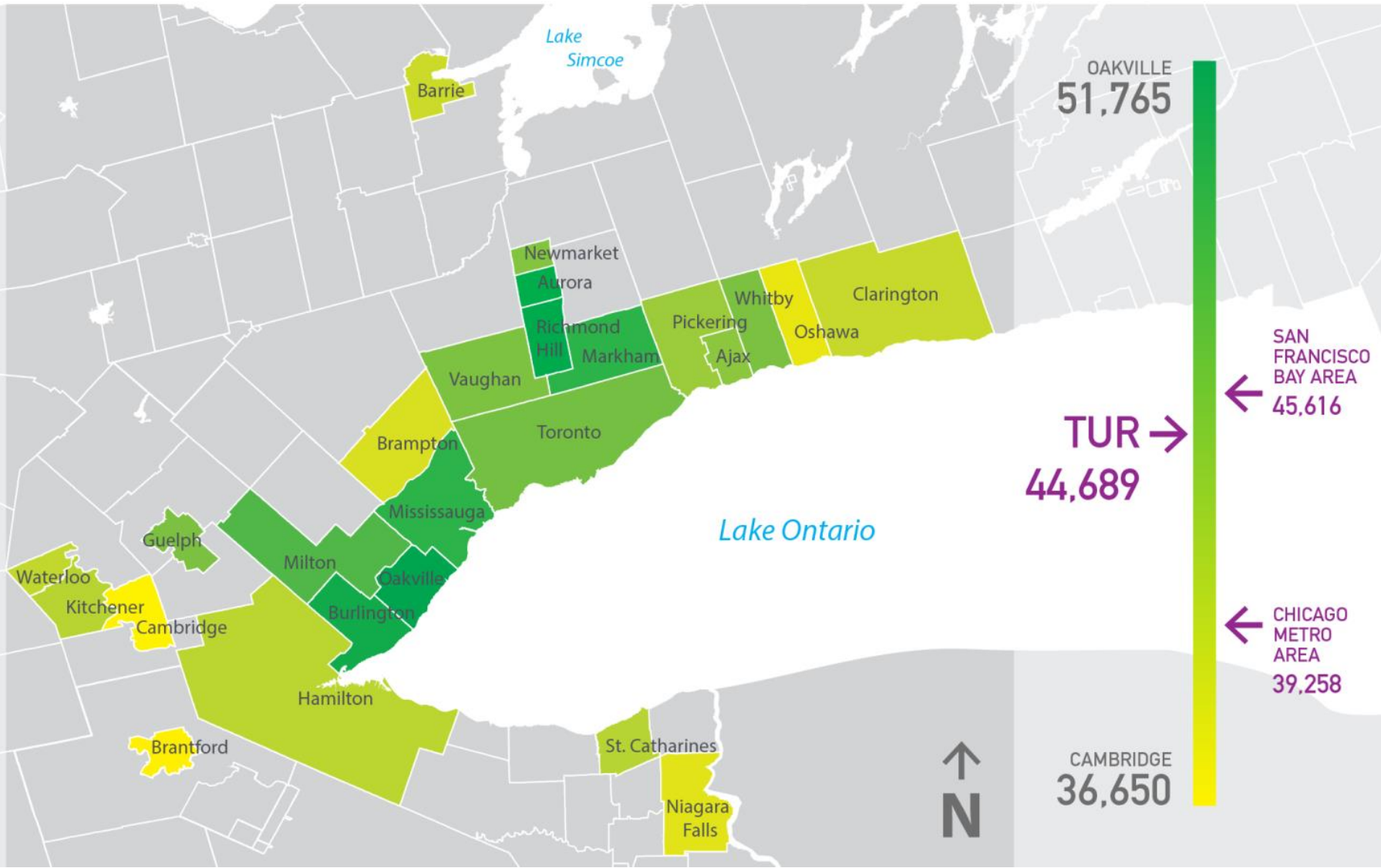
A satellite night view of a city, showing a dense network of glowing yellow and white lights against a dark blue background. The lights form a complex, interconnected pattern, with a large, bright, irregularly shaped area in the upper right quadrant, possibly representing a major urban center or a specific region of interest. The overall appearance is that of a vast, illuminated urban landscape from space.

CITY DATA AND REGIONAL DATA – THE AGGREGATION EXERCISE

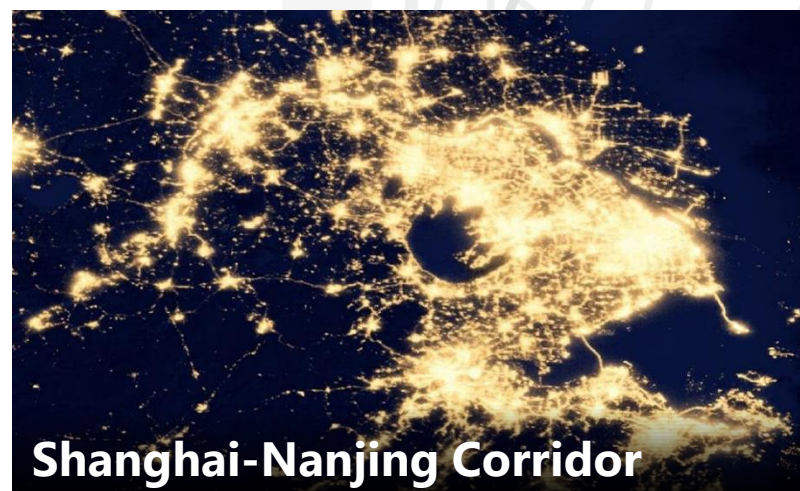
**AS ONTARIO CITIES BECOME ISO 37120
CERTIFIED IN 2016 THE NEW DATA CAN BE
USED TO AGGREGATE AND RE-DRAW THE
BOUNDARIES
FOR EXAMPLE – NORTH TO BARRIE,
EAST TO KINGSTON & WEST TO WINDSOR AND LONDON**

HIGHER EDUCATION DEGREES

Higher education degrees per 100,000 population



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



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



SIEMENS

PHILIPS



TATA TRUSTS



CITYNET



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GLOBAL CITIES SUMMIT MARCH DUBAI 2017





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THANK YOU

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