



WCCD

THE WORLD COUNCIL ON CITY DATA

World Bank Webinar

**WCCD and the ISO 37120 Series -
Supporting Cities in Building Globally
Standardized City Level Data**

<http://www.dataforcities.org/>

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Facebook: WCCityData

December 15, 2022

Patricia McCarney, President and CEO

CITY DATA ACROSS THE WORLD IS UNEVEN

THE CHALLENGES:

**DIFFERENT DEFINITIONS OF WHAT IS
BEING MEASURED**

**DIFFERENT METHODOLOGIES ON HOW
MEASUREMENT IS UNDERTAKEN**

**AND ACCORDING TO DIFFERENT
BOUNDARIES OF THE CITY BEING
MEASURED**



The WCCD and the ISO 37120 SERIES

The First ISO Standards created for Cities and
to build Globally Standardized City Data

WCCD is providing ISO Certification to Cities
across the Globe Equipping them with city data
that is comparable
“Apples to Apples” data



WCCD ISO 37120 – A GLOBAL FIRST

THE WORLD COUNCIL ON CITY DATA



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WCCD is implementing this global first in over **100 cities** across **35 countries**

INTERNATIONAL STANDARD
ISO 37120

**Sustainable cities
and communities**

Indicators for city services
and quality of life

Second edition
2018-07

Reference number ISO 37120:2018(E)
© ISO 2018



ISO 37120 contains 104 indicators with globally standardized definitions and methodologies across 19 themes – all chosen and prioritized by cities across the globe

19 themes

104 indicators



Economy



Education



Energy



Environment & climate change



Finance



Governance



Health



Housing



Population & social conditions



Recreation



Safety



Solid Waste



Sport & Culture



Telecommunication



Transportation



Urban/local agriculture & food security



Urban/Rural Planning



Wastewater



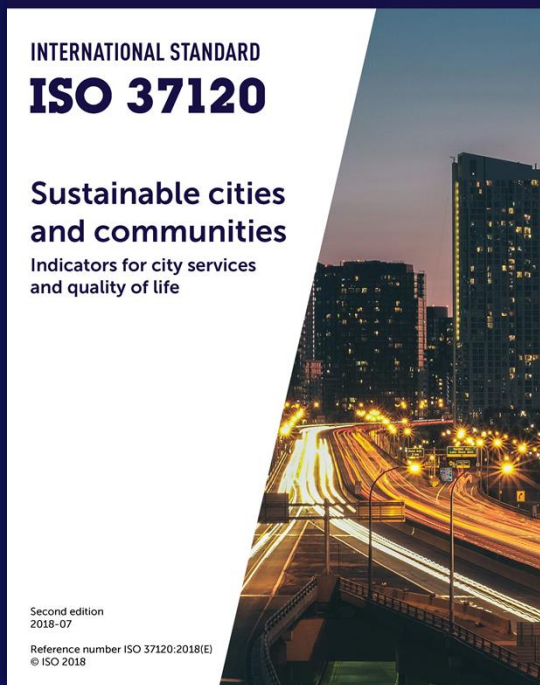
Water



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The ISO 37120 SERIES

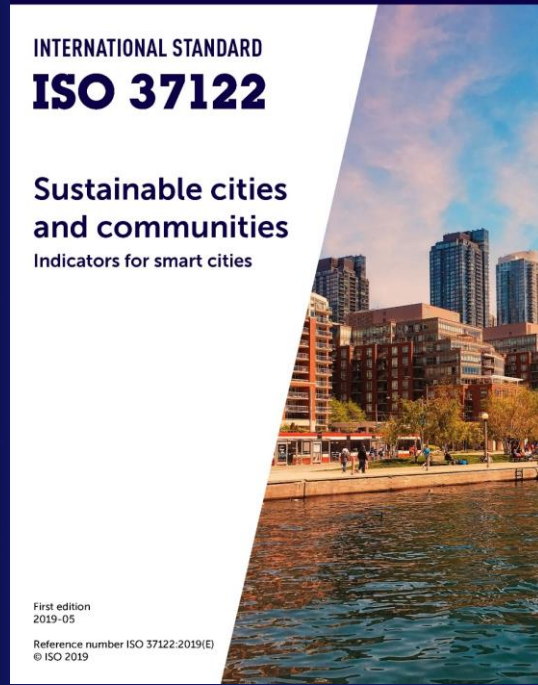


ISO 37120

Indicators for City Services and Quality of Life

The **1st** ISO Standard for cities

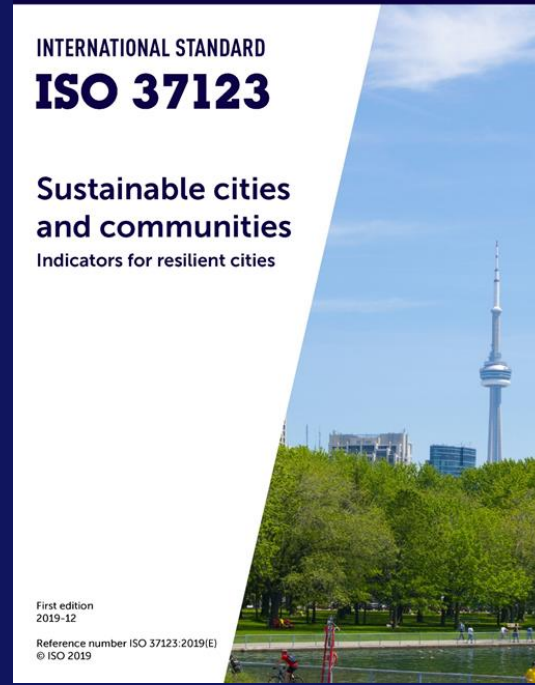
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ISO 37122

Indicators for Smart Cities

Cities globally are becoming early Adopters and demonstrating that **data is the essential starting point for Smart Cities**
Tracking Data that is Citizen Focused



ISO 37123

Indicators for Resilient Cities

Cities globally are becoming Early Adopters and demonstrating that data is instrumental in building more Resilient Cities to plan for, and recover from, shocks and stresses



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UNDRR

UN Office for Disaster Risk Reduction

The ISO 37120 SERIES - ISO 37120 & ISO 37122 & ISO 37123 –
252 KPIs with globally standardized definitions and methodologies across 19 themes

19 themes

252 indicators



Economy



Health



Sport & Culture



Education



Housing



Telecommunication



Energy



Population &
social conditions



Transportation



Environment &
climate change



Recreation



Urban/local agriculture
& food security



Finance



Safety



Urban Planning



Governance



Solid Waste



Wastewater



Water



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WCCD – A Longstanding Partner of UNDRR



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UNDRR

United Nations Office for
Disaster Risk Reduction

A Core Partner of MCR 2030



**Making
Cities
Resilient**

**SAMPLING of KPIs across a
Few Themes in the ISO
37120 Series ...**

ENERGY



ISO 37120 Sustainable Cities

- Total end-use energy consumption per capita (GJ/year)
- Percentage of total end-use energy derived from renewable sources
- Percentage of city population with authorized electrical service (residential)
- Number of gas distribution service connections per 100 000 population (residential)
- Final energy consumption of public buildings per year (GJ/m²)
- Electricity consumption of public street lighting per kilometre of lighted street (kWh/year)
- Average annual hours of electrical service interruptions per household
- Heating degree days
- Cooling degree days

ISO 37122 Smart Cities

- Percentage of electrical and thermal energy produced from wastewater treatment, solid waste and other liquid waste treatment and other waste heat resources, as a share of the city's total energy mix for a given year
- Electrical and thermal energy (GJ) produced from wastewater treatment per capita per year
- Electrical and thermal energy (GJ) produced from solid waste or other liquid waste treatment per capita per year
- Percentage of the city's electricity that is produced using decentralised electricity production systems
- Percentage of street lighting managed by a light performance management system
- Storage capacity of the city's energy grid per total city energy consumption
- Percentage of street lighting that has been refurbished and newly installed
- Percentage of public buildings requiring renovation/refurbishment
- Percentage of buildings in the city with smart energy meters
- Number of electric vehicle charging stations per registered electric vehicle

ISO 37123 Resilient Cities

- Number of different electricity sources providing at least 5 % of total energy supply capacity
- Electricity supply capacity as a percentage of peak electricity demand
- Percentage of critical facilities served by off-grid energy services



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ECONOMY



ISO 37120 Sustainable Cities

- City's unemployment rate
- Assessed value of commercial and industrial properties as a percentage of total assessed value of all properties
- Percentage of persons in full-time employment
- Youth unemployment rate
- Number of businesses per 100 000 population
- Number of new patents per 100 000 population per year
- Annual number of visitor stays (overnight) per 100 000 population
- Commercial air connectivity (number of non-stop commercial air destinations)
- Average household income (USD)
- Annual inflation rate based on the average of the last 5 years
- City product per capita (USD)

ISO 37122 Smart Cities

- Percentage of service contracts providing city services which contain an open data policy
- Survival rate of new businesses per 100 000 population
- Percentage of the labour force employed in occupations in the Information and Communications Technology (ICT) sector
- Percentage of the labour force employed in occupations in the Education and Research & Development sectors

ISO 37123 Resilient Cities

- Historical disaster losses as a percentage of city product
- Average annual disaster loss as a percentage of city product
- Percentage of properties with insurance coverage for high-risk hazards
- Percentage of total insured value to total value at risk within the city
- Employment concentration
- Percentage of the workforce in informal employment
- Average household disposable income (USD)



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TRANSPORTATION



ISO 37120 Sustainable Cities

- Kilometres of public transport system per 100 000 population
- Annual number of public transport trips per capita
- Percentage of commuters using a travel mode to work other than a personal vehicle
- Kilometres of bicycle paths and lanes per 100 000 population
- Transportation deaths per 100 000 population
- Percentage of population living within 0.5 km of public transit running at least every 20 minutes during peak periods
- Average commute time
- Number of personal automobiles per capita
- Number of two-wheeled motorized vehicles per capita

ISO 37122 Smart Cities

- Percentage of city streets and thoroughfares covered by real-time online traffic alerts and information
- Number of users of sharing economy transportation per 100 000 population
- Percentage of vehicles registered in the city that are low-emission vehicles
- Number of bicycles available through municipally provided bicycle-sharing services per 100 000 population
- Percentage of public transport lines equipped with a publicly accessible real-time system
- Percentage of the city's public transport services covered by a unified payment system
- Percentage of public parking spaces equipped with e-payment systems
- Percentage of public parking spaces equipped with real-time availability systems
- Percentage of traffic lights that are intelligent/smart

- City area mapped by real-time interactive street maps as a percentage of the city's total land area
- Percentage of vehicles registered in the city that are autonomous vehicles
- Percentage of public transport routes with municipally provided and/or managed Internet connectivity for commuters
- Percentage of roads conforming with autonomous driving systems
- Percentage of the city's bus fleet that is motor-driven

ISO 37123 Resilient Cities

- Number of evacuation routes available per 100 000 population



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How can WCCD-certified ISO data benefit my city?

Smart Data applications for globally standardized data



Economic Development



Infrastructure Investment



Localizing Global Agendas



Internal Benchmarking



Global Benchmarking



Strategic Planning



Investment Attraction and Economic Development



WCCD INVESTMENT ATTRACTION TOOL

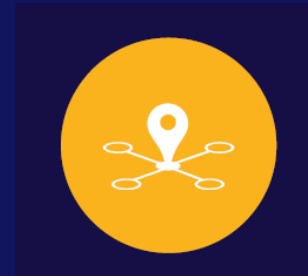
6 DOMAINS



ECONOMIC VIBRANCY



HUMAN CAPITAL &
INNOVATION



MOBILITY & CONNECTIVITY



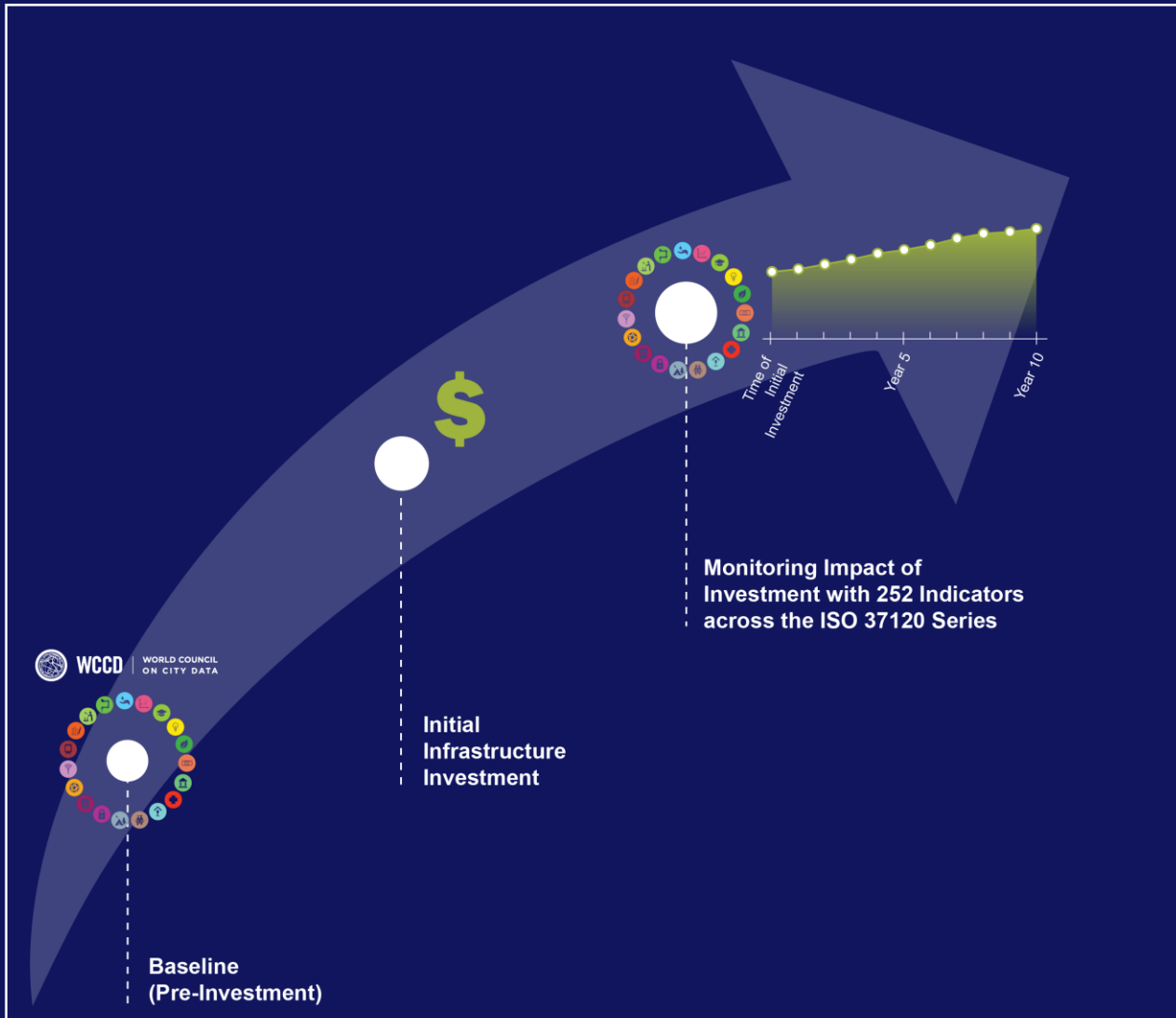
LIVABILITY



STATE OF THE CITY




Data for Infrastructure Investment



Monitoring Local Progress toward Global Goals



Sustainable Development Goal	Relevant ISO 37120, ISO 37122, and ISO 37123 Indicators
 <p>Goal 3. Ensure healthy lives and promote well-being for all at all ages</p>	<p>11.2 Number of in-patient hospital beds per 100 000 population</p> <p>11.2 Percentage of population with basic health insurance</p> <p>13.3 Percentage of marked pedestrian crossings equipped with accessible pedestrian signals</p>
 <p>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p>	<p>5.1 Number of businesses per 100 000 population</p> <p>6.3 Number of science, technology, engineering and mathematics (STEM) higher education degrees per 100 000 population</p> <p>19.1 Percentage of city streets and thoroughfares covered by real-time online traffic alerts and information</p> <p>21.4 Percentage of city departments and utility services that conduct risk assessment in their planning and investment</p>
 <p>Goal 13. Take urgent action to combat climate change and its impacts</p>	<p>7.1 Total end-use energy consumption per capita</p> <p>7.1 Percentage of electrical and thermal energy produced from waste treatment as a share of the city's total energy mix</p> <p>9.3 Annual expenditure allocated to ecosystem restoration in the city's territory as a percentage of total city budget</p>

United Nations
 Making Cities Resilient 2030
 (MCR2030)
 Sustainable Development Goals
 (SDGs)
 Global Climate Agenda



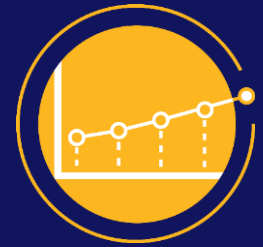
WCCD CITY DATA FOR THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS







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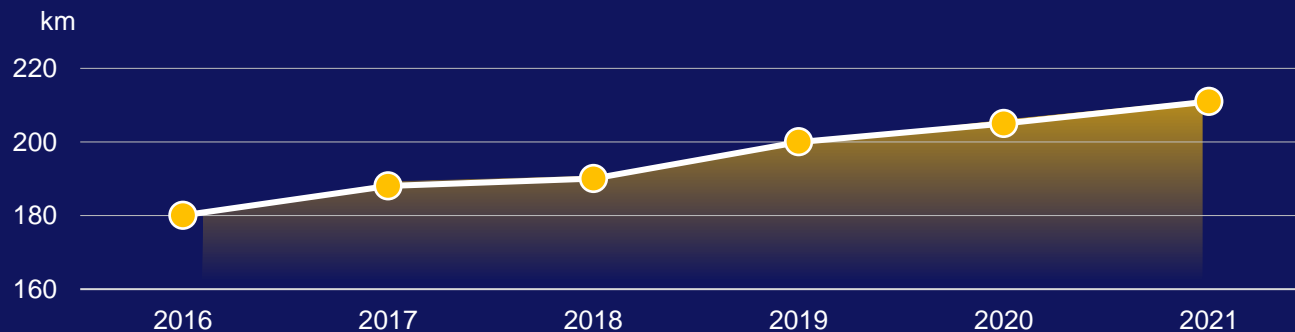
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Progress Monitoring and Establishing Internal Benchmarks



	2016	2017	2018	2019	2020	2021	Trend
5.5 Number of businesses per 100 000 population	4561	4260	4210	4190	4000	3987	
11.2 Number of in-patient hospital beds per 100 000 population	125	131	140	143	150	155	
16.3 Percentage of the city's solid waste that is recycled	35%	31%	28%	25%	22%	19%	
21.1 Green area (hectares) per 100 000 population	394	403	417	427	435	452	

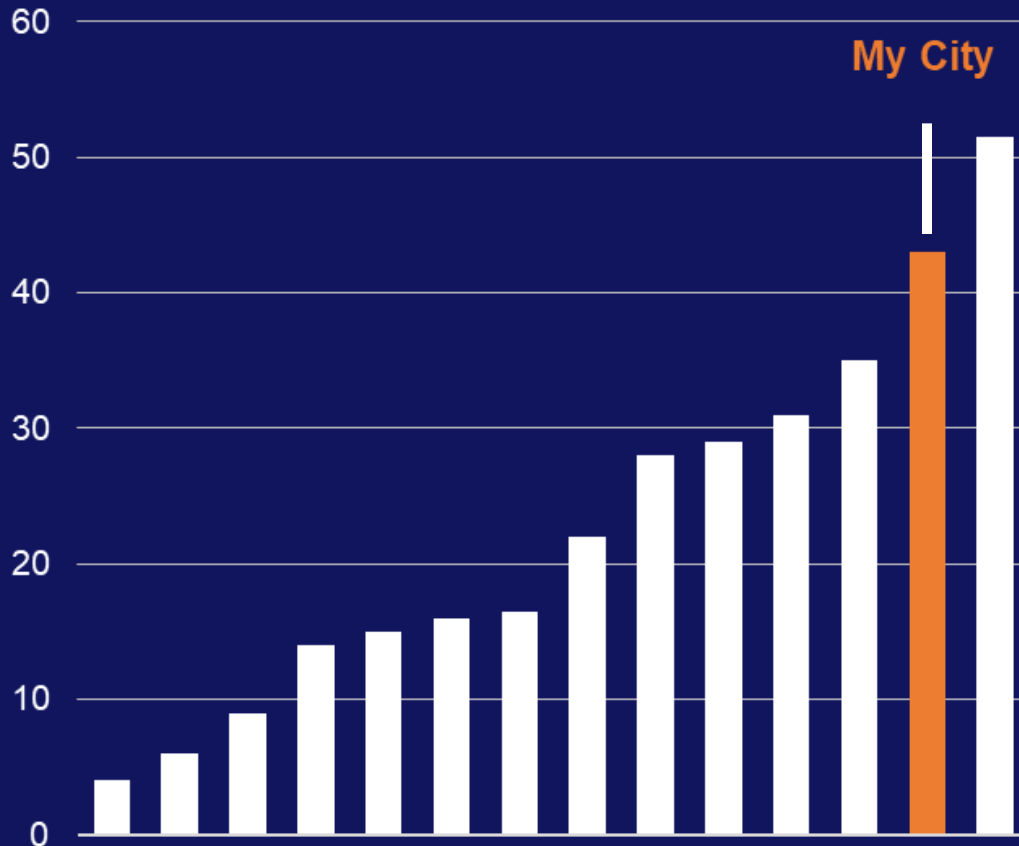
19.4 Kilometres of bicycle paths and lanes per 100 000 population





Data for Global Benchmarking

ISO 37120 Indicator 19.2
Annual Number of Public Transport Trips per capita



Key Performance Indicators for City Strategy



City Strategic Plan Objective	ISO 37120, ISO 37122, and ISO 37123 Indicators
To ensure a high quality of life for all residents	<p>11.1 Percentage of the city's population with an online unified health file accessible to health care providers</p> <hr/> <p>13.1 Vulnerable population as a percentage of city population</p> <hr/> <p>14.2 Square meters of public outdoor recreation space per capita</p>
To promote smart city technology and infrastructure	<p>5.3 Percentage of the labour force employed in occupations in the information and communications technology sector</p> <hr/> <p>9.1 Annual amount of revenues collected from the sharing economy as a percentage of own-source revenue</p> <hr/> <p>19.11 Percentage of vehicles registered in the city that are autonomous vehicles</p>
To make a resilient city that will serve citizens for generations	<p>9.7 Total allocation of disaster reserve funds as a percentage of total city budget</p> <hr/> <p>11.4 Number of infectious disease outbreaks per year</p> <hr/> <p>Greenhouse gas emissions measured in tonnes per capita</p>



NEW DEVELOPMENTS AT THE WCCD IN BUILDING LOCAL DATA

ISO 37125 - ESG INDICATORS FOR CITIES

To support cities in the debenture markets with standardized KPIs across the Environment, Social and Governance Framework

Strengthening municipal positioning in the sustainable, social and green bond markets



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**DATA IS THE UNIVERSAL
LANGUAGE**



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