



# City Workshop: Supporting city-scale GHG inventories - opportunities and challenges

Second CoCO<sub>2</sub>-ICLEI Workshop

**26 May 2023**



# Zoom Guide

**This webinar will be recorded**

**Interpretation available: English - Portuguese - Spanish**



Chat: Use webinar chat to send messages to host, panelists or attendees.



Raise Hand: Raise your hand to indicate that you need something from the host, or if you wish to raise a question to the experts/participants.



Question & Answer: Open Q&A window to write questions to the host and panelists.



Unmute / Mute : You can unmute and talk during the webinar. All participants will be able to hear you (Kindly mute while speakers are talking).

Audio Settings: Click the upward arrow (^) next to change your settings.

# Agenda



- 13:30-13:40      Setting the scene: Understanding community-scale GHG emissions to plan and act:
- 13:40-13:50      CoCO2 introduction
- 13:50-14:10      City presentation
- 14:10-14:30      Using satellites at the city-scale
- 14:30-14:50      ICOS Cities
- 14:50-15:05      Coffee break
- 15:05-15:25      High resolution emission inventories
- 15:25-15:45      Decision support blueprint
- 15:45-16:25      Discussion with audience
- 16:25-16:30      Wrap-up

# Speakers



**Maryke van Staden**

Director of ICLEI's  
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ICLEI World Secretariat

Bonn, Germany



**Dr. Richard Engelen**

Deputy Director,  
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Monitoring Service  
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Centre for Medium-Range  
Weather Forecasts  
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Reading, United Kingdom



**Rovana Bortolini**

Director of Sustainability  
Policies and Projects,  
Secretariat for  
Environment, Urbanism  
and Sustainability

Porto Alegre, Brazil



**Dr. Frédéric Chevallier**

Senior Researcher,  
Laboratoire des Sciences  
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l'Environnement (LSCE)

Paris, France

# Speakers



**Dr. Lukas  
Emmenegger**

Head of Laboratory at  
Air Pollution /  
Environmental  
Technology (Empa)  
  
Zurich, Switzerland



**Dr. Philippe Ciais**

Senior Researcher at  
Laboratoire des  
Sciences du Climat et  
de l'Environnement  
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**Dr. Roxana Petrescu**

Senior Environmental  
Researcher at Vrije  
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Netherlands



**Dr. Glen Peters**

Research Director at  
Center for  
International Climate  
Research (CICERO)  
  
Oslo, Norway



# Understanding community-scale GHG emissions to plan and act: fast and efficiently

Maryke van Staden – Director  
ICLEI's carbonn Climate Center  
Bonn Center for Local Climate Action & Reporting  
ICLEI World Secretariat  
Bonn, Germany

ICLEI – CoCO2 workshop, 26 May 2023



# Welcome



Developing robust city-scale greenhouse gas emissions (GHGs) inventories is key to understanding the challenges to be dealt with and to track progress of GHGs over time.

A combination of different data sets can help enhance the robustness of the inventories, such as using bottom-up data, combining this with disaggregated data from national inventories (to address data gaps). However, the use of satellite data and atmosphere models at increasing spatial resolution is also exciting.

This workshop focuses on assessing how atmospheric observations can support city-scale GHG inventories. We look forward to our discussion on new services to be explored in this regard.

# Introducing ICLEI

ICLEI – Local Governments for Sustainability (known as “ICLEI”) is a global network working with more than 2,500 local and regional governments (LRGs) committed to **sustainable urban development**.

Active in 125+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development.

Our team of multidisciplinary experts support and guide this transition to a sustainable future.

**2,500+ LOCAL  
AND REGIONAL  
GOVERNMENTS**

**ACTIVE IN  
125+  
COUNTRIES**

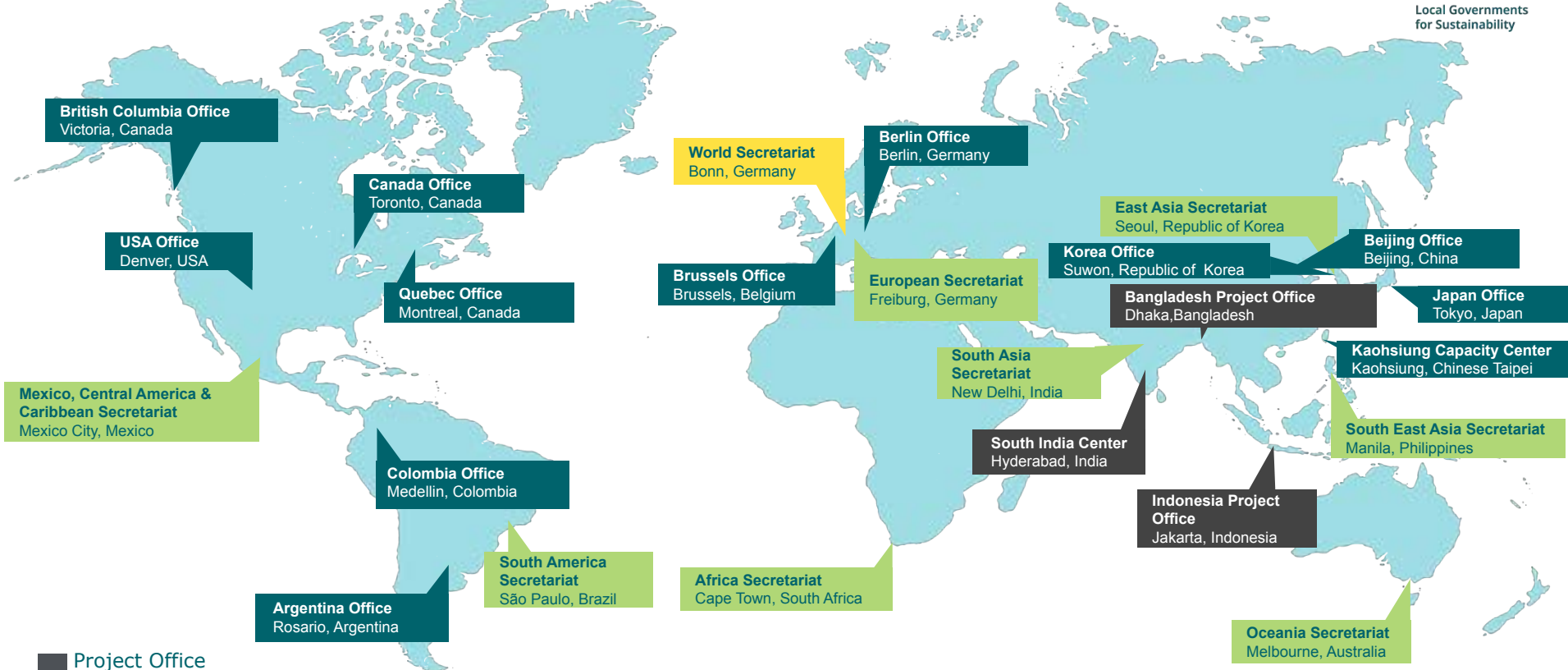
**600+ EXPERTS  
IN  
24 OFFICES  
WORLDWIDE**





Local Governments  
for Sustainability

# Global Presence: 24 ICLEI Offices



- Project Office
- Country Office
- Secretariat office

# ICLEI's Network of Local and Regional Governments



● ICLEI Member local and regional governments      ● ICLEI Network local and regional governments

**We are in a Global Climate Emergency:**

**REDUCE, AVOID, CAPTURE GHGs**



**ENHANCE RESILIENCE  
ADAPT TO CLIMATE CHANGE:  
ASSESS; ACT; ACCELERATE**



**DRASTIC ACTION NEEDED**



# Necessity for urgent action

Energy

Buildings

Mobility

Water

Waste

ICT

Food

Agriculture

Land use

**Across all territories / all sectors :**

Where are emissions generated?

Who/what cause these?

Who is responsible for taking action?

Who should do what?

Can you inform necessary investments?

Transparency and tracking:

- Measuring
- Reporting
- Verifying (and/or validation)



# GreenClimateCities™ Program



GreenClimateCities  
towards climate neutrality



## Analyze, Act, and Accelerate toward climate neutrality

- ICLEI's global impact program, tailor-made for local and regional governments (LRGs) around the globe – ICLEI's network of cities, towns and regions
- Supports integrated climate action (climate resilience, cc adaptation, mitigation) and improving air quality (reducing short-lived climate pollutants - SLCPs)
- Guidance: non-linear process, proven methodology, tools on “how to” embed a climate change lens:
  - governmental / own operations and budgets
  - city / community-wide (planning across all sectors)
- Reporting through CDP-ICLEI Track
- ICLEI services: carbonn Climate Center and your local ICLEI Office



# GCC Program: LRG guidance



Tailor-made process guidance and tools to help local & regional governments achieve climate neutrality by 2040 (latest 2050)



## Race to Zero:

GCC Program - ICLEI's approach to enhancing transparency of progress towards delivery of net-zero commitments from Non-State Actors under UNFCCC Secretariat's Recognition and Accountability Framework



## Compile community-wide GHG inventory

Collect data, identify data gaps

Use GPC guidance and notation keys

Inform own decision-makers, policy experts and planners on priority action areas

\* Report regular GHG inventory via CDP-ICLEI Track

Access support by ICLEI, GCoM, ..

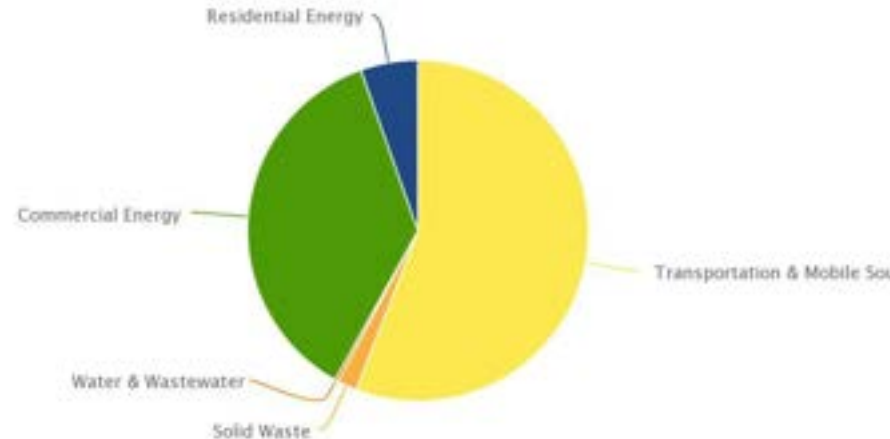
# ClearPath Climate Planner Tool

- Supports GHG inventory, forecast, planning, and monitoring
- Community-wide and local government operations tracks
- Has been used by over 500 US local governments

# Develop GHG Inventories

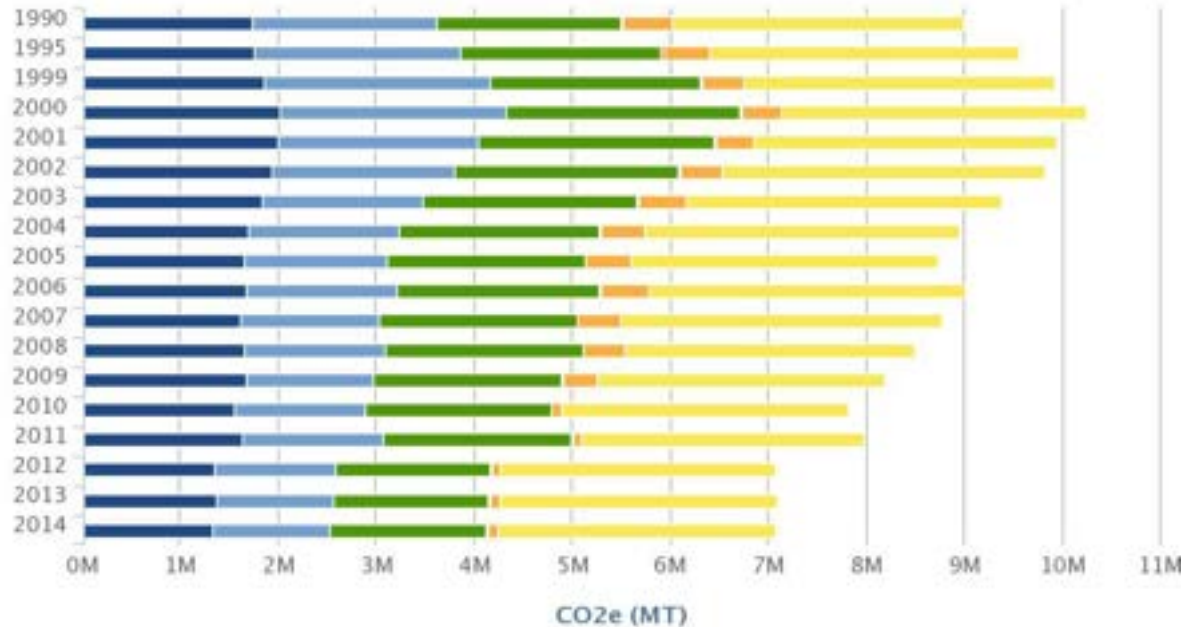
|  | Value                | Units                            |
|--|----------------------|----------------------------------|
| <b>Calculation Inputs</b>  |                      |                                  |
| Use this section to enter the quantity of energy used and related data |                      |                                  |
| Were emissions calculated externally from ClearPath? <sup>?</sup>      | <input type="text"/> |                                  |
| Electricity Used <sup>?</sup>  | <input type="text"/> | kWh <input type="text"/>         |
| Number of Households (optional) <sup>?</sup>                           | <input type="text"/> | Households <input type="text"/>  |
| Population (optional) <sup>?</sup>                                     | <input type="text"/> | People <input type="text"/>      |
| Building Area (optional) <sup>?</sup>                                  | <input type="text"/> | Square feet <input type="text"/> |

CO2e across all categories for current inventory

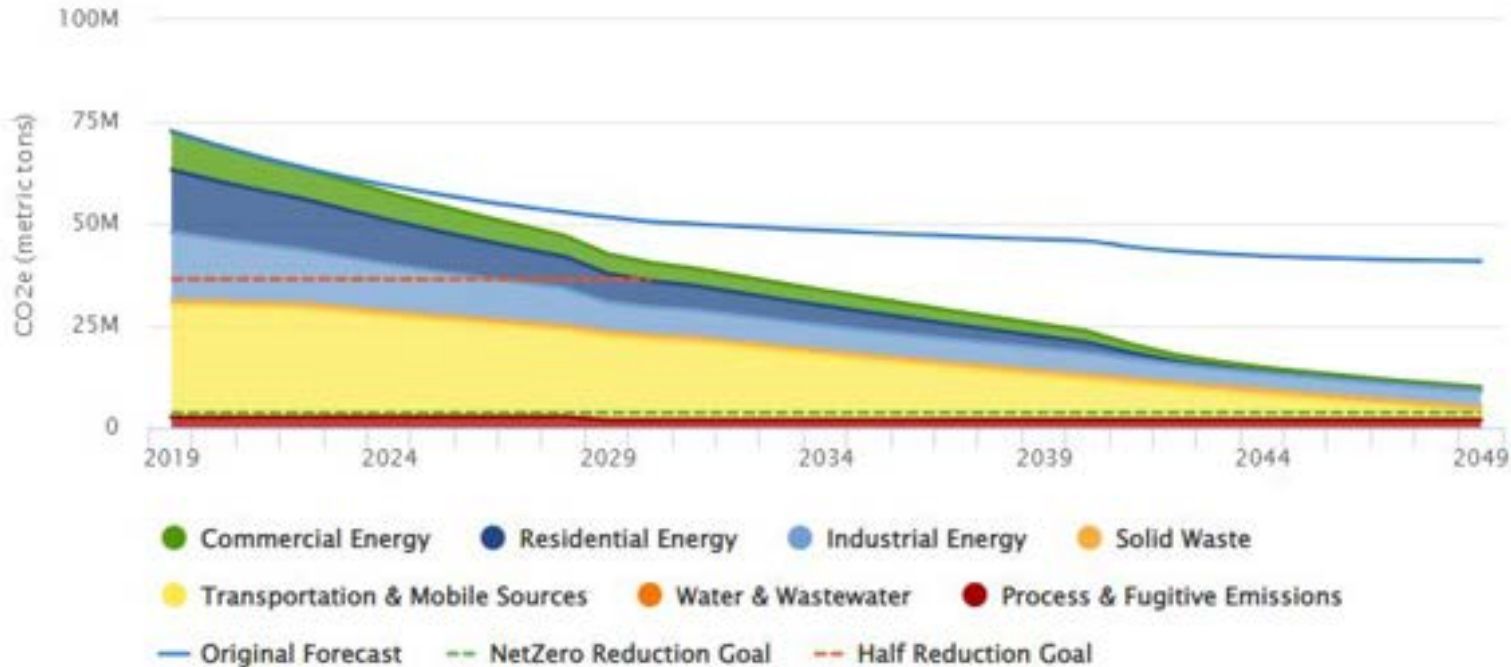




# Track Progress



# Forecast and Plan Emissions Reductions



# Understanding GHGs ...



- Understand GHGs both community-scale GHGs and own governmental operations
  - Where to prioritize action & investment for climate change mitigation perspective – this also impacts resilience
- Science-based, informed decision-making and planning needed – and taking responsibility
- Track progress over time, and adjust climate action plans as needed (“living document”):
  - Understand your Regional / Local Contribution to the Nationally Determined Contribution (NDC) to help achieve own, but also national and global goals
  - Subnational government in the ICLEI network that are committed to climate neutrality, also to the Race to Zero, can access our global support offer:
    - Report through CDP-ICLEI Track: ICLEI’s GreenClimateCities Program
      - Expert review of reported data (quality, completeness, accuracy)
      - Review if a target is science-based
      - Recommendations to enhance/accelerate action, identify additional guidance
      - Connect to peers and initiatives, e.g. Urban Transitions Mission (climate neutrality)
  - Inform research, data analysis and ICLEI services

# Setting Science-Based Targets



**Science-Based  
Targets Guide for  
Cities**



**Target checking**



**Target update**



**Reporting  
Tracking  
progress**



SCIENCE BASED TARGETS NETWORK  
GLOBAL COMMONS ALLIANCE

ICLEI World Secretariat:

- ❑ Provides technical assistance on how to set and report a SBT
- ❑ Validates reported targets
- ❑ Helps shape validation frames and resources at the global level
- ❑ Supports those who report to CDP-ICLEI Track – tracking progress over time



# CDP-ICLEI Track - global reporting platform



## GreenClimateCities (GCC) Program

ICLEI's global climate impact program - mobilizing and supporting local and regional governments to address climate resilience, climate change adaptation and mitigation in government operations and across the territory.  
<https://carbonn.org/>

## ICLEI's GreenClimateCities (GCC) Climate Neutrality Framework

The GCC Climate Neutrality Framework responds to the global climate emergency, guiding subnational governments to achieve climate neutrality through accelerated and integrated climate action for sustainable urban development.

ICLEI is proud to be a partner



## Global Covenant of Mayors

The largest global alliance for city climate leadership across the globe.

<https://www.globalcovenantofmayors.org/>



## Race to Resilience (RtR)

A global campaign to build climate resilience.

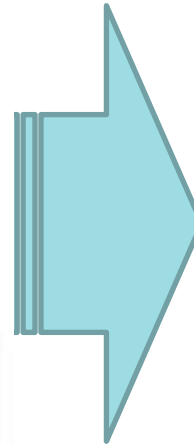
<https://racetozero.unfccc.int/system/resilience/>



## Race to Zero (RtZ)

A global campaign to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery.

<https://racetozero.unfccc.int/>



CDP-ICLEI Track



# Contact

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<https://iclei.org/greenclimaticities/>



# Integrity Matters survey

*At COP27, the **UN High-Level Expert Group on Net Zero** launched their report - Integrity Matters - which sets out five principles and ten recommendations to guide adoption and implementation of robust net zero targets by non-state actors.*

*To help cities and city initiatives and alliances respond to the Integrity Matters report recommendations, and ensure fit-for-purpose city climate accountability mechanisms and governance structures capable of incentivising the ambition and pace and scale of action needed, the **Global Covenant of Mayors for Climate & Energy** and the **WRI Ross Center for Sustainable Cities** have convened an **Expert Working Group on Cities and Local Government**, which ICLEI is a part of.*

*The ensure stakeholder input on key aspects of net zero covered by the Integrity Matters report, including pledges, targets and climate action plans, we kindly request that you complete this survey: <https://forms.gle/c2fEU3HzJv1qXLyt5> before June 13 2023.*

*Your responses will be shared with the Expert Working Group as we seek to translate the Integrity Matters report recommendations into practical and feasible actions for urban policymakers and city initiatives and alliances.*

- *“City” is used here to refer to any subnational geographic designation including, but not limited to subnational state or regional government; metropolitan, city or local government; and towns, boroughs and neighbourhoods.*

**Thank you!**

