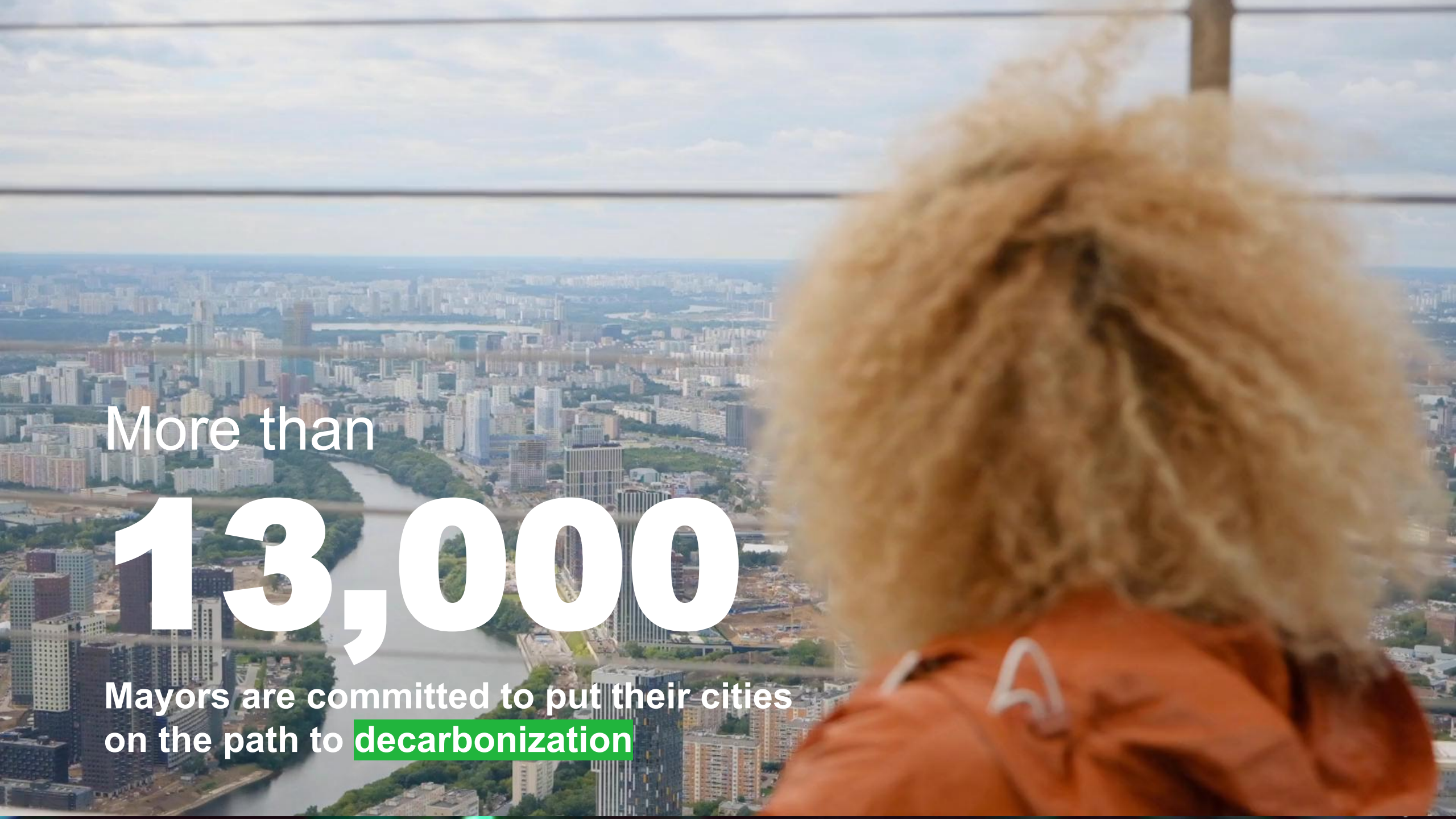
nexqt.

Transition intelligence for all cities

Driving built environment transition with local AI-powered insights

Fouzi Benkhelifa, CEO
fouzi@nexqt.com
+33 6 99 81 21 18
www.nexqt.com
124 Rue de Réaumur
75002 Paris


More than
13,000
Mayors are committed to put their cities
on the path to decarbonization

Transition equation for a 1M inhabitant city

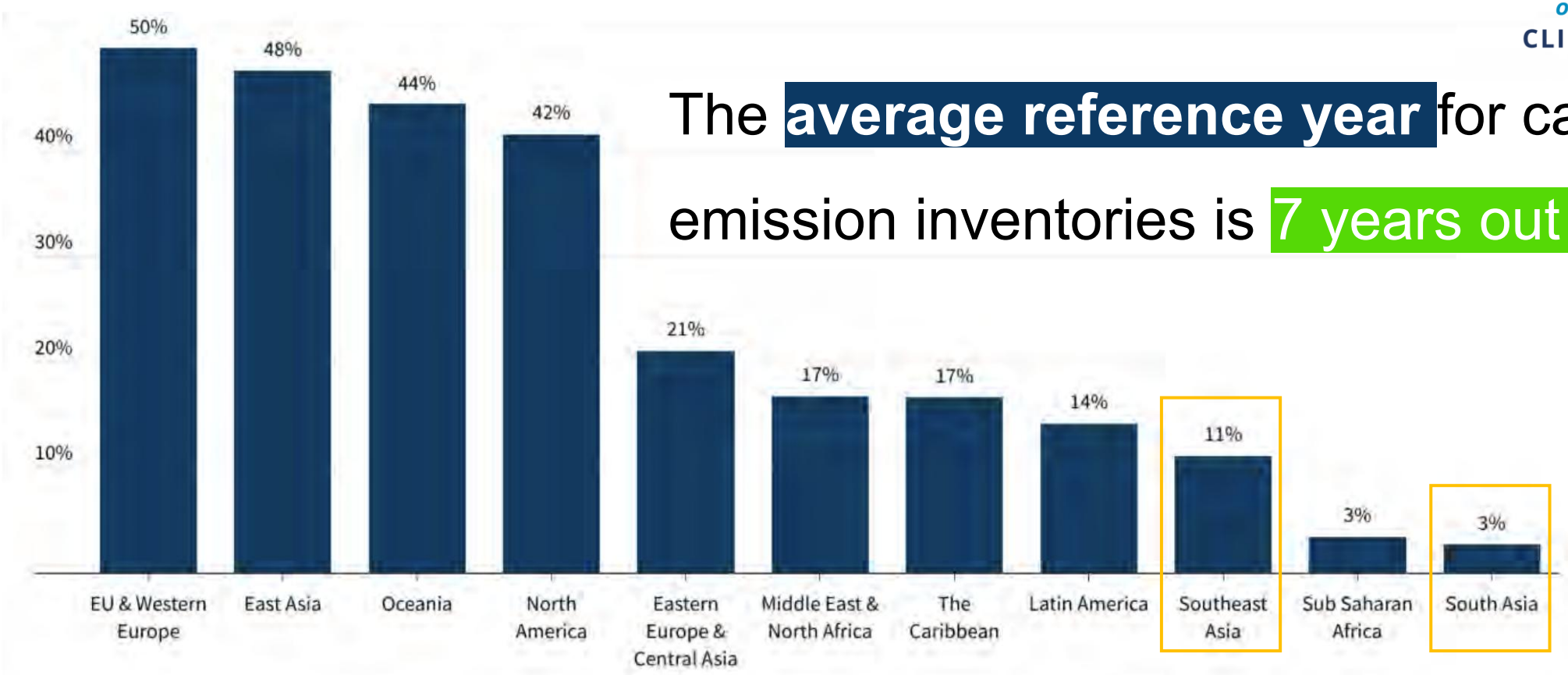
+

+

What are the current trends?
Where to target, trigger and track this in my city?

Committed cities with a carbon emissions inventory

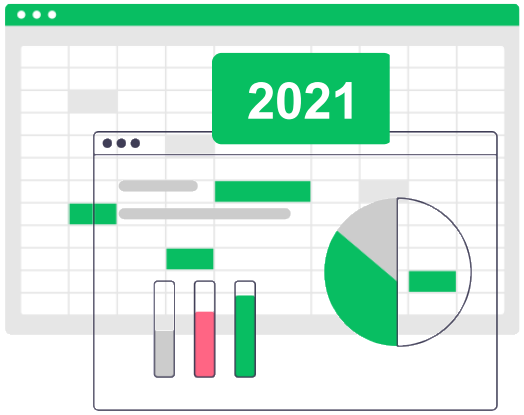
GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

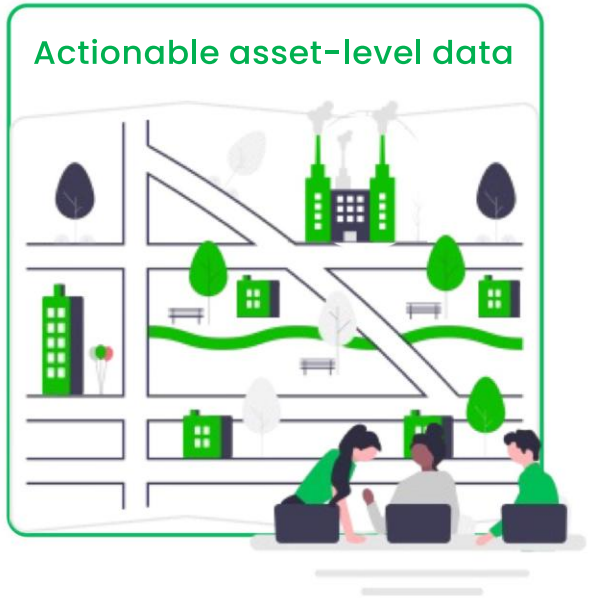


The **average reference year** for carbon emission inventories is **7 years out of date**

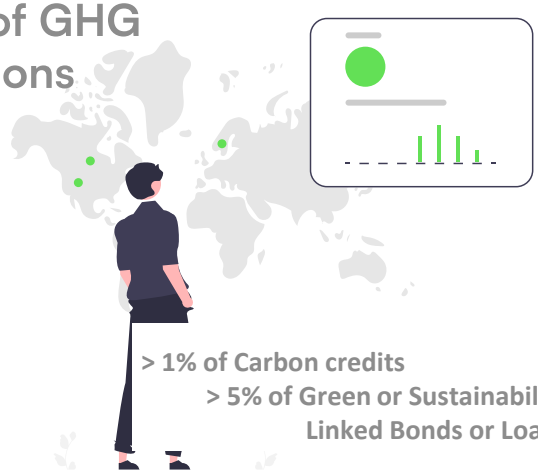
nexqt.

Facing the decarbonization challenge
with an excel sheet...





Cities cover 70% of GHG emissions



> 1% of Carbon credits
> 5% of Green or Sustainability Linked Bonds or Loans

Too broad & outdated carbon footprint data

Difficult to access individual and reliable energy-GHG data

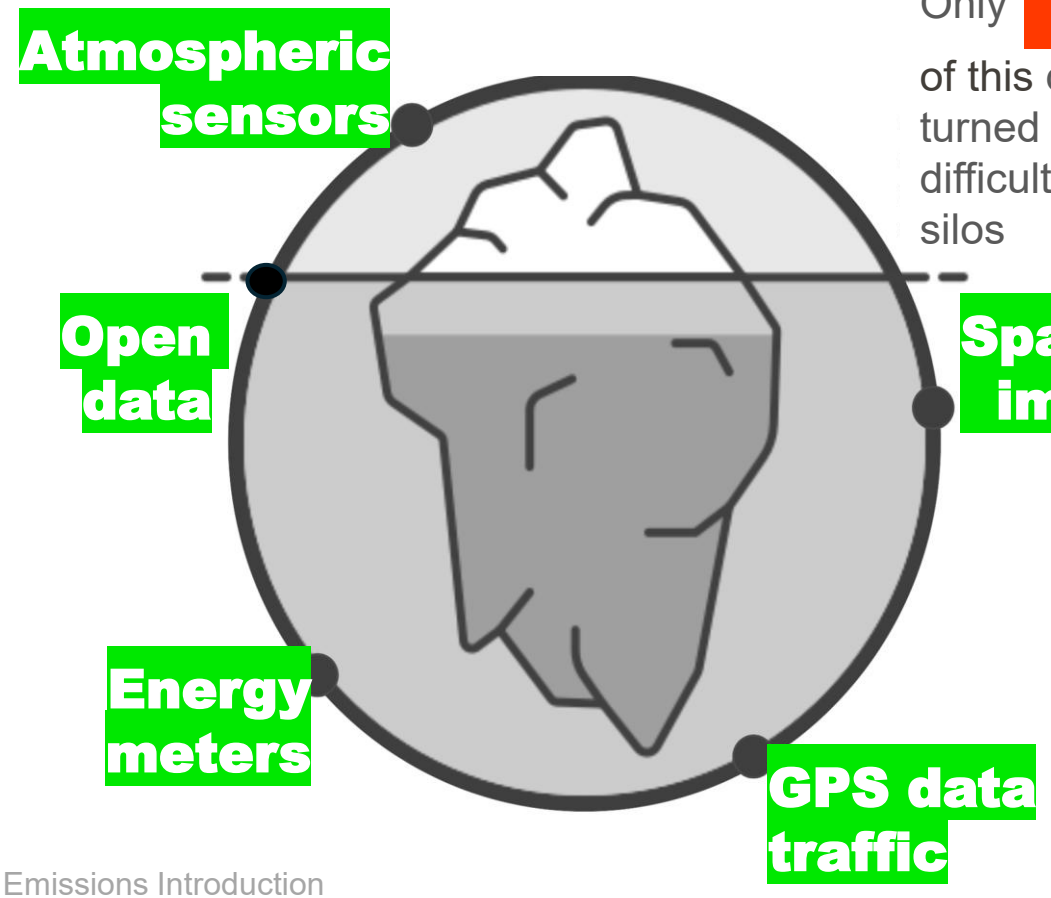
Due to costly MRV, low access to climate finance for urban projects

Paradox: Cities are data-rich but insight poor...

By 2026

85+ billion

connected devices and sensors will be creating large, diverse datasets on a wide range of topics



Only **10%**

of this data is currently turned into insights and is difficult to link to internal data silos

Sensor-less AI platform bringing transition intelligence to every city

Buildings
Roads
Energy grids
Socio-economic data

Mapping

Observatories
TSO/DSO API
Energy certificate
Modeling

Energy data

Vehicle GPS data
Permanent counting
AADT opendata
Modeling

Traffic data

Machine Learning + GeoMatching (AI)

High resolution insights on decarbonization at yearly to daily level since 2019

70+
integrated data streams
Smart meters, LiDAR, GPS, satellite

Time machine

Region/City

District

Road/Building

Housing
Services
Cars
Trucks

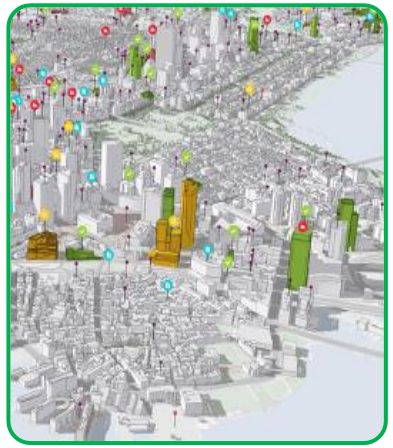
cea cnrs WORLD METEOROLOGICAL ORGANIZATION

nexqt

AI & Data Science Solutions to address urban data challenges (multi-scale, fragmented & dynamic data)

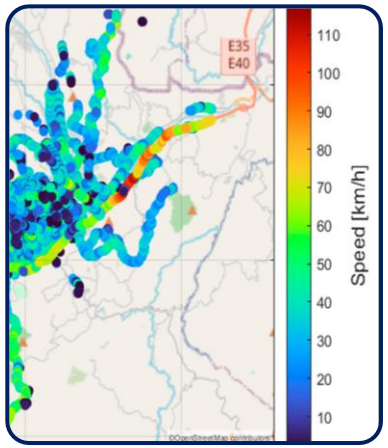
Gap Filling

Interpolation, supervised ML (Random Forest, XGBoost), enrichment via satellites and OpenStreetMap



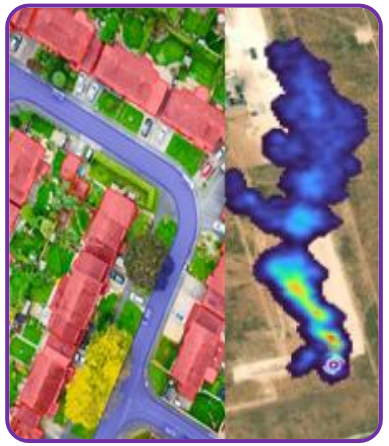
Pattern Detection

Clustering, neural networks, spatio-temporal analysis for mobility, energy, emissions



Computer Vision

CNNs, semantic segmentation, super-resolution for mapping and emissions detection



nexqt. Your ready-to-use transition twin

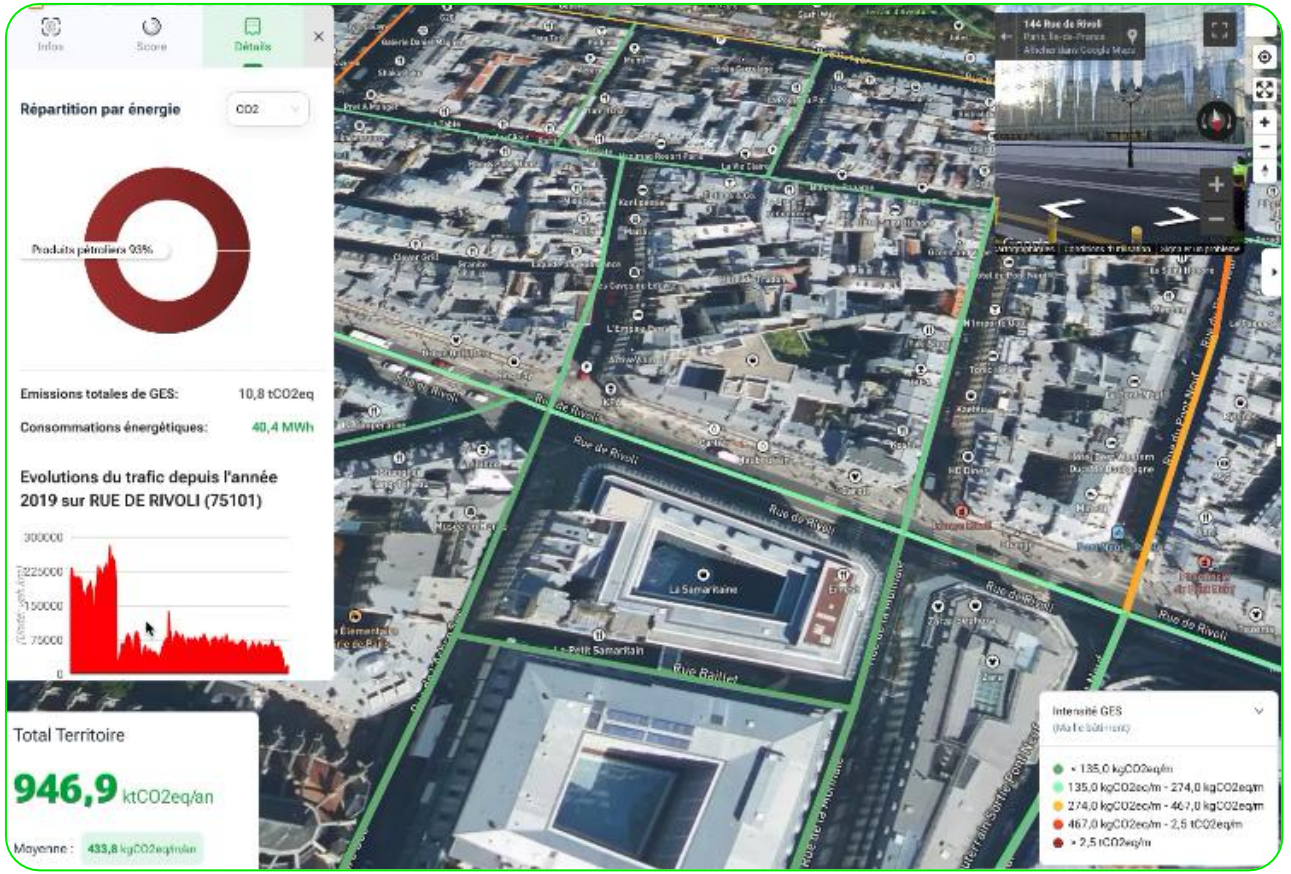
BUILDINGS

- Energy renovation
- District heating optimisation
- Self-consumption solar power

TRANSPORTS

- Bike lanes development
- School streets
- Public transport

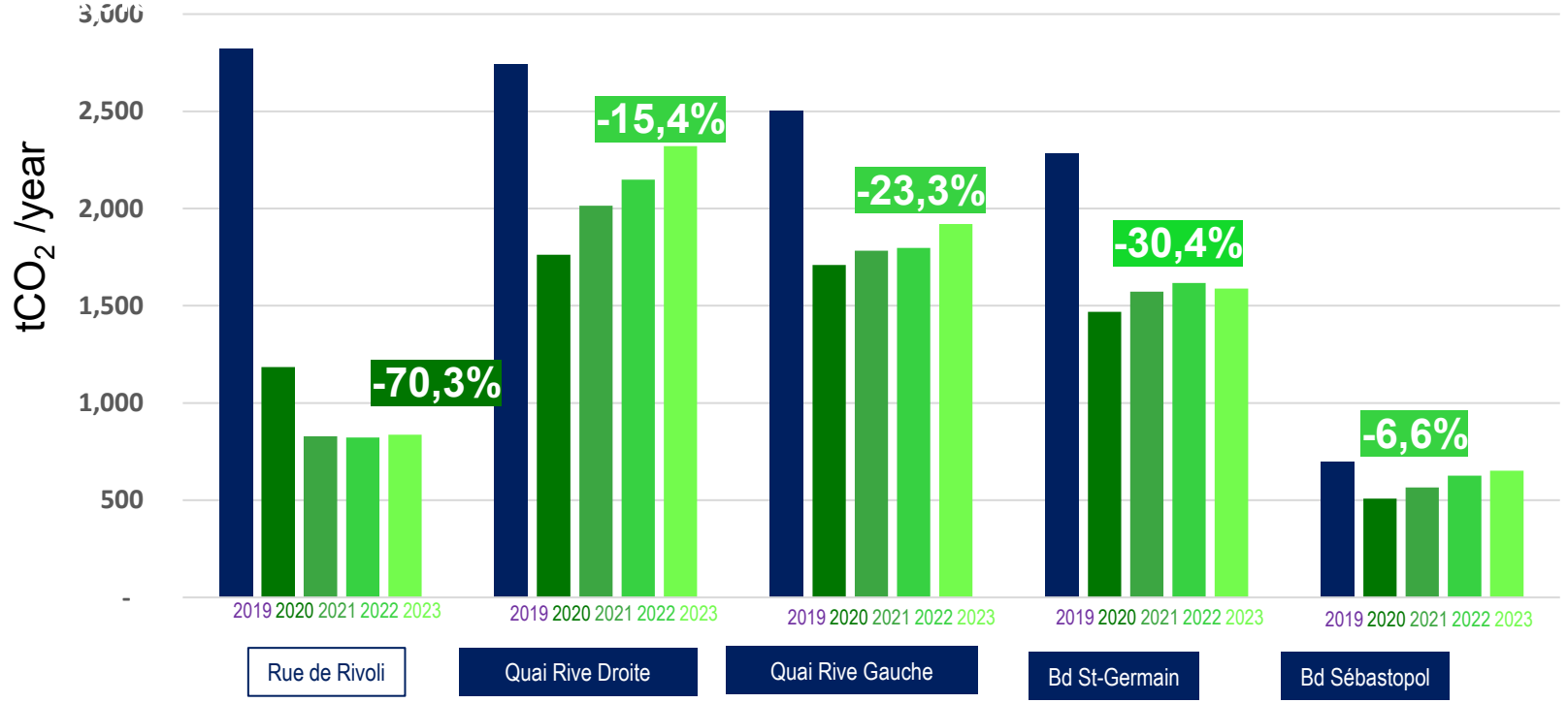
And any configurable use case



Mobility Impact of bike lanes

Assessing greenhouse gas emissions in the Rue de Rivoli since the installation of cycle paths.

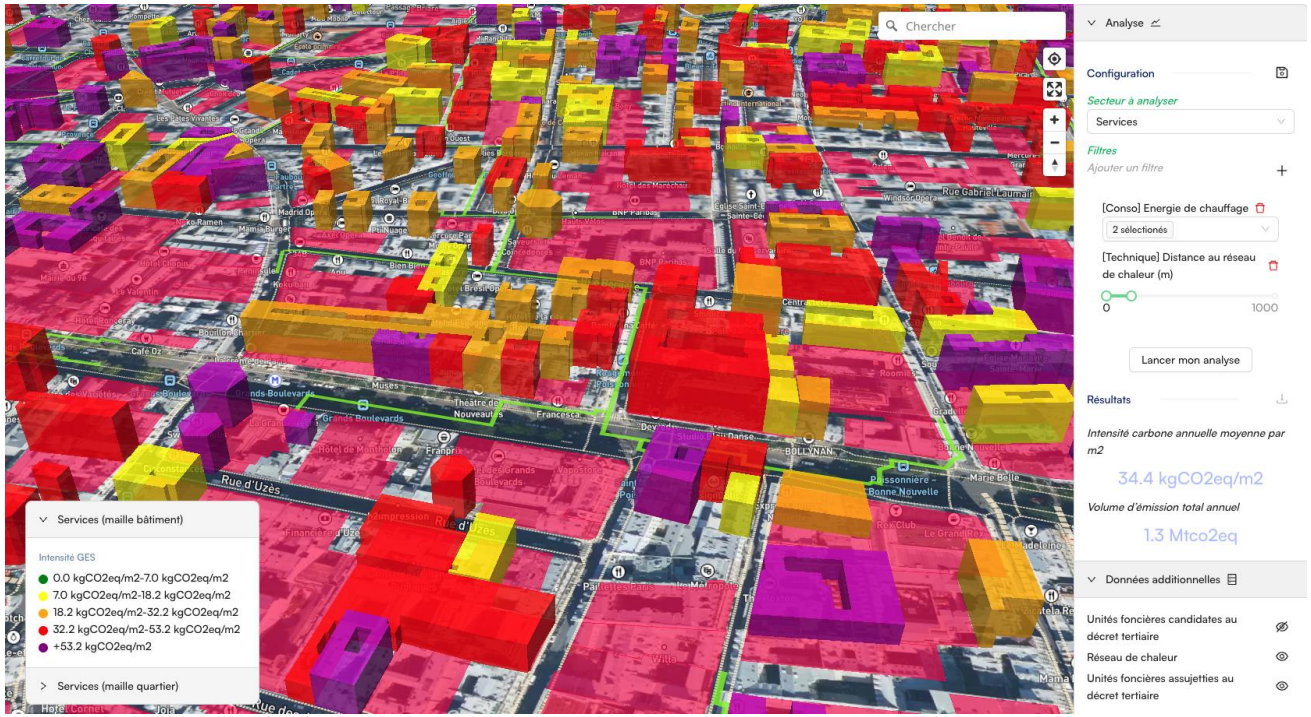
34% overall reduction in CO2 emissions on Rue de Rivoli and transfer routes

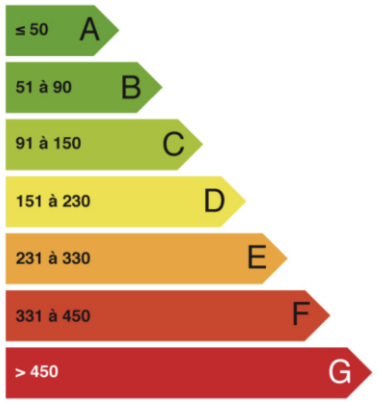


nexqt.

Buildings High ROI Energy renovation

Fossil-fuel heated Commercial buildings in the Greater Paris Region, with high solar roof and renovation opportunities





- Large (>1000m2), energy-intensive buildings
- Natural gas or oil heated buildings

nexqt.

Making the most of this next-gen approach

The necessary alignment of city governance

Assess & Correct

Continuous, **reactive impact measurement**, adapted to action follow-up and consolidated at city level.

Observe & Inform

Up-to-date, territory-wide data to understand major trends, **guide strategy and raise awareness**.

Financing & Action

Operational data, at building or road level, to secure the **feasibility and impact of investments**.

Plan & Target

Information at neighborhood level to feed **master plans and identify and objectify priorities by area**.

To make it happen for Asian Cities

TOHOKU UNIVERSITY

DATAFLUCT

Adaptation of NEXQT's platform for Japanese cities

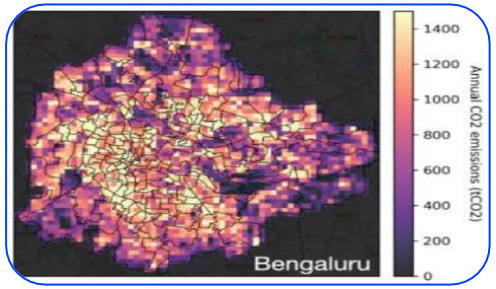
Partnership agreement on the Urban Decarbonization Area programme opportunities

LSCE

100+ INDIAN CITIES

Indian Institute of Technology Bombay

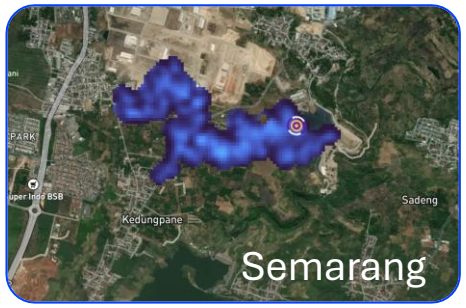
Actionable GHG insights over 100 Indian cities



Applied R&D effort to track air pollution and GHG emission at neighborhood level

VEOLIA

Improving the municipal waste management



Methane emission detection to track the progress and open to carbon credit financing

Who's nexqt.? a hybrid team of builders and top notch scientists

Timothée Alpektor, CDO of NEXQT, more than 10 years of experience in sales and growth strategy for tech start-ups. He has developed and managed sales teams.

CHAPSVISION
DATA MAKE SENSE

Philippe Ciais, co-founder of NEXQT, Scientific Advisor, +25 years of industrially applied research in the field of the carbon cycle and energy. Member of French Science Academy and Chinese Science Academy, Research Director LSCE - Paris Saclay (CEA/CNRS)

cnrs cea LSCE
LABORATOIRE DES SCIENCES DU CLIMAT & DE L'ENVIRONNEMENT

Nicolas Megel, co-founder and CTO of NEXQT, has been an AI expert in the field of local decarbonization for over 10 years.

Artelys
OPTIMIZATION SOLUTIONS

Phil DeCola, co-founder of NEXQT, Chief Strategy Officer. His career has focused on use of remote-sensing and computational models to inform climate action and environmental resource management (University of Maryland, NASA, White House, NIST, WMO).

NASA ORGANISATION MÉTÉOROLOGIQUE MONDIALE EXECUTIVE OFFICE OF THE PRESIDENT OF THE UNITED STATES

Fouzi Benkhelifa, co-founder and CEO of NEXQT, has been an expert and developer of low-carbon energy solutions for cities and investors for over 20 years.

ADEME AGENCE DE LA TRANSITION ÉCOLOGIQUE

EXPLICIT expertise énergies climat

suez

nexqt.

Transition intelligence for all cities.

Thank you
Merci

Connect with us on LinkedIn

Fouzi Benkhelifa
fouzi@nexqt.com
+33 6 99 81 21 18
www.nexqt.com
Spaces, 124 Rue de Réaumur
75002 Paris

Ai-powered energy-carbon data platform for cities and investors