GEO WEEK & MINISTERIAL SUMMIT 2023

Flash talk

#TheEarthTalks

science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

GEO WEEK 2023 MINISTERIAL SUMMIT

GEO GROUP ON EARTH OBSERVATIONS

Urban-scale indicators based on Earth Observation and in-situ data to support climate adaptation policy objectives

06.11.2023 (11.40-11.50)

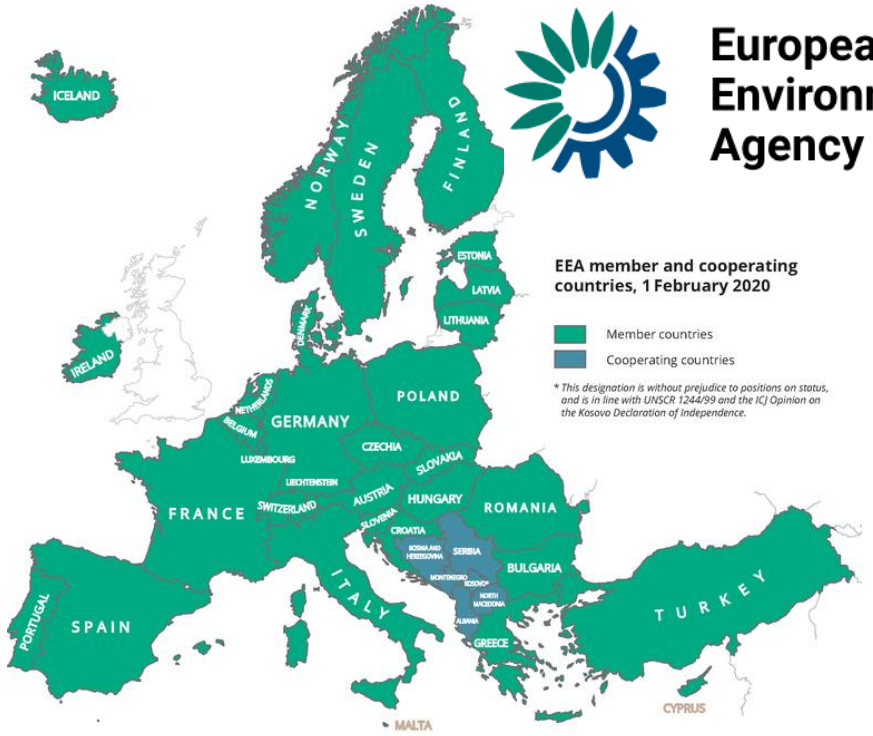
Dr. Nefta Votsi

Institute for Environmental Research and Sustainable Development

National Observatory of Athens

Partners and Affiliations

InCASE: In Situ Showcases Supporting Climate and Environmental Monitoring in Europe



European Environment Agency

EuroGEO

Task 3. Developing standard processes to facilitate the re-use of data

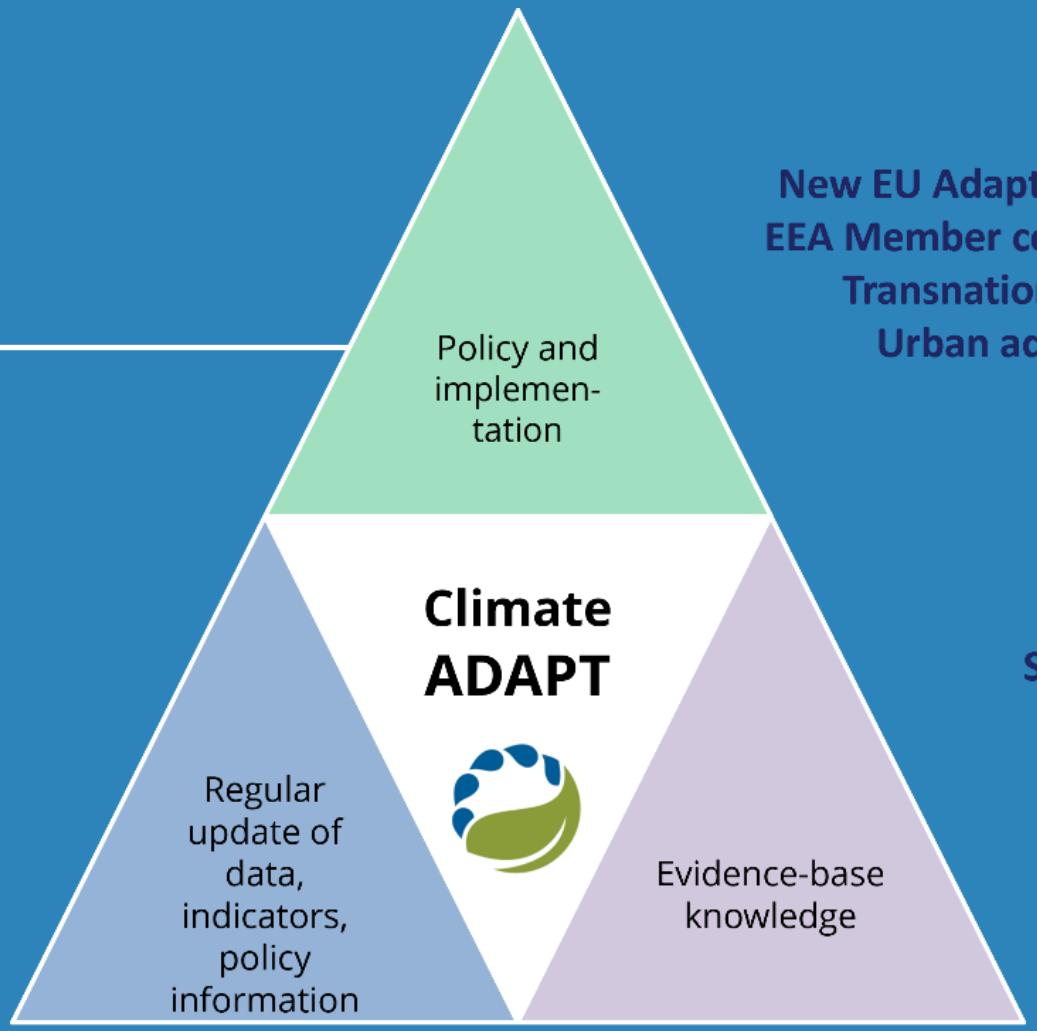
Provide access and use of relevant in situ data in support to climate adaptation policy objectives

evenflow

ΕΘΝΙΚΟΝ ΑΣΤΕΡΟΣΚΟΠΕΙΟΝ ΑΘΗΝΩΝ
NATIONAL OBSERVATORY ATHENS

Climate ADAPT Platform

- Case study explorer
- Urban Adaptation Map Viewer
- Urban adaptation support tool



New EU Adaptation Strategy
EEA Member countries' needs
Transnational regions
Urban adaptation

Science & Development
EU Digital Agenda
DestinE & Digital Twin
EU Green Deal Agenda
EU R&I projects

The platform is developed according to users and providers' needs.
User and Policy driven

https://climate-adapt.eea.europa.eu/

Climate adaptation indicators

Climate adaptation inventory

Selection & filtering criteria

Climate adaptation indicators

Showcases

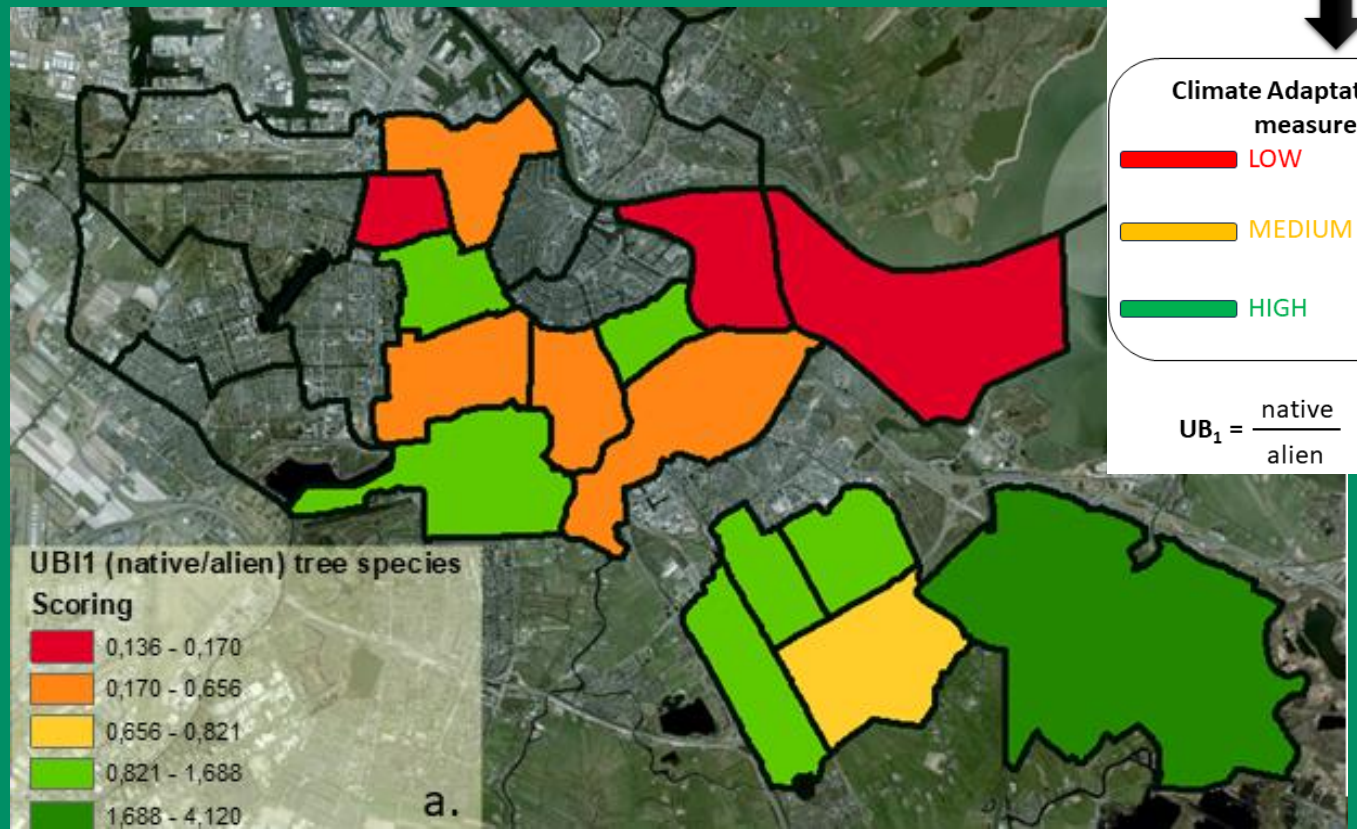
Urban Biodiversity Index

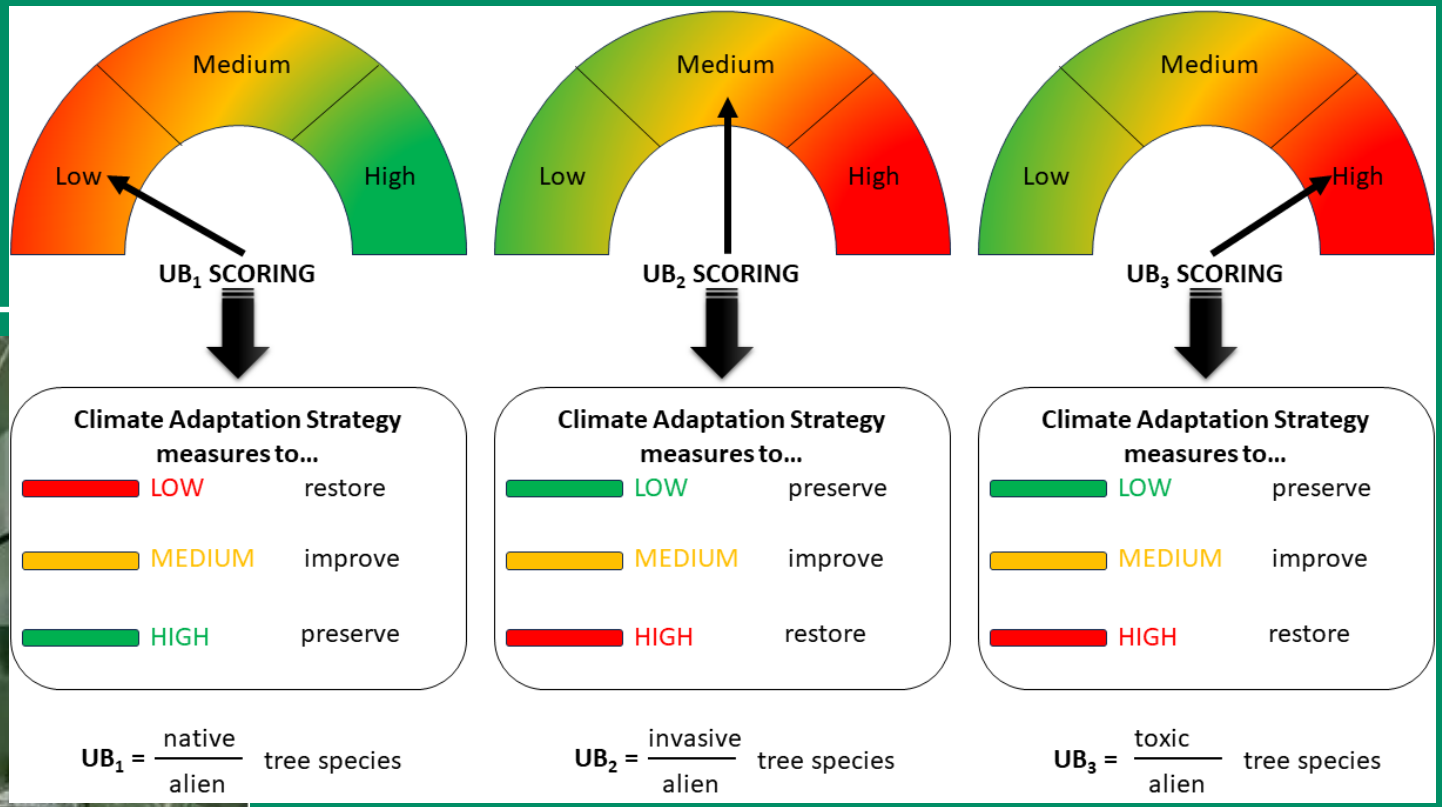
Urban Ventilation Index

Building Energy Performance Index

Cultural Heritage Climate Vulnerability Index

Urban Biodiversity Index





Monitoring the quality of urban greenery
Targeted and efficient strategic actions

Automation tool

InCASE: *Urban-scale indicators based on Earth Observation and in-situ data to support climate adaptation policy objectives*

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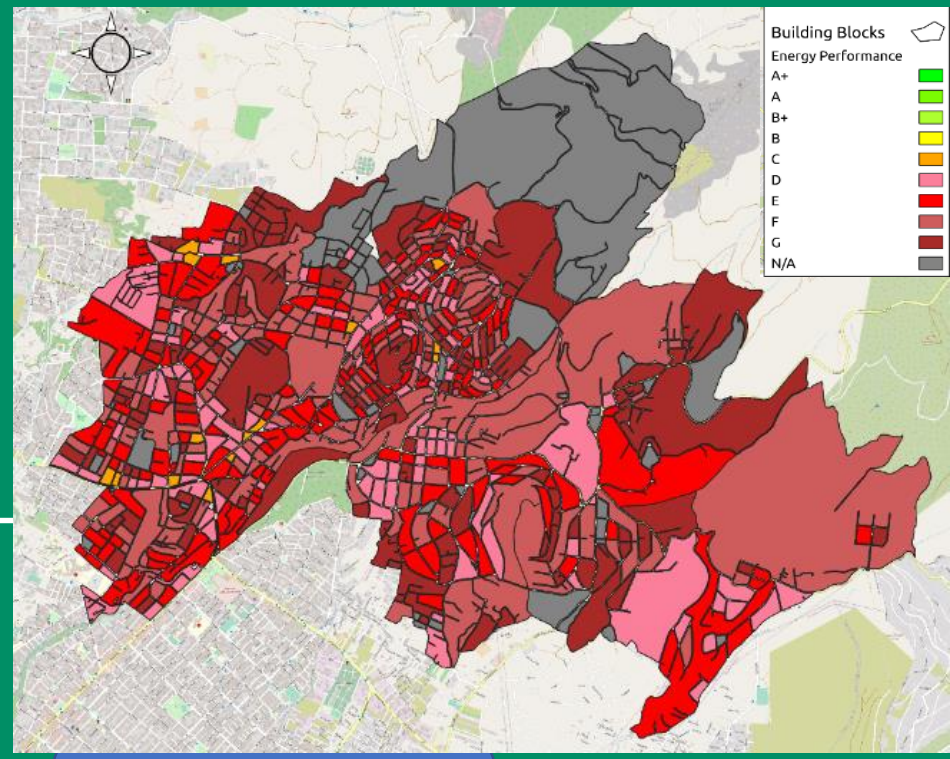
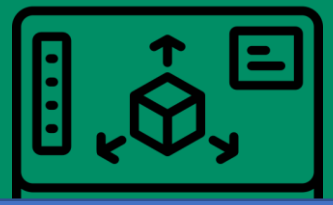


Building Energy Performance Index

Input Statistical Data

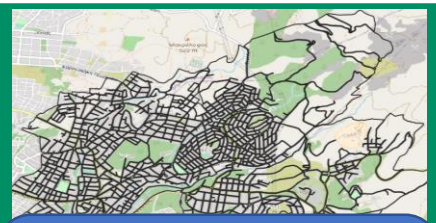
Building Census : use (residential, commercial, etc.), construction period, etc

Population/Household Census: type of building, heating type, hot water type, construction period, etc.



BSM Model Calculations in Building level

BSM Calculations based on the TABULA typology concept



Aggregation to Building Block Level

Aggregation to Building Block level: necessary to match the level of detail of input data that were obtained in building block level

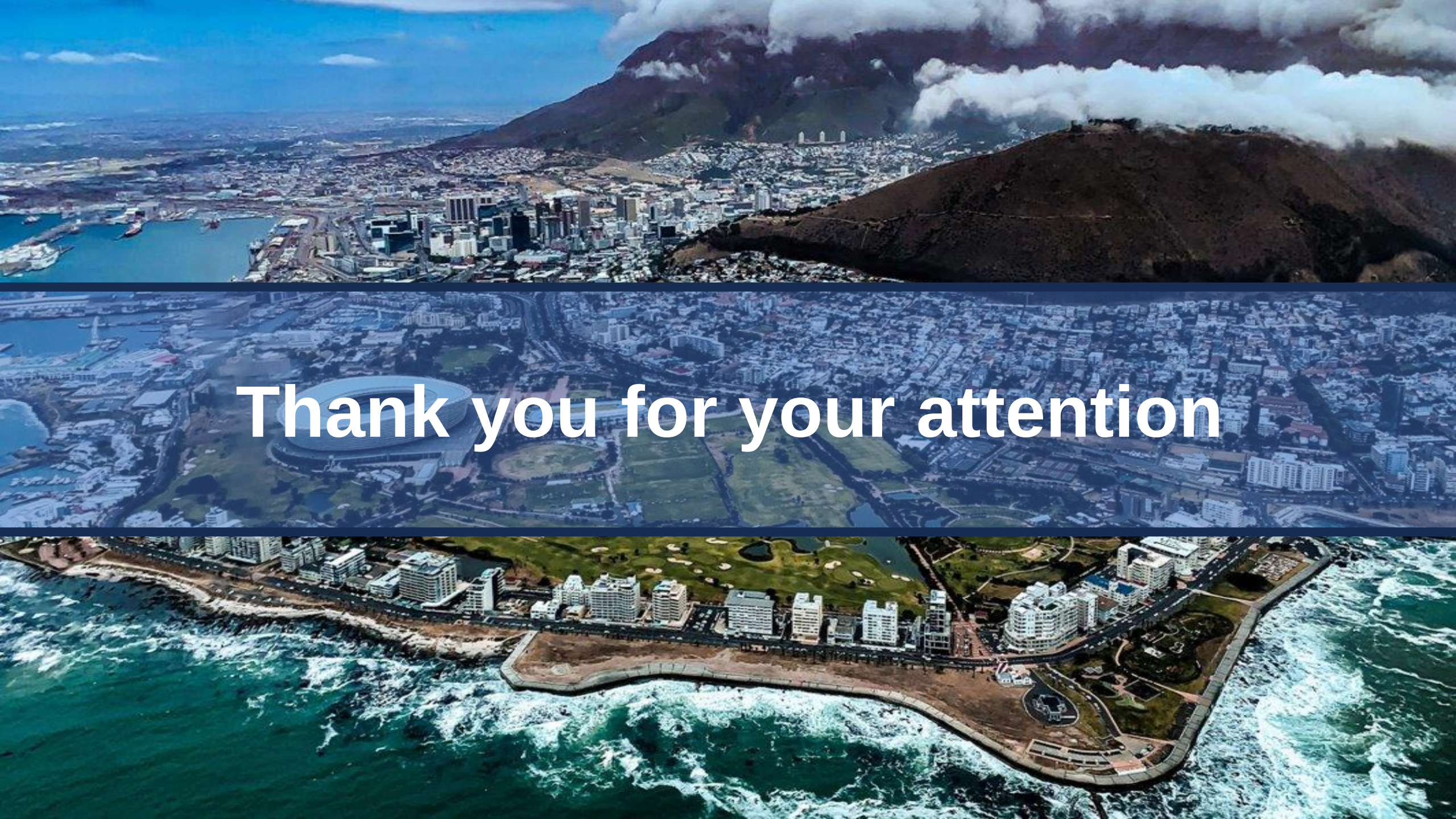
Output Data Visualization

Final output per building block are:

(i) Energy Consumption
(ii) CO_2 Equivalent Emissions
(iii) Energy Performance Label

Aggregation to the municipality level

Eiffel GEOSS APPLICATIONS FOR CLIMATE CHANGE



Thank you for your attention