



EARTH ANALYTICS FOR COGNITIVE PLACES



**IN AN INCREASINGLY COMPLEX AND
VOLATILE WORLD, BEING PREPARED
FOR TOMORROW'S MOBILITY
SUSTAINABILITY CHALLENGES
REQUIRES A NEW WAY TO LOOK**

WHY IS IT SO IMPORTANT TO TALK ABOUT THE SUSTAINABILITY OF URBAN AREAS?

**OUR CITIES ARE ON THE FRONTLINE
OF CLIMATE CHANGE.
HOW CAN WE DESIGN THEM TO BE
MORE RESILIENT AND
SUSTAINABLE?**

DATA FOR SUSTAINABLE CHOICES



Environmental
Preservation /
Biodiversity



Sustainable
Development
Practices



Inclusive
Living
Environment



Climate
Change
Resilience

To overcome these challenges, data must be **global**,
detailed, **up-to-date**, **accessible**, and **reliable**.

Only in this case can they provide a real contribution to an
ambitious vision oriented towards sustainability.

OUR SOLUTION



The first **Environmental Operative System** to design cognitive cities/places of the future



DATA FROM SPACE
✗ (REMOTE SENSING)

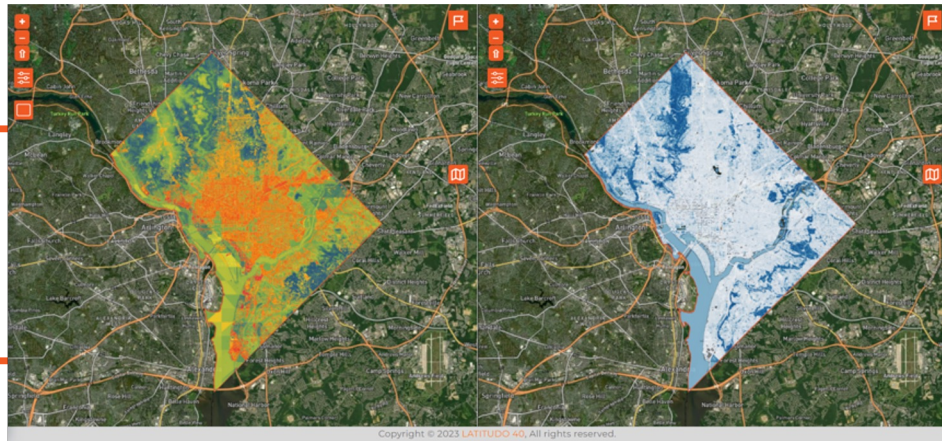


LATITUDO 40 ARTIFICIAL
INTELLIGENCE



EARTH ACTIONABLE
INSIGHTS & SIMULATIONS

Designed to **ensure** that decision-makers can **grasp** and **act** quickly on our insights. ...



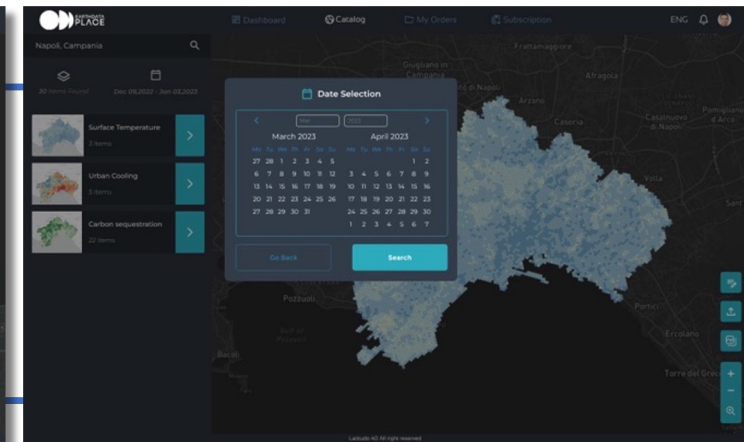
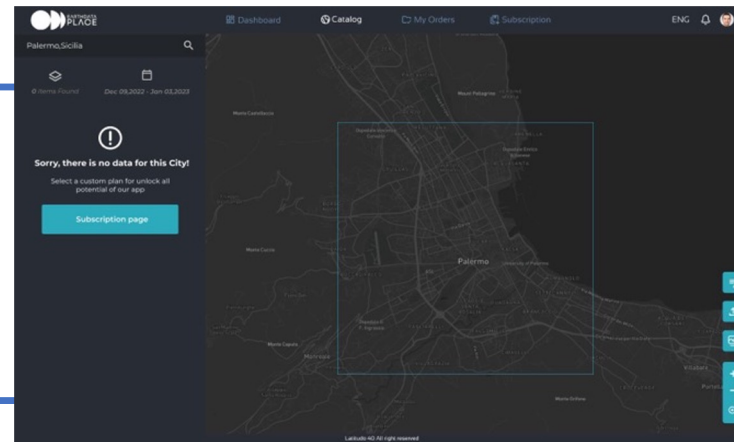
LATITUDO 40

UrbAlytics

SaaS Platform for cities and mobility planners

EARTHDATAPLACE
POWERED BY LATITUDO 40

Dataset digital Marketplace

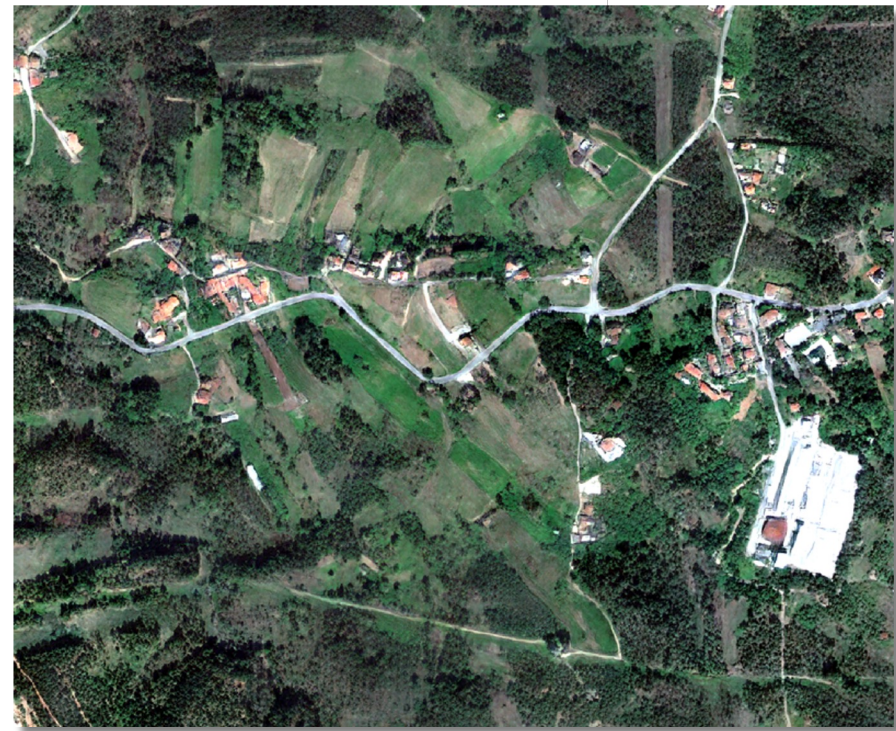


An aerial photograph of a modern, sustainable urban development. The scene features several curved, multi-story buildings with glass facades and green roofs. Solar panels are installed on some of the flat roof sections. The buildings are interspersed with lush green trees and landscaped areas. A winding road or path runs through the development. The overall atmosphere is bright and sunny, suggesting a clear day.

LATITUDO 40[®]

BY IDENTIFYING HIGH-RISK AREAS, CITIES CAN IMPLEMENT
TARGETED MITIGATION ACTIONS, TURNING VULNERABLE
ZONES INTO RESILIENT SPACES.

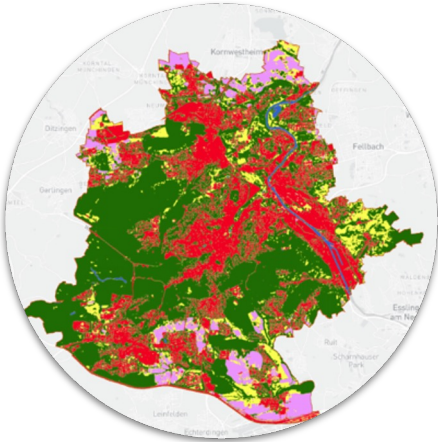
The **Power of AI** with our **Super Resolution Algorithm**



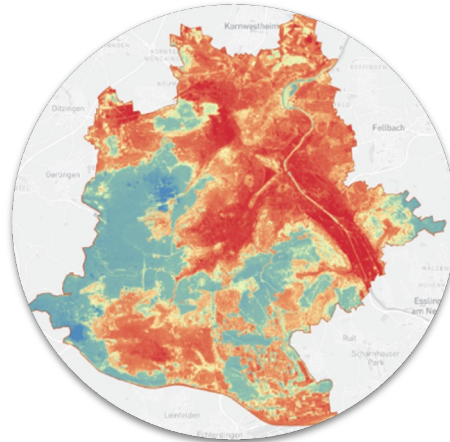
AI Algorithm to bring Copernicus Sentinel 2 spatial resolution from 10 m to 1 m

THE POWER OF LAYERS

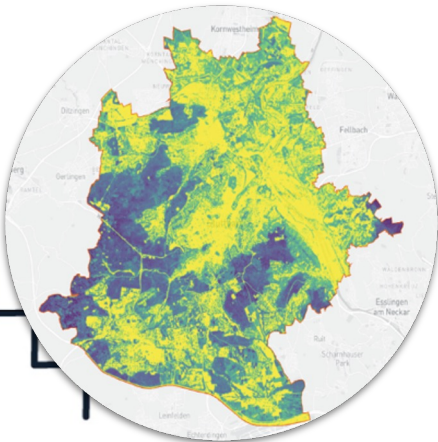
LAND USE



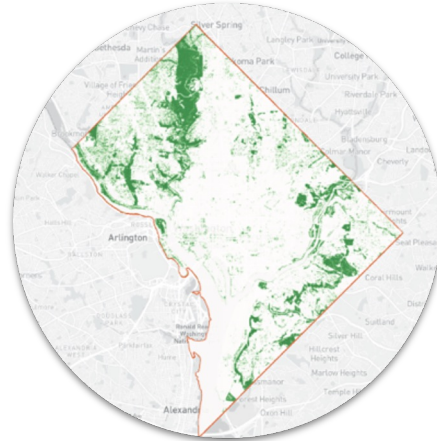
LAND SURFACE TEMP



TREE COVER DENSITY



GREENERY HEALTH



A **fully automated** platform for capturing the **intricate details** of cities and places from above, with a **very high level of detail**, from the past to the present.

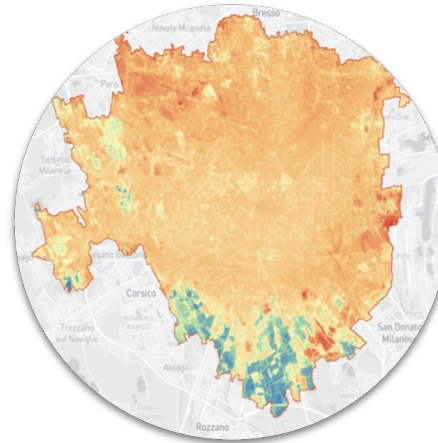
A unique tool for **tracking changes** in time and gaining **in-depth knowledge** of places

OUR INSIGHTS

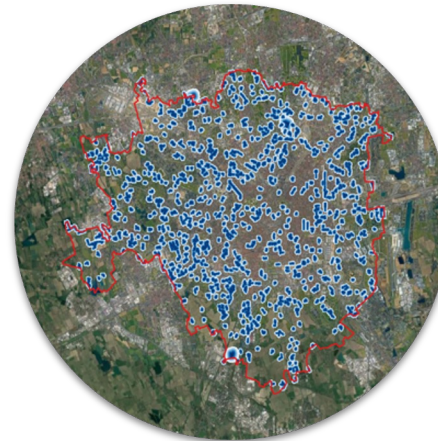
- **identify patterns**
(urban heat islands, risk for citizens)
- **predict future risks**
- **data driven decisions**
(plant trees to maximize cooling or add more public green spaces with permeable pavements)
- **validate the outcome of mitigation actions**
(environmental KPIs)



URBAN HEAT ISLAND MAP

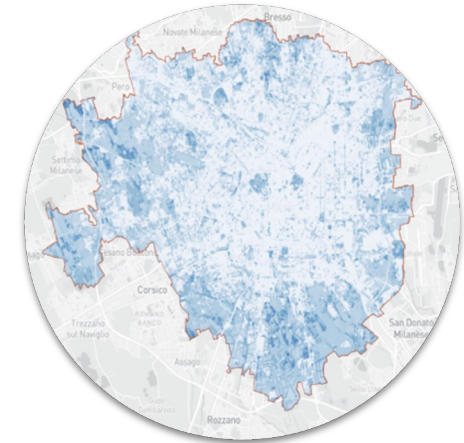


PARK COOL ISLAND INDEX



LATITUDO40[®]

MICROCLIMATIC PERFORMANCES



HEATWAVE POTENTIAL RISK INDEX

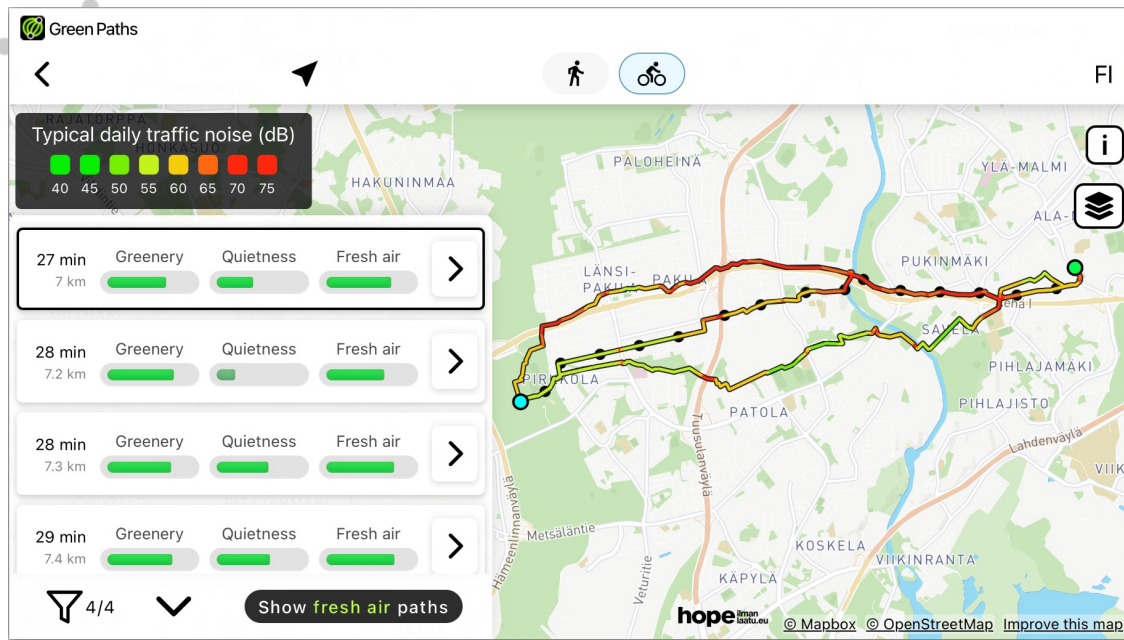


THE BENEFITS FOR CITIZENS (USERS OF MOBILITY SERVICES)

We use data from **Urban Heat Island, Land Surface Temperature, Tree Canopy** to identify mitigation actions based on **Green Bus Shelters and NBS** to make waiting at bus stops more **comfortable and safer**, also contributing to **urban sustainability (removal of pollutants and Co2)**



THE BENEFITS FOR CITIZENS (USERS OF MOBILITY SERVICES)



Green Urban Navigator – a new urban navigator for **soft mobility (cycling, scootering, walking)** that allows you to envy the route with the **least exposure to climatic and environmental risks** (heat islands, few green areas, presence of pollutants)

BENEFITS FOR (RAIL) TRANSPORT COMPANIES

KEEPING AN EYE ON ENVIRONMENTAL RISKS

LATITUDO 40 can scan the entire network in a fraction of the time required for any other type of inspection and continuously over time.

Monitoring your network helps companies keep an eye on **environmental risks** from **vegetation growth**, storm/flood damage, **ground movement** and more.

Reliable

15%↓

vegetation-related service disruptions

Efficiency

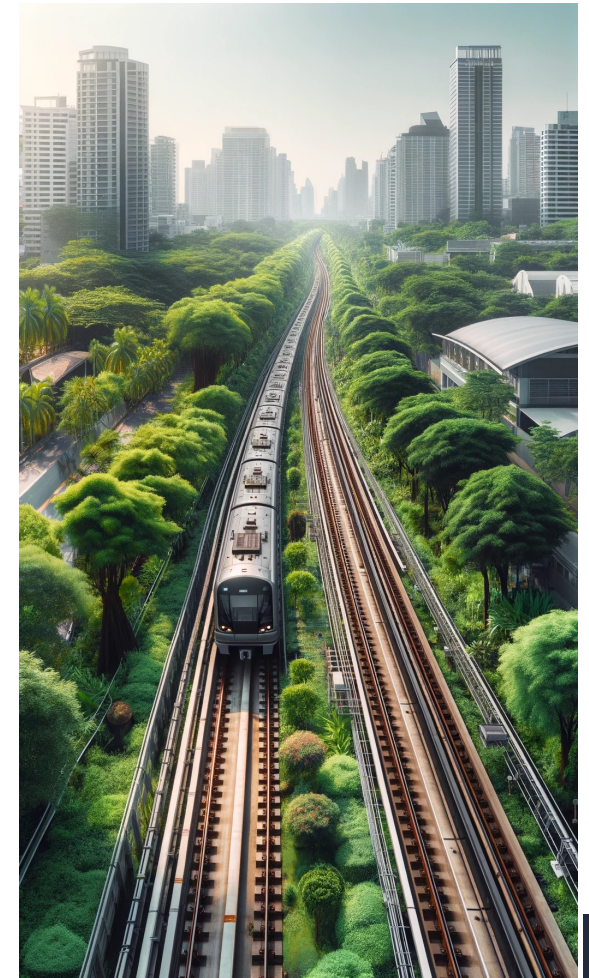
20%↓

contractor spend per km

Economical

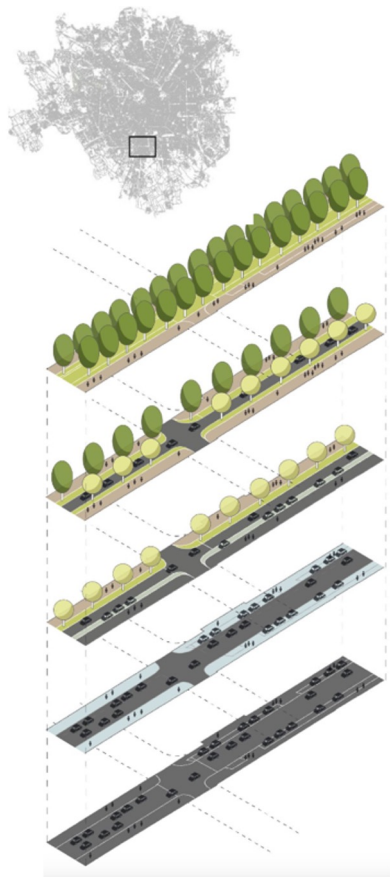
66%↓

inspection cost per km

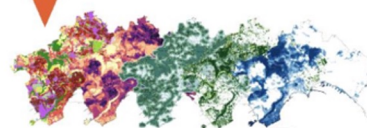


PREDICTING THE FUTURE WITH SIMULATION

Scenarios Simulation



Synthetic Images



Simulated Layers



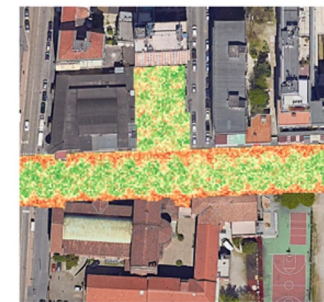
①

New City design



②

Synthetic Multispectral Data by Generative AI



③

Analysis on the simulated scenario



OUR VALUE PROPOSITION



•
•
•

**Informed Decision
Making & Optimal
Resources Allocation**

**Cost Saving - to get
the information cities
need**

**Performance
Tracking - to track
performance of
sustainability
initiatives over time**

×

**Attracting
Investments - from
green finance as well
as from national and
international bodies**

**Regulatory
Compliance - meet
national or
international
regulations**

**Community and
Stakeholder
Engagement Data as
a common ground for
collaboration**

We are working with customers and partners across the globe to improve the lives of **15 million** citizens



Climate/Environmental risks identification and mitigation actions with Nature Based Solutions



New buildings identification and city sustainability index



Urban Heat Island monitoring and Carbon Indexes 2023/27



Sustainability Projects and vegetation management



MEET OUR TEAM



Scientists, Technologist and Creatives working **together** towards the same goal: a **thriving planet!**

FOUNDERS



Gaetano Volpe
CEO



Mauro Manente
COO



Donato Amitrano
VP R&D



Giovanni Giacco
CTO

INTEGRATION

Giulio Giudice
FRONTEND
DEV



Christian De Nisi
FULLSTAKCK
DEV



Cristian Federiconi
AI ENGINEER



Davide Imperiale
DATA
ENGINEER



Faezeh Kazemihatami
DATA
ENGINEER



DATA SCIENCE



Mattia Rigioli
DATA SCIENTIST



Paolo De Piano
DATA SCIENTIST



Antonio Pascarella
DATA SCIENTIST



Giuseppe Maione
DATA SCIENTIST



Ravi Kumar
Phd Student

Francesco Amato
SALES MANAGER



Deborah Valenti
URBAN PLANNER



Andrea Montieri
BUSINESS DEV



BUSINESS



**LET'S SHAPE A SUSTAINABLE
FUTURE **TOGETHER****

THANK YOU!

Gaetano Volpe
CEO

gaetano.volpe@latitudo40.com
+39 335 5797883

www.latitudo40.com