The role of universities in the process of decarbonization of urban areas

December 8th 2023 | Dubai | Italy Pavilion
THE ROLE OF UNIVERSITIES

INTERNAL
Living Lab
Strategy/Plan
Supply Chain

EXTERNAL
Research
Innovation
Awareness

The role of universities in the process of decarbonization of urban areas / COP28 Dubai
The University of Genoa is carrying out several demonstration activities at its facilities to implement the **Living Lab Smart City** in order both to reduce the carbon footprint and to show a real application of the Smart City concept to students, local citizens and external stakeholders.

In particular, the Savona Campus is managed an example of urban district for the development of policies for “smart cities”.

The Campus is a center for the testing and experimentation at the national level of the technologies for sustainable energy in the city of the future.

(a) the garden near the canteen and students’ accommodations; (b) the photovoltaic plant and the solar thermal collectors above the Smart Energy Building; (c) part of U-trail, a 1 km outdoor fitness trail, with one training station at the top right of the photo.
The University of Genoa has made a strong commitment against climate change, accounting and validating its carbon footprint since 2014, committing to being climate neutral by 2030, joining the United Nations global campaign Race To Zero for Universities and colleges (https://www.educationracetozero.org/), and systematically managing sustainability through the Environmental Sustainability Commission and the Unigesostenibile Working Group.
CLIMATE NEUTRALITY PLAN

**SCOPE 1-2** - UniGe is working to reduce its energy consumption by 30% thanks to efficiency interventions, has planned thermal interventions (thermal insulation, replacement of thermal power plants) to reduce the energy demand and currently purchases Renewable Energy Certificates (RECs).

**SCOPE 3** – UniGe cooperates with its supply chain to reduce the footprint of Mobility, Logistics, Goods and services, Waste, and Capital goods.

The role of universities in the process of decarbonization of urban areas / COP28 Dubai
Impact of circular measures to reduce urban CO₂ emissions: An analysis of four case studies through a production- and consumption-based emission accounting method
Del Borghi, A., Gallo, M., Silvestri, N., ...Crocì, E., Molteni, T.
*Journal of Cleaner Production*, 2022, 380, 134932

**RESEARCH - CIRCULAR CITIES | DECARBONIZATION**

Bogotà (Colombia)
Glasgow (Scotland)
Milan (Italy)
Genoa (Italy)

**METHODOLOGY**

1. Data collection
2. Consumption-based cities emissions
3. GHG emissions reduction interventions
4. Energy systems
5. Mobility
6. Built environment

**RESULTS**
Robotics and AI for Socio-economic Empowerment

**Type of project:** National  |  **Start date:** 01/10/2022  |  **End date:** 30/09/2025

The RAISE project aims to support the development of an innovation ecosystem based on the scientific and technological domains of **Robotics and Artificial Intelligence (AI)**, focusing on the needs of a specific regional context: the Liguria Region. The project aspires to evolve into a highly attractive ecosystem for companies, investors and researchers at national and international level.

The RAISE ecosystem represents a sort of ‘engine’ to rewrite the foundation of industrialisation through Robotics and Artificial Intelligence (AI) with specific application in the domains of logistics and ports, sustainable cities and territories, health and environment.

RAISE is organised according to the **Hub & Spoke** governance system and consists of 25 Spokes and Affiliate partners as follows:

- **13 Research Institutions, Research Foundations and IRCCS:** CNR, UNIGE, IIT, ENEA, INGV, INFN, Fondazione CIMA, AISM, Fondazione Don Gnocchi, IRCCS San Martino, IRCCS Giannina Gaslini, Ospedale Galliera, Associazione Festival della Scienza
- **4 Small and Medium Enterprises:** Aitek, Circle, AlgoWatt, Infosolution
- **8 Large Companies:** Leonardo, Ansaldo Energia, ETT, Esaote, Philips, Engineering, Fincantieri, Movendo Technologies

The role of universities in the process of decarbonization of urban areas / COP28 Dubai
The role of universities in the process of decarbonization of urban areas / COP28 Dubai

CONTATTI E INFORMAZIONI

Adriana Del Borghi | adriana.delborghi@unige.it | https://unigesostenibile.unige.it

rus-cambiamenticlimatici@unige.it

www.reterus.it