

INDOOR AND OUTDOOR AT THE CENTER OF THE DIGITAL AND GREEN TRANSITION OF LIVING ENVIRONMENTS

VITALITY Research project (July 2022 - December 2025)

Innovation Ecosystem, digitalization, and sustainability for the diffuse economy in Central Italy. Spoke 6, P.I. F. Corradini. WP1.

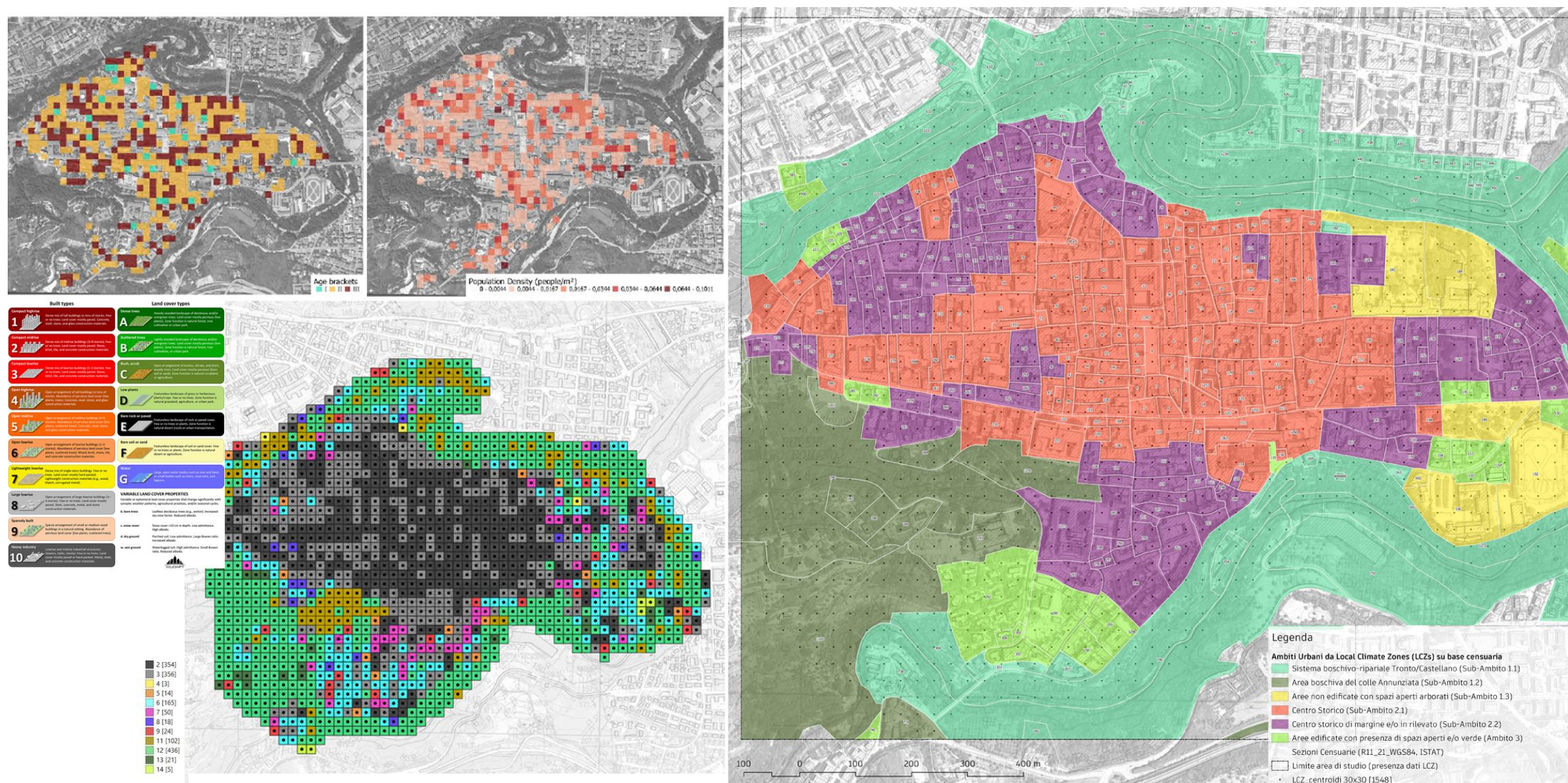
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Related research groups: School of SCIENCE and TECHNOLOGIES: M. S. Bernabei, R. Sorbi; School of PHARMACY: I. Grappasonni; M. Acito; M. Panicià.

Permanent / temporary staff: 39,3 % permanent staff; 60,7 % temporary staff.

Main research topics

Climate change scenarios predict an imbalance in ecosystems, with an increase in extraordinary weather events and the intensity of risks to the health and well-being of urban communities. The main research topics focus on the definition of new methods for investigating and mitigating climate phenomena on both micro and macro scales. This includes foreseeing, from a scenario-based perspective, design strategies and technological solutions capable of improving the health and well-being of living spaces and providing administrations and professionals with data, methodologies, and monitoring systems for planning. Furthermore, the goal is to increase awareness and broader public understanding of climate risks and solutions for well-being and climate resilience.



Innovative spatial models for investigation, evaluation, planning, and monitoring, to set a decision support system for climate change adaptation

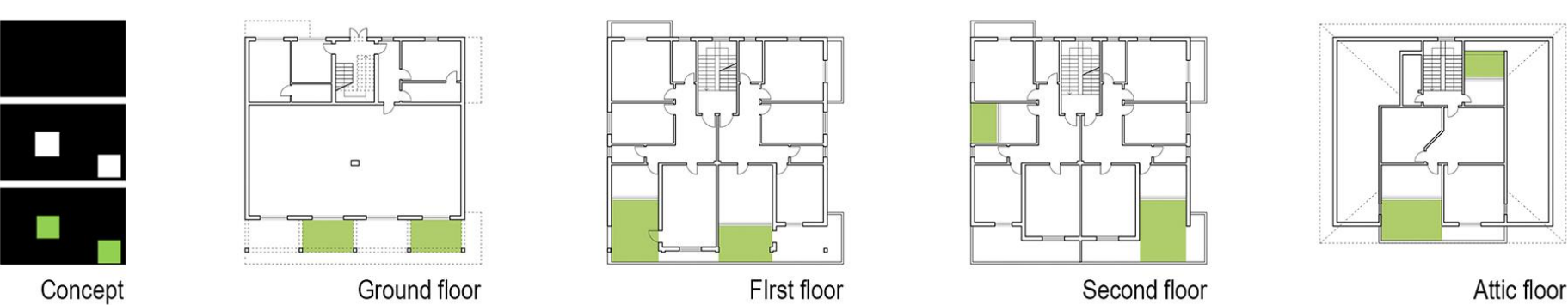
National projects: VITALITY Research Project – WP1, Ecosistema di Innovazione, Digitalizzazione e Sostenibilità per l'Economia diffusa nell'Italia Centrale.

International projects: Life+A_GreeNet, LIFE IMAGINE UMBRIA Integrated Project 2020 – 2027 (Integrated Management and Grant Investments for the N2000 NETwork in Umbria).

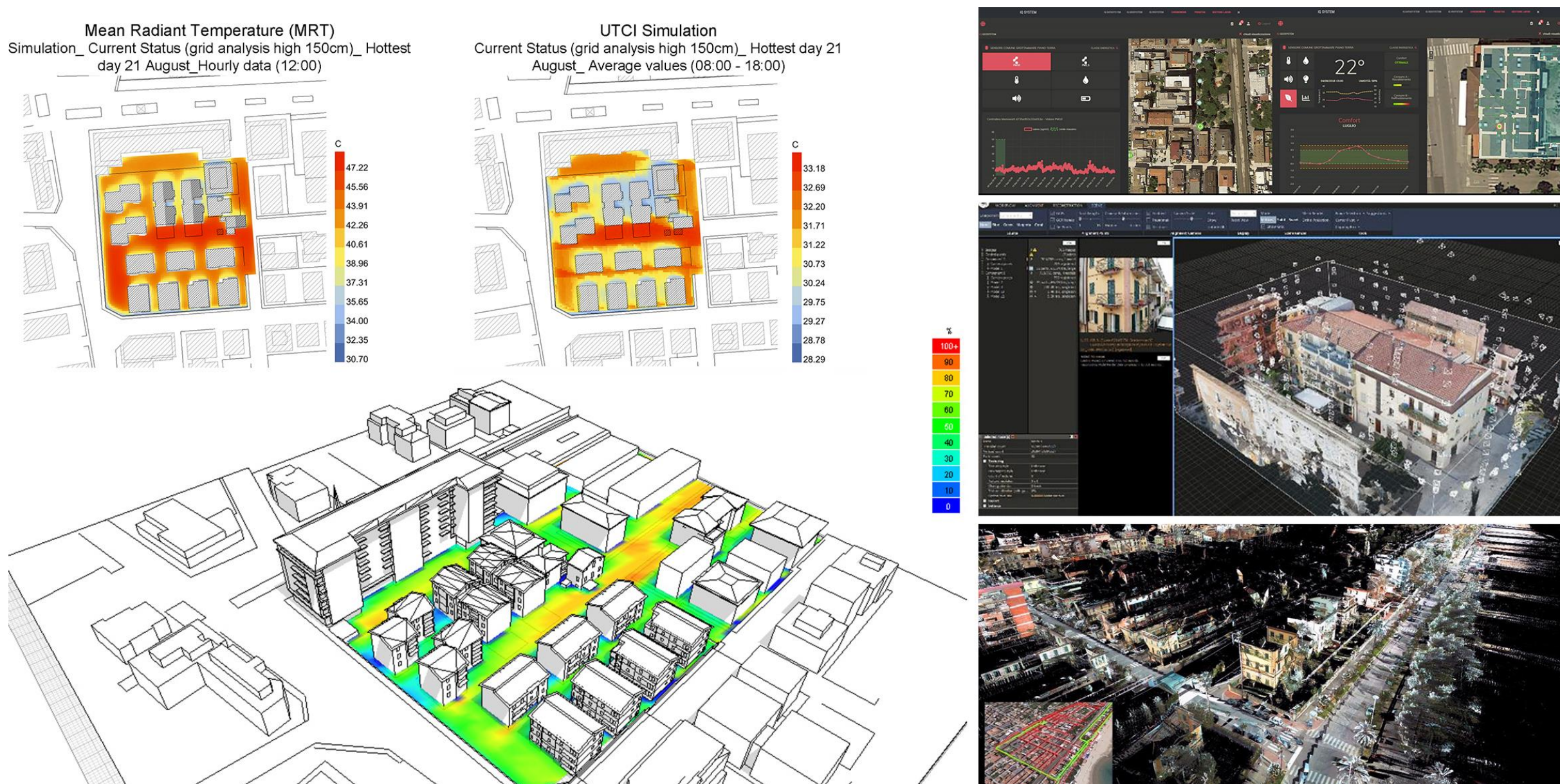
Collaborations with local and regional authorities:

- Vitality project: Municipalities of Ascoli Piceno, San Benedetto del Tronto, Spinetoli; Life+A_GreeNet: Abruzzo Region, Municipalities of Ancona, San Benedetto del.T and Pescara; Ats Città Della Costa.
- LIFE IMAGINE UMBRIA: Umbria Region, Municipalities of Perugia, Sant'Anatolia di Narco, Città di Castello, Spoleto, Narni; Sibillini Mountains National Park.

Collaborations with NGOs and research centers: Legambiente; Res Agraria; REDI research.eu REDI (REducing risks of natural DIasters); University of Perugia; L'Aquila University.



Green Room - Spinetoli (AP) Italy

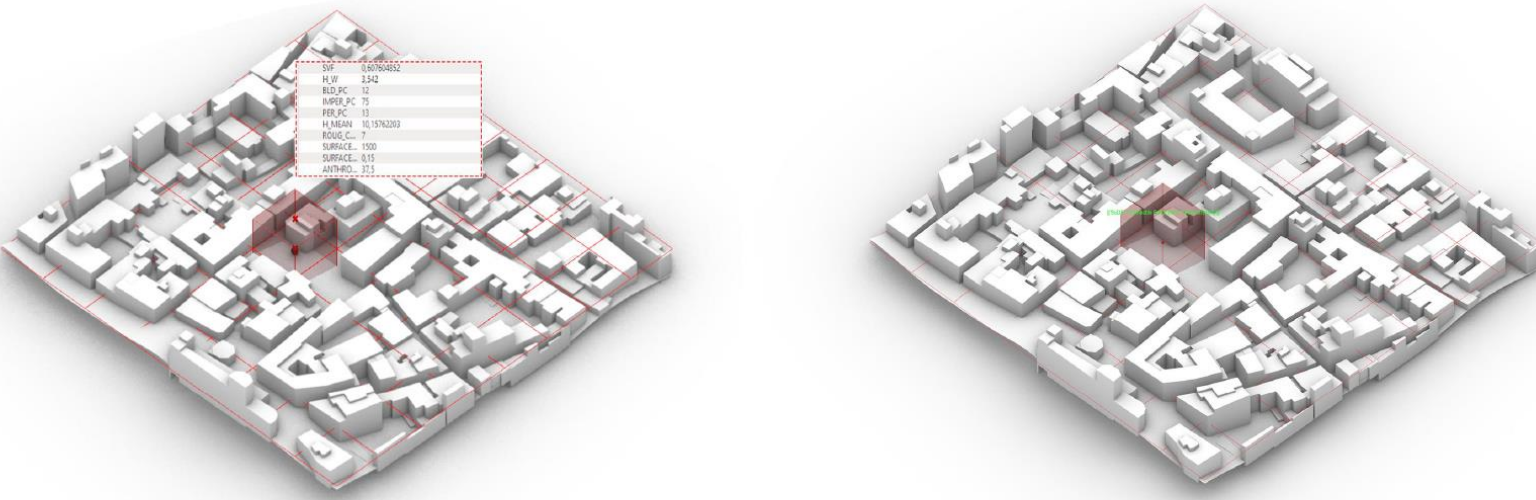


Design strategies and technological solutions to improve the health and well-being of living spaces

National projects: VITALITY Research Project – WP1, Ecosistema di Innovazione, Digitalizzazione e Sostenibilità per l'Economia diffusa nell'Italia Centrale.

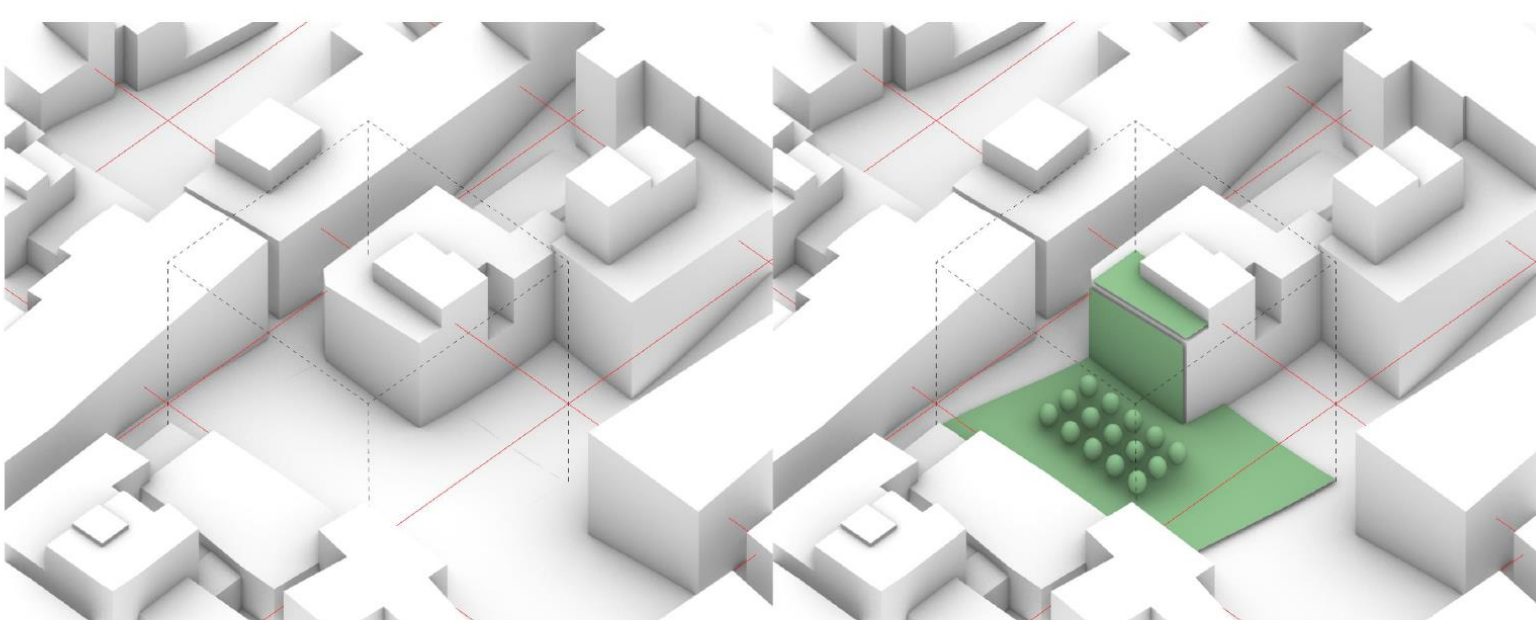
- FESR/POR 2014-2020 ITM (Innovative Territorial Map) project. Development and application of a digital platform for environmental and energy detection and monitoring. The case study of the Municipality of Grottammare (AP). Unicam Saad, TecnoArt, Menowatt, Roxor.
- FAMI 2014-2020 "Capacity Building" - Asylum, Migration, and Integration Fund. Challenge Project 1 and 2.0.
- Third-party work for the Municipality of Civitanova Marche, drafting Guidelines and a Masterplan for urban and environmental regeneration in the port area of Civitanova Marche.

Collaborations with local and national businesses: Tecno Art (for the development of the Vitality platform), Daniele Benedetti (Vitality App).



Local Climate Zone (LCZ) Parameters Evaluation.

Evaluation and proposal of climate-adaptive solutions tailored to each LCZ.



Focus on a Specific Area.

Solution Proposal and efficacy evaluation.

Box 1: Local Climate Zones and Urban Units definition.

Box 2: Digital twins of the target areas implemented with maps, simulations, scenarios, and data from tasks and environmental monitoring stations.

Box 3: The Green Room design solution (left); local climate zone (LCZ) parameters and proposals (right).



Research Day UNICAM
Camerino 12 dicembre 2024

