



Sustainable Peri-Urban framework
for Climate Neutral development



LIVING LABS

Jesi, Italy

*Decarbonization of peri-urban manufacturing hubs through
energy efficiency retrofitting and sustainable mobility frameworks*



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General Information

LIVING LAB
Jesi, Italy

City of Jesi

- Medium-sized city in the Marche Region, Central Italy;
- Compact historic center surrounded by agricultural peri-urban areas;
- Strong interaction between urban functions and rural landscape;
- Peri-urban zones include housing, farming, and small productive activities;
- Strategic location and growing focus on sustainable mobility and land use;

The Mission

The city must be integrated into local and supra-local networks, with the ambition of building and organizing a Diffuse Urban System, a cooperation among the municipalities of the middle Vallesina in a strategic alliance capable of providing a shared planning framework for a territory that is already uniform from a landscape and historical perspective.

Actions to be implemented in the territory of Jesi:

- Bike-to-work and gamification campaign;
- Preliminary study on long-stay parking facilities with photovoltaic roofing;
- Energy efficiency improvements of facilities (preparatory study);
- CNH interventions
 - installation of new CTA (air ventilation and cooling system)
 - energy produced by renewable resources and thermal insulation for hot water circuit
 - replacing existing motors with more efficient ones
 - upgrading fixed-rotation air compressors to variable-rotation air compressors
 - assess the possibility to install a large PV plant on their facilities (study)
 - engage employees in a bike-to-work initiative to encourage sustainable commuting behaviors
 - installations by CNH of a cluster of innovative bi-directional EV charging stations
 - increase renewable energy share in CNH's manufacturing plant by 30%

Target stakeholders

Civil Organizations, enterprises, companies, banks, logistic hubs, service providers.

Key Partners

CNH

Lead Industry Partner (CNH) and other participating partners.



Local challenge

Current Situation

Jesi is confronting with three major crises:

- 1.energy–climate–environmental crisis,
- 2.economic and employment crisis,
- 3.socio-healthcare crisis. This context has also generated a profound relational crisis, which the administration wants to address with **participation**.

Problem: Limited participation at an early stage, possibly due to inadequate resources for effectively promoting the intervention, followed by negative feedback from the population at a more advanced stage of implementation.

The city's open spaces, offer potential that could be leveraged to move toward the configuration of a human-scale city, with networks inspired by virtuous European models. This is inevitably supported by defending and promoting a **different idea of mobility** within and beyond the city, for regular trips such as home–work, home– school, and home– services–leisure.

Problem: lack of sustainable mobility culture, with a widespread perception of private cars being necessary even for very short trips. Limited use of public transport networks, with the exception of students of school age, immigrants, and a small number of elderly people.

It is needed to strongly enhance the system of sustainable mobility through cycling networks, pedestrian-friendly policies, the exploration of innovative approaches to local public transport, and the integration of extra-urban transport systems.

Overall problems: lack of data, lack of communication and cooperation between municipal offices and other institutions, some buildings require seismic retrofitting before more advanced energy-efficiency measures can be implemented.

Peri-Urban Context:

The area of greatest interest for the Municipality of Jesi at present is the Viale della Vittoria area (currently covered by a Masterplan), which leads to Viale del Lavoro and therefore to the city's industrial area and the southern axis of the city, both of which are in need of redevelopment.

The Viale della Vittoria axis constitutes a strategic linear infrastructure within Jesi's urban system, acting as a primary connection between the consolidated city, Viale del Lavoro, the industrial district, and the southern urban sector, which is currently affected by functional and spatial decline.

The ongoing Masterplan represents a key planning instrument to coordinate urban redevelopment, mobility reorganization, and public-space redesign along this corridor, with the objective of improving accessibility, sustainability, and urban integration.

The southern axis instead, is not actively being addressed yet.

Peri-urban Area of Jesi – Key Characteristics

- Mixed land use: predominance of agricultural land (arable crops, vineyards) interspersed with rural buildings, scattered housing, and small production or service facilities.
- Low-density and dispersed development, resulting from incremental residential expansion and the localization of productive activities along main road corridors.
- Morphological and functional fragmentation, with weak spatial continuity between the compact urban fabric, the industrial areas, and the surrounding countryside.
- High dependence on private car mobility, limited availability of public transport services, and insufficient cycle-pedestrian infrastructure.
- Potentially high landscape and ecological value, linked to traditional agricultural patterns and proximity to hilly systems, partially compromised by land take and incongruent uses.



SpurUP Innovation applied



Technical Solutions

Industrial Energy Efficiency Programme



Digital Tools

One stop Shop



Local Green Deal (LGD)

To be framed during the project

SpurUP Target Impacts (KPIs)

5%

GHG TARGET
reduction goal

25%

ENERGY EFFICIENCY
improvement target



COMMUNITY IMPACT

- Training activities for municipal officers and industrial managers.
- Bike to work and gamification activities.
- Public awareness raising on circular economy, energy efficiency, sustainable mobility and best practices.

Policy Context

Policy and Regulatory documents

1. Cycling Paths
2. SUMP
3. "Bicipolitana" project to be implemented



SPURUP

Sustainable Peri-Urban framework
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MAYORAL
COMBINED
AUTHORITY



FGS



prometech



DITENCO
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MG sustainable



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TECHNOLOGIES



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We Deliver Intelligence



Teletia
Technologies



UNIQ CUBE



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ΖΥΘΟΠΟΙΑ



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CITY OF
THESSALONIKI



ZAGORKA



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