Enabling City Transformation

NZD

Sustainable Districts in Climate Change Scenario

PRATO, ROME, BERGAMO, PARMA: **ITALY**

Emissions domains addressed by the Pilot Activity

- Consumption of non-electricity energy for thermal uses in buildings & facilities
- Land use (agriculture, forestry & other land uses)
- Consumption of electricity generated for buildings, facilities & infrastructure
- Industrial process emissions
- All vehicles & transport (mobile energy)

Key Terms

Productive Districts | Water-Energy Nexus | Energy Symbiosis | ISO 50001 | Replication & Transferability

Levers of Change

Data and Digitalisation | Democracy and participation | Financing and funding | Governance and policy | Learning and capabilities | Procurement | Social innovation | Technology/infrastructure

Context & Challenges

NZD reimagines how productive districts manage energy and water under the pressures of climate change. These districts—often overlooked in urban sustainability planning—are reframed as strategic sites for climate action. The project pilots integrated approaches to energy efficiency, renewable energy deployment, and water reuse, tailored to the unique needs of industrial and service districts. By introducing ISO-aligned energy management systems and co-designed interventions, NZD addresses fragmented resource governance and builds resilience to extreme climate events. The initiative aims to create a replicable framework for district-level sustainability and systemic innovation.

Objectives

- Enhance energy and water efficiency in productive districts
- Deploy integrated management systems for energy and water
- Develop ISO 50001-aligned energy guidelines at district level
- Strengthen stakeholder and citizen engagement
- Facilitate replication and scalability of successful practices

Activities & Innovations

- Mapping renewable energy potential and conducting PESTLE barrier analysis
- Implementing water reuse and stormwater management solutions
- Developing and validating ISO 50001-aligned district energy guidelines
- Delivering ME.TA training for Transition Managers and cross-city learning
- Testing innovation sandboxes and replicating best practices

Expected Impact & Outcomes

- Improved efficiency and sustainability in district-level energy and water systems
- Strengthened public-private partnerships for climate action
- Inclusive transition pathways that engage vulnerable communities
- Scalable models for low-carbon, competitive urban districts
- Enhanced capacity of municipal staff and stakeholders through training and co-design

PART OF THE EU MISSIONS
CLIMATE-NEUTRAL & SMART CITIES

Funded by the European Union