

# Padua's Food System Transformation

## Executive snapshot



As part of its pathway to climate neutrality, the city of Padua has begun addressing the urban food system as a key but complex driver of emissions. The food system spans production, processing, distribution, consumption, and waste, involving a wide range of actors who often operate without coordination. Its boundaries are difficult to define, and its impacts are not always fully visible within existing climate frameworks.

To address this, the city, with support of Associazione Economia e Sostenibilità (Està), developed an integrated framework combining qualitative and quantitative data to better understand the system and support the development of an urban food policy. The work included data analysis, stakeholder engagement through interviews and workshops, and mapping of policies and actors.

The resulting analysis provides a comprehensive picture of Padua's food system, including its climate impact, key challenges, and opportunities for intervention. It is designed both as an operational tool for the municipality and as an accessible resource for stakeholders and citizens.



# Knowledge Report

## THE IMPACT

The analysis estimates that Padua's urban food system generates approximately 291,661 tCO<sub>2</sub>eq. This includes emissions from household consumption (255,923 tCO<sub>2</sub>eq), food consumed outside the home (31,530 tCO<sub>2</sub>eq), school catering (4,000 tCO<sub>2</sub>eq), and food-related waste (208 tCO<sub>2</sub>eq).

This level of emissions is comparable to those produced by private transport in the city (293,601 tCO<sub>2</sub>eq in 2021), highlighting the significance of food systems within the broader climate context.

Beyond quantification, the work provides a structured understanding of the food system, identifies critical issues across multiple domains, and supports the development of targeted actions aligned with the city's climate neutrality objectives, including an urban food policy.

## THE APPROACH

The initiative developed an integrated knowledge framework combining:

- System-wide analysis of all phases of the food system, from production to waste
- Quantitative assessment of greenhouse gas emissions using multiple datasets (household consumption, food prices, carbon coefficients, and waste data)
- Field research, including approximately 10 interviews and workshops involving around 30 stakeholders
- Stakeholder and policy mapping to identify key actors and existing initiatives
- Continuous collaboration with municipal departments

This mixed-method approach enabled the integration of qualitative insights with quantitative data, including information not publicly available, and supported a more comprehensive understanding of system dynamics.



# OUTCOMES AND LEARNING

- A comprehensive assessment of Padua's urban food system, including its structure, actors, and climate impact
- A quantified estimate of emissions across key components of the system
- Identification of priority areas for intervention, including governance, urban agriculture, supply chains, logistics, education, and waste
- Development of maps of policies, stakeholders, and ongoing initiatives
- Strengthened dialogue between municipal departments and external stakeholders through participatory processes

These outcomes provide a foundation for developing an urban food policy and support more informed decision-making.

## What worked:

- Combining quantitative data with field research enabled a more complete understanding of the food system, including aspects not captured in existing datasets
- Stakeholder engagement (interviews and workshops) facilitated access to information, supported validation of findings, and encouraged dialogue among actors
- Cross-department collaboration within the municipality improved access to data and alignment across policy areas

## Transferable insight:

- Urban food systems can be better addressed by developing an integrated knowledge base that combines data, stakeholder perspectives, and system mapping
- Addressing food systems requires a cross-sectoral approach, linking climate, social, economic, and spatial dimensions
- Establishing a shared understanding of the system is a necessary first step before defining and implementing policy actions

## WANT TO KNOW MORE?



Learn more about [Padua](#)

Read the report: [The food system of the city of Padua](#)

Still got questions? Ask us:  
[hello@netzerocities.eu](mailto:hello@netzerocities.eu)

## NEXT STEPS FOR THE CITY

- Develop a standardised methodology for analysing the climate impact of urban food systems
- Integrate food systems into Monitoring, Reporting and Verification (MRV) frameworks
- Establish permanent governance structures, including interdepartmental coordination and thematic working groups
- Strengthen integration with other sectors such as waste, energy, mobility, and urban planning
- Participate in peer-learning networks focused on sustainable urban food systems
- Access financial tools and investment support to implement actions such as food hubs, logistics systems, and renewable energy integration

