

Pratese Sustainability: Towards a Community-Centric Net-Zero Approach

Group 3 -
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Sustainability...?

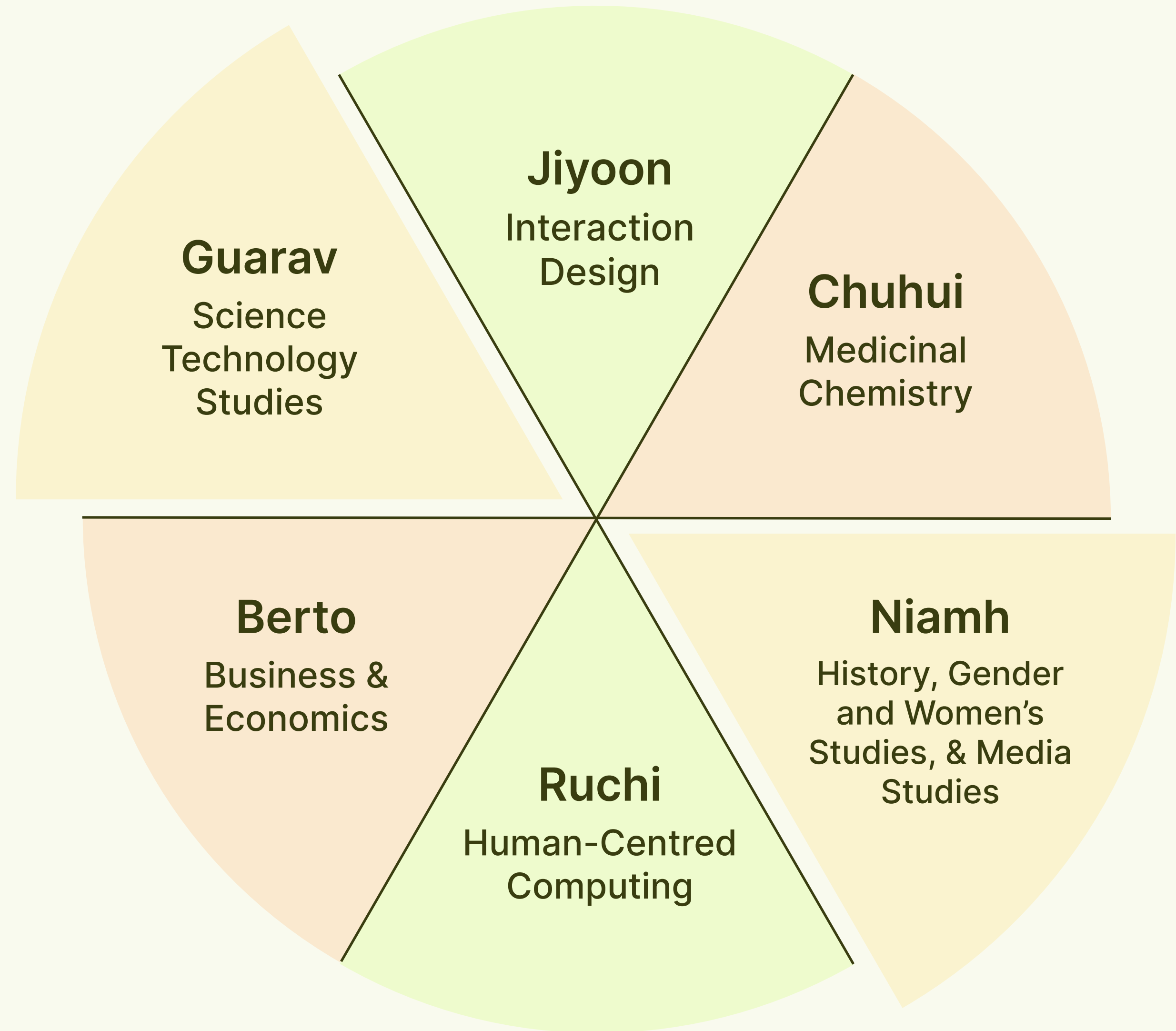
Challenge

How might we achieve **sustainable energy transitions** for **Prato community?**

Prato is one of the 100 cities to NetZero by 2030 in Europe.
Consider an intervention or opportunity focused around sustainable energy transitions for the Prato community.

The Team

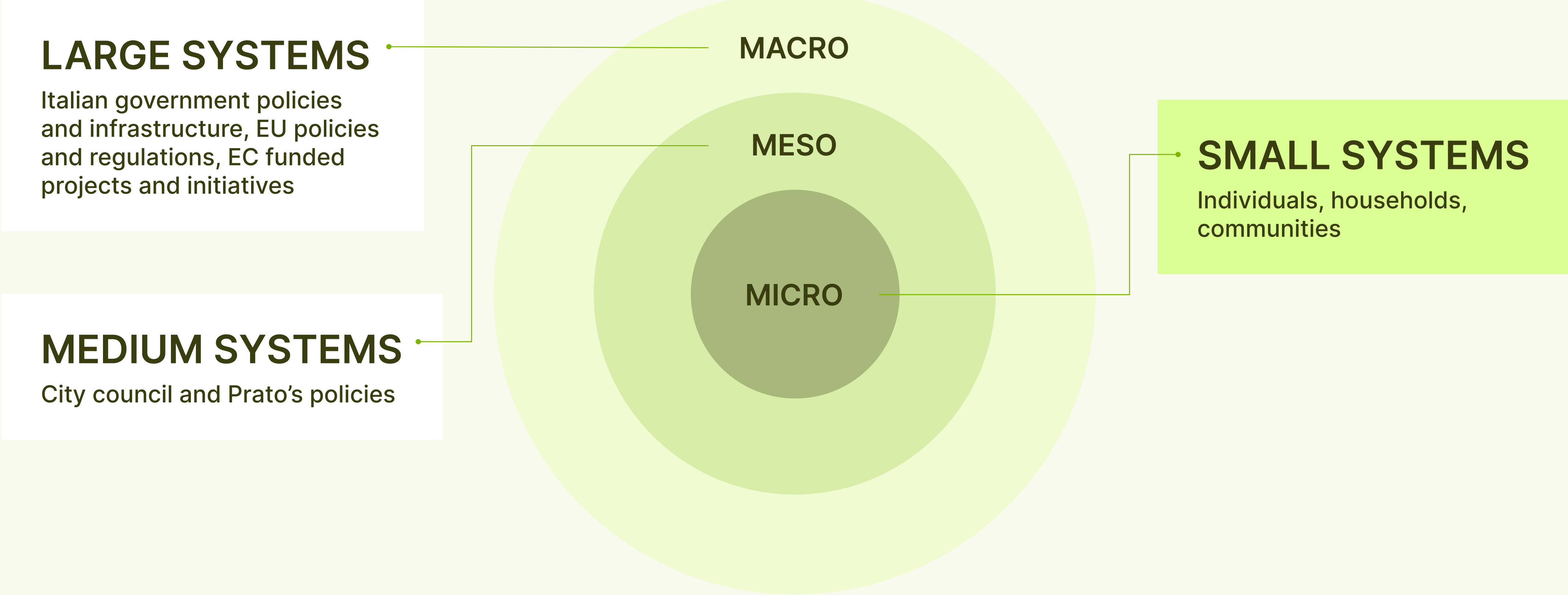
Interdisciplinary Pizza



- Community and **person-centred approach** (Verfeuth et al. 2023; Tiberio et al. 2020)
- **Grassroots, ground-up approach** vs technical and managerial language (Cook and Swyngedouw 2012; Kenis and Lievens 2017)
- Need to **communicate beyond one-size-fits-all** messaging (Moser and Dilling 2011)

- Prato as a **dynamic, transcultural city** (Baldassar et al. 2015; Raffaetà et al. 2016)
- Building on existing participatory research approaches within Prato (Ricatti et al. 2019) to **engage local community members as co-creators of knowledge**
- Understanding how sustainability is both understood and practiced in unique, contingent ways in order to **re-imagine sustainability as a local knowledge practice**

Stakeholders



Who are the People of Prato?

- **A constant growth** in the number of inhabitants, with a 151% increase in the resident population from 1951 to 2021
- **Demand for labour** in Prato and the employment opportunities created by the economic expansion: Migration
- As of 1st January 2022, there were **45,916 non-italian** residing in Prato, representing 23.5% of the resident population
- People's Republic of China 64.7%, Albania 8.1% and Romania 6.7%
- Majority of **working force are in textile sector**
- In 2022 the turnover index is 119.6

Source: <https://www.istat.it/> 2021

Energy Use in Prato

Basic Emission Inventory

- **Residential: 24%**
- Tertiary: 35%
- Industrial sector: 38%

Source: Eurostat 2021, Municipality of Prato, 2023

Energy Use in Prato

Residential Energy Consumption

- Space Heating: 63.6%
 - Lighting & appliances 14.1%
 - Water heating 14.8%
 - Cooking 6.1%
 - Other 1.4 %
- 610 Cars per thousand inhabitants
 - 24% Energy and 58% Fuel consumption
 - Scope for 46% overall CO2 emissions reduction

Source: Eurostat 2021, Municipality of Prato, 2023



"How can I use and promote energy-saving practices in my family's daily life?"

Fabio Li

A Champion of Sustainable Living

Chinese-Italian, 29yrs old

Lives in Prato, Italy

Works in textile industry

Likes to watch football, travel

Strives to promote eco-friendly practices and support the Italian government in achieving net-zero carbon emissions. Fabio seeks innovative and eco-friendly techniques in his daily life.

Goals

- Invest in energy-efficient appliances for both work and personal use
- Try smart energy management systems and devices
- Encourage family members to adopt energy-saving habits, such as turning off lights when leaving a room, unplugging chargers and devices when not in use, and washing clothes in cold water.

Challenges

- Financial Investment: high costs for buying appliances and its maintenance
- Educational efforts: Educating not only his family but also the larger community about the importance of energy efficiency and how to achieve it can be challenging.



“I love my house as is! It’s beautiful with Pratese heritage and memories of my family. I want to keep it the same, why would I want to change it.”

Alessia De Luca

Forever Pratese

Italian, 65yrs old

Lives in Prato, Italy

Stays home after retirement

Likes to knit and cook

Alessia has been living in Prato ever since 1968. She has two children who have left to work in other cities. She spends most of her time at home, in the house that she and her husband has been staying for more than 30 years.

Goals

- Wants to keep her house the same and not change to keep up with the changing technologies and new products and services.

Challenges

- Wants to maintain and preserve the house that she lives in as it is, despite her children encouragement to change to more modern energy saving renovations within the house.

A Multi-staged Research Approach



The Intervention



Comprensione



***Comunicare and
Condivisione***

The Cities Mission Climate City Contract



Source: <https://netzerocities.app/QR-CCC>

The Cities Mission Climate City Contract



Source: <https://netzerocities.app/QR-CCC>

STAGE 1

Comprensione

**Understanding current practices of Pratese households
to centre Pratese people at the heart of energy transition**

Stage 1. Comprensione

Community Engagement

- Spend time with families to note their energy use patterns, waste management practices and sustainability choices
- Interview with them to explore their attitudes, values and beliefs relates to sustainability and net-zero goals
- Bring people together to create various forms of data



Source: Image by [Henning Westerkamp](#) from [Pixabay](#)

Stage 1. Comprensione

Analysis & Output

- Mapping and visualisation of the Pratese energy experiences
- Storytelling through documentaries and storyboards

CREATURE COMFORTS (2030)

Rather than CER being the key disruptor, **Imagine a future where consumer electronics, appliances and devices increase energy demand and disrupt load management objectives.**

Select the image to read more



SHARING THE LOAD (2030)

Rather than foregrounding CER and "prosumers" managing their own electricity supply and demand, **Imagine a future where the grid becomes more than just an enabler of the market; it enables participation in a decarbonised, reliable and affordable energy system that supports community wellbeing.**

Select the image to read more



Source: Digital Energy Futures: Scenario for Future Living (2030/2050)

STAGE 2

Communicare and Condivisione

**Translating the net-zero strategy through
customised delivery situated in the daily life
practices of Pratese community**

Stage 2. Communicare and Condivisione

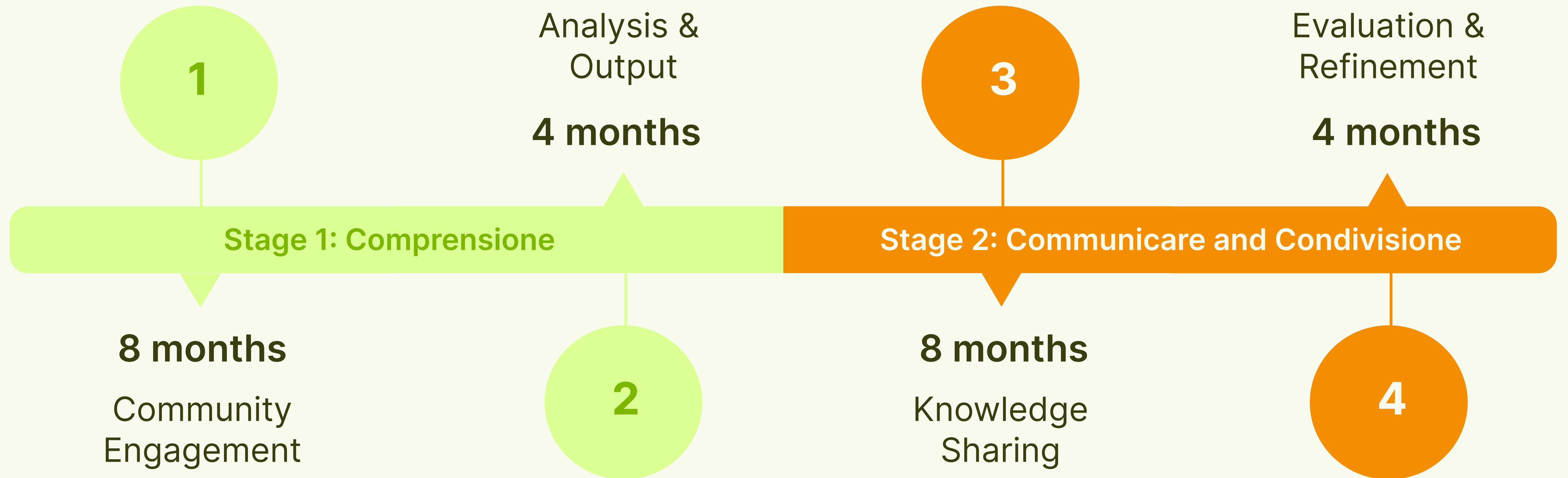
Knowledge Sharing

- Share visual materials and knowledge produced from Stage 1
- Promote sustainable sourcing and reducing food waste in Prato's rich culinary traditions
- Provide informative materials to help people plan and manage energy resources based on their needs
- Inform unmet needs to the government such as lack of bike racks or ways to utilise existing services like GreenApes



Source: Image by Jann Huizenga from iSock

Timeline



Sources of Fundings

These are examples of research funding bodies, but not limited to:

- The European Climate, Infrastructure and Environment Executive Agency (CINEA)
- UN Climate Change
- Sustainability Research Grants, by the US Environmental Protection Agency
- In collaboration with university research grants, e.g: Monash University, University of Florence
- Italian governments

Impact

- Achieve **participatory understanding** of the Pratese community's everyday lifestyle practices
- **Foster social cohesion** between the local and other nationals within the community **starting from decision making**
- Build an **inclusive and sustainability-aware community** with a sense of pride and ownership
- Create opportunities to provide **participatory future** for a more healthy and resilient sustainable energy transition in Prato