Citizen science 2.0 - the Lemesos, Cyprus, experience: From raw data collection to critical solution design



LC³ Lemesos City Cooling Challenge

• Renewable energy production in small spaces

• Nature-based solutions

• Municipality capacity building

Citizen science activities in LC³ are structured around participatory solution co-design workshops and the Lemesos Commons, for integrating solutions and fostering co-creation among diverse stakeholders. The Lemesos Commons

Φίλοι της Γης

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the earth Cyprus is becoming a consultation body for the City of Lemesos to implement its Net-Zero Climate Contract. Participants from these workshops become agents of attitude and behavior change towards the climate crisis and their own role in it.

This project has received funding from the H2020 Research and Innovation Programme under the Award Agreement

CINEA-H2020-NZC101036519-PCP- Limassol Lemesos City Cooling Challenge: LC³-2023-2025



https://lc3-nzlimassol2030.eu/

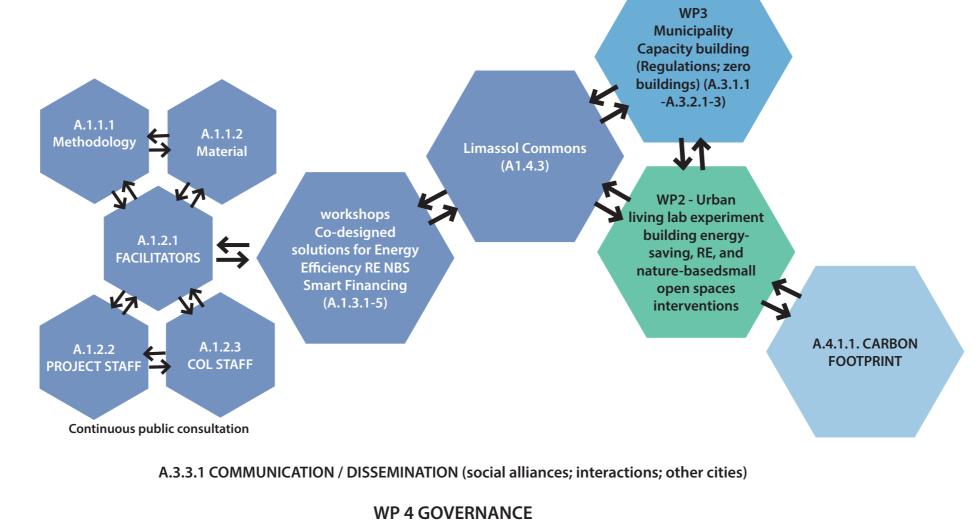
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Context

- Lemesos is a SE Mediterranean coastal city in Cyprus.
- More than half of the year A/C cooling (in buildings, cars, even outdoors) is the major source of greenhouse gas emissions.
- Urban heat island + energy inefficient buildings + road materials + water scarcity + few green spaces/soil.

The LC³ project targets

- Stakeholder Engagement as agents of change: Change attitude (not just behaviour!) regarding climate change
- Microclimate interventions to reduce temperature
- Building energy efficiency for cooling



Attitude change

 Mobilization of human resources beyond talking and writing – (several dozens – project team, partners, city employees)



LC³ Participatory Solution Co-design Workshops.





The EU Mission Label was awarded to Lemesos Municipality on 23 March 2024.

Cyprus Citizens for Climate sCience (C4)

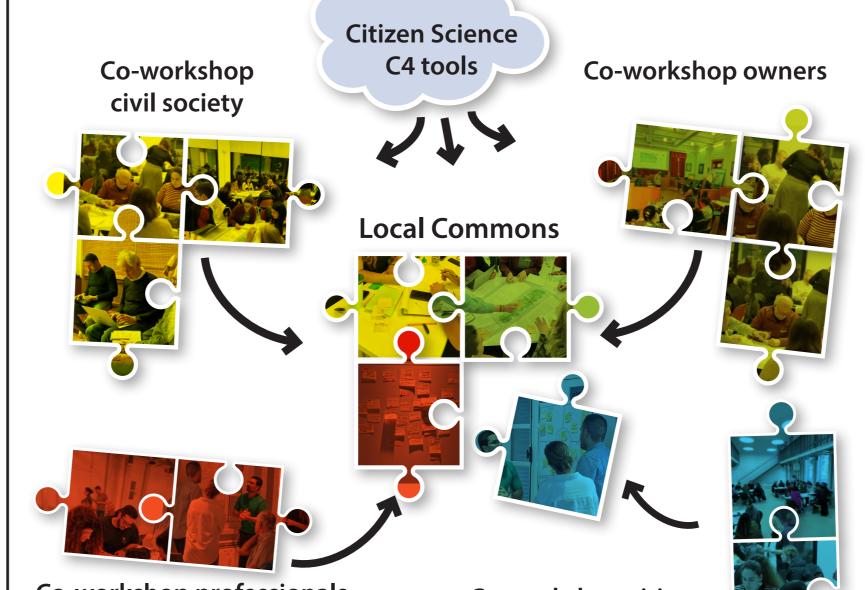
Participatory Solution and Policy Co-Design Through Citizen Science based on Lemesos Commons experience

Citizen Science 2.0

From raw data collection to critical solution design:

- Critical co-design of scientific solutions to significant, core, socially relevant problems
- Participation: Informed, Active, Representative, Rolling
- Stakeholder dialogue without shrinking from disagreements
- Continuous public consultation as a governance tool
- No consensus, no voting, no compromises: pros and cons of all solutions from all points of view

Citizens-as-designers for City



Citizen Science C4 tools

After analyzing the Climate City Contract priorities and mapping the local forces (civil society, neighborhood networks, etc) in collaboration with local agents/actors/ collaborators, we set up tools for:

- Priority description
- Link existing problems to co-design solutions
- Produce and Set up co-workshop material (website with educational material)
- co-workshop scenarios (three-hour presential sessions and several months asynchronous cooperation)

Climate Transitions

Main instruments of the LCC systemic approach:

- Co-Workshop and the Local Community Commons (LCC) aiming a shift in social attitude towards people becoming agents of change in the climate crisis and distilling collective wisdom for the Transition.
- Climate adaptation projects differ in the various regions; e.g. sea level rise adaptation is not of concern in non-coastal regions. But social resistance to change required is similar across regions.



Co-workshop professionals

Co-workshop citizens

Continuous public consultation

How to participate

In participatory solution co-design workshops (Co-W) and the Local Community Commons(LCC) citizen groups develop policy proposals and solutions to specific problems which feed into decision maker deliberations. Actionable climate policy and solution designs are the output of 3-hour physical sessions (including expert guidance on feasibility, pre and post online discussions, and solution review), empowering participating citizen scientists as change agents.

At the Local Commons, 20 CoW graduates (randomly selected from heterogeneous Co-W, 1/6th replaced every month to ensure representativeness) work on integrating and refining solutions, creating actionable project proposals grounded in science. Outcomes are detailed, widely supported projects aligned with town's climate goals including conflicting stakeholder concerns.

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- Facilitators selection per co-workshop and Commons
- Expert selection for Local Community Commons
- Scenarios focusing on the selected problems worked already





