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EUTOPIA Alliance opens up the implementation of citizen science in urban planning

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Citizen science is an **emerging trend** in (scientific) activity **in Slovenia**, but does not have the importance and tradition it has in the Anglo-Saxon countries.

In the first debates on citizen science in Slovenia, some historians expressed surprise and an **a priori critical attitude towards citizen science**. Zdravko Mlinar, who is a Slovenian sociologist and a member of the Slovenian Academy of Sciences and Arts, listed some reasons why citizen science is not taking off in Slovenia (Mlinar, 2021):

- **Bottom-up empowerment is completely at odds** with the state-centric mentality that in Slovenia extends unnoticeably from the previous political system.
- The politics of science negatively **sanctions applied research**; the fear that intensive integration with users would mean the end of theory and the end of the university.
- The established practice of the academic sphere of scientific activity is in many respects already **a priori exclusionary for a wider cross-section of citizens.**



However, a recent project by the Central Technical Library in Ljubljana, which set up a website on Slovenian citizen science, registered **51 current citizen science projects.**

<https://citizenscience.si/>



CITIZENSCIENCE.SI
Mreža občanske znanosti v Sloveniji



The discussions during the events organised by Eutopia have shown that in some disciplines the term citizen science cannot be understood in its direct sense, especially when used **in the field of art**, but rather **as an act of collaboration**.

The EUTOPIA Alliance proved to be essential for **supporting citizen science in Slovenia**, especially to disciplines that have not benefited from it so far, such as architecture and urban planning.



By presenting the process and results of the **citizen science project WeCount** (University of Ljubljana, Horizon 2020) during the EUTOPIA events, we were able to discuss **different experiences** with citizen science.



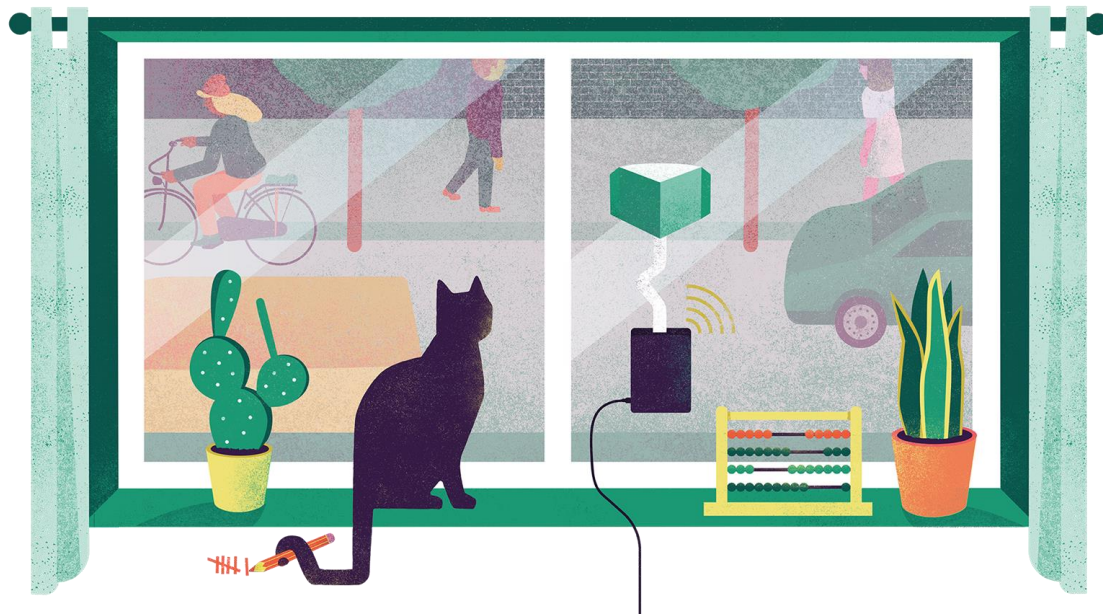
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Citizens Observing Urban Transport

Ljubljana | 2019-2021

WeCount is a Horizon 2020 project that enables citizens to initiate a policy-making process with fully automated measurement data in the field of mobility and air quality.





When social media do not help to raise awareness of citizen science, **university students can become young citizens scientists** engaged in the form of design thinking and co-creation workshops.



Students from the Faculty of Architecture participated and contributed their knowledge to the understanding and interpretation of the obtained data.



Citizen engagement

Phase 1:
**Scoping and
community building**

Phase 2:
Co-design

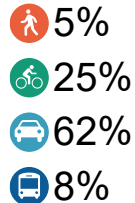
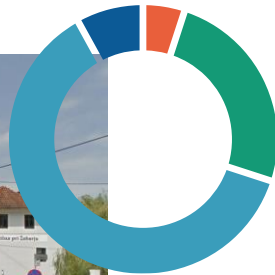
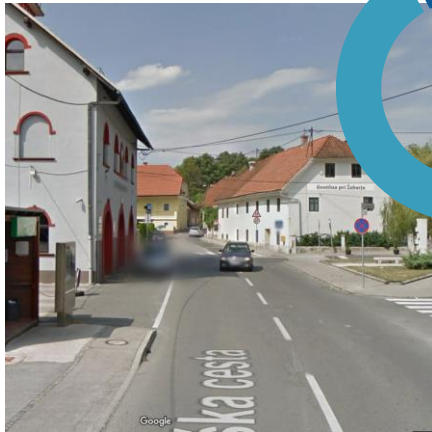
Phase 3:
Data collection

Phase 4:
**Data analysis and
awareness**

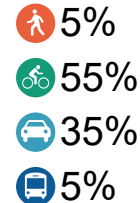
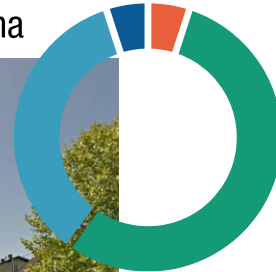
Phase 5:
**Reflection &
Legacy**

Data stories: Bicycle-heavy roads that do not have a bike lane

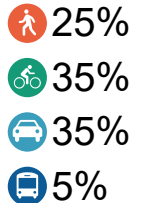
Viška cesta

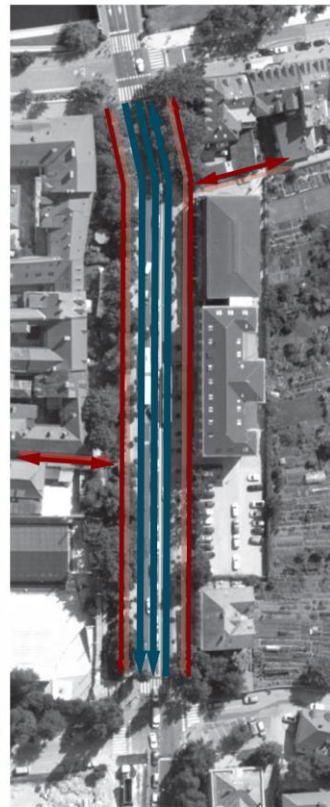


Cesta VII, Rožna dolina

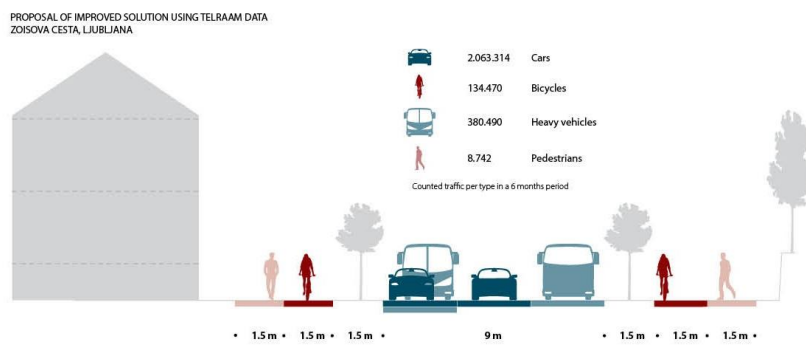
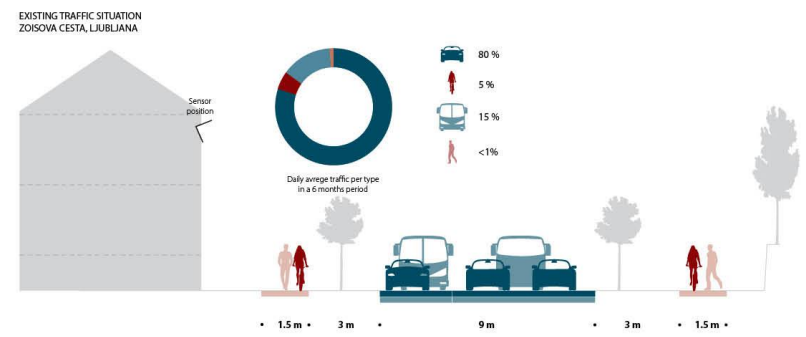


Ulica Milana Majcna



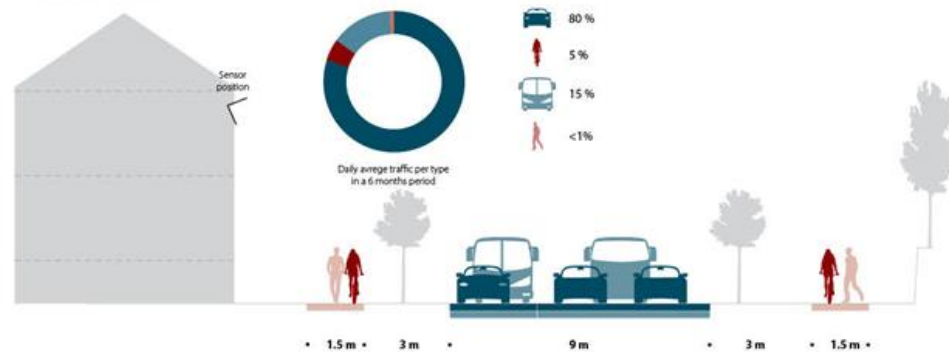


Author of the map: Tomaž Berčič
 Author of the contents: Barbara Petrinjak
 Source: Surveying and Mapping Authority of the Republic of Slovenia, Wecount H2020 project, Telraam data.
 © University of Ljubljana, Faculty of Architecture

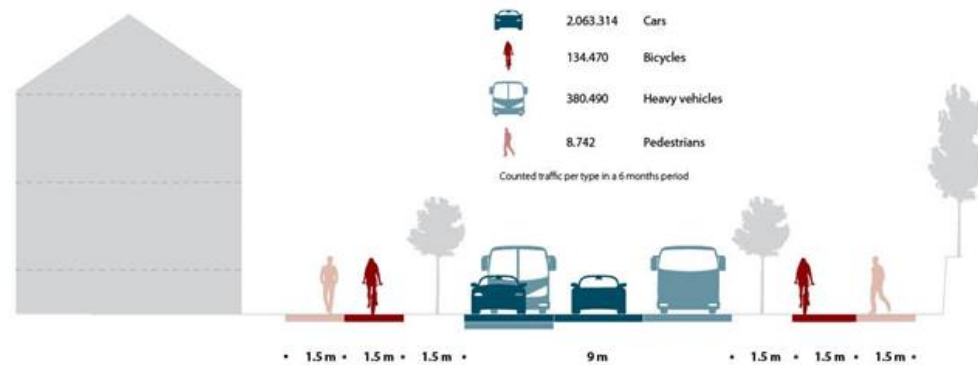


- Legend:**
- Sensor position
 - Motor traffic lane
 - Bus traffic lane
 - Bicycle lane
 - Pedestrians

EXISTING TRAFFIC SITUATION
ZOISOVA CESTA, LJUBLJANA

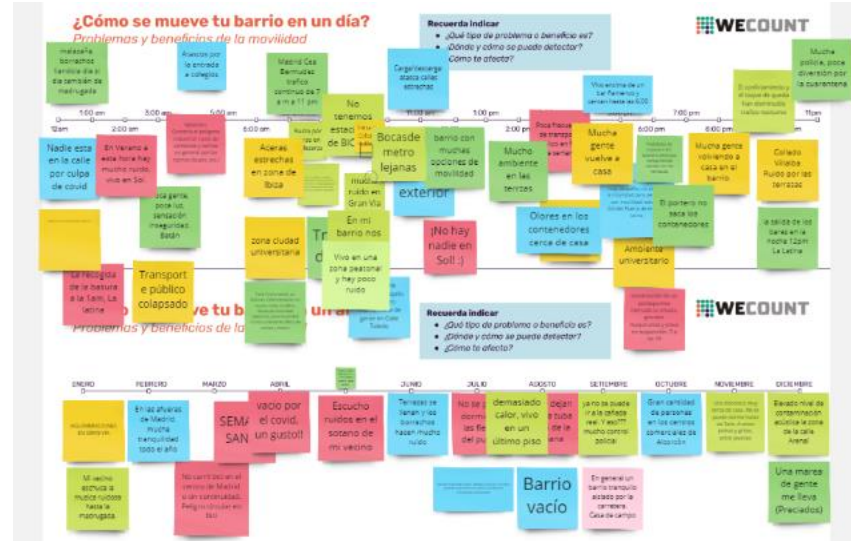


PROPOSAL OF IMPROVED SOLUTION USING TELRAAM DATA
ZOISOVA CESTA, LJUBLJANA



Another important question was how to engage citizens in different cultural contexts.

Different cultural contexts – different approaches to recruit and engage citizens: what works in Leuven and Cardiff, does not work in Madrid, Barcelona and Ljubljana.





Leuven: **use of Personas**, which strengthen the focus on the end user, their tasks, goals and motivation. Personas make the needs of the end-user more explicit and thereby can direct decision-making within design teams more towards those needs' .



An

An is 46 years old. She works for a consultancy firm on mobility so she is career-wise very interested in data on mobility topics. She understands the data but would like to receive them ready to use.



Likes

- mobility topics
- time efficiency
- wide context
- General information



Needs

- Telraam background and information
- answer on the question: how can the dataset be used in policy matters?
- ability to compare the data with other datasets
- easy accessible data
- inspiration to work with the data
- not only local information but as wide as possible



Sonu

Sonu is 26 years old has a master in IT. He is very interested in the technical story behind Telraam. He would like to participate in the thinking process of how to improve the technical aspect of Telraam.

Recognition for his effort is important for Sonu and gives him energy to continue working.



Likes

- Sleek lay-out
- playing with technical functionalities
- Gaming



Needs

- technical insights
- exchange
- updates on technical developments
- the opportunity to contribute
- tools to contribute
- recognition



Madrid: Establishing important relationship with other institutions dedicated to cultural, social innovation, and citizens-led projects. The cooperation with Ibercivis and the FECYT within the Spanish Ministry of Science and Technology resulted in the incorporation of the initiative Vigilantes Del Aire within WeCount, through which traffic measuring complemented with **air quality monitoring with biosensors - i.e. strawberry plants.**

Cardiff: The majority of the workshop was given to citizen scientists themselves **to present their own data, their own analysis, their own interpretation and their own local street context.** This approach was well received due to the fact that many citizens were worried that data analysis might be too technical and they would not have the skills to do it.





The EUTOPIA activities helped us to integrate citizen science into the urban planning by preparing **MSCA Postdoc Fellowships 2022** application:

A New Approach to Sustainable Development of Airport and Seaport Territory through Citizen Science: HubCities (Seal of Excellence).



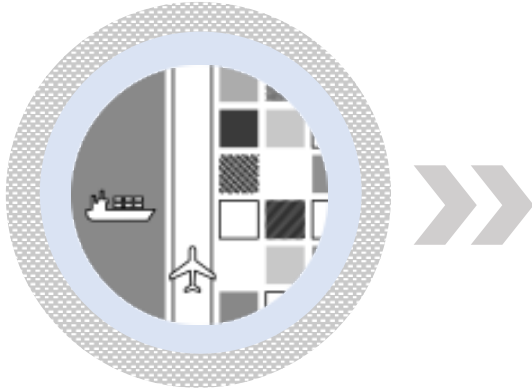
The main aim of the project is to **train a new profile of urban planner** that is able to use citizen science in difficult urban planning situations. Engaging residents in co-design, negotiation, citizen participation, and citizen science is a **bottom-up approach that is still underused**. In applying a bottom-up approach, any further spatial development of selected territories would include the perspectives of their inhabitants. Thus, an important step would be taken toward a **long-term spatial future strategy**.

THE AIM OF THE PROJECT

HUB CITIES CHALLENGES

PROCESS

- global actors meet local ground & local citizens
 - business oriented - they do not care
 - for the space and environmental issues



SPACE

- conflicting spatial development
- no spatial quality & no resilience & no ecology
- ecological, economic, social and spatial resource

PROCEDURES AND MAPPING INSTRUMENTS

PROCEDURES

- citizen science
- participation
- open science practices

a new specific profile of the urban researcher who conveys, anchors, internationally networks and multiplies the topic of HubCities on the levels of practice, teaching and science in order to be able to meet the future challenges in Europe

INSTRUMENTS

- platform
- lab
- toolkit

HUBCITIES FUTURES SUSTAINABLE AND RESILIENT CITIES

RESULT

- a new approach towards a long-term strategy for areas around airport & seaport locations
- a paradigm shift in spatial planning in practice, research & education



IMPACT

- scientific | creating new knowledge across & within disciplines
- economic | technological | upgrading existing processes and
- societal | improving policies, decision making & raising awareness



EUTOPIA Alliance's actions and events have been **inspiring** and **supportive** in taking a step forward and **strengthening the position** of the different disciplines and their elements for citizen science.