

NET ZERO CITIES



EU MISSION PLATFORM

CLIMATE NEUTRAL AND SMART CITIES



NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.



Social Innovation is about...

... creating pathways for communities to take action and contribute actively to the mission



Bike Sharing Programs



Social Innovation is about...

... creating pathways for communities to take action and contribute actively to the mission

City Labs





Social Innovation is about...

... creating pathways for
communities to take action
and contribute actively to
the mission

**Municipalities as
platforms for collective
urban action -
participatory budgeting**



Social Innovation is about...


.....New Business Models & Companies as partners of collective action

Climate Labels



The screenshot shows the website for Ilmastoannos. The header is orange with the Ilmastoannos logo and navigation links: Home, Climate Meal Campaign 2021, News, Contact us, and Suomeksi. The main content area features a large blue icon of a fork and a cloud, with the text "0,1 kg CO₂e". To the right, the heading "Serve climate-friendly meals to your customers" is followed by a paragraph explaining the Climate Meal label. A blue button at the bottom says "Sign up and start serving Climate Meals →". On the right side, there are logos for the European Union, "Vipuvoimaa EU:lta 2014-2020", and "Uudenmaan liitto Nylands förbund".


Ilmastoannos [Home](#) [Climate Meal Campaign 2021](#) [News](#) [Contact us](#) [Suomeksi](#)


 **0,1**
kg CO₂e


Serve climate-friendly meals to your customers

The Climate Meal label helps restaurant customers to identify meals from the menu that have a smaller-than-average carbon footprint. In Climate Meals the total carbon footprint of all its ingredients does not exceed 1.0 kg CO₂e, which is significantly less than the Finnish average. Sign up your restaurant and join the fight against climate change!

[Sign up and start serving Climate Meals →](#)


Euroopan unioni
Euroopan aluekehitysrahasto


Vipuvoimaa
EU:lta
2014-2020


Uudenmaan liitto
Nylands förbund



Social Innovation is about...

.....New Business Models & Companies as partners of collective action

Valencia program to engage private companies in the mission

● ● ●

AJUNTAMENT DE VALÈNCIA Missions València 2030

If you own a company committed with innovation, you have an important role to play in Valencia's future. Become an ambassador organization.

The future is a **SHARED MISSION**

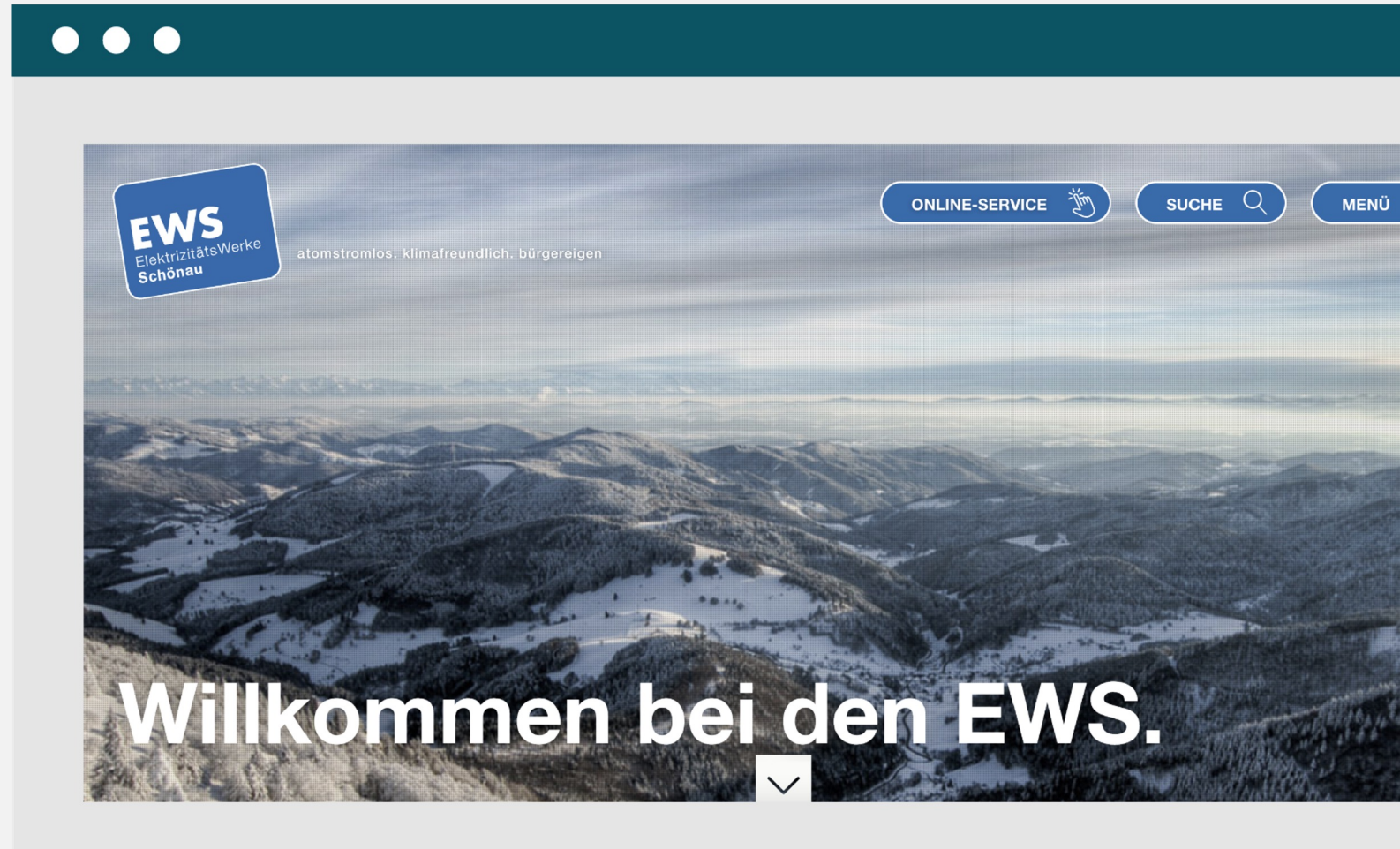
Missions València 2030

AJUNTAMENT DE VALÈNCIA LAS NAVES missionsvalencia.eu

Social Innovation is about...

.....New Business Models & Companies as partners of collective action

citizen-led energy company





Social Innovation is about...

New Business Models & Companies as partners of collective action

HesbEnergie: citizen cooperative to collectively purchase and start their own windfarm to meet their energy aspirations and needs.

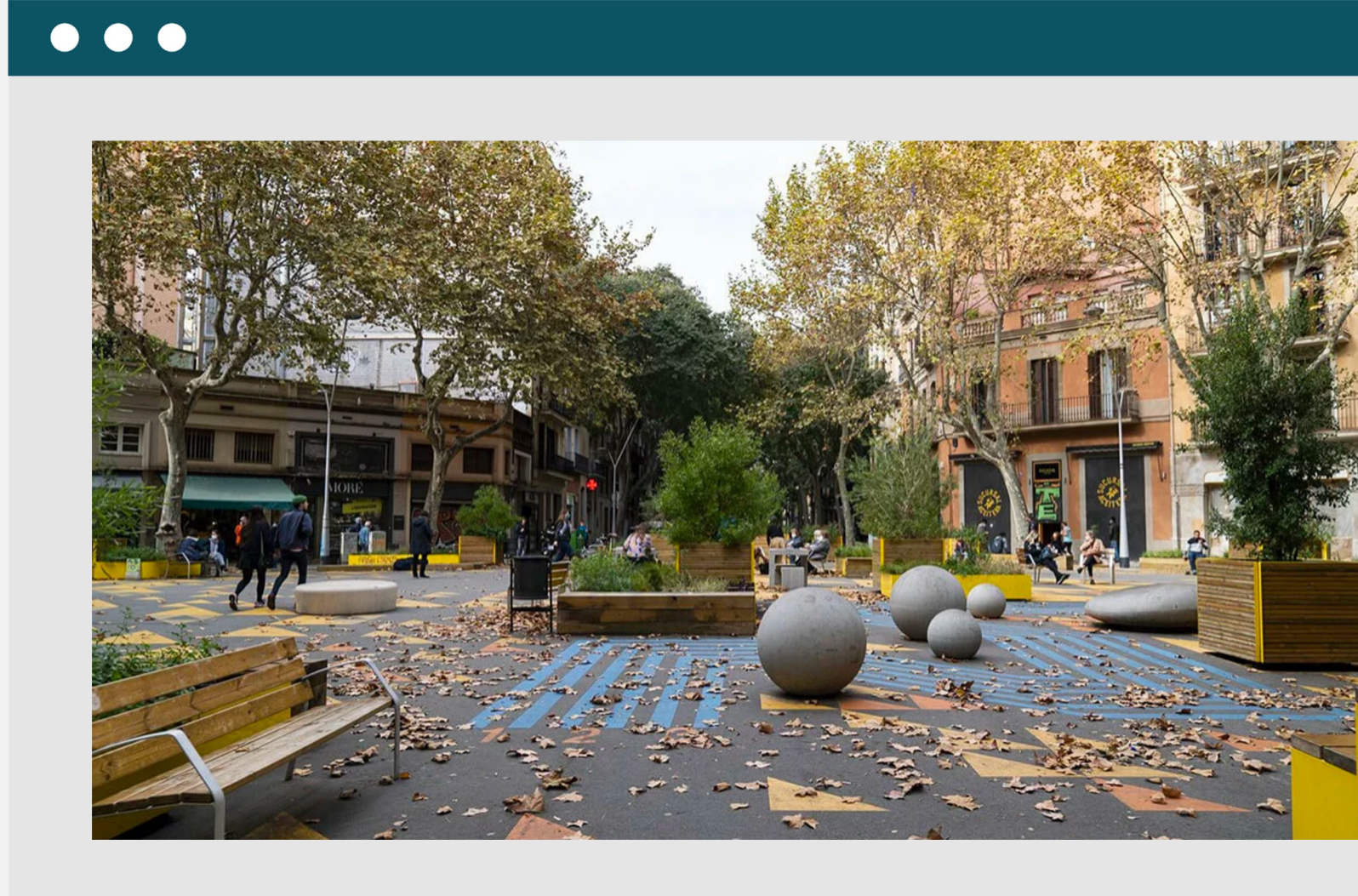
The screenshot shows the HesbEnergie website. At the top left is the HesbEnergie logo, which includes a stylized green leaf and the text "HesbEnergie". Below the logo is the text "Citizen cooperative for the production of renewable energy in Hesbaye". To the right of the logo is the slogan "Renewable energies: since the time we think about it, it's time we go...". Further right is the text "VSUCITER: our electricity supplier". Below the logo and slogan is a navigation menu with the following items: "Cooperative", "Our projects", "News", "Become a cooperateur", "FAQs", "Contact", and "Cooperateur.rice area". Below the navigation menu is a large image of a solar farm with rows of solar panels in a field. Below the image is the heading "HesbEnergie is a citizen cooperative" and a paragraph of text: "A cooperative society is an enterprise whose ownership is collective and where power is exercised democratically by a group of people associated voluntarily to satisfy their economic, social and cultural aspirations and needs." At the bottom right of the screenshot is a small image of a wind turbine against a blue sky.



Social Innovation is about...

... creating spaces for new relationships to form and that afford new opportunities

Superblocks: streets in an urban area that are blocked off from traffic not only reducing traffic and congestion (GHG reduction), but also creates spaces for new socialization and activities.



Social Innovation is about...

... creating spaces for new relationships to form and that afford new opportunities

Neighborhood one-stop shops connect neighbors to each other to promote the sharing economy and create local partnerships for more sustainable choices and lifestyles.



The screenshot shows the main landing page of the website nebenan.de. At the top, there are navigation links: "FÜR NACHBAR:INNEN", "FÜR GEWERBE", "FÜR ORGANISATIONEN", and "FÜR VERWALTUNGEN". The main header features the "nebenan.de" logo on the left and "Einloggen" and "Registrieren" buttons on the right. The central content area has a green background with the heading "WILLKOMMEN IN DEINER NACHBARSCHAFT" in bold, dark blue letters, with "DEINER" highlighted in pink. Below this, the text reads "Bei nebenan.de vernetzen sich Menschen aus deiner Nähe. Sei dabei!". Underneath, it says "Entdecke deine Nachbarschaft:" followed by a search input field containing the placeholder text "Gib deine PLZ ein..." and a pink arrow button. To the right of the text are three images: a woman in a red dress presenting a potted plant to another woman, a person on a skateboard, and an elderly woman in a floral top.



What is Social Innovation?

Social innovation is a key element in the journey towards climate neutrality, because of its focus on accelerating the pace of change through a **bottom-up, collaborative, systemic** and **human-centered** approach to innovation.

Its focus on tackling **complex, wicked challenges** – like climate neutrality – through **quick, collaborative experimentation and inclusivity** is why it's a transversal component of NZC's CCC and the broader transition journey.



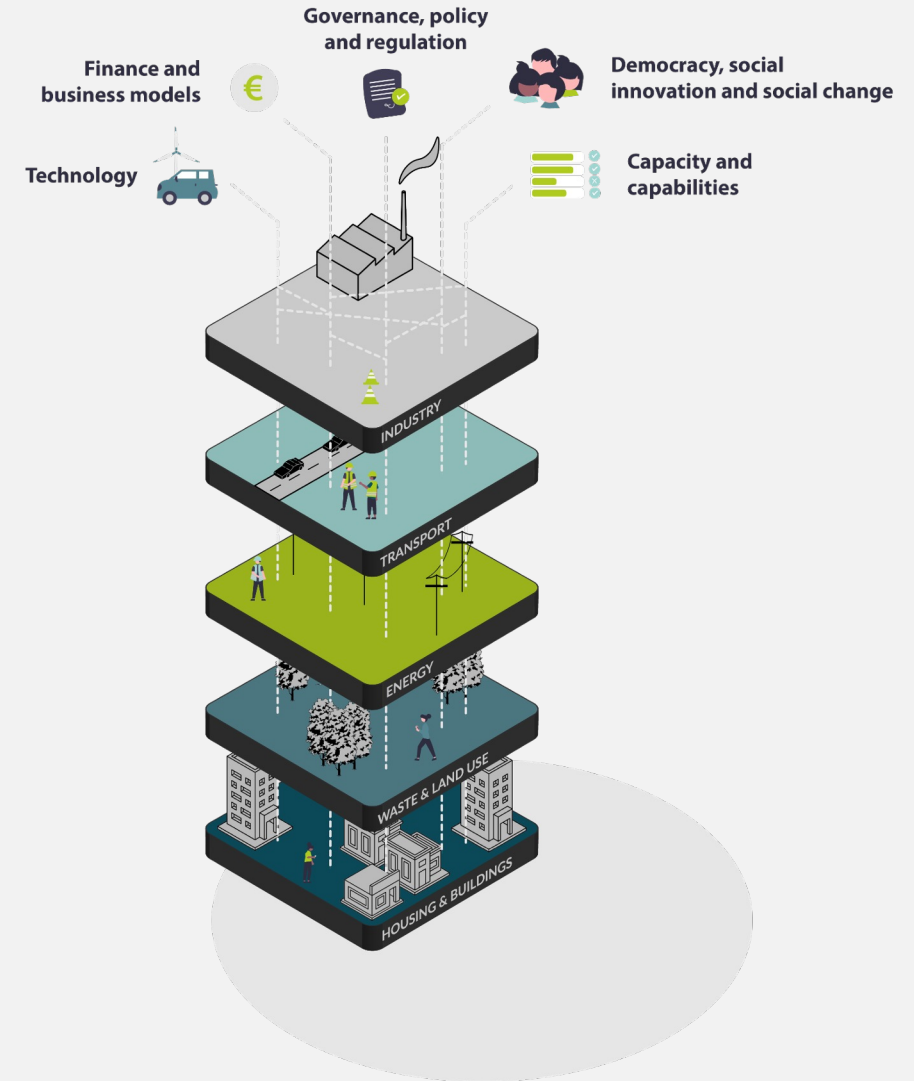
How can Social Innovation support cities in their journey to climate-neutrality?



1. Lever of Change: Strategically integrated in a city's portfolio of actions to ensure for inclusivity, accelerated impact and a just transition

2. Build Platforms for Action: Creating enabling pathways and access points for diverse stakeholders to take part in climate action and in the transition, making achieving the mission a truly distributed social accomplishment e.g. policies that include vulnerable populations in renewable energy schemes;

3. Solution-building: Responding to the emerging needs of different communities resulting from the transition – new business model for energy production and consumptions.





Valencia's 100 Energy Communities by 2030: our 'neighborhood in transition'

**An example of Social Innovation supporting an inclusive energy
transition**



Policy Context

2009: Signing of the Covenant of Mayors and establishment of the Valencia Climate and Energy (VCE) Foundation with a focus on fuel poverty prevention and the 'Right to Energy'

2019: Missions Valencia 2030 Commitment and First Energy Office launched by the VCE Foundation

Sept. 2020 - Feb. 2022: Energy Transition Roundtable: 20 representatives from civil society, private businesses, academia, public entities and the media to co-create the roadmap towards energy transition by 2050

February 2021: Approval of the Valencia 2030 Climate Mission

May 2021: Commitment to create “100 Energy Communities by 2030” (one of the 6 demonstration projects developed by the Energy Transition Roundtable)



Energy Poverty in Valencia in Numbers



- ~23.1% of all households in Valencia are in fuel poverty (based on 2016 study)
 - This has likely increased as a result of COVID-19 and the war in Ukraine
- Of the 23.1%:
 - ~59% Multi-generational households
 - ~22% single-parent households
 - ~20% single person households
 - ~11% two-parent households with minors
- Median household income across groups is ~€700/month with a median energy expenditure of 25% of available income



Officer from the Energy Office visits citizen's home – both keep jackets on against the cold. Photo: Maximilano Braun, 2022 (Smith, 2022)



Energy Office: providing the enabling conditions



- One-stop shop for citizens on the energy transition
 - For vulnerable households concentrating on all issues related to energy poverty and energy savings
 - For frontrunner citizens interested in contributing to the energy transition
- 4 major concepts:
 - Right to energy
 - Energy savings
 - Renewable energy
 - Cultural transition
- Each area is head by a specialized staff member (in the order above): social worker, architect, engineer and environmental educator
- Workshops and training on energy saving
- Resources (e.g. energy saving guides, energy savings kit, etc.)
- As of Sept. 2022:
 - 7,207 direct beneficiaries
 - 613 individual assessments
 - Average savings of €226/year per family
 - 87 workshops organised
 - 1,144 workshop attendees



1. Single-mother Lydia visiting the Energy Office



2. Right to Energy advisor explaining her energy contract and how she can manage her bills



3. Energy Savings Kit given by the Energy Office



4. Following her visit with the Energy advisor, an Energy Technician from the Energy Office visits her house to install the Energy Savings Kit and provide other useful tips



Photo Credit: Maximilian Braun (Smith, 2020)



100 Energy Communities by 2030

- Energy offices are the first entry point providing information to interested, frontrunner citizens
- Communities are citizen-led, not-for-profit associations
- First energy community was in Castellar L'Oliveral
 - Process was led and facilitated by VCE Foundation
 - Started with a communication campaign to citizens from two neighborhoods
 - Community is led by a trusted neighborhood leader
 - A municipal roof was identified for the PV installation, but it is managed by the community
 - The participation costs are €600 per 0,50 kWp, so roughly €130/yr savings per household
 - Regional government contributes up to 50% of initial investment once the community is active
 - Extra shares were bought by the VCE Foundation and distributed for free to three vulnerable households - the goal is to include them from the start in the future (thanks also to EU funding from the Power Up project)
 - The Energy Office provides support on choosing the best energy company
- 2nd community led by municipal school, Ballester Fandos, in a known vulnerable area of the city
- In the future, they are looking at how to work with and include local businesses in the energy communities





Key Takeaways

- Creating the enabling conditions for bottom-up action (i.e. the Energy Offices, subsidies and other benefits) allows for empowered and enabled action by citizens
- Engaging citizen frontrunners and leaders as trusted proxies for diverse communities allows for quicker action and buy-in
- Taking the time to prepare the foundation is key: awareness campaigns, trainings and workshops
- Creating easy-to-access and free support allows all citizens to be part of the transition through different pathways based on access and interest: energy saving measures to reduce consumption and support in the creation of energy communities (that also support the inclusion of vulnerable households) to reduce GHG emissions



LOCAL CONTEXT: DEFINING THE CHALLENGE



NEEDS

What is the key social need that you are addressing?

Explain the reasons why the need is important and for who it is relevant.

energy poverty

energy savings

participate in the energy transition



CHALLENGE

What is the local challenge?

Describe the local challenge (problem) that the Lab will address, elaborate a question you would like to answer by working on this challenge.

rising levels of energy poverty

engage citizens and other urban stakeholders in the transition

Promote reduction in energy consumption

Promote renewable energy consumption



FACTORS

What social & cultural factors shape / generate this challenge?

Sociocultural factors are customs, lifestyles and values that characterize a community. Think about esthetics, education, language, law and politics, religion, social organizations, technology and material culture, values and attitudes.

citizens still think they can't self-consume (due to old 'sun tax')

neighborhoods with large participation experience



EVIDENCES

What evidences do you have that this is a significant challenge?

Describe what you know and your experience about the topic. Identify the possible effects of working on this challenge.

rising numbers of energy poor citizens

commitment to being climate neutral by 2030: reduce GHG emissions by 40% & **increase energy efficiency & share of renewable energy by 27%**

Comments:

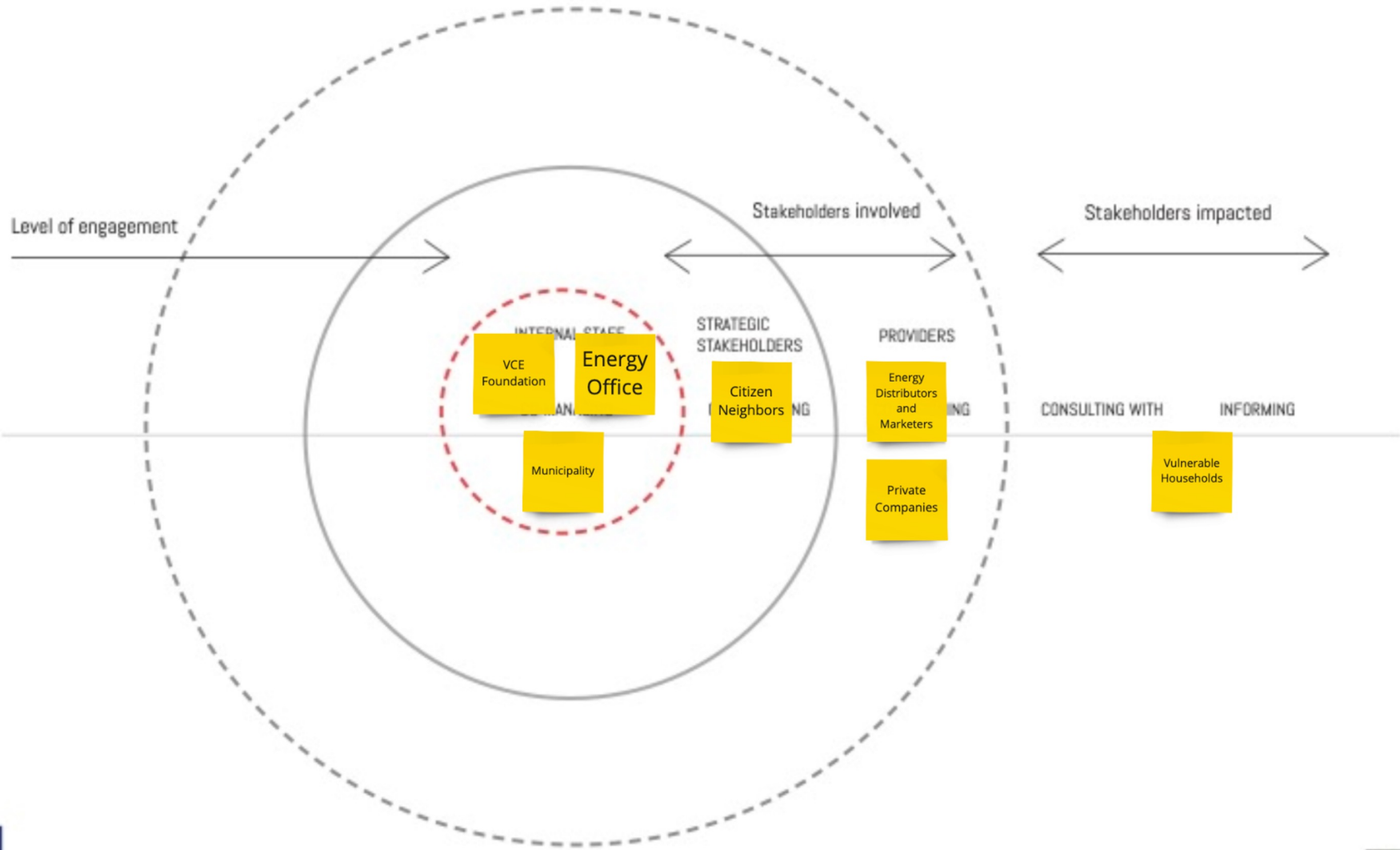


This project has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement n.798227



Icons by Sergio Cordero from the Icons Project

STAKEHOLDERS MAP





aspersn Mobil LAB

Develop and test mobility solutions with the involvement of all necessary stakeholders and citizens





Policy context

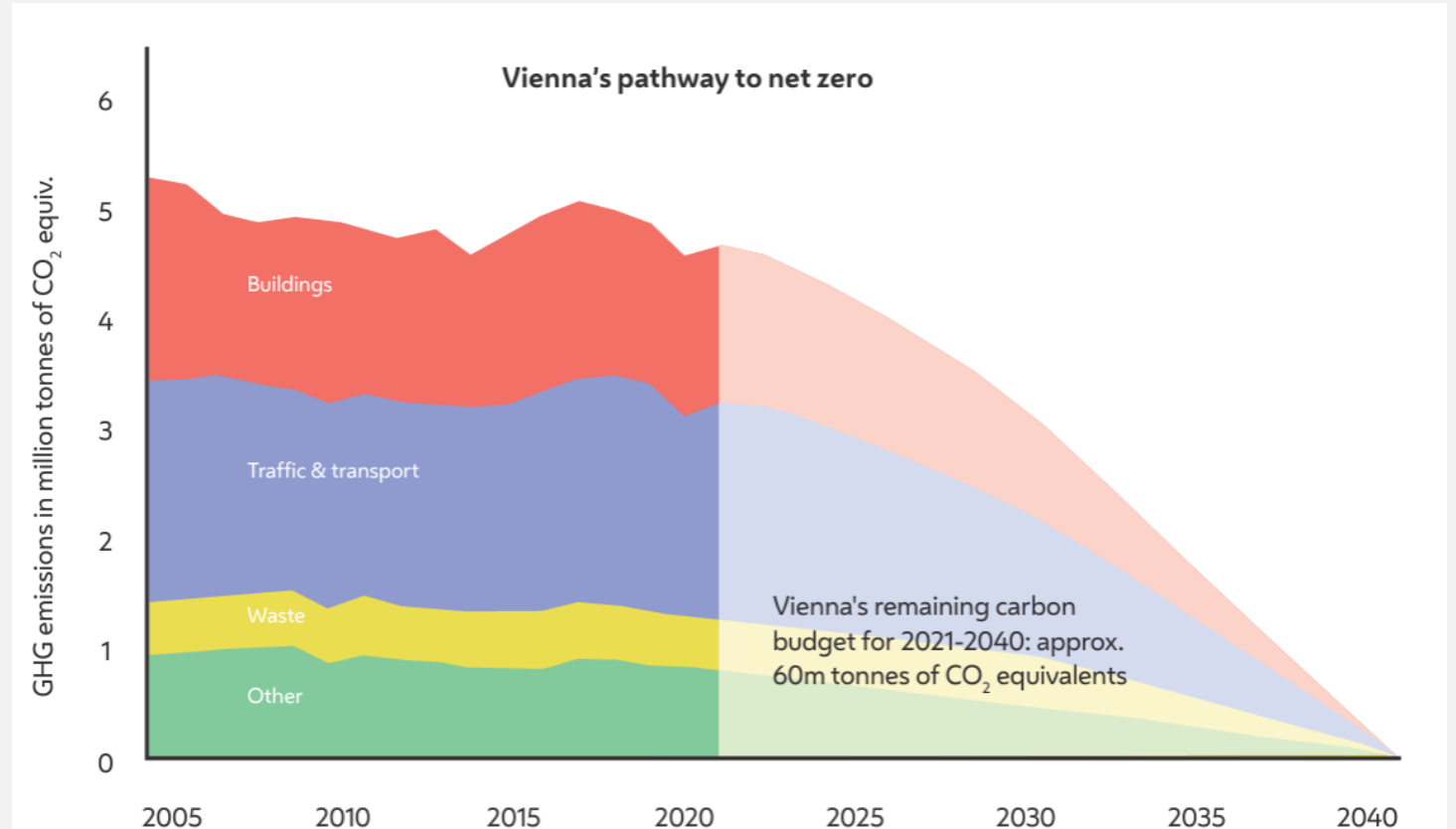
- 2014, the Vienna City Council set an initial milestone for combating the causes of climate change and dealing with its consequences with the Smart City Wien framework.
- 2020, the goal of climate neutrality by 2040 was anchored in the Government Agreement (Wiener Regierungsübereinkommen) with a target horizon of 2050.
- February 2022, the Vienna City Council decided on the revised Smart City Strategy Vienna where a renewed vision of the Vienna Smart City objectives is tackled. The strategy is based on all of the Sustainable Development Goals (SDGs) of the UN Agenda 2030.





Vienna's pathway(s) to net zero

- Prioritising the transition to renewables while simultaneously achieving a radical reduction in energy consumption **across all sectors**.
- Alongside other thematic fields, this applies in particular to **the mobility sector** as well as to heating, air-conditioning and hot water supply in buildings.



Vienna Smart Climate City Strategy





aspern mobil LAB

- aspern.mobil LAB is a Mobility **Neighborhood** Lab, focusing on shifting mobility and developing sustainability strategies.
- Universities, administration and companies, together with residents, contribute to the development of sustainable urban mobility.
- It is one of Austria's Urban Mobility Laboratories funded by the Austrian Federal Ministry of Climate Action, Environment, Energy Mobility, Innovation and Technology.





Providing the enabling conditions

- The Lab uses different strategies to create the enabling conditions for change:
 - Active Mobility: embraces locomotion using physical strength (cycling, walking) and includes new active forms such as scooters, skateboards, cargo bikes, etc.
 - Mobility as a (shared) Service: comprises the linkage of several modes (also active mobility), different infrastructures, operators and users in order to create new services focusing on shared mobility.
 - First/last mile logistics: combining existing services and utilizing transports already in progress, whether by service providers or private individuals.
 - Incentives: mobility incentives, communication and marketing focus on how to influence mobility behaviour in a differentiated society in a situation-specific way.
- There is a physical space placed in the neighbourhood to make it easier for people to reach out.
- Workshops and trainings are held at the lab.
- Technological and research support is given to the local residents.






A portfolio of projects



Tactical Mobilism – Interventions for a sustainable mobility culture

The aim of the “Tactical Mobilism” project was to establish and try out cost-effective interventions for the transformation of mobility spaces for a limited period of time.

🕒 finished



Urban Art and Green

Looking at artworks can have positive effects on personal wellbeing and has been reported to reduce stress. In this project we will look more closely at the attributes of artworks and investigate what qualities of a piece lead to perceived and measurable well-being state in test subjects.


🕒 finished



CHANGE! Mobility change in people’s minds

The aim of the project is to develop a “deeper understanding of the possible and effective steering mechanisms in relation to changing mobility patterns”.

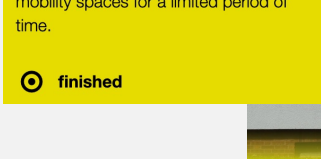
🕒 finished



Mobility stories

The aspern.mobil LAB invites people – preferably people who work in aspern Seestadt – to gain insight into their very personal history and development within the framework of biographical interviews.

🕒 active



Live well & travel flexibly

Within the framework of this project, we record factors of residential location choice and preferences in the choice of means of transport of households in Vienna and Lower Austria. Good public transport connections, an attractive living environment, pedestrian routes and bicycle infrastructure influence mobility behaviour. We would like to better understand decision-making processes regarding the choice of residential location and means of transport.

🕒 finished



New Mobilities of post-traditional communities: Peer to Peer carsharing in rural and urban neighbourhoods

Carsharing in neighbourhoods might be a promising solution not only for urban areas, but also for less populated areas highly dependent on individual cars.

🕒 finished





Tactical Mobilism

- Tactical Mobilism aims for temporary, simple and cost-effective interventions (e.g. installation of Parklets, temporary road closures, plants) on urban roads.
- Tactical Mobilism with its interventions aims for increased awareness and consideration of active mobility in practice.
- Neighbourhood associations took the initiative to test new solutions.
- Groups of citizens took the ownership of the initiative.
- A toolbox with drafts, participation and evaluation concepts, findings and results from the implementation in the field test in Villach was developed.
- The city of Villach is an ideal pilot city and multiplier, because for its role as a future-oriented catalyst of social, technological, economic and ecological innovations.
- The project results serve to test develop alternative routes, to observe citizens' behaviour.



P2P Car Sharing in urban and rural neighbourhoods



- P2P car sharing is focusing on creating an alternative to the use of private cars for people living in less populated areas, since people living in such areas are highly dependent on private cars.
- Starting from the exploration of the pre-conditions that facilitates the use of shared vehicles, this intervention developed platform to support the P2P car sharing.
- Moreover, incentives were given to the car owners to make their vehicle available to their peers. The use of electric cars was awarded with higher incentives.



LOCAL CONTEXT : DEFINING THE CHALLENGE

ADAPTED FROM
THE TOOLKIT:



NEEDS

What is the key social need that you are addressing?

Explain the reasons why the need is important and for who it is relevant.

The mode of transport we choose for our everyday journeys, both for work and leisure, has a major impact on the quality of our shared living space

The quality of our living space is affecting the quality of life of people living in Vienna

The resources needed for the current mobility system are becoming scarce

Most vulnerable residents cannot afford usual transport methods



CHALLENGE

What is the local challenge?

Describe the local challenge (problem) that the Lab will address, elaborate a question you would like to answer by working on this challenge.

How to engage citizens in alternatives modes of transport?



FACTORS

What social & cultural factors shape / generate this challenge?

Sociocultural factors are customs, lifestyles and values that characterize a community. Think about esthetics, education, language, law and politics, religion, social organizations, technology and material culture, values and attitudes.

Preference for personal/individual mobility choices

No awareness of the advantages of sustainable mobility

No existing incentives for the use of P2P transports



EVIDENCES

What evidences do you have that this is a significant challenge?

Describe what you know and your experience about the topic. Identify the possible effects of working on this challenge.

Reduced traffic

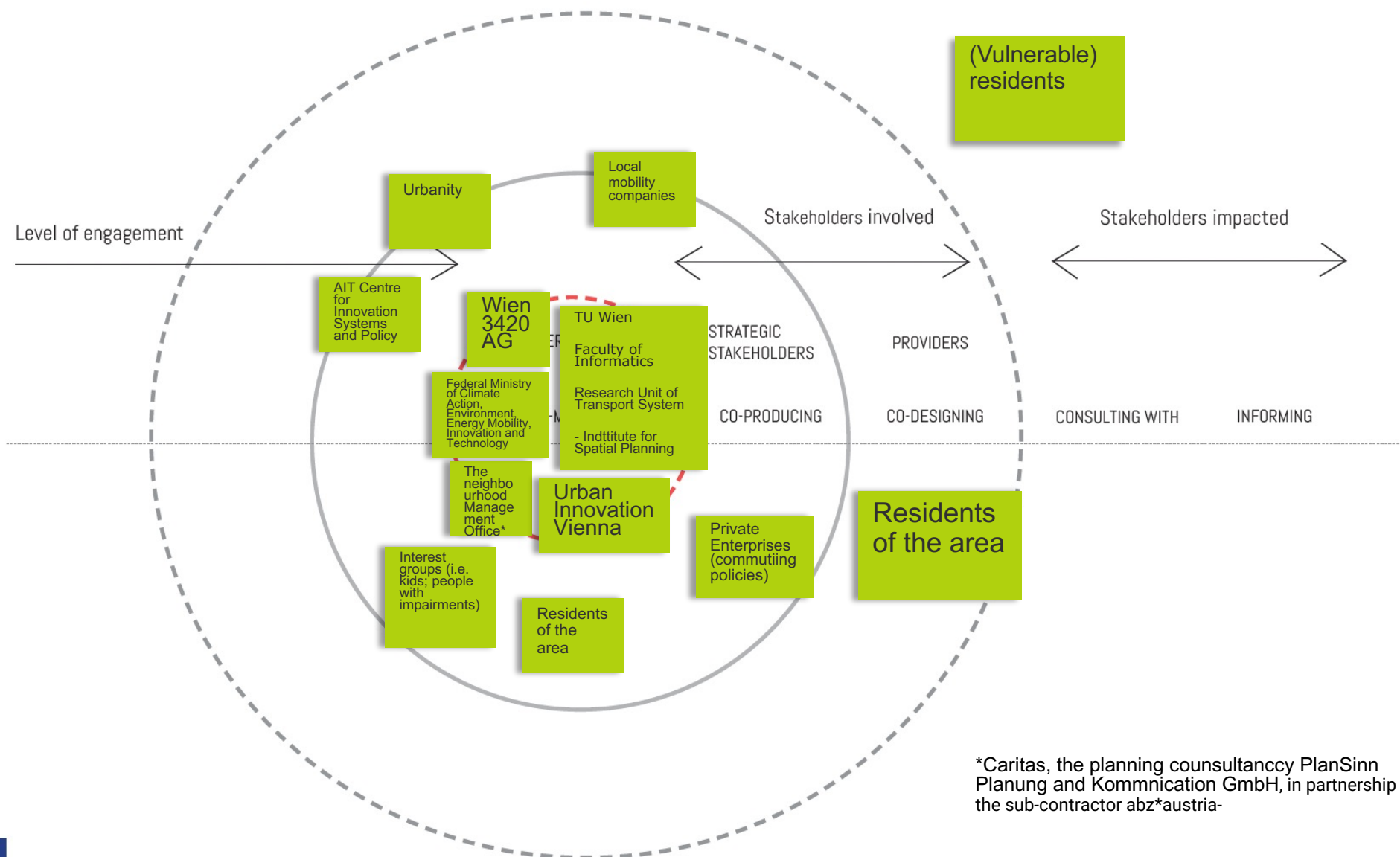
Reduced commuting time

Better quality of life: improved health

Better quality of life: higher air quality

STAKEHOLDERS MAP

ADAPTED FROM THE TOOLKIT:



*Caritas, the planning consultancy PlanSinn Planung and Kommunikation GmbH, in partnership with the sub-contractor abz*austria-



Netz





Fietsen op Zuid

Promoting cycling as mean for socio-economic development in Rotterdam





Context

- Cycling in the Netherlands is part of people's daily life, a core part of the Dutch identity and culture.
- In the southern part of Rotterdam that's not the case. In some of the districts located below the Nieuwe Maas river, cycling figures are gloomy by Dutch standards (City of Rotterdam, 2018).
- In this particular context, less cycling means limited cultural and occupational opportunities, higher transport costs, possible barriers to meeting with friends and family, lower rates of physical activity and a higher chance of obesity. The area is also home to some of the poorest communities in the Netherlands (City of Rotterdam, 2017)





Fietsen op Zuid (Cycling in the South)

- In 2016 the 'Fietsen op Zuid' ('Cycling in the South') programme was launched.
- It was initiated by DRIFT (Dutch Research Institute for Transitions), Humankind (a Rotterdam-based agency for urban change) and the Dutch Cyclists' Union, and it was funded by and in collaboration with the municipality of Rotterdam.
- The goal of the programme is to promote cycling as a means for socio-economic development in Rotterdam South.
- It addresses four aspects for successful promotion of biking:
 - Lifestyle
 - Education
 - Access to bikes
 - Infrastructure and public space.
- The programme grew over the years. Numerous projects, pilot experimentations and events to promote cycling were run. In order to truly create a sustainable change, 'Fietsen op Zuid' brings together local organizations and networks: the municipality's public health department, schools, a mosque, an organization for women's empowerment, local media, and businesses.





Fiets Mee (Cycle along)

- Cycle Along, a project within the programme Fietsen op Zuid, promotes the use of bicycle among women in Rotterdam, specifically the ones with a bicultural background. It was developed in collaboration with the organisation 'Sezer voor Diversiteit'.
- The programme includes cycling lessons for hundreds of women and the establishment of a special ambassadors network.
- The network of ambassadors and trainers is especially important as it allows female participants to become teachers for other fellow women in the area.
- This was the key to building an expansive network of women who are all learning to cycle. It also lowers the barrier to entry for prospective participants.
- Cycle Along stimulates women and their families to use bikes instead of cars or public transport. The programme not only empowers participants, but it also enables them to live a healthier lifestyle and to extend their social and economic networks.





Bike-friendly schools

- Bike-friendly schools are part of the Fiets op Zuid programme.
- Many children and their parents choose to go to school by car, even when the distance between home and school is fairly short.
- To promote the use of bicycles the project focused on creating safe routes and infrastructures.
- Also, the project developed school classes focused on how to bike. Refurbished bicycles for those who could not afford a bike. Tactical urbanism actions were taken with schools and families to develop a bike friendly area.
- These actions were strategic not only to develop a bike-friendly environment but also to create awareness on the impact of investing on a bike in terms of health.



LOCAL CONTEXT : DEFINING THE CHALLENGE

ADAPTED FROM
THE TOOLKIT:



NEEDS

What is the key social need that you are addressing?

Explain the reasons why the need is important and for who it is relevant.

To promote healthy and affordable means of transport

Less cycling =

limited cultural and occupational opportunities

higher transport costs,

possible barriers to meeting with friends and family

lower rates of physical activity and a higher chance of obesity.



CHALLENGE

What is the local challenge?

Describe the local challenge (problem) that the Lab will address, elaborate a question you would like to answer by working on this challenge.

How to promote the use of bicycles in an area where the cycling rate is low?



FACTORS

What social & cultural factors shape / generate this challenge?

Sociocultural factors are customs, lifestyles and values that characterize a community. Think about esthetics, education, language, law and politics, religion, social organizations, technology and material culture, values and attitudes.

car-oriented infrastructure

a negative social perception of bike riding

Lack of bicycle ownership

people simply not knowing how to cycle



EVIDENCES

What evidences do you have that this is a significant challenge?

Describe what you know and your experience about the topic. Identify the possible effects of working on this challenge.

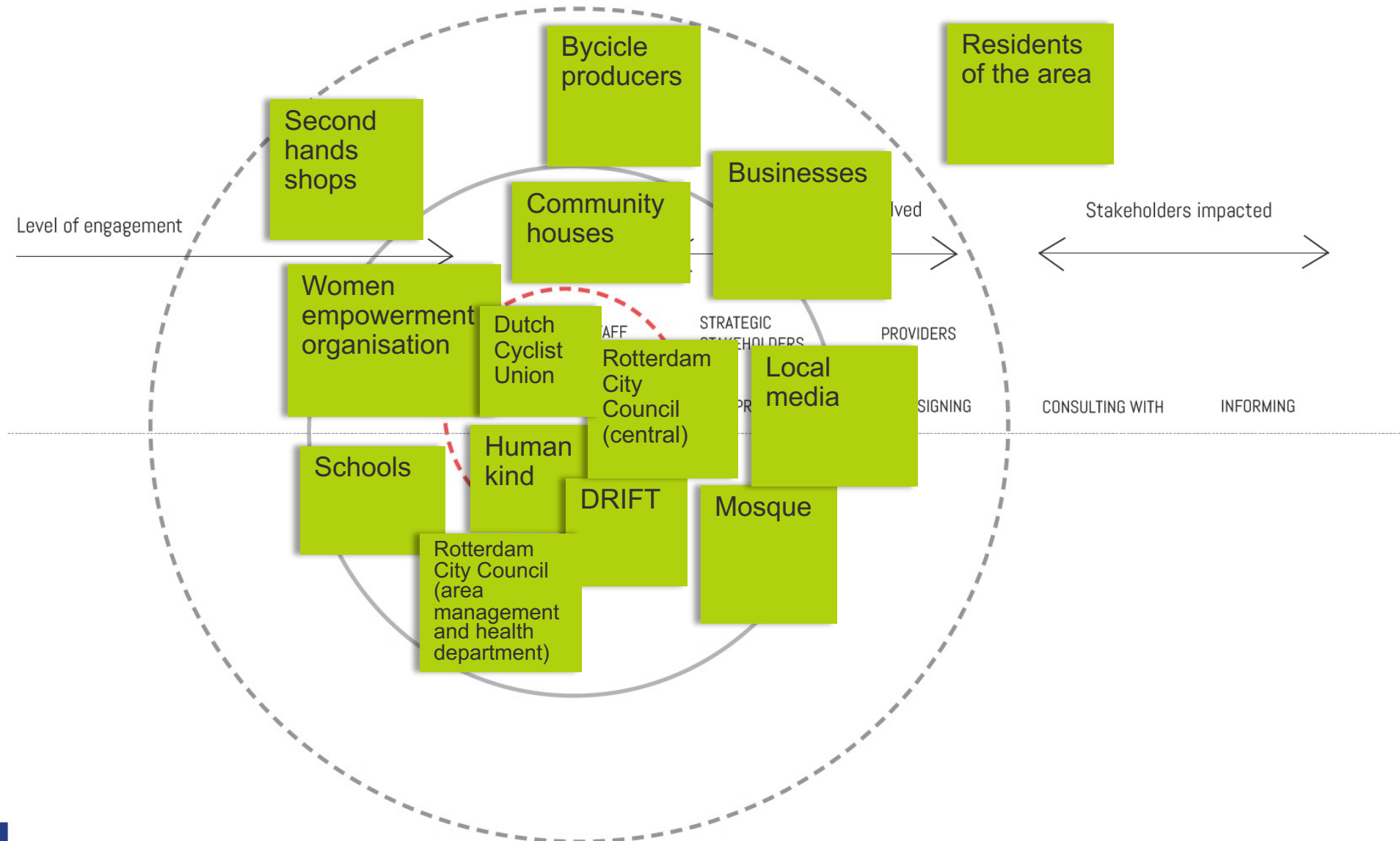
Development of healthy lifestyles

New economic and business opportunities in the area

More mobility opportunities (cheaper rates)

STAKEHOLDERS MAP

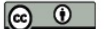
ADAPTED FROM THE TOOLKIT:



NetZ



This project has received funding from the European Union Horizon 2020 research and innovation programme under grant agreement n. 788217.



Icons by Green Crossair from the Noun Project

Get in touch with NetZeroCities!



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[NetZeroCities EU](https://www.youtube.com/NetZeroCitiesEU)



www.netzerocities.eu



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