



Climate-neutral cities in transition & Conference closing

Just Transition Platform Conference, 25 October 2022

NET ZERO CITIES



EU MISSION PLATFORM

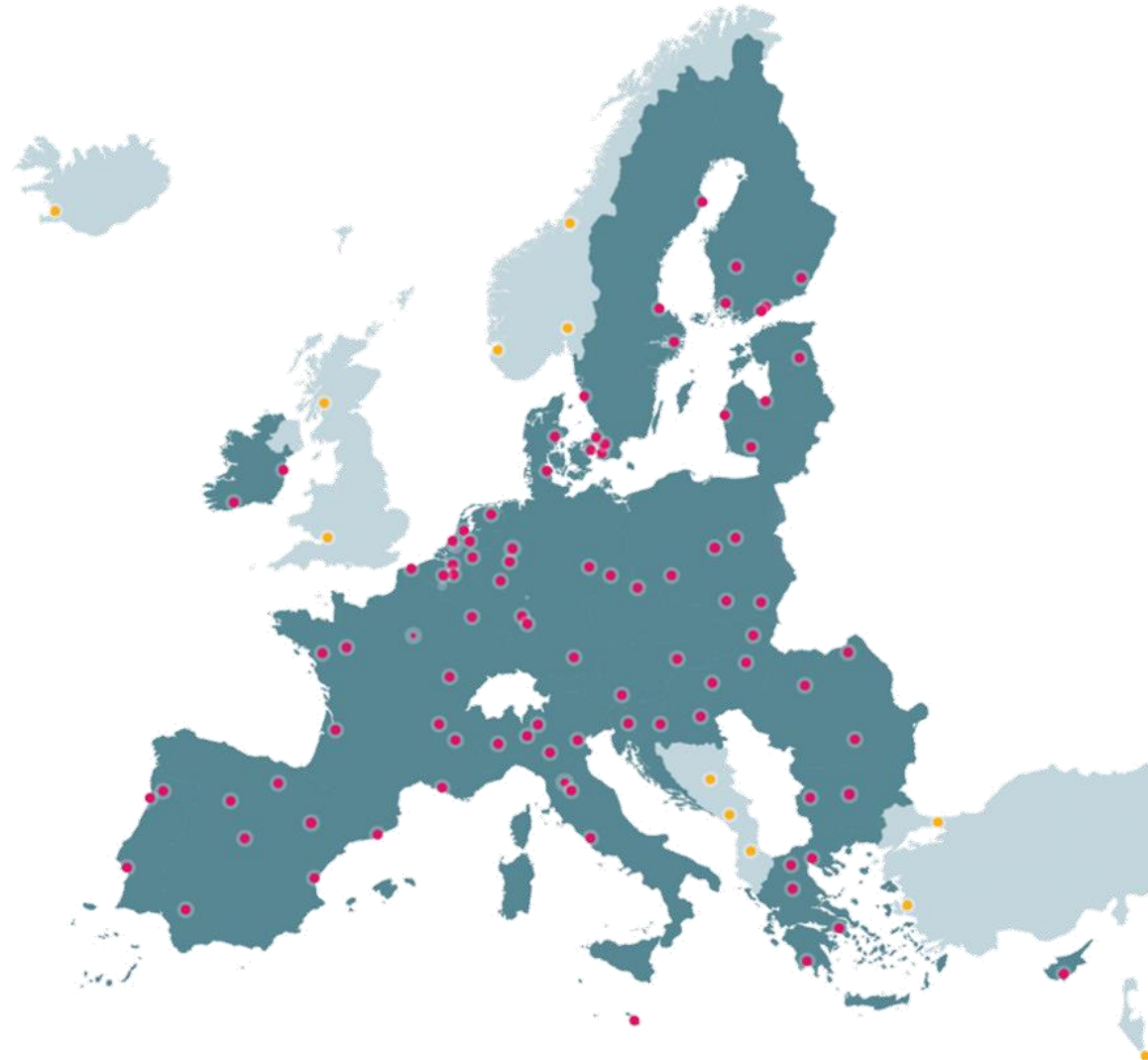
CLIMATE NEUTRAL AND SMART CITIES



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

Supporting the EU Mission “Climate Neutral and Smart Cities”

- As part of the Horizon Europe programme, the EU has launched a Mission “[100 Climate-Neutral and Smart Cities by 2030](#)”
- The objectives of the Mission are to achieve 100 climate-neutral and smart European cities by 2030 and to ensure that these **cities act as experimentation and innovation hubs to enable all European cities to follow suit** by 2050
- **NetZeroCities is the platform to support the Mission.** It will help Europe in its ambition to achieve climate neutrality by providing cities with **world-class expertise and services** tailored to their needs



Climate City Contract

One process and document with three interlinked components: Commitments, Actions, and Investments



Cities Mission Climate City Contract



Outputs for the Climate City Contract:



Commitments

- Vision and strategy
- Municipal Commitment
- Signatories and Endorsers
- Concrete commitments
- Signature/s



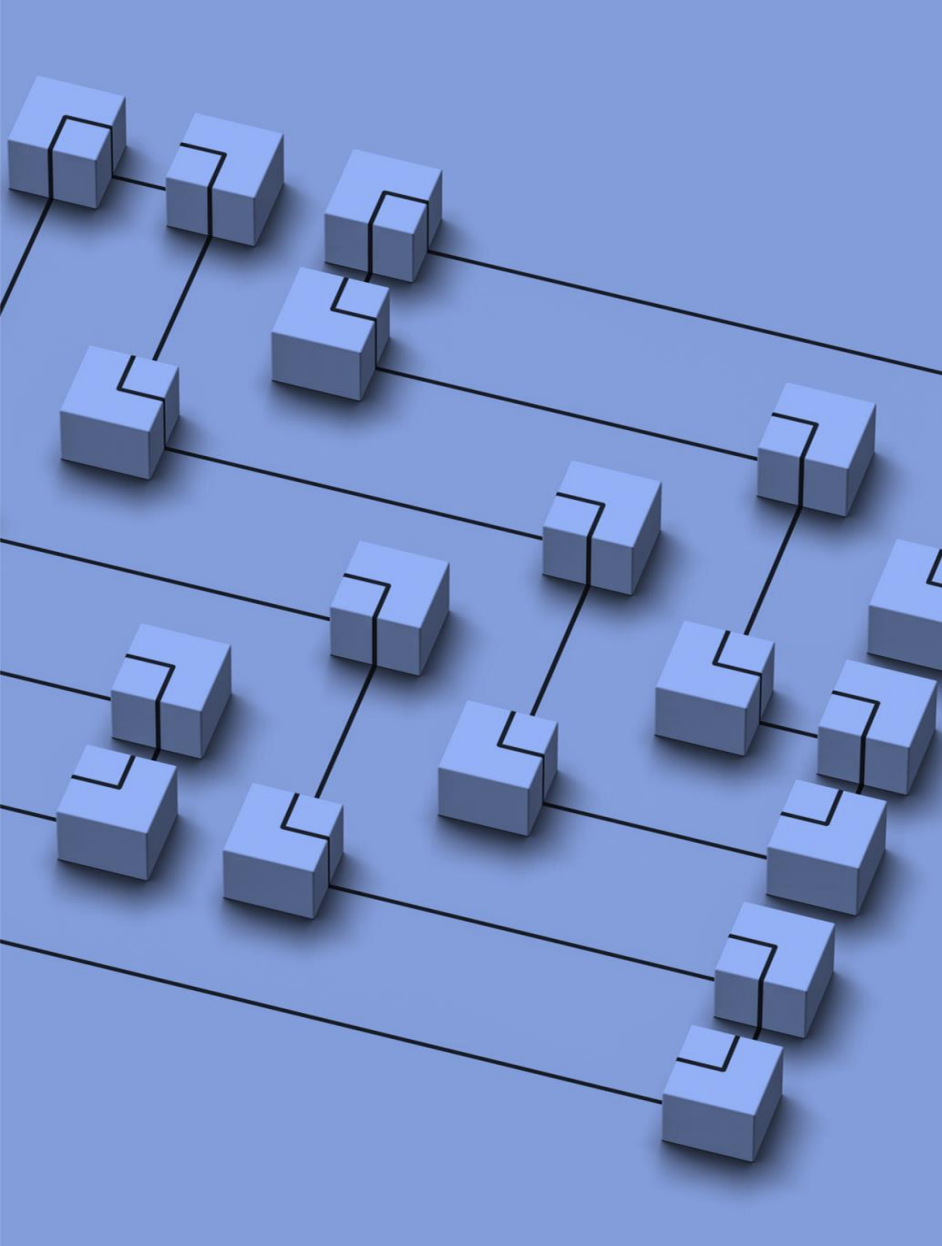
Climate Mission Plan Actions

- Agreed baseline
- 2030 Gap Analysis
- Impact pathway(s)
- Systemic solutions
- Portfolio approach
- Timeline, KPIs, responsibilities



Climate Mission Plan Investments

- Capital needs assessment
- Enabling actions
- Capital deployment approach, portfolio implementation and scaling
- Milestones, Impact Framework



Mission Action Plan Design Principles

Building on existing strategies and concepts and integrate all decarbonization activities into a coherent package

Rooting in deep stakeholder and citizen engagement

Embracing data-driven decision-making and communication

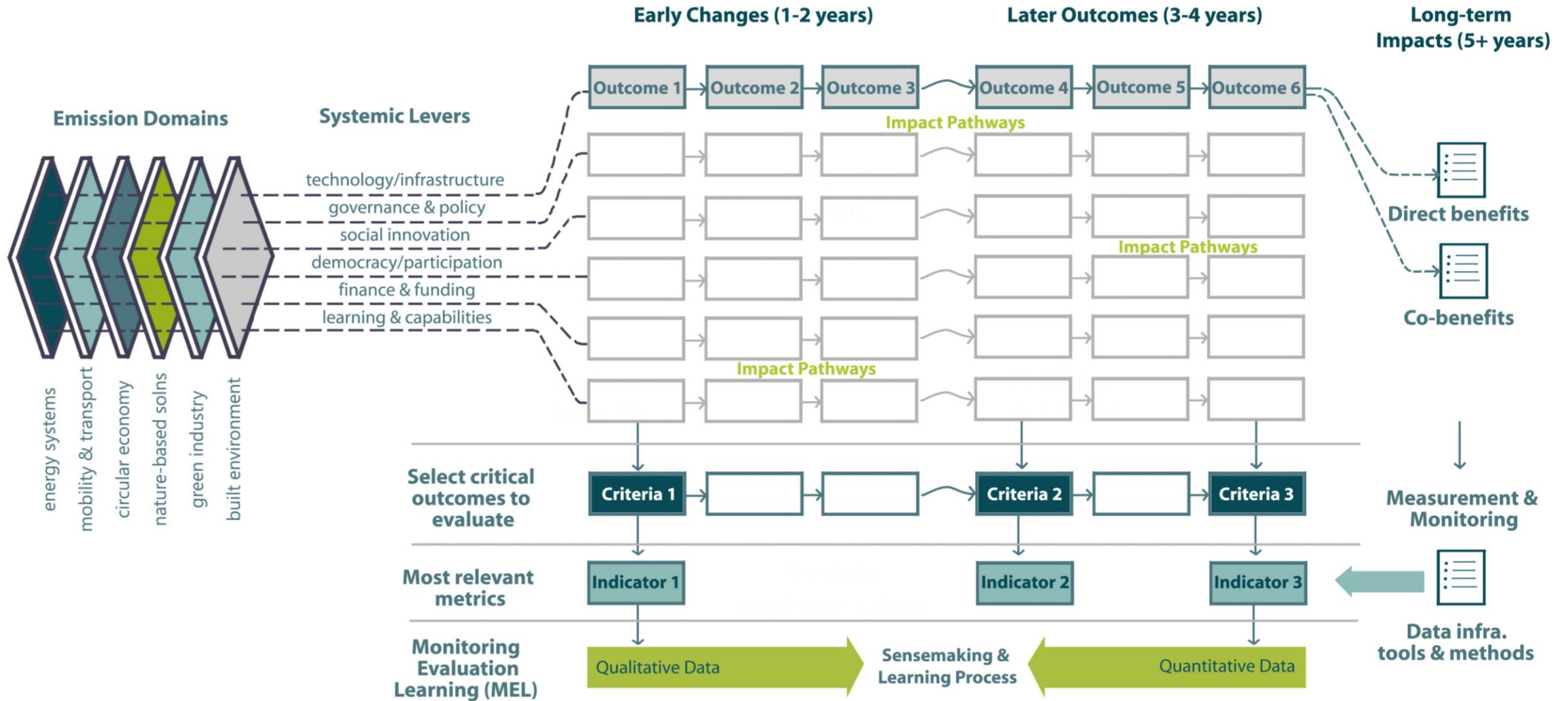
Identifying and acting on multiple levers of change

Offering a **flexible** and **modular guide** that considers each city's starting point and needs, while ensuring a standard level of quality

Providing a **solid foundation** for detailed operational and financial planning for action implementation.

The 2030 Mission Plan and its Action Portfolio is a **living document** and should be adjusted on a 12-24 month cycle

NZC Theory of Change Process



Get in touch with NetZeroCities!



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[NetZeroCities](https://www.instagram.com/NetZeroCities)



[NetZeroCitiesEU](https://www.linkedin.com/company/NetZeroCitiesEU)



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



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hello@netzerocities.eu



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Mission city Umeå

One of the fastest growing regions
in Sweden

Presentation by Janet Ågren

Just Transition Platform Conference, 25 October 2022

UMEÅ

Largest city in northern Sweden

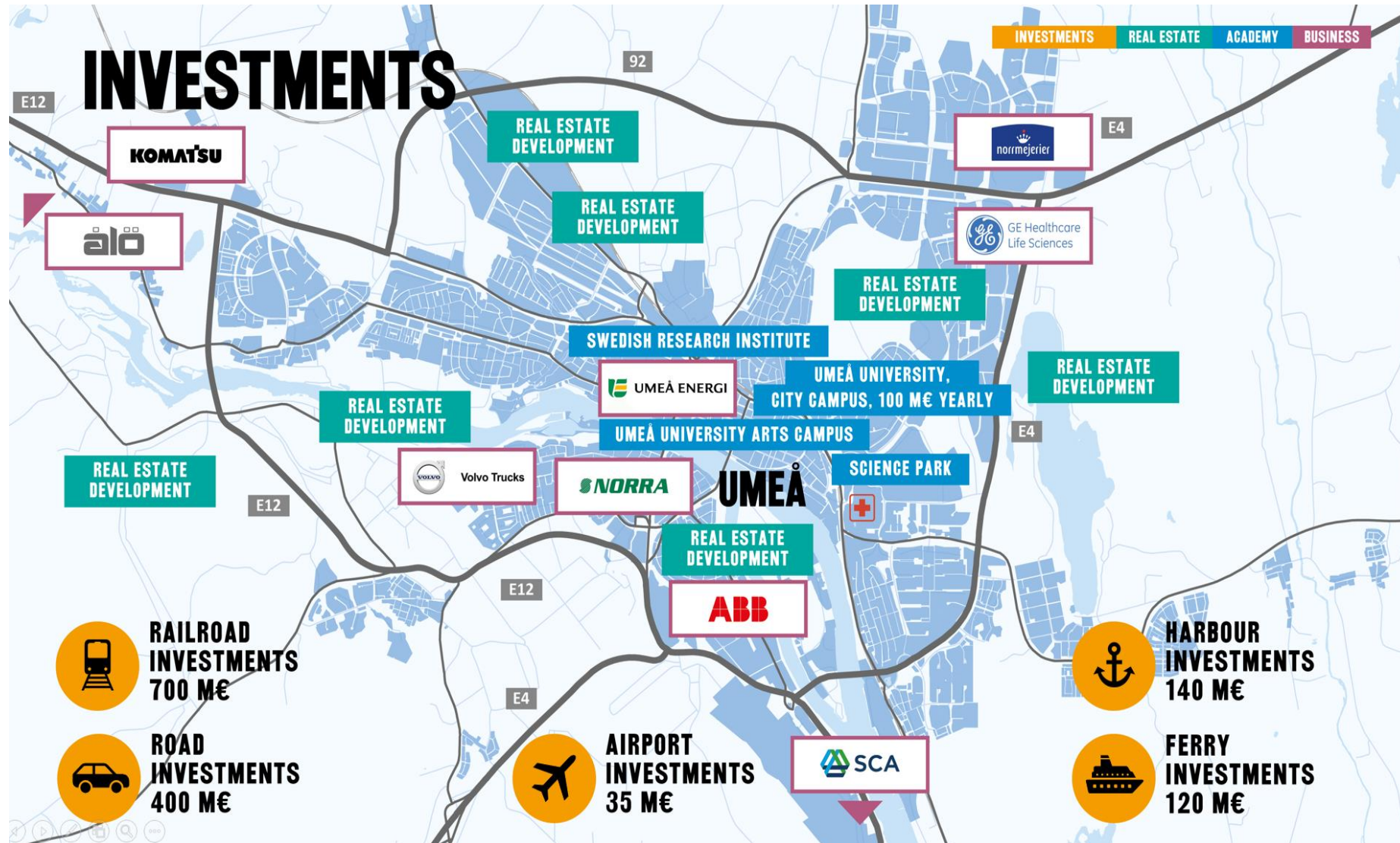
Knowledge centre

Logistic hub

Diversified labour market



Investments to enable climate neutrality



Swedish climate city contract

- Partnership
- Policy development
- Financial instruments
- Innovation



Sustainable infrastructure



- 
- A person wearing a dark jacket and a backpack is riding a green cargo bike on a bridge. The bike has a black canopy and the text "UMEÅ KOMMUN" on its side. The bridge is made of metal and has a railing. In the background, there are modern buildings and a river. The sky is blue with some clouds. The overall scene is a cityscape during the day.
- Challenging power, identity and norms is just as important as introducing new technology to reach climate neutrality



Thank you!

Janet Ågren
Deputy Mayor, City of Umeå

Mission city Velenje

The path to climate neutrality



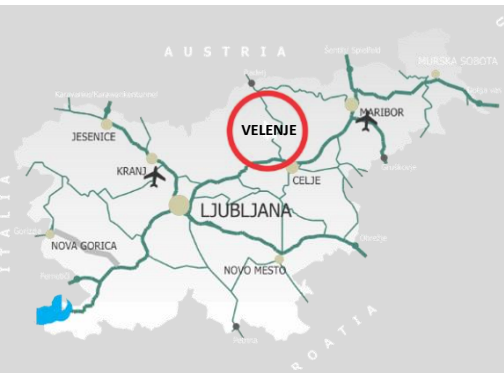
MESTNA
OBČINA
VELENJE

WWW.VELENJE.SI

Presentation by Iztok Mori

Just Transition Platform Conference, 25 October 2022

VELENJE – CITY WITH A HEART AND GOOD ENERGY



ECONOMY

2,108 economic entities
Working population: 14,398
Unemployment rate: 8.1 %

1/3 of jobs in the SAŠA region
related to coal mining



SUSTAINABLE MOBILITY

LOKALC free public passenger
transport – 43 stops, 400.000
passengers a year

BICY – 148 bicycles at 21 stations
(16 in Velenje, 5 in Šoštanj)



POPULATION

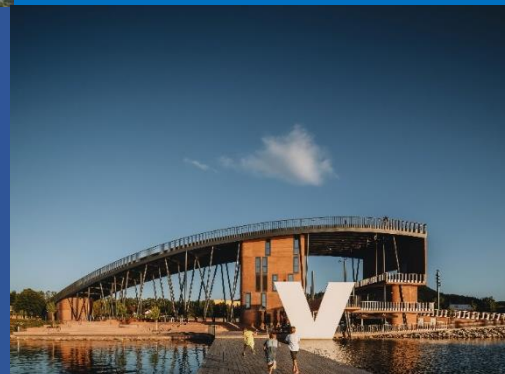
6. largest city in Slovenia

Ca. 37.000 citizens
Average age of citizens: 43.5



ENVIRONMENT

3 lakes in the valley
5 air quality measuring points
More than 7.700 trees in the city



**BUDGET: 55.2 MILLION
EUROS**

- 18 million for investments
- 2 million for subsidies
- 1.3 million for social help/purposes

VELENJE THROUGH TIME



First mention of the square

1264



Titovo Velenje

1981

1959

The opening of the city center



1990

Velenje

2022

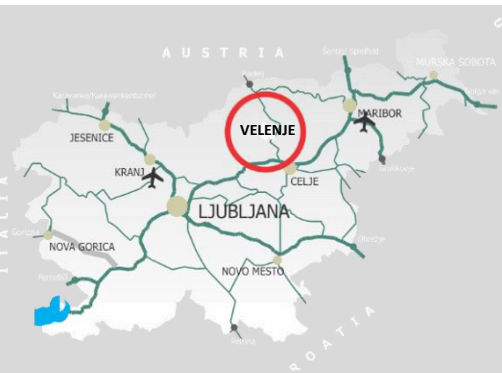
Velenje today



2030

Green, smart, restructured

RECOGNITIONS, AWARDS AND COMMITMENTS



The most tidy and hospitable larger city in Slovenia

Won the title nine times already



Disabled friendly
Age friendly
Child friendly
Friendly to young people
Volunteer friendly
Heart-friendly - "iHELP"
Planet Earth friendly



Mission of 100 climate neutral cities

Finalist for Green Leaf Award

European Energy Awards
Covenant of Mayors



Slovenia Green Destination silver badge

Velenjska beach – „The best natural bath“

Category of natural bathing areas, title won in the last 5 years



The safest place

Slovenian Grand Prize for Security 2021

ECOLOGICAL REVOLUTION – ENVIRONMENTAL RESTORATION

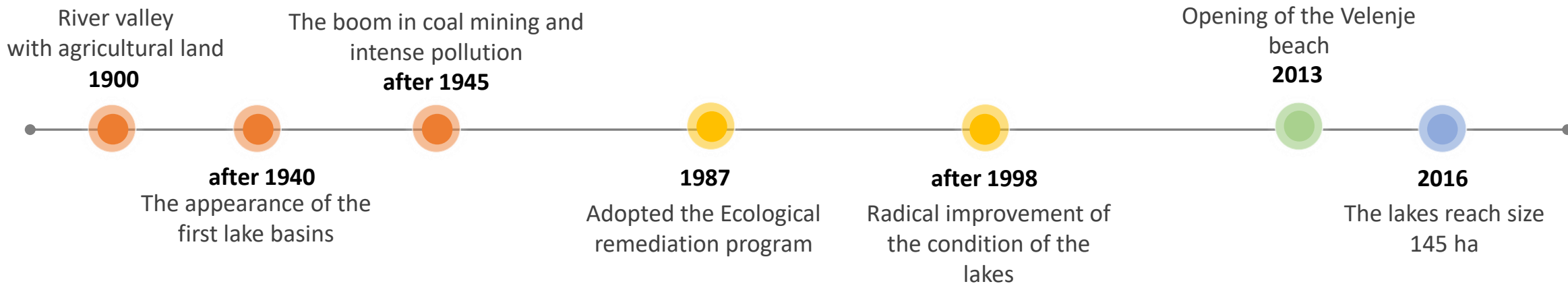
FROM BLACK TO GREEN AND BRIGHT.

- The mining of coal severely damaged and polluted the valley.
- Dissatisfaction of the people led to organizing ecological protests 35 years ago.
- As the result effective action of local communities and enterprises were taken.

VELENJE BECAME A GOOD EXAMPLE OF SUCCESSFUL ENVIRONMENTAL RESTORATION IN THE EUROPEAN AREA.



ENVIRONMENTAL REMEDIATION IN THE AREA OF LAKES



Lake Velenje then and now

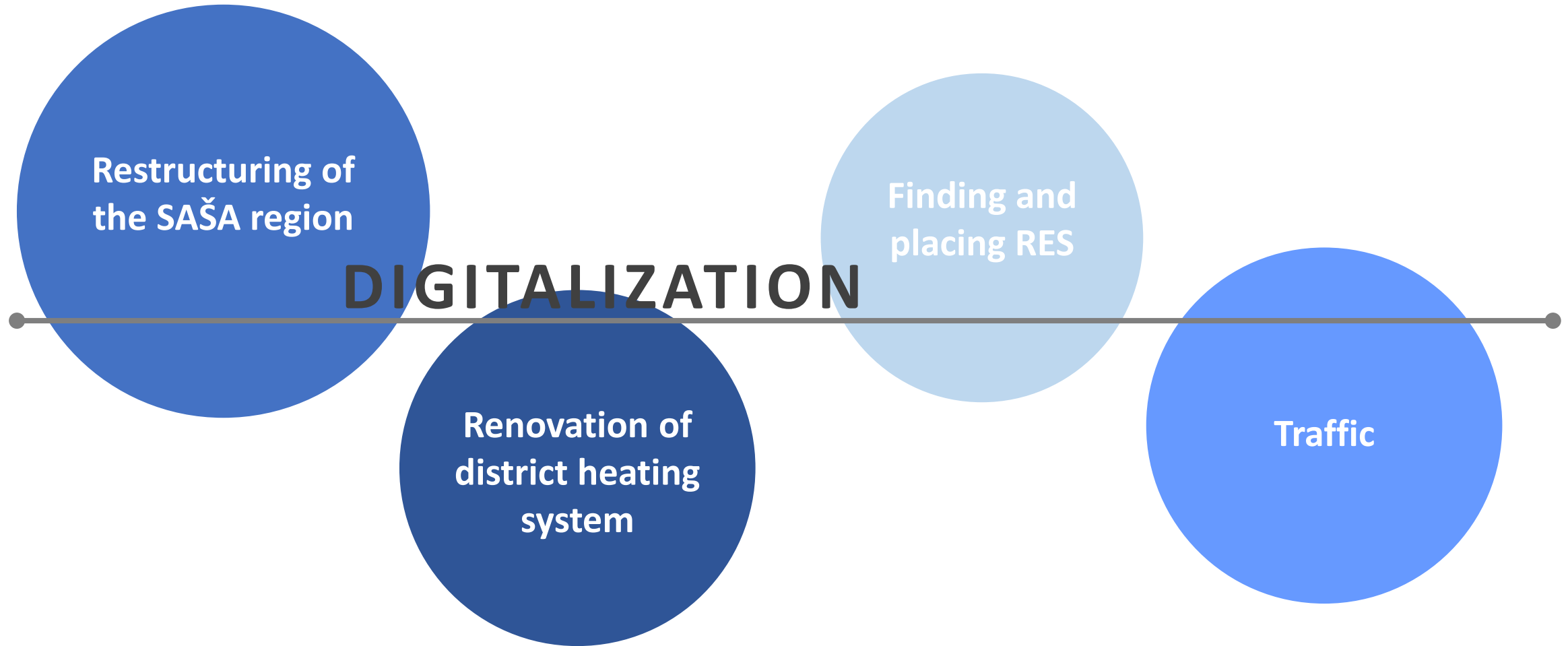


Areas of action on the
**PATH TO CLIMATE
NEUTRALITY**

- **Management**
- **Spatial planning**
- **Green infrastructure and water management**
- **Energy infrastructure**
- **Construction**
- **Waste management**
- **Sustainable mobility**
- **Green economy**

Importance of cooperation between the national and local levels and between stakeholders from the research sphere, civil society, politics and the economy

CHALLENGES TO ACHIEVE CLIMATE NEUTRALITY



RESTRUCTURING



ECONOMY

The goal is to become a pool for the development and testing of **new, green technologies**



ENVIRONMENT

Revitalization of the degraded environment after the closure of the coal mine and preservation and improvement of the quality of the living environment



Following the principles of **JUST TRANSITION**



SOCIAL

Retraining, creating new, higher value-added green jobs, limiting brain drain



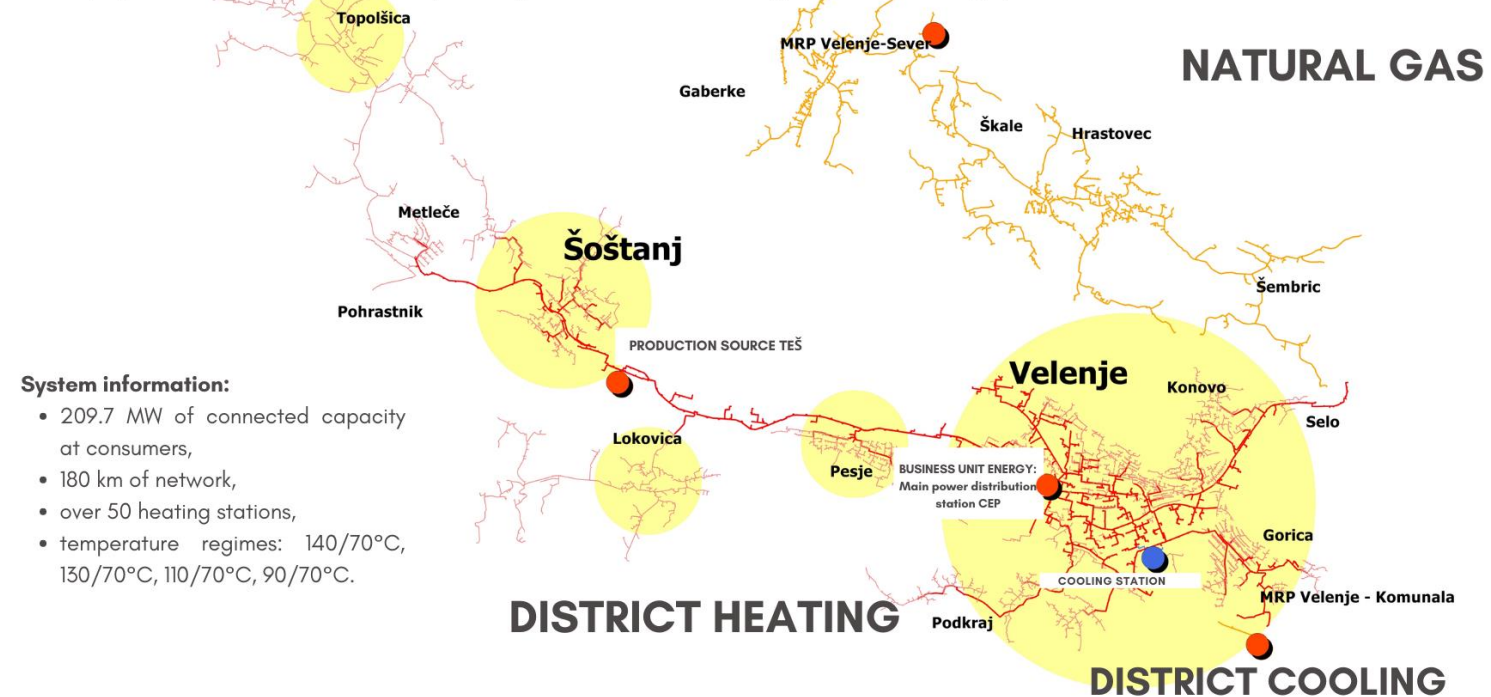
EDUCATION

Staff retraining, new study programs

DISTRICT HEATING

- **40,000 inhabitants connected to district heating in Velenje and Šoštanj**
- Currently district heating connected to Termal power plant Šoštanj
- Goals:
 - **Green transformation of the district heating system with new and dispersed RES sources**
 - **to maintain high air quality**
- Measures:
 - Optimization of the existing system and adaptation to the low temperature regime
 - Energy renovation of buildings in the city
 - Integration of RES into the system

The heat distribution system for the geographical area of the Municipality of Velenje and the Municipality of Šoštanj supplies over 90% of the population of the Šaleška Valley and represents the second largest district heating system in Slovenia.



TRAFFIC

"Velenje as a regional hub promotes and introduces various forms of sustainable mobility. It is an accessible place for everyone with attractively arranged public areas and efficient connections in the municipality and the region.,,"

MOV vision, SUMP

- **Arrangement and changes of parking policy**
- Local optimization and further improvement (timetables, frequencies, lines)
- **Rural-urban connection with public transport**
- Improving train connections (Velenje-Celje)
- **Initiatives for citizens to change their travel habits** (especially with the support of employers)
- Integrating the economy into the objectives of sustainable urban mobility plan
- **P&R at the entrances to the city**

- **Use of hydrogen in public transport**



MESTNA
OBČINA
VELENJE

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IT IS NOT THE STRONGEST OF THE SPECIES THAT SURVIVE, NOT THE MOST INTELEAGENT, BUT THE ONE MOSTE RESPONSIVE TO CHANGE

Charles Darwin
(1809-1882)







EVROPSKA UNIJA



MISIJE
EU

PODNEBNO NEVTRALNA IN PAMETNA MESTA

Velenje



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#EUmissions #HorizonEU #MissionCities



Thank you for your attention!

Iztok.Mori@velenje.si

Mission City Kozani

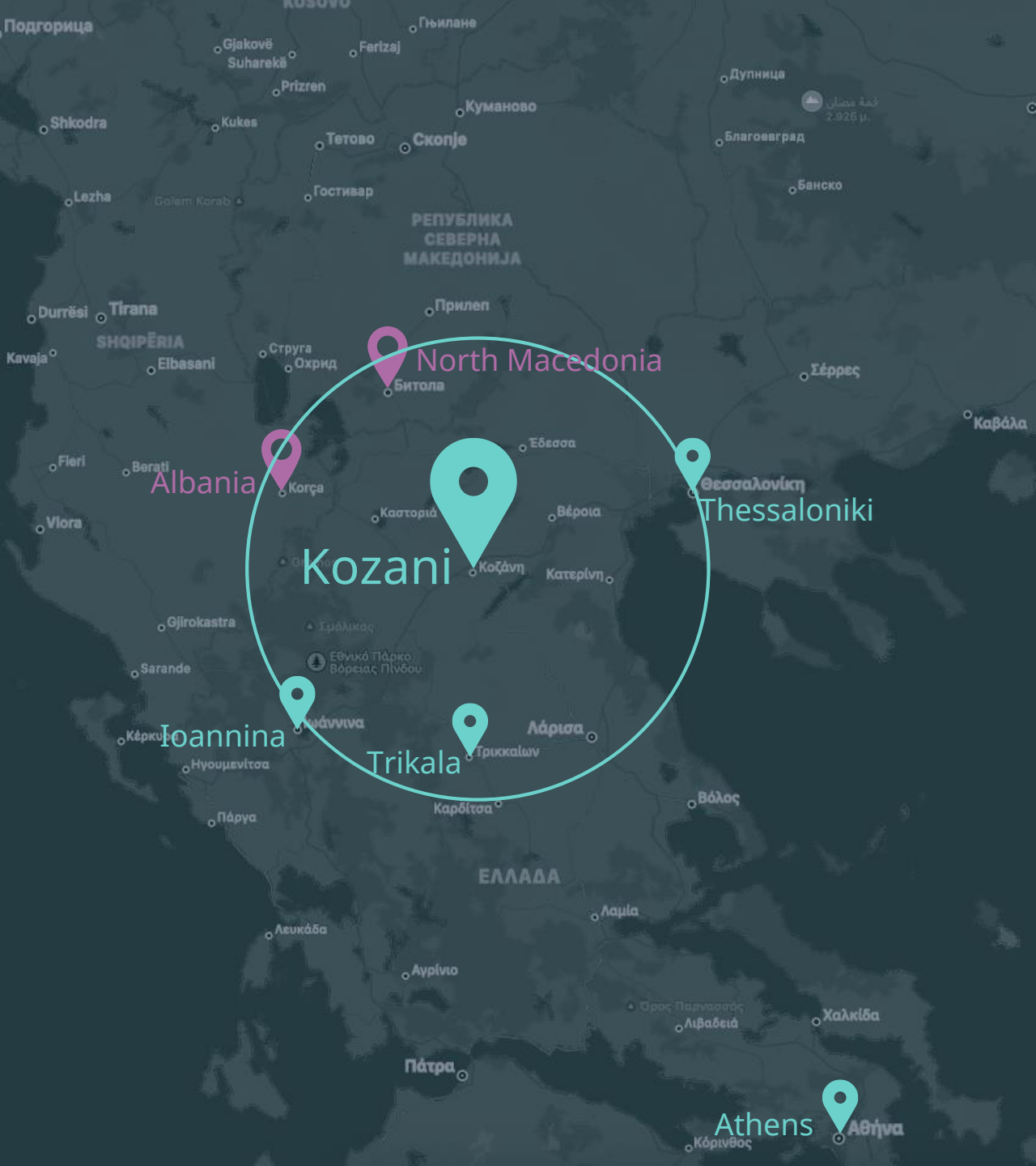
Our Vision for 2030

MUNICIPALITY OF KOZANI



Presentation by Lazaros Maloutas

Just Transition Platform Conference, 25 October 2022



About Kozani, Greece (population 71.388)

Kozani is the largest urban area and the largest Municipality of the Region of Western Macedonia (WM). It is the administrative and commercial center, as well as the seat of the HQ of the Region of WM and the University of WM.

Natural geographical and logistics hub

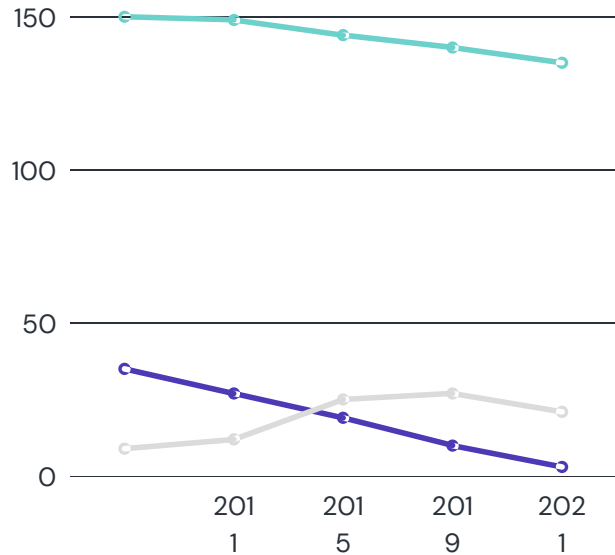
It is a natural geographical and logistics hub in Southeast Europe and in the Western Balkans.

Networks with other Mission Cities and cities from Associated Countries

Mission Cities nearby: Ioannina, Trikala, Thessaloniki, Elbasan, MoUs with cities of Korca (Albania) and Bitola (North Macedonia).

Lignite energy production, population and unemployment rates

The causality between energy production from lignite, population and labour market



20.5 %

Unemployment rate in Kozani

2.28 TWh

out of 28 TWh on 2011.
Lignite mixture on national energy fuel mix

- 9%

Population shrinkage since 2011

One of Europe's most carbon intensive regions in transition

The national energy center of Greece

The current installed capacity of lignite plants is 1,570 MW. Before the decommissioning of "Kardia" power plant the total installed capacity was over 2,770 MW.

MUNICIPALITY OF KOZANI

Major infrastructures

2

Airport

Regional Airport (Filippos Airport-IATA: KZI).

4

New University campus

The new campus of the University of Western Macedonia is located at Alternate Urban Planning Zone of Kozani.

1

Egnatia Motorway

Egnatia Motorway crosses Kozani for app. 50 km including 2 interchanges.

3

Power grids and major lignite mine fields

- High voltage power grids infrastructures
- Power Plants
- Large lignite mine fields

5

RES: Solar Parks, Wind farms and Hydro

Several investments of solar parks are under progress, making Kozani a leader in power production in Greece and SEE.

Flagship investments

Municipality of Kozani

€75 million

District Heating System

- The largest energy project of Greek Local Organizations.
- Covers the heating needs of over 28,000 households.

€49 million

Waste Management

The first Integrated Waste Management System in Greece.

€15 million

New Municipal Library of Kozani

Kovedarios Municipal Library is located at a high-end 7,000 sq. m. building.

Municipality of Kozani

Kozani 2030: A Climate- neutral and Smart City

MAYOR'S VISION FOR 2030



Mayor of Kozani, Mr. Lazaros Maloutas

"Our aim is to make Kozani a
National Hub of Innovation and
Sustainability".

MUNICIPALITY OF KOZANI



Science Dissemination Center and Technology Museum

We launched a new project for the construction of a Science Dissemination Center and Technology Museum "Technopolis" as a flagship project on the preservation of industrial heritage and the promotion of ICTs.



Energy Camp

We establish an energy camp, with the aim to provide an experiential learning.



Next generation of educational building infrastructures- Green Jobs Academy

We invest in education supporting next generation's learning and upskilling.



Innovation hubs

The first Innovation Hub will be established in the Alternate Urban Planning Zone, as a flagship action under the Just Transition Development Plan.

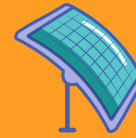


Our Strategic Priorities of our Climate Action Plan for 2030



Stationary energy (buildings, equipment, facilities)

The 'buildings sector' includes all permanent and temporary structures, facilities or equipment and public lighting within the city's boundary. This will include the residential, commercial, industrial and municipal/public buildings and facilities.



Energy Production from RES

Utilizing renewable energy in cities is a key strategy for reaching climate neutrality. In the limited time to reach this target, upscaling access to renewable energy to meet urban energy demands through local energy generation and supporting system flexibility becomes a top priority.



Transportation

The transport sector includes all mobility-related activity within the city. The vast majority of emissions from this sector are typically from on-road transport, but other sources include logistics and off-road transport.



Land Use and Forestry

The way that urban areas continue to be designed and built can define the opportunities for urban energy systems. There are multiple interactions across land use, buildings, transport and local energy generation in the urban system which demand a systemic approach to achieving climate neutrality in cities.



Waste

Waste and wastewater management is a critical part of a fully-fledged climate neutrality strategy, required to deal with GHG emissions associated with the disposal and treatment of waste and wastewater generated within the city boundary.



Digital Transition

Digital solutions can be used to address environmental and climate issues (e.g., pollution, traffic congestion) and reduce GHG emissions. With the introduction of cheap sensors, the IoT, AI, GPS, and Big Data, key functional elements of cities are expected to change and impact all aspects of our lives.



Digital Europe Programme



MUNICIPALITY OF KOZANI

European Cities Mission

100 Climate Neutral and Smart Cities by 2030



Sustainable Energy & Climate Action Plan

Net-zero by 2030

According to the SECAP, Kozani aims to be Climate Neutral by 2030, 20 years earlier than the European Union's declared goal for 2050.

Circular Economy

Action Plan 2021

Kozani has adopted its first Circular Economy Action Plan in October 2021.

Sustainable Urban Mobility

Plan 2020

Kozani's SUMP is one of the first SUMP's in Greece aiming to foster inclusiveness and new mobility attitudes.

KOZANI SMART CITY STRATEGY

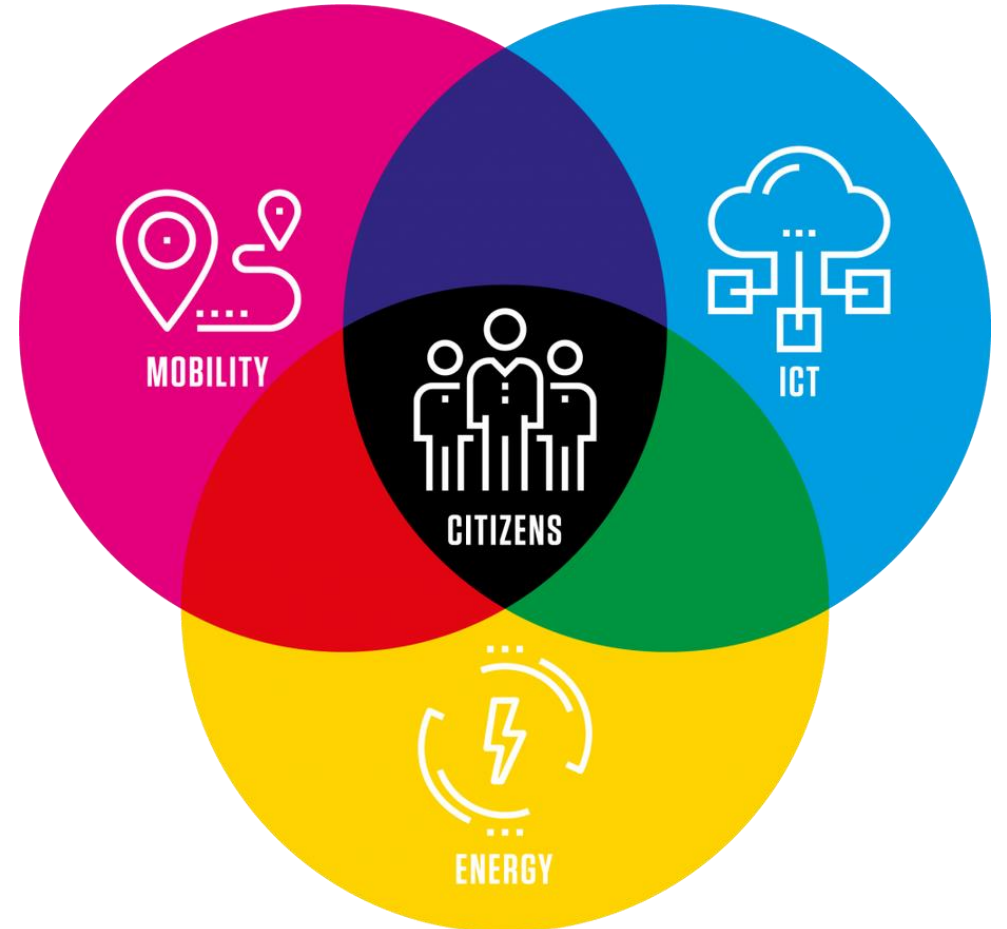
- LoRa-based IoT network
- E-democracy
- GIS services
- Upskilling and reskilling of citizens

E-mobility

Municipality of Kozani is a long term partner with PPC on e-mobility projects since 2013.

LoRa-based network

The Municipality of Kozani and the University of WM collaborated in order to set up a LoRa-based network in Kozani and implement various smart city IoT applications that emerged from the strategic plan for digital transformation.





Energy Community

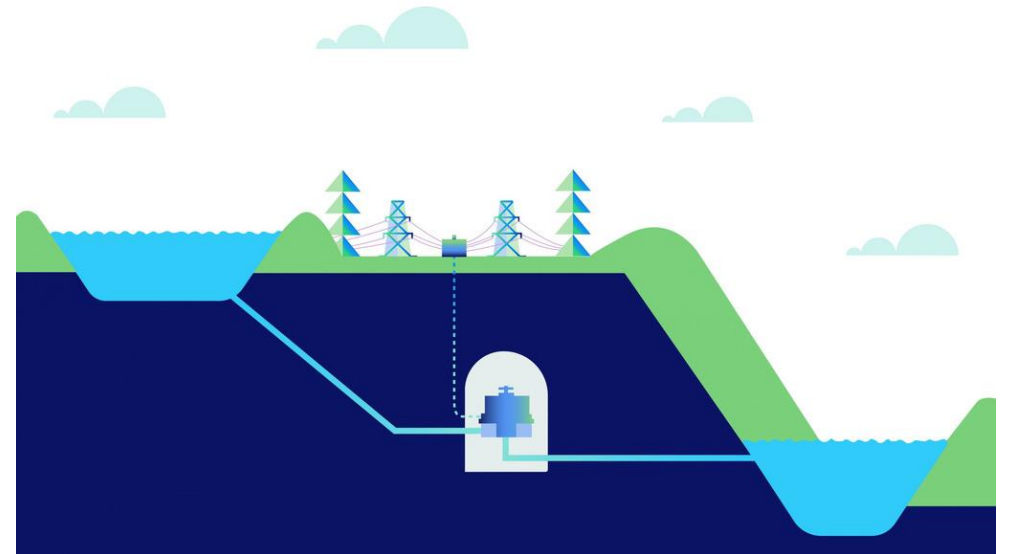
6MW SOLAR PARK

We established the first Energy Community contributing to the coverage of municipal energy needs through a virtual net-metering.

Pumped Storage Hydropower

8MW SOLAR PARK

We planning the first Pumped Storage Hydropower project, with the capacity of 8MW storage and a 8MW solar park.



Covenant of Mayors

Municipality of Kozani as a signatory member at the Covenant of Mayors, has adopted an emissions registration method since 2011.

Green City Accord

Municipality of Kozani is a signatory member of the Green City Accord since July 2021.

ICLEI

Municipality of Kozani is a signatory member at the ICLEI since May 2022.

Climate Neutral & Smart Cities Pact

Municipality of Kozani has been initiate the first network of Greek municipalities on climate neutrality in January 2022.

CrAFt Cities

Municipality of Kozani is a member of Creative and Actionable Future Cities since October 2022.

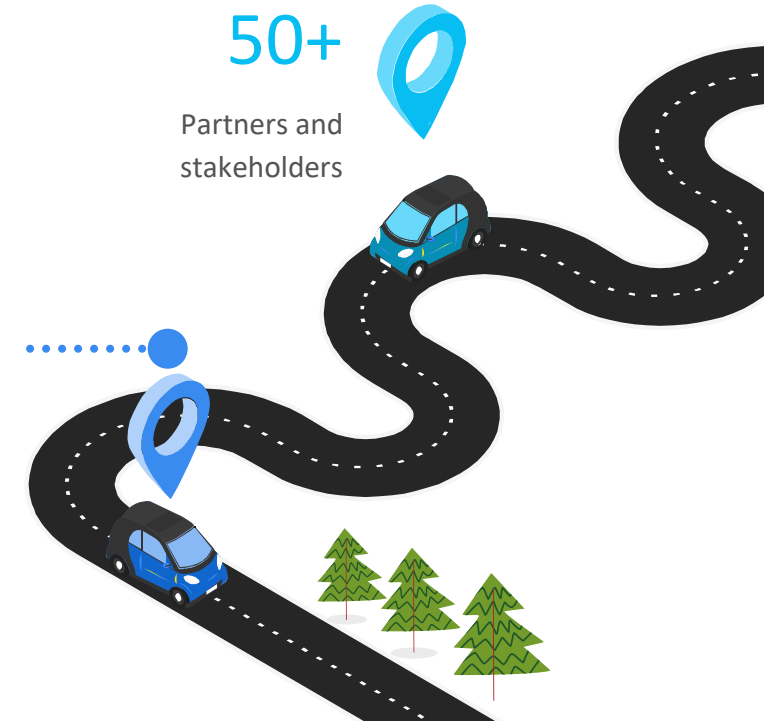
Our network

50+

Partners and stakeholders

Climate Pact

2030
The first Greek municipal network on Climate Neutrality 2022



Thank you!

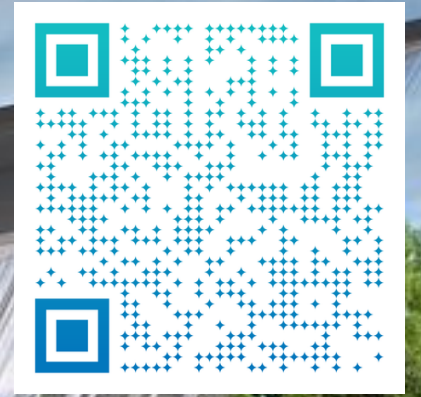
Please contact us for any further information



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MUNICIPALITY OF KOZANI

Panel discussion

- **Lazaros Maloutas**, Mayor, Municipality of Kozani
- **Janet Ågren**, Deputy Mayor, City of Umeå
- **Iztok Mori**, Director, Municipality of Velenje

CLOSING REMARKS

Balbina Gluza-Czyczerska, European Commission

Just Transition Platform Conference, 25 October 2022

Thank you

