NET ZERO CITIES

EU MISSION PLATFORM
CLIMATE NEUTRAL AND SMART CITIES

The NetZeroCities Spring School

Best & Worst Practices

Cities will share successful energy transition experiences as well as examples of projects that faced challenges or did not meet expectations. This space will encourage open and constructive learning through real-world cases.

11:30 – 13:00

Moderated by Célia MEUNIER
NZC Community of Practice Team

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4 cities’ success and challenges

Athens

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Bratislava

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#Moderný magistrát

#Pre Bratislavčanky a Bratislavčanov

Heating management: Individual room control at a retirement home

Lessons learned

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Contents of the presentation

1. Brief introduction of the Bratislava
2. Why heating management
3. Lessons learned

Introduction of Bratislava

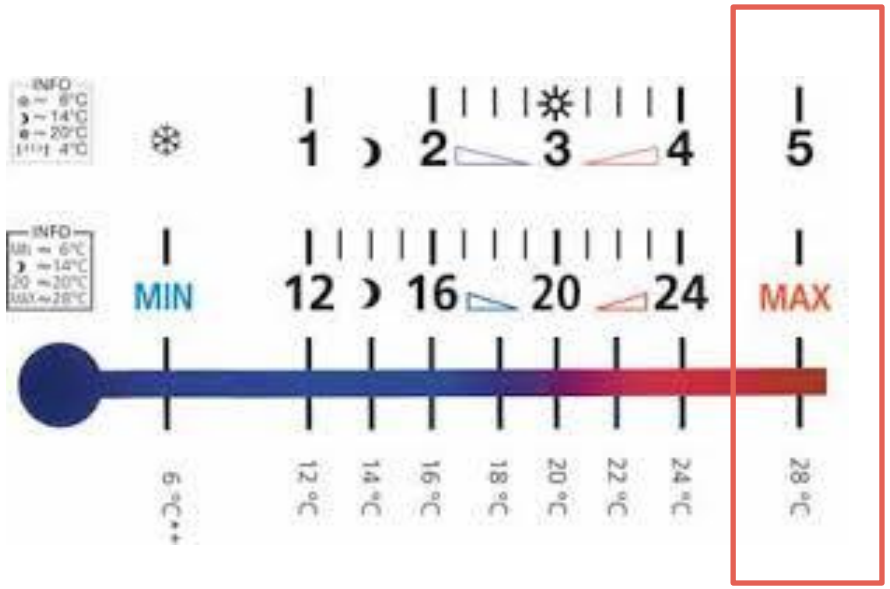
City of Bratislava at a glance

- **Population:**
  - Capital and largest city of Slovakia, with about 500 000 residents (2024)
  - Metropolitan area population 1.3 million
- **Economic Strength**
  - the most economically prosperous region in Slovakia, **generating over one-quarter of the national GDP**.
  - Hosts the headquarters of many private companies as well as major government institutions.
- **Bratislava’s Net Zero Cities activities:**
  - Energy management implementation
  - Bratislava Mayor's Climate Challenge
  - Facility management assessment and implementation

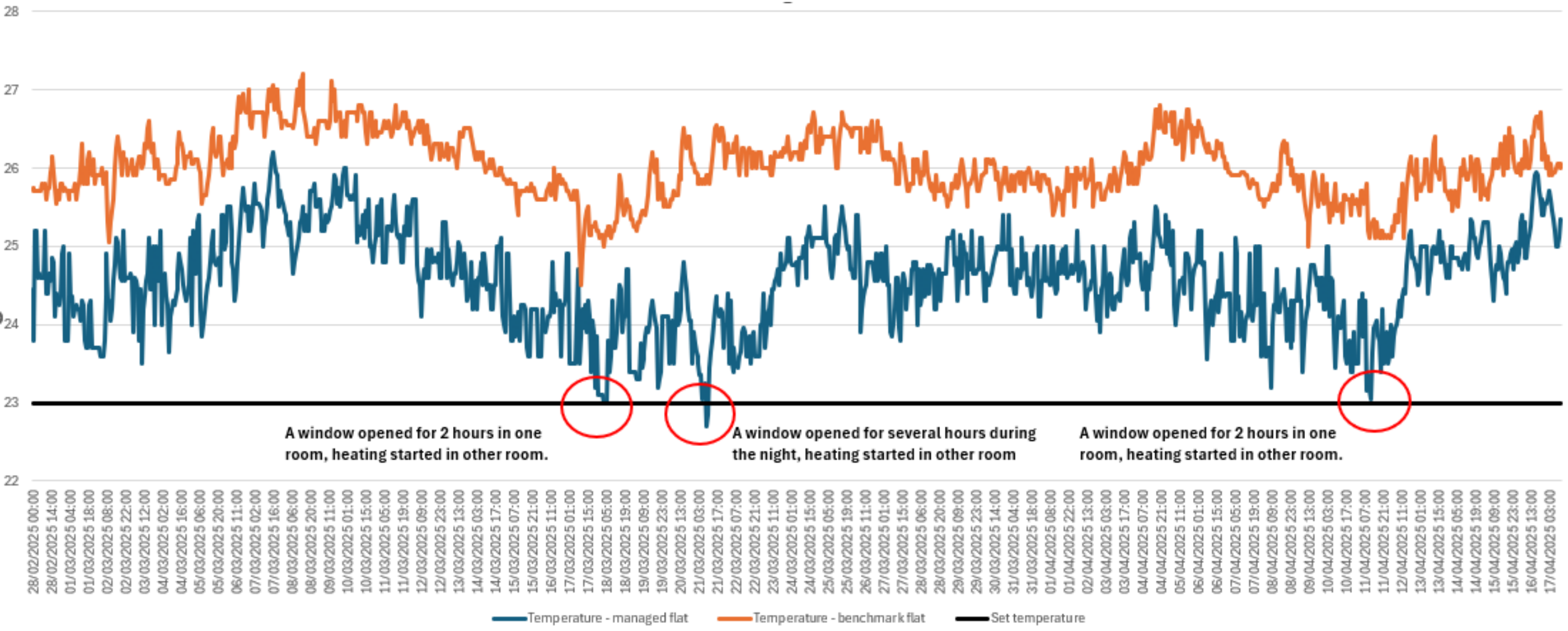
Heating management

Why heating management

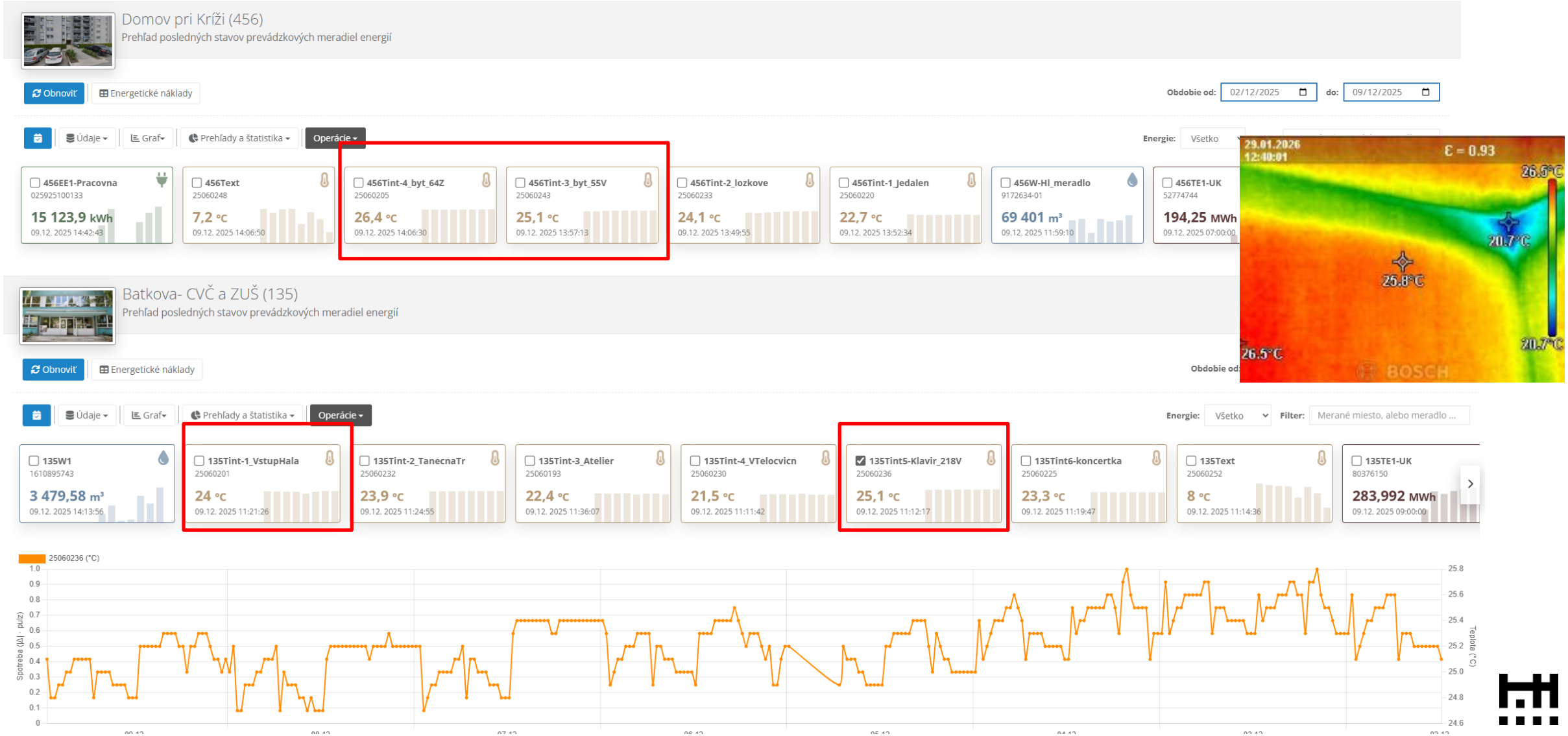
- **Due to climate change Bratislava** is already located in **Temperate Oceanic climate** which is defined by mild summers, **cool winters typically above −3 °C**.
  - **Heating season** typically **starts at October and ends on April**
  - Due to **historical development** and abundance of natural resources during the Communism **most people heating** their home on **23 Celsius** during winters, **and even more.**
  - Penetration of Air Conditioning is low.
- At our facilities, **clients and employees regulate their own heating**. City pays the whole energy budget (hotel approach).
- And guess how it is usually set:



Therefore, we have tested heating management at the beginning of 2025



And later measurements and thermovision confirm out assumption



Pilot

We have selected a smaller retirement home with 60 clients

Gerium retirement home

- Building already refurbished and insulated
- 60 clients
- 15 offices
- Average indoor temperature during winters ~25 °C
- Natural gas boilers used for hot water and heating
    - Average consumption 200 MWh/year

We have selected a smaller retirement home with 60 clients

Pilot – Individual room control

- Due to public procurement, the pilot fully implemented in 11/25
- Every room equipped with a thermostat, a window’s sensor and a heating regulator
- Boilers equipped with online management
- Temperature set on 23,5 °C

Lessons learned from the pilot
Timing and communication is essential

- Achieved **savings up to 40 %** from natural gas bill (80 MWh)
- **Payback period: 3–4 years** (prior current natural gas price increase)
- Due to late implementation, we have installed system during the heating season – decrease of the comfort
  - **Key takeaways**
    1. Do it during summertime, but we knew about that
    2. Engagement of the director is essential
    3. Perception of heat comfort – the radiator is cold = I am cold as well.
  - **Additional takeaways:**
    1. Pushback from the clients at the beginning can be mitigated with small temperature increase (keep a reserve)
    2. Clear communication with relatives to ensure them, standards and comfort are meet – call for action if they have any concerns (especially during an election year)

Q&A

Thank you

Differdange

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EU MISSION LABEL
CLIMATE-NEUTRAL & SMART CITIES DIFFERDANGE

Ville de Differdange

NET ZERO CITIES

ACCELERATING LOCAL ENERGY TRANSITION: LESSONS FROM DIFFERDANGE

NetZeroCities Spring School – Athens

Monday, 23 March 2026

BENI, Stefano
TERÁN, Carlos

Net Zero
Déifferdeng 2030

DIFFERDANGE IN THE EU CLIMATE MISSION

City Context

- 3rd largest city in Luxembourg
- 31.415 inhabitants (Jan 2026)
- Industrial heritage (steel production)
- Participating in NetZeroCities / EU Mission Cities
- Working toward climate neutrality by 2030

Energy transition priorities:

- Renewable energy production
- Energy-efficient buildings
- Local energy planning

OUR ENERGY TRANSITION STRATEGY

Key Pillars

1. Energy efficiency in buildings
   - Municipal building renovation
   - Energy monitoring systems
2. Local renewable energy production
   - Photovoltaic installations on public buildings
   - Solar integration in new developments
3. Urban planning + energy integration
4. Stakeholder collaboration

BEST PRACTICE #1

Scaling Solar PV on Municipal Buildings

Key actions:

- PV installations on schools, sports centers and municipal facilities
- Systematic assessment of available rooftops
- Integration of PV in new public buildings

Benefits:

✓ Reduced municipal energy consumption
✓ Long-term financial savings
✓ Visible climate commitment

BEST PRACTICE #2

Integrating Energy into Urban Development

Energy considerations integrated into:

- New urban districts
- Building design requirements
- Infrastructure planning

Goal:

Combine urban regeneration with renewable energy deployment

BEST PRACTICE #3

Collaboration & Multi-Level Governance

Key partners:

- National government
- Energy agencies
- EU initiatives (NetZeroCities)
- Local stakeholders

Impact:

- Knowledge sharing
- Access to expertise
- Improved project coordination

CHALLENGE #1

Governance and Regulatory Complexity

Key barriers:
- Multi-level governance structures
- Administrative procedures
- Coordination across institutions

Impact:
- Slower project implementation
- Increased planning complexity

CHALLENGE #2

Scaling Renewable Energy

Barriers to faster deployment:
- Grid capacity limitations
- Financial constraints
- Technical infrastructure challenges

Opportunity:
Cities can act as demonstrators for renewable solutions

CHALLENGE #3

Citizen engagement

Energy transition requires:
- public acceptance
- behaviour change
- participation in local energy initiatives

Cities must balance technical solutions with social acceptance.

CITIES ARE KEY ACTORS IN THE ENERGY TRANSITION

Even medium-sized cities can:
- Scale renewable energy
- Test innovative approaches
- Engage citizens and stakeholders

THANK YOU

Lappeenranta

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THANK YOU!

Join the NZC portal and Community of Practice and drive climate neutrality

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Get in touch with NetZeroCities!

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