

## Austria's Climate-Neutral City Mission

#### **Imprint**

This annual report was produced as part of the Austrian Climate-Neutral City Mission, a joint initiative of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology and the Climate and Energy Fund to support Austria's cities on their path to climate neutrality.

Owner, publisher and media proprietor:

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) Radetzkystraße 2, 1030 Vienna

Responsibility and coordination of the Climate-Neutral City Mission:

Co-coordinator: Katrin Bolovich Co-coordinator: Lena Reiser

Editing of the annual report:

Mathias Mitteregger (MOURA. Mobility and Space) Team of the Climate-Neutral City Mission

Visual concept & layout: Studio Leichtfried

Illustrations: Daniel Triendl

Proofreading: die jungs kommunikation

Contact:

For more information on the Climate-Neutral City Mission in Austria: www.klimaneutralestadt.at

E-mail: katrin.bolovich@bmk.gv.at, lena.reiser@bmk.gv.at

 $Copyright\ and\ disclaimer:\ https://klimaneutralestadt.at/de/impressum/$ 

Status: Vienna, 2024

## Table of contents

#### Foreword p. 1

2023 Annual Report of Austria's Climate-Neutral City Mission p. 2

Cities as Pioneers of Change p. 4

Milestones of the Year 2023 p. 6

The Mission at a Glance p. 8

The Foundation for Innovative, Climate-Neutral Cities p. 10

Cities that learn from each other p. 14

Making a Visible Difference p. 18

Thinking ahead to a Climate-Neutral City! p. 22

What's next? An outlook for 2024 p. 26

**Sources** *p. 29* 

#### **Foreword**

With the EU mission '100 Climate-Neutral and Smart Cities by 2030,' the European Commission has set a new course in innovation policy in 2021, sending a clear signal: Innovations must specifically drive the green transition, enhance the competitiveness of European companies, and ensure that cities in Europe remain attractive hubs on the global stage.

Austria supports this approach and began implementing it in 2022 with the national Climate-Neutral City Mission addressing the needs of the country's cities and towns. By 2023, nearly 37 per cent of the Austrian population was addressed.

The implementation of the Climate-Neutral City Mission as a collaborative initiative sends a deliberate message. The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK), the Climate and Energy Fund, and the Austrian Research Promotion Agency (FFG) want to highlight that the best possible support is being provided to the participating cities and towns on their paths to climate neutrality. We achieve this by drawing on our experience from recent years, learning together, and remaining flexible to adapt to changing circumstances. After all, the cities themselves are the experts in identifying the specific solutions they need.

We would like to take this opportunity to thank everyone who brings the Climate-Neutral City Mission to life – the pioneer cities and towns, who demonstrate their innovative spirit every day; the BMK, the Climate and Energy Fund, and the FFG, who take mission-oriented innovation policy seriously and implement it; and the supporting organisations AustriaTech – Gesellschaft des Bundes für technologiepolitische Maßnahmen GmbH, the Austrian Society for Environment and Technology (OEGUT), and the Salzburg Institute for Regional Planning and Housing (SIR), who actively assist the cities with content-related support.

The participating stakeholders understand that achieving true climate neutrality and climate-resilience in cities is an enormous challenge. At the same time, it is an immensely rewarding task for all of us to help shape the framework for urban life that respects the planet's ecological boundaries.

Henriette Spyra

Director General Directorate-General III Innovation and Technology, BMK Karin Tausz

Managing Director FFG Bernd Vogl

Managing Director Climate and Energy Fund



Representatives of the cities and the BMK at the Climate-Neutral City Dialogue Forum 2023.

From left to right: Mayor Georg Willi (Innsbruck), Mayor Andrea Kaufmann (Dornbirn), City Councillor Franz Dinhobl (Wiener Neustadt), City Councillor Jürgen Czernohorszky (Vienna), Climate Councillor Eva Schobesberger (Linz), Climate Action Minister Leonore Gewessler, Deputy Mayor Judith Schwentner (Graz), Deputy Mayor Barbara Unterkofler (Salzburg), Second Deputy Mayor Alois Dolinar (Klagenfurt), Deputy Mayor Sarah Katholnig (Villach), Deputy Mayor Harald Ludwig (St. Pölten)

## Austria's Climate-Neutral City Mission

Austria has set an ambitious goal: the country aims to become climate-neutral by 2040. There are positive signs that the path it has chosen is the right one: in 2023, greenhouse gas emissions fell for the second consecutive year. With its innovative strength, the Climate-Neutral City Mission seeks to drive this trend forward. This mission is Austria's implementation of the European Commission's '100 Climate-Neutral and Smart Cities by 2030' initiative.

In 2023, ten Austrian cities – Vienna, Graz, Linz, Salzburg, Klagenfurt, Innsbruck, Villach, St. Pölten, Dornbirn, and Wiener Neustadt – signed partnership agreements with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK). The signatories committed to seeking innovative solutions and working even more closely together to make urban climate neutrality a reality. Shortly afterwards, twelve Austrian towns – Steyr, Feldkirch, Bregenz, Baden, Kapfenberg, Tulln an der Donau, Bruck an der Mur, Feldbach, Gratwein-Straßengel, Vöcklabruck, St. Veit an der Glan, and St. Johann in Tirol – began developing climate neutrality roadmaps, similar to those already created by the larger cities.

Cities play a crucial role in the fight against climate change. The 22 Austrian cities and towns participating in the Climate-Neutral City Mission 2023 together account for around 32 per cent of the country's total greenhouse gas emissions.\* These cities are Austria's economic engines and hubs for research and innovation. But above all, they are places where people want to live. The Climate-Neutral City Mission was launched to ensure that this remains the case in the future and that Austrian cities continue to thrive in the international competition as attractive locations. The mission supports the participating cities in their independent journeys toward climate neutrality. This annual report details the first phase of this mission.

Pioneer cities and towns are leading the way together, developing practical, climate-effective solutions for the energy and mobility transition as well as the circular economy, which are to be quickly implemented and shared.

<sup>\*</sup> This figure is an estimate based on data from energiemosaik.at. 'Energiemosaik' uses Austria's national territory as the spatial boundary, meaning emissions from 'fuel tourism' and international air travel are not included. The annual calculations by the Federal Environment Agency, referenced in the reported reductions for 2022 (greenhouse gas balance) and 2023 (nowcast), do include these emissions.

## Cities as Pioneers of Change

What exactly have cities done in the past to address the challenges of their time? Cities are often pioneers of change because negative (environmental) impacts tend to be concentrated in urban areas. Increasing societal pressure ultimately drives committed social and political action. <sup>1,2</sup>

This observation applies equally to cities' response to climate change. Even today, many of the effects of climate change are concentrated in urban areas, such as the consequences of heat, extreme weather events, and the resulting strain on critical infrastructure. <sup>3</sup>

Based on past experiences and critical reflection, a framework can be developed to identify areas where innovations for climate-neutral cities are most likely to emerge. The following positive conditions for urban innovations are notable: 4

#### Cities enable highly efficient solutions

Urban density enables innovations that may not be feasible in sparsely populated areas or where more space is needed for functions and services.

#### Cities maintain high standards

The concentration of people and infrastructure means that urban areas bear a disproportionate burden. Even the smallest emissions accumulate. Solutions that work in cities must therefore meet the highest standards, and what works in cities can often be adapted to areas with lower demands.

#### Systemic innovations are more likely in cities

Due to the higher density and diversity of people and services, cities are better suited for thinking beyond individual systems. This makes it easier to improve multiple systems simultaneously or as part of a larger integrated approach.

#### Positive effects are more tangible in cities

The high density of cities and the systemic nature of innovations increase the potential for citizens to experience positive impacts and co-benefits in their everyday lives.

While the conditions for innovation in cities are well documented, the obstacles that often impede this creative force are also well known. Two key dimensions are considered particularly decisive:

#### Lack of capacity

Public spending must follow the principles of economy, efficiency, and expediency. This often makes it difficult for local administrations to address new topics or take on new areas of responsibility. These constraints can create 'lock-in' effects, preventing the adoption of proven effective practices.

#### Governance paradox

Systemic innovations typically have the greatest impact, but they are also the most challenging to implement. Effective systemic change requires collaboration across different sectors or at multiple levels of local government. In practice, these processes are often complex and difficult to manage. This governance paradox is particularly evident in small to medium-sized cities.

These challenges are reflected in the documents of the EU mission '100 Climate-Neutral and Smart Cities by 2030' and its national counterpart, the Climate-Neutral City Mission. <sup>5,6</sup> This joint framework between the European Cities mission and the Austrian cities mission ensures that Austrian cities, companies, and research institutions have optimal access to EU resources and can benefit from international exchange.

## Milestones

## of the Year 2023

30 March 2023 Kick-off of the learning and exchange space for pioneer cities The collaboration among the pioneer cities and the mission team officially begins on 30 March  $(\rightarrow p. 15)$ 2023 29 September 2021 Autumn 2022 and spring 2023 Climate-neutral Public-public

### cities for Europe

The European Commission launches the mission '100 Climate-Neutral and Smart Cities by 2030'  $(\rightarrow p. 3)$ 

### partnerships arise

In several writing workshops, major cities are working on their submissions for the two Pioneer City calls.  $(\rightarrow p. 11-12)$ 

20 June 2023

#### A GHG balance sheet for Austrian cities

In Vienna, the Federal Environment Agency, together with the pioneer cities, launched a project aimed at standardizing the greenhouse gas (GHG) emissions data of Austrian cities.

(→ p. 21)

November 2023

#### Cooperation for the TIKS 2023 call

BMK and the Climate and Energy Fund collaborate on the 'Technologies and Innovations for the Climate-Neutral City 2023' (TIKS - Technologien und Innovationen für die Klimaneutrale Stadt) call for proposals, awarding a total of 14 million euros.

 $(\rightarrow p. 12)$ 

2024

May 2023

#### The first DUT call is a success

Austrian participants achieved great success in the first call of the EU partnership 'Driving Urban Transitions' (DUT), with 20 projects receiving funding. (→ p. 13)

11 May 2023

#### Learning and exchange space for pioneer towns begins

The pioneer towns expand the mission and start working together on 11 May in Vöcklabruck.

(→ p. 16)

20 November 2023

#### First climate-neutral city Dialogue Forum

The pioneer cities and the BMK publicly announced their partnerships and cooperation in research and development at an event in Vienna.

 $(\rightarrow p. 11, 16)$ 

12 October 2023

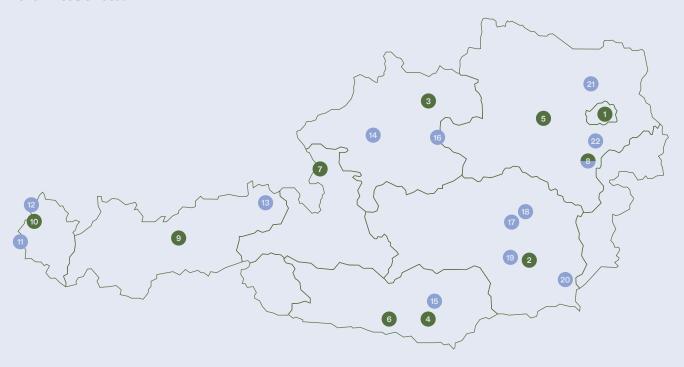
#### Klagenfurt is honoured with the Mission Label

The pioneer city of Klagenfurt becomes one of the first cities in Europe to be awarded the EU Commission's 'Mission Label'.

 $(\rightarrow p. 17)$ 

# The Mission at a Glance

## Pioneer cities and towns in Austria:



#### Pioneer cities

- 1. Vienna
- 2. Graz
- 3. Linz
- 4. Klagenfurt
- 5. St.Pölten

- 6. Villach
- 7. Salzburg
- 8. Wr. Neustadt
- 9. Innsbruck
- 10. Dornbirn

#### Pioneer towns

- 11. Feldkirch
- 12. Bregenz
- 13. St. Johann in Tirol
- 14. Vöcklabruck
- 15. St. Veit an der Glan
- 16. Steyr

- 17. Bruck an der Mur
- 18. Kapfenberg
- 19. Gratwein-Straßengel
- 20. Feldbach
- 21. Tulln an der Donau
- 22. Baden

50,000

people or more live in the pioneer cities

10,000

people or more live in the pioneer towns

370/0

of the Austrian resident population lives in pioneer cities and towns <sup>7</sup>

## **20 MM**

euros have been invested in capacity building in pioneer cities

## 33 MM

euros in funding have been distributed to research and innovation projects

## 128

research and innovation projects focussing on climate-neutral cities have received funding

## 21 MM

tonnes of CO2 equivalents are emitted annually by the pioneer cities and towns 8

## The Foundation

for Innovative, Climate-Neutral Cities



Austria coordinates the transnational EU-Partnership Driving Urban Transition (DUT) 10

public-public partnerships were concluded among cities and the BMK TIKS is the new funding initiative from BMK and the Climate and Energy Fund in support of climate-neutrality in cities Until recently, cities were not considered a primary target group for innovation policy. However, with the launch of the 'Smart Cities Initiative' by the Climate and Energy Fund in 2010 and the 'City of Tomorrow' funding initiative by the BMK in 2013, initial steps were taken to integrate cities and towns into the innovation system. The transition towards the Climate-Neutral City Mission, however, required further reorientation.

- The most significant milestone in 2023 was undoubtedly the introduction of public-public partnerships in research funding for the first time in Austria. The BMK entered into a partnership with Austria's ten largest cities to promote more innovation for climate neutrality. This partnership laid the groundwork for capacity-building efforts in the cities.
- Additionally, a new funding initiative was developed 'Technologies and Innovations for the Climate-Neutral City 2023' (TIKS) which for the first time in 2023 received a jointly allocated budget of 14 million euros from both the BMK and the Climate and Energy Fund.
- A new funding initiative was also created through the EU-Partnership 'Driving Urban Transitions' (DUT), with the first projects launching in 2023.

  Austria is leading the transnational partnership, which includes 28 countries. For Austrian cities, businesses, NGOs, and research institutions, DUT provides an essential platform for internationalising solutions and accessing or sharing knowledge beyond Austria's borders.

## We do it together

In 2023, partnership agreements were concluded with all pioneer cities. In line with the EU Commission's '100 Climate-Neutral and Smart Cities by 2030' mission, cities with more than 50,000 inhabitants were eligible to participate. Each of the ten Austrian cities that qualified was able to apply for up to two million euros in funding through public-public partnerships. The partnerships focus on three main thematic areas, known as 'ambitions': build a governance within city administrations directed towards climate neutrality, implementation of pilot neighbourhoods, and contribute to a learning environment across cities. These partnerships are designed to last for five years. At the first Climate-Neutral City Dialogue Forum on 20 November 2023, the partnership declarations were publicly signed in Vienna by high-ranking representatives from the cities and Climate Action Minister Leonore Gewessler.

A lot of preparatory work was required from both sides to make this happen. The cities began their efforts in 2021, drawing up local climate neutrality roadmaps or refining existing ones. The areas where innovations need to be developed were identified, and the specific capacities needed in each city to integrate climate protection into urban development were also determined.

Meanwhile, experts from the BMK and the Austrian Research Promotion Agency (FFG) worked to establish a stable framework for cooperation with the cities. A mechanism needed to be found to mirror the successful approach used by the EU Commission through the Climate City Contracts: <sup>9</sup> Public-public partnership contracts serve as a public commitment to joint work, specifying the shared goals and the responsibilities of each partner. The model of public-public partnerships, already successfully applied in other sectors, was adapted to the research and innovation context.

As part of two pioneer city calls in autumn 2022 and spring 2023, the federal government allocated a total of 20 million euros to public-public partnerships. The cities will use these funds, as outlined in the partnership agreements, to enhance local climate governance, implement innovative solutions in pilot neighbourhoods, and engage in the joint learning process with cities both in Austria and internationally.

### What is a public-public partnership?

A public-public partnership is a formalised collaboration among public sector entities. The key requirement for this type of partnership is a shared goal, with each party committing to specific actions and contributions towards achieving the common objective.

## A new culture of cooperation is emerging

Climate neutrality in cities is a cross-cutting issue because it involves countless processes that are essential for the functioning of urban life. This underscores the complexity and effectiveness of urban innovations.

The mission was designed with these principles in mind. Representatives from the BMK, the FFG, and the Climate and Energy Fund together form the mission team. The technical support and development of the learning environment within the cities are managed by the support team, which includes experts from the Salzburg Institute for Regional Planning and Housing (SIR), AustriaTech – Gesellschaft des Bundes für technologiepolitische Maßnahmen GmbH, and the Austrian Society for the Environment and Technology (OEGUT). This structure allows for the integration of experience from prior funding initiatives such as 'City of Tomorrow', 'Mobility of Tomorrow', and 'Smart Cities Demo', and ensures that the technical expertise of the participating organisations is utilised to its full potential.

The Climate-Neutral City Mission is also actively creating entirely new approaches. For example, new solutions to use space data to measure local greenhouse gas (GHG) emissions are in development. Additionally, an Innovative Public Procurement challenge was launched in collaboration with the city of Villach and the Austrian Association of Cities and Towns, aiming to identify software solutions for climate-neutral urban and town planning.

The next step came in autumn 2023 with the launch of TIKS 2023, the new funding initiative 'Technologies and Innovations for the Climate-Neutral City 2023' from the BMK and the Climate and Energy Fund. This coordinated and demand-based allocation of funds is recognised in international literature as a key factor in creating an innovation-friendly environment for cities. It improves transparency and facilitates easier access to funding.

In the first call for proposals of the DUT partnership, 20 projects with Austrian participation were funded, with Austrian partners taking the lead in 8 of them.

#### Austria coordinates the transnational EU-Partnership *Driving Urban Transitions*

The transnational EU-Partnership Driving Urban Transitions (DUT) was launched in January 2022 to address the challenges European cities face on their path to climate neutrality. The partnership aims to make a significant contribution to the success of the European Commission's '100 Climate-Neutral and Smart Cities by 2030' mission and, by extension, supports the objectives of the European Green Deal. BMK and FFG are jointly coordinating the partnership.

DUT is distinguished by its broad reach: By 2028, at least 450 million euros will be allocated across the participating 28 countries. The initiative is structured around three thematic pillars: Positive Energy Districts, the 15-Minute City, and Circular Urban Economies. The partnership offers Austrian cities the opportunity to collaborate internationally with leading experts and innovative businesses while fostering the exchange of experiences with other European cities. Conversely, Austrian research institutions, start-ups, and companies can use DUT as a platform to internationalise their ideas and innovations and expand into new markets. DUT is also a funding initiative that intentionally promotes citizen engagement and grassroots initiatives, involving them as an essential part of urban climate neutrality from the very beginning. This is seen as a key factor in ensuring that innovations are quickly and effectively implemented.

The first DUT call for proposals began in autumn 2022 and concluded in May 2023. Both the high level of Austrian participation and the success rate were highly encouraging. 20 projects were funded with a total of 5.2 million euros, with 13 projects focusing on the 15-Minute City and 7 projects addressing Positive Energy Districts. Austrian organisations took the lead in project coordination for 8 of these projects.

## Cities that learn from each other



The learning and exchange space for pioneer cities began in Graz in March 2023

### Klagenfurt

was awarded the EU Commission's Mission Label in November The pioneer towns joined the mission in Vöcklabruck in May 2023 Throughout history, cities have harnessed creative forces that have allowed them to become pioneers of change. However, it would not be practical for all cities to follow the same path at the same time. Instead, the Austrian Climate-Neutral City Mission (similar to other international programmes) aims to leverage the unique framework conditions of each participating city to generate the most diverse solutions possible.

- The cities involved in the mission are referred to as pioneer cities because they lead the way by experimenting, learning, and then sharing their knowledge. The solutions that emerge from their efforts can and should later be adopted by other cities and towns.
- The learning and exchange space, organised by SIR, AustriaTech, and ÖGUT, is a central component in supporting the participating Austrian cities on their paths to climate neutrality while fostering the exchange of experiences. Strategic, technical, or everyday challenges are discussed and compared in a variety of formats.
- A crucial factor for the success of the Climate-Neutral City Mission is that more and more people, companies, and institutions become involved. For this reason, the mission emphasises both national and international networking. After all, cities alone cannot drive change. Above all, they provide a framework and a sustainable environment that is open to new ideas. In most cases, it will take collaboration with research and educational institutions, businesses, and urban populations to bring about meaningful transformation.

Learning and exchange space for pioneer cities and towns

## A platform with a vision

To maximise synergies between the participating pioneer cities and to avoid 'reinventing the wheel,' the learning and exchange space for the Climate-Neutral City Mission was designed as an open platform. It builds on the valuable experience gained from the 'Smart Cities Networking Platform', which was launched as part of the 'City of Tomorrow' funding initiative and managed by SIR.

Even before the official start of the learning and exchange space, two writing workshops were held to help Austrian cities participate in the EU mission '100 Climate-Neutral and Smart Cities by 2030' and support the drafting of their public-public partnerships. Initially, only the larger cities were involved in this collaborative process.

Between the summer of 2022 and spring 2023, on-site meetings took place in the pioneer cities, as well as climate breakfasts, networking events, needs assessments, and thematic focus groups. The official kick-off for the learning and exchange space occurred in Graz on 30 March 2023, where participants discussed the process, content, possible formats, and research and innovation needs.

The learning and exchange space is funded by the BMK and the Climate and Energy Fund. While this funding is modest compared to research and innovation grants, it is crucial for the success of the mission and enhances the impact of the partnerships. The learning and exchange space plays a key role in the long-term collaboration among the BMK and the pioneer cities. Its goal is to establish partnerships on equal terms, fostering a better mutual understanding of each city's needs, thereby ensuring the development of practical and effective solutions.



Workshop to kick off the learning and exchange space in Graz: presentation of formats, discussion of the annual plan, survey of the cities' needs.

## Pioneer towns catch up

As the Climate-Neutral City Mission took shape, it quickly became clear that including smaller towns in Austria was essential to reflect the country's diversity and make innovative solutions accessible to a broader public. In 2022, as part of the Climate and Energy Fund's call for proposals 'Lighthouses for Resilient Cities 2040', towns with a population of at least 10,000 people were invited to develop their local climate neutrality roadmaps. This first call received a positive response from 13 towns, all of which successfully participated. The Climate and Energy Fund supported these towns with a total of 1.3 million euros.

## Growing and Linking

The Climate-Neutral City Mission should grow!

Innovations in cities hold great potential, but these systemic innovations are difficult to implement. This is because they require collaboration across multiple decision-making levels and the integration of technical, organisational, and social components.

The BMK supports the Climate-Neutral City Mission through various formats. The mission is intended to be open to companies, research institutions, NGOs, and, not least, to interested members of the public. The first of the now annual Climate-Neutral City Dialogue Forums took place in Vienna on 20 November 2023, where political representatives committed to working together. To underscore the importance of the mission for the BMK, Climate Action Minister Leonore Gewessler personally visited several of the 2023 pioneer cities. Regular exchange between the mission team and key multipliers, such as the Austrian Association of Cities and Towns and the Austrian Federal Economic Chamber, have become fixed components of the process.

In addition, the BMK has intensified its dialogue with other ministries. The Climate-Neutral City Mission was presented to representatives of the Federal Ministry for Arts, Culture, the Civil Service and Sport (BMKÖS) and the Federal Ministry for Agriculture, Forestry, Regions and Water Management (BML) within the inter-ministerial working group on strengthening city and town centres. The discussions centred on integrating urban development funding as an element of sustainable spatial planning.

More than 370 cities applied to participate in the EU mission '100 Climate-Neutral and Smart Cities by 2030'. Klagenfurt was selected and was one of the first ten cities to be awarded the EU Mission Label.



Klagenfurt was one of the first ten cities to be awarded with the EU Commission's Mission Label.

In the picture: Prof. Alois Dolinar (Climate and Environmental Protection Officer and Deputy Mayor of Klagenfurt), Patrick Child (Deputy Director General for Environment of the European Commission) and Dr Wolfgang Hafner (Head of the Climate and Environmental Protection Department of the City of Klagenfurt)

## Thinking and acting beyond borders

Austria has traditionally benefited greatly from European and international exchange, and the Climate-Neutral City Mission is no exception. From the very beginning, the mission has been closely coordinated with the European Commission's '100 Climate-Neutral and Smart Cities by 2030' mission. The city of Klagenfurt was successful in this Europe-wide competition and was included in the final list of 112 European mission cities. An even greater honour followed at the end of 2023 when Klagenfurt became one of the first ten cities in Europe to be awarded the EU Mission Label. The BMK has been supporting Klagenfurt to the best of its ability, and since February 2023, a Memorandum of Understanding has further strengthened the cooperation between the BMK and Klagenfurt.

The EU project 'CapaCITIES', funded under Horizon Europe, is another example of how Austria's innovation ecosystem benefits from European exchange. With 21 participating countries, CapaCITIES aims to support framework-setting actors at the national level in implementing the EU Cities mission. The project facilitates easy access to other comparable programmes across Europe, such as Viable Cities in Sweden, which is an absolute pioneer, and citiES 2030 in Spain, whose programme closely mirrors that of the Climate-Neutral City Mission.

The next highlight occurred in November 2023, with the first exchange as part of the 'Enhanced Dialogue' between Marc Lemaitre (Director General, EU Commission's Directorate-General for Research and Innovation), Henriette Spyra (Director General for Innovation and Technology, BMK), and Wolfgang Hafner (Head of the Climate and Environmental Protection Department of the City of Klagenfurt).

# Making a Visible Difference



Standardised GHG accounting makes the pathways to urban climate neutrality visible

#### Pilot neighbourhoods

become experimental spaces for a climate-neutral future

The selected pilot neighbourhoods show the diversity of Austrian cities

From the pilot neighbourhood to the entire city

## One of the key strengths of working on climate-neutral cities is that the changes are tangible and visible. While the transformation of the electricity grid into a smart grid might not be noticeable in everyday life, the shift to a sustainable city can be seen and experienced.

- In the partnership agreements, each pioneer city identified at least one pilot neighbourhood. For the mission's success, it is crucial that these pilot neighbourhoods reflect a broad diversity from new developments to existing buildings, from residential estates to commercial or educational locations.
- How can we ensure that these measures achieve the desired outcomes for climate protection and liveable urban environments? To ensure this, the Federal Environment Agency has been tasked with creating a standardised greenhouse gas (GHG) accounting system for cities. This system will track changes over time, making progress visible and comparable.

## Thinking big about climate neutrality

Climate-neutral cities are shaped not only by new developments and neighbourhoods but, more importantly, through energy and resource efficiency in existing buildings. The pilot neighbourhoods chosen by the pioneer cities highlight this diversity. With a total area of over 1.26 square kilometres (as of 2023), the goal is to gather practical insights and make visible changes in areas such as energy and mobility transition, as well as the circular economy.

The focus is not on short-term results but on creating long-term solutions that can be applied in other cities as well. The aim is to show that climate neutrality is achievable when it is integrated into practical action and decision-making and supported by innovative solutions. The BMK provides a learning environment where cities can share their experiences from the pilot neighbourhoods and learn from each other.



Work on the pilot neighbourhoods is still in its early stages. Most of the pioneer cities began the selection process in 2023 and held discussions with key stakeholders. The cities have chosen a balance of new-build and existing neighbourhoods. The diversity of urgent issues is already clear: How can affordable housing that is also climate-friendly be realised? Can cooperative planning processes contribute to greater climate protection? What lessons can be drawn from successful projects to set criteria for future urban developments? How should mobility be organised within the neighbourhood, and how can it be integrated into regional transport networks?

## 1.26

square kilometres is the combined area of the pilot neighbourhoods. The balance between new construction and existing neighbourhoods is roughly equal. Additional neighbourhoods are continuously being added. On the way to a standardised

## GHG accounting for Austrian cities

As part of the 'Carbon Accounting Pioneer Cities' project, the groundwork for standardised greenhouse gas (GHG) accounting in Austrian cities has been laid. This project, carried out by the Federal Environment Agency in close cooperation with pioneer cities and towns, benefits from the experience of those cities that have already been working on climate data for years. The aim is not only to standardise the measurement of annual GHG emissions, making them comparable across cities but also to establish the foundation for evaluating the effectiveness of climate protection measures.

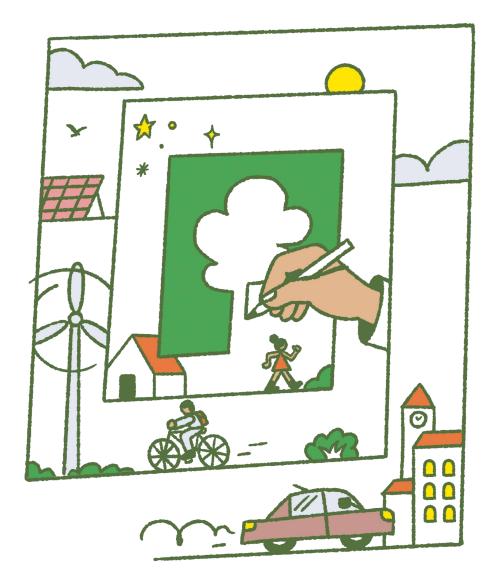
At the start of the project, a key objective was to standardise the definition of climate neutrality. The adopted definition follows internationally established standards, allowing cities to use complex data for acquiring international partnerships, funding, and investments. Gaps in data availability were particularly noticeable in the areas of stationary energy and mobility. The GHG accounting tool is expected to be completed by December 2024.

A city is considered climate-neutral if consumption-based emissions from the stationary energy, transport, waste, industrial production\* and agriculture\* sectors have been reduced by at least 80 % compared to the base year 2018/2019 and the remaining 20 % are offset.#

<sup>\*</sup> excl. ETS trading

<sup>\*</sup> Only EU-CRC-certified measures are eligible for offsetting

## Thinking ahead to a Climate-Neutral City!



The SIR surveyed the diversity of urban climate governance 138

external stakeholders are already involved in the mission's cities The EU has proclaimed five missions, and the Austrian Climate-Neutral City Mission is in dialogue with all of them

In Dialogue

Missions like the Climate-Neutral City require not only a clear goal but also courage from all involved. The path to this goal is not always clear at the outset. That is why the Austrian Climate-Neutral City Mission has been deliberately designed as a learning programme that can evolve and adapt to changing requirements as the mission progresses.

- In 2023, this learning process took place on two levels: firstly, through dialogue with other institutions coordinating similar tasks, and secondly, through studies that underpin and expand the current knowledge with facts. Two studies from 2023 are highlighted here:
- AustriaTech analysed which external stakeholders have been involved in the work of the pioneer cities to date. The results showed that there is already an extraordinary diversity of stakeholders, which positions the mission at the forefront of Austrian innovation programmes.
- SIR examined how the people employed through public-public partnerships are or will be integrated into the existing administrative structures of the cities. This analysis revealed different approaches, which were assessed in collaboration with the cities to identify strengths and weaknesses and to develop actionable recommendations.

## Valuable exchange between EU missions

The '100 Climate-Neutral and Smart Cities by 2030' mission is one of five missions initiated by the European Commission. These missions aim to address diverse societal challenges, from fighting cancer to cleaning up polluted oceans. While the goals may differ, the approach –referred to as mission-oriented innovation policy – is consistent across all missions, making exchange between them highly valuable.

In Austria, the Inter-ministerial Task Force for Research, Technology and Innovation (RTI) is responsible for coordinating the national implementation of the five EU missions. The Mission Management Group, consisting of representatives from ministries, federal states, interest groups, research institutions, and industry, drives the process of implementing these missions.

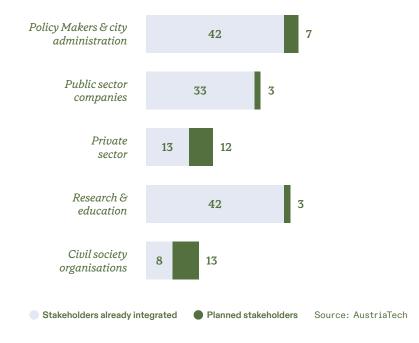
Who is involved?

## The Stakeholders of the Climate-Neutral City

In the summer and autumn of 2023, AustriaTech conducted interviews with the pioneer cities to identify which external stakeholder groups are already engaged in the cities and in which roles. The interviews also aimed to pinpoint areas where stakeholder involvement might still be lacking.

This work is particularly relevant for the planned implementations, as the municipal authorities' sphere of influence is often limited. A total of 138 independent external actors were identified and categorized according to their roles, which range from knowledge carriers to financing institutions. Some of these stakeholders are involved in multiple pioneer cities.

Distribution of the stakeholders already involved and planned collaborations of the pioneer cities by sector



The next goal is to more closely involve stakeholders from the private sector in the mission. While the public sector companies have already been identified as a key stakeholder group and are actively involved, their participation is not yet at the desired level in many cases. A second key finding from the interviews is the lack of involvement of the civil society organisations in the process. Although interviewees recognise the importance of this group, it was noted that the low level of citizen engagement is not due to neglect but often reflects a conscious decision. Many cities believe that structural and organisational issues must first be clarified before involving citizens more extensively. The study will be repeated at a later date to measure progress in stakeholder involvement.

Urban climate governance

## Anchoring climate protection in the municipal administration

With public-public partnerships, a framework has been established, for pioneer cities, enabling city administrations to address the capacity gaps in implementing innovative climate protection measures.

How and where the capacities are integrated into existing governance structures is crucial to setting the right direction. To explore this, the SIR interviewed all participating cities and analysed the decisions that are being considered or have already been implemented. The study reveals the many ways in which climate action can be organisationally integrated into municipal administration. These include the establishment of dedicated staff units, embedding climate action into specialised departments, or outsourcing responsibilities to external entities like limited liability companies. In a final round of reflection with the cities, the strengths and weaknesses of the various approaches were discussed. Some cities have successfully leveraged experience from other programmes, such as the e5 programme or the Climate and Energy Model Regions (KEM). Colleagues who have worked on similar issues for many years bring valuable expertise, particularly in project development, which can serve as a resource in further advancing the pioneer city's climate efforts. Other cities can use the results of the study to shape their internal governance structures and enhance the effectiveness of their climate protection strategies.

Additional capacities will only be effective if they are optimally integrated into existing governance structures within city administrations. The SIR study provides valuable insights to guide this process.

# What's next?

# An outlook for 2024

While 2023 marked the official start of the Austrian Climate-Neutral City Mission in many ways, much of the groundwork had already been laid in previous years. The pioneer cities have been working in public-public partnerships since 2022/2023, and pioneer towns will receive increased support in 2023/2024 to develop their climate neutrality roadmaps. Across Austria, a growing network of dedicated individuals and groups is forming to support one another and further this important mission.

- The Climate-Neutral City Mission is fundamentally experimental. Two studies emphasise this aspect: one explores the potential of AI for accelerating climate neutrality in cities, and the other focuses on the use of satellite data to monitor and support urban transformation. The goal is to equip cities with innovative tools to expedite the transition to climate protection, improve living conditions, and stimulate the local economy.
- In 2024, as this report goes to press, additional pioneer towns will join the initiative, expanding the scope and diversity of the mission.
- The Climate-Neutral City Mission aims to contribute to greater equal opportunities, diversity, and participation. In line with this, dissertations and joint qualification initiatives will be offered to engage a broader range of stakeholders in the process.
- Additionally, the Climate and Energy Fund is launching a new funding initiative called 'Lighthouses of the Heat Transition,' which will support pioneer cities in realising their pilot neighbourhoods.
- Many of the positions funded through publicpublic partnerships have now been filled, the next report will highlight the successes, challenges, and ongoing efforts of the cities involved in the mission.

See you next year!

#### Pioneer cities





Graz



Klagenfurt am Wörthersee



St. Pölten







Salzburg

Wiener Neustadt





Dornbirn

#### Pioneer towns



Feldkirch



Bregenz



St. Johann in Tirol



Vöcklabruck



St. Veit an der Glan



Steyr



Bruck an der Mur



Kapfenberg



Gratwein-Straßengel



Feldbach



Tulln an der Donau



Baden

#### Mission team

Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie





#### Support team







#### Sources

- 1 Bulkeley, H., Broto, V. C., Hodson, M., & S. Marvin (eds.) 2011. Cities and low carbon transitions (Vol. 35). London: Routledge.
- 2 Balleis, S. 2020. Die Dieseldebatte als Auslöser der Verkehrswende. In Etezadzadeh, C: (ed.) Smart City Made in Germany: Die Smart-City-Bewegung als Treiber einer gesellschaftlichen Transformation, 515-524.
- 3 Dodman, D., B. Hayward, M. Pelling, V. Castan Broto, W. Chow, E. Chu, R. Dawson, L. Khirfan, T. McPhearson, A. Prakash, Y. Zheng, and G. Ziervogel, 2022: Cities, Settlements and Key Infrastructure. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 907-1040, doi:10.1017/9781009325844.008.
- 4 Grubler, A., Bai, X., Buettner, T., Dhakal, S., Fisk, D.J., Ichinose, T., Keirstead, J.E., Sammer, G., Satterthwaite, D., Schulz, N.B., Shah, N., Steinberger, J., Weisz, H., 2012. Chapter 18: Urban Energy Systems. In: Global Energy Assessment: Towards a Sustainable Future. https://doi.org/10.4324/9780203066782.
- 5 European Commission 2021. 100 Climate-Neutral and Smart Cities by 2030. Implementation Plan. Available online: https://tinyurl.com/z6xfpy8w
- 6 FFG 2022. Pionierstadt Partnerschaft für Klimaneutrale Städte 2030. Ausschreibungsleitfaden. Available online: https://tinyurl.com/4sctrbkk
- 7 Own calculation based on Statistics Austria 2023.
- 8 Own calculation based on energiemosaik.at (2019 data).
- 9 NetZeroCities 2023: Climate City Contracts. Available online: https://tinyurl.com/yx35weam

Through the Climate-Neutral City Mission, the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), in cooperation with the Climate and Energy Fund, is supporting Austrian cities in accelerating their transition to climate neutrality through research, development, and innovation.





