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Decarbonising Cities & Communities

IEA CITIES TASK 2: DATA FOR URBAN ENERGY PLANNING

Interim online meeting, 27.01.2026

Ingo Leusbrock (AEE INTEC)

AIMS FOR THIS MEETING

Interim online meeting 27.01.2026

- Update on recent developments
  - Within IEA Cities Task 2
  - Within IEA Cities TCP
- Discussion & input on dissemination plan and videos for fact sheets
- Interesting presentations from parallel Cities tasks and ongoing initiatives for municipal heat planning
- Planning next meeting and next steps

ORGANISATIONAL STUFF

The small things

- Recording of the meeting
  - Used for documentation and sharing
- Minutes, recordings and presentations will be shared after this meeting
  - Also available on MS Teams
- Access to the MS Teams channel
  - Please check, every documentation etc. is available there
- Main presentations and further material already available online
  - Options for direct feedback and input

AGENDA

Program Part I

Start	End	Name	Description / work item
12:45	13:00	Start online meeting	• Start online meeting @12:45 for technical test
13:00	13:45	Opening and general update	• Introduction to the meeting objectives and agenda • Update on recent developments and news
13:45	14:15	Dissemination	• Introduction dissemination plan • Introduction videos for fact sheets
14:15	**14:30**	**Coffee break**	

AGENDA

Program Part II

Start	End	Name	Description / work item
14:30	14:55	Presentation Philipp Sommer, FH Münster (GER)	• Presentation on f-heat (open-source tool for municipal heat planning)
14:55	15:20	Presentation Patryk Czarnecki (IBRI, AUT) on IEA Cities Task 5	• Introduction IEA Cities Task 5 / IEA EBC Annex 97 "Sustainable Cooling in Cities"
15:20	15:45	Next steps and AOB	• Planning next meeting in Bergamo, IT • Who will do what in the next coming weeks and months? • AOB
15:45		End of meeting	

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MEETINGS IN THE LAST MONTHS

2ND WORKING MEETING, BERLIN

22. / 23.10.2025

- 15 on-site, ~15 online
- Main points
  - Update
  - Discussion points
    - Dissemination activities (fact sheets, dissemination plan)
    - Data management template
    - Cooperation with other Cities tasks
  - Presentations
    - Brunswick
    - Esslingen
    - DLR
    - Slowenia
    - DENA

TODO'S FROM MEETING BERLIN

- AEE
  - Debriefing of today → done
    - Collection input today / yesterday
    - Minutes / presentations
  - Preparation status quo and updates for ExCo Meeting in April 2025 → pending
  - Planning next meetings and activities → done
  - Resilient energy system – IEA EBC Annex 73 results --> IL shares information → pending
  - Organize next steps for fact sheets – more fact sheets, video recordings → done
- Subtask leads
  - Finalise dissemination plan and templates by end 2025. → done / pending
  - Develop cooperation packages with Tasks 3 (finance) and 4 (districts). → ongoing
  - Update list of contributions → pending
    - active involvement of contributors
  - Data priorization - what do you need for what → pending
    - do a test run by walking through municipal heat planning
      - Test for method for data priorization & fact sheet input for MHP

EXCO MEETING BERLIN

20th / 21st of October 2025

- Content presentation
  - General update
  - Update Meetings
  - Content
    - Dissemination strategy / Knowledge transfer
    - Fact sheets
  - Next steps

- General feedback was positive for Cities Task 2

CITIES TCP UPDATES

- New strategic plan for Cities TCP for the period 2027 – 2032 in development
  - Necessary for every TCP
  - Process scheduled for 2026 with finalization in Q4 / 2026
  - **Invitation to all participating / interested countries to participate in this process!**
    - **National partners / institutions: please use this process to motivate and involve further national R&D partners and – more importantly – the national ministeries and funding agencies!**
- Countries joining
  - Italy joined late 2025
    - National kickoff in November 2025
    - Interested parties invited for this meeting and next working meeting in Bergamo
  - European Commission joined with January 2026
    - Next ExCo meeting in Brussels

CITIES TCP UPDATES

- Task 3 („**Multiple Benefits and Blended and Place-based Finance**”)
  - Development content & activities ongoing
  - Start planned >Q4 2026
- Task 4 („**Climate Neutral Districts**“)
  - Started with January 2026
  - Physical meeting planned for Q2 2026
  - More details → see presentation last online meeting
- Task 5 („**Sustainable Cooling in Cities**“)
  - Started with January 2026
  - More details later today in the Task 5 presentation

UPDATES

Dissemination activities

- Presentation at „Smart and Sustainable Planning for Cities and Regions 2025“, Bozano, Italy
  - Title: „Spatial energy planning and municipal heat planning - Experiences and developments in Austria“

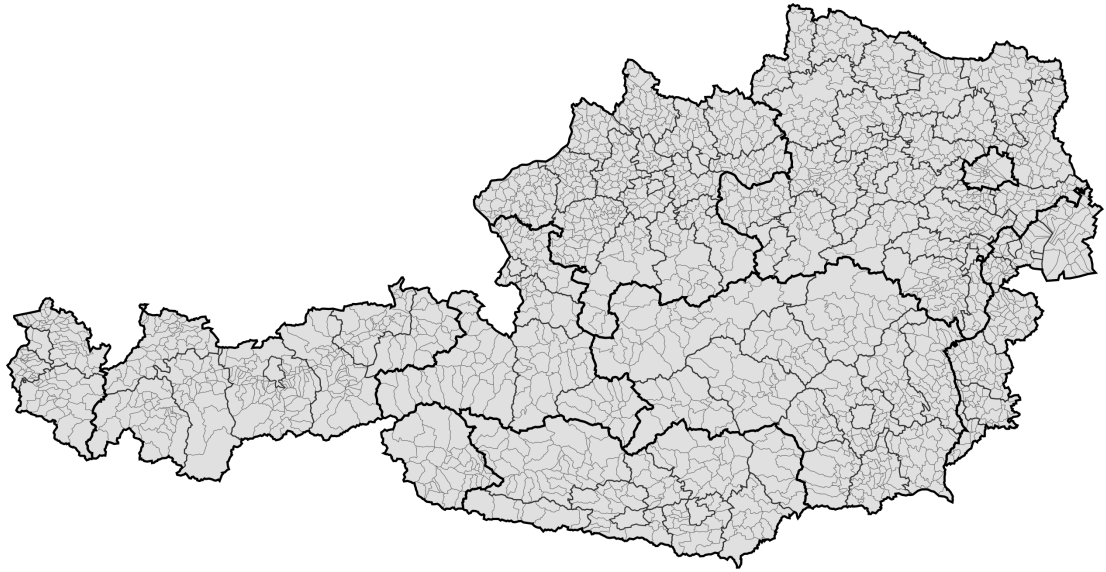
AUSTRIA AND ITS FEDERAL STATES

- 9,2 mln inhabitants
- 9 federal states
  - Ranging from 300k in Burgenland to 2mln inhabitants in Vienna
- Federal states have separate legislation on
  - Building code
  - Spatial planning
  - Climate and environmental protection
  - …
- Federal states have separate subsidy schemes

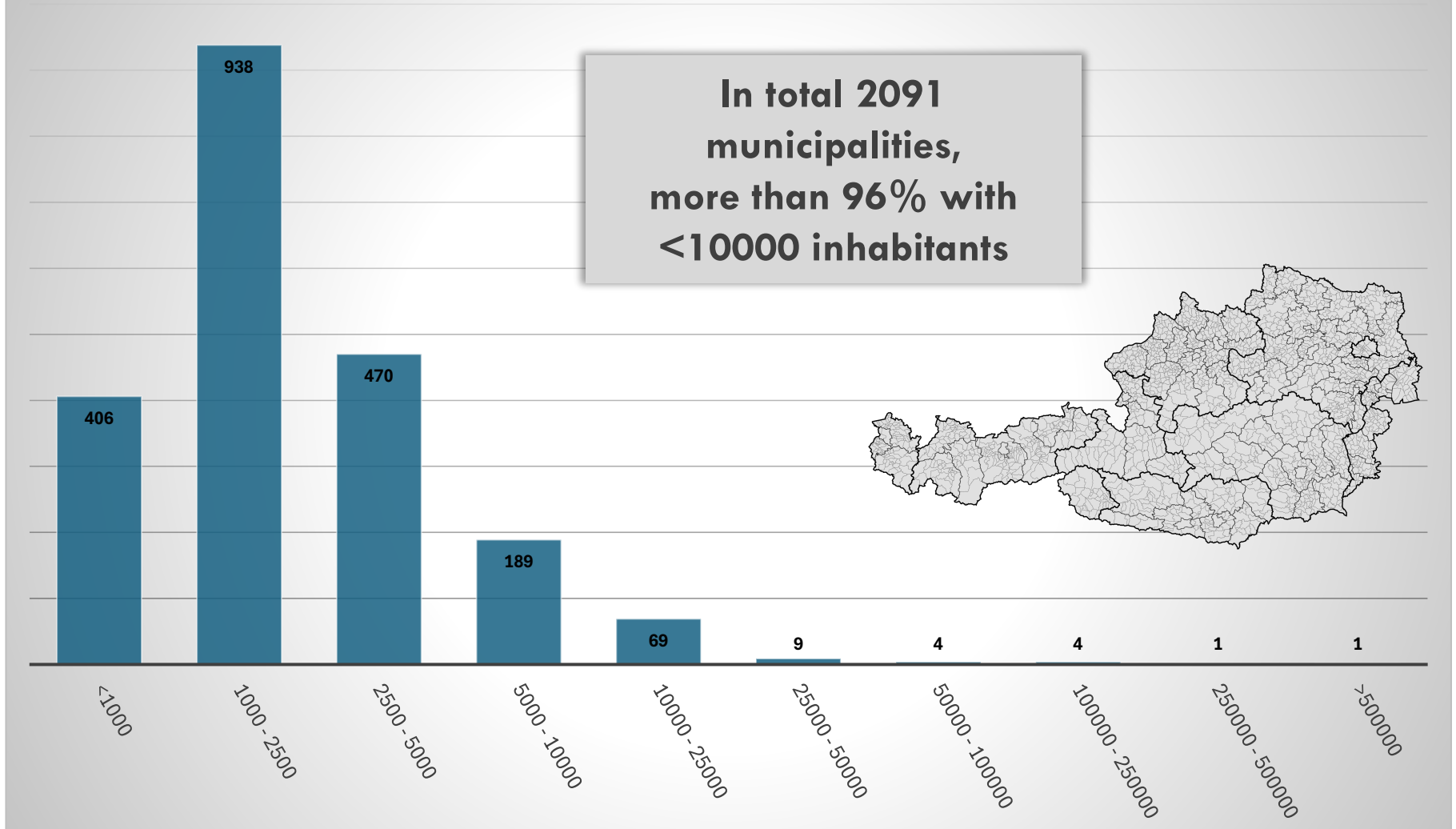

LOWER AUSTRIA
Linz
Vienna
Sankt Pölten
UPPER AUSTRIA
Eisenstadt
Salzburg
BURGENLAND
Bregenz
STYRIA
SALZBURG
VORARLBERG
Innsbruck
TYROL
Graz
TYROL
CARINTHIA
Klagenfurt

ROLE OF MUNICIPALITIES

- 2091 municipalities in Austria
- Duties and rights of a municipality
  - Self-governance in own affairs
  - Own sphere of activity and responsibilities:
    - Public services: water supply, sewage and waste disposal, street lighting, cemeteries, nurseries, primary schools, fire protection, rescue services,…
    - Infrastructure: Construction and maintenance of roads and public spaces
    - Spatial planning
    - Local building authority
    - Local climate protection agency



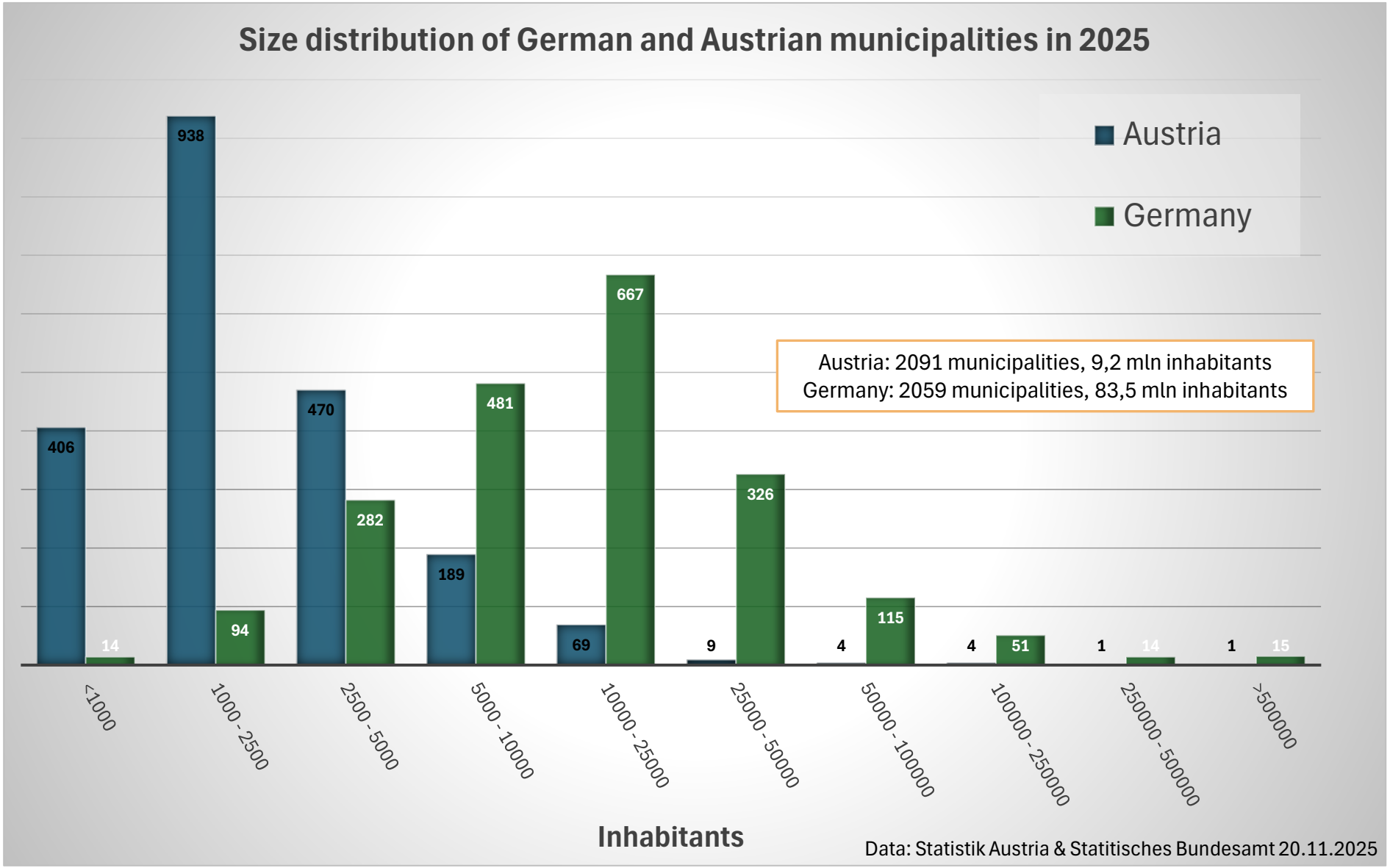
Size distribution of Austrian municipalities, 01.01.2025



In total 2091 municipalities, more than 96% with <10000 inhabitants

Data: Statistik Austria, 20.11.2025

Size distribution of German and Austrian municipalities in 2025



Austria: 2091 municipalities, 9,2 mln inhabitants
Germany: 2059 municipalities, 83,5 mln inhabitants

Data: Statistik Austria & Statitisches Bundesamt 20.11.2025

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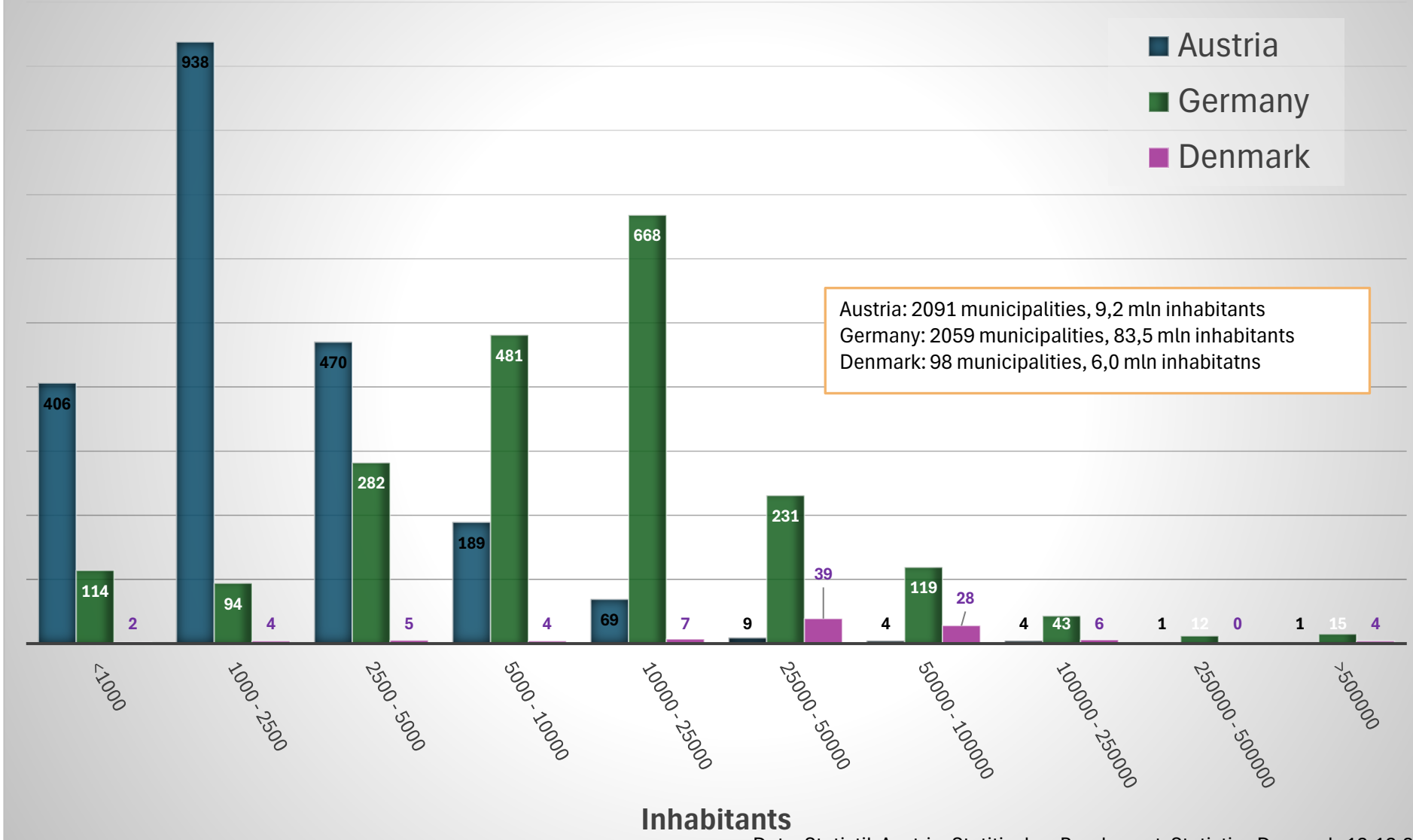
Size distribution of German, Austrian and Danish municipalities in 2025



Austria: 2091 municipalities, 9,2 mln inhabitants
Germany: 2059 municipalities, 83,5 mln inhabitants
Denmark: 98 municipalities, 6,0 mln inhabitatns

Data: Statistik Austria, Statitisches Bundesamt, Statistics Denmark 12.12.2025

UPDATES

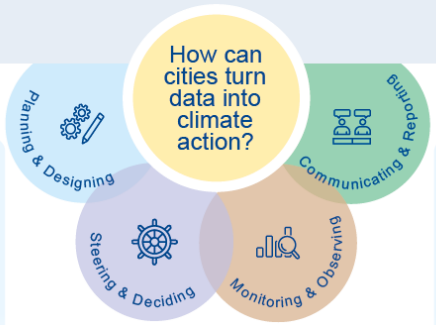
Dissemination activities

- Presentation at „Smart and Sustainable Planning for Cities and Regions 2025“, 09th – 12th of December 2025, Bozano, Italy
  - Title: „Spatial energy planning and municipal heat planning - Experiences and developments in Austria“
  - Presentation available on MS Teams

- National IEA networking conference 19.01.2026
  - Poster + Pitch

IEA Cities Task 2
Data for Urban Energy Planning

Ingo Leusbrock[1], Larissa Hamilton[1], Marie Sevenet[2], Samuel Thiriot[2], Aitor Urresti[3], Devin Diran[4], Marion Bakker[5]



STATUS QUO

Why is Task 2 needed?

Cities and municipalities consume about two thirds of global energy and emit a similar share of CO_2.

However, they often lack access to suitable data, tools, expertise and resources, leading to fragmented decisions and slowing effective **urban energy transitions.**

BARRIERS

Which key challenges does Task 2 address?

- Fragmented data availability and inconsistent data quality
- Lack of harmonised standards and comparable approaches
- Limited skills and resources
- Legal and organisational barriers to data use
- Difficulty **translating technical know-how** into municipal practical

PROCESS

How is this challenge approached?

IEA Cities Task 2 addresses this gap by connecting R&D institutions, cities, energy agencies and NGOs. Together, they collect and analyse real-world municipal use cases and the underlying data, methods, tools and governance models. They translate expertise into practical guidance for **urban energy planning.**

METHODOLOGY

How are these benefits generated?

Benefits are achieved through systemic collection and evaluation of municipal best practices, linked with suitable data, methods and tools.

These insights are transformed into clear frameworks, guidance and learning materials tailored to practical urban energy planning needs.

LONG-TERM EFFECTS

What are the concrete outcomes and impacts?

- Catalogue of use cases and lessons learned (e.g. reports)
- Classification of tools, methods and services (e.g. fact sheets, videos, workshops)
- Urban energy data mapping tool
- Templates for data governance and management
- Training package & communication materials

BENEFITS FOR CITIES

What do cities gain from Task 2?

Cities gain actionable knowledge, proven methods and concrete examples supporting key municipal tasks such as planning, monitoring, decision-making and communication.

They benefit from international exchange, capacity building, reduced planning complexity and greater confidence in decarbonization-related decisions.

FEATURES

What makes IEA Cities Task 2 unique?

Task 2 places cities and municipalities at the center of the IEA TCP, focusing on solutions rather than technologies and combining international expertise with real municipal use cases and strong knowledge-translation mechanisms.

ESSENTIAL ENABLERS

Communication & Publication

Interactive communication and hands-on sessions are carried out with cities, action-learning groups and in close cooperation with NGOs and energy agencies.

DISSEMINATION

How is the impact through **COMMUNICATION** and **PUBLICATION** ensured?

Translation of engineer-ish knowledge into city-ready insights for broad municipal uptake.

Knowledge hub – targeted dissemination of fact sheets, explainer videos, training materials and workshops

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National project partners: AIT Austrian Institute of Technology GmbH, ISPACE plus, SIR – Salzburger Institut für Raumordnung und Wohnen GmbH
1 AEE - Institute for Sustainable Technologies, 2 EIFER, 3 University of the Basque Country, 4 TNO, 5 RVO

Federal Ministry Innovation, Mobility and Infrastructure Republic of Austria
FFG Promoting Innovation.
IEA Research Cooperation Part of openinnovation

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UPDATES

Dissemination activities

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- National IEA networking conference 19.01.2026
  - Poster + Pitch
  - PDF + PPTX available on MS Teams → please feel free to reuse and adapt!

UPDATE

Dissemination activities: Preparation workshop for IEA HP conference

- International Heat Pump Conference
  - Location and date: 26th – 29th of May 2026, Vienna, Austria
  - Link: https://hpc2026.org/
- Workshop
  - Title:
    - „How can the heat pump community help cities in their municipal heat planning and their energy transition?"
  - Aims
    - Clarify what cities need from the heat pump community
    - Highlight what the heat pump community needs from cities
    - Present selected city perspectives
    - Identify system-level challenges and opportunities
    - Encourage interactive dialogue
    - Define potential fields of future cooperation

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UPDATE DATA MANAGEMENT TEMPLATE

Devin Diran, TNO

DISSEMINATION PLAN

- General, high-level document on purpose, ideas, etc.
  - Available on MS Teams
- Two target groups
  - Scientific communities
  - Cities and Municipalities
- Starting point for further planning
  - ToDo core team till next meeting

PLANNED DISSEMINATION ACTIVITES

Q1 / Q2 2026

- Publication fact sheets and videos
  - Q1 / Q2 2026 and ff.
- Webinar series in cooperation with GCOM
  - Topics under discussion
    - Topics from fact sheets
    - General intro Task2
  - Q2 2026 (?)
- Workshop @ IEA HP conference
  - May 2026

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DISSEMINATION ACTIVITIES

- Activities from your side already?
- Are there activities planned?
- Do you have ideas for activities?
- Do you know of events, conferences, workshops interesting for the Task 2 crowd? Please share!

FACT SHEETS

Update

- 10 fact sheets ready for publication
  - Aligned layout
  - Aligned content
  - Publication planned (!) via
    - Cities TCP website
    - GCOM platform

- More to be finalized
- More to come → new participants, new topics

FACT SHEETS

Background

What is necessary?
Skills, data, steps?

Target groups:
Cities & multipliers

Links, projects, etc.

Fact Sheet: Municipal Heat Planning in Austria

Practical Steps for Cities and Communities for Developing Municipal Heat Plans

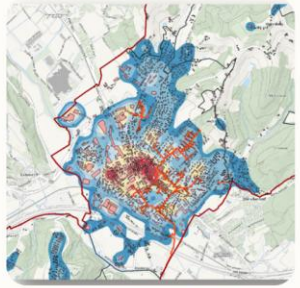
Why is municipal heat planning important for cities and communities?

A well-planned heating and cooling system makes cities and communities more sustainable, affordable, and future-proof. Municipal or communal heating plans (MHP) helps identify the best ways to provide **reliable and environmentally friendly** heating and cooling - wheather through district heating, renewable energy, or efficient building upgrades.

The **key goals** of MHP are:

- Creating sustainable, cost-effective, socially fair and reliable heating and cooling solutions that work for everyone.
- Developing clear strategies and action plans that help municipalities transition to greener energy.

By taking the right steps and engaging stakeholder, municipalities cut costs, reduce emissions and enhance life quality.



Initial step: Generating a heat demand density map, visual example (AEE INTEC)

What is necessary to develop a municipal heat plan?

A successful heat plan is based on **reliable data** about buildings, existing infrastructure, and future developments.

Interactive tools, such as **GIS maps**, help visualize energy needs and identify the best solutions. Ongoing **collaboration** with residents, businesses, and experts ensures effective implementation.

Key Steps & Resources

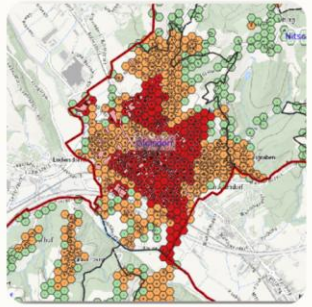
- **Gathering data** on buildings, energy supply and infrastructure
- **Mapping energy use** and potential renewable sources
- **Developing scenarios** for future heating solutions
- Aligning with **climate action plans**

Skills needed

Urban energy planning

Digital tools like GIS

Technical knowledge of heating systems



Next step: Zoning map for spacial heating options derived from heat density map (AEE INTEC)

Developer: AEE INTEC within various spatial energy planning projects; Used in: Austria

Explore more!
Curious about other models and data we work with in the Cities TCP? Explore more fact sheets via this link!

Further Links
www.waermeplanung.at
www.aee-intec.at
https://cities-tcp.org/

VIDEOS FOR FACT SHEETS

Overview

- Idea
  - 3 – 5 minute video as teaser / easy access for each fact sheets
- Manual available with general recommendations
- Intro and outro slides available
  - Please use them!
- 2 videos avaiblable as start / inspiration
  - General intro on Task 2
  - Municipal heat planning
  - …\04_Work\02_Videos\02_Videos for upload

VIDEOS FOR FACT SHEETS

Next steps

- Hosting / „Marketing“
  - To be discussed

- More videos on the fact sheets
  - Deadline till the next meeting in Bergamo

COFFEE BREAK TILL 14:15

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PRESENTATIONS

- Presentation Philipp Sommer, FH Münster (GER)
  - f-heat (open-source tool for municipal heat planning)
- Presentation Patryk Czarnecki (IBRI, AUT)
  - Introduction IEA Cities Task 5 / IEA EBC Annex 97 “Sustainable Cooling in Cities”

NEXT STEPS

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NEXT MEETINGS

- 3rd working meeting
  - Date: 18.03. – 19.03.2025, „lunch – to – lunch“
  - Host: ENEA
  - Location: Kilometro Rosso SpA Via Stezzano, 87; 24126 Bergamo (BG) - Italy; https://www.kilometrorosso.com/en/find-us/
  - Registration form: Link registration form
    - Please register!
  - Topics:
    - General updates
    - Introduction Italian partners and discussion Italian interests and contributions
    - Update from the subtasks
    - AOB
  - Further discussion with ENEA on agenda, topics, involvement Italian stakeholders pending

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FURTHER ACTIVITIES & TODO'S

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OPEN QUESTIONS

ISEC 2026

15 – 16 April 2026, Graz

- *Conference for Renewable Heating and Cooling in Integrated Urban and Industrial Energy Systems*
- **Date:** 15 – 16 April 2026
- **Venue:** Messecongress Graz, Austria
- **Program:**
  - 14 April 2026: Side Events, Welcome Reception
  - 15 – 16 April 2026: Conference, Workshops, Conference Dinner
- **More information:** www.isec-conference.at
- Early Bird registration phase almost finished!

INTERESTED? CONTACT ME!

The more, the merrier!

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