



INTERNATIONAL VIENNA
ENERGY & CLIMATE
FORUM 2023

2 and 3 November 2023
Progress by Innovation
#IVECFForum23

Solutions for viable and high-quality building refurbishment in Austria

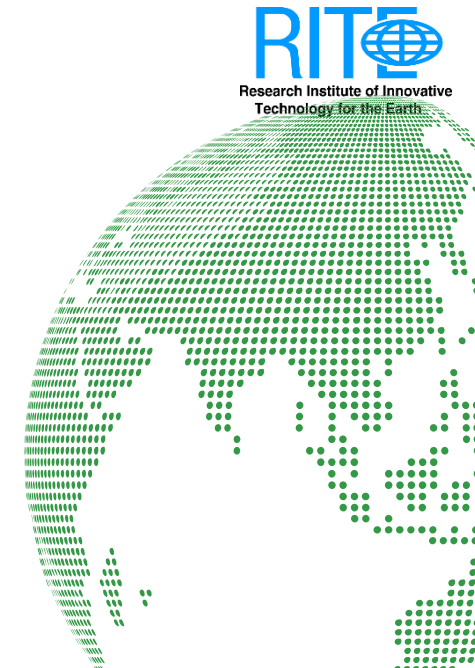
Elisabeth Sibille - klimaaktiv



Agenda

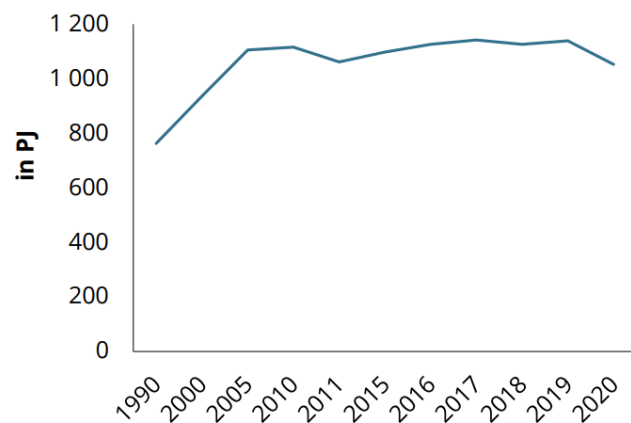
- Needs for building refurbishment in Austria
- What is possible? Replicable Best-Practice examples
- Beneficial social effects of building renovation
- Klimaaktiv support program

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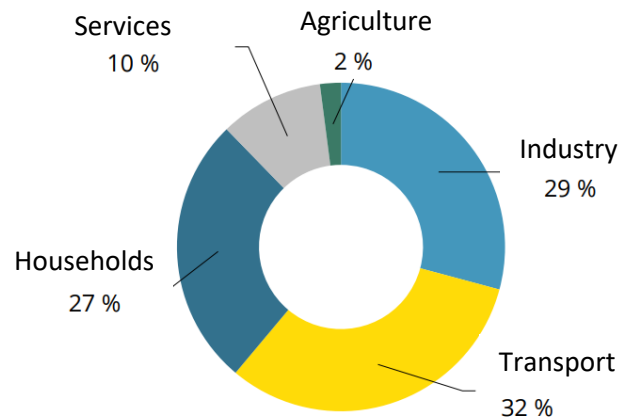


Needs for building renovation in Austria

Final energy consumption



Breakdown of final energy consumption

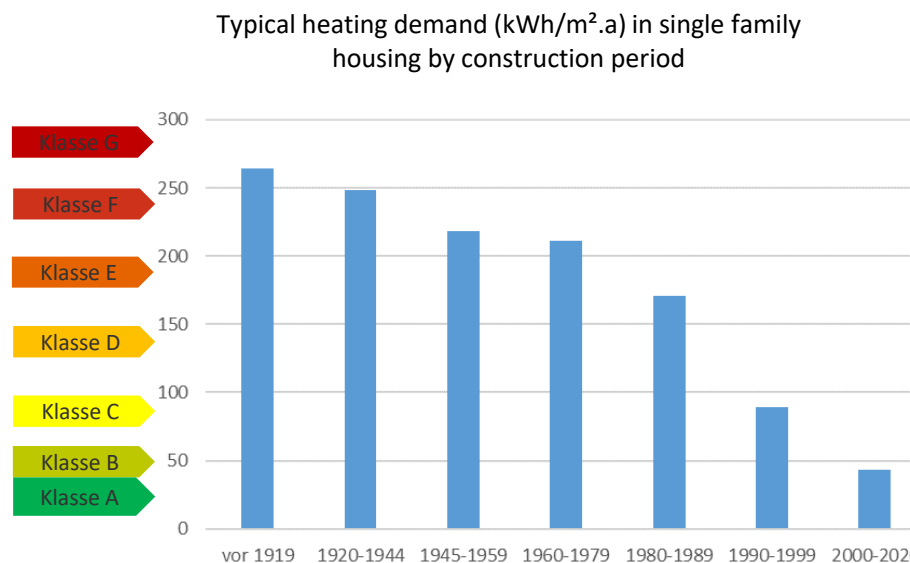
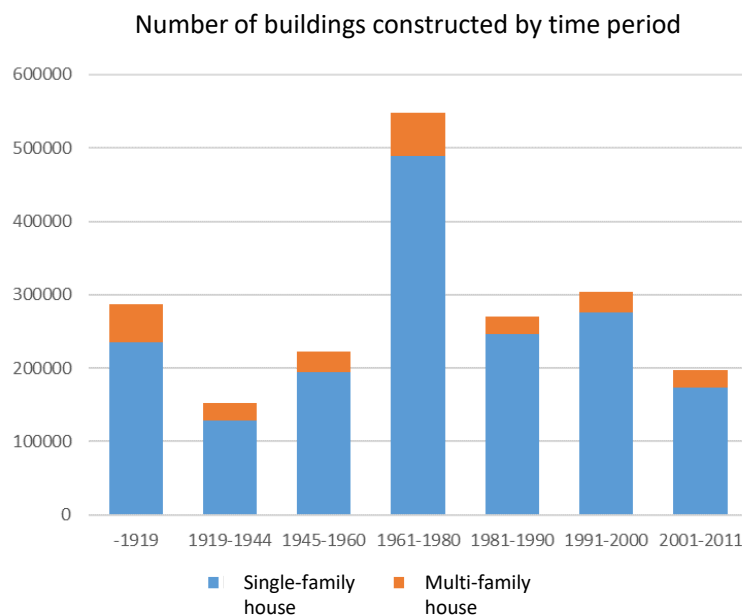


Objective: Austria climate neutral by 2040

- Reduce Austrian final energy consumption of around 20 % by 2030
- and of 35 % by 2040.



Needs for building renovation in Austria



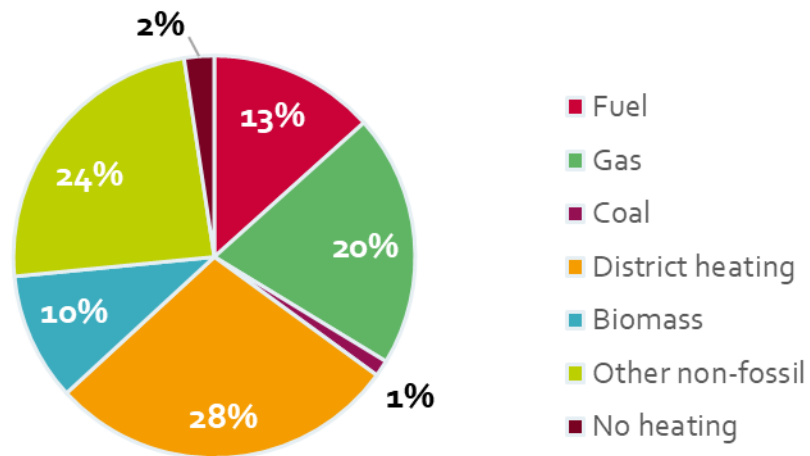
An **energy efficient** refurbishment of the **building envelope** is the key to achieving **climate neutrality** in the building sector!

Energy Efficiency First!

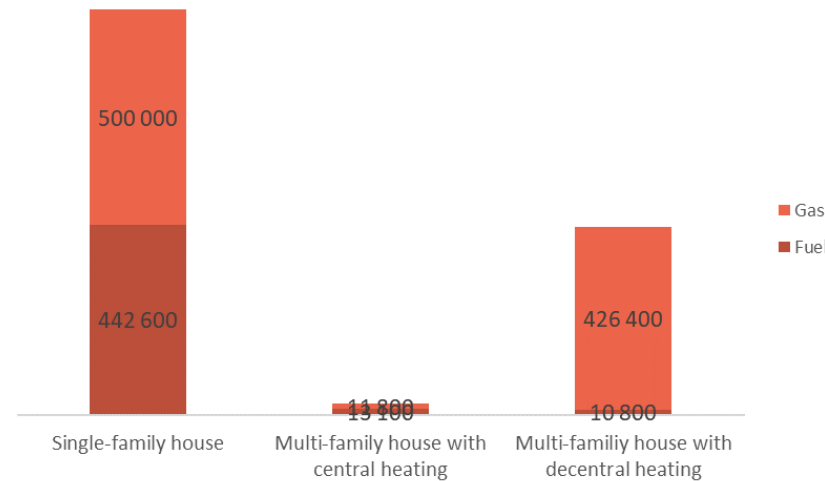


Needs for building renovation in Austria

Breakdown of primary energy source in Austrian households



Number of oil and gas heating systems by type and building type



- The replacement of fossil based heating systems in single family house is crucial
- The replacement of apartment gas heaters in city multi-family buildings is also decisive for reach climate neutrality but often technically very challenging



What can be done?



Klimaaktiv Gold Standard

Refurbishment of a typical multi-family house from the 1970s:

- **75% less heating energy** consumption
- Better **air quality** through the utilisation of low-emission building materials and mechanical ventilation
- increased **summer comfort**



What can be done?



Klimaaktiv Silver Standard

Refurbishment of a heritage guesthouse

from the XIIth century:

- **150 m² PV area**
- Building efficiency **Class B**
- **Preservation** of the existing stone walls, vaults and massive wooden ceilings



What can be done?



Passive House Standard

Refurbishment of a single-family house

from the 1960s:

- **97% less energy consumption**
- **Compact ventilation unit with integrated heat pump**
- **More daylight, more comfort**



Beneficial social effects of refurbishment

- Less heating costs („crisis proof“), less risk of **energy poverty**
- Better air quality and **healthy spaces**
- More **comfort**, daylight and livable area
- Better **resilience** against heat waves and effects of climate change
- Improvement of **accessibility**
- More **community** spaces
- ...



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Klimaaktiv support program

Step by step refurbishment guidelines to klimaaktiv building standard:

- Assessment of the existing
- Assessment of potentials
- Find best-practice projects
- Set objectives of the refurbishment
- Set refurbishment strategy, steps and schedules
- Help for financial support
- Find an energy consultant
- Monitoring, quality proof and certification



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Klimaaktiv support program

Numerous guidelines

- For professionals
- For private households
- Trainings and webinars



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Thank you for your attention!

*Solutions for viable and high-quality
building refurbishment in Austria*

Elisabeth Sibille - klimaaktiv



Panel discussion and Q&A with the audience

- What are the key technological, behavioral, infrastructural innovations that can deliver a fundamental transformational change on the demand-side in the buildings sector?
- What are ways to roll them out and upscale? What are the conditions of success?
- Which policies and measures are available for cities to spread energy efficient buildings, onsite renewable energies and support sustainable lifestyles?
- Does building renovation contribute to socio-spatial inequality in urban areas? How can it be prevented?
- Which framework conditions for energy efficient buildings have proven to be successful?



EDITS

