

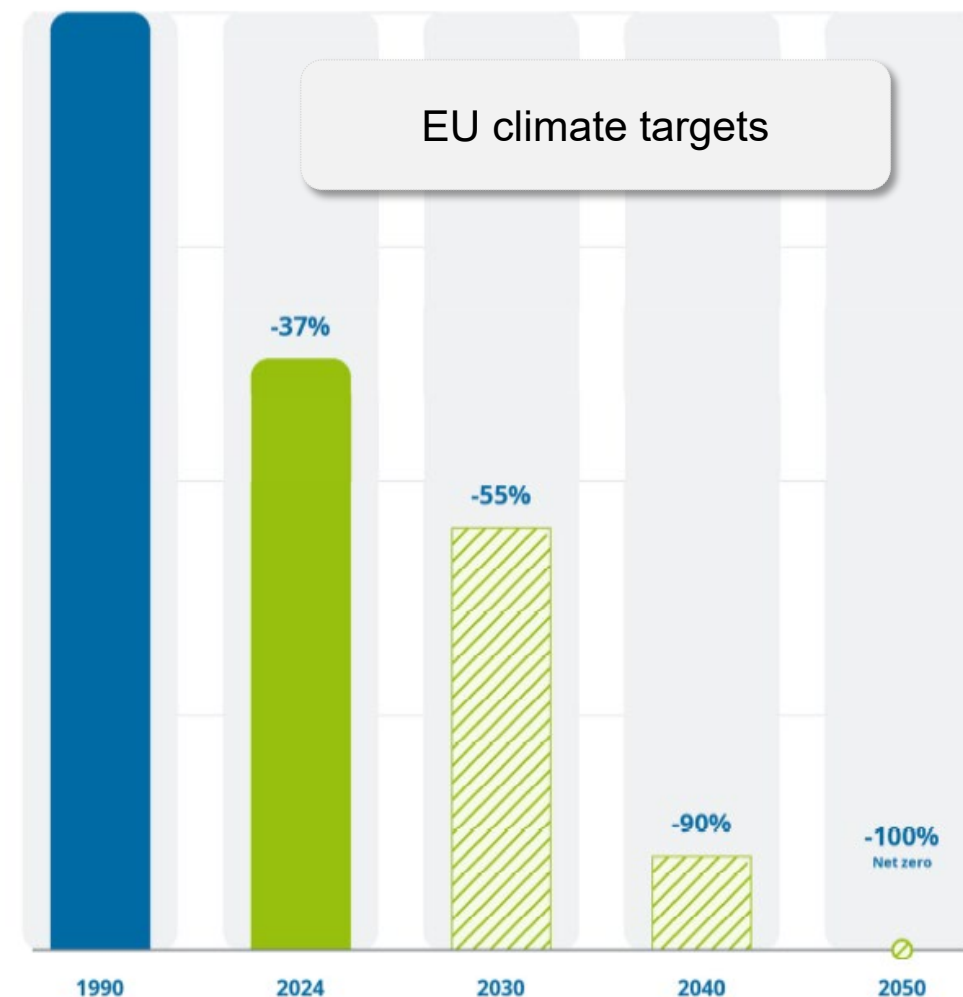
The Future of Heating Beyond Natural Gas

Gas Dilemmas in CEE

Veit Bürger | REKK Regional Energy Policy Forum 2026 | Budapest, 20 October 2026

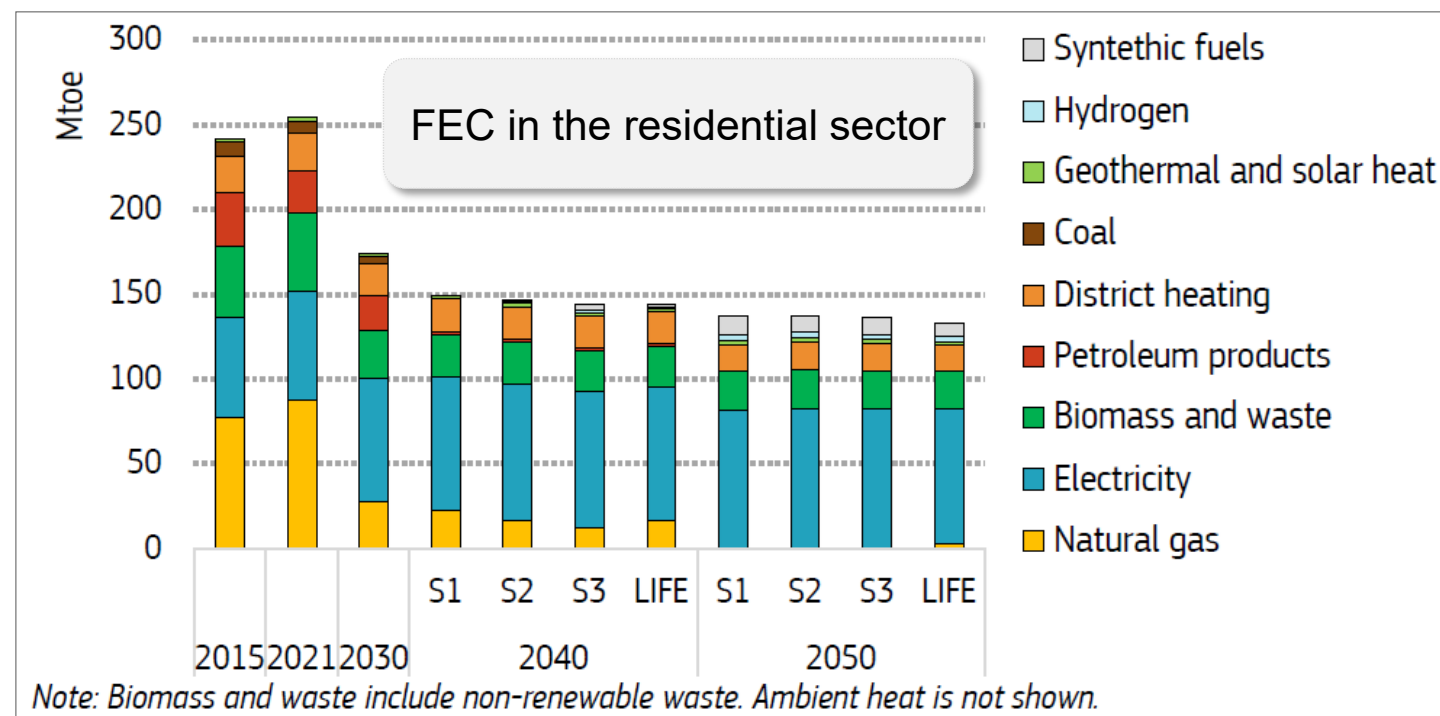
Starting point

- About 40% of the overall EU's natural gas consumption goes toward space heating and hot water production
- Natural gas has often been presented as a 'bridge fuel' (the shift from coal or heating oil to natural gas has been promoted as a climate protection measure)
- Given the EU's ambitious climate goals, a rapid phase-out of natural gas is essential (including in the building sector)



Key measures and key technologies to transform the building sector

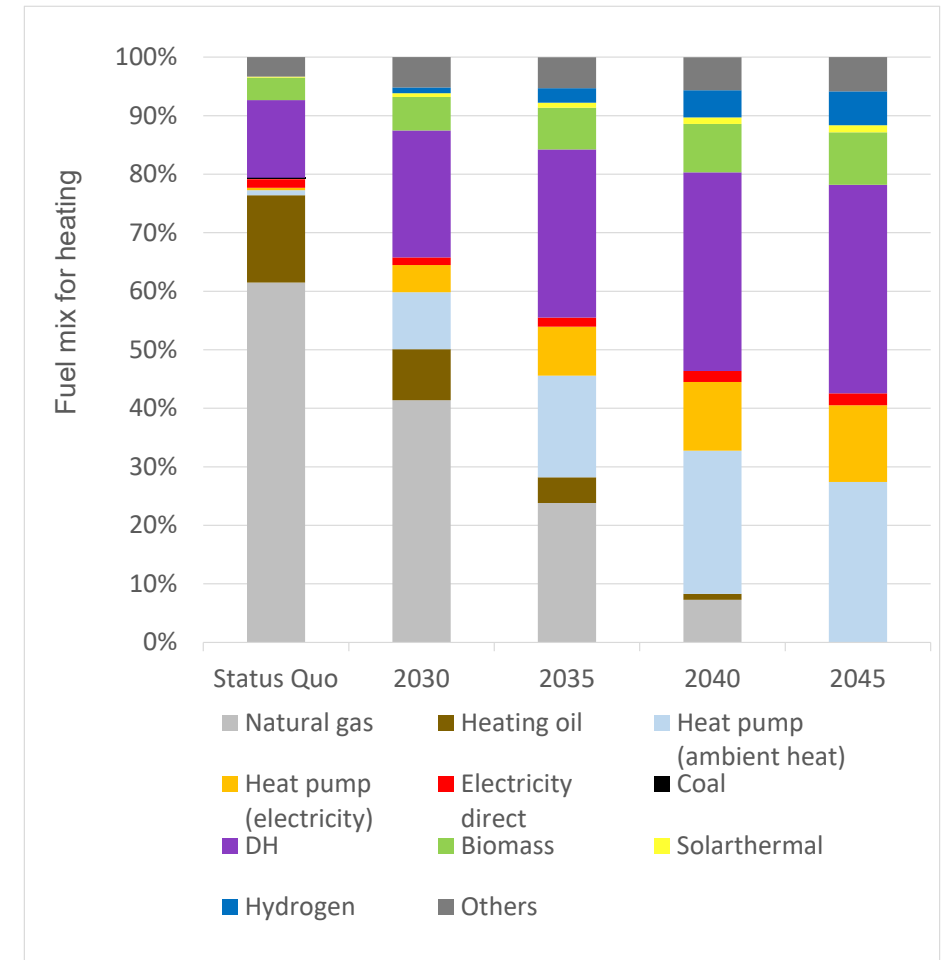
- Efficiency (envelope, efficient heating technologies)
 - Fuel switching
 - Electrification (heat pumps)
 - Biomass (by replacing inefficient stoves with more efficient technologies)
 - Clean district heating
 - Virtually no hydrogen or synthetic gases
- In the Commission's residential-sector scenarios, natural gas use declines sharply



Source: EU COM, SWD(2024) 63 final (2024)

The bottom-up perspective

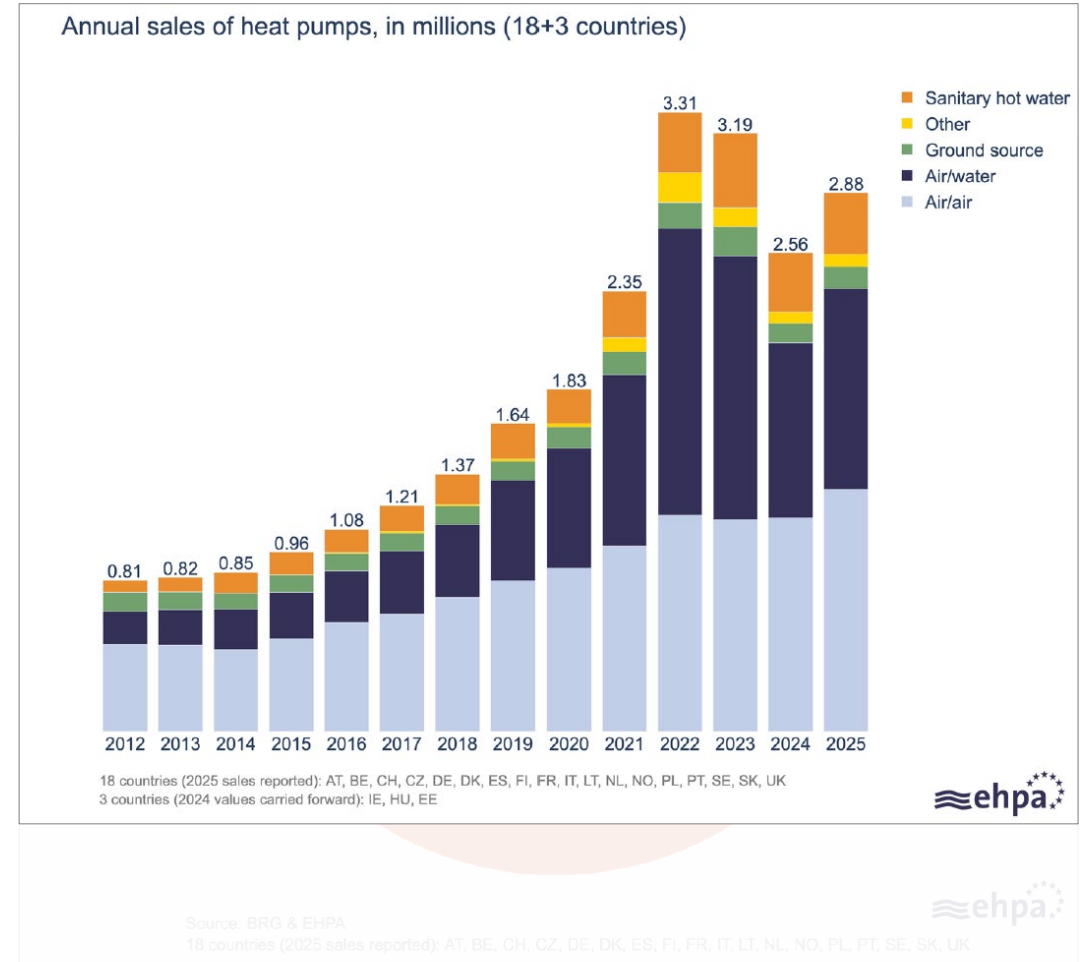
- Evaluation of municipal heat plans from around 950 municipalities in Germany (covering all municipality sizes), accounting for around 9% of all municipalities
- Planning target: A climate-neutral heat supply by 2045
- Aggregating the results provides a bottom-up vision of the heat transition as envisaged by municipalities
- Similar picture: The share of gaseous fuels (especially biomethane, H₂) is set to fall by more than 90%



Source: Öko-Institut et al. (2026)

Can the heating market keep up?

- Heat-pump sales rebounded in 2025 after falling from their 2022 peak
- By 2025, heat pumps account for roughly one third of the European market
- However, far more gas and oil boilers than climate-friendly heating systems are still being sold across Europe



Source: EHPA (2026)

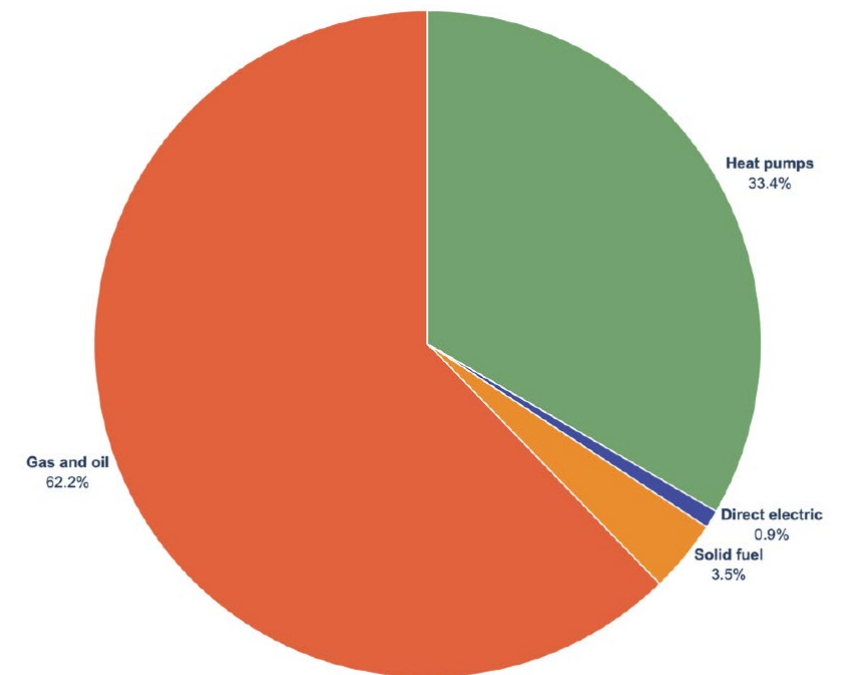
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Annual sales of heat pumps, in millions (18+3 countries)

3.31 3.19
Sanitary hot water
Other

Heat pump market share in space heating sales – 2025 (18 countries)



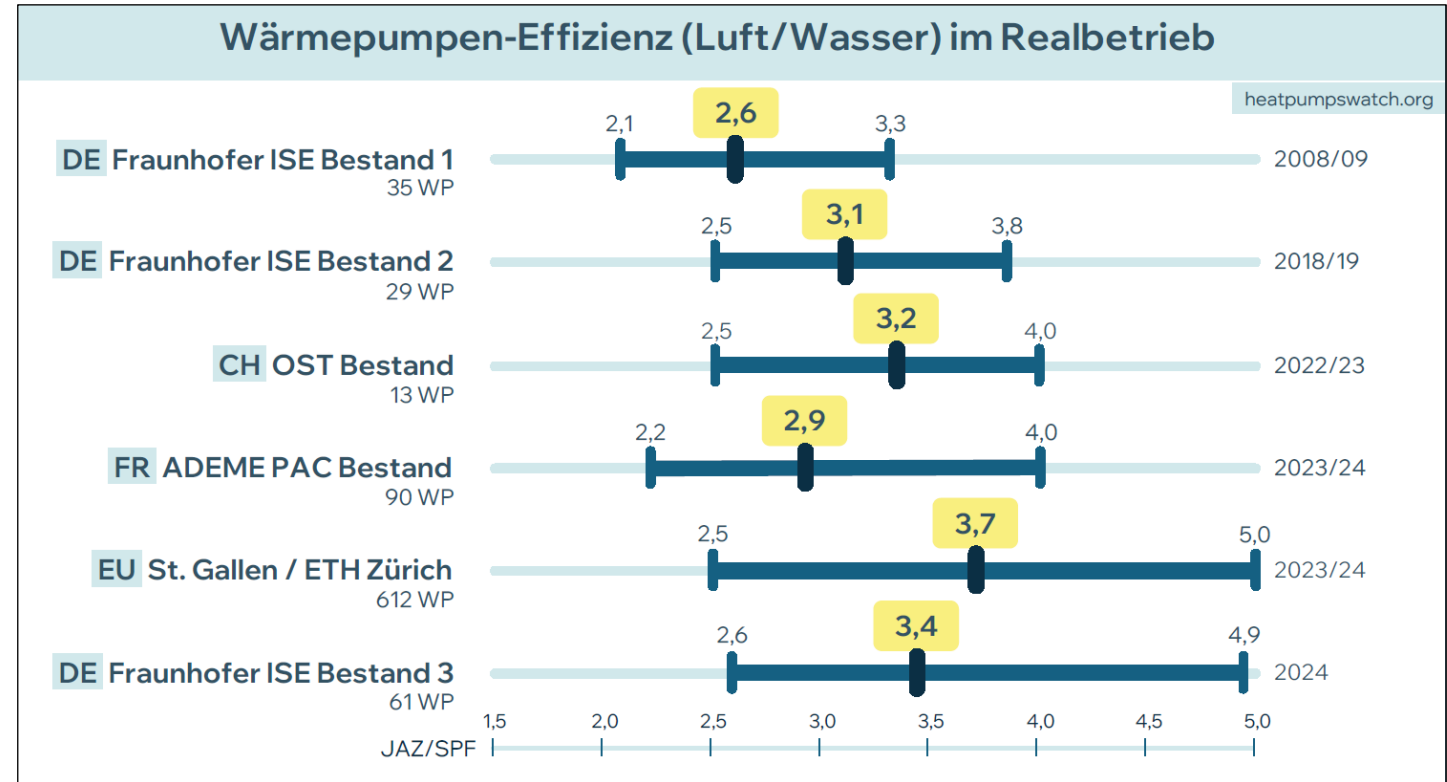
Source: BRG & EHPA
18 countries (2025 sales reported): AT, BE, CH, CZ, DE, DK, ES, FI, FR, IT, LT, NL, NO, PL, PT, SE, SK, UK



Source: EHPA (2026)

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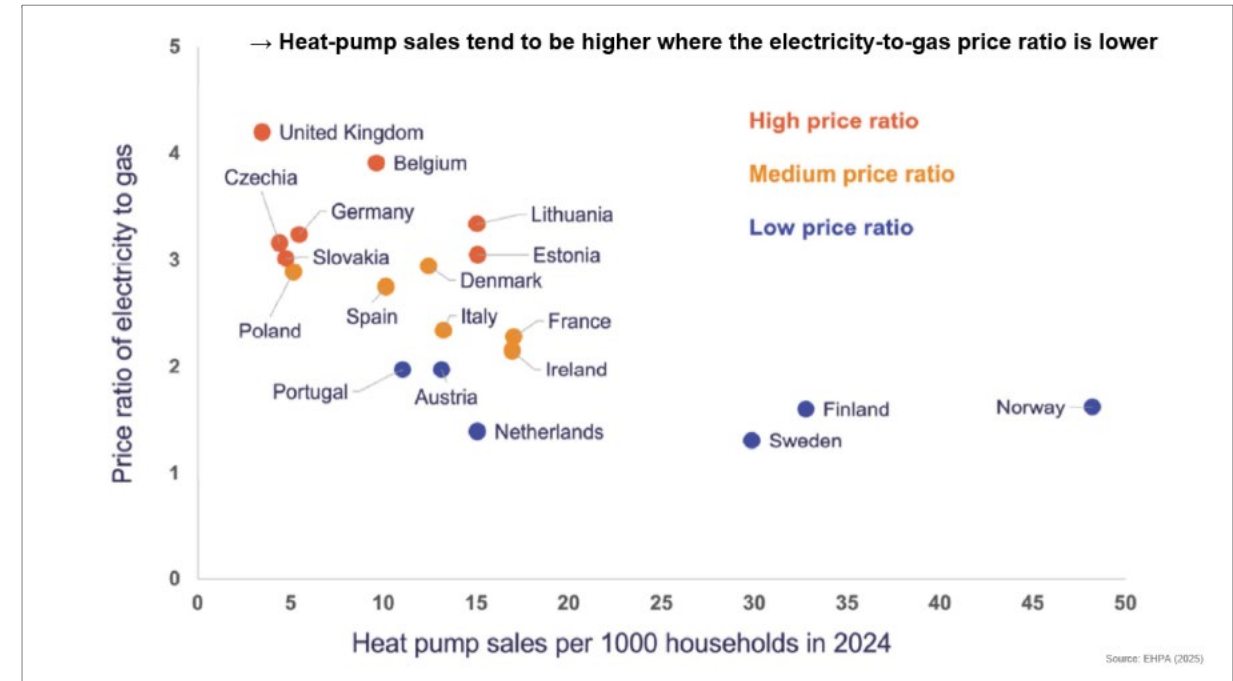
- Heat pumps are becoming ever more efficient, and more and more high-temperature heat pumps are entering the market
- Heat pumps can now also be operated efficiently in existing buildings
- Example Germany: Estimates suggest that 70–80% of all buildings may be suitable for heat pumps



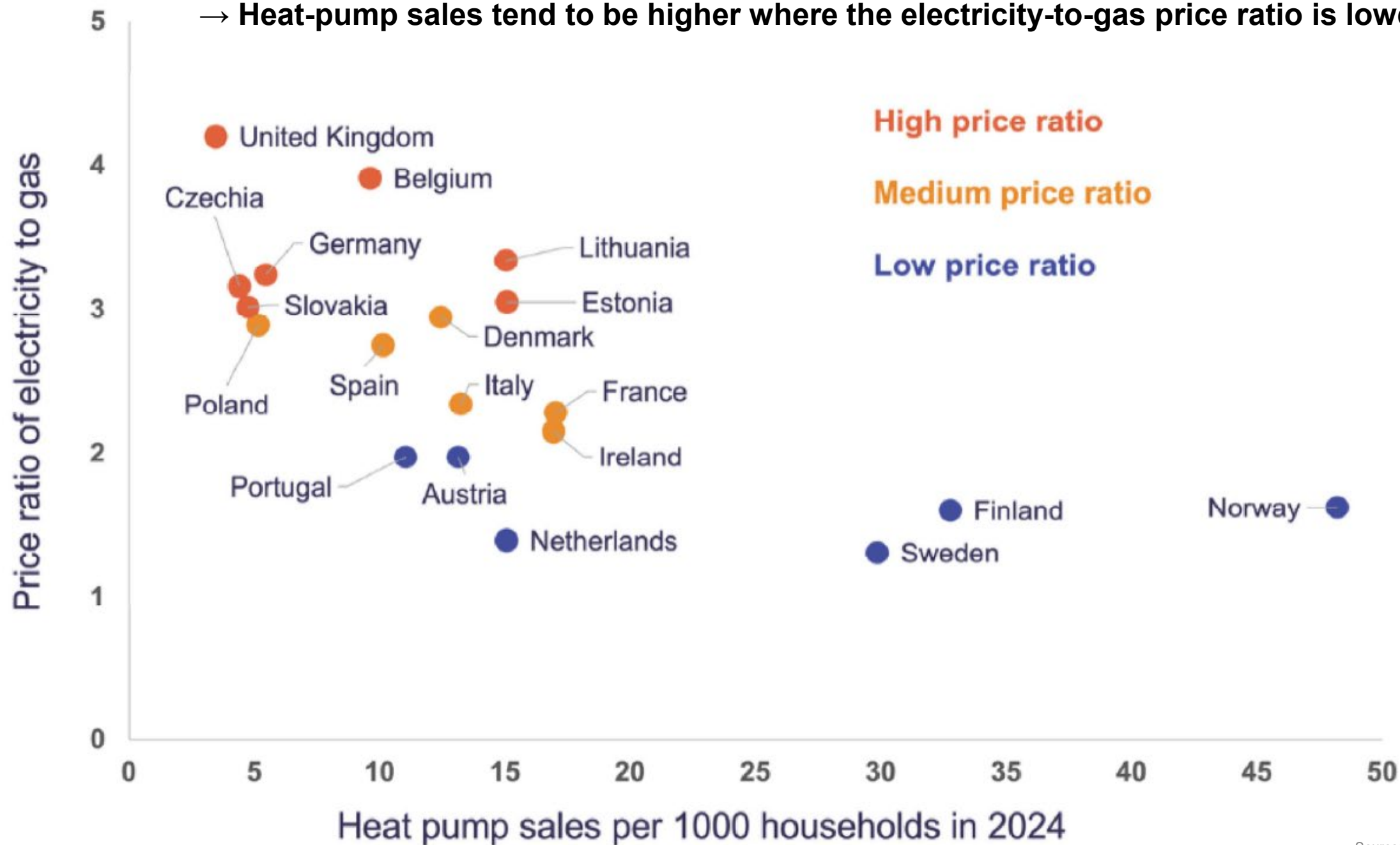
Source: Miara (2026)

Challenges to be addressed by policy

- Clean heating technologies often associated with higher upfront cost (compared to gas boilers)
- Operation costs (compared to gas boiler) depend on electricity-to-gas price ratio
- Phasing out gas requires regulatory support, particularly with regard to:
 - connection and decommissioning rules
 - depreciation periods
 - provisions for decommissioning costs
 - protection of captive customers
 - coordinated decommissioning of the gas distribution network



→ Heat-pump sales tend to be higher where the electricity-to-gas price ratio is lower



Policy toolbox for clean heat

Broad policy toolkit including

- Regulations (addressing market players or end consumers), e.g.
 - conditional replacement obligations (effectiveness primarily depending on the trigger), addressing end consumers
 - quotas addressing market players, e.g. Clean Heat Mechanism
- Economic approaches, such as carbon pricing (including EU ETS2), tax incentives (e.g. reduced VAT or tax deductions), subsidies and measures addressing energy prices
- Information, motivation and advice
- Qualification/Training addressing the skills gap in "new" clean technologies (installers, planners, technicians, etc.)
- Industrial policy measures to strengthen and develop European value chains



Rationale behind regulations

Building or heating-specific rules can address risks that price signals alone may not resolve.

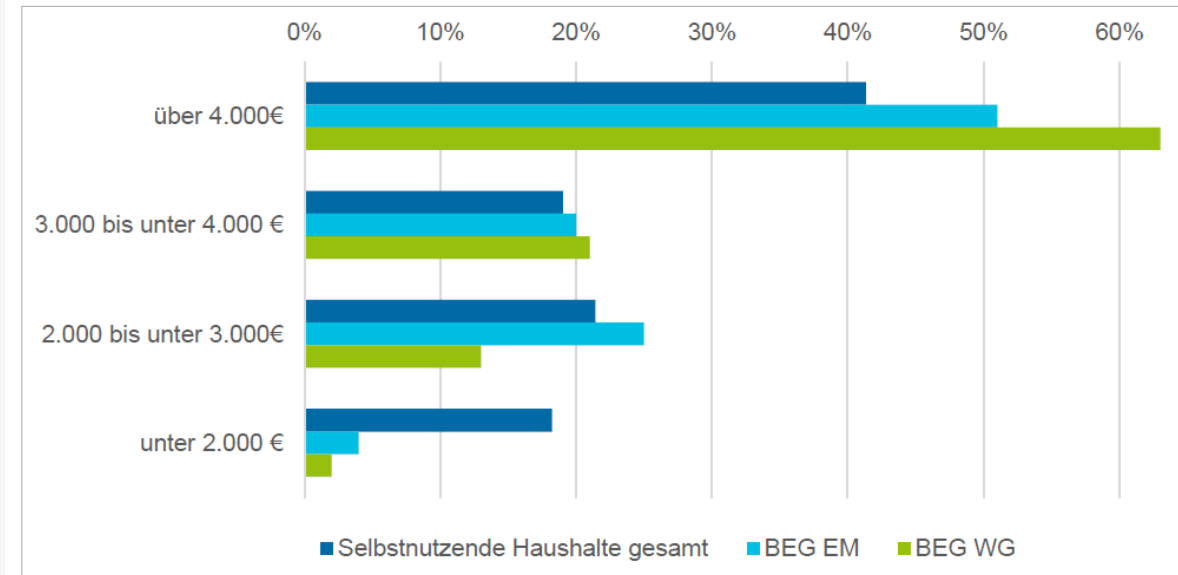
- Avoid costly mis-investments: Long-term fossil costs are uncertain; upfront costs can dominate decisions
 - Act when systems are replaced: Long lifetimes make today's heating choices decisive for the 2045 target
 - Protect tenants: Minimum standards counter landlord–tenant split incentives and future cost risks
 - Prevent infrastructure lock-in: Falling gas demand may raise network charges for customers who remain connected
- Regulations can be a form of consumer protection, not its opposite



Designing funding programmes to ensure social equity

- Many building owners cannot afford the high upfront costs of climate-friendly heating systems
- Subsidies may still be insufficient, particularly when applicants must cover the full cost upfront and are reimbursed later
- Funding programmes should be designed to be both socially equitable and easy to access
- Good examples include France's MaPrimeRénov', Poland's Clean Air Programme, Ireland's Warmer Homes Scheme and Germany's income-based bonus under the Federal Funding for Efficient Buildings (BEG)

Share of Germany BEG grant recipients in the private household sector, categorised by income, and compared with the total number of households.



Source: Öko-Institut et al. (2024)

→ So far, federal subsidies for energy-efficient buildings have done little to benefit low-income households; it is mostly high-income homeowners who benefit.

Electricity-to-gas price ratio

- Electrification of heat supply (households and industry) requires competitive electricity prices, both overall and relative to natural gas
- Unfavorable electricity-to-gas price ratio in many EU Member States
- EU Electrification Action Plan:
“The Commission encourages Member States to take actions to bring national electricity-to-gas price ratios down for households to maximum 2.5 and for industry to maximum 2 by 2030.”



Source: COM(2026) 595 final



Thank you for your attention!

Do you have any questions?

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