Webinar: Heat Pump Monitor 2026

International Energy Agency

The Heat Pump Monitor – Covering all topics heat pump

Deployment

- Buildings — Deployment in buildings →
- Buildings — Regional patterns in heat pump deployment in buildings →
- District Heating — Deployment in district heating →
- District Heating — Opportunities for heat pumps in district heating →
- Industry — Deployment in industry →
- Industry — Cost-competitiveness of industrial heat pumps →
- Policies — Policy mapping →
- Policies — International examples →

Deep dive in Buildings

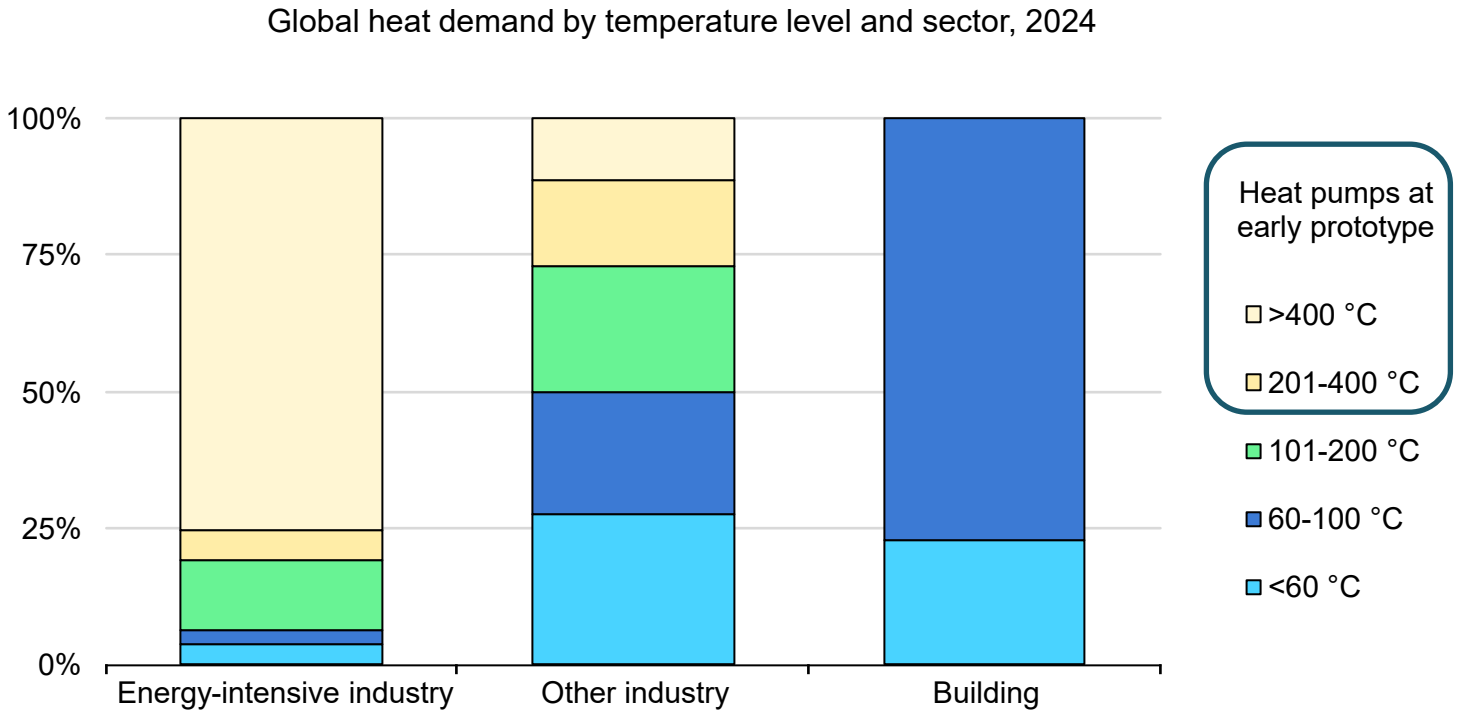
- Affordability — Upfront cost →
- Affordability — Operational cost →
- Affordability — Lifetime cost →
- Energy security — Peak electricity demand and flexibility →
- Energy security — Natural gas security →
- Industrial competitiveness — Employment →
- Industrial competitiveness — Manufacturing and trade →
- Industrial competitiveness — Levelised cost of production →
- Innovation and technology — Technology development →
- Innovation and technology — Patents →
- Innovation and technology — Refrigerants →

Regional insights

- China — China →
- China — What is China's role in the heat pump supply chain? →
- Europe — Europe →
- Europe — How much natural gas could an accelerated heat pump roll-out save? →
- Japan — Japan →
- Japan — What is driving adoption of heat pump water heaters? →
- United States — United States →
- United States — Can the existing air-conditioning stock offer a rapid entry point for heat pumps? →

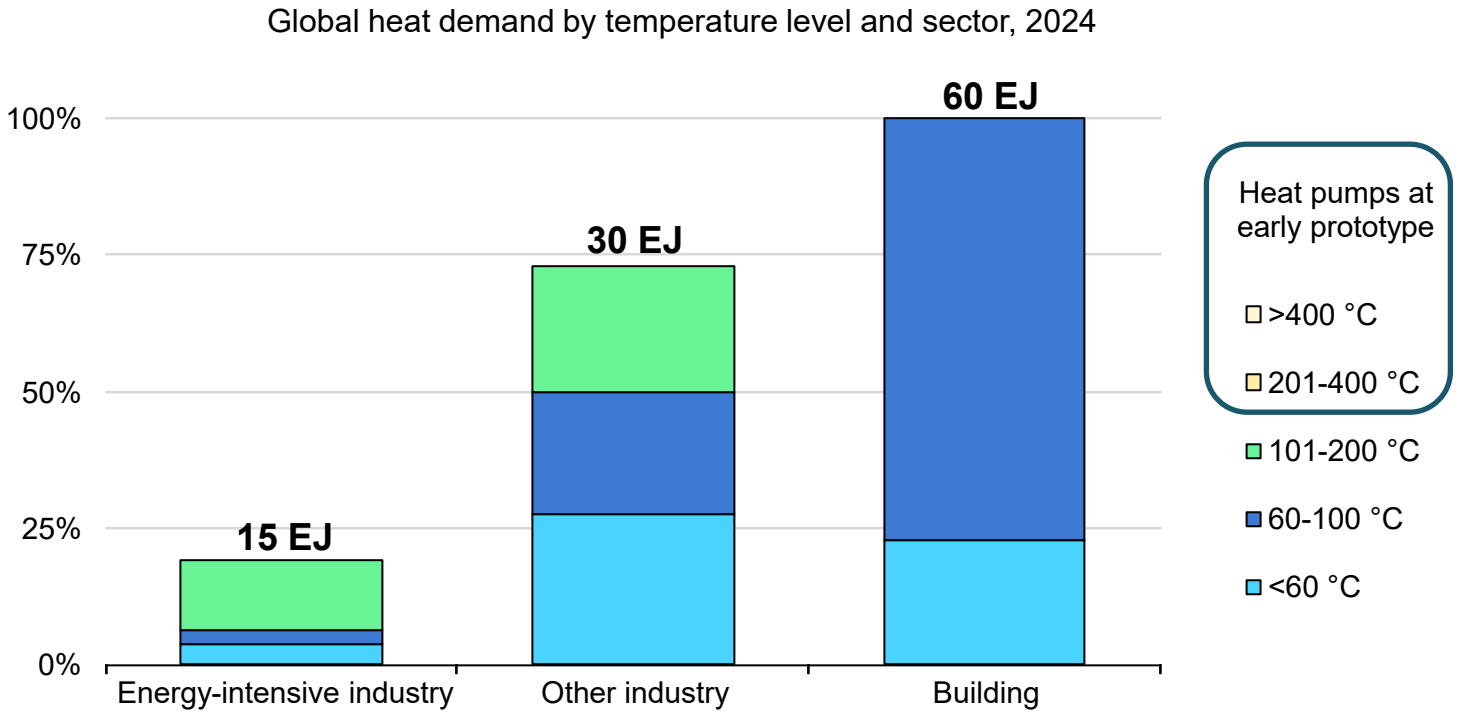
The heat pump monitor gathers IEA analysis on heat pumps in one place

Over 40% of Total Final Consumption is for heating



Around half of energy sector heat demand could be electrified through heat pumps, but so far heat pumps supply only 5%

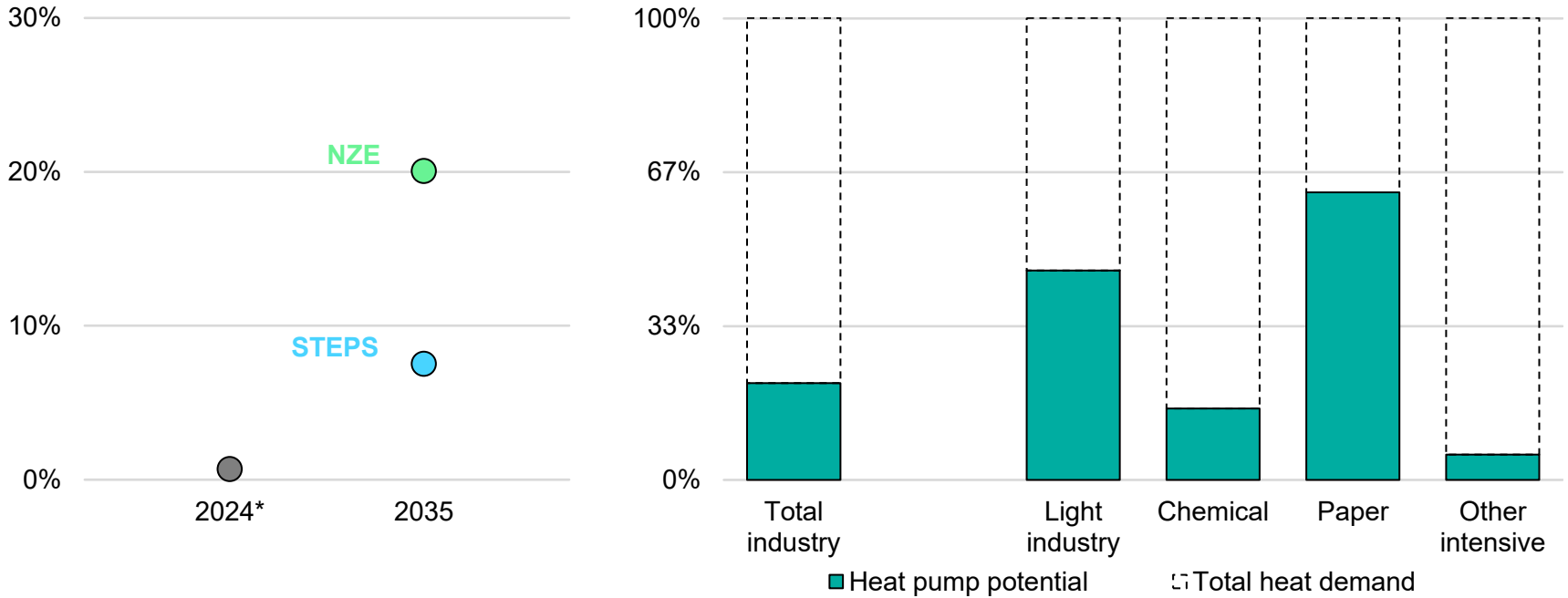
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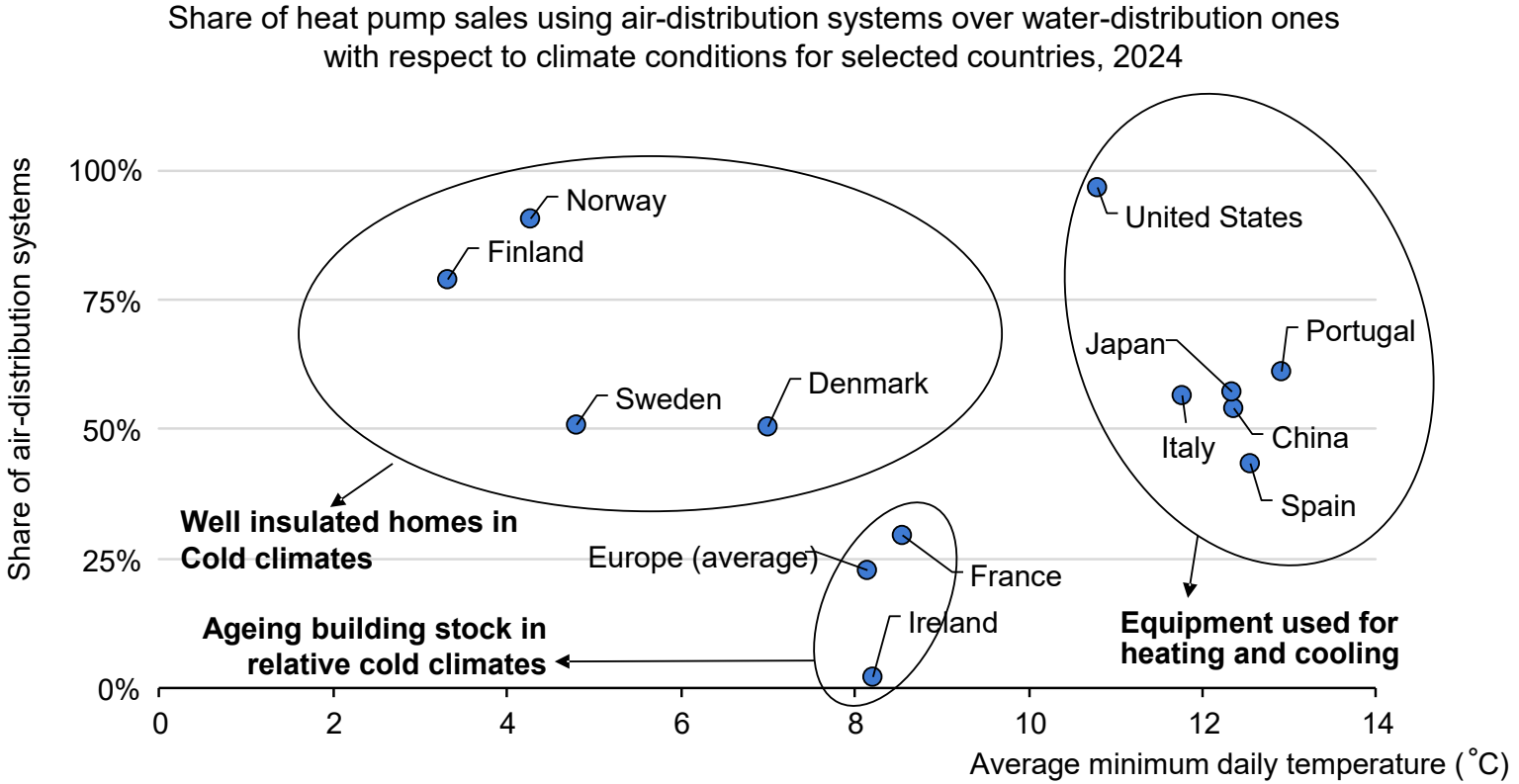
Heat pumps are starting to be adopted in industry

Estimated share of heat pumps in heat supply to light industry by scenario (left), 2024-2035, and deployment potential as a share of heat demand per sector (right), 2024



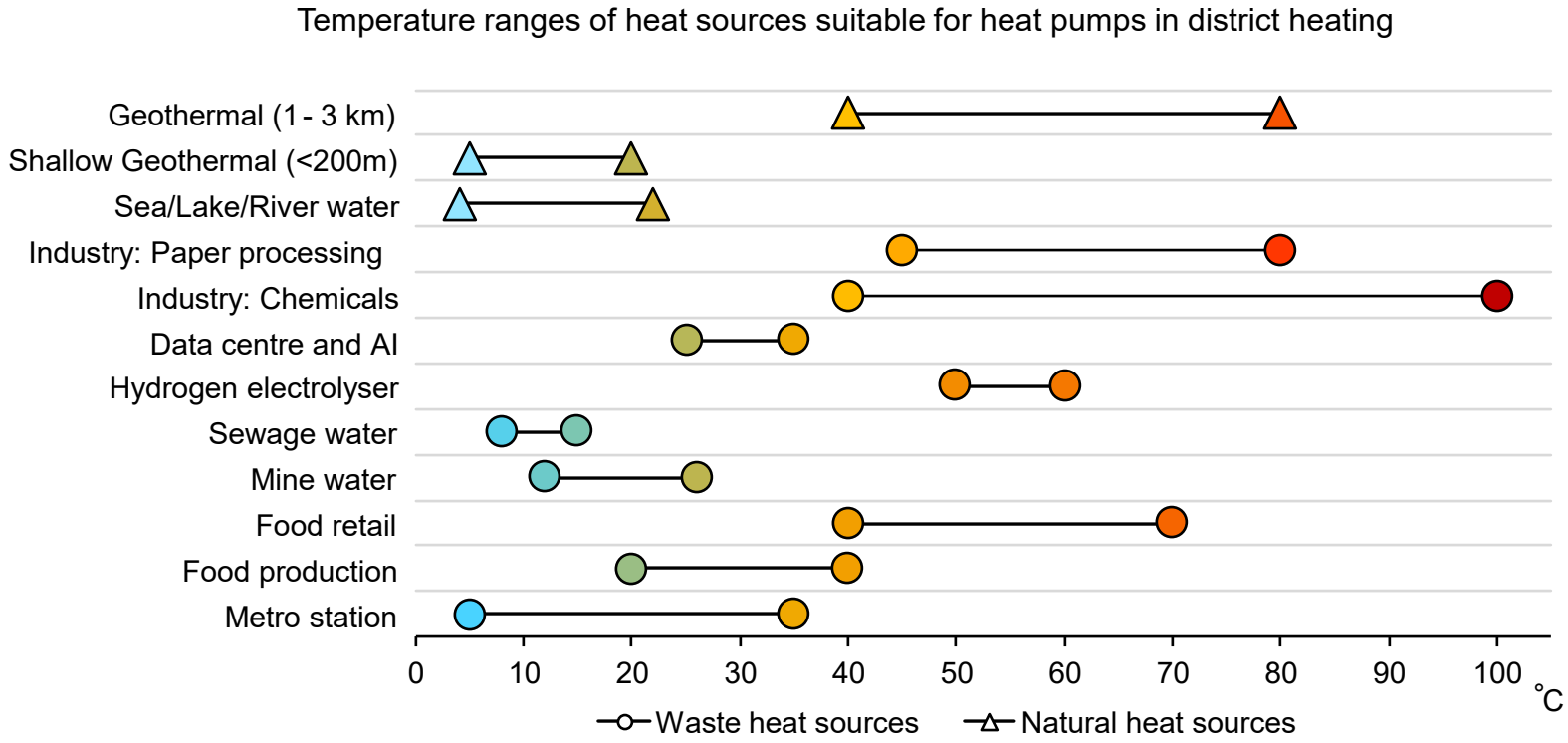
Industrial heat pumps have the potential to supply up to 20% of industrial heat, mainly in light industry and the paper and chemical sectors.

Buildings heat pump use differs markedly across different regions



Air-to-air units that can provide both heating and cooling have high market shares in certain regions.

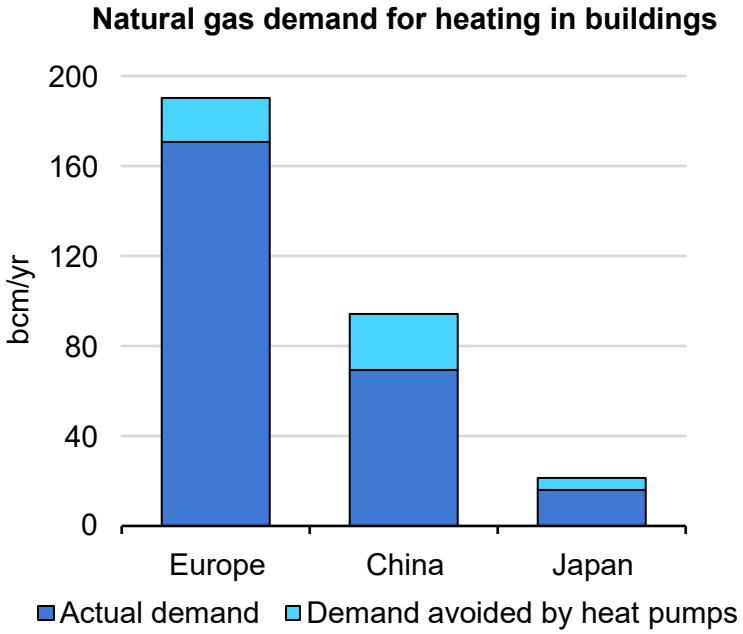
Heat pumps are expanding into District Heating

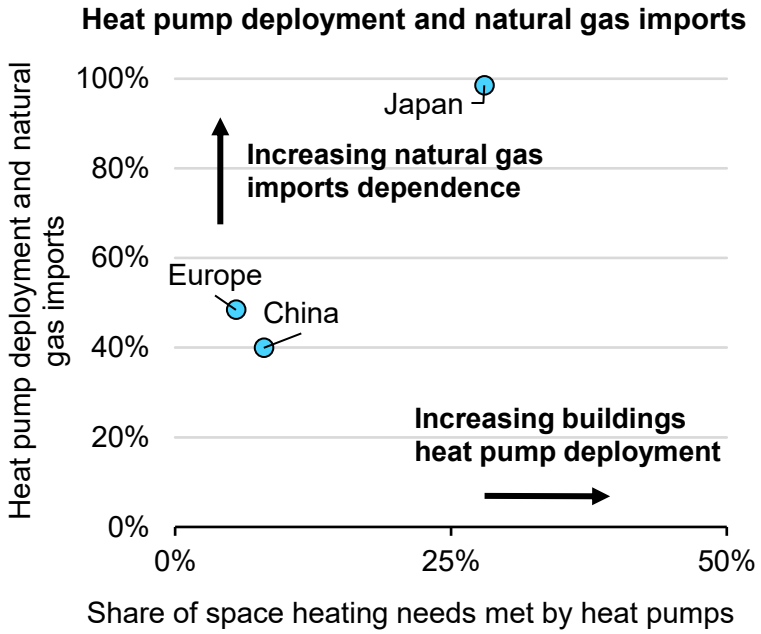


Heat pumps enable efficient utilisation of natural and waste heat resources in district heating networks

Heat pumps contribute to reducing demand for natural gas

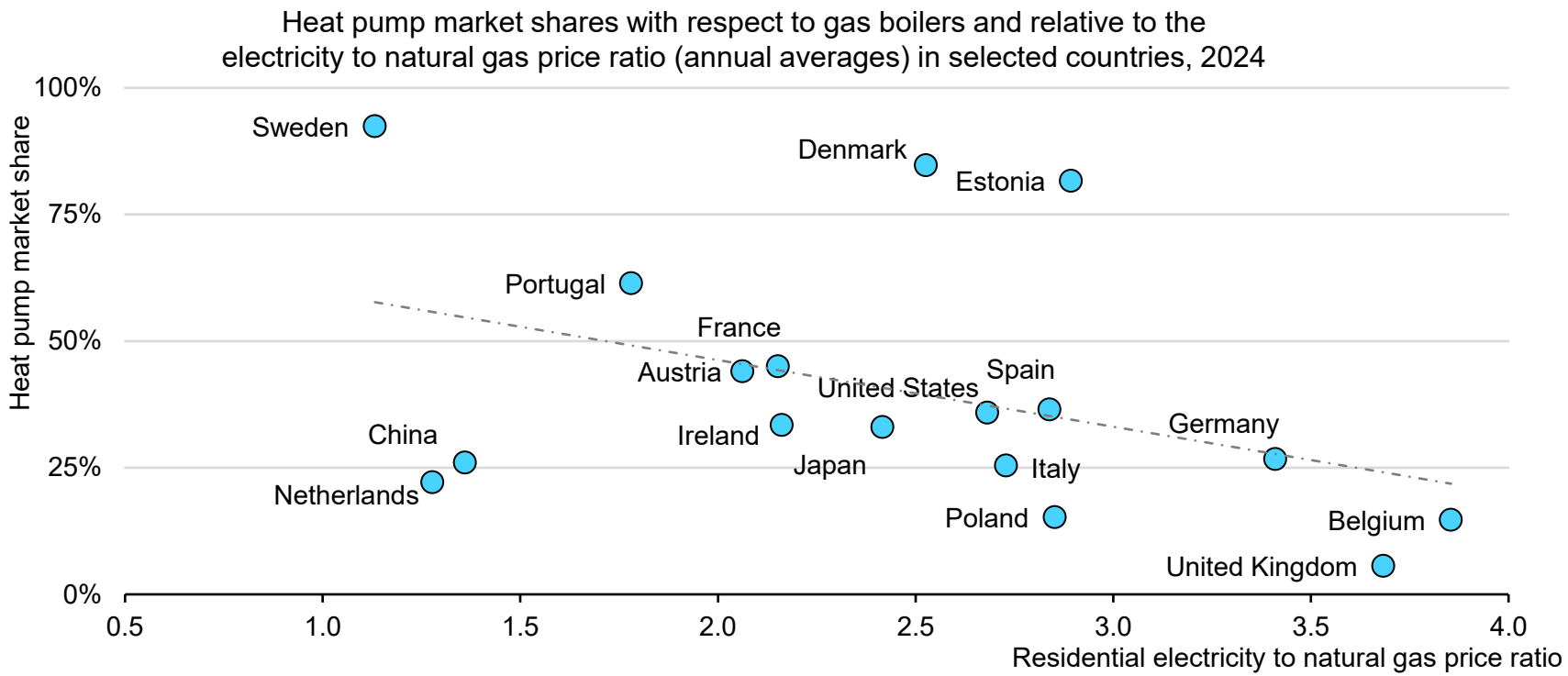
Heat pump deployment and natural gas imports, 2024





Heat pumps are already curbing natural gas demand in Europe, China and Japan, with room to further support energy security and reduce reliance on imports as uptake grows.

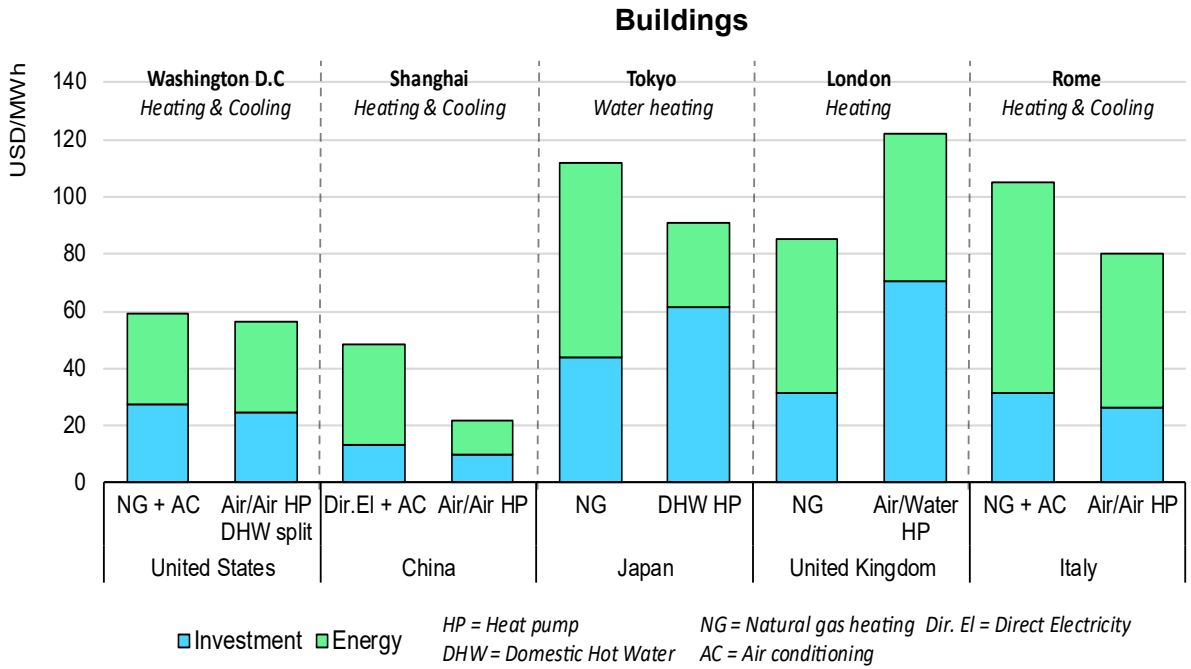
Affordable electricity is key to heat pump cost-competitiveness

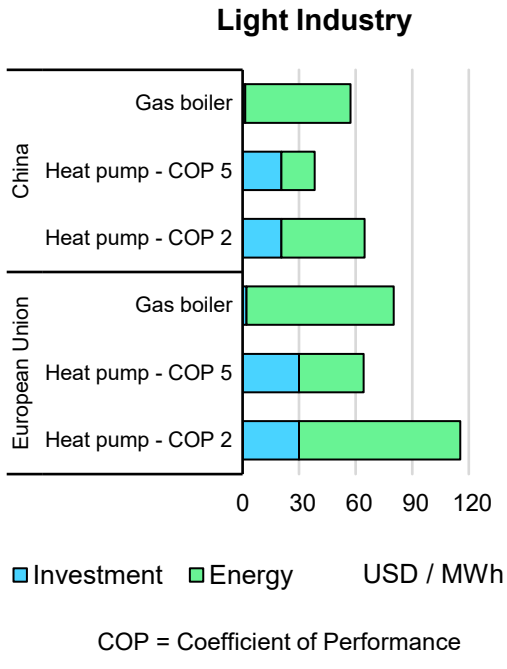


Electricity to natural gas price ratio is the most influential factor in determining heat pump cost-competitiveness compared to natural gas boilers.

Heat pumps are often cost-competitive over their lifetime

Levelised cost of heating and cooling for selected cities and use cases (unsubsidised), 2024

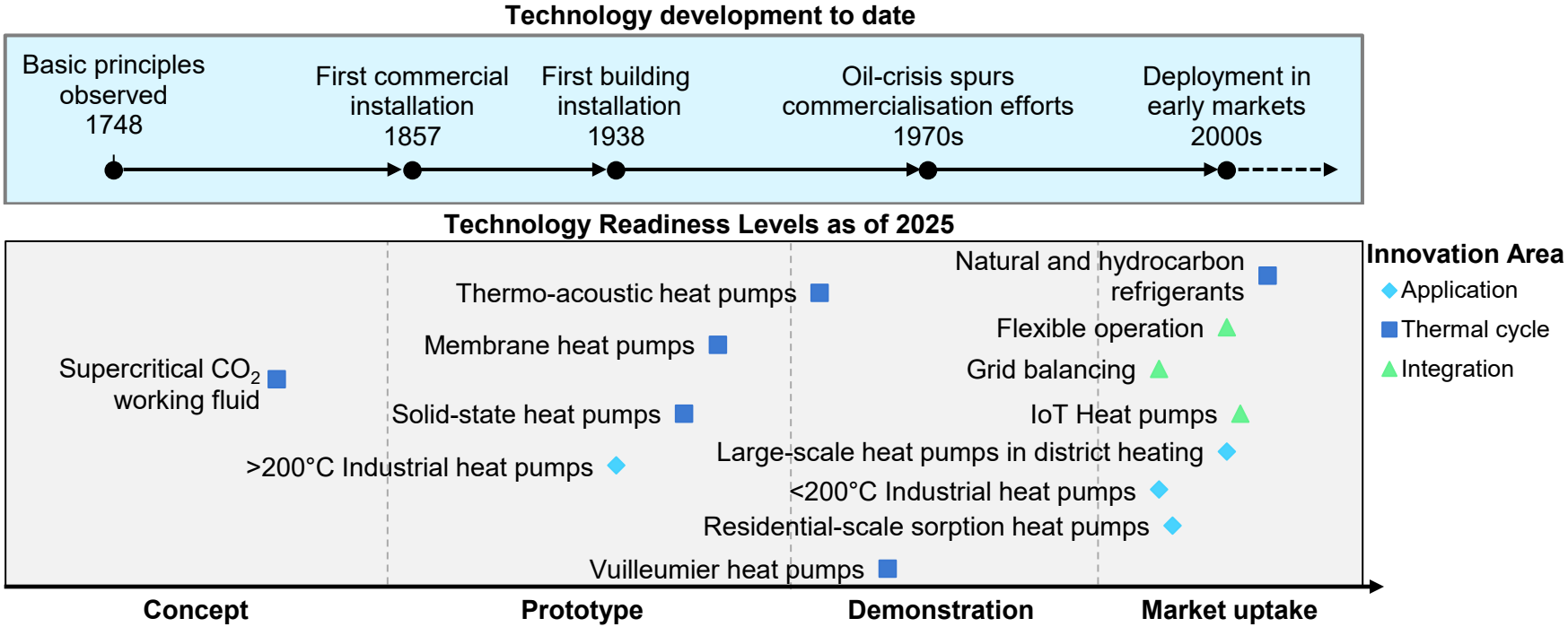




Heat pumps are used in a variety of ways based on heating and cooling needs; in many cases they are cost-competitive over their lifetime, but costs vary widely.

Heat pumps are a mature technology

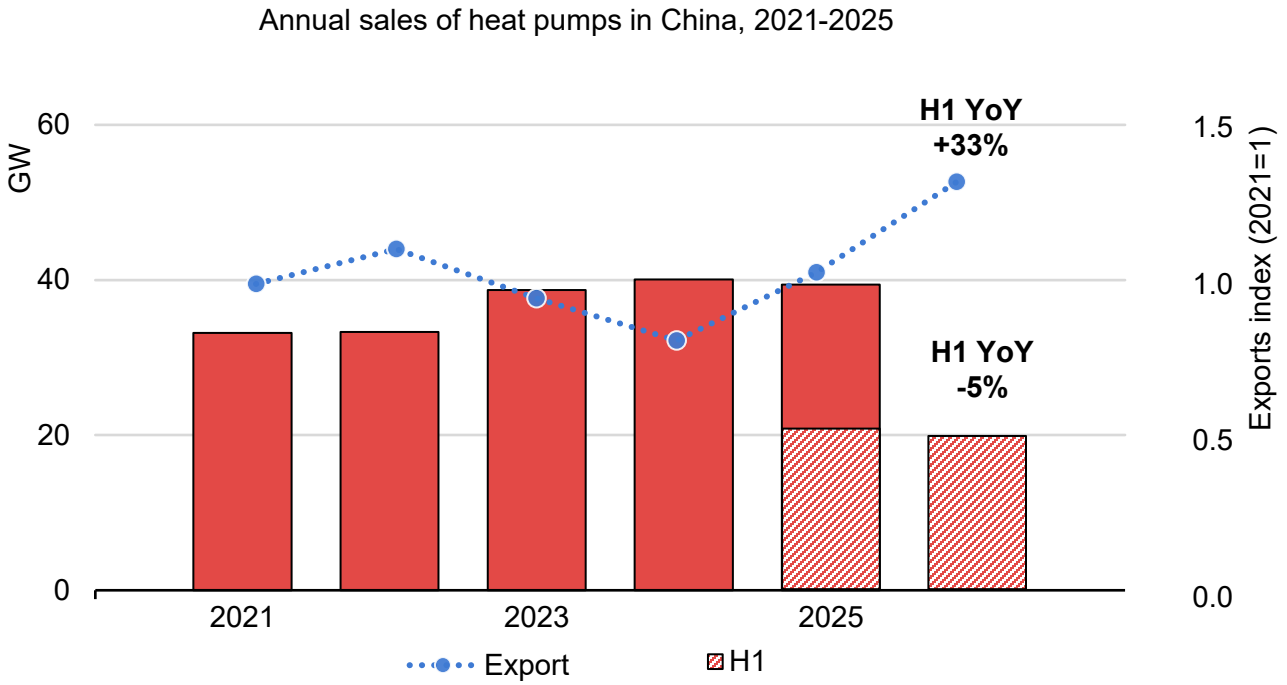
Heat pump technology development milestones and current state, 1748-2026



Innovation can increase the added value and efficiency of heat pumps in all applications.

Regional Insights

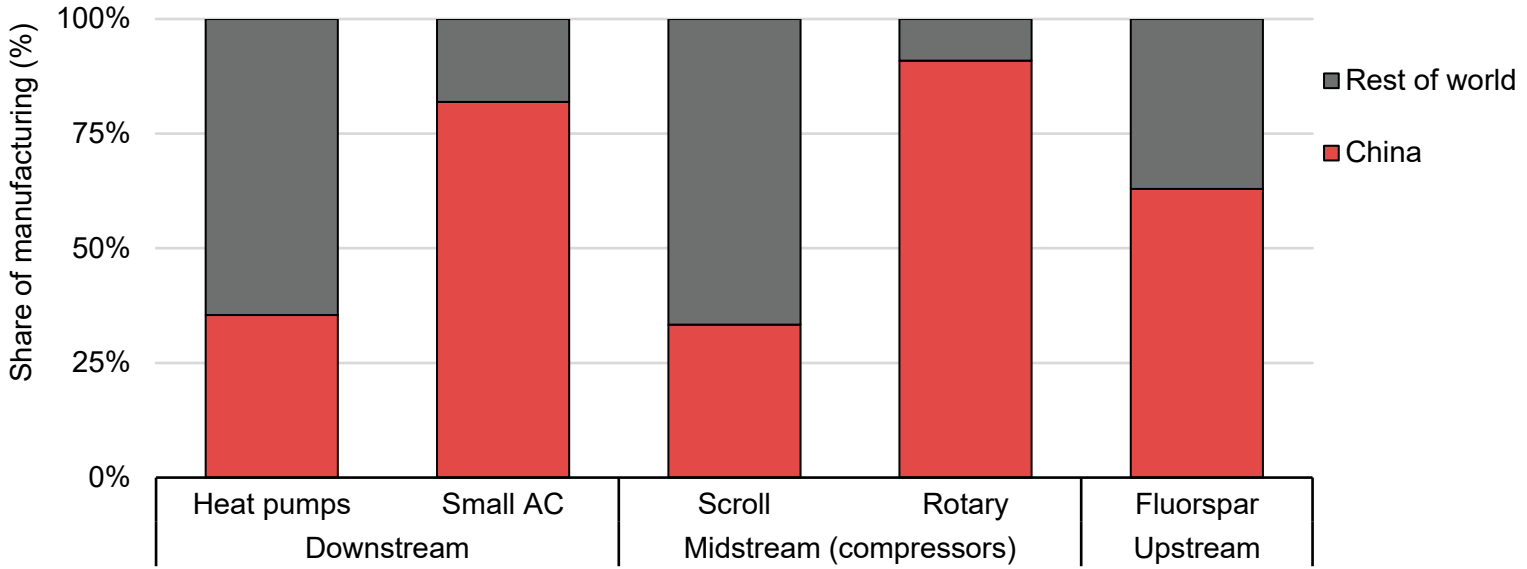
China: the largest heat pump sales market



China has become the world's largest heat pump market, shaped by distinct regional heating practices. The property downturn and weak retail demand continued to weigh on domestic purchases, compensated by exports

China: a world-leader on heat pump production

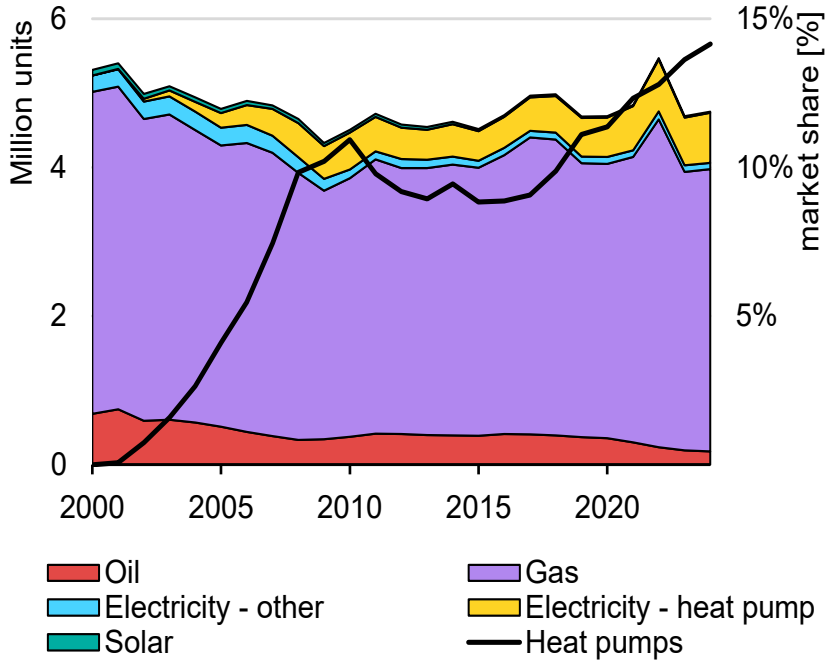
Share of manufacturing capacity for heat pumps, air conditioners and principal components in China and the rest of the world, 2024

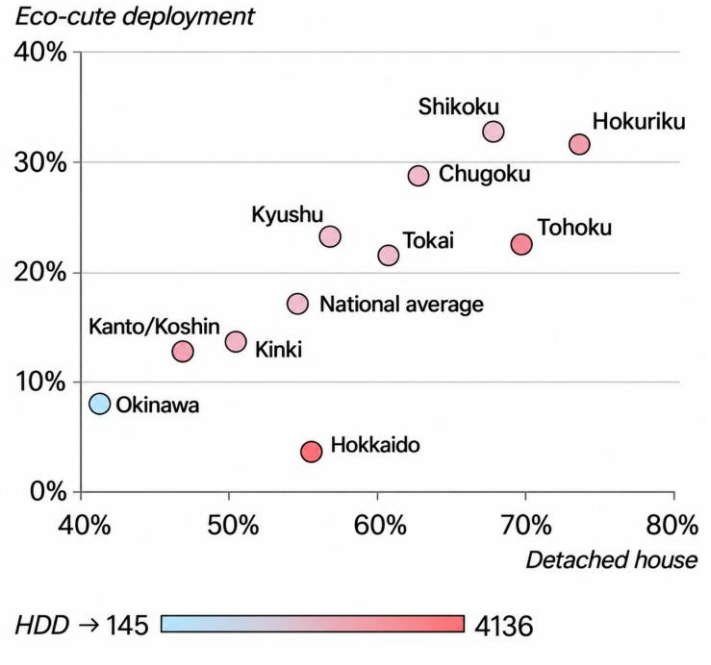


China dominates manufacturing of small air conditioners and rotary compressors, but heat pump assembly, scroll compressors and fluorspar have more diverse supply chains.

Japan: Eco-cute water heater is a global benchmark for innovation

Water heater sales by fuel type, 2000-2025, and Eco-cute deployment by dwelling type and by region, 2023

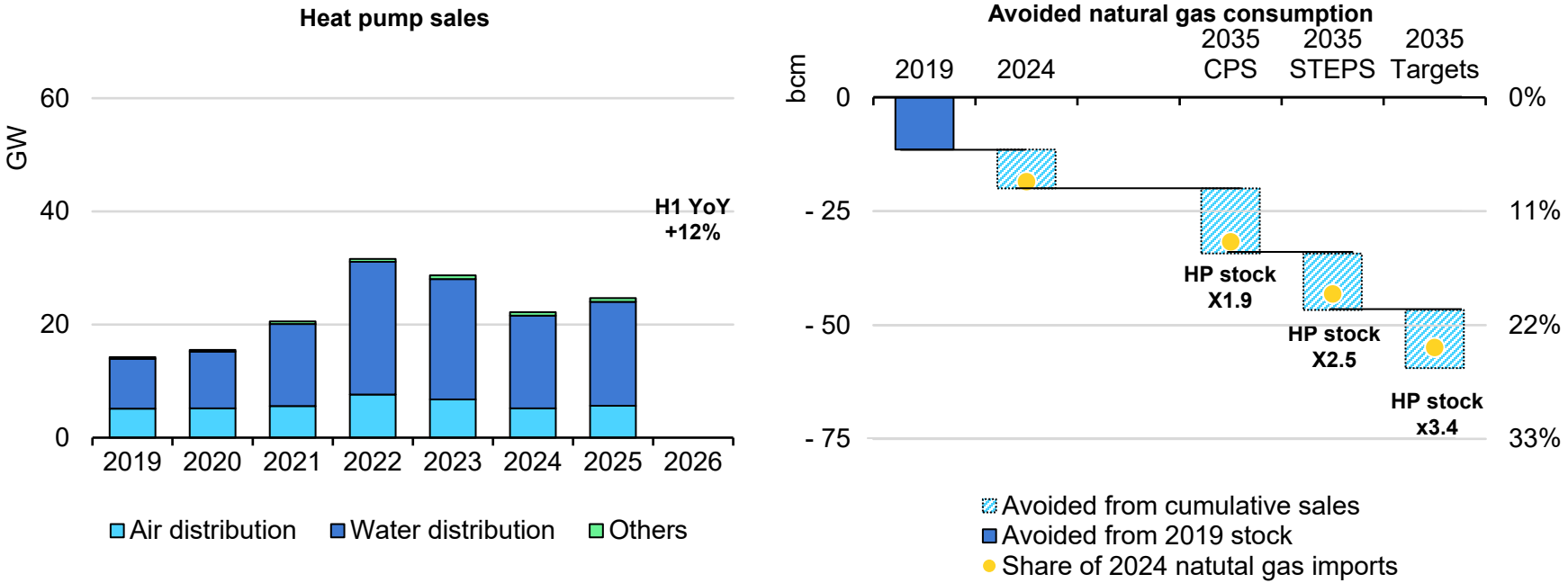




The market share of heat pump water heaters has rapidly expanded, but further growth will depend on harmonised standards, targeted subsidies and overall lifetime cost.

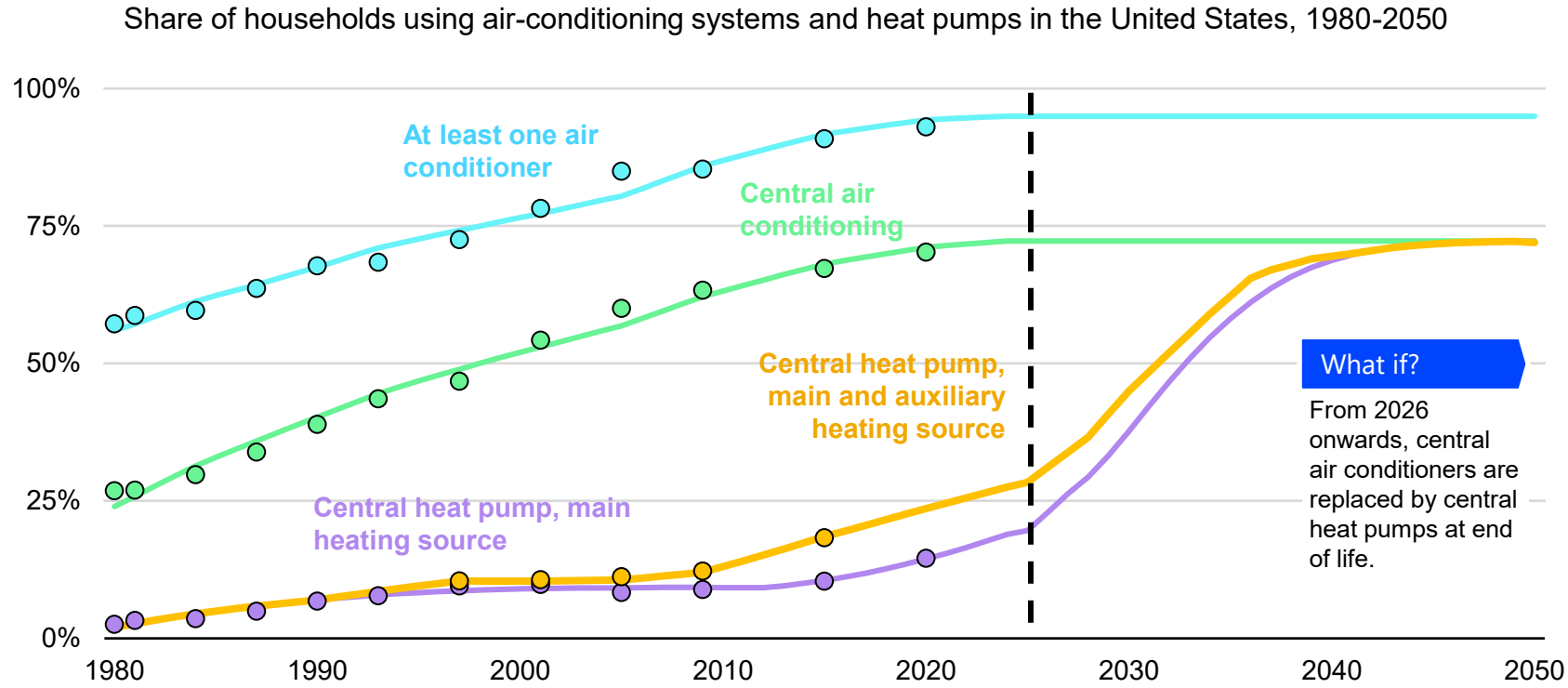
Europe: immediate reductions in natural gas demand

Heat pump stock in Europe's buildings and avoided natural gas consumption in the Current Policies Scenario, Stated Policies Scenario and in an accelerated deployment case, 2019-2035



Scaling up heat pump deployment could cut European natural gas consumption by 14-39 bcm/year by 2035, reducing dependency on imports.

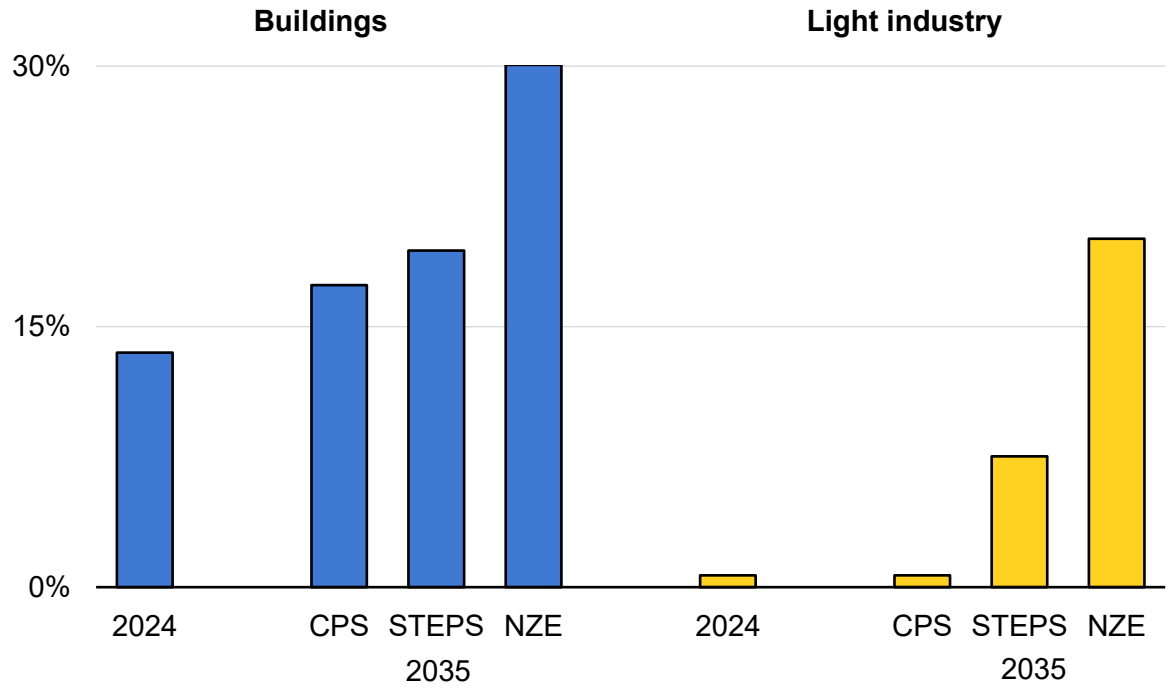
United States: air-conditioning offers a rapid entry point for heat pumps



Upgrading existing central air conditioners to reversible heat pump systems at their end of life could provide heating in 60% of households by 2035 at low additional cost.

Heat pump deployment grows in all IEA scenarios

Share of global heat demand covered by heat pumps in buildings and light industry by scenario, 2024-2035



Sustained policies will be critical to unlock potential for heat pump deployment.

Strategic considerations

1. Use heat pumps for energy security and resilience

Deploy heat pumps to reduce reliance on natural gas and exposure to price and supply shocks, supported by adequate grid investment.

2. Mitigate overall uncertainty with stable policies

Provide clear, long-term policy signals to sustain heat pump demand and investment in manufacturing.

3. Improve the cost-competitiveness of heat pumps

Address upfront and running costs through energy price reform, targeted financial support and greater market transparency.

4. Support international harmonisation of heat pump data reporting

Improve data comparability, enabling better market tracking, policy learning and investment decisions.

The IEA Heat Pump Taxonomy can help providing a common classification framework for heat pumps



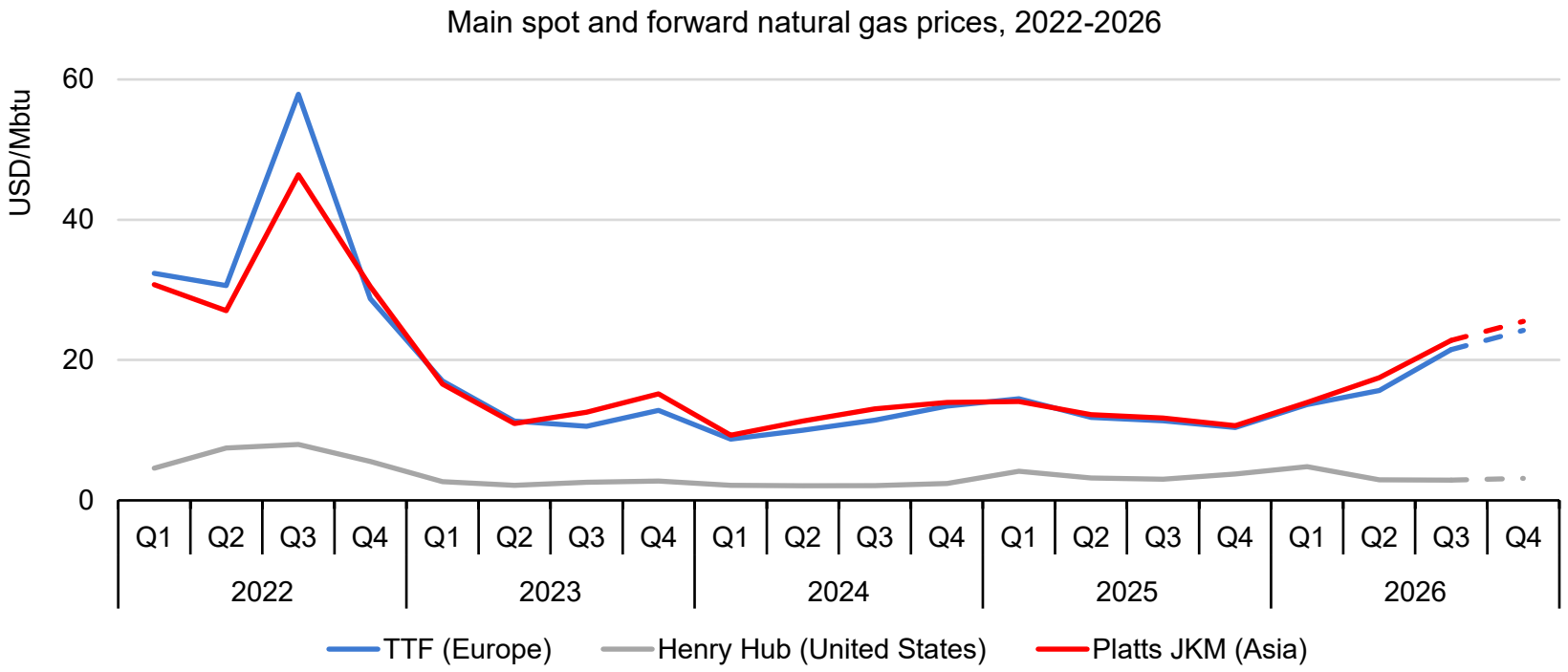
Q&A

International Energy Agency

Heat Pump Monitor 2026: Panel

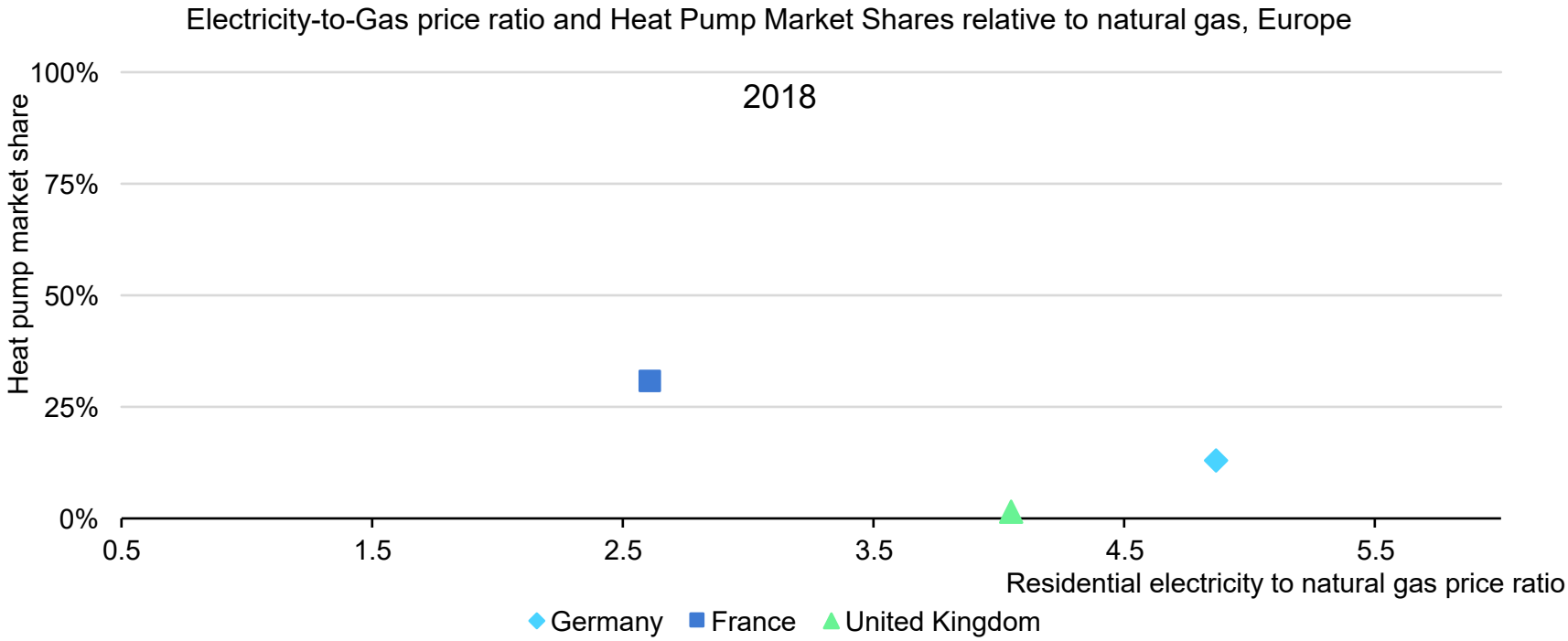
The role of Heat Pumps in managing supply chocks

Asian and European gas prices in Q3 2026 averaged at their highest Q3 levels since 2022



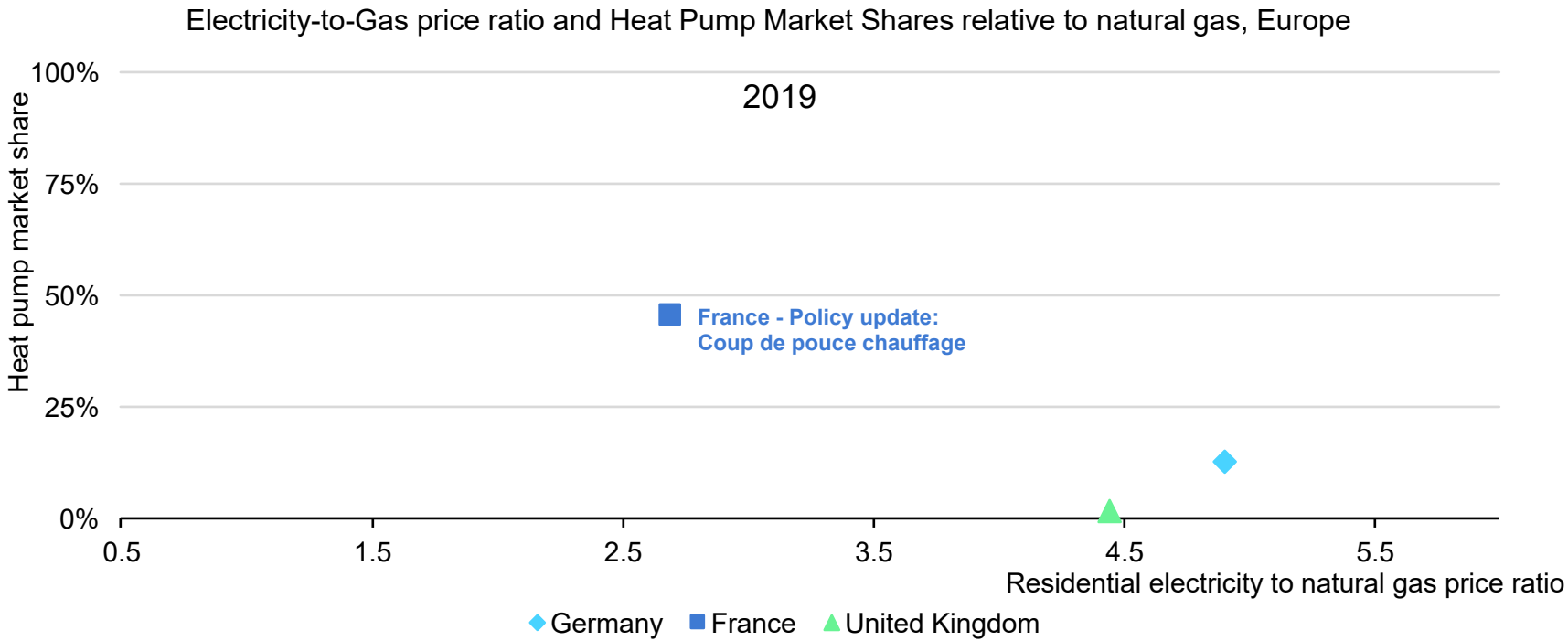
Original: Gas Market Report, Q3-2026 (https://www.iea.org/reports/gas-market-report-q3-2026), updated with new Q3 and Q4 numbers for 2026.
Sources: IEA analysis based on CME Group (2026), Henry Hub Natural Gas Futures Quotes, Dutch TTF Natural Gas Month Futures Settlements, LNG Japan/Korea Marker (Platts) Futures Settlements; EIA (2026), Henry Hub Natural Gas Spot Price; Powernext (2026), Spot Market Data; S&P Global (2026), Platts Connect.

The 2022 Energy Crisis reshaped Europes Heat Pump Market



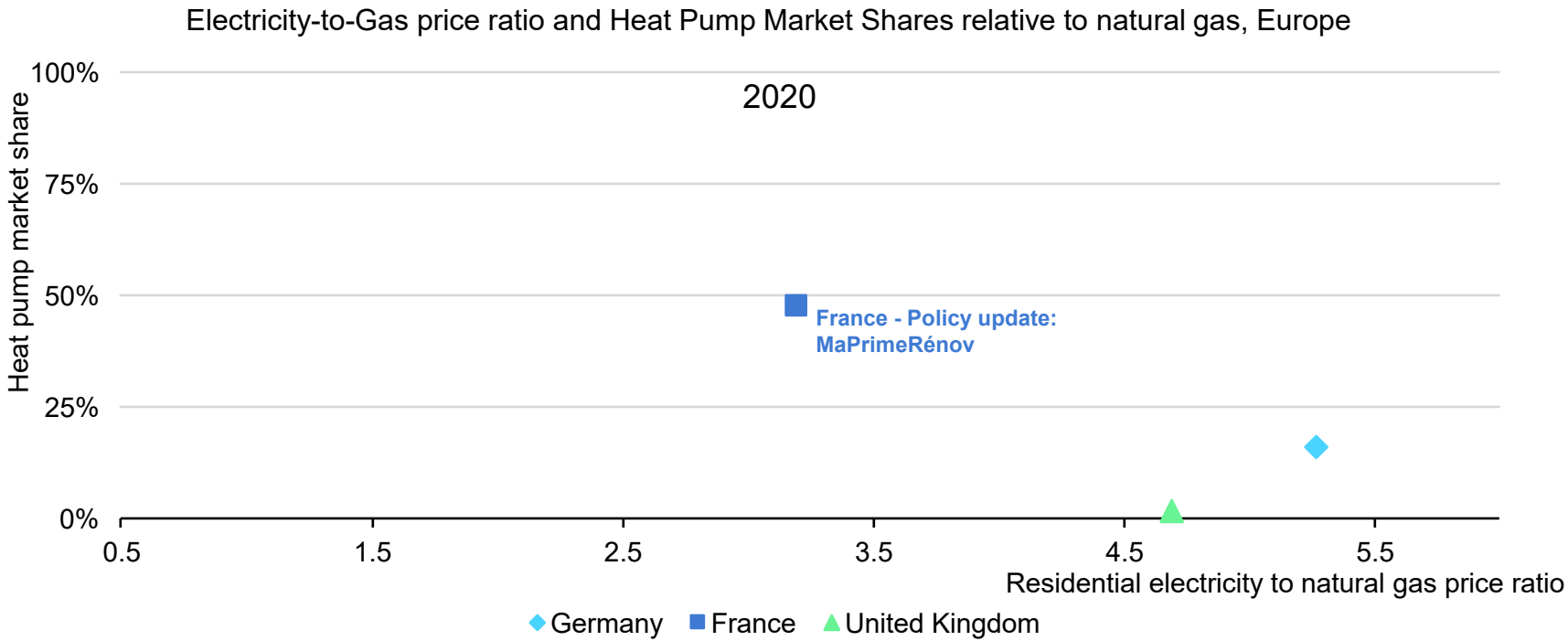
Sources: Energy prices based on HEPI "Household Energy Price Index by e-Control, MEKH and VaasaETT, ©2026 VaasaETT"
Heat pump and natural gas boiler sales: Uniclima, bdh-industrie, bwp-wärmepumpe, HPAUK, European Heating Industry

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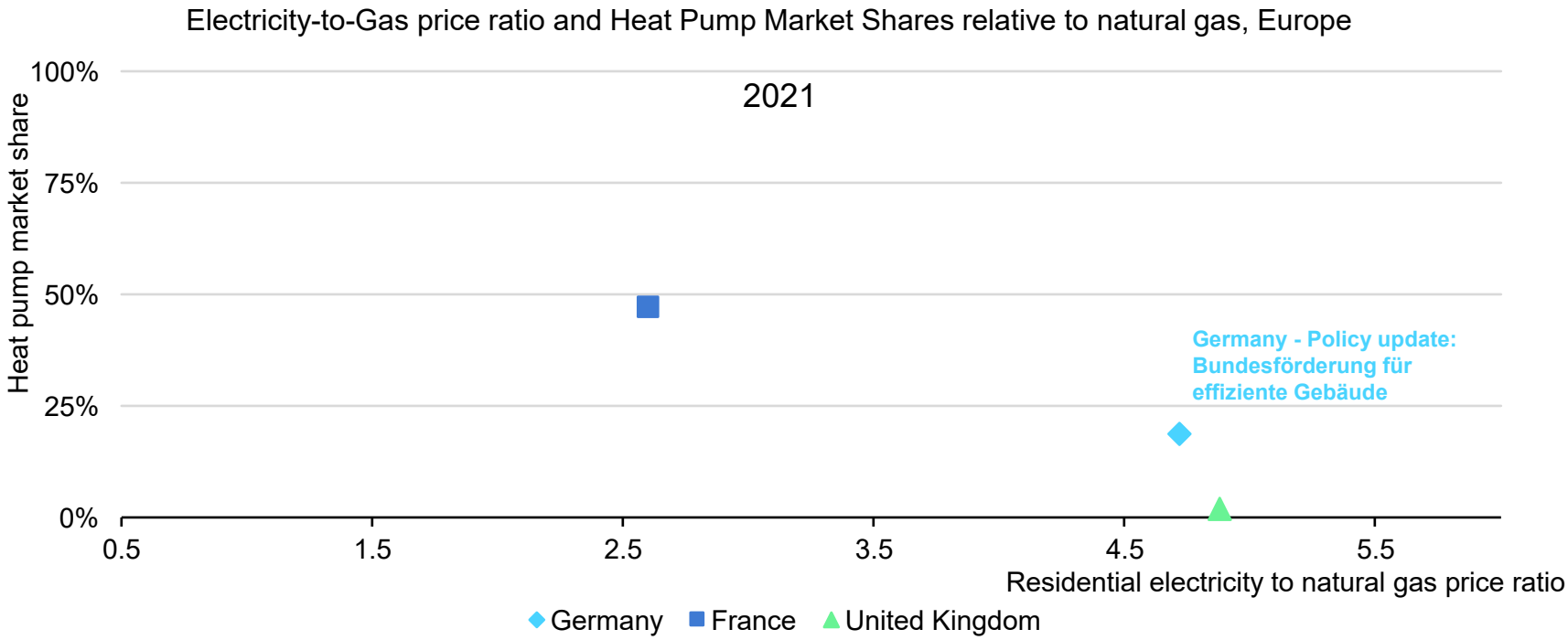
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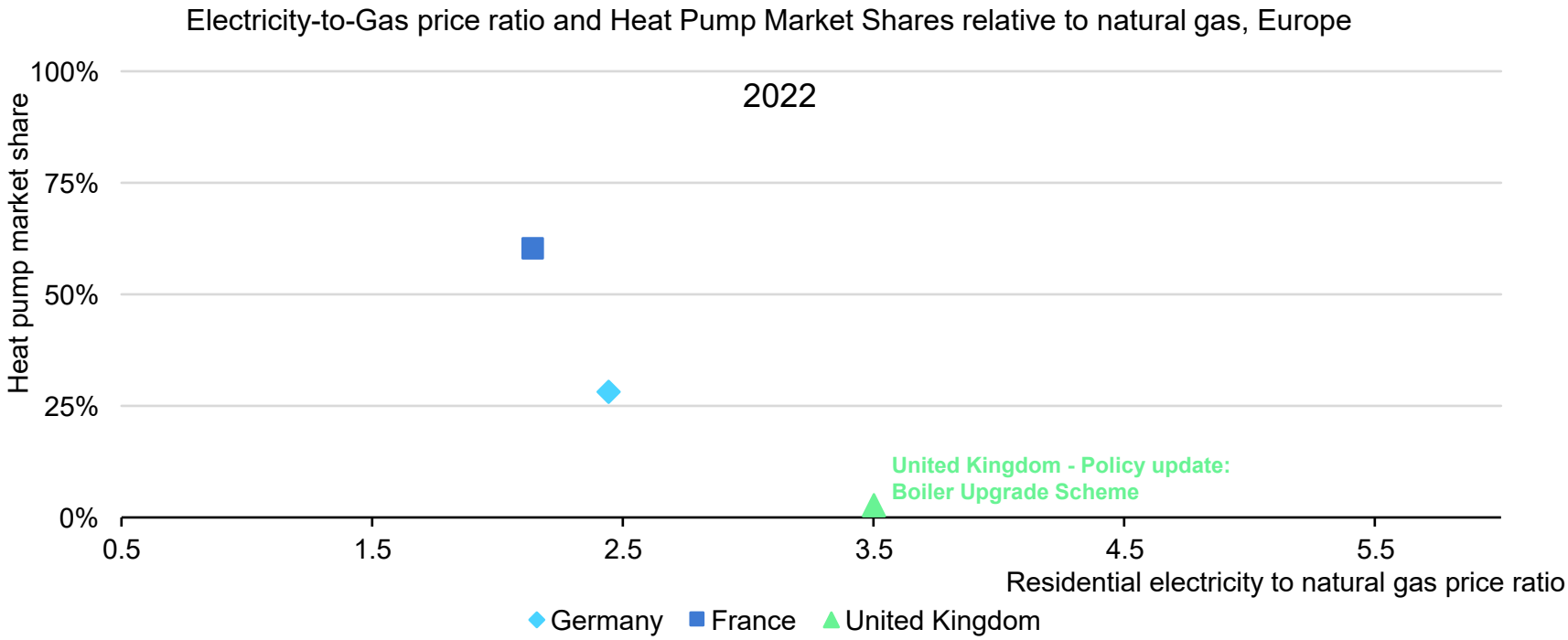
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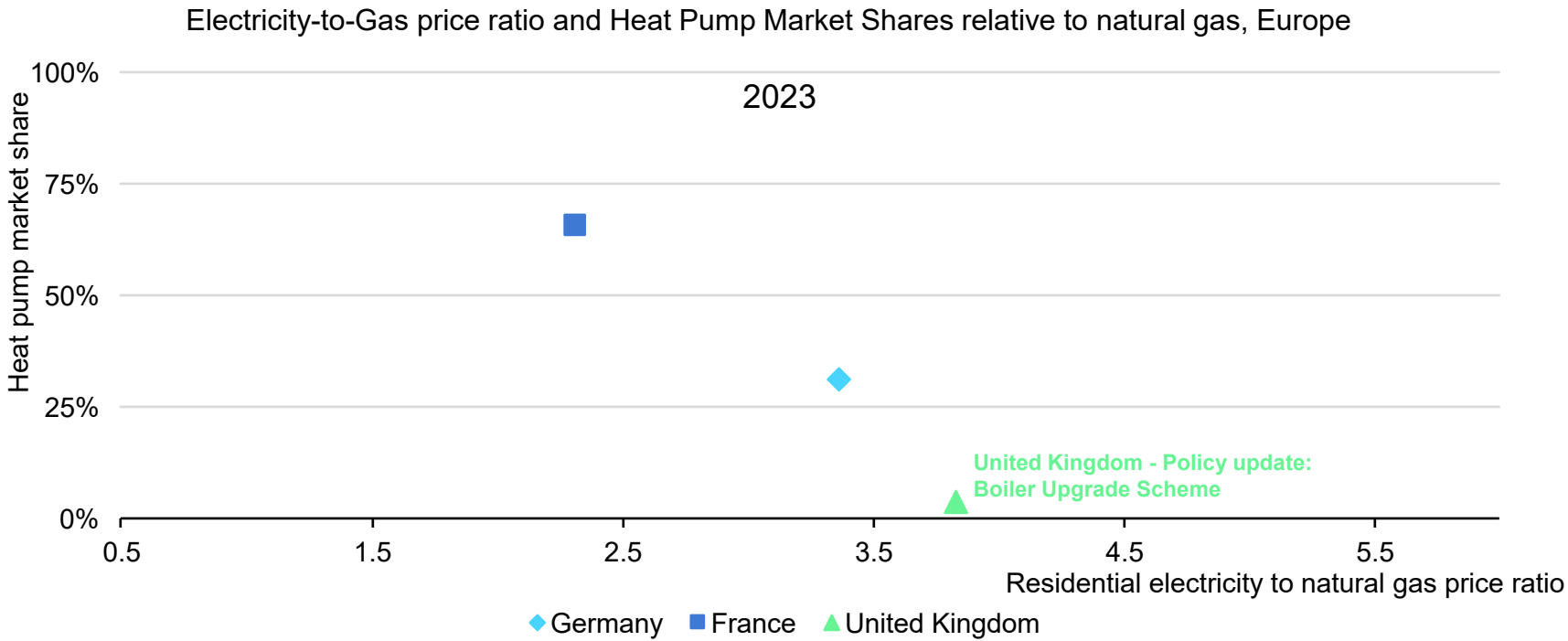
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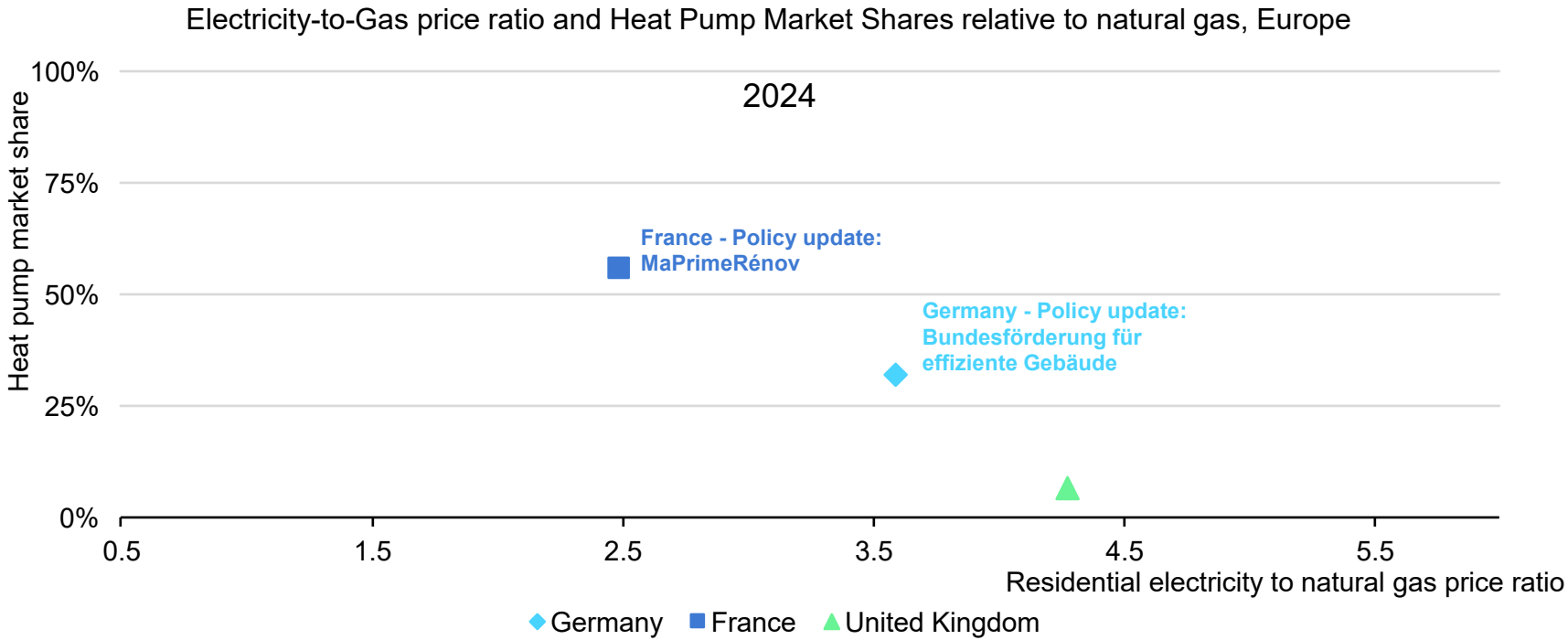
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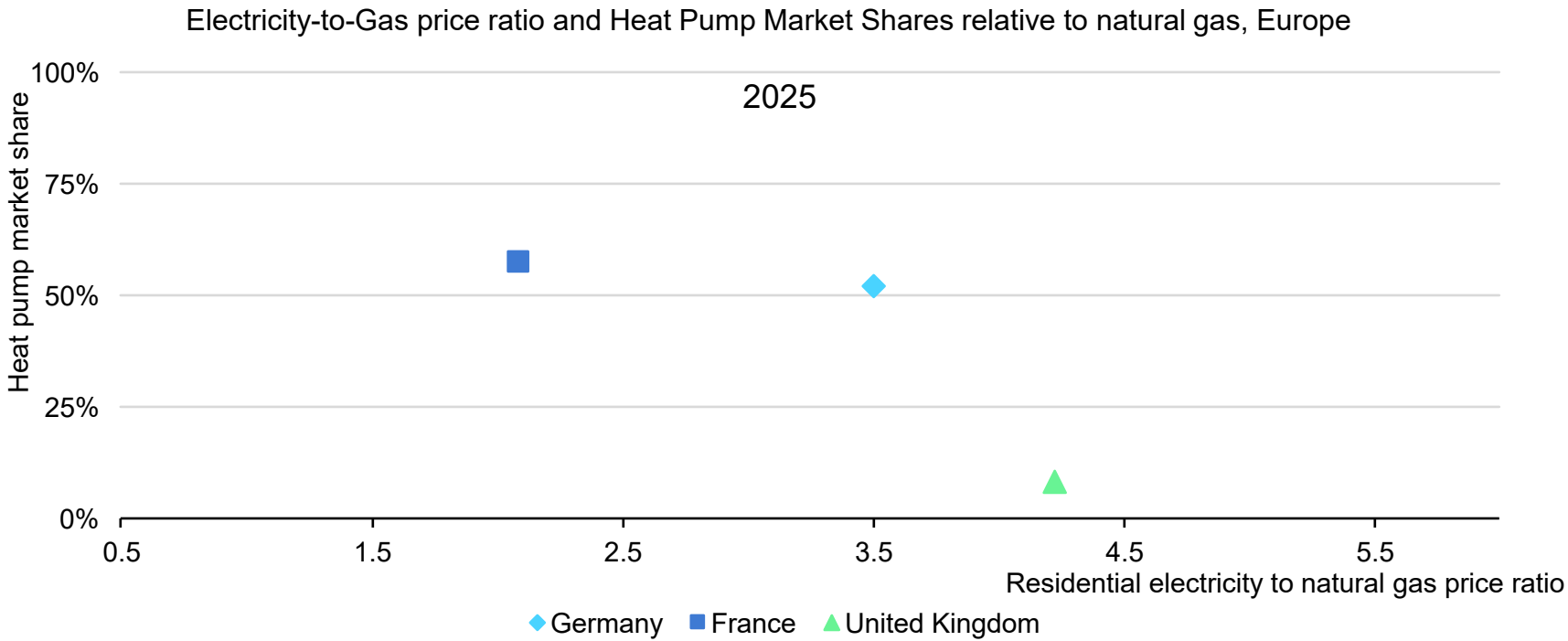
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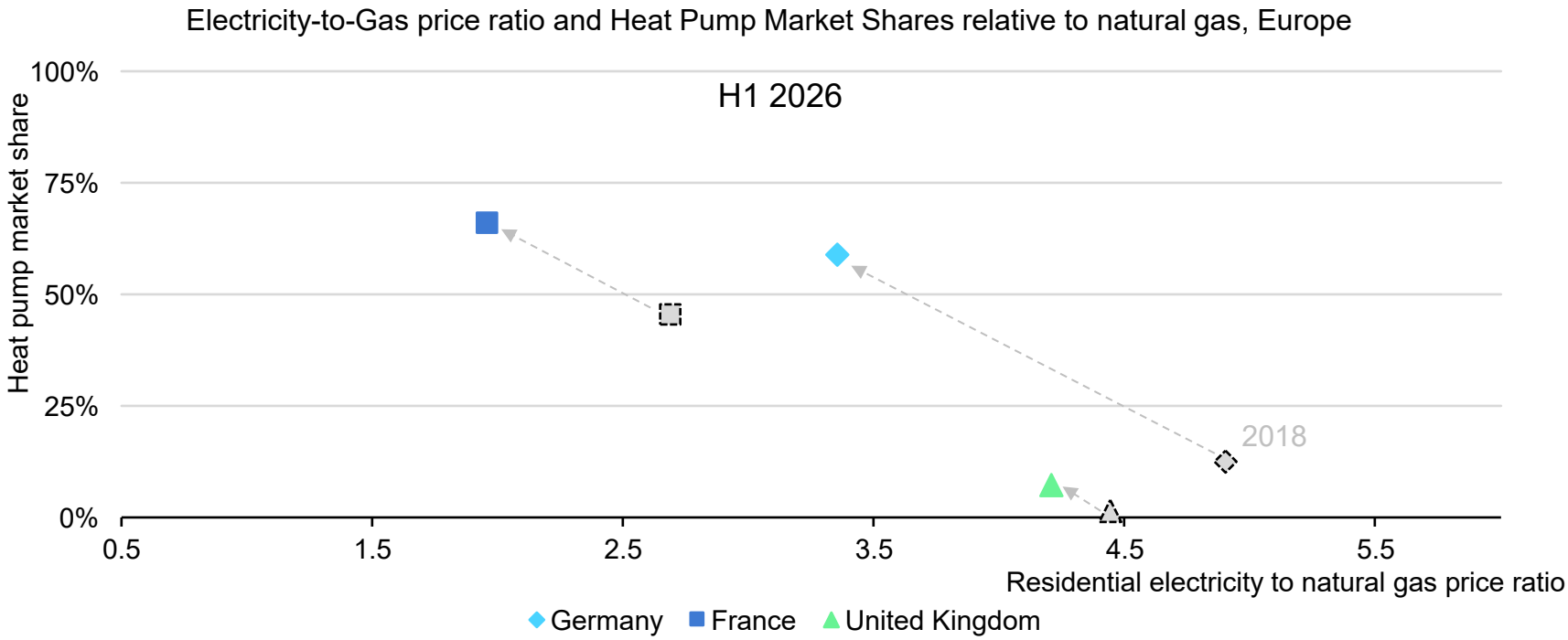
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Q&A

