Europe's Heatwave Is Accelerating the Shift Toward Air Conditioning

aranca

Europe's increasingly intense summer heatwaves are exposing a mismatch between a warming climate and building stock historically designed for colder winters. As extreme heat becomes more frequent, cooling is shifting from discretionary comfort toward essential infrastructure.

>40°C	Five	~20% to ~35%	$69bn to $100bn
Temperatures in parts of Europe during late May and June 2026	Heatwaves in Europe as of 2026	Expected European Household AC Penetration, 2025–2030	Expected European HVAC market size from 2024 to 2030

EUROPE'S CHANGING CLIMATE IS EXPOSING AN INFRASTRUCTURE GAP

"Winter-first" building model

- Retain heat during cold winters
- Improve insulation and reduce heating needs.
- Limited provision for sustained summer cooling.

Recurring heatwaves

Climate-resilient building model

- **Residential:** Adaptive cooling for homes
- **Commercial**: Efficient HVAC for offices, hotels
- **Essential services:** Resilient cooling for hospitals, schools, care

WHY THIS MATTERS FOR AC DEMAND?

AC — From comfort to infrastructure

- AC is becoming a necessity
- Beyond comfort, cooling supports safety
- Cooling is critical for productivity
- Rising temperatures are driving demand

6x — Demand extends across end markets

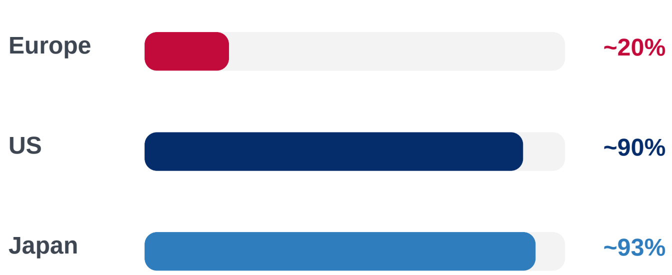
- Residential and commercial buildings
- Hospitals, hotels and schools
- Care facilities and essential infrastructure

↗ Potentially more than a one-summer spike

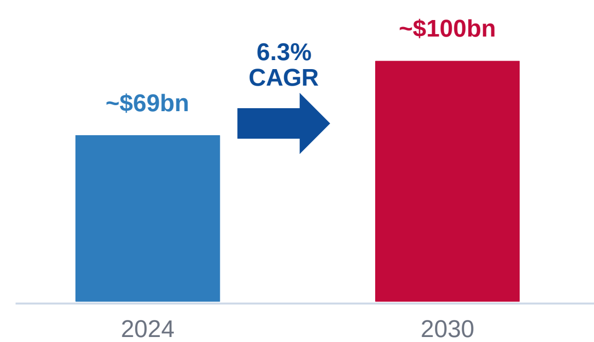
- Cooling demand could remain elevated
- Heatwaves may drive lasting demand
- Building cooling requirements could structurally increase

AC PENETRATION REMAINS SUBSTANTIALLY BELOW OTHER DEVELOPED MARKETS

Household AC Penetration



European HVAC market opportunity



Sources: Aranca Research, Refindustry, Sixth Tone, Research and Markets

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EUROPE'S COOLING DEMAND IS ENTERING A NEW GROWTH CYCLE

2x

Installed base could more than double

- EU AC units could reach ~275 million by 2050
- Long-term AC adoption is expected to accelerate
- Cooling demand could expand structurally

↗

AC is expected to lead HVAC growth

- AC expected to lead HVAC growth
- Rising cooling needs support demand
- Cooling requirements drive adoption

>50%

Western Europe is the key regional engine

- Western Europe expected to lead growth
- Region accounts for >50% of HVAC revenue
- Strong demand supports regional expansion

Low penetration + Rising heat exposure + Installed-base expansion = A substantial long-term cooling opportunity

Europe Favors AC Adoption

As per a survey by YouGov, a global research data and analytics group, most **people** across Britain, Spain, Germany, France, Poland, and Italy **favor wider AC adoption over reducing emissions**, with Britain showing the widest gap in opinion (48% vs. 23%) and Italy the narrowest (35% vs. 32%).

REGIONAL OPPORTUNITY: FIRST-TIME ADOPTION VS REPLACEMENT AND UPGRADES

Northern & Western Europe

UK | Germany | France

- Historically low AC penetration
- Increasing exposure to extreme summer temperatures
- Potential perception shift from "optional" to "necessary
- Greater potential for first-time household adoption

Primary demand driver: FIRST-TIME ADOPTION

Southern Europe

Southern Europe already has relatively high AC penetration, so future demand should be driven mainly by replacement and upgrades rather than first-time installations.

- Replacement of aging AC units
- Premiumization toward higher-spec units
- Energy-efficiency upgrades
- Heat-pump adoption

Primary demand driver: REPLACEMENT & UPGRADES

FOUR FACTORS COULD SLOW THE PACE OF ADOPTION

Electricity costs & environmental concerns

- Higher electricity bills, emissions and environmental impact
- Inefficient units could raise peak demand and pressure power grids.
- Summer-period electricity consumption could increase

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High upfront installation costs

- Costs extend beyond the AC unit
- Installation and servicing add to costs
- Building modifications may add further costs
- Higher ownership costs can deter first-time buyers

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Housing stock creates installation challenges

- Limited space can constrain condenser installation
- Heritage and facade rules can restrict installations
- Noise limits can delay installations
- Landlord and building approvals may be required
- Dense urban areas can face installation barriers

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Buildings were designed to retain heat

- Traditional buildings can retain heat
- Indoor temperatures may remain elevated
- Prolonged heatwaves increase cooling requirements

Sources: Aranca Research, Yahoo Finance, YouGov

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LEADING INDICATORS OF AC MARKET GROWTH

D Daikin

- European revenue up 21.6% Y/Y in 2Q26
- AC represented ~92.9% of total revenue
- Daikin is the clearest listed proxy

M Midea

- PortaSplit sales more than doubled
- Designed for European housing constraints
- No professional installation required

ME Mitsubishi Electric

- European revenue up 18.9% Y/Y
- Relevant business represented ~42.1% of total revenue

C Carrier

- European revenue up 4.0% Y/Y
- Relevant business represented ~20.8% of group revenue
- More diluted group-level read-through

S Samsung

- European revenue up 28.0% Y/Y
- Strongest growth in the comparison
- 28% exposure reflects the broader Device Experience division

G Gree

- Sales up 92% Y/Y in 1H26
- Strong growth across Northwestern Europe
- Includes Norway and Denmark

INVESTOR'S TAKEAWAY: ARANCA INSIGHTS

Europe has a **long runway for structural cooling demand**, supported by low household AC penetration of ~20%, a warming climate, and housing stock that is poorly adapted to sustained summer heat.

- Recurring heatwaves could act as a **structural catalyst** for AC adoption, providing extended demand beyond temporary seasonal spikes.
- The opportunity spans the broader **HVAC value chain**, benefiting AC manufacturers as well as suppliers of compressors, motors, fans, semiconductors, and other electronics used in inverter systems.
- **Refrigerant and specialty chemical producers** should also benefit from rising production of air conditioners and heat pumps.
- **Heat pump manufacturers** appear particularly well positioned, benefiting from rising cooling demand alongside Europe's broader electrification and decarbonization push.
- For investors, this creates a broader structural opportunity across **air conditioning, heat pumps, components, semiconductors, and specialty chemicals**, making Europe's cooling buildout a theme worth monitoring over the coming decade.

Sources: Aranca Research, Company disclosures, Bloomberg, Yahoo finance

Connect with our Team

Lipika Chug
Jr. Analyst,
Investment Research

+91 223937 9999
lipika.chug@aranca.com

Ruchika Mungekar
Assistant Manager,
Investment Research

+91 223937 9999
ruchika.mungekar@aranca.com

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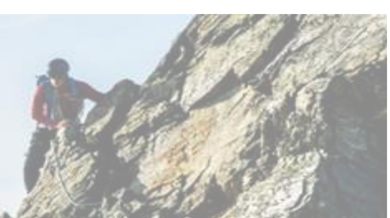

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500+
Strong professional team across multi-disciplinary domains

120+
Sectors and sub-sectors researched by our analysis

80+
Countries where we have delivered projects

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