Support Action on Heat Pumps – position paper

Cost reduction opportunities for heat pumps

1. Introduction – the Heat Pump Accelerator Platform

Heat pumps are essential to the EU's clean energy transition, contributing to carbon neutrality, energy security, and competitiveness, as outlined in the European Green Deal, the Clean Industrial Deal and the REPowerEU Plan. They offer efficient heating and cooling, are 3 to 5 times more efficient than fossil-fuel systems, while enabling greater use of renewables and waste heat. They play an important role in decarbonising the heating and cooling sector, which still accounts for over 50% of all energy consumption in the EU and of which 70% still comes from fossil fuels.

To accelerate their deployment, the European Commission (EC) launched the Heat Pump Accelerator Platform, led by a consortium of VITO, Fraunhofer, and the European Heat Pump Association (EHPA). The platform brings together over 80 stakeholders—including governments, financial institutions, researchers, manufacturers, and consumers—to share best practices and tackle deployment challenges.

2. Heat pump costs breakdown and drivers

Costs emerged as the top barrier across all segments (individual residential, multi-family, commercial, industrial, and district heating) according to platform members (see Annex 2). However, heat pump costs vary widely by country, type, size, and application. For example, an air-to-air unit in Southern Europe may cost under €4,000, while a ground-source system in Germany can exceed €60,000. Electricity prices further influence affordability. For industrial systems, costs are more complex due to custom design requirements.

The total cost of ownership of a heat pump includes both upfront costs (CAPEX) and running costs (OPEX). Upfront costs consist of the price of the heat pump unit, the installation price and additional costs, for example driven by national regulatory requirements and taxation. Heat pumps are a mature technology, therefore the unit price is influenced by scalability and standardisation rather than by invention. The installation price is reflecting the margins that installers take to install the heat pumps. The cost of the installation process is impacted by its complexity and duration. Complexity and duration of the installation are both impacted by the characteristics of the heat pump system itself, the distribution system, its integration into the building or industry as well as requirements at national or local level. These requirements can include among others planning permissions, sound requirements, requirements for a second electricity meter or the administrative procedures for grant applications.

Operating costs are primarily influenced by the electricity price and the efficiency of the heat pump. A key driver of the operating costs is the electricity to gas price ratio. Despite their energy efficiency, heat pumps often remain more expensive to operate than fossil fuel boilers

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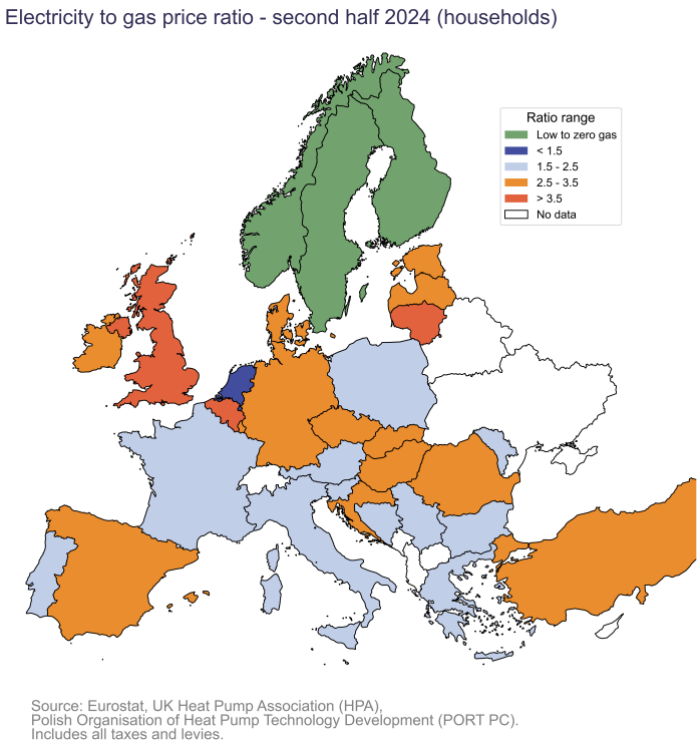
in many countries due to the high electricity-to-gas price ratio. This high ratio is driven by cost components such as taxes and levies that are significantly higher in electricity bills than in gas bills in many countries.

Figure 1: The electricity to gas price ratio – second half 2024 (households)



The more efficient a heat pump is—measured by its coefficient of performance (COP)—the less electricity it requires, leading to lower operating costs. While the COP reflects the internal efficiency of the heat pump, external factors such as operating conditions can further impact performance and electricity demand of the heat pump. The performance and electricity demand of heat pumps can also be impacted by how flexibly they can be used. Optimising the placement and operation of heat pumps within the energy value chain of a building or industrial process, for example by recovering waste heat or reducing the temperature lift, also impacts the efficiency.

Next to these different cost components and their drivers, new business models such as leasing models, all-in offers or aggregators valorising the heat pump's flexibility also impact heat pump costs.

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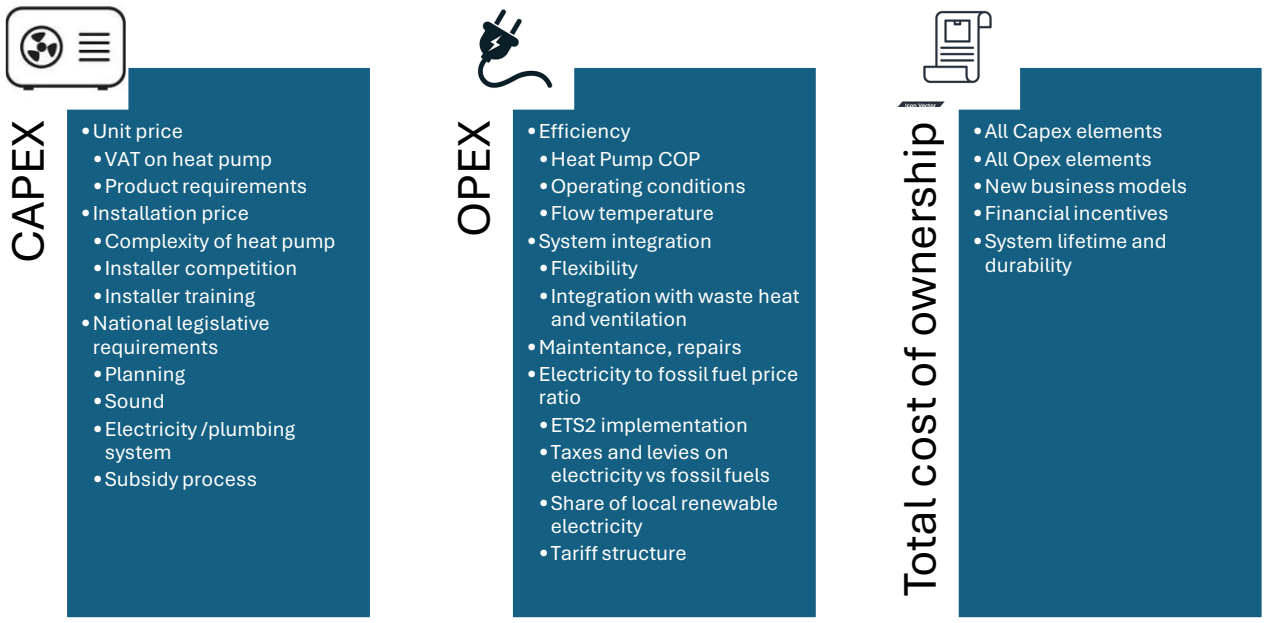
Figure 2: Heat pump costs breakdown



3. Recommendations for heat pump cost reductions

3.1. Cost reduction opportunities by adapting fiscal legislation

To accelerate the deployment of heat pumps and narrow the cost gap between fossil fuels and electricity, Member States should make more strategic use of fiscal policies. Targeted fiscal measures can directly reduce both the upfront investment and ongoing operating costs of heat pumps, while also sending clearer market signals in favour of clean heating solutions.

Ensure that heating fuels pay their fair share of environmental taxation

Today, electricity is often taxed more heavily than fossil fuels, despite being a cleaner energy source. Governments should shift taxation away from electricity and put a price on the use of carbon to ensure that cleaner heating becomes not just the right choice, but also the most affordable one.

Ensure electricity taxation is set to a minimum

To make the running costs of heat pumps competitive versus fossil fuel-based alternatives, the cost of electricity should be at most twice the price of gas. Today, this is not the case in many countries, often due to the non-market components of the electricity bill. Lowering taxes could apply to all electricity or phased in on just the heating component. Finland has already a reduced rate of taxation to electricity supplied to certain heat pumps, electric

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boilers and recirculating water pumps[1]. Other countries should consider this or specific tax breaks on using electricity for heating.

Differentiate VAT rates on electricity to those of gas and/ or heating oil

In general, excise duty rates have been used to raise differential revenues between fuels, however another tool could be differential VAT rates (e.g. normal rate for oil/ gas and lower rate for electricity).

Reduce the Value Added Tax (VAT) rate on the supply and installation of heat pumps

A number of countries have a reduced VAT rate already on the capital cost of heat pumps[2]. Countries including among others Bulgaria, Croatia, Estonia, Germany, Greece, Hungary, Slovakia and the Netherlands have their standard VAT rate on heat pumps, and therefore potential to reduce it. The EU should reduce the allowed VAT rate on heat pumps to 0%, which it already has done for PV.

Allow tax write offs for investment in clean heating for business

Accelerated capital allowances, or accelerated depreciation, allow companies to deduct the total or partial cost of the investment in clean heat from their profits faster than standard depreciation, increasing the financial attractiveness of heat pump investments.

Use property taxation policy to incentivise the installation of heat pumps

In many Spanish regions, investment costs can be offset against property taxation. An increase in local property tax can be used to pay for energy efficiency investments (PACE model – property assessed clean energy financing) or in others energy performance certificates are used to calculate property taxation.

Consider state resources to fund anticipatory grid investment

Take fiscal actions that increase the share of locally produced competitive clean electricity or that decrease the real cost to the electricity system of local renewable electricity such as tax treatment of investments in renewable electricity, auction schemes, risk sharing schemes, exchequer supports of grid investment and tax treatment of investment.

Implement the actions proposed in the Affordable Energy Action Plan

The EC's Action Plan for Affordable Energy from 26 February 2025 included a number of measures that could positively impact fiscal policy for heat pumps. These include the finalisation of an ambitious Energy Taxation Directive and Member States specific recommendations on reducing taxes on electricity.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022PC0219

[2] https://www.ehpa.org/wp-content/uploads/2024/12/EHPA_VAT-report_Heat-pumps-versus-boilers-taxes-and-running-costs-2.pdf#:~:text=The%20report%20shows%20that%20there%20are%20nine%20EU,on%20the%20main%20%E2%80%98competitor%E2%80%99%20of%20heat%20pumps:%20boilers.

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3.2. Technology related cost reduction opportunities

Residential and commercial heat pumps are a mature technology. Their unit costs are shaped more by production scale and standardization than by technological breakthroughs. This includes the standardisation of components and units, the modularisation of parts, and the increased automation of production lines.

Increase the production of plug-and-play solutions

The complexity of on-site work, the need for skilled labour, and sometimes long installation times contribute significantly to total system costs. To reduce these costs, industry actors should prioritise the design of plug-and-play solutions that are faster to install: pre-configured, standardised systems that minimise the need for bespoke engineering and reduce the risk of installation errors and that enable faster deployment. This includes standardised energy modules combining heat pumps with for example PV. The savings achieved in on-site labour and coordination costs should significantly outweigh any increase in unit costs associated with standardisation or the development of plug-and-play solutions.

Increase standardisation for industrial heat pumps

Industrial heat pumps are mainly tailor made, which drives up costs through bespoke engineering. Advancing the standardisation of these heat pumps and their key components would reduce procurement and integration costs and allow for greater economies of scale in manufacturing.

Stronger sectoral collaboration, including through end-user industry associations, can help reduce costs and accelerate the deployment of industrial heat pumps. Developing standardised process flow diagrams for key industrial (sub)sectors, covering typical process and utility streams, process units, and temperature levels, would provide a sector-specific baseline for decarbonisation with industrial heat pumps. These templates enable the deployment of modular, replicable heat pump solutions tailored to sector specific needs, reducing adaptation costs. A successful example is the collaboration between the Confederation of the European Paper Industries (CEPI) and the European Heat Pump Association (EHPA)[3]. EU LIFE funding could further support such initiatives, especially through targeted support for industry consortia, as is being done for the Exquisheat project[4] and should be replicated. In general, re-instating the LIFE programme for heat pumps would enhance understanding of heat pumps.

3.3. Cost reduction opportunities by increasing competition

Promoting a more competitive installer market plays an important role in ensuring fair and transparent pricing, especially in situations where installation costs may be excessive.

Increase cost transparency

[3] https://ehpa.org/news-and-resources/publications/through-pumps-to-pulp-greening-the-paper-industrys-heat/
[4] https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-details/43252405/101215816

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Increasing cost transparency by providing standardised information on indicative unit prices, installation labour, auxiliary components, and potential maintenance would allow businesses and consumers to make well-informed choices. Greater transparency would drive competition among suppliers and installers, helping to reduce excessive pricing.

To address this challenge and support industry to increase transparency on prices, Member States and EU institutions should consider the following actions:

- Developing national and EU-wide cost benchmarking tools to provide average reference prices for heat pump systems, broken down by building type, technology, and region;
- Encouraging or requiring quotations from installers and manufacturers as part of public support schemes;
- Integrating transparent pricing into consumer-facing platforms such as national renovation portals or one-stop-shops.

Enable new business models and market actors

Another path to more competition and cost reduction lies in enabling a broader range of actors to participate in heat pump deployment. This includes energy service companies (ESCOs), large installers with prefabrication capabilities, social housing providers that can aggregate demand and streamline procurement and other operators of large building stock that come up with all-in offers. Such approaches significantly reduce on-site labour time and can cut installation costs.

The standard business model where heat pumps producers manufacture and installers handle setup, is being challenged by new business models that lower upfront and total ownership costs. These include (social) leasing models, companies with all-in offers acting as heat pump one-stop-shop taking care of the total process from energy audit to installation and maintenance and even energy supply, or companies acting as aggregators to valorise the heat pump's flexibility.[5] For commercial and industrial heat pumps, heating as a service can also boost accessibility. Industry should adopt and collaborate on these innovative approaches to stay aligned with market demands.

Another key way to increase competition is by increasing the number of heat pump installers in general, which is addressed in more detail in the chapter below.

3.4. Cost reduction opportunities related to heat pump installation

Installation costs can account for up to 40–50% of the total price for residential installations. These costs are shaped not only by labour and materials, but also by regulatory complexity, administrative burden, and lack of standardisation. Streamlining the "installer journey", covering all aspects of the profession, from training and regulation to the practical conditions on the ground, represents an opportunity to bring down costs.

Digitalise the installer profession

[5] See the install.res catalogue of heat pump business models for a complete overview

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Digital tools can significantly cut installation time, reduce errors, and improve coordination across stakeholders. This includes software for remote building assessments, automated system sizing, permit applications, and customer communications. For example, mobile apps that allow installers to generate quotes, system designs, and compliance reports on-site can save several hours per project. Digital tools including AI should advice the optimal balance between lower temperature emitters (internal distribution system), upgrades of insulation, optimal operational settings and the (high temperature) heat pump installations.

Reduce regulatory and administrative complexity

Time-consuming and inconsistent regulatory procedures add costs to heat pump deployment. Planning permissions, noise assessments, minimum energy performance requirements for heat pump subsidies and approvals for gird connections, electrical or plumbing modifications can delay projects and increase costs. In Ireland for example, you need to have a fabric performance of less than 55W/m^2 to be eligible for a heat pump grant. The assessment of which takes six weeks on average and costs around 700 euros. This is too complex and slow and often presents a requirement for non cost optimal investments. Reducing these requirements will lower costs.

Standardise installation layouts for common building typologies

Aggregate installation scale through supporting standardised installation programmes and standardised installation plans for common housing typologies such as multi-family dwellings or social housing blocks can reduce the design time and lead to more predictable costs. This includes installation of standardised energy modules combining heat pumps with for example PV. Supporting open-source technical templates and encouraging public housing providers to pilot such approaches could drive faster uptake and cost savings.

Support installer training

To increase market competition between installers and ultimately lower end-user installation costs, more heat pump installers should be trained in a quicker way. EU funding under the Multiannual Financial Framework (MFF), including from the European Social Fund Plus (ESF+) and the Just Transition Fund should be channelled towards the development and deployment of training programmes for heat pump installers. This includes both initial vocational education and training (VET) and upskilling programmes for existing workers.

To maximise the use of existing skills and minimise transition costs, Member States should introduce dedicated incentives to support the reskilling of fossil fuel heating technicians and skilled workers from related professions (e.g. electricians or plumbers). These measures could include: publicly funded or co-funded training vouchers, tax deductions for businesses investing in workforce upskilling and recognition of prior learning (RPL) schemes that allow experienced workers to fast-track their certification.

All heating installer programmes should include a strong focus on heat pump technologies. Trainings should also ensure that installers are aware about the financial support options for heat pumps, so they can advise customers. Both installers and one-stop shops should be able

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to advise about the optimal balance between lower temperature emitters (internal distribution system), upgrades of insulation, optimal operational settings and the (high temperature) heat pump installations. Digital tools can support this (as mentioned above).

3.5. Cost reduction opportunities from energy system integration

Integrate heat pumps into a flexible and interoperable system

Reducing heat pump costs also depends on better integration into the wider energy system. This includes sector coupling, the use of thermal storage, or coordination with district heating and cooling networks and renewable electricity generation. When operated smartly, heat pumps can shift electricity consumption away from peak periods and maximise on-site renewable energy use, such as from PV, thereby lowering both system and consumer costs. However, this flexibility potential remains underused mainly due to regulatory barriers.

To address this, full implementation of the Electricity Market Directive (EU) 2019/944 is essential. This includes enabling flexible electricity contracts and ensuring that flexibility services are fairly remunerated. At the same time, advancing EU-wide interoperability standards is critical as well as implementing the ACER recommendations on flexibility. Interoperable systems allow heat pumps, energy management systems, and grid operators to communicate efficiently, unlocking demand-side flexibility and reducing system costs. Embedding these standards into EU product policy can ensure consistent implementation across Member States.

Integrate ventilation and waste heat recovery

Integrating heat pumps with ventilation systems and waste heat recovery can boost energy efficiency and lower system costs in some cases. A more holistic approach, combining heat pumps with mechanical ventilation and waste heat recovery where possible, can lower total energy consumption. This is especially effective in commercial and multi-apartment buildings, where controlled mechanical ventilation is standard. Using waste heat from exhaust air as a heat pump source further cuts electricity use and improves overall performance.

In industrial settings, connecting heating and cooling processes and recovering waste heat can significantly improve efficiency (e.g. in dairy sector, heat for pasteurisation and cooling for refrigeration). By using waste heat as an energy source for heat pumps, industries can reduce energy demand, cut emissions, and lower operational costs, especially in processes with simultaneous heating and cooling needs.

Policy can further unlock the potential of waste heat recovery by broadening current definitions. Under the Renewable Energy Directive (RED), for heat to qualify as “waste heat”, it must meet four strict criteria: it must be unavoidable, a by-product, originate from an industrial or tertiary process, and not be reused on-site outside of a district heating and cooling network. These limitations exclude valuable sources such as on-site waste heat recovery in industrial processes, heat from residential cooling, commercial refrigeration, or sewage heat recovery, which all improve efficiency. EU policy should therefore:

- Broaden the definition of waste heat in the RED to explicitly include heat from building cooling systems

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- Encourage the retrofitting of cooling systems with heat exchangers and heat pumps to recover and utilise waste heat that would otherwise be lost
- Remove unnecessary exclusions in the RED definition, particularly the limit recovery potential in individual or complex building systems (e.g. ambient loops in multi-apartment buildings).
- Mandate the use of waste heat recovery whenever possible for residential, commercial and industrial heat pumps (e.g. by using waste heat recovery from cooling processes for heating) by replicating the Energy Efficiency Directive's waste heat obligation for data centres to other waste heat sources.

3.6. Opportunities to optimise heat pump funding and subsidies

Reducing upfront costs requires a range of coordinated actions. Until those actions are being taken, financial support such as subsidies, low-interest loans and guarantee schemes will remain necessary, though it should be seen as inefficient. For vulnerable households, however, financial support will continue to be essential regardless.

Simplify and accelerate subsidy and loan procedures

For financial support schemes to be effective and used by those who need them the most, Member States should simplify and fast-track subsidy and loan application processes for heat pumps. This includes:

- Reducing paperwork and verification steps where digital tools can be used
- Provide standardised application templates for common types of installations
- Ensure real-time tracking and transparency for applicants on the status of their requests
- Deduct the subsidy directly from the upfront cost when the customer purchases the heat pump or installers or one-stop shops handling the entire subsidy process on behalf of the customer. In parts of Austria, vendors and installers offer 'turnkey' heat pump packages in which they handle all steps of the process, including qualifying the site, submitting subsidy applications, and ensuring compliance with subsidy rules, which reduces administrative burdens for homeowners. In Germany, some manufacturers assist with preparing and submitting subsidy paperwork, helping installers and homeowners avoid much of the documentation burden.
- Ensure the subsidy is effective in boiler replacement scenarios, alowing post installation validation of applications.

Share best practices across Member States

Given the diversity of national heat pump support schemes, there is substantial value in sharing best practices. Once the principles of a well-functioning subsidy scheme for heat pumps are identified (among others by the exchanges and the deliverables in the support action on heat pumps), their implementation should be coordinated at EU level. This could be done via concerted Action platforms (e.g. for the Energy Efficiency Directive or Renewable Energy Directive) or structured bilateral exchanges between Member States. Alternatively,

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national subsidy schemes could be coordinated and co-designed at a central EU level in partnership with the national level, as has been done in the auctions as a service system.

Leverage the Social Climate Fund to support vulnerable households

The successful national implementation of the second EU Emissions Trading System (ETS2) for buildings and road transport, along with the accompanying Social Climate Fund (SCF), is essential to ensure that carbon pricing is effective and socially just. Member States should ringfence a portion of their Social Climate Fund allocations specifically to support heat pump deployment in low-income and vulnerable households. National Social Climate Plans, required under the Social Climate Fund Regulation, should allocate a significant share of funding to measures that decarbonise heating and cooling through the deployment of heat pumps.

Member States should also promote innovative financing mechanisms such as social leasing models for heat pumps within their Social Climate Plans. These shemes reduce upfront costs by allowing households to repay heat pump investments through affordable monthly payments, often offset by energy savings. Such models can be supported through the Social Climate Fund or under the Clean Industrial Deal State Aid Framework (CISAF).

Beyond the SCF, existing EU financial instruments such as the Recovery and Resilience Facility (RRF) offer opportunities to anticipate investments in the decarbonisation of heating.

Ensure the innovation fund pilot auction on industrial process heat decarbonisation becomes structural

The EC's innovation fund pilot auction on industrial process heat decarbonisation that will launch in December 2025 is an improtant incentive for industrial heat pumps. However, participation in the auction this year will probably not be representative of the participation in future calls, nor of the investment needs in the market. Companies will have already planned their investments for 2026 before the publication of the Terms and Conditions early October 2025, reducing the pool of projects that could potentially participate in the auction. Secondly, there are examples of eligible projects that have been selected for different aid schemes, preventing them to apply since cumulation is not allowed. Thirdly, the auction is unlikely to achieve widespread awareness in its first year, especially considering the tight timeline of its launch. Therefore, ensuring continuity with calls over the next years will be key to fully unlock its potential for industrial heat pump roll-out.

3.7. Opportunities for cost reduction through EU policy coordination and implementation

Increase EU coordination on product requirements

Currently heat pump manufacturers navigate multiple EU and national-level product requirements including those related to ecodesign, refrigerants and flexibility. These often require product redesigns and recertification processes, adding technical, manufacturing and administrative burdens and costs. Coordinating product requirements and aligning them strategically is needed. The EU should consider the cumulative effect on product development

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cycles and the product cost, on predictability, heat pump uptake and the broader objective of heating decarbonisation. Coherent and synchronised implementation timelines for product requirements, related to ecodesign, refrigerants, and flexibility and network codes would reduce these burdens. The emerging trend of local content requirements at national level is further damaging the single market, pushing up prices, creating further administrative burdens and restricting market availability of certain heat pump technologies.

To accelerate the market shift towards sustainable heating technologies, it is also important to ensure that heat pumps are not subject to more product requirements than fossil-fuel-based or less efficient heating systems. For example article 24 of the Ecodesign for Sustainable Products Regulation requires a format for reporting information regarding discarded unsold consumer products. Heat pumps are included of products while central heating boilers are excluded. Adding more requirements on heat pumps than on fossil heating systems creating a regulatory imbalance that undermines the competitiveness of renewable heating solutions and slows down their adoption.

Ensure single market conditions for products and subsidy schemes

The EU Single Market is vital for driving industrial competitiveness. Despite the harmonisation of product standards at EU level, significant regulatory divergence persists at national level such as varying rules on planning, sound and electric or plumbing systems. These discrepancies increase administrative burden, limit replicability of standardised system designs across borders and raise costs. Divergent national subsidy schemes with different criteria and technical requirements also add complexity, causing manufacturers to adapt products for different markets. To enable cost-effective growth, the EC and Member States should ensure that national regulations do not undermine the principles of the Single Market by:

- Promoting mutual recognition of standards where possible,
- Encouraging the development of harmonised EU-level technical guidelines for installation requirements.
- Aligning and coordinating subsidy scheme requirements at EU-level (see above)

This would enable economies of scale, streamline manufacturing and cross-border service provisions leading to lower final costs for consumers and faster deployment across the EU.

Implement legislation

The EU has adopted a comprehensive set of provisions relevant to the decarbonisation of heating and cooling, particularly in the Energy Performance of Buildings Directive (EPBD), the Energy Efficiency Directive (EED), the Renewable Energy Directive (RED), the Electricity Market Directive, Emission Trading Scheme 2 and the Social Climate Fund. Many of these measures are still in the process of transposition at national level. Ensuring their effective and timely implementation is a priority to unlock cost-reduction opportunities.

The EU should make sure infringement procedures are pursued where necessary to uphold EU law and climate commitments and ensure a timely and effective transposition of the heating and cooling provisions.

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Annex 1 Overview of proposed actions to take by actor

Overview of recommendations by actor

Industry:

- Produce heat pump systems that are faster to install and to integrate with other technical equipment (plug-and-play) solutions.
- Increase standardization of components and units, automation of production lines and modularisation of parts.
- Increase standardisation specifically for industrial heat pumps.
- Collaborate to develop standardized sectoral process flow diagrams for industrial heat pumps implementation.
- Increase transparency on heat pump costs.
- Adopt new business models and innovative approaches and collaborate to stay aligned with market demands.
- Increase competition between installers by training more heat pump installers and by making the profession attractive.
- Increase digitalisation of the heat pump installer profession.
- Ensure that installers are aware about the financial support options for heat pumps and about the optimal balance between lower temperature emitters (internal distribution system), upgrades of insulation, optimal operational settings and the (high temperature) heat pump installations.
- Deduct the subsidy directly from the upfront cost when the customer purchases the heat pump or installers or one-stop shops handling the entire subsidy process on behalf of the customer.
- Integrate heat pumps into the buildings ventilation system for commercial and residential use and use waste heat recovery whenever possible.
- Prioritise waste heat recovery for industrial heat pumps.

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- Aggregate installation scale through supporting standardised installation programs and energy modules combining heat pumps with for example ventilation and PV (e.g. through social housing landlords).

EU level policy makers:

- Allow VAT on heat pumps to go down to 0% as for PV[6].
- Implement the actions proposed in the affordable energy action plan such as the finalisation of an ambitious energy taxation directive and member states specific recommendations on shifting taxes and levies away from the electricity bill.
- Encourage better understanding of heat pumps by re-instating the heat pump focused call under LIFE Clean Energy Tansition.
- Develop EU-wide cost benchmarking tools to provide average reference prices for heat pump systems, broken down by building type, technology, and region.
- Channel EU funding under the Multiannual Financial Framework (MFF), including from the European Social Fund Plus (ESF+) and the Just Transition Fund towards the development and deployment of training programmes for heat pump installers.
- Enforce the full implementation of Electricity Market Directive.[7]
- Maximise impact of interoperability standards across the union for flexibility.
- Broaden the definition of waste heat in the RED to explicitely include heat from building cooling systems.
- Encourage the retrofitting of cooling systems with heat exchangers and heat pumps to recover and utilise waste heat that would otherwise be lost.
- Remove unnecessary exclusions in the RED definition, particularly the limit recovery potential in individual or complex building systems (e.g. ambient loops in multi-apartment buildings).
- Mandate the use of waste heat recovery whenever possible for residential, commercial and industrial heat pumps (e.g. by using waste heat recovery from cooling processes for heating) by replicating the Energy Efficiency Directive's waste heat obligation for data centres to other waste heat sources.
- Coordinate qualitative support schemes for heat pumps at EU level, similar to the auctions as a service system or via concerted action platforms.
- Ensure that the innovation fund auction on industrial process heat decarbonisation is not a one off but become structural.
- Coordinate product requirements and their implementation timelines to avoid multiple redesigns and recertifications. Harmonize product standards at EU level by removing country level restrictions on product availability.
- Avoid more product requirements on heat pumps than on other non-renewable and less efficient heating systems.
- Ensure single market conditions to reduce the different requirements for example on planning permission, sound, local content requirements and on the electric and plumbing systems of the building.

[6] Directive (EU) 2022/542 on VAT rates
[7] Directive (EU) 2024/1711 on the Electricity Market

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- Initiate a de-risking scheme for social leasing by providing public guarantees on a pari passu basis, meaning the risk is shared equally between public guarantors and financial intermediaries.[8]

National level policy makers:

- Shift away taxation from electricity to fossil fuels and put a price on the use of carbon to ensure that heating fuels pay their fair share of environmental taxation.
- Ensure electricity taxation is set to a minimum.
- Differentiate VAT rates on electricity to those of gas and/ or heating oil.
- Reduce VAT on heat pumps to the minimum currently allowed by EU legislation.[9]
- Allow tax write offs for investment in clean heating for business.
- Use property taxation policy to incentivise the installation of heat pumps.
- Consider state resources to fund anticipatory grid investment.
- Take fiscal actions that increase the share of locally produced competitive clean electricity or that decrease the real cost to the electricity system of local renewable electricity such as tax treatment of investments in renewable electricity, auction schemes, risk sharing schemes, exchequer supports of grid investment and tax treatment of investment.
- Developing national cost benchmarking tools to provide average reference prices for heat pump systems, broken down by building type, technology, and region.
- Encouraging or requiring quotations from installers and manufacturers as part of public support schemes.
- Integrating transparent pricing into consumer-facing platforms such as national renovation portals or one-stop-shops.
- Reduce regulatory and administrative complexity related to planning permissions, noise assessments, minimum performance requirements for subsidies and approvals for electrical or plumbing modifications.
- Standardise installation layouts for common building typologies including with open-source technical templates.
- Incentivise the transition of workers from fossil to clean heating systems through funded training programmes, tax breaks for worker training and recognition of priori learning schemes.
- Widen the eligibility of installers to install heat pumps by increasing access to rapid training programs which could increase the competition amongst installers.
- Ensure that all heating installer training programmes include a strong focus on heat pump technologies.
- Ensure that one stop shops advise about the optimal balance between insulation and heat pump size and type.
- Reduce the burden of paperwork and lead time for subsidy programmes: reduce paperwork and verification steps where digital tools can be used, provide standardised application templates for common types of installations, ensure real-time tracking and transparency for applicants on the status of their requests.

[8] As recommended by the Investors Dialogue on Energy, Working Group 4 in their Recommendations for new and improved financial schemes and products for heating and cooling.
[9] Directive (EU) 2022/542 on VAT rates

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- Implement the Electricity Market Directive[10] so that among others flexible contracts are possible and flexibility offered by heat pumps is remunerated, non-fossil flexibility support schemes are introduced, and smart meters are rolled out[11].
- Ensure full implementation of the ACER recommendations on flexibility.[12]
- Implement the ETS2[13] and Social Climate Fund[14] as planned.
- Ringfence funding from the Social Climate Fund[15] for vulnerable households to renovate with heat pumps.
- Ensure that in the social climate plans a good share of funding goes to measures to decarbonise heating and cooling via heat pumps.
- Use existing funding (e.g. Recovery and Resilience Facility[16]) to anticipate investments in the decarbonisation of heating.
- Provide dedicated funding for social leasing for heat pumps enabling low-income households to access clean heating solutions without upfront costs for example by using the Social Climate Fund[17] or the Clean Industrial Deal State Aid Framework[18].
- Simplify and fast-track subsidy and loan processes to reduce administrative burdens for households and companies involved in leasing.
- Implement the Energy Performance of Buildings Directive[19] so that one-stop shops for renovations are implemented.
- Share best practices on one-stop-shops[20] among member states via concerted action program or bilateral engagement.

[10] Directive (EU) 2024/1711 on the Electricity Market and Regulation (EU) 2024/1747 and amending Regulations (EU) 2019/942 and (EU) 2019/943 on the electricity market design
[11] See also the SmartEN guide on implementing EU laws – a guide to activate demand-side flexibility in the EU 27 Member States: https://smarten.eu/wp-content/uploads/2024/12/Implementing-EU-Laws_smartEn_FINAL.pdf
[12] ACER report Unlocking flexibility: No-regret actions to remove barriers to demand response". recommendations on flexibility
[13] Directive (EU) 2023/959 on EU ETS
[14] Regulation (EU) 2023/955 on the Social Climate Fund
[15] Regulation (EU) 2023/955 on the Social Climate Fund
[16] Regulation (EU) 2021/241 on the Recovery and Resilience Facility
[17] Regulation (EU) 2023/955 on the Social Climate Fund
[18] Communication (EU) C/2025/3602 on the Clean Industrial Deal State Aid Framework
[19] Directive (EU) 2024/1275 on the Energy Performance of Buildings
[20] For example the Electric Ireland Superhomes: https://electricirelandsuperhomes.ie/

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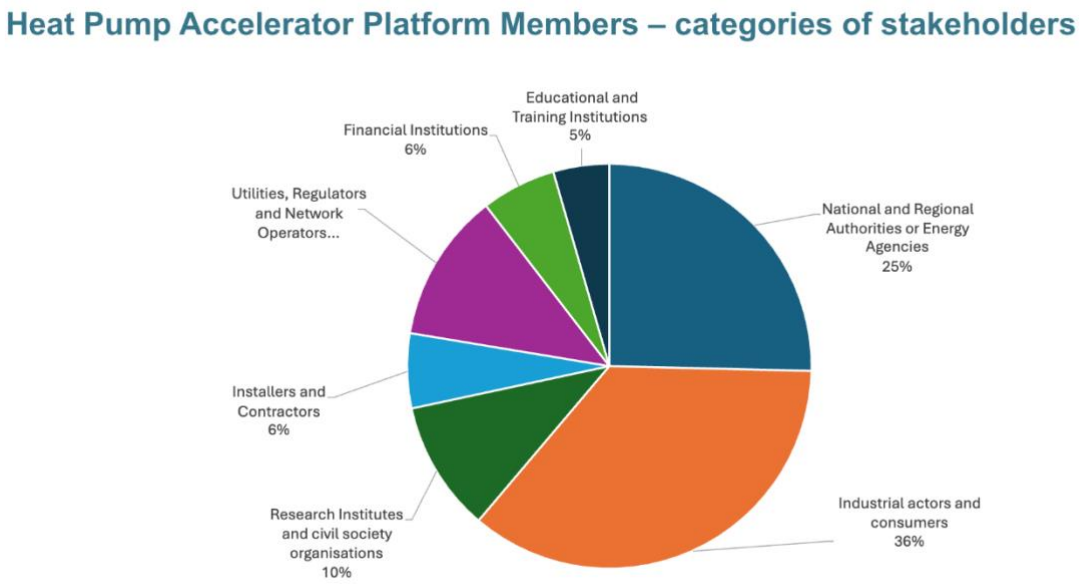
Annex 2: Heat pump Accelerator Platform members – categories of stakeholders



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