

# Heat Pumps in the Net Zero Industry Act

On the 16<sup>th</sup> of March, the European Commission (EC) published the Net Zero Industry Act proposal in which heat pumps are recognised as strategic net zero technologies. The act aims at increasing the European manufacturing of heat pumps in Europe and strengthening its competitiveness. In this paper, the European Heat Pump Association explains its position on this proposal.

## Background – heat pump market and value chain

The European Heat Pump Sector has developed strongly over the past decade. On top of nearly 10 years of uninterrupted and double digit growth, sales numbers increased by 38% in 2022. A sales volume of more than 3 million units (including air-air, air-water, brine-water, and sanitary hot water units) equals more than 28 GW installed capacity, replacing approx. 4 bcm of gas and reducing CO2 emissions by 8 Mt.

Market growth '10 – '22 | HP stock<sup>2022 est.</sup>: 19,7 mill. installed

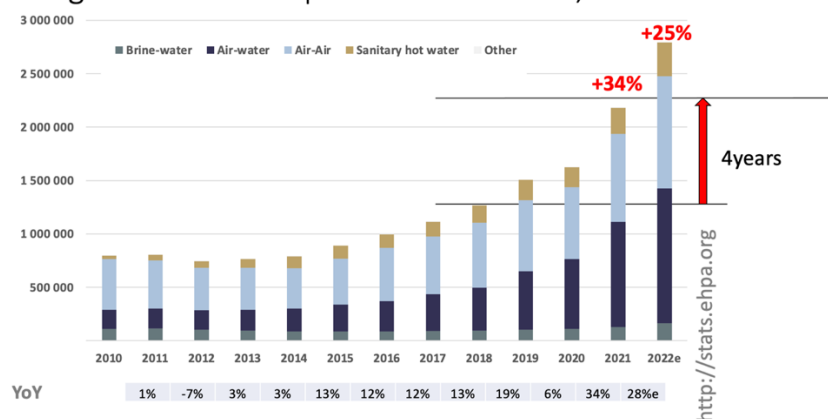
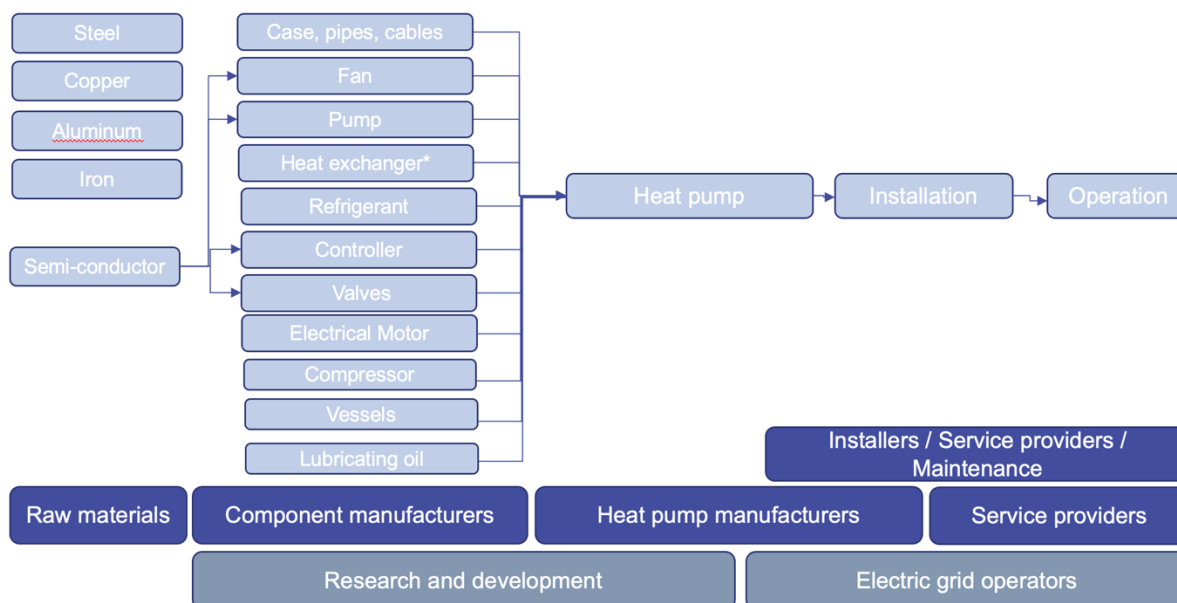


Figure 1: Heat pump sales in Europe (EU including NO, CH, UK).

The heat pump industry is a European Industry. EHPA members, often SMEs, are operating production sites in more than 170 locations throughout Europe, in rather remote locations, providing employment and perspectives to the surrounding areas. Areas of expertise stretch along the value chain.

Europe also hosts about a dozen dedicated and internationally renowned universities and research bodies working on finetuning refrigerant cycle based solutions to the different application areas and integrating it with the electric grid.



2

\* Different types of heat exchangers are used e.g. evaporator, condenser, desuperheaters, subcoolers



Figure 2: Heat pump value chain from raw materials to operation

Stable growth of the heat pump sector throughout the rest of this decade will be essential to decarbonise the heating sector in residential, commercial, and industrial applications, as well as in decarbonising district energy grids. It will also nearly completely remove the dependency on (Russian) fossil gas and hence contribute to achieving the targets of the REPowerEU package. Building a strong pan-European heat pump and heat pump components industry is key to capture this expanding market. The European Heat Pump Industry is currently operating at capacity. Different players have [publicly announced an accumulated investment of more than 5 billion Euro until 2025](#). This includes component, product, and service development, setting up new production sites as well as training and certification.

A fundamental way to strengthening Europe’s net-zero technology products manufacturing ecosystem is to keep insisting on quality. Importing devices from foreign countries and keeping global trade available plays an important role in helping to decarbonise Europe and reaching the ambitious REPowerEU targets. However any foreign product import must comply with the quality standards that are set in the EU, since a major risk is that we would import inferior quality products. Therefore the EU should keep insisting on product quality, high quality spare parts, recycling and installer expertise via different legislative initiatives among which Ecodesign.

The European Commission is taking the right step in supporting the heat pump growth through the Net Zero Industry Act and the upcoming Heat Pump Action Plan. As sector, we support this initiative since it addresses the workers and skills shortage and the supply chain fluidity. It should ensure policy makers’ trust in the availability of our sector to boost sales and to maintain the status of the EU industry as a knowledge and market leader. To further improve the Net Zero Industry Act and its impact on the European heat pump manufacturing, we suggest the following points :

**1. Include the 60% EU 2030 manufacturing benchmark for heat pumps in the main articles**

The REPowerEU plan aimed at 30 million additional hydronic heat pumps by 2030, extrapolating this to the whole heat pump market means 60 million additional heat pumps by 2030. The Net Zero Industry Act aims at an EU net-zero technologies overall annual manufacturing capacity benchmark of at least 40% of annual deployment needs by 2030 for the technologies including heat pumps. For heat pumps a benchmark of 31 GW is added in the legislative proposal without explaining if this is in line with the general 40% target or another percentage. More explanation is only found in the EC staff working which explains that “The market share of EU manufacturing in EU sales is between 60% and 73% (according

to different sources)<sup>1</sup>. From the NZIA policy scenario on p.19 it is clear the EC uses a benchmark share of EU production in EU demand of 60% that equals a capacity of 31GW by 2030. Given the sector's record-breaking sales and ambitious REPowerEU targets, EHPA indeed believes the current share of EU production in EU demand level can be maintained or even extended, potentially to the proposed 73%, with the right mix of support measures. **To make this ambition clear, a heat pump specific benchmark of 60% should be explicitly mentioned in the main articles of the legislative proposal.** In addition a regular stocktaking should check whether an increase of this 60%, potentially to the mentioned 73%, is appropriate. Especially because in the NZIA policy scenario that is used, the benchmarks for the other technologies (except wind and heat pumps) are aimed at increasing the EU manufacturing share. In addition, the benchmark should also be available into heat pump units, since that is the metric most commonly used for heat pumps. It would for example allow to compare to the REPowerEU targets more easily.

## **2. Provide details into the supply chain availability and address those with financial instruments**

The NZIA proposal provides technology neutral initiatives to speed up permitting and support EU manufacturing. However to avoid overdependence on specific countries, regions or suppliers and to ensure competitiveness, a detailed analysis of the heat pump value chain is needed. By breaking down the REPowerEU targets and the NZIA EU manufacturing benchmark in needed heat pumps and heat pump components, subsector goals can be set and targeted support action for the various parts of the value chain can be set up. The result of such an analysis should lead to continued support for an innovative, competitive, and sustainable heat pump value chain in Europe including through an IPCEI in particular for critical components for example compressors. Industrial leadership should also further be supported through a continued focus on heat pump based solutions in Horizon Europe and LIFE programs, potentially with a "Heat pump 2030 accelerator program".

## **3. Streamline legislation**

Heat pump technologies are not only recognized for contributing to the EUs energy and climate and energy security targets, but they are also subject to many legislations addressing the component, the product and system in which they operate. These are not always mutually beneficial, a fact that needs to be addressed when shaping a support package for the industry. Legislation on the energy performance of buildings, ecodesign, refrigerants and demand response needs to be streamlined. This includes in particular the current debate around the growth expectations from REPowerEU in combination with higher requirements put on the industry through the F-gas regulation in combination with the proposed ban of PFAS via the REACH regulation. A strong cooperation between the different Directorates of the European Commission, the Member States and industry will enable us to nearly completely remove the need for fossil energy in the provision of heating and cooling long before 2050 and provides a sustainable, reliable, and resilient energy supply for the European Union and the continent.

## **4. Set up and EU Centre of Excellence for heat pumps**

To maintain the status of the EU heat pump industry as a market and knowledge leader, an EU Centre of Excellence for heat pumps should be established. This can concretely support manufacturers and encourage collaboration to overcome joint problems and lower costs, e.g. around manufacturing efficiencies, non-fluorinated refrigerant development and control systems. Next to aspects like innovation, skills, access to markets and enabling conditions for manufacturing adding the establishment of a centre of excellence would be crucial way to support the manufacturers.

## **5. Give industry a structural role in the Net-Zero Europe Platform**

The EC proposes that the Net-Zero Europe Platform consists of Member States and the European Commission and that « experts and other third parties may be invited where appropriate ». Since this

---

<sup>1</sup> EC Staff Working Document – Investment needs assessment and funding availabilities to strengthen EU's Net-Zero technology manufacturing capacity p. 73

platform will discuss key aspects of the value chain of the net zero technologies, industry representatives should have a more substantial role by making the language more stricter in article 29, 8 :

~~Where appropriate~~ **When topics are discussed having a direct impact on the industries and their value chains, the Platform or the Commission shall ~~may~~ invite industry experts and other third parties to Platform and sub-group meetings or to provide written contributions.**

## 6. Clarify resilience and other aspects of article 19

- In article 19 (1) on the sustainability and resilience contribution in public procurement procedures, « *the award of contracts shall be based on the most economically advantageous tender, which shall include the best price-quality ratio* ». How is this quality measured ? Is there any other legislation or guidelines to measure this quality or this price quality ratio ?
- In article 19 (2) on the criteria for a tender's sustainability and resilience contribution, the different criteria need to be defined and explained more concretely :
  - How will « *the tender's contribution to the energy system integration* » (critirium c) be measured?
  - The *resilience* covered in criterium d should be better explained.
    - After discussing with the EC, it is clear that by a « source of supply » a country is meant and not a company. This should be explicitly mentioned to avoid confusion.

The recitals 28 and 29 further explain article 19 by stating that « *the supply should be deemed insufficiently diversified where a single source supplies more than 65% of the total demand for a specific net-zero technology within the Union* ». Since article 19 deals with tenders and public procurement, this resilience criterium applies to the final product. However, it should also be specified when a final product is of sufficient local origin for example by referring to a European manufacturing location of the product.

### Author:

Jozefien Vanbecelaere  
[jozefien.vanbecelaere@ehpa.org](mailto:jozefien.vanbecelaere@ehpa.org)  
+32 498 455 292

 **European Heat Pump Association (EHPA)**  
Rue d'Arlon 63-67  
1000 Brussels – Belgium

 +32 2 400 10 17  
 [info@ehpa.org](mailto:info@ehpa.org)  
 [www.ehpa.org](http://www.ehpa.org)



The [European Heat Pump Association](http://www.ehpa.org) (EHPA) represents the European heat pump sector.

EHPA works to shape EU policy that allows heat pumps to become the number one heating and cooling choice by 2030 and a key part of a future decarbonised Europe.

EHPA advocates and communicates to policy-makers and to our members. EHPA organises high level events and is involved in multiple projects.

EHPA coordinates the Heat Pump Keymark – a European certification scheme.

More: [ehpa.org](http://ehpa.org)