

PRESS RELEASE

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The overlooked potential of heat pumps: **the key-technology opening the door for the decarbonisation of the energy-intensive industry**

While decarbonisation of the transport sector and the role of mobility remain under Brussels' spotlight as main key enablers of the energy transition, people seem to forget the following significant data: heating and cooling of buildings are responsible for 36% of the total CO2 emissions in the EU. Similarly, the energy-intensive industry needs to cut CO2 emissions by 40% as defined by the 2030 EU targets.

But what if the decarbonisation of heating and cooling in production processes was already possible? What if currently available large heat pumps (exceeding capacities of 100kW) can provide heat up to 100°C? What if a number of visionary researchers and businesses had already picked up the challenge and had successfully integrated industrial and commercial heat pumps in their facilities and production processes?

No, this is not a dream - participants of this morning's breakfast debate were very well awake when discussing this reality. Decarbonisation of the industry can happen now thanks to heat pumps! If fully used, their potential is estimated at approx. 10% of the total industrial energy demand.

The context

On the 9th April 2019, the European Heat Pump Association (EHPA), in collaboration with [SME Europe](#) and [DryFiciency](#), organised a breakfast debate on tackling the subject of "[Industrial and Commercial Heat Pumps: the unpolished gem in Europe's energy transition necklace](#)". The event was hosted by MEP Dr. Paul Rübige of the EPP Group.

Policymakers, MEP Dr. Paul Rübige (AT/EPP) and MEP Seán Kelly (IE/EPP), discussed with representatives of industry, civil society and researchers about the **next policy actions needed to seize the opportunities that high capacity and high-temperature heat pumps can provide to production processes in many applications. Businesses should play a leading role to enable the large deployment of heat pumps**, thus fostering the energy transition of industrial and commercial sector.

Setting the scene

Dr. Paul Rübige, Member of the European People Party's opened the breakfast debate by recalling the fact that heating and cooling of buildings is on top of the list of the most significant contributors for CO2 emissions. Therefore, Policymakers should focus on improving the energy efficiency of households and buildings. He then continued by stating that *"the best energy is the one that is not consumed. Therefore, technologies should be promoted that further increase the energy efficiency of industry and households."*

Eric Delforge, Chair of the EHPA's Industrial and Commercial Heat Pump Working Group, inspired the participants by presenting the potential of large heat pump applications in a sustainable and smart energy system. He then led the audience through the demonstration that waste-less heating and cooling in the production process is possible. The installation of such closed and renewable system is possible thanks to large heat pump appliances. Now, *"we need bold policymakers"*, he said, to push energy efficiency in the industries, in the same way that the EU is pushing for energy efficiency of fridges and lightbulbs back in time.

[Download Eric Delforge's presentation](#)

Dr. Veronika Wilk, research engineer at the Austrian Institute of Technology and coordinator of DryFiciency, spoke on behalf of the research and development sector, presenting some concrete applications of heat pumps. The EU financed project [DryFiciency](#) has been developing pilot high-temperature heat pumps for industrial drying processes (capable of reaching 160 C). According to Dr Wilk, investments *"will be paid back in 3 to 4 years"*, while also *"significantly reducing CO2 emissions in several industrial sectors"*. The project is now at the stage of building heat pumps in the demo sites of Agrana and Wienerberger, *"finally, we are going from paper to reality"*, said Veronika.

[Download Veronika Wilk's presentation](#)

Collin Bootsvelde, from Colruyt Group, talked about the costs of integrating heat pump appliances in the commercial sector. Overall, investments costs of heat pumps are comparable to the investments costs for installing boilers. Collin said that the future food stores of Colruyt Group will be only using heat pumps for heating and refrigeration. *"No more gas-fired boilers"* - by choosing heat pumps, Colruyt Group has chosen *"the planet as their client"*.

[Download Collin Bootsvelde presentation](#)

Alexander Anton, Secretary General of the European Dairy Association (EDA), presented the issue of energy efficiency in the dairy sector. According to him, big companies and SMEs are turning to renewable when restructuring their facilities, not only for economic reasons but

also to improve the quality of their products by preserving the environment. While planning the transition, heat pumps are appreciated by businesses for their versatility: *“In a dairy site, you need cooling and heating – this is the ‘biosphere’ in which heat pumps can show their full potential”*.

[Download Alexander Anton’s presentation](#)

Thomas Nowak, Secretary General of European Heat Pump Association (EHPA), who moderated the event, reaffirmed that decarbonising EU’s industrial sector is one of the major challenges we are facing. Despite standard technology being able to provide process energy and heat for district energy systems up to 100°C, this potential contribution of heat pumps has long been overlooked. Fortunately, recent research and development have lifted this upper-temperature boundary. Latest high-temperature heat pump units can provide around 160°C, and this is not the end of this development.

To be continued

Individual businesses are setting the example for bigger industries by integrating large heat pumps appliances in their production processes and their buildings.

Naturally, participants agreed on the need for a **proper recognition of heat pump technology** to deploy it where possible in the industrial and commercial sector, thus using the full potential of waste heat to the maximum extent and include renewable technologies into industrial heating and cooling processes. The **economic advantage of using heat pumps in businesses is a reality**, as in the described cases of Colruyt and the Dairy industry.

In this view, to better disseminate the potentialities of the industrial and commercial heat pumps, EHPA is preparing a second edition of the *“Large scale heat pump in Europe”* ([download the previous version](#)). This brochure presents examples of realized and successful projects involving large heat pumps. The publication will be presented the 15-16 May 2019, during the [Heat Pump Forum](#) in Brussels.

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Note to the editor

EHPA promotes awareness and deployment of heat pump technology in Europe. All activities aim at creating a market environment that facilitates a faster deployment of heat pump technology to unleash its benefits on a European level: efficient heating and cooling using renewable energy. EHPA also coordinates the Heat Pump Keymark – a European certification scheme for all heat pumps, combination heat pumps and hot water heater. For more information, please visit: www.ehpa.org.