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Pumps: The Hidden Champions of Energy Efficiency and Sustainability Across All Sectors

In this article, Europump President, Luboš Michlík, highlights the vital role of pumps in powering the drive for a sustainable future.

As the global push for improved energy efficiency and sustainability intensifies across manufacturing, commerce, transportation, housing, and public services, pumps remain the unsung heroes at the heart of these transformations. Today, Europump, the European Pump Association, shines a spotlight on the critical yet often overlooked role that pumps play in shaping a more sustainable, energy-efficient world.

From powering industrial processes and climate control in buildings, to enabling clean water and sanitation systems, pumps are essential in nearly every aspect of our daily lives. In this era of climate change and environmental responsibility, their significance in achieving Europe's sustainability goals cannot be overstated.

The Backbone of Energy Efficiency in Manufacturing and Industry

In the manufacturing sector, where energy efficiency is a growing imperative, pumps are quietly driving progress. They facilitate vital processes such as cooling, heating, fluid transport, and circulation, all while consuming a sizeable portion of industrial energy. Yet, innovations in pump technology are helping industries cut down energy usage, reduce operational costs, and minimize their carbon footprint.

"Industrial pumps represent a key opportunity for energy savings, given that they account for up to 20% of global electricity consumption. By embracing more



efficient pump systems, manufacturers can drastically reduce energy consumption, making a major contribution to global sustainability efforts."

Building Services: Supporting Sustainable Cities and Infrastructure

In the built environment, pumps are integral to efficient heating, ventilation, and air conditioning (HVAC) systems, water distribution, fire safety, and waste management. As smart cities and green buildings become the blueprint for future urban development, pumps are pivotal in enabling the technologies that make modern infrastructure energy-efficient and sustainable.

"Smart, energy-efficient pump systems are not just improving performance in individual buildings but are transforming how we manage water, heating, and cooling across entire cities. They are key enablers in the transition to sustainable urban living."

Transportation and Public Services: Powering Cleaner, Greener Mobility

Pumps are critical in the transportation sector, particularly in electric vehicles (EVs) and public transit systems. They support battery cooling in EVs, enable more efficient fuel use in conventional transport, and ensure safe operation in air, rail, and marine travel. In public services such as water treatment and power generation, pumps keep essential services running efficiently and sustainably.

"From electric vehicles to wastewater management, pumps are at the heart of ensuring that transportation and public services meet modern efficiency and environmental standards. Their role in enabling cleaner mobility and smarter services is vital to achieving Europe's sustainability targets."

Driving Innovation in Renewable Energy

Pumps are also key players in the renewable energy revolution. Whether it is through circulating fluids in geothermal systems, powering hydraulic mechanisms in wind turbines, or managing cooling in solar power plants, pumps are crucial to the smooth operation and efficiency of renewable energy technologies.



"The future of clean energy depends on the efficiency of every component, and pumps are no exception. They are essential to scaling up renewable energy solutions and achieving Europe's net-zero carbon targets."

A Hidden Hero in Every Household

Beyond industry and public services, pumps impact our daily lives in more personal ways. Every time we turn on the tap for fresh water, adjust the thermostat, or rely on modern appliances, pumps are working behind the scenes to make these conveniences possible. In residential homes, pumps ensure the efficient delivery of water, heating, and cooling—keeping households comfortable, safe, and sustainable.

"From individual homes to massive industrial plants, pumps are an often unseen yet essential part of daily life. They are indispensable to modern living and key to the sustainable, energy-efficient world we are working to build."

Europump: Leading the Way Towards a Greener Future

Europump and its members are at the forefront of promoting high-efficiency pump technologies and advocating for policies that support sustainability and innovation. Through collaboration with industries, regulators, and other stakeholders, Europump is committed to driving the adoption of innovative solutions that reduce energy consumption and environmental impact.

Ecopump is its flagship project, embodying the organisations energy reduction commitment. In 2004 the Europump Council endorsed the Ecopump initiative as the very cornerstone of the European pump sector's energy and environmental policy. The Europump website now carries a dashboard that provides a real time illustration of the energy savings being made.

Since 2016, these endeavours have resulted in the saving of 233 million MWh of electricity and a reduction of 163 million tons of CO2 emissions. Additionally, the incorporation of the Extended Product Approach into the upcoming revision of EU Regulation 547/2012 for water pumps could unlock a further 35 TWh in energy savings.



"In a world increasingly focused on sustainability, it is crucial that pumps—often the unseen workhorses—are recognised for their potential to deliver significant energy savings and environmental benefits. Together, we can ensure that pumps continue to be a driving force behind the green transition in every sector."

For more information about Europump and the work it undertakes on behalf of the European pump sector, please visit <https://www.europump.net/>.

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Note to Editors:

[About Europump](#)

Europump is the European Association of Pump Manufacturers and was established in 1960. It represents 15 National Associations in 12 EU Member States, Switzerland, Turkey, and the UK. Europump members represent more than 450 companies with a collective production value of more than €10 Billion and an employee base of some 100,000 people across Europe.

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