**PRESS RELEASE**

**Finnish inventors win the European Inventor Award 2023 for their technology that converts waste into renewable fuels**

* **Pia Bergström, Annika Malm, Jukka Myllyoja, Jukka-Pekka Pasanen and Blanka Toukoniitty are winners in the ‘Industry’ category of the European Inventor Award 2023**
* **The European Patent Office (EPO) honours the Finnish team for their technology, converting waste and residue raw materials, like animal fat waste and used cooking oil, into premium-quality renewable fuels**
* **The use of these fuels can reduce greenhouse gas (GHG) emissions by as much as 75-95% over the life cycle of the fuel compared to fossil diesel**

**Munich, 4 July 2023** – The European Patent Office (EPO) announced today that Finnish inventors Pia Bergström, Annika Malm, Jukka Myllyoja, Jukka-Pekka Pasanen and Blanka Toukoniitty are the winners in the ‘Industry’ category of the European Inventor Award 2023. Selected from over 600 candidates, these inventors were chosen for developing **an innovative process to convert waste and residue raw materials into renewable products for road transportation, aviation and other sectors.**

“*Gratitude is uppermost in our minds. We and the entire Neste innovation community highly appreciate the prestigious European Inventor Award. This is a reward for our cooperation and long-term hard work towards our common goals,*” says Neste’s winning team including Pia Bergström, Senior Specialist, Feedstock; Annika Malm, Senior Associate; Jukka Myllyoja, R&D Fellow; Jukka-Pekka Pasanen, Senior Associate; and Blanka Toukoniitty, Technical Support Lead, Feedstock growth.

According to the [International Energy Agency (IEA)](https://www.iea.org/data-and-statistics/charts/global-co2-emissions-in-transport-by-mode-in-the-sustainable-development-scenario-2000-2070), the global transport sector emits approximately 7.3 billion tonnes of CO2 a year, around 20% of global CO2 emissions. They estimate that medium-to-heavy lorries and aviation alone are responsible for 30% of that total.

**A cleaner and more efficient fuel**

The inventors and team at Neste have developed the proprietary NEXBTL™ technology and related processes to turn a wide variety of renewable fats and oils into premium-quality renewable products. Solutions produced with the technology include Neste MY Renewable Diesel™, which is compatible with all diesel engines and the use of which can **reduce greenhouse gas** (GHG) **emissions by as much as 75-95% over the life cycle of the fuel compared to fossil diesel**[[1]](#footnote-0). Neste MY Sustainable Aviation Fuel™ (SAF) is a direct replacement for fossil jet fuel and the use of which, unblended, can reduce GHG emissions by up to 80% over the life cycle of the fuel compared to fossil jet fuel[[2]](#footnote-1), according to the company.

Neste uses a wide variety of globally sourced raw materials, such as animal fat waste, used cooking oil and vegetable oil processing waste and residues, to produce its renewable products. Currently, [Neste produces 3.3 million tonnes of renewable diesel](https://www.neste.com/releases-and-news/renewable-solutions/neste-invests-its-world-scale-renewable-products-refinery-rotterdam) and other renewable products each year and plans to increase production capacity to 5.5 million tons by the end of 2023. It also plans to introduce liquefied waste plastic as a drop-in feedstock for petrochemicals.

“*We wish to express our heartfelt thanks to each collaborator who has contributed with their know-how, dedication, and unwavering support to Neste’s extraordinary achievement of converting waste and residues into high-quality renewable solutions,*” says the team.

The Finnish team behind the innovation have been named winners in this year’s European Inventor Award in the ‘Industry’ category, which recognises outstanding inventors with inventions patented in Europe**.** **All the winners of the 2023 edition of the European Inventor Award were announced at a hybrid ceremony today** in Valencia (Spain). You can stream the ceremony on [this page](https://inventoraward.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press).

Find more information about the invention’s impact, the technology and the inventors’ stories on [this page](https://new.epo.org/en/news-events/european-inventor-award/meet-the-finalists/pia-bergstrom-annika-malm-jukka-myllyoja?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press).

**Media contacts European Patent Office**

**Luis Berenguer Giménez**

Principal Director Communication / EPO spokesperson

**EPO press desk**

[press@epo.org](mailto:press@epo.org)

Tel.: +49 89 2399-1833

**About the inventors**

Neste is the world's leading manufacturer of renewable fuels. The inventors behind it are Blanka Toukoniitty (Associate and Project Manager), Pia Bergström (Senior Specialist Feedstock, Public Affairs), Annika Malm (Senior Associate), Jukka Myllyoja (R&D Fellow) and Jukka-Pekka Pasanen (Senior Associate at Neste APAC Innovation Center). The company is based in Espoo, Finland, and employs 4,800 people in production facilities in Porvoo in Finland, Rotterdam in the Netherlands and Singapore.

Pia Bergström, who has a master’s degree in organic chemistry, previously worked as a researcher and is now a senior feedstock specialist. Annika Malm holds a Master of Science in chemical engineering, and after her research career at Neste, she currently works with the development of raw material utilisation. Jukka-Pekka Pasanen has a master’s degree in Bioprocess Engineering and Food Engineering and focuses on researching renewable fuel processes and renewable feedstocks, and Jukka Myllyoja is a synthesis chemist by training and experienced R&D Fellow who has worked for new technology development at Neste R&D for more than 30 years. Blanka Toukoniitty has a PhD in chemical engineering and a broad knowledge of developing value chains for processing renewable and circular economy feedstocks into valuable products.

**About the European Inventor Award**

The European Inventor Award is one of Europe's most prestigious innovation prizes. Launched by the EPO in 2006, the award honours individuals and teams, who have come up with solutions to some of the biggest challenges of our time. The finalists and winners are selected by an independent jury comprising former Award finalists. Together, they examine the proposals for their contribution towards technical progress, social and sustainable development, and economic prosperity. All inventors must have been granted a European patent for their invention. Read more [here](https://new.epo.org/en/news-events/european-inventor-award?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press) on the various categories, prizes, selection criteria and livestream ceremony to be held on 4 July 2023.

**About the EPO**

With 6,300 staff members, the [European Patent Office (EPO)](https://www.epo.org/?mtm_campaign=EIA2023&mtm_keyword=EIA-pressrelease&mtm_medium=press&mtm_group=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 44 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.

1. calculation methods: EU RED II 2018/2001/EU for Europe and US California LCFS for the US [↑](#footnote-ref-0)
2. calculation method: CORSIA [↑](#footnote-ref-1)