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Press release

Renewi takes next step in the conversion of organic household waste into bioplastics

International waste-to-product company Renewi plc (LSE: RWI) has started converting organic household waste into bioplastics through its specialist organic waste subsidiary, Orgaworld.

At its Lelystad site in the Netherlands, Orgaworld has developed a pilot scale hydrolysis bioreactor which enables the in-house production of bioplastics from organic household waste. Bioplastics are much more environmentally friendly than other plastics due to their biodegradable nature and use of less fossil fuels in production.

The bioreactor can directly produce the required fatty acids from the organic waste flows currently being processed at the site. During the process the organic waste is continuously sprayed with hot percolate, resulting in high bacteria concentrations. Those bacteria digest the organic waste into sugars, amino acids, fats and other microorganisms that subsequently ferment to produce the desired fatty acids. In the final stage, other types of bacteria convert the produced fatty acids into PHA, a fully biodegradable plastic.

The process will be closed-loop as the bioplastics produced will be reused in the production of, for instance, recyclable bin bags for collecting kitchen and green waste. Eventually, these products will return back to Orgaworld, closing the circle. Orgaworld expects another 3 to 5 years for further development of the process to full commercial scale.

Bas Blom, Managing Director for Renewi's Monostream Division said:

"We are delighted with our new closed-loop process to turn organic household waste into bioplastics, showing how we are using innovation to fulfil our 'waste no more' goal! It is also completely in line with our strategy to create growth with projects using innovation as a competitive advantage."

The bioreactor was jointly opened by Orgaworld, the relevant aldermen of the municipalities in the province of Flevoland and partners Paques and Delft University of Technology.

About Renewi

Renewi, created in 2017 by the merger of Shanks Group plc and Van Gansewinkel Groep B.V., is a leading waste-to-product business ideally positioned to be part of the solution to some of the main environmental problems facing society today: reducing waste, avoiding pollution, and preventing the unnecessary use of finite natural resources.

We are listed on the London Stock Exchange and are a constituent of the FTSE250 index. With over 8,000 employees in Europe and North America, we have deep expertise and an extensive breadth of waste management products and services.



For us, waste is a state of mind, an opportunity. When we take away someone's waste, we then give it new life. We transform a wide range of used materials into useful products and raw materials for our customers, like recycled paper, metal, plastic and glass, woodchips, compost, energy, fuel, and other products.

In the process we protect the world from contamination, preserve finite natural resources, and enable customers to meet their sustainability goals. With our deep international expertise we also provide our customers with an extensive product range, combined with local service and attention.

Above all, our team is committed and passionate about our mission: waste no more. Renewi operates across five divisions:

- Netherlands Commercial – Collecting, sorting, treating and recycling commercial and household waste in the Netherlands
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- Hazardous Waste – Treating soil, water and packed chemical waste at our flagship ATM facility and conducting specialist industrial cleaning in the Netherlands
- Monostreams – Managing a range of waste streams which focus on specific end markets such as glass, electronic goods, organics and minerals in Europe
- Municipal – Operating long-term waste management contracts with local authorities in the UK and Canada

For more information, please visit: www.renewiplc.com

Images are available to download at: www.renewiplc.com/imagelibrary