Leading the transformation of the UK food system from the Midlands

MIDLANDS ENGINE FOOD WHITE PAPER



Source: Mildtech

Mildtech

Mildtech is an innovative SME, based in Telford & Wrekin. Focused on making a positive change in the food industry, Mildtech is developing a ground-breaking drying technology aimed at preserving food while maintaining its nutritional value and reducing waste.

There are six employees including the company directors. Mildtech UK Ltd have recently moved to the new Ni & Enterprise Park in Newport, Telford.

Mildtech has developed innovative technology to preserve food, without the need for preservatives, whilst maintaining its nutritional value. Using low temperatures and vacuum processing to retain the organoleptic and constitutional properties of the food, the nutritional value is largely preserved. By leveraging solid-state power generators, the system consumes minimal electricity, making it highly efficient.

Their current largest machine can process up to 30 to 40 kilos per hour whilst preserving high levels of nutritional value. This new technology replaces freeze drying which takes two to three days and causes 15 to 20% of nutrients to disappear. The aim is to build a large-scale machine capable of drying 250 kilograms of food per hour.

Objectives and Goals: The primary objective is to revolutionise the food drying process by developing a large machine that can efficiently process significant quantities of food, thereby:

Ensuring food preservation: The technology allows for drying and cooking foods without the use of preservatives, maintaining their nutritional value and quality for extended periods.

Reducing energy consumption: Saving up to 80% of energy compared to traditional cooking and drying methods.

Improving public health: The technology's ability to retain nutrients and enhance the quality of dried and cooked food products has the potential to positively impact public health.

Additionally, the technology has the potential to repurpose biomass waste, such as sludge from paper recycling and plastic waste, by drying them to the right moisture content for specific applications and Mildtech is exploring partnerships with waste management companies.

The project has undergone a decade-long development process and has benefitted from EU funding, starting with the FP7 program from Horizon 2012-2014 to develop a prototype machine and later received a grant from Horizon 2020 for the second phase of the project.

Mildtech has collaborated with Harper Adams University to conduct analysis and research on the nutritional benefits of their drying technology and is currently working with the university to design and build a higher capacity machine.

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