

Case Study

Fuel Shakes Ltd

Background

Fuel Shakes Ltd is a sustainable startup business that prioritises eco-friendly practices by focusing on the social impact and carbon emissions of its products.

Operating under the trade name, Win-Win Water they are looking to redefine the bottled water industry through innovation and sustainability.

Their product is a chemically pure 7.4pH natural alkaline water, using 100% plant-based bottles and toxin-free production processes to emphasise that customers are not just hydrating but contributing to a greener, healthier planet.

Operating out of a bottling plant in Liverpool, Fuel Shakes currently employs approximately nine employees and have previously invested sensibly in developing their bottling production plant. The existing plant still requires some additional investment ahead of being fully automated.

Challenge

Fuel Shakes initially met with LJMU's Research and Innovation Services Team, who referred them to the Horizons teams. Fuel Shakes had a clear vision for understanding sustainability factors linked to their biodegradable water bottles, keen to engage in a knowledge transfer workshop to explore the most suitable avenues for further commercialising their product range.

During the initial site visit, it became apparent other challenges were present in the form of the bottling plant on-site and the impact on the company's production efficiency and productivity.



Delivery Partner



Solution

The Horizons team at LJMU began initial investigations and testing to verify the decomposition of the biodegradable water bottles which highlighted the need for more in-depth testing conditions and study.

The teams introduced Fuel Shakes to the MTC (Manufacturing Technology Centre) for a unique site visit to explore first-hand how to automate a digital factory, showcasing areas of possible development and operational improvements which Fuel Shakes have since adopted into their operations for long-term improvements in overall productivity and efficiency.

Based on the potential testing needed to support the biodegradability claims of their water bottles, the academic knowledge base at LJMU was engaged to investigate possible mechanisms to undertake further research that has led to the potential exploration of an externally funded testbed with a larger industrial partner.

Impact

Fuel Shakes are now in a better position, having a greater understanding of the level of automation needed to increase their overall productivity and efficiency levels. The company have been open to the absorption of new knowledge and have taken forward new ideas to begin to impact their growth long-term.

Fuel Shakes is undergoing further investigations of the biodegradability claims of their water bottles to satisfy their prospective clients' needs. They are examining a wider industrial testbed to support their long-term goal of providing the market with a fully biodegradable single-use bottle.

Fuel Shakes is now in a much more confident and stronger position for developing their products in line with their long-term strategic goals having explored the potential to have a second bottling plant line to cater for the increased market demand faced with its unique offering. Since starting the collaboration with Horizons, Fuel Shakes have been approached by top UK retailers for a possible future source of business; a testament to their drive for innovation and implementation of new knowledge.