LCR4.0 START

European Union
European Regional
Development Fund

NORTHERN POWERHOUSE

Case Study

Company Name
Indigo Environmental Ltd

Industry
Plastic Recycling

Technology
Sensor, IoT, Systems Integration

Background

Indigo Environmental Group is the premier plastics recycling company in the North West. They are a tier 1 service provider to a number of blue-chip organisations such as JLR, Toyota and range of food manufacturers.

They have invested in the latest shredding, granulating and washing technologies which allow them to process items that would have traditionally been destined for a landfill due to their high levels of contamination.

Indigo Environmental is very much client-led in terms of being able to offer services to meet their exact customer requirements, being value for money and ensuring compliance with environmental legislation.

Approaching LCR4 START

Following an introduction to the LCR4 START team at Liverpool John Moores University (LJMU) a consultative support process centring around a combination of digital diagnostics and readiness level assessment resulted in developing a digital strategy focussing on key IOT, Cloud, System Integration technologies to help improve Indigo Environmental process equipment reliability, productivity and customer service levels.

Results

Indigo Environmental took advantage of the support that would help to improve the reliability of their equipment using condition based monitoring processes, to do this LJMU provided access to specialist knowledge and tools to collect and analysis data from the machinery.

Through the installation of specialist equipment the performance of the machinery was monitored, upon analysis of the data collected the team where able to determine when faults were due to develop and put a maintenance programme in place to ensure that these predicted issues were avoided therefore increasing throughput ultimately resulting in the process becoming more efficient and cost effective.

Future Vision

The support provided by the LCR4 START programme has helped with the efficiency of the processing machinery the initial increase in line throughput was 3-4% which corresponds to productivity increase of (134 to 220 kg / shift depending on polymer density being recycled) with the aim of this increasing to 10% once a commercial condition based monitoring system is installed.

Indigo Environmental will roll out the new processes adopted through the support of the LCR4 START programme across their wider company and additional sites. They will also be supported to develop their journey further with the adoption of further IR4 technologies that will be based around systems integration, autonomous systems and the Internet of Things.

> I would recommend anyone in the sector to take advantage of the support that LCR4.0 START has to offer."

Paul Rendle-Barnes, Director, Indigo Environmental Ltd