



The
University
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**Grantham
Centre**
for Sustainable Futures

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To whom ever it may concern

I am writing in my role as the Director of the Grantham Centre for Sustainable Futures at the University of Sheffield where we work on the science underpinning the sustainability of food, water and energy supply in a world constrained by climate change.

For many years we have worked with Our Cow Molly, initially as the University milk supplier and latterly as a research partner. I have seen their impressive plans to replace many of their more dilapidated and energy inefficient farm buildings.

The new facility will provide new housing for all the cows, a new milking parlour with the opportunity to collect the cows slurry (used as organic fertiliser) for storage under the building. There will be a number of innovations to enhance the health of the cows, e.g. robotic scrapers to keep the floor clean of slurry, as well as innovations to improve the environmental features of the farm such as a separate tank to collect rain water for reuse on the farm and solar panels on the roofs to generate electricity.

A number of innovations are based on some of our work in the University. They anticipate having a trial of outdoor vertical farms along the south side to make use of the rain water & nutrients from the slurry. There will also be an anaerobic digester to capture methane and generate more green electricity either by running an engine & generator or even using a fuel cell. All of these developments build on our work together with Our Cow Molly as a research partner, and the developments will present many more opportunities for us to work with our milk supplier as a research partner in a truly symbiotic manner.

In summary this planning application addresses issues of efficient, local food production, improving air quality (as evidenced by UoS air monitors on site), provision of green electricity by solar and biogas installations, reductions in the use of artificial nitrogen fertiliser through anaerobic digestion of waste. The total development adds to the local infrastructure, and leads by example in green growth of food production. I commend it to you.

Yours truly,

Anthony J Ryan OBE