



Glanbia Ingredients Ireland (GII): making sustainability synonymous with good commercial farming practice and dairy processing

About the Company

Glanbia Ingredients Ireland (GII) is a business-to-business dairy ingredients processing company supplying ingredients that can be placed directly on consumer shelves such as cheese, butter, cream and also supplying customers with ingredients for use in the beverage, sports nutrition, clinical nutrition and confectionary industries. The processing facilities are located at Ballyragget, Co. Kilkenny; Virginia, Co. Cavan; Wexford creamery was acquired in Spring 2014 and a brand new facility will be in full operation in Belview, Co. Kilkenny Spring 2015.

GII has been processing dairy ingredients in Ireland since 1967. It is a key dairy ingredient Irish exporter, processing 1/3 of Ireland's milk pool, exporting to 50 countries globally and is supplied by over 4,500 Irish farms.

GII and Sustainability

Management of GII's environmental footprint is critical to the long-term sustainability of its business and is the core element of its strategic priority of achieving operational excellence. The company seeks to continually improve its environmental performance by asking the question 'How can we do more with less?' This involves on-going assessment of the manufacturing processes as well as supply and distribution chains. In particular, the company focuses on direct and indirect consumption of water, energy and waste. This focus on environmental performance also benefits its financial performance through increased efficiency and waste reduction and is embedded in its GII Performance System, which is being rolled out across the group.

"Our goal is to build a sustainable business that contributes to the communities where we operate"
says Jim Bergin, CEO of GII.

The company strives to lead the field in relation to sustainability. Not only does GII tackle environmental and social issues at factory level, but it also addresses sustainability challenges associated at commercial dairy farm level. It already has a proven track record in relation to sustainable dairy farming and processing, and has received many accreditations in relation to its sustainability performance both on farm and throughout its processing facilities.

GII was the first food company in the world to install the Kubota membrane wastewater treatment plant, breaking down waste white water into water of drinking water quality and removing the solid fraction. The clean water is then returned to the river, the solid fraction can be used as an organic certified fertiliser. The company is accredited to ISO 50001 and received an SEI Energy Management category A award. In 2000 Carbon emissions were reduced by 30% by replacing the oil-fired heater with a gas fired CHP plant. As a result of the continuous programme of works, both the Virginia and Ballyragget Plants are accredited by the UK Carbon Trust Gold Standard Award for the reduction in Carbon Emissions, Water and Waste.

In 2006 GII was the first Irish Dairy Processor to establish a Quality Assurance Scheme on farm. A further achievement was the establishment of the GII sustainability advisory board in 2010, consisting of GII management as well as representatives from Bord Bia, Teagasc, the former head

of the European Food Safety Authority, an International Non-Government Organisation, GII milk suppliers and a global customer. In 2011 GII also introduced an index which linked fixed milk price scheme to enable long-term economic certainty (and sustainability) for both farmer and customer.

Origin Green Membership

Based on its proven sustainability record, GII was selected to become one of the ten founding companies of Origin Green, the sustainability development programme initiated by Bord Bia. Origin Green is a nationwide programme for sustainability, which is aimed at establishing Ireland as a world leader in sustainably produced food and drink, and making Ireland and all Origin Green members an active partner in addressing the global food challenges ahead, and consequently enhancing export performance. Each member develops their own sustainability charter, containing clearly set out targets in the key action areas identified by the company.

In its sustainability plan, GII sets out its own unique ambitious targets over a ten-year period (2010 - 2020), using 2010 as a base year. A strong, continuous improvement ethos underpins its plan and indeed the overall Origin Green campaign.

Key Strategic Objectives

GII aims to lead the international field in relation to sustainability. It aspires to be global point of reference for best practice in the area of sustainability, to establish an internationally recognised sustainability standard and to make sustainability synonymous with good commercial farming practice and dairy processing.

Sustainability is an integral part of the company's strategy and operational model. GII has worked diligently to ensure that its scale and efficiency stay focused on producing dairy food ingredients that are safe, high in quality, healthy and nutritious. It intends to do this while staying in harmony with its environmental commitments but also adding economic value to the Irish dairy farmers and the communities in which it operates.

Sustainability Targets

GII sets out ambitious sustainability targets in its sustainability charter, many of which are building on the numerous accomplishments already outlined in its sustainability document *Caring for the Environment*. Having already achieved significant triumphs in relation to sustainability, the company introduced stretch targets for many of the areas such as energy and water usage, as well as waste. The sustainability strategy focuses on the following key themes: energy, carbon emissions, waste, water, biodiversity and sustainable sourcing of ingredients. Due to the two-fold nature of the operation, the targets in relation to the key themes are broken into two categories: processing and farming activities.

Over the past ten years energy efficiency and reduction of carbon emissions performance have been improved by almost 50%. Due to the scale of this achievement, the company believes that realising another 10% reduction in these areas is a stretch target. As a result it aims for 1% improvement per tonne of product produced year on year. GII is committed to an additional 20% increase in energy efficiency by 2020 in comparison to 2010. This change will be brought about by further increased energy efficiency measures, improved performance and identification and investment of alternative and/or renewable technologies. Furthermore, the company is determined to achieve 10% reduction in Scope 1 emissions by 2020 in comparison to 2010 through the implementation of energy reduction initiatives and through the use of low carbon fuels, as well as investment in renewable technologies.

In recent years, GII has concentrated on reducing waste generated at site level, as well as packaging waste. The company strives to send zero waste to landfill by 2015 and is currently

focusing on waste reduction programme at source, increased recycling / recovery, as well as diversion of food waste to compost waste to achieve this goal. GII's purchasing teams have long established links with packaging prevention technologists to investigate packaging prevention opportunities, and as a result the teams can offer advice to their customers when discussing packaging specifications. Good focus, on-site education and staff awareness are key elements to achieving the zero waste to landfill target by 2015.

Water

To extract, soften and treat water prior to discharge is effort and money intensive. Therefore objectives are set annually to minimise and optimise the use of water. Targets are set and allocated to each process area, based on total site allowances (as governed by the Industrial Emissions licence), the previous year's performance, expected production rate and corrected with a multiplier for expected efficiency gains. In recent years, the company has significantly reduced the amount of fresh water required, and to-date approximately 35-40% of all of the water used on site is recycled and reused. By making additional improvements, the company will be able to further reduce the amount of water required from natural resources. GII has set the ambitious target of further reducing fresh water requirements by 25%. Measures to achieve this stretch target include improved clean-in-place (CIP), eradication of leaks/waste, water recycling initiatives and closed loop water systems.

Biodiversity

Biodiversity is a new metric to measure for GII, and management were briefed with developing a biodiversity initiative for the processing facilities that is meaningful, measureable and will not attract rodents or interfere with production quality. This aspect of the programme is currently under investigation.

Farm Level

On a commercial farming level, the company has opted to include two additional target areas in its sustainability charter: animal welfare and sustainable sourcing.

Animal welfare is seen as key in achieving GII's overall sustainability ambitions. GII has commissioned an independent third party assessor to carry out an extensive audit across its 4,500 dairy suppliers and associated herds.

GI is committed to ensuring that 100% of dairy ingredients are sustainably sourced by end of 2020. Over the next eight years the company will develop, establish, audit, assess and potentially improve its entire supply base. Given that there are over 4,500 individual suppliers this is not an easy undertaking. In addition, some of the areas of sustainability will be unknown or new to the supply base way of thinking. The company believes that a dairy ingredient being %sustainably sourced+means having been audited, passed and continually improving against the following themes of animal health and welfare, carbon emissions and energy efficiency, biodiversity, water, waste, health and safety and other new developments as they arise. The GII on-farm sustainability programme OPEN SOURCE ® is an opportunity for GII to influence their milk suppliers and ensure that GII milk suppliers are the most efficient they can be in the production of milk, ensure that GII farmers remain economically viable and continuously improve their farms performance under the heading of sustainability. More than 70 farm audits are taking place every week for 12 months. This will establish a baseline for all of GII's milk suppliers. After this initial baseline audit, audits will take place in a rolling effect every 18 months. This large-scale commitment to sustainability audits is unique and no other dairy processor has to-date undertaken such a process within such a time frame.

Benefits of Origin Green Membership

The Origin Green sustainability charter is the basis for member companies to structure the direction of their sustainability agenda. %Acting as a leading member of Origin Green aligns with and supports our sustainability strategy and plans+states Jim Bergin, CEO of GII.

Strong sustainability credentials offer the food and drink sector considerable opportunities . provided it can be demonstrated that improved performance is being achieved. The Origin Green sustainability charter can act as the vehicle to prove these claims. The Origin Green sustainability development programme sets high standards, defines clear metrics and strives for continuous improvement by measuring progress. What individual food and drink producers can do alone is significant, but what they can do together is even better, strengthening the overall sector here and abroad.

By participating in and by promoting Origin Green, GII and other Origin Green members benefit by getting international recognition for the quality and sustainable nature of food and drink production. Origin Green membership can be used as an additional and powerful marketing tool for participants to promote their products and business to international markets.