Corporate Innovation Challenge Template

Challenge Name: Enhanced traceability of the supply chain e.g., cryptographic ledger (block-chain type approach) must be easy to implement (some block chain projects are very complex and do not get off the ground).
Code Name: BIOECONOMYVENTURES-2022-OC1-GI-05
Challenge Domain: • **Ag Tech and Food Tech** • **Farm to Fork logistics and supply chain**
Description of the Corporate innovation Challenge
With growing global supply chains, food safety is a top concern with both consumers and regulators. The World Health Organization (WHO) estimates that 20,000 people die annually from food contamination, which affects one in 10 people worldwide. Children under age five are at the highest risk with 125,000 children dying every year from food-borne illnesses. Blockchain food traceability is gaining momentum in the global agri-food sector. The ability to instantaneously trace the entire lifecycle of food products from origin through every point of contact on its journey to the consumer bolsters credibility, efficiency, and safety. In the context of sustainability, blockchain-enabled food traceability also provides an opportunity for companies to credibly make and verify sustainability claims. Most actors along the food supply chain complain about the lack of transparency and trust by other participants. The participants are asking for a better supply-chain collaboration method. This can be provided by blockchain technology, but this technology faces many adoption challenges. **Glanbia is seeking to explore novel and easy to implement blockchain and distributed ledger technologies within the global supply chains or off the shelf/bespoke traceability models tracking farm to finished product.** This challenge is driven by the Farm to Fork Strategy aspect: Examples as listed below relate to proof points that need to be tracked via the supply chain and show responsible management of- pesticides (evidence of responsible pesticide use), (management of fertilizers), responsible use and records of antimicrobials and lastly tracking farms complying to organic objectives. • 50% reduction of the use and risk of chemical pesticides and 50% reduction of the use of more hazardous pesticides.

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- At least 50% reduction of nutrient losses by while ensuring no deterioration in soil fertility, reducing the use of fertilizers by at least 20%.
- 50% reduction of the sales of antimicrobials for farmed animals and in aquaculture.
- 25% of agricultural land under organic farming.

Expected results

- *Ability to promote sustainability credentials with our customers per Farm to Fork goals.*
- *Be able to show proof points (authenticate that real change has occurred on the ground) can be shown to the customer and potential to the consumer.*
- *Ability to engage with a packaging supplier on robust bio-alternatives to e.g., non-recycled packaging.*
- *To be able to track key KPIs per F2F objectives, through a system that is able to house objective evidence of compliance.*

Types of Collaboration

1. ***Pilot running and product testing***
2. ***R&D opportunity***
3. ***Knowledge sharing and Tech Transfer***

Company Information

Company Name: Glanbia Ireland https://www.origingreen.ie/who-is-involved/manufacturers/dairy/glanbia-ireland/ (includes logo)

Company information

- Company Name & Location- See attached https://www.glanbiaireland.com/our-company/our-locations
- Company Vision, Mission & Growth https://www.glanbiaireland.com/our-story/our-mission-vision-and-values
- Industry Focus & Market Size- Dairy ingredients, RTE dairy products e.g., cheese, butter, soup, RTE oat and milk-based drinks, petfood (dry), animal compound feed.
- Company Services/Products- https://www.glanbiaireland.com/our-brands

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- Previous Innovation Collaborations- Science Foundation Ireland, Horizon Europe, DPTC, Universities/IT
- Contact Details- Joe Tierney +353(0)860472973 jtierney@glanbia.ie

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