

Corporate Innovation Challenge Template

Challenge Name: Pest resistance in crops (cultivar selection) grain/feed crops.
Code Name: BIOECONOMYVENTURES-2022-OC1-GI-03
Challenge Domain: <ul style="list-style-type: none"> • Ag Tech and Food Tech
Description of the Corporate innovation Challenge
<p>Insect-resistant crops feed much of the world, using reduced carbon inputs, and providing much greater economic returns on investment. Newer, efficient efforts are urgently needed to speed development of insect-resistant plants before a projected 30% global population increase. In contrast to maize, rice, vegetables and wheat, limited progress has occurred to develop meaningful levels of pest resistance in cassava, cowpea, and pigeon pea — major sources of nutrition for nearly 1 billion people.</p> <p>The use of pest-resistant crop varieties is economically, ecologically, and environmentally advantageous. Economic benefits occur because crop yields are saved from loss to insect pests and money is saved by not applying insecticides that would have been applied to susceptible varieties. In most cases, seed of insect-resistant cultivars costs no more, or little more, than for susceptible cultivars. Ecological and environmental benefits arise from increases in species diversity in the agroecosystem, in part because of reduced use of insecticides. Increases in species diversity increase ecosystem stability which promotes a more sustainable system far less polluted and detrimental to natural resources.</p> <p>Glanbia is looking to explore novel ways, solutions and alternatives that enable achieve ecological, economical, and environmentally friendly pest resistance in crops. This relates to cultivar selection of cultivars such as oats, barley and wheat, that are drought and mould resistant but at the same time do not adversely impact yield, nutrition and functionality. Looking for SMEs/Start-ups working with Agronomy.</p> <p>This challenge is driven by the Farm to Fork Strategy aspect:</p> <ul style="list-style-type: none"> • 50% reduction of the use and risk of chemical pesticides and 50% reduction of the use of more hazardous pesticides. • At least 50% reduction of nutrient losses by while ensuring no deterioration in soil fertility, reducing the use of fertilizers by at least 20%.
Expected results

This project has received funding from the Bio-based Industries Joint Undertaking (JU) under the European Union’s Horizon 2020 research and innovation programme under grant agreement No 101023260. The JU receives support from the European Union’s Horizon 2020 research and innovation programme and the Bio-based Industries Consortium

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- 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.
- To reduce mycotoxins, drought and mould resistance of a particular group of cultivars. While at the same time do not adversely impact yield, nutrition and functionality of the cultivars.

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>
- 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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