

Origin Green

Progress Update Report 2023

BORD BIA
IRISH FOOD BOARD



Highlights

77,000 members
61,000 farmers | 300+ companies



The Origin Green programme collaborates with 300+ companies and 61,000 farmers across Ireland, with a cumulative membership of 77,000 across Bord Bia's schemes for beef, dairy, eggs, lamb, horticulture, pig and poultry.

The 2023 Progress Update Report presents an overview of the latest developments to the Origin Green programme in 2022 and 2023 and provides an update on members in the programme, covering the period of 2020 – 2021. Origin Green member information for this period was verified and audited over the course of 2022 and is now being reported in 2023. This includes progress updates on verified Origin Green members at the producer level, at the manufacturing level and the retail and foodservice level.

9% average reduction in CO₂ per unit of milk from SDAS members.

43,000+ audits carried out in 2022.

8% average reduction in CO₂ per unit of beef from SBLAS members.

367,000 carbon footprints calculated to date.



Origin Green member companies have set a total of **3,622 sustainability targets** and established **15,390 initiatives** between the years 2012 – 2023.

54 Origin Green verified members set CO₂ reduction targets in 2022.

8.2% average reduction in electricity use per unit of output from manufacturing members.

8.8% average reduction in water use per unit of output from manufacturing members.

90% of our total food and drink exports are accounted for by Origin Green members.

76% of Origin Green companies believe that Origin Green provides a competitive advantage for their business.

75% of members say that Origin Green helps them build customer relationships and reputation.

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Foreword

The **Origin Green Programme** has made significant strides since its launch in 2012, and as this report underscores, it is continuing to make real progress and have a positive impact on the Irish food, drink, and horticulture sector.

Origin Green is a national food and drink sustainability programme with a global ambition. Its aim is to make Irish food and drink the first choice internationally because our products are trusted as sustainably produced, by people who care.

Led by Bord Bia, Origin Green is a voluntary programme that provides a framework and supports to help drive sustainability improvements across the whole food and drink supply chain at a national level. It remains the world's only national food and drink sustainability programme, which gives a sense of the ground-breaking work that is being done by the Origin Green team, and its members.

More than 90% of total Irish food and drink exports now come from verified Origin Green member companies. This commitment sends a strong signal globally to the overseas customers of Irish food and drink that they are buying high quality products from businesses committed to implementing improved sustainable practices.

Over the past 11 years, Origin Green has continued to evolve, and it is a dynamic programme of measurement and improvement. It provides a framework for suppliers to set and achieve measurable targets to demonstrate their sustainability commitments to customers.

Consumers' requirements in relation to how food is farmed and produced sustainably are changing. They want more information such as a product's carbon footprint, its packaging, its responsible sourcing practices and the nutritional value that it delivers.

Bord Bia's **Powered by Partnership** Origin Green strategy underpins a higher level of ambition for the industry's overall sustainability journey.

This latest Progress Update Report shows how Bord Bia partners with 61,000 farmers and more than 300 of Ireland's leading food and drink companies through the Origin Green programme. By working together in partnership, Origin Green helps farmers, producers, and food and drink manufacturers enhance sustainable food production and demonstrate to customers that they are aligning with their evolving needs and preferences in this area.

Bord Bia operates Sustainability and Quality Assurance farm programmes in Beef, Dairy, Egg, Horticulture, Lamb, Pig, and Poultry. Among the 61,000 farmers who form part of Origin Green are members of Bord Bia's Sustainable Beef and Lamb Assurance Scheme (SBLAS) and the Sustainable Dairy Assurance Scheme (SDAS). On average, the members of SBLAS have achieved an 8% reduction in CO₂ per unit of beef, while SDAS members have seen a 9% reduction in CO₂ per unit of dairy*.



Jim O'Toole, CEO, Bord Bia

* The functional unit of beef is reported as kg CO₂-eq per kg Liveweight Gain (LWG) and the functional unit of dairy is reported as kg CO₂-eq per kg Fat and Protein Corrected Milk (FPCM). The carbon footprint results are expressed as a three-year rolling average to minimise short-term carbon footprint fluctuations due to market and weather variability.

Foreword continued

Since 2013, Bord Bia has incorporated the carbon footprint models developed by Teagasc into a number of its Sustainable and Quality Assurance Schemes. Using this methodology, and data collected in sustainability surveys, we can now calculate and communicate a more accurate carbon footprint for the overall beef and dairy sectors. Underpinning this work is the fact that to date, 367,000 carbon footprints have been generated for Irish beef and dairy farms.

Every week, more than 700 independent farm audits are carried out by over 100 auditors. These audits focus on areas such as traceability, animal health and welfare, food safety, greenhouse gas (GHG) emissions, biodiversity, water measures, energy efficiency, and soil management.

After each audit, the farmer receives a detailed feedback report on the farm's performance, and this performance is reassessed every 18 months. This helps them to make informed decisions on improving the sustainability of their farms, while also improving their efficiency and overall viability.

This huge process of auditing and re-auditing is one of the key factors that gives the Origin Green programme credibility in our export markets across the globe.

Origin Green is also making significant progress in the manufacturing sector. The programme helps Irish food and drink companies set and achieve comprehensive multi-annual sustainability plans. These plans are designed to assist members to reduce their environmental impact, achieve efficiencies in the daily operations, and align with the evolving sustainability needs and demands of global customers and consumer markets.

We now have more than 300 manufacturer members, which have collectively set 3,622 sustainability targets over the past 11 years and put in place 15,390 separate initiatives.

In 2020, we introduced a Gold Membership level for manufacturer members to recognise companies which have shown an exceptional annual performance in achieving their sustainability targets. This year, based on their performance in 2022, a total of 97 companies were awarded Gold Membership.

Earlier this year, we launched the Origin Green Academy, in partnership with Skillnet Ireland and Sustainable Enterprise Skillnet, to help provide further support food, drink, and horticulture companies to develop industry-leading sustainability and emissions reduction skills required. The initial learning programmes offered to members were the Pathways to Net Zero programme and the Pathways to Sustainable Packaging programme.

Origin Green was initially targeted at farmers and the food manufacturing sector, however four years after its launch, the programme was expanded to include the retail and foodservice sector. Significant progress is also being made in this area. The 11 Origin Green members in this sector have collectively set a total of 202 sustainability targets. These included targets to reduce emissions, to cut waste and water use, and to source more sustainably.

The Powered by Partnership Origin Green strategy was shaped by Bord Bia's top 10 list of issues that the Irish agri-food sector must address to be a sustainable food leader. These include reducing GHG emissions, improving biodiversity, and focussing on water quality and availability, animal health and welfare, and food safety and quality.

Under Ireland's Climate Action Plan, the agri-food sector must reduce emissions by 25% by 2030, and with strong collaboration with like-minded organisations, Bord Bia and the Origin Green programme will provide the leadership and technical framework to ensure sustainability continues to drive positive change in the industry.

Through collaborative partnerships with farmers, manufacturers, other state agencies, and the wider agri-food sector, we can work together to establish a sustainable food system and address the multi-faceted climate and sustainability challenges and support our objective of a thriving sector.

Bord Bia's Origin Green programme has made significant progress over the past 11 years, and it will continue to be at the cornerstone of our efforts to both prove and improve the sustainability of the food, drink, and horticulture that Ireland produces.

What is Origin Green?

What is Origin Green?

Origin Green is a national food and drink sustainability programme with a global ambition: to make Irish food and drink the first choice internationally because it is trusted as sustainably produced by people who care.

Led by Bord Bia, it is a voluntary programme providing a framework coupled with the knowledge and know-how to help drive sustainability improvements throughout the entire food and drink supply chain on a national level. Origin Green is independently evaluated and verified at every stage. Bord Bia promotes participation from farmers, producers, manufacturers, retailers, and foodservice companies. It remains the world's only national food and drink sustainability programme that operates across all sectors from farm to fork.

Bord Bia's Vision

A thriving agri-food sector that is responsive to the future needs of people and our planet.

Origin Green's Purpose

To power and prove the sustainability of the Irish food, drink, and horticulture industry.

Origin Green focuses on the three key pillars of sustainability which are economic, social, and environmental performance. Origin Green delivers numerous advantages, such as fostering environmentally

conscious farming practices, prioritising community involvement, and promoting sustainable food and drink production. These factors collectively support the development of sustainable livelihoods.

Currently, Origin Green partners with over 61,000 farmers and 300+ leading Irish food and drink companies to help them demonstrate and enhance sustainable food production aligning with the evolving needs of customers and consumers globally.

Origin Green **enables** farmers, manufacturers, retailers, and foodservice operators to drive sustainability enhancements through Sustainability and Quality Assurance Schemes and the Origin Green charters. It **ensures** the credibility of claims that Irish food and drink is sustainably produced through accreditation and third-party verification. Furthermore, it remains adaptable and continually **evolves** to drive progress while simultaneously meeting the requirements of our customers.

Improving Sustainability

by collaborating with circa **61,000** farmers and **300+** Leading Irish food and drink companies



What is Origin Green? continued

Farmers and Food Producers



On-farm assessments constitute a key component of the Origin Green programme. The rollout of sustainability assessments at farm level has been made possible by Bord Bia's pre-existing quality assurance infrastructure, which has been in place for over twenty years. This infrastructure sees more than 100 auditors undertake over 700 independent farm audits each week. Traditionally, these assessments have focused on traceability, animal health and welfare, and general environmental issues, with an overarching focus on food safety. All elements are still relevant from a sustainability perspective. The Sustainability and Quality Assurance schemes expand the scope and depth of sustainability measures tracked to ensure that Origin Green delivers an assessment system which measures what matters.

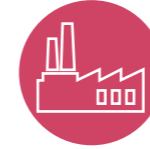
The additional sustainability criteria being measured to date as part of the Origin Green programme include greenhouse gas (GHG) emissions; biodiversity; water measures; energy efficiency; soil management and socio-economic factors.

Following each audit, the producer receives notification of the results in a feedback report on the farm's performance, with reassessments every 18 months. This allows them to make informed decisions on improving the sustainability of their farms while also improving their efficiency and farm viability.

To date, there are over **61,000 farmers** in the Sustainable Beef and Lamb Assurance Scheme and the Sustainable Dairy Assurance Scheme.

In November 2017, Bord Bia launched the Sustainable Egg Assurance Scheme and the Sustainable Horticulture Assurance Scheme. Sustainability and Quality Assurance Schemes have also been developed for pigmeat and poultry.

Manufacturers



Origin Green's food and drink manufacturing members commit to a mandatory mix of target areas specified by the Origin Green charter. The charter commits Ireland's food, drink, and horticulture industry to engage directly and robustly with the challenges of sustainable production: reducing energy inputs minimising their overall carbon footprint and lessening their impact on the environment. The mandatory areas, from which targets are set, form the basis of a business's three to five year sustainability plan. The plan is independently verified by Mabbett, a leading global inspection, verification, testing, and certification company, to ensure the targets are viable and robust. Each plan is independently reviewed annually and monitored for progress against the set targets.

Target areas include:

- **Raw material sourcing**
- **Manufacturing process**
- **Social sustainability**
- **Additional targets** (e.g., biodiversity, approved sector specific target)

To date, Origin Green has **300+ verified member companies** representing circa 90% of Irish food and drink exports.

In 2023, 97 of those companies were awarded **Origin Green Gold Membership**.

Retail and Foodservice Companies



Similar to manufacturers, retailers and foodservice companies participate in Origin Green through the development and delivery of ambitious, measurable and time bound targets as part of a five-year sustainability action plan, which is independently reviewed annually.

As part of the Origin Green Retail and Foodservice charters, participating members are asked to set targets in the following areas:

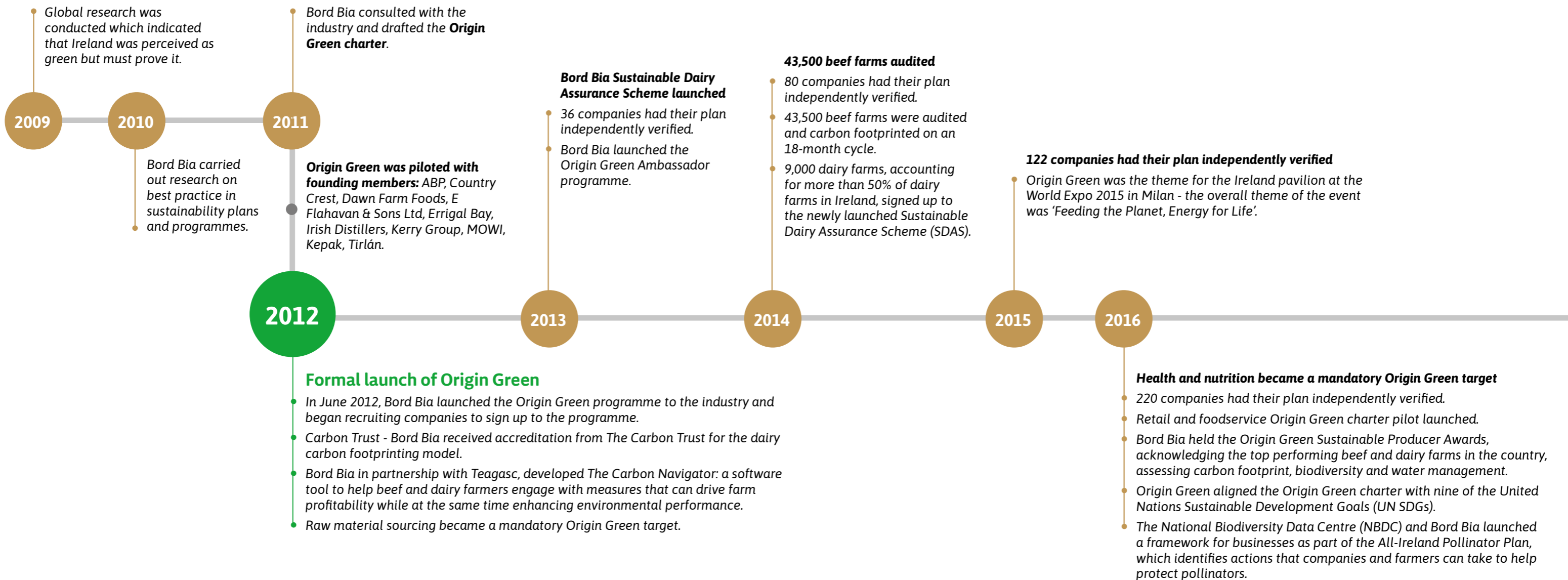
- **Sustainable sourcing**
- **Operations**
- **Social sustainability**
- **Additional targets** (e.g., biodiversity)

To date, **10 companies** are fully verified members of the Origin Green programme at the retail and foodservice level.

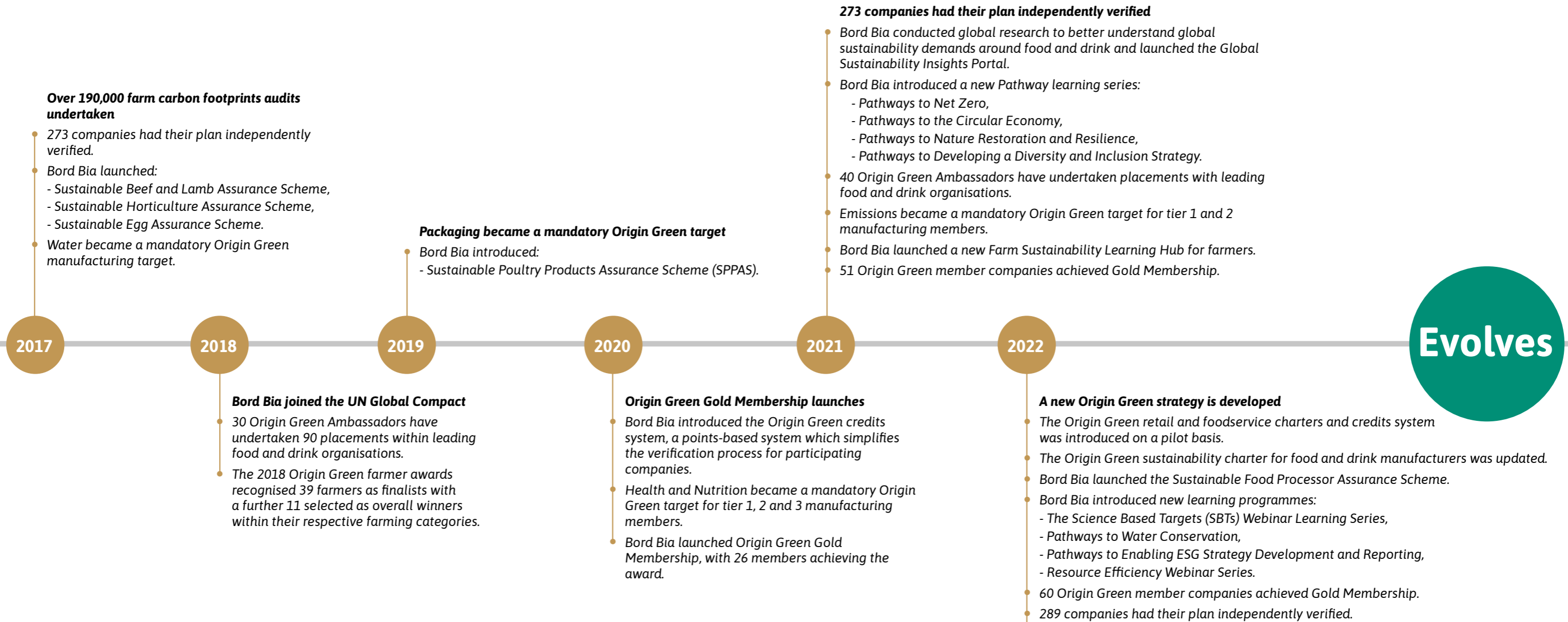
Enables
and
Ensures

Timeline

Timeline



Timeline continued



Developments So Far



Developments So Far

Actively Improved Performance

In the 11 years since it was established, Origin Green has been instrumental in building Ireland's reputation as a leader in sustainably produced food and drink. Today, Origin Green partners with 61,000 farmers and 300+ leading Irish food and drink companies on the shared goal of sustainable food production, providing a platform for sustained, measurable, and verifiable progress.

Over the past decade, Origin Green has played a pivotal role in helping to prove and improve the sustainability of the food Ireland produces. Farmer and producer members of Origin Green's Sustainability and Quality Assurance Schemes have achieved an **8% average reduction in CO₂ per unit of beef** since 2012 and a **9% average reduction in CO₂ per unit of milk** since 2013. Total emissions have been increasing due to the expansion of the dairy herd.

Among manufacturing members, a 2021 survey found that 87% of respondents stated that Origin Green has acted as a catalyst of continuous improvement in their sustainability performance.

Origin Green's holistic framework, which encompasses the multi-dimensional nature of sustainability, has contributed to the more efficient running of Ireland's farms and food businesses, and given us a competitive advantage as we adapt to the evolving demands of our customers and consumers.

The Path to Carbon Neutrality

The landscape of sustainability is rapidly changing. Governments, both nationally and internationally, are firming up their commitments to mitigating emissions, and calls for substantial action against climate change are becoming louder. The Climate Action and Low Carbon Development (Amendment) Bill sets out the framework for Ireland's contribution to climate action and sets the country on the road to carbon neutrality by 2050, with a pivotal interim target of a 51% reduction in carbon emissions by 2030. The government has laid out sector-specific emission reduction targets in the **2021 Climate Action Plan**, which will be subject to annual updates. Among these targets, the agriculture sector is tasked with achieving a 25% reduction in greenhouse gas (GHG) emissions by 2030.


At European Union (EU) level, a comparable level of determination is evident in the **European Green Deal** – an ambitious and comprehensive sustainability plan aimed at overhauling the EU economy to achieve climate neutrality by 2050. Supporting both these initiatives are intergovernmental commitments on a global scale, most notably the United Nation's (UN) 2030 Agenda for Sustainable Development, which includes the 17 Sustainable Development Goals (SDGs), to which Origin Green aligns with 15 of them. Additionally, there is the Paris Climate Agreement, which seeks to limit global warming to 1.5°C.

A Central Role

In many countries, agriculture has been assigned a significant role in addressing this challenge. This is also the case in Ireland, where data from 2022 indicates that the agriculture sector was directly responsible for 38.4% of national GHG emissions. These emissions primarily result from methane produced from livestock, and nitrous oxide from nitrogen fertiliser and manure. It is evident then why progress on emissions is a key component of plans to secure Ireland's future as a producer of high-quality, sustainable food and drink. Acknowledging this reality, the 2021 Climate Action Plan tasks the sector with reducing emissions by 25% by 2030, a major undertaking by any reckoning but one that producers are not expected to achieve alone.

At European Union (EU) level, the European Green Deal includes a Farm to Fork Strategy, a Biodiversity 2030 Strategy, the Fit for 55 Plan, and a Circular Economy Action Plan, reflecting comprehensive and significant new resources to drive the sustainability of agriculture across Europe. In Ireland, the Department of Agriculture Food and the Marine (DAFM) has published Food Vision 2030, a strategic roadmap for the decade ahead, which supports the positive view that 'by adopting an integrated food systems approach, Ireland will seek to become a global leader of innovation for sustainable food and agriculture systems'.

25% reduction in agricultural emissions by 2030. (Climate Action Plan 2021)



Developments So Far

Strategic Roadmap

Food Vision 2030 sets out 22 goals, grouped into four high-level 'missions' the sector will work towards:

- A climate smart, environmentally sustainable agri-food sector,
- Viable and resilient primary producers with enhanced well-being,
- Food that is safe, nutritious, and appealing, trusted and valued at home and abroad,
- An innovative, competitive, and resilient agri-food sector, driven by technology and talent.

Food Vision 2030 singles out an important, evolving role for Origin Green on this journey, recognising that 'Ireland has built a strong reputation for sustainable food by having the world's only national food and drink sustainability programme'. In a new period of challenge, it signals that Origin Green 'now needs to adapt to a higher level of environmental ambition' and 'proposes that collaboration between agencies such as Bord Bia, Teagasc, and the Irish Cattle Breeding Federation (ICBF) to name a few, must intensify to support the reduction of agricultural emissions, drawing on the respective strengths of both agencies.

Powered by Partnership

Bord Bia shares the ambition, optimism, and values expressed in Food Vision 2030 and recognises that fostering collaboration with like-minded organisations is key to Origin Green delivering on the new level of ambition required by industry and intensifying the drive for sustainable export growth.

Origin Green Powered by Partnership is Bord Bia's three-year strategic response, a commitment to strengthen and empower the Origin Green programme over the period 2022-2025, by developing and building on new and existing relationships with organisations such as Teagasc, the Environmental Protection Agency (EPA), National Biodiversity Data Centre, Skillnet Ireland, Repak, and leading academic institutions, among others. Strengthened by those relationships and reflecting the new dynamics in sustainability, Origin Green will support an acceleration in progress on sustainability through a structured programme that places greater emphasis on science-based targets, nature-based solutions, and integrating circular approaches. Origin Green's 61,000 farmers and 300+ company members will see practical expressions of this partnership driven approach in the provision of thought leadership, insight, and best-in-class guidance, and through standards, metrics, and tools that will assist them in bringing a new ambition to their sustainable practice. These will be delivered with the full expectation that the drive to sustainability can bring a range of other benefits including reduced costs, greater profitability, and opportunities for growth in premium markets. For consumers, the

Origin Green Powered by Partnership strategy will bring a world-leading focus to the evolving area of sustainable nutrition and put an increased emphasis on proof-points and data that support sustainable choices.

In its first decade, Origin Green has provided a unique infrastructure through which we can measure and guide the improvement of the agri-food industry's sustainability performance at a national level. As we embrace the next set of challenges, Origin Green will build on that success through a collaborative approach that matches knowledge with ambition, allowing us to not only meet the national and international targets set for us but stay ahead of the curve as we respond to the evolving needs of our customers and consumers globally.



Farmers and Food Producers Progress





Farmers and Food Producers Progress

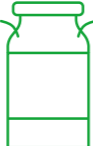


77,000


membership in Ireland part of Bord Bia's Sustainability and Quality Assurance Schemes for beef, dairy, eggs, horticulture, lamb, pig and poultry.


65% SDAS and **32%** SBLAS members used **Low Emissions Slurry Spreading Technology (LESS)** manure application. 

8% average reduction in CO₂ per **unit of beef** from SBLAS members. 

9% average reduction in CO₂ per **unit of milk** from SDAS members. 

Top 10% of SDAS herds have a carbon footprint result of **0.76kg CO₂/kg FPCM**.

 **367,000** carbon footprints calculated to date. 

91% of SDAS and **90%** of SBLAS members conduct **soil testing**. 

90% of SDAS and **73%** of SBLAS members have **incorporated clover** and **78%** of SDAS and **25%** of SBLAS members have incorporated multi-species swards as part of their re-seeding programme.

7,800+ farmers registered on the **Farm Sustainability Learning Hub**.

Bord Bia - Sustainability and Quality Assurance Schemes

Primary producers are the foundation of Ireland's food system and improving farm-level sustainability is a priority of the Origin Green programme. This is done through Bord Bia's suite of Sustainability and Quality Assurance Schemes. The schemes are built on best practice in farming and processing, current legislation, relevant industry guidelines, and international standards and are accredited by Carbon Trust (PAS 2050) and to the ISO17065/2012. They are developed through a Technical Advisory Committee composed of representatives from the industry, Bord Bia, farm organisations, Teagasc, the Food Safety Authority of Ireland, the Department of Agriculture, Food and the Marine, and other technical experts. The schemes are evolving constantly based on the drivers of scientific expertise, market insights from customers and farmers in order that they remain relevant.

The objectives of Sustainability and Quality Assurance Schemes are:

- To set out the criteria for sustainable production incorporating best practices at farm level.
- To demonstrate to customers that foods are produced sustainably under an accredited scheme.
- To provide a uniform mechanism for recording and monitoring:
 - compliance of participants with hygienic production, food safety, traceability, health and welfare, and farm safety,
 - the level of continual improvement over time,
 - the sustainability criteria of the farm.
- To provide an on-going means of demonstrating best practice at farm level.

Compliance with the scheme on an 18-month basis enables members to meet both regulatory and market demands and will ensure that the products placed on the market meet the highest quality and safety standards. In addition, committing to the scheme will help farmers and food producers improve the enterprise's sustainability, competitive performance, and contribute to a fair and safe environment for workers.

Farmers and Food Producers Progress

Origin Green Developments at the Farmer and Producer Level

Several new elements were introduced to Origin Green at the farmer and producer level in 2022 and 2023, as the programme continues to evolve, drive improvements, and measure what matters.

PRODUCER STANDARD UPDATE

Bord Bia is developing a new Producer Standard which will merge existing producer standards into one consolidated standard. The standard will be developed through a Technical Advisory Committee (TAC). This committee is made up of representatives from the industry, Bord Bia, farm organisations, Teagasc, the Food Safety Authority of Ireland (FSAI), the Department of Agriculture, Food, and the Marine (DAFM) and other technical experts within the areas of food safety, traceability, animal welfare, biodiversity, and sustainability. The rationale for this new approach is to improve the efficiency of the standard development process in Bord Bia. Benefits to this new approach include the avoidance of reviewing the same criteria across multiple individual standards, more consistent auditing, less overall time required in the updating of standards, enhanced cross species reporting, and improved benchmarking against international standards. The Producer Standard will then be updated on a four-year cycle basis.

CARBON FOOTPRINTING METHODOLOGY UPDATE

Since 2013 Bord Bia has integrated the carbon footprint models developed by Teagasc into the Sustainability and Quality Assurance Scheme procedures. As a result, every audit conducted on dairy and beef farms has also generated a carbon footprint.

In addition to the longstanding collaboration with Teagasc, Bord Bia is now collaborating with the Irish Cattle Breeding Federation (ICBF), to improve the accuracy and relevancy of the beef and dairy carbon footprint model calculations.

ICBF have access to some of the relevant data that is required to complete a farm carbon footprint, such as Agricultural Information Management Standards (AIMS) data and animal productivity data (live weights, calving dates etc.). The utilisation of ICBF AIMS data has improved;

- The categorisation of beef animals into steers, heifers, young bulls, and finishing cattle based on animal specific slaughter data.
- The categorisation of dairy animals into dry cows, milking cows, and replacements.

The collaboration project also included an update to the beef and dairy carbon footprint methodologies in line with Teagasc research and scientific literature. These updates include, but are not limited to;

- GHG emissions mitigation due to the uptake of new technologies such as low emissions slurry spreading (LESS) and protected urea.
- Changes in nitrous oxide emissions from dung and urine when deposited by animals during the grazing season.

Combined with the data collected in the sustainability surveys, Bord Bia are now in a position to calculate and communicate a more accurate carbon footprint for the beef and dairy industries.

To date, approximately **367,000 carbon footprints** have been generated for Irish beef and dairy farms.



Farmers and Food Producers Progress

Origin Green Developments at the Farmer and Producer Level *continued*

DIGITAL PLATFORM

AgNav is a new digital platform focused on farm sustainability that was developed in partnership between Bord Bia, Teagasc, and the Irish Cattle Breeding Federation (ICBF). It is a farmer-centric sustainability support framework, utilising the three agencies' collective knowledge, data, support tools, and other resources.

AgNav was developed to ensure that there is consistency in approach in terms of measurement at farm level, reporting of progress, and communication on priority areas of focus for individual farms to enable delivery against the Climate Action Plan targets for the agri-sector. The platform will provide an interface where farmers can, individually or in conversation with their advisor, interact with the various tools in place and in development to support them in the creation and delivery of an action plan for their farm. In this regard, tools to facilitate baseline assessments for GHG emissions and carbon footprint will be available. The outputs from these calculations can be reviewed and farmers can then use the "Forecaster" tool to identify the impact of farm practice changes on the results of the calculations. Finally, farmers can create a bespoke action plan for their farms based on what actions have been identified as the most appropriate for their farm.



Essentially the following process is enabled through AgNav:

- **Measure** – Using a sustainability assessment and resulting feedback report, a farmer either individually or in consultation with a farm advisor can establish current farm performance against several relevant environmental and sustainability indicators.
- **Predict** – where farmers and/or advisors identify opportunities for changes to practices on farm that could result in improved performance, they can determine the impact of implementing these practices by using the "Forecaster" tool.
- **Act** – following the identification of the most appropriate actions for their farm, a farmer and/or the advisor can create a sustainability plan for the farm which can include targets and timelines for implementation/completion. This plan will act as a guide for farmer/advisor engagement and demonstrate each farmer's commitment to delivering for the Climate Action Plan.



The rollout of the AgNav platform commenced in Spring 2023 and future developments will aim to expand the focus and functionality of the tools and support services central to AgNav.

FARM SUSTAINABILITY PLANNER

The Farm Sustainability Planner is an online support tool that aims to assist farmers and farm advisors to create custom farm sustainability plans which can be easily updated and tracked. It will hold an inventory of farm sustainability actions covering a range of agricultural sustainability topics (e.g., biodiversity, animal welfare, water quality etc.) which can be navigated by farmers and advisors so that farm-specific actions can be added to a farmer's plan. The actions will be written in line with best practice industry guidelines such as those in the Teagasc Marginal Abatement Cost Curve (MACC) and Agricultural Sustainability Support and Advisory Programme (ASSAP) water quality programme.

The build of the tool began in 2022 and will be piloted as part of Teagasc's Signpost Advisory Programme and will be linked with the AgNav platform.

ANTIMICROBIALS – ANIMAL MEDICINE ANALYSIS TOOL

Bord Bia are currently working on an animal medicine analysis tool that could support the identification of usage patterns and reasons for medicine usage on farm and inform farmer/vet discussions. The tool will utilise existing medicine purchase and usage records in place on farm along with herd profile information to complete the analysis for beef and dairy cattle. Farmers can choose to avail of the new service and grant permission to their farm software provider to share the necessary data with Bord Bia to deliver the analysis results. The tool was built in 2022 and will be piloted with a service provider in 2023.

Farmers and Food Producers Progress

Origin Green Developments at the Farmer and Producer Level *continued*

REGENERATIVE AGRICULTURE PILOT

A growing interest in regenerative agriculture from customers and consumers globally has led Bord Bia to consider the position of Origin Green farm members and the predominant grass-based production systems they operate in relation to emerging assessment frameworks. To build knowledge and participate in the evolution of a common regenerative agriculture assessment framework, Bord Bia is participating in the Sustainable Agricultural Initiative (SAI) Platform Regenerative Agriculture Working Group. Bord Bia is leading in the coordination pilots of the proposed assessment framework with the dairy and beef sectors in Ireland. The timing of the pilot phase is coinciding with the revision of farm sustainable assurance scheme standards presenting an opportunity to incorporate the regenerative agriculture assessment into routine on farm assessments as part of Origin Green.

SUSTAINABLE DAIRY PARTNERSHIP (SDP) MODULE

An initiative of the Sustainable Agricultural Initiative (SAI) Platform's Dairy Working Group, the SDP is a reporting framework designed by dairy processors and their customers to leverage the existing structures and management systems of dairy processors to demonstrate continuous improvement against sustainability criteria. It allows dairy processors to use work already being done as part of industry sustainability initiatives or national programmes, such as Origin Green. Bord Bia were successful in negotiating recognition of the Origin Green programme within the SDP reporting framework.

As a result, dairy processors who are verified members of Origin Green can utilise their membership to demonstrate and prove their progression through the SDP stages by using details included in their Origin Green sustainability plans and their Origin Green annual reports.

The adoption and implementation of a new additional voluntary SDP module within Origin Green will avoid duplication of effort where customers of Irish dairy processors are requiring the SDP to be used as the means of reporting on sustainability progress. Where requirements of the Origin Green programme and SDAS have been deemed equivalent to SDP requirements, these will automatically be marked as complete within the SDP reporting hub. As a result of dairy processors adopting and implementing the SDP module, Bord Bia can build on the existing level of equivalence achieved between Origin Green (SDAS) and the SDP. This means that the Origin Green verified member certificate issued to dairy processors can be utilised to a greater extent to demonstrate conformance to more SDP requirements in more of the stages within the SDP reporting framework.

BIODIVERSITY – PROTECTING FARMLAND POLLINATORS

The European Innovation Partnership (EIP) aims to develop and test a whole-farm pollinator scoring system and identify what management practices on Irish farmland benefit pollinators. The EIP will end in December 2023, with a final event, on November 13th, 2023, for all the farmers involved, as well as the outputs and final communications of the project being published.



FARM SUSTAINABILITY LEARNING HUB

There are currently 3,650+ users registered on Bord Bia's Farm Sustainability Learning Hub. The Learning Hub, which was made available for scheme members in October 2021, hosts a range of modules covering farm sustainability topics such as antimicrobial resistance, Greenhouse Gas Emissions (GHGs), biodiversity, and sustainable energy which were created with stakeholders such as Department of Agriculture, Food and the Marine (DAFM) and Teagasc. In 2022, two further modules on water quality and soil health were added to the catalogue.

Bord Bia also worked with two dairy processors and other key stakeholders to develop custom courses for milk suppliers which are linked to the processor's sustainability bonus schemes. The courses, which were available from Q1 2023 onwards, cover a multitude of topics, including water quality and farm emissions.

In addition, work commenced on the development of Animal Welfare (for beef, lamb, and dairy) and Farmland Pollinator modules in conjunction with Animal Health Ireland, Teagasc, and the National Biodiversity Centre of Ireland.

Bord Bia will continue to engage with its farm and processor members in 2023 to increase knowledge and awareness around farm sustainability through the Farm Sustainability Learning Hub.

New

Bord Bia are collaborating with the National Biodiversity Data Centre to create a **Farmland Pollinator's module**. This module will complement the existing An Introduction to Farmland Biodiversity module on the Farm Sustainability Learning Hub.

Farmers and Food Producers Progress

Origin Green Developments at the Farmer and Producer Level *continued*

ORIGIN GREEN FARMER AND FOOD PRODUCER COMMUNICATIONS CAMPAIGN

Bord Bia's communication about the Origin Green programme with Irish farmers occurs through several channels: text messages and printed newsletters; paid articles in agri-media; print and online advertising; and paid social media. In-person engagement with farmers takes place through presentations at farm meetings and conferences, participation in roundtables and forums, and attendance at farm walks and farming events.

• TEXT MESSAGES:

Throughout 2022, several text messages were issued to a database of over 40,000 Origin Green farmer members providing links to relevant information on sustainability support and tools for farmers.

• NEWSLETTER:

A quarterly newsletter for Origin Green farmer members was introduced in 2020 to engage farmers and inform them of the developments in the Origin Green programme, market impact studies, and how Bord Bia is supporting the industry. Bord Bia issued three farmer newsletters to all beef, lamb, and dairy farmer members of Origin Green in 2022.

• AGRI-MEDIA PARTNERSHIPS:

Bord Bia has two agri-media partnerships featuring monthly articles – both print and online – which communicate to farmers on key topics such as Origin Green sustainability supports for farmer members, global meat and dairy market insights, and

information on Bord Bia campaigns and initiatives. The partnership in 2022 included 22 online articles across two news sites and 11 print articles across a print publication. A similar partnership will run in 2023. The newsletter ensures greater transparency between Bord Bia and farmers and provides farmers with easy access to insights and market information which will help them advance their businesses and become more sustainable. Each edition of the newsletter currently reaches 61,000 farmers.

• MARKETING CAMPAIGNS:

In 2022, marketing campaigns targeting farmers were focused on raising awareness of the Farm Sustainability Learning Hub through ongoing advertising across agri-media. A targeted campaign ran from April to September across print, display, and social media, and concluded with eight weeks of video advertising across 20 marts from October to November.

• FARM MEETINGS AND CONFERENCES:

Bord Bia had a dedicated presence at two events in 2022: Beef2022 at Teagasc Grange, and the National Ploughing Championships (NPC). At the NPC, the Origin Green branded marquee featured a helpdesk for farmers with audit queries and a sustainability area where farmers could download their carbon footprint or enrol in sustainability learning.



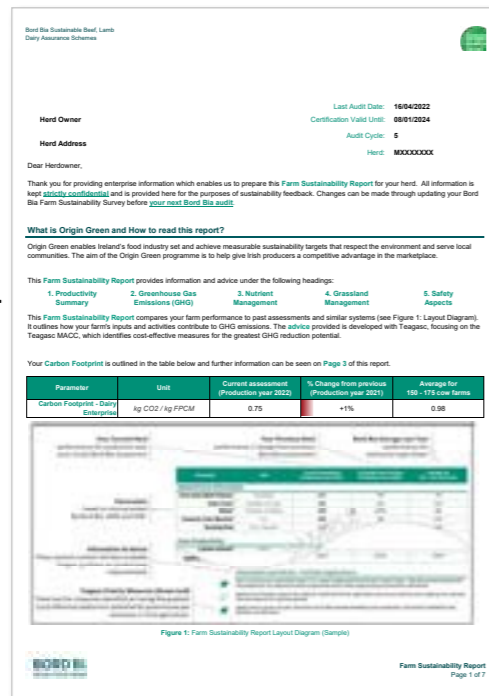
Farmers and Food Producers Progress

Farmer Feedback Reports

89,000+ farmer feedback reports sent to producers since 2020.

For producer members of the Sustainable Beef and Lamb Assurance Scheme (SBLAS) and the Sustainable Dairy Assurance Scheme (SDAS), each farm's sustainability information is gathered through a pre-farm audit sustainability survey. This information is then sent to the Bord Bia database and combined with data from two other national livestock databases; the Animal Identification and Movement (AIM) and the Irish Cattle Breeders Federation (ICBF).

Following the on-farm assessment, each participating farmer receives an individual Farmer Feedback Report to demonstrate to members how their farm inputs and activities contribute to GHG production, and to provide advice and feedback on how to mitigate against these emissions and improve production efficiencies. The advisory feedback is formulated in collaboration with Teagasc and focuses on measures set out by Teagasc in the Marginal Abatement Cost Curve (MACC).



The Farmer Feedback Reports include a summary of a farm's performance under five different farm management activities.

1 PRODUCTIVITY

The productivity section includes general farm information and a summary of the farm's productivity. This is based upon the data provided by the farmer in the sustainability survey as part of the audit. It also includes data obtained by Bord Bia from AIMs, ICBF, and milk production data.

2 GREENHOUSE GASES

This section includes the farm's carbon footprint and the percentage share of farm carbon emissions as a result of different farm activities. The percentage change in carbon footprint (increase or decrease) since the last audit is displayed and the average carbon footprint for farms within the same category and herd size. Bord Bia's Carbon Footprint Models are developed and maintained in conjunction with Teagasc and the Carbon Trust and accredited to the PAS 2050 Standard.

3 NUTRIENT MANAGEMENT (Slurry and fertiliser application)

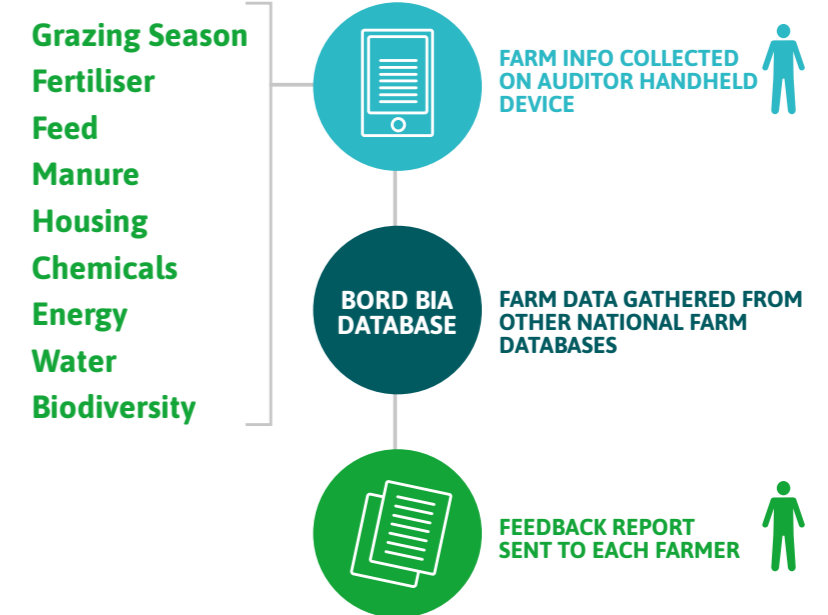
Farmers' slurry and fertiliser application methods are analysed with specific advice provided on the most suitable timeframes, techniques of application, and types of products that could be used to improve soil fertility and reduce ammonia emissions.

4 GRASSLAND MANAGEMENT

This area gathers data about a farm's soil testing, herd's grass-fed calculation assessments of the grass growth, and housing and turnout information to provide specific suggestions on achieving better soil and/or grass utilisation.

5 FARM SAFETY

This section covers the farm's conformance with farm safety and provides a risk rating. The risk rating is based upon the farm's conformity to safety aspects identified during the audit.



Farmers and Food Producers Progress

SUSTAINABILITY AND QUALITY ASSURANCE SCHEME UPDATES

The figures presented in the following sections represent data collected from members certified to SBLAS and SDAS on December 31st, 2022.

Sustainable Dairy Assurance Scheme (SDAS)

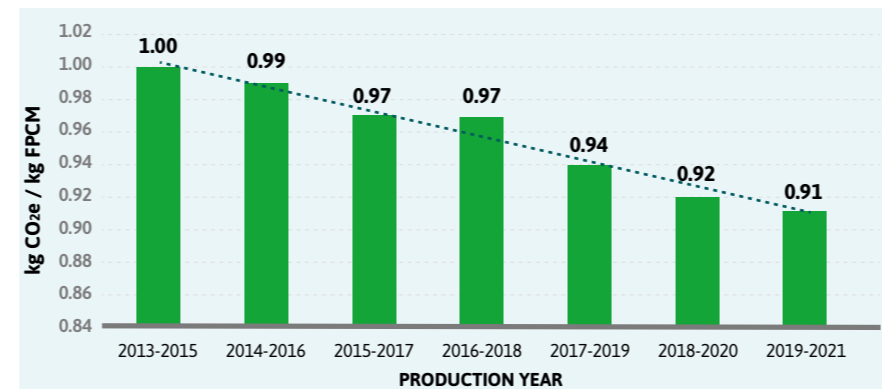
The Sustainable Dairy Assurance Scheme (SDAS) was introduced in December 2013. Approximately 95% of all dairy farms in Ireland are members of SDAS, that is 16,190 certified dairy farms.

SDAS On-Farm Activity:

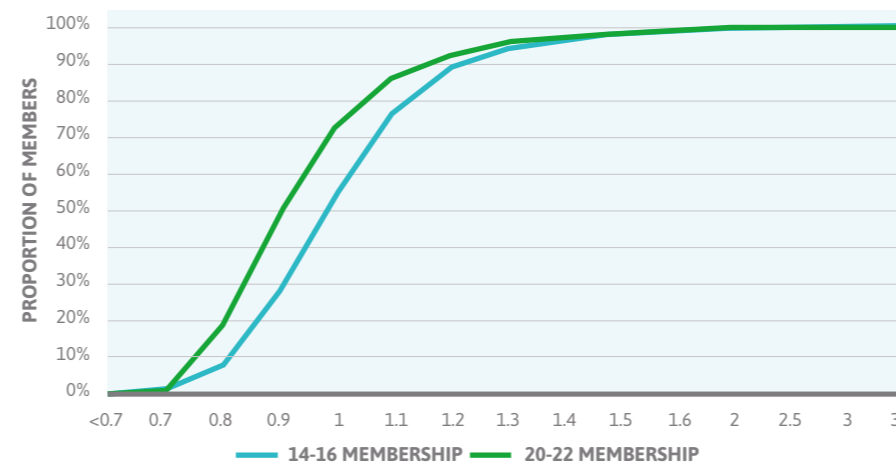
1 Carbon Footprint

Between 2013-2022, over 70,000 carbon footprint evaluations have been carried out for SDAS members. Results from the carbon footprint models indicate that the carbon footprint of Irish milk production, expressed as CO₂ equivalent per kilogram (kg) of Fat and Protein Corrected Milk (FPCM) produced, declined between 2013 and 2021 on a rolling three-year average basis (results weighted by milk supply). Members of SDAS have reduced their average carbon footprint by 9% since carbon footprinting began in 2013. The average SDAS carbon footprint is 0.91kg CO₂e/kg of FPCM with the top 10% of SDAS herds having a carbon footprint of 0.76kg CO₂e/kg of FPCM. While efficiency has improved, absolute emissions have increased in Ireland due to recent growth in the dairy herd. The removal of milk quotas has led to an expansion which has resulted in environmental pressures. In 2022, the Government set ambitious climate change targets across all sectors of society with a target of 25% reduction in emissions from agriculture by 2030 (using 2018 as the baseline). While this target is ambitious, in a recent Bord Bia survey of over 1,200 farmers, 85% of respondents said they are extremely willing to make future changes on their farm to reduce emissions.

Average Dairy Carbon Footprint - Three-year rolling averages



Proportion of SDAS Members vs Carbon Footprint Results



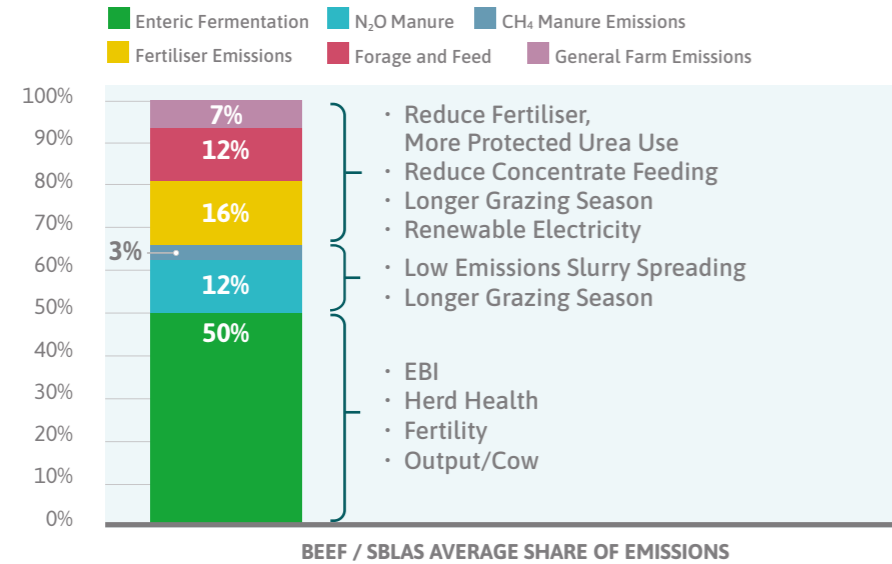
The results of the assessments to date show a considerable level of variation across farms. Allowing for outliers, the range of carbon footprint results varies from <0.7kg to >3kg+ CO₂e/kg FPCM. Some of this variation is explained by the different production systems evident on Irish farms. The results to date highlight the fact that a considerable proportion of farms already have practices in place that perform very strongly when it comes to GHG emissions. The challenge is for farms that have higher carbon footprints than average to adopt the practices of the best performing farms. Achieving this goal could help to significantly reduce the emissions intensity of dairy production in Ireland.

Dairy Farm Emissions Sources

There are specific actions that can be undertaken at farm level that will assist in reducing emissions, based on the Teagasc Marginal Abatement Cost Curve (MACC). Enteric emissions, which are the emissions as a result of the process of the digestion of feed via enteric fermentation, represent 50% of the dairy carbon footprint can be reduced through adoption of measures such as dairy Economic Breeding Index (EBI), improved animal health and fertility, and increasing output per cow. To reduce the second biggest group of dairy emissions (including fertiliser, forage and feed, and general farm emissions), MACC recommends farmers use more renewables, reduce concentrate feeding and fertiliser use, increase protected urea use, and establish a longer grazing season. Longer grazing seasons also positively impact manure application emissions (15%), together with usage of the LESS method.

Farmers and Food Producers Progress

MACC Activities to reduce emissions



- Reduce Fertiliser, More Protected Urea Use
- Reduce Concentrate Feeding
- Longer Grazing Season
- Renewable Electricity
- Low Emissions Slurry Spreading
- Longer Grazing Season
- EBI
- Herd Health
- Fertility
- Output/Cow

2 Grassland Management: Soil Testing and Re-Seeding

Soil Testing

Soil testing is carried out by farmers to determine the nutrient status of the soil and to give a measure of the available nutrients in the soil. Knowing the nutrient status of the soil can help reduce fertiliser related costs and help improve the long-term productivity of the soil by taking appropriate action to maintain good nutrient status.

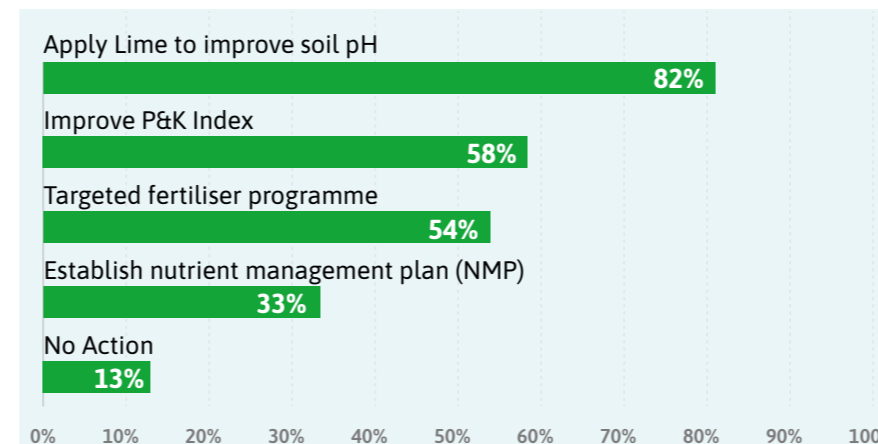
91% of all SDAS herds have soil testing completed on their farm areas.

The proportion of dairy farms with 100% of their farm area soil tested averages at 61% reflecting strong engagement with improved soil health and nutrient activities.

SDAS - % Area Soil Tested	Proportion of Membership 2021
100%	61%
25%	11%
50%	10%
75%	9%
No Testing	9%
	100%

SDAS - Actions Taken as a Result of Soil Testing

Recording of actions taken by farmers as a result of completed soil tests was introduced for production year 2021. Thanks to soil testing 82% of SDAS members apply lime to their farm to improve their soil's pH. An optimum pH (6.3-6.5) is essential for optimum grass growth. Soils maintained close to the target pH will have benefits of increased grass yields and more efficient utilisation of applied fertilisers and manures. The next most common actions are related to the targeted application of fertilisers to improve the value of fertiliser applied and ensure optimum grass growth with the fertiliser applied.

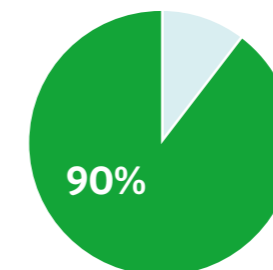


Re-Seeding Protocol

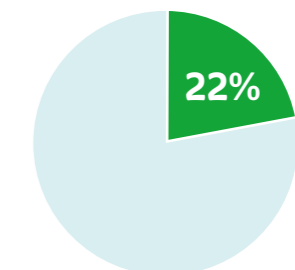
Proportion of Farm Area Re-Seeded in the Last Four Years	Responses
a. >30%	18%
b. 20-30%	19%
c. 10-20%	29%
d. 0-10%	30%
Not Applicable	4%

Re-seeding is carried out to improve the overall health and quality of the grassland swards on pasture-based systems. Correct management of grass swards improves the yield and quality of the grass-based forage as a source of feed for cattle. The general recommendation is to re-seed 10-15% of the farmland area per year to maximise the quality and performance of the grass grown on the farm. Six in ten SDAS members have re-seeded up to 20% of their farm area in the last four years.

Incorporation of **Clover** as part of reseedling programme



Incorporation of **Multi-Species Sward** as part of reseedling programme



Farmers and Food Producers Progress

The incorporation of clover into re-seeding programmes is a management option for farmers as it reduces the need for additional chemical fertilisers to be applied to grow grass. This is a long-standing method that farmers can take to reduce chemical nitrogen (N) use and is common across pasture-based systems where the incorporation of clover is appropriate to climate and soil types.

Multi-species swards is a broad term to describe swards containing a range of different plant species. Multi-species swards consist of a variety of plants from different families including clovers, grasses, brassicas, and herbs. The growing of multi-species swards has gained much attention in recent years. The benefits of multi-species swards is that they require reduced fertiliser while maintaining a steady growth rate. Swards with a clover content of between 20-50% can allow fertiliser application in the summer months to be halved.

3 Nutrient Management: Manure Application and Fertiliser Use

Over the last number of years, the uptake of Low Emission Slurry Spreading (LESS) technologies has increased and these technologies are now the most recorded method of manure application on SDAS farms. By 2021, 70% of SDAS members used LESS technology manure application. While the majority of SDAS farmers continue to use splash plate method for manure application, data clearly shows that the number of dairy farms that used LESS technology, increased from 7% in 2013/2014 to 70% in 2020/2021.

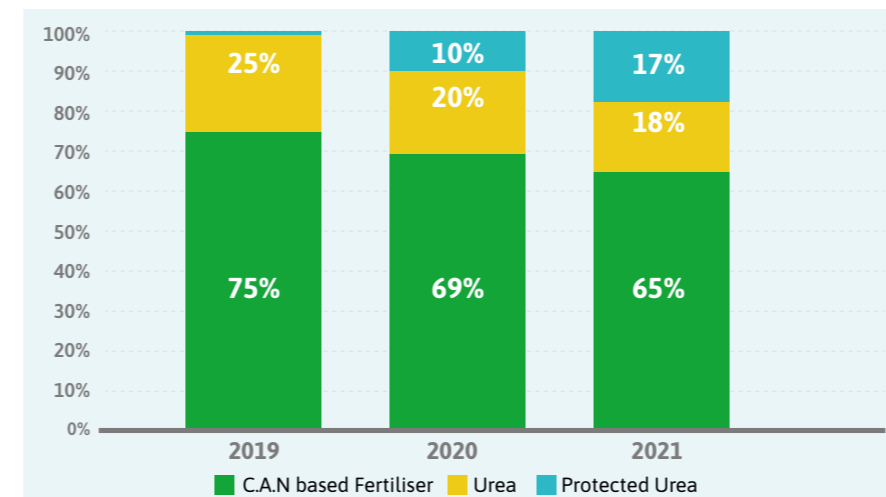
Manure Management

Manure Application Method	Production Years 2013-2014	Production Years 2020-2021
	Proportion of SDAS Members	
Splash Plate	93%	30%
LESS Technology	7%	70%

SDAS - Fertiliser Use by Source of Chemical Nitrogen

Recording the uptake of protected urea use with SDAS members began for the production year 2019. There has been a significant increase in the utilisation of protected urea products by members of SDAS. 18% of the chemical nitrogen applied by SDAS members in production year 2021 was applied in the form of protected urea products. Since 2019, there has been a reduction in the utilisation of Calcium Ammonium Nitrate (C.A.N) based fertilisers which are associated with higher GHG emissions.

SDAS - Chemical N applied by Fertiliser Type



4 Operational Updates

The Sustainable Dairy Assurance Scheme (SDAS) was developed in response to the demands of the marketplace. Increasingly purchasers of Irish dairy products are requiring proof that the milk is produced sustainably on farms that are certified members of an accredited quality assurance scheme. SDAS was designed to assess and record data to demonstrate the sustainability of Irish dairying in a systematic way at individual farm level and therefore provides the necessary proof that dairy product customers require regarding sustainability and quality assurance.

There are over 16,000 Origin Green certified dairy producers under the SDAS programme. 11,520 SDAS farm audits took place in 2022.

A new dairy hygiene scoring and reporting infrastructure was successfully introduced in July 2022 with all audits now reflecting the updates agreed with the Dairy Controls and Certification Division at DAFM and the Irish Cooperative Organisation Society (ICOS).

In 2015, Bord Bia assumed the auditing role for the requirements of this EU Hygiene Package through SDAS. Prior to this, dairy hygiene inspections had been carried out by the milk purchasers. DAFM is the competent authority responsible for ensuring compliance with the Hygiene Package legislation. Obligation for compliance to the EU Hygiene Package is the responsibility of the milk producer (i.e., the farmer) and the milk purchaser (i.e. the dairy processor).

Currently, under the Bord Bia SDAS, minor non-conformances raised during the audit do not need to be closed out. Instead, the farmer must give an undertaking to address these issues prior to the next audit.

Farmers and Food Producers Progress

4 Operational Updates *continued*

However, under the Hygiene Package legislation, minor non-conformances relating to dairy hygiene must be closed out i.e. they must be rectified in an agreed time frame. DAFM is also responsible for auditing milk processors to ensure compliance with the legislative requirements of the Hygiene Package. DAFM were raising non-compliances with processors due to minor non-compliances related to SDAS dairy hygiene requirements not being closed-out on farms. Due to this discrepancy, Bord Bia was approached by the DAFM’s Dairy Controls and Certification Division and ICOS, to help deliver a solution.

- The SDAS dairy hygiene criteria was reduced from 70 requirements to 49 to better align with the DAFM’s DH1 inspection form.
- For the 49 SDAS dairy hygiene criteria, minor non-compliances can no longer be raised. Instead, any minor issues can be recorded as an ‘observation’. For example: under criteria 3.10.b. sheds and other facilities must be managed and maintained to facilitate hygienic milk production. If it is the middle of summer and cows are not in the shed, but it has not been cleaned out, this would be recorded as an observation.
- Observations are not required to be closed out, however, where one has been raised, the auditor’s comments and relevant statements will be listed on the producer’s certification letter and their dairy hygiene report.

Sustainable Beef and Lamb Assurance Scheme (SBLAS)

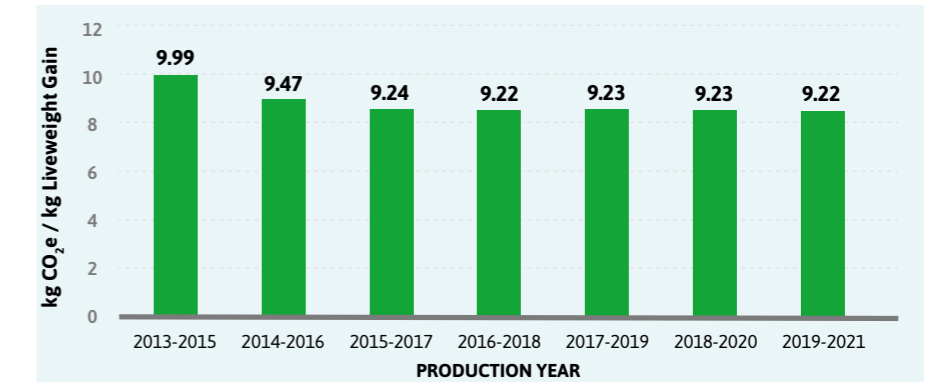
The Sustainable Beef and Lamb Assurance Scheme (SBLAS) was introduced in April 2017. Approximately 92% of all beef farms in Ireland are members of SBLAS, that is 53,295 certified beef farms.

SBLAS On-Farm Activity:

1 Carbon Footprint

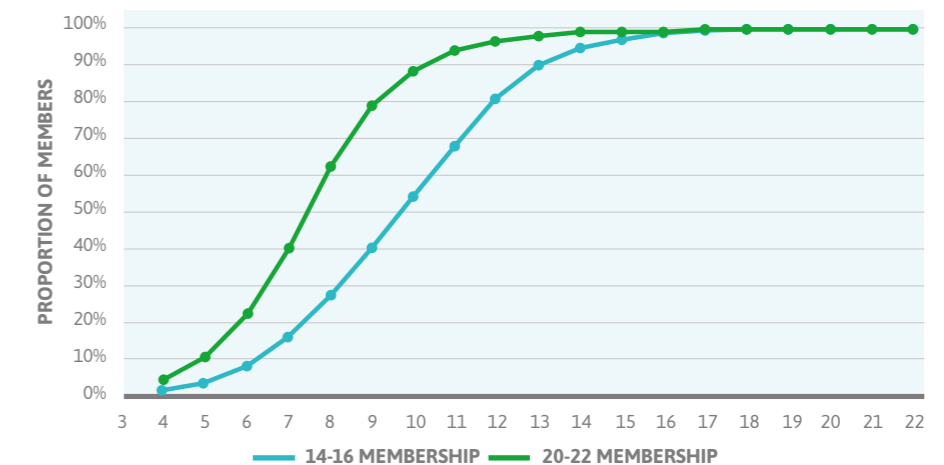
An overall reduction of the average beef carbon footprint on SBLAS farms of 8% has been achieved, following the continuous downwards trend since 2013. The average SBLAS carbon footprint is 9.22kg CO₂e/kg live weight gain with the top 10% of SBLAS herds having a carbon footprint of 6.30kg CO₂e/kg live weight gain. With over 280,000 carbon footprints calculated for SBLAS members since the introduction of carbon footprint assessments on beef farms in 2013, Origin Green has continued to provide data and support to farmer members to enable them to continue cutting their emissions. The data is expressed as a three-year rolling average comparison of the average carbon footprints, to minimise short-term carbon footprint fluctuations due to market and weather variability.

Average Beef Carbon Footprint - Three-year rolling averages



As with dairy, there is significant potential to adopt practices already in place across a high proportion of beef farms more widely. This could play a significant role in contributing to the reduction of emissions in Irish beef production.

Proportion of SBLAS Members vs Carbon Footprint Results



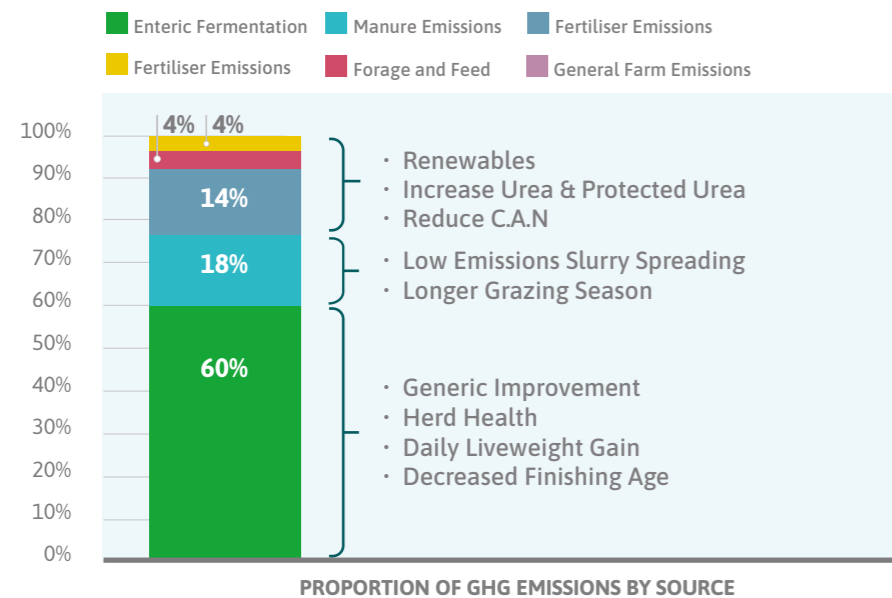
Farmers and Food Producers Progress

Beef Farm Emissions Sources

The Farmer Feedback report focuses on measures contained in the Teagasc MACC so that we can help farmers reduce their emissions by giving them practical suggestions. As 60% of the farm emissions come from enteric fermentation, a natural part of the digestive process in ruminant animals such as cattle and sheep, the main MACC recommended activities relate to genetic improvement, herd health, daily liveweight gain, and decreasing the finishing age. Other recommended activities that can address emissions from fertilisers, energy sources, feed, and others include usage of renewables, using protected urea, and reducing proteins in feed.

The graph below outlines examples of actions that can be undertaken at farm level that will assist in reducing emissions.

MACC Activities to reduce emissions



2 Grassland Management: Soil Testing and Re-Seeding

Soil Testing

Soil testing is carried out by farmers to determine the nutrient status of the soil and to give a measure of the available nutrients in the soil. Knowing the nutrient status of the soil can help reduce fertiliser related costs and help improve the long-term productivity of the soil by taking appropriate action to maintain good nutrient status.

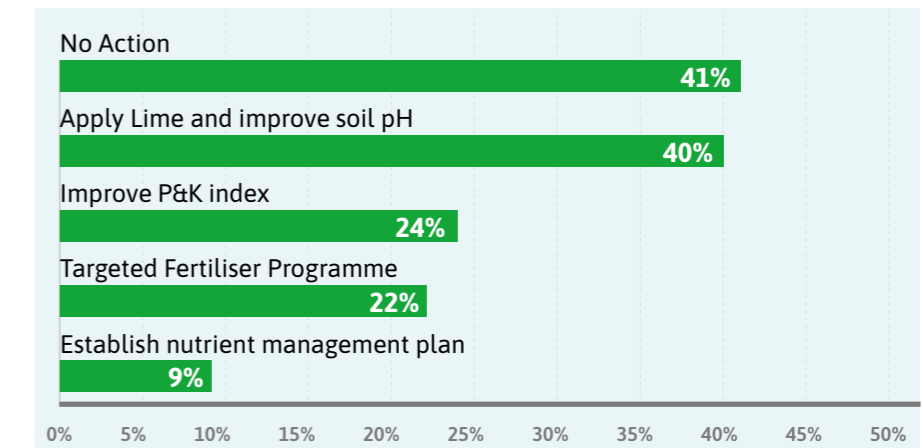
In 2021, the proportion of SBLAS members that carried out soil testing continued to grow, with 90% of SBLAS members completing soil testing on their farm areas. Furthermore, 43% of members took one step further and tested 100% of their farm area soil, accounting for more than 26,000 herds in Ireland.

SBLAS - % Area Soil Tested	Proportion of Membership
100%	43%
25%	21%
50%	16%
75%	10%
No Testing	10%
	100%

Actions Taken as a Result of Soil Testing

The recording of actions taken by farmers as a result of completed soil tests was introduced for production year 2021.

Thanks to soil testing, 43% of SBLAS member are applying lime to their farm to improve the pH content of their soil. An optimum pH (6.3-6.5) is essential for optimum grass growth. Soils maintained close to the target pH will have benefits of increased grass yields and more efficient utilisation of applied fertilisers and manures. The next most common actions are related to the targeted application of fertilisers to improve the value of fertiliser applied and ensure optimum grass growth with the fertiliser applied.



Farmers and Food Producers Progress

Re-Seeding Protocol

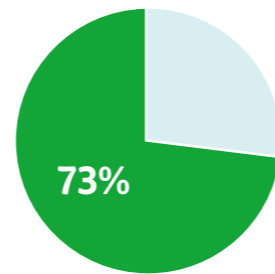
Re-seeding is carried out to improve the overall health and quality of the grassland swards on pasture-based systems. Correct management of grass swards improves the yield and quality of the grass-based forage as a source of feed for cattle. The general recommendation is to re-seed 10-15% of the farmland area per year to maximise the quality and performance of the grass grown on the farm. 43% of SBLAS members have re-seeded up to 10% of their farm area in the last four years.

Proportion of Farm Area Re-Seeded in the Last Four Years	Responses
a. >30%	5%
b. 20-30%	5%
c. 10-20%	13%
d. 0-10%	43%
Not Applicable	34%

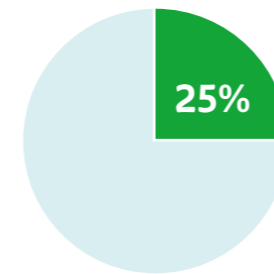
Incorporation of Clover and Multi-Species Swards with Re-seeding

The incorporation of clover into re-seeding programmes is a management option for farmers as it reduces the need for additional chemical fertilisers to be applied to grow grass. This is a long-standing method that farmers can take to reduce chemical nitrogen (N) use and is common across pasture-based systems where the incorporation of clover is appropriate to climate and soil types. To date, 73% of SBLAS members incorporate clover into their sward mix as part of their re-seeding programme.

Incorporation of **Clover** as part of re-seeding programme



Incorporation of **Multi-Species Sward** as part of re-seeding programme



Multi-species sward is a broad term to describe swards containing a range of different plant species. Multi-species swards consist of a variety of plants from different families including clovers, grasses, brassicas, and herbs. The growing of multi-species swards has gained much attention in recent years. The benefits of multi-species swards is that they require reduced fertiliser while maintaining a steady growth rate. A sward with a clover content of between 20-50% can allow fertiliser application in the summer months to be halved. To date, 25% of SBLAS members have incorporated multi-species swards into their sward mix as part of their re-seeding programme.

3 Nutrient Management: Manure Management and Fertiliser Use

Between 2013/2014 and 2020/2021, the proportion of farms that reported using the LESS trailing shoe manure application method, to lower emissions from slurry spreading, rose from 2% to 39%. Splash plate remains the most common method of manure application, with 61% of SBLAS members recording using this method in 2019/2020 (c.f. to 98% in 2013/2014). There has been an increase

in the number of farmers that use a LESS method, in particular the trailing shoe application method and to a smaller extent, the direct injection method (see table below). The LESS technology is effective at reducing ammonia losses as the slurry is placed in narrow bands directly onto the soil surface below the grass. Using the LESS technology can deliver a 60% reduction in ammonia losses and increase the amount of nitrogen available to grass. Furthermore, as 18% of farm emissions are related to manure management, the potential impact of using a LESS method is clearly demonstrated by the MACC. While improvements have been made in the uptake of these practices, it is essential that they are adopted at scale across the sector and will be a key focus area of farmer engagement and collaboration.

Manure Management

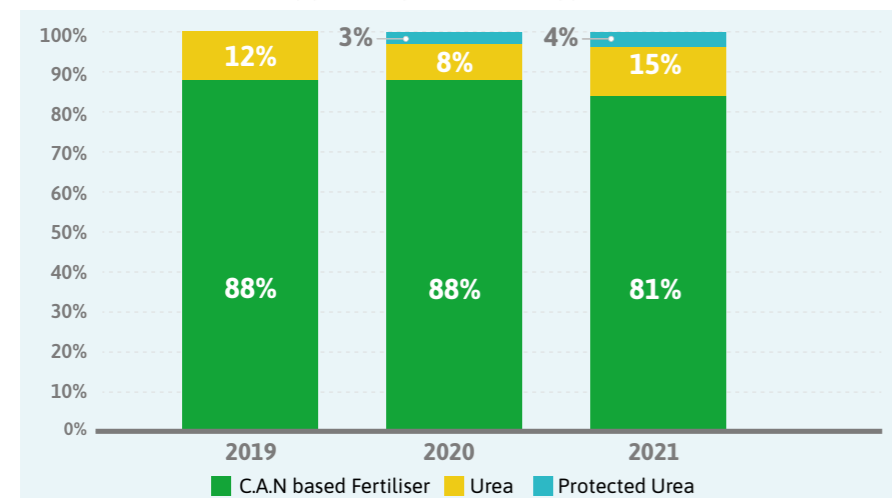
Manure Application Method	Production Years 2013-2014	Production Years 2020-2021
	Proportion of SBLAS Members	
Splash Plate	98%	61%
LESS Technology	2%	39%

Farmers and Food Producers Progress

SBLAS - Fertiliser Use by Source of Chemical Nitrogen

Recording the uptake of protected urea use with SBLAS members began for production year 2019. There has been a steady increase in the utilisation of protect urea products by members of SBLAS. 4% of the chemical nitrogen applied by SBLAS members in production year 2021 was applied in the form of protected urea products. Additionally, since 2019, there has been a reduction in the utilisation of C.A.N based fertilisers which are associated with higher GHG emissions.

SBLAS - Chemical N applied by Fertiliser Type



4 Operational Updates

Through measurement and analysis, SBLAS demonstrates the sustainability of Irish beef and lamb farming at individual farm level, providing constructive feedback to farmers to help them with decision making and improving their sustainability performance. With 53,551 members, the SBLAS programme delivers proof that the meat is produced on farms that are certified to an accredited quality assurance scheme, based on sustainability principles incorporating environmental, social, and economic aspects.

To date, 2023 has seen 38,316 SBLAS audits take place. We estimate that by the end of 2023, we will have delivered close to 40,000 audits on SBLAS farms alone.

A key driver of increased audit numbers has been DAFMs Suckler Carbon Efficiency Programme (SCEP), with SBLAS participation as a mandatory requirement for those looking to join. This requirement resulted in 9,732 new applications for SBLAS. Of these we have now audited 8,975 producers with 692 producers withdrawing their applications on contact from the auditor, meaning the total number of new entrants by the end of 2023 should stand at 9,040.

Sustainable Poultry Products Assurance Scheme (SPPAS)

Launched in 2021, the Sustainable Poultry Products Assurance Scheme (SPPAS) has now replaced the former Poultry Products Quality Assurance Scheme. The scheme has now incorporated the auditing of poultry breeding farms and hatcheries, which ensures that high quality and sustainability standards are met across the entire poultry production chain.

Currently there are 502 Origin Green certified poultry producers in Ireland. The scheme aims to promote production of safe, high quality food products, protection, and improvement of the natural environment and caring for the social and economic conditions of those in the supply chain. The protection of the health and welfare of all farmed animals is also part of the scheme. The SPPAS includes criteria that address all these elements of sustainable production.

During the past two years, much of Europe has battled with a rapid surge of cases of Avian Influenza in poultry. In November 2022, two outbreaks of the disease HPAI H5N1 were confirmed in two commercial poultry flocks in Co. Monaghan. Since then, no further outbreaks of HPAI H5N1 in poultry have occurred in Ireland and the World Organisation for Animal Health (WOAH) published Ireland's self-declaration of the recovery of freedom from HPAI. However, emergency biosecurity regulations, which include the indoor housing of all poultry, remain in force.

>95% of poultry producers are part of the Sustainable Quality Assurance Scheme.



Farmers and Food Producers Progress

Sustainable Horticulture Assurance Scheme (SHAS)

The Sustainable Horticulture Assurance Scheme (SHAS) was launched in 2017 for horticulture growers (module 1) and packers (module 2). In 2020, Bord Bia launched two further SHAS modules, module 3 for ornamental growers and module 4 for ornamental packhouses. Food safety, product quality, traceability, environmental protection, and employee welfare are core tenets of the SHAS standard. The criteria of the scheme additionally provide a framework for horticultural production to comply with current best practice in relation to the safeguarding of the environment. SHAS currently has 271 certified members.

Compliance levels across SHAS continues to increase, with average non-compliance levels found at audit decreasing. Major non-compliances at audit have decreased by more than 50% from an average of 13.2 per audit in 2019 to 5.2 in 2021. Furthermore, all certified fresh produce growers now have water management plans in place, as well as detailed risk assessment and control plans in place covering the areas of water management, hygiene, and the environment. Additionally, members of the scheme are required to set improvement plans against raw material sourcing, resource efficiency, social sustainability, and biodiversity measures.


70% of horticulture producers are part of the Sustainable Quality Assurance Scheme. 

Sustainable Egg Assurance Scheme (SEAS)

The Sustainable Egg Assurance Scheme (SEAS) is a code of best practice covering both the production and packing of eggs. The criteria contained in this scheme are included to ensure best practice in the rearing of point-of-lay pullets, in the production of hen eggs and in the packing of table eggs. These criteria are designed to address all elements of sustainable production, while also ensuring best practice in traceability, food safety, hygiene, health and safety, and animal welfare.

There are currently 190 egg producers and 53 pullet rearers certified under the scheme. These certified farms are approved to supply 15 Bord Bia certified egg packing centres. Eggs that are produced and packed in accordance with the requirements of SEAS are eligible to carry the quality assured logo on packs, and on point-of-sale materials in the case of loose sales. SEAS ensures that all eggs are produced and packed to the highest standards before reaching the consumer, assuring quality at each stage of the production chain, and the scheme is accredited under ISO 17065. Members of SEAS are also now required to record performance data of each flock, and this data is then collated and submitted to the Bord Bia carbon footprinting interface. The egg carbon footprinting model (accredited by the Carbon Trust in the UK) measures emissions on both egg producing and pullet rearing farms.

Like the poultry production sector, the egg industry has witnessed significant threat of disease over the past few years. With two outbreaks of Avian Influenza in Irish poultry flocks in November 2022. Egg farms are currently still required to impose strict biosecurity regulations and keep all poultry housed indoors.

95% of egg producers are part of the Sustainable Egg Assurance Scheme. 

Pigmeat Quality Assurance Scheme (PQAS)

There are currently 379 members of the Bord Bia Pigmeat Quality Assurance Scheme (PQAS). The scheme sets out the requirements for best practice in pig production at farm level. In 2021, an interim update was introduced to the scheme requirements, which added new criteria key areas such as animal welfare, biosecurity, and antibiotic use.

In 2022, the pig sector witnessed significant financial strain, labour shortages, and increased input costs. A temporary financial aid for pig farmers in Ireland was rolled out by DAFM in the form of the Pig Exceptional Payment Scheme 2 (PEPS2), which requires membership to PQAS. Bord Bia are currently developing training resources for PQAS members in pig husbandry and welfare, with the aim of improving members understanding and implementation of best practice in pig welfare and husbandry. This eLearning module will be available to PQAS members via the Farm Sustainability Learning Hub in 2023.

A new revision of the PQAS standard will be incorporated into the new Bord Bia Primary Producer Standard, set for rollout in 2024. Bord Bia have met with industry representatives to discuss some new proposed aspects of the scheme, including the inclusion of a new scope to include the auditing of artificial insemination suppliers. Additionally, Bord Bia are working with Teagasc to further develop a carbon footprinting model for pig producers. Bord Bia have engaged with The Carbon Trust to update the model with the most up-to-date approach, factors, and calculations.

98% of pigmeat producers are part of the Pigmeat Quality Assurance Scheme 

Farmers and Food Producers Progress

Bord Iascaigh Mhara - Seafood Update

The high rate of Origin Green membership within the Irish seafood sector demonstrates a commitment to sustainability throughout the entire seafood value chain.

Bord Iascaigh Mhara (BIM) provides support and advisory services to the seafood sector in the attainment and retention of Origin Green verification to ensure the sustainable production of Irish seafood by minimising impacts, improving production efficiencies, and achieving the highest standards in food safety, quality, and environmental management.

Companies approaching BIM for assistance have been supported in developing targets, documenting plans, and preparing annual reports. BIM's Green Seafood Business Programme works with seafood processing companies to embed and promote sustainable resource management into their processing operations.

The programme supports the adoption of green technologies and innovations to drive sustainable growth and improvements across the sector. One of the key supports this programme provides is an on-site resource efficiency assessment and a company specific action plan. This allows companies to understand the sustainability of their current operations and the opportunities for improvements. This programme complements Origin Green as it assists seafood processing companies to develop company specific sustainability actions which feed into and inform Origin Green plans and provides advice and support as companies implement key actions to transition to more sustainable operations.

A [sustainability toolkit](#), with a range of calculators, questionnaires, guidance documents, and informational materials is available for

seafood processors to use to support their Origin Green plans and to help with target setting and monitoring.

For wild fishery products, sustainability programmes such as the BIM-backed Fishery Improvement Projects (FIPs) demonstrate Ireland's commitment to achieving and maintaining sustainable fisheries. FIPs are a science-based approach to making continual improvements in the sustainability of specific fisheries. FIPs are a globally recognised means of assessing fisheries and identifying actions to improve the management and sustainability of these fisheries.

Fishery Improvement Projects take a stepwise approach to promoting sustainable fishery management. They are a practical, industry-led approach to making continual improvements in the sustainability of specific fisheries in an ever more demanding marketplace.

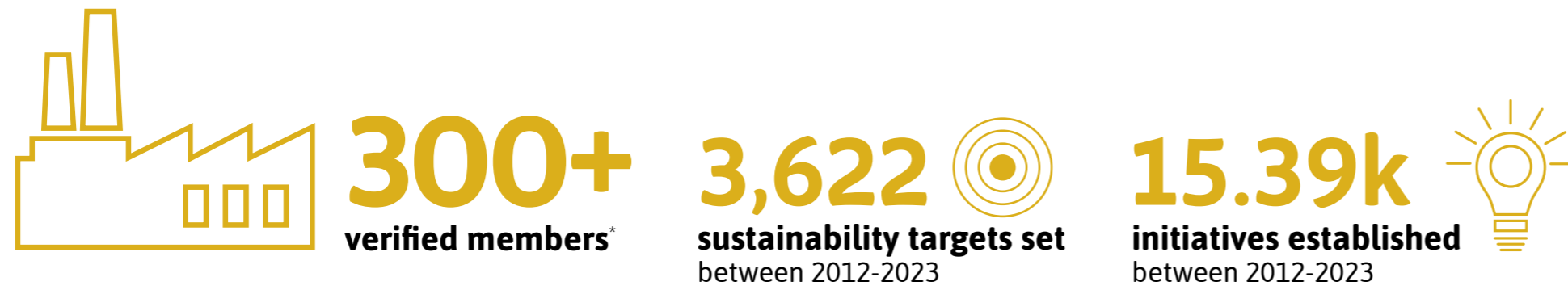
The credibility of FIPs comes from the fact that they are independently audited and validated on the progress towards sustainability that they are making. Examples of progress towards sustainability could be using more selective gear, collection of scientific data by fishermen, or the development of improved fishery management plans in a FIP.

There are currently nine species under BIM supported FIPs: Brown Crab, Prawn, Haddock, Saithe, Whiting, Hake, Albacore Tuna, Monk, and Megrin. There is a growing network of Irish FIP participants including BIM and the Marine Institute, fishing vessels, fishermen's co-ops and producer organisations, whitefish and shellfish processors, and retailers. Information on each of the FIPs is available either on the [Fishery Progress website](#) or on the individual [FIP websites](#).



Manufacturer Progress

Manufacturer Progress



At the manufacturing level, the Origin Green programme enables Irish food and drink companies to set and achieve a comprehensive multi annual sustainability plan. These plans are designed to assist members to reduce their environmental impact, achieve efficiencies in the daily operations, and align with the evolving sustainability needs and demands of global customers and consumers.

Within this framework, participating companies establish sustainability targets that are independently verified. They also provide annual updates on their progress in achieving both short and long-term goals. In turn, this empowers Origin Green member companies to effectively communicate key sustainability achievements to existing and potential customers, enabling them to meet this ever-increasing demand.

In July 2022, the fifth edition of the **Origin Green sustainability charter for food and drink manufacturers** was published, setting out updated rules for verified Origin Green member companies.

The updated charter set new entry requirements to ensure member companies are best placed to deliver strong sustainability plans. The introduction of an updated auditing protocol ensures that Origin Green continues to provide proof of member’s sustainability actions and meet the demands of customers at home and abroad. These changes resulted in a slight fall in the number of members between 2018 and 2020, however this recovered in 2022.

*300+ refers to the number of Origin Green verified members at the time of print. Data within this section covers 327 companies that were active members in 2022.



How Origin Green Works at the Manufacturer Level

PLAN DEVELOPMENT PROCESS

At the manufacturer level, companies commit to a mandatory mix of target areas specified by the Origin Green Manufacturing Charter. The mandatory areas, from which targets are set, form the basis of a business’s three to five year sustainability plan. The implementation of a robust sustainability plan with SMART (specific, measurable, achievable, relevant, time-bound) targets and distinct objectives is crucial to the efforts of the Irish food and drink industry in staying on top of the most pressing and emerging environmental and social challenges.

ORIGIN GREEN SUSTAINABILITY PLAN STRUCTURE

The structure of the Origin Green sustainability plan is strategically designed to empower companies to self-determine the exact actions necessary to advance their sustainability performance. Companies are required to set SMART sustainability goals under four predefined target areas: Raw Material Sourcing, Manufacturing Process, Social Sustainability, and Additional Targets. This ensures that member companies are well-equipped to address both emerging and persistent sustainability risks, enhance Ireland’s reputation as a source of sustainable food products, and meet the comprehensive demands of their national and international customers.

To demonstrate continuous improvement, member companies must identify a baseline year and set annual projected improvements for the period of the sustainability plan, with actual progress assessed on an annual basis.

Manufacturer Progress

How Origin Green Works at the Manufacturer Level Continued

INDEPENDENT VERIFICATION

Each member’s performance against their sustainability targets is verified to an independent standard annually to maintain the integrity and credibility of Origin Green. This task is undertaken by Mabbett, a leading global inspection, verification, testing, and certification company. Mabbett evaluates the progress of Origin Green member companies to ensure performance thresholds are consistently reached. At the same time, companies are audited against key legislative criteria to maintain high levels of ongoing compliance amongst Origin Green member companies.

MEMBER REMOVAL PROCESS

If an Origin Green member company has demonstrated an insufficient level of ongoing progress against the sustainability targets set and/or breached legislative or regulatory requirements, the programme independent verifiers will recommend whether the company should have its membership downgraded or, alternatively, recommend a conditional approval. Where a company’s membership has been downgraded, this action is typically taken in cases of severe underperformance against established targets. Conditional approvals, however, allow the member in question a defined period to closeout and/or resolve outstanding issue(s). This mechanism can be used, for example, in instances where more information is required by the independent verifiers, to allow the company to provide detailed justification and risk resolution in respect of the issues that have been identified.

TARGET AREAS

Origin Green member companies establish sustainability targets in four key target areas:

1 Raw Material Sourcing	2 Manufacturing Process	3 Social Sustainability	4 Additional Targets
Raw Materials and Suppliers <ul style="list-style-type: none"> Raw Material Certification Supplier Certification Supplier Sustainability Initiatives 	Energy/Emissions	Product Health and Nutrition	Biodiversity
Packaging	Water	Employee Wellbeing	Approved Sector Specific Target
	Waste	Community Engagement	
		Diversity and Inclusion	

RAW MATERIALS AND SUPPLIERS TARGET HIERARCHY

Within the Raw Materials and Suppliers target area, member companies are required, as is best practice, to first focus on their raw materials to ensure appropriate sustainability certifications are in place around procured produce and ingredients. As a member matures in this area, it will then move down the hierarchy to focus on the certifications of the suppliers themselves and will ultimately be encouraged, where feasible, to work directly with suppliers on sustainability initiatives. This approach ensures member companies are tackling the most at-risk area of their supply chains from the outset while overall driving continuous improvement.

Raw Materials and Supplier Target Hierarchy



Manufacturer Progress

How Origin Green Works at the Manufacturer Level Continued

TIERED MEMBERSHIP

To ensure that companies can implement resource-appropriate target requirements and to maximise the potential for successful implementation, a tiered membership structure based on annual revenue/turnover is now in place on the Origin Green programme. The five tiers of membership are outlined below.

ORIGIN GREEN CREDITS SYSTEM

Origin Green membership is achieved and retained through a credits or point-scoring system. This demonstrates a clear methodology for how sustainability target progress is evaluated on an ongoing basis.

ORIGIN GREEN TARGET PERFORMANCE SCORECARD

Origin Green sustainability targets are assessed and scored by the independent verifiers in line with a detailed target scoring methodology as outlined below.

Sustainability Target Performance	Credits Awarded	Target Grading
Target not attempted (no legitimate effort made to achieve target with no viable evidence of progress).	0	Fail
Target not achieved with a poor attempt made and little evidence of progress.	1	Unsatisfactory
Target may or may not have been achieved but a reasonable and clear effort has been made with clear supporting evidence.	2	Satisfactory
Target achieved with evidence the company has surpassed expectations.	3	Exemplary

TARGET SCORING METHODOLOGY

To determine whether a company attains sufficient sustainability credits annually to retain Origin Green membership, performance for each target is scored and then accumulated. At its simplest, a company must achieve a satisfactory grading across all the minimum targets within its membership tier. Companies are only scored on the minimum number of targets required for their membership tier annually.

Membership Tiers	Revenue/Turnover	Minimum Targets Required	Credits Required
Tier 1	>€250m	8	16
Tier 2	>€50m-€250m	7	14
Tier 3	>€10m-€50m	6	12
Tier 4	>€1m-€10m	5	10
Tier 5	>€100k-€1m	4	8

 <p>Tier 1 >€250m Revenue/turnover 8 Targets</p>	 <p>Tier 2 >€50m-€250m Revenue/turnover 7 Targets</p>	 <p>Tier 3 >€10m-€50m Revenue/turnover 6 Targets</p>	 <p>Tier 4 >€1m-€10m Revenue/turnover 5 Targets</p>	 <p>Tier 5 >€100k-€1m Revenue/turnover 4 Targets</p>
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Manufacturer Progress

GOLD MEMBERSHIP

Gold Membership acknowledges the efforts of companies which have achieved exceptional annual performance on their sustainability targets in the previous year, in areas such as raw material sourcing, water, emissions, waste reductions, and social sustainability based on the assessment of its independent verification authority, Mabbett.

Since its introduction in 2020, 234 Irish food and drink companies have been awarded Gold Membership for one year. This number has increased year on year over the past four years, highlighting the meaningful focus that companies are giving to their sustainability efforts in response to the urgency of climate change and the need for sustainable food production.

In 2023, a total of 97 companies were awarded Gold Membership for the year based on their 2022 performance.

Just two companies attained their fourth consecutive year of Origin Green Gold Membership - Butler's Chocolates in Dublin, and Tirlán in Kilkenny. The companies awarded Gold Membership in 2023 come from 21 counties and represent all sectors such as bakery and confectionery, beverages, dairy, eggs, frozen foods, grocery, snacks and chilled food, horticulture, meat, prepared foods, and seafood.



Sustainability Programme
GOLD MEMBER
2023



Manufacturer Progress

Origin Green Academy

Introduced in May 2023, the Origin Green Academy supports Irish food, drink, and horticulture businesses to develop industry leading sustainability talent and the skills required to achieve ambitious emissions reductions across the sector, accelerate their sustainability progress, and meet the expectations of global consumers and legislative requirements such as the Corporate Sustainability Reporting Directive (CSRD).

The Origin Green Academy provides a suite of supports to Origin Green member companies on a one-to-one, sector-specific, and programmes level basis. It integrates Origin Green's existing sustainability supports, which include over 20 sustainability guidance webinars held in conjunction with sustainability experts, companies, and partner organisations, seven in-depth sustainability topic guidance documents, and a range of marketing communications and supports. The Academy also provides a platform for Origin Green member companies and leaders to exchange innovative ideas and foster new thinking around the most pressing sustainability related challenges of today.

A key component of the Origin Green Academy is the introduction of food and drink sustainability specific training programmes called 'Pathway Programmes'. Bord Bia has partnered with Skillnet Ireland and the Sustainable Enterprise Skillnet to develop a series of sustainability training programmes for Origin Green member companies. These programmes are principally for Origin Green member company representatives who are responsible for developing their company's Origin Green plan.

Tailored to Origin Green members, these programmes focus on the sharing of best practice, highlighting the value of the member

network as a forum to discuss sustainability management challenges in an open and collaborative manner across organisational boundaries.

INITIAL PROGRAMMES

Pathways to Net Zero: This programme equips participants with the knowledge and know-how to empower them to adapt to the complex landscape of emissions and reporting requirements. Specifically, it provides participants with the necessary understanding to develop a master plan to complete the Origin Green emissions reporting and undertake the Corporate Sustainability Reporting Directive (CSRD) climate change reporting requirements. Throughout the programme, participants will have access to industry-led research, international best practices, standards, tools, and real-life case studies.

Pathways to Sustainable Packaging: This programme is designed to equip participants with the know-how to integrate sustainable and optimised packaging practices into their business activities. Taking a structured approach, the programme aligns emerging legislation requirements and targets with industry-led research and international best practices.

By completing this programme, participants will:

- Understand the key legislation and policy requirements in relation to the circular economy and sustainable packaging management.
- Identify business and financial drivers.
- Evaluate the current packaging portfolio using techniques such as Life Cycle Analysis and Cost/Benefit Analysis.
- Develop a stakeholder engagement plan for internal and external stakeholder communications and education.
- Create a sustainable packaging strategy including targets, KPIs and action plans for optimised packaging solutions.



ACADEMY

Manufacturer Progress

Leaders' Sustainability Acceleration Programme

In 2022, Bord Bia launched an executive programme in partnership with Smurfit Business School, University College Dublin (UCD) to accelerate sustainability capability at Board and C-suite level in Irish food, drink, and horticulture businesses. The Leaders' Sustainability Acceleration Programme was developed as Bord Bia reported that 80% of its client companies would like to receive more training for senior leadership teams to better understand and embed sustainability across their businesses. The programme focuses on senior members of organisations' leadership teams and helps to develop skills at board level and amongst senior management to build capability around sustainability and climate literacy while also helping them to establish sustainability as a key value proposition driver for their business. To date, over 76 leaders and board members from the food, drink, and horticulture industry have participated in the programme.



Senior leaders who completed the inaugural Leaders Sustainability Acceleration Programme in Autumn 2022.

MANUFACTURER SUSTAINABILITY PERFORMANCE UPDATES

Overview of Manufacturers' Targets

The following sections outline the targets and corresponding initiatives* established by verified Origin Green member companies since the last progress report. This covers data from 2018-2021, (compared to a 2017 baseline) which was reported to Bord Bia by Origin Green member companies throughout 2022 and processed in 2023. Only verified member companies are included. Members that were removed from the programme after September 30th, 2021, are not included within the figures for this report. Origin Green member companies are required to provide an annual review each year to demonstrate ongoing progress against established targets for the preceding calendar year. This annual review is subsequently reviewed by Bord Bia's independent verifiers at the manufacturing level of the Origin Green programme.

Under each target area, member case studies are included to show the type of target setting undertaken. These case studies are taken from Origin Green Gold Members for 2023 and is based on their 2022 performance.

1 Raw Material Sourcing

Raw material sourcing is a mandatory element of Origin Green at the manufacturing level. Verified member companies must establish a minimum of two targets in this target area in their sustainability plans, including one mandatory target relating to packaging. Companies are tasked with evaluating the main raw materials used in their operations to identify relevant targets that ensure sustainable sourcing of these raw materials. By incorporating this essential aspect into their business, Origin Green member companies can leverage their

purchasing power to mitigate risks, strengthen long-term supplier partnerships, and foster trust among stakeholders and customers. Verified Origin Green member companies are required to set a target in the following packaging related target area:

- Sourcing **certified sustainable packaging material**, recyclable materials, or reducing overall volumes of packaging.

Verified Origin Green member companies are also required to set one target from either of the following three areas:

- Sourcing raw materials with recognised sustainability certifications.
- Sourcing from suppliers with recognised sustainability certifications.
- Developing sustainability initiatives with existing or new primary producers.

Number of Raw Material Sourcing Targets to date



Raw Materials and Supplier Target Hierarchy



* The total number of initiatives refers to the number of initiatives that verified member companies set out in their sustainability plans.

Manufacturer Progress

RAW MATERIAL/ SUPPLIER CERTIFICATION

Key Metrics:

Supplier Certification Initiatives (2020 and 2021):

554 undertaken

Why is this target area included?

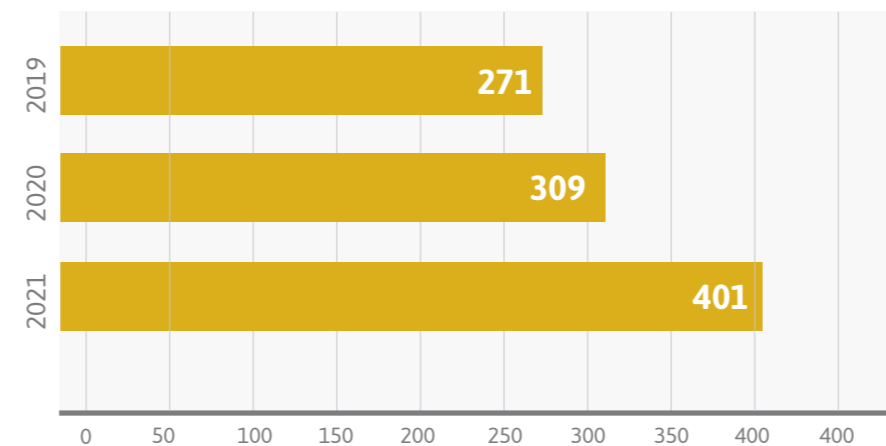
Consumers are growing more mindful of the environmental impact associated with the food and drink products they purchase and are looking for assurance that their choices align with sustainable principles. Choosing raw materials and suppliers with recognised sustainability certifications is an effective strategy for navigating this complex area.

EU policymakers are prioritising the provision of credible sustainability information for food products to consumers. Within the Farm to Fork Strategy, the EU aims to establish a comprehensive labelling framework in 2024 that, in conjunction with other pertinent efforts, encompasses nutritional, climate, environmental, and social dimensions of food items.

Progress Update

In the reporting period, 643 targets were set by companies. Origin Green member companies set 401 targets related to recognised sustainability certifications and 242 related to raw material certification in 2021. The most prominent certifications seen in the sustainable procurement policies of Origin Green member companies at a domestic level are Bord Bia's Sustainability and Quality Assurance Schemes and Origin Green membership. International schemes include Fairtrade, Roundtable on Sustainable Palm Oil (RSPO), Marine Stewardship Council (MSC), SEDEX and organic certification schemes.

Number of Supplier Certification Targets (2019-2021)



SUPPLIER SUSTAINABILITY INITIATIVES

Key Metrics:

Supplier Sustainability Initiatives (2020 and 2021):

85 undertaken

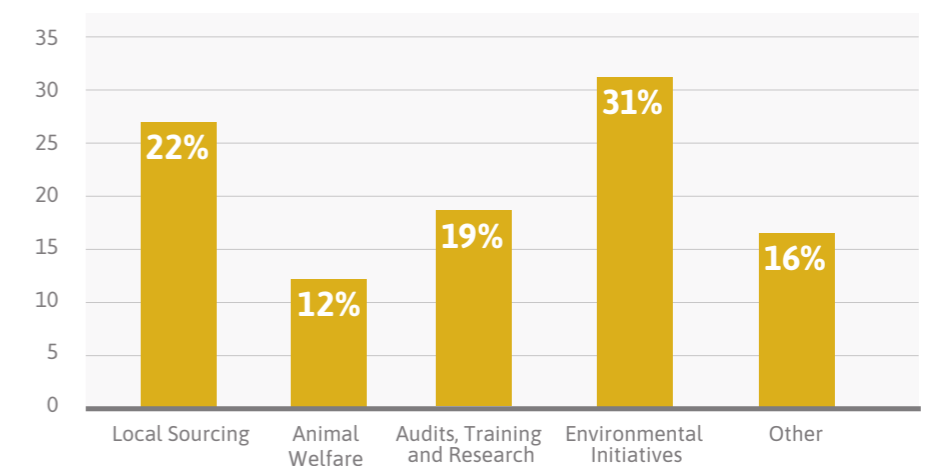
Why is this target area included?

In addition to sourcing raw materials that are certified by recognised certification schemes, verified Origin Green member companies can also set targets to develop sustainability initiatives with existing suppliers. This enables members to strengthen their supplier partnerships by demonstrating a commitment to invest in them, as well as having a positive impact on the sustainability credentials of their supply chain.

Progress Update

Although supplier certification remains the dominant raw material target area, Origin Green member companies have set 59 targets directly relating to supplier sustainability initiatives. These were mainly linked to environmental initiatives (31%) and local sourcing (22%).

Types of Targets by % - Supplier Sustainability Initiatives - (2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

O'BRIEN FINE FOODS

(Gold Member 2023)



About the Company

Since being established in 2000, O'Brien Fine Foods have grown to become one of Ireland's leading suppliers of premium cooked meats. Operating three manufacturing sites across Ireland and the UK, the company employs over 600 workers and supplies both branded and private label ranges to national and international retailers.

O'Brien Fine Foods are committed to their values of care, commitment, and trust which are adopted throughout their full enterprise. Through innovation and new product development, the business aims to meet ever-changing customer demand while staying true to their mission to make the best choices for their people, the climate, and their customers.

Spotlight Target Area: SUPPLIER SUSTAINABILITY INITIATIVES

Within the overall target area of raw materials and suppliers, O'Brien Fine Foods have made significant headway regarding their dedicated supplier sustainability initiatives. Influencing their own suppliers to accept more sustainable business practices, the member has developed and issued their annual supplier questionnaire which reflects sustainability.

In 2022, O'Brien Fine Foods achieved a 28% increase in suppliers signing up to their in-house responsible sourcing policy, exceeding their milestone target by 12%. The increased engagement with suppliers resulted in higher transparency and accountability within the supply chain and positively impacted the collaborative nature of sustainability in the space.



CASE STUDY 2

MORAN'S MEGA JAM

(Gold Member 2023)



About the Company

Founded in 2010 by Claire and Kieron Moran, Moran's Mega Jam now produces a large variety of jams, marmalades, chutneys, and relishes following perfected recipes after years of experimenting in the catering industry. The Moran's have built up valuable relationships within the industry, now selling their products through artisan shops, craft butchers, and Supervalu stores across Ireland. The company has always followed the philosophy of only using the finest, freshest, and whenever possible seasonal ingredients, sourcing them predominantly from local growers and farmers. They do not use processed foods or artificial flavouring in their products, trusting in the natural flavours of their ingredients.

Spotlight Target Area: RAW MATERIAL CERTIFICATION

In line with their business values, Moran's Mega Jam have looked to increase the amount of sustainability certified raw material they source – especially focusing on the fruit and vegetable raw ingredients for their products. *In 2022, they exceeded their Origin Green target number of suppliers who are certified by the Bord Bia Sustainable Horticulture Assurance Scheme (SHAS). They're now 14% ahead of their target.* The success was achieved through diligently checking ingredient suppliers' sustainability certifications and ordering more from suppliers who had certifications (instead of non-certified suppliers). For example, they worked closely with McCormack Family Farms, another Origin Green member (Gold Member 2022, 2023), who supply Moran's Mega Jam with basil and spinach.

Increasing sustainable certification in their supply chain has resulted in improved credibility and trust that customers can place on the company's commitment to sustainable production. It also evidences the member's responsible business approach to developing a green supply chain, looking beyond their own production implications.



Manufacturer Progress

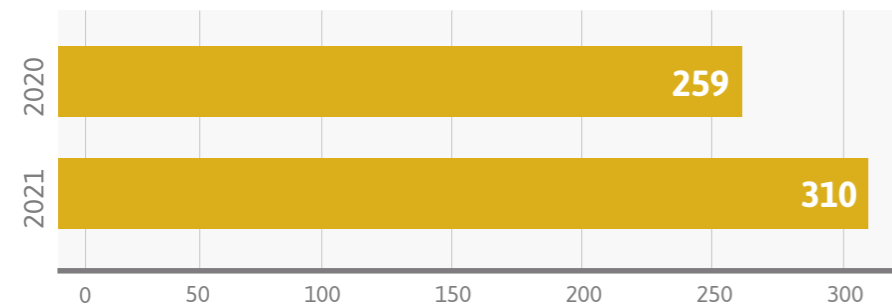
PACKAGING

Key metrics:

Packaging Initiatives (2020 and 2021):

474 undertaken

Number of Packaging Targets (2020-2021)



Why is this target area included?

Based on research carried out by Bord Bia in 13 markets in 2021, sustainable packaging and plastics emerged as a prominent concern for customers.

Procurement professionals cited the topic the most when asked which sustainability topics would become more important to the business in the next three years. This is driven by the fact that 30% of consumers consider sustainable packaging a pivotal factor when grocery shopping.*

Furthermore, there is an increasing number of initiatives specifically addressing plastics and packaging at national and EU level, such as

* Bord Bia's Global Sustainability Research 2021

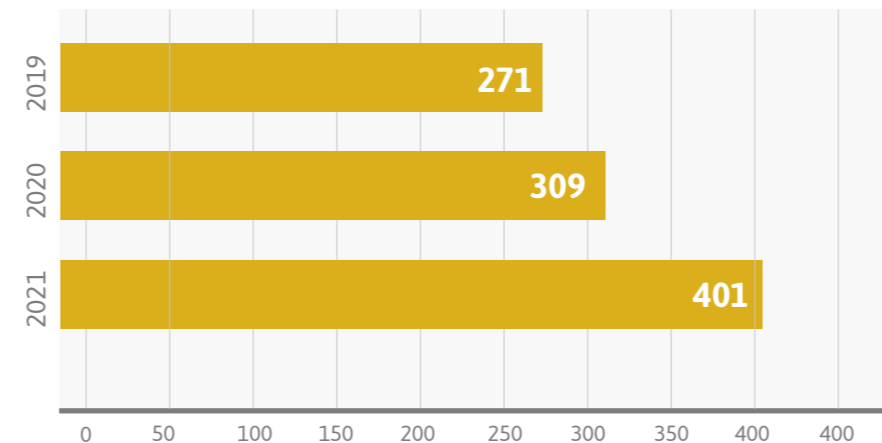
the Single Use Plastics Directive, which came into effect on July 3rd, 2021 in Ireland, and the EU's Circular Economy Action Plan, which includes a wide range of initiatives targeting packaging and plastics. For these reasons, packaging is now a mandatory target area for all verified Origin Green member companies.

Progress Update

Since this target became mandatory, there has been a significant increase in number of companies setting targets in this area, with 324 companies setting targets in 2021 versus 259 in 2020.

In 2021, many targets related to recyclable/compostable packaging (44%) and packaging reduction (31%). There was also a significant increase in the number of targets set to switch to biodegradable and compostable packaging. While these targets will have positive environmental impacts, Bord Bia would like to see member companies reflecting the "reduce, reuse, and recycle" waste hierarchy, by setting more targets focused on reducing packaging and, where possible, reusing packaging.

Number of Supplier Certification Targets (2019-2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

CLONAKILTY FOOD CO

(Gold Member 2022, 2023)



Sustainability Programme
GOLD MEMBER
2023

About the Company

Clonakilty Food Co has a longstanding history in producing and selling high-quality meat products in the Irish market. The company started selling home-made black pudding at one butcher shop in Cork in the 1800s and has now grown into a vast range of products enjoyed throughout the entire country.

Their custom-built production facilities opened their doors in 2017. Clonakilty Food Co sells their products, now including vegetarian alternatives, to all major national retailers, local butcher shops, and directly to Ireland’s leading restaurants and hotels. The family-run business is valued across the country for their focus on quality which they achieve by always staying true to their uncompromising principles – and their secret recipes that started their success.

Spotlight Target Area: PACKAGING

Within their Origin Green Plan, Clonakilty Food Co aimed to improve their product packaging, with a key focus on reducing the use of plastic. **In 2022, the company increased the share of recyclable packaging across their product range by 73% of all packaging per unit produced.**

In 2022, Clonakilty Food Co completed two key initiatives to achieve this improvement. Firstly, they worked with their suppliers to switch all remaining black plastic, which is non-recyclable, to clear plastic alternatives. Secondly, a review of all their packaging labelling was conducted, resulting in a better understanding of improvement opportunities for their next Origin Green plan.



CASE STUDY 2

BANTRY BAY PREMIUM SEAFOODS

(Gold Member 2022, 2023)



Sustainability Programme
GOLD MEMBER
2023

About the Company

Bantry Bay Premium Seafoods grow organic blueshell mussels in the 35km long ria of Bantry Bay, a long inlet of the Atlantic Ocean, off the coast of southwestern county Cork, Ireland. Founded by Bob, Paudie, and Brian Murnane, the family-run company follows the centuries-old mussel harvesting heritage of their local community. Next to growing and harvesting the mussels, the company has a processing facility in Gearhies, Co. Cork, where the seafood is safely cleaned, weighed, sorted, cooked, and packed for the foodservice, industry, and retail markets across the world.

Employing 42 dedicated people from the surrounding area, Bantry Bay Premium Seafoods is embedded deeply within their local coastal community. Their love for nature builds a solid foundation for the natural techniques employed throughout the farms, where mussels are grown and nurtured on biodegradable cotton ropes. Once fully grown and processed, the high-quality products are enjoyed throughout the world, from Northern Europe to Asia.

Spotlight Target Area: PACKAGING

Within their sustainability plan, Bantry Bay Premium Seafoods has set targets to increase the use of recyclable packaging across their production. Their overarching approach is about changing packaging materials and minimising the number of packaging components used for their packaging. **In 2022, this led to a 20% increase in recyclable packaging compared to the previous year.**

In addition, the business has commissioned Pembroke Alliance, a specialist manufacturing consultancy, to conduct a LEAN study on the entire business that also included a study of additional sustainable packaging opportunities the company could plan to implement in the future as part of their Origin Green plan.



Manufacturer Progress

2 Manufacturing Process

The production of food and drink is a resource-intensive process, with the use of resources such as energy and water potentially causing adverse environmental consequences. Hence, a fundamental core element of the Origin Green programme is to ensure that verified member companies operate their facilities in a sustainable manner. Verified member companies are required to set targets in their sustainability plans focused on reducing the environmental impact of their own manufacturing processes. These targets fall under four areas (2012-2023):



The number of targets that member companies are required to set is dependent on the size of their company (see [Origin Green Tiered System](#)).

ENERGY

Key metrics:

Energy Initiatives (2020 and 2021):

554 undertaken

Average Reduction in Electricity Use per Unit of Output (2021 vs. 2017; n=57): **-8.2%**

Electricity Usage per Unit of Output (2017 vs. 2021):

- Tier 1 and 2 Members: **-12%**
- Tier 3, 4 and 5 Members (SMEs): **-7.8%**

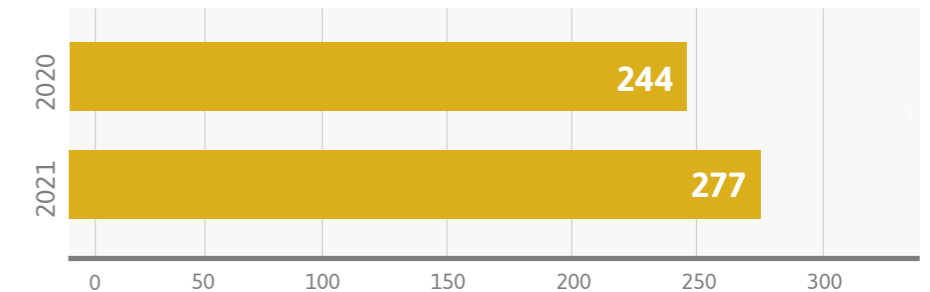
Why is this target area included?

Food and drink manufacturing is an energy intensive activity. The industrial activities related to food systems require an estimated 26% of the EU’s energy consumption. Consequently, the implementation of programmes aimed at reducing energy usage and investing in renewable energy sources is an indispensable component of the Origin Green charter.

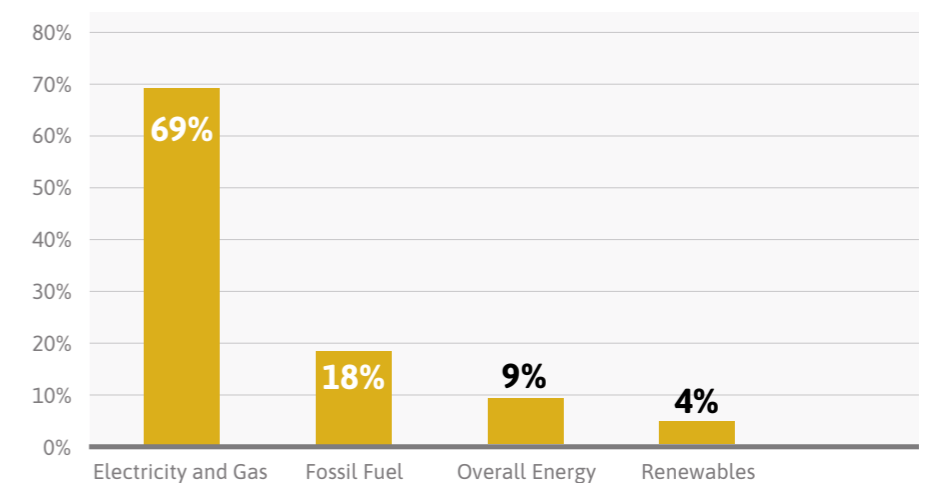
Progress Update

In the reporting period up to the end of 2021, verified member companies set 277 energy related targets, resulting in a total of 168 initiatives. Most initiatives were efficiency-based, focusing on reductions in electricity and gas (69%), and fossil fuels (18%). While these reduction efforts are important, Bord Bia is now encouraging more renewable energy targets to be set by members.

Number of Energy Targets (2020-2021)



Types of Targets by % - Energy (2021)



Manufacturer Progress

Target Example

CASE STUDY 1

THE PLANT-IT FOOD COMPANY

(Gold Member 2023)



Sustainability Programme
GOLD MEMBER
2023

About the Company

Established in 2019, The Plant-It Food Co. are a rapidly growing manufacturer of delicious plant-based products. It is a family-owned business with a nimble team including chefs and food scientists creating tasty solutions that appeal to a wider audience of conscious consumers. Their range offers plant-based options for every meal occasion throughout the day including meat-alternative and veg-forward products along with gluten free ready meals for busy consumers seeking no compromise on time or taste. All products are created with positive nutrition in mind in their BRC accredited facility based in Dublin. Using their breakthrough proprietary technology, the company works with novel structured proteins to deliver well-balanced texture with no compromise on experience. They offer retail and foodservice ranges to customers in Ireland, UK, US, and Canada.

Spotlight Target Area: ENERGY

In 2022, which was their first year as a verified member of Origin Green, *The Plant-It Food Co. targeted improved energy efficiency across their manufacturing site, substantially reducing their energy usage per unit produced by 53%, placing them well-ahead of their milestone target for the year.* They mainly credit increased production efficiencies across their facilities for their success, highlighting a modified fry line setup that allows for a faster throughput of products. Regular internal monitoring and measuring exercises have been implemented, which will highlight further potential savings.

Consequently, the Plant-It Food Co. increased their overall energy efficiency which puts them on a path for success for the rest of their Origin Green plan.



EMISSIONS

Key Metrics:

Emissions Initiatives (2020 and 2021):

107 undertaken

Emissions Usage per Unit of Output (2021 vs. 2017; n=14):

- All members who had an emissions target in 2017 and reported again in 2021. **-36%**

Why is this target area included?

Climate change poses complex and varied challenges for the global food and drink sector. It is expected to cause disruptions in global food and drink supply chains, leading to heightened volatility in food commodity markets and an increase in food insecurity. In response to these challenges, suppliers are being urged by global food and drink buyers to formulate robust targets for reducing emissions.

Therefore, it is increasingly important for Origin Green member companies to establish ambitious emissions targets to demonstrate their commitment to customers. To meet this market demand, from 2022 carbon emissions targets became mandatory for Origin Green tier 1 and 2 member companies. To help companies achieve this, Bord Bia developed a **Pathways to Net Zero** guidance document in 2021.

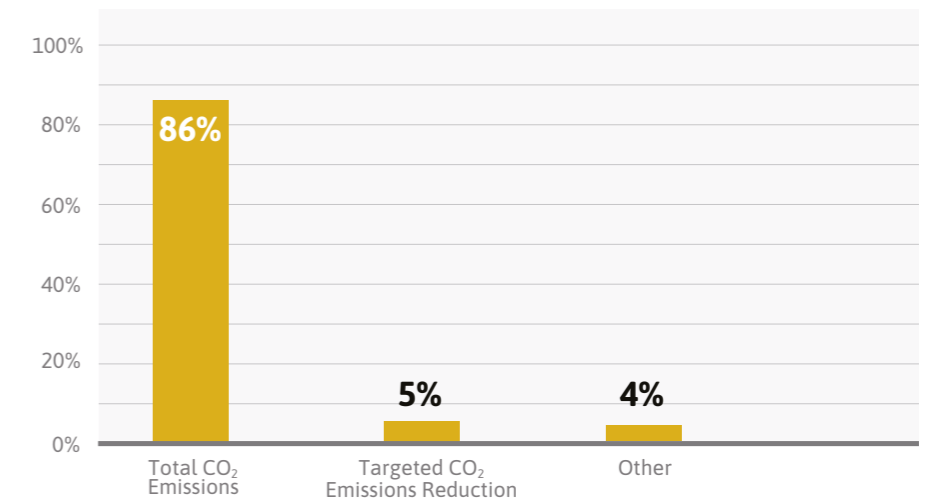
Science Based Targets (SBTs) are fast becoming the quality label of climate action and are a critical way for Irish food, drink, and horticulture companies to demonstrate emissions reduction credibility to their customers, investors, employees, and regulators. However, the process for setting SBTs can be complex, and delivery on them can be challenging for teams with limited capacity. In 2022, Bord Bia partnered with Accenture to deliver a series of virtual learnings.

The **interactive webinar learning series** guided Origin Green member companies through the process of setting and delivering on SBTs and so helped members understand how to effectively communicate these targets to the market and their stakeholders.

Progress Update

Initial progress within this target area is encouraging as 14 companies, with data from 2017-2021, have set emissions targets which have resulted in a 36% decrease in emissions usage. In 2022, carbon emissions reduction was a mandatory target for tier 1 and 2 members, with 47 targets set by member companies. These were predominantly related to total CO₂ emission reductions (86%), but there were also some relating to targeted CO₂ emissions reductions (5%) for specific areas within business operations.

Types of Targets by % - Emissions (2021)



Manufacturer Progress

CASE STUDY 1

Target Example

ABP IRELAND (Gold Member 2021, 2022, 2023)

About the Company

Established in 1954, ABP Ireland is part of the wider ABP Food Group. The company is recognised globally for supplying high-quality beef for the retail, foodservice, and manufacturing sectors, with all beef products supplied fully DNA traceable directly to the farm of origin. ABP is a fully integrated agri-business, meaning the processing of its beef is supported by three complimentary divisions: a renewables division, a proteins division, and a pet foods division. This unique structure ensures that products are processed in the most sustainable manner possible. ABP's vision is to be the best at what it does, wanting to lead on quality, efficiency, traceability, and sustainability and continue to develop, research, innovate, and invest in every area of its business so that its future will be as distinguished as its past.

Spotlight Target Area: EMISSIONS

In 2022, ABP Food Group achieved a monumental milestone in its pursuit of environmental sustainability by recording a 64.3% reduction in Scope 1 and 2 emissions. This substantial decrease, from 31,809 tCO₂e in 2016 to 11,359 tCO₂e in 2022, exceeded all expectations. This achievement was primarily driven by the strategic procurement of renewable electricity, completely eliminating Scope 2 emissions. Furthermore, the company integrated multiple efficiency projects targeting processes reliant on thermal energy, such as the optimisation of washdown procedures across the Group in 2022.

ABP's dedication to sustainability extends to Scope 3 emissions, where they achieved a significant 27.5% reduction, surpassing their target. This accomplishment was made possible through rigorous methodology and calculations, leveraging the best available data on conversion factors applied to beef data. In addition, the company's proactive engagement with the Science-Based Targets initiative (SBTi) and the Carbon Trust to align with the latest global warming scenarios demonstrates ABP's commitment to leading the food industry in combating climate change.



WASTE

Key Metrics:

Waste Initiatives (2020 and 2021):

458 undertaken

Why is this target area included?

Reducing waste in food and drink production has multifaceted benefits, including environmental preservation, resource efficiency, economic advantages, legal compliance, enhanced reputation, and long-term food security. These factors collectively contribute to a more resilient and sustainable food and drink industry in Ireland. Therefore, verified Origin Green member companies are required to develop waste targets aimed at prevention, minimisation, or recycling.

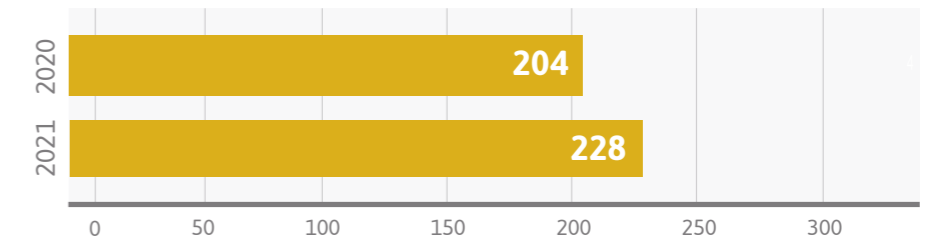
Under the waste target, addressing the food waste challenge is a key priority for members. Food waste represents a substantial drain on global natural resources, as the cultivation, processing, and transportation of food consume significant quantities of land, water, energy, and fertiliser. Beyond the resources that are lost, there is also the contribution to climate change that this waste creates. Within member's waste target, they will identify if food waste occurs in their operations, and if so will seek to integrate company-wide actions to increase food waste prevention across their operations.

Progress Update

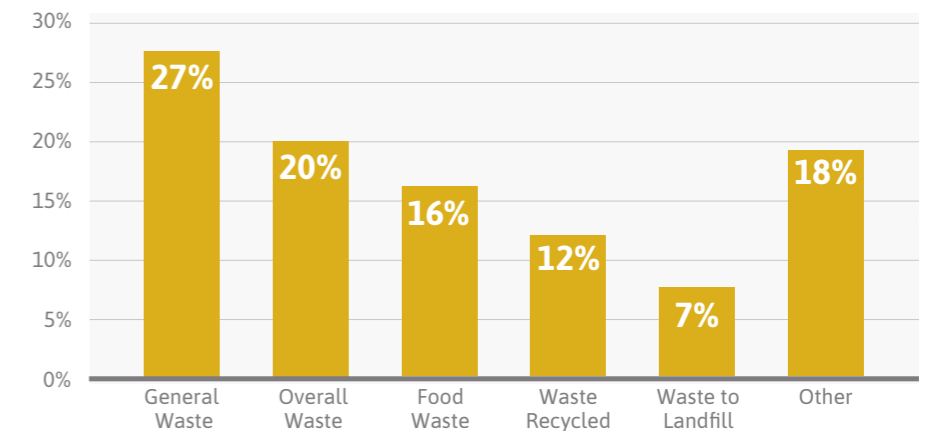
Targets related to general waste (27%) and overall waste (20%) remain the main target areas for member companies in this category. In March 2023, Bord Bia introduced a **Pathways to Food Waste Prevention** guidance document to assist verified Origin Green member companies in developing food waste targets within their sustainability plan. Awareness and action on food waste has

continued to grow, with 36 targets set in relation to food waste. As members are growing increasingly efficient in food waste management, the number of targets in this area may begin to plateau. There is, however, scope for increased uptake in by-product re-use innovation targets. This ties into wider efforts to increase the circularity of the Irish food and drink sector.

Number of Waste Targets (2020-2021)



Types of Targets by % - Waste (2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

MIENA'S NOUGAT

(Gold Member 2020, 2023)



Sustainability Programme
GOLD MEMBER
2023

About the Company

Miena's Nougat was founded over 10 years ago by Miena Rust in her home kitchen. Now operating from a small factory just outside its original location in Co. Wicklow, their growing team creates tasty, hand-made nougat from fresh ingredients and regularly develops new and exciting flavours. Experimenting with imaginative ingredients like pistachios, passion fruit, or rhubarb, Miena's Nougat find inspiration in the beautiful Irish nature. Now, their products are enjoyed not only across Ireland but also by nougat lovers in Europe, the US, and Asia.

Spotlight Target Area: WASTE

Miena's Nougat performed exceptionally well regarding their food manufacturing waste reduction target in 2022. **The member exceeded their milestone target for reduction of offcut food waste by 30%, now utilising 80% of their offcuts for a newly established dedicated product range.**

To achieve this reduction, Miena's Nougat developed a new product. As part of their new process, they coat their offcut products with chocolate and use left-over raspberry powder for decorations. Any off cuts not processed for the new range due to using bespoke client flavours were donated to a homeless shelter in the area.

The company's efforts significantly improved their raw materials utilisation, reduced the environmental impact of their food waste, and promoted the positive message to enjoy the entire product no matter its shape.



CASE STUDY 2

FINNEGAN'S FARM

(Gold Member 2022, 2023)



Sustainability Programme
GOLD MEMBER
2023

About the Company

Finnegan's Farm are a fifth-generation family farm now in the hands of Paul and Joe Finnegan. Based in Navan, Co. Meath, the farm proudly owns every step of the potato growing process from planting to cooking and delivering finished potato products. They are significantly growing year-on-year and are now able to employ over 50 locals between farm and kitchen facilities.

In addition to the potato fields, Finnegan's Farm also grow other crops such as barley, beans, and sprouts on up to 3,000 acres of land each year. This makes them one of the leading suppliers of supermarkets nationwide. Finally, the farm is home to a herd of 160 suckler beef cows who make the farm complete.

Spotlight Target Area: WASTE

Finnegan's Farm aimed to reduce the waste produced on-site, and in 2022 they decreased the amount of general and recycling waste per unit produced by 58% compared to their baseline year.

To achieve this reduction, the business built new facilities to store bulk-bought materials which reduce the amount of incoming packaging waste as well as transport emissions amongst other initiatives. As a result, Finnegan's improved their overall efficiency, reduced their carbon footprint, and strengthened their commitment to sustainable business practices across their production.



WATER

Key Metrics:

Water Initiatives (2020 and 2021):

328 undertaken

Average Reduction in Water Use per Unit of Output (2021 vs. 2017; n =66):

-8.8%

Water Usage per Unit of Output (2021 vs. 2017):

- Tier 1 and 2 Members: **-17%**
- Tier 3, 4 and 5 Members (SMEs): **-4.29%**

Why is this target area included?

Water plays a pivotal role in the production of food and drink, with agricultural activities being the primary consumer of water within the agri-food sector. However, manufacturing processes also significantly contribute to water consumption.

Bord Bia's Global Sustainability Outlook insight study has further underscored the importance of water as a critical sustainability concern for Agenda Setters, including external thought leaders and NGOs who are actively shaping the sustainability agenda. As a result, Origin Green member companies are obligated to incorporate objectives aimed at reducing water usage and enhancing wastewater management within their sustainability plans. In August 2022, Bord Bia introduced its **Pathways to Water Conservation** guidance document, offering advice and assistance to Origin Green member companies to help them formulate water conservation targets as part of their sustainability plans.

Progress Update

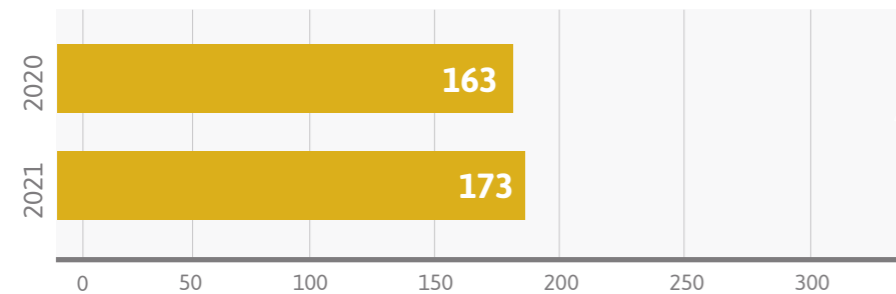
Water use reduction is the core focus in this area, making up 94% of member companies' targets. Other target areas include water use maintenance (2%), water recycling (3%), and water quality (1%). These account for a much smaller number of targets and there is an opportunity for verified member companies to pay increased attention to these areas in their future sustainability plans.

Manufacturer Progress

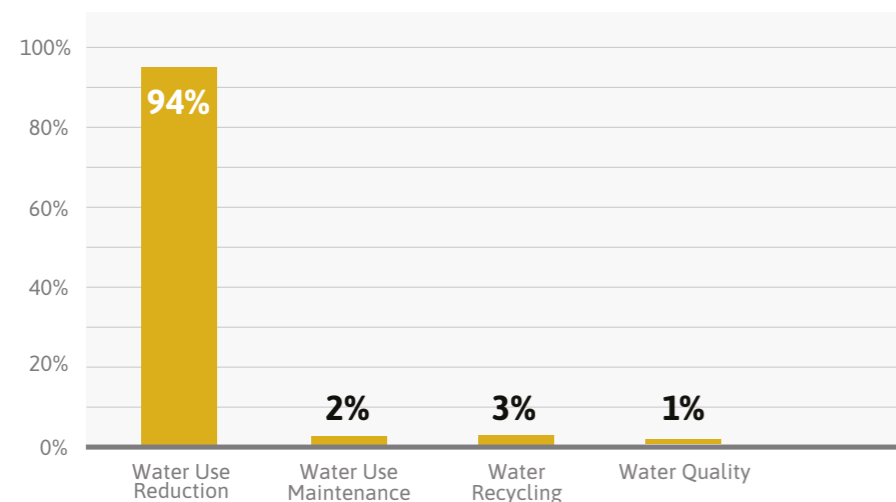
WATER continued

More generally, Bord Bia would like to see more Origin Green member companies setting targets for water stewardship. **Irish Water's Water Stewardship Programme** has been identified as an ideal avenue through which members can include water stewardship in their sustainability programmes.

Number of Water Targets (2020-2021)



Types of Targets by % - Water (2021)



Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

BUTLER'S CHOCOLATES

(Gold Member 2020, 2021, 2022, 2023)

About the Company

Established in Dublin in 1932, Butlers Chocolates is a family-owned company, dedicated to the craft of exceptional chocolate-making. Butlers Chocolates only use sustainably sourced cocoa to produce their wide range of award-winning chocolates and confectionery. Butlers Chocolates are available in 30+ countries and many airports around the globe. Excellence in product quality, taste, packaging, and service are at the heart of the Butlers Chocolates philosophy. The company has built a unique culture of teamwork and loyalty. Butlers Chocolates is also known and loved throughout Ireland, and beyond, for their eponymous retail concept - Butlers Chocolate Café, an innovative experience personifying the Butlers brand, in over 30 locations worldwide.

Spotlight Target Area: WATER

Over the course of their five-year Origin Green plan, Butlers Chocolates targeted a decrease in water usage per unit output at their chocolate factory in Clonsaugh. **In 2022, their water intensity per unit output decreased by 18.6% compared to the previous year, a total of 22.9% improvement from the baseline year.** Butlers implemented several initiatives for sustainable water management designed to improve water efficiency and reduce water waste, including the installation of a leak detection system, water conserving fixtures, and new cleaning equipment that increased water efficiency. They also undertook staff training with a focus on improving awareness of water waste. As a result, Butlers Chocolates improved their water efficiency in the factory and strengthened their commitment to sustainable practices during chocolate production.



Sustainability Programme
GOLD MEMBER
2023



CASE STUDY 2

SAM DENNIGAN & CO.

(Gold Member 2021, 2022, 2023)

About the Company

Over the past 37 years, Sam Dennigan and Co. UC have grown to become one of Ireland's leading agri-businesses. The family-run company is now in the hands of the two brothers, Sam and Joe Dennigan, who employ 700 motivated people striving to provide the best possible services to their customers. The company's core values of tradition, loyalty, and hand-on experience are woven into the entire business, from farm to customer. Built on long-standing partnerships with their customers and suppliers, Sam Dennigan and Co. UC handle the full range of fresh produce, grown predominantly on Irish farms. They supply retailers and wholesale in Ireland and Europe, as well as working with foodservices and processing companies directly.

Spotlight Target Area: WATER

Sam Dennigan and Co. UC use their on-site groundwater well as their main water source, mainly to wash potatoes. **Aiming to reduce their water usage by 15% by 2025, the company has exceeded their milestone target for 2022 by 10%.** The member has initiated a new major project to build a new rainwater recovery system which will further advance their reduction in the coming years. Their team completed weekly inspections of their potato washers to allow quick response times in case of leaks that could result in increased water usage.

Consequently, they reduced the pressure on their local groundwater supply which is increasingly important with numerous heat spells impacting groundwater levels. Notably, the member also worked on the installation of an on-site wastewater treatment facility to improve the quality of the water discharged from their processing facility.



Sustainability Programme
GOLD MEMBER
2023



Manufacturer Progress

3 Social Sustainability

Social sustainability constitutes one of the three fundamental dimensions of sustainability, alongside environmental and economic considerations, with a focus on recognising and mitigating business impacts on individuals.

Social sustainability is integrated into the UN SDGs, notably SDG 3 'Good health and well-being', and SDG 5 'Gender equality' champion social sustainability issues. The EU's Farm to Fork strategy also incorporates a range of initiatives aligned with social sustainability principles, encompassing aspects such as promoting healthier diets, ensuring food affordability, and safeguarding the rights of workers.

Within the Origin Green charter, social sustainability is the third pillar of verified member companies' sustainability plans. Depending on the company's size, member companies must set targets in their sustainability plans in the following areas:

- Community Engagement
- Employee Wellbeing
- Product Health and Nutrition
- Diversity and Inclusion

Number of Social Sustainability Targets (2012-2023)



COMMUNITY ENGAGEMENT

Key Metrics:

Community Engagement Initiatives (2020 and 2021):

411 undertaken

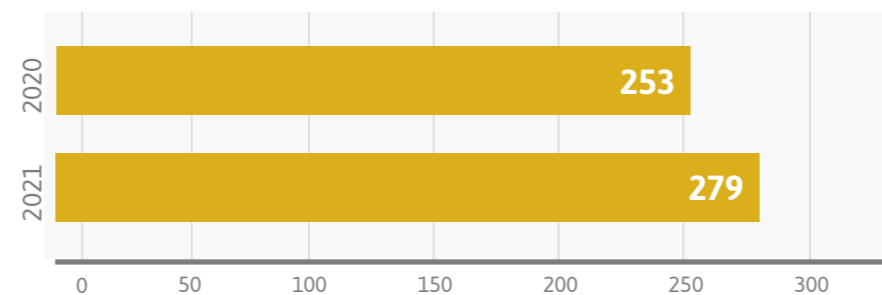
Why is this target area included?

Engagement initiatives within the community serve as a means for corporations to actively connect with and aid their local communities. These involvement endeavours encompass a broad range of activities, ranging from sponsoring school functions and sports competitions to participating in biodiversity projects, offering aid to regional charitable organisations, engaging with schools to provide business management training or student mentorship, and contributing to community literacy and well-being programmes.

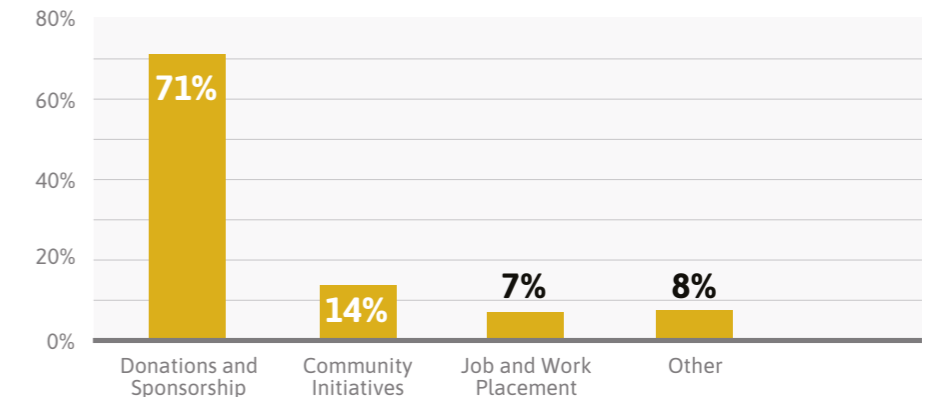
Progress Update

Many targets set by verified member companies in this area were related to donations and sponsorships. In total, 279 targets were set in this area, accounting for 71% of all community engagement targets. Other target areas include community initiatives (14%), job and work placements (7%), and educational tours.

Number of Community Engagement Targets (2020-2021)



Types of Targets by % - Community Engagement (2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

NIK'S TEA

(Gold Member 2022, 2023)

About the Company

Nik's Tea specialise in blending high-quality, organic herbal teas. Since launching their brand in 2013, the business now supplies over 500 customers across Ireland, including health stores, fine food stores, supermarkets, and the foodservice sector. With a passion for innovation and excellence, they moved to a purpose-built warehouse in Greenogue Business Park in 2019, where they develop new loose-leaf teas and host engaging community events. Nik's Tea is well-regarded in the Irish tea industry for their unwavering commitment to quality and sustainability. They have expanded their reach through an online shop, enabling customers from Europe and the US to conveniently purchase their teas year-round.

Spotlight Target Area: COMMUNITY ENGAGEMENT

Alongside their environment-focused initiatives, Nik's Tea made significant improvements in their community engagement target. **They doubled their milestone target for supporting intern placements, by employing two interns in 2022.** This activity supports learners in the early stages of their careers, providing the interns with skills in sustainable business practices. In addition, Nik's Tea supported five community events around the relevant themes of gut health, nutrition, and well-being. Amongst the initiatives were the support of a zero-waste store, supplying a local roadshow, and relevant well-being workshops, and promotion of campaigns for the importance of public libraries. Consequently, the member strengthened their commitment to promoting health and well-being in their community and built trust in the opportunity to lead a zero-waste lifestyle.



CASE STUDY 2

WILD ATLANTIC SHELLFISH

(Gold Member 2023)

About the Company

Built on their history as a marketing company for oyster farmers in Sligo Bay, Wild Atlantic Shellfish have grown to encompass all areas of oyster production, from hatchery to grading and packing. The three collaborating businesses at the heart of Wild Atlantic Shellfish are all family-run, sharing a strong ethos of loyalty to the local farming traditions. The location of Sligo Bay with multiple river outlets provides excellent conditions for Wild Atlantic Shellfish to grow gigas oysters with genetic traceability of over 40 years. The business is well-known for the consistent high-quality of their products, supplying an oyster-loving clientele across five continents including growing markets in Europe and Asia.

Spotlight Target Area: COMMUNITY ENGAGEMENT

A proud member of the Sligo community, Wild Atlantic Shellfish sustain a close relationship with the local people. **In 2022, the business has exceeded their milestone targets for both increased charitable donations and provision of work placements by over 100%.** The member is a donor for two charities close to the hearts of their workforce: Concern and Médecins Sans Frontières, enabling them to continue meaningful humanitarian aid work across the globe. Additionally, Wild Atlantic Shellfish are proud supporters of Bord lascaigh Mhara's learning experience programme 'The Arc'. They work with schools nationwide to build a portfolio of learning experiences to spark interest in aquaculture in younger generations. In the past year, Wild Atlantic Shellfish provided six individuals with over 2,000 hours of work experience.



EMPLOYEE WELLBEING

Key Metrics:

Employee Wellbeing Initiatives (2020 and 2021):

256 undertaken

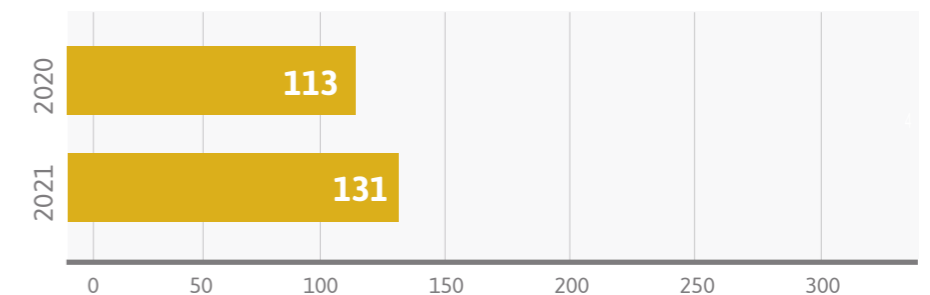
Why is this target area included?

The connection between economic growth and well-being has long been well-established. However, in the past number of years, the pandemic brought employee well-being and mental health into sharper focus, particularly due to remote working and other safety measures that disrupted traditional support systems. This highlights the importance of incorporating employee well-being as an essential component of the social sustainability pillar within the sustainability plans of Origin Green member companies.

Progress Update

Companies set 131 employee well-being targets in 2021. The most common of these were career development which accounted for 48 targets, followed by healthy living programmes (41 targets). General wellbeing initiatives and health screening and awareness were also popular areas where verified member companies set targets.

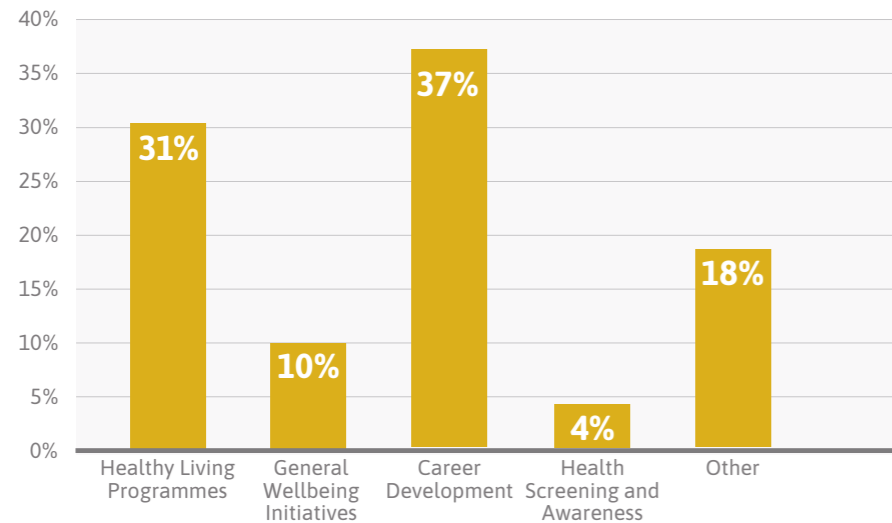
Number of Employee Wellbeing Targets (2020-2021)



Manufacturer Progress

EMPLOYEE WELLBEING Continued

Types of Targets by % - Employee Wellbeing (2021)



Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

SOFRIMAR

(Gold Member 2023)

About the Company

Established over 40 years ago in Kilmore Quay, Co. Wexford, Sofrimar are one of Europe's leading seafood processors. They specialise in shellfish that is now loved by customers worldwide. Sofrimar combine leading-edge technologies, generations of fishing heritage, and the highest standards of sustainability within their business to become the world leader in seafood quality and sustainability. Sofrimar are working closely with local fisherman who catch different species at their peak year-round. The team works in a facility that is just over 5,500m² where the diverse range of shellfish and whitefish are processed. In addition, the business operates a live shellfish holding facility to store lobsters and crab in similar conditions to their natural habitats.

Spotlight Target Area: EMPLOYEE WELLBEING

Sofrimar place high value in creating a pleasant work environment that is built on the pillars of fair working conditions, trust, empowerment, and leadership. **In 2022, the member increased staff well-being events to five, a 25% improvement on their milestone target.** Additionally, Sofrimar provided monthly employee awards and set up an Employee Assistance Programme (EAP) for all staff. Events included a variety of approaches such as pension advice beyond the minimum legal requirement, a well-being week focused on mental health awareness, multiple staff lunches, and Christmas vouchers. Thus, the member proved their continued commitment to their staff, increasing their focus on mental health well-being resulting in a positive working environment.



Sustainability Programme
GOLD MEMBER
2023



CASE STUDY 2

TIRLÁN

(Gold Member 2020, 2021, 2022, 2023)

About the Company

Tirlán is Ireland's largest farmer-owned food and nutrition business, with a diverse portfolio of quality ingredients and leading consumer and agri-brands. Rooted in a rich heritage of family farming, Tirlán is Ireland's largest buyer and user of Irish grains sourcing from a network of over 5,000 farm families. Its award-winning brands include Ireland's number one consumer dairy brand, Avonmore. The organisation draws on a wealth of experience to deliver exceptional products and tailored nutritional solutions, including Kilmeaden, Truly Grass Fed, Solmiko nutritional milk proteins, CheddMax and GAIN Animal Nutrition. Tirlán exports to more than 100 countries and has a strong market presence in the UK, France, Germany, UAE, the US, North Africa, Japan, and China. A talented team of over 2,300 people manage Tirlán's network of 11 production facilities, delivering annual revenues of €3 billion.

Spotlight Target Area: EMPLOYEE WELLBEING

Core to the Tirlán brand philosophy is the concept of care, Caring for Life in Perfect Balance. This concept applies to how Tirlán interacts with nature, how it engages with its farmers and local communities, whilst also underpinning the experience it has created for its employees. Tirlán celebrates individuality, thereby promoting employee well-being by recognising the unique traits of their employees and encouraging them to bring their authentic self to work. Through an enterprise leadership led coaching programme the company are transforming their leadership style to focus on the well-being and growth of the individual to reach their potential and ultimately deliver better outcomes. **Tirlán has invested in education in well-being, mindfulness meditation, mental and physical health campaigns, and initiatives and has also embraced hybrid working to provide its people the opportunity to achieve greater balance between work and home.**



Sustainability Programme
GOLD MEMBER
2023



Manufacturer Progress

PRODUCT HEALTH AND NUTRITION

Key Metrics:

Product Health and Nutrition Initiatives (2020 and 2021):

218 undertaken

Why is this target area included?

Considering the increasing prevalence of malnutrition and obesity, as well as the rise in diet-related non-communicable diseases worldwide, there has been a growing emphasis on promoting healthy and nutritious diets in the past decade. Within the realm of policy, the importance of health and nutrition is directly addressed in the UN SDG 2, “No Hunger,” and SDG 3, “Good Health and Wellbeing.”



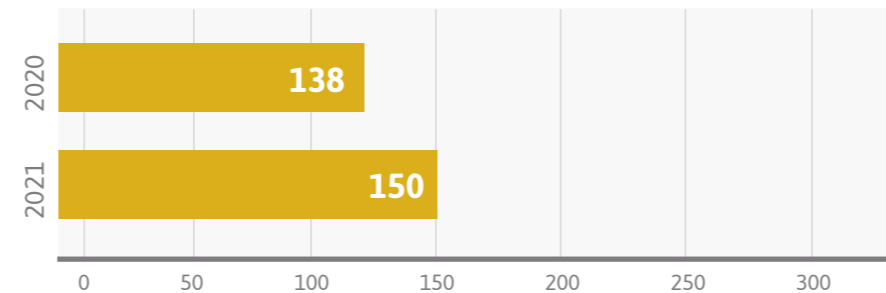
In **Bord Bia’s Global Sustainability Outlook insight study**, food quality and nutrition emerged as a prominent sustainability concern for all stakeholders. This aspect holds particular significance for prepared consumer foods. In recent years, consumers worldwide are adopting healthier eating habits, with a substantial 89% reporting that they have consciously made efforts to improve their dietary choices. As a result of this heightened focus on health and nutrition, tier 1-3 Origin Green member companies are required to include a product health and nutrition target within their sustainability plan, while it remains an optional target for tier 4 and 5 companies.

Progress Update

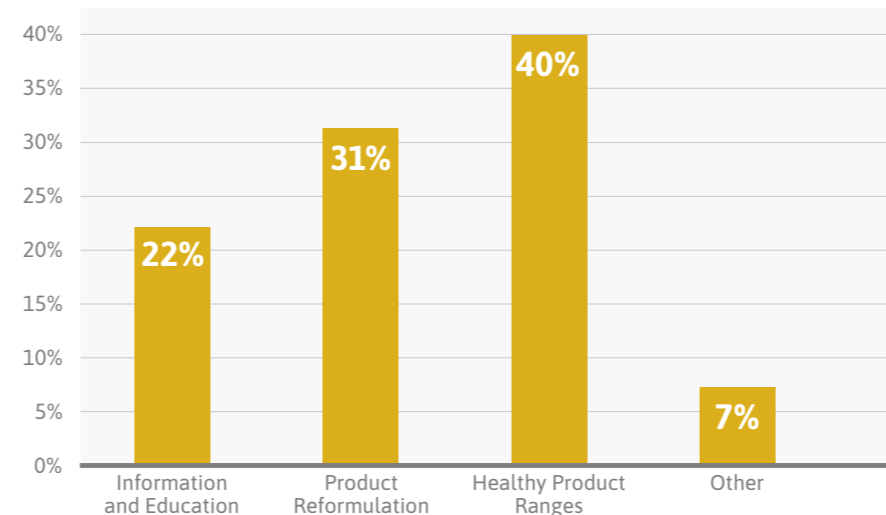
In 2021, healthy product ranges accounted for 40% of all the Product Health and Nutrition related Origin Green targets (150 targets). There were also 47 product reformulation targets and 33 information and education targets. Going forward, Bord Bia would

like to encourage member companies to set more targets related to the reformulation of food and drinks and the development of new products focused on health and nutrition. The rationale for this is to help manufacturers prepare both tactically and strategically for the global trend towards healthier products.

Number of Product Health and Nutrition Targets (2020-2021)



Types of Targets by % - Product Health and Nutrition (2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

SILVER HILL DUCK

(Gold Member 2020, 2023)

About the Company

Silver Hill Duck, established 60 years ago, are a fully integrated duck producer, covering all aspects of production from breeding to processing. The business has built up an award-winning product line of fresh and convenient duck products made from their exclusive hybrid-breed that is known for its consistent quality and flavour.

Growing their production significantly in the past few years, Silver Hill Duck products are stocked widely in retail stores and select butchers throughout Ireland. Following strong success in Asia, Silver Hill Duck is continuously exploring ways to improve their product offering for the global market.

Spotlight Target Area: PRODUCT HEALTH AND NUTRITION

As a food producer, Silver Hill Duck recognise their role in promoting a healthy and nutritious lifestyle across the country. Thus, they are continuously working on their existing product ranges to reduce salt and sugar as well as minimising artificial ingredients. **In 2022, the member exceeded their milestone target to reduce the salt levels in their confit spice by 3.6% while other spice blends saw a reduction in salt content 12% ahead of target.**

Silver Hill Duck work closely with their ingredients suppliers to develop new spice blends with reduced salt content. To ensure continuous high-quality, the member tests each newly developed blend with their taste panel team. As a result, they improved their products' nutritional values, supporting healthier lifestyles amongst their customers.



CASE STUDY 2

GALMERE

(Gold Member 2021, 2023)

About the Company

Galmere Fresh Foods has its roots in the kitchen of a Galway restaurant where the company started as a result of one highly popular coleslaw and has now grown into a successful food production business. Their award-winning product range spans from soups, pesto and sauces to meal bowls and salads. With a blend of local heritage, creative expertise, and capital investment, Galmere has built up their mix of traditional and contemporary products in the last 30 years. Their experienced product development team is constantly trialling new offerings for customers. The research-driven, innovative approach coupled with locally sourced ingredients where available, result in high-quality and flavourful products sold across Ireland.

Spotlight Target Area: PRODUCT HEALTH AND NUTRITION

Galmere Fresh Foods are committed to developing healthy and nutritious products for their customers. **In 2022, they successfully added more healthy choices to their range and are now 20% ahead of their target.** Working closely with their consumers, the new product development team captures trends and works on delivering tasty products that are low in salt and fat content. **In 2022, they worked on reformulating one of their existing products, "The Galway Kitchen" houmous. The new, healthier option has 30% less fat.** In addition, Galmere Fresh Foods developed an entirely new product, a highly nutritional bone broth that is low in fat and salt. The continued effort to improve product ranges to include more healthy choices and transparency about product nutrition has allowed Galmere Fresh Foods to build a strong, trusted reputation for their products and promote a healthy lifestyle to their customers. This underlines the value placed on their own social responsibility as food producers to balance taste, nutrition, and health in products going to market.



DIVERSITY AND INCLUSION

Why is this target area included?

Setting diversity and inclusion (D&I) targets for Origin Green member companies is paramount in fostering a workplace culture that reflects societal values and promotes fairness. It goes beyond compliance and legal requirements, signifying a commitment to creating an equitable environment where employees from diverse backgrounds can thrive. Such targets drive innovation, better decision-making, and a broader talent pool, making companies more competitive. Moreover, they enhance customer relations, mitigate legal and reputation risks, and align with corporate social responsibility efforts.

Progress Update

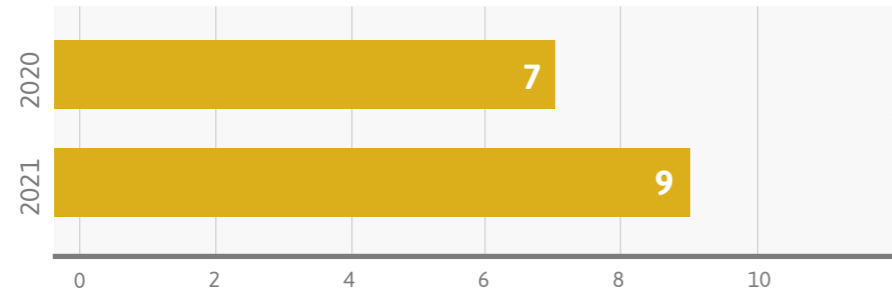
Diversity and Inclusion was added in 2019 as an optional target for Origin Green verified member companies. In 2021, Origin Green member companies set nine targets within this area. Bord Bia would like to see more companies setting targets in this area. To support companies' efforts, it has established The Agri-Food Diversity and Inclusion Forum (AgDif). This is a collaborative initiative with industry, led by Bord Bia and Aon in partnership with The 30% Club. Bord Bia's vision is that the Irish food and drink industry is the industry of choice for the best talent. The purpose of the forum is to advance the D&I agenda within the Irish food and drink industry focusing on gender balance first.

Manufacturer Progress

DIVERSITY AND INCLUSION continued

As part of the forum, a **Pathways to Developing a D&I Strategy** guidance document was developed to outline the steps Origin Green member companies should follow to create a diversity and inclusion strategy for their respective businesses.

Number of Diversity and Inclusion Targets (2020-2021)



Target Examples of Origin Green Gold Members 2022

The following case study, which is used to highlight what is being achieved under the different target areas, comes from an Origin Green Gold Member for 2022 and is based on their 2021 performance.

CASE STUDY 1

DOLE plc

(Gold Member 2020, 2022)

About the Company

With origins dating back to a modest fruit and vegetable wholesale business, McCann Fruit, in 1850s Dundalk, Dole plc is an Irish success story having grown into what is today, the world's leading fresh produce provider. Irish at heart, global by nature, Dole plc operates out of over 30 countries while serving many more. Growing, sourcing, importing, packaging, marketing and distributing over 300 lines of fresh produce, Group operations extend across the globe incorporating some 120,000 acres of production and over 260 facilities including farms, vessels, manufacturing facilities, cold storage warehousing and packhouses. Here at home, Dole Ireland operates out of 12 distribution centres across the island, serving retail, wholesale and foodservice customers nationwide. Fresh produce is, of course, an extraordinary sector to operate in. It is, after all, the most nutritious of foods with amongst the lowest environmental footprints.

Spotlight Target Area: DIVERSITY AND INCLUSION

All employees at Dole Ireland bring with them a diverse set of perspectives, work, and life experiences. The company recognises that it can only be stronger by recognising these differences and learning to respect and value everyone, regardless of their makeup. **In 2021, Dole Ireland developed the first How To Talk About Guide. It informs employees on different areas included in Diversity and Inclusion.** The company aim to continue the 'How To Talk About' guides in 2022. Dole Ireland strives for an inclusive culture, where a mix of people can come to work, and feel comfortable and confident to be their true selves.



Sustainability Programme
GOLD MEMBER
2022



3 Additional Targets: Biodiversity and Approved Sector Specific Target

BIODIVERSITY

Key Metrics:

Biodiversity Initiatives (2020 and 2021):

140 undertaken

Why is this target area included?

Biodiversity offers a multitude of advantages, encompassing the production of food and drink, the preservation of soil fertility, climate and disease regulation, nutrient recycling, and the pollination of crops. The decline in biodiversity poses a threat not only to food security but also to the availability of clean air and fresh water. Origin Green member companies are strongly encouraged to incorporate at least one biodiversity target within their sustainability plan under the additional target category. This objective may concentrate on enhancing biodiversity within their premises and immediate environs or evaluating ways to boost, incorporate, or safeguard existing biodiversity across their operations.

In the policy environment, the importance of biodiversity has been receiving increased attention in recent years. The EU's Biodiversity Strategy published in 2020 outlines the EU's ambition to put Europe's biodiversity on the path to recovery by 2030. Following the most recent UN Biodiversity Conference (COP 15) in 2022, the Global Biodiversity Framework (GBF) aims to address biodiversity loss, restore ecosystems, and protect indigenous rights. The plan includes concrete measures to halt and reverse nature loss, including putting 30% of the planet and 30% of degraded ecosystems under protection by 2030.

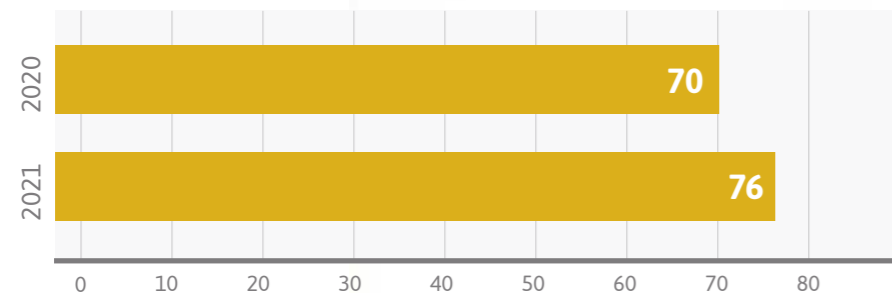
Manufacturer Progress

BIODIVERSITY *continued*

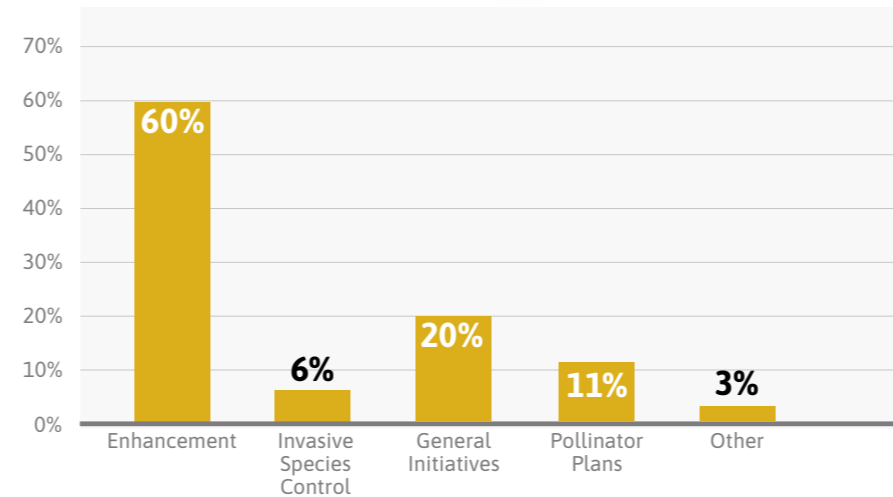
Progress Update

Since 2017, the number of companies establishing biodiversity targets has been on a consistent upward trajectory, with 76 companies setting such targets in 2021, compared to 59 in 2017. Many of these targets involved biodiversity enhancements (60%), while a smaller portion were related to general biodiversity initiatives (20%) and addressed issues associated with invasive species (6%). In 2021, Bord Bia unveiled a collaboration with the National Biodiversity Data Centre (NBDC), aimed at assisting companies in defining and implementing SMART biodiversity targets in accordance with the All-Ireland Pollinator Plan for 2021-2025. As part of this collaboration, Bord Bia has provided funding for a dedicated Biodiversity Officer at the NBDC, who offers expertise and guidance to Origin Green member companies on their biodiversity plans. Additionally, Bord Bia developed a **Pathways to Restoration and Resilience** guidance document for Origin Green member companies, aiding them in identifying and executing intelligent biodiversity targets. Bord Bia also hosted a three-part **Pathways to Biodiversity - A Company Viewpoint webinar series** in 2021 and 2022, featuring insights from member companies on developing sustainable biodiversity practices.

Number of Biodiversity Targets (2020-2021)



Types of Targets by % - Biodiversity (2021)



Manufacturer Progress

Target Examples of Origin Green Gold Members 2023

CASE STUDY 1

FARMERS TO MARKET

(Gold Member 2023)

About the Company

Farmers to Market, Farmers to Market, set up by brothers John and Charles Smith, is Ireland's first ever free-range chicken producer. The business is built on the long-standing family values of hard-work, respect for animals, and commitment to sustainable production. Tracing back to a simple cottage industry, the love of the land is still engrained in the brand today.

In and around their six bird houses in the North-East of Ireland, chickens roam free and enjoy a grain diet that includes local barley and wheat. Farmers to Market products are well-loved for their high-quality chicken which is available across Ireland in selected Dunnes and SuperValu stores, as well as at leading butcher shops.

Spotlight Target Area: BIODIVERSITY

Across their three main locations, Farmers to Market aim to increase biodiversity areas to preserve nature and ensure a healthy flora and fauna for years to come. **In 2022, the business exceeded their target milestone of increasing the number of active beehives across their sites by 33% which puts them well on track to build up 10 colonies of Irish bees by 2024.**

Working with an expert beekeeper on a regular basis, the beehives are monitored and kept in good health. The team's consistent care and continued learning resulted in the bees being active around the area, helping pollinate neighbouring crops as well as the wildflower meadows on the Farmers to Market sites. Beekeeping is also helping with employee engagement, who work together to care for the hives.



Sustainability Programme
GOLD MEMBER
2023



CASE STUDY 2

IRISH DISTILLERS

(Gold Member 2021, 2022, 2023)

About the Company

Irish Distillers is one of Ireland's leading spirits and wines suppliers, mostly known for its world-famous Irish whiskeys, including the world-renowned Jameson brand. Rooted in the pioneering spirits of its founders, the company blends tradition and innovation exceptionally well. Exporting to over 130 markets globally, Irish Distillers continues to be driven by a commitment to quality, a spirit of exploration, and a legacy that ignites a strong path forward. Through a micro distillery that fuels experimentation and collaborative ventures, Irish Distillers reimagines possibilities, from maturation techniques to distinctive distillates. Following continuous investment and growth ambitions, the company more than doubled its production in the past decade, now employing over 700 employees across their Irish facilities.

Spotlight Target Area: BIODIVERSITY

Following the establishment of their warehousing site in Dungourney, Co. Cork, Irish Distillers have been highly engaged with a local biodiversity consultant to improve the flora and fauna of the area. Committed to not using any chemicals, the member aims to improve the ecological health of their surroundings through planting trees, shrubs, wildflowers, and clover. **In 2022, Irish Distillers almost doubled the trees planted to the previous year which places them 61% ahead of their milestone target of 10,000 trees for the year. In addition, an area of 12,400m² was used to plant wildflowers and clover.** As a result, Irish Distillers improved the biodiversity around their facilities with locally important plants, combating extinction of Irish wildflowers, and building habitats that foster local wildlife.



Sustainability Programme
GOLD MEMBER
2023



Photograph: Ruth Wilson

Retail and Foodservice Progress

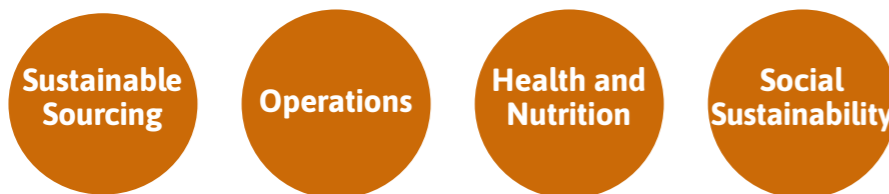
Retail and Foodservice Progress

After the introduction of the Origin Green programme in 2012 for farmers and food and drink manufacturers, Bord Bia expanded its reach in 2016 to encompass the entire supply chain. This expansion welcomed retail and foodservice companies to participate in the programme.

The eligibility criteria and entry requirements are outlined in the **retail and foodservice charters**. By becoming part of Origin Green, retail and foodservice companies can establish solid sustainability credentials, enhancing their reputation with a growing segment of consumers who prioritise ethical choices in the food and drink they purchase and consume.

Much like manufacturers, retailers and foodservice companies commit to following the Origin Green retail and foodservice charters. Within the charters, companies formulate a sustainability plan that delineates a set of ambitious and quantifiable targets as part of a comprehensive five-year sustainability plan. These plans undergo independent verification to ensure their robustness and credibility. This verification is provided by Mabbett who also verify the manufacturer members.

As part of the second edition of the Origin Green retail and foodservice charters (issued October 2022), participating members set targets across four key areas:



- **Sustainable Sourcing:** Source from farmers, food producers, and manufacturers that have a verified commitment to sustainability and can demonstrate commitment to suitably accredited schemes. This may also include the implementation of packaging initiatives within their operations.
- **Operations:** Reduce energy consumption, waste generation, and/or water usage across all operational areas (e.g., transport, refrigeration, surplus food, etc.).
- **Social Sustainability:** Support community organisations, help ensure ongoing employee well-being, and deliver products that provide a nutritionally balanced and healthy offering to customers.
- **Additional Targets:** Improve biodiversity on sites and immediate surroundings or assess how the company can enhance, integrate, or protect existing biodiversity throughout their operations.

Tiered Membership

To ensure that retail and foodservice companies can implement resource-appropriate target requirements and to maximise the potential for successful implementation, a tiered membership structure based on annual revenue/turnover has been introduced to the revised Origin Green retail and foodservice charter. The two tiers of membership are outlined to the right.

Origin Green Credits System

As part of the effort to introduce a greater level of transparency for how membership of the programme is achieved and retained, a credits or point-scoring system was introduced in 2022 to simplify the verification process for participating retail and foodservice companies. It is imperative that the programme can demonstrate a clear methodology for how sustainability target progress is evaluated on an ongoing basis.

RETAIL

Tier 1	>€250m Revenue/turnover	10 Targets
Tier 2	>€10m-€250m Revenue/turnover	8 Targets

FOODSERVICE

Tier 1	>€250m Revenue/turnover	8 Targets
Tier 2	>€25m-€250m Revenue/turnover	7 Targets

Retail and Foodservice Progress

Overview of Performance

In the reporting period up to 2021, the 11 members of Origin Green at the retail and foodservice level had set a total of 202 sustainability targets. A breakdown of these targets across the four targets areas can be seen below:



1 Sustainable Sourcing

Organisations involved in the retail and foodservice charters are required to develop a set of commitments in relation to the procurement of food and drink products. Targets can be related to commitments to source from suppliers with recognised sustainability certifications (such as Origin Green verified member companies) and developing sustainability initiatives, as well as setting specific sourcing targets relating to packaging. Companies must incorporate resilient sustainable sourcing objectives into their sustainability plans.

By the end of 2021, 74 sustainable sourcing targets were set by retail and foodservice members. These were predominantly related to raw material and supplier initiative sourcing, with 48 targets set in these areas.

Sustainable Sourcing Targets (2021)



INITIATIVE EXAMPLES

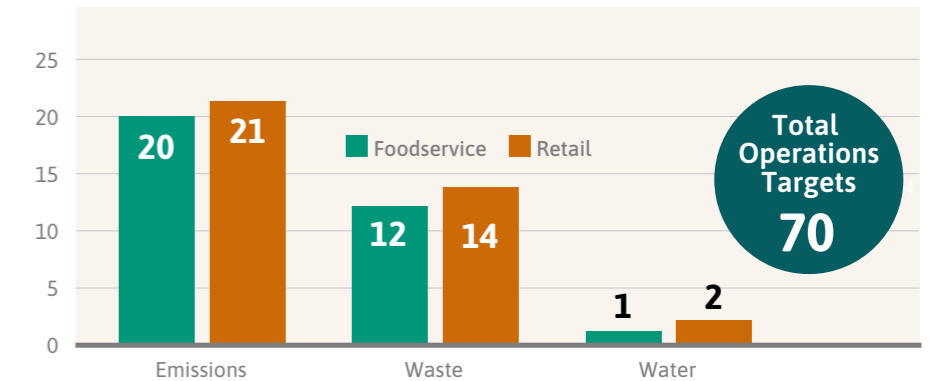
- Continue to source raw materials from farms who are members of Bord Bia’s Sustainability and Quality Assurance Schemes e.g., SBLAS, SDAS, SHAS etc.
- Increase the amount of coffee purchased from sustainably certified sources e.g., Rainforest Alliance from 50% to 100%.
- Increase the number of Irish listed food suppliers with Origin Green verification from 10% to 50%.
- Increase own-brand fruit and vegetables to have Global Gap Grasp, or equivalent, from 29% to 100% by 2023.
- 100% of own-label packaging to be compostable, reusable, or recyclable.
- Maintain no undetectable black plastic used in own-brand primary packaging.

2 Operations

Operations incorporates distribution, storage, and packaging for own-label products in the Origin Green retail and foodservice charter. Companies must include an emissions and waste target, while a target relating to water is optional.

In 2021, retail and foodservice members set 70 operations targets overall. The majority of these were focused on emissions and waste reduction, with 41 targets and 26 targets set respectively in each of these areas.

Operations Targets (2021)



INITIATIVE EXAMPLES:

- Reduce food waste by 50% as a percentage of food sales.
- Achieve 5% reduction in water use by 2024.
- 100% of fleet to change to Compress Natural Gas (CNG) by end of 2025.
- Reduce scope 1 and 2 emissions by 55% by 2026.
- Reduce water usage by 8% per unit of output by 2023.

Retail and Foodservice Progress

3 Social Sustainability

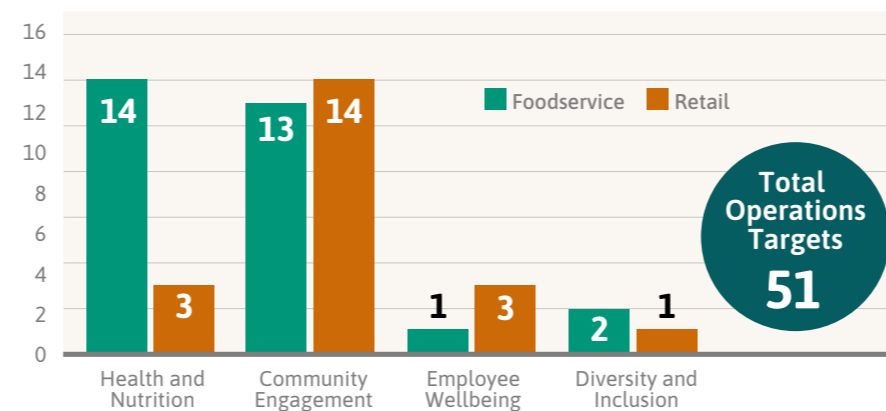
Under the broad social sustainability pillar, companies choose targets in the following areas:

- Health and Nutrition
- Community Engagement
- Employee Wellbeing
- Diversity and Inclusion

The Origin Green retail and foodservice charters aim to assist participating companies in formalising their involvement in their local communities and committing to maintaining or improving this support throughout the duration of the plan. Additionally, since many of these companies serve as substantial employers, they have the potential to establish career advancement initiatives for their staff and provide various forms of assistance to promote employee welfare.

In 2021, 51 social sustainability targets were set by retail and foodservice members. These were predominantly related to the companies' role in the community and to health and nutrition, with 27 targets and 17 targets set respectively in each of these areas.

Social Sustainability Targets (2021)



INITIATIVE EXAMPLES:

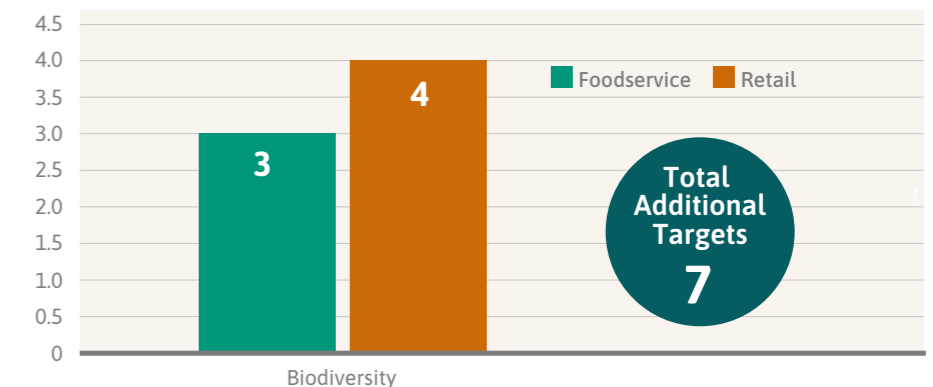
- Continue to collaborate with charity partners, donating €10,000 annually.
- Support individuals with barriers to employment into the workplace by 36%.
- Engage in five charitable events a year.
- Remove artificial flavours and added colours from offerings by 2022.
- Achieve workforce gender balance by creating a diverse workforce both socially and culturally, 43% of women to make up the senior leadership by 2025.
- Reduce the amount of salt in own-label products by 2%.
- Provide staff with three additional training programmes a year.
- Increase employee health and well-being campaigns by 70% by 2026.

4 Additional Targets: Biodiversity

The Origin Green retail and foodservice charters encourage participating companies to include at least one biodiversity target in their sustainability plan under the additional target area. The target can focus on improving biodiversity on their sites and immediate surroundings or assess how they can enhance, integrate, or protect existing biodiversity throughout the company.

In 2021, retail and foodservice members set seven additional targets overall. All seven targets were focused on biodiversity initiatives.

Additional Targets (2021)



INITIATIVE EXAMPLES:

- Implement 35 biodiversity actions at client sites and head office by 2025.
- Development and conservation of ecosystems on site.
- Increase the number of stores that have pollinator areas from 25 to 60 by 2025.
- Sign up to the All-Ireland Pollinator Plan for Businesses.

UN Sustainable Development Goals

UN Sustainable Development Goals




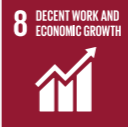






Bord Bia became a member of the United Nations Global Compact (UNGC) in 2018. This move was aimed at further aligning the Origin Green programme with the United Nation’s Sustainable Development Goals (UN SDGs). As a UNGC member, Bord Bia has utilised the wide range of international resources and exposure to stakeholders, allowing for the sharing of best practices, guidance, and innovative solutions to address global sustainability challenges.

By promoting the implementation of the UN SDGs within the Irish food and drink industry, the membership of the UNGC reinforces Bord Bia’s commitment to the ongoing development of Origin Green and its alignment with the UN Sustainable Development.






Developed over time, Origin Green has become a dynamic, evolving programme of measurement and improvement and a best-in-class framework designed for suppliers in partnership with customers to meet the latest global sustainability challenges and requirements in line with the UN SDGs. Origin Green is uniquely placed to play a pivotal role in helping the Irish food and drink industry deliver meaningful contributions to advancing the SDGs and their associated targets. Origin Green has incorporated the SDGs in its objectives, using them as a guide in the ongoing development of the programme, and will continue to do so.

Manufacturer Alignment

Bord Bia has demonstrated the alignment of the Origin Green manufacturing charter target areas, with 15 of the 17 SDGs.




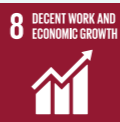




Sustainable Development Goal	Origin Green Manufacturing Level Alignment	Sustainable Development Goal	Origin Green Manufacturing Level Alignment
 SDG 2: Zero Hunger <i>End Hunger, achieve food security and promote sustainable agriculture.</i>	Origin Green members are seeking to develop sustainable food production systems and implement resilient agricultural practices through responsible sourcing practices.	 SDG 7: Affordable and Clean Energy <i>Ensure access to affordable, reliable, sustainable and modern energy for all.</i>	Origin Green members are reducing their energy consumption and switching to renewable energy sources.
 SDG 3: Good Health and Well-Being <i>Ensure healthy lives and promote well-being for all at all ages.</i>	Origin Green members are reformulating their products to reduce salt and sugar, developing “free-from” products for their consumers, and promoting a healthy lifestyle among their employees, customers and communities.	 SDG 8: Decent Work and Economic Growth <i>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</i>	Origin Green members are creating job opportunities in their local communities and contributing to sustainable economic growth.
 SDG 4: Quality Education <i>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</i>	Origin Green members are involved in employment programmes and work experience placements of students to improve their skills for future employment.	 SDG 9: Industry, Innovation and Infrastructure <i>Build resilient infrastructure, promote sustainable industrialisation and foster innovation.</i>	Origin Green members are making capital investments to upgrade and retrofit site infrastructure to increase resource-use efficiency and adopt environmentally sound technologies.
 SDG 5: Gender Equality <i>Achieve gender equality and empower all women and girls.</i>	Origin Green members are actively addressing the issue of gender equality within their diversity and inclusion strategies.	 SDG 10: Reduced Inequalities <i>Reduce inequality within and among countries.</i>	Origin Green members are working to empower and promote the inclusion policies and practices within their workforce, local community and further afield.
 SDG 6: Clean Water and Sanitation <i>Ensure availability and sustainable management of water and sanitation for all.</i>	Origin Green members are reducing their water usage, developing and implementing wastewater treatment systems and finding unique ways to use naturally occurring rainwater in their production processes.	 SDG 11: Sustainable Cities and Communities <i>Make cities and human settlements inclusive, safe, resilient and sustainable.</i>	Origin Green members contribute to their local communities through involvement with sports teams, charities and schools.

UN Sustainable Development Goals





Sustainable Development Goal	Origin Green Manufacturing Level Alignment
 <p>SDG 12: Responsible Consumption and Production <i>Ensure sustainable consumption and production patterns.</i></p>	Origin Green members are producing food and drink sustainably by sourcing raw materials from suppliers with recognised sustainability credentials, by sourcing locally and by taking part in Bord Bia's Sustainability and Quality Assurance Schemes.
 <p>SDG 13: Climate Action <i>Take urgent action to combat climate change and its impacts.</i></p>	Origin Green members are tackling climate change through establishing emissions targets, energy reduction initiatives and making renewable energy investments.
 <p>SDG 14: Life Below Water <i>Conserve and sustainably use the oceans, seas and marine resources.</i></p>	Origin Green members are working to protect and enhance maritime life by fishing responsibly and reducing marine waste.
 <p>SDG 15: Life on Land <i>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</i></p>	Origin Green members are implementing biodiversity measures on their sites, such as protecting wildlife habitats and developing pollinator habitats.
 <p>SDG 17: Partnerships to Achieve the Goals <i>Strengthen the means of implementation and revitalise the global partnership for sustainable development.</i></p>	Origin Green members are working collaboratively with other organisations and stakeholders with the common goal of sustainable food production.

Farmer and Producer Alignment

Bord Bia has demonstrated the alignment of the Origin Green producer actions, with 13 of the 17 SDGs.

Sustainable Development Goal	Origin Green Producer Level Alignment	Sustainable Development Goal	Origin Green Producer Level Alignment
 <p>SDG 1: No Poverty <i>End Poverty in all its forms everywhere.</i></p>	Origin Green producers support their communities by implementing measures that deliver economic benefits, such as sourcing local materials, labour and services, and ensuring equal access to economic resources.	 <p>SDG 7: Affordable and Clean Energy <i>Ensure access to affordable, reliable, sustainable and modern energy for all.</i></p>	Origin Green producers are putting in place energy saving strategies. The programme encourages producers to consider alternative energy and fuel sources.
 <p>SDG 2: Zero Hunger <i>End Hunger, achieve food security and promote sustainable agriculture.</i></p>	Origin Green producers receive feedback through the programme on how to improve their sustainability performance and establish sustainable agriculture practices, which can contribute positively towards food security.	 <p>SDG 8: Decent Work and Economic Growth <i>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</i></p>	Origin Green producers play an important role in the economic development of local communities. They are also required to carry out farm safety risk assessments to ensure the safety of farm employees.
 <p>SDG 3: Good Health and Well-Being <i>Ensure healthy lives and promote well-being for all at all ages.</i></p>	Origin Green producers are applying best practices in biosecurity, hygiene and animal health to prevent the spread of communicable diseases from animals to humans and ensuring correct utilisation of veterinary medicines to reduce the risk of antimicrobial resistance, which contributes to good health.	 <p>SDG 11: Sustainable Cities and Communities <i>Make cities and human settlements inclusive, safe, resilient and sustainable.</i></p>	Origin Green producers are recommended to identify and support ways in which their farms and personnel contribute to the local communities.
 <p>SDG 4: Quality Education <i>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</i></p>	Origin Green producers are required to train their staff in areas related to farm production. The feedback reports received through the programme provide farmers with information on sustainable agricultural practices, which contribute to sustainable development.	 <p>SDG 12: Responsible Consumption and Production <i>Ensure sustainable consumption and production patterns.</i></p>	Origin Green producers are following accredited schemes based on sustainability principles incorporating environmental, social and economic aspects in order to substantiate their sustainability credentials and to improve their production processes.

UN Sustainable Development Goals

Sustainable Development Goal	Origin Green Producer Level Alignment
 <p>SDG 13: Climate Action Take urgent action to combat climate change and its impacts.</p>	Origin Green producers are using farm carbon footprint reports and the Carbon Navigator tool to improve their performance regarding carbon emissions and address climate change issues.
 <p>SDG 14: Life Below Water Conserve and sustainably use the oceans, seas and marine resources..</p>	Origin Green verified seafood producers are using the BIM sustainability programmes to ensure necessary protection of marine life as well as to improve their sustainability performance.
 <p>SDG 15: Life on Land Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>	Origin Green producers are using a variety of sustainable land management practices and biodiversity measures in order to protect the ecosystems and pass the land and resources on to the next generation in a good or even better condition.
 <p>SDG 17: Partnerships to Achieve the Goals Strengthen the means of implementation and revitalise the global partnership for sustainable development.</p>	Origin Green producers are working together with Bord Bia, industry actors and other organisations to support the wider sustainability efforts in the Irish Food and Drink production and achieve the shared goals.

Promotion at Intergovernmental Level - UNFAO Visit

Bord Bia has actively embraced a leadership role in advancing the Sustainable Development Goals (SDGs), extending its efforts beyond its own organisation and industry to engage with governments.

Recognising its responsibility as a forward-looking organisation, Bord Bia acknowledges that realising the SDGs necessitates a collective endeavour involving diverse stakeholders such as governments, private sector entities, civil society organisations, and individuals.

In pursuit of this objective, Bord Bia has established collaborations with senior officials from the United Nations Food and Agriculture Organization (UNFAO). Together, they aim to underscore the inherent connection between the SDGs and the sustainability agenda of the food, drink, and horticulture industry.

In June 2022, Qu Dongyu, the Director-General of the UNFAO, along with his senior officials and representatives from the Irish Department of Agriculture, Food and Marine, paid a visit to the Bord Bia Global Hub located in Dublin. This visit aimed to provide them with insights into the sustainability efforts of the Irish food, drink, and horticulture sector, which have been facilitated by the Origin Green programme.

During their meeting, the Irish industry group engaged in a substantial dialogue with the Director-General and his delegation, with a particular focus on Ireland’s Food Vision 2030. This strategy represents a significant milestone for the Irish agri-food sector as it outlines the ambitious goals to transform various sectors, including agriculture, food, forestry, and marine, by the year 2030.

Furthermore, the FAO delegation embarked on a visit to an Origin Green dairy farm, where they had the opportunity to interact with farmer Joe Hayden. He shared the story of his family’s enduring legacy in farming and their unwavering commitment to sustainable food production. Joe also elaborated on Ireland’s distinctive dairy production system, which relies on grass-based practices.

Qu Dongyu expressed his admiration for the sustainability initiatives adopted at the farm level and was impressed by the proactive stance of Irish farmers in addressing the ever-evolving global sustainability challenges and aligning their efforts with the United Nations Sustainable Development Goals (UN SDGs).



Joe Hayden, Origin Green dairy farmer, discussing Ireland’s distinctive dairy production system with Qu Dongyu, the Director-General of the UNFAO.

Origin Green Next Phase

Origin Green Next Phase

Prioritising Progress: What Are We Solving For?

Although the agri-food sector in Ireland faces various sustainability challenges, it's important to note that these challenges are not exclusive to Ireland.

On a global scale, the agri-food sector, spanning from production to consumption, contributes to roughly one-third of all human-induced greenhouse gas (GHG) emissions (as reported in [Nature, 2021](#)) and is responsible for a substantial 70% of terrestrial biodiversity loss (as highlighted by [WWF, 2020](#)). This places the sector at the forefront of sustainability concerns, as it is viewed both as a significant contributor to the problem and a pivotal agent of change in achieving a sustainable solution.

The consensus among thought leaders is that establishing a sustainable food system, which can provide sufficient nourishment for an increasing global population while respecting ecological limits and safeguarding livelihoods, necessitates a comprehensive and systemic strategy. This approach aims to steer clear of the drawbacks associated with an excessive focus on a single concern. Instead, it encourages us to consider interconnected groups of issues, amplifying the advantages and positive reinforcement gained from addressing them in a coordinated manner.

Nevertheless, for this strategy to yield positive results, it is essential that we identify and give precedence to the specific issues that are directly affecting us. It's important to acknowledge that not

all challenges are of equal significance, and not all global issues hold the same level of relevance for Ireland. For instance, on the international scale, deforestation and food security are prominent concerns, but in Ireland, these issues have less immediate relevance compared to other pressing priorities like addressing emissions and biodiversity preservation.

Issues Identified

In 2021, Bord Bia undertook a materiality assessment of the environmental, social, and economic issues relevant to Ireland's agri-food sector and categorised them according to their role in the development of a sustainable food system.

A total of 80 potential issues were identified, with 25 shortlisted for review and investigation by external and internal stakeholders.

The resulting assessment led to a 'top 10' priority list of the issues that the Irish agri-food sector must address to be a sustainable food leader. While some have already received significant attention, others are less well appreciated by the public. This assessment of priorities has directly shaped Bord Bia's current strategy for the Origin Green programme - 'Powered by Partnership', allowing us to ensure that, in being holistic, we are targeting our resources at the significant issues and positively influencing change.

- 1 **GHG emissions:** Reducing GHG emissions from the food system is, unsurprisingly, top of the agenda now and set to remain a key issue so long as the sector remains a significant source of emissions. Carbon and other GHGs will be on the agenda until the industry reaches net zero.
- 2 **Biodiversity:** A secondary position on the sustainable food agenda reflects growing awareness of the global biodiversity crisis and the inherent risks for the agri-food sector if natural ecosystems continue to decline. Ireland needs to take action to improve its performance on the biodiversity-agriculture interface.
- 3 **Human health and nutrition:** The conversation on food and human health is shifting from a focus on quantity and availability, towards nutritional value. In the coming decade, the health-environment nexus will drive systemic thinking about how to create a sustainable food system and a move to 'nutritional value per acre' rather than yield per acre. This is an area where Ireland has a strong base on which to build, and where Bord Bia through the Origin Green programme, will offer direction and leadership.
- 4 **Water availability and quality:** Water quality is arguably the most material issue for Irish agriculture, with deteriorating quality linked to poor and inefficient agricultural practices. A crisis around water quality has the potential to scale up quickly into a major public concern and demand for action.
- 5 **Animal health and welfare:** Animal welfare is seen as non-negotiable and Ireland is generally viewed as having a strong reputation and good regulations, albeit with a recognised issue around the export of calves. While not a risk area for Ireland, customers and consumers will not tolerate suppliers who show disregard in this area.



Origin Green Next Phase

- 6 **Product traceability and transparency:** Food traceability and transparency are seen as vitally important, with strong consensus that consumers want more information about where their food comes from, and that digital technology will enable this. The future prominence for this issue is not simply around assuring provenance but assessing carbon footprint.
- 7 **Soil health and regenerative agriculture:** While not yet well understood by the public, this may be one of the most critical developments in sustainable food systems, with the potential to ease the climate and biodiversity crises. There remains uncertainty about financial viability and the speed at which practices can be adopted, but this may hold the key to farming meeting net-zero targets.
- 8 **Sustainable livelihoods and a ‘just’ transition:** Recognising the connection between decarbonisation and the economic prosperity of the agri-food sector requires the opportunity for sustainable livelihoods and a just transition. The shift to a low carbon economy needs to show future generations of farmers that this career choice represents opportunity and the rewards of producing increased sustainable products sought by the marketplace are shared across the supply chain to enable farm families to achieve economic security.
- 9 **Food safety and quality:** The safety and quality of food is of paramount importance and is an area where Ireland’s reputation as best in class is key to its export growth. Food safety and quality is something the industry can never cut corners on.
- 10 **Skills and training:** The transition to a sustainable food system will need to be supported by high quality training and education to equip farmers and manufacturers with the skills they need. There is currently perceived to be a lack of in-depth knowledge on sustainable practices and a lack of coordination among the organisations that can offer training.

AN INDUSTRY IN EVOLUTION

The assessment of priorities has played a direct role in shaping the strategic development of the Origin Green programme. It has also led to some broader reflections on the case for how and why we need to intensify our industry response:

The need to re-frame the future

Ireland has a robust and efficient food system, but a more holistic and systemic approach is key to continue its development as a sustainable food leader.

Understanding data is everything

There will be increased demand for robust data to quantify a sustainable food system. This needs to be increasingly transparent and accurate, and to sit within a holistic and harmonised measurement system.

Adapt or decline

If we do not adapt to the sustainability challenges ahead, we risk being left behind by our customers and our consumers. We can maintain our sense of continuity – for example, the family farm ethos – while innovating in new areas, such as responding to the growth of plant-based nutrition.

Scaling for impact

Agri-food can be part of the climate solution through regenerative agriculture and ecosystem services. While questions remain on whether they can be scaled up at the pace required to achieve significant impact, the opportunity must continue to be investigated.

Essential enablers

Digital technology as well as sustainability skills and training are essential enablers of our future progress. They need to be developed in parallel with and given equal investment to systemic changes such as regenerative agriculture.

Origin Green - Powered by Partnership

STRATEGY TO 2025

Irish agri-food sector targets government are working towards in collaboration with state agencies, where Origin Green is supporting.

Climate-neutral food system by 2050	25% reduction in absolute emissions by 2030
Ammonia emissions	To reduce to 5% below 2005 levels by 2030
Biogenic methane	10% reduction by 2030 (on 2018 level)
Nitrous Oxide	Reduce chemical fertiliser by more than 50% by 2030
Biodiversity	By 2030, 10% of farmed area will be prioritised for biodiversity
Food Waste	50% reduction in food waste by 2030
Packaging	All packaging reusable or recyclable by 2030
Organic	450,000ha for organics by 2030
Water Quality	The Food Vision 2030 Strategy commits to reduce nutrient losses from agriculture to water by 50% by 2030
Marine protected areas	Achieve 30% protected areas by 2030

Table 1: Specific targets for the agri-food sector.



Origin Green Next Phase

Origin Green - Powered by Partnership

continued

Change isn't easy, but it has the potential to reveal our true capability and our adaptability. Over the last few years, we saw how decades of entrenched beliefs and behaviours around office work could be transformed overnight when the requirement to do so was strong enough. For the agri-food sector, which must reduce emissions by 25% by 2030, change is coming at a scale without precedent.

The next seven years will shape the direction of Ireland's entire agri-food industry for decades to come. Table 1 above sets out some of the specific targets for the agri-food sector that the government is now actively working towards in collaboration with state agencies. Addressing these successfully will require a coordinated strategy, a collective sense of purpose and access to new resources, tools and thinking.



The Rational for Partnership

Over the past 11 years, Bord Bia has laid firm foundations for its role as a central driver of sustainability in the Irish agri-food sector through the Origin Green programme, building relationships with 61,000 Irish farmers and over 300 leading Irish food and drink companies..

These relationships have allowed us to measure and guide improvements in their sustainability performances on an individual basis. Bord Bia's 2022-2025 Statement of Strategy expresses our belief that: 'We have everything we need for a better, more sustainable food system' and that 'there has never been a better time for the Irish food, drink and horticulture sector to set an example for the world.' However, we also understand that, as a single organisation, we can't deliver the level of transformation needed on our own. This stage of the Origin Green programme development is 'Powered by Partnership'. Through strong collaborative relationships with like-minded organisations, we will provide the leadership and the technical framework that ensures sustainability continues to be a driver of positive change in the food, drink, and horticulture industry. This approach will facilitate higher levels of ambition and greater progress on targets. It will also enhance the industry's ability to reap the rewards from its actions and achievements.

Powered by Partnership

ORIGIN GREEN STRATEGY 2022-2025

Origin Green Powered by Partnership sets out two complementary, overarching goals:

- 1 Powering a climate neutral, nature positive pathway is a structured holistic response to climate change and other sustainability challenges that face our farmers and food producers. It will provide the knowledge, resources and tools that offer the foundation for success and is structured around:
 - The climate neutral pathway
 - Improved biodiversity and regenerative practices
 - The integrated circular economy
 - Deeper farmer engagement
- 2 Proving responsible choices completes the 360-degree picture, recognising the often overlooked but pivotal role of the consumer in true progress on sustainability. It addresses the need for:
 - Championing better health and nutrition
 - Enhanced assurance and proof points
 - Delivering recognised leadership in food sustainability

Underpinning our determination to deliver on both these goals will be Bord Bia's ongoing commitment to market leading standards, to equipping our Origin Green members with world-class guidance, tools and metrics, and our ability to show leadership and vision, so that our industry's verified achievements in sustainability translate into reputational strengths, safeguarding the role of the agri-food sector for the future.



Origin Green Next Phase

Powering a Climate Neutral, Nature Positive Pathway

1 PILLAR 1: THE CLIMATE NEUTRAL PATHWAY

Bord Bia's existing relationships with Irish farmers through the Sustainable Beef and Dairy Assurance Schemes means we are already measuring, monitoring, and improving on-farm performances. Through partnerships with organisations such as DAFM, Teagasc, the Carbon Trust, the SEAI, Enterprise Ireland, and farmer and representative bodies, we will bring the broadest possible cross-functional support to the challenge ahead.

A four-point approach will build on these relationships and leverage our shared determination for progress:

1. Evolving GHG focused programmes

Farmers

- All Bord Bia Producer Standards will be updated in 2023 and 2024.
- Bord Bia's Origin Green team will contribute to DAFM and other working groups on carbon farming and the development of measurements.
- Bord Bia's Origin Green team will collaborate with ICBF and Teagasc on the accuracy of data in beef farm carbon footprinting.
- Energy efficiency measures will be incorporated into the Sustainable Dairy Assurance Scheme (SDAS).
- Through Origin Green, Bord Bia will promote the implementation of Teagasc developed Marginal Abatement Cost Curve (MACC) measures, which identify the most cost-effective pathway to reduce sectoral emissions.

Manufacturers

- Mandatory emissions targets for tier 1 and tier 2 member companies will be implemented in the Origin Green charter.
- We will work with Enterprise Ireland to support larger food and drink businesses to develop decarbonisation implementation strategies.

2. GHG metrics

Farmers

- Carbon footprint models for lamb and egg producers will be rolled out.
- MACC measures will be tracked and integrated into methodologies and reporting.
- Learnings from the Signpost Farms and others research initiatives will be incorporated into standards and programmes.

Manufacturers

- Bespoke decarbonisation services will be provided, and inspirational examples of best practice shared.

3. Bespoke decarbonisation services and inspiring best practice

Farmers

- A Farm Sustainability Action planner will be offered on the Farm Sustainability Learning Hub, supporting specific actions to reduce emissions.

Manufacturers

- Bespoke sustainability services will help clients to set science-based targets.
- The uptake of Enterprise Ireland Climate Action Funds and the SEAI Grants will be encouraged.
- Enhanced company carbon footprinting tools will be developed.

4. GHG guidance and training

Farmers

- E-learning modules will be offered to support farmers to reduce emissions.
- Farmer Feedback Reports will be issued to members of SBLAS and SDAS, with increased awareness and uptake of measures through a coordinated communications campaign with Teagasc.

Manufacturers

- Annual net-zero emissions guidance webinars will ensure targets are set, maintained and implemented.
- Guidance documents, toolkits and training will be provided on key sustainability topics: Net-Zero, Packaging, Biodiversity, and Diversity and Inclusion.
- Supports will be rolled out to other areas including water conservation, food waste etc.
- Training in all areas will have a key focus on emissions.



Origin Green Next Phase

2 PILLAR 2: ENHANCED BIODIVERSITY AND REGENERATIVE PRACTICES

Food Vision 2030 proposes that, by the end of the decade, 10% of farmed area will be prioritised for biodiversity. Origin Green will drive and support the adoption of nature-based solutions with current and potential partners including European Innovation Projects, Farming for Nature, Biodiversity Ireland, EPA, Sustainable Agricultural Initiative Sustainable Dairy Platform, European Roundtable for Sustainable Beef, Teagasc, NBDC, Biodiversity Business Platform and the farming organisations.

A four-point approach will encompass:

1. Biodiversity and regenerative metrics development

Farmers

- Biodiversity indicators on beef, lamb and dairy farms will be developed and tracked.
- The Grass Fed Standard will see continued development and expansion.

Manufacturers

- Partnership with the National Biodiversity Data Centre will support the development of company biodiversity indicators.
- Collaborating with appropriate bodies will lead to the development of global regenerative/sustainable agriculture metrics.

2. Integration of metrics into standards

Farmers

- Bord Bia Producer Standards will include strengthened water quality, biodiversity and soil health measures.
- Greater transparency will be brought into the use of Irish feed.

Manufacturers

- Guidance documents will be developed to inform companies how they can support their farm suppliers to adopt biodiversity and regenerative practices.

3. Regenerative practices - training and guidance

Farmers

- We will develop and promote the use of Farm Sustainability Learning Hub, with regenerative and biodiversity training modules for farmers on topics relating to fertiliser management, slurry management, grassland management, biodiversity, and soil health.
- Support will be maintained for European Innovation Projects focused on biodiversity and regenerative farming practices.

Manufacturers

- National Biodiversity Data Centre to retain resources that will support agri-food companies with their biodiversity targets.

4. Engaging members in best practice

Farmers and Manufacturers

- We will work with the Agricultural Sustainability Support and Advisory Programme (ASSAP) to build awareness of local water quality issues and risks.

3 PILLAR 3: INTEGRATED CIRCULAR ECONOMY APPROACH

The circular economy approach acknowledges the need to move away from the traditional “make, use, and dispose” manufacturing model. It aims to alleviate the strain on finite resources by minimising and streamlining material consumption while reclaiming discarded materials as valuable resources for potential new economic uses. Alongside material recycling, Origin Green places significant emphasis on addressing food waste within this

framework, collaborating with various partners and potential partners such as Repak, FoodCloud, the Environmental Protection Agency (EPA), the Sustainable Energy Authority of Ireland (SEAI), Enterprise Ireland, and farming organisations.

The four aspects of this commitment are:

1. Branding and insight for circular approach

Manufacturers

- We will share thought leadership and insight to promote innovative approaches.
- We will promote the circular economy in Bord Bia’s brand development work.

2. Food waste measurement tools

- Partnering with the EPA to incentivise the uptake of manufacturing and retail/foodservice food waste methodologies and accounting tools.
- Enabling the development of sector-specific data points and metrics.

3. Mandatory food waste target

- If applicable, food waste will become a mandatory target for manufacturers above a certain size participating in the Origin Green programme.

4. Circular guidance documents and workshops

Farmers

- Encouragement of the use of more Inclusion of waste management practices in new producer standards.
- Promoting partnerships with farmer members on the circular and bioeconomy.

Manufacturers

- We will support innovation by highlighting best practice and encouraging collaboration.



Origin Green Next Phase

4 PILLAR 4: DEEPEN FARMER ENGAGEMENT

Bord Bia's farmer engagement strategy will focus on ensuring that farmers understand the benefits of Origin Green and the sustainability schemes they are participating in and recognise the value of the auditing system in ensuring the credibility of its data. More broadly, engagement will demonstrate how Bord Bia's market development activities support Ireland's food producer base and the Food Vision ambition for continued export growth to 2030.

The farm engagement strategy will seek to:

- Develop communications across multiple channels.
- Improve farmer understanding and experience of the auditing process to deepen engagement.
- Build farmer advocacy through ambassadors, farm walks, agri sponsorships and events.
- Reinforce the importance of quality and sustainability standards.
- Engage and educate farmers on key Origin Green sustainability developments and initiatives.
- Understand farmer member challenges and opportunities through research and feedback.

Proving Responsible Choices

The requirement for a holistic, systemic approach to our sustainability challenges doesn't end at producer or manufacturing level. The nutritional and dietary value of food is increasingly being understood as an important component of its sustainability. Through informed decision making and their purchasing power, consumers can provide the ultimate validation of food systems that work for the common good. Bord Bia's Origin Green programme will dedicate increasing resources to growing awareness of this important issue, side by side with enhanced levels of assurance and proof-points for retailers, foodservice, and consumers. Choosing food and drink from Ireland will mean choosing from a country that is providing proven leadership in food sustainability.

Proving Responsible Choices operates over three pillars:

- Championing better health and nutrition
- Enhanced assurance and proof-points
- Recognised leadership in food sustainability

1 PILLAR 1: CHAMPIONING BETTER HEALTH AND NUTRITION

As the role that our food choices play in our health and welfare is increasingly recognised, the conversation is also shifting from a focus on quantity and availability, towards nutritional value. In the coming decade, systemic thinking about sustainable food systems will increasingly reference sustainable nutrition. As priorities change in the food system, the emphasis will move from 'yield per acre' to 'nutritional value per acre'.

With partners, and potential partners, including Healthy Ireland, SafeFood, the Food Safety Authority of Ireland (FSAI), Forum for

the Future, Teagasc, and Ireland's university system, Bord Bia will support the development of industry expertise to deliver sustainable nutrition through a four-fold strategy:

1. Develop the evidence base for sustainable nutrition

Bord Bia will develop partnerships to collate the evidence base for the nutritional value of meat and dairy and their importance for human health. It will support the industry in setting targets and developing initiatives to improve the health and nutrition profile of their products.

2. Provide health and nutrition guidance for companies

We will work with Irish companies to provide industry insight on how to link growing awareness of sustainable nutrition with their world-class outputs, for example, advocacy for better meat and dairy as part of the flexitarian diet. We will also conduct research on emerging trends in sustainable consumption.

3. Support innovation and diversification

This will highlight opportunities in the shift in plant-forward diets, promoting innovation partnerships, organics, and the diversification of food systems, including the growing market for functional foods and precision nutrition.

4. Build the narrative and positioning for sustainable nutrition

Bord Bia's national and global communications plans will develop content and provide focus on sustainable nutrition allowing consumers to make responsible, informed choices in this emerging area.



Origin Green Next Phase

2 PILLAR 2: ENHANCED ASSURANCE AND PROOF POINTS

As we set increasingly higher expectations for the agri-food sector, we need to ensure that we are measuring progress accurately and against agreed international standards. Origin Green farm membership will continue to be driven by participation in world-class quality and sustainability programmes. In partnership with organisations such as Teagasc, Animal Health Ireland (AHI), FSAI, the Global Food Safety Initiative (GFSI), the Irish National Accreditation Board (INAB), National Standards Authority of Ireland (NSAI), these will deepen and evolve, in tandem with our capacity to measure, report, audit, and analyse data. Bord Bia's marketing and communications will share the evidence of the Irish food, drink, and horticulture industry's success, enabling our global customers and consumers make informed, responsible choices.

A five-point programme will involve:

1. Quality-focused standard development and auditing improvements

Ongoing reviews of quality management systems, auditing operations, and implementation of improvement measures will ensure the integrity of the Sustainability and Quality Assurance Schemes are maintained to highest international standards.

2. Quality and welfare metrics

A revamp of producers' standards, a new DNA testing programme, and the roll out of the Sustainable Food Processor Assurance Scheme will be undertaken as we continue to maintain the highest food quality and transparency standards.

3. Enhanced animal welfare standards

New Bord Bia standards will include updated animal welfare

criteria and be supported by the development of accurate reporting and analysis of animal medicine use.

4. Farmer supports on animal welfare and quality assurance

Bord Bia will develop and implement additional bolt-on modules for members to drive increased ambition in animal welfare. Increased collaboration with AHI will facilitate the development of training modules on the Farm Hub centred on AMR, mastitis, calf welfare etc.

5. Leveraging proof-points through Food Brand Ireland

Bord Bia's global marketing and communication activities, including the promotion of the Grass Fed Standard and the domestic Quality Mark campaigns will increasingly leverage the evidence accrued.

3 PILLAR 3: RECOGNISED LEADERSHIP IN FOOD SUSTAINABILITY

In the 11 years since it was established, Origin Green has played an increasing role in differentiating Ireland in the global marketplace. Recent Bord Bia trade customer research found 89% awareness of Ireland as a source of sustainably produced food and drink, while 75% of Origin Green member companies agree it provides a competitive advantage for business.

As we facilitate a step change in our industry's commitment to sustainability, Bord Bia will support the food, drink, and horticulture industry in leveraging sustainability and their participation in the Origin Green programme, Ireland's food and drink sustainability programme, as a key differentiator in the international marketplace. Working with potential partners including SAI, the Consumer Goods Forum, Global Compact, marketing and communications agencies and media partnerships our actions and successes, confirmed by a

strong evidence base, will allow us to contribute as thought leaders in the global conversation on sustainability in the food industry.

A four-point strategy will see Bord Bia and the Origin Green programme:

1. Build the food sustainability leadership capability of the industry

Bord Bia will build its capacity as a centre of excellence for food sustainability, developing and launching a world class leaders executive education programme to accelerate sustainability action across our industry.

2. Accessing market benefits

Bord Bia will support member companies to leverage their sustainability credentials in the marketplace as winning points of differentiation.

3. Leading food sustainability insight

We will continue to develop food sustainability insight thought leadership, contributing to, and convening global thought leadership on sustainability.

4. Powering Food Brand Ireland

Bord Bia will drive awareness of Ireland as a source of sustainably produced food and drink among customers globally, leveraging our sustainability advantage for the benefit of our farmers and manufacturers.

Conclusion

Conclusion

A National Programme with Global Ambition

Origin Green is a national food and drink sustainability programme with a global ambition: to make Irish food and drink the first choice internationally because it is trusted as sustainably produced by people who care.

Developed over time, Origin Green has become a dynamic, evolving programme of measurement and improvement and a best in-class framework, designed for suppliers in partnership with customers, to meet the latest global sustainability challenges and requirements, in line with the UN SDGs.

As global demands around sustainability are accelerating and recognising that consumers around the world are more concerned than ever about how their food is farmed and produced, from its carbon footprint to how it is packaged as well as the nutritional value it brings, Origin Green's Powered by Partnership strategy brings a new level of ambition to our industry's sustainability journey.

It offers the gateway to access the detailed and verified scientific data needed to credibly answer the growing range of sustainability demands of our stakeholders – policy makers, customers, consumers, and society in general.

With over 90% of Irish food and drink exports coming from Origin Green member companies, we are sending a powerful signal that partnering with Irish suppliers enables businesses around the world to prove to their consumers that they are buying high quality, sustainably produced food and drink.



