

Origin Green

Progress Update Report 2021

BORD BIA
IRISH FOOD BOARD



Highlights

300 companies | 55,000 farms | 71,000 members



The Origin Green programme collaborates with 300 companies and 55,000 farms across Ireland, with a cumulative membership of 71,000 across Bord Bia's schemes for beef, dairy, eggs, horticulture, lamb, pig and poultry.

The 2021 Progress Update Report presents an overview of the latest developments to the Origin Green programme in 2020 and 2021 and provides an update on members in the programme, covering the period of 2018 – 2019. Origin Green member information for this period was verified and audited over the course of 2020 and is now being reported in 2021. This includes progress update on verified Origin Green members at the producer level, at the manufacturing level and the foodservice and retail level.

6.3% average reduction in CO₂ per unit of beef from SBLAS members.



6% average reduction in CO₂ per unit of milk from SDAS members.



1,144,536 trees planted (2014-2019)



53,000+ audits carried out remotely due to Covid-19.



290,000 carbon footprints calculated to date.



21,000 farmer feedback reports distributed to SBLAS & SDAS members in 2021.

71% In 2021, 71% of Origin Green companies believe that Origin Green provides a competitive advantage for their business.

90% believe that Origin Green has supported them in providing a framework to measure & report on sustainability.

2,779 sustainability targets | 13,600 initiatives
Origin Green member companies have set a total of 2,779 sustainability targets and established 13,600 initiatives between the years 2012 – 2021.

90% Origin Green members account for 90% of our total food and drink exports.

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Letter from the CEO

I am delighted to see the publication of the **Origin Green Progress Update Report 2021**. Since its inception in 2012, Origin Green has established an infrastructure for farmers and producers committed to positive change and sustainable food production across Ireland. Origin Green remains the world's only national food and drink sustainability programme, and has been part of a wider coalition of the willing across the Irish State actively working to drive positive and lasting change.

Recent challenges such as the Covid-19 pandemic, international trade tensions, and the ever-growing impact of climate change have reiterated the crucial role that Origin Green must continue to play in maintaining and growing Ireland's global reputation for food and drink that is sustainably produced by people who care. Origin Green has achieved significant progress over the past 9 years, and the proof we have compiled from our work with members highlights that the programme's vast scale is what makes Origin Green unique and effective.

Currently Origin Green collaborates with approx. 55,000 farms and over 300 leading Irish food and drink companies to prove and improve the sustainability of the food they produce to meet the evolving needs of customers and consumers globally. The 2021 Progress Update Report presents an overview of the latest developments within the Origin Green programme and highlights the significant and ongoing efforts of our members to impact positively on greener ways of farming and the adoption of more sustainable food production methods.

Irish agriculture is central to the food and drink industry, as is working with the sector to help farms to transition sustainably for future generations. Origin Green offers practical guidance and advice to inform farmers on how to manage their inputs in a more environmentally efficient way. The programme collaborates with 55,000 farms across Ireland, with a combined membership of 71,000

across Bord Bia's schemes for beef, dairy, eggs, horticulture, lamb, pig and poultry.

Measurement and traceability are at the heart of Origin Green. This is what gives the programme credibility in markets throughout the globe. Each week, through a network of over 100 auditors, Bord Bia carries out 650 farm audits on which we can base our assessment of the ongoing progress which has been made.

The Origin Green programme has recorded improvements among our farmer members, such as a 6.3% average reduction in CO₂ per unit of beef from SBLAS members and a 6% average reduction in CO₂ per unit of milk from SDAS members. In particular, a subset of 400 SDAS members have decreased their carbon footprint over three consecutive cycles of audits and reduced their average footprint by 18% - demonstrating a phenomenal improvement in carbon efficiency per unit of output. The scale and scope of the Origin Green programme continues to produce important results, with 290,000 carbon footprints calculated to date and over 53,000 farm audits carried out remotely due to Covid-19.

Origin Green members have achieved significant milestones across the supply chain, and account for 90% of our food and drink exports. Manufacturing members have set a total of 2,779 sustainability targets and established 13,600 initiatives between the years 2012 - 2021.



Letter from the CEO continued

Since our last report, member companies have continued to showcase a strong performance across their operations, with targets across areas such as energy, water and overall emissions all having fallen, while considerably enhanced and more ambitious targets are now the standard across all areas since the launch of the Origin Green Credits System. In retail & foodservice, our 10 verified members have set a total of 165 sustainability targets across the areas of Sustainable Sourcing, Operations, Health & Nutrition and Social Sustainability. Recognising the need to further drive and incentivise continuous improvement at this level of the programme, a new credits system for retail and foodservice members will be launched in 2022 following the success of this new model at the manufacturing level.

In addition to supporting our members in measuring and monitoring sustainability performance across the supply chain, Origin Green has engaged collaboratively with our members to provide guidance and resources to accelerate sustainability improvement. We have introduced new services and significant changes to the Origin Green programme with an aim of supporting our members in driving further improvements to ultimately drive down emissions from the sector.

In 2021, Bord Bia published *Pathways to Net Zero*, highlighting new procedures and guidelines that put carbon emission targets on a mandatory footing for food and drink manufacturers as the sector seeks to accelerate its contribution to the Programme for Government's aim of carbon neutrality by 2050. This marked a significant shift for the Origin Green programme and will see member companies go beyond reductions of energy-related emissions, to include a more comprehensive assessment of their entire carbon footprint, including value chain emissions which incorporates all indirect emissions (Scope 3) associated with food manufacturing.


For the first time, Bord Bia in November 2020 formally recognised 26 Irish food and drink companies who attained a new higher level of membership for the programme, Gold Membership.

Companies are now eligible for Origin Green Gold Membership where they have demonstrated an overall exceptional performance within a given year. In the past, all Origin Green companies were given the designation of being a 'verified member'; but Gold Membership now recognises the ambition of certain companies who are making significant strides in their sustainability efforts and awarding them accordingly.

Looking to the future, the Government have set out an ambitious plan to more than halve our carbon emissions over the course of the decade. This will be challenging and will require significant changes in many areas of Irish life including farming and the food and drink manufacturing sector. The introduction of sectoral carbon budgets will place greater emphasis than ever on improving the environmental performance of the Irish agri-food industry. The Origin Green programme, in conjunction with partners, will help drive innovation and improvements in land management to reduce emissions, and build on Ireland's green reputation for producing high-quality and sustainable produce, ensuring that the long-term outlook for the industry remains positive and resilient.

Over the last 9 years, the Origin Green programme has demonstrated leadership in food sustainability, providing the food and drink sector in Ireland with the knowledge and guidance to embed sustainability into their businesses, helping to bring a competitive advantage to the Irish food and drink industry and forging a reputation for innovative leadership internationally.

Operating from farm to fork, the Origin Green programme has the scale and scope to impact positively on greener ways of farming and more sustainable food and drink production methods. Utilising the proof we have compiled from our work with members and programme partners, we must maximise the power of this network to maintain our global leadership position in sustainable food production for today and tomorrow.



Tara McCarthy
Chief Executive Officer of Bord Bia

Overview of Origin Green

Overview of Origin Green

What is Origin Green?

Origin Green is Ireland’s food and drink sustainability programme. Led by Bord Bia, it is a voluntary programme that drives, monitors and measures sustainability improvements across the entire food and drink supply chain on a national level. Independently monitored and verified at every stage, the programme is open to farmers, producers, manufacturers, retailers and foodservice companies. It remains the world’s only national food and drink sustainability programme.

Origin Green focuses on the three key pillars of sustainability which are economic, social and environmental performance.

The benefits of Origin Green include more environmentally aware farms, an important focus on community and more sustainable food and drink production, which ultimately contribute to sustainable livelihoods. This is what makes Ireland’s food and drink produce the first choice globally; it is trusted as being sustainably produced by people who care.

Currently, Origin Green collaborates with circa 55,000 farms and 300 leading Irish food and drink companies to prove and improve the sustainability of the food they produce to meet the evolving needs of customers and consumers globally.

Origin Green **enables** producers, manufacturers, retailers and foodservice operators to drive sustainability improvements through Bord Bia’s suite of Sustainable & Quality Assurance Schemes and the Origin Green Charters; it **ensures** the validity of claims that Irish food and drink is sustainably produced through accreditation and third-party verification; and it continues to **evolve** in order to drive improvement whilst in tandem meeting the requirements of our customers.

Improving Sustainability

by collaborating with circa
55,000
farms

and

300
Leading Irish
food and drink
companies



Overview of Origin Green continued

Origin Green for Producers

Origin Green plays a unique role in supporting farmers and producers by educating them on sustainability issues and providing them with a framework to improve their sustainability performance. This is done through Bord Bia's Sustainable & Quality Assurance schemes, which assess farming practices and record data to demonstrate the sustainability of Irish farming in a systematic way at an individual farm level. It can therefore provide the necessary proof to customers that Irish produce meets strict sustainability and quality assurance criteria.

On-farm audits are conducted by an independent auditor on every scheme member's farm at 18-month intervals. The producer receives the results in a dedicated Farmer Feedback Report, which allows them to make informed decisions on improving the sustainability of their farms while also improving their efficiency and viability. The report includes a summary of General Farm Performance, Carbon Footprint, Greenhouse Gases, Nutrient Management, Grassland Management and Farm Health and Safety.

55,000 producers are members of Bord Bia's **Sustainable Assurance Schemes** for beef and lamb (92% of beef produced), dairy (95% of milk produced), horticulture (70% of horticulture produced) and egg (95% of eggs produced).

Origin Green for Manufacturers

Origin Green enables Irish food and drink companies to develop a comprehensive multi-annual sustainability plan. This plan encompasses environmental, social and economic sustainability, helping them to reduce environmental impacts, achieve efficiencies in the daily running of their business and ensure their business has a positive social impact in their community.

Manufacturers can become Origin Green verified members by developing and delivering a sustainability plan with clear, measurable and time bound targets in accordance with the *Origin Green Sustainability Charter*. To qualify, a plan must include targets that are relevant to the company's business in three key areas; **Raw Material Sourcing**, **Manufacturing Processes** and **Social Sustainability**. Each plan is independently verified, with targets reviewed and monitored for continuous improvement on an annual basis by Mabbett, a leading global inspection, verification, testing and certification company.

At the start of 2020, Bord Bia introduced the Origin Green credits system, which simplifies the verification process for participating companies and makes the process more transparent. It also enables companies that have demonstrated exemplary sustainability target performance to be awarded Gold Membership.

300 verified member companies representing circa 90% of Irish food and drink exports. In 2020, **26 of those companies** were awarded the new Origin Green Gold Membership.

Origin Green for Retailers and Foodservice Companies

Retailers and Foodservice companies may also become verified Origin Green members through the development of a sustainability action plan and the delivery of ambitious, measurable and time bound targets that are relevant to the company's business. Targets must be set in four key areas; **Sustainable Sourcing**, **Operations**, **Health & Nutrition**, and **Social Sustainability**.

10 companies have become fully verified members of the Origin Green programme at **retail and foodservice level**. This represents circa 75% of the Irish retail market and includes five of the leading foodservice companies in Ireland.

Enables and Ensures

Overview of Origin Green continued

What's new in Origin Green in 2021

In view of the global food industry's growing sustainability challenges, Origin Green is constantly evolving to drive improvements by measuring what matters on an ongoing basis. This is to ensure that sustainable food production is both viable and achievable, and – most importantly – that it makes a positive contribution to addressing the sustainability challenges facing the sector globally.

REFOCUSING EFFORTS TO TARGET GREENHOUSE GAS EMISSIONS

Bord Bia acknowledges that Ireland's agri-food sector needs to do more to reduce carbon emissions. Consequently, recent adaptations to the Origin Green programme have focused on efforts to reduce greenhouse gas emissions (GHG) within the Irish food and drink industry. Ireland and the EU have both set targets for carbon neutrality by 2050 and the Origin Green programme, working in

conjunction with partners such as Teagasc, provides a coordinated national approach to measuring and reducing emissions across the agri-food supply chain and will support the sector to transparently communicate its progress towards reaching these goals.

At the Producer Level

New aspects across Bord Bia Sustainability & Quality Assurance Schemes for farmers that focus on GHG emissions include:

- **New Farmer Feedback Report** with greater emphasis on the impact of GHG emissions.
- **Updated sustainability survey** to better capture improvements to the carbon footprinting models and uptake of new technologies.
- **New collaboration** with the Irish Cattle Breeding Federation (ICBF) to improve accuracy of farm carbon footprint calculations.
- **Carbon Footprint Champion Reports.**




At the manufacturing level Pathways to Net Zero

Bord Bia's *Pathways to Net Zero*¹ puts carbon emission targets on a mandatory footing for Origin Green members. The initiative was launched at a webinar on 11th March 2021, attended by approximately 300 food and drink companies.

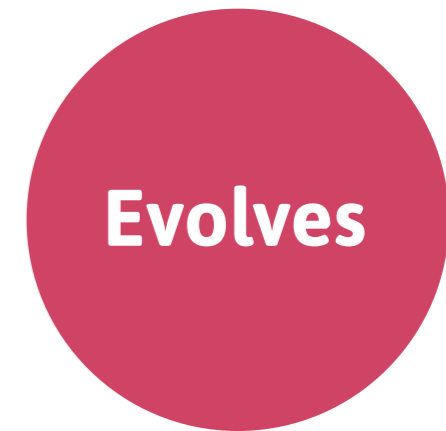
To drive impact at scale, Bord Bia is initially introducing this mandatory carbon emission target to Origin Green members with a turnover above €50 million, classified as 'Tier 1' and 'Tier 2' companies under the new Tiered Membership scheme. Companies must conduct baseline assessments in 2021 to determine emissions targets from 2022 onwards.

As part of this new development, Bord Bia has prepared comprehensive **guidelines** for companies on how to decarbonise their own operations and their supply chains. The advice on net zero target setting and implementation is based on the **United Nation's "Measure, Reduce, Compensate" model.**

Some other key developments to the Origin Green programme in 2020 and 2021 include:

PRODUCER LEVEL 	MANUFACTURER LEVEL 	COLLABORATION 
<ul style="list-style-type: none"> • Roll out of the Grass Fed Standard • New Farm Feedback Reports • Updated Sustainability Survey • Lamb Carbon Footprint Model 	<ul style="list-style-type: none"> • Origin Green Credits System • Origin Green Gold Membership • Guidance Documents • Renewed focus on target areas guides and smart target setting with key partners 	<ul style="list-style-type: none"> • Origin Green Global Council • Teagasc Signpost Farms • Biodiversity Ireland • UN Global Compact • The Consumer Goods Forum

Details about these initiatives can be found in the relevant chapters throughout this report.



¹ Bord Bia, Pathways to Net Zero, 2021

Setting the Scene

Setting the Scene

Since the last publication of the Origin Green Progress Update report, the Irish food and drink industry has been faced with a number of unprecedented challenges, most notably the COVID-19 pandemic and Brexit. Additionally, during this period, sustainability moved to the forefront of the legislative agenda with flagship environmental policies introduced at national and European levels, and customer demand for sustainable products reached new heights. These developments reinforce the importance of Origin Green for the Irish food and drink sector going forward.

COVID-19

The COVID-19 crisis placed huge pressures on the functioning of food and drink supply chains globally and pushed questions about food security front of mind². Shortages of farm labour, particularly in the horticulture sector, disruptions to processing, transport and logistics, and momentous shifts in demand (notably with the decline in value of the foodservice sector globally by 27%, including a loss of 47% to the Irish foodservice sector compared to 2019 figures³), tested the resilience of the Irish food and drink sector.⁴

COVID-19 also changed consumer habits, as the pandemic further highlighted the importance of a healthy lifestyle. An EIT Food study on the impact of COVID-19 on consumer behaviour suggests almost half of European consumers intend to prioritise being in good health following the pandemic⁵. The study also shows that demand for healthy, local sourced and sustainable food and drink products has grown.⁶

² [The World Bank](#), Food Security and COVID-19, December 2020

³ Bord Bia, Foodservice Report, 2021

⁴ [OECD](#), Food Supply Chains and COVID-19: Impacts and Policy Lessons, June 2020

⁵ [EITFood](#), COVID-19 impact on consumer food behaviors in Europe, 2020

⁶ [EITFood](#), COVID-19 impact on consumer food behaviors in Europe, 2020

The events of the past year have highlighted the critical need for resilient and sustainable food systems and the Irish food and drink industry has risen to the challenge. Despite the difficulties, Irish food and drink exports were worth €13bn in 2020, which is remarkably only a 2% reduction from a record breaking 2019.⁷

Increased consumer and customer awareness of, and demand for, sustainable food products

Demand for sustainable and environment-friendly food products has been steadily increasing. Consumers increasingly want food that is sustainably grown, which at the same time benefits farmers, the environment and their own nutritional demands.⁸

According to Bord Bia's [Dietary Lifestyle Report](#), the environment is one of the five key drivers of dietary lifestyle trends identified by the study, with 65% of people making more of an effort to be aware of the environment around them. Furthermore, the 2021 Global Sustainability Outlook⁹ insight study by Bord Bia, covering 13 markets, outlines that circa four in ten consumers say sustainably produced products are very important or essential when doing grocery shopping, increasing to six in ten in some markets. Three in four say that in just the last 12 months, they have made more of an effort to buy more sustainable food products. Approximately two in three say sustainably-produced products are worth paying more for. When it comes to beef and dairy, the sustainability attributes most able to command a premium are grass-fed, quality assurance and high welfare standards.

⁷ Bord Bia, Performance and Prospects Report 2020/2021, January 2021

⁸ [Corteva](#), Sustainable Food Systems, September 2019

⁹ Bord Bia, 2021 Global Sustainability Outlook

Origin Green has and will continue to play a central role in responding to market challenges, by providing a mechanism through which the Irish food and drink industry can measure, monitor and drive sustainable improvements in the sector.



Setting the Scene continued

Business customers are setting more science-based targets and looking further back into their supply chain to meet these, meaning sustainability credentials are becoming more important globally. According to the 2021 Global Sustainability Outlook¹⁰, seven in ten customers say having suppliers with strong sustainability credentials is important and four in ten say all or the majority of their suppliers have sustainability accreditations.

For consumers, sustainability is also growing in importance and as the majority make an effort to become more sustainable, this is impacting their shopping habits. The research found that the dominant sustainability topics for agenda setters (i.e., external thinkers, NGOs driving the sustainability agenda and sustainability leads working with customer organisations) were GHG emissions, biodiversity, water quality, and data and traceability. For those in the procurement area, the key topics for them and their consumers are food waste, grass-fed (for beef and dairy) and the naturalness of food. For both groups, 'must haves' are sustainable packaging, food waste and animal welfare.

The results of the study are reflected in the fact that business customers are increasingly seeking proof of sustainability credentials as a prerequisite to doing business. By implementing sustainability strategies that are shaping their sourcing policies, opportunities are growing for those suppliers that share their sustainability mindset.

Examples of customers' sustainability efforts include:

Among retailers:

- French retailer Carrefour has introduced a **Food Transition Pact** for its suppliers, addressing packaging, biodiversity, transparency, responsible products and climate.¹¹
- Sainsbury's has **committed** to carbon neutrality by 2040, which they will achieve through seven focus areas including ensuring the impact of operations is net positive for biodiversity and reducing use of plastic packaging.¹²

In the Foodservice sector:

- Sodexo has a carbon emission reduction **target** of 34% in place for 2025, which includes reducing indirect carbon emissions occurring from activities with their clients and suppliers.¹³
- McDonald's Better M **Platform** has five key targets including packaging and recycling, climate action and beef sustainability.¹⁴

On the production side:

- **Danone's 2030 Goals** are aligned with the 2030 UN SDGs and include goals of climate neutrality by 2050 and sustainable sourcing for all its ingredients.¹⁵
- Unilever has **committed** to net zero emissions by 2039 and has indicated it intends to share the carbon footprint of every product it sells.¹⁶
- To reach its target of zero net emissions by 2050, Nestlé meanwhile has identified key **actions**, including working with dairy farmers to reduce GHG emissions.¹⁷

¹¹ <https://www.carrefour.com/en/csr/commitment/food-transition-hub>

¹² https://www.about.sainsburys.co.uk/~/_media/Files/S/Sainsburys/CRS%20Policies%20and%20Reports/sainsburys-net-zero-by-2040-report-november-2020.pdf

¹³ <https://www.sodexo.com/home/positive-impact/sustainability/reducing-environmental-impact.html>

¹⁴ <https://corporate.mcdonalds.com/corpmcd/en-us/our-stories/article/ourstories.better-mplatform.html>

¹⁵ <https://www.danone.com/about-danone/sustainable-value-creation/our-company-goals.html>

¹⁶ <https://www.unilever.com/planet-and-society/climate-action/strategy-and-goals/>

¹⁷ <https://www.nestle.com/csv/impact/climate-change>

71% of members believe that Origin Green provides a **competitive advantage**

90% of respondents said that Origin Green has supported them in providing a **sustainability framework**

Origin Green supports Irish and food and drink producers in meeting these market demands. According to a Commercial Impact Assessment conducted by Ernst and Young on behalf of Bord Bia in 2021, 71% of Origin Green companies believe that Origin Green provides a competitive advantage for their business and 90% of respondents believe that Origin Green has supported them in providing a framework to measure and report on sustainability. The assessment shows that for Tier 1 & 2 companies (>€50million) 54% of their annual turnover in 2019 is contingent upon sustainability credentials.

According to Bord Bia's Annual Buyer Survey (November 2020), which surveys Irish Food and Drink companies' customers, 67% of buyers claim to be aware of Origin Green, with strong spontaneous feedback stating that Origin Green promotes certified sustainable production of food and drink.

Origin Green enables Irish food and drink producers to prove their sustainability credentials to buyers and track their progress through its measuring and monitoring mechanisms.

¹⁰ Ibid.

Setting the Scene continued

Policy environment

IRELAND

The Irish government enacted landmark legislation to legally enforce reductions in carbon emissions in October 2020. The **Climate Action and Low Carbon Development (Amendment) Bill** commits Ireland to a target of carbon neutrality by 2050. It sets carbon budgets, including a provision for setting sectoral targets, and requires the Climate Action Plan to be updated on an annual basis and its progress to be reported on every quarter.¹⁸ The Bill was a key commitment of the **Programme for Government 2020**.

In December 2020, the Department for Agriculture, Food and the Marine (DAFM) published a **roadmap** for achieving the 2030 climate ambition in agriculture, as set out in the **Climate Action Plan 2019**. It will be updated as the Climate Action Plan is revisited to reflect the more ambitious 2050 targets of the Climate Action Law. The Department identified six key tasks that need to be achieved to meet the sector's targets: reduce GHG emissions; increase carbon sequestration; reduce nutrient loss; reduce ammonia emissions; build sustainable, resilient food production and land use management systems; and transparently communicate progress. The roadmap identifies Origin Green as the means through which the progress of the sector can be transparently communicated.

EUROPEAN UNION

The European Union presented **The European Green Deal** in 2019, which sets out an ambitious and wide-ranging sustainability agenda to transform the EU economy and achieve climate neutrality by 2050. The key policy initiatives of the Green Deal for the Irish agri-food industry are the **Farm to Fork Strategy**, the **Biodiversity 2030**

¹⁸ **Irish Government**, Government-publishes-new-climate-law-which-commits-ireland-to-net-zero-carbon-emissions-by-2050, October 2020

Bord Bia is committed to playing its part in a collaborative and meaningful way with all industry partners to support and deliver on actions outlined in the Government's Climate Action Plan.

Strategy and the **Circular Economy Action Plan**, which together are expected to result in over 120 legislative and non-legislative initiatives over the next four years.¹⁹

The Farm to Fork Strategy aims to create a sustainable food system in the EU and includes initiatives to address all aspects of the food chain. A cornerstone of the strategy is the legislative framework for sustainable food systems, which the European Commission will propose in 2023. Other key aspects include targets to reduce the use and risk of chemical pesticides, halve the use of more hazardous pesticides in the EU by 2030 and for a quarter of agricultural land in the EU to be farmed organically by 2030.²⁰

GLOBAL

Significant efforts have been made in recent years at a global level to address the challenges of global warming. The United Nation's 2030 Agenda for Sustainable Development and the **Paris Climate Agreement** are two key initiatives which Ireland has committed to.

In 2015, the UN's 193 member states agreed the **2030 Agenda for Sustainable Development**, which includes the 17 **Sustainable Development Goals (SDGs)**. These goals are in areas such as climate action and good health and well-being. Origin Green is now **aligned** with 15 out of the 17 SDGs.

¹⁹ **EU**, European Green Deal

²⁰ **EU**, Farm to Fork Strategy, 2020

The Paris Climate Agreement, signed in 2015 by 190 countries including Ireland and the other EU Member States, sets out a global framework to limit global warming to well below 2°C and pursuing efforts to limit it to 1.5°C.

Origin Green will be instrumental in helping the sector to monitor its progress and drive it towards reaching the objectives of national and EU policies, as well as international targets.

BREXIT

The **EU and UK Trade and Cooperation Agreement** was agreed on 24th December 2020. While the Agreement ensured that a No Deal Brexit was avoided, the UK's exit from the EU means that Irish food and drink companies now face increased barriers exporting to the UK, such as customs and sanitary and phytosanitary measures (SPS) requirements. Bord Bia will continue to provide **support** to exporters to the UK but some companies may consider exporting to other markets. Origin Green can help companies to prove the sustainability standards of their products to help maintain and grow their access to international markets.

68% of members say Origin Green is important in **opening the door for conversations with prospective customers.**

²¹ RED C, Survey with Origin Green Members, 2019

53% of members said Origin Green was important to **drive sales overseas.**²¹

Producers

Producers

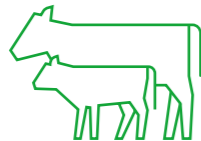


71,000+

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

400 SDAS members a subset who have decreased their carbon footprint over three consecutive cycles of audits, **reduced their average footprint by 18%**

6.3% average reduction in CO₂ per unit of beef from SBLAS members



6% average reduction in CO₂ per unit of milk from SDAS members



27% of SDAS members already achieving a CF result of **1 kg CO₂/kg FPCM**, Teagasc's Dairy industry ambition for 2027



290,000 carbon footprints calculated to date



53,000+ audits carried out remotely due to Covid-19



93% SDAS & **87%** SBLAS members conduct soil testing



1,144,536 trees planted to date (2014-2019)



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 & 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.

How Origin Green works at Producer Level

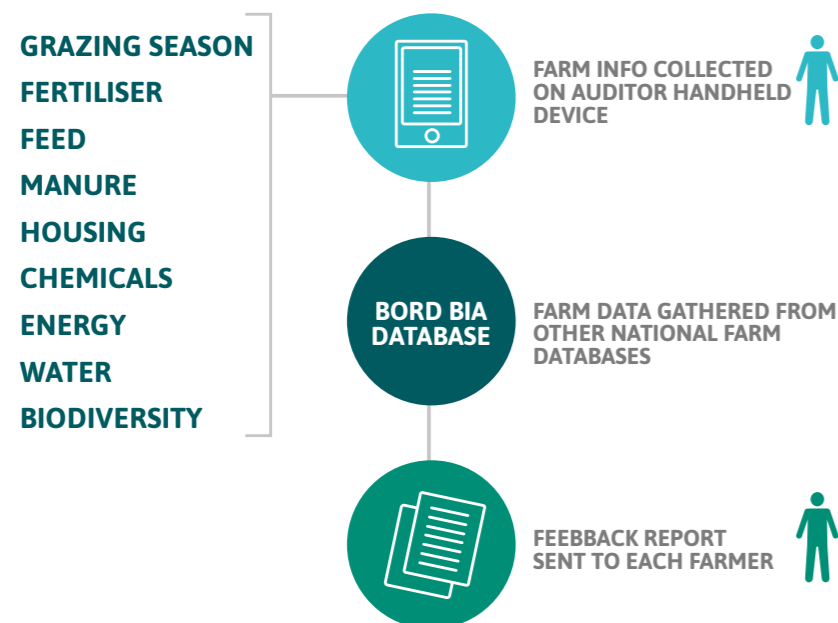
Throughout the country, over 100 independent auditors, working on behalf of Bord Bia, undertake ca. 650 independent farm audits per week. In addition to quality, the sustainability criteria measured and monitored are greenhouse gas emissions, biodiversity, water use, energy efficiency, soil management and socio-economic factors. Origin Green offers practical guidance and advice to inform farmers on how to become more sustainable, primarily through the Farmer Feedback Report distributed to SBLAS and SDAS farms since 2020.

Auditors gather data during the audit process through the Sustainability Survey that enables Bord Bia to assess the environmental performance of quality assured farms via a carbon footprint calculation.

Producers continued

The data gathered is used to generate a new Farmer Feedback Report which includes a summary of farm performance under the following headings: General Farm Performance, Carbon Footprint, Greenhouse Gases, Nutrient Management, Grassland Management and Farm Health and Safety.

The reported data compares current farm performance against changes since the last audit and similar production systems. The new farmer feedback report is designed to demonstrate to members how their farm inputs and activities contribute to GHG production and contains advice and feedback on how to mitigate against emissions and improve production efficiencies. Reassessments take place every 18 months. In 2020 21,000 farmer feedback reports were distributed to SBLAS and SDAS members.



According to a farmer research survey carried out by Bord Bia, 82% feel that farming practices in Ireland need to change in the next three years. However, 79% of farmers say that they need a lot more guidance to improve their environmental sustainability. The improved Farmer Feedback Report is designed to provide additional support to farmers.

Developments to Origin Green at Producer Level

Several new elements were introduced to Origin Green at producer level in 2020 and 2021, as the programme continues to evolve, drive improvements and measure what matters.

New FARM FEEDBACK REPORTS

Farmer Feedback Reports were introduced in 2020 to place greater emphasis on the impact of greenhouse gas (GHG) emissions, as set out in the Origin Green Strategy 2019-2021. The data gathered at audit is now being used to generate these reports. The reported data will compare current farm performance against changes since the last audit and similar production systems.

The purpose of the new Farmer Feedback Report is 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 the following headings:

General Farm Performance: This gives an overview of the general farm information and its productivity statistics, combining data collected during audits with other sources.

Carbon Footprint and Greenhouse Gases: The report contains calculations on farm GHG which are based on Bord Bia's **Carbon Footprint Models**, developed and maintained in conjunction with Teagasc and the Carbon Trust and accredited to the PAS 2050 Standard.

Nutrient Management: Farmers' slurry and fertilizer 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.

Grassland Management: This puts together data about farm's soil testing, assessments of the grass growth and housing and turnout information to provide specific suggestions on achieving better soil/grass utilisation.

Farm Health and Safety: The report also addresses relevant safety aspects that need to be considered and provides a risk rating for each aspect, based on the risk likelihood and potential severity.

Producers continued

New

COLLABORATION WITH ICBF ON CARBON FOOTPRINT MODELS

Bord Bia is now collaborating with the **Irish Cattle Breeding Federation** (ICBF) to improve the calculation of the carbon footprint of beef and dairy. ICBF have access to the data that is required to complete a farm carbon footprint, such as Agricultural Information Management Standards (AIMS)²² data and animal productivity data (live weights, milk production, calving dates etc.). Combined with the data collected in the sustainability surveys, Bord Bia will be in a position to communicate a more accurate carbon footprint for each farmer and for the industry, and provide more farm specific data and advice to farmers through their Farmer Feedback Report.

In addition to this collaboration, in 2021, Teagasc will be sharing an updated carbon footprint methodology for dairy and beef. These new models will incorporate emissions savings from the use of Protected Urea and improved slurry application technologies as well as emissions co-efficiencies specific to Irish agricultural practices, as published in scientific literature.

New

SUSTAINABILITY SURVEY UPDATED

To reflect the improvements to the carbon footprinting models the sustainability survey was updated. The survey was first introduced to farmers in 2013 and the changes to farming practices and technologies since then need to be captured in the survey. Updates are also required to reflect the additional data that is required to complete the Grass Fed calculations for beef and dairy. Updates of the sustainability survey in 2020 included:

Housing and Turnout: Bull Beef category included to reflect the Beef Grass Fed Standard.

²² For more information, please see <http://aims.fao.org/>

Manure Management: Updated to enable the farmer to report what technology was used to apply manure to land during the year. This allows for the incorporation of season specific Nitrous oxide emission calculations.

Cattle Feeding: Updated to reflect the needs of the beef and dairy grass-fed standards, such as the feeding of alternative forages.

Fertilizer: Updated list of 17 fertilizers. New fertilizer technologies such as protected urea will also be captured.

Energy Use and Renewables: Now included to capture the uptake of renewable energy on farms and report energy efficiency.

Dairy (SDAS): Updated to capture milk harvesting and cooling infrastructure and practices on farm to be incorporated into an

energy prediction model which aims to identify energy inefficiency and reduce costs.

New

GRASS FED STANDARDS FOR BEEF AND DAIRY

In 2020, Bord Bia launched a Grass Fed Standard for **beef** and **dairy**, the world's first to launch on a national scale, that allows the tracking and verification of the percentage of grass consumed in the diet of Irish dairy and beef herds. Almost half of consumers globally associate Ireland with grass-fed beef and dairy²³, as such the standard was developed in direct response to the growing international consumer and customer demand.

²³ 47% of consumers globally, source: Bord Bia/**Ernst and Young** Research 2018



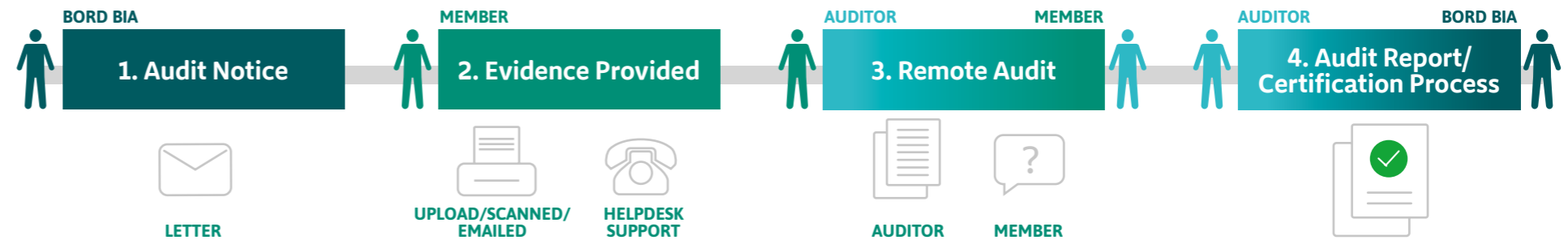
Producers continued

The Bord Bia Grass Fed Standard sets out the grass-fed rules that must be adhered to by individual farms so that products can be classified as grass fed. For herds to qualify for the Grass Fed Standard, grass must constitute at least 90%/95% (beef/dairy) of feed intake throughout each animal’s lifetime, on a fresh weight basis. This translates to a minimum of 220 days per year outdoors, with an allowance of up to 40 days where soil type or weather may prevent longer grazing seasons. The proportion of grass in the animal’s diet is calculated using a scientific grass-fed beef model, developed by Teagasc’s Animal and Grassland Research and Innovation Centre.

The Grass Fed model uses data collected during the ISO-accredited Sustainable Beef and Lamb Assurance Scheme (SBLAS) and Sustainable Dairy Assurance Scheme (SDAS) on-farm audits to determine the grass-fed status of each participating herd.

New **LAMB CARBON FOOTPRINT**

As part of the Sustainable Beef and Lamb Assurance Scheme, a model has been developed and accredited by the Carbon Trust to measure emissions on lamb enterprises, and thus calculate a Carbon Footprint result on a per-audit basis. The carbon footprint will be calculated as a kilo of CO₂-equivalent per kilo of live weight lamb. A core element of this project is the creation of a new Lamb Sustainability Survey which will gather all the necessary data to ensure accurate Carbon Footprint calculations. This survey will be completed prior to, or during an audit and record information on housing, fertiliser usage and feeding rates. This will enable the generation of carbon footprint and productivity reports for farmers, detailing how they compare to national values, and provide advice on how to incorporate more sustainable practices into their enterprise. The model is currently being deployed on farms and soon farmers will be able to utilise the feedback from their reports.



Origin Green Remote Audit System

COVID-19: ADAPTING TO VIRTUAL AUDITS

Due to measures put in place by the Irish government to curb the spread of the COVID-19 virus, Bord Bia introduced a remote audit system in 2020 so that effective farm assessments could continue to safely take place.

An IT system was developed to guarantee the integrity of data collected, while also ensuring the safety of both farmers and auditors. During the remote audit process, the farmers were asked to provide photographic evidence to verify that they were compliant with scheme requirements.

New **ORIGIN GREEN FARMER CAMPAIGN**

Newsletter: A quarterly newsletter for Origin Green farmers was launched in 2020 to stay engaged with farmers and inform them of the developments in Origin Green, market impact studies, the impact of Covid-19 on the market and how Bord Bia is supporting the industry. The newsletter ensures greater transparency between Bord Bia and producers 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 over 55,000 farmers.

In addition to the newsletter, 35,000 farmers opted-in to monthly industry updates. Monthly online and print articles have also been published in the *Irish Farmers Journal* and *Agriland*, complementing the communications sent directly to farmers and engaging wider audiences.

Media Campaign: In November 2020, Bord Bia launched a consumer **campaign** to showcase farmers and growers who are taking action to help the environment. Four Quality Assured Irish farmers were chosen to front the promotion and their ‘green’ success stories were shared through print and social media and the Bord Bia website. The campaign provides accessible information on the farming practices adopted by each farmer and how these contribute to the environment and animal health.

Since the launch of the media campaign, there have been 4.16 million impressions across social media, display and video, including 265,000 complete video views (20 second video) and 6,679 website clicks (see bordbia.ie/farmstories).²⁴

²⁴ Figures as of April 2021.

Producers continued



John Smith is General Manager at Finnegan's Farms, a 250-acre farm that produces potatoes, brussels sprouts, winter wheat, winter barley, spring barley and oil seed rape.

Finnegan's has always endeavoured to protect the environment by adapting appropriate farming techniques to ensure that their sustainable approach to farming is economically viable, environmentally sound and socially beneficial. They have added bird boxes and beehives to their farm to provide a safe habitat for wildlife as part of their Origin Green sustainability plan. All food waste from Finnegan's farm is processed into nutrient rich compost using a food waste digester.

[Bord Bia Farm Stories](#)

Sustainable Assurance Schemes Progress Update

As per the objectives of the 2019 -2021 Origin Green strategy, all Bord Bia's farm-based schemes have been or are in the process of being converted to Sustainable Assurance Schemes.

The objectives of Sustainable 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 schemes enables members to meet both regulatory and market demands and ensures that the products placed on the market meet the highest quality and safety standards. In addition, committing to the programme helps producers improve their farm's sustainability, competitive performance and contribute to a fair and safe environment for workers. The schemes are designed to ensure that sustainable farming and efficient farming go hand in hand and safeguard farm businesses and the environment for future generations.

The figures presented in the following sections represent data collected from members certified on to SBLAS and SDAS on 31 Dec 2020, covering the period of 2018 and 2019.

SUSTAINABLE BEEF & LAMB ASSURANCE SCHEME (SBLAS)

Approximately **92% of beef output and 55% of sheep output** is covered by the SBLAS scheme. In 2020, a total of approximately 54,000 beef herds and sheep flocks were certified as part of the scheme. Throughout 2020, 34,282 beef and sheep farms were audited; 72% were remote audits due to Covid-19 restrictions.

On Farm Activity:

Grassland Management: Soil testing

87% of SBLAS farmers carried out soil testing.

In 2020, the proportion of SBLAS members that carry out soil testing has continued to grow, with more than 87% of members testing between 25% - 100% of their soil. Furthermore, 52% of members took one step further and tested 100% of their farm area soil, accounting for more than 26,000 herds in Ireland.

SBLAS soil testing	Number of herds	Proportion of membership
100%	26,022	52%
25%	6,344	13%
50%	6,690	13%
75%	4,423	9%
No Testing	6,589	13%
	50,068	100%

Producers continued

Nutrient Management: Manure Application

Between 2014/2015 and 2019/2020, the proportion of farms that reported using the 'LESS' Trailing Shoe manure application method, to lower emissions from slurry spreading, rose from 2% to 15%.

Splash Plate²⁵ remains the most common method of manure application, with 87% of SBLAS members recording using this method in 2019/20 (c.f. to 99% in 2014/15). There has been an increase in the number of producers that use a Low Emissions Slurry Spreading (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.²⁶

Increasing use of the LESS method is one of the recommended actions to reduce on-farm emissions in the [Teagasc Beef Sectoral Roadmap 2027](#),²⁷ which provides an overview of the future trends and policy influences for the Beef Sector. Furthermore, as 28% of farm emissions are related to manure management, the potential impact of using a LESS method is clearly demonstrated by the MACC as well.

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.

²⁵ Splash plate method applies slurry on surface as a thin film across the entire spreading width of the machine by forcing slurry under pressure through a nozzle onto the field.

²⁶ Teagasc, [Low Emission Slurry Spreading](#), 2020

²⁷ <https://www.teagasc.ie/media/website/publications/2020/2027-Sectoral-Road-Map---Beef.pdf>

Manure Application	2013/2014		2018/2019	
	Number of Responses	Proportion of SBLAS Members	Number of Responses*	Proportion of SBLAS Members
Splash Plate	36,703	99%	44,288	87%
Trailing Shoe	910	2%	7,844	15%
Umbilical	828	2%	4,975	10%
Injection	115	0%	773	2%
Count of Responses*	38,556		57,880	

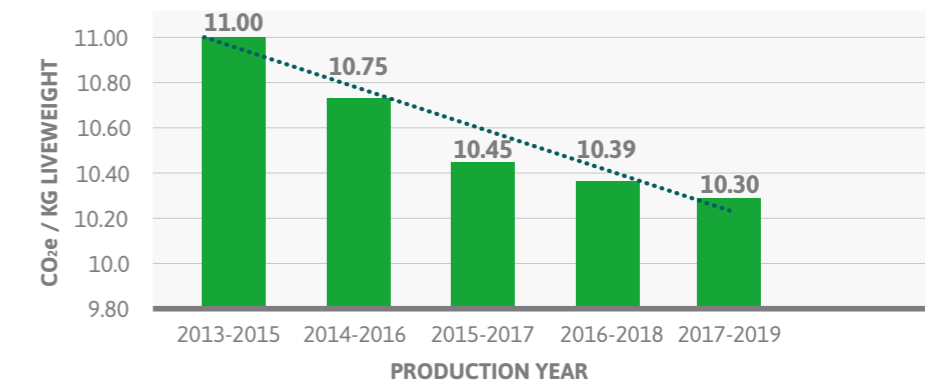
*A farmer can select more than one option therefore the number of responses is greater than the number of members.

Carbon Footprint & GHG Emissions: Beef Carbon Footprint

An overall reduction of the average beef Carbon Footprint on SBLAS farms of 6.3% has been achieved, following the continuous downwards trend since 2013.

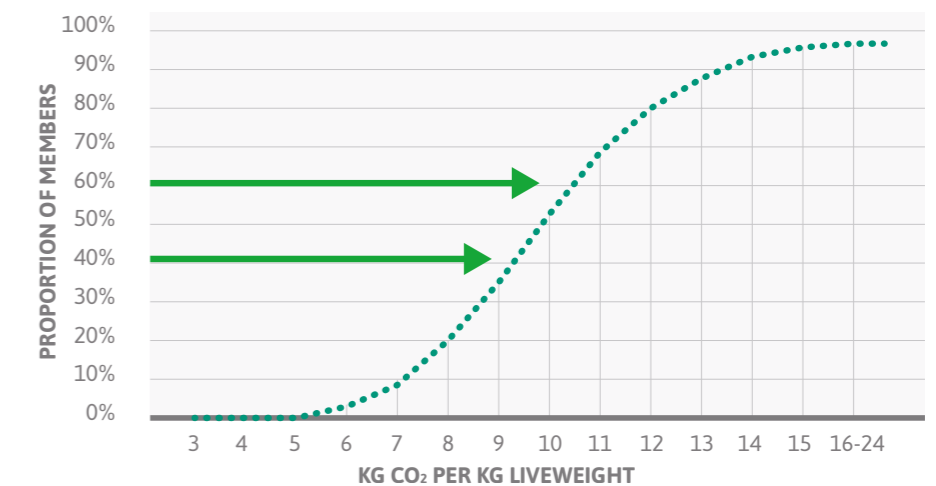
With over 230,000 carbon footprints calculated for SBLAS members since the introduction of carbon footprint assessments on beef farms in 2013, Origin Green has continued to provide data and support to member farmers to enable them to continue cutting their emissions. The data is expressed as a 3-year rolling average comparison of the average carbon footprints, to minimise short-term carbon footprint fluctuations due to market and weather variability. Carbon emissions have consistently followed a downward trend since 2013; an overall reduction of 6.3% has been achieved by SBLAS members, based on the rolling averages.

Average Beef Carbon Footprint 3 Year Rolling Averages Production Years (per kg CO₂e/kg Liveweight)



In 2019, the year-specific carbon footprint for SBLAS was 10 kg CO₂ / kg live weight (LW), indicating a continuing decline. The most recent data reveals that more than half of SBLAS members achieved their carbon footprint at 10 kg CO₂ / kg LW or less, with 35% of members attaining 9 kg CO₂ / kg LW or less.

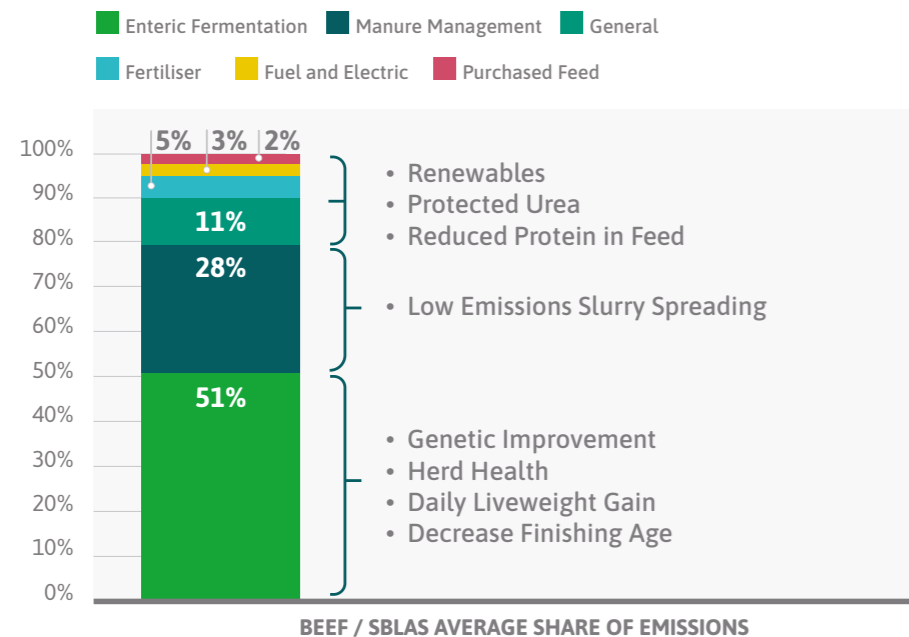
Cumulative Proportion of Members & Carbon Footprint Results



Producers continued

To help farmers reduce their emissions with practical suggestions, the advice in the Farm Feedback Report focuses on measures contained in the Teagasc MACC. As more than half of the farm emissions come from enteric fermentation, 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 fertilizers, energy sources, feed and others include usage of renewables, using protected urea and reducing proteins in feed.

MACC Activities to Reduce Emissions



Organic beef farmer, and member of the Sustainable Beef and Lamb Assurance scheme, Jane Shackleton runs a 100% grass-fed, suckler to beef herd of Angus and Belted Galloways.

Jane's herds are grazed in agro-forestry planted 22 years ago with ash, oak, birch, larch, beech, Norway spruce and Scot's pine. Thanks to the shelter provided by trees, Jane can extend the grazing season and her cattle are finished at 18 to 24 months off grass, typically with just one housing period, contributing to GHG reductions. Together with her parents, Jane is one of the eight 2020 Farming for Nature Ambassadors, showing that 100% grass fed beef can be produced while protecting biodiversity at the same time.

[Bord Bia Farm Stories](#)

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 the SDAS, that is 16,051 certified dairy farms in 2020. Of the 10,427 dairy farms audited in 2020, 72% were remote audits due to Covid 19 restrictions.

Membership is expected to rise further to meet the requirements of the Bord Bia Grass Fed Standard. Participating processors are currently supporting the last of their remaining uncertified suppliers and new entrants to achieve certification.

Farm activities:

Grassland Management: Soil testing

93% of SDAS members had soil testing completed on their farms in 2020.

In 2020, 93% of SDAS members had soil testing completed on their farm areas, accounting for almost 15,000 dairy herds. The proportion of dairy farms with 100% of their farm area soil tested averaged at 66% (10,611 herds), reflecting strong member engagement with improved soil health and nutrient activities.

SBLAS soil testing	Number of herds 31/12/2020	Proportion of membership
100%	10,611	66%
25%	1,218	8%
50%	1,729	11%
75%	1,362	8%
No Testing	1,118	7%
	16,038	100%

Producers continued

SUSTAINABLE DAIRY ASSURANCE SCHEME continued

Nutrient Management: Manure Application

By 2020, a quarter of SDAS members used the Trailing Shoe Low Emissions Slurry Spreading (LESS) manure application method.

Data shows positive developments in manure applications by SDAS certified dairy farmers. 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 Low Emissions Slurry Spreading (LESS) method, in the form of a trailing shoe, increased from 3% in 2014/2015 to 25% in 2019/2020. The use of Umbilical technique rose from 4% to 18% in the same period.

Manure Application	2013/2014		2018/2019	
	Number of Responses	Proportion of SDAS Members	Number of Responses*	Proportion of SDAS Members
Splash Plate	8,728	96%	14,651	91%
Trailing Shoe	249	3%	4,012	25%
Umbilical	354	4%	2,936	18%
Injection	55	1%	333	2%
Count of Responses*	9,386	9,095	21,932	

*A farmer can select more than one option therefore the number of responses is greater than the number of members.

Dairy Carbon Footprint

27% of SDAS members are achieving a Dairy Carbon Footprint between 0.9 and 1 kg CO₂ / kg FPCM with a 6% overall reduction of the footprint since 2013.

Since 2013, over 60,000 carbon footprint evaluations have been carried out for SDAS members. Results from the carbon footprint models²⁸ indicate that the carbon footprint of Irish milk production, expressed as CO₂ equivalent per kg of Fat and Protein Corrected Milk (FPCM) produced, declined between 2013 and 2019 on a rolling three-year average basis (results weighted by milk supply). The evident outlier in the data can be observed during the 2016-2018 period and can be largely attributed to adverse weather experienced in 2018. Despite the temporary increase, the trend reverted to the long-term downward trend for the 2017-2019 rolling average. 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 particular environmental pressures. Ambitious climate change targets which have been set across all aspects of society, including the agri-food sector, will look to redress this balance over the coming years.

The results are consistent with other nationally based results obtained using a similar LCA approach and farm level data collected and published as part of the **Teagasc National Farm Survey (NFS) 2019 Sustainability Report**.²⁹

²⁸ Based on : O'Brien, D., Brennan, P., Humphreys, J. et al. An appraisal of carbon footprint of milk from commercial grass-based dairy farms in Ireland according to a certified life cycle assessment methodology. Int J Life Cycle Assess 19, 1469-1481 (2014). <https://doi.org/10.1007/s11367-014-0755-9>

²⁹ <https://www.teagasc.ie/publications/2020/national-farm-survey-2019-sustainability-report--.php>



Bruce Thompson is an example of a modern dairy farmer, and a member of Bord Bia's Sustainable Dairy Assurance Scheme, who employs innovative approaches to improve sustainability on his farm.

Bruce has been able to significantly improve the health of his herd by repopulating his soil with dung beetles, whose numbers have been depleted by modern farming practices. These insects can roll cow dung into balls and push them deep into the soil, reducing the opportunity for parasites to develop while also allowing the nutrients to be recycled, enabling plants and grass to grow and increasing biodiversity. He believes that it should be as simple as possible for farmers to learn more ways of being sustainable on farm and his study about dung beetles on farms is now showing both environmental and financial benefits to farmers.

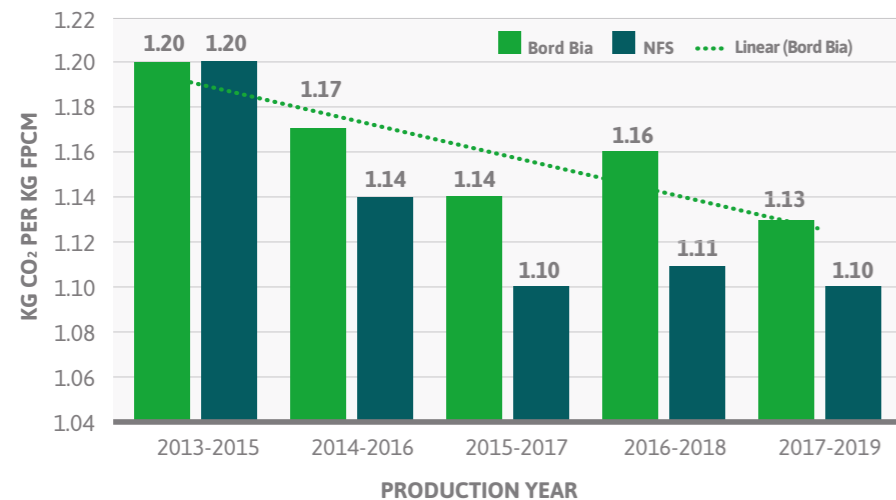
Bord Bia Farm Stories

Producers continued

While the models used by Bord Bia and the NFS are the same, the differences in results can be explained by different data collection procedures and differences in the allocation of emissions between milk production and other farm activities.

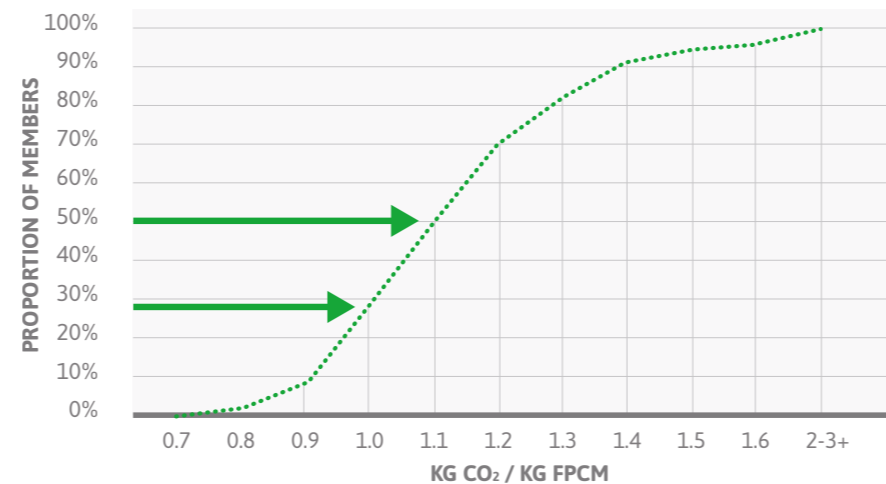
In 2019, the Carbon Footprint for SDAS for the production year stood at 1.11 kg CO₂e / kg FPCM, while on average, there has been a 6% reduction in the Dairy Carbon Footprint from 2013, when carbon footprint calculations began. This edition of the report takes into account all SDAS members for which it collected data and, while there is certainly room for further improvement, positive engagement and increased efforts to continue reducing carbon footprint of Irish farmers have to be noted.

Average Dairy Carbon Footprint 3 Year Rolling Average
(kg CO₂e per kg FPCM)



A carbon footprint of 0.96 kg CO₂/ kg FPCM for the Irish Dairy industry has been expressed in the [Teagasc Dairy Roadmap for 2027³⁰](#), as the dairy industry comes under increasing pressure to achieve a reduction in GHG emissions under EU and National Government Policies. Origin Green data shows that at present, approximately 27% of SDAS members are already achieving a Dairy Carbon Footprint between 0.9 and 1 kg CO₂ / kg FPCM:

Proportion of DSD Members vs CF Results-



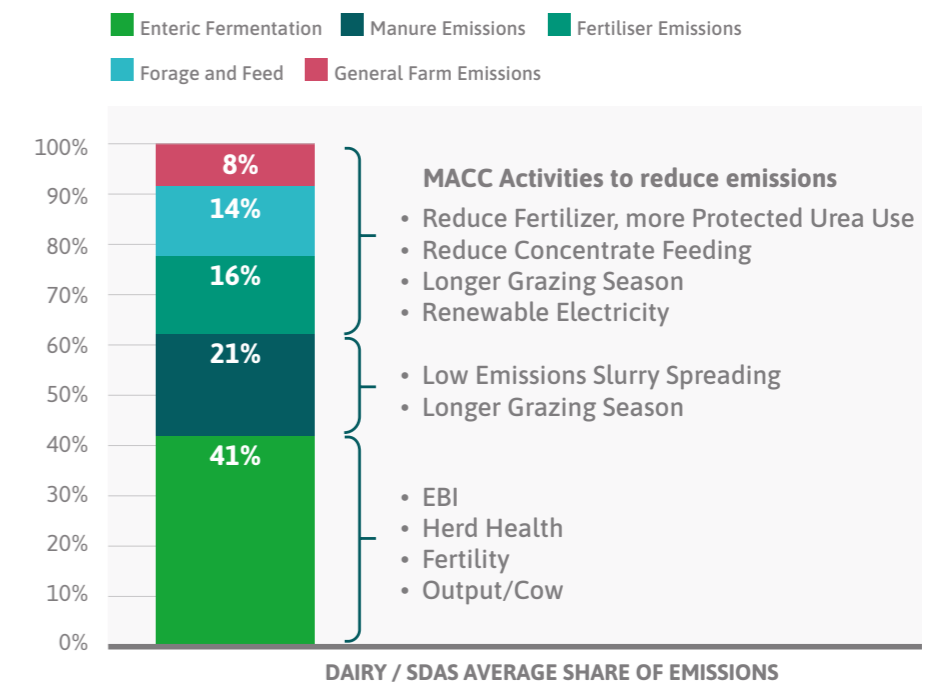
There are specific actions that can be undertaken at farm level that will assist in reducing emissions, based on the Teagasc MACC. Enteric emissions representing more than 40% of the dairy carbon footprint can be reduced through adoption of measures such as dairy EBI³¹, improved animal health and fertility and increasing output per cow.

³⁰ Teagasc, Dairy Roadmap for 2027, <https://www.teagasc.ie/media/website/publications/2020/Road-Map-2027-Dairy-201120.pdf>

³¹ EBI is a single figure profit index aimed at helping farmers identify the most profitable bulls and cows for breeding dairy herd replacements.

To reduce the second biggest group of dairy emissions (including fertilizer, forage & feed and general farm emissions), MACC recommends farmers use more renewables, reduce concentrate feeding and fertilizer use, increase protected urea use and establish a longer grazing season. Longer grazing seasons also positively impact manure application emissions (21%), together with usage of the LESS method.

Proportion of Emissions from Farm Activity



Producers continued

Carbon Footprint Champions

In 2021, Bord Bia developed a Carbon Footprint Champion (CFC) report that identified a subset of 400 SDAS herds which have decreased their carbon footprint over three consecutive audits between 2014 and 2020. These Carbon Footprint Champions demonstrate that sustainability and productivity go hand in hand.

Bord Bia cooperated with Professor Thia Hennessy of University College Cork to quantify the economic savings made by the Champions thanks to implementing the above-mentioned practices. The objective was to compare the financial performance of the CFC farms to the average SDAS farms with a view to ascertaining whether it is possible for farmers to both reduce their carbon footprint and increase their profit, the so-called 'win-win' scenario.

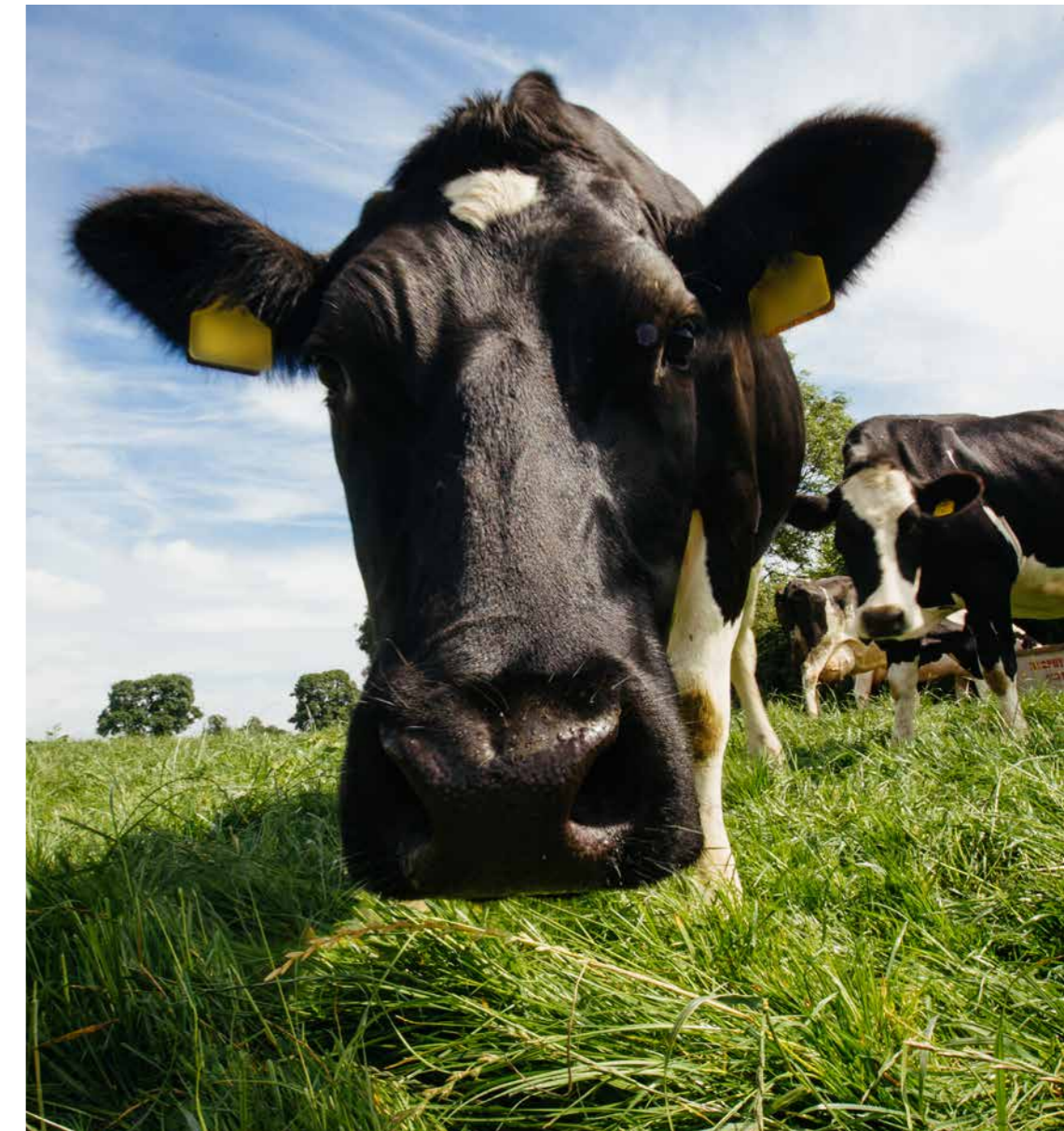
The top-level analysis supports the hypothesis that farms can improve their economic performance while also reducing their carbon footprint. Over the monitored period, the Champion farms increased their dairy gross margin³² by 35% compared to a 12% average increase on SDAS farms. The differential in gross margin between the two farm groups increased from 7% in 2014 to 30% by 2020. Champion farms also achieved superior economic performance by improving milk composition, improved efficiency in the use of concentrate feed and fertiliser, and greater use of grass.

The analysis supports the hypothesis that win-win scenarios are possible - where farms improve their economic situation while also reducing their carbon footprint.

³² Dairy Gross Margin = Dairy Output less Variable Costs

Carbon Footprint Champions have:

- 1 **Decreased their average Carbon Footprint by 18%** per unit of output. (1.22 to 1.00 kg CO₂e/kg FPCM).
- 2 **Increased milk production by 50%**, compared to a 32% increase in milk production for average SDAS herds.
- 3 **Increased litres per cow by 15%**, compared to a 9% increase on average SDAS herds
- 4 **Experienced a 22% increase in Milk Solids per Cow**, compared to a 15% increase in MS/Cow on SDAS farms.
- 5 **Fed 7% less concentrates per cow per year** than the average SDAS herds. (Average concentrate rate fed per dairy cow per day being 2.48 for CFC herds and 2.66 for SDAS herds.
- 6 **Had a grazing season 10 days longer** (256 days) than average SDAS herds (246 days).



Producers continued

PIGMEAT QUALITY ASSURANCE SCHEME (PQAS)

There are currently over 400 members of the Bord Bia Pigeat Quality Assurance Scheme (PQAS). In 2020 an interim update to the scheme was agreed. The update includes the following:

- Antimicrobial Resistance (AMR), including the uploading of cumulative antibiotic-use data onto the DAFM database on a quarterly basis and an approved AMR online training.
- Animal Health and Welfare where producers will be required to complete a tail biting risk assessment with their nominated vet.
- Biosecurity Assessment where producers will be required to complete a biosecurity risk assessment with their nominated vet.

SUSTAINABLE POULTRY PRODUCTS ASSURANCE SCHEME (SPPAS)

Auditing to the Sustainable Poultry Products Assurance Scheme commenced in September 2021. The launch of the new sustainability scheme will see breeding farms and hatcheries joining the Bord Bia Schemes for the first time, helping to ensure that high quality and sustainability standards are met across the entire production chain. Currently there are 449 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. It is accredited to the European Standard for Product Certification ISO 17065, meaning that the Standard (and the Scheme which is based on the Standard) has been independently assessed against international standards in other countries.

SUSTAINABLE HORTICULTURE ASSURANCE SCHEME (SHAS)

Launched in November 2017, the Sustainable Horticulture Assurance Scheme has now fully replaced the former Horticulture Quality Assurance Standard. The standard was originally developed with a Technical Advisory Committee comprising of industry stakeholders from DAFM, Food Safety Authority of Ireland (FSAI), Teagasc, Farm Organisations, Producer and Packer Members and has 266 certified members. Since the introduction of the scheme, Irish producers are required to meet new challenging requirements reflecting updates in legislation and the incorporation of best practice sustainability measures.

SHAS members have annual business assessments in place to identify one area for improvement in each of the following four areas: raw material sourcing, resource efficiency, social sustainability and environmental/biodiversity measures; and performance against these targets is tracked and recorded on farm.

Compliance levels across all fresh produce categories continues to increase, with average non-compliances detected down from 16 per audit in 2018 to 5 per audit in 2020. Increasing compliance with the scheme indicates that farms are embracing the new higher requirements around issues such as integrated pest management, use of risk-based thinking and expanding on social responsibility and staff welfare.

Average number of non-compliances detected decreased from 16 per audit in 2018 to 5 per audit in 2020, showing positive developments in SHAS.

SUSTAINABLE EGG ASSURANCE SCHEME (SEAS)

The Sustainable Egg Assurance Scheme is a code of best practice covering both the production and packing of eggs. There are currently 191 egg producers and 53 egg rearers certified under the scheme. Eggs that are produced and packed in accordance with the requirements of the SEAS are eligible to carry the Quality Assured logo on packs, and on point-of-sale materials in the case of loose sales.

The 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. The Scheme is accredited under ISO 17065 and incorporates criteria on sustainability, flock sourcing, hygiene, biosecurity, disease control, flock welfare and environmental protection.

An update to the SEAS was agreed, approved by INAB and will be issued in late 2021. This will include additional biosecurity measures to combat the increasing threat of Avian Influenza, as well as additional barn production requirements, to prepare for the industry's move away from enriched cage production.

Egg Carbon Footprinting

Members of the SEAS will also begin submitting sustainability data 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. A performance report generated by the model will provide members with their national position against sustainability metrics such as water use, carbon footprint and energy use.

Producers continued

BORD IASCAIGH MHARA (BIM) - SEAFOOD UPDATE

Since its large scale adoption by the seafood sector during 2017 and 2018 BIM has provided support to the seafood sector in the attainment and retention of Origin Green verification. BIM works with the Irish Seafood Industry 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.

The high rate of Origin Green membership within the Irish seafood sector demonstrates a commitment to sustainability throughout the entire seafood value chain. Fishers, fish farmers and processors have all acquired green credentials through a multitude of Bord Iascaigh Mhara (BIM) sustainability programmes.

Origin Green has brought a lot of success to the seafood sector and companies are keen to retain their verified status. 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.

In 2020, as part of the Green Programme, BIM successfully launched its own Water Stewardship Programme offering online workshops and follow-on supports to seafood processors throughout Ireland. The workshops focused on the key risks around the quality and supply of our natural water resources and the range of opportunities to sustainably manage and conserve it. Under the Green Programme the development of a range of remote support materials. These materials include a rainwater harvesting calculator, a guide for the management and maintenance of refrigeration systems - one of the most significant energy users in seafood processing operations - and a self-assessment toolkit for evaluating waste and packaging management on site. These tools are now available in a dedicated 'Sustainability Toolkit' space on [BIM's website](#).

BIM's Green Programme was also a partner on the European Interreg Smart Cluster Energy Systems project (piSCES) which came to a close in December 2020. This project's aim to reduce the costs and carbon footprint of the fish processing industry by developing and testing a new 'Smart Grid' electricity network were achieved, with trial sites in Ireland and Wales reporting significant energy cost savings. Through the work of the Green Programme, BIM is simultaneously addressing climate change and sustainable development challenges while also implementing the recommendations of Food Wise 2025 and

championing the UN Sustainable Development Goals (UN SDGs).

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. The Irish FIPs, within BIM's sustainability strategy, have continued to act as platform to demonstrate the sustainability credentials of Irish fisheries.

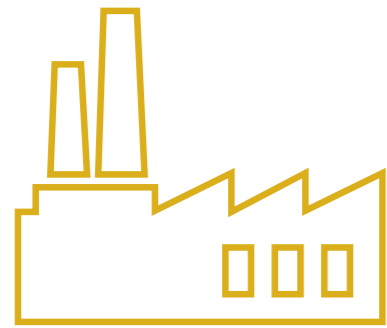
Membership of BIM FIPs, that are appropriate to the applicants seafood business, is a pre-requisite to BIM's Responsibly Sourced Seafood Standard (RSS). Thus ensuring the sustainability of the FIP sourced seafood through independently certified management practices demonstrating Ireland's commitment to sustainable fisheries to complement the sustainability elements of the RSS.

BIM is currently piloting digital technologies such as blockchain, as means to increase the traceability and visibility of the provenance of Irish seafood caught and processed. This information can potentially be used to enhance the commercial benefits for sourcing Irish seafood. BIM will be launching a Sustainability Improver Programme in 2021. Capitalising on the FIPs and Digitalisation, the objective is to maximise these tools and others that are available to vessels and processors to develop evidence based sourcing policies and prepare them for 3rd party verification and address seafood sourcing requirements in the market.

Manufacturers




Manufacturers



300*
verified members

2,779 
sustainability targets

13.6k 
initiatives established
between 2012-2021

At the manufacturing level, the Origin Green programme enables Irish food and drink companies to develop a comprehensive multi-annual sustainability plan. This is designed to help members to reduce their environmental impact, achieve efficiencies in the daily running of their businesses and meet the evolving sustainability needs and demands of global customers and consumer markets.

Through this infrastructure, participating companies set independently verified sustainability targets and report annually on their progress in achieving short, medium and long-term goals. In turn, this empowers Origin Green members to communicate key sustainability achievements to existing and potential customers, enabling them to meet this ever-increasing demand.

In June 2020, the fourth edition of the [Origin Green Sustainability Charter](#) for food and drink manufacturers was published, setting out updated rules for verified Origin Green members. The updated Charter set stricter entry requirements to ensure members are best placed to meet growing demands from customers.

This introduction of more robust requirements and a stricter auditing protocol to ensure that Origin Green continues to meet the demands of global markets, coupled with unprecedented challenges which arose through the COVID-19 pandemic, particularly for

micro businesses, resulted in a slight fall in the number of verified companies between 2018 and 2020, however this has recovered in 2021 at the time of print. Bord Bia will continue to promote the benefits of Origin Green and support companies to meet the higher requirements to achieve and maintain their Origin Green verified status.

Research conducted by RED C on Bord Bia’s behalf amongst Origin Green members in 2019 shows that:

68% of members say Origin Green is important in **opening the door for conversations with prospective customers**

53% of members said Origin Green was important to **drive sales overseas**

49% that it is important in **driving sales at home**.³³

³³ Red C Research Origin Green Members, January 2019

* 300 refers to the number of Origin Green verified members at the time of print. Data within this section covers 284 companies that were active members in 2020

How Origin Green Works at Manufacturing Level

PLAN DEVELOPMENT PROCESS

Companies are required to sign up to developing an Origin Green Sustainability Plan covering a minimum of three years but generally up to five years. This plan can be renewed and updated, as appropriate, at the end of the period. The implementation of a robust sustainability plan with SMART targets and clear 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 issues.

ORIGIN GREEN SUSTAINABILITY PLAN STRUCTURE

The Origin Green Sustainability Plan structure is designed to help companies in self-determining the exact measures they need to implement to advance their sustainability performance. Companies are required to set clear, measurable and time-bound sustainability goals under three predefined target areas: **Raw Material Sourcing**, **the Manufacturing Process**, and **Social Sustainability**. This ensures members are in the best position possible to mitigate emerging and longstanding sustainability risks, enhance Ireland’s reputation as a source of sustainable food products and meet the comprehensive requirements of their customers both at home and abroad.

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

Manufacturers continued

INDEPENDENT VERIFICATION

Each member’s performance against their sustainability targets is comprehensively verified to an independent standard annually to maintain the integrity and credibility of the Origin Green programme. This task is undertaken by Mabbett, a leading global inspection, verification, testing and certification company. Mabbett evaluates the progress of Origin Green members 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 members.

MEMBER REMOVAL PROCESS

If an Origin Green member has demonstrated an insufficient level of ongoing progress against the sustainability targets set and/or breached legislative or regulatory requirements, the programme 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 strict 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 members establish sustainability targets in three key target areas:

Raw Material Sourcing	Manufacturing Process	Social Sustainability
Supplier Certification	Energy / Emissions	Health & Nutrition
Primary Producer Sustainability Initiatives	Water	Community Engagement
Packaging	Waste	Employee Wellbeing
	Biodiversity	Diversity & Inclusion

Approved Sector Specific Target

New 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 has been introduced to the Origin Green programme. The five tiers of membership are outlined below.

New 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 also introduced to simplify the verification process for participating companies. It is imperative that the programme can demonstrate a clear methodology for how sustainability target progress is evaluated on an ongoing basis.



Manufacturers continued

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

ORIGIN GREEN TARGET PERFORMANCE SCORECARD

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/Pass
Target achieved with evidence the company has surpassed expectations.	3	Exemplary

New 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 or pass 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	>€100,000-€1m	4	8

New GOLD MEMBERSHIP

In 2020, Bord Bia launched **Origin Green Gold Membership** to ensure the Origin Green programme continues to drive sustainability improvements and establishes the Irish food and drink industry as a leader in food sustainability globally. Gold membership is awarded to companies that exceed the minimum number of targets within its sustainability plan and achieve a predetermined higher threshold of credits which demonstrates an exceptional annual performance. The introduction of the **tiered membership** structure ensures every company, regardless of size, has an opportunity to achieve this higher standard.

In November 2020, 26 companies were awarded Gold Membership at a virtual event, attended by the Minister for Agriculture, Food and the Marine, Charlie McConalogue. For further information about the inaugural Gold Member event and to learn more about the 26 companies who attained this status, please see the Origin Green Gold Member 2020 [report](#).



Gold Member Companies



Manufacturers continued

Overview of Manufacturers' Targets

The following sections outline the targets and corresponding initiatives established by verified Origin Green members since the last progress report. This covers data from 2018 and 2019, (compared to a 2017 baseline) which was reported to Bord Bia by Origin Green members throughout 2020 and processed in 2021. Only verified members are included. Members that were removed from the programme during the calendar years of 2019 or 2020 are not included within the figures for this report.

Origin Green members 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 Mabbett, the independent auditor and third-party verifier at the manufacturing level of the Origin Green programme.

RAW MATERIAL SOURCING

Key Metrics

As a first step in maintaining a robust sustainable procurement policy, it is crucial the raw materials themselves are sourced sustainably. Therefore, raw material sourcing is a mandatory element of Origin Green at manufacturing level. Verified companies are required to set a minimum of two targets in their sustainability plans, including one mandatory target related to packaging.

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.

* The total number of initiatives refers to number of initiatives that verified members set out in their sustainability strategies, which range in length depending on company size. 'Completion rate' refers to the number of initiatives that had been completed by verified members at the end of the reporting period. 'In progress' refers to initiatives which were still on-going at the end of the reporting period. 'Discontinued' refers to initiatives that were dropped.

Companies are also required to set one target from either of the following two areas:

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

Number of Raw Material Sourcing Targets to Date



SUPPLIER CERTIFICATION

Key metrics

Why is this target area included?

Consumers are becoming increasingly conscious of the environmental impact of the food and drink products they buy and are looking for assurance that they are making sustainable choices. Choosing suppliers that have recognised sustainability certifications around their products is an effective way of managing this complex area.

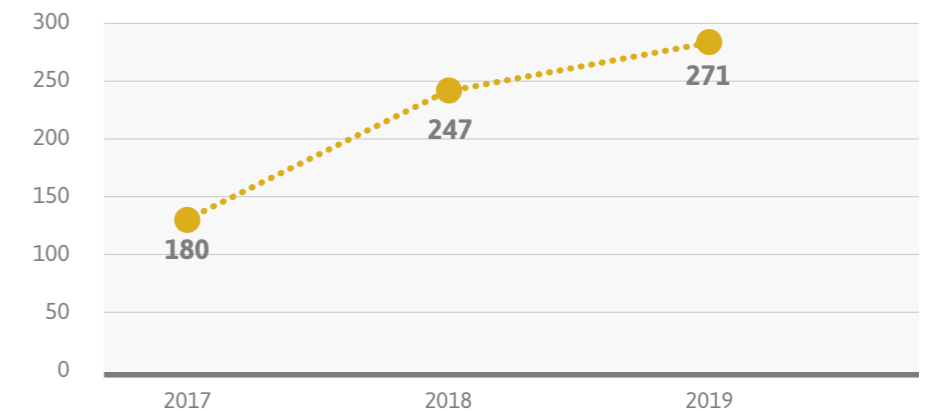
Providing consumers with reliable sustainability information on food is also high on the agenda of EU legislators. Under the Farm to Fork Strategy, the EU intends to develop a sustainable labelling framework in 2024 that, in synergy with other relevant initiatives, covers the nutritional, climate, environmental and social aspects of food products³⁴.

³⁴ [Farm to Fork Strategy](#), European Commission, 2020

Progress Update

In the reporting period, 381 targets were set by companies, of which 271 were active in 2019. Origin Green members set 271 targets related to recognised sustainability certifications in 2019. The most prominent certifications seen in the sustainable procurement policies of Origin Green members at a domestic level are Bord Bia's sustainable & 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 (2017-2019)



Manufacturers continued

Target examples of Origin Green Gold Members

CASE STUDY 1



Sustainability and Ethical Sourcing



Established in 1932, Butlers Chocolates is Ireland's premier family-owned chocolatier. Butlers Chocolates are available in 30 countries and 60 airports around the globe, with a world-class reputation that continues to grow.

The environment and Butlers' impact upon it has always been central to the company's thought process, and it strives to build sustainability into its business practices at every opportunity. This is reflected in the strong performance of the company throughout 2019.

Within the area of Raw Material Sourcing, Butlers primary raw materials are cocoa and coffee beans, commodities which have complex supply chains. Recognising this, Butlers established a target in 2018 to source 80% of its cocoa from Cocoa Horizons suppliers by 2022.

Cocoa Horizons is an independently verified initiative working to support the livelihoods of cocoa farmers and their families in West Africa. In 2019, the company surpassed this target by sourcing a total of 98% from Cocoa Horizons suppliers.

Butlers also supports Cocoa Horizon Projects in the Ivory Coast, Ghana and Tanzania. The Cocoa Horizons Foundation helps to create thriving communities where farmers are trained in best practice methods, enabling them to grow cocoa sustainably and responsibly, increase yields and improve farmer family livelihoods.

Butlers also pays a premium which directly increases income to farmers so they can invest in their farms and communities. In 2019,

the company paid towards the Cocoa Horizons foundation, with this amount having increased by over 16% since 2018.

Butlers also set out to source 80% of its coffee beans from a Fair Trade coffee supplier by 2022. The Butlers team again met this target earlier than expected in 2019. Now 100% of the coffee used in Butlers Chocolate Cafés comes from Fair Trade sources, a well-known badge of sustainability and ethical sourcing.

CASE STUDY 2



Sustainable and Traceable



Kerrigan's Mushrooms was established in 1981 in Kells, Co. Meath. Today, the company remains a family-run enterprise which prides itself on producing the very best quality Irish mushrooms under its own Kerrigan's brand name, as well as producing mushrooms for many private label retail brands.

Having initially become an Origin Green verified member in 2014, Kerrigan's has established a set of clear goals and objectives to achieve sustainable business growth. This is reflected in the strong performance from the company throughout 2019.

To meet ongoing commitments, senior management within the company lead by example, with Karen Kerrigan (Marketing & Quality Manager) driving the day-to-day implementation of the company's sustainability targets. Within the target area of supplier certification, Kerrigan's aim is to produce as sustainably as possible and target growers who also employ sustainable and safe production methods.

It has the target of sourcing 80% of its raw materials from suppliers who provide robust sustainability certifications by 2022. To achieve this, the company has implemented the following initiatives:

- Requesting that all growers are members of the Bord Bia Sustainable Horticulture Assurance (SHAS) for producers and packers.
- Issuing all suppliers with a comprehensive Supplier Questionnaire and strict Product Specifications to ensure quality parameters and high standards are met.
- Ensuring full traceability of all produce guaranteed through the company's system of supplier approval records.

In 2019, Kerrigan's met its sourcing target with 100% of suppliers having recognised and robust sustainability certifications in place.

PRIMARY PRODUCER SUSTAINABILITY INITIATIVES

Key metrics:

Primary Producer Initiatives 2018 & 2019:



Why is this target area included?

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

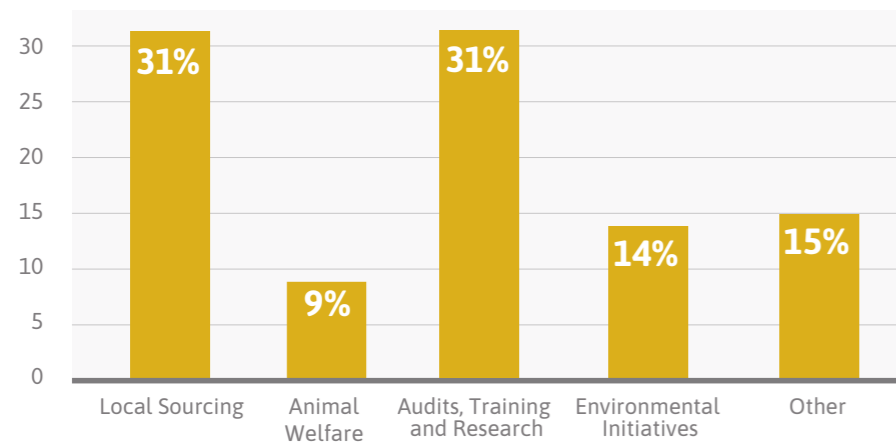
* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

Manufacturers continued

Progress Update

Although supplier certification remains the dominant raw material target area, Origin Green members still have set 64 targets directly with primary producers, and 35 of these targets were active in 2019. These were mainly linked to local sourcing, animal welfare and environmental initiatives.

Types of Targets by % - Primary Producer Initiatives (2019)



PACKAGING

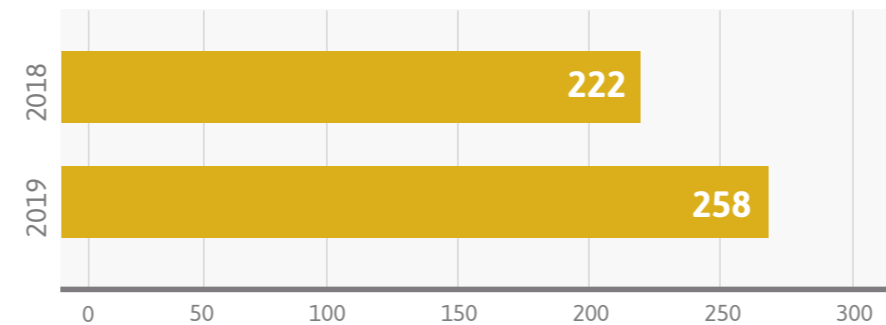
Key metrics:

Target Initiatives (2018 & 2019):



* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

Number of Packaging Targets (2018 - 2019)



Why is this target area included?

According to research conducted by Bord Bia in 13 markets in 2021³⁵, sustainable packaging and plastics were identified as a key issue for customers. This was the most cited topic by procurement personnel when asked which sustainability topics would become more important to the business in the next three years. This is driven by the fact that three in 10 consumers said sustainable packaging is influential when grocery shopping.

In addition, there is an increasing number of initiatives at national and EU level targeting plastics and packaging, such as the Single Use Plastics Directive, which came into effect on 3 July 2021 in Ireland, and the EU's Circular Economy Action Plan, which includes a wide range of initiatives targeting packaging and plastics. For this reason, packaging is now a mandatory target area for all Origin Green members.

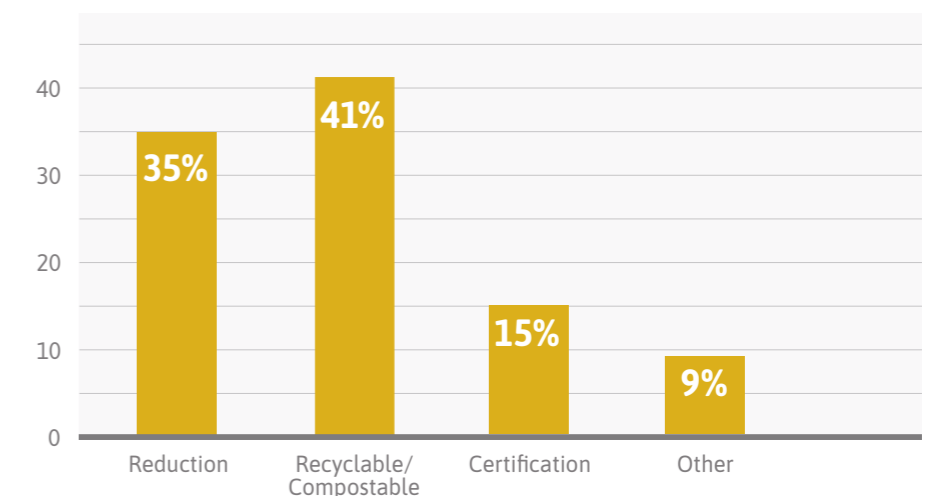
Progress Update

Since this target became mandatory, there has been a significant increase in number of companies setting targets in this area, with 258 companies setting targets in 2019 versus 222 in 2018.

³⁵ Bord Bia, Global Sustainability Outlook Study, 2021

In 2019, the majority of targets related to recyclable / compostable packaging and packaging reduction. There was also a significant increase in the number of targets on biodegradable and compostable packaging. While these targets will have positive environmental impacts, moving forward Bord Bia would like to see members reflecting the “reduce, reuse, and recycle” waste hierarchy, by setting more targets focused on reducing packaging and, where possible, reusing packaging.

Types of Targets by % - Packaging (2019)



Manufacturers continued

Target examples of Origin Green Gold Members

CASE STUDY 1



Cybercolors Ltd. is a food ingredient company based in Cork, Ireland, specialising in the sourcing, research and development, manufacture, promotion and selling of natural food colours, for the global food and beverage industries, dietary supplement / health care and feed industries. Cybercolors became a member of the Origin Green programme in 2017.

Given the growing importance of the need to reduce plastic packaging, Cybercolors made a commitment to focus on reducing its use of High-Density Polyethylene (HDPE) packaging across the business and set two separate targets in its plan to:

- Reduce the plastic packaging ratio for key colour raw materials.
- Reduce the plastic packaging ratio for manufactured goods.

The company has been steadily reducing their HDPE packaging in these two areas since 2017 and in 2019 made significant progress when achieving its target ratio for manufactured goods packaging and achieved its target for manufactured goods with **only 15% of products in pack sizes less than 25kg, a reduction from 19% in 2018**. The company no longer procures raw materials in 1kg or 5kg bags and now obtains raw materials in reusable bulk containers.

Some of the actions implemented across the business to achieve these targets include:

- Communicating and collaborating with suppliers to encourage them to supply bulk packaging options & sustainable alternatives.

- Reducing the volume of key products produced in packs of less than 25kg.
- Moving some products to bulk and bag-in-box type packaging for finished products.

CASE STUDY 2



Investing in Sustainable Packaging

Sliogeisc na Rossan trading as Irish Premium Oysters is a family-owned and managed business. Established in 1990, the company produces approximately 200 tonnes of Crassostrea Giga Oysters annually from Traigheanna Bay, Co. Donegal. It has been a member of the Origin Green programme since 2015.

Since its involvement in the programme 5 years ago, Marion Gallagher, who leads the Origin Green plan, has worked with the team to meet targets across all aspects of the business: raw materials sourcing, operations, employee wellbeing and contributing to its local community.

One of the company's exemplary performances for 2019 was for exceeding the target set to use more sustainable packaging options, instead of polystyrene. After transit trialling biodegradable cardboard packaging, the team looked for a stronger solution that would maintain the high quality of its product in transit.

The team invested in a wooden box option and set a target for 2019. **The team doubled its targeted number of wooden boxes, replacing polystyrene boxes by 8,400.** The team strives to use even more sustainable packaging while its business continues to grow.

CASE STUDY 3



Deep ocean liquid magnesium, trace minerals and sea salt extraction through patented technology underpinned by published clinical science in skincare, nutrition and health. Oriel Marine Extracts has been a member of the Origin Green programme since 2014 and has been committed to building the business in a sustainable manner.

At Oriel Marine Extracts, the company's general waste levels are very low, as in the process of making its sea salt products it does not generate operational waste.

The company's waste is therefore limited to office and packaging waste items which are recycled through the local waste collection service. Nevertheless, Oriel continues to focus on reducing packaging waste for its downstream customers, and has set sustainability targets in this area as follows:

- Maintain recyclable packaging as demand for products grows.
- Cut product packaging through a 7.5% reduction in kg packaging per kg of output over 3 years.

Oriel achieved exemplary performance in 2019 exceeding its packaging reduction target by 62.7%. Packaging produced was 0.027 kg/kg of output versus the 7.5% reduction target of 0.0823 kg/kg of output.

The Origin Green member has linked the decrease in packaging to driving sales of larger 10 kg bags. **90% of all packaging used in their Sea Salt products is recyclable.** Going forward, Oriel's ambition is to continue minimal waste production and keep its strong contract of working in harmony with nature.

Manufacturers Continued

Manufacturing Processes

Key metrics:

2,200 Energy Initiatives

Average CO₂ Emissions
per Unit of Output (2019 vs 2017)*

-14.25%

Average General Energy Use
per Unit of Output (2019 vs 2017)*

-6.56%

Average Fossil Fuel Use
per Unit of Output (2019 vs 2017)*

-8.69%

Average Fossil Fuel Use
per Unit of Output (2019 vs 2017)**

-1.18%

Food and drink manufacturing is a resource-heavy activity. The use of resources such as energy and water can have a negative impact on the environment.³⁶

For this reason, ensuring that verified members' own operations are run in a sustainable manner is a core element of the Origin Green programme. Verified members are required to set targets in their sustainability plans focused on reducing the environmental impact of their own manufacturing processes.

* All members that set targets in this area. ** All members.

³⁶ Directorate General for Research and Innovation (European Commission), Group of Chief Scientific Advisors (European Commission), [Towards a sustainable food system](#), 2020

These targets fall under five areas:



The number of targets that members are required to set is dependent on the size their company (see [Tiered Membership](#)).



ENERGY

Key metrics:

Energy Initiatives (2018 & 2019):



Energy Usage per Unit of Output (2019 vs. 2017):

General Energy:

- Tier 1 & 2 Members: **-3.12%**
- Tier 3, 4 & 5 Members (SMEs): **-10.53%**

Fossil Fuels:

- Tier 1 & 2 Members: **-2.24%**
- Tier 3, 4 & 5 Members (SMEs): **-10.57%**

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.³⁷ Establishing energy reduction initiatives and renewable energy investments is therefore a crucial aspect of the Origin Green Charter.

Progress Update

In the reporting period up to 2019, verified members set 263 energy related targets, resulting in a total of 684 initiatives. The majority of initiatives were efficiency-based, focusing on reductions in electricity, fossil-fuels and gas.

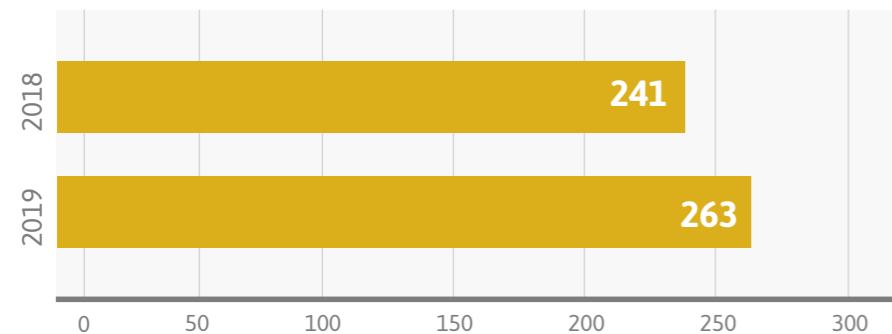
* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

³⁷ Directorate General for Research and Innovation (European Commission), Group of Chief Scientific Advisors (European Commission), [Towards a sustainable food system](#), 2020

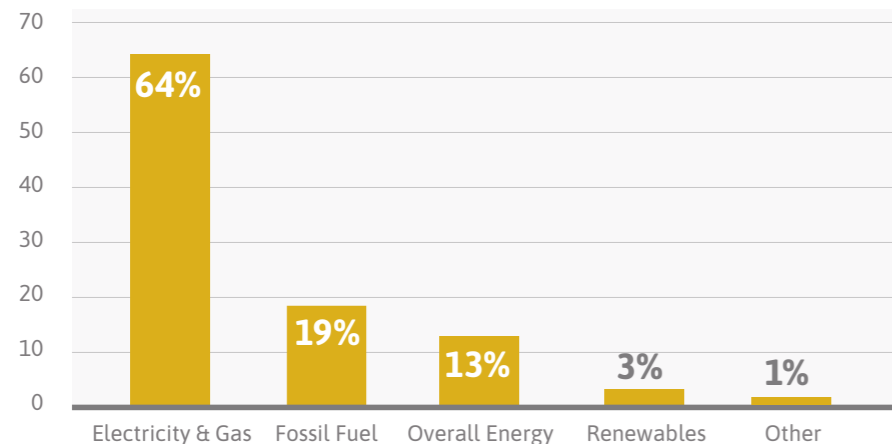
Manufacturing Continued

While these reduction efforts are important, Bord Bia would like to see more renewable energy targets set by members. In order to support members to do this, in May 2021 the Origin Green team hosted a [webinar](#) for members in conjunction with the Sustainable Energy Authority of Ireland (SEAI) to detail SEAI’s business grants and supports available to help Irish organisations to reduce their energy costs while improving their energy efficiency.

Number of Energy Targets (2018 - 2019)



Types of Targets by % - Energy (2019)



Target examples of Origin Green Gold Members

CASE STUDY 1



Future Proofing with Solar

Established by Eamonn & Patricia Lonergan in 1987, Knockanore Farmhouse Cheese produces its artisan cheese in the small townland of Ballyneety in the ancient and historic parish of Knockanore, Co. Waterford.

Knockanore Farmhouse Cheese and the attached Lonergan Farm have been members of the Origin Green programme since 2017 and are committed to monitoring and improving the company’s overall environmental impact.

Within the energy area, the company has showcased a strong commitment to energy management. Driven by owner Eamonn Lonergan, the Knockanore team have achieved a **reduction in electricity usage by 22%** since 2016 on a per unit basis and surpassed its 2019 electricity usage target by 20%. The company has also reduced its usage of gas oil by 28% since 2016 and was 26% ahead of target in 2019. These achievements can be attributed to a robust monitoring programme within the company.

In 2019, the company also set about future proofing its use of energy and becoming self-sufficient by applying for an SEAI grant for PV Solar Panels in its cheese production building and it anticipates that further savings will follow.

As an artisan producer, Knockanore Farmhouse Cheese demonstrates that regardless of size, a strong energy management strategy not only benefits the environment but can yield significant



cost savings for a company’s bottom line. Ultimately, the company’s ambition is to continue to reduce energy costs and overall carbon emissions, with a goal to reduce emissions by approximately 8 tonnes a year between the farm and cheese business by end of 2021.

CASE STUDY 2



Energy Rewards

Located in the fishing port of Killybegs, Co. Donegal, Norfish Ltd. operates a state-of-the-art Pelagic production facility and smokehouse, offering a diverse product range which includes herring, mackerel, smoked coley, haddock, cod, horse mackerel, sprat, blue whiting and salmon.

The company became a member of the Origin Green programme in 2016 and is working towards achieving targets set out as part of a comprehensive five-year sustainability plan.

Throughout the course of this plan, the company has made significant energy efficiency improvements through a series of initiatives, including the following:

- Installation of new blast freezers.
- Upgrading and installation of inverters on compressors.
- Installation of a Dixell system which allows the company to monitor its freezers at all times.
- All lighting converted to LED.
- Sensor lights in all changing facilities.
- Updating and upgrading of storage heaters in company offices.



Manufacturers continued

NorFish Case Study continued

The company has reaped the rewards for these investments, with **energy usage having been reduced by an overall figure of 19%**, a significant achievement.

In 2019, all target milestones and initiatives were successfully met by the company, continuing the strong performance in the energy area. Not resting on its laurels, the Origin Green lead within Norfish, Aine Byrne, carries out ongoing energy awareness training with staff to ensure that the existing high standards set by the company will be maintained.

WASTE

Key metrics:

Waste Initiatives (2018 & 2019):



Why is this target area included?

Food and drink manufacturing processes create waste. To create more sustainable food manufacturing processes, efforts must be made to prevent and reduce this waste.

Food waste has received a lot of attention from legislators, customers and consumers. Bord Bia's Global Sustainability Outlook insight study identified food waste as a dominant sustainability focus area for customers when choosing a supplier. This is because it is important to their consumers, with 89% taking efforts to reduce food

* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

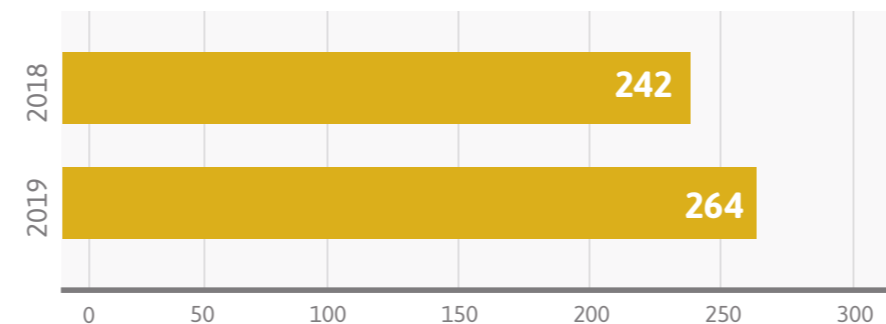
waste over the last 12 months. Three in 10 consumers say reducing food waste influences their food and drink choices. Additionally, reducing food waste has been identified as a key element required to create a sustainable food system in the EU's Farm to Fork Strategy in which the EU commits to halving per capita food waste at retail and consumer levels by 2030.³⁸ This aligns with the UN's SDG Target 12.3. Therefore, Origin Green members are required to develop waste targets aimed at prevention, minimisation or recycling.

Progress Update

Targets related to general waste and overall waste remain the main target area for members in this category. Waste recycling, waste to landfill and general and recycling waste targets make up the majority of the targets in this area.

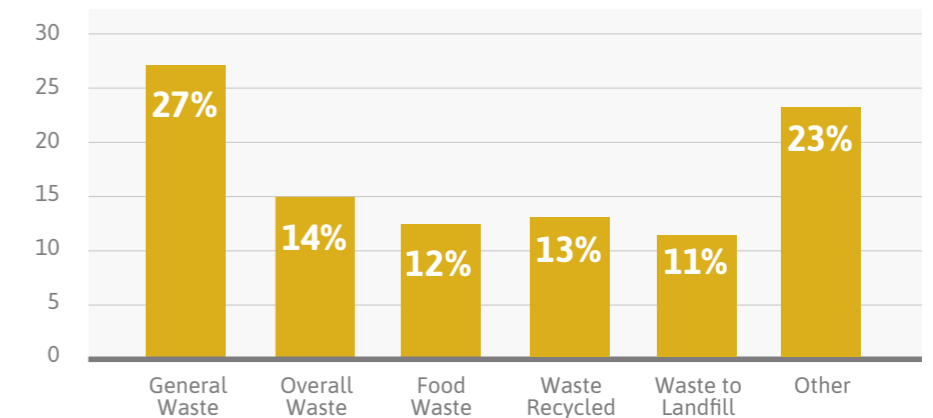
In 2019, awareness and action on food has continued to grow, with 31 targets set in relation to food waste. As members are growing increasingly efficient in food waste management, the number of targets in this area may begin to plateau. There is, however, scope for increased uptake in by-product re-use innovation targets. This ties into wider efforts to increase the circularity of the Irish food and drink sector.

Number of Waste Targets (2018 - 2019)



³⁸ European Commission, *Farm to Fork Strategy*, 2020

Types of Targets by % - Waste (2019)



Manufacturers continued

Target examples of Origin Green Gold Members

CASE STUDY



Nutramara **Converting Waste to Quality, Natural Products**

Nutramara Ltd. is a marine biotechnology company located in Tralee, County Kerry. Founded in 2017, the company sustainably utilises the renewable and natural resource of seaweed sourced from the west coast of Ireland. Nutramara became a verified member of the Origin Green programme in 2018 and set about establishing a robust five-year sustainability plan.

Recognising the inherent value of the harvested seaweed, one of the company's primary sustainability targets from the outset was to develop a zero-waste marine biorefinery. Throughout 2019 Nutramara made significant strides towards this goal. The company began to improve its biorefinery approach by processing in a manner which minimised the generation of waste and maximised the potential from the natural seaweed.

The process development work was successful and in May 2019 both a liquid side-stream and a solid side stream were diverted away from waste to create value added products, hence **delivering on its zero-waste ambition.**

The Origin Green Team Leader, Clíodhna Dowling, explains further, "We began by extracting fucoidan from *Fucus vesiculosus* using sustainable bioprocessing technologies. This process had a liquid side stream and a solid side stream. Both were analysed and were found to have beneficial properties: the liquid has now been diverted to an organic biostimulant producer in County Galway

while the solid is very promising as a high fibre & protein rich food grade ingredient.

We shipped the liquid to our sister company BEOBIO Teoranta in Galway and we sent the solid waste to Ashtown Food Research Centre, where it is currently undergoing tests to develop it for consumer products."

Through continuous collaboration with research partners, Nutramara is committed to pushing the boundaries of science for the future, whilst creating superior quality natural products from the sea.

WATER Key metrics

Water Initiatives (2018 & 2019):



Water Usage per Unit of Output (2019 vs. 2017):

- Tier 1 & 2 Members: **-4.11%**
- Tier 3, 4 & 5 Members (SMEs): **0.35%**

Why is this target area included?

Water is a key resource in the production of food. While agricultural production accounts for most water consumption in the agri-food sector, manufacturing is also a significant contributor.

* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

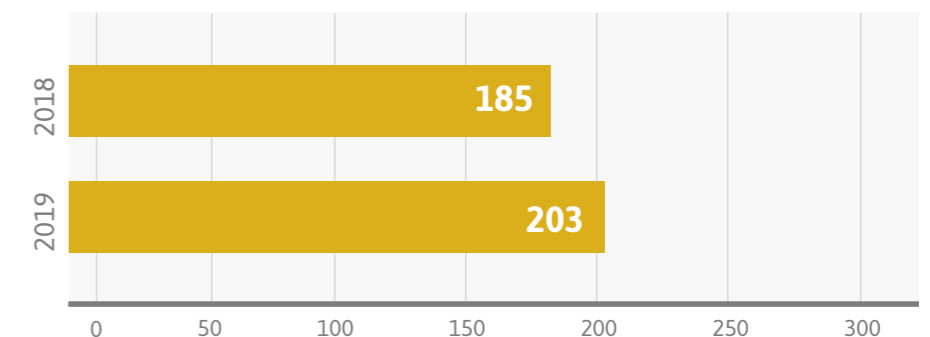
Water has also been identified in Bord Bia's Global Sustainability Outlook insight study as a key sustainability issue for Agenda Setters (external thinkers and NGOs who are driving the agenda and sustainability leads). Origin Green members must include targets to reduce water consumption and improve wastewater systems as part of their sustainability plans.

Progress Update

Water use reduction is the core focus of members' targets in this area. Other target areas include water use maintenance, water recycling and water quality. These account for a much smaller number of targets and there is an opportunity for verified members to pay increased attention to these areas in their future sustainability plans.

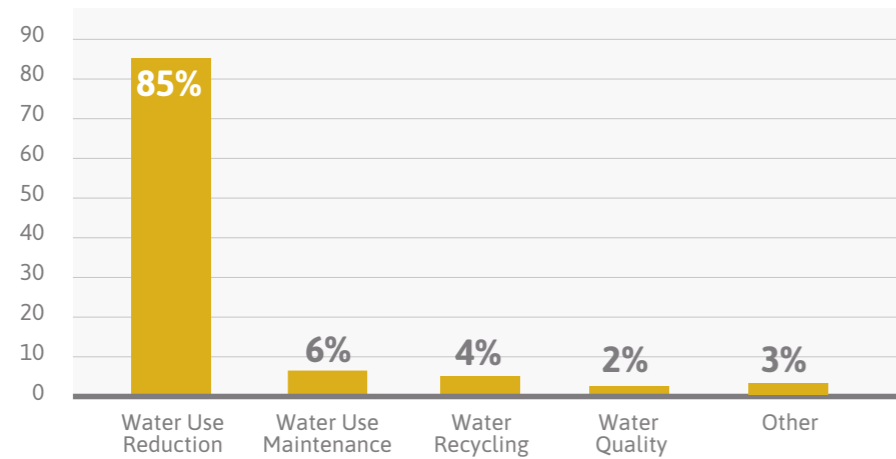
More generally, Bord Bia would like to see more Origin Green members setting targets for water stewardship. Irish Water's **Water Stewardship Programme** has been identified as an ideal avenue through which members can include water stewardship in their sustainability programmes.

Number of Water Targets (2018 - 2019)




Manufacturers continued

Types of Targets by % - Water (2019)




Target examples of Origin Green Gold Members

CASE STUDY



Rainwater Harvesting and Water Usage Awareness



Cooley Oysters is a family-owned business based in Greenore, Co. Louth on the East Coast of Ireland. Established by the Ferguson Family, Cooley Oysters has been proudly farming premium quality oysters, grown using the traditional 'Trestle and Bag' method, from Carlingford Lough since 1984. Cooley Oysters became a member of the Origin Green programme in 2015 developing its sustainability plan for the 5-year period 2016 to 2020.

Cooley Oysters prides itself on running a progressive company that pairs an age-old natural product with modern techniques. Freshwater was used for canteen and toilets and supplied through the mains metered system. As part of its plan, Cooley set a target of using mains water on site only for canteen/drinking water and reducing water use by 5% in m3 consumption, or 10% reduction in m3/t used. **In 2019 Cooley achieved and exceeded these targets by 41%**; water consumption from the mains for 2019 was only 0.443 m3/t versus target of 0.74 m3/t.

The targets were reached by establishing a rainwater harvesting system to supply toilets and wash down of the yard facilities. The company also has a water usage awareness plan in place to encourage staff to reduce water usage and continuously look for ways to reduce water use on site (i.e., monitoring tap/hose fittings, conducting leak tests etc.)

EMISSIONS

Key metrics

Emissions Initiatives (2018 & 2019):



Emissions Usage per Unit of Output (2019 vs. 2017):

- All Members: **-14.25%**

Why is this target area included?

Climate change presents multifaceted challenges for the global food and drink sector. Global food and drink supply chains will face disruption resulting in increased food commodity volatility and greater food insecurity. To combat these challenges, global food and drink buyers are requesting their suppliers to develop robust emissions reduction targets.

Therefore, it is increasingly important for Origin Green members to establish ambitious emissions targets to demonstrate their commitment to customers. To meet this market demand, from 2022 carbon emissions targets will be mandatory for Origin Green Tier 1 and Tier 2 members (see Tiered Membership). To help companies achieve this, Bord Bia has developed [Origin Green Guidance: Pathways to Net Zero](#).

Bord Bia's Global Sustainability Outlook insight study found that emissions are a core consideration for sustainability leads who have a growing influence in their organisations' procurement decisions, as they look into the full supply chain to reach their science-based or Net Zero targets. While not currently impacting consumer decisions strongly, they are coming into consideration and expected to accelerate with the advent of carbon labelling.

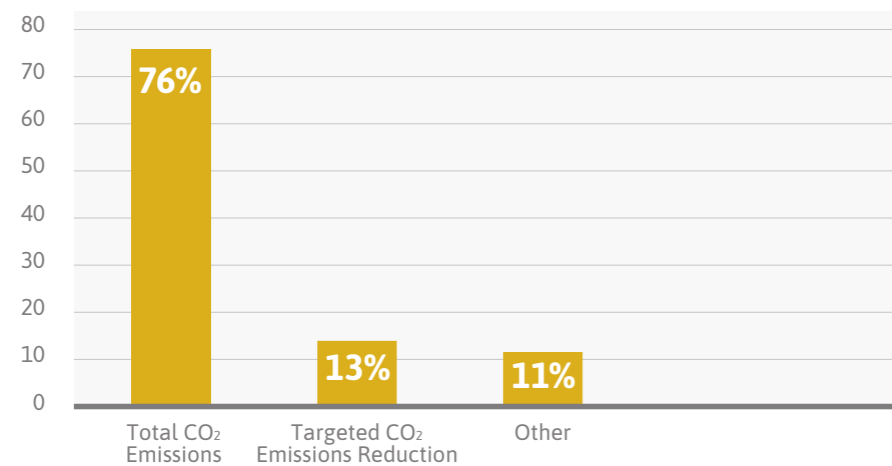
* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

Manufacturers continued

Progress Update

In 2019, carbon emissions reduction was not a mandatory target but, nonetheless, 44 targets were set by members. These were predominantly related to total CO₂ emission reductions, but there were also some relating to targeted CO₂ emissions reductions for specific areas within business operations.

Types of Targets by % - Emissions (2019)



Target examples of Origin Green Gold Members

CASE STUDY



KERRY Exceeding Carbon Reduction Targets

Kerry is a leading provider of technology-based Taste & Nutrition solutions for the food, beverage and pharmaceutical markets.

All Kerry's Origin Green sites are certified under ISO 14001, an internationally recognised environmental management standard. Kerry's Origin Green plan targets ongoing environmental improvements across its six major processing facilities in Ireland as part of broader commitments under its Group-wide Beyond the Horizon strategy. This includes a Science Based Target for carbon reduction and an ambition to be Net Zero before 2050.

As a user of electricity, fossil fuels and natural resources, Kerry's greatest direct influence on climate change is through its use of these resources. As such, the Group set a Target of a 21% reduction in Carbon Intensity (tonnes CO₂ equivalent /tonne finished product) over a 3-year period 2017 – 2019 versus a 2013 baseline.

This target relates to six sites' Scope 1 (direct from energy generation) and Scope 2 emissions (indirect from purchased electricity and heat) by 2020.

In 2019, Kerry concluded its 3-year Origin Green plan and the Group's Towards 2020 programme with a strong performance on carbon intensity. Kerry significantly exceeded its stated target of a 21% reduction, achieving more than double that goal with **a 45% reduction by year end**. Kerry's 2019 emissions data is independently verified by Jacob's in accordance with AA1000 AS.

BIODIVERSITY

Key metrics

Biodiversity Initiatives (2018 & 2019):



Why is this target area included?

Bord Bia's Global Sustainability Outlook study identified biodiversity as an important sustainability topic for both customers and Agenda Setters (the external thinkers and NGOs who are driving the sustainability agenda). This is not a consumer priority issue as of yet, but is the topic most associated with sustainability overall, so we can expect to see it come more into scope.

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. While the UN Biodiversity Conference (**COP 15**), due to take place in October 2021, will convene governments from around the world to agree a new set of goals for nature over the next decade through the Convention on Biological Diversity post 2020 framework process.

Origin Green verified members are encouraged to include at least one biodiversity target in their sustainability plans. The target can focus on improving biodiversity on their sites and immediate surroundings or assessing how they can enhance, integrate or protect existing biodiversity throughout their operations.

* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

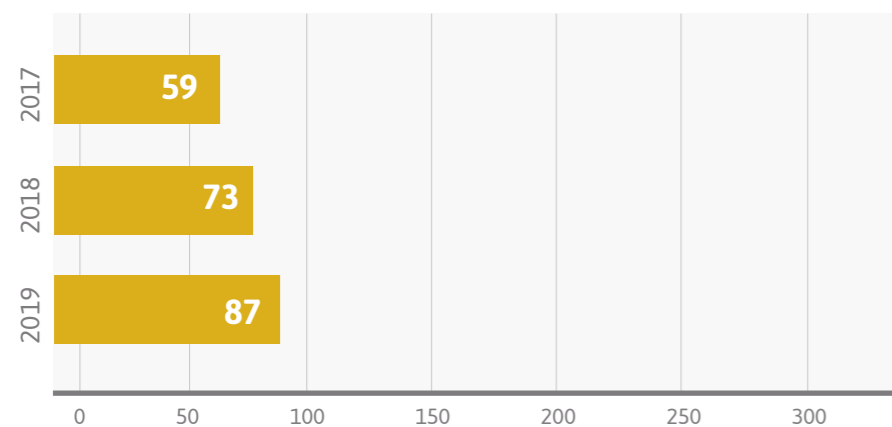
Manufacturers continued

Progress Update

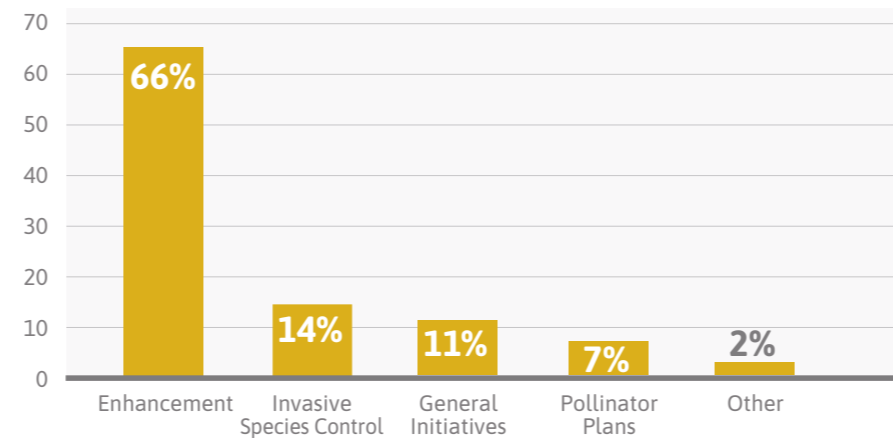
The number of companies setting biodiversity targets has been increasingly steadily since 2017, with 87 companies setting targets in 2019 - up from 59 in 2017. The majority were focused on enhancements, while a smaller number of targets were related to invasive species control and general biodiversity initiatives.

In July 2021, Bord Bia announced that it will be partnering with the National Biodiversity Data Centre to support companies in identifying and implementing smart biodiversity targets in line with the All-Ireland Pollinator Plan 2021-2025. As part of this partnership, Bord Bia will fund a dedicated Biodiversity Officer at the National Biodiversity Data Centre to provide expertise and guidance on Origin Green member companies' biodiversity plans. Bord Bia also launched '[Pathways to Restoration and Resilience - Biodiversity Target Guidance](#)' for Origin Green members to support in identifying and implementing smart biodiversity targets.

Number of Biodiversity Targets (2017-2019)



Types of Targets by % - Biodiversity (2019)



Target examples of Origin Green Gold Members

CASE STUDY



Glanbia Ireland is an ambitious, integrated agri-food and nutrition business, with a diverse portfolio of quality ingredients, leading consumer and agri brands. Glanbia was a founding member of the Origin Green programme.

Glanbia Ireland received exemplary performance in 2019 for its biodiversity sustainability target. Two initiatives were developed to generate awareness for bees and Irish wildlife:

- Operation PolliNation
- Operation WildNation



Operation PolliNation was launched in Spring 2019 in conjunction with all of the local TidyTowns associated with - [Glanbia's] 14 CountryLife stores that donated 1,000s of flowering perennials to assist them with their own local planting initiatives. As part of the campaign, free wildflower seeds were given to customers at Glanbia Ireland's network of CountryLife garden centres, along with a strong in-store and online campaign of hands-on tips and expertise from its horticulturists.

Following on from the Operation PolliNation initiative, Operation WildNation was developed in Autumn 2019 to continue to educate and drive awareness of the importance of wild bird conservation. As part of the initiative, Glanbia Ireland partnered with renowned environmentalist and author Éanna Ní Lamhna to engage primary school students across Ireland on the importance of looking after nature's wildlife.

This biodiversity campaign focused on a schools' competition "Colour Me Wild!", with the winning school receiving an interactive wild bird talk with Éanna and one of CountryLife's horticulturists.

The campaign generated huge interest and was featured on RTÉ's News2day. Various videos featuring Éanna and Glanbia's horticulturists were developed to support the campaign online. You can view [Operation PolliNation](#) & Operation WildNation video content on CountryLife's YouTube [channel](#).

Future biodiversity plans for Glanbia Ireland include an Irish tree planting initiative and expanding Operation WildNation to focus and educate on a wider range of wildlife including squirrels and hedgehogs.

As well as the awareness campaigns above, Glanbia Ireland also planted wild flower areas across a number of its sites to attract pollinators, while also being active supporters of the BRIDE Project (Biodiversity Regeneration in a Dairy Environment), an innovative agri-environment project based in the River Bride catchment of north-east County Cork and west Waterford.

Manufacturers continued

Glanbia Case Study continued

The project is co-funded by the European Union and the Department of Agriculture, Food and the Marine (DAFM) through the European Innovation Partnership (EIP) funding initiative and the project will operate through the period 2018-2023.

The Project provides participating farmers with farm habitat plans that identify the most appropriate and effective options that will conserve, enhance and restore habitats in lowland intensive farmland. Farmers are compensated accordingly for their conservation actions.

Social Sustainability

Social sustainability is one of the three core pillars of sustainability, alongside the environmental and economic pillars; it is about identifying and managing business impacts on people.

Social sustainability is integrated into the UN SDGs, notably SDG 3 'Good health & well-being', and SDG 5 'Gender equality champion social sustainability issues'.³⁹ The EU's Farm to Fork strategy also includes social sustainability initiatives, such as those relating to healthier diets, food affordability and workers' rights.

Within the Origin Green Charter, social sustainability is the third pillar of verified members' sustainability plans. Depending on the company's size (see **Tiered Membership**), members must set targets in their sustainability plans in the following areas:

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

³⁹ UN, [Sustainable Development Goals](#)

COMMUNITY ENGAGEMENT

Key metrics

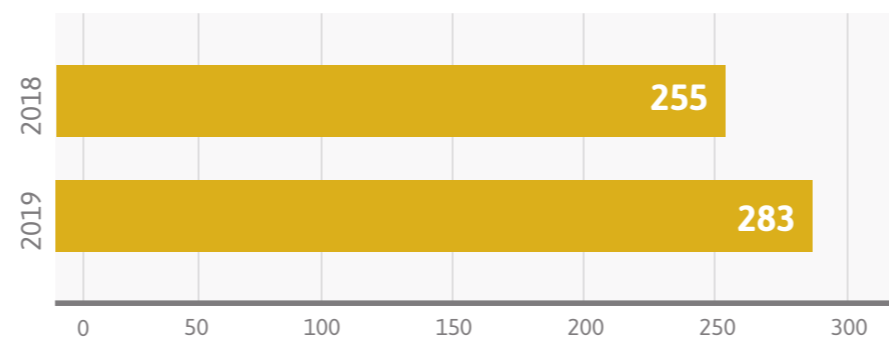
Community Engagement Initiatives (2018 & 2019):



Why is this target area included?

Community initiatives are a way for companies to engage with and support their local communities. Engagement initiatives can include sponsorship of school activities, sporting events, biodiversity projects, supporting local charities, involvement with schools in business management training or student mentoring, or community literacy and well-being programmes.

Number of Community Engagement Targets (2018-2019)

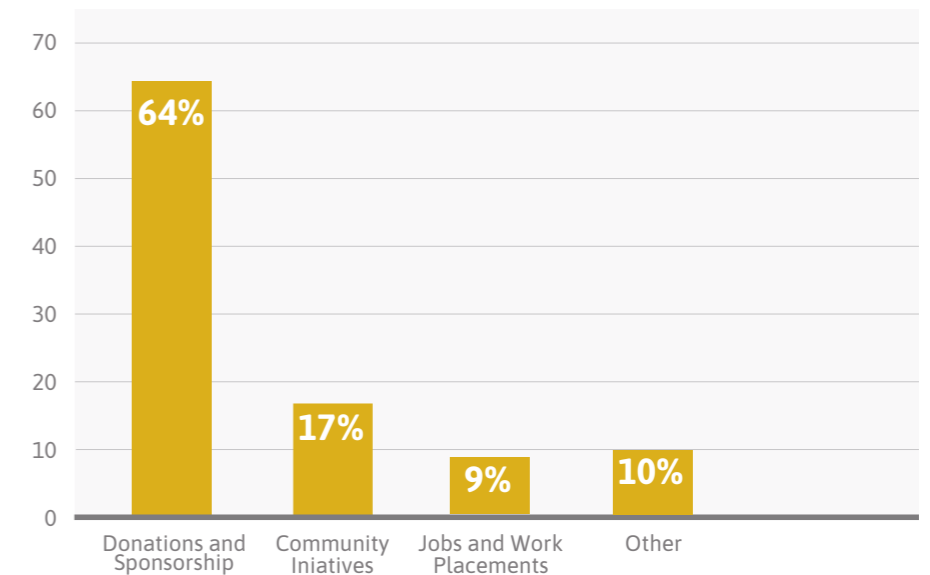


* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

Progress Update

The majority of targets set by verified members in this area were regarding donation and sponsorships. In total, 181 targets were set in this area, accounting for 64% of all community engagement targets. Other target areas include community initiatives, job and work placements and educational tours.

Types of Targets by % - Community Engagement (2019)



Manufacturers continued

Target examples of Origin Green Gold Members

CASE STUDY 1



Supporting Local and National Charities

Kish Fish is a family run seafood wholesale and retail business with its own Baily & Kish smokehouse & Production kitchen. It became a member of the Origin Green programme in 2015 and set out a 5-year sustainability plan to 2020.

Kish Fish has always been a keen supporter of its community. As part of its social sustainability target, Cathriona O'Neill, the Origin Green Sustainability Plan Manager set out to increase Kish Fish's charitable donations. **Since 2015, Kish Fish have achieved a commendable 177% increase in donations to support local and national charities and sports clubs.**

Having the target set allowed the Kish Fish team to track its donations. It kept them focused, and a survey of staff enabled the company to choose a charity close to its heart to support instead of giving corporate gifts to customers. It also helped them come up with innovative ideas like partnering with one of its customers for a "Dine & Give" event in aid of the Peter McVerry Trust.



CASE STUDY 2



Sustainable Community Support

Located in Co. Wexford in the southeast of Ireland, Slaney Farms are proud growers and packers of quality fresh potatoes for the Irish market. The company became a member of the programme in 2017 and its Origin Green Sustainability plan is co-ordinated by Farm Manager, Ed Tobin. Slaney Farms' participation in Origin Green currently covers the three-year period 2017-2020. The targets set in the plan involve both production and farmland sites.

Social sustainability and the role that Slaney Farms plays in its wider community is central to the company's plan. Since 1996, Slaney Farms have sponsored the local Davidstown / Courtnacuddy GAA club.

It donates regularly to staff-related charities and events as well as local community events. Through an annual donation to VITA in Ethiopia (an Irish development partner that supports farmers and communities in Africa to facilitate thriving rural climate smart economies), Slaney Farms help support communities further afield. **In 2019 it exceeded its target donations by a commendable 694%.**

Recognising the importance of a healthy local economy to the community and its people, the company strive to support local suppliers. Slaney Farms set and exceeded targets in 2019 (by 10%) to build its relationship with local suppliers and source more local fruit and vegetable from them. Each year the company supports local Wexford strawberry growers by sourcing over a half a million Euro worth of strawberries for its Slaney brand to supply large retail multiples across the country.



EMPLOYEE WELLBEING

Key metrics:

Employee Wellbeing Initiatives (2018 & 2019):



Why is this target area included?

The link between wellbeing and economic growth has been firmly established for many years now⁴⁰, but the COVID-19 crisis put an additional spotlight on employee well-being and mental health, as remote working and other COVID-19 safety measures removed the usual support systems. This underlines the necessity of including employee wellbeing as an integral part of the social sustainability pillar of Origin Green members' sustainability plans.

Progress Update

Companies set 112 employee wellbeing targets in 2019, resulting in 300 initiatives. The most common of these were Healthy Living programmes which accounted for 44 targets, followed by General Wellbeing initiatives (17 targets). Career development and Bike to Work schemes were also popular areas where verified members set targets.

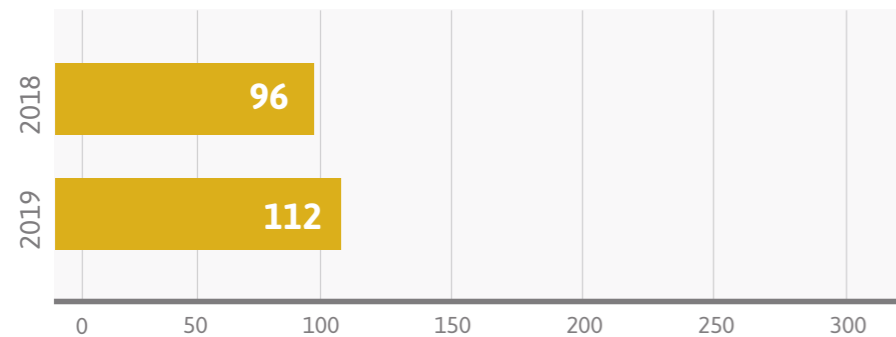
Consumers are increasingly concerned about ensuring that human rights are respected in the supply chains of products that they purchase. Bord Bia will focus on ways to support members to increase the number of targets in this area in its next Origin Green strategy.

* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

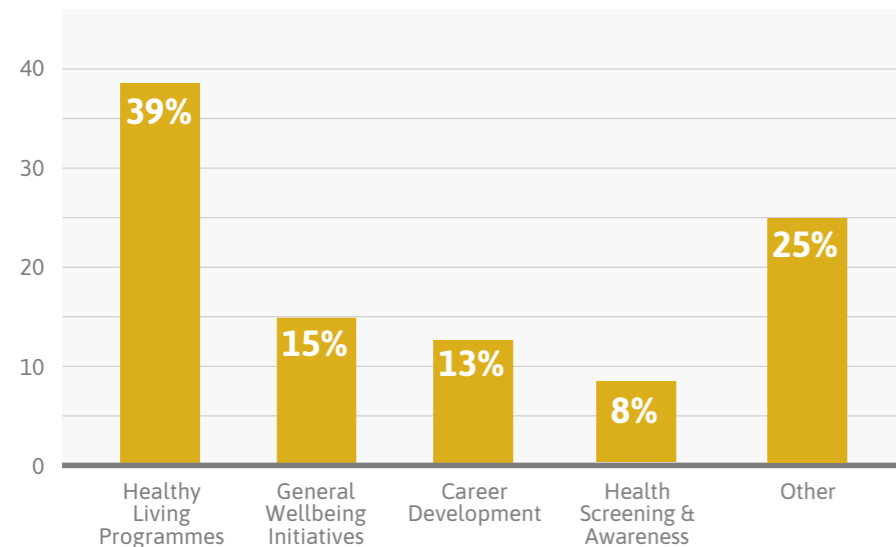
⁴⁰ OECD, *The Economy of Well-being Creating opportunities for people's well-being and economic growth, 2019*

Manufacturers continued

Number of Employee Wellbeing Targets (2018-2019)



Types of Targets by % - Employee Wellbeing (2019)



Target examples of Origin Green Gold Members

CASE STUDY



Prioritising Staff Health



Annalitten Foods Ltd. is a privately owned family business and one of Ireland's largest egg packing and distribution companies located in Castleblayney, Co Monaghan. It has been a member of Origin Green since 2017.

As a family run business, staff wellbeing is highly valued, and the company believes that its strength is in its well-trained, healthy workforce. Ensuring its staff's physical and mental wellbeing is a vital part of its Human Resource function.

With this in mind, members of its Origin Green team, Damien O'Reilly and Edmund Morton, set a target to establish an employee wellness programme consisting of three initiatives throughout each year of the company's plan.

In 2019, Annalitten Foods succeeded this target by implementing eight initiatives with staff health and wellbeing being a priority, among these actions are:

- Introducing a smoking reduction programme.
- Setting up an employee shop where the eggs can be purchased at a reduced rate.
- Donating eggs to staff when there is surplus stock.
- Creating standing desks on site and introducing standing meetings.

Annalitten's ambition is to aim for continuous sustainability improvement across its business and its other exemplary target performance areas reflects this.

HEALTH AND NUTRITION

Key metrics:

Health and Nutrition Initiatives (2018 & 2019):



Why is this target area included?

With increasing levels of both malnutrition and obesity, and the associated diet-related non-communicable diseases around the world, the need for healthy and nutritious diets has received increased attention over the past decade.⁴¹ In the policy landscape, health and nutrition is directly addressed in UN SDG 2 'No Hunger', and SDG 3 'Good Health and Wellbeing'. There are initiatives in the EU's Farm to Fork strategy targeting health and nutrition, such as the objective to set nutrient profiles to restrict promotion of foods high in salt, sugars and/or fats, launching initiatives to stimulate reformulation of processed food, and proposing a harmonised mandatory front-of-pack nutritional label.

Food quality and nutrition was also identified as a dominant sustainability area for all stakeholders in Bord Bia's Global Sustainability Outlook study. This is a particular focus for prepared consumer foods. There is no doubt that Covid-19 has urged consumers to eat more healthily, with 89% globally saying they have made an effort to eat more healthily in the last year.

For this reason, health and nutrition is a mandatory target for companies in Tiers 1-3 of the Origin Green programme and an optional target at Tiers 4 & 5 due to company size, which can make targets in this area more challenging.

* Where the completion rate and the in progress rate do not equal 100%, the initiatives outstanding have been discontinued.

⁴¹ FAO, *Sustainable Healthy Diets Guiding Principles*, 2019

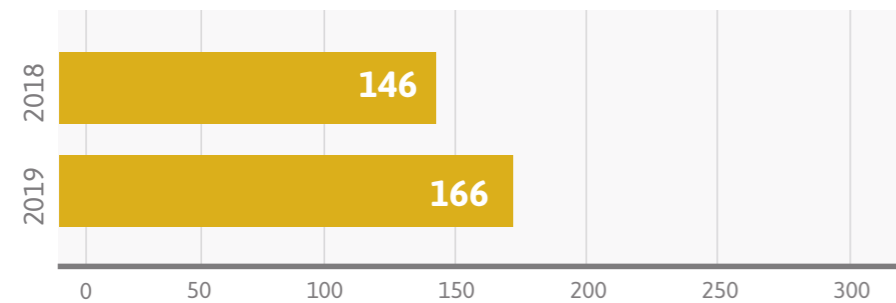
Manufacturers continued

Progress Update

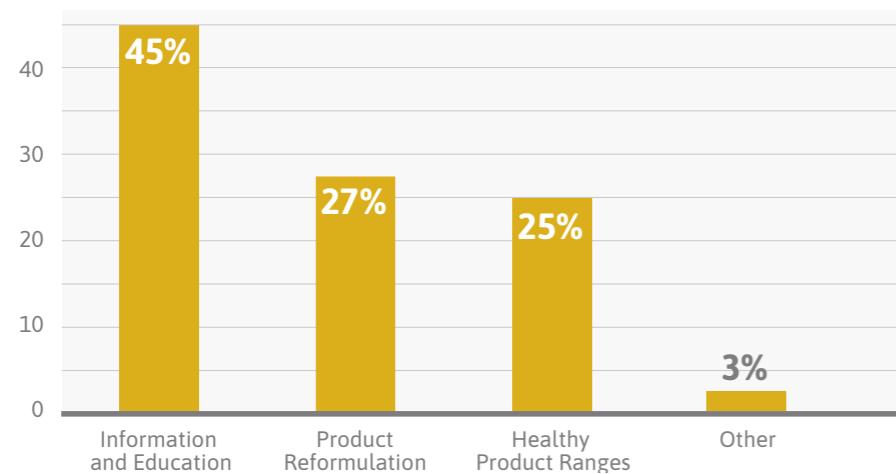
In 2019, information and education accounted for 47% of all the Health and Nutrition related Origin Green targets (166 targets). There were also 45 Product Reformulation targets and 41 Healthy Product Ranges targets.

Going forward, Bord Bia would like to encourage members to set more targets related to reformulation of food, where possible, and on new product development focused on health and nutrition.

Number of Health and Nutrition Targets (2018-2019)



Types of Targets by % - Health & Nutrition (2019)



Target examples of Origin Green Gold Members

CASE STUDY



Commitment to Developing Healthier Products

Hassetts are a leading supplier of high-end bread and confectionery products. The company became a member of Origin Green in 2018 committing to a five-year sustainability plan to 2022. Throughout the period of the plan, Hassetts has looked to focus on health and nutrition to increase its production of savoury snacks and develop new healthy option products and reformulate existing lines.

Within its sustainability plan, Hassetts Bakery has set ambitious health and nutrition targets. One of which is to reduce sugar content in its cookie range by 40%, from currently 31.4 grams per 100 grams to 18.9 grams per 100 grams in 2022. To achieve this goal, the company embarked on a research and development project, working with the Food Institute at University College Cork, focusing on finding ways to reduce sugar levels without compromising the taste of the company's high-quality products.

In 2019, Hassetts achieved exemplary performance scores against its health and nutrition targets as **they achieved a reduction in sugar content (g/100g biscuit) in its cookies and shortbread biscuits of 48% from the 2017 levels through reformulation.**

Hassetts also accelerated its health R&D programme and created three new cracker lines with recipes low in sugar and fat. Going forward, Hassetts Bakery has made a commitment to develop products that will benefit the health and nutrition of our society.

DIVERSITY & INCLUSION

Why is this target area included?

The business case for diversity and inclusion continues to grow. According to McKinsey's 2020 report, 'Diversity wins: How inclusion matters', there is an increasing link between diversity on executive teams and the likelihood of financial outperformance.⁴²

Progress Update

Diversity and Inclusion was added in 2019 as an optional target for Origin Green verified members. As this is a new area in the Charter, only five targets were set, resulting in 43 initiatives.

Bord Bia would like to see an uptake in the number of companies setting targets in this area. To support companies' efforts, it has established The Agri-Food Diversity & 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.

As part of the Forum, a toolkit has been developed which outlines the steps Origin Green members need to follow to create a diversity and inclusion strategy for their respective businesses.

⁴² McKinsey & Company, *Diversity wins: How inclusion matters*, 2020

Retail and Foodservice

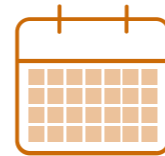


Retail and Foodservice



10 verified members in 2019

165 sustainability targets



Sustainability Plans must cover a period of at least 3 years

Members set targets in the following areas:

Sustainable Sourcing

Operations

Health and Nutrition

Social Sustainability

To ensure that Origin Green encompasses the entire Irish food and drink supply chain from farm to fork, retailers and foodservice operators can also become Origin Green verified members.

By joining Origin Green, retailers and foodservice operators can measure, monitor and drive sustainability improvements in their businesses while showcasing their sustainability credentials.

The **Origin Green Retail and Foodservice Charter** requires participating companies to develop a sustainability plan which outlines a series of ambitious and measurable targets that covers at least three years. These are similar to the sustainability plans developed by manufacturers and are also independently verified by Mabbett for robustness and credibility.

As part of the Origin Green Retail and Foodservice Charter, participating members set targets in the following four target areas:

- **Sustainable Sourcing:** Source from 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 in conjunction with suppliers.

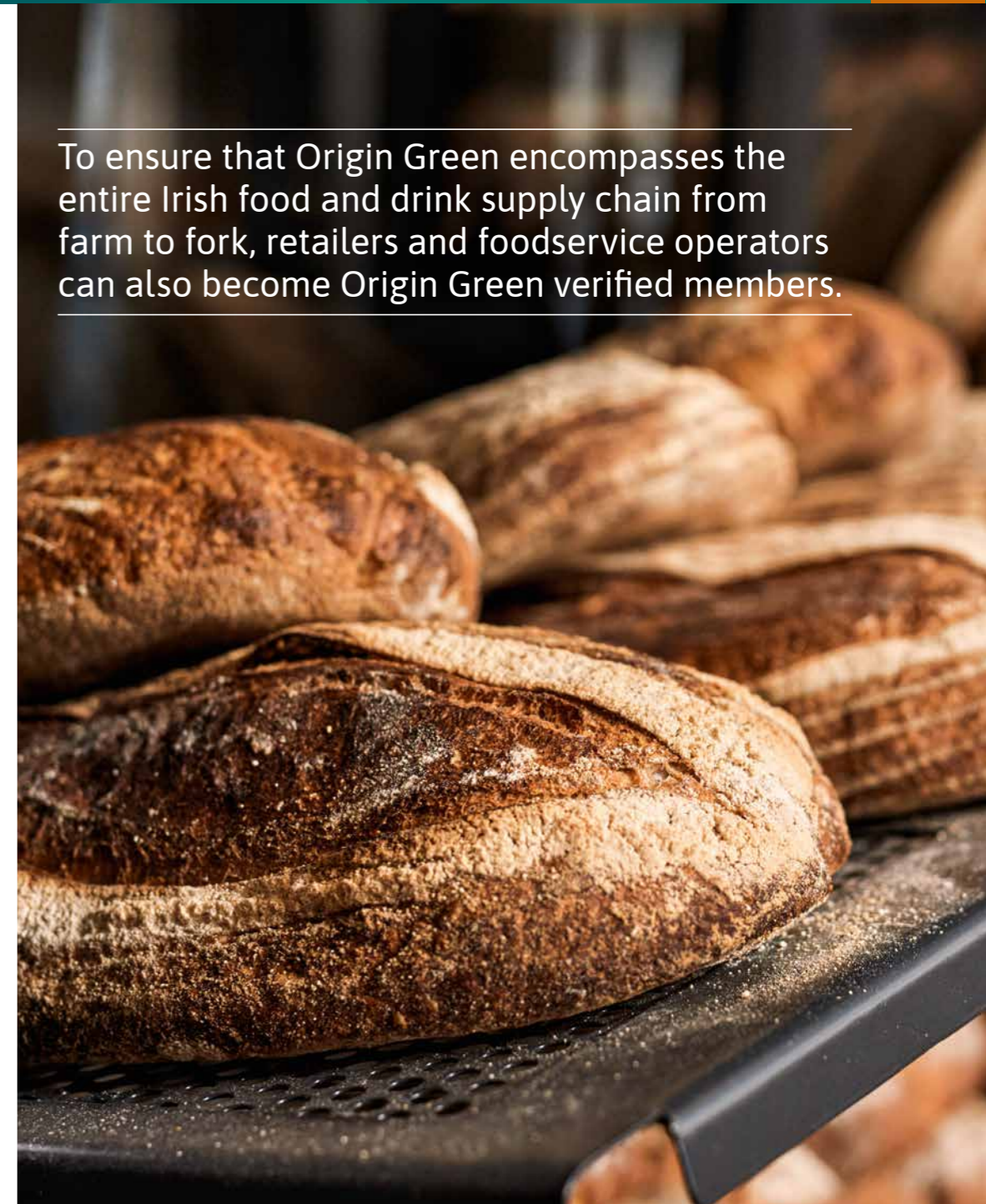
- **Operations:** Reduce energy consumption, waste generation and/or water usage across all operational areas (e.g., transport, refrigeration, surplus food, etc.).

- **Health & Nutrition:** Reductions in fat, sugar, salt, colourings and portion size, as well as driving awareness campaigns etc.

- **Social Sustainability:** Formally support community organisations, help ensure ongoing employee wellbeing and deliver products that provide a nutritionally balanced and healthy offering to customers.

By becoming Origin Green verified, retail and foodservice companies are able to demonstrate their sustainability credentials to consumers, who are becoming clearer as to what sustainability means to them and what they expect. Origin Green verified companies have the opportunity to create a point of differentiation and build reputation with a growing number of consumers who want to be able to 'do the right thing' when it comes to the food and drink products they purchase.

To ensure that Origin Green encompasses the entire Irish food and drink supply chain from farm to fork, retailers and foodservice operators can also become Origin Green verified members.



Retail and Foodservice continued

Overview of Performance

In the reporting period up to 2019, the 10 members of Origin Green at the Retail & Foodservice level had set a total of 165 sustainability targets. A breakdown of these targets across the four targets areas can be seen below:

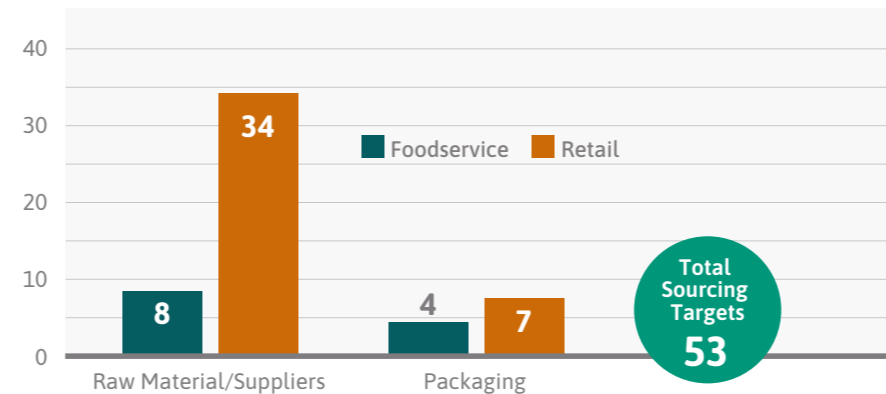
53 Total Sustainable Sourcing Targets	60 Total Operations Targets
52 Total Social Sustainability Targets	18 Total Health and Nutrition Targets

SUSTAINABLE SOURCING

Participants in the retail and foodservice charter are asked to develop a set of commitments in relation to sourcing food and drink products. Targets can be related to commitments to source from manufacturers with recognised certifications, developing sustainability initiatives with suppliers, as well as setting specific sourcing targets relating to packaging. Companies must include a robust sustainable sourcing targets within their sustainability plans.

By the end of 2019, 53 sustainable sourcing targets were set by members. These were predominantly related to raw material and supplier initiative sourcing, with 42 targets set in these areas.

Sustainable Sourcing Targets



Initiative examples

- Continue to **source beef from farms who are members** of Bord Bia's Sustainable Beef & Lamb Assurance Scheme.
- Increase the amount of **coffee purchased from Fairtrade** certified sources from 50% to 100%.
- Use only **RSPO certified palm oil in own-label products** by 2021.
- Increase the number of suppliers with **Origin Green Verification from 10% to 40%**.
- Work with all egg suppliers to ensure that they are members of Bord Bia's **Sustainable Egg Assurance Scheme**.
- **100% of own-label packaging** to be compostable, reusable or recyclable.
- Reduce level of **cardboard used in transit** by 50%.

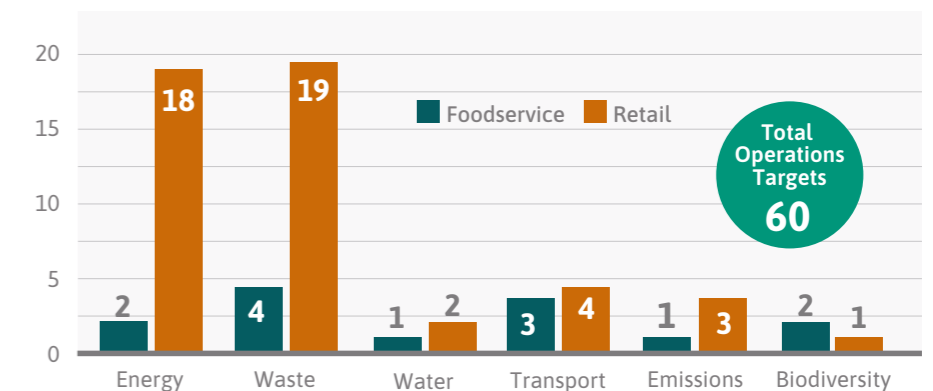
OPERATIONS

Operations incorporates distribution, storage, stores and packaging for own label products in the Origin Green Retail and Foodservice Sustainability Charter. Companies must include at least three target areas listed from the below target areas:

- **Energy**
- **Waste**
- **Transport**
- **Water**
- **Biodiversity**
- **Emissions**

In 2019, Retail and Foodservice members set 60 operation targets overall. The majority of these were focused on energy and waste reduction, with 20 targets and 23 targets set respectively in each of these areas.

Operations Targets



Retail and Foodservice continued

Initiative examples:

- Reduce total **food waste** by 15%.
- Work with FoodCloud to **donate surplus food** to charity.
- Introduce **renewable and alternative fuel sources** for the company's vehicle fleet.
- Reduce emissions produced in the **supply chain** by 20%.
- Sign up to the **All-Ireland Pollinator Plan**.
- Introduce a **wildflower garden** on-site at Head Office.
- Reduce total **energy consumption** by 10%.
- Replace all incandescent lighting with **LED lighting**.
- Reduce **water consumption** by 15% by 2020.

HEALTH AND NUTRITION & SOCIAL SUSTAINABILITY

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

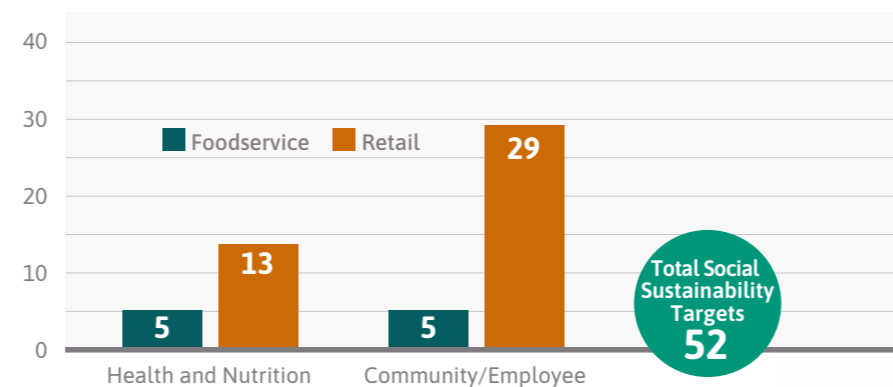
- **Company role in the local community**
- **Employee wellbeing**
- **Health & Nutrition**

The Origin Green Sustainability Charter seeks to help participating companies formalise their contribution to the local community in which they are based and make commitments to continue or enhance this support over the lifetime of the plan. Additionally, most companies are significant employers and could help develop career development programmes for employees as well as other supports to help ensure employee wellbeing.

In 2019, 52 social sustainability targets were set by verified Foodservice and Retail Origin Green members.

Of these, 34 were related to the companies' role in the local community and employee wellbeing, while 18 were related to health and nutrition.

Social Sustainability Targets



Initiative examples

- Donate a minimum of **€10,000 per year** to a charity chosen by employees.
- Sponsor **local sports teams** and **community events**.
- Develop and implement a **learning & development programme** for all staff.
- Introduce a **volunteer day** where employees can work with a charity of their choice.
- **Reduce the amount of sugar** used in own-label products by 5%.
- Sell only **health-conscious products at the till area** in stores.
- **Reduce amount of salt** used in recipes by 40%.
- Introduce a new **employee mindfulness programme** across all sites.

While the **Origin Green Retail & Foodservice Charter** was launched on a pilot basis, it has now been agreed that this strand of the

programme will be retained on a permanent basis. Furthermore, while retail and foodservice organisations have previously been merged into one overall charter, from 2022, they will now be split into two distinct groups with individual charters. The rationale for this stems from learnings from the pilot where it became clear that distinct operational differences exist between these two elements of the supply chain, hence they require more specialised guidance.

Furthermore, in an effort to drive a greater level of impact at this level of the programme, Bord Bia will also launch a new credits system for Origin Green Retail & Foodservice members in 2022. Utilising a similar model to the credits system which has been adopted at the manufacturing level of the programme, the aim will be to improve the transparency for how membership is achieved amongst this cohort of members, whilst simultaneously encouraging enhanced performance. In recognising the significant scale of these members, the adoption of a more ambitious charter should offer improved sustainability credentials for individual members and an overall greater impact for the Origin Green programme as a whole.



Origin Green Collaboration

Origin Green Collaboration



DOMESTIC COLLABORATORS

- 1 Animal Health Ireland
- D AgDIF – The Agrifood Diversity & Inclusion Forum
- D Bord Iascaigh Mhara (BIM)
- D Dairy Industry Ireland
- D Dairy Sustainability Ireland
- D Department of Agriculture, Food and the Marine
- D Enterprise Ireland
- D Skillnet Ireland
- D Environmental Protection Agency: Stop Food Waste
- 10 Farming for Nature
- D Food Safety Authority of Ireland
- D FoodCloud
- 13 Irish Cattle Breeding Federation
- D Irish Co-operative Organisation Society
- 15 Irish Creamery Milk Suppliers Association
- D Irish Farmers Association
- 17 National Biodiversity Data Centre
- 18 National Rural Network
- D Repak
- D Sustainable Energy Authority of Ireland
- 21 Teagasc
- D University College Dublin
- D Veterinary Ireland

Collaboration at a domestic and international level remains a cornerstone of the Origin Green programme. Bord Bia is committed to working with national and international partners who demonstrate best practice in their respective fields to improve the performance of the industry as a whole and drive continuous improvement.



INTERNATIONAL COLLABORATORS

- 1 Sustainable Agriculture Initiative (SAI) Platform
- 2 European Roundtable for Beef Sustainability
- 3 Dairy Sustainability Framework
- 4 Sustainable Dairy Partnership
- 5 UN Global Compact
- 6 Global Round Table for Sustainable Beef
- 7 Mabbett
- 8 Carbon Trust
- 9 Forum For the Future
- 10 The Consumer Goods Forum

Origin Green Collaboration continued

New **TEAGASC SIGNPOST FARM COLLABORATION**

Bord Bia is proud to partner with **Teagasc**, farmers, and the wider industry on the **Signpost Farms initiative**. This Teagasc led initiative is a collaborative programme to lead climate action by Irish farmers and the transition towards more sustainable farming systems. A key outcome of this initiative is that the industry as a whole will be aligned in our support and recommendations to farmers on the implementation of environmental measures on-farm and demonstrate new solutions. A range of measures which farmers can take to reduce emissions is provided by the Bord Bia Farmer Feedback Report and it is anticipated that learnings from these Signpost Farms will inform the development of the feedback report and other Bord Bia programmes into the future.

New **ORIGIN GREEN GLOBAL COUNCIL**

Bord Bia launched the Origin Green Global Council at a virtual event on 25th February 2021. The Council was established to formally incorporate collaborative thought leadership into the strategic development of Origin Green, as set out in the Origin Green Strategy 2019-2021.

The objective of the Council is to create a thought leadership forum to shape the discourse on emerging food and drink sustainability topics and support the strong and continuous evolution of the Origin Green programme.

The Global Council brings together leaders from the food and drink industry across the globe and international experts in the field of sustainability, selected for their expertise and specific interest in issues linked to the economic, social and environmental pillars of food and drink sustainability.

Global Council benefits to Origin Green

- Provide **thought leadership** in food sustainability, so Bord Bia is best placed to inform and influence the Irish food and drink industry and customers.
- Provide **guidance** in determining the **strategic direction** and priorities of Origin Green to ensure alignment with market trends and priorities.
- Bring together **specialised sustainability expertise** at each level of the food supply chain to provide an unbiased, third-party perspective on the Origin Green programme to ensure it remains ahead of the curve.
- **Championing** Origin Green amongst global industry and other leaders.



Collaboration

Origin Green Ambassadors

The Origin Green Ambassador programme is designed to open conversations on sustainability and to share the vision of Origin Green with leading food and drink companies around the world. Origin Green Ambassadors are placed in global food and drink companies, while simultaneously completing a Masters (MSc.) in Business Sustainability in the UCD Michael Smurfit Graduate Business School, enabling them to develop the skills to become future sustainability leaders within the global food industry.

Since its inception in 2013, Bord Bia has expanded the number of partner companies where it is invited to place Origin Green Ambassadors, highlighting the willingness and interest of global partners to work with the programme.

Current placement companies include, among others, Sainsburys, Hilton, Danone, Barry Callebaut, Waitrose, Albert Heijn, Asda, Coca-Cola, Mars, M&S, McDonald's, Nestlé, PepsiCo, Starbucks, Tesco, Unilever, Walmart and The World Bank.



“Our **Origin Green Ambassador** was a great addition to our European sustainability team at OSI. Her wealth of knowledge about sustainability challenges, teamed with her ability to take the initiative, meant that she was able to **add a great amount of value to our team** while working remotely. She supported our re-design of our sustainability benchmark for our suppliers and effectively coordinated a communication strategy to publicise its importance internally, to our suppliers, and to our customers. We would greatly welcome an Origin Green Ambassador in the future!”

Emma Daly, Sustainable Supply Chain Manager,
OSI Europe - UK

“Without exception our **Origin Green Ambassadors** are of the highest calibre and feel comfortable interacting at a senior level when given the opportunity to share their work. The strategic importance of the projects they worked on are a testament to their capabilities in particular, **working across all areas of agriculture, technical, food and non-food** to give a comprehensive water long-term plan for the business, and working closely with our Directors on the plans for our sponsorship of COP26. In all of this their work is of the highest calibre, thoughtful and immaculately presented. Most importantly they are an absolute pleasure to work with.”

Judith Batchelar, Director of Public Affairs & Sustainability,
Sainsbury's UK

“At Danone we have enjoyed a fantastic and fruitful relationship with all our **Origin Green Ambassadors** for the past number of years. Their personal passion for sustainable food, balanced with business experience and area expertise, brings a catalyst moment and great support to our Danoners.

From supporting our **One Planet One Health framework of action, internal engagement, brand connection and supply chain assessments**, the mission for each ambassador is really a win-win, unique relationship that we embrace.”

Paul Kennedy, Global Sustainability Manager,
Danone - UK

