

SUSTAINABILITY REPORT 2022



*Enriching lives,
together*



CARBERY

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Carbery at a Glance

943
GLOBAL
EMPLOYEES



1,208
FARMER
SHAREHOLDERS



CARBERY SYNERGY
INSPIRING TASTE
12
GLOBAL
FACILITIES



OPERATIONAL HIGHLIGHTS

Revenue



+31%

€700.8m

EBITDA



+4%

€52.1m

EBITA



+5%

€32.8m

Litres of milk processed in Ballineen

598 million

Milk volume

-2%

GROUP ENVIRONMENTAL HIGHLIGHTS



-5.5%
Carbon Emissions



-17.7%
Production
GHG Intensity



-8.4%
Water Use



-44.7%
Waste to Landfill

Sustainability

Our overall goal is to be a sustainable, responsible business, and we give as much weight to how we perform on sustainability as we do to our financial results.

We take seriously the role of business to drive change and be a leader on climate ambition. We have many areas to work on, but our commitment is shared and driven by our employees, our shareholders and our communities around the world. The following pages showcase our progress on our sustainability goals, and capture our environmental performance, but also the impact we aim to have on our people, our communities, our supply chain and our marketplace.

With our farmer suppliers,
communities and wider society —
by sharing benefits where we operate
and making a positive contribution.



**INTEGRATING
SUSTAINABILITY
ACROSS THE
BUSINESS**



For our customers —
by helping to shape a more
sustainable food future.



Carbery company operations —
by running a sustainable, efficient,
responsible and profitable business.



**MARKETPLACE
SUSTAINABILITY**



**ENVIRONMENTAL
SUSTAINABILITY**



OUR SUPPLY CHAIN



OUR PEOPLE



OUR COMMUNITY



ENVIRONMENTAL
SUSTAINABILITY

OUR APPROACH

We strive to produce and deliver food responsibly – in a way that respects people, their nutritional requirements, and their environment.

At the simplest level, this means providing more from less.

We apply global standards to manage the environment and how we engage with communities, and we work to continuously improve our performance.

Our target is to have net zero emissions across all our manufacturing sites by 2035. In tandem with reducing Scope 1 and 2 emissions, we are now making major efforts to reduce Scope 3 emissions across the Group, especially at farm level. Over 80% of Group energy is provided via natural gas. In order for us to decarbonise our manufacturing sites, we will have to source sustainable renewable energy and this is a key priority for us.

Carbery will be measured into the long term by more than just our annual financial results.

Jason Hawkins
CEO

GROUP 2022 HIGHLIGHTS



-5.5%
Carbon Emissions

This is our total 2022 Scope 1 and 2 emissions - those attributed to operations and fuel use.



-17.7%
Production GHG intensity

Production intensity is emissions produced compared to level of production.



-8.4%
Water Use

Due to an ambitious program of water reduction across the Group.



-44.7%
Waste to Landfill

Our ambition is to achieve zero waste to landfill.

BENCHMARKING SCOPE 3

HOW WE MEASURE EMISSIONS

Under the GHG Protocol, emissions are measured under a scoping framework based on the attributable source of the emissions. Emissions measured under Scope 1 & 2 are those emanating from operations and energy consumption. Scope 3 emissions are those that a company is responsible for up and down the value chain, including raw material production, transportation, distribution, business travel and waste disposal.

In late 2022, we completed an extensive Scope 3 emissions investigation across the Group. Taking 2020 as the baseline year, we worked in conjunction with the Carbon Trust to ensure that all calculations adhered to the GHG Protocol's Scope 3 standard.

The results of the investigation shows that our Scope 3 emissions are dominated by dairy inputs. Of the total group emissions of just over 1.250 million tonnes, 90% of this is attributable to Carbery, of which 76% comes from emissions associated with milk from our farmer supplies.

This represents an opportunity for Carbery and our farmers, as a small reduction at farm level will have a major impact on group emissions.

OUR DECARBONISATION AMBITION

Our aim is to achieve net zero emissions for Scope 1 and 2 emissions across all our sites by 2035. This will largely be achieved through the decarbonisation of our existing energy sources.

Signing up to Science Based Targets (SBTs) before the end of 2023 would mean Carbery having to reduce its Scope 1 and 2 emissions by 4.2% annually and Scope 3 emissions by 3.1% annually.

As part of Carbery's bank refinancing, completed in February 2022, we were proud to take an industry leading position in signing up to Sustainability Linked Loan principles by agreeing ambitious Sustainability Performance Targets (SPTs) through 2022 to 2026 for water consumption, waste to landfill and Scope 1,2 and 3 related sustainability indicators.

Science Based Targets are greenhouse gas emissions reduction targets that are in line with the Paris Agreement – to limit global warming to below 2°C above pre-industrial levels and pursue efforts to limit global warming to 1.5°C.

Scope 1 + **Scope 2**
Direct emissions from operations + Indirect emissions from purchased energy

Scope 3
All other emissions associated with company's activities

SCOPE 3 EMISSIONS (in tCO₂-eq)



- 1,182,847 Total Carbery Group
- 90% from Carbery Ireland
- 76% from Dairy Farming

GLOBAL ENVIRONMENTAL INDICATORS

There is an urgent need to accelerate climate-action in many areas of our business and we have adopted global standards and ambitious goals. Our key environmental impacts are energy, water and waste. We closely manage our use of energy and the resultant greenhouse gas (GHG) emissions that we are responsible for; we monitor our water use and effluent discharges; and we aim to minimise the creation of waste.



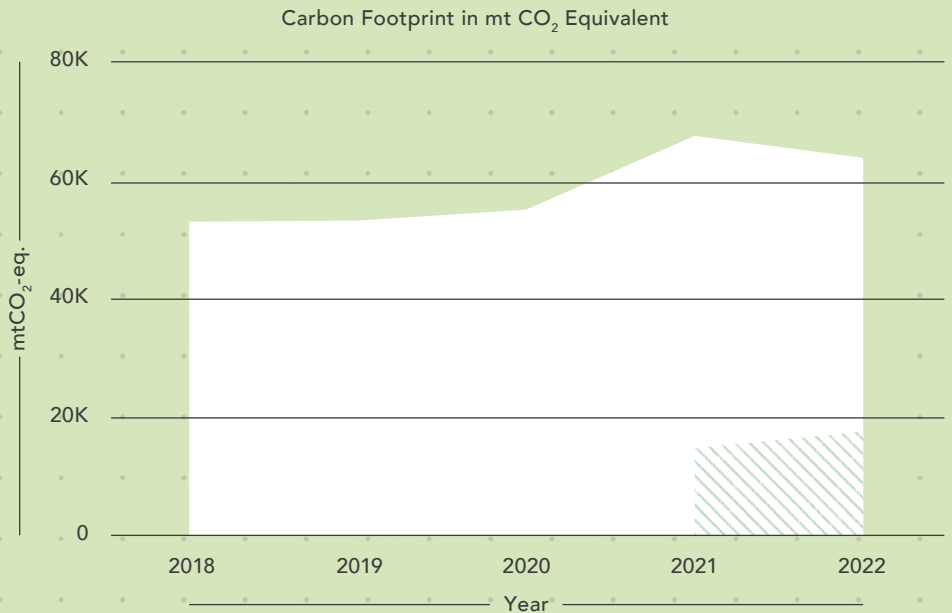
2022 CARBON

TOTAL CARBON EMISSIONS FALL BY 5.5%

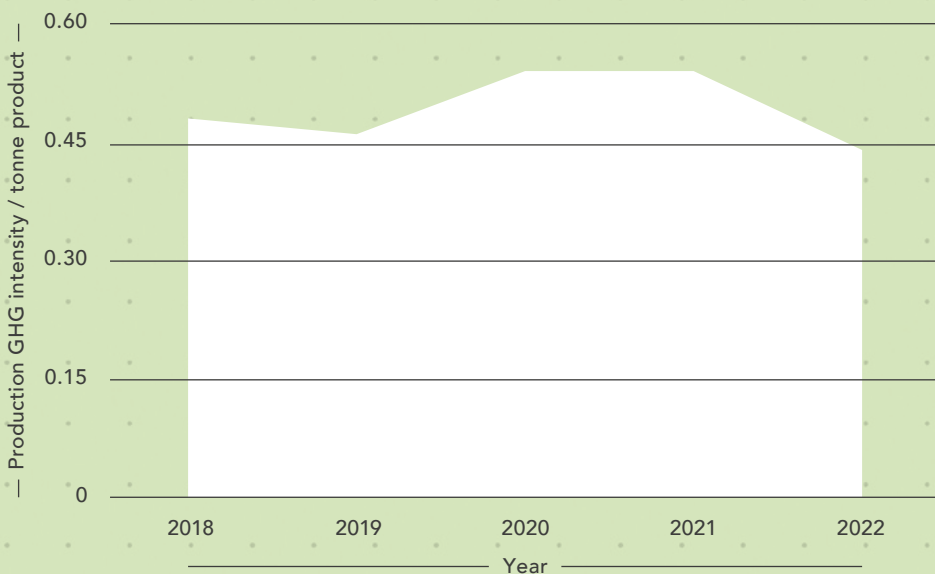
2022 Scope 1 and 2 emissions those attributed to operations and fuel use, dropped by 5.5%, an SBT commitment requires a reduction of 4.2% annually.

The acquisition of Innova added 14,719 tonnes (CO₂-eq) in 2021 to the group footprint, and 17,547 tonnes (CO₂-eq) in 2022 (27.5% of total emissions), this was offset by a reduction at the Carbery Ballineen site.

- Total Carbon Footprint
- Innova Carbon Footprint



Production GHG Intensity by year across Carbery Group (mt CO₂ Eq./mt of production)



PRODUCTION GHG INTENSITY FALLS BY 17.7%

This is largely due to the fact that production increased across the group by 14.9% in 2022 while group emissions reduced by 5.5% at the same time. Another factor was an increase in renewable electricity use across the group.



2022 WATER

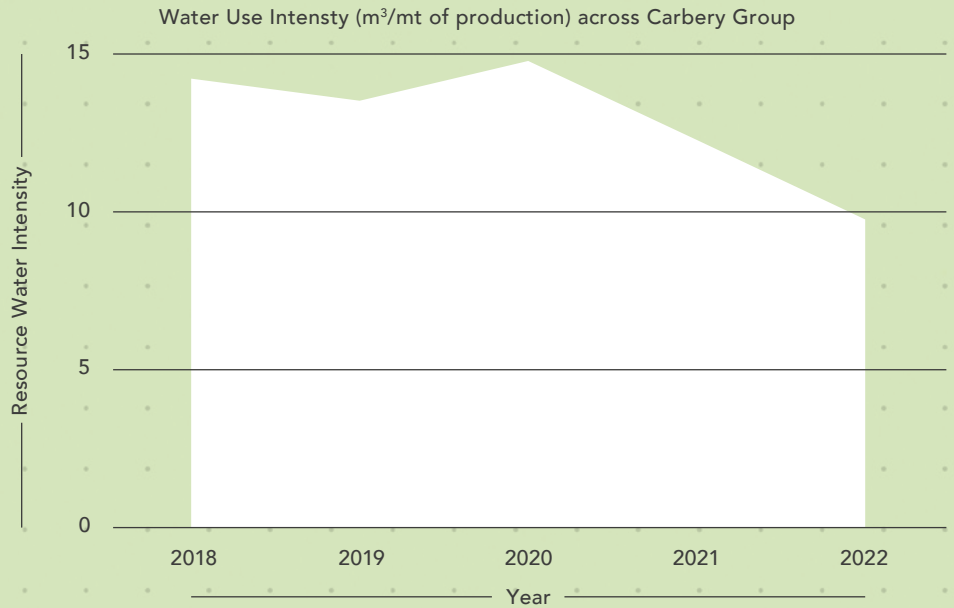
WATER USE REDUCED BY 8.4%

Water use across the group reduced by 8.4% in 2022, from 1.538 million cubic metres in 2021 down to 1.409 million cubic metres inclusive of newly acquired Innova.

WATER INTENSITY REDUCED BY 20.3%

Water use intensity reduced by 20.3% across the group in 2022. On the back of a 16.9% reduction in water intensity the previous year, there has been a 31.2% reduction in water use intensity across the group since 2018.

We aim to see further reductions in water usage in future years as all facilities map water usage and have plans to recover water wherever possible.

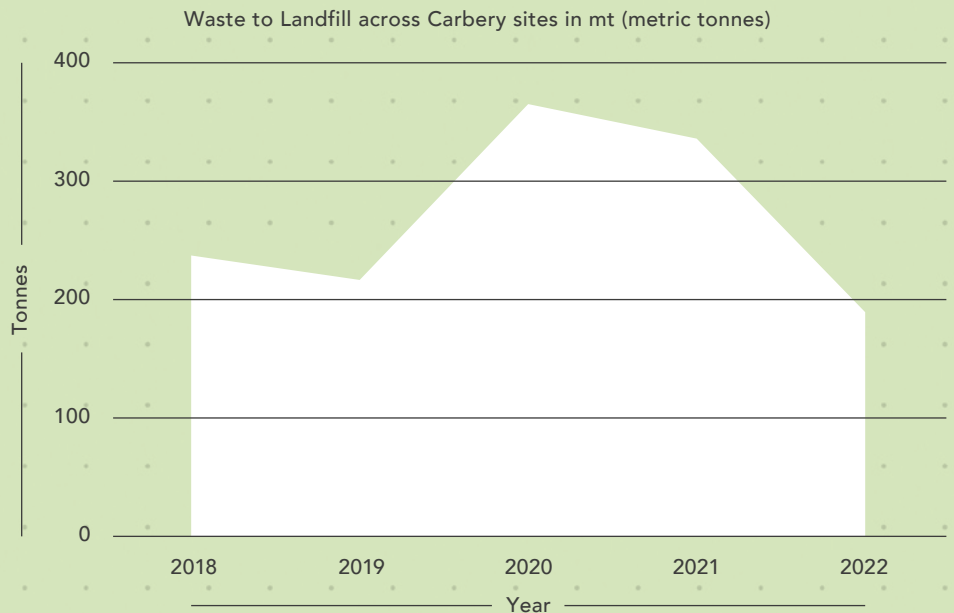


2022 WASTE

IN 2022 WE REDUCED WASTE TO LANDFILL BY 150 METRIC TONNES, A DROP OF 44.7% FROM 2021

The 2021 trend of reducing waste to landfill continued in 2022 where a sizeable reduction was noted. In total there was a 150 metric tonne reduction in waste going to landfill since 2021.

The increase in 2019-2020 was due to our cheese diversification project and waste arising as a result.



Carbery has a zero-waste philosophy and to ensure this ambition manifests itself we need to stop the waste arising in the first place. With the help of green teams across the manufacturing sites there is a big drive to instil this zero-waste philosophy group wide. In Ballineen a waste management project commenced towards the end of 2022 where waste segregation guides were published, and a new waste monitoring procedure was developed.

Throughout the US sites a major focus on waste was initiated in 2022 to get staff to embed thinking that waste is a resource. In 2023 there are plans to host a series of trainings on recycling. The sessions will be focused on reduction of waste/plastic use, waste management practices and introduce concepts of circularity culminating in an event for Earth Day.

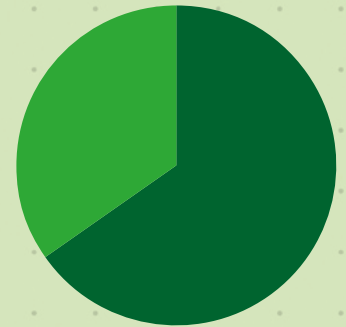
SPOTLIGHT ON BALLINEEN

Our facility in Ballineen accounts for the major allocation of group environmental resources, though this balance is changing with the addition of Innova to the Group portfolio. We also have our circular economy process at this site, which is focused on extracting every drop of value from the milk we take in.

The Innova acquisition has also led to a significant shift in the group's Scope 1 and 2 emissions as illustrated in figure 2 above. Historically the Synergy aspect of the business was responsible for circa 8% of the companies Scope 1 and 2 emissions but that is now up to 35% as highlighted, with the Carbery Ireland business going from 92% to 65% of the groups Scope 1 and 2 emissions.

Here's a closer look at our Ballineen environmental metrics.

**Group Scope 1 & 2 emissions
breakdown**



2022 total mt of CO₂-eq

■ Carbery 41,535
■ Synergy 22,228



-13.5% GHG EMISSIONS

The largest fall in Scope 1 and 2 emissions happened at the Carbery Ireland site where emissions fell from 47,902 tonnes (CO₂-eq) in 2021 to 41,421 tonnes (CO₂-eq) in 2022. That's a 13.5% reduction and largely attributable to the fact that the CHP plant was not operational for a period in 2022. The CHP plant utilises natural gas for its operation and with the CHP not in use the plant used green electricity instead.



-10.3% WATER USE

The Ballineen plant used 10.3% less water in 2022 v 2021, or a total volume of 130,000 cubic metres. This reduction is down to extensive investment in water recovery technologies such as reverse osmosis and recycling of water from the whey permeate and various condensate streams. It's also recognition for the efforts of the services and production teams who have placed huge emphasis on water recovery over the past decade.



108 TONNE REDUCTION IN WASTE TO LANDFILL

The global 44.75% reduction in waste to landfill was largely attributable to a 108-tonne reduction across Ballineen. This was due to sending waste arisings for waste to energy as opposed to landfill.

ENVIRONMENTAL SUSTAINABILITY INITIATIVES

CREATING A GREEN CULTURE

While we have measures in place to reduce our climate footprint across the Group, there is also a program of employee engagement and action that sits alongside this. The Sustainability team with assistance from Green Teams across global sites promote a program of activities, education and engagement that enhance sustainability as a central part of our culture.



Above: Ireland Green Team visit the ERI in UCC.

US

In the US, various sites celebrated Earth Day by improving their surrounding areas. Each location organised litter picking events that effectively removed any winter debris that had accumulated on Synergy grounds and nearby roadways. Additionally, seed packets containing pollinator-friendly wildflowers and giant sunflowers were distributed to employees for them to plant in their home gardens.

The Green Team participated in the Wauconda Parks District's Earth Day Recycling Collection & Giveaway event. Synergy donated 200 red oak tree saplings and collaborated with a master gardener to provide planting instructions to attendees from the surrounding area. Green Team volunteers were also present to assist other local businesses, such as POSRG, our new e-waste partner, in collecting and sorting recyclables gathered throughout the day.

UK

New waste stations were introduced across the site in High Wycombe, and employees carried out litter picks in the local area. The Green team ran an energy saving awareness campaign and celebrated Earth Day with some tips on investing in a greener planet.

BALLINEEN

Our Green Team in Ballineen continued to promote and implement sustainable initiatives. In April, as part of the Sustainable Futures Project, we visited the Environmental Research Institute in UCC where we discussed sustainable diets, the energy transition and had a brainstorming workshop on green initiatives. We linked with the global Green Teams to celebrate Earth Day where UCC professor Paul Deane presented on global energy issues.

To mark World Bee Day on 20th May, a Beekeeping Workshop was held for employees in Ballineen, members of the Cork Beekeeping Association attended. In August we visited local dairy producer Glenilen Farm and we carried out bulb planting onsite in the Autumn.

RESPONSIBLE PLASTIC MANAGEMENT

During 2022 as part of the Responsible Plastic Management Program we completed an audit of plastic onsite. The outcomes include trialling recycled content plastic, reduced micron plastic and aiming to reduce single use plastics where possible.

WINTER ENERGY EFFICIENCY DRIVE

Over winter 2022, the Energy team drove an awareness and energy reduction programme to reduce the use of energy in Ballineen over the winter months. An awareness campaign was developed with posters, emails and notice boards, with weekly updates focusing on different areas and highlighting successes. From reporting steam leaks, to switching off lights, actions large and small were covered, with a good increase in awareness and accountability for energy reduction delivered across the site.

AWARDS



Green Food & Beverage
Green Awards 2022



Sustainable Trade Exporter of
the Year Award
Export Industry Awards 2022

DAIRY SUPPLY CHAIN

We are extremely proud to showcase the many ways our farmers continue to show their commitment to farming in a sustainable and low impact way. Nutrient management, water quality, breeding, renewable energy and reseeded are all elements that our farmers are focusing on constantly, to ensure they are improving the land and their communities for future generations.

2022 was a year of uncertainty, with the war in Ukraine and post-Covid supply issues impacting farmer inputs in terms of both supply and cost. There was a heightened pressure on agriculture to address the environmental and climate impacts of the sector.

Our intensive focus on embedding sustainable practices on the farms of our suppliers was elevated with the launch of the FutureProof sustainability bonus, a commitment to support farmers financially with this transition. A range of other activities across the year also supported through knowledge, up-skilling, support and resilience.

Carbery suppliers are passionate about biodiversity, about new technologies and new approaches. We are proud of what we have achieved together so far and excited about what lies ahead in our collaboration to ensure a sustainable future for farming.

In 2022 the emissions ceiling for agriculture was set at a level requiring a 25% reduction by 2030. The challenge of meeting these targets will not be easy for the sector, and in 2022, our goal at Carbery was to support this transition for farmers.

HOLISTIC APPROACH TO FARMER SUPPORT

A leading milk price is only part of how we support our farmer suppliers. Through incentivising sustainable practices, supporting mental and physical health, educating and up-skilling, rewarding quality and good practice, we want to make sure we are playing our part in ensuring the future of farming.

PROMOTING MILK QUALITY

- Milk Quality Awards
- Thermodurics workshops
- Milk Quality winner's farm walk
- SCC bonus

SUSTAINABLE FARMING PRACTICES

- Carbery Greener Dairy Farms
- Monitor Farm Programme
- Signpost Farms with Teagasc
- UCC Diploma in Environmental Management

FARMER WELFARE

- Farmer welfare conference
- Samaritans initiative
- Mental health first aid training for Co-ops

REDUCING CLIMATE IMPACT

- FutureProof sustainability bonus
- Farm Zero C project



1208 FARM FAMILIES

PROTECTING WATER QUALITY

- 400 ASSAP assessments
- Additional ASSAP advisor appointed
- Water quality streamside workshops held

SUPPORTING FINANCIAL WELLBEING

- Leading milk price paid
- Stability Fund supported
- End of year bonus paid
- Fixed Milk scheme

ENHANCING BIODIVERSITY

- Carbery Trees project
- A guide to biodiverse hedgerows published
- Biodiversity workshops
- Biodiversity mapped on replicator farms

ANIMAL HEALTH & WELFARE

- Supporting AHI and Cell Check programmes

DAIRY SUPPLY CHAIN

REDUCING CLIMATE IMPACT

In 2022 we launched the Carbery FutureProof sustainability programme. The aim of the programme is to build on and support the great work already underway on sustainability on the farms of our farmer suppliers, with a €6m annual bonus fund for those who meet four sustainability criteria.

To prepare for the roll out of the full scheme in 2023, every supplier who opted into the scheme received a 0.5 cent per litre (cpl) bonus on all milk supplied at the end of 2022. In exchange, farmers agreed to undergo an Agricultural Sustainability Support and Advisory Programme (ASSAP) assessment for water quality. Phase 1 of FutureProof was a success, with 96% of suppliers signing up to the programme. In 2023, Carbery suppliers will receive 1cpl bonus in exchange for the implementation of milk recording, meeting certain Economic Breeding Index (EBI) thresholds, commitment to an ASSAP (water quality) assessment and using protected urea.

Carbery Greener Dairy Farms (CGDF)

The CGDF programme continued to work with farmers on the objectives of the programme which are to enhance efficiencies and improve environmental sustainability on all participating farms. Including the new Monitor Farms, there are now 70 farms participating in the programme.

Beetle-mania

In October, a farm walk organised by Lisavaird Co-op regarding the farm of James Hurley, drew a large crowd as farmer, Nuffield scholar and self-proclaimed #dungman Bruce Thompson led a discussion regarding biodiversity on farms. The importance of dung beetles and their role in reducing the use of stomach wormers in cows. There was great interaction around the topic of parasite management and sustainable farm practices.

Carbery/UCC Diploma in Environmental Science and Social Policy

As part of the CGDF programme, Carbery has collaborated with UCC to develop a diploma in environmental science and social policy for dairy farmers. Through the Carbery Greener Dairy Farms project, farmers were able to complete a diploma where aspects of an existing diploma were recognised through the Retrospective Prior Learning (RPL) mechanism and means that the farmers on completion of the remaining 30 credits, qualified for the Diploma in Environmental Science.

Right: Bruce Thompson on the importance of dung beetles and their role in reducing the use of stomach wormers in cows.

SUSTAINABLE FARMING PRACTICES

The Carbery/ Teagasc Joint Programme consists of 10 Monitor Farms to lead and demonstrate the development of carbon efficient and sustainable dairy farming in West Cork. This programme, run in conjunction with the West Cork co-ops (Bandon, Barryroe, Drinagh and Lisavaird) is critical in leading the development of dairy farming in the region. A number of the Carbery/Teagasc Monitor Farmers are also participants in the national Signpost programme.

The Signpost programme is a collaboration between industry and Teagasc with the goal of reducing gaseous emissions from Irish agriculture, while creating more profitable and sustainable farming enterprises.

Five Signpost events were held on the farms of the O'Donoghue Family in Ballinadee, Peadar O'Driscoll in Church Cross, Gurteen Share Farm of Padraig Cunnae, Bandon, the Kingston Family farm in Drimoleague and on the Walsh family farm in Barryroe.

FARMER WELFARE

More than 300 farmers logged onto our Carbery Farmer Webinar on the theme of 'Planning, Health & Wellness for 2022' in January 2022 which looked at succession, mental health and wellbeing and goal setting. The speakers on the night were Tom Curran, Teagasc, John Connell, farmer and author of 'The Cow book', Irish Olympian Phil Healy and Carbery Group CEO Jason Hawkins.



PROTECTING OUR WATERWAYS

ASSAP is the Dairy Sustainability Ireland run programme, now in its fourth year, offering free advisory services to farmers to educate and advise them on ways in which they can optimise their farming practices to improve water quality.

The importance of ASSAP is underpinned by its incorporation as a mandatory measure in the recently launched Carbery FutureProof Sustainability Bonus.

Over 400 farms have been visited as part of the programme to date in the Carbery region, including all the farms in the Priority Areas for Action (PAAs). These PAAs were targeted early in the ASSAP programme. The 2022 Summary Report on Water Quality in Ireland, released in October 2022 by the EPA, stated that, 'current data show that the proportion of improvements within the PAAs exceeded improvements outside these areas by 17%. This indicates that when targeted action is taken improvements in water quality can be achieved'. Carbery recruited a second ASSAP advisor, Liam Bohane, in 2022 to increase the number of assessments.

ANIMAL HEALTH & WELFARE

Carbery is a member of Animal Health Ireland and throughout 2022 we supported our farmer suppliers to prioritise animal health and welfare, especially the effective control of potential diseases on farm. We supported a number of programmes through our involvement in the implementation groups of the national Johne's Control Programme which aims to support farmers in the eradication of Johne's disease on farm and also the coordination of AHI's national CellCheck programme which seeks to ensure top quality milk while also ensuring good animal health and less requirements for antibiotics. Carbery along with AHI and Teagasc held two dry cow preparation workshops in October 2022.

TASTE SUPPLY CHAIN

Vanilla is a key ingredient for Synergy Flavours, and we have taken steps to procure vanilla beans through sustainable sources that prioritise the well-being and livelihood of vanilla farmers and their families. We work only with suppliers that use traditional curing methods, which promote environmental and economic benefits in the community. We source our vanilla from Madagascar, one of the world's poorest and most under-developed countries.



Above: On the farm walk of 2021 winners Ronald Betty and Brian Shorten. Pictured are Ronald, Mayor of Cork Danny Collins and Don Crowley, Teagasc.



Above: Launch of the Monitor Farm programme on the farm of John Cullinane.

FARMING FOR A SUSTAINABLE FUTURE

Farm Zero C is a Science Foundation Ireland (SFI) funded project with the aim to create an economically viable, climate neutral dairy farm.

The project presents a holistic approach to developing new solutions for reducing greenhouse gas emissions while improving biodiversity, air quality and water quality.

A PARTNERSHIP APPROACH

The project, led by Carbery & Biorbic, is a collaborative initiative between industry, government and academics. Farm Zero C received funding from Science Foundation Ireland as winners of the Zero Emissions challenge in 2021.

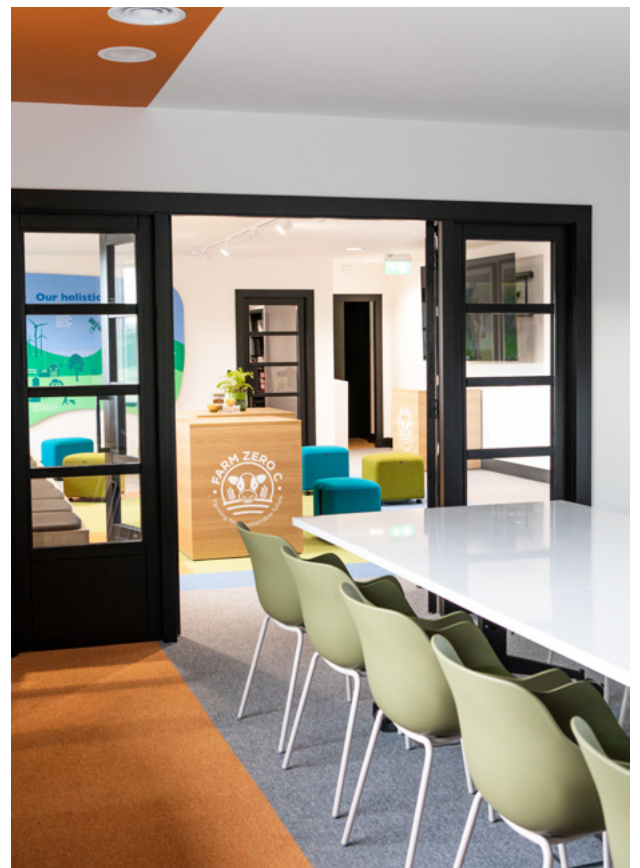


SHOWCASING SUSTAINABLE DAIRY FARMING

The project puts a strong emphasis on engagement with all relevant stakeholders. Farmers are a key stakeholder in the project and will be end users of the technology developed so regular engagement with farmers is vital, providing us with valuable feedback and input. In 2022, we also welcomed visits by politicians, policy makers, NGOs, ag-tech companies, universities, primary and secondary schools and the local community.

LAUNCH OF VISITOR CENTRE

The opening of the Farm Zero C visitor centre in Shinagh in June 2022 has been a very welcome addition to the project. The office is used on a daily basis by the project team and also hosts visitors to the farm. The modern building is a fantastic space to demonstrate to visitors the work being done and share the achievements and challenges being addressed by the team and has also given us the opportunity to have open discussions and gain valuable feedback.





OPEN DAY AT FARM ZERO C

The Open Day 2022 was held on the 2nd of September in Shinagh where over 600 people attended. Attendees to the open day were invited to tour the farm, see the work underway on the project to date and learn about the strategies being deployed on the farm to lower greenhouse gas (GHG) emissions and improve biodiversity, water & air quality.



Right: The National Bioeconomy Forum meeting held in Shinagh in June 2022



RESEARCH UPDATE

REDUCING GREENHOUSE GASES

METHANE (CH₄)



57% of GHG Emissions

Methane Reducing Feed Additive Trials

Researchers based in Moore Park are trialling feed additives to reduce methane emissions from dairy cows. A key challenge is finding an additive that works in a grass-based system. Early results from trials show a reduction of methane but efficacy has not been established. Additionally, in the trials the control group of cows are producing lower levels of methane than previously thought.

On farm, Bovaer (3NOP), a methane reducing feed additive has been fed to cows in Shinagh over the winter period. The additive was incorporated into a dry cow mineral and fed over the dry period until they calve down. The long term plan is to find a feed additive that can be fed all year round to reduce methane emissions via concentrate, water or slow release bolus.

Slurry Additive

Also on farm, we are working with Glasport Bio to develop their methane reducing slurry additive, in scaled tests this has reduced methane in large slatted tanks by 75-80%.

NITROUS OXIDE (N₂O)



39% of GHG Emissions

Replacement of Calcium Ammonium Nitrate (CAN)

Where possible, the farm has replaced CAN with 100% protected urea.

Multi-species Swards (MSS)

The farm is investigating the use of multi-species swards to reduce the need for chemical fertiliser. 11% of the grazing platform on Farm Zero C is sown with MSS across 4 paddocks. The red clover silage ground has grown 14.5 T dm/ha with no chemical fertiliser to date. No chemical fertiliser was spread on one of the MSS paddocks as a trial and grew 14.5 T DM/ha, which was above the average DM production of the farm. Reducing chemical fertiliser is a win-win for the environment and the farm as there is a reduction in GHGs and costs. The project continues to look at new strategies that can be used to further reduce chemical fertiliser usage e.g. bio stimulants.

CARBON DIOXIDE (CO₂)



4% of GHG Emissions

Installing energy efficient equipment and renewable technology.

Key steps have been taken to reduce the farm's energy consumption and reliance on fossil fuels by installing energy efficient equipment and renewable technology. Solar PV has been installed on the roof of the milking parlour and a smaller ground mounted system has been installed near the pumphouse. Both systems have been coupled with battery storage which captures excess energy during the peak sunlight hours. Once batteries are fully charged, excess energy is supplied back into the grid through the ESB mini generation scheme. With the announcement of new grants, these systems can have a payback on investment within 3-4 years depending on energy prices.



SOIL AND SOIL CARBON



Soil carbon sequestration

Sequestration is a key strategy for farms to displace their carbon footprint. It is the process of capturing carbon dioxide (CO₂) from the atmosphere and storing it in plant material or soil. Ecosystems that can sequester more CO₂ than they release are termed carbon sinks, while those that emit more than they sequester are termed carbon sources. Forestry is good for sequestering carbon, and agricultural soils can also be carbon sinks (but they can also be sources). Our objective on the project is to monitor, verify and report the changes in carbon stocks over a period of time and use this data to displace emissions produced on the farm. A conservative figure of 500 kg carbon sequestered per ha would result in a 15-20% displacement in emissions in Shinagh. Recent findings from Teagasc estimate that some mineral soils may be sequestering 2-3 times this amount. Sequestration is very difficult to measure as the amount of carbon sequestered (or lost in some cases) each year is tiny relative to the overall stock. Extensive soil carbon sampling has been carried out on the farm along with the installation of an Eddy Covariance tower to monitor changes in carbon stocks.

ENHANCING BIODIVERSITY, AIR AND WATER QUALITY



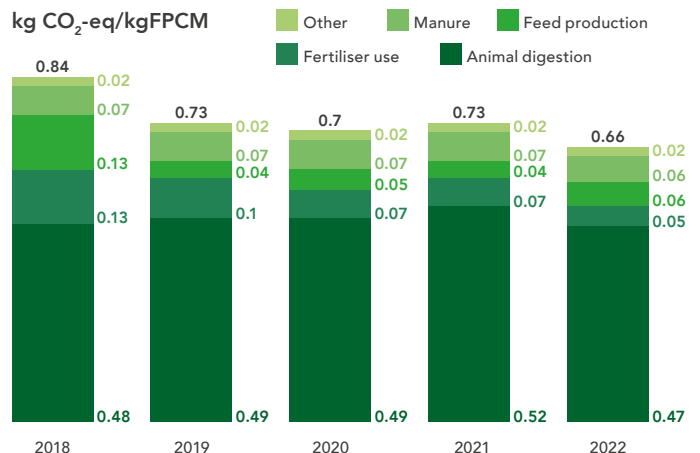
BIODIVERSITY

Enhancing biodiversity on the farm is a key pillar of the project. There is a plan to have 10% of the total farm area under high quality habitat. Some of the new changes on the farm include planting a new native hedgerow, moving the fence line out from the ditch on south facing paddocks and the creation semi-natural grassland and wetland habitats. We have created interactive biodiversity maps for Shinagh and the 10 Monitor Farms and plan to scale these to more farms before the project is complete.



CARBON FOOTPRINT OF SHINAGH

kg CO₂-eq/kgFPCM



PROMOTING MILK QUALITY

The 18th Milk Quality and Sustainability awards were held on 9th November 2022 and the Kingston Family, Drinagh Co-op Suppliers came out on top of the 12 deserved finalists. The family, consisting of Ian, his wife Marie, and their children Dylan and Emma, as well as Ian's parents Dick and Kathleen, milk a herd of 181 cows on 200 acres and average 430kg milk solids per cow.

Ian would describe himself as being very interested in the facts and figures about his farm, as well as trialling new approaches, "I am always tracking and reading up on what's happening and keeping up with the latest thinking to do the job right. I tend to be early in trialling new approaches because I trust the advice that I get and that we are never asked to try what won't work. I also know my ground very well and I know what will work for me."

One of the first Monitor Farmers (a Carbery/Teagasc joint programme supporting farmers) in 1997. Ian is still part of that group and has also participated in many trials with Moorepark. He is also part of the Green Acres Discussion group.



2021 WINNERS FARM WALK RETURNS



The Carbery Milk Quality Award winners walk returned to an in person event for the first time since 2019 and was held on Friday 22nd July 2022.

More than 450 attended on the day to tour the Shorten family farm and to hear from Ronald, Betty & Brian along with researchers and advisors from Teagasc.

THE FINALISTS



Micheál & Martina Dullea
Keelnameela North Bandon
Farming: 131 acres Herd Size: 90 cows
Milk: 473kg of milk solids per cow



Anthony Dempsey
Ballymountain, Innishannon
Farming: 40 acres Herd Size: 75 cows
Milk: 472kg of milk solids per cow



Éibhlín and Michael Kiely
Ballyvrin, Kinsale
Farming: 65 acres Herd Size: 50 cows
Milk: 438kg of milk solids per cow



Michael Coleman
Carrigeen, Butlerstown
Farming: 185 acres Herd Size: 140 cows
Milk: 578kg of milk solids per cow



Laurence, Bridget & Denis Keohane
Ballintemple, Clonakilty
Farming: 75 acres Herd Size: 150 cows
Milk: 625kg of milk solids per cow



Patrick O'Brien
Brownstown, Ballinspittle
Farming: 40 acres Herd Size: 80 cows
Milk: 449kg of milk solids per cow



Ian Kingston
Sillertane, Dunmanway
Farming: 200 acres Herd Size: 181 cows
Milk: 430kg of milk solids per cow



Sam Kingston
Bawnahow, Skibbereen
Farming: 54 acres Herd Size: 64 cows
Milk: 477kg of milk solids per cow



Timothy and Shane McCarthy
Dromusta West, Drimoleague
Farming: 166 acres Herd Size: 156 cows
Milk: 537kg of milk solids per cow



Kevin Collins
Carvouler, Ballineen
Farming: 37 acres Herd Size: 53 cows
Milk: 481kg of milk solids per cow



Stanley Helen
Crohane, Ballinascorthy
Farming: 100 acres Herd Size: 102 cows
Milk: 494kg of milk solids per cow



Richard and Michael White
Tullineaskey, Clonakilty
Farming: 180 acres Herd Size: 103 cows
Milk: 450kg of milk solids per cow



People

We are a diverse and growing workforce of almost 1,000 people across 8 countries. As we grow, our aim for our people is to create an environment where they have opportunities to develop, to grow and to do their best work easily. We know that our people are our most significant advantage, and in a competitive global work landscape, we have worked hard this year to provide a supportive, inclusive, flexible and connected environment that allows our employees to thrive.

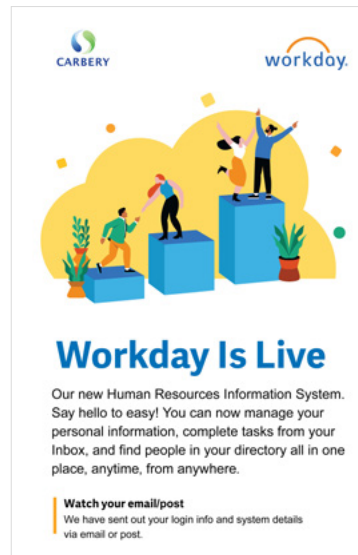
THE YEAR IN REVIEW

If there was a theme that brought together a rich and diverse programme of activity focused on our employees in 2022, it would be the power of reconnecting. After the disruption of almost two years of Covid, our focus was on providing opportunities, resources and support for groups to come back together and collaborate. We did this with events, with learning and development opportunities, with technology and system improvements and with communication experiments.

CONNECTING THROUGH TECHNOLOGY

2022 saw the introduction of a new global human resources information system (HRIS) for the company as a whole. In a year-long project, HR systems and processes around the world were standardised and digitised, in many cases for the first time. When the project is fully completed by mid-2023, we will have a system which is fit for purpose to support the needs of our modern business.

Our new solution manages and processes employee information and HR-related policies and procedures. Employees will have better access to their data, to view and track real-time updates and a self-service model in terms of key HR processes. As a company, it allows us to have better real-time insights to base our talent management and investment decisions on. The HRIS will allow us to standardise HR tasks and processes while facilitating accurate record keeping and reporting and frees up HR teams to do more strategic work.



Left: Workday, an online resource for staff launched in 2022 by HR

CONNECTING IN PERSON

Throughout 2022 we provided several opportunities for employees to connect with each other and with managers and executives. A series of meetings was held in Wauconda, High Wycombe and Ballineen sites where members of the Global Leadership Team (GLT) met with groups of employees at all levels, within the various locations in our sites, in a stand-up format. The intention was to facilitate informal conversation and information sharing, to allow the GLT and employees to get to know each other better and have direct conversations about the issues that matter to employees. These stand-ups were part of a range of initiatives deployed to improve connection between employees and to create a culture shift towards a new target culture.

The leadership team in High Wycombe cooked and served Christmas breakfast to employees there and enjoyed a summer festival. US employees came together in department holiday parties throughout the year, including the annual employee appreciation day ice cream party, the summer picnic and the annual leadership team cookout.

In Ireland, employees came together at several events run by the Sports and Social Club, including night kayaking, a trip to the races, and excellent family fun day 'Picnic on the Pitch' and the return of the Christmas Party. Employees also came together for ice cream and a gift to celebrate the achievement of winning Cork Company of the Year 2022.



Top two: The GLT held stand-up meetings with groups of employees globally
Left: Carbery staff gathered on a glorious summers day in Ballineen for fun, food and sunshine
Bottom: Brazil team's holiday party

Reconnecting with colleagues has been so important, and I appreciate the company's support and flexibility in returning to the office.

Carbery employee



CONNECTING THROUGH RETURN TO OFFICE

With the majority of employees returning to the office, at least part-time, there was opportunity for connection but also a period of re-adjustment. The return was guided at a strategic level by our 'Moving Forward' approach, a philosophy which focuses on personal accountability and autonomy. We moved away from mandating specific in office days to focusing on collaborating and learning and adjusting as we went. Many of our activities this year were focused on supporting people in that return to work. In the US, some new resources, including a Flex Guidebook, a new employee year book and a People Portal, providing information on company policies, benefits, programs and training were some of the resources created to ease this transition. In Ireland, a newly established monthly session of Tea & Chats, inspired by the stand-up meetings around the 2022 Open Week, brings employees from around the company together simply to connect.



CONNECTING THROUGH VALUING OUR PEOPLE.

Recognition and reward is a key priority across the global HR teams, and our programmes continued worldwide in this area. In Ireland, the quarterly WOW (Ways of Working) Awards continued, with hundreds of nominations received this year. In the UK, Italy and Thailand, the Synergy Stars awards continued, with monthly Stars awarded. And in the US their peer driven programme awarded 139 awards for: leadership, above & beyond contribution and special project contribution.

In Italy, the team celebrated Giorgio Ferluga, the first Italian employee reaching 30 years of service. They also recognised 20 years of service from other team members.

In UK we launched our Good Catch Webform to make it easier to report on potential hazards and safety improvements. Two colleagues received awards this year recognising the most impactful good catches for safety.

The lunch for retirees, a valued tradition in Ireland, was back for the first time since Covid this year, and it was great to reconnect with old friends and colleagues.

The Ireland team were also proud to support higher education and further learning, with several colleagues achieving higher education qualifications supported by the company.

We were delighted to partner with Munster Technological University (MTU) and Ibec in launching the Carbery Laboratory Apprenticeship programme supporting our commitment to be an employer of choice in our region.

This is an opportunity for candidates seeking to change their career, who have an interest in a career in science, who wish to retrain or upskill in the food sector, or who are mature students.

The first scholarship student from our collaboration with the UCC Masters in Co-operative studies completed his studies and is now working fulltime for Carbery.



From top left, down: Lunch for Ballineen retirees
 Successful launch of Good Catch health and safety campaign in the UK
 Celebratory lunch in recognition of long-term staff in Italy
 Carbery, Ballineen staff completing higher education courses, supported by the company.

CONNECTING THROUGH WELLBEING

Protecting and enhancing employee wellbeing was a major focus area this year, especially with a more intense work schedule as business returned to normal post-Covid.

In High Wycombe a Garden Club was launched with the idea to make our site more green and pleasant. The team added new flower pots, cleaned up flower beds and initiated herb growing on site.

The Mental Health First Aid team continued to provide support and guidance, promoting awareness, and sharing resources on World Mental Health Day (10th October) and hosting a coffee morning in aid of Buckinghamshire Mind. It was fantastic to see and chat to so many colleagues. This was supported with food donations by some of our customers

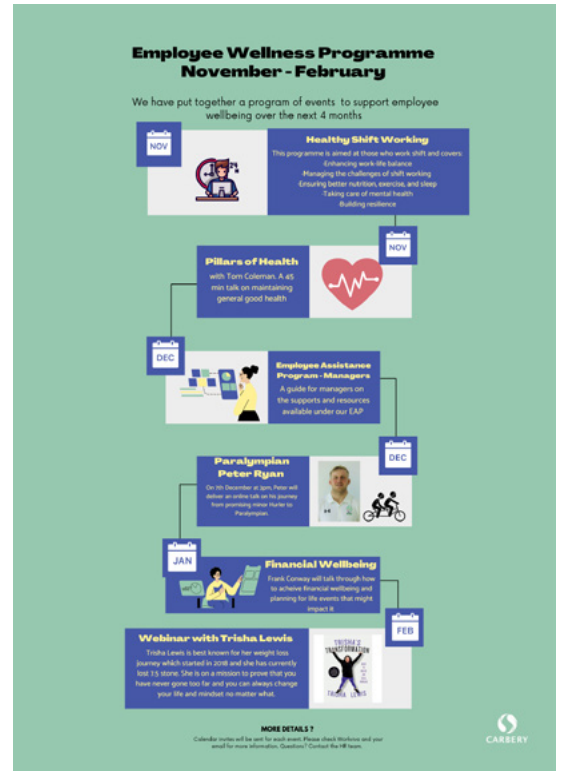
In Europe we have been continuing the litter picking sessions and the Book Club initiative has expanded to include more sites (Italy, UK and Ireland) and members have had a number of good discussions around some thought provoking reads members may not have picked up before.

In Ireland a wellness programme for 2022 was developed and rolled out, with speakers and training sessions on financial wellbeing, diet and exercise, managing migraines, healthy shift working and tips for managing stress. The VHI Health Hub was onsite for a week in November offering free health checks via a self-service health screening station.

Employees in Ireland, US and UK were offered free flu vaccines. The US launched a new Employee Assistance Programme available to all employees and their families. The programme includes counselling sessions, WorkLife Tools, medical advocacy and Financial and Legal Resource and Referral services. The US also introduced an extended wellness weekend in March with two additional days’ leave, and employees who had to work got offered personal days — people were encouraged to take the weekend to recharge relax and refuel.

HIRING

In a challenging global environment for talent attraction and retention, our HR team were focused on creating an excellent employee experience for our current employees, and reflecting the best of our company culture, benefits and advantages for prospective candidates. A variety of new recruitment approaches were trialled including open days, new recruiting practices and more focus on social media as a hiring tool. Work was also carried out on upgrading our induction experience and making the onboarding process for new employees easier.



Top: A series of online webinars was organised for Carbery staff to help with general wellbeing

Above: Synergy Brazil employees received Easter care packages

DEVELOPING LEADERS WHO CAN SUSTAIN OUR SUCCESS INTO THE FUTURE

Throughout 2022, with our current strategy coming to an end, an ambitious programme of work underway on culture transformation, and the organisation at an important juncture in terms of future direction, we took the decision to invest significant time to understand how to leverage strengths in our current culture that would be needed to evolve in the future. We channelled resources into building up the skills and capabilities of our leaders across the organisation. An intensive programme of work from May to September culminated in a global forum, bringing together leaders from around the global organisation in Ireland to focus on building capability and setting the future direction of the organisation.

We have a team of over 50 leaders involved in this work. Building on what was covered in the global forum, these leaders are now focused on getting awareness of their own unique style and how that style can be leveraged on this journey. Work is continuing in regional teams with conversations, training and resources around critical conversations, coaching, giving feedback and managing through change. The intent with this programme is to instill the skills necessary in our leaders to successfully lead and inspire their teams to implement our new strategy, enabled by a shift in culture.



Above and left: A global cohort of employees came together to plan for the future of Carbery, strategising over 5 intensive days in Killarney last September



The US team created the Stronger Together Series for managers in the US. They curated sessions for managers to work together in small teams to support them. Learning from each other and talking through real life scenarios strengthened our internal leader community.

"Talent development and employee engagement continue to be at the forefront of driving retention. As leaders, our impact and leadership is more critical now than ever before. We have an exciting opportunity to make a difference, now!" — HR manager, US

The outcomes of the programme were intended to strengthen the internal community of leaders, share tools and resources to support leaders in their roles, maximise the impact of people leaders, and clarify expectations for people managers.



Community

In all of our global locations, we know a priority for our teams is to remain connected to and to support their local communities. As part of our purpose — Enriching lives, together — giving back to and developing our communities through financial donations, and donation of time, expertise, product and advice is a major focus.

As the world re-opened post-Covid, we also had the opportunity to gather together as employees to raise funds and awareness for local causes. Our partners in the sector were also clear that the needs of the communities they are supporting were also more acute after two years of pandemic restrictions and cutbacks.

We made an effort to be more impactful in terms of the causes we support, with large collective fundraising effort this year to support the Red Cross and UNICEF in Ukraine.

FLAGSHIP INITIATIVES

UKRAINE APPEAL

We were all very moved by the plight of the people of Ukraine as the Russian invasion began in February 2022. Everyone identified with the horror of Ukrainian people being pulled into a conflict situation that they had no control over. Our farmer suppliers were particularly affected by the images of livestock and crops abandoned and the difficulties farmers faced as food supply chains collapsed.

Carbery and the Co-ops matched donations received from employees and shareholders. Through the generosity of employees and suppliers, we raised €90,000 and the donations were divided between the Red Cross and UNICEF. In response to this desire to help from our employees and stakeholders, we came together as a global company, as the four West Cork Co-ops and on behalf of our farmer suppliers in a fundraising appeal.

SYNERGY SUPPORTING SCHOOLS IN MADAGASCAR

Vanilla is a key ingredient for Synergy Flavours, and we have taken steps to procure vanilla beans through sustainable sources that prioritise the well-being and livelihood of vanilla farmers and their families. We work only with suppliers that use traditional curing methods, which promote environmental and economic benefits in the community. We source our vanilla from Madagascar, one of the world's poorest and most under-developed countries. Synergy has now helped fund eleven primary schools in partnership with the Madagascar Development Fund. We also fund wells and other development projects.



Above: Carbery and the four co-ops raised funds to help those in need in the Ukraine

Left: Synergy US volunteer at The Hatchery in Chicago

HATCHERY PARTNERSHIP

In Chicago, we support The Hatchery, a non-profit organisation which enables local entrepreneurs to build and grow successful food and beverage businesses and provides job training and placement programmes. We co-sponsor community events, providing food, treats and craft activities for local families.

FOODCLOUD PARTNERSHIP

This Irish social enterprise aims to reduce food waste by redistributing surplus food to charities and community groups. FoodCloud has been our strategic charity partner since 2020. We donate financially, support with excess product where we can, and also support through volunteer hours. Employees from Ballineen completed 44 volunteer hours in 2022 sorting and preparing donated food products for redistribution to charities in the region.



Left: Synergy sponsor schools in Madagascar.

Above: Carbery staff volunteer their time with our charity partner, FoodCloud.

LOCAL SPONSORSHIPS

Once again our teams across the globe got involved in helping make a difference in their local communities through sponsorships, fundraising and volunteering. Here are some of the highlights.

1/ SKIBBEREEN CHARITY ADVENTURE RACE

Carbery Group is proud to have sponsored SCAR since 2016 so that 100% of the money from race entries can support charities in the West Cork area. Since its inception, SCAR has raised over €200,000 for local charity groups

3/ HATCHERY BACK TO SCHOOL BLOCK PARTY

The Wauconda team partnered with The Hatchery and community businesses to host a back to school block party for the Garfield Park community in Chicago.

5/ LITTER PICKING

Employees in the UK and US carried out litter picks throughout their areas.

7/ FOOD DONATIONS

Our UK team made food donations to OneCan throughout the year and donated to provide meals at Christmas.

8/ DONATING IN BRAZIL

Our Brazil team donated to Vinhedo public library and a seniors care home locally.

2/ ACTIVE COMMUNITY AWARDS

Carbery sponsored the Active Community Awards which recognise individuals and groups in our local Cork communities that go above and beyond in their efforts to promote community sport.

4/ HABITAT FOR HUMANITY HOME BUILD

Members of Synergy Research & Development and Quality teams spent three days in a local community building a house with Habitat for Humanity

6/ FESTIVE FUNDRAISERS

Our employees supported a range of festive fundraisers including an angel tree in Hamilton, a coat drive, gift donations, holiday card writing for seniors and the Simon Christmas Jumper Day







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