

A TIME TO ACT

Climate Action and the Food and Drink Industry





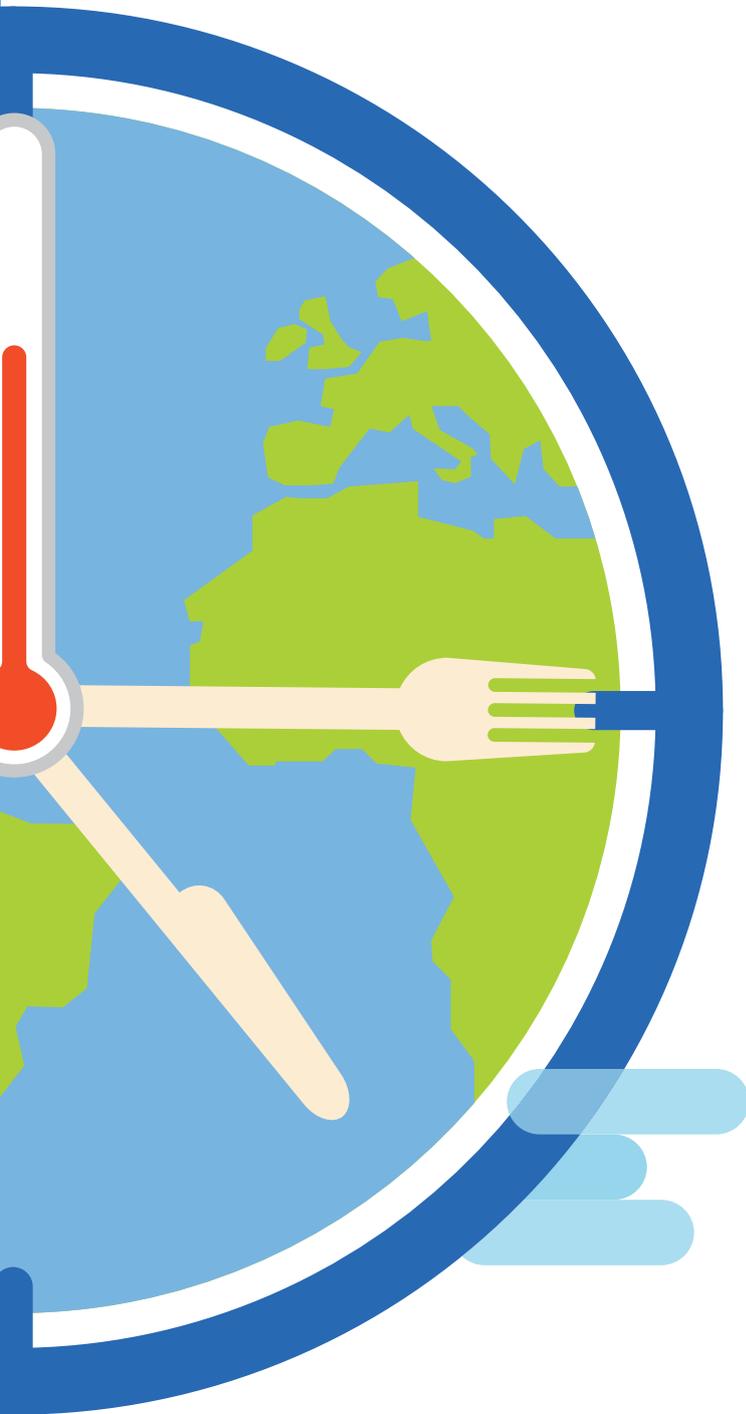


Table of contents

02 FOREWORD

03 THE CLIMATE CHALLENGE

04 FACTS AND FIGURES

05 ACTIONS WITHIN OUR OPERATIONS

11 ACTIONS BEYOND OUR OPERATIONS

17 A WAY FORWARD

18 RECOMMENDATIONS FOR
POLICYMAKERS

20 ANNEX: SURVEY METHODOLOGY

Foreword

Against the backdrop of a predicted rise in global demand for food¹, the Intergovernmental Panel on Climate Change (IPCC) warns that all aspects of food security will potentially be affected by climate change, including food production and price stability². In particular, agricultural production may be hampered by extreme weather events such as droughts and storms, which may affect the long-term supply of safe, high-quality and affordable raw materials.



Mella Frewen
Director General
FoodDrinkEurope

This global challenge will have far-reaching implications for society, including for the competitiveness and sustainability of all food and drink manufacturers. That's why European food and drink manufacturers are actively working to try to mitigate Climate Change and proactively engaging with other partners along the supply chain, governments, civil society, researchers and other stakeholders. This year will be crucial as 196 countries will meet in Paris to sign a new global Climate Change agreement. Europe is also at a key turning point as the actions to implement the agreed 2030 EU Climate and Energy Framework will be defined.

Building on our "Environmental Sustainability Vision Towards 2030"³, we have gathered the views of food and drink manufacturers representing over €50 billion in turnover and over 245,000 jobs in Europe, to bring attention to the urgency for an ambitious global agreement to be reached. This survey of our members captures current and future actions related to Climate Change and signals a clear call to action for policymakers. It also reaffirms the commitment of food and drink manufacturers to be part of the solution to the challenges of mitigation and adaptation to Climate Change, as 95% of respondents have integrated Climate Change into their business strategy.

Since the publication of our "Vision for 2030" in 2012, it is truly inspiring to see how numerous have been the actions that were taken forward, both within food and drink manufacturers' direct operations and elsewhere. Within their operations, there are many excellent examples of the progress that food and drink manufacturers have

made towards managing and reducing greenhouse gas (GHG) emissions, water and energy use, increasing the use of renewable energy and optimising packaging, transport and logistics. Beyond their operations, there is also an array of best practice examples of the work that food and drink manufacturers are doing to embed sustainable sourcing in their supply chains and to assist farmers to adapt to Climate Change. Regarding sustainable consumption, the promotion of life-cycle thinking took a major step forward with the launch of the ENVIFOOD Protocol in 2013. Building on that initiative, food and drink manufacturers are actively participating in the European Commission's on-going work on Product Environmental Footprints. Last but certainly not least, food and drink manufacturers have taken great strides to raise awareness about, and prevent, food wastage in their operations and along the food chain.

Together, these activities help contribute to our society's mitigation and adaptation to Climate Change. However, there is still more to be done. FoodDrinkEurope and its members will continue to work towards achieving our "Vision for 2030", but action by one part of the food chain is not enough. It is clear that a "whole of society" effort is needed globally to mitigate Climate Change, and this must be encouraged by an ambitious, global climate deal.

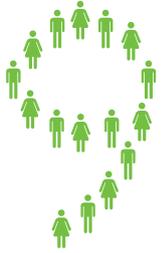
The food and drink industry therefore calls upon governments to reach an agreement on a new global framework on Climate Change through which we can further mitigate and adapt to Climate Change, while promoting a more sustainable and resilient food production system.

1 FAO (2009). Global agriculture towards 2050. High Level Expert Forum.

2 IPCC (2014). Summary for policymakers, In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Cambridge, United Kingdom: Cambridge University Press

3 <http://sustainability.fooddrinkurope.eu/>

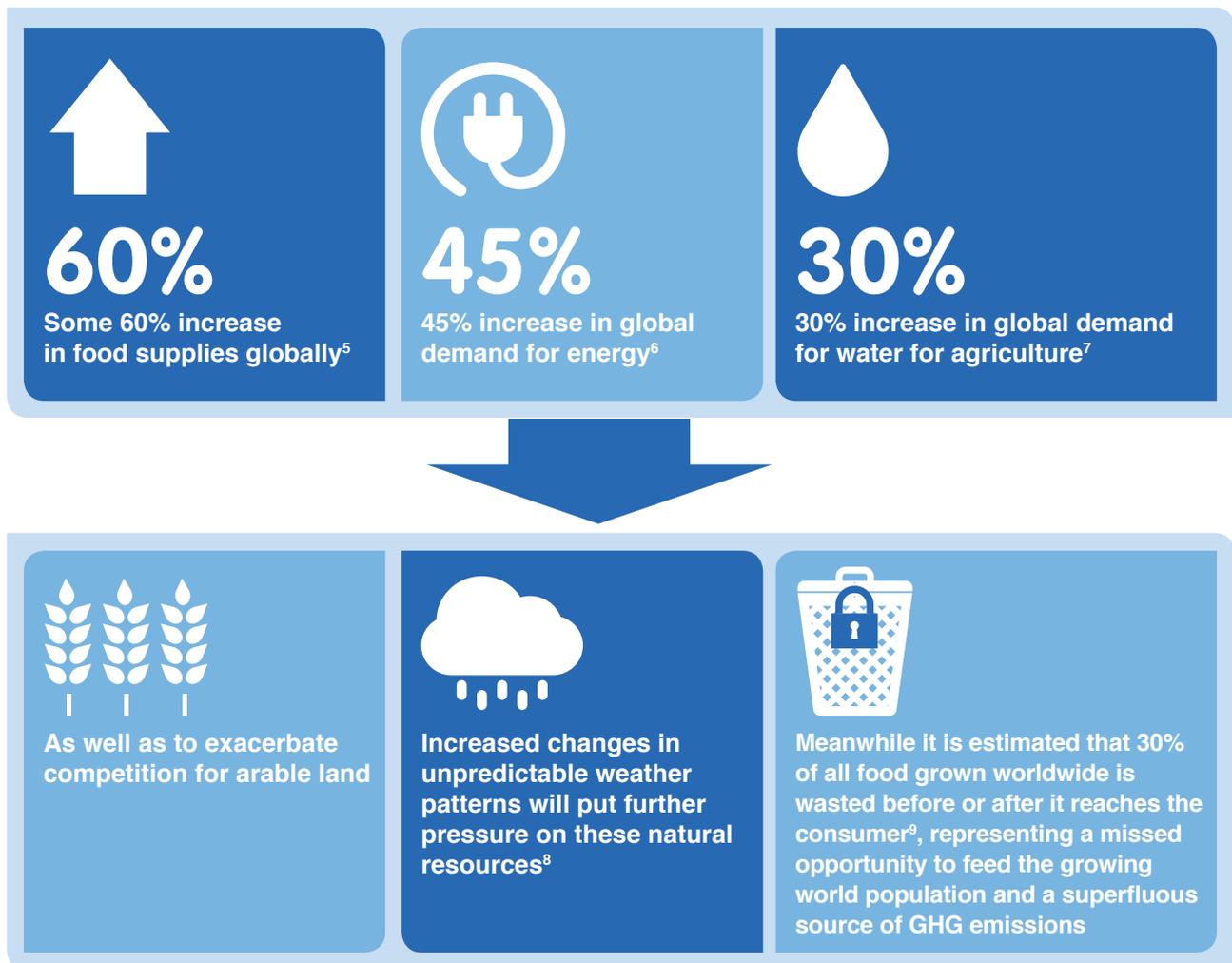
Critical resources, upon which food production relies, will come under increased pressure in the future.



9 billion

World population expected to reach 9 billion by 2050⁴

Projected to require:



As a result there is an urgent need to reach a global agreement on Climate Change and for all stakeholders to step up their efforts.

4 UN (2013). World Population Prospects, the 2012 Revision. New York, United States: United Nations

5 Global Commission on the Economy and Climate (2014). Better growth, better climate: the new climate economy report. Washington, DC, United States: World Resources Institute

6 Foresight, U. K. (2011). The future of food and farming: Challenges and choices for global sustainability. London, UK: Government Office for Science, Foresight

7 Idem

8 Global Commission on the Economy and Climate (2014). Better Growth, Better Climate: The new climate economy report. Washington, DC, United States: World Resources Institute

9 FAO (2011). Global Food Losses and Food Waste. Rome, Italy: FAO.

In line with FoodDrinkEurope's 2030 vision and action plan on environmental sustainability, the food and drink industry is actively working to try to mitigate and adapt¹⁰ to Climate Change...



↓22%



Total GHG emissions in the food and drink processing industry in the EU-15 decreased by 22% between 1990 and 2012¹¹

86%



86% respondents are concerned or very concerned about the impact of Climate Change on their business and 83% see Climate Change as an opportunity to promote more resilient food production systems¹⁶

0.9%



The food and drink processing industry accounted for 0.9% of total EU-15 GHG emissions in 2012¹²

95%



95% of respondents have integrated Climate Change into their business strategy. For any food and drink manufacturers, this means analysing the environmental impacts of the companies' products along the whole life cycle, identifying hotspots and taking action to improve their environmental performance¹⁷

↓65%



The food and drink processing industry's fuel consumption decreased by 65% between 1990 and 2012 in the EU-15, resulting in 4,168 Gg of avoided CO₂ emissions¹³

86%



86% of respondents are working to address mitigation and adaptation to Climate Change within their operations¹⁸

4th highest



The European food and drink industry is proud to be the sector with the fourth highest number of EU Eco-Management and Audit Scheme (EMAS) registered organisations with 119 registrants¹⁴

90%



90% of respondents are tackling GHG emissions beyond their operations across the full life cycle of food production and consumption¹⁹

Over 490



Over 490 food and drink manufacturing sites apply robust standards for green building design and operation in Europe¹⁵.

¹⁰ Climate Change mitigation "refers to implementing policies to reduce greenhouse gas emissions and enhance sinks" to subsequently reduce the probability of exacerbating Climate Change (UNEP). Climate Change adaptation means "anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause, or taking advantage of opportunities that may arise." (European Commission).

¹¹ European Environment Agency (2014). Annual European Union greenhouse gas inventory 1990-2012 and inventory report 2014, pp. 196-203.

¹² idem

¹³ idem

¹⁴ European Commission (2015). EMAS Register

¹⁵ FoodDrinkEurope (2015) Climate Change survey. See Annex for details.

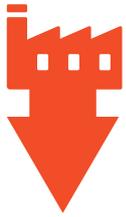
¹⁶ idem

¹⁷ idem

¹⁸ idem

¹⁹ idem

...within our operations...



85%

of respondents are reducing GHG emissions in their operations and...



95%

of respondents have integrated Climate Change into their business strategies.

Challenge:

Climate Change mitigation means implementing policies to reduce GHG emissions to lessen the probability of exacerbating Climate Change²⁰. For the food and drink industry, direct GHG emissions are largely attributable to fossil fuel-based energy used by manufacturing facilities and offices and, to a smaller extent, emissions from the use of refrigerants. Energy is necessary for many food production processes, and energy intensity varies across food and drink sub-sectors. The challenge lies in helping under-performing companies to catch up, while encouraging front-runners to further improve their achievements. The introduction of policy measures that attach an economic cost to GHG emissions (e.g. EU Emissions Trading Scheme - ETS) mean that reducing fossil fuel and energy use and cutting emissions is good for business and good for the environment.

Actions:

Reducing emissions & increasing energy efficiency

Many food and drink manufacturers are showing genuine leadership in energy and GHG emission management, through a combination of energy efficiency improvements, switching to cleaner fuels, technology change and a reduction of fossil fuel use. The vast majority of food and drink manufacturers are working to reduce the GHG emissions that are directly under their control (86%) and to improve their energy efficiency (95%). Of the remaining respondents, one-third is planning to work on GHG emission reductions (33%) and all are planning to work on improving their energy efficiency (100%). Over half of those surveyed (57%) incentivise employees, either financially or through recognition, to reduce emissions. These efforts can make a valuable contribution to the EU's aim to reduce GHG emissions by at least 40% and increase energy savings by at least 27% by 2030.

Increasing and contributing to renewable energy procurement and bio-energy

Food and drink manufacturers are increasingly shifting their energy consumption towards renewable sources, with 90% of respondents already using renewable energy and 100% of the remaining respondents stating that they plan to do so. In addition, due to the biological origin of the by-products and waste from food and drink processing, the food and drink sector can make a valuable contribution to the EU objective of attaining a 27% share for renewable energy by 2030 in the EU's energy mix. For instance, every tonne of bio-waste sent for biological treatment can deliver between 100-200m³ of biogas²¹, thereby reducing dependency on fossil fuels and cutting GHG emissions.

Reducing emissions from transport and logistics

As a critical aspect of the fast-moving consumer goods (FMCG) sector in the EU, food and drink companies are proactively working to mitigate emissions from transports and logistics. The vast majority of companies (77%) are implementing transport optimisation strategies to reduce emissions. Such strategies include actions such as route and distribution network optimisation, increasing vehicle fuel efficiency, reducing fuel consumption, combining road, rail and ship transport, using compressed natural gas, purchasing more efficient vehicles and the use of biofuels and electric vehicles.

“The food and drink sector can make a valuable contribution to the EU objective of attaining a 27% share for renewable energy by 2030.”

²⁰ UNEP (2015). Climate Change - Mitigation (Introduction) [online]. Available at: <http://www.unep.org/climatechange/mitigation/Introduction/tabid/29397/Default.aspx>.

²¹ European Commission (2008). Green Paper on the management of bio-waste in the European Union {SEC(2008) 2936}. Brussels, Belgium: European Commission. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC0811&from=EN>

Optimising packaging

The carbon footprint of food produced and not eaten globally is estimated at 3.3 Gtonnes of CO₂ equivalent²². Packaging plays a positive role in preventing food wastage as it preserves and protects food all along the supply chain and in the home. Food and drink companies are actively working with supply chain partners to further optimise packaging to improve its environmental performance throughout the product life-cycle and keep food fresher for longer, thereby preventing food wastage.

Danone: Packaging innovations to improve environmental performance

DANONE has defined priorities concerning packaging: reducing packaging at the source, turning waste into a resource and prioritising sustainable resources. Several technical innovations have been introduced with this in mind, such as removing and reducing the cardboard from yogurts sold in multi-packs and reducing the weight of bottles. DANONE is working to achieve a paper and cardboard supply that is 100% sourced from recycled paper and cardboard or from responsibly managed forests by 2020 – and by the end of 2015 in regions with a high deforestation risk. The company has created a Forest Footprint policy and rolled out policies for palm oil, soy and paper/cardboard packaging, which were co-developed with Rainforest Alliance and The Forest Trust. Sugar cane and bio-sourced raw materials for packaging are also covered by this policy. DANONE is also working on collection methods to prevent its packaging waste from ending up in landfills and aims to develop a circular approach. It is doing this by supporting innovation in packaging materials and design to make recycling easier and using more recycled materials, while adapting to collection, sorting and recycling systems in concerned countries.

Adapting our water needs

As climate change impacts the world's water supplies, food and drink manufacturers are actively working to reduce water use, invest in water-efficient technologies and adopt water management practices.

Coca-Cola works globally to minimise water impacts in operations and throughout its value chain.

Coca-Cola aims to use as little water as possible for each litre of beverage the company produces. Its water stewardship programme encompasses work to protect the water sources that supply its bottling plant, to reduce the amount of water used (e.g. through process water capture & reuse) and to clean all water before returning it to the environment. Coca-Cola also works outside its plants to return to nature the water used in its beverages and minimising water impacts in its value chain through sustainable sourcing programmes. In 2014, for example, Coca-Cola Enterprises, which bottles products in 7 European markets, invested the equivalent of €1.06 million in water-reduction technologies, and reduced its water use by 2 percent, compared to the previous year, to an average of 1.3 litres of water per litre of beverage produced.



Examples of Member Initiatives²³:

The following are some frequently cited examples of actions food manufacturers are taking within their direct operations to try to mitigate Climate Change.

Technology change

- **Increasing** the use of renewable energy sources, including the installation of solar panels and investment in wind farms
- **Capture and use** of heat as an energy source
- **Replacement** of heavy fuel oil boilers with wood-fired boilers, combined with the sustainable sourcing of woodchips
- **Switching** to natural refrigerants and between different modes of transport
- **Using** energy recovered from waste



Behaviour change

- **Raising awareness** and training of employees and consumers to reduce the consumption of natural resources, use energy efficiently and to reduce food wastage
- **Training** truck drivers from a safety and environmental perspective



Sector-wide voluntary actions and agreements

- **Signing up** to sector-wide voluntary actions and agreements to improve energy efficiency and reduce GHG emissions



Optimisation

- **Recycling** process water and reducing water losses
- **Using** the minimum air pressure necessary when compressed air is used
- **Checking** for and repairing leaks in compressed air and refrigeration systems
- **Site reviews** and use of life cycle assessment to identify hot spots of energy usage
- **Optimising packaging, transport routes, fuel consumption and logistics**



²³ The examples of member initiatives provided in this publication are not exhaustive. Company websites can be consulted for a broader and more detailed overview of company commitments concerning sustainability.

Technology change



Mars aims for carbon neutral operations by 2040

Mars has launched a number of on- and off-site renewable energy projects around the world towards the company's ambitious 'Sustainable in a Generation' goals to eliminate fossil fuel energy use and GHG emissions, minimise Mars' impact on water quality and mitigate the impacts of waste by 2040. Towards this goal, Mars has installed a ground-breaking wastewater treatment site at its Veghel (Netherlands) factory, which produces biogas from the waste water while purifying the water to 99% purity. Using the biogas helps reduce the Veghel factory's annual CO₂ emissions by 1,5 kton and energy consumption by 25,4 TJ. Similar technology is also in place at Wrigley factories in Poznan (Poland), Porici (Czech Republic), and Biesheim (France). Meanwhile, a large-scale wind farm project that will completely cover the energy needs of Mars' U.S. operations is currently under way in Texas (U.S.).



Südzucker maximising process fuel use efficiency

Despite being a front runner using high efficiency CHP plants to provide self produced heat and electricity for the sugar production plants for more than 70 years, Südzucker has managed to reduce the GHG emissions from the German sugar factories by 45 % within the period of 1990 to 2010.

Additional projects are the production and use of biogas from waste water, substitution of equipment and machinery (e.g. pumps, automation, fork lifts etc.) in the factory with higher energy efficiency and optimisation of plant operation mode (start/stop etc.). Within the period from 2010 - 2012 for example the top ranked projects within the German sugar factories of Südzucker alone achieved a GHG emission savings of about 15.000 t CO₂/year.



Nestlé cuts energy consumption by one-third



Image credit: Nestlé

Over the past ten years, Nestlé has reduced its energy consumption per kilogram of products by a third. Through its comprehensive Environmental Target Setting programme the company identifies and develops opportunities to reduce baseline energy and water consumption. The projects implemented in 2014 saved 1.8 million GJ of energy, 1.2 million metric cubes of water and 149,000 tonnes of CO₂eq. Those projects included the installation of energy recovery systems and energy-reduction improvements at a Swiss freeze-dried coffee plant in Orbe, which reduced the factory's energy consumption by 8%. Total energy consumption at the cereal bar factory in Lubicz (Poland) was cut by 19% thanks to a 55% reduction in production line energy use during changeovers between products. In addition, every new horizontal chest freezer Nestlé buys since 2015 uses natural refrigerants, which do not harm the ozone layer and have a negligible impact on Climate Change, rather than synthetic refrigerants.



Sugar factories save energy by maximising heat and steam

Sugar factories use a process called 'multi-effect evaporation'. Heat energy is carried over to the next evaporator where it is used again, thus avoiding the need to produce additional steam for each evaporation stage and burning more fuel. The final condensate from the evaporation process is also passed through heat recovery systems, such as heating wastewater for anaerobic digestion.



Mahou San Miguel's investments result in water and energy savings

100% of the electricity used in Mahou San Miguel's production centres comes from renewable sources, resulting in a 32% reduction in the company's GHG emissions in 2012 compared to the previous year. Since its 2011 acquisition of Solán de Cabras, a local bottled water company, Mahou San Miguel has invested more than five million euros in the bottling centre to ensure maximum energy efficiency and packaging optimisation, among other goals. In 2012, the Spanish family-owned company invested 17 million euros in ensuring optimal environmental performance. As a result, the company decreased its water consumption by 1.74% and its energy consumption by 4.4% compared to the previous year.



Renewable energy cuts Unilever's emissions by 33%

By 2020, Unilever will more than double its use of renewable energy to 40% of its total energy requirement as a first step towards a long-term goal of 100% renewable energy. In 2013, renewable energy accounted for 27% of Unilever's total energy use compared to 15.8% in 2008 at global level. All manufacturing sites in Europe now purchase electricity from renewable sources, aside from sites that source electricity from energy-efficient combined heat and power (CHP) plants. The resulting reductions in CO₂ emissions are estimated at over 500,000 tonnes at global level, equivalent to approximately one fifth of Unilever's total emissions worldwide. In Europe, this has been achieved through power purchase agreements (PPAs) with national renewable energy producers and purchase of national renewable electricity certificates (RECs) generated in individual countries from a dedicated renewable electricity source.

Behaviour change



Scotch Whisky Association raises awareness of Climate Change adaptation

As an industry with a long-term focus, the Scotch Whisky Association (SWA) commissioned a study to raise awareness within the sector of the risks of Climate Change to the sector and identify initial adaptation options. SWA is helping members, including small and medium enterprises, exchange best practices and generate ideas to boost the adaptive capacity of the sector.



Cargill sees great returns from Behaviour-Based Energy Management (BBEM) system

Cargill's global Behaviour-Based Energy Management (BBEM) system is a tool used to engage employees and integrate energy into daily actions to improve performance. The BBEM program has helped Cargill identify numerous ways to save energy and reduce energy costs, including: identifying and fixing leaky pipes, operating equipment only when needed to reduce lighting costs, changing air conditioning patterns to cool meat more efficiently and improving communications to enhance energy conservation.

Optimisation



PepsiCo implements EU-funded project recommendations, achieves 18% energy savings

PepsiCo is finding innovative ways to minimise the company's impact on the environment and lower its costs through energy and water conservation as well as through optimising packaging materials. In Seville, PepsiCo partnered with the Instituto Tecnológico de Castilla y León under the framework of the EU-funded CoolSave project to identify ways of reducing the energy consumption of PepsiCo's cooling installations. CoolSave experts gathered energy consumption data from 25 food and drink cooling systems, including PepsiCo's, and made recommendations for energy saving strategies. PepsiCo's site achieved 18% energy savings from implementing CoolSave's recommendations.



Image credit: Cool-Save project



General Mills saves 150,000 road miles

General Mills has developed a comprehensive strategy to transport emissions reduction. In addition to pushing for a combination of road, rail and boat transport, it seeks to optimise its transport networks and practices. About 150,000 road miles of truck transport are saved annually by consolidating container packing of lighter products produced in Northern Spain and heavier, canned products from south west France at a single point in Bilbao (Spain).

Sector-wide voluntary actions and agreements



UK food and drink companies cut emissions by 35%

The UK Food and Drink Federation (FDF) rises to the climate change challenge by promoting, supporting and disseminating good practices among its members. It has set out a Five-fold Environmental Ambition, in which companies pledged to attain specific sustainability targets by the end of the decade. FDF has committed to working collectively to tackle climate change by making an absolute reduction in CO₂ emissions of 20% by 2010 and 35% by 2020 against a 1990 baseline. The 2014 Five-fold Environmental Report revealed that UK food and drink companies had cut their CO₂ emissions by 35% against the 1990 benchmark, a full six years before the original target.



10% energy efficiency improvement achieved by Belgian food and drink companies

The Belgian Food and Drink Federation (FEVIA) encourages its members to take part in Belgian voluntary energy agreements, such as Energiebeleidsovereenkomst in Flanders and Les Accords de branche in Wallonia, in which companies are financially incentivised to decrease their energy consumption and increase their energy efficiency. The agreements have yielded positive results: the energy efficiency of Belgian food and drink companies improved by more than 10% in the period 2005-2013.



€10 million worth of energy saved by Finnish food and drink companies

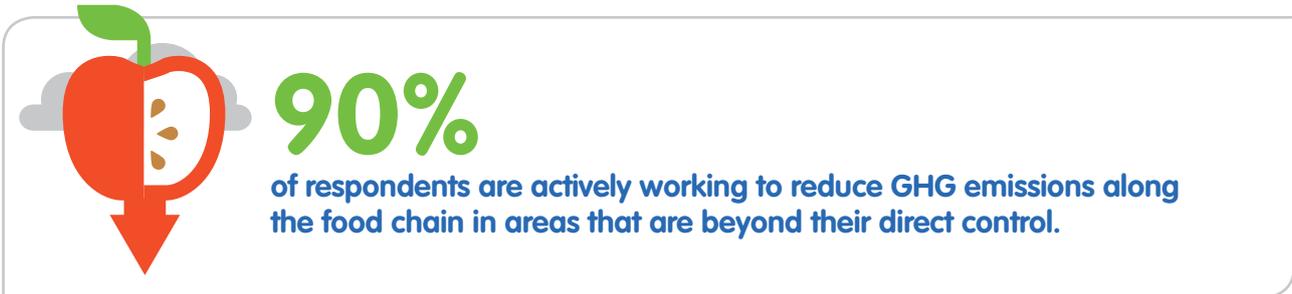
The Finnish Food and Drink Industries' Federation co-sponsors a national voluntary energy scheme, in which 46 food and drink companies, operating 90 sites, participate. The overall goal for the sector is to achieve savings of 250GWh between 2008 and 2016. By 2013, more than 250 energy saving actions had been implemented, resulting in an annual energy saving of 188GWh, or about €10 million in monetary terms. The sector has made good progress towards its energy saving ambitions with 66% of the total goal achieved by 2014. Finnish food and drink companies continue to show leadership in saving energy, and are negotiating new targets for the following period starting in 2017.



Spanish food manufacturing sector contributes towards energy savings

The Spanish Food and Drink Industry Federation (FIAB) works to promote good management practices for Climate Change mitigation and adaptation among its members. In fact, improving process efficiency and Climate Change mitigation are among the five environmental challenges for the Spanish food and drink sector that FIAB identified in its 2014 report, "Alimentamos un futuro sostenible: Retos medioambientales de la Industria Alimentaria a 2020". As the report states, the Spanish food industry is a leader when it comes to using renewable energy, which is an effective strategy for reducing CO₂ emissions. Thanks to the increased use of waste and by-products as a renewable source of energy and the sector's investment in low-carbon technologies, such as cogeneration, GHG emissions have been reduced over the last years. In 2011, the Spanish food industry produced 266ktep of energy from renewable sources, namely from the utilisation of biomass (89%) and biogas (10%). The food and drink industry's efforts to reduce GHG emissions and improve energy efficiency has led to 2.7% energy savings in the food, drinks and other agri-based manufacturing sectors during the period from 2007-2010. Spanish food and drink companies look forward to continuing their efforts to contribute to the climate change mitigation and adaptation from a "whole-food-chain" perspective.

...and beyond our operations.



Challenges:

Deforestation and biodiversity loss

In addition, the conversion of tropical forests to agricultural land, and the resulting impacts on biodiversity, local communities and GHG emissions, remains a key concern for the sustainability of food production. While deforestation rates have decreased over the last decade²⁴, it is no time for complacency. Biodiversity loss has accelerated at an unprecedented level²⁵ and deforestation remains a key driver of GHG emissions from agriculture, according to the IPCC's most recent assessment²⁶.

Supply chain volatility

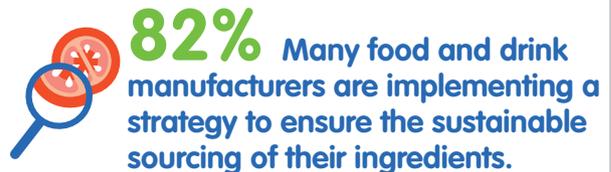
The increased frequency of extreme weather events, such as droughts and flooding, affects the availability of agricultural raw materials and clean water. This additional pressure on food availability directly affects the competitiveness and sustainability of the European food and drink industry. The ability of food and drink manufacturers to protect their supply chains from such volatility varies considerably depending on numerous factors, including the structure of the supply chain and buying power of the company.

Impacts associated with food and drink consumption

Food and drink consumption is fundamental to daily life, nutrition, health and well-being, but it also generates environmental impacts when consumers transport, store, prepare and cook food. However, environmental sustainability is just of many aspects that consumers consider when shopping for and preparing food. At the same time, consumers can influence developments upstream in the supply chain through their purchasing decisions. Since their actions and decisions have a profound influence on food supply and production, consumers are important partners in bringing about more sustainable consumption.

Food waste along the chain

Food waste occurs at every stage of the food chain. The UN Food and Agriculture Organisation estimates that approximately one-third of all food produced for human consumption in the world is lost or wasted²⁷. This represents a missed opportunity to mitigate environmental impacts, as the amount of food waste that is created and how it is disposed of adds to total GHG emissions and is a waste of all the valuable resources that went into producing the food in the first place. Furthermore, good food should not be allowed to go to waste while some 805 million people worldwide²⁸ go hungry.



24 FAO (2010). The Global Forest Resources Assessment 2010. Rome, Italy: FAO.

25 Millennium Ecosystem Assessment (2005). Ecosystems and human well-being: synthesis. Washington, DC: Island Press

26 IPCC (2014). Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

27 UN FAO (2013). Food wastage footprint: Impacts on natural resources. Rome, Italy: FAO.

28 FAO, IFAD and WFP (2014). The State of Food Insecurity in the World 2014. Strengthening the enabling environment for food security and nutrition. Rome, Italy: FAO.

Actions:

Working towards sustainable sourcing and forest protection

Many food and drink manufacturers are implementing a strategy to ensure the sustainable sourcing of their ingredients (82%). As part of that strategy, actions include encouraging their agricultural suppliers to undertake sustainable agricultural management practices in order to try to mitigate climate change, researching and developing more resilient raw materials and working with smallholder farmers. Many food and drink companies have also pledged to help achieve zero net deforestation by 2020. This pledge is being implemented through individual company initiatives and by working in partnership with governments, NGOs and industry, including the Consumer Goods Forum, to broaden efforts to protect forests.

Promoting scientifically reliable information

The food and drink industry is actively taking forward the EU's commitments on food sustainable, which were agreed at Rio+20, by setting up cross-cutting initiatives on food sustainability in the framework of the UN's post-2015 Sustainable Development Goals and the 10 Year Framework Programme on Sustainable Consumption and Production. As a founding member of the European Food Sustainable Consumption and Production Round Table²⁹, FoodDrinkEurope has driven the development of an environmental assessment methodology for food and drink products (the ENVIFOOD Protocol) along with other food chain partners. The ENVIFOOD Protocol³⁰ represents a significant step forwards for the voluntary provision of scientifically reliable information to consumers and other stakeholders.



Preventing food waste

Food and drink companies recognise the need to lead by example and are working to reduce food waste in their operations and along their supply chains. 70% of respondents are implementing a strategy to prevent food waste. Food and drink manufacturers constantly strive to use 100% of their ingredients wherever possible. The industry actively embraces industrial symbiosis, as it does not only provide food but also finds uses for surpluses and residues including by-products that can be turned into animal feed, fertilisers, cosmetics, lubricants, bio-plastics, pharmaceuticals and much more. It is also taking a whole chain approach to preventing food waste through the Every Crumb Counts³¹ food waste initiative.

FoodDrinkEurope has been the key player in bringing together a coalition of other food chain stakeholders, including food banks, restaurants and contract caterers, raw material and packaging suppliers and civil society, to set out commitments to prevent food waste. To date, Every Crumb Counts declaration has gathered 18 signatories and 5 supporters. FoodDrinkEurope's Maximising Food Resources Toolkit³² and follow-up report on "Preventing food waste in the food and drink sector"³³ are helping to raise awareness and drive further action.

29 <http://www.food-scp.eu/>

30 http://www.food-scp.eu/files/ENVIFOOD_Protocol_Vers_1.0.pdf

31 Joint Food Waste Declaration 'Every Crumb Counts' [online]. Available at: <http://www.everycrumbcounts.eu>

32 FoodDrinkEurope. Food Waste Toolkit [online]. Available at: <http://www.fooddrinkeurope.eu/our-actions/maximizing-resources>

33 FoodDrinkEurope (2014). Preventing food waste in the food and drink sector. Brussels, Belgium: FoodDrinkEurope.

Examples of Member Initiatives:

The following are some frequently cited examples of actions food manufacturers are taking beyond their direct operations to try to mitigate Climate Change.

Sustainable Sourcing

- **Company** commitments
- **Working with** third-party certification systems
- **Crop** breeding
- **Investment** in agricultural science and innovation



Working with farmers

- **Training programmes** to improve agronomic techniques
- **Company** sustainable agriculture codes
- **Evaluation** and systematic monitoring of farming practices based on environmental, social and economic criteria
- **Partnerships** with farmers, development NGOs and researchers
- **Support** to smallholder farmers
- **Technology** transfer



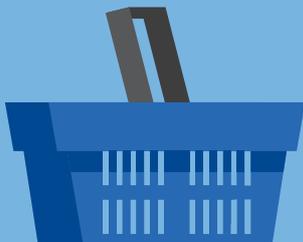
Deforestation

- **Company** commitments
- **Purchase** of GreenPalm certificates
- **Sharing information** through supplier self-declarations (e.g. Sedex)
- **External** audits



Consumers

- **EU pilots** ongoing in Product Environmental Footprint / Organisational Environmental Footprint
- **ENVIFOOD** Protocol



Food Waste

- **Provide technical assistance** on practices that help avoid pre-harvest losses through yield improvement
- **Reduce** post-harvest losses through optimising delivery of raw materials up to the factory
- **Reducing** food waste in operations
- **Training** and informing staff
- **Food** waste audits
- **Tips** for consumers
- **Collaboration** in multi-stakeholder initiatives
- **Contributing** to development of globally-recognised definition and methodology



Sustainable Sourcing



Unilever making strong progress towards 100% sustainable agricultural sourcing

Half of Unilever's raw materials come from farms or forests. Unilever is one of the world's largest buyers of ingredients such as black tea (around 12% of global production volume), tomatoes for processing (3%), and palm oil (3%). Given the scale of its footprint, sustainable agricultural sourcing is therefore a strategic priority for Unilever as a way of ensuring security of supply and managing price volatility. Unilever has committed to sourcing 100% of its agricultural raw materials sustainably by 2020. The company has made strong progress: in 2014, up to 96% of Knorr's top 13 vegetables and herbs are now sustainably grown, with carrots, peas, potatoes and tomatoes reaching 100% in the EU. Unilever's Sustainable Agricultural Code and the third-party certification systems it works with (e.g. Rainforest Alliance, RSPO, Bonsucro) drive practices that reduce GHG emissions. Unilever is also involved in global multi-stakeholder initiatives to stop deforestation, including the Forest Footprint Disclosure (FFD), The 'Zero Net Deforestation' pledge of the Consumer Goods Forum (CGF), the Tropical Forest Alliance (TFA) and Forest Footprint Disclosure (FFD).



Mars aiming for 100% of cocoa from certified sources by 2020

Mars has pledged to use only certified, sustainable cocoa in all of its products by 2020. To achieve this goal, the company has redoubled its investment in programs around the world that foster innovation in agricultural science, transfer key technologies to farmers and enable effective collaboration between them and manufacturers, governments and NGOs, such as the Cocoa Sustainability Initiative. For instance, in 2010, Mars, IBM and the U.S. Department of Agriculture (USDA) completed a two-year effort to sequence and annotate the cocoa genome. To allow scientists to apply this knowledge for the benefit of cocoa growers, the genome findings have been shared through the Public Intellectual Property Resource for Agriculture (PIPRA) and the Cacao Genome Database. The gene sequences will not be patented. The research will lead to quicker, more accurate breeding and allow farmers to plant better-quality cocoa that is healthier, stronger, highly productive and more resistant to pests and other threats, including Climate Change.



Image credit: Mars



Working with farmers



Kellogg pledges support of 15,000 smallholder farmers worldwide

Kellogg has adopted a multidimensional approach to climate change mitigation, informed by cooperation and dialogue with civil society partners. As part of its efforts to reduce the carbon footprint of its operation, the company engages directly with its suppliers to help them embrace modern farming practices that optimise agricultural inputs, reduce GHG emissions, energy and water use and limit water pollution and waste. For instance, Kellogg is committed to providing first-class assistance to 15,000 smallholder rice growers around the world from whom the company sources to help them adopt climate-smart agricultural practices by 2020. This initiative will allow communities to improve their livelihoods by raising productivity whilst reducing their GHG emissions and improving climate change adaptation.



Image credit: Kellogg



PepsiCo helping European farmers to adopt sustainable farming practices

Maintaining a secure and sustainable supply of high quality crops is essential for PepsiCo. The company is using its knowledge, resources and scale to help promote sustainable farming through its Sustainable Farming Initiative (SFI), launched in 2012. The SFI is a comprehensive program with application to potato, citrus, oats and corn crops and to growers of all sizes worldwide. It allows PepsiCo to measure the environmental, social and local economic impacts associated with its agricultural supply chain and to drive continuous improvement. For instance, PepsiCo is helping growers in Belgium, the Netherlands, France and Germany to step up the use of organic fertilisers. It is also trialling cutting-edge technology with growers in Spain and the UK to use water and fertilisers more efficiently. These actions are expected to help growers mitigate and adapt to Climate Change.



Image credit: PepsiCo

Deforestation



Cargill working to protect forests in all agricultural supply chains

Cargill is working on delivering on its pledge to halve deforestation across the entire agricultural supply chain by 2020 and to make it completely deforestation-free by 2030. Cargill's deep commitment to tackling deforestation is reflected in its joint effort with The Nature Conservancy to strengthen the Brazilian government's ability to enforce its forest regulation by using satellite technology. Since the onset of the project in 2003, Brazilian deforestation has declined by 80 percent. In association with customers, NGOs and the Brazilian government, the company worked on an extension of a moratorium on purchases of soy from deforested areas of the Amazon rainforest to May 2016. The company also seeks to avoid palm oil that is associated with deforestation of environmentally sensitive areas including peatlands, or exploitation of indigenous communities.

Consumers



Nestlé empowers consumers with innovative communication tools

Nestlé believes it can make the greatest difference by encouraging people to behave more sustainably, by engaging with them about how we can all recycle more, save energy, use fewer natural resources and consume less water. Nestlé continues to address the challenge of explaining the complex topic of environmental sustainability through the use of new communications tools such as the Nescafé Life-Cycle Assessment communication tool in France and QR (quick response) codes.



Image credit: Nestlé

Food Waste



Danone reduces production losses to less than 1% of final product

Danone has carried out initiatives at each stage of the food value chain: production, distribution and consumption. The company takes an integrated approach to reducing the loss or waste of both raw materials and final products. For example, staff at every functional level in production plants are trained and involved in action plans to reduce losses throughout the processing stage. Numerous measures are in place, including detailed traceability of material inputs and outputs, adapting production batch sizes, controlling optimum storage conditions, tracking losses throughout the process and optimising recycling of any unavoidable losses. Thanks to these measures, production losses represent significantly less than 1% of the final product.



Spanish food and drink sector helps consumers avoid food waste

The Spanish Food and Drink Industry Federation (FIAB) is actively working together with stakeholders to prevent food waste along the food chain. An excellent example of FIAB's commitment was the organisation of the Envifood meeting point, an event which brings together the environmental and the food sector. The Envifood meeting point 2014 addressed the food waste as one of the key environmental issues for the Spanish food industry. FIAB has designed and is implementing a 2015 efficiency improvement plan, specially focusing on the prevention of food waste. The point of departure of this plan was the campaign "Aprovecha la Navidad", eight tips to help the consumer to avoid food waste during Christmas. This campaign was developed in the framework of the National Strategy "more food, less waste" promoted by MAGRAMA in which FIAB is actively involved. Also, FIAB and its members are taking part in the initiative "La Alimentación no tiene desperdicio, aprovéchala" (Food is not waste, make the most of it).



Image credit: FIAB



We will continue to take action...

The food and drink industry is actively committed to promoting mitigation and adaptation to Climate Change and will continue to place sustainability at the heart of its business practices, including through the following actions:

95% of respondents
Implementation of energy and water efficient technologies³⁴



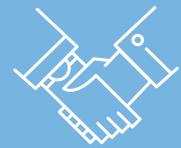
66% of respondents
Application and promotion of science-based GHG reduction targets³⁸



76% of respondents
Implementation of transport optimisation strategies to reduce emissions from transport³⁵



61% of respondents
Collaboration with other stakeholders³⁹



70% of respondents
Prevention of food waste³⁶



61% of respondents
Removal of commodity-driven deforestation from all supply chains⁴⁰



66% of respondents
Increased procurement of electricity from renewables³⁷



But action by one part of the food chain alone is not enough, so we are working together with partners...

EU Stakeholder Dialogue Group on Food Sustainability
High Level Forum for a Better Functioning Food Supply Chain



...and we call on other food chain partners, other industries, civil society and policymakers to support ambitious efforts to mitigate and adapt to Climate Change in Europe and globally.

³⁴ FoodDrinkEurope (2015) Climate Change survey. See Annex for details.

³⁵ idem

³⁶ idem

³⁷ idem

³⁸ idem

³⁹ idem

⁴⁰ idem

Recommendations for Policymakers

To ensure meaningful action on Climate Change, we call for:

1 An ambitious long-term global climate deal.

The food and drink industry is taking large strides to move towards a sustainable, low-carbon future, but ultimately can only achieve so much. In order to adequately address the dual global challenge of food security and Climate Change, a new ambitious deal must be credible and consistent to give businesses the security to invest in low-carbon technologies. Both mitigation of GHG emissions and adaptation to Climate Change in agriculture should form an integral part of the new agreement. Both require adequate, long-term financial support, particularly in developing countries, and increased R&D worldwide.

2 Effective implementation mechanisms of the approved EU 2030 Climate and Energy Framework and EU Energy Union Strategy.

These mechanisms should support an increase in low-carbon energy sources in ETS and non-ETS sectors in order to move towards at least a 40% GHG reduction target by 2030.

- **Energy efficiency:** Energy efficiency should be at the heart of EU and national energy strategies. FoodDrinkEurope welcomes the initiatives foreseen in the Energy Union Strategy to support access to finance. Businesses will also need legal certainty and stable energy prices to ensure that long-term investments are economically viable.
- **Renewable Energy:** Improvements in the commercial competitiveness of emerging alternative energy sources and long-term price stability are crucial for food and drink manufacturers' long-term energy strategies.
- **Emissions Trading System:** A well-functioning ETS is needed to stimulate cost-efficient GHG emission reductions and investment in low-carbon technologies.

3 A permanent dialogue to ensure a holistic approach to the European food chain,

for instance through the High Level Forum for a Better Functioning Food Supply Chain⁴¹ and European Food SCP Round Table⁴², as action to try to mitigate Climate Change by one part of the food chain alone is not enough and there is still significant potential for further cross-sector initiatives.

41 European Commission: High Level Forum for a Better Functioning Food Supply Chain

42 European Food SCP Roundtable [online]. Available at: <http://www.food-scp.eu/>

4 A globally-recognised definition as well as a scientifically-reliable methodology for assessing food wastage.

All stakeholders should continue to raise awareness about food wastage and encourage cross-sector and sector-specific initiatives to reduce food wastage and use natural resources more efficiently.

5 Stimulation of investment and innovation in low-carbon and resource efficient technologies.

Clear and consistent policy signals are crucial for unlocking investment. FoodDrinkEurope welcomes the European Fund for Strategic Investment, which will help to stimulate investment in projects promoting renewable energy and energy efficiency, among other objectives. Other EU policy and funding structures should help deliver on sustainability, for example, through further phasing out environmentally harmful subsidies.

6 Foster industrial symbiosis and a Circular Economy

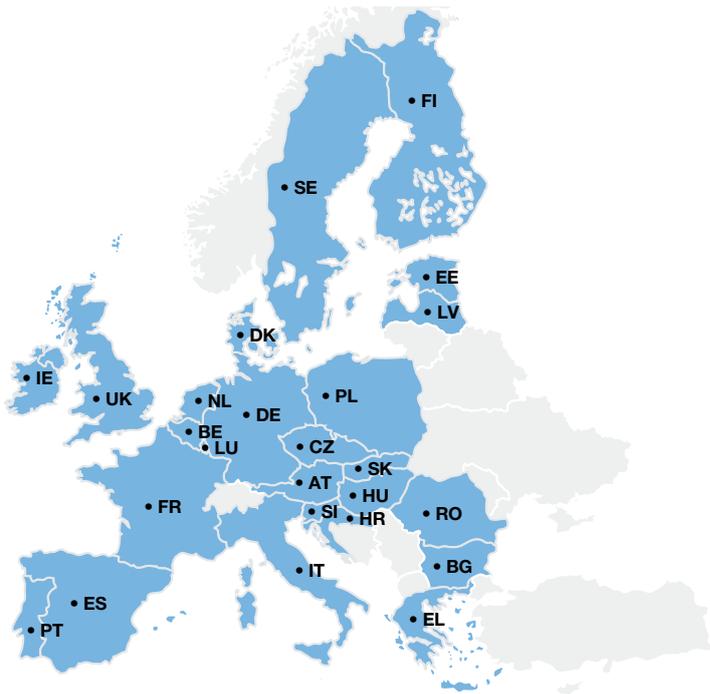
by promoting a pan-European network of industrial symbiosis initiatives to create new and scale-up existing networks. This would help food and drink manufacturers divert waste from landfill and maximise value from their by-products and co-products, which offer a multitude of opportunities for moving waste up the value chain.

7 Helping consumers to make more sustainable and healthy lifestyle choices

including by strengthening public educational campaigns and supporting the voluntary provision of information which is scientifically reliable, consistent, as well as understandable and not misleading. Communicating information is best achieved through a multi-pronged approach, including digital technologies.

Annex: Survey Methodology

FoodDrinkEurope carried out a survey of its members from February to April 2015. Responses were received from 26 organisations (companies, European sector associations and national federations) in the food and drink manufacturing sector with operations or members spanning 25 EU countries and other non-EU countries. It captures the Climate Change mitigation and adaptation activities, at European and national level, by companies of all sizes, from multinational companies to small and medium-sized enterprises.



Respondents represent a wide range of food and drink products, including:

- Meat processing
- Savoury snacks
- Breakfast cereals
- Spirits
- Beer
- Soft drinks, tea, juices and water
- Dairy products and ice cream
- Soups and prepared dishes
- Sauces, spreads and dressings
- Confectionery
- Pet food
- Sugar



Respondents provide over

250,000
jobs in Europe



and represent over

€54bn
in turnover



Avenue des Nerviens, 9-31
1040 Brussels
Belgium

Tel: +32 2 514 11 11

Email: info@fooddrinkeurope.eu

 [@FoodDrinkEU](https://twitter.com/FoodDrinkEU)