

November 2019

## **Contribution of the food and drink industry to the transition towards a carbon neutral Europe by 2050**

### **SUMMARY**

Climate change represents an important threat to the sustainability and competitiveness of the food and drink industry, alike growing scarcity of natural resources and fuel and energy costs. This threat is even more important as climate-related risks to food security, water supply, and economic growth are projected to increase proportionally to global warming.<sup>1</sup> Food systems are not only impacted by climate change but also have shared responsibilities for driving it which cannot be denied. It is therefore urgent to review the way food systems are organised, including at global and regional level, and to adopt a coordinated and coherent approach between food security, and climate change mitigation and adaptation. The European food and drink industry thus strongly supports the Paris Agreement objective to keep the global temperature increase below 2°C and to pursue efforts to keep it at 1.5°C. As part of the transition towards more sustainable food systems, it will take the lead in supporting Europe becoming the first climate-neutral continent in the world by 2050.

In this paper, we highlight how the food and drink industry is contributing to these objectives, while promoting sustainable and resilient food systems. We also make recommendations to ensure that the necessary conditions are in place for the food and drink industry to sustain its efforts and further contribute to combat and adapt to climate change.

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<sup>1</sup> IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. World Meteorological Organization, Geneva, Switzerland, 32 pp

## I. Fighting climate change as part of a wider sustainability strategy

Climate change has an impact on food systems, whether directly or indirectly. It can have an impact on food security, food prices, and the quality and safety of food products. In particular, extreme weather events, such as droughts and floods or rising temperatures, hamper food production, which may affect the long-term supply of safe, high-quality and affordable raw materials for the food and drink sector.

In this context, most food and drink manufacturers have been integrating climate change in their business strategies<sup>2</sup> and continuously work to minimise the environmental impacts of their products based on a life-cycle approach. Thanks to its efforts, it succeeded to reduce its GHG emissions by 12% between 2008 and 2017, while increasing production value by 5% in the same period.<sup>3</sup>

The food and drink sector welcomed the adoption of the Commission's Communication "A Clean Planet for all"<sup>4</sup> which sets out a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy by 2050. Our sector will continue playing a key role in supporting the move towards a carbon neutral European economy. To achieve this goal, we believe that there is a need for a shared vision among all public and private actors and effective, coordinated actions.

We particularly support the Commission's recommendation to invest into realistic technological solutions, and align actions in key areas, such as industrial policy, finance, or research, while ensuring social fairness for a just transition. We also welcome the announced development of a European Climate Law towards the 2050 objectives, with revised climate and energy targets for 2030, in the next European Commission's work programme.

The fight against climate change however needs to be included in a wider sustainability strategy with a view to ensure sustainable and inclusive growth, environmental protection and social welfare. The future European Commission should therefore foster efforts towards the implementation of the SDGs and integrate the SDGs in all policies while ensuring policy coherence, in particular in the context of the future EU Green Deal.

## II. Actions to tackle climate change within our operations

Actions to reduce energy consumption and emissions from transport and logistics are often considered as the most tangible actions to limit GHG emissions. Other actions can however also play an important role in mitigating, or adapting to, climate change. Before undertaking any of these actions however, it is of utmost importance to avoid any sustainability trade-offs, such as between energy efficiency and water consumption increase.

### 1. Towards greater energy efficiency

Representing more than 75% of the EU GHG emissions, energy plays a central role in the transition towards a net-zero GHG economy. As one of the top five industry in the EU in terms of energy consumption, we will continue multiplying efforts to reduce energy consumption in our fight against climate change.

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<sup>2</sup> FoodDrinkEurope report "A TIME TO ACT: Climate Action and the Food and Drink Industry"

[https://www.fooddrinkurope.eu/uploads/publications\\_documents/FoodDrink\\_Europe\\_Climate\\_Action\\_Brochure.pdf](https://www.fooddrinkurope.eu/uploads/publications_documents/FoodDrink_Europe_Climate_Action_Brochure.pdf)

<sup>3</sup> FoodDrinkEurope report "A TIME TO ACT: Climate Action and the Food and Drink Industry"

<sup>4</sup> Commission Communication "A Clean Planet for all", [COM\(2018\) 773 final](#)

FoodDrinkEurope members have been taking measures to reduce their energy consumption, which have contributed to reduce the energy consumption of the food industry by nearly 20% between 2000 and 2015.<sup>5</sup> Examples of measures at facilities level include:

- upgrading energy-using equipment and/or investing in more energy-efficient ones;
- ensuring proper maintenance of heating, air conditioning and cooling systems and switching to natural refrigerants;
- increasing the use of alternative alongside renewable energy sources (i.e. use of biomass, hydropower, wind);
- investing in renewable energy production infrastructures especially in areas where accessibility of electricity is limited
- engaging in energy management programmes<sup>6</sup>.

Many industrial process-related emissions are difficult to eliminate and there are limits to what the industry will be capable of doing. Even though energy intensity varies from sector to sector, heat will often remain necessary for food processing and investing in local energy production infrastructure at large scale is difficult. In addition, greater electrification can result in lower energy efficiency (e.g. electric resistance heating). Food processing plants are also often geographically spread to stay close to agriculture production sources, which makes it difficult to concentrate production for greater energy efficiency and to supply them with enough renewable energy due to a lack of sufficient infrastructure in the rural areas.

The food and drink industry also highly depends on other economic actors and technology providers, in particular energy producers and suppliers, to adopt the necessary solutions to further facilitate the transition to a decarbonised economy. Cooperation and coordinated actions throughout the food chain and the energy supply chain, are essential to achieve greater energy efficiency and further scale up technological innovation.

## 2. Lowering emissions from transport and logistics

Transport and logistics represent a big share of the food and drink sector's environmental footprint. The sector has thus developed transport optimisation strategies towards mitigating emissions from transport and logistics,<sup>7</sup> including by:

- reducing emissions including route and distribution network optimisation;
- increasing vehicle fuel efficiency, using biofuels or compressed natural gas;
- purchasing more energy efficient vehicles (i.e. electric vehicles);
- training of truck drivers from a safety and environmental perspective.

Having often a geographically dispersed activity, the food and drink industry relies on a strong and effective distribution network which can easily adapt to seasonality and trading needs. To develop its efforts to reduce emission from transport and logistics, the food and drink industry needs innovative technologies, especially with regards to powering transport means. We welcome that this need has been highlighted in the Commission's Communication.

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<sup>5</sup> H2020-funded Odisee-Mur project - Sectoral Profile – Industry Energy consumption – 2017, <http://www.odyssee-mure.eu/publications/efficiency-by-sector/industry/industry-eu.pdf>

<sup>6</sup> In accordance with existing Best Available Techniques in the Food, Drink and Milk Industries

<sup>7</sup> In a survey carried out by FoodDrinkEurope among European food and drink industry, 76% of respondents declare to have implemented transport optimisation strategies to reduce emissions from transport, FoodDrinkEurope publication "A time to Act", 2015

### 3. Preventing and reducing food wastage

Food wastage not only represents a waste of valuable resources and an economic loss, but also has a negative impact on climate change. The UN Food and Agriculture Organisation (FAO) estimates that approximately one-third of all food produced for human consumption in the world is lost or wasted.<sup>8</sup> More specifically, it is estimated that global food wastage generates annually about 8% of total GHG anthropometric emissions, making their contribution to global warming almost equivalent (87%) to global road transport emissions.<sup>9</sup>

In 2013, FoodDrinkEurope launched a joint declaration entitled “Every crumb counts” where the sector committed to make every efforts to significantly prevent and reduce food waste.<sup>10</sup> We also produced a toolkit for food and drink manufacturers on how to maximise food resources.<sup>11</sup> Building on previous commitments, FoodDrinkEurope members have committed to support the achievement of the Sustainable Development Goal 12.3 target to halve food waste by 2030. Progress is currently being assessed and a report is expected to be published mid of 2020.

### 4. Moving towards a more circular economy

European food and drink manufacturers have long been actively engaged in the transition towards a resource-efficient, circular economy, while ensuring that food safety remains paramount. As shown by a recent study, a circular use of resources and key materials such as plastics can be central to cutting global GHG emissions, and a switch to a more circular economy in the EU alone could cut industrial emissions by more than half by 2050.<sup>12</sup>

FoodDrinkEurope members have been working to improve the environmental performance of their products during their whole life-cycle, to move towards more circular plastics packaging, and to contribute to improved waste management systems.<sup>13</sup> The sector has adopted a Roadmap on Sustainable Packaging,<sup>14</sup> aimed to improve the circularity of packaging for food and drink products and to drive future innovation.

### 5. Optimisation of water use

The food and drink industry accounts for approximately 1.8% of Europe’s total water use (excluding agriculture) and is considered one of the largest producers of wastewater. It puts great efforts into reducing and using water more efficiently.

Within this context, as climate change impacts the world’s water supplies, food and drink manufacturers are actively, investing in water-efficient technologies and adopt water management practices. For instance, wastewater treatment processes in manufacturing facilities enable to recover water, recuperate biogas, and/ or ensure that only clean water is returned to the environment.

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<sup>8</sup> “Food wastage footprint: Impacts on natural resources”, UN FAO (2013), <http://www.fao.org/3/i3347e/i3347e.pdf>

<sup>9</sup> “Food wastage footprint & Climate Change”, UN FAO, <http://www.fao.org/3/a-bb144e.pdf>

<sup>10</sup> Joint declaration with the European federation of food banks FEBA, and the European retailers federation Eurocommerce, <https://foodwaste.fooddrinkeurope.eu/joint-declaration/>

<sup>11</sup> FoodDrinkEurope website on food wastage: <https://foodwaste.fooddrinkeurope.eu/>

<sup>12</sup> “Re-configure: The Circular Economy – a Powerful Force for Climate Mitigation”, report commissioned by Finnish Innovation Fund Sitra and the European Climate Foundation (ECF), <https://www.sitra.fi/en/news/ground-breaking-analysis-finds-circular-economy-make-possible-keep-global-warming-2c/>

<sup>13</sup> FoodDrinkEurope website “Ingredients for a Circular Economy”, <https://circulareconomy.fooddrinkeurope.eu/>

<sup>14</sup> [https://www.fooddrinkeurope.eu/uploads/publications\\_documents/FoodDrinkEurope\\_Sustainable\\_Packaging\\_Roadmap.pdf](https://www.fooddrinkeurope.eu/uploads/publications_documents/FoodDrinkEurope_Sustainable_Packaging_Roadmap.pdf)

### III. Actions to tackle climate change outside our operations

#### 1. Sustainable sourcing and forest protection

The conversion of tropical forests into agricultural land, and the resulting impact on biodiversity, local communities and GHG emissions, represents an important threat for the sustainability of food production.<sup>15</sup> Many food and drink manufacturers have been developing a strategy to ensure the sustainable sourcing of their ingredients, including forest protection.<sup>16,17</sup> For example, some are working in close partnerships with their agricultural suppliers to undertake sustainable agricultural management practices to mitigate climate change (i.e. digitalisation and precision agriculture). Others are researching and developing more resilient raw materials and working with smallholder farmers. Many are making significant efforts to reducing and using water more efficiently, for instance by contributing to projects for better water quality (i.e. biodiversity initiatives) in the agri supply-chain.

Many food and drink companies have also pledged to achieve zero-net deforestation by 2020.<sup>18</sup> 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.

#### 2. Engaging consumers

Considering the environmental impact of current food systems, and general sustainability concerns, there is an urgent need to promote healthy diets which have low environmental impacts. These diets need to be socio-culturally acceptable and economically accessible for all. To this end, Member States should help to enable the transition towards more sustainable consumption patterns.

The food and drink industry have been leading or engaging in a wide range of initiatives aimed to provide information and raise consumer awareness about healthy and more sustainable consumption habits. In October 2016, FoodDrinkEurope launched Eat & Live Well<sup>19</sup>, an informative overview of over 150 case studies detailing actions undertaken by Europe's food and drink sector to help fight obesity and related non-communicable diseases.

The food and drink industry have also contributed to the development of the Product Environmental Footprint (PEF) EU-wide method<sup>20</sup> to improve the environmental performance of products and many use it in business-to-consumer communication. Public-private projects dedicated to PEF have also been undertaken throughout the food supply chain (including local communities). Between 2013 and 2017, several food and drink manufacturers, including six members of FoodDrinkEurope, also voluntarily carried out pilot tests to develop category-product-specific methodology requirements in so-called PEF Category Rules (PEFCRs).

#### 3. The role of the farming community

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<sup>15</sup> Climate Change: Mitigation of climate change. [Contribution](#) of Working Group III to the 5<sup>th</sup> assessment report of the Intergovernmental Panel on Climate Change

<sup>16</sup> "[Environmental Sustainability Vision Towards 2030 – Achievements, Challenges and Opportunities](#)", FoodDrinkEurope publication

<sup>17</sup> FoodDrinkEurope report "[A TIME TO ACT: Climate Action and the Food and Drink Industry](#)"

<sup>18</sup> Including Barilla, Coca-Cola, General Mills, Kellogg, Kraft, Nestlé, PepsiCo, Sara Lee, and Unilever,

<https://www.theconsumergoodsforum.com/initiatives/environmental-sustainability/key-projects/deforestation/>

<sup>19</sup> [www.eatandlivewell.eu](http://www.eatandlivewell.eu)

<sup>20</sup> European Commission's Communication 'Building the Single Market for Green Products', [COM\(2013\) 196 final](#)

The EU farming community highly depends on the EU food and drink industry which buys some 70% of all EU agricultural raw materials. Moreover, climate change impacts on agricultural production with more frequent weather vagaries and animal and plant diseases, lead to increasingly volatile supplies and volatile prices for both farmers and food and drink manufacturers. The food and drink industry is thus making continued efforts and innovation to strengthen the ties which exist between farmers and producers, especially to ensure an effective transition towards a European zero-carbon economy. It is all the more important for products which greatest negative impact happens during the production of raw materials.

Many food and drink industry operators are involved in public-private projects producers and local communities, to reduce the environmental footprint of products at all levels. FoodDrinkEurope has also been advocating<sup>21</sup> for high environment and climate ambition in the next Common Agricultural Policy to ensure a more sustainable future for our food systems.

Within this context, supporting the sustainable use of resources is of key importance in order to contribute to the prevention of soil degradation and restoring soil health. It is important to improve sustainability in plant protection, while protecting ecosystems, on and around farms and industrial plants, and in waters. It is essential to avoid tradeoffs, in particular in view of the need to ensure food security for a growing world population. In particular, a science-based approach to plant protection is essential to avoid unnecessary negative impacts on crop output and overall productivity.

#### 4. The potential of the bio-economy

The bioeconomy encompasses the production of renewable biological resources and the conversion of these resources and waste streams into value added products, such as food, feed, bioenergy and bio-based products. As stated in the Commission Strategy “Innovating for sustainable growth: A Bioeconomy for Europe”<sup>22</sup>, the bioeconomy can help tackle current societal challenges such as resource efficiency and climate change, while contributing to competitiveness and job creation<sup>23</sup>.

The European food and drink sector particularly welcomes the Commission’s intention to increase bio-economy applications to reach a climate neutral European economy by 2050. It also supports the Commission’s intention to carefully assess how to make best use of EU agricultural lands from an efficiency and sustainability point of view, in view of the growing population.

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[https://www.fooddrinkeurope.eu/uploads/publications\\_documents/FoodDrinkEurope\\_priorities\\_for\\_modernising\\_and\\_simplifying\\_the\\_CAP.pdf](https://www.fooddrinkeurope.eu/uploads/publications_documents/FoodDrinkEurope_priorities_for_modernising_and_simplifying_the_CAP.pdf)

<sup>22</sup> [https://ec.europa.eu/research/bioeconomy/pdf/official-strategy\\_en.pdf](https://ec.europa.eu/research/bioeconomy/pdf/official-strategy_en.pdf) (page 3)

<sup>23</sup> [https://ec.europa.eu/research/bioeconomy/pdf/ec\\_bioeconomy\\_actions\\_2018.pdf#view=fit&pagemode=none](https://ec.europa.eu/research/bioeconomy/pdf/ec_bioeconomy_actions_2018.pdf#view=fit&pagemode=none)