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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A Farm to Fork Strategy
For a fair, healthy and environmentally-friendly food system

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1. NEED FOR ACTION

The **European Green Deal** sets out how to make Europe the first climate-neutral continent by 2050 by setting out a new, sustainable and inclusive growth strategy boosting the economy, improving people's health and quality of life, caring for nature, and leaving no one behind.

The Farm to Fork Strategy is at the heart of Europe's Green Deal. It seeks to address the challenges of sustainable food systems in a comprehensive and universal way, recognising the essential links between healthy people, healthy societies and a healthy planet. The **Green Deal marks a paradigm shift**, moving the focus from food production and agriculture to food systems, embracing sustainable consumption and production patterns, processing and marketing, correcting imbalances, harnessing the power of digital technologies and connecting economy to climate, environment and health.

European food is safe, nutritious and of high quality. This is the result of years of EU policy aimed at protecting human, animal and plant health. However, **climate change, biodiversity loss and the degradation of land and sea** are a reality despite farmers and fishers' current efforts. Extreme weather events around the globe, which are set to increase significantly with higher temperatures¹, **severely affect agriculture, forests, fisheries and aquaculture**, including through the spread of animal and plant diseases and invasive alien species. Food systems are globally responsible for around 21-37% of total greenhouse gas (GHG) emissions², have a profound effect on biodiversity, water and soil pollution, carbon sinks and are one of the principal causes of resource depletion and degradation of natural ecosystems. Livestock supply chains account for 14,5% of global GHG emissions³. In the European Union, 71% of farmland is dedicated to meat and dairy production and almost half of the European Union agricultural GHG emissions come from the animal sector. In addition, manufacturing, processing, packaging and transportation of food greatly contribute to pollution of air, soil and water and produce GHG emissions⁴.

The Climate Law sets out the trajectory/target for a climate-neutral Union in 2050. Innovative, efficient and sustainable production methods as well as smart and conscious consumer choices provide a pathway for reductions of emissions and externalities in agriculture and the downstream food value chain towards a climate neutral Union in 2050. Maintaining and further increasing the natural carbon sink of forests, soils, and agricultural lands and coastal wetlands is equally crucial for the success of a climate neutral Union in 2050. To deliver on the Green Deal's ambitions, food systems **urgently** need to become **sustainable and operate within planetary boundaries**. This means they need to "deliver food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future

¹ EC, 10 Trends reshaping climate and energy, 2018 and Global Assessment Report on Biodiversity and Ecosystem Services, IPBES, 2019.

² Special Report on Climate Change and Land, IPCC (2019).

³ Tackling climate change through livestock. A global assessment of emissions and mitigation opportunities. FAO (2013)

⁴ EC- JRC (2017) Consumer Footprint. Basket of Products indicator on Food, EUR 28764 EN, Publications Office of the European Union, Luxembourg.

generations are not compromised". Food security and safety should never be undermined but sustainability should now become the key objective to achieve.

While the performance of EU food systems in terms of sustainability has improved in certain respects⁶, progress is still needed to reduce dependency on **pesticides and fertilisers and to increase organic farming.** When it comes to **biodiversity**, the **negative trend must be reversed**. A decisive policy impetus is required for an accelerated, irreversible change, taking into account diverse challenges across sectors, regions and Member States. **Farmers, fishers and aquaculture producers** have a pivotal role to play in making food systems sustainable, not the least because their economic future is at stake. They are **part of the solution** but require the right incentives and support throughout the transition. Other actors across the value chain, including manufacturers and retailers also have an important responsibility to deliver change and a fairer and more efficient food system.

Food insecurity remains an issue. The global population is projected to increase to more than 9 billion by 2050. Considering also that over 820 million people presently suffer from hunger, global food availability would need to increase by 50% percent from 2012 to 2050 in order to meet the increased demand⁷. This is while increased demand on land resources shows up as declining crop production, degradation of land quality and quantity, and competition for land.

In the EU, 36 million citizens⁸ cannot afford a quality meal every second day. At the same time, about 20% of the food produced in the EU is currently **wasted**⁹ and **obesity is rising**. Over half of the EU's adult population is now overweight, contributing to a high prevalence of diet-related diseases, including various forms of cancer and related health care costs. Overall, the **diets** of European consumers are not in line with dietary recommendations and the food environment¹⁰ does not always allow the healthy option to be the easiest option.

Nevertheless, citizens' demand is evolving. Consumers' habits are driving significant change to the food market. Citizens increasingly pay attention to environmental, health and ethical issues. They want green, organic food, with less pesticides, sugar and additives. Even as societies become more urbanised, citizens want to feel closer to their food, having it fresher, less processed and locally sourced. Consumers **expect transparency** across the entire supply chain to be sure that they are buying "healthy food from a healthy planet". Food processors and retailers play a key role in ensuring that such demand is met. In recent years, consumer trust has been eroded through intentional violations of food supply rules. Achieving a sustainable food system requires a zero tolerance policy as regards **food fraud**.

⁵ Sustainable food systems: concept and framework (FAO, 2018)

⁶ Since 1990 in the EU, GHG emissions from farming have been cut by 20% and nitrate levels in rivers have been reduced by 18%. Sustainable fisheries management has allowed fish stocks to grow by 30% over the last 15 years.

 $^{^{7}}$ FAO report, « The future of food and agriculture - Alternative pathways to 2050", 2018

⁸ Eurostat, 2018

⁹ EU fusions 2016.

¹⁰ Food environment refers to the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food. (The High Level Panel of Experts on Food Security and Nutrition. Nutrition and Food Systems. September 2017).

The EU is the largest importer and exporter of agri-food products and the largest seafood market in the world. Imports of certain commodities may however result in negative environmental and social impacts in third countries, including deforestation, air and water pollution and labour conditions including workers' safety. Therefore, efforts to increase the sustainability requirements of the EU food system should be accompanied by policies helping to progressively **raise standards globally**, in order to avoid the externalisation and export of unsustainable practices.

All citizens and economic players across value chains, both inside and outside the EU should benefit from a **just transition**. A shift to a sustainable food system can bring **environmental, social and health benefits** and offer **economic gains**. At global level, it is estimated that a food and agriculture system in line with the Sustainable Development Goals (SDGs) could create **new economic value** of more than EUR 1.8 trillion by 2030¹¹. Ensuring sustainable livelihood for primary producers, who still lag behind the rest of the EU economy in terms of income, is essential for the transition to sustainable food systems. For example, the average EU farmer currently earns around half of the average worker in the economy as a whole. Research, innovation, digitalisation, technology, knowledge sharing and financial investments will provide solutions that deliver better environmental results and higher profits and will open up **new business and job opportunities.**

A more sustainable food system is instrumental in delivering the climate and environmental objectives of the Green Deal, reducing pollution to non-harmful levels for people and ecosystems and halting biodiversity loss, through a circular economy while reinforcing EU's **competitive sustainability**. The Farm to Fork Strategy is an instrument to support this transition by placing the emphasis on new opportunities for all consumers and economic players active in the food chain.

2. THE WAY FORWARD

In the context described above, the EU's ultimate goal is to reduce the environmental and climate footprint of the food system, lead a global transition towards competitive sustainability from farm to fork and tap into new opportunities. This means:

- Ensuring that the way that food is produced, transported, distributed and marketed has a neutral or positive environmental impact, preserving and restoring the land and sea-based resources on which the food system depends; contributing to mitigating climate change and adapting to its impacts; protecting land, soil, water, air, plant and animal health; and stopping the loss of biodiversity.
- Ensuring food security and citizens' health: making sure all people have access to sufficient, nutritious, sustainable food that meets high standards of food safety and quality, plant health, animal health and welfare, while meeting their dietary needs and food preferences.

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¹¹ Business and Sustainable Development Commission, "Better Business Better World, The report of the Business & Sustainable Development Commission", January 2017.

• Preserving affordability of food while generating fairer economic returns in the food supply chain, promoting competitiveness of the food supply sector, fair trade and creating new business opportunities linked to the transition, while ensuring occupational health and safety.

In championing the global transition, the EU can make sustainability its key trademark and gain a **competitive first mover advantage.** To achieve a **fair, healthy and environmentally friendly food system**, an **integrated approach covering the entire food chain from farm to fork is needed**. To that end, key targets in priority areas are set for the EU as a whole. To reach those targets, different starting points and differences in improvement potential between Member States should be duly recognised to ensure a fair transition. By end 2023, a **legislative framework for sustainable food systems** will be proposed to recognise performance of front-runners and gradually raise sustainability standards so as to become the norm for products placed on the EU market.

2.1. Ensuring sustainable food production

To achieve sustainable food production, farmers, fishers and aquaculture producers need to transform their production methods, making the best use of nature-based, technological and digital solutions to **deliver better environmental results**, **increase climate resilience** and **reduce input use** (**e.g. pesticides, fertilisers**). Such solutions will require human and financial investments but also promise higher returns by allowing direct marketing or sales of high value-added products. New business models, better advice and knowledge transfer, as well as adequate pricing signals will improve the way primary producers are working and increasingly put them at the centre of a food value chain that promotes circular use of food resources.

The Commission's Common Agriculture Policy (CAP) reform proposal ¹² of June 2018 aims to support farmers to achieve sustainability in farming - through a more results-oriented model, better use of data and analysis, improved mandatory sustainability standards and new voluntary measures. In particular, "eco-schemes" offer a major new stream of funding to support the uptake of sustainable practices, such as precision agriculture, agro-ecology, agro-forestry and organic farming. The Commission and Member States should pay a particular attention to the implementation and resource allocation of eco-schemes in the strategic plans. In that context, but not only, the Commission will ensure, in its work with the co-legislators, that the Green Deal ambition is squarely reflected in the agreed CAP legislation. It will also ensure that the Member States strategic plans adhere to a concerted and ambitious approach in line with the Farm to Fork Strategy, including on climate and environment, pesticides, fertilisers, antibiotics and organics.

A promising example of **new green business models** is **carbon capture** by farmers. Payments through the CAP or from private initiatives (carbon markets) can make the relevant farming practices financially rewarding. To this end, the Commission will develop an **'EU Carbon Farming manual'** to quantify emission reductions and carbon removals in farms and forestry systems.

The use of chemical pesticides in agriculture is responsible for pollution of soil, water and air and can negatively impact on non-target plants, insects, birds, mammals. The

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 $^{^{12}\,}https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en$

Commission will take actions to reduce by XX% the use and risk of chemical pesticides by 2030 and reduce by XX% the use of high-risk pesticides by 2030. To this end, it will revise the Sustainable Use of Pesticides Directive, enhance provisions on integrated pest management and promote greater use of alternative ways to protect harvests from pests and diseases. It will also facilitate placing on the market of plant protection products containing biological active substances and reinforce the environmental risk assessment of pesticides. The Commission will revise the Regulation concerning statistics on pesticides to overcome existing data gaps and reinforce evidence-based policymaking. Finally, the Commission will enforce actions to curb delays in the authorisation process.

The excessive use of nutrients in agriculture i.e. those that are not absorbed by plants, has been a major source of water pollution, impacts on climate ¹³ and has reduced biodiversity in rivers, lakes and wetlands by about one-third globally ¹⁴. The overuse of fertilisers can also cause economic and social harm as fish stocks collapse under the pressure of a polluted sea. The Commission will take actions to reduce by XX% the use of fertilisers by 2030. This will be achieved by the full implementation and enforcement of the relevant environmental and climate legislation, identifying with Member States the nutrient reduction loads needed to achieve these goals, putting forward specific actions in the Integrated Nutrient Management Action Plan to address nutrient pollution at source and improving the management of nitrogen and phosphorus throughout the whole lifecycle. The Commission will also work with Members States to foster a more widespread application of balanced, more precise fertilisation and sustainable agricultural practices, including through the measures in the CAP strategic plans.

EU agriculture is responsible for 11% of EU GHG emissions out of which nearly 60% are linked to animal farming ¹⁵. To reduce the environmental and climate impact of animal production, in addition to CAP measures, the Commission will facilitate the placing on the market of sustainable and innovative feed additives that help reduce the carbon footprint, water and air pollution and methane emission of livestock farming. It will also examine EU rules to foster the replacement of critical feed materials (e.g. soya from deforested land) by more sustainable feed materials such as insects, marine feed stocks and by-products from the bio-economy ¹⁶. A review of the promotion programme for agricultural products will also be conducted with a view to enhance its contribution to sustainable production and consumption. The Commission will also strictly assess the compliance of granting coupled income support with a view to improving the sustainability of the supported sectors ¹⁷.

Antimicrobial resistance linked to the excessive and inappropriate use of antimicrobials in animal and human health leads to an estimated 33 000 human deaths in the EU each year and health-care costs. The Commission will therefore take action to reduce by XX% the sales of antimicrobials for farmed animals and in aquaculture by 2030. The new EU Regulations on veterinary medicinal products and medicated feed provide for a wide range of measures, which will help achieve this objective.

¹³ Synthetic fertilisers, which emit nitrous oxide into the atmosphere, account for just under 2% of global GHG emissions. OECD (2019), *Accelerating Climate Action: Refocusing Policies through a Well-being lens*. OECD Publishing, Paris.

⁴ Ibid

¹⁵ Annual European Union approximated greenhouse gas inventory for the year 2018. EEA Report. No 16/2019.

¹⁶ COM/2018/673 final

¹⁷ Article 29(2) of COM(2018)/392 final

Better **animal welfare** improves food quality, animal health and decreases the need for medication. Livestock farming practices more respectful of animal welfare also contribute to preserve biodiversity and are the only ethical choice. The Commission will revise the animal welfare legislation, including on animal transport, with a view to update it based on the latest scientific evidence, make it more encompassing and easy to enforce and in the end achieve a higher level of animal welfare. The Commission will also consider options for **animal welfare labelling.** Using labelling to link production methods on the farm to (premium) consumer demand will enhance opportunities for farmers.

Climate change brings new threats to plant health. The sustainability challenge in the field calls for measures to **strengthen the protection of plants** from emerging pests and diseases and for innovation. The Commission will adopt EU rules to reinforce vigilance on imports of plants and surveillance of the Union territory. New innovative techniques, including biotechnology, may play a role in increasing sustainability provided they are safe for consumers and the environment while bringing benefits to society as a whole. The Commission is carrying out a study to assess the potential of new genomic techniques to improve sustainability along the food supply chain.

Food security begins with **seed security**. Farmers need to rely on a diversity of quality seeds for plant varieties adapted to the pressures of climate change. The Commission will take measures to facilitate the registration of seed varieties, including for organic farming, and to ensure a lighter market access of traditional and locally adapted varieties.

Organic farming is an environmentally-friendly practice that needs to be further developed. In addition to CAP measures, the Commission will stimulate the overall demand for organic products and ensure consumer trust as well uptake of the scheme. In line with the ambition defined in the EU Biodiversity Strategy 2030, the aim is to achieve the (**XX** of the area) under organic farming by 2030.

Not only the land but also oceans, seas and inland waters need to be managed sustainably, avoiding over-exploitation or damage to ecosystems. Climate change will cause fish stocks to shrink and the shift towards sustainable fish and seafood production must be accelerated in the EU. Economic data show that where fishing has become sustainable, income has grown in parallel. The Commission will reinforce efforts to bring fish stocks to sustainable levels via the **Common Fisheries Policy (CFP)** where implementation gaps remain (for instance reduce wasteful discarding), strengthen fisheries management the Mediterranean sea in cooperation with all coastal states, and will re-assess, by 2022, how the CFP meets the risks triggered by climate change. Moreover, the proposed **revision of the Union's fisheries control system** will contribute to the fight against fraud through an enhanced traceability system. The mandatory use of digitalised catch certificate will strengthen the system to prevent illegal fish products from entering the EU market.

Farmed fish and seafood (e.g. algae) generate a lower carbon footprint than animal production on land. The next **Maritime and Fisheries Fund** will spend more than EUR 1 billion to support sustainable seafood farming. The Commission will adopt **EU Guidelines on Aquaculture** to set out pathways for Member States' national aquaculture development plans and promote the right kind of expenditure under the Fund. The

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¹⁸ COM/2018/368 final

Commission will provide guidance on how the innovative algae industry can grow without excessive regulatory barriers and with well-targeted support.

Finally, to **support primary producers in the transition**, the Commission will clarify the **competition rules** regarding collective initiatives promoting sustainability in supply chains. It will also help farmers and fishers to capture a fair share of the added value of sustainable production by encouraging use of the possibilities for farmer cooperation within the **Common Market Organisation for agricultural products**¹⁹ and **Common organisation of the markets in fishery and aquaculture products** by closely monitoring implementation of the new Unfair Trading Practices Directive²⁰. It will work with co-legislators to further improve agricultural rules that strengthen the position of farmers, their cooperatives, collectives and producer organisations in the food supply chain, such as for producers of geographical indications.

2.2. Stimulating sustainable food processing, wholesale, retail, hospitality and food services' practices

Food processors, food service operators and retailers have a **profound effect in shaping the market** through the types of food they produce and their nutritional composition, their choice of suppliers, production methods, packaging and transport and their merchandising and marketing practices. They have the **power to influence consumers' dietary choices** by promoting more or less healthy and sustainable products. As the biggest global food importer and exporter, the EU food and drink industry also affects the environmental and social footprint of global trade.

Strengthening the sustainability of our food systems can help further build the reputation of EU businesses and food products, build shareholder value, attract employees and investors and **confer competitive advantage**, **productivity gains and reduced costs** to EU companies.

To ensure the uptake and supply of sustainable agricultural, fishery and aquaculture products and reduce food loss and waste, the Commission will revise **marketing standards**. It will also revise the legislative framework on **geographical indications** to reinforce the sustainability criteria for such indications.

The Commission will take action to scale-up and promote sustainable production methods and **circular business models** in food processing and retail, including **specifically for SMEs,** in synergy with the objectives and initiatives put forward under the new Circular Economy Action Plan (CEAP).

To improve the EU food environment and facilitate shifting to healthier diets, the Commission will **set up nutrient profiles** restricting the promotion (via nutrition or health claims) of foods high in fat, sugar and salt. It will propose to **prohibit added sugar in baby foods** and explore the possibility to set up maximum levels of sugars, saturated fat and salt in certain processed food.

Food packaging also plays a key role in food systems' sustainability in terms of health, environment and food waste prevention. The Commission will **revise the Food Contact**

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¹⁹ Regulation (EU) No 1308/2013 and Regulation (EU) 2017/2393

²⁰ OJ L 111, 25.4.2019, p. 59–72

Materials legislation to improve food safety and ensure citizens' health (in particular in reducing the use of hazardous chemicals), to support the use of innovative and sustainable packaging solutions, using environmentally friendly, re-usable and recyclable materials and to contribute to food waste reduction. In addition, under the new CEAP, the Commission work towards a legislative initiative on reuse in food services to substitute single-use food packaging and cutlery by reusable products.

The food industry itself should show the way by increasing the availability and affordability of healthy, sustainable food options. To promote such practices and engage food industry in a transparent and participatory process, the Commission will, as a priority, develop an **EU Code of Conduct**, and its accompanying monitoring framework, for responsible business and marketing practice. It will seek commitments from companies to: reformulate their food products in line with guidelines for healthy, sustainable diets; reduce their environmental footprint; adapt their marketing and advertising strategies taking into account the needs of the most vulnerable; ensure that campaigns related to food prices not undermine citizens' perception of the value of food and reduce packaging (cf. new CEAP). In the longer term, this could lead to **rules on sustainable corporate governance** that will require the food industry to integrate sustainability into corporate strategies.

2.3. Promoting sustainable food consumption, facilitating the shift towards healthy, sustainable diets

Current food consumption patterns are not sustainable from both a health and environmental point of view. While intakes of energy, meat, sugars, salt and fats continue to exceed recommendations, consumption of whole-grain cereals, fruits and vegetables, fish, legumes and nuts is insufficient²¹.

Reversing the rise in overweight and obesity rates across the EU by 2030 is critical. A **dietary change towards** a more plant-based diet and less meat will not only **reduce risk of life-threatening diseases** such as cancer but also **reduce the environmental impact** of the food system²². Europe's Beating Cancer Plan will propose actions for cancer prevention, including promotion of healthy diets.

For consumers, the creation of a **favourable food environment**, which makes healthy and sustainable diets the easy choice will have a positive impact on their health and quality of life and will also reduce health-related costs for society. Citizens steer to a great extent what food is produced, the way it is produced and its origin. Clear food information on sustainability can incentivise consumers to choose, and food business operators to offer, sustainable food and healthy diets, thus creating a virtuous circle of higher market demand and supply of sustainable food. **Food information** is an integral part of the transition to sustainable food systems.

The Commission will therefore propose actions to **empower consumers** to make healthy and sustainable food choices. To this end, it will propose to introduce **mandatory front-of-pack nutrition labelling** taking into account the diversity of diets and extend mandatory **origin indication** to milk as well as milk and meat used as ingredient. Origin

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²¹ Willett W. et al.: Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. Lancet 2019; 393: 447–92http://dx.doi.org/10.1016/S0140-6736(18)31788-4

²² FAO and WHO. Sustainable healthy diets – guiding principles. Rome (2019)

labelling will enable consumers to identify locally-produced food and stimulate short supply chains to the benefit of farmers. It will also examine the possibility to **harmonise voluntary green claims**. Finally, in the medium term, the Commission will develop a **sustainable food labelling framework** integrating nutritional, climate, environmental and social aspects.

To improve the availability and price of sustainable food options and to promote healthy and sustainable diets in institutional catering, the Commission will **set minimum mandatory criteria for sustainable food procurement.** This will help cities, regions and public authorities to play their role by sourcing sustainable food for schools, hospitals and public institutions. To that end, the Commission will lead by example and will place the highest sustainability standards at the core of its catering contract for its canteens as of 2021. The Commission will also review the **EU school scheme** to focus it on healthy and sustainable food and strengthen the educational messages on the importance of healthy nutrition, sustainable food production and reducing food waste.

Fiscal incentives can also help support consumers' selection of sustainable and healthy diets. The Commission's proposal on value added tax (VAT) rates (currently under discussion in Council) could allow Member States to make a more targeted use of VAT rates to favour healthy and sustainable food choices.

2.4. Reducing food loss and waste

The most sustainable food is the one that is not thrown away. Tackling food loss and waste is **key to achieving EU climate action goals**²³, environmental protection, sustainable agriculture, fisheries and aquaculture and a circular economy. It is interlinked with policies in specific areas, such as recovery of nutrients and secondary raw materials, production of feed, food safety, biodiversity, bioeconomy, waste management and renewable energy. In addition to saving money for consumers and food business operators - increasing supply chain efficiency and reducing waste treatment costs for businesses, reducing food waste has an important social dimension (recovering and redistributing surplus food that would otherwise be wasted).

The Commission is committed to reaching the UN SDG Goal Target 12.3 to halve per capita food waste at retail and consumer levels by 2030, and reduce food loss across the supply chain, through more focused, joined-up action. Following the introduction of an EU methodology to measure food waste²⁴ and based on the data expected from Member States in 2022, the Commission will set a baseline and propose legally binding targets to reduce food waste across the EU.

It will integrate food loss and waste prevention in relevant EU policies to achieve synergies and avoid conflicts wherever possible. Misunderstanding and misuse of **date marking** ('use by' and 'best before' dates) lead to food waste in the supply chain. The Commission will revise EU rules taking into account findings from consumer research. The Commission will investigate on the extent and causes of **food losses** (i.e. losses at the production stage). It will also explore possible ways of preventing them and identify

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²³ At EU level, the overall CO₂ equivalents attributable to food waste is at least 227 Mt. emitted per year approximately 6% of total EU27 emissions in 2012. This figure includes all steps of the life cycle of food waste (FUSIONS)

²⁴ OJ L 248, 27.9.2019, p. 77–85

opportunities for action, including valorisation of resources from primary production. **Coordinating action at EU level** is essential to drive and reinforce action at national level. The recommendations for action of the EU Platform on Food Losses and Food Waste²⁵ will be pivotal in shaping the way forward.

2.5. Combatting food fraud along the food supply chain

Food fraud jeopardises the achievement of sustainable food systems. It deceives consumers, preventing them from making informed choices, undermines food safety, fair commercial practices, resilience of food markets and ultimately the single market. A zero tolerance policy with effective deterrence is crucial in that regard. The EU will scale up its combat against food fraud to achieve a level playing field for operators and further empower the competent authorities responsible for control and enforcement.

The Commission will work with Member States, Europol and other relevant bodies to exploit comprehensive EU data on traceability and alerts in order to enhance coordination on food fraud. The Commission will also propose to reinforce dissuasive measures, to better control imports and to strengthen investigative capacities of the European Anti-Fraud Office (OLAF) on food fraud, including in intra-EU cross border matters.

3. ENABLING THE TRANSITION

3.1. Research, innovation and technology

Research and innovation (R&I) are a key driver in accelerating the transition towards sustainable, healthy and inclusive food systems and can help resolve tensions, overcome barriers and unveil new market opportunities.

Under **Horizon 2020**, the Commission is preparing for 2020 an additional call of around EUR 1 billion allocated to Green Deal priorities. Under **Horizon Europe**, the Commission proposes to spend EUR 10 billion in R&I related to food, bioeconomy, natural resources, agriculture, fisheries, aquaculture and environment. Horizon Europe programming will follow a food systems approach in order to deliver on the objectives of the Farm to Fork Strategy. One key area of research will relate to increasing the availability and source of alternative proteins such as plant-, microbial-, marine- and insect-based proteins and meat substitutes. In particular, a **mission in the area of soil health and food** will aim at developing solutions for restoring soil health and soil functions.

The R&I actions will advance **knowledge**, **build capacities and develop innovative solutions** - including nature-based, social, digital and artificial intelligence solutions - to increase sustainability of food systems. The Commission will expand analysis of satellite imagery by artificial intelligence to allow for more precise planning of farming operations and monitoring of the condition of farmland in aspects relevant to the environment and climate. In its Long Term Vision for Rural areas, it will also ensure that access to **fast broadband internet in rural areas reach 100% by 20XX** so that

^{25 &}lt;a href="https://ec.europa.eu/food/sites/food/files/safety/docs/fs_eu-actions-action-implementation-platform-key-recommendations.pdf">https://ec.europa.eu/food/sites/food/files/safety/docs/fs_eu-actions-action-implementation-platform-key-recommendations.pdf

technology and knowledge-based solutions can be developed. This will not only improve sustainability of the food systems but it will also increase farmers' incomes and make rural areas a better place to live and do business.

3.2. Advisory services, data and knowledge sharing

Knowledge and advice are key to enable all actors of the food supply chain to become sustainable. Primary producers have a particular need for **tailored advisory services** to become aware of the most sustainable management choices and Member States will need to scale up support for such services in their future strategic plans. Integrated pest management should become a common standard for every farmer and advisory services have a crucial role to play in making this happen. Advisory services are also key to reducing excess use of nutrients and promoting the appropriate use of antimicrobials. The Commission will develop a **Farm Sustainability Data Network** that will allow primary producers to monitor not only their economic results but also their environmental and climate performance.

The common European agriculture data space will enhance the competitive sustainability of the agricultural sector through the processing and analysis of production, land use, environmental and other data, allowing precise and tailored application of production approaches at farm level. The Commission will ensure **support to SME** food processors, small retail and food service operators with tailored solutions to promote new skills and business models, while avoiding administrative and cost burden. It will develop an SME-friendly Sustainability Manual for food processors and for retailers to disseminate best environmental management practices. The **Enterprise Europe Network** will provide advisory services on sustainability for SMEs and foster dissemination of best practices and improve their access to finance.

As part of the **EU Skills Agenda** and the European Education Area, the Commission will also ensure equality of access to education and training for actors along the food supply chain. Ensuring **life-long learning opportunities** - in school education, professional and on-the-job training - to build knowledge and appreciation for the value of food is a critical foundation to achieve sustainable food consumption.

3.3. Promoting the global transition

The transition towards sustainable food systems cannot be successfully achieved by the EU acting alone. To support a global move towards sustainable food systems the EU will:

- Promote sustainable food systems during **international events** (e.g. UN Convention on Biological Diversity in 2020, UN Summit on Food Systems in 2021).
- Use a partnership approach to support developing countries in their transition to sustainable food systems, by fostering international research for sustainable value chains, reducing malnutrition and integrating Policy Coherence for Sustainable Development in all its policies. The EU cooperates with more than 60 partner countries on agriculture, food security and nutrition, has 13 sustainable Fisheries Partnership Agreements with third countries, and is one of the main providers of humanitarian food assistance. The significant EU

- cooperation portfolio in these areas²⁶ can have a leverage effect on partner countries' policies and private sector investments towards the global objectives set out in the European Green Deal.
- Build on the EU Strategy with Africa and develop a common approach on sustainable food systems with African partners and implement the actions agreed following the work of the Task Force for Rural Africa; a particular focus will be to strengthen marine cooperation with African countries, many of which will suffer severe losses of marine resources due to climate change, under the forthcoming EU-Africa partnership.
- Assist the economies of the **Western Balkans** region in reforming and restructuring their agri-food sectors.
- Build green alliances with third countries and ensure the inclusion of ambitious sustainable food related provisions in all relevant EU bilateral agreements. These alliances will also support the work on global sustainable food systems in international standard-setting bodies and other multilateral organisations. The EU will continue to fight overfishing and promote sustainable fish and seafood products at global level²⁷.

As part of the general approach to food labelling, the EU will promote appropriate **labelling schemes** - including an EU sustainable food labelling framework - to incentivise trade partners to ensure that food imported into the EU has been produced in a sustainable way.

To reduce the EU's contribution to **global deforestation and forest degradation**, the Commission will propose regulatory and non-regulatory measures in 2021 to minimise the risk associated with commodities placed on the EU market.

To address the global threat of **antimicrobial resistance**, the recently agreed Veterinary Medicinal Products Regulation includes a provision that requires products of animal origin imported into the Union to comply with strict requirements regarding the use of antibiotics.

[Further measures are to be added based on discussion at political level.]

4. Conclusions

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The Farm to Fork Strategy put forward by this Communication has the ambition to transform European food systems into a global standard for sustainability. The stakes are high. Food systems can be a driving force for sustainability. The European Green Deal offers the opportunity to reconcile our food systems with our planet and to answer positively to the aspirations of Europeans for healthy, equitable and environmentally friendly food. The development of an EU policy framework for food sustainability will be instrumental in this regard.

²⁶ About EUR 9 billion in development cooperation commitments in the period 2014-2020

²⁷Through the Regional Fisheries Management Organisations, Sustainable Fisheries Partnership Agreements and our cooperation with third countries in the fight against Illegal, unreported, and unregulated fishing.

The transition to sustainable food systems needs a collective approach involving public authorities at all levels of governance, including cities, rural and coastal communities, private sector across the food value chain, non-governmental organisations, academics and citizens.

The Commission invites EU institutions to endorse this Strategy and to actively contribute to its implementation. All citizens and stakeholders are invited to engage in a broad public debate and to act as hosts of debates in national, regional and local assemblies.

The Commission will monitor the transition to sustainable food systems, including meeting of the targets. Data will be collected regularly, including on the basis of Earth observation, to monitor the environmental, health and economic impacts. This strategy will be reviewed to assess whether the actions undertaken are sufficient to reach the objectives or whether additional actions are necessary.