

SUSFOOD STRATEGIC SCENE

SECOND REVIEW REPORT 2020



SUSFOOD STRATEGIC SCENE



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Towards sustainable food production and consumption

The second review report analysing the strategic scene

2020

This publication presents the result of cooperation among European Member States and Associated Countries. The SUSFOOD2 partners created this report to the best of their knowledge, but cannot claim completeness.

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A close-up photograph of several petri dishes containing pink agar. In the foreground, one dish shows two distinct green bacterial colonies. The background shows other dishes with similar pink agar, some with faint tracks or marks on the surface.

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Abstract

This second review report analyzing the strategic scene of SUSFOOD is based on the Strategic Research Agenda (SRA) and various sources of information on food related policies and initiatives. It aims to continue the update of the first review on the current trends and new research needs in European food sector. It gives input for the second implementation plan. It elaborates the short and long-term to ensure that SUSFOOD2 advances implementation of its SRA.

This review shows that SUSFOOD SRA is still valid. Sustainability continues as a major trend and challenge in the European and global food field. Consumers have personal preferences, demands and needs resulting in new expectations for diversity of food systems. Research in the food area is active but it needs continuously to be adapted to a changing environment and new boundary conditions.

2. Background

SUSFOOD has the vision: ***All food chain partners contribute to achieving sustainable, secure and resilient food systems which feed the world and make sustainable choices the easy and preferable choices for consumers.***

The ERA-Net Cofund on SUSTainable FOOD production and consumption (SUSFOOD2) aims to promote research and innovation to develop more sustainable food systems. It has 26 partners from 15 countries.

SUSFOOD2 promotes a cross-sectoral and multi-disciplinary approach from biology to food engineering and social sciences. It addresses the following socio-economic and environmental goals:

- To develop sustainable food systems from production to consumption, to increase food production while reducing waste in food supply chain and limiting environmental impacts;
- To improve the quality of life by improving food quality in a sustainable way;
- To ensure the resilience of the food supply chain;
- To encourage sustainable consumer behaviors and food choices;
- To improve competitiveness and economic growth in the European food industry with special attention to SMEs.
- Public policy coherence;
- Innovation in food processing technologies;
- Redesign input, waste and side flow strategies to increase resource efficiency and provide added value in food products and processing, manufacture etc.;
- Interdisciplinary research approach to develop innovative food products and use of new raw materials for food products;
- Harmonization of the methods and metrics for integrated assessment of sustainability of food products and food patterns;
- Connection between stakeholders and food systems;
- Understanding of consumer behavior and food choices;
- Integration of information systems for personalized and sustainable choices.

All research funded by SUSFOOD should be considered in respect to the SUSFOOD definition of sustainability, the two cross-cutting issues, and a multi-disciplinary and whole food-systems approach. Taking all this into account, SUSFOOD focuses especially on those parts of the food chain beyond the farm gate, i.e. processing, distribution, preparation and consumption of food. An additional focus is on having a positive impact on small and medium sized enterprises (SME) and job creation.

The strategy of SUSFOOD2 is based on the [Strategic Research Agenda \(SRA\)](#) of the previous EU FP7 ERA NET project on Sustainable Food Production and Consumption (SUSFOOD), published in 2014. The SRA sets out the road map of which research areas need to be addressed to ensure sustainable development of food systems in Europe.

Based on the identified challenges for sustainable food production and consumption the SRA lists and describes eight priority research areas:

There are also two cross-cutting issues, namely equity and ethics, and localization of food chain activities. The priority research areas and their expected outcomes are described in more details in SUSFOOD SRA (2014), available on the [SUSFOOD2 website](#).

[The first review report of the SRA](#) (2018) aimed to draft an updated picture of the current state-of-the-art in the field of the research and innovation of sustainable food production and consumption in Europe. It reviewed new movements and research gaps and supported planning of the implementation activities and guides the overall impact assessment of SUSFOOD2.

[The SUSFOOD2 first implementation plan](#) 01/2019-06/2020 was based on SRA, its review report and two workshops involving SUSFOOD2 Governing Board (GB) and External Advisory Board (EAB). It includes ideas to update and enrich the work planned the underlying in the Grant Agreement for the second project phase of SUSFOOD as ERA-Net Cofund (runtime 2017-2021).

This second review of SUSFOOD strategic scene aims to continue the update of the first review on the current trends and new research needs in European food sector, and give input for the second implementation plan (delivered in April 2020). It elaborates the short and long term strategy to ensure that SUSFOOD2 advances implementation of its SRA.

2.1. Sources of information

This review has obtained information from desk study that was made to update the current trends and initiatives in European food sector. During desk studies, a number of agendas, strategies and foresights were studied and taken into account. It also utilized results from the workshop for SUSFOOD Governing Board (GB) and External Advisory Board (EAB) organized during the kick off seminar of SUSFOOD2 projects in Stockholm, November 2018. In addition, SUSFOOD2 WP6 sent out an online survey for GB and EAB to get their input for the current deliverables. This review was circulated among GB and EAB, and partners were given a chance to contribute.



(C) SUSFOOD Kick-off seminar Stockholm 2018

3. Update of the current situation of food sector

Food and drink industry is the largest manufacturing sector in Europe and during the last years there has been slight increase in volumes. Food and drink industry employs 4.72 million people (2019) and has a turnover of 1.2 trillion euros. Number of companies is 294 000 (FoodDrinkEurope 2019). According to European Commission, in the last 10 years, EU food and drink exports have doubled. EU food legislation is highly harmonized within EU but the trade with third countries still faces challenges. The European Commission is working to improve the competitiveness of the EU food sector (https://ec.europa.eu/growth/sectors/food_en).

There are number of activities and networks on the field of sustainable food production and consumption that are related to SUSFOOD and have synergies or potential for collaboration, or are already collaborating with SUSFOOD2. These include other ERA-Nets, Joint Programming Initiatives (JPIs), European Technology Platforms (ETPs), and some projects and other initiatives. In addition, food related European projects can be searched from [CORDIS](#). A table listing some of the SUSFOOD related initiatives at EU level is presented in Table 1. More information on these initiatives is available in the first review report of SUSFOOD SRA, Strategic Scene 2018.

Table 1. SUSFOOD related European initiatives

EU level initiatives and networks	European Technology Platforms
European Commission (DG DEVCO , DG AGRI and DG RTD) JRC European Commission Joint Research Centre Strategic Working Group on Food Systems of the Standing Committee on Agricultural Research SCAR EIT Food (KIC) European Institute of Innovation and Technology EIP European Innovation Partnerships Enterprise Europe Network EU Platform on Food Losses and Food Waste EU Platform for action on Diet, Physical Activity and Health National contact points	Food for Life ManuFuture TP Organics Plants for the Future SusChem EATiP European Water Platform
Joint Programming Initiatives (JPI)	Horizon 2020 projects, CSAs etc
FACCE Food Security, Agriculture and Climate Change HDHL A Healthy Diet for a Healthy Life OCEANS Healthy and productive seas and oceans WATER Water challenges for a changing World AMR Antimicrobial resistance Urban Europe Global urban challenges of today	REFRESH PRIMA Article 185 IC4WATER CSA CSA Authent-Net Biohorizon PPP- Bio-based Industries Joint Undertaking S3 Platform COST Fit4Food2030
ERA-Nets	Other initiatives and networks
CORE Organic Cofund FACCE SusCrop Cofund FACCE ERA-GAS ERA-HDHL Cofund HDHL-INTIMIC Cofund ICT-Agri-Food Cofund LEAP-Agri SusAn Cofund WaterWorks2014 WaterWorks2015 WaterWorks2017 FOSC Cofund BlueBio ERA-Net Cofund	FoodForce Euphresco ERRIN Belmont Forum EURADA European Food Alliance GRA Global Food Security Programme EFFoST FoodDrinkEurope FoodNexus FReSH Metrofood_RI

[EU's food safety policy](#) is designed to guarantee safe, nutritious food and feed to protect both human and animal health. It covers policies for labelling, novel foods, food waste and a number of aspects for food safety issues. Traceability and food safety of local and imported raw materials and processed foods still needs emphasis as new raw materials bring new challenges for food safety.

Reduction of food waste, water consumption and energy consumption were named in SUSFOOD SRA

as main targets in resource efficiency in improving the sustainability of food systems. Since the launch of SUSFOOD SRA a number of EU actions to tackle food waste have taken place. These, a repository of good practices in food waste prevention, communications materials to help raise awareness and a food waste resources library are collected on a [website](#). Special emphasis needs to be taken to ensure the reduction of waste in all parts of food system, e.g. circularity and utilization of side streams in food processing, and packaging.

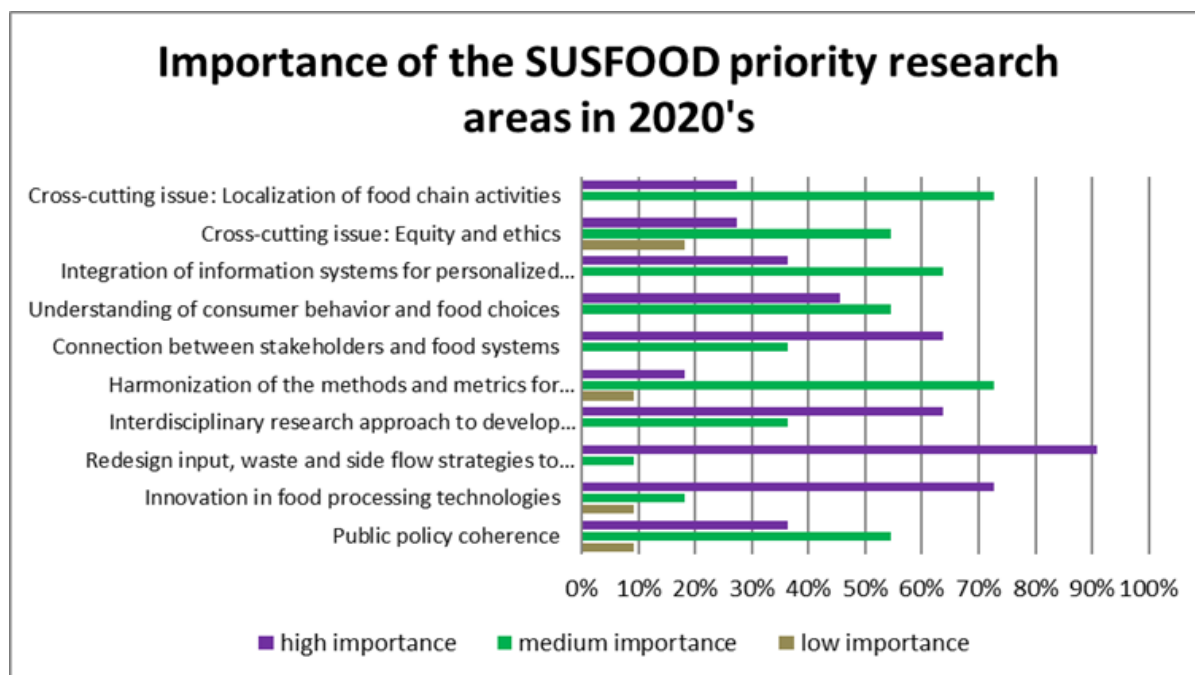


Figure 1 Importance of SRA priorities in 2020, a survey for GB and EAB members (n=11).

SUSFOOD GB and EAB members were asked in a survey in February 2020 to think about the priority research areas set in SRA and score how important they are in their opinion, according to their national priorities, or European context in 2020's. "Redesign input, waste and side flow strategies to increase resource efficiency and provide added value in food products and processing, manufacture etc." was considered as most important area followed by "Innovation in food processing technologies", "Interdisciplinary research approach to develop innovative food products and use of new raw materials for food products", and "Connection between stakeholders and food systems" (Figure 1).

New priorities suggested by GB members were new and/or alternative protein sources, mild processing, functional foods, food waste, circularity, and smart personalized food. Some of these areas are embedded in existing research areas or calls organized so far but these ideas are worth taking in consideration in planning future SUSFOOD priorities.

The withdrawal of UK from EU (Brexit) will have remarkable impact on EU food sector. EU member states export to the UK significant volumes of agri-food products like fruit and vegetables, meat products, and food preparations. After transition period, UK will no longer be part of EU agreements, and for example UK ingredients will no longer be considered EU origin. (https://ec.europa.eu/info/food-farming-fisheries/farming/eu-agriculture-and-brexit_en).

Year 2020 COVID-19 epidemic is bringing societies to a state of emergency. In addition to human suffering the global economy is expected to have long term impacts. It is also obvious that in short term the overall consumption will reduce dramatically and this will affect especially SME's. Functional food system and security of supply show their importance.

4. A short review of global challenges and “hot” policies in the field

Global challenges in the food sector are the climate change, the growing and ageing population, and urbanization but also use of natural resources, and loss of biodiversity. All forms of malnutrition (hunger and undernutrition, micronutrient deficiencies, but also overweight and obesity) threaten the health of billions. Diversity of food systems has come up as an important theme and part of sustainability in several policies during the last couple of years.

The Intergovernmental Panel on Climate Change (IPCC) reported 2018 on the impacts of global warming of 1.5 °C above pre-industrial levels in the context of strengthening the global response to the three-

at of climate change, sustainable development, and efforts to eradicate poverty. In 2019 *Climate Change and Land, an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* stressed the impact of food system on climate change. Land use accounts for 23% of human greenhouse gas emissions. One third of food produced is lost or wasted. Sustainable healthy diets featuring plant-based foods and animal-sourced food produced sustainably in low greenhouse gas emission systems, present major opportunities for adaptation to and limiting climate change.

Climate movement

At grass root level, the awareness of climate change threat has awakened a need to do something about it. Greta Thunberg and Fridays for future movement, for instance, call policy makers to make sustainable decisions based on science. This leads the food sector to more serious take into account consumers' demand of sustainability issues. There is also a trend towards less meat and more plant-based food, at least in big cities.

EU policies and objectives including **the European Green Deal** proposal emphasize the importance of the transition to sustainable, healthy, safe and inclusive food systems from 'farm to fork'. European Green Deal was presented by European Commission in December 2019 and it aims for becoming the world's first climate-neutral continent by 2050. The ['Farm to Fork' strategy](#) on sustainable food aims the European food to be safe, nutritious and of high quality, and produced with minimum impact on nature. It will include long term policies and be a key in order to roll out the transition of food systems. Farm to fork strategy was developed by co-design methods involving all the actors of food systems.

The farm to fork strategy sets out how to ensure sustainable primary production; stimulate sustainable food processing, retail, hospitality and food services' practices; promote sustainable food consumption, facilitating the shift towards healthy, sustainable diets; and reduce food loss and waste. The strategy will set out relevant ambitions and actions to stimulate sustainable food production and to create new

business models for food producers to thrive in a sustainable food system. These are very well in line with SUSFOOD2 strategic goals.



United Nations (UN) Paris agreement (2015) ratified by 173 countries recognizes that sustainable lifestyles and sustainable patterns of consumption and production play an important role in addressing climate change. **The UN Agenda 2030 for Sustainable Development** including [Sustainable Development Goals](#) (SDGs) launched in 2015 emphasizes diversity in food systems. Intelligently implemented diversification opens up opportunities for land use optimization and reduces climate emissions. Especially, the SDG 12.3 defines the halving per capita global food waste at the retail and consumer levels and the reduction of food losses along production and supply chains, including post-harvest losses. This is picked up by the Food 2030 policy framework (see below) and it is also opening up new perspectives for innovative technologies in the European food sector.



Food 2030 is a policy framework for European research and innovation for food and nutrition security and climate issues (DG Research and Innovation, 2016). Its priorities are nutrition for sustainable and healthy diets, climate-smart and environmentally sustainable food systems, circular and resource efficient food systems, and food systems innovation and empowerment of communities. Food 2030 names ten pathways for co-benefits:

- Governance and system change
- Urban food systems transformation
- Food from the oceans and fresh water resources
- Proteins and dietary shift
- Food waste
- The microbiome world
- Health & sustainable personalized nutrition
- Food safety systems of the future
- Food systems Africa
- Food & data



The SUSFOOD SRA uses **FAO's** definition for food security: "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life". According to FAO (2019) the global food and nutrition security has not improved during the last years and SDS target "zero hunger" remains challenging. The "hidden hunger" (nutritional status) needs emphasis. At the same time over weight continues to increase.

FAO's The State of Food Security and Nutrition in the World 2018 - Building climate resilience for food security and nutrition (2018) and SCAR FS SWG policy brief (2019) link all 17 SDGs with nutrition and biodiversity. Also industrial association FoodDrinkEurope and its members are committed to promote sustainability of the food system in line with SDG's. Policy priorities of FoodDrinkEurope are circular economy, SDG's, and climate and energy.

Coordination and support action Fit4Food2030 supports Food2030 in the transformation of research and innovation on food and nutrition security in Europe. Its aim is to establish a Food 2030 platform and a lasting network using community of practice approach.

SUSFOOD2 has active communication with **Standing Committee on Agricultural Research** (SCAR) Food Systems Strategic Working Group (SCAR FS SWG). SCAR FS SWG provides strategic advice and orientation, and supports the EU Research & Innovation policy framework FOOD2030 and its priorities. SCAR FS SWG has published a quantitative and qualitative mapping on existing policies and strategies linked to food and nutrition security and public research and innovation funding on food systems at national and regional level in EU (2018). The report shows that much of the funding focuses on primary production and less to the consumers, food innovation and nutritional aspects linked to health.

“Synthesis of existing food systems studies and research projects in Europe” (SCAR SWG Food Systems, 2019) reviews over 50 studies on food systems and builds an overall picture of the current state of interdependencies between key parts. It also shows that there is a need for more in the field.

In addition, SCAR FS SWG also published a policy brief on “The added value of a Food Systems Approach in Research and Innovation” built on the findings of the study. The document shows that a food systems approach is needed to effectively address the challenges that European food systems are facing, and provides concrete recommendations on how to put such an approach into practice of designing and implementing research and innovation programs and projects.

The SCAR FS SWG started in 2020 a second working period (2020 until 2022). At the moment (spring 2020) SCAR is updating and finalizing its own work plan for next years. The following actions were proposed in the Terms of References: Action 1: Food systems of the future; Action 2. Monitoring impact;

Action 3: Translate science into policy; Action 4: Consumers and food Systems; Action 5: Reduction of food losses and waste; Action 6: Digitalization and artificial intelligence. Firstly they will work on the following actions: Food Systems of the future, Food Systems waste management, and Translate science into policy.

It should be noted that the first action will also concern a joint workshop between the SCAR FS SWG and the Fit4Food consortium.

Europe’s Bioeconomy strategy was updated 2018. It aims to accelerate the deployment of a sustainable European bioeconomy so as to maximise its contribution towards the 2030 Agenda and its SDGs, as well as the Paris Agreement. New European policy priorities in bioeconomy are in particular the renewed industrial policy strategy, the circular economy action plan and the communication on accelerating clean energy innovation, all of which highlight the importance of a sustainable, circular bioeconomy to achieve their objectives.

Standing Committee on Agricultural Research (SCAR)	
Collaborative working groups (CWG)	
- Animal Health and Welfare (AHW)	- Sustainable Animal production (SAP) - ERA-NET SusAn
Strategic Working Groups (SWG)	
- Agricultural Knowledge and Innovation Systems (AKIS) - Food Systems - Fish	- Forestry - Bioeconomy - Agricultural Research on Development (ARCH)

4.1 Horizon Europe Partnerships part of SUS-FOOD future?

“Horizon Europe” is the new EU Framework research & innovation investment programme for the years 2021-2027. The programme’s objective is to strengthen the impact of research and innovation in developing, supporting and implementing EU policies and to address global challenges, including climate change and the SDGs.

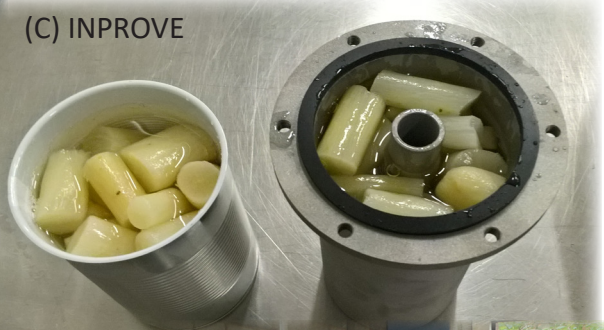
The pillar II of Horizon Europe “Global Challenges and European Industrial Competitiveness” has a proposed budget of 52,7 billion €. It includes a cluster of Food, bioeconomy, natural resources, agriculture and environment. This cluster calls for food systems’ transformation that shifts towards more sustainable and healthy diets and aims to ensure food and nutrition security for all, thus contributing to the “Farm to fork” strategy for sustainable food systems. This requires a better understanding of the interactions between the different components of current food systems, such as the interactions between food, biodiversity and water systems, to maximise co-benefits and accelerate transition.

Horizon Europe includes a concept for European partnerships. One of the proposed platforms “Safe and sustainable food systems for people, planet and climate” is suggested to co-create the healthy, sustainable and inclusive food systems of tomorrow that accelerate the transition towards a carbon neutral Europe by 2050 and contribute to the new “Farm to Fork vision” and action plan under the European Green Deal. This partnership would build on previous work of a number of initiatives, including SUSFOOD2. According to preliminary strategy of Horizon Europe, the partnership will develop a joined-up and policy coherent strategic research, innovation and investments plan to be implemented by all partners. The proposed models are co-programmed and co-funded actions, and institutional partnerships. Could this be part of SUSFOOD future? More info and details are awaited on the partnership instrument and the content of the food system partnership during the year 2020.

Connection of SUSFOOD2 to Horizon Europe and Farm to fork strategy was also mentioned in SUSFOOD2 online survey for partners in 2020. It would be useful to engage with other projects to connect with in order to prepare for a possible partnership under Horizon Europe.



(C) IMPROVE



4.2. Sustainability as a food trend

Sustainability continues as one of the megatrends and most important challenges in European food sector. The ways to consume are more and more diverse and fragmented. The importance of technology in daily life grows and generates mobile applications for personal diets and ordering food. The trade is moving from supermarkets to internet, and lockdowns during COVID-19 pandemic have accelerated this trend. "Grocerant" concept combines grocery and restaurant. Also the origin of food matters and popularity of local food systems is growing.

In the first review of SUSFOOD SRA (2018), some current trends in European food sector were mentioned:

- increasing role of local producers and small companies
- awareness of the link between health, ageing and diet
- cleaner labels, reducing ingredients, salt, fat and sugar
- stories of food
- plant based products and alternative protein sources
- artificial food
- trend to eat out-of-home
- social media
- technological innovations: non-invasive food scanner, 3D printing, personalized nutrition, digital information for participatory food systems

In 2020 it seems that worry about the climate change is asking for a change in diets towards more sustainable choices. The concept of planetary diet was introduced by EAT-Lancet in 2019. It combines the positive effects for planet and health by recommending especially reduced amount of meat and an increased the amount of pulses and nuts as a protein source in the diet.



In general, the consumption of plant based products is rising alongside meat products especially in urban areas, and they attract not only vegetarians but

Table 2 GB and EAB answers to the question: "Which of the following new trends proposed for next years (by Fit4Food2030 and other sources) should be tackled by Research & Innovation towards sustainable food production and consumption?" The answers (n=11) were dealt in three categories (high, medium, low importance).

High importance	Medium importance	Low importance
Alternative protein sources	Functional foods	Special diets / "free-from" products
Plant-based food	Mild processing	Social media and food
Short food supply chains	Bio-based packaging	New shopping behaviour
Food waste recovery, up-cycling, waste-cooking	Digitization	Ultra-processing
Circularity	Smart personalized food	Food retail markets/ logistics
Protein > fiber	Consumer engagement	Changing households and food
Transparent labels	Packaging and health	Low prices, high calories
Traceability	Easy to use/prepare "fast and convenience" food	Globalisation of diets
Health and food consciousness	Traditions and do it yourself	

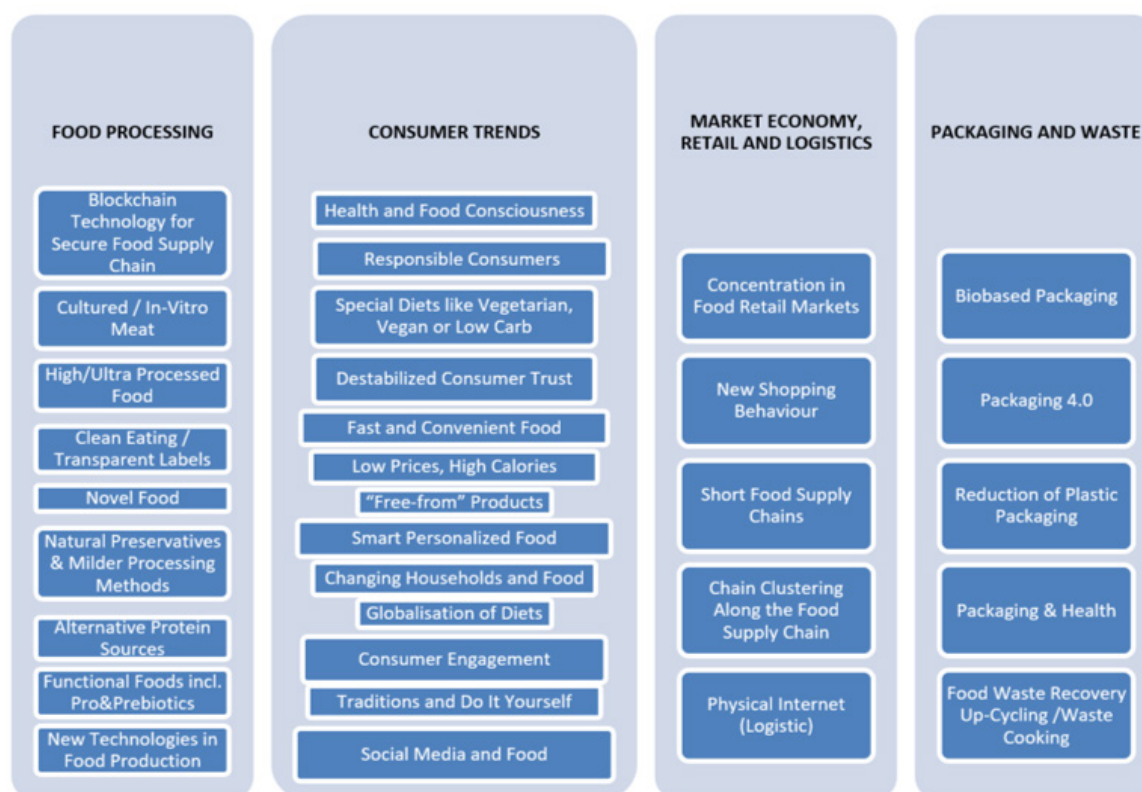


Figure 2 Food trends in SUSFOOD area (beyond farm gate) according to Fit4Food

mainstream consumers. SDGs are taken into account in food industry and in different policies. Reduction of food waste is seen as a potential way to reduce the climate effects of food consumption and to increase the resources efficiency. In food packaging there is a trend to replace plastic with biobased materials. At the same time, intelligent packaging, use of QR codes, and interactivity are growing trends.

Mild food processing avoids extreme conditions like high heat treatments and chemical reactions. It can help to better preserve the original quality of food products and side streams and to provide high quality, sustainable produced food for a healthy diet to the consumers. It is also a growing trend in food industry. Especially organic food producers call for mild processing methods.

Fit4Food project has listed food trends 2019 (Figure 2). SUSFOOD2 GB and EAB were asked in a survey in February 2020 about their views of the most relevant new trends for SUSFOOD. Results of the survey are presented in table 2. The top trends were alternative protein sources, circularity, food waste recovery, up-cycling, waste-cooking, plant based food, and short supply chains. These could serve as a basis for the topics of possible upcoming calls as many of the new trends need research to support new sustainable businesses.

4.3. Responsible research and innovation

Responsible research and innovation (RRI) is an innovation governance process that in Horizon 2020 has emerged for better aligning research & innovation with the values, needs and expectations of society. It implies close cooperation between all stakeholders in various strands comprising: science education, definition of research agendas, access to research results and the application of new knowledge in full compliance with gender and ethics considerations. The EC has formulated RRI in terms of six key areas: (a) public engagement; (b) gender equality; (c) science literacy and science education; (d) open access; (e) ethics; and (f) governance. RRI concept shows how the cultural, societal, and human factors help shape and co-produce science and technology.

H2020 funded NewHoRRizon project (2017-2021) aims at integrating RRI in the research and innovation systems on national and international levels. Multiple stakeholders from research, business, policy making, education and civil society are involved in research and innovation on the project and system level to better align its processes and outcomes with the values, needs and expectations of society. A first big step was the operationalization of RRI into the above mentioned six key elements.

SUSFOOD2 is taking part as a pilot action of the NewHoRRizon project. First outputs of this were the strengthening of awareness among network partners, sharing experiences on national and EU level and giving space for mutual learning (e.g. offering keynote presentations during the SUSFOOD2 kick-off meeting in Stockholm 2018). RRI and especially the aspect of stakeholder engagement were integrated into the first implementation plan. A survey among SUSFOOD2 funders revealed that for 80% of respondents RRI plays an important role in their national funding programmes, and this is even higher for stakeholder engagement which reaches 90% importance on national levels.

Concrete activities in line with RRI and stakeholder engagement were undertaken in SUSFOOD2. A first example is the inclusion of RRI aspects in the [joint call](#) for transnational research proposals together with CORE Organic in 2019. Project proposals were

asked to include cross-cutting issues (multi-actor/ multi-disciplinary/ and system approach) from the beginning. The inclusion of these aspects is compulsory and was evaluated. A second example is the SUSFOOD2 midterm seminar in Ghent, November 2019, during which a workshop on RRI for the SUSFOOD2 GB, EAB, and the funded projects was held. The workshop was the main part of the NewHoRRizon pilot action and outputs of this workshop were integrated into the 2nd Implementation Plan of SUSFOOD2 proposing concrete activities.

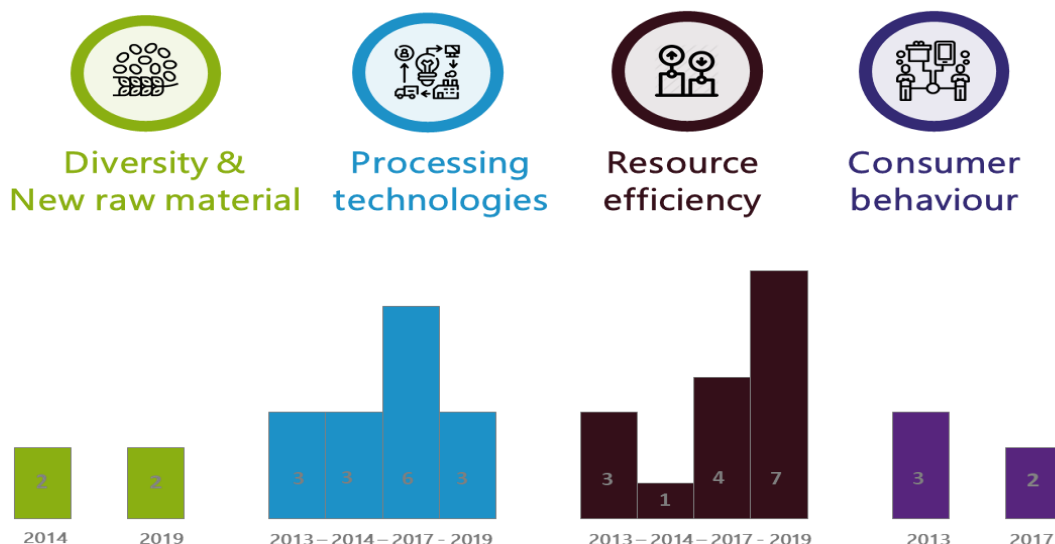


Figure 3 SUSFOOD funded projects by themes (calls 2013-2019)



Figure 4 Key words of SUSFOOD funded projects

5. SUSFOOD calls support the implementation of SRA

SUSFOOD ERA-Net and SUSFOOD2 Cofund have organized three calls (2013, 2014, and 2017) based on priority research areas of SRA. In addition, SUSFOOD2 and CORE Organic joined forces in the transnational Call 'Towards sustainable and organic food systems' launched in 2019. These calls have led to funding of altogether 39 transnational projects which nicely fit on the strategic field of SUSFOOD. Figure 3 shows how these funded research projects were divided by themes. Figure 4 shows the keywords of the SUS-

FOOD funded projects in a word cloud. Sustainability, processing and food waste emerge from the picture, together with consumer and health related issues. Plant based raw material is in majority but algae and meat also exist.

Examples of projects of SUSFOOD2 cofunded call 2017 are shown in Figure 5 and 6. More information about all the SUSFOOD funded projects can be found from SUSFOOD website <https://susfood-era.net>.

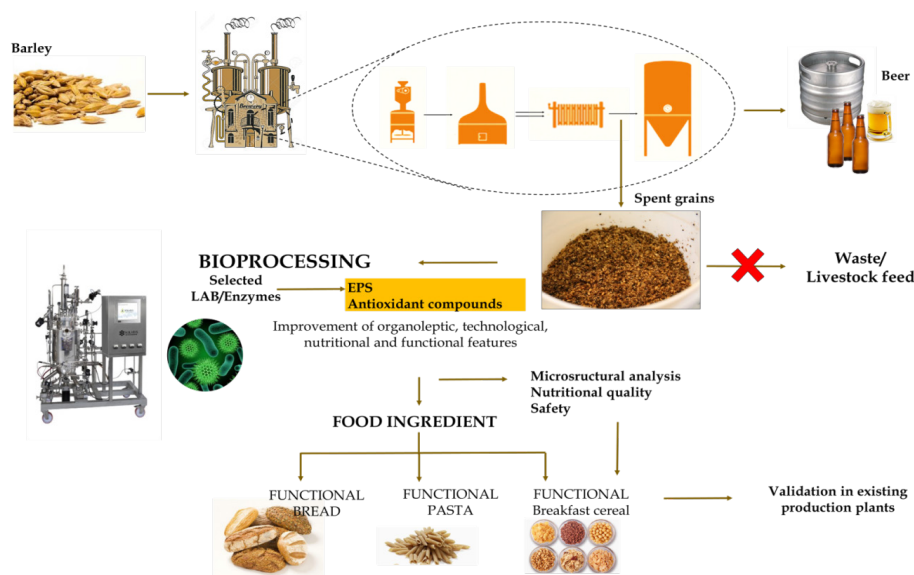


Figure 5 FunBrew project aims to study feasible bioprocessing options to enable the use of brewers' spent grain as food ingredient with improved technological and nutritional attributes.

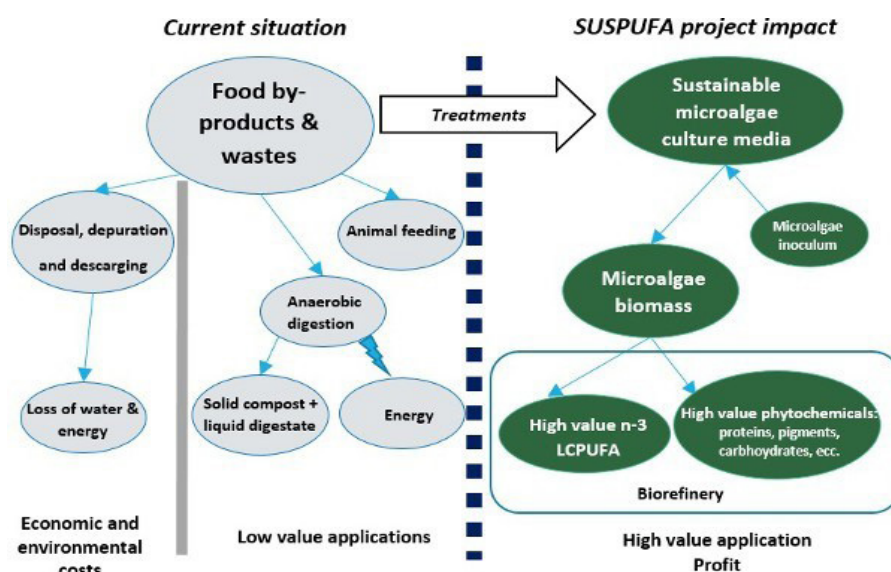


Figure 6. Expected impact of SUSPUFA project (Sustainable production of health-promoting n-3 LCPUFA using agro food industry by-products through microalgae). Source: <http://www.suspufa.eu/>

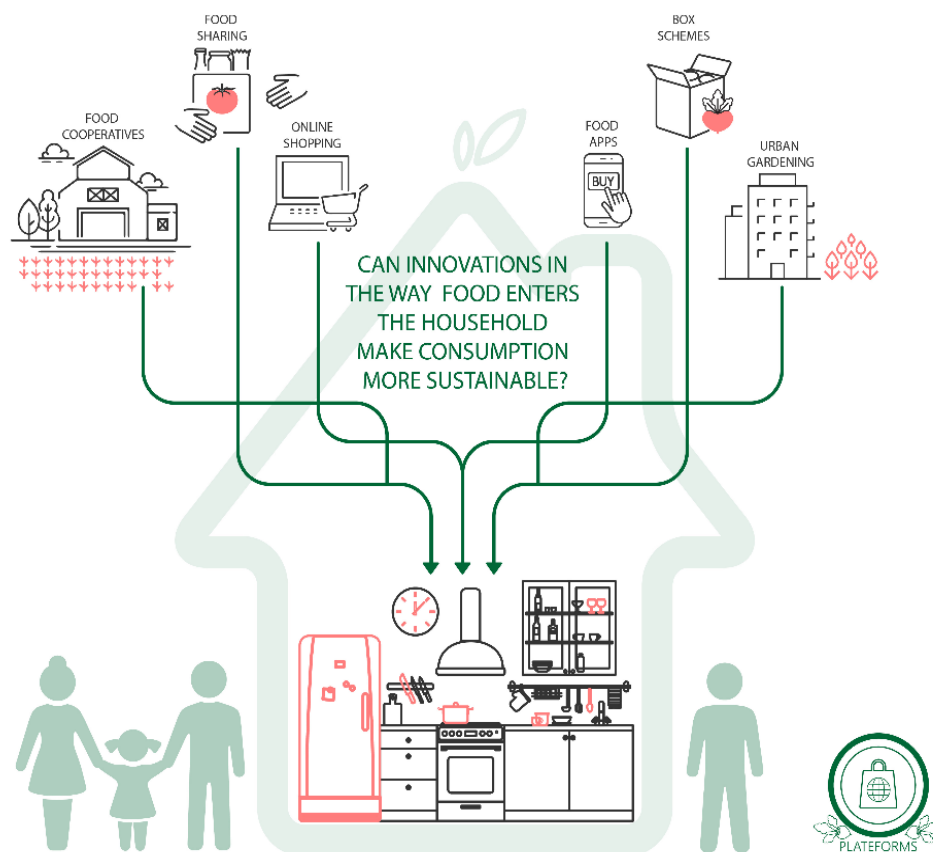


Figure 7. Platforms, Sustainable Food Platforms: Enabling sustainable food practices through socio-technical innovation). Source: <https://platforms.oslomet.no/>



The network of CORE Organic and SUSFOOD2 joint call 2019 consisted of 21 funding bodies from 18 countries/regions, with initial funding commitments of around 9.5M EUR for transnational research. Out of 60 preproposals 12 research projects were selected on following topics:

- Topic 1: Resource-efficient, circular and zero-waste food systems (7 projects)
- Topic 2: Diversity in food from field to plate (2 projects)
- Topic 3: Mild food processing (3 projects)
- Topic 4: Sustainable and smart packaging (no funded projects)

5.1 Other SUSFOOD2 strategic activities

According to Grant Agreement SUSFOOD2 is expected to have impact on research for sustainable food production and consumption and programming of European transnational food research. It is aimed to have impact for various stakeholders along the food chain (public and private), in European and global scale. The impact is supposed to last beyond the duration of SUSFOOD2.

In addition to the project results, SUSFOOD2 has undertaken other strategic activities. In December 2017, the SUSFOOD2 EAB and GB had a workshop in Madrid on impact assessment. The results from that workshop were included in the first review report on SRA.

Back to back with SUSFOOD2 projects' Kick off seminar in Stockholm, November 2018, there was a workshop on implementation plan for EAB and GB. Ideas concerning strategic work include policy coordination, stakeholder involvement for strategic questions, and RRI activities. Suggested activities for po-

licy coordination were collecting and analyzing best practice examples, identifying policy people within SUSFOOD2, writing a policy brief and organizing a policy workshop. RRI activities were realized in the workshop during midterm seminar. Some other activities are waiting for implementation. The second implementation plan will update the status for the following years.

A photo competition for the research projects funded by the Cofunded Call was organised in 2019 to increase the visibility of SUSFOOD2. The overall theme was "How is your project contributing to a future sustainable food system?". A small part of the yield of photos from the competition for the SUSFOOD2 funded projects can be seen on the pages of this report. FUNBREW won this competition with the slogan "Reborn from spent: the good side of brewery side-streams". This project team uses the waste streams of beer to make new healthy products. The winning picture is shown on last page of this document.



7. References

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