*SUSFOOD2 - A Horizon 2020 ERA-NET Cofund on Sustainable Food Production and Consumption*

# Pre-Announcement
# Transnational Call for Proposals

6 December 2016

*The joint co-funded call for transnational research proposals of the SUSFOOD2 ERA-Net Cofund initiative will open on **9 January 2017**.*

*The deadline for submission of pre-proposals will be on*
***13 March 2017 - 3 p.m. CET**.*

## Background to this call

The ERA-NET Cofund SUSFOOD2 - **"SUStainable FOOD production and consumption"** - will officially start in January 2017 and is the continuation of the FP7 ERA-NET SUSFOOD (2011 - 2014).

The ERA-NET Cofund instrument under Horizon 2020 is designed to support public-public partnerships between Member States (and associated countries) for the implementation and coordination of networking activities in different fields of research.

SUSFOOD2 consists of 26 partners from 15 countries (plus 2 associated partners from Belgium and New Zealand).

SUSFOOD2 will launch a joint transnational call with an indicative budget of 14 M€, including a co-funding of approximately 4 M€ by the European Commission, for Research collaborative proposals in the field of sustainable food production and consumption.

The project receives funding from the European Union's Horizon2020 Research & Innovation Programme under grant agreement no 727473, SUSFOOD2

## The objectives of the SUSFOOD2 network

The strategic goal of SUSFOOD2, complements the EU bioeconomy and food policies[1], and aims to reinforce cooperation in research, development and innovation between EU members and associated States in order to maximize the contribution of research to the development of more sustainable food systems from production to consumption.

Global demand for food is expected to rise by at least 60% by 2050[2]. At the same time the food supply chain is under pressure due to limited resources, water availability, soil degradation, biodiversity loss and the impacts of climate change. More than one third of the food produced in the world today is lost or wasted[3]. Our food system has experienced huge transformation during the last century with changes in dietary preferences impacting on consumer health and food availability (e.g. increasing non-communicable diseases and obesity).

To meet these challenges we need to strengthen a sustainable[4] food system providing opportunities for all stakeholders to develop a secure, resilient and competitive sector.

The scope of SUSFOOD covers the entire food supply chain with the main focus on food chain sustainability beyond the farm gate[5]. The farm level is considered if it has direct impact on the sustainability of the other steps in the food chain. More information can be found at https://www.susfood-era.net.

SUSFOOD2 promotes a cross-sectoral and multi-disciplinary approach from biology to food engineering and social sciences.

Projects should be multi-disciplinary and involve various stakeholders where possible.
The work needs to take account of, and not duplicate projects already funded in previous SUSFOOD calls (applies to topics 1, 2, 3).

## Participation to the call and funding modalities

The following SUSFOOD2 partner countries will provide funds to the call: **Belgium (Flanders), Estonia, Finland, France, Germany, Ireland, Italy, Lithuania, Norway, Romania, Spain, Sweden, The Netherlands, Turkey, and UK.**

The call targets participants from research organizations or research organizations and industry.

Project consortia must apply to one of the four topics (a provisional call text is provided in Annex 2):

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[1] https://ec.europa.eu/research/bioeconomy/index.cfm?pg=policy&lib=foodsec
[2] http://www.fao.org/news/story/en/item/35571/icode/
[3] http://www.fao.org/save-food/resources/keyfindings/en/
[4] SUSFOOD defines sustainability as: "A food system that supports food security, makes optimal use of natural and human resources, and respects biodiversity and ecosystems for present and future generations, and which is culturally acceptable and accessible, environmentally sound and economically fair and viable, and provides the consumer with nutritionally adequate, safe, healthy and affordable food"
[5] Primary production from both land and sea

**Topic 1: Innovation in food processing technologies and products**

**Topic 2: Providing added value, increased resource efficiency and reduction of waste in sustainable food systems**

**Topic 3: Understanding consumer behavior and food choices**

**Topic 4: Harmonisation of the methods and metrics for integrated assessment of sustainability of food products and food patterns**

Overview on funding opportunities (indicative budgets without EU cofunding)

| **Country** | **Organization** | **"Research" (contribution – in EURO)*** | **"Research and Innovation" (contribution – in EURO)*** | **TOPIC 1** | **TOPIC 2** | **TOPIC 3** | **TOPIC 4** |
|---|---|---|---|---|---|---|---|
| Belgium | VLAIO | | **1,000,000** | **X** | **X** | | |
| Estonia | MEM | **100,000** | | **X** | **X** | **X** | **X** |
| Finland | MMM | **300,000** | | **X** | **X** | | **X** |
| France | ANR | **1,000,000** | | | **X** | | |
| Germany | BMEL | **1,000,000** | | **X** | **X** | **X** | **X** |
| Ireland | DAFM | **750,000** | | **X** | **X** | **X** | **X** |
| Italy | MIUR | **500,000** | | **X** | **X** | **X** | **X** |
| Italy | MIPAAF | **100,000** | | **X** | **X** | | |
| Lithuania | MoALit | **100,000** | | **X** | **X** | | |
| Norway | RCN | **700,000** | | **X** | **X** | **X** | |
| Romania | UEFISCDI | | **500,000** | **X** | **X** | **X** | **X** |
| Spain | ADE | | **500,000** | **X** | **X** | | |
| Spain | CDTI | | **530,000** | **X** | **X** | | |
| Spain | MINECO | **300,000** | | **X** | **X** | | |
| Sweden | FORMAS | **1,500,000** | | **X** | **X** | **X** | **X** |
| The Netherlands | NWO | **750,000** | | **X** | **X** | **X** | **X** |
| Turkey | GDAR | **300,000** | | **X** | **X** | **X** | **X** |
| United Kingdom | DEFRA | **337,000**** | | **X** | **X** | | |

* Funding opportunities for consortia formed **only by research organizations ("Research") or by research organizations and industry ("Research & Innovation")**

** The contribution of DEFRA is £300,000 (sterling); this figure may differ according to the actual exchange rate

Please note that CORE Organic Cofund is launching a call for proposals in December 2016. SUSFOOD2 and CORE Organic Cofund will collaborate closely during the selection process to avoid overlap and double funding. For further questions, please contact the respective call offices.

## Application procedure

A two-step application procedure will be used in this call (pre-proposal and full proposal). Proposals must be submitted electronically via an online submission platform. Guidelines for applicants will be available on the platform after the official launch of the call.

Submitted pre-proposals and full proposals will be peer-reviewed by scientific experts and positively evaluated consortia will be invited to submit full proposals.

The application has to meet and consider the following eligibility criteria:

- The transnational consortium must consist of **at least three** independent eligible legal entities from at least three SUSFOOD2 partner countries;
- Applicants must be **eligible for funding by the national funding agencies**. The national funding regulations will be published when the call is launched. Meanwhile it is possible to contact the SUSFOOD2 National Contact Points listed in the Annex 1;
- The application must be written in English;
- Projects should have a maximum duration of **36 months**;
- The requested total budget cannot exceed **1.5 M € per proposal** (requested funding);
- Total eligible budget of a partner cannot exceed 70 % of the total eligible project budget in order to achieve balanced partnerships and ensure that responsibility and risks are shared;
- Institutions from countries who do not fund the SUSFOOD2 call or industry / academia not fundable by their country are welcome to participate in project proposals as associated project partners, on the condition that they are proven financially covered. They are not taken into account in the minimum requirement of eligible partners and countries in the SUSFOOD2 eligibility criteria and cannot apply as coordinators of the research proposal consortium.
- Registration to the SUSFOOD2 Meta Knowledge Base (MKB, http://susfood-db-era.net) is compulsory.

### Expected Timeline

| Event | Date |
|---|---|
| **Open Call for pre-proposals** | **09/01/2017** |
| **Closing date for pre-proposals** | **13/03/2017 – 3 p.m. CET** |
| **Evaluation (peer review)/Selection** | **16/06/2017** |
| **Invitation for submission of full proposals** | **26/06/2017** |
| **Closing date for full proposals** | **08/09/2017 – 3 p.m. CET** |
| **Evaluation (peer review)/Selection** | **Mid December 2017** |
| **Negotiation and start of the projects** | **January – May 2018** |

### SUSFOOD2 ERA-Net Call Secretariat

**Forschungszentrum Juelich GmbH (Juelich), Germany**

**Nikola Schulz**
Phone: +49 2461 61 96787
e-mail: n.schulz@fz-juelich.de

**Katerina Kotzia**
Phone: +49 228 38211688
e-mail: k.kotzia@fz-juelich.de

### What to do now?

1. Develop a research idea.
2. Work with colleagues in the scientific community to build a project consortium involving researchers (and in case industry) from at least three different SUSFOOD2 participating countries.
3. Go to SUSFOOD2 Meta Knowledge Base (MKB) http://susfood-db-era.net in case you are looking for partners on the research Call topic of your interest.

   Get more information on the website www.susfood-era.net
4. Decide whether you would like to be project coordinator or participant in a project.
5. Start drafting your pre-proposal with your consortium.
6. Be alert to the official Call announcement (9 January 2017) and get ready to submit your application online.

## ANNEX 1 – National Contact Points

| Country | Organisation | Name | Contact details (E-Mail/Telephone) |
|---|---|---|---|
| Belgium | Agency for Innovation and Entrepreneurship - Agentschap Innoveren en Ondernemen (VLAIO) | Marianne Claessens<br><br>Elsie Declercq | marianne.claessens@vlaio.be<br>+32 2 432 42 09<br>elsie.declercq@vlaio.be<br>+32 2 432 42 78 |
| Estonia | Ministry of Rural Affairs (MEM) | Helena Pärenson | helena.parenson@agri.ee<br>+372 6256550 |
| Finland | Ministry of Agriculture and Forestry (MMM) | Suvi Ryynänen | Suvi.ryynanen@mmm.fi<br>+358 295162126 |
| France | Agence Nationale de la Recherche (ANR) | Claude Yven | claude.yven@agencerecherche.fr<br>+33 (0)1 73 54 82 87 |
| Germany | Federal Office for Agriculture and Food (PM-BLE) | Annika Fuchs | annika.fuchs@ble.de<br>+49 228 6845 3746 |
| Ireland | Department of Agriculture, Food & Marine (DAFM) | Patrick Barrett | Patrick.Barrett@agriculture.gov.ie<br>+353 1 6072302<br>+353 86 8307726 |
| Italy | Ministry of agricultural food and forestry policies (MIPAAF) | Elena Capolino<br><br>Elena Tibaldi | e.capolino@politicheagricole.it<br>+39 055 2492220<br>e.tibaldi@politicheagricole.it<br>+39 06 464655176 |
| Italy | Ministry of Education, Universities and Research (MIUR) | Mauro Bertelletti<br><br>Aldo Covello | mauro.bertelletti@miur.it<br>+39 06 5849 7392<br>aldo.covello@miur.it<br>+39 06 5849 6465 |
| Lithuania | The Ministry of Agriculture of the Republic of Lithuania (MoALit) | Joana Bacevičienė<br><br>Vilma Kraujalytė | joana.baceviciene@zum.lt<br>+370 5 239 1024<br>vilma.kraujalyte@zum.lt<br>+370 5 239 1084 |
| Norway | The Research Council of Norway (RCN) | Turid Hiller | thi@rcn.no<br>+4740634254 |
| Romania | Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) | Adrian Asanica<br><br>Luciana Bratu | adrian.asanica@uefiscdi.ro<br>+4 0744 450 011<br>luciana.bratu@uefiscdi.ro<br>+4 0744 450 011 |
| Spain | Centro para el Desarrollo Tecnológico Industrial (CDTI) | Eduardo Cotillas | eduardo.cotillas@cdti.es<br>+34 915815500 |
| Spain (Castilla y León) | Agencia de Innovación, Financiación e Internacionalización Empresarial de Castilla y León (ADE) | Isabel Gobernado Mitre<br>Carmen Verdejo Rebollo | gobmitma@jcyl.es<br>+34 983324242<br>verrebca@jcyl.es<br>+34 983324189 |
| Spain | Ministry of Economy, Industry and Competitiveness (MINECO) | Leonor Gómez<br><br>Ana Barra | era-agro@mineco.es<br>+34 916037269<br>era-agro@mineco.es<br>+ 34 916038398 |

| Country | Organisation | Name | Contact details (E-Mail/Telephone) |
|---|---|---|---|
| Sweden | The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS) | Susanne Johansson<br><br>Erika Ax | Susanne.Johansson@formas.se<br>+46 (0) 8 775 4020<br>Erika.Ax@formas.se<br>+46 (0) 8 775 40 26 |
| The Netherlands | Netherlands Organisation for Scientific Research (NWO) | Theo Saat | t.saat@nwo.nl<br>+31 (0)70 344 07 91 |
| Turkey | Ministry of Food, Agriculture and Livestock<br>General Directorate of Agricultural Research and Policy (GDAR) | Ahmet Budaklıer | abudaklier@tagem.gov.tr<br>+90 312 3157623 |
| UK | Department for Environment, Food and Rural Affairs (Defra) | Sophie Rollinson | Sophie.Rollinson@defra.gsi.gov.uk<br>+ 44 0208 026 4117 |

## ANNEX 2 – Call text[6]

### Topic 1: Innovation in food processing technologies and products

#### How can innovation in processing and technology pave our way to sustainable food production to meet consumer needs in the future?

Meeting these future challenges for the food system provides a huge opportunity for the industry to support economic growth, through increased productivity to develop a competitive and sustainable sector which is resilient to climate change and shocks to the system (extreme weather, market volatility).

Research fostering new ideas and innovative solutions in food processing technologies can contribute to sustainably produced food and ensure a resilient agri-food sector by making better use of resources, development of new ingredients with high nutrient density, reducing environmental impacts, assuring safety and nutritional food quality and taking into account the bioavailability of the nutrients. This requires more efficient food processing, packaging and distribution embracing the retail and catering sectors and to produce food which is safe, healthy, enjoyable, affordable, and nutritionally balanced to meet the needs of, and is accepted by, future consumers.

To achieve this, food manufacturing, processing and technological systems have to be more resource efficient, flexible, automated and reduce food loss and waste (and increase shelf life) at each stage of the supply chain.

Projects contributing to these goals will optimize the nutritional quality and functional/structural properties of food and use (or re-use) of new/under-exploited raw materials from land and sea and new ingredients from by-products in food processing and manufacture. Consideration of food safety aspects of new materials and novel or alternative processing technologies, including minimal processing, should be integral to the research.

#### Expected outcome:

More resource-efficient and innovative technologies and approaches for food processing and manufacturing to optimize nutritional quality which are accepted by, and meet the needs of consumers. Valorization of new raw materials that increase competitiveness, address sustainability (environmental, social, economic, nutritional perspectives) and bring added value. Economic growth in the food and drink sector of Europe and beyond should be stimulated with positive effects on both food quality and the environment.

The project should include relevant stakeholders to ensure incorporation of these new systems and processes into existing food processing plants. Cooperation with the food processing industry (including SMEs) is recommended.

[6] The displayed call text can be subject to minor changes; the final call text will be published on 9 January 2017

## Topic 2: Providing added value, increased resource efficiency and reduction of waste in sustainable food systems

### How can we make most out of the resources along a complex food chain?

To have a resilient, efficient and competitive food and drink sector with low environmental impacts, innovations in input, waste and side flow strategies are needed to achieve high valorization in our present and future food production system.

Research is needed to develop new solutions to design the whole supply chain to create the most efficient production and processing operations, optimize use of diverse new or traditional raw materials and ingredients (from land and sea), energy and water as well as use of smart packaging materials , out of specification materials, co-products and waste streams. Future production systems and supply chain management need to follow a holistic and zero-waste philosophy, requiring better planning and organization of the value chain (e.g. smart logistics, improved storage or recycling technologies) including advanced manufacturing solutions and ICT functions. The redesign must ensure food safety and should optimize organoleptic and nutritional quality to meet consumer needs and acceptance. Moreover, a sustainable food system has to be a climate smart (adaptation and mitigation).

Research to develop these systematic changes will need a dialogue with stakeholders along the value chain to improve acceptability and practical uptake of results (e.g. industry, consumers, regulatory authorities etc.). Projects may benefit from impact or life cycle assessment, including economic aspects.

### Expected outcome:

More efficient use (and re-use) of raw materials, resources (energy, water etc.), processing techniques and waste reduction for maintaining or improving food quality within whole supply chains and food systems with improved environmental benefits.

To inform intervention strategies to reduce waste in the food chain and re-use of valuable components to the benefit of industry, policy makers and end-users.

### Topic 3: Understanding consumer behaviour and food choices

#### What determines consumer behaviour and choices and how can we facilitate sustainable behaviour?

Sustainable production and consumption of food with reduced impact on environment and climate can only be achieved if all actors of the food system such as food industry, government, customers and consumers work together to encourage, produce and consume a healthy, affordable and sustainable diet.

In order to engage the consumer in the transition towards a sustainable food system, new insights are needed on which factors actually drive consumers' purchasing practices, priorities (cultural, sensorial), preparation methods, storage and their attitude towards food waste.

This research topic encompasses socio-economic, cross-cultural and individual drivers and barriers to adopting healthy and sustainable diets. Relevant factors are consumer attitudes - the understanding (and appreciation) of and relationships towards sustainable production and consumption. Formal and informal education, social learning, commercials, commercial drivers, costs, discounts, nudging, etc. play an important role. The change in demography and consumer acceptance of new technology to support sustainable food production and consumption is expected to impact on food choices. Moreover, consumer behaviour is affected by climate change, which vice versa has impact on food composition and the food system as a whole. Changes may take place based on improved knowledge, upcoming diets, affordability, prioritized use of resources based on attitude, including cultural factors, knowledge, accessibility, and the interaction of these factors.

In addition to improved knowledge of how products appeal to the customer, changes in consumer attitudes, expectations and behaviour requires improved knowledge on how to increase the populations´ motivation factors for choosing a sustainable diet.

To achieve this it should be taken into account, that there is a mutual interaction between changes in consumer choices and changes in the range and availability of products supplied to consumers, e.g. changes in diets for a larger group of consumers will have repercussions on social and economic aspects in the food sector.

Proposals should therefore look into the relationship between consumers and food producers. A mutual understanding and communication of consumer and producer needs should be a prerequisite in the transition towards sustainable food systems.

Existing knowledge (practices, interventions, policies etc.) in the field of this topic should be taken into account and improved and standardized assessment methods should be employed.

#### Expected outcome:

Insight into how sustainability choices can become the preferable choice for the consumer.

Proposals may consider both technological as well as social innovation and should provide solutions with high acceptability, following a multi-stakeholder approach and actively involving different relevant actors from the food system where possible.

## Topic 4: Harmonisation of the methods and metrics for integrated assessment of sustainability of food products and food patterns

### How to assess and evaluate sustainability in food systems?

A sustainable food system is complex and inter-linked. The pressures, trade offs and 'win wins' impacting on the sustainability of food need to be better understood from a variety of perspectives such as environment, socio-economic, product safety, nutrition, occupational welfare, animal welfare and local market presence.

For stakeholders to be able to assess and evaluate the sustainability of food products within a food system there is need to develop harmonized and transparent methods and metrics to measure, monitor and assess sustainability of food production and consumption.

The methods and metrics to measure sustainability should take a whole food chain perspective: This includes primary production, food processing, manufacture, distribution, logistics, catering and consumption of food in various contexts including management of side flows and wastes and circularity of resources. Harmonization comprises the essential categories of impact assessment: environmental, social, economic and nutritional impacts.

The development of affordable and less complex tools for rapid screening of food sustainability could be an additional challenge of the harmonization process. The development of harmonisation should not duplicate existing activity and research should consider optimising use of existing data and results from stakeholders, e.g. public European databases, extensive measurements of the sustainability of products and tests of measuring methods, as well as considering any requirements for new data. Ensuring the validity, reliability, specificity and sensitivity of the harmonisation measures and metrics is integral to the research.

Analyses on how new data collection and models align with national systems and policies should be considered. The harmonization process should be piloted including via modelling of food systems at various scales and alternative food systems (taking into account already existing models). The establishment, maintenance and running cost of modelling options should be considered.

### Expected outcome:

Harmonised tools for assessing the sustainability attributes of various food products and food systems and evidence to develop a better understanding of their application in practice.

The work needs to take account of, and not duplicate, the H2020 call BB-02-2017 (BB-02-2017: Towards a method for the collection of statistical data on bio-based industries and bio-based products)

More information is available in the SUSFOOD Strategic Research Agenda

https://www.susfood-era.net/lw_resource/datapool/_items/item_192/sra-final_website_update.pdf