



## Pre-Announcement

### 2022 Joint Call

## ***More transparent agri-food systems for consumers and other stakeholders along the food value chain based on ICT technologies***

*Envisaged launch of the call: mid of April 2022 on [www.ictagrifood.eu](http://www.ictagrifood.eu)*

The ERA-NET Cofund ICT-AGRI-FOOD will launch a Joint Call for transnational, collaborative, inter-/ transdisciplinary research and innovation projects addressing the challenge of transforming the European agri-food systems into sustainable, resilient, transparent and fair systems as outlined below.

The call will be funded by national/regional funds of partners of ICT-AGRI-FOOD.

### **Rationale**

The agri-food sector in Europe faces significant challenges and structural changes that are accelerating under the influence of societal demands, increasing competitive pressure and adaptation to climate change, changing diets, demographic change, volatile national and global markets, diverging wages and new technologies. In order to manage these increasingly complex relationships, the sector is more than ever forced to innovate.

Digital technologies (e.g. remote and local sensing, data analytics/Big Data technologies, Artificial Intelligence, Internet of Things, automation and robotics) offer much potential to address these challenges, but despite this, the uptake of new digital technologies by the actors in the agri-food systems has been slow. Additionally, much of the potential value of the data that is already collected remains untapped because it exists in silos unavailable to those who might use it. Unlocking the value of this data remains a significant challenge due to technological barriers, lack of trust between the different actors (regarding also data security and safety issues), and economic barriers, such as reluctance of stakeholders to invest because of unclear returns and variable ability of the private sector to serve transparency needs.

Tackling these challenges will require a coordinated transnational approach, which uses the available financial, intellectual and structural resources to maximum effect. ICT-AGRI-FOOD will address these challenges by pooling significant financial resources from participating



national or regional research programmes to implement a targeted joint transnational research and innovation funding call. The call will target the development of data-driven ICT platforms and digital solutions that make use of data from across the food chain in order to develop a sustainable and resilient agri-food system.

### **Scope**

The scope of the 2022 Joint Call is based on the ICT-AGRI-FOOD vision, which explicitly sets out to bring together actors from across the entire food system (from conventional and organic supply chains) in a multi-actor approach. The challenge is to develop systems that are efficient, effective, equitable, trustable and transparent while enhancing sustainability of these.

This call encourages the submission of research proposals with a potential impact relevant for enabling digital technology solutions towards a transition for more sustainable, transparent and resilient agri-food systems.

The development and integration of new digital technologies for precision agriculture/smart farming, logistics, food processing, supply chain management, traceability, business transaction should also favour transparency and traceability for all stakeholders, from farmers all way down to consumers and not least policy and decision makers.

Relevant effects along the value chain should be also considered, combining impacts on two or more phases including: primary production, manufacturing and processing, food packaging, distribution, consumers' behaviour and attitude, household as well as catering consumption, including questions regarding wastes and losses through the food chain.

**Transparency** is a critical component of modern food systems. Transparency of food production from farm to fork is crucial to inform consumers, authorities and food system actors on product characteristics such as origin, production method, ingredients and safety, quality, quantity and on sustainability and ethical aspects of products and processes. It is also a crucial factor in ensuring food traceability and authenticity and economic planning.

It is expected that the proposals will:

- Support farmers and food businesses to increase the sustainability of their products, including organic sector as primary component of the food system, and processes;
- Increase transparency efficiency and effectiveness of traceability across food systems;
- Increase the capacity of authorities and policymakers that deal with food safety, sustainability, to monitor the performance of different parts and processes of the food system.

Farmers and other actors along the agri-food value chain need to profit from being involved and using digital technologies and they need to get an incentive to share the data they produce.

This call will support transnational, multi-disciplinary projects that provide knowledge-based (data-driven) advice and tools for relevant actors along the agri-food value chain, including



also the governmental level, to develop new ideas, advice for policies, subsidies and laws that address sustainable, eco-friendly and sound agri-food management practices.

Proposals submitted to the Call must address one of the three following topics:

**TOPIC 1** – Agri-food systems enabled by interconnected digital technologies that are more transparent to consumers, farmers and other stakeholders along the agri-food value chain

**TOPIC 2** – Identify, address and remove barriers for adoption of ICT technologies in the agri-food systems

**TOPIC 3** – Development and impact estimation (if applicable: evaluation) of data-driven reward and incentive systems to support sustainable and resilient farm management practices

### **Research concept**

Whenever possible, systems thinking should be the guiding paradigm. An integrated, transdisciplinary research approach should consider the three pillars of sustainability (social, economic and environmental). Costs and benefits of the application of ICT technologies in the agri-food systems should be explored, including people's livelihoods and jobs, animal welfare, biodiversity, nutrition and food security. Systems thinking allows for a better understanding of the relevant drivers and impacts in a wider context. Researchers from the fields of social sciences, (socio-) economics and policy research are invited.

In addition, data stewardship is a top priority in research and innovation. Issues related to cybersecurity and the protection of personal data and rights (e.g. ownership, accessibility and data sovereignty), as well as the need for agreed common data standards, should be considered in the proposal.

Proposals should:

- study and improve the transparency within the agri-food chain with the aim of enhancing sustainability and thus reduction of losses, lowering greenhouse gas emissions, improving resilience, strengthening animal health and welfare, strengthening fairness for employees within the processes etc.;
- develop methodologies, tools and approaches to enable transparency for end-users (e.g. retailers, public authorities, consumers). Proposed new transparency solutions should be demand-driven, in line with the relevant legal frameworks, and cost-effective;
- combine different aspects that are relevant to tackle the challenge of digitisation of the agri-food system;
- have a multi-actor approach to ensure genuine and sufficient involvement of various actors including farmers, advisors, consumers, private industry, civil society organisations and those involved in governance.

### **Who can apply**

Universities and other higher education institutions, public research institutions, private non-profit organisations and companies can apply subject to their national regulations and eligibility criteria. Applicants of projects that have been selected for funding will receive the



grant directly from their national/regional funding bodies according to their terms and conditions.

Research consortia should consist of minimum 3 partners eligible for funding from at least 3 participating countries in the ICT-AGRI-FOOD ERA-NET Cofund. A provisional list of countries is given below and national regulations will be published with the Call Announcement. International collaborations with partners from additional countries are also welcome if they bring their own funding. However, they cannot be coordinator of the projects and their activity should not be essential for the success of the project.

### **Preliminary timeline (one-step-procedure, i.e. no pre-proposals)**

The ICT-AGRI-FOOD 2022 Joint Call will follow a 1-step procedure with full-proposal. The call will be published from mid of April 2022 with a closing date for proposals submissions in August 2022. There will be an expert evaluation and selection by funders.

|                                                   |                               |
|---------------------------------------------------|-------------------------------|
| Launch of the call:                               | Mid of April 2022             |
| Deadline for submission of full proposals:        | By second week of August 2022 |
| Letters to inform applicants on selection result: | End of November 2022          |
| Start of projects:                                | Spring 2023                   |

### **Call Secretariat contacts**

For general questions please contact the Call Secretariat via the email address:

[ICT-AGRI-FOOD-2022@ble.de](mailto:ICT-AGRI-FOOD-2022@ble.de)

### **Provisional Joint Call Partner Countries**

|          |                                                                                     |         |                                                                                     |         |                                                                                       |
|----------|-------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------------|
| Belgium  |  | Hungary |  | Romania |  |
| Bulgaria |  | Ireland |  | Spain   |  |
| Estonia  |  | Italy   |  | Turkey  |  |
| Finland  |  | Latvia  |  | Denmark |  |
| Germany  |  | Poland  |  |         |                                                                                       |

**Please note** that the information in this table is provisional and that more funders might join the call.

### **Disclaimer**

Please note that the information in this pre-announcement is provisional. The ERA-NET Cofund ICT-AGRI-FOOD consortium will not accept any liability for the content of this pre-announcement, nor for the consequences of any actions taken based on the information provided.

