Pre-Announcement

Call for transnational, collaborative, inter-/transdisciplinary research projects on ICT-enabled agri-food systems

Envisaged launch of the call from end of November 2019

The ERA-NET Cofund ICT-AGRI-FOOD will launch a joint cofunded call addressing the challenge of transforming the European agri-food systems into sustainable, resilient, transparent and fair systems as outlined in the vision below.

The call will be funded by 29 institutions from 22 countries, 3 European regions and the European Commission and has an overall budget of more than 20 Mio Euro.

Vision
Our vision is to bring researchers and engineers together with actors from across the entire agri-food systems including farmers, SMEs, food processors, food retailers, consumers and the public sector in a multi-actor approach, to enable digital technology solutions for a transition towards sustainable and resilient agri-food systems. These solutions will make use of data regarding environmental impact, origin, nutrition, safety and integrity from all across the food chain to deliver benefits for the society as a whole and will lead to more sustainable and transparent food systems, with empowered stakeholders who take smarter, healthier, fair and eco-friendly decisions in their activities in agri-food systems and consumers who take more personal food and dietary choices.

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 keep pace with these increasingly complex relationships, the sector is more than ever forced to innovate to adapt. 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 co-funded by the European Commission. 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 achieve the vision outlined above.

Scope
This funding initiative call for applied and fundamental research and resulting projects' potential impact should be relevant for enabling digital technology solutions for a transition towards more sustainable and resilient agri-food systems. The proposed research projects should be consistent with the scope of this call and with the national/organisational thematic priorities of the countries/regions involved in the projects.

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 politicians 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. Projects, which develop solutions for sustainable agri-food systems, including organic sector as primary component of the food system, are welcome.

Research concept
Whenever possible, systems thinking should be the guiding paradigm. Proposals should combine different aspects that are relevant to tackle the challenge of digitisation of the agri-food system. 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 explicitly invited.

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 part of the proposal.

We encourage the use of 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 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 and corresponding funding organisations is given below and national regulations will be published with the Call Announcement (about end of November 2019). 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. Interested applicants from member countries of the International Bioeconomy Forum (IBF) should address the IBF's Working Group "ICT in Precision Food Systems" via the email address: IBF@mbie.govt.nz to facilitate engagement.

Preliminary timeline, 2-step procedure
The ICT-AGRI-FOOD 2019 Joint Call will follow a 2-step procedure with a pre-proposal (step 1) and full-proposal (step 2). There will be an expert evaluation and selection by funders at both steps. The call will be published from end of November 2019 with a closing date for pre-proposals submissions in the end of January 2020.

Call Secretariat contacts:

For general questions please contact the Call Secretariat via the email address: ICT-AGRI-FOOD-2019@ble.de

Annex A: Funding Party

COUNTRY		FUNDER
Austria	BMNT	Federal Ministry for Sustainability and Tourism
Belgium	EV-ILVO	Eigen Vermogen van het Instituut voor Landbouw en Visserijonderzoek
Belgium	VLAIO	Agentschap Innoveren en Ondernemen
Belgium	FWO	Research Foundation Flanders
Bulgaria	BNSF	Bulgarian National Science Fund
Denmark	DAFA	Ministry of Food, Agriculture and Fisheries, Danish AgriFish Agency
Estonia	MEM	Ministry of Rural Affairs
Estonia	ETAG	Estonian Research Council
Finland	MMM	Ministry of Agriculture and Forestry
France	ANR	The French National Research Agency
France	REGION BRETAGNE	The regional council of Brittany
Germany	BMEL	Bundesministerium für Ernährung und Landwirtschaft
Germany	BMBF	Bundesministerium für Bildung und Forschung
Greece	GSRT	General Secretariat for Research and Technology
Hungary	NKFIH	National Research, Development and Innovation Office

Ireland	TEAGASC	TEAGASC - Agriculture and Food Development Authority
Ireland	DAFM	Department of Agriculture Food and the Marine
Israel	INNOAUTH	The Israel Innovation Authority
Italy	MIPAAFT	Ministry of Agriculture Food and Forestry Policies
Latvia	VIAA	State Education and Development Agency
Norway	RCN	The Research Council of Norway
Poland	NCBR	National Centre for Research and Development
Romania	UEFISCDI	Executive Agency for Higher Education, Research, Development and Innovation Funding
Spain	CTA	Corporación Tecnológica de Andalucía
Sweden	Formas	The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning
Switzerland	FOAG	Federal Office for Agriculture (FOAG)- Bundesamt für Landwirtschaft
Turkey	TAGEM	Republic Of Turkey Ministry Of Agriculture And Forestry General Directorate of Agricultural Research and Policies
Turkey	TUBITAK	The Scientific and Technological Research Council of Turkey
The Netherlands	LNV	Ministry of Agriculture, Nature and Food Quality

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