**H2020 Green Deal call – Farm to Fork Topic**

**Demonstrating and testing place-based multi-actor actions for sustainable, climate-smart, healthy and inclusive food systems**

**Topic Description**

A food system transformation is urgently needed if we want to sustainably feed nearly 10 billion people by 2050, halt and reverse environmental degradation and biodiversity loss, tackle climate change and diet-related diseases, malnutrition and food poverty. There are many systemic challenges driven by unsustainable and unhealthy practices and behaviour, along the whole value chain from production to consumption. This is combined with a lack of governance mechanisms, awareness and education, lack of a systematic food resource map, regulatory and policy incoherence, market failures, and knowledge gaps, etc.

This topic calls for setting up demonstration projects to showcase place-based, innovative and systemic solutions for sustainable, climate smart, healthy and inclusive food systems, involving a strong engagement with stakeholders from a range of sectors (public authorities, industries, primary producers, citizens) across the complete Farm to Fork chain.

The selected projects are expected to demonstrate innovative solutions that can contribute to food system transformation, and allow regional economies and populations to operate within safe planetary boundaries and ensure sustainable and healthy ecosystems. The demonstrator should build on the three pillars of sustainability (social/health, climate/environmental and economic) and implement a ‘quintuple helix approach’[[1]](#footnote-1) and include the most appropriate mix of novel technologies and business models, natural capital management; and open governance and social innovations. Projects are encouraged to cover all innovation deployment phases up to actual solutions for real life conditions, based on the best available knowledge and scientific methods, including those for dealing with knowledge gaps and uncertainties. The ultimate impact will be food systems related issues being resolved, based on multi-actor and public engagement and social analysis, which convincingly demonstrate that food system transition can lead to sustainability in all three dimensions – economic, social/health and climate/environmental. Where possible, this topic should also contribute to the relevant Horizon Europe partnerships during their preparatory or implementation phase.

Each selected project will develop innovative solutions to one of more of these challenges: a) Food loss and waste reduction, b) dietary shift, c) reduction of pesticides, antimicrobials and harmful nutrients, d) reduction of climate impact, e) sustainable supply chains, f) soil regeneration and health through microbiome, g) climate neutral farms, h) algae and seaweed for food and feed.

*The successful projects must* *address the three components of sustainability (social/health, climate/environmental and economic) and consider the following systemic elements:*

* Detection and identification of the scale of the challenge, its root causes, its assessment and evaluation, and the collective need to resolve it.
* Identification of all relevant stakeholders, their mobilisation, formation of leadership, establishment of participative structures, and the use of well-established methodologies.
* Formulation of a strategy with a description of the challenge, in-depth systemic analysis of its drivers and root causes, and methodologies to explore possible solutions taking a systems perspective.
* Identification of actors who can deliver solutions and the development of mechanisms and incentives for their involvement in collective vision building, mobilisation and allocation of resources.
* Delivery of co-benefits for climate, environmental sustainability, nutrition and health, and community engagement levels based on an understanding of the safe planetary boundaries and respect for a safe operating space at regional/local/basin scale in relation to the challenge.
* Establishment of appropriate governance systems involving existing (and new) public and private institutions, allocation of responsibilities, the engagement of authorities and their ability to convene actors and facilitate collaboration, and to fund, incentivise and enforce solutions, and at multiple sites if required.
* Co-creation of effective implementation strategies with relevant stakeholders to address all root causes and objectives.
* Delivery of organisation structures schemes, policy recommendations and programmes to implement solutions with assigned authorities, private sector stakeholders and civil society, and the related responsibilities and tasks.
* Implementation of the solutions including mobilisation of additional investment for any necessary infrastructure and technology.
* A self-evaluation mechanism, which can anticipate and detect implementation problems and provide feedback leading to the correction of strategies and governance and the eventual successful completion of the objective.
* A strong communication and engagement action plan beyond the regions where the activities take place to foster awareness raising, education and skills building, including by promoting the results of the project.
* A plan to foster mutual learning and knowledge exchange amongst other demonstrator actions responding to this topic, as well as other R&I actions that will deliver on the Farm-to-Fork objectives.
* Whenever Earth Observation, positioning/navigation/timing data, services and technologies are needed, Copernicus and Galileo/EGNOS and/or other relevant European programmes shall be used.

1. <https://innovation-entrepreneurship.springeropen.com/articles/10.1186/2192-5372-1-2> [↑](#footnote-ref-1)