

Public consultation on Horizon 2020 'Food Security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy' Work Programme 2018-2020

Fields marked with * are mandatory.

HORIZON 2020 SOCIETAL CHALLENGE 2 STAKEHOLDERS' CONSULTATION 2016

Building on the first two Horizon 2020 work programmes 2014-2015 and 2016-2017, this consultation will feed into the preparation of the next work programme.

This will enable a more integrated approach, particularly important for areas that cut across different Horizon 2020 parts and for linking key enabling technologies to their application in addressing societal challenges and vice versa.

In particular, the consultation is aimed at providing input towards the priority setting for EU research and innovation funding on the most relevant and urgent challenges for Food and Nutrition Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research as well as the bio-based industries and the Bioeconomy in the coming years, identifying the main opportunities and bottlenecks, as well as highlighting possible outputs and defining criteria to measure success.

Stakeholders should quote where relevant any available evidence such as foresight and other assessments of research and innovation trends and market opportunities.

With regard to agricultural research (activity 2.1 of the specific programme for Societal Challenge 2), the present consultation will be complemented with results obtained through recent stakeholder engagement via online surveys and events, notably in the context of a major conference held in January 2016[1].

[1] Conference: "Designing the path: A strategic approach to EU agricultural research and innovation", 26 – 28 January 2016

Information about the respondent

- * 1 Are you responding to this questionnaire on behalf of/as:

A single organisation

- * 2 Please enter your name or the name of your organisation:

Text of 1 to 300 characters will be accepted

ESA European Seed Association

- * 3 Please enter your e-mail address (this data will not be made public):

alessiacogliandro@euroseeds.eu

- * 4 Please indicate the type of organisation represented:

Non-research private non-profit

- * 6 Transparency Register ID

If you are answering as an organisation/institution, please provide your Register ID number. If your organisation/institution responds without being registered, the Commission will consider its input as that of an individual and as such, will publish it separately.

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- * 7 Have you or your organisation applied for funding under the current and/or any previous EC Framework Programmes for Research (e.g. H2020, FP7, FP6)?

Yes

- * 8 If so, please specify under which programme(s) (e.g. FP7 - KBBE)

H2020

- * 9 Please enter your country of residence or where your organisation is based.

Belgium

- * 11 Language of your contribution

English

- * 12 Do you agree to your contribution being published under your name or the name of your organisation?

Note that whatever option is chosen, your contribution may still be subject to requests for 'access to documents' under Regulation 1049/2001[1]

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http://ec.europa.eu/geninfo/legal_notices_en.htm#personaldata

My contribution can be published including my personal information / name of my organisation

- * 13 Gender (this data will not be made public but used for statistical purposes only)

Female

- * 14 Year of birth - e.g. 1975 (this data will not be made public but used for statistical purposes only)

1984

Open questions

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What are the challenges in the areas covered by Societal Challenge 2 that require urgent action under the Work Programme 2018-2020?

1000 character(s) maximum

Breeding is a long term activity. A breeding cycle can take up to 15 years. Many factors influence breeders when developing a new variety as increased unpredictability of prevailing weather patterns and increased frequency and intensity of extreme weather conditions will have a significant impact on crop production. Models based on interdisciplinary approach are important to tackle climate change and other challenges agriculture faces. Data analysis and modelling methods in the public domain are scarcely described and can be considered as a black box. Advanced analytics are necessary to value data. A larger array of genetic resources is also needed. Pre-breeding then plays a major role. It corresponds to identifying desirable characteristics/genes from unadapt materials that cannot be used directly in breeding populations and to transfer these traits into material breeders can use in producing new varieties. Malnutrition as overweight and micronutrient deficiencies also affects EU.

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What are the desired output and long term-impacts that could be foreseen for Societal Challenge 2? Which innovation aspects would be needed to respond to our societal needs and market development within the next 5-7 years?

1000 character(s) maximum

Plant breeding can contribute delivering positive impact for society at large. In order to do so, it needs support on the challenges above described. Innovative solutions are particularly desirable in order to optimize and standardize data handling processes. The relevance of data interpreting is equally applicable to different domain. This is true for climate change as well, projects should aim at combining genetic genomic approaches and ecophysiological and climate prediction modelling together with high-throughput phenotyping and large-scale simulation under different climatic scenarios to define critical parameters for future plant breeding. Data analysis is the basis for such modelling. To address short, medium and long term constraints it is necessary to enlarge the pool of genetic resources supporting pre-breeding activities. Larger genetic pool, and accessible data will also allow to breed for new varieties able to provide necessary micronutrients to combat malnutrition.

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In the areas covered by Societal Challenge 2, which gaps (scientific and technological, innovation, markets, policy, societal) and potential game-changers, including the role of the public and private sectors in accelerating changes, need to be taken into account?

1000 character(s) maximum

Acknowledging the potential of some niche markets, it is foremost necessary to ensure investments and support the innovations in the main stream market, for the crops which guarantee the basis for our daily nutrition. Companies rely on those investments to stay competitive on a global scale. Competitiveness is relevant to all actors, both agri and food industry. To fully enable industry's contribution, close to market products and innovation should be among priorities for SC2 calls. H2020 should further encourage the uptake of innovation to boost EU agriculture, economic growth and create job opportunities, with the backing of innovation friendly policies. Main stream market and society at large needs must be addressed by SC2 calls. H2020 is expected to promote technologies having a positive impact on society at large. Innovation is the driver of investments, an adequate policy framework, based on scientifically sound decision is fundamental.

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Which of the areas covered by Societal Challenge 2 could benefit from integration of horizontal aspects such as the social sciences and humanities, responsible research and innovation, gender aspects, and climate and sustainable development?

1000 character(s) maximum

As previously mentioned in relation to the climate change challenge, it is important for some challenges to adopt an interdisciplinary approach to successfully tackle the issue. For other challenges the relevance and potential impact of such an interdisciplinary approach, even broader, should be evaluated. Considering e.g. healthy, safe and nutritional food, it is advisable to consider the involvement of nutritional science/social science for food and nutrition, as this topic can be tackled from different perspectives. Other experts could be considered as professional cook, education and training professionals who could contribute with their respective input to the development and implementation of the projects in such areas. In general, much more attention should be given to communication and outreach of society at large. With particular reference to our sector, plant breeding, SC2 calls should include support for communication to consumers, about benefits of research and innovation.

Closed questions

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Agriculture is a crucial sector when it comes to tackling major challenges such as food security, safeguarding natural resources, protecting climate as well as the development of food/non-food industries and rural areas. A number of cross-cutting issues are suggested to implement a broad research agenda which takes into account the numerous challenges as well as the diversity and different needs of the agricultural sector. Please categorise the following list of issues according to their relevance for delivering innovations in agriculture and rural areas (1= low relevance; 2= relevant; 3 = highly relevant):

	1	2	3
Focus on "systems approaches", i.e. taking into account dynamic interactions of the different components of systems and value chains (e.g. agro-ecosystems, food value chain) at various temporal and spatial scales.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Focus on "smart" innovations, i.e. delivering tailor-made solutions and capitalising on specificities of local conditions (e.g. taking advantage of novel ICT driven tools)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Promote co-creation of knowledge as well as new mechanisms and models of knowledge exchange (i.e. partnerships between science, farming, other businesses, consumers)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote Open data to drive knowledge creation, management and sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foster science-policy and science- societal interfaces at all stages of the research and innovation cycle (agenda setting, activity implementation, outreach activities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foster international cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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What is the most pressing marine challenge to be addressed through research and innovation in the next Work Programme:

Providing food security – fisheries/aquaculture aspects?

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Food and nutrition security is about building sustainable 'Food systems', which include the entire 'value chain' from inputs (land, soil, water), to primary production (agriculture, aquaculture & fisheries), harvesting, storage, processing, packaging, distribution, waste streams, to consumer intake – and back. Food and nutrition security goes beyond the production of sufficient food for all, but also respond to the need to provide safe and nutritious food for healthy and sustainable diets. Please rank each of these food and nutrition security priorities in order of importance with respect to future research and innovation needs (1= most important; 2= highly important; 3= slightly important; 4= least important):

	1	2	3	4
Reducing hunger and malnutrition, addressing food safety and diet-related illnesses, and helping citizens adopt sustainable diets and healthy lives	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building a climate and global change-resilient primary production system	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implementing sustainability and circular economy principles across the whole food system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Boosting innovation and investment, while empowering communities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Contact

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