



Agri-food chain sectors highlight innovations supporting more sustainable food systems amid call for EU framework enabling access to innovative tools and practices

#EuFarm2Fork has huge expectations from the food chain but is it delivering on its promises to adequately support the food chain? There is a lot of talk about innovation being the key to the sustainable transition delivered by the Farm to Fork strategy. Is it just a buzzword or are there real mechanisms and legislative vehicles that concretely support innovation in the food chain? Is the food chain innovative enough? Is it ready for change? What innovation is taking place already in the food chain and what else has to be done in order for innovation to reach the market?

Here AFCC underlines our key messages regarding innovation that delivers on the F2F goals from each association's perspective.

Organisation	Key message	Contact
	<ul style="list-style-type: none"> • The animal health sector is supporting the livestock sector and Europe's aims for climate neutrality and a sustainable food system, through a drive for technology-centred innovations. • The industry is currently at the forefront of a technological and digital transformation offering alternative solutions to farmers collectively known as Precision Livestock Farming. Breakthroughs in biotechnology, detection tools and robotics, genomic testing, and advanced vaccines, amongst others, are set to become essential tools for the future of both livestock farming and the veterinary profession. • These advances can support farmers in optimising the health of animals to reduce environmental impacts, ensure better traceability, improve animal welfare and support responsible use of medicines, amongst others. • For example, use of sound monitoring technologies on pig farms can help farmers detect issues up to two weeks earlier than through conventional methods. A tell-tale cough can be pinpointed down to the individual pig, helping to spot signs of respiratory illness early-on and reducing the number of animals requiring treatment. 	<p>Clare Carlisle, Senior Communications Manager c.carlisle@animalhealtheurope.eu</p> <p>Yasmin Belém, Communications Manager y.belem@animalhealtheurope.eu</p>

	<ul style="list-style-type: none"> • Sustainable use of innovative technologies to support animal health and welfare practices requires both financing and a high level of farmer skills and management to utilise them to their full potential. Access to cutting-edge technologies and the knowledge for best using these tools will support an innovative, dynamic and modern livestock sector that will positively contribute to the EU Green Deal while also helping to attract new talent to Europe’s rural areas. 	
	<ul style="list-style-type: none"> • Farmers are always innovating and adapting practices, their working environment is made just for that. • To go a step further in advancing sustainable practices there is a need to increase the uptake of farm technologies and digital tools by farms of all sizes. • Precision Farming technologies have been acknowledged as one of the flagship eco-schemes having a big potential to deliver on F2F ambitious targets and support a greener transition for agriculture (specially the use of Variable Rate Technologies to target and reduce the application of pesticides and fertilisers). • Although there is already a wide range of well-proved and available technologies on the market, when it comes to placing new innovations or validating ‘sustainable practices’ that could help farmers to comply with greener requirements and get rewarded accordingly, administrative burden and dis-harmonised test methods at EU level remain a main bottleneck. • Precision Farming technologies should be accessible to farmers from farms of all sizes and there is a chance to do so now enhancing investment support under the National Strategic Plans. • In particular, access to technologies for smaller farms should be supported under the new CAP by 	<p>Beatriz Arribas, Communications Officer Beatriz.arribas@cema-agri.org</p> <p>Enrica Belfiori, Communications Officer enrica.belfiori@cema-agri.org</p>

	<p>including services delivered by agricultural contractors (i.e. use of Precision Farming Technologies) eligible for funding</p> <ul style="list-style-type: none"> • Encouraging sustainability practices further, it is not only about PF adoption but also about deploying solid infrastructure in rural areas (i.e. broadband) to support reliable connectivity and facilitate the exchange of data through the agri-food chain. For farmers to get and analyse their data in one spot (Farm Management Information Systems) will be the key changer. • The ability of having accurate data in digital format is also an increasingly demand from public authorities in order to proceed with farming practices checks reducing administrative burden. 	
 <p>copa*cogeca european farmers european agri-cooperatives</p>	<ul style="list-style-type: none"> • Social innovation through gender balance: promotion of talent and gender integration in coops has for example; SMARTCHAIN. • Agri-coops; COGECA have a mandate for promotion of talent and generational and gender integration in cooperatives. • SMARTCHAIN – Social Innovation, Technological and Non-technological solutions to support SFSC, they also looked at sustainability of various different business models and what can be done to improve. • Towards innovation - driven and smart solutions in short food supply chains • To raise awareness on best practices and provide an opportunity for the exchange of experiences and innovative solutions relating to short-food supply chains. • Innovation also comes in different forms, there's technological innovation that includes precision farming and digital tools, and there's also social innovation, which can help farmers bring new business models, new or improved products or ways of working. • The SMARTCHAIN project has brought together stakeholders across the SFSC, to better improve collaboration and build engagement from farmers to consumers with 9 innovation hubs across Europe. • The SMARTCHAIN platform has been working to bring examples of technological and non-technological examples from across Europe for farmers and small businesses, but there remains a 	<p>Sarah Lahouegue, Communications Assistant sarah.lahouegue@copa-cogeca.eu</p>

	<p>lack of support and knowledge transfer.</p>	
	<ul style="list-style-type: none"> • Current legislation does not provide clear rules for some newer technologies in development, leaving applicants unclear about the ability to secure registration in Europe. For example, biopesticides based on antibodies, peptides, dead cells, fermentation products or RNAI do not have an obvious fit in the current rules. In our view the Commission and the Working Group on Biopesticides should rapidly develop a guidance document on biochemicals. There is very good precedent here - the guidance on semiochemicals and plant extracts. This shows that this issue can be rapidly addressed if there is the will to do so. CropLife Europe stands ready to contribute and support with the required case studies, evidence, and proposals for these new sustainable technologies. 	<p>Anika Gatt Seretny, Senior Manager Communications anika.gattseretny@croplifeeurope.eu</p>
	<ul style="list-style-type: none"> • Animal breeding and genetics is a key driver of sustainable livestock and aquaculture farming. European Animal Breeders uses a wide broad of new technologies to capture data and phenotypes to perform animal breeding programs. • From animal health and welfare and animal behaviour to greenhouse emissions, longevity, resilience and robustness of animals and quality and quantity of animal production, Animal Breeders are innovating every day to improve genetic progress. Artificial intelligence, sensors, proxies, genomics, machine learning, proteomic, metabolomes, genome editing are some examples of new technologies that find application in the animal breeding sector. 	<p>Isabella Beck Jorgensen, Communications Officer isabella.beckjorgensen@effab.info</p>
	<ul style="list-style-type: none"> • Plant breeding in the EU in the past two decades has strongly contributed to increased yields and production in arable farming, and subsequently to improved market and trade conditions, increased food availability, higher economic prosperity, additional farm income while avoiding additional land use, greenhouse gas (GHG) emissions, and loss of biodiversity. 	<p>Valentina Garoia, Communications Manager ValentinaGaroia@euroseeds.eu</p>

	<ul style="list-style-type: none"> • On average and across all major arable crops cultivated in the EU, plant breeding contributes approximately 67 percent to innovation-induced yield growth. This is equal to an increase of yields by 1.16 percent per annum. • Without plant breeding progress in the past 20 years, the EU would have become a net importer in all major arable crops in 2020, including wheat and other cereals. • Plant breeding helps save scarce land resources around the globe by generating higher yields per unit of area. In the absence of plant breeding for major arable crops in the EU in the past 20 years, the global agricultural acreage in 2020 would have to be expanded by more than 21.5 million hectares. • Production and subsequent market supply losses due to full implementation of the “Farm to Fork” and “Biodiversity” strategies until 2030 could potentially be halved with plant breeding in the next decade at current pace. • (Read more here) • Plant breeding has significantly contributed to improving the production and sustainability of agriculture and reducing its environmental footprint in the past. In the future and especially considering the Farm to Fork and Biodiversity strategies of the EU, plant breeding can partially compensate for potential non-intended economic and environmental effects of these strategies, thus supporting their overall objectives. • However plant breeding innovation needs an enabling regulatory environment to deliver on its contribution to sustainable agriculture. This is why, upon publication of the Commission study on Novel Genomic Techniques, Euroseeds, together with other agri-food value chain partners, calls for an urgent action to bring its more than 20-year-old legislation in line with scientific progress. 	
	<ul style="list-style-type: none"> • Compound feed manufacturers are in a privileged position to help individual livestock farmers to define the feeding strategies and tailor-made solutions that can lead them through to more sustainable production. Innovative feed formulation 	<p>Anton van den Brink, Senior Policy & Communications Manager Avandenbrink@fefac.eu</p>

	<p>in combination with precision feeding techniques are key to success.</p>	
	<ul style="list-style-type: none"> • The European Commission’s Farm to Fork strategy has recognised the key role of feed additives contributing to the achievement of some of the ambitious sustainability goals. • The feed additives industry is an extremely innovative sector, which strives to offer modern animal nutrition solutions to the needs of the livestock chain, and in recognition of societal demands for more sustainable animal agriculture. • Supplementing animal diets with specific specialty feed ingredients can help reduce the environmental footprint of animal farming. • The Specialty Feed Ingredients Sustainability (SFIS) Project, led by FEFANA and the International Feed Industry Federation (IFIF), has demonstrated the positive role of specialty feed ingredients on the environmental impact of livestock production. In pilot trials, diets supplemented with certain ingredients (amino acids and phytase) have resulted in a notable diminution of GreenHouse Gas emissions, cutting the Global Warming Potential associated with certain livestock farming by 3-15%, and the acidification and eutrophication potentials by up to 50%. • Feed additives also play a key role in animal health and welfare. By supporting the animals’ natural defences and resilience to stressors they prevent the need for veterinary treatments thereby reducing the use of antibiotics in animal farming. 	<p>Chiara Bellone de Grecis, Communications Manager cbellone@fefana.org</p>
	<ul style="list-style-type: none"> • The “Farm to Fork” strategy puts forward the ambition for 2030 to reduce nutrient losses to the environment from both organic and mineral fertilisers by at least 50%, while ensuring no deterioration in soil fertility. This ambition can only be achieved via collective efforts throughout the whole value chain and a combination of different tools. The fertilizers industry continuously develops innovative solutions to improve the use of our products in agriculture, minimise environmental 	<p>João Bernardo, Communications Trainee joao@fertilizerseurope.com</p>

	<p>impact and achieve high quality yields.</p> <ul style="list-style-type: none"> • <u>Use of scientific tools for measuring progress</u> • Closely working with academia, Fertilizers Europe has brought forward the Nitrogen Use Efficiency indicator, which offers ready-to-use solutions to assess the efficiency of nitrogen use in food production, allowing to minimise environmental impacts and achieve better crop yields. The Nitrogen Use Efficiency indicator provides information on resource use efficiency, the economy of food production and the pressure on the environment. It can therefore be used to improve farming practices and as a metric to assess the progress of reaching the nutrient losses reduction target. • <u>Digital farming - technological tools and machinery</u> • The fertilizer industry continuously develops practical tools that help farmers assess plant nutrient needs. The tools range from simple portable devices such as hand-held metering devices and GSM-based mobile applications, all the way to farm machinery equipped with satellite-produced biomass field maps. Such precision farming tools enable an improved nutrient management and, thus, enhance nutrient use efficiency. • <u>Nutrient Stewardship Approach - Right time, right product, right rate, right place</u> • The basics of good fertilization practice are expressed by the so-called 4R principles: right product, right rate, right time and right place. • A good crop feeding strategy at farm level can be achieved with a balanced supply of the main nutrients needed. The challenge for farmers and growers is that the rate and the ratio at which each nutrient is needed by a plant changes over its growth cycle. The objective of balanced fertilization is to ensure that the plant has access to an adequate supply of each nutrient at every growth stage in order to avoid any over or under-supply and to optimise plant yield. • Different fertilizers have different agronomic and environmental impact, therefore, the use of the right 	
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	<p>source of fertilizer is essential.</p> <ul style="list-style-type: none">• The fertilizer industry continuously develops specialty fertilizer products targeted to specific plants and their needs.	
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