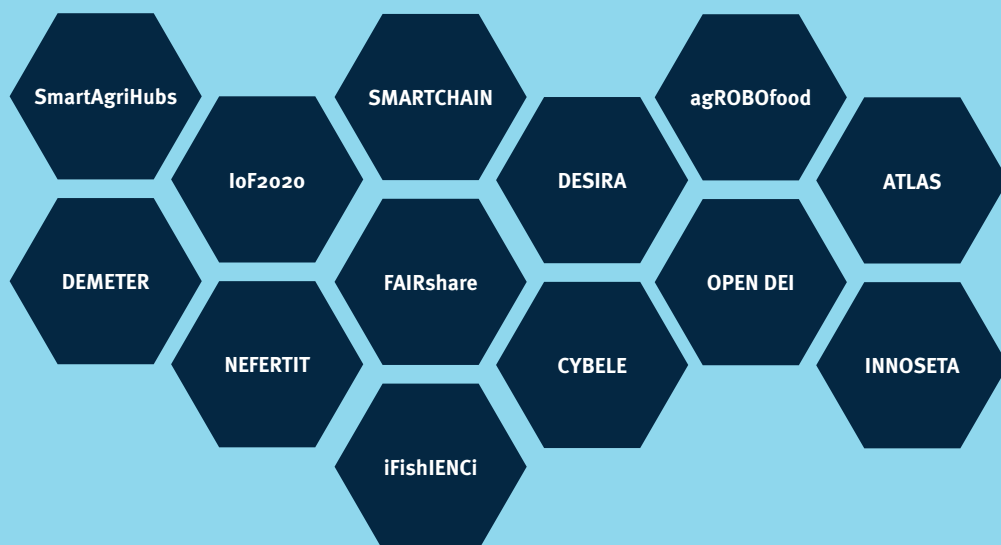# SYNERGY PROJECTS

SmartAgriHubs conference

Working towards creating a shift at the European level requires dedication, cooperation, diversity and innovation. In this light, our event will gather more than 12 Horizon 2020 initiatives working towards the digitalization of the European agricultural sector. The Synergy Days will boost collaboration among projects and will give the opportunity to learn about the diversity in the EU agri-tech, exchanging ideas and learnings from technical issues, business models to sector related innovations.

SmartAgriHubs

SMARTCHAIN

agROBOfood

IoF2020

DESIRA

ATLAS

DEMETER

FAIRshare

OPEN DEI

NEFERTIT

CYBELE

INNOSETA

iFishIENCi

SMARTAGRIHUBS

SmartAgriHubs is a Horizon 2020 project that aims to bring together a European-wide network of Digital Innovation Hubs to foster the end-user uptake of digital solutions in agriculture. Based on a Regional Cluster approach made of 9 Regional Clusters that covers all E.U. Member States and beyond, we foster a network of over 400 organisations located in Europe and around the globe. The results of our projects are showcased through our 28 Flagship Innovation Experiments that bring together Digital innovation Hubs, Competence Centers and end-users to achieve the digitalisation of farming processes.

🌐 **www.smartagrihubs.eu**
👤 **George Beers**
✉ **george.beers@wur.nl**

SMARTCHAIN

SMARTCHAIN aims is to foster and accelerate the shift towards collaborative Short Food Supply Cahins (SFSCs) and, through specific actions and recommen-dations, to introduce new robust business models and innovative practical solutions that enhance the competitiveness and sustainability of the European agri-food system. SMARTCHAIN consortium includes 43 partners from 9 European and 2 associated countries including key stakeholders from the domain of SFSCs as actors in the project, in particular, 18 case studies of widespread SFSCs in Europe. To strengthen co-creation and collaboration between partners and stakeholders, 9 SMARTCHAIN Innovation & collaboration Hubs have been established in France, Germany, Greece, Hungary, Italy, the Netherlands, Serbia, Spain and Switzerland.

🌐 **www.smartchain-h2020.eu**
　　www.smartchain-platform.eu
👤 **Susanne Braun**
✉ **s.braun@uni-hohenheim.de**

IoF2020

(Internet of Food and Farm 2020) is a Horizon 2020 project aims to accelerate adoption of IoT for securing sufficient, safe and healthy food and to strengthen competitiveness of farming and food chains in Europe. It has consolidated Europe's leading position in the global IoT industry by fostering a symbiotic eco-system of farmers, food industry, technology providers and research institutes. A total of 19 use cases grouped in 5 trials with end users from the Arable, Dairy, Fruits, Vegetables and Meat sectors and IoT integrators demonstrate the business case of innovative IoT solutions for a large number of application areas.

🌐 **www.iof2020.eu**
👤 **George Beers**
✉ **george.beers@wur.nl**

DESIRA

DESIRA (Digitisation: Economic and Social Impacts in Rural Areas) is a Horizon 2020 project, aiming to improve the capacity of society and political bodies to respond to the challenges and opportunities that digitalisation generates in rural areas, agriculture and forestry. The project, running between 2019 and 2023, is developing a methodology and knowledge base that makes it easier to assess the past, current and future socio-economic impacts of ICT-related innovation. Within the project, 20 Living Labs will be set up across Europe to co-develop ideas, scenarios, and socio-technical solutions related to digitalisation in rural areas. Furthermore, an EU Rural Digitisation Forum will be organised, gathering stakeholders with a common interest to work, learn and share knowledge about the digitalisation of agriculture, forestry and rural areas.

🌐 **www.desira2020.eu**
👤 **Roxana Vilcu**
✉ **roxana.vilcu@aeidl.eu**

agROBOfood

agROBOfood builds the European ecosystem for the effective adoption of robotics technologies in the European agri-food sector and accelerates the digital transformation to make the European agri-food sector more efficient and competitive. The heart of the project is formed by Innovation Experiments, organized and monitored by Digital Innovation Hubs. In 7 Regional Clusters, Initial Innovation Experiments will demonstrate robotics innovations in agri food, in a manner that ensures replicability and wide adoption across Europe. Digital Innovation Hubs will support companies in digitization by connecting various stakeholders. agROBOfood already connects the world of Robotics and Agriculture, R&D and business by establishing a sustainable network of Digital Innovation Hubs. In addition, agROBOfood will launch "Open Calls" through which it will attract and fund additional Innovation Experiments and Industrial Challenges. A total of €8 million will be allocated for the direct benefit of SMEs through "Open Calls".

🌐 **www.agrobofood.eu**
👤 **Staša Stojkov Rošić**
✉ **stasa.stojkov@biosense.rs**

ATLAS

ATLAS is a Horizon 2020 project aiming to achieve a new level of interoperabillity between agricultural machines, sensors and data services through the development of an open digital service platform for agricultural applications, and to build up a sustainable ecosystem for innovative data-driven agriculture. The technology developed will enable farmers to increase the productivity in a sustainable way by making use of the most advanced digital technology. The benefits of the ATLAS technology will be demonstrated within a multitude of pilot studies. Around these pilots, so called "Innovation Hubs", a network of end-users, service providers, researchers and policy makers, will be established to exploit the benefits of digital agriculture to a larger audience. Moreover, through seed funding, innovative companies will be attracted to provide their services through the platform.

🌐 **www.atlas-h2020.eu**
👤 **Stefan Rilling**
✉ **stefan.rilling@iais.fraunhofer.de**

NEFERTITI

Under the project NEFERTITI 10 interactive thematic networks will be established bringing together 45 regional clusters (hubs) of demo-farmers and innovations actors involved (advisors, NGOs, industry, education, researchers and policy makers) in 17 countries. The project NEFERTITI focuses on creating added value from the exchange of knowledge, actors, farmers and technical content between networks in order to boost innovation uptake, improve peer to peer learning and network connectivity between farming actors across Europe. In the end, it all contributes to a more competitive, sustainable and climate-smart agriculture. The project NEFERTITI supports, connects, monitor and evaluate more than 250 demo events per year during 3 years.

🌐 **www.nefertiti-h2020.eu**
👤 **Adrien Guichaoua**
✉ **adrien.guichaoua@acta.asso.fr**

IFISHIENCI

The iFishIENCi EU funded H2020 project is bringing together 16 partners in a trans-disciplinary effort towards making genuine improvements to fish farming worldwide. Fish aquaculture is essential for providing healthy food to a growing world population, but its success depends upon our ability to find more sustainable farming practices. This means more effective ways of monitoring fish-health and welfare, as well as more efficient ways of feeding fish that reduce pressure upon the source of fish-feed ingredients, such as agricultural crops and wild-caught fish for fishmeal and oil. The ambition of iFishIENCi is developing and demonstrating disruptive IoT/AI based innovations, considering the feeding value chain as a whole, and addressing four commercially-important species, with fish quality as focus.

🌐 **www.ifishienci.eu**
👤 **Tamás Bardócz**
✉ **thb@aquabt.com**

DEMETER

The DEMETER Project is a large-scale deployment of farmer centric interoperable smart farming-IoT based platforms delivered through a series of 20 pilots across 18 countries (15 States in the EU). Involving 60 partners, DEMETER adopts a multi-actor approach across the value chain (demand and supply), with 25 deployment sites, 6,000 farmers and over 38,000 devices and sensors being deployed and participants involved come from different production sectors (dairy, meat, vegetables, fruit and arable crops), production systems (conventional and organic) and different farm sizes and types, optimising the data analysis obtained across multiple farms. DEMETER will demonstrate the real-life potential of advanced standards-based interoperability between IoT technologies by adapting and extending existing standards into an over-arching Agricultural Information Model, concurrently ensuring security, privacy and business confidentiality across the full value chain in multiple agri-food operational environments. DEMETER will encompass a multi system and multi data source integration considering not only IoT but legacy systems, open data, geographical and satellite information, and in general will provide an open and interoperable data integration model. DEMETER displays how an integrated approach to business modelling and user acceptance can support sustainable farming and food production systems, provide safe food and support farmers in their decision-making in 'doing more with less'. DEMETER will bring new business opportunities on the farm and in the wider agri-food economy, while concurrently contributing to the safeguarding of Europe's precious natural resources. DEMETER's goal is the creation of a secure and sustainable European IoT technology and business ecosystem whose impact could be transformative in the EC food and agriculture sector, and potentially across the world.

🌐 **www.h2020-demeter.eu**
👤 **Kevin Doolin**
✉ **kdoolin@tssg.org**

FAIRSHARE

FAIRshare (Farm Advisory Digital Innovation Tools Realised and Shared) is a H2020 project running between 2018-2013 which aims to engage, enable and empower farm advisors to adopt digital tools. Advisors play an important role in collecting, analysing and interpreting data for farmers. Hence, the potential of digitalisation in the agricultural sector is unlikely to be realised at the European level unless advisors are mobilised to take ownership of digital tools and advocate them to farmers and other advisors. It is vital therefore that efforts are made to enable advisors to adopt digital tools in order to catalyse a digital transformation across both the advisory and farming community. FAIRshare will gather an evidence base of the digital tools and services used internationally in terms of an inventory. Furthermore, 'living laboratories' will be generated to empower advisor peers from across the EU to interact with the online inventory and, in a series of work-shops, to exchange, co-adapt, co-design and apply digital tools.

🌐 **www.h2020fairshare.eu**
👤 **John Hyland**
✉ **John.Hyland@teagasc.ie**

CYBELE

Taking into consideration that agriculture is a high volume, huge business with low operational efficiency, CYBELE aspires at demonstrating how the convergence of HPC, Big Data, Cloud Computing (services) and the IoT can revolutionise farming, reduce scarcity and increase our nation's food supply in a dramatic fashion, bringing enormous social, economic, and environmental benefits. The vision of CYBELE is to generate innovation and create value in the domain of agri-food in general, and several of its verticals in the sub-domains of PA and PLF in specific, as demonstrated by the real-life industrial cases to be supported, empowering capacity building within the industrial (mainly) but also the research community associated with these domains. Precision Agriculture (PA) and Precision Livestock Farming (PLF) come to assist in optimising agricultural and livestock produc-tion and minimising the wastes and costs. Sensors on fields and crops are starting to provide literally granular data points on soil conditions. Satellites can be at the service of precision agriculture. GPS units on tractors can help determine optimal usage of heavy equipment. Unmanned aerial vehicles, or drones, can patrol fields and alert farmers to crop ripeness or potential problems.

🌐 **www.cybele-project.eu**
👤 **Steven Davy**
✉ **sdavy@tssg.org**

OPEN DEI

The digital transformation strategy of the European Union has, among others, a particular priority: the creation of common data platforms based on a unified architecture and an established standard.

As part of the Horizon 2020 programme, the OPEN DEI project (Aligning Reference Architectures, Open Platforms and Large-Scale Pilots in Digitising European Industry) as Coordination and support action involving 9 EU partners focuses on "Platforms and Pilots". Through this OPEN DEI will support the implementation of next generation digital platforms in four basic industrial domains: manufacturing, agriculture, energy, healthcare. Starting from financed H2020 projects in each domain, with whom is twinned, OPEN DEI strives to implement four action lines:

- Platform building (Comparing reference architectures and open source reference implementations, enabling a unified industrial data platform);
- Data ecosystem building (Enabling an innovation and collaboration platform, forging a European network of DIHs, contributing to industrial skills catalogue and observatory);
- Large scale piloting (Contributing to a digital maturity model, creating a set of assessment methods and a migration journey benchmarking tool);
- Standardisation (Conducting cross-domain surveys, performing promotion and implementation, building alliances with existing EU and standard developing organisation).

The project has a duration of 36 months, from June 2019.

⊕ **www.opendei.eu**
⚇ **Marianna Faraldi**
✉ **m.faraldi@tecnoalimenti.com**
⚇ **Andreas Kembügler**
✉ **Andreas.Kembuegler@internationaldataspaces.org**

INNOSETA

The main objective of INNOSETA is to set up an Innovative self-sustainable Thematic Network on Spraying Equipment, Training and Advising to contribute in closing the gap between the available novel high-end crop protection solutions either commercial or from applicable research results with the everyday European agricultural practices by promoting effective exchange of novel ideas and information between research, industry, extension and the farming community so that existing research and commercial solutions can be widely communicated, while capturing grassroots level needs and innovative ideas from the farming community.

INNOSETA includes as project partners five leading research entities (Universities and Institutes) together with the three main EU associations related to crop protection (sprayers manufacturers: CEMA, PPP producers: ECPA and Farmers: COPA-COGECA) and seven organizations owned/ruled by farmers or directly working for them, covering a wide range of European regions, farming, agro-food systems and advisory/extension services. INNOSETA promotes the generation of a knowledge-driven agriculture through the implementation of various methods, going beyond the state of the art in the field of SETA knowledge exchange and transfer. INNOSETA relies on Open Innovation methods, bringing together research, extension services, farmers and industrial partners in multi-actor innovation. Filling the gap between research and farmers.

⊕ **www.innoseta.eu**
⚇ **Prof. Emilio Gil**
✉ **emilio.gil@upc.edu**

SYNERGY PROJECTS

SmartAgriHubs conference