Internet of Things gets closer to your plate

The Internet of Food & Farm 2020 (IoF2020) project investigates and fosters a large-scale implementation of Internet of Things (IoT) in the European farming and food sector. With a €30 million budget co-funded by the European Union, the project has the potential to bring a paradigm shift in this domain by drastically improving productivity and sustainability. It will demonstrate the added value of smart webs of connected objects, that are context-sensitive and can be identified, sensed and controlled remotely in the agri-food sector. The project has started on January 1st 2017 and will run for four years.

IoF2020: Focusing on 19 use cases spread throughout Europe with 14% of trial budget allocated to organic farming, the project provides solutions to 5 agri-food areas: arable farming, dairy, meat, vegetables and fruits and takes into account their own needs and obstacles.

IoT has the potential to be a real game changer in agriculture. Recent initiatives showed the eagerness of the sector to seize the opportunities offered by ICT, network and data-oriented technologies. However, current available applications are still fragmentary and mainly used by a small group of early-adopters.

IoF2020 will provide solutions and facilitate the large-scale uptake of IoT, by addressing the organizational and technological challenges the European farming and food sector faces today.

Weeding is one of the major challenges in organic vegetable farming. IoF2020 will build on the most advanced weeding machines using machine vision application to detect crops and weeds. By collecting and further processing the sensor data from weeding machines, farmers will have a more reliable prediction about crop quality and optimal harvest moment, while retailers will have better insights about crop quality, amounts and expected delivery. Another example: In total the EU wine business has the highest share of EU agriculture revenues. To keep up with international competition, for both conventional and organic viticulture, IoT technologies can be used to obtain higher quality and environmental sustainability along with decrease in production cost.
A multi-stakeholder and iterative approach with end-users at its heart

IoF2020 involves all the stakeholders in the food chain: from farmers, cooperatives, equipment and logistic suppliers, food processing companies, to consumer organizations and it includes ICT developers.

The project will develop innovative IoT solutions applicable to the organic sector by fostering co-creation in iterative improvement cycles focusing on user acceptability and business models to boost technology and market readiness level. End-users being at the heart of IoF2020 model, they will participate in assessing and improving the technologies at stake, ensuring they meet the requirements and the expectations of the sector.

Strong focus on communication and stakeholders’ engagement

IoF2020 aspires to create an ecosystem for the long-term application of IoT technologies. Promoting stakeholder dialogue and providing timely information on progresses and achieved results lies therefore at the heart of the projects’ communication activities.

To involve and inform its audience, several tools will be put in place by the consortium all along the project duration, such as quarterly newsletters, an interactive website, social media activities, info graphics, videos, regular briefings and open events.

Eduardo Cuoco, Director of IFOAM EU: “Organic sector is forward-looking and open to innovation based on systems approach and organic principles. IoF2020 will help increase the uptake of cutting edge technologies that provide a solution for challenges relevant to organic food and farming thus fostering the sector’s further growth”.

George Beers, Project Manager at the Wageningen University & Research and IoF2020 Project Coordinator: “IoF2020 does not only bring IoT in the food and farm sector. It stands also for the objective of delivering technologies that fit the needs of the entire value chain and end-users, strengthening them for the challenges ahead. Together with our 70 partners we believe IoF2020 has the potential to bring a paradigm shift in the way food is produced in Europe, from the field to the plate, reinforcing European competitiveness and excellence in the area”.

Notes to the Editors:
Funded by the Horizon 2020 Framework Programme of the European Union.
Grant Agreement no. 731884
At a glance - key facts

- Instrument: Horizon 2020, Industrial Leadership, IOT-01-2016
- Total costs: €35 million
- Contribution of the European Union: €30 million
- Duration: 4 years, 2017-2020
- Consortium: 71 partners
- **5 trials**: crops, vegetables, fruits, meat and dairy & **19 uses cases**

Contacts

**Project communication**
Mr. Quentin Galland
Schuttelaar & Partners
Brussels, Belgium
+32 494 55 19 24
quentin.galland@schuttelaar-partners.com

**Project coordination**
Dr. George Beers
Wageningen University & Research
Wageningen, The Netherlands
+31 70 335 8337
George.beers@wur.nl