

Corporate Innovation Challenge Template

Challenge Name: Increasing Specialty Crop Farm Competitiveness with Precision AG Data Services
Code Name: BIOECONOMYVENTURES-2022-OC1-FEDE_1
Challenge Domain: <ul style="list-style-type: none"> • Agriculture • AgTech & FoodTech • Other: Precision Agriculture Services, Specialty Crops (Fruit, Vine, Nuts, Olives, Citrus), Decision support systems, GIS/MAPs/Teledetection
Description of the Corporate innovation Challenge <p>Digital precision AG service providers often face the challenge of international outreach and customer access channels, while precision AG machinery producers like Kubota owned Pulverizadores Fede are facing the challenge to deliver value to specialty crop farmers (<i>i.e.</i>, farmers of fruit, nuts, olives, vine) through cloud connected precision AG machinery and respective field job cloud management platforms.</p> <p>Hence, just as the challenge title indicates, the innovation challenge consists in <i>Increasing Specialty Crop Farm Competitiveness with Precision AG Data Services</i>, where promising AG data service providers would connect to Fede's <i>Specialty Crops Platform (SCP)</i> through <i>application programming interfaces (APIs)</i> that allow data exchange, for example, with <i>decision support systems (DSS)</i>, <i>geo-information systems (GIS)</i>, <i>etc.</i> to jointly deliver significantly boosted value to specialty crop farmers.</p>
Expected results <ul style="list-style-type: none"> • Save farm managers 30% in management time. • Help to decrease farmers' work order management cost by 15%. • Help to decrease the use of pesticides by 30%. • Increased sales by 30% thanks to cross-selling.
Types of Collaboration

This project has received funding from the Bio-based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101023260. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio-based Industries Consortium

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While none of the below types of collaboration is excluded, we particularly have in mind **type 1** and **type 9** marked in bold:

1. **Pilot running and product testing**
2. R&D opportunity
3. Mentorship
4. Corporate Venturing
5. New business model exploration (i.e., exclusive distribution, profit sharing, IP sharing ...)
6. Knowledge sharing and Tech Transfer
7. **Other: Joint marketing/cross-selling**

Company Information

Company Name: Pulverizadores Fede S.L.U. (belonging to KUBOTA HOLDINGS EUROPE, B.V.)

Company information:

Pulverizadores Fede (FEDE) is a technology leader in the production of agricultural machinery, with focus on vertical crops found, for example, in orchards, vineyards and olive plantations. With a clear focus to make the work of farmers/growers more efficient and to help them save on agronomic inputs, FEDE's products and services strengthen the competitiveness of the European agricultural sector. FEDE is, therewith, well positioned to support the Green Deal objectives, *i.e.*, to "transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050, and where economic growth is decoupled from resource use and protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment and climate related risks and impacts".

Dating back to a Valencian family business founded in 1967, and now led in the second generation by Mr Federico Pérez, FEDE has steadily invested in R&D, quality, and its trans-disciplinary workforce, to bring highly innovative solutions to world markets. As such, from 2018 to 2021 FEDE was the exclusive producer of John Deere high value crop sprayers, manufactured by FEDE under John Deere brand with Global Agreement. As such, internationalization is a key driver, with FEDE operating its R&D, main production, and training facilities in the Valencian Community (Spain), and a production facility for small equipment in Beijing (China). In January 2022 FEDE was acquired by KUBOTA HOLDINGS EUROPE, B.V. which opens new business opportunities for both companies expanding KUBOTA's line-up of implements for the Specialty Crops market and is strengthening compatibility between tractors and implements, thereby contributing to reduction of the environmental impact and fuel consumption through efficient spraying that uses less chemicals and water.

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FEDE brings in significant international project management experience and owns with its smart cloud connected sprayers with H3O technology, the most internationally awarded specialty crop sprayer in history (outcome of the Horizon 2020 SME Instrument project [H3O](#)).

Further, FEDE brings in its *Speciality Crop-cloud Platform* (SCP) that has undergone developments with the help of EU projects such as [IoF2020](#), [DEMETER](#), [agROBOfood](#), and [DIH4CPS](#)

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