



7/9

CURRENT TRL
& TARGET TRL

EFFICIENT

RESOURCE USE

- 25%

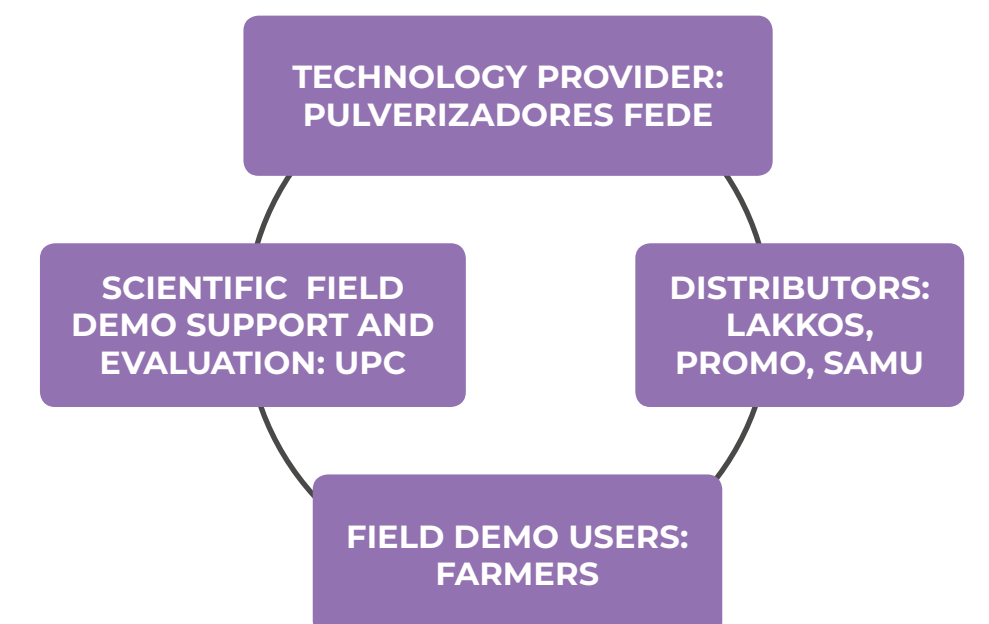
PLANT PROTECTION
PRODUCTS

MITIGATED

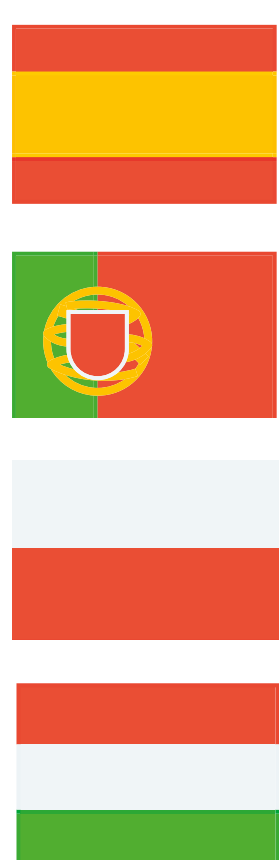
ENVIRONMENTAL IMPACT

3.5 SMART ORCHARD SPRAY APPLICATION

Agriculture focused on speciality crops faces the challenge of improving the profitability whilst also reducing negative environmental impacts. This use case demonstrates that plant protection products can be significantly reduced through IoT enabled airblast atomising sprayers, adapting automatically to specific field zones as well as individual plant conditions. The integration of the Smart Orchard Spray Application cloud into farmers' existing processes and software solutions further increases operating efficiency.



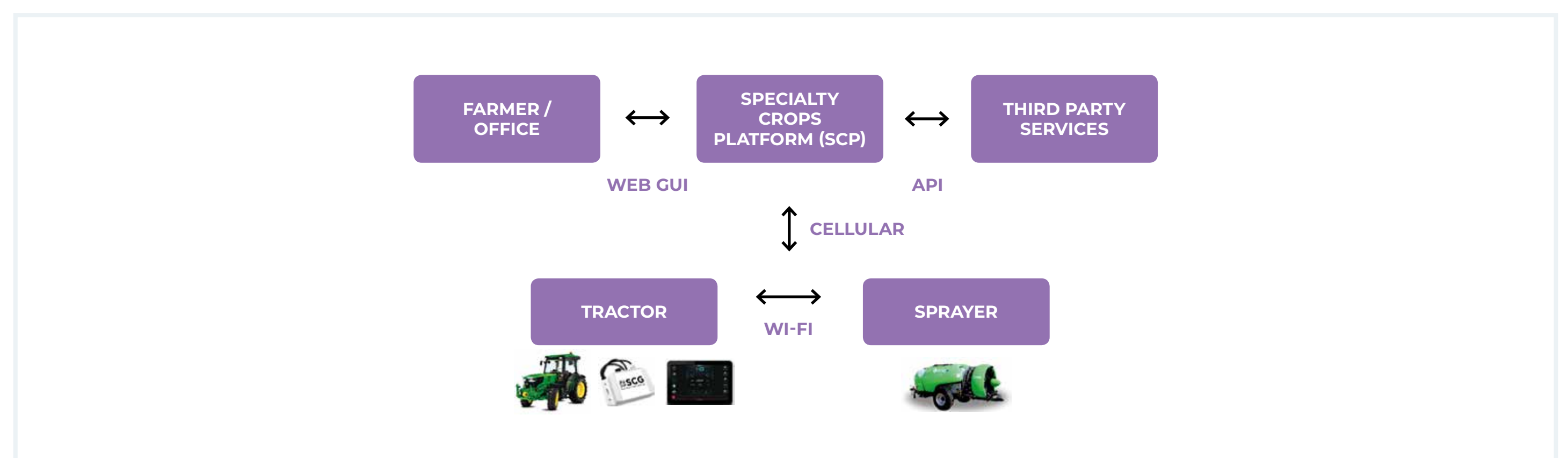
COUNTRIES



PARTNERS



HOW IT WORKS



The Smart Orchard Spray Application enables the development of a new integrated market of specialty crops management systems:

- Connection of physical IoT devices to the SCP;
- Configuration of work orders from the SCP;
- Farmer's work based on the use of IoT enabled devices to carry out precise actions;

- Wireless connection of the tractor and the sprayer to the SCP;
- Tracking of all data gathered by the IoT devices;
- Total control of costs and work issues registered from the IoT devices connected to the SCP.

THE IMPACT

OUR OBJECTIVES

- Perform highly efficient, effective and environmentally friendly specialty crops protection in cherry, apple and almond production;
- Increase sustainability and profitability of food production;
- Monitor operations and get instant information on treatment quality;
- Provide traceability to improve the food security standards;
- Monitor costs and bridge the gap between agronomics and company accounting to increase business revenue;
- Assist in documentation tasks related to adherence to farm certification schemes like GLOBALG.A.P.

ON ECONOMY

- Fuel savings of 517€ per hectare/year;
- Savings in pesticides costs (25%);
- Efficient field tasks organisation and supervision;
- Improve revenue through better decision-making.

OTHER IMPACT

- Drift reduction (-48%);
- Reduce fuel consumption (-55%);
- Plant protection product reduction (-25%);
- Improve food-security due to pesticide treatment traceability;
- Establish cellular coverage and IoT functionalities in European rural areas.