1.4 FARM MACHINE INTEROPERABILITY

5/7

CURRENT TRL
& TARGET TRL

+ 5%

INCREASE IN GROSS MARGIN

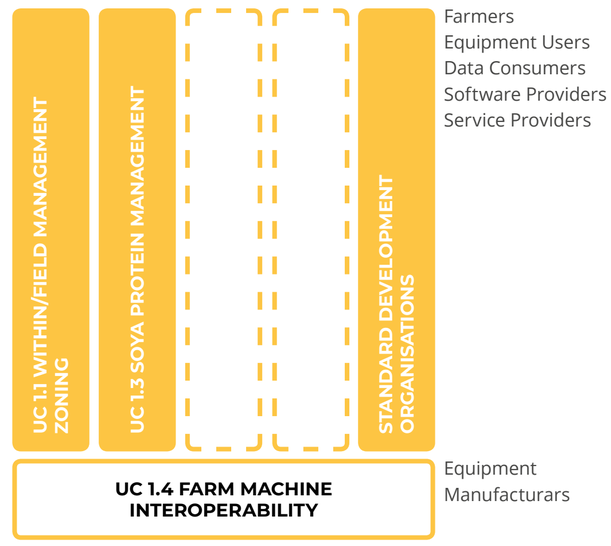
+ 20%

PREDICTED INCREASE YIELD

- 10%

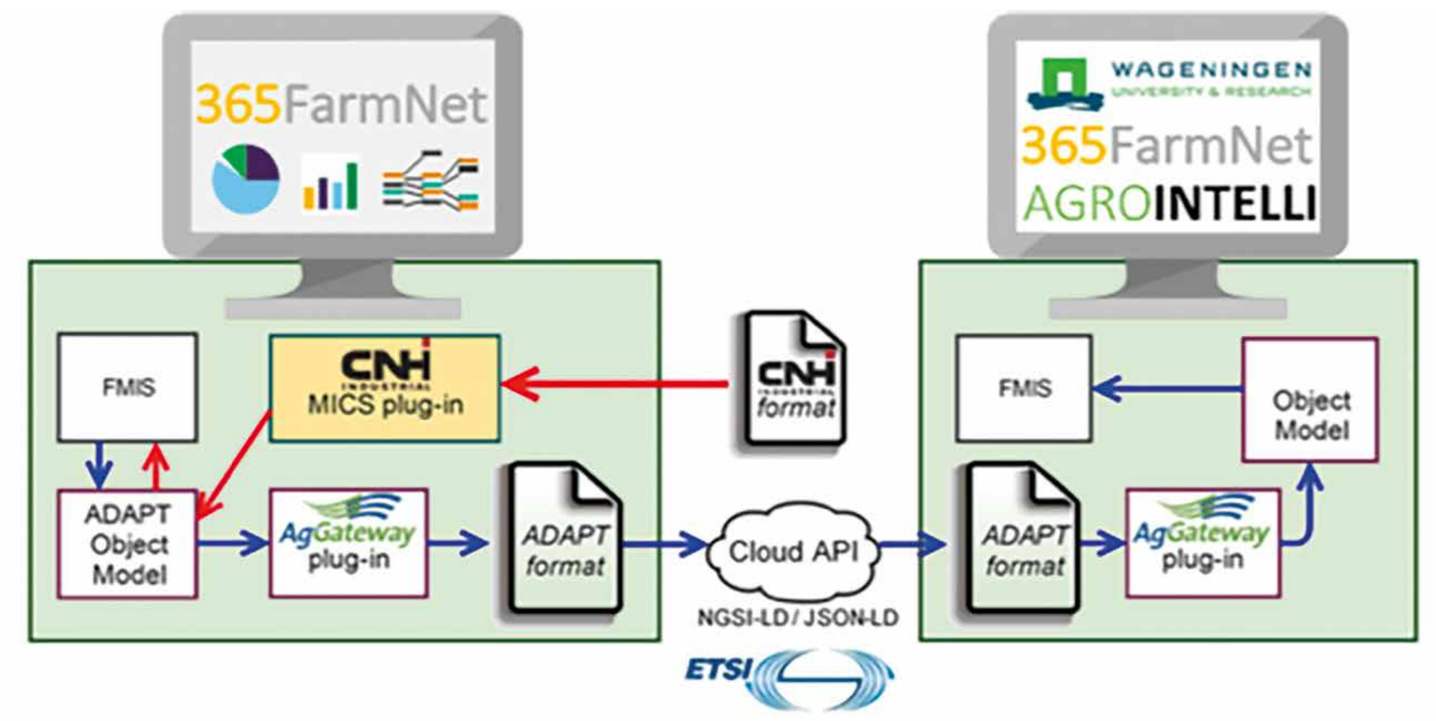
IN FUEL CONSUMPTION

Every farmer wants his equipment to work seamlessly together, designed as one integrated system that is interoperable regardless of vendor. Interoperability of IoT devices and machinery today is in its infancy. For the farmer it is a challenge to make all devices work together in the digital space, as there are different platforms using vendor specific communication.



The horizontal use-case on interoperability overarching the vertical production management oriented use-cases and including Standard Development Organisations

HOW IT WORKS



Applying communication standards, such as ADAPT and NGSI-LD, for effective offline and cloud communication between farm and machine and vice versa. Unified data models for easy data transfer and conversion. Service providers can add value to data based on a single API.

COUNTRIES

PARTNERS

CNH INDUSTRIAL

AARHUS UNIVERSITY

kverneland group

AGROINTELLI

365FarmNet

AGCO Your Agriculture Company

WAGENINGEN UNIVERSITY & RESEARCH

THE IMPACT

OUR OBJECTIVES

- Implement real-time communication between FMIS cloud solutions and equipment manufacturers
- Demonstrate offline interoperability
- Test harvest logistics application complying with interoperability solutions
- Share technical solution with the Standard Development Organisations

ON ECONOMY

- Yield +10%;
- Crop produced/input resources ratio +15%;
- Gross margin +5%;
- Cost-benefit of IoMT (soil fertility) +10%;
- Yield in compaction sensitive areas +16%;
- Fuel consumption -10%;
- Machinery sale +15%;
- End-user costs of IoMT +5%.

OTHER IMPACT

- Improved farming efficiency +15-20%;
- Faster IoT uptake +15%;
- Farmer dependence on IoMT +25%.

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