



5/7
CURRENT TRL
& TARGET TRL

4%
YIELD INCREASE

10%
RESOURCE USE
EFFICIENCY

-15%
SOIL HERBICIDE USE



COUNTRIES



PARTNERS

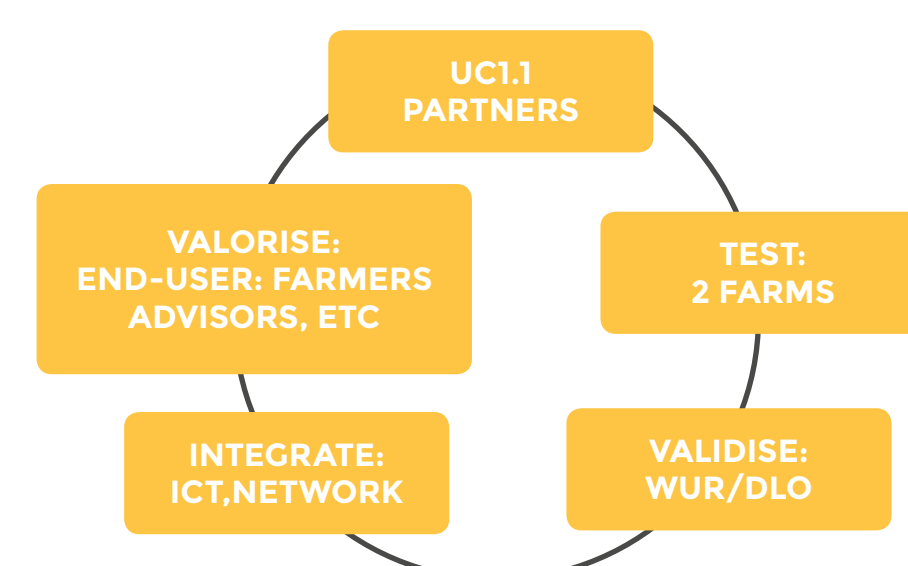


1.1 WITHIN-FIELD MANAGEMENT ZONING

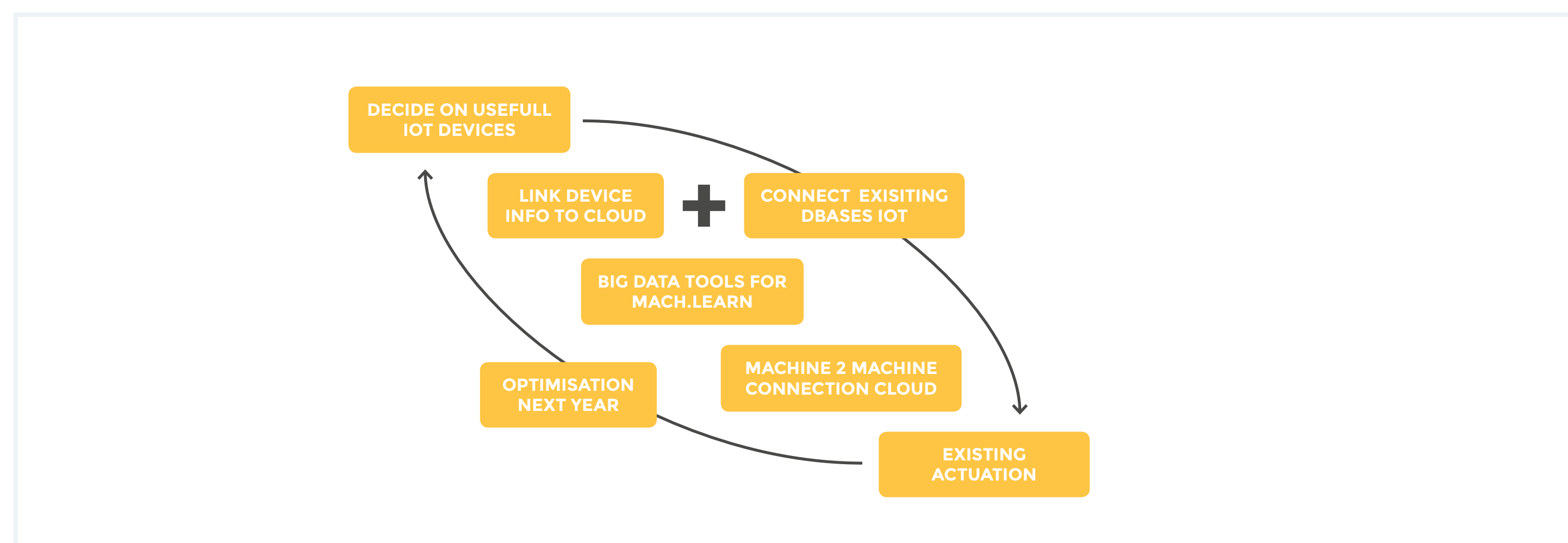
Arable farming faces increasing requirements and challenges when it comes to resource efficiency, environmental protection, transparency and chain optimization.

To address this challenge, this use case seeks to:

- Develop specific IoT devices for acquisition of soil, crop and climate data in production and storage of key arable and vegetable crops,
- Showcase the benefits of the broad IoT implementation at the farm level.



HOW IT WORKS



Test, validate, integrate and valorize IoT in 4 demonstrators in commercial potato farms.

- Wireless connection of sensors to LoRa network,
- Yield prediction, compared with harvest yield sensing,
- Easy to use VRA maps from EM Soil Scan,
- Showcase state of play: tracking in bulk storage.

THE IMPACT

OUR OBJECTIVES

- Link Soil Sensor to data platforms and visualize data,
- Predict yield with Tipstar growth model, satellite data, Electro Magnetic (EM)-soil scan,
- Optimize the flow of EM-soil scan to VRA maps,
- Track and trace for bulk storage and potato quality sensing.

ON ECONOMY

KPI: successful introduction of EM Soil advice product range.

- Optimum plant density, fertilization, soil herbicide use,
- Optimum product flow: user friendly ordering to smooth actuation,
- Organization of distribution, marketing and effectuation. The products will get clear positioning in competing market.

ON ENVIRONMENT

- Yield increase: + 4%,
- Resource use efficiency: + 10%,
- Soil herbicide use: -15%,
- Potato haulm killing herbicide use: - 30%,
- Nitrogen use: - 10%,
- Fungicide use: -10%,
- Energy use: - 15%.