3.2 BIG WINE OPTIMIZATION

6/9
CURRENT TRL
& TARGET TRL

-20%
PESTICIDES &
FERTILIZERS COSTS

- Optimize the use of chemicals for plant protection through a precise identification of the moment and the product, as well as the exact needs for treatment in order to reduce environmental impacts, resource use and efficiently protect grape,
- Perform selective harvesting to reduce the inspection time and have accurate results,
- Avoid temperature and humidity issues thanks to winery monitoring, as they cause wine evaporation during summer times,
- Handle huge amount of data coming from 5 domains.

IoT technology allows to monitor weather, vine and key winery conditions in real time.

DENIS DUBOURDIEU DOMAINES
Winegrowing & Wine Producer.
END USER

PROCESS2WINE
Software developer specialised in tools for wineries and vineyards.
TECHNOLOGY PROVIDER

BORDEAUX INP - IMS LAB
Technical and scientific experts image analysis for vineyards.
TECHNOLOGY PROVIDER

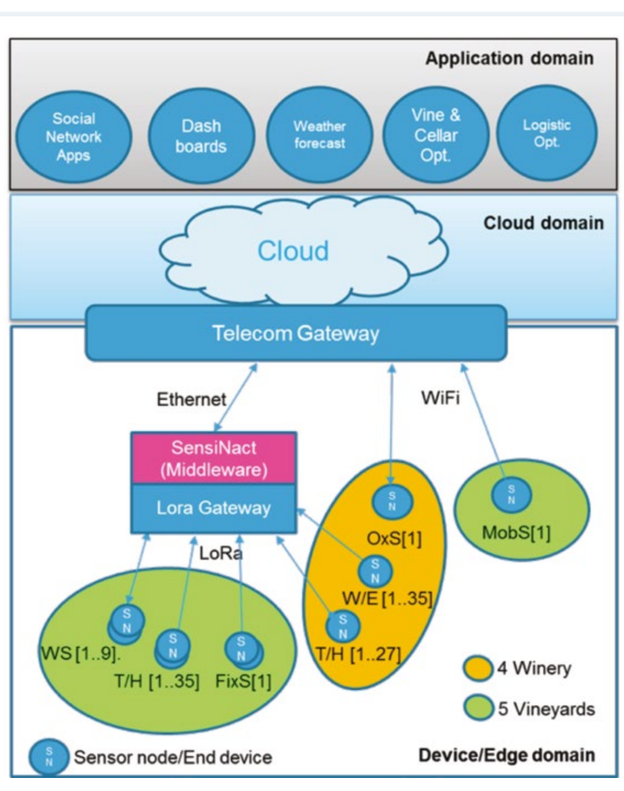
CEA-LETI
IoT Framework for Cloud and local data processing.
TECHNOLOGY PROVIDER

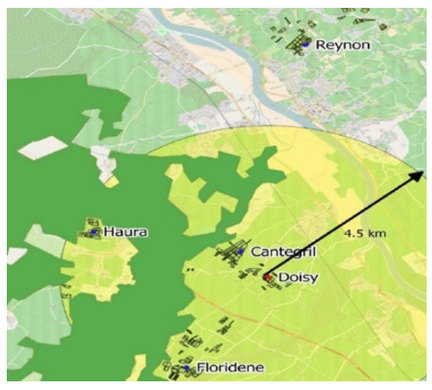
STMICROELECTRONICS
Provider of components for Smart nodes and Gateways solutions
TECHNOLOGY PROVIDER

HOW IT WORKS

COUNTRIES

PARTNERS





IoT System based on a LoRa private network allowing:

- Data gathering in real time from both the vineyard (weather conditions, vine phenological stages) and the wineries (Temperature, Humidity, water and electricity consumption),
- Big data analysis,
- Decision-making at anytime and anywhere through specialized wine production applications running on mobile devices.

THE IMPACT

OUR OBJECTIVES

- Deploy 150 sensor nodes to gather data from 5 vineyards, covering 150 hectares and 4 cellars,
- Perform data analysis and facilitate decision making,
- Improve vine yield and wine production.

ON ECONOMY

- Reduced pesticides costs - 20%,
- Reduced fertilizers costs - 20%,
- Productivity gains (salaries and social charges),
- Increased annual savings due to accident prevention.

OTHER IMPACT

- Treatment frequency index,
- Cost reduction in phytosanitary measures and fertilizer use,
- Potable water use reduction in processing stage,
- Energy use reduction in processing stage,
- Reduction of GHG 600.

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