

RESULT 2: OPEN PLATFORM FOR SHARING KNOWLEDGE

WP 1: Learning Environment for SMEs

CASE STUDIES DEVELOPMENT

Case study Le Tre Virtù

Part 1: General information for the enterprise

1. Name **Azienda Agricola Le Tre Virtù**
2. Location **Chiaromonte Gulfi**
3. Subject of activity **soil-less cultivation of soft fruits**
4. Legal status **Simple partnership**
5. Management
 - a. Gender: **Male** / Female / Other
 - b. Age: **up to 35** / 36-45 / 46-55 / 56-65 / over 65
 - c. Education: primary / **secondary** / higher
6. Farm size
 - a. cultivated land **13ha**
 - b. species and numbers of animals **none**

Part 2: Smart technologies used on the farm

The company owns various technologies such as weather station, tensiometer, pluviometer and other sensors to assess air and soil conditions.

These technologies collect data from the field and the greenhouse, process them through an algorithm and send a command to the elements in the greenhouse (i.e.; close part of or the entire greenhouse as the wind increases or if the temperature drops). Based on the values supplied by the external weather station, the system monitors the vital parameters of the crop (temperature, humidity, water retention, etc) and intervenes to bring them to the desired condition.

The company can consult the data collected by the sensors at any time and from anywhere: farmers receives notifications when threshold values are reached and can program the necessary interventions (i.e.; irrigation, frost protection, etc.)

Part 3: Owners' satisfaction with the use of smart technologies

1. Utility assessment

These technologies allow to increase the productivity of the crop, rationalising the consumption of resources (energy, water and labour force) and preventing plant diseases.

By also installing actuators, it is possible to use the data collected by the sensors to perform actions (such as activating irrigation or opening ridges) without the farmer having to be physically present, thus optimising costs.

2. Potential risks

Potential risks are linked to the fact that not all the 4.0 technologies fit the company's needs. To overcome this problem, it is fundamental to tailor these technologies to the farmer's demands and to ensure customer assistance even after the sale.

Part 4: Financing the investment in smart technologies

The farm bought the technologies thanks to an investment from its own resources, taking advantage of tax credit

Part 5: Future intentions towards smart technologies

The company plan to invest in the following technologies: electric tractor, oxygenator for fertigation, water management system to collect rainwater.





