

System for the management, protection and enhancement of fruit supply chain

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

FruitGuard

Tematica

Robotica-automazione

Information

Time frame

2020 - 2023

Durata

36 months

Partners (no.)

6

Regione

Piemonte

Comparto

Frutticoltura

Localizzazione

ITC11 - Torino

ITC16 - Cuneo

Costo totale

€709.929,99

Fonte di finanziamento principale

Programma di sviluppo rurale

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2014IT06RDRP009: Italy - Rural Development

Programme (Regional) - Piemonte

Parole chiave

Farming/forestry competitiveness and diversification

Supply chain, marketing and consumption

Farming equipment and machinery

Food quality / processing and nutrition

Project status

ongoing



Objectives

The main objective of FruitGuard is to innovate the company and the fruit supply chain through the use of the new technologies that allow to manage in detail the harvesting of the fruit by the farm and the traceability of the products inside of the supply chain starting from the production phase. The result of the project will then be a smart technological system whose use will allow to know in a capillary way the history of the product to protect and enhance the entire fruit supply chain.

Activities

FruitGuard will focus on the control and traceability of fruit products, from harvest to final sale. The development of wireless and low-cost technologies will enable the possibility to know the origin and the quality of the crop during the entire food chain. The farms' workers will be equipped with specific hardware that will enable them to link different information with the product: each box will hold harvest time, location, and who performed the harvesting. So, FruitGuard will develop specific technologies to increase goods traceability and information for the final customers.

Context

Fruit harvesting does not take place in a single phase, but in several steps. In each one, only the product at the right point of ripeness should be collected and any overripe product discarded. If performed correctly, this procedure allows an important reduction in waste. Furthermore, goods that cannot be marketed as fresh will also decrease, increasing the crop's yield per hectare. However, the harvesting farms' staff is almost always seasonal and generally hired exclusively for the harvesting campaign, typically lasting a few weeks. The harvesters' training takes place for the most part

in the processing phase and involves a level of "knowledge of the trade" rarely adequate. After being collected, the product is delivered to the warehouses that provide for cooling and all subsequent processing after an initial evaluation and possible sorting. Harvesting in the countryside that is not carried out correctly requires long sorting times in the warehouse, which leads to an increase in costs, a delay for the subsequent processing phases, and a lowering of the overall quality and risk of returns. Therefore, it is evident that poor management of the harvesting phase and the further processing steps within the farm produces waste of time and money, which consequently affects the quality and economic value of the final product.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Politecnico di Torino - Dipartimento di Elettronica e Telecomunicazioni	C.so Duca degli Abruzzi, 24 10129 Torino TO Italy	011 0904210	det.progetti@polito.it
Partner	MDPtech S.r.l.	Via Spielberg 89 12037 Saluzzo CN Italy	017 588920	info@mdpotech.it
Partner	Kynerion S.r.l.	Via Giuseppe Piazzi 30 10129 Torino TO Italy	011 19117071	info@kynerion.com
Partner	Agrifrutta Società Cooperativa Agricola	Via Beinette 2 12016 Peveragno CN Italy	0175240305	info@agrifrutta.it
Partner	Società agricola La Sandrina di Rivoira Luca e C. Soc. Sempl.	Via Pomarolo 124 12039 Verzuolo CN Italy	342 7117783	info@lasandrina.it
Partner	Azienda agricola Tetto Isabella di Ellena Danilo	Via Del Gavotto 34 12016 Peveragno CN Italy	3407351085	dadu206@libero.it

Pratiche abstract

