

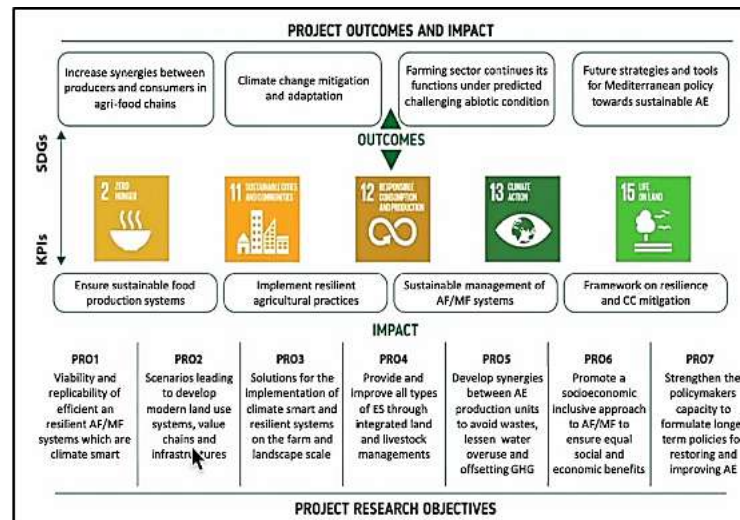


- Living Lab 1 (Cesa) - Integrated Farming with Intercropping Systems
- Living Lab 2 (Sekem) - A biodynamic agricultural
- Living Lab 3 (Gramona) - A pioneer in agro-ecological winemaking

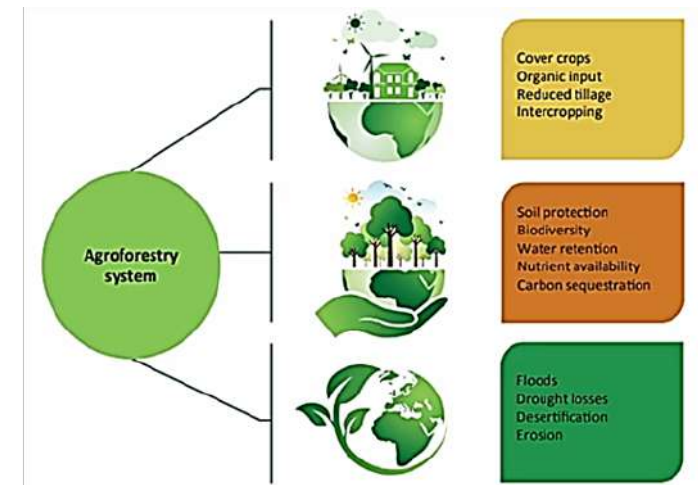
Main objective of the project is to characterise sustainable and profitable agroforestry/mixed farming systems that are resilient and adaptative to climate change, make efficient use of renewable resources and reduce greenhouse gas emissions, and to explore the socioeconomic and political conditions under which a shift to a more sustainable agroecosystem can be enabled



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MEDITERRANEAN AGROSYSTEM FOR SUSTAINABILITY AND RESILIENCE UNDER CLIMATE CHANGE



THE 10 ELEMENTS OF AGROECOLOGY

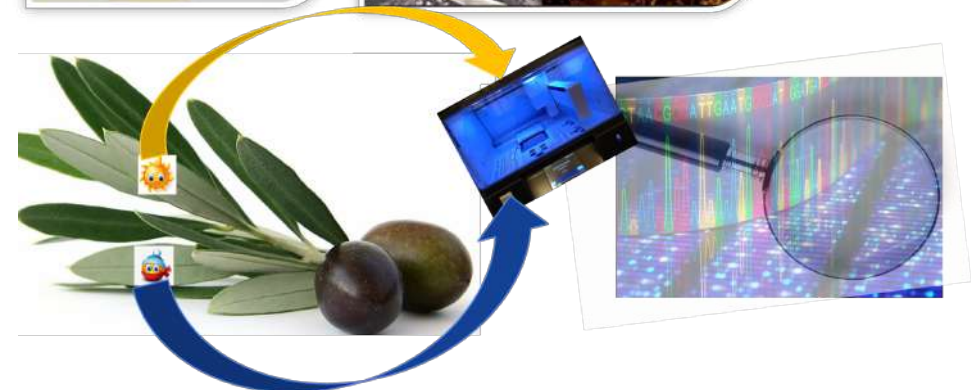
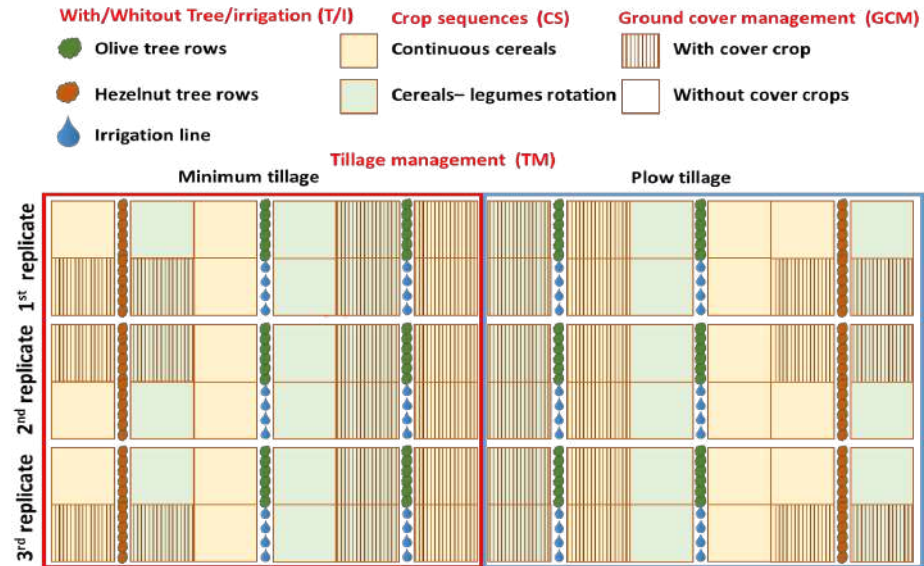


The purpose of the Living Lab is to demonstrate the ecosystem services provided by the intercropping between rows of woody perennials (olive and nut trees) and herbaceous plants (cereals and legumes). The tree varieties chosen are suitable for high-density planting and fully mechanized harvesting. Irrigation involves the use of an automated drip irrigation system in order to provide water directly to the root zone of the plant, in the right quantities saving on water inputs and maintaining soil moisture during the dry season for the development of mycorrhizae. Moreover, the design of the experimental field foresees a different management of tillage, one side with conventional tillage and the other with minimum tillage.

Data are assessed:

- 1) Soil chemical-physical analysis
 - 2) Soil biology and Biodiversity
 - 3) Crop production benefits of the agroforestry system
 - 4) Role of crop rotation and tillage on soil fertility
- Evaluation of genetic adaptability of trees in the agroforestry system and selection of new resilient and high quality tree species and genotypes for important traits related to the agroforestry system under drought stress.

The Living LAB is part of the Demofarm in the Cesa Farm, a place where testing and the transfer of innovation and agricultural applied research is an essential part of its mission. Demofarms are demonstration farms realized with the aim of satisfy two objectives: on one hand, creating added value through knowledge exchange, in way of promoting diffusion of innovation, on the other hand making a more competitive sustainable and resilient agriculture. Through this system Demofarms realize their role of intermediary between research and agri-food companies.



EXCHANGING OF KNOWLEDGES

COMPETITIVE AGRICULTURE

PRODUCTIONS ENHANCEMENT