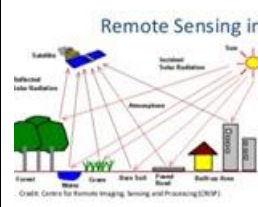
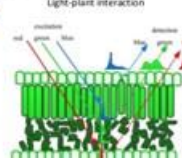


ZEROPARASITIC: INNOVATIVE SUSTAINABLE SOLUTIONS FOR BROOMRAPES: PREVENTION AND INTEGRATED PEST MANAGEMENT APPROACHES TO OVERCOME PARASITISM IN MEDITERRANEAN CROPPING SYSTEMS						
Project Title						
Name of legal entity	Country	Contract value (€)	% carried out by Epsilon	Origin of funding	Date (start/end)	Consortium Members
	Africa Maghreb	1,407,500.00	150,000,00	PRIMA	04/2020-03/2023	10 members http://zeroparasitic.eu/
			1,407,500.00 (Total)			
Description of the project						Services provided
 ZeroParasitic is a remote sensing (Copernicus) based three-years project, aiming to deliver innovative sustainable solutions to overcome broomrape plant parasitism in key Mediterranean cropping systems. Genetic and molecular approaches will be used at three critical levels to gain new insights on potential regulatory targets of the infection via terrestrial and satellite technologies: the broomrapes per se, the host plants and their interaction (host-parasite). Research will target two of the most important crops in the Mediterranean. i.e. industrial tomato and faba beans. Surveillance tools utilizing remote and satellite images will be employed for monitoring parasitism and for large-scale documentation. Innovation tools will consist of molecular approaches for screening and identification of tolerant/resistant hosts and hormone host-parasite interactions. Deciphering the molecular basis for resistance utilizing pattern recognition receptors (PRRs) and other defence-triggering molecules aiming to support breeding of resistant host plants. Solutions will be integrated in an integrated pest management (IPM) context targeting several innovations such as prevention, biological/non-chemical approaches, and other IPM strategies. Agronomic practices will be scientifically supported by a validated model for prediction of parasitism emergence across various Mediterranean locations and farming systems. Solutions will be socioeconomically evaluated, implemented and disseminated in a participatory way. The dissemination of the Project outputs will be based on a systems-thinking approach and the solutions that will be proposed will be highly accessible via an innovative web platform designed to satisfy requirements of a wide range of end users.  Remote Sensing in Agriculture  Light-plant interaction Key components Remote and satellite technologies to map parasitism in tomato Multi-spectra imaging could produce NDVI values that would be associated with parasitism through lower host plant growth, and could be particularly useful for early detection (prior to broomrape emergence) ✓ Local sensing technologies (UAV's) to map parasitism ✓ Upscale to regional area by satellite images Launching a Web-enabled Platform The aim is to develop a web-based platform that will enable: a) use of geographic and general information on the problem of parasitism in the pilot applications; b) decision-making assistance to solve the problem, c) Calibration of the proposed solutions. An N-tier architecture model will be adopted, allowing for scalability, ease of management, flexibility and security ✓ Technical requirements ✓ Conceptual Architecture and Interface						