



Acronym	SensOFOREST
Full Title	Sensor synergies for long-term climate impact monitoring in Mediterranean open forest
Partner(s)	Fundación Centro de Estudios Ambientales del Mediterráneo, Spain (<i>coordinator</i>) Agencia Estatal Consejo Superior de Investigaciones Científicas, Spain
Grant Theme	Pilots of long-term climate impact forest monitoring sites
Start Date	July 2024
Duration	18 months
Description	SensOFOREST contributes to the FORWARDS network of pilot sites by developing a comprehensive integrated system based on the combined use of ground sensors and multi-scale and multi-sensor proximal and remote sensing. Three sites representative of typical Mediterranean Quercus ilex open forest, including a well-established high-profile long-term monitoring site, have been selected to contribute, in an optimal way, to the FORWARDS network. The three call foci are covered by the project, including: • The implementation, in two sites, of point dendrometers and soil water potential sensors following the TreeNet Network recommended standards in terms of instrumentation and data management. These sites will then provide the full suite of measurements by the linking methods concept and qualify as supersites to contribute to the pilot FORWARDS network for stress nowcasting. • Linking ground measurements, airborne and satellite systems to monitor open forest. Hyperspectral and thermal flights, compatible with call requirements, are undertaken in the three study sites. Simultaneous foliar and canopy sampling including spectral and biochemistry as well as additional information (leaf area index, crown defoliation assessment) are performed. An integrated database of multilayer optical and functional traits will be produced allowing us to derive, through empirical and radiative transfer models, tree functional traits linked with forest status. • Gaining information on carbon stocks and stand structure by performing both terrestrial laser scanning and UAV-LIDAR measurements at the three selected sites. Carbon stock and sequestration rate will also be estimated.



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