

Description of innovation

Innovation	
Title	Essential Operative Group
Picture	
Domain	Silviculture. Wood energy
Source of wood	Shrubs
Location	Spain
Implementers	Agresta, Ceder, Universidad de Valladolid, Universidad de Valencia, Avebiom, Instituto Murciano de Investigación y Desarrollo Agrario (IMIDA), Sociedad Española de Agricultura Ecológica (SEAE)
Actual status	Starting in 2019
Approach	Search for pilot areas, biomass sampling and extraction preparation Extraction of essential oils and hydrolysis of biomass Characterization of compounds present in essential oils and residual hydrolyzed biomass
Main results	(Expected results) Development of innovative biofuels and bioproducts from forest biomass with little or no use as bushes and forest treatment residues through state-of-the-art techniques applied throughout the value chain. To define the best management, harvesting techniques and forestry treatments for rockrose, juniper, rosemary, pine and eucalyptus. Selection of pilot action areas. To develop a prototype of continuous extraction of essential oils using microwave technology. Production, analysis and testing of products in the laboratory and in the field: biocides, solid biofuels (pellets) and liquid biofuels (ethanol).
Lessons learned	In progress
Contact information	jolivar@agresta.org
Link to website	In progress
Code	IN_ES_02

Innovation assessment

Region	Spain
Time scale	2029-2021
Mobilization Potential	
Kind of wood concerned	Shrubs
Sustainability Potential	Positive
Impact on environment & biodiversity	Good
Ease of implementation	Difficult
Economic impact	Expected low
Job effect	Expected low
Income effect	Expected low
Specific knowledge needed	
Costs of implementation	
Technical readiness level	Technology concept formulated
Key information for adoption	