



## **CALL TEXT AND SUPPORTING INFORMATION**

### **Call: Section 1 – Farming Systems 2019**

RIA – Topic 1.2.1: Conserving water and soil in Mediterranean dry-farming, smallholder agriculture

Version 1.0  
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## **RIA – Topic 1.2.1: Conserving water and soil in Mediterranean dry-farming, smallholder agriculture**

### **Challenge**

Research results have proven that conservation agriculture<sup>1</sup>, as part of agro-ecological practices, has the capacity to increase crop water availability, and to control soil erosion. However, its adoption in Mediterranean environments has been moderate to date. This is particularly true for the smallholders prevailing in the region. Their vulnerability and limited access to specific farming machinery, the difficulties in maintaining crop residues on the ground and avoiding soil compaction, and the lack of alternative crops to temperate cereals adapted to conservation agriculture can partially explain this moderate adoption rate. This in spite of indications that conservation agriculture can reduce labour and energy costs. Profitable and successful applications of conservation agriculture to arable and perennial crops require understanding local agro-systems and socioeconomic barriers. Addressing the barriers limiting the adoption of conservation agriculture considering agroecology innovations will increase the sustainability of their farming operations and to the conservation of soil and water in the region.

### **Scope**

Mediterranean crops agroecology, systems and farmers can benefit from the widespread application of conservation agriculture in the region. While conservation agriculture has been widely adopted in semiarid regions in North and South America and Australia, large opportunities remain for its application in the Mediterranean Area. Action is required to increase crop water availability and to control soil erosion. A socioeconomic analysis is required to identify the barriers preventing widespread application of these techniques. The vulnerability of the smallholder farmers in the region, the availability of specific machinery, the competition for residues, the control of weeds and the lack of alternative crops to temperate cereals adapted to conservation agriculture stand as candidate variables explaining the situation. Research and innovation proposals should foster local stakeholders' cooperation in the identification of technical, policy and socioeconomic barriers preventing the adoption of conservation agriculture. Proposals should also address technical barriers through the development of site-specific solutions in demonstration sites located in different agro systems.

Local conservation agriculture adopters and/or local long-term experiments should be identified characterized and their systems, in terms of resources conservation and profit, should be evaluated.

Proposals should also consider capacity building activities addressed to farmers in the region to foster adoption of conservation agriculture. Proposals should also develop societal, technological and policy innovations facilitating the adoption of Conservation Agriculture in the region.

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<sup>1</sup> Conservation Agriculture is characterized by three linked principles: continuous minimum mechanical soil disturbance, permanent organic soil cover and diversification of crop species grown in sequences and/or associations ([www.fao.org/ag/ca/1a.html](http://www.fao.org/ag/ca/1a.html)). It has the capacity to control erosion and in certain conditions increase crop water availability.

## Expected impact

*Proposals should contribute to implement priorities set in the PRIMA SRIA and show the clear link of how expected impacts from the projects are going to implement the expected outputs indicated in PRIMA SRIA.*

The project results must contribute to PRIMA Operational Objective 4/ SMART AND SUSTAINABLE FARMING<sup>2 3</sup>

The project results are expected to contribute to:

- Reduced and optimised use of scarce natural resources (water, energy, nutrients) and potentially toxic substances (synthetic pesticides, mineral fertilizers, antibiotics) in agriculture;
- Redesigned cropping systems, more resilient to climate uncertainties, based for example on crop associations, agro-forestry, multi-crop rotations, and enhancement of pulses and other leguminous plants;
- Demonstrate increased rainfall water availability and water use efficiency for Mediterranean dry farming crops;
- Improved (more, better, safer) production of Mediterranean crops with efficient water management;
- Improved knowledge of soil erosion mechanisms to enhance fertility under conditions of water scarcity and to develop management recommendations for soil conservation;
- Improved knowledge of the technical, spatial and organizational dynamics of Mediterranean production systems to promote adoption of innovations by farmers also by integrating farmers' knowledge in the innovation process.

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<sup>2</sup> PRIMA SRIA Expected Outcomes Thematic Area Farming Systems, Operational Objective 4 page 27.

<sup>3</sup> Annex 1 of the Annual Work Plan 2019 pages 114-117; table linking AWP 2019 call topics expected impact to SRIA expected outcomes

## Supporting information for the Section 1 Call for Proposals, Topic 1.2.1

<i>Type of action</i>	<b>Research &amp; Innovation Action (RIA)</b>
<i>Total indicative amount allocated to this call</i>	€ 4.5 million
<i>Funding level</i>	According to Horizon 2020 rules <i>Funding rate: 100%</i>
<i>Technology Readiness levels (TRL)</i>	3 to 5
<i>Expected number of grants</i>	Up to 3 (projects up to € 1,5 million each – indicative amount)
<i>Expected duration of the projects</i>	36-48 months
<i>Eligibility conditions for participation</i>	Please refer to section 5.1.1 of Annual Work Plan 2019 The standard admissibility (section 5.1.2 of Annual Work Plan 2019) and eligibility conditions (section 5.1.3 of Annual Work Plan 2019) apply
<i>Submission and evaluation procedure</i>	Two-stage application procedure. For the first stage, a short proposal (maximum 10 pages) must be submitted by the first deadline. Successful applicants in the first stage will be invited to submit a full proposal (maximum 50 pages) for the second stage. A timeline for the submission and evaluation of applications can be found in table 9 of Annual Work Plan 2019
<i>Evaluation rules</i>	The award criteria, scoring, thresholds and weightings for RIAs listed in part 5.1.6 of Annual Work Plan 2019 will be used.
<i>Grant agreement</i>	PRIMA MGA (multi-beneficiary), based on Horizon 2020.
<i>Consortium agreement</i>	Participants in projects resulting from this Call for Proposals will be required to conclude a consortium agreement prior to the conclusion of the PRIMA grant agreement.