Climate resilient farming and forestry systems and water management
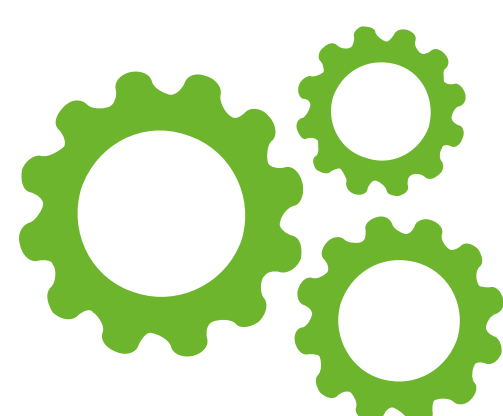
AGRI Innovation summit 2019

Operational **G**roup

EGIS: Strategies for integrated soil and water management in nut species

EGIS: Estratégias de gestão integrada do solo e da água em espécies produtoras de frutos secos

Practical problem

Poor quality of the fertiliser recommendation programmes. Cover cropping adjusted to dry regions. Water use efficiency in a context of climate change.

Calendar
Start: 01/01/2018
End: 31/12/2020

Budget
Total amount:
€300,054.81

Partners
CNCFS, IPB, UTAD, IPC, IPV, INIAV, REFCAST, LCN, ARATM. CAAF, ARBOREA, COAMENDOA, AFLODOUNORTE, Soutos os Cavaleiros, Agro Rio Bom

Objectives of the project

In nut species, in particular when cultivated in rainfed conditions, there are no studies of plant response to lime, soil-applied fertiliser, foliar sprays or bio stimulants. The objective of this work is to know particularities of the reactions of these species. Cover cropping is an efficient way of reducing soil erosion and increase carbon sequestration. However, in arid climates, cover cropping can severely reduce crop productivity, so we try to develop models of cover cropping which are suitable. Legumes will receive particular attention. Deficit irrigation strategies are evaluated to maximise crop water productivity instead of maximising the harvest per unit of land.

Main activities

Field trials: dispersed across a vast territory ans four species (chestnut, almond, walnut, hazel). Field trials and laboratory analysis. Organisation of conferences and seminars across the north of Portugal. Papers in technical journals and advisory reports. Scientific papers in international journals.

Expected results

Data to increase the quality of the fertiliser recommendation programmes Development of models of cover crops suited for irrigated and rainfed fruticulture. Irrigation strategies suited for regions of water scarcity

Results so far/first lessons

First year of the installation of the field trials. No consistent results yet.
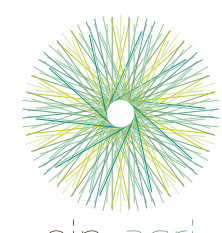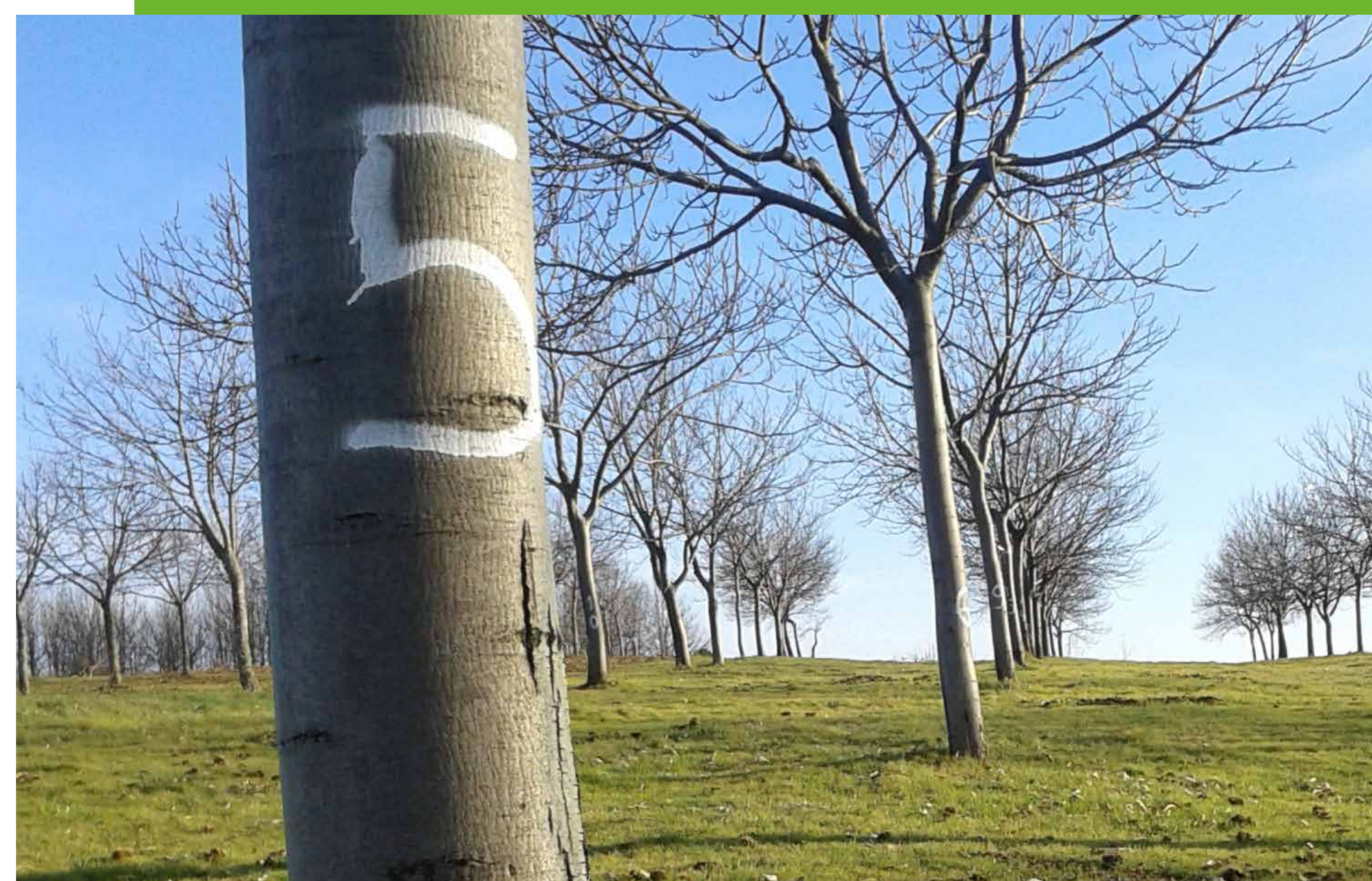
Who will benefit

Farmers and the advisory systems (technicians and labs), since they will have better information to make agriculture more competitive, sustainable and environmentally friendly.

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