

# AGROFORESTRY INNOVATION NETWORKS

Portuguese Regional Agroforestry  
Innovation Network (RAIN) from the  
AFINET project: SWOT analysis after two  
years of establishment

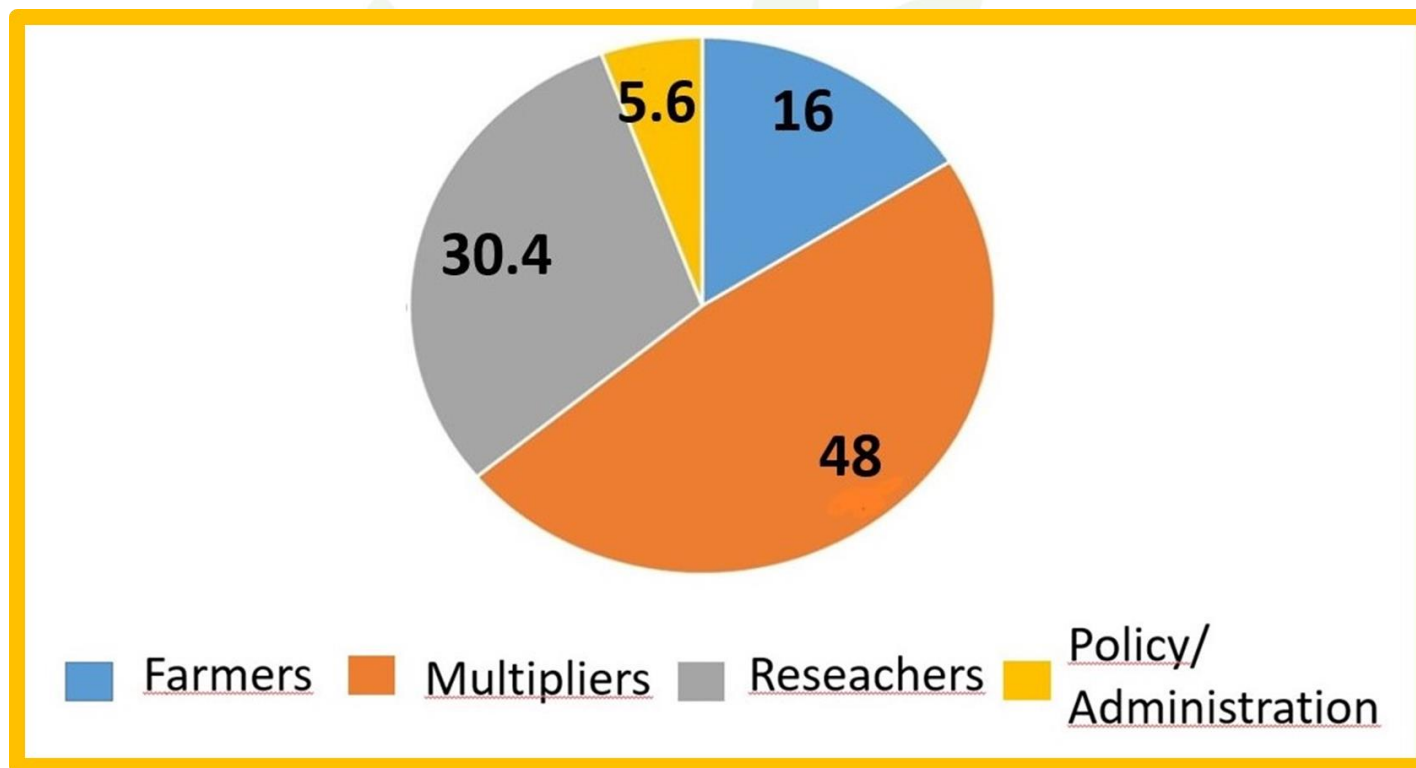
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# THE PORTUGUESE REGIONAL AGROFORESTRY INNOVATION NETWORK (RAIN)



PERCENTAGE OF PORTUGUESE STAKEHOLDERS CATEGORIES FORMING THE PORTUGUESE RAIN. DATA UPDATED IN MAY 2019.





# SWOT ANALYSIS

## Portuguese Regional Agroforestry Innovation Network (RAIN) from the AFINET project: SWOT analysis after two years of establishment

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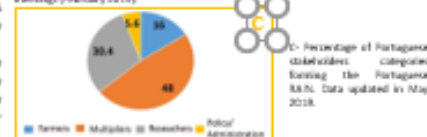
Portugal is participating in the AFINET project that runs in nine European countries. The project aims at taking up available research results on agroforestry into agricultural practice.

The development of the Portuguese Regional Agroforestry Innovation Network (RAIN) started in January 2017. In order to guarantee the representation of the aimed stakeholders categories and a broad regional distribution, the registration process was largely announced by several communication channels. In addition, a direct invitation to key stakeholders was also made. Until February 2019 four RAIN meetings have been carried out (Figures A, B and C).

At this mid-point of the project, a SWOT analysis exercise was carried out in order to analyze current results and prepare future activities that will run until December 2019 (end of the project) and intend to keep the network communication after this date.



Figure A – 1<sup>st</sup> Portuguese RAIN meeting (September 2017); Figure B – 4<sup>th</sup> Portuguese RAIN meeting (February 2019)



### Main knowledge gaps and innovations identified by the RAIN

- Nutritional value of shrubs and trees for silvopastoral systems
- Agroforestry in the corners of irrigation pivots for increasing irrigation water usage.
- Usage of ramial chipped wood of eucalyptus as a natural fertilizer
- Usage of *Eucalyptus globulus* stem as natural supporting structures for crops
- Using fast growing species for biomass production in alley cropping systems
- Agroforestry in vineyard systems
- Rainwater harvesting in Mediterranean silvopastoral systems
- Shelterbelts and windbreaks: principles for installation



### STRENGTHS

- current interest on Agroforestry
- large impact of the available communication channels, in particular social media
- relationship with the EURAF member's community
- high number of agroforestry systems and practices referred by stakeholders
- awareness of relationships constraints between different stakeholder types
- innovation broker motivation and collaboration with other project team members

### OPPORTUNITIES

- using the RAIN as the network for future projects related to the Agroforestry topic
- increase communication of scientific knowledge from science to practice
- establishment of new experimental and demonstration trials in collaboration with network farmers
- basis for the creation of a national Agroforestry association.

### WEAKNESSES

- small impact at the national policy level
- practical constraints to increase the implementation of activities covering a broader geographical distribution area
- lack of expertise regarding all of the referred topics, demanding a significant increase of time to tackle them

### THREATS

- lack of funding for RAIN activities sustainability after 2019
- concentration of efforts in already well established and recognized agroforestry systems in Portugal (e.g. montado)
- lack of institutional awareness to the agroforestry concept (forest and agriculture usually approached like two separate topics).

### Acknowledgments

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## SWOT ANALYSIS: STRENGTHS

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# MAIN KNOWLEDGE GAPS AND INNOVATIONS IDENTIFIED BY THE RAIN

- Agroforestry in the corners of irrigation pivots for increasing irrigation water usage
- Rainwater harvesting in Mediterranean silvopastoral systems
- Shelterbelts and windbreaks: principles for installation

WATER




# MAIN KNOWLEDGE GAPS AND INNOVATIONS IDENTIFIED BY THE RAIN

05

INNOVATION

## RAINWATER HARVESTING IN MEDITERRANEAN SILVOPASTORAL SYSTEMS

Swales and small ponds: tools for rainwater catchment under climate change





### THE WHAT AND WHY

#### The importance of water harvesting and retention in Mediterranean silvopastoral systems

In dry areas such as the ones found in the Mediterranean region, water availability is a critical issue that requires the promotion of sustainable management practices and tools. These issues are even more relevant under current and future climate change scenarios. Rain may also be a cause of soil erosion. This happens, for example, in the areas where the land is not suitably designed to store water, and when extreme events, such as intensive rainfall, occur in short periods of time. Some

holders have implemented swales and small ponds to maximize water catchment. Ponds can be bigger or smaller depending on the size of the farm and the soil topography. The way they are built depends mostly on climate and soil conditions. Swales on the other hand, are ditches that go along the contour slope lines and are used to reduce the flow of the water, and make it slowly infiltrate the soil. These features are relatively inexpensive and very effective as water management tools.





# Research



AFINET+?  
Shelternet?



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Universidade de Lisboa

Capacitation  
Knowledge  
exchange



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