

The technology for better irrigation already exists: the gap is reaching the grower

In March 2019, irrigation researchers from Chile, Argentina, Uruguay and Spain met technology companies in Santiago to define what the region’s agriculture needs and how to get it to the end user.



1
Regional platform established



1
Agreed project prepared



7
Categories of technological tools prioritised



7
Agricultural regions selected for pilots



The technology exists; the gap is reaching the grower

Initiative

The initiative grew out of the sixteenth meeting of the Ibero-American INIA system, held in La Serena in October 2017, where the institutions agreed to create a dedicated working group on water for agriculture. The seed fund turned that mandate into a technical workshop at INIA La Platina, Santiago de Chile, from 20 to 22 March 2019.

Eleven presentations set out concrete experience in using new technologies for irrigation management, from research institutes and universities as well as technology suppliers, detailing the strengths and weaknesses of each tool. That material was used to build a matrix of technological gaps and solutions.

Seven families of tools, from the crop leaf to the river basin

Tech solution

The platform agreed seven categories of technological tools: defining crop irrigation requirements; monitoring crop development; monitoring internal crop water status; monitoring water availability in the soil; modelling the soil water balance; modelling water supply and demand at regional scale; and recording and controlling water at regional and farm scale. What distinguishes them is that they span

linked scales, from water potential measured in a single plant with a pressure chamber or dendrometer to telemetric gate control across a whole basin. The workshop showed both ends in operation: Chile’s satellite agricultural platform, which tracks crop development through the NDVI index, and the telemetric gates of the Elqui River water users’ association.

MORE INFO



Impacts and Results

The seed fund closed with the Water Management in Agriculture 2030-2050 Platform established and an agreed project defined for submission to FONTAGRO. The seven families of technologies were settled, along with the two working scales, basin and on-farm irrigation, and the selection criteria: actual crop water requirements, water supply, agronomic water

productivity, water quality and distribution, and decision strategies based on the information generated. The project provides for technological pilots in seven agricultural regions across five countries: Coquimbo and Ñuble in Chile, Mendoza and Córdoba in Argentina, the Cauca valley in Colombia, Salto in Uruguay and the Ebro basin in Spain.

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