

## PROJECT SUMMARY

### URUGUAY

#### LIVING LAB URUGUAY: VALIDATING AGTECH SOLUTIONS FOR GREATER RESILIENCE TO CLIMATE CHANGE

(UR-T1287 and UR-G0005)

In Latin America and the Caribbean, as in other regions around the world, climate change has brought new challenges for agriculture and will continue to do so. Food production faces a variety of risks, associated mainly with heat stress and water stress directly on crops and livestock. Meanwhile, erosion processes, droughts, floods, and wider spread of diseases and pests are causing lost productivity and reducing cultivable areas.

The challenge of increasing and/or even maintaining crop yields while ensuring the development of resilient agriculture can now be addressed using technology-based solutions.

In Uruguay, the process of digital transformation of small and medium-scale agricultural producers has been slow, with only 8% of family farmers having access to an advanced digital technology. However, 89% of producers believe that technology use presents an opportunity for their business. Several factors are behind this early stage of digital adoption and transformation among agricultural producers, including: (i) connectivity; (ii) the digital skills of rural producers; (iii) lack of knowledge about solutions and their use cases and benefits among producers; (iv) lack of confidence in digital solutions among producers; and (v) an unclear value proposition of digital solutions for users, since this is an emerging sector.

Even though agtech is an emerging sector, significant benefit can be gained from building an innovation ecosystem where innovative startups and companies develop technology-based solutions for agricultural producers that have a clear value proposition and can be adopted rapidly. The National Agricultural Research Institute (INIA) is in an excellent position to become a catalyst for the local and regional agtech ecosystems, contributing its knowledge, methodologies, physical space, and role as facilitator and bridge between the public and private sectors.

The **objective** of this project is to pilot a first Living Lab where public-private efforts are coordinated to co-innovate technology solutions with a focus on the sustainability and climate change resilience of productive systems, and an emphasis on small and medium-scale agricultural producers in Uruguay.

This facility will become a hub where the productive sector, innovators, entrepreneurial ecosystem support organizations, investors, and the academic and research sectors can gather and contribute to solutions for those working on technology offerings and for some existing bottlenecks in the productive sector.

Protocols will be designed for the validation of digital technology solutions, to generate robust data for the productive sector about their financial and environmental benefits. Spaces for interaction between problem-solvers and the industry (researchers, technical specialists, producers, agriculture sector business leaders) will be essential for developing iterations of products and services, a better understanding of the technologies offered in the productive sector, and opportunities to see these technologies in operation. Innovators will receive support for strengthening their business models, as well as matchmaking with

potential investors to help them scale their entrepreneurial ventures. They will also have access to contingent financing, executed by the National Research and Innovation Agency (ANII), enabling them to improve and scale.

After the solutions complete this validation process, potential adopters can receive better quality information that reduces their digital transformation risk, supplementing the efforts of the Ministry of Agriculture, Livestock, and Fisheries (MGAP) and the National Development Agency (ANDE).

The project is expected to reach 950 small and medium-scale producers and technical advisors and at least 30 startups. Upon completion of the project, INIA will have enhanced its ability to continue expanding its digital strategy and scaling the Living Lab nationally and regionally. To achieve this objective, the project will have a total investment of US\$1,460,830, consisting of support from IDB Lab with nonreimbursable technical-cooperation funding of US\$400,000 and a contingent recovery investment grant of US\$300,000, and a projected counterpart contribution of US\$760,830 from the executing agencies.

IDB Lab; the Environment, Rural Development, and Risk Management Division (RND); and the Science, Technology, and Innovation Division (CTI) will gather the lessons learned from the project's business model and disseminate them to a wider audience.

The project is aligned with the IDB Group Country Strategy with Uruguay.