



PARTNERS



IN SHORT

This Food Agility CRC project is delivering reliable soil intelligence, an essential tool for improving productivity, strengthening carbon markets, and enabling climate-smart agriculture.

“UTS-RFCT Lab technologies have progressed beyond research into active commercialisation planning, with NTT developing business strategies and market pathways to support future deployment in Australia, Japan, and other international markets,”

David McKeering, NTT DATA A/NZ

THE CHALLENGE

Farmers need timely, accurate information on soil moisture, nutrients, soil health, and soil organic carbon. Yet existing soil measurement approaches are often expensive, labour-intensive, fragmented, and difficult to scale. Climate-smart agriculture and carbon markets require trusted soil intelligence, but today's technologies force farmers to choose between accuracy, scalability, and affordability. No existing solution delivers all three simultaneously. High monitoring costs, limited decision-making capability, low confidence in carbon measurement and carbon credits, and reduced productivity continue to limit the adoption of precision agriculture and sustainable land management practices.

OUR APPROACH

The vision of this Australia-Japan collaboration is to make soil intelligence trusted, affordable, and scalable, supporting sustainable agriculture, food security, and the transition to net zero. To achieve this, the team have developed a multidisciplinary, AI-enabled soil intelligence platform that integrates Radio Frequency (RF) sensing technologies, RF energy harvesting, wireless communications, and embedded AI into a unified system. The platform delivers real-time, multi-parameter, multi-modal, and multi-depth soil intelligence while reducing the cost and complexity of soil monitoring.

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