

Case Study



## Enabling innovative agricultural practice with reliable satellite network coverage.

### The Challenge

Farmbot recognised the need for a satellite communication partner to enable its innovative water monitoring technology for farmers in the most remote locations of Australia.

### The Solution

By merging traditional agricultural farming practices with Internet of Things (IoT) monitors enabled by Pivotel's satellite technology, Farmbot is able to track water quality, levels, pressure, flow, rainfall and much more for farmers through its 24/7 near real-time water monitoring solution. The partnership between Pivotel and Farmbot has reshaped modern agricultural practice over the past three years to support greater efficiencies and cost savings for farmers.

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Without the dependable, reliable satellite IoT communication network that Pivotel provides, Farmbot would not be effective in creating peace of mind for farmers. In fact, it is one of the key dependencies for the success of Farmbot.

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- Andrew Coppin  
Managing Director  
Farmbot

## The Business Problem

Australia's agricultural industry is worth \$60 billion to the country's economy; however, its sustainability is based solely on access to suitable water for the growth of crops and the survival of livestock.

While livestock can live for a week without food, it takes just 24 hours without water on a hot 40-degree day (not uncommon in rural and remote Australia) for their health to start rapidly deteriorating and, consequently, the livelihood of farmers to be affected.

With 120,000 farms across Australia at the mercy of damaging floods and droughts, Farmbot created an event-driven water monitoring technology solution that could be used by farmers in regional and remote locations across Australia.

Historically, many farmers have had dedicated staff or personnel constantly checking water, driving around their large properties monitoring water troughs and tanks to ensure their stock have suitable supply. Farmbot's water monitoring solution was designed to provide farmers with near real-time water level data and visibility and control over water assets allowing for a more sustainable and better managed water supply, all without leaving the homestead.

During the conceptual phase of the product's development, the Farmbot team recognised the need for satellite connectivity to enable the product to operate in locations where no cellular coverage exists. General Manager of Farmbot, Andrew Coppin, said finding a satellite network provider was a critical element in bringing to life their innovative solution that would transform daily life for Australian farmers.

"We had the capability to create technology which would vastly improve the lives of countless Australian farmers, but we also knew it couldn't be effective without reliable satellite connectivity," Andrew said.

## The Business Solution

Pivotel met with Farmbot at the end of 2014 to discuss the satellite connectivity solutions that would best support Farmbot's innovative IoT monitoring devices.

Recognising the importance of the solution Farmbot was looking to provide, Pivotel became involved almost immediately and is now a critical component to the success and implementation of Farmbot's remote water monitoring technology.

Pivotel, as Australia's only carrier with direct connection to the world's four major mobile satellite networks, connected Farmbot on the Globalstar service. With direct satellite connectivity, Farmbot was able to market its product to remote farmers operating across Australia's vast remote landscapes. With Pivotel enabling uninterrupted satellite monitoring for customers, Farmbot can provide farmers with peace of mind by delivering water monitoring data and insights in near

real-time. Farmbot saves individual farmers up to 200 hours every year in time spent tracking water assets and significantly reducing the running costs and fuel emissions from vehicles previously needed to complete water checks. "Our competitors use cellular networks and primarily only communicate data back to users every 24 hours. With Pivotel, we've produced a dynamic information solution that creates time and finance efficiencies for farmers, is cost effective and digitally accessible," Andrew said.

"Pivotel also provided both counsel and implementation support since the conception of the product to help bring the device to market and assist Farmbot in growing its market share."

## The Outcome

Introduced to market in November 2015, Farmbot monitoring solutions, enabled by Pivotel's unique satellite IoT service, is experiencing year on year growth of 800 percent, with more than 1,300 water monitors now in use on rural and remote farms.

Farmers continue to purchase monitors at a rate of approximately 40 units each week, making Farmbot one of the fastest growing water monitoring solutions in the country.

With Farmbot, farmers are saving up to \$1,700 in fuel and vehicle running costs every month, as well as introducing valuable once-lost hours back into their business and family.

It is estimated that for every 100 monitors installed, farmers will significantly reduce the quantity of on-farm accidents and save up to:

- 40,000,000 litres of water
- 20,000 hours of travel time
- \$648,000 on labour, fuel and vehicle maintenance costs
- 1,000+ livestock from heat stress or death

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## About Farmbot

Farmbot is an innovative start-up on a mission to provide farmers with a smart, cost effective and easy to use solution to better manage their most valuable resource – water.

Visit [www.farmbot.com.au](http://www.farmbot.com.au) for more information.