

CUSTOMER STORY



NSW Department of Primary

Industries

# NSW Department of Primary Industries wants to eradicate weeds forever — here's how AI is helping them build it.

AI Technologies designed and deployed a reliable Azure CI/CD pipeline for *No Space for Weeeeds* — a community weed-scanning platform powered by Azure AI — enabling DPI's developers to build, test and ship with confidence.

SECTOR	SOLUTION	APPLICATION
NSW Government · Primary Industries	Azure Cloud + Azure DevOps	WeedScan platform & Azure AI



## CI/CD

Reliable Azure DevOps pipeline stood up end-to-end

## 1-click

Deployments to Azure via Pipelines & Artifacts

## Azure AI

Machine learning identifies weeds from community photos

ABOUT THE CUSTOMER

## Backing NSW's agriculture, fisheries and forestry sectors.

The NSW Department of Primary Industries is part of the Department of Regional NSW. The department delivers a broad range of initiatives across the State — including research and development to grow agriculture, fisheries and forestry sectors, and regulation and administration of biosecurity, food safety, animal welfare and hunting in NSW.

THE ENGAGEMENT

## A new platform to help eradicate weeds, hosted on Azure.

NSW DPI approached AI Technologies in early 2021 to design and deploy a reliable CI/CD pipeline in Azure for their new weed scanning and documentation platform, code named *No Space for Weeeeds*. The DPI internal development team had extensive experience with Microsoft-based products and coding environments — trust in Azure was already there. What they didn't yet have was experience with Microsoft's Azure DevOps Services suite, including Azure Pipelines, Test Plans and Azure Repos.

THE SOLUTION

## Azure Cloud + Azure DevOps, designed end-to-end.

The DPI team needed to host the web application on Azure to take advantage of cloud infrastructure and Azure AI — and they wanted Azure DevOps to support and automate the software development and deployment process. AI Technologies began with a discovery phase to understand requirements, then designed and implemented the solution using multiple Azure DevOps components:

- 01 **Azure Boards** — Tracking work with Kanban boards, backlogs, team dashboards and custom reporting. DPI can track ideas at every development stage and keep the team aligned, with all code changes linked directly to work items.
- 02 **Azure Pipelines & Repos** — A CI/CD setup using cloud-hosted repo and pipeline so DPI can develop and automatically deploy the WeedScan web application to the cloud.
- 03 **Azure Artifacts** — A fully integrated package management solution for the CI/CD pipeline, with single-click deployments of WeedScan to the cloud.
- 04 **Azure AI** — Machine learning identifies weeds and weed patterns from images uploaded by the community throughout Australia.

*“AI implemented multiple Azure DevOps components to support the software development and deployment process and provide the environment for DPI to build out their applications.”*

CLINTON SHIELS · TECHNICAL DIRECTOR, AI TECHNOLOGIES



*You guys knew your stuff, had it all built for us on time, fun to work with and talk to. Couldn't see what could be better really.*

**Matthew Shillman**  
Lead Developer, NSW Department of Primary Industries

THE BENEFITS

## A reliable, repeatable DevOps pipeline that DPI relies on day after day.

The result has been a reliable and seamless DevOps pipeline that NSW DPI has been able to rely on time and time again — in pursuit of an application that helps eradicate weeds and helps primary industries achieve healthier (and cheaper) production outcomes.