

REGIONAL WINNER

Orbica Ltd

GeoAI: Feature Extraction and Classification

What was the problem?

Current geospatial practices cannot deliver near real-time information in a cost-effective manner from RGB imagery – either satellite, aerial or drone. Remote sensing – the use of satellite or aircraft-based sensor technologies to detect and classify objects of the Earth's surface - relies on expensive multi-spectral imagery and still requires manual geoprocessing. Large data sets take months to process.

How did you address it?

The aim was to build an intelligent system that could automatically extract and classify features of the Earth's surface from three-band Earth observation imagery to provide real-time insights. Creating a combination of AI algorithms and geospatial processes to automate the classification of buildings, waterbodies, roads, powerlines, and vegetation, with the assistance of seasoned geospatial professionals.

What were the key outcomes?

The use of high powered GPU's hastened the processing time of this from roughly 30 days to 1 minute, and has lead to testing with commercial clients in Germany and New Zealand. The AI is capable of reducing the time to produce digitised information from 8 hours to 30 seconds, with future goals development into a web and mobile platform for wider scale use.

For more information about this project or to contact Orbica, please visit their website: <https://orbica.world>

