

New AI Tech to Enhance Digital Model of Australia



Geoscape has partnered with GeoX to use machine vision and deep learning technology to enhance its 3D digital maps of Australia. Geoscape CEO, Dean Capobianco, said the partnership with this award-winning artificial intelligence company will advance what is known about what's at every address across the

country.

"By applying GeoX's patented AI technology to the highest-quality aerial imagery, we'll significantly evolve our digital model of Australia," Capobianco said.

Accurate digital models of Australia's urban environments provide the foundation data for digital twin applications that better reflect the real world. Up-to-date built environment data also improves the assessment of risk for insurers, allows architects to visualize new developments in the context of their surroundings, helps noise modellers better understand what will be impacted by noise, and powers modelling of energy use patterns in commercial and residential buildings.

Impressive data visualization

"Advanced information about the built environment, on a national scale can drive efficiency, cost reduction, insight and revenue generation across many sectors of the economy, including insurance, property development, energy and telecommunications," Capobianco said. "Plus the visualisations of the data are just plain impressive."

Co-founder and CEO of GeoX, Izik Lavy, said Geoscape's creation of the digital Australia is one of the most extensive and advanced projects in the world in terms of in-depth mapping of a country's buildings. "Our machine vision and deep learning technology opens a new generation of accuracy and richness of built environment data, providing a leap forward for Geoscape compared to the technologies used so far," Lavy said.

"By leveraging our tech and Geoscape's continuous data processing capability, every organization in Australia could access reliable and advanced property data."

Aerial imagery from Aerometrex

Geoscape has mapped all buildings and land cover across Australia using satellite imagery. It now also accesses high-resolution aerial imagery from Aerometrex's image library.

"We'll re-map more than 10 million buildings using GeoX's AI tech, which will include most urban buildings in Australia. We'll also recapture and enhance all remaining buildings across the country," Capobianco said.

Enhancements to Geoscape's digital Australia, enabled by the partnership with GeoX, consist of annual updates of 3D data for urban areas, higher definition of complex building outlines, better spatial alignment of urban environment features with legal land parcel boundaries and improved positional accuracy of features represented in the data. Moreover, it also encompasses greater accuracy of building heights and more complete solar panel and swimming pool data.

Visualization of 3D buildings, trees and surface cover data.