



Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

## How ready are Generative AI agents for geospatial tasks?

AI is making Brisbane smarter—helping with flood prediction, urban growth, and sometimes deciding South Bank’s artificial beach is an actual coastline. It’s revolutionising mapping, but human sanity checks are still required.

Chris Landvogt  
Sector Lead – Solutions Engineering – Esri Australia

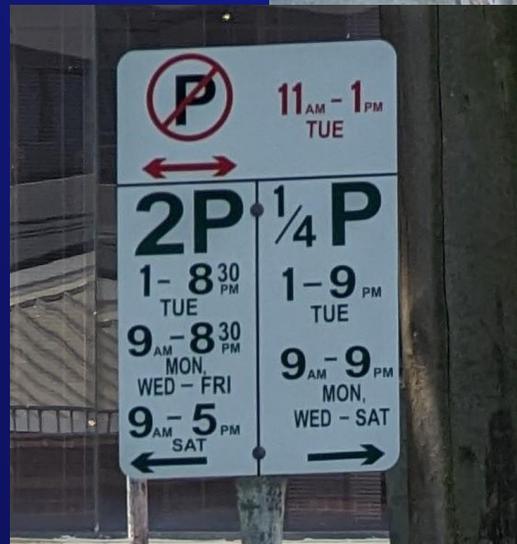


PLATINUM SPONSORS



# The Geospatial Industry: No Stranger to Adapting to New Technologies

- Theodolite/EDM
  - Aerial/Satellite Photography
  - GIS
  - GPS/GNSS
  - LIDAR
  - AI



## Street Sign Detector

Photograph the street sign

Drop image here or select image



Drop image here or select image

Submit

Powered by ArcGIS Survey123

**Survey title not set**

Description content for the survey

Please drag from or press on the right panel to add your first question.

Submit

Powered by [ArcGIS Survey123](#)

- Add
- Edit**
- Appearance
- Options

Text, number, date, and time

- Singleline text
- Multiline text
- Number
- Slider
- Date
- Time
- Date and time
- Email
- Website
- Barcode

Choice

- Single select
- Multiple select
- Single select grid
- Dropdown
- Likert scale
- Rating
- Ranking

Location

- Map
- Address
- Location list

Saved Preview Publish

The most valuable data are behind firewalls and not in  
open and public domains

# The future of useful AI is tightly coupled with Enterprise GIS

- Delivers Authoritative, Trusted Data Sources
- Seamlessly Integrates with AI
- Enables Data Review and Workflow Orchestration
- Offers Scalability for Growing Needs
- Fosters Collaboration Across Teams



# Where are we at with AI? Where are we going?

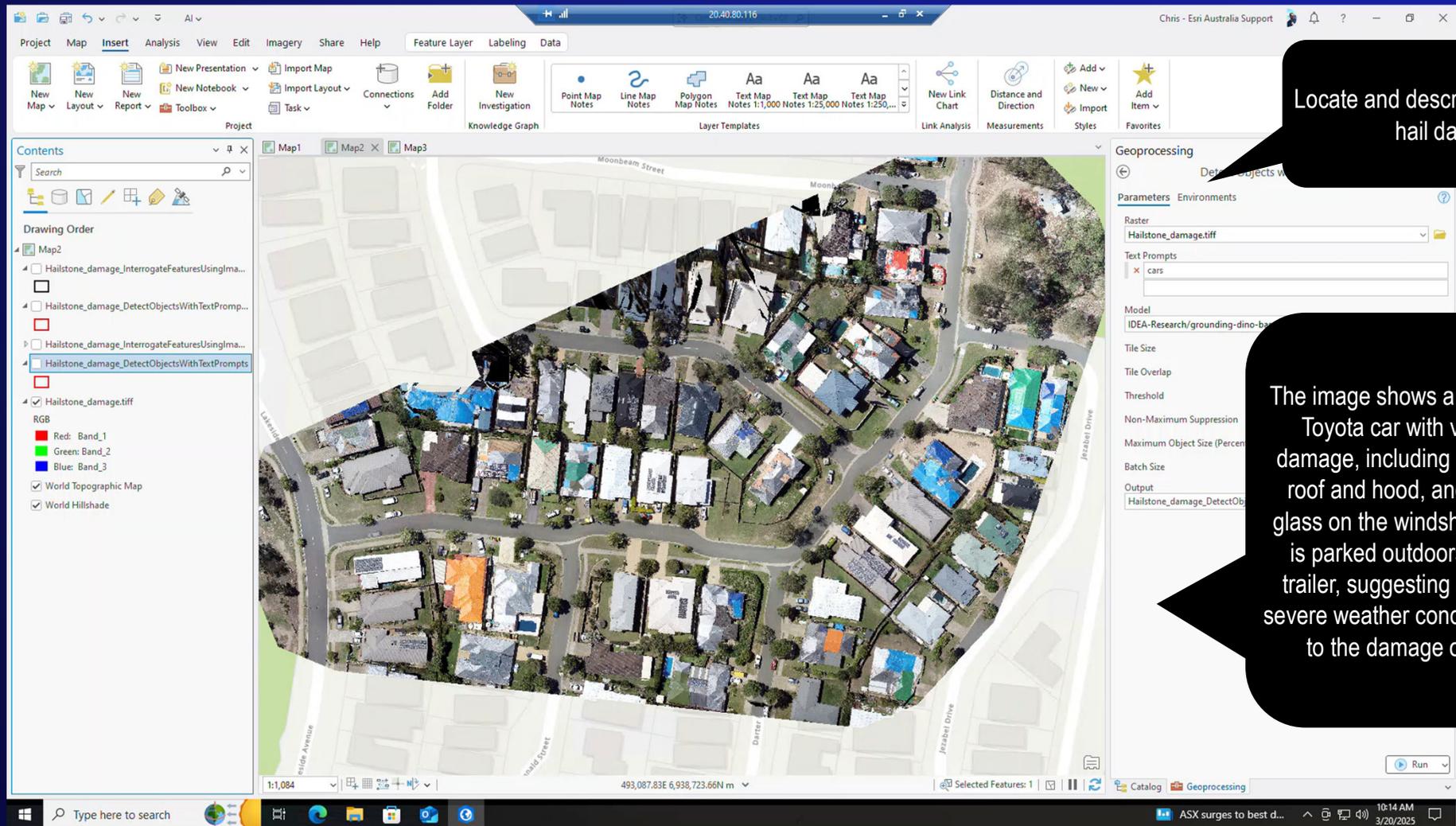
The screenshot displays the ArcGIS Pro interface. The main map area shows an aerial view of a rural area with a cadastral (land parcel) overlay. The 'Contents' pane on the left shows the map layers, including 'Damage Assessment', 'Parcels', and 'Cadastrate'. The 'Geoprocessing' pane on the right is open, showing the configuration for the 'Interrogate Imagery with GeoPrompts' tool. The tool parameters are set as follows:

- Input Raster: 20201010aC0930900w300130n.tif
- Features to Interrogate: Cadastrate
- Query Prompt: This is hurricane damage - provide me a visual assessment of the extent of the damage in each parcel. If no damage can we output - 'no damage visible'
- Max Tokens: 30
- Model: ArcGIS Online (GPT-4o)
- Concurrent Requests: 4
- Output: c:\20201010aC0930900w300130n\_InterrogateFeaturesUsingImagery

The status bar at the bottom indicates the map's scale (1:6,886) and coordinates (93.1253248°W 30.0213664°N).

Spatially accurate cadastre + GPT-4o

# Where are we at with AI? Where are we going?



Locate and describe the cars with hail damage

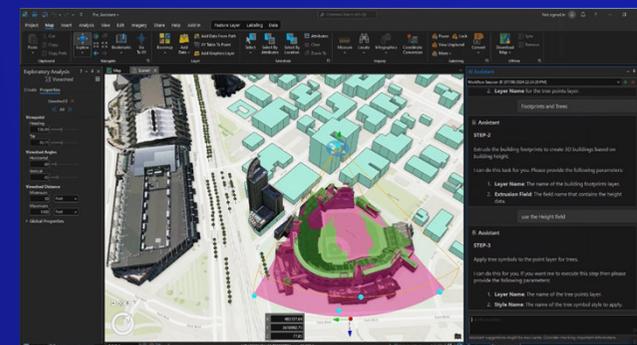
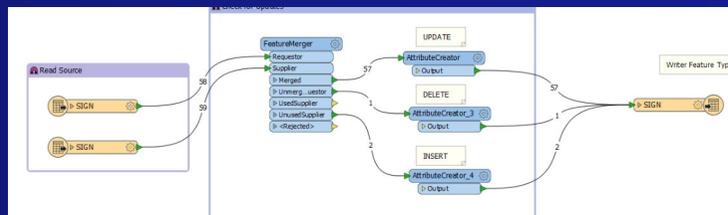
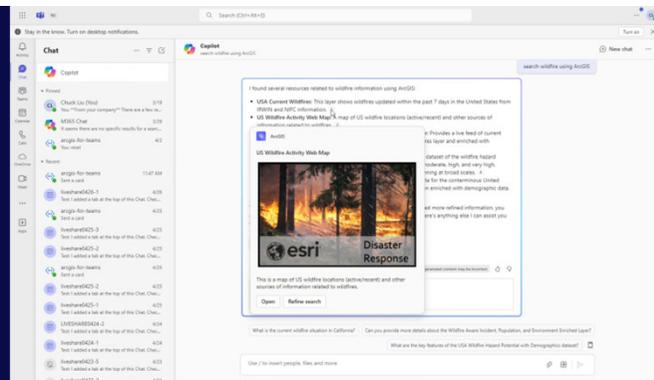
The image shows a dark-colored Toyota car with visible hail damage, including dents on the roof and hood, and shattered glass on the windshield. The car is parked outdoors, next to a trailer, suggesting exposure to severe weather conditions leading to the damage observed.

GroundingDino + GPT-4o

# Where are we at with AI? Where are we going?

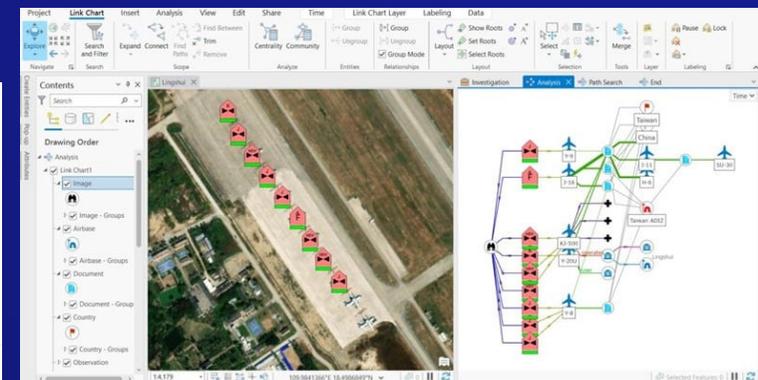
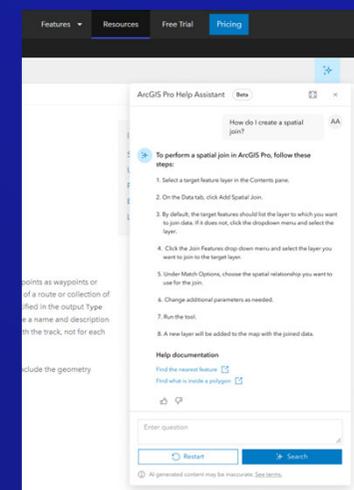
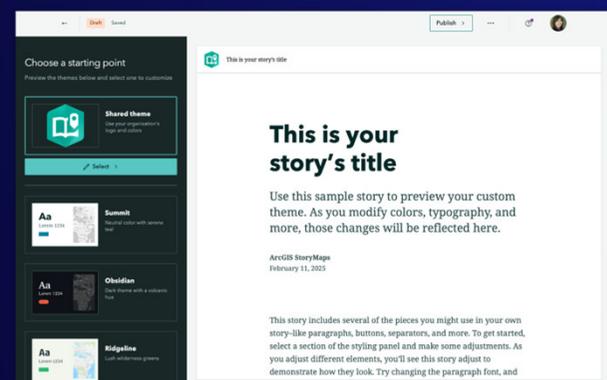
The screenshot displays the City of Sydney ArcGIS Hub interface. At the top, the City of Sydney logo is on the left, and navigation links for Home, Explore maps, Access open data, and Disclaimer are in the center. A search bar is located at the top right, with a 'Search' button. Below the search bar, there are tabs for 'All (157)', 'Maps (56)', 'Data (101)', and 'Documents (0)'. The 'Data (101)' tab is selected. On the left side, there is a 'Filters' panel with a 'Reset' button. The filters include 'Type: Feature Service' (selected), 'Location' (with a map view showing Sydney and surrounding areas), and 'Type' (with 'Feature Service (101)' selected). The main content area shows a list of three datasets, each with a 'Dataset' icon, a title, the City of Sydney logo, a description, and metadata including 'Type: Feature Service', 'Date updated', and 'Date created'. The datasets listed are: 1. '2007 Floor space and employment survey block data' (updated 1/17/2023, created 3/6/2019). 2. '2007 Floor space and employment survey employment zone data' (updated 1/17/2023, created 3/20/2019). 3. '2012 Floor space and employment survey block data' (no update or creation date shown).

ArcGIS Hub + OpenAI



## What's coming...

- Code assistants in ArcGIS Pro - *SQL, ArcPy, Arcade*
- Documentation assistants
- Metadata assistants
- ArcGIS Workflow Manager
- ArcGIS Knowledge - *Cypher*
- ArcGIS Data Interoperability – *SQL, RegEX, Python*
- Web Map style/query assistant
- ArcGIS for Teams
- ArcGIS StoryMaps



**3** GOOD HEALTH  
AND WELL-BEING



Tracking and  
responding to  
disease

**10** REDUCED  
INEQUALITIES



Democratising  
access to  
geospatial data

**11** SUSTAINABLE CITIES  
AND COMMUNITIES



Optimise  
community  
development

**SUSTAINABLE  
DEVELOPMENT GOALS**

International Federation of Surveyors supports the  
Sustainable Development Goals

AI is ready to solve Geospatial Problems, but...