



EO FOR LAND ADMIN

8TH UN-GGIM PRIVATE SECTOR NETWORK
LAND ADMINISTRATION PANEL

July 2018



Earth-i



Services

EO data analytics & information provision

Optical & radar data distribution

Expert consulting

Commercial Earth Observation service provider

Satellite operator – optical and video

Established 2015

Based in Guildford, UK

40 staff

Small satellites supplied by Guildford-based SSTL

Land Administration & Management



Affordable access to basic geospatial datasets

Avoid duplication particularly in mapping

Data sharing

Interoperability

Timeliness & quality

Effective for land boundary identification

Timely monitoring of land use

Improving land classification

VHR data becoming industry standard for optimal National Spatial Data Infrastructure

FIT-FOR-PURPOSE NATIONAL MAPPING

Earth-i eGuide available for download at www.earth-i.space/national-mapping



Low (10m)



High (3m)



Very high (<1.0m)

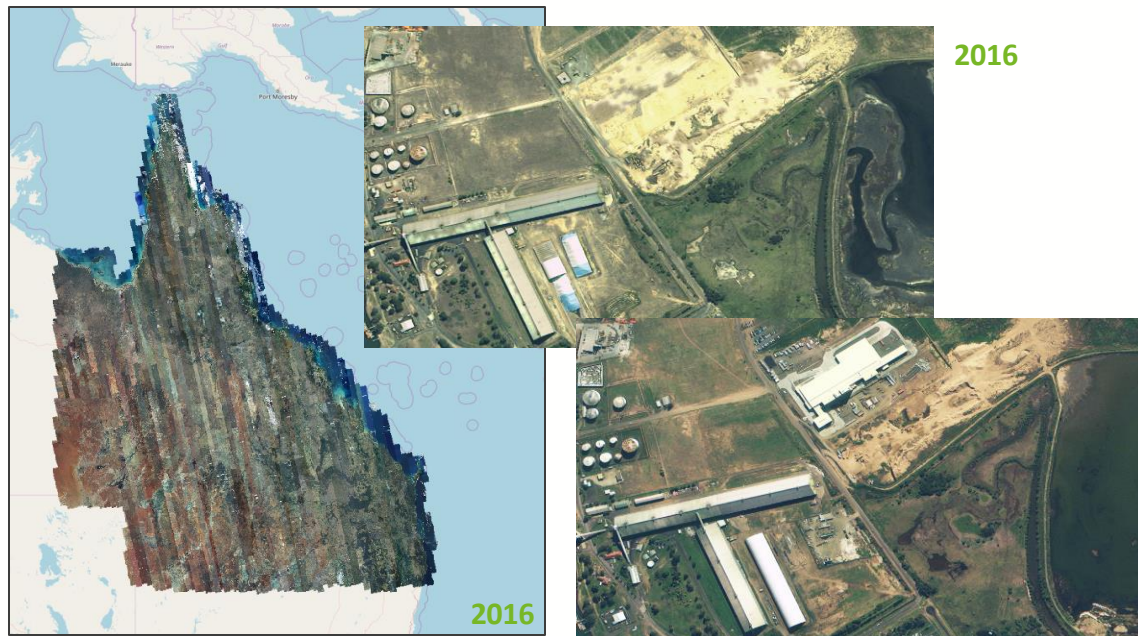
Resolution	Application	What can be seen at this resolution?
Low (10m)	Agriculture, forestry, land management	<ul style="list-style-type: none"> Settlement blocks, significant or isolated buildings Crop areas, forests Major hydrology networks Coastlines
High (3m)	Urban, semi-urban mapping, object identification	<ul style="list-style-type: none"> Major road network, bridges Field boundaries, hydrology networks
Very high (<1.0m)	Detailed rural mapping, urban, semi-urban mapping, object identification	<ul style="list-style-type: none"> Single trees in sparse tree cover density Minor road networks Roof outlines of urban housing Crowd assemblages Detailed flood mapping Identify number of trucks in a mine or shipping port Natural disaster damage assessments Identify cars, planes, trucks, small bodies of water, solar panels

Affordable VHR

LARGE AREA MAPPING AT HIGH RESOLUTION



Annual coverage of Queensland, Australia (2016-2018)



2,000,000 km²
80cm resolution
delivered in single scenes and mosaic

- Avoid duplication
one supplier can provide full coverage
- Data sharing
flexible licensing
- Interoperability
base layer for national spatial data infrastructure
- Timeliness
seasonal & annual coverage of wide areas is possible
- Quality
regular revisit allows cloud-free of wide areas

Innovation

CLOUD REMOVAL USING SATELLITE VIDEO



Each frame has cloud obscuration

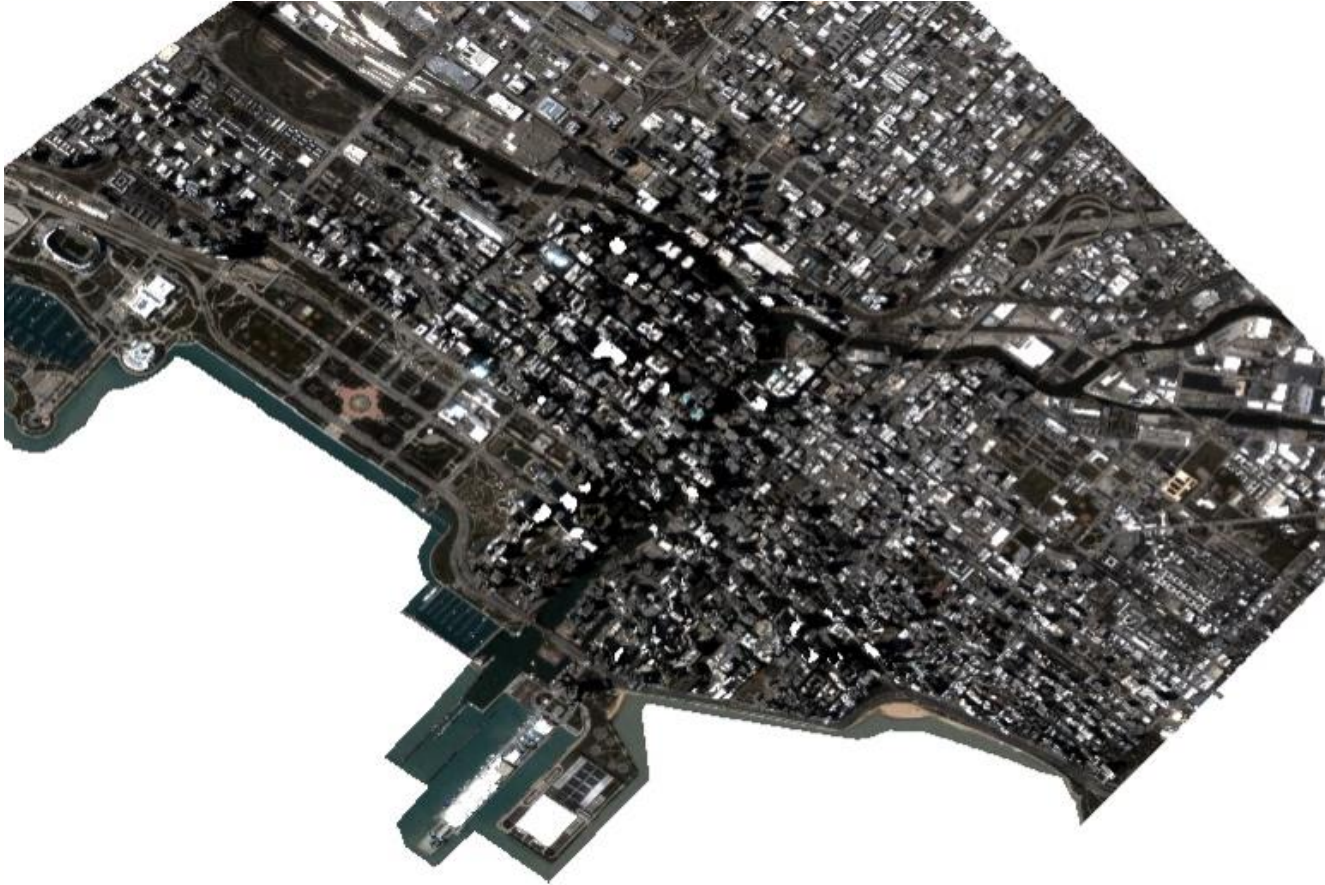


Composite image



New Delhi Airport, 2018

3D MODELLING USING SATELLITE VIDEO



Chicago, 2018

Strategic Partnerships



Share requirements & promote accessibility
("holding data means holding power")

Encourage lean projects & agile development

Validate new products quickly

Encourage diversity & inclusivity



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