



Australian Government

THE LEONA M. AND HARRY B.
HELMSLEY
CHARITABLE TRUST



Digital Earth
AFRICA

GEO Week 2019 and Digital Earth Africa: From Observations to Insights

Jonathon W. Ross
Australian Government

GEO GROUP ON
EARTH OBSERVATIONS

Earth Observations

Measurements of our planet and how it is changing: its land, atmosphere and oceans; its cities, towns and villages.

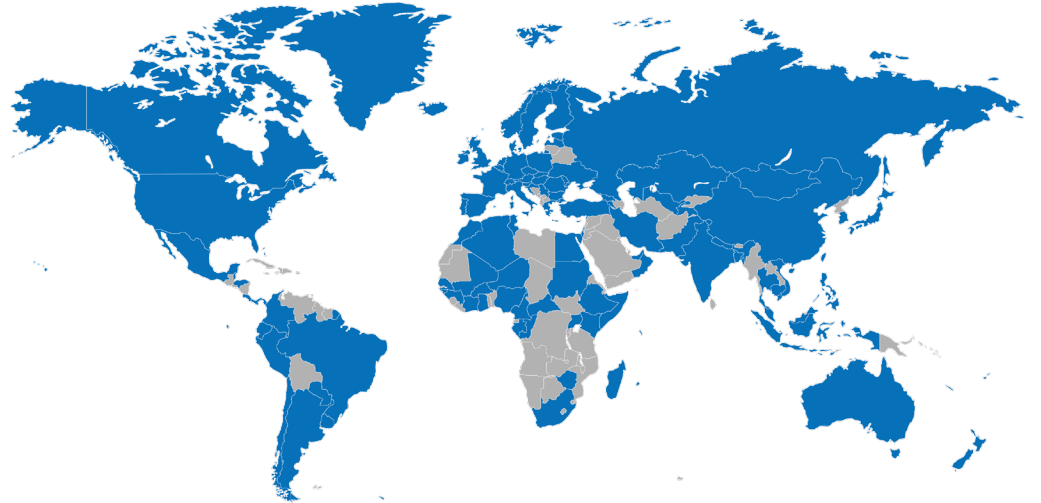


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Group on Earth Observations

Global partnership of governments.

Improving the use of Earth observations for the benefit of society.



Africa: 27 - Asia/Oceania - 21, Europe: 34 - C.I.S: 7 - Americas: 16

Total: 105



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**GEO brings together
global partners to
solve complex
problems for the
benefit of all.**



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#EO4Impact

GEO Initiative powers air quality alert applications

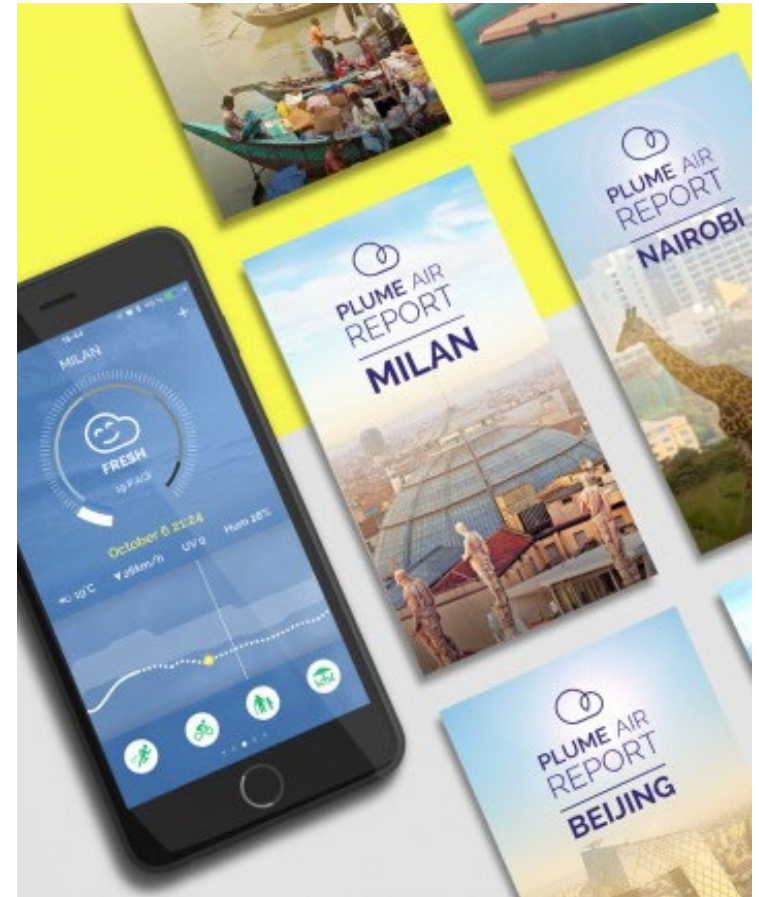


Image: plumelabs.com



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#EO4Impact

Forest Early Warning System expanded to 77 countries



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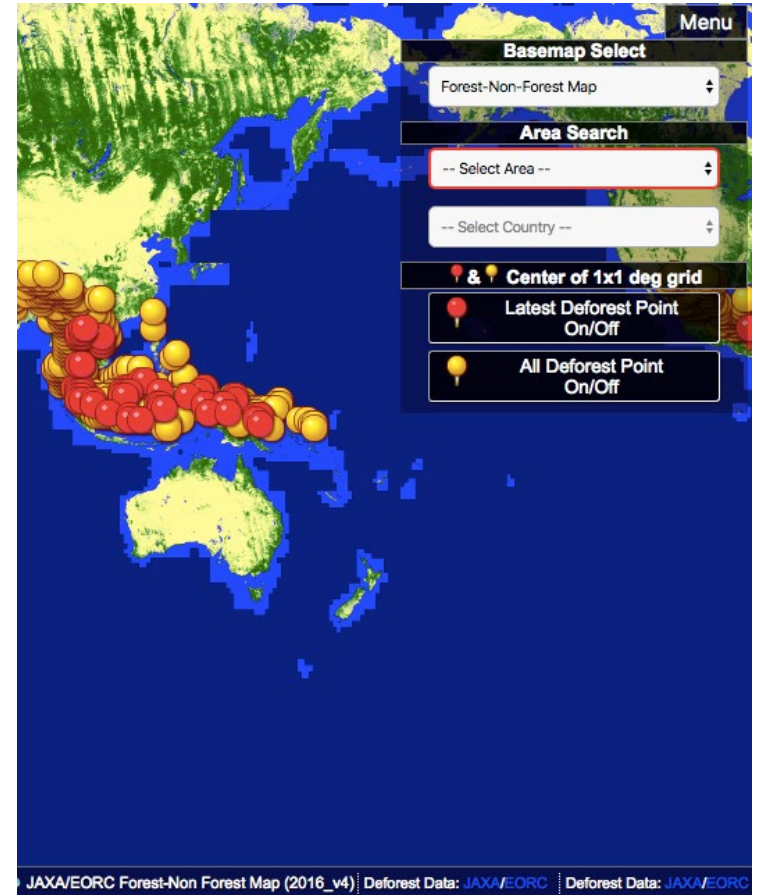


Image: www.eorc.jaxa.jp/iifast/

#EO4Impact

GEO Initiative supports emergency response during the 2018 Kilauea eruption in Hawaii



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Image: NASA Earth Observatory

#EO4Impact

Early warning for crop failure enhances livelihoods and food security in Uganda



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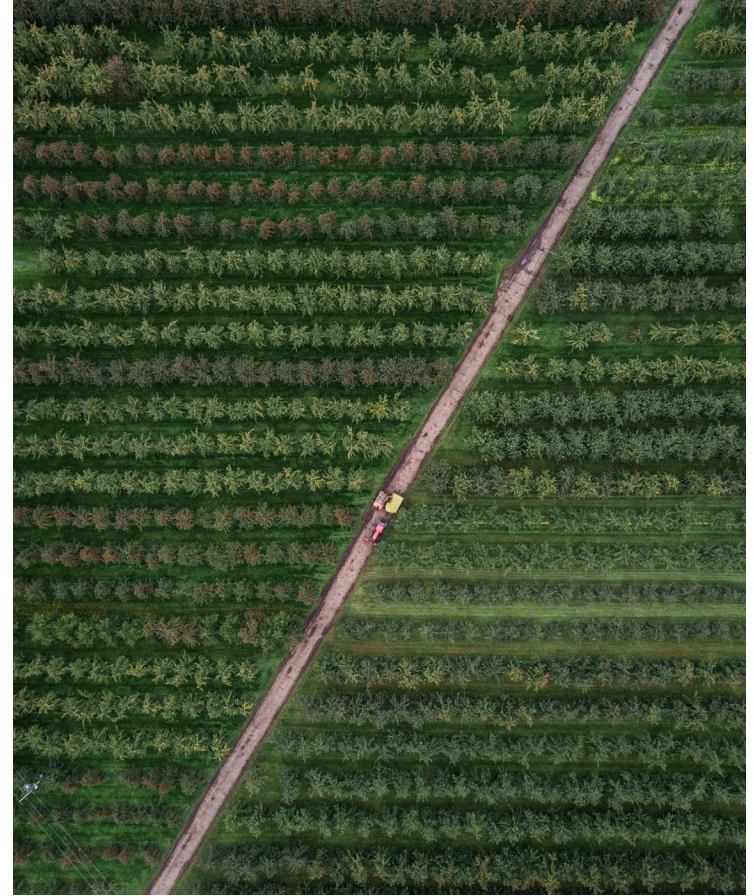
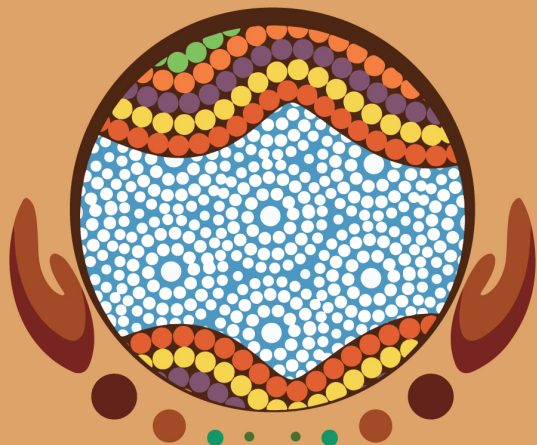


Image: Unsplash



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4 - 9 NOVEMBER / CANBERRA, AUSTRALIA / #GEOWEEK19



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EARTH OBSERVATIONS



THE FOCUS

How do we ensure Earth data
drives productivity and growth
across our economies?



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Sustained and inclusive economic growth on a changing planet?



Urbanization

Source: NASA Images of Change

Urban expansion in New Delhi, India, March 14, 1991 - March 2, 2016

Sustained and inclusive economic growth on a changing planet?

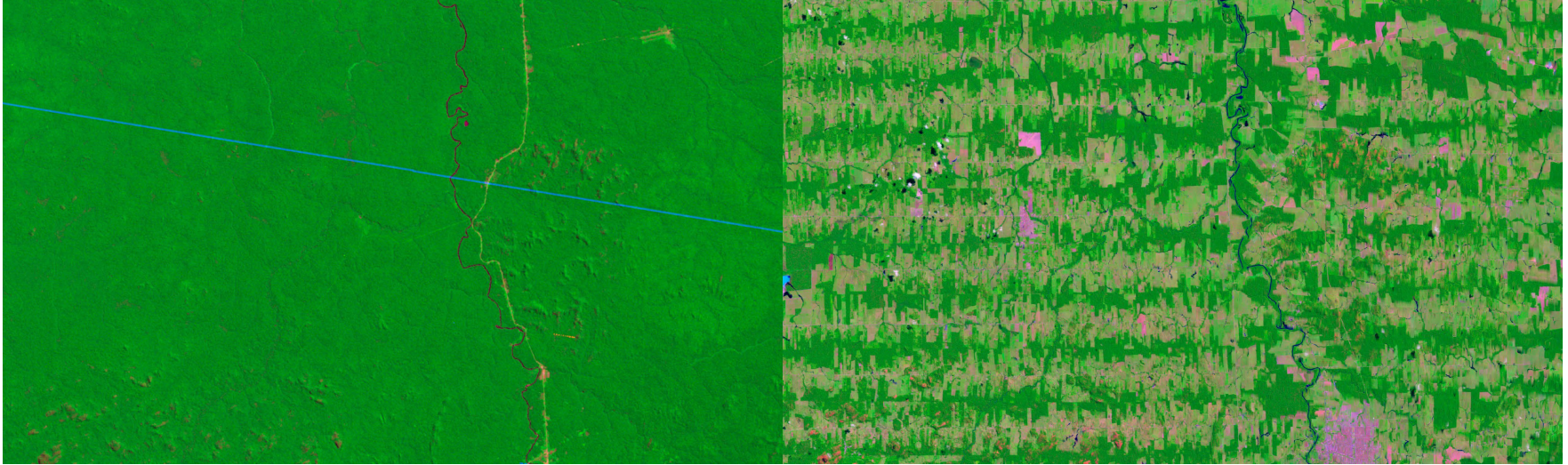


Water scarcity

Drying Lake Poopó, Bolivia, April 12, 2013 - January 15, 2016

Source: NASA Images of Change

Sustained and inclusive economic growth on a changing planet?

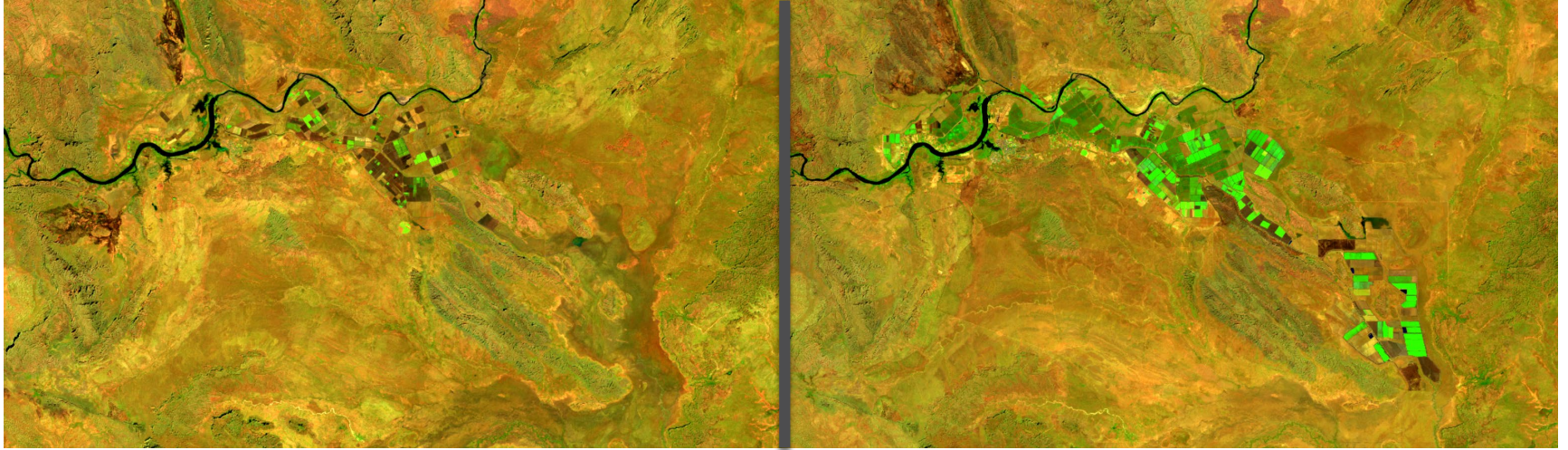


Deforestation

Rondonia, Brazil, 1975 - 2012

Source: NASA Images of Change

Sustained and inclusive economic growth on a changing planet



Feeding growing populations; new areas for agriculture
Ord River Irrigation Scheme, Western Australia, 1997-2017

Source: Digital Earth Australia,
c/o Geoscience Australia

THE OPPORTUNITY

Highlight how your governments, businesses and communities are embracing opportunities presented by digital technology and Earth observations.



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THE IMPACT

Contribute to driving progress on the big three global policy frameworks:

- United Nations 2030 Agenda for Sustainable Development
- Paris Climate Agreement
- Sendai Framework for Disaster Risk Reduction

**Engagement with
statistics professionals
and organisations is a
specific focus topic**



GEO WEEK 2019 EVENTS

GEO WEEK 2019 EVENTS

Monday 4/11	Tuesday 5/11	Wednesday 6/11	Thursday 7/11	Friday 8/11	Saturday 9/11
Side Events		GEO-XVI Plenary		Ministerial Summit	Executive Committee Meeting
	Executive Committee Meeting	Industry Track		Press Conference	
	Exhibition				
		Gala Dinner	Ministerial Roundtable		
			Ministerial Dinner		

 GEO WEEK 2019



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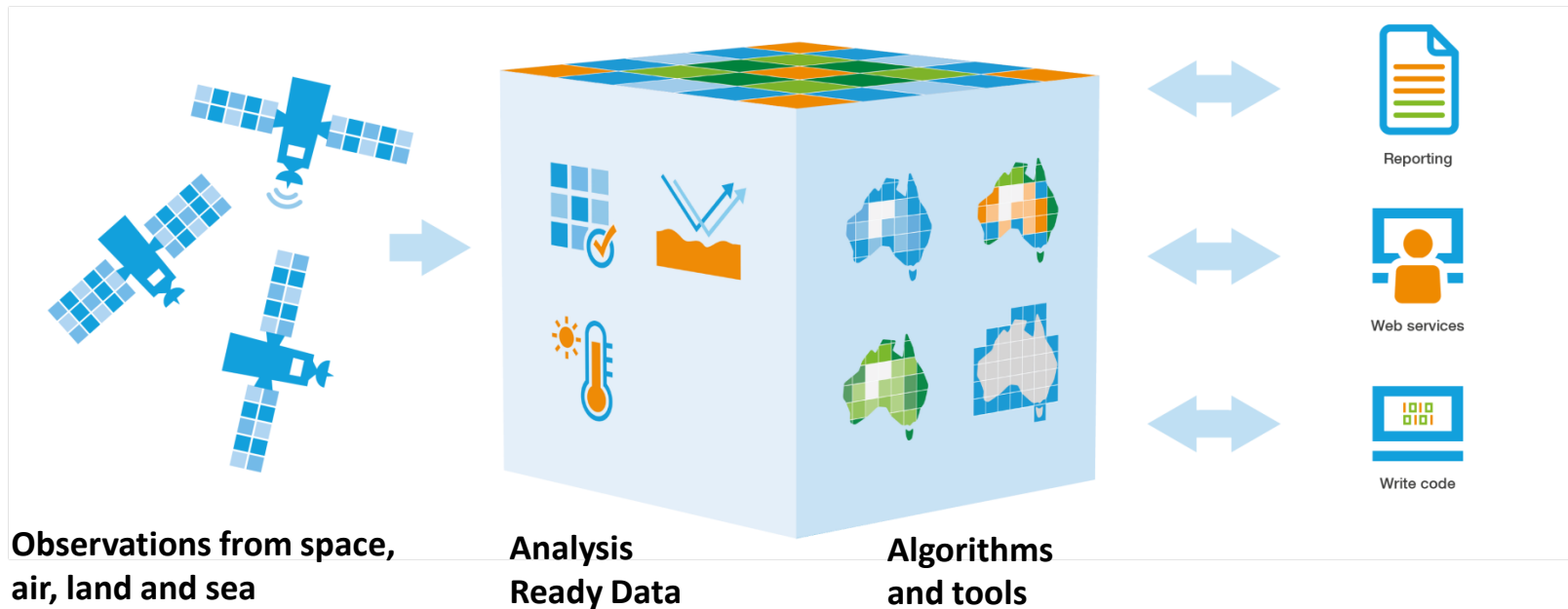
Digital Earth
AFRICA





Digital Earth Australia

Structured time-series



A Growing Network of Compatible OpenDataCubes



Countries

- Tanzania
- Kenya
- Senegal
- Sierra Leone
- Ghana
- Uganda
- South Africa
- Rwanda
- Botswana
- Cote d'Ivoire
- Malawi
- Gabon
- Ethiopia

Use Cases

- Agriculture
- Land degradation
- Water quality and extent
- Disease/pests
- Deforestation
- Illegal mining
- Urban growth
- Flood risk
- Unplanned settlements
- Wildfires
- Mangroves
- Landslides
- SDG indicators

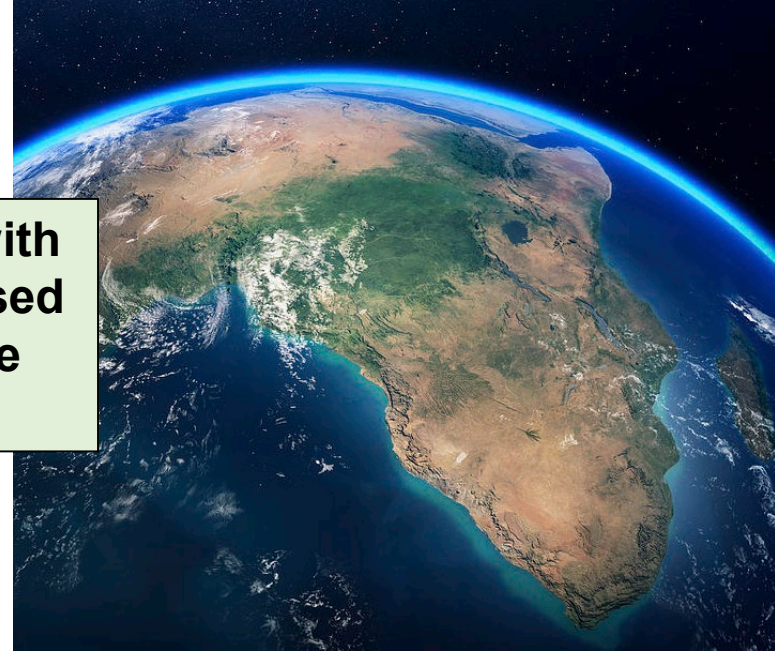
Stakeholders

- Geoscience Australia
- Group on Earth Observations (GEO)
- Committee on Earth Observations (CEOS)
- World Economic Forum
- South Africa National Space Agency (SANSA)
- Kenya Office of the Deputy President
- Ghana National Statistics Office
- Global Partnership for Sustainable Development Data
- CGIAR
- UNECA
- Africa Union
- AfDB
- RCMRD
- AGRHYMET

Phase 1 Steering
Committee

- Operational Data Cube for whole of Africa
 - Regular decision ready product / not research
 - Automated, run for every 10m pixel for entire continent
 - Levering off of
- New institutional home-
- Flexible cloud Infrastructure
- Funded for production of product and capacity building/Application development
- Multilateral effort, not owned by one country
- Products free and open and available to every African

What are the links with more domain-focussed efforts, such as the Global Platform?





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Digital Earth
AFRICA

Helmsley Trust : USD\$10.2M
Australian Gov. : AUD\$10M

TOTAL : USD ~\$20M

www.digitalearthafrika.org



THE LOCATION

Meaning 'meeting place'
in the local indigenous language,
Canberra is a national tech hub
and a jumping off point
to the region.



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JOIN US ON THE ROAD TO CANBERRA

#GEOWEEK19

www.earthobservations.org/geoweeek19



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