UNWGIC 2018
Statistical-Geospatial Integration for the SDGs and the 2020 Censuses

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Session Speakers

- **Ms Paloma Merodio** Vice-president – National Institute of Statistics and Geography Mexico (INEGI) / Co-chair UN Expert Group on the Integration of Statistical and Geospatial Information
- **Mr Ian Coady** Head of Geospatial Policy, Research and International – Office for National Statistics, United Kingdom
- **Ms Gemma Van Halderen** Director of Statistics Division – UN Economic and Social Commission for Asia and the Pacific (UNESCAP)
- **Mr Andre Nonguierma** African Centre for Statistics – UN Economic Commission for Africa (UNECA)

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Challenge

National, regional and international data users and producers face a range of challenges integrating statistical, administrative and geospatial datasets to generate insights and informing decision making.

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Session Content

- **Examine the benefits that are emerging from enhancing the geospatial interoperability of statistical, administrative and geospatial datasets.**
- **Consider the requirements for capability development in this area and the practical issues of applying the Global Statistical Geospatial Framework**
- **Explore application of geospatial technologies to significant statistical and administrative data collections, such as Population Censuses.**

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Chair's overview

- Progress in integrating statistical and geospatial information and the UN Expert Group
- Emergence of the Global Statistical Geospatial Framework (GSGF)
- Future plans for development in integrating statistical and geospatial information
- Examples from Australia

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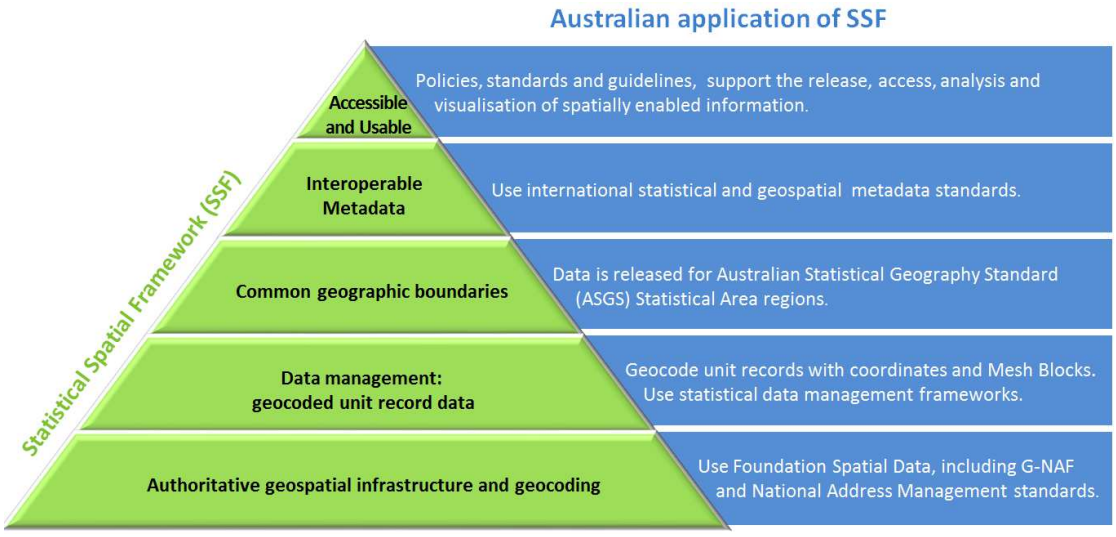
Australian SSF



International mandate

UN Economic and Social Council (ECOSOC)

UN Statistical Commission (UNSC)

- Global Statistical-Geospatial program review – proposed a global framework

UN Committee of Experts on Global Geospatial Information Management (UN-GGIM)

- List of nine issues included 'linking of spatial to statistics'

UN Expert Group – Integration of Statistical Geospatial Information

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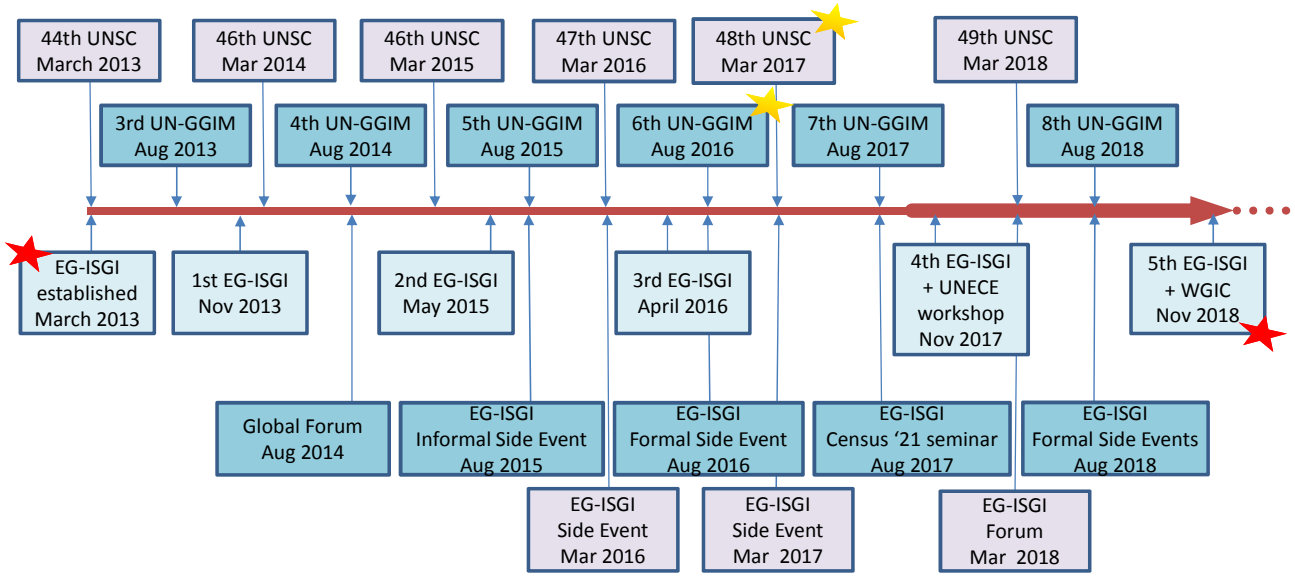
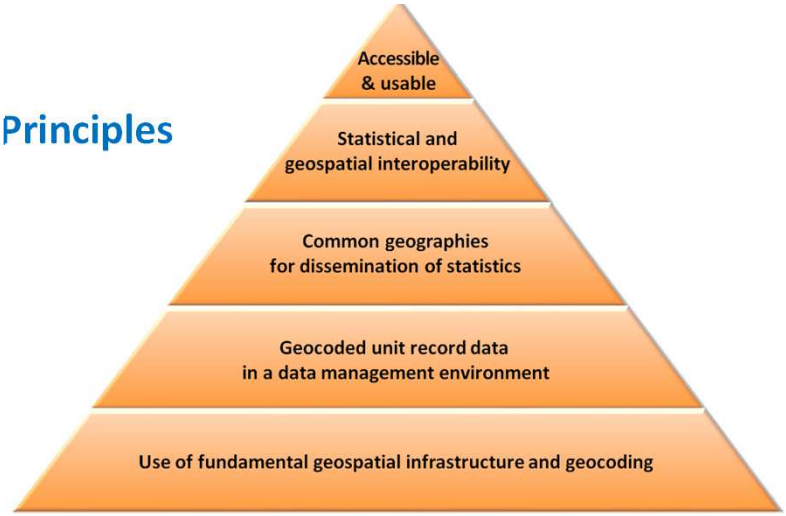
EG-ISGI: Timeline



Global Statistical Geospatial Framework

5 Principles



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GSGF Purpose

"The Global Statistical Geospatial Framework will provide:

- **a common method for geospatially enabling statistical and administrative data, and**
- **ensure that this data can be integrated with geospatial information."**

Proposal for a Global Statistical Geospatial Framework, UN-GGIM 6, 2016 New York

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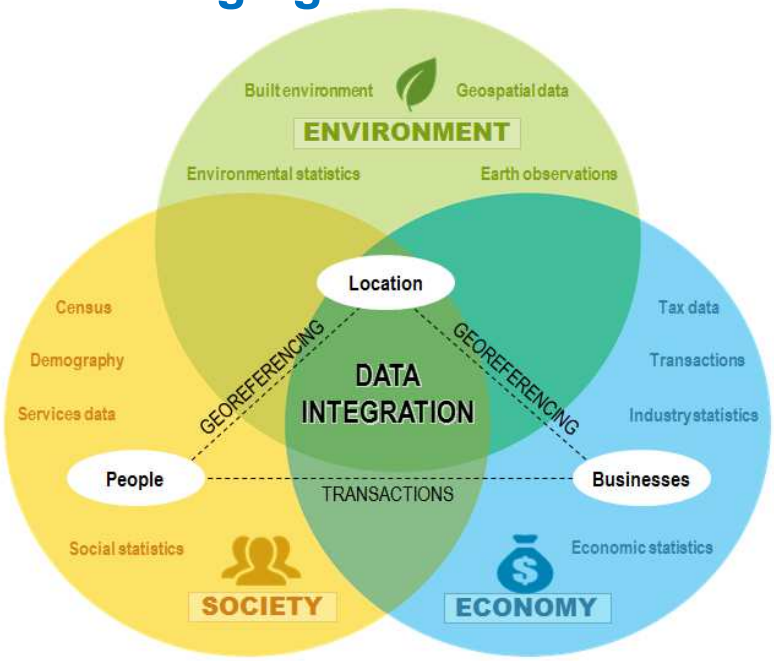
Location – bridging the 3 information domains



EG-ISGI priorities

1. Elaboration, promotion and implementation of the Framework
2. Capability-building and knowledge management, particularly in support of 2020 Census and SDGs
3. Showcase country and regional implementations
4. Promote and support statistical-geospatial interoperability initiatives
5. Coordinate, incorporate and build on the work done by stakeholder organisations

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GSGF – Status paper

Global Statistical Geospatial Framework: Linking Statistics and Place

Current status and plans for development July 2018

United Nations Expert Group on the

Integration of Statistical and Geospatial Information

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UN EG-ISGI webpage

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Australian examples of integration statistical and geospatial information

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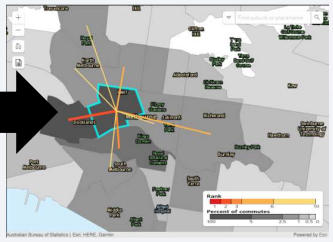
Australian Bureau of Statistics
Informing Australia's important decisions

Working with partners to create efficient Geo-statistics … Census Commuting Distance

Australian Bureau of Statistics

Geo-statistics are a cost effective way to provide insights into complex problems using existing data.



Identify policy question or issue	Partner with users to refine processes and create solutions	Integrate unit records with geospatial data	Output statistical solutions

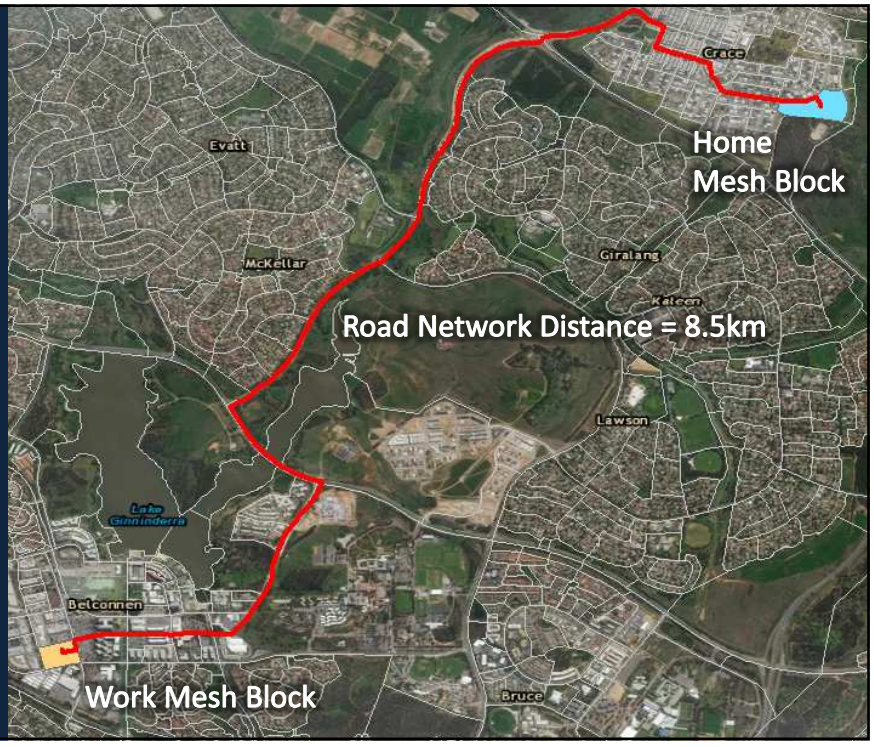
2016 Census Commuting Distance Geo-statistic

Address Coding infrastructure links a persons work and home addresses with a Mesh Block

Geographic Information System & roads dataset is used to calculate the shortest road distance

8.5 million unique distance measurements - home and work Mesh Block pairs

10.6 million records



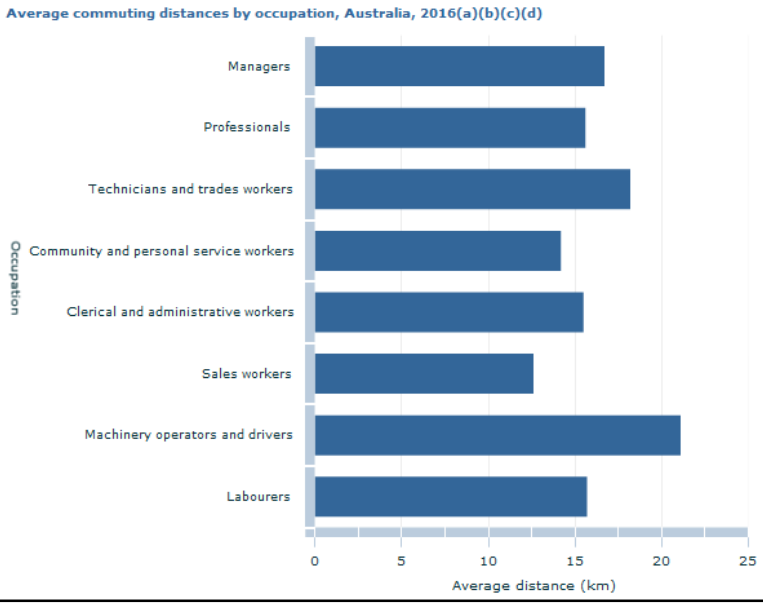
Geospatial data used to create new statistical data

Census Statistics | Address Coding | Geo-statistics

ID	Sex	Age	Occupation	Address ID Usual Residence	Mesh Block Usual Residence	Commuting Distance (km)
1	F	30	Manager	10580431000	10183030000	17.8
2	M	47	Labourer	10240431000	10178304600	62.3
3	M	23	Sales Worker	10360431000	10121304110	2.1

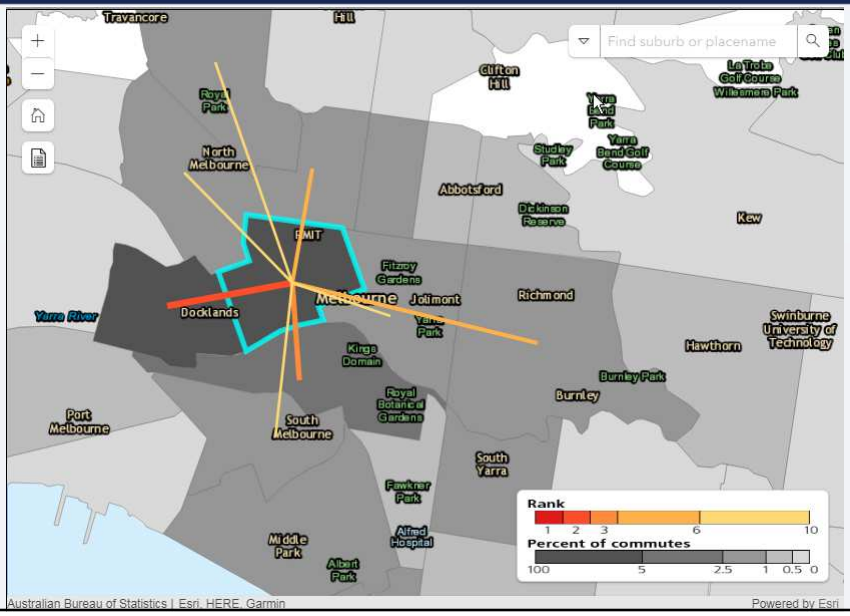
Commuting distance and personal characteristics

- **Longest average commute** Machinery operators and drivers - 21.1 kms
- **Shortest average commute** Sales workers - 12.6 kms

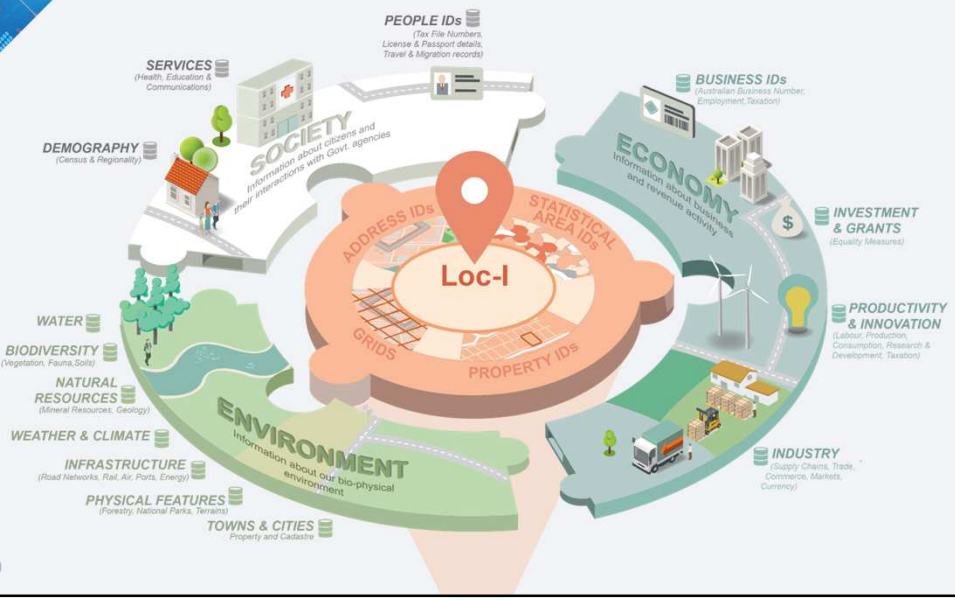


Publishing statistical solutions

Distance to work interactive maps



Data integration – spatial referencing and indexing

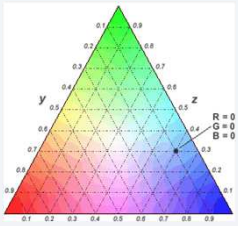


The Data Integration Partnership for Australia (DIPA) is focused on maximising the effective use of government data to improve policy advice.

The location integration capability, or Loc-I, is a missing piece in the puzzle that will enable government agencies to geospatially integrate and analyse data reliably, effectively and efficiently across portfolios, users and information domains.

Earth Observations – Digital Earth Australia

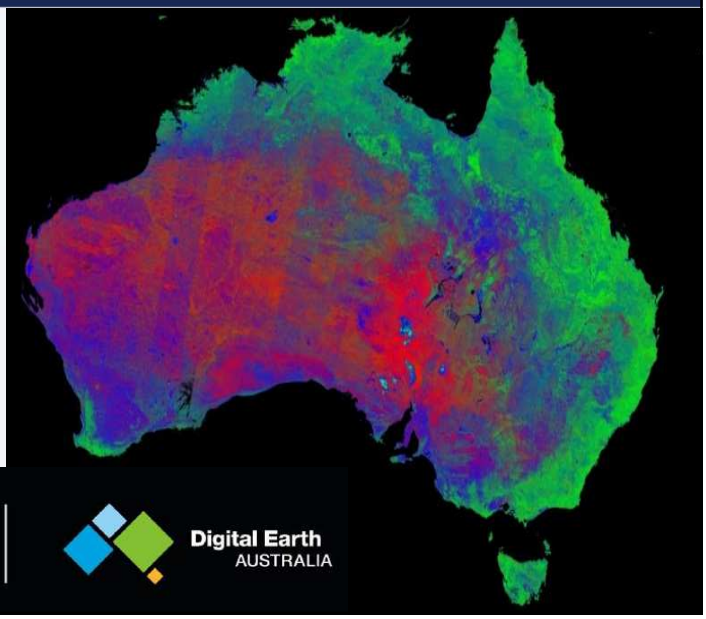
Green Vegetation



Bare Soil

Dry Vegetation

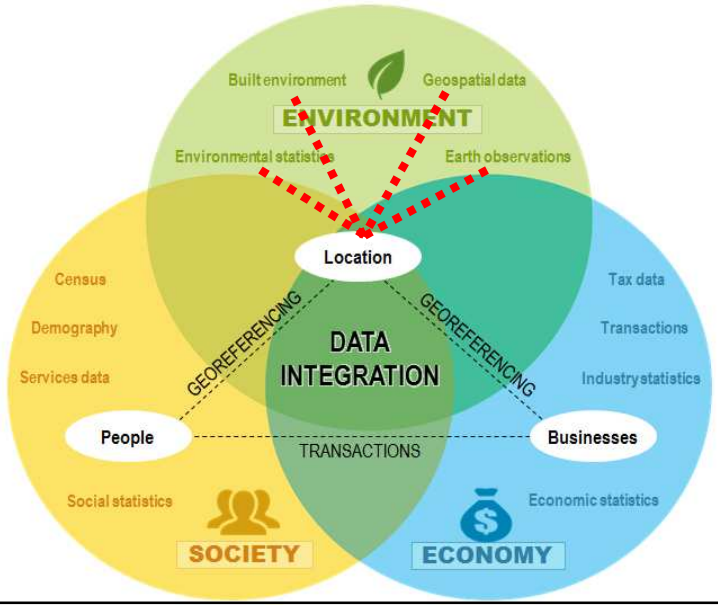
Built from Landsat Surface Reflectance Products (ARG25)
Captures cover dynamics at a 25m resolution



Australian Government
Geoscience Australia

Digital Earth AUSTRALIA

Data integration and new data sources

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Thank you