

# **UN World Data Forum**

Machine Learning Webinar

**Australian Bureau of Statistics** 

Tuesday 28 July 2020

Australian Bureau of Statistics Informing Australia's important decisions

# **Machine Learning and NSOs**





National Statistical Organisations have a long history of innovation.



Working together — with other NSOs, agencies, experts. → UN HLG-MOS Machine Learning Project.



Field of machine learning is maturing.



Harnessing ML for the purposes of an NSO:

- → Expectations of data users. Production systems.
- > Robust, transparent, explainable, quality metrics.
- → Research.
- → Opportunities.

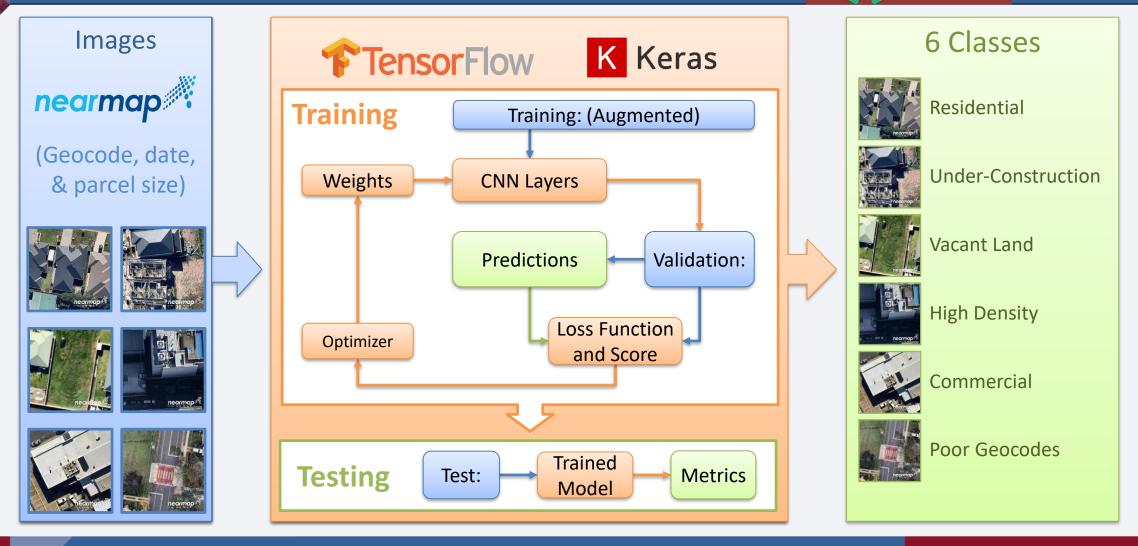


#### **Projects: AR Automated Image Recognition**











### **ABS** projects - examples



**Address Register AIR model** – Image classification

**Intelligent coder** – Free text classification

**Dwelling occupancy – Prediction** 

**Land Cover / Land Use – Satellite imagery classification** 

**Ongoing Research** 



### **Challenges and Opportunities**



- ML challenges
- Meeting the needs of an NSO
  - → Ongoing work ABS + UN HLG-MOS ML Project
  - → Emerging field emerging solutions and opportunities.
- Capability Building
- Computational requirements
- Working in partnership Multi-disciplinary teams
  - → Methodologists / data scientists.
  - → Subject matter knowledge / expertise.
  - → IT teams.

