We acknowledge the Traditional Owners of the land on which our research infrastructure and community operate across the Australian continent, and pay our respects to Elders past and present.

We recognise the connection they have with land, sea, sky and waterways for tens of thousands of years.

Ins and outs of migrating geonetwork to the iso19115-3 metadata XML standard

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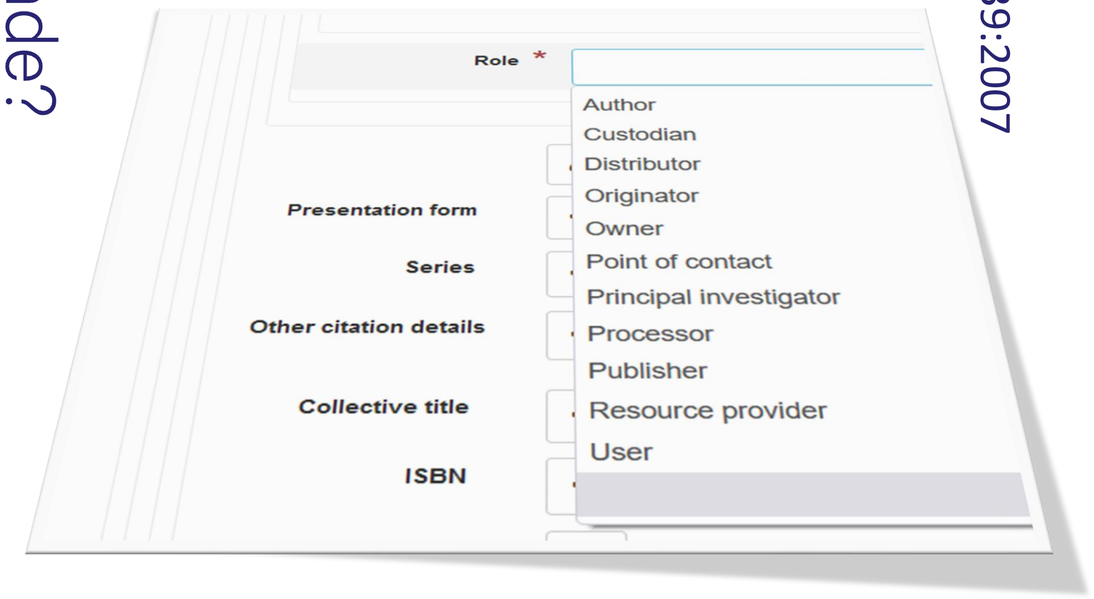
CSIRO Mineral Resources

June 1 2022

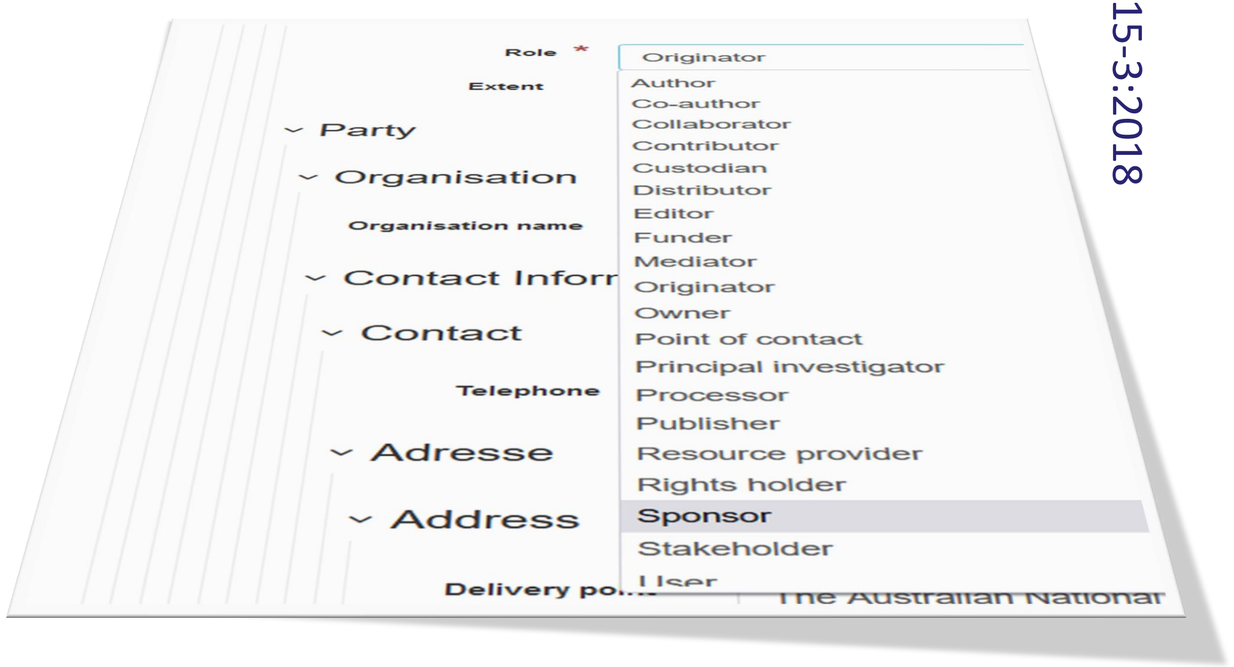
Why upgrade?

- Richer metadata - easier to adhere to FAIR principles
- e.g. Add a “Sponsor” role

iso19139:2007



iso19115-3:2018



AuScope Geonetwork

AuScope catalogue (http://portal.auscope.org.au/geonetwork)

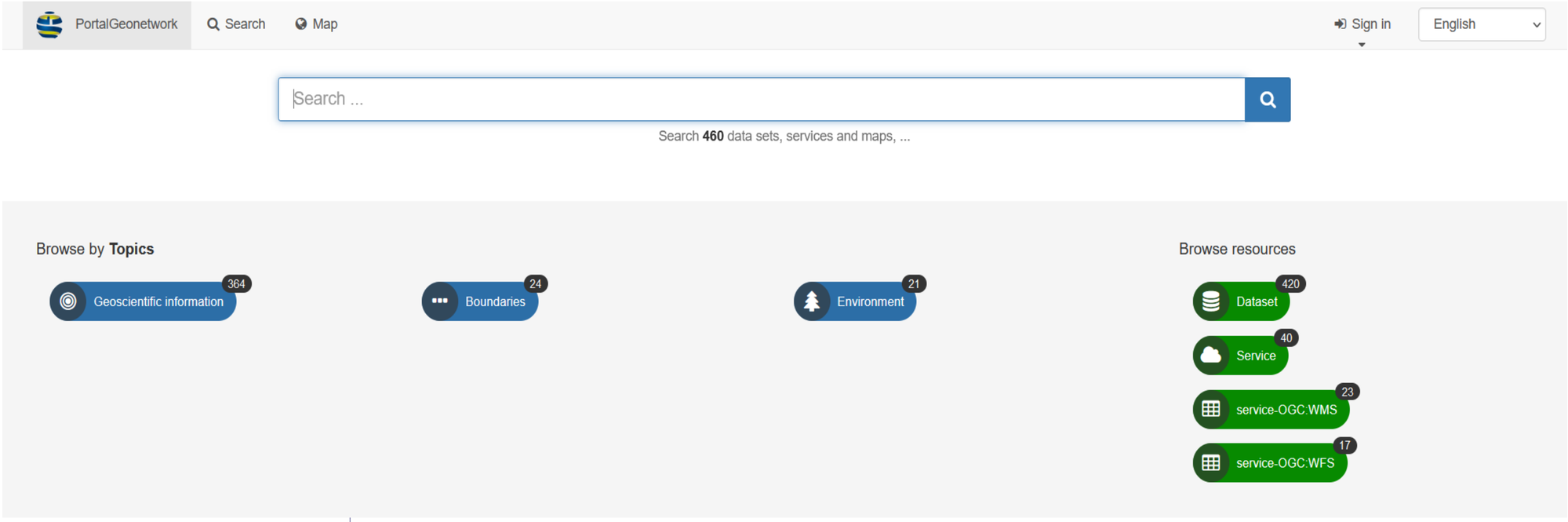
Supports AuScope Portal (http://portal.auscope.org.au) & VGL Portal (https://vgl.auscope.org)

Geonetwork version 3.10.2.0

Contains around 460 records, of two types::

1. Harvested

2. Hand curated



ACT

Title: AusPASS - KIMBA97

Abstract: AusPass is a service dedicated to the acquisition, management, and distribution of passive seismological data in Australia. Extensive fieldwork projects are conducted across the country, organized in seismic arrays (i.e. groups of seismic stations). From July to October 1997 a set of broadband instruments were deployed in the Kimberley region, Australia, both on the King Leopold and Halls creek fold belt and the interior of the block. Station placements were designed to build on the information obtained from the stations in the SKIPPY experiment to improve knowledge of the region. Instruments used are Guralp CMG-3ESP and Reftek recorders.

Contact org: ANU Research School of Earth Sciences

Constraints: https://creativecommons.org/licenses/by/4.0/

Info URL: Link to Geonetwork Record

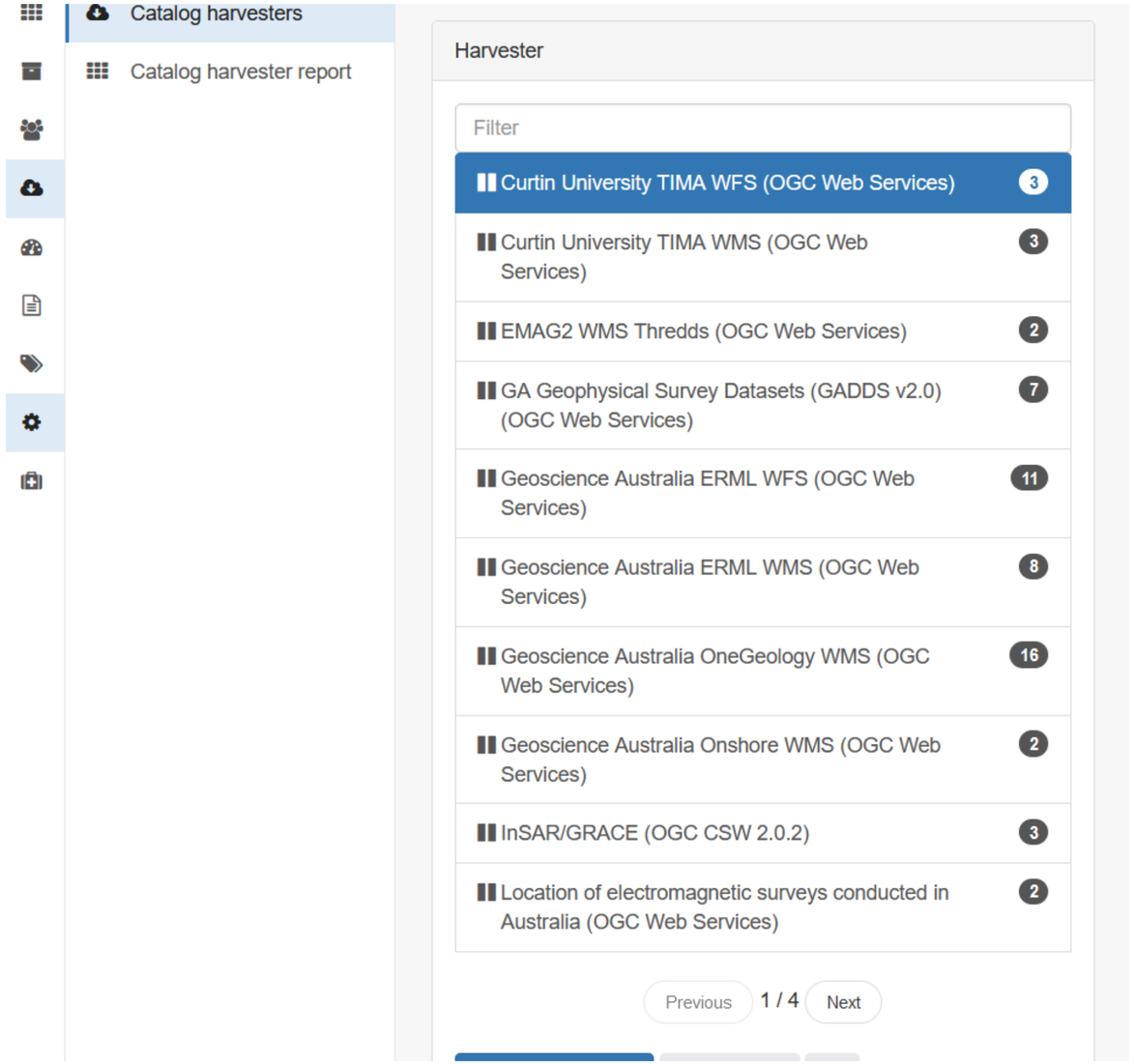
IRIS: IRIS endpoint URL

DOI Name: Brian Kennett. (1997). KIMBA97. International Federation of Digital Seismograph Networks.
Description: Citation Information
URL: https://doi.org/10.7914/SN/7D_1997

Metadata in http://portal.auscope.org.au/

Harvested Records

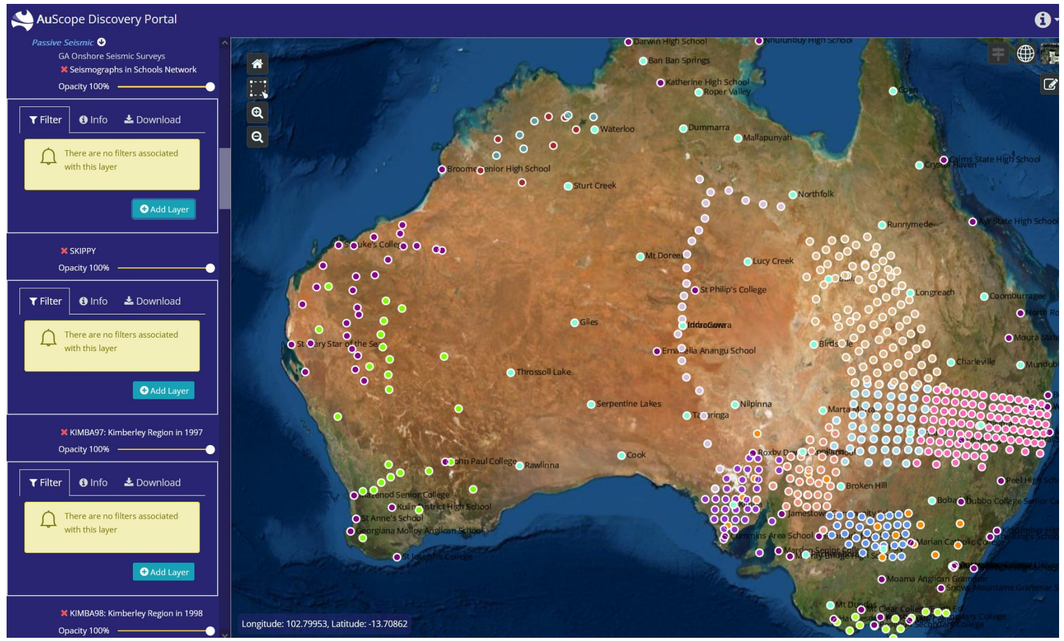
- Most of our services are OGC compatible and can be harvested by “OCG Web Services”
- OGC Web Map Service / Web Feature Service
- The harvester will send an OCG “GetCapabilities” request and create catalogue records from the response
- Can re-harvest at set intervals
- Low maintenance
- But usually the amount and quality of metadata is minimal, not quite “FAIR”
- The URL link to additional metadata in “GetCapabilities” response is seldom used by data providers



Manually Curated

- We support some services that are not OCG compatible, they cannot be harvested
- e.g. Passive Seismic datasets which follow the FDSN protocol
- These records must be entered in by hand and backed up somewhere safe
- By contrast these can have the maximum amount of information

https://www.fdsn.org/webservices/
http://auspass.edu.au/



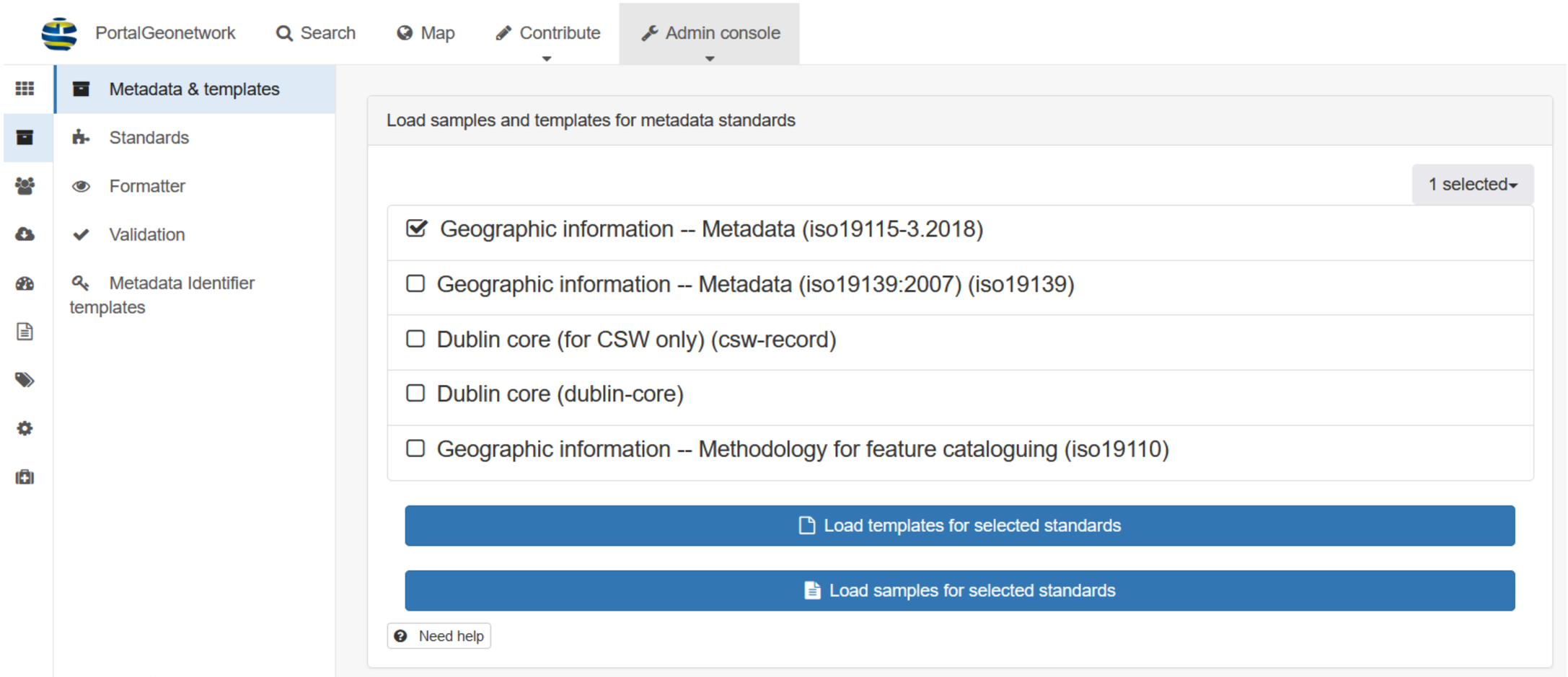
AusPASS layers in http://portal.auscope.org.au/

Converting Harvested Records

Step 1: Create iso19115-3 templates, one for service metadata, the other for dataset metadata

Step 2: Customise dataset metadata template as required

e.g. add licensing, citation DOIs



Converting Harvested Records

Step 3: Create harvester using templates

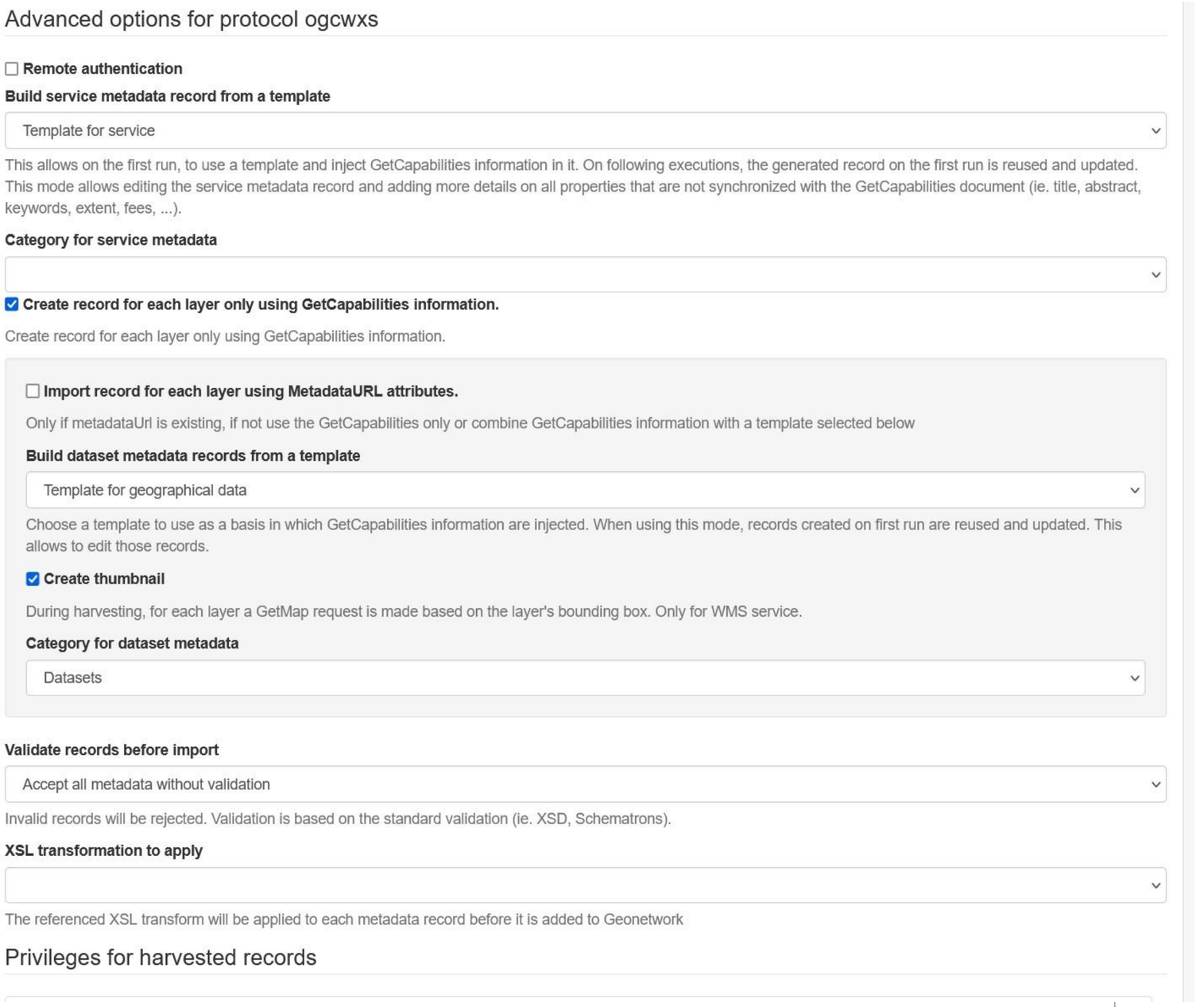
Step 4: Harvest!

NB:

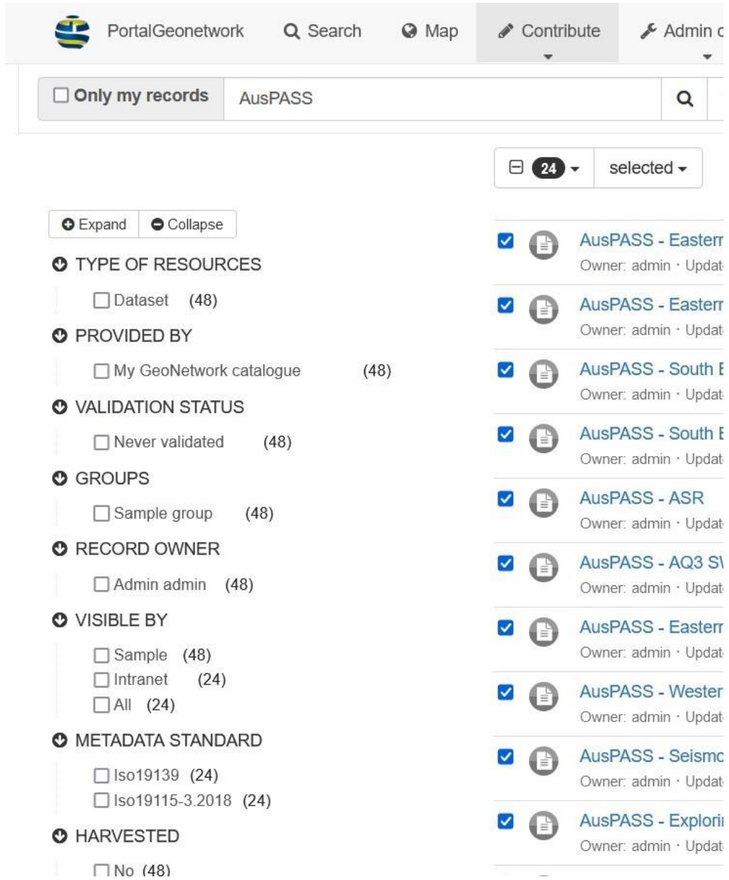
There is an “XSLT transformation” selector

None of the default templates are suitable

Does not solve the problem of minimal metadata



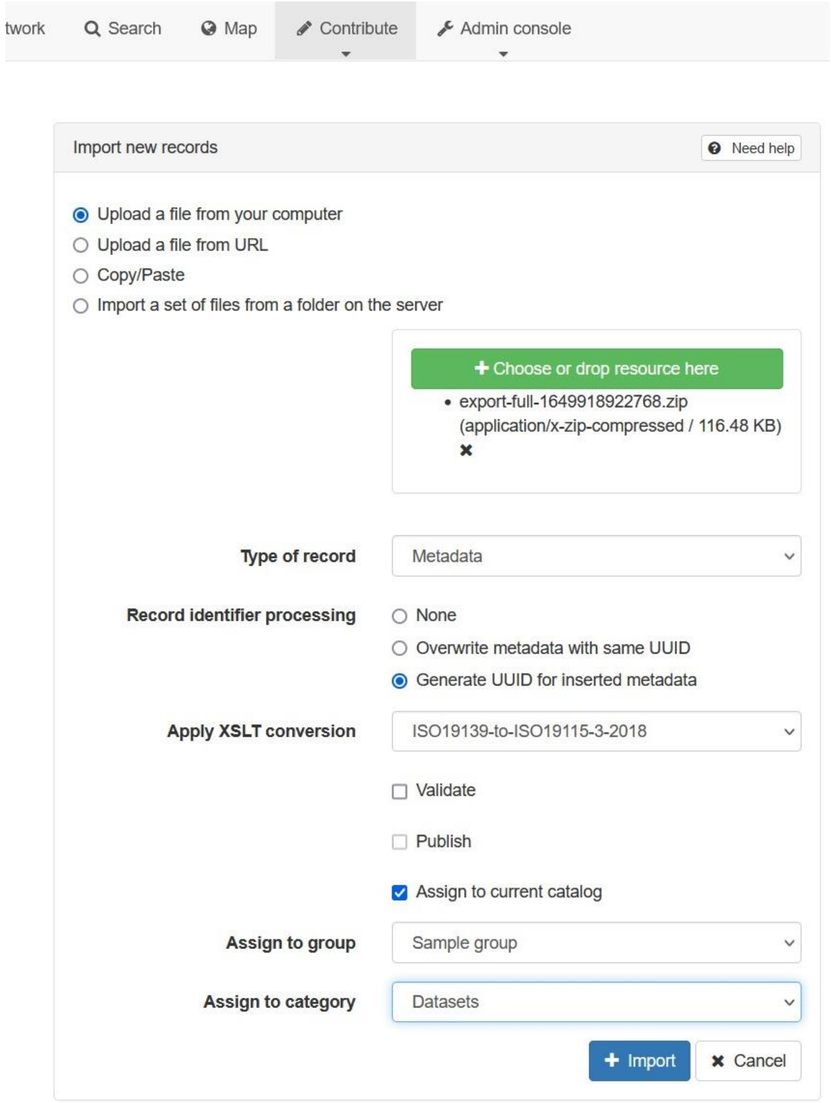
Converting Curated Records



Step 1: Export as a zip file all iso19139 records from catalogue

Step 2: Import into catalogue with “ISO19139-to-ISO19115-3-2018” XSLT to convert to iso11915-3

Step 3: At this point it gets confusing, the records will still have “Metadata standard” as “iso19139”. Use the “Editor Board” to update to “iso11915-3:2018”



References

Geonetwork

https://www.geonetwork-opensource.org

OGC Web Services Harvester
https://www.geonetwork-opensource.org/manuals/trunk/eng/users/user-guide/harvesting/harvesting-ogcwxs.html

Loading Templates

https://www.geonetwork-opensource.org/manuals/trunk/en/install-guide/loading-samples.html

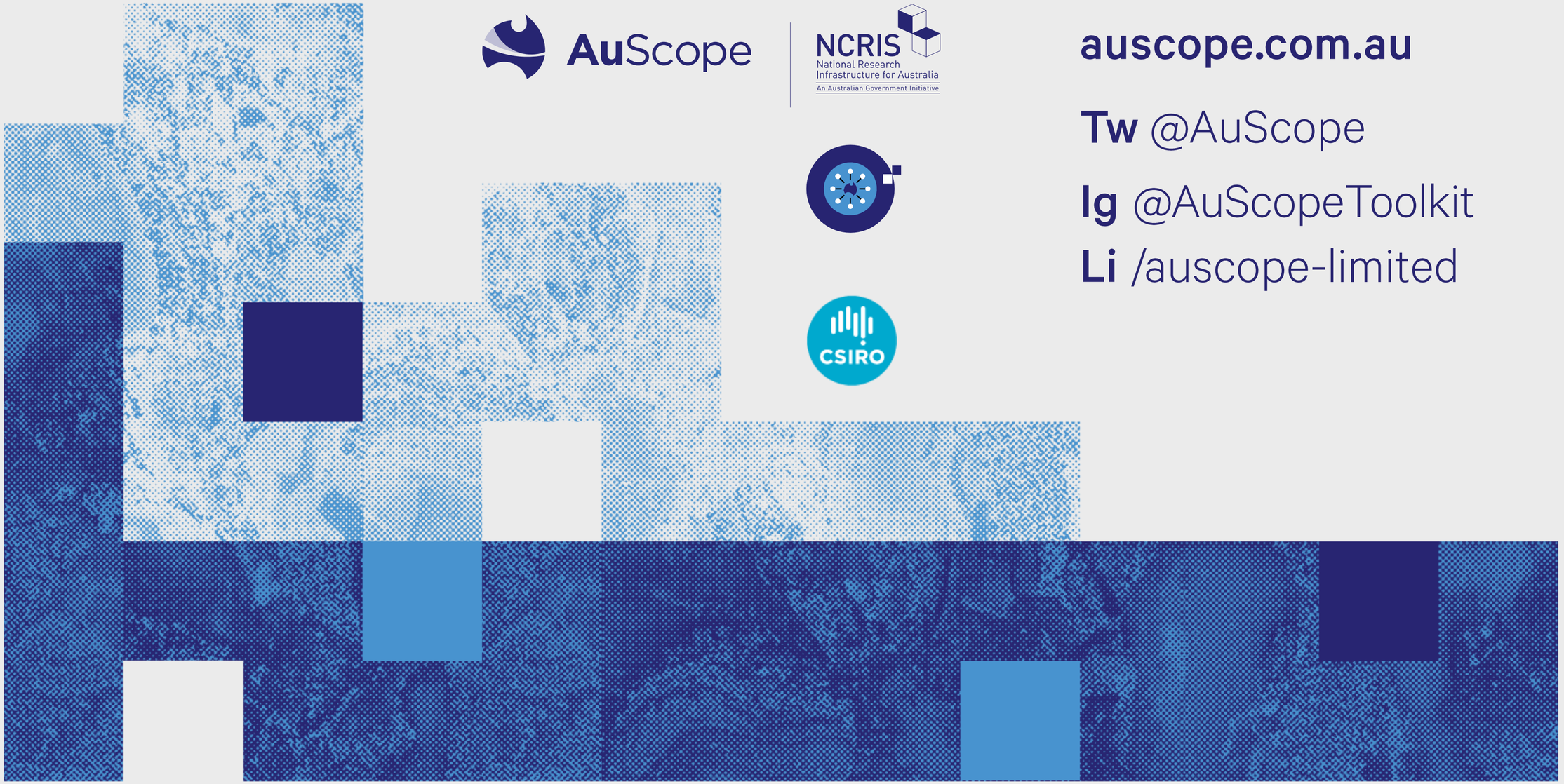
OGC WMS & WFS

https://opengeospatial.github.io/e-learning/wfs/text/basic-index.html

https://opengeospatial.github.io/e-learning/wms/text/basic-index.html

FAIR principles

https://www.go-fair.org/fair-principles/



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