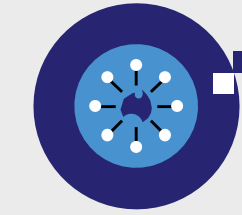


We acknowledge the Traditional Owners of the land on which our research infrastructure and community operate across the Australian continent, and pay our respects to Elders past and present.

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

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Why upgrade?

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



iso19139:2007

Role *

Author
Custodian
Distributor
Originator
Owner
Point of contact
Principal investigator
Processor
Publisher
Resource provider
User

Presentation form

Series

Other citation details

Collective title

ISBN

iso19115-3:2018

Role *

Extent

Party

Organisation

Organisation name

Contact Information

Contact

Telephone

Adresse

Address

Delivery point

Originator
Author
Co-author
Collaborator
Contributor
Custodian
Distributor
Editor
Funder
Mediator
Originator
Owner
Point of contact
Principal investigator
Processor
Publisher
Resource provider
Rights holder
Sponsor
Stakeholder
User

The Australian National

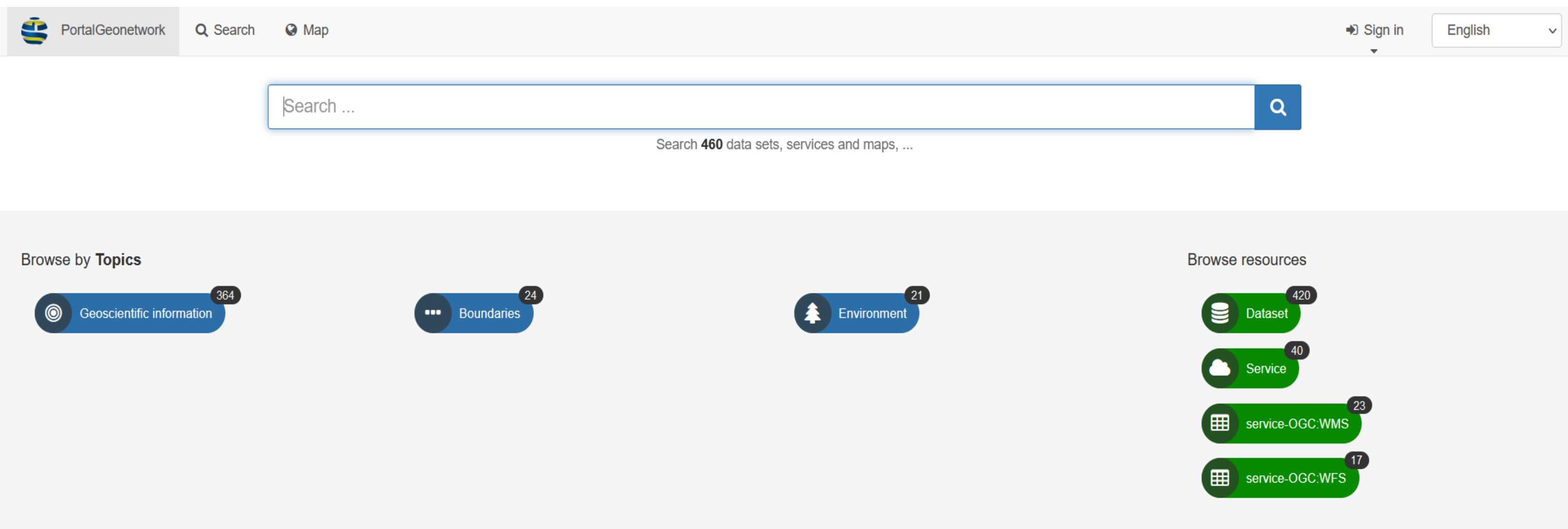
AuScope catalogue (<http://portal.auscope.org.au/geonetwork>)

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

The screenshot shows a web interface for 'Catalog harvesters'. The left sidebar contains navigation icons, with the 'Catalog harvesters' icon highlighted. The main content area is titled 'Harvester' and features a 'Filter' input field. Below the filter is a list of harvesters, each with a status indicator (two vertical bars), a name, and a record count in a circle. The first item, 'Curtin University TIMA WFS (OGC Web Services)', is highlighted in blue and has a count of 3. Other items include 'Curtin University TIMA WMS (OGC Web Services)' (3), 'EMAG2 WMS Thredds (OGC Web Services)' (2), 'GA Geophysical Survey Datasets (GADDS v2.0) (OGC Web Services)' (7), 'Geoscience Australia ERML WFS (OGC Web Services)' (11), 'Geoscience Australia ERML WMS (OGC Web Services)' (8), 'Geoscience Australia OneGeology WMS (OGC Web Services)' (16), 'Geoscience Australia Onshore WMS (OGC Web Services)' (2), 'InSAR/GRACE (OGC CSW 2.0.2)' (3), and 'Location of electromagnetic surveys conducted in Australia (OGC Web Services)' (2). At the bottom of the list, there are 'Previous', '1 / 4', and 'Next' navigation buttons.

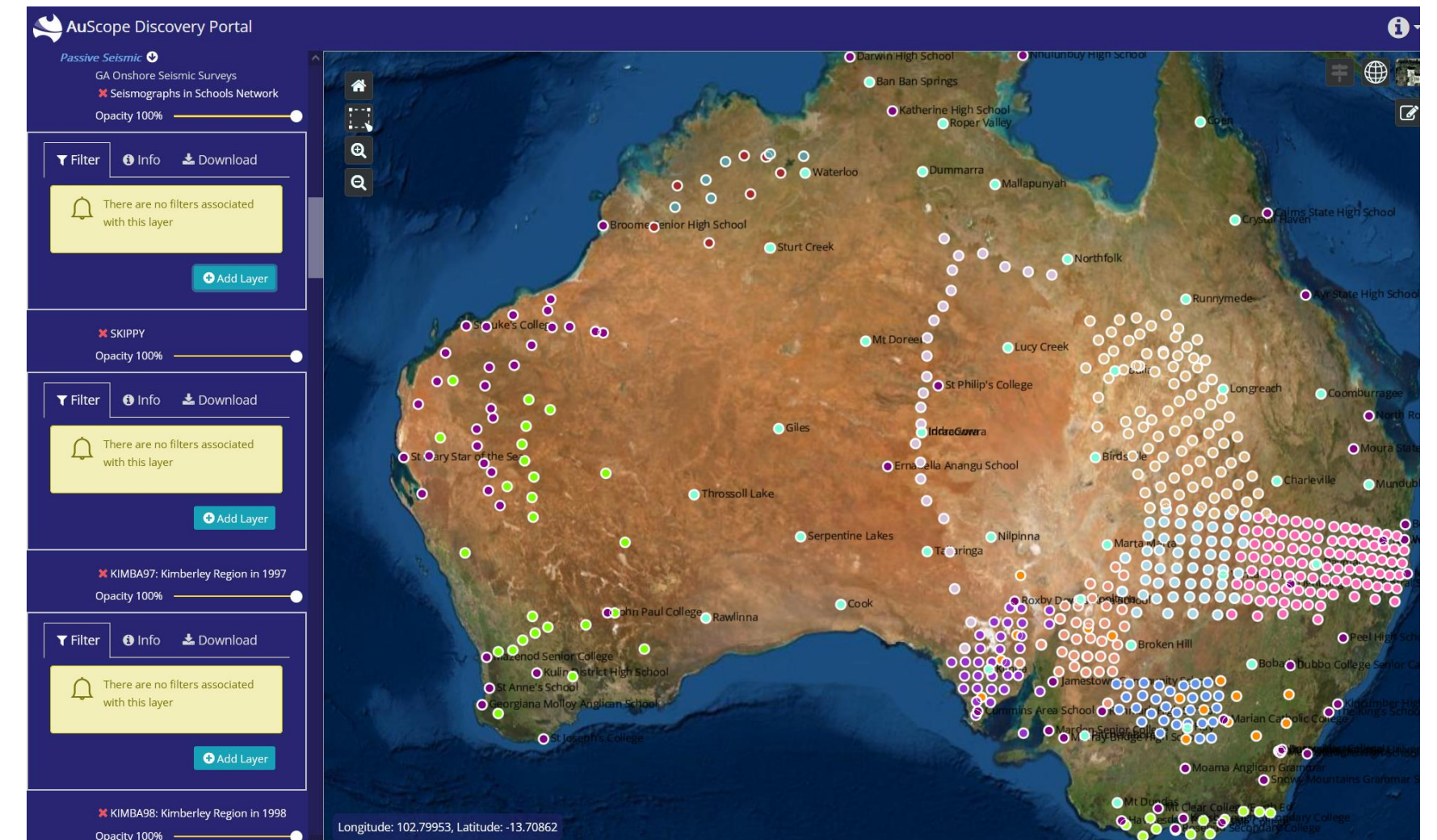
Harvester	Record Count
Curtin University TIMA WFS (OGC Web Services)	3
Curtin University TIMA WMS (OGC Web Services)	3
EMAG2 WMS Thredds (OGC Web Services)	2
GA Geophysical Survey Datasets (GADDS v2.0) (OGC Web Services)	7
Geoscience Australia ERML WFS (OGC Web Services)	11
Geoscience Australia ERML WMS (OGC Web Services)	8
Geoscience Australia OneGeology WMS (OGC Web Services)	16
Geoscience Australia Onshore WMS (OGC Web Services)	2
InSAR/GRACE (OGC CSW 2.0.2)	3
Location of electromagnetic surveys conducted in Australia (OGC Web Services)	2

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

The screenshot shows the PortalGeonetwork Admin console. The top navigation bar includes the PortalGeonetwork logo, Search, Map, Contribute, and Admin console. The left sidebar is titled 'Metadata & templates' and contains links for Standards, Formatter, Validation, and Metadata Identifier templates. The main content area is titled 'Load samples and templates for metadata standards' and features a list of metadata standards with checkboxes. One standard, 'Geographic information -- Metadata (iso19115-3.2018)', is selected. Below the list are two blue buttons: 'Load templates for selected standards' and 'Load samples for selected standards'. A 'Need help' button is located at the bottom left of the main content area.

PortalGeonetwork Search Map Contribute Admin console

Metadata & templates

- Standards
- Formatter
- Validation
- Metadata Identifier templates

Load samples and templates for metadata standards

1 selected

- Geographic information -- Metadata (iso19115-3.2018)
- Geographic information -- Metadata (iso19139:2007) (iso19139)
- Dublin core (for CSW only) (csw-record)
- Dublin core (dublin-core)
- Geographic information -- Methodology for feature cataloguing (iso19110)

Load templates for selected standards

Load samples for selected standards

Need help

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

Advanced options for protocol ogcwx

Remote authentication

Build service metadata record from a template

Template for service

This allows on the first run, to use a template and inject GetCapabilities information in it. On following executions, the generated record on the first run is reused and updated. This mode allows editing the service metadata record and adding more details on all properties that are not synchronized with the GetCapabilities document (ie. title, abstract, keywords, extent, fees, ...).

Category for service metadata

Create record for each layer only using GetCapabilities information.

Create record for each layer only using GetCapabilities information.

Import record for each layer using MetadataURL attributes.

Only if metadataUrl is existing, if not use the GetCapabilities only or combine GetCapabilities information with a template selected below

Build dataset metadata records from a template

Template for geographical data

Choose a template to use as a basis in which GetCapabilities information are injected. When using this mode, records created on first run are reused and updated. This allows to edit those records.

Create thumbnail

During harvesting, for each layer a GetMap request is made based on the layer's bounding box. Only for WMS service.

Category for dataset metadata

Datasets

Validate records before import

Accept all metadata without validation

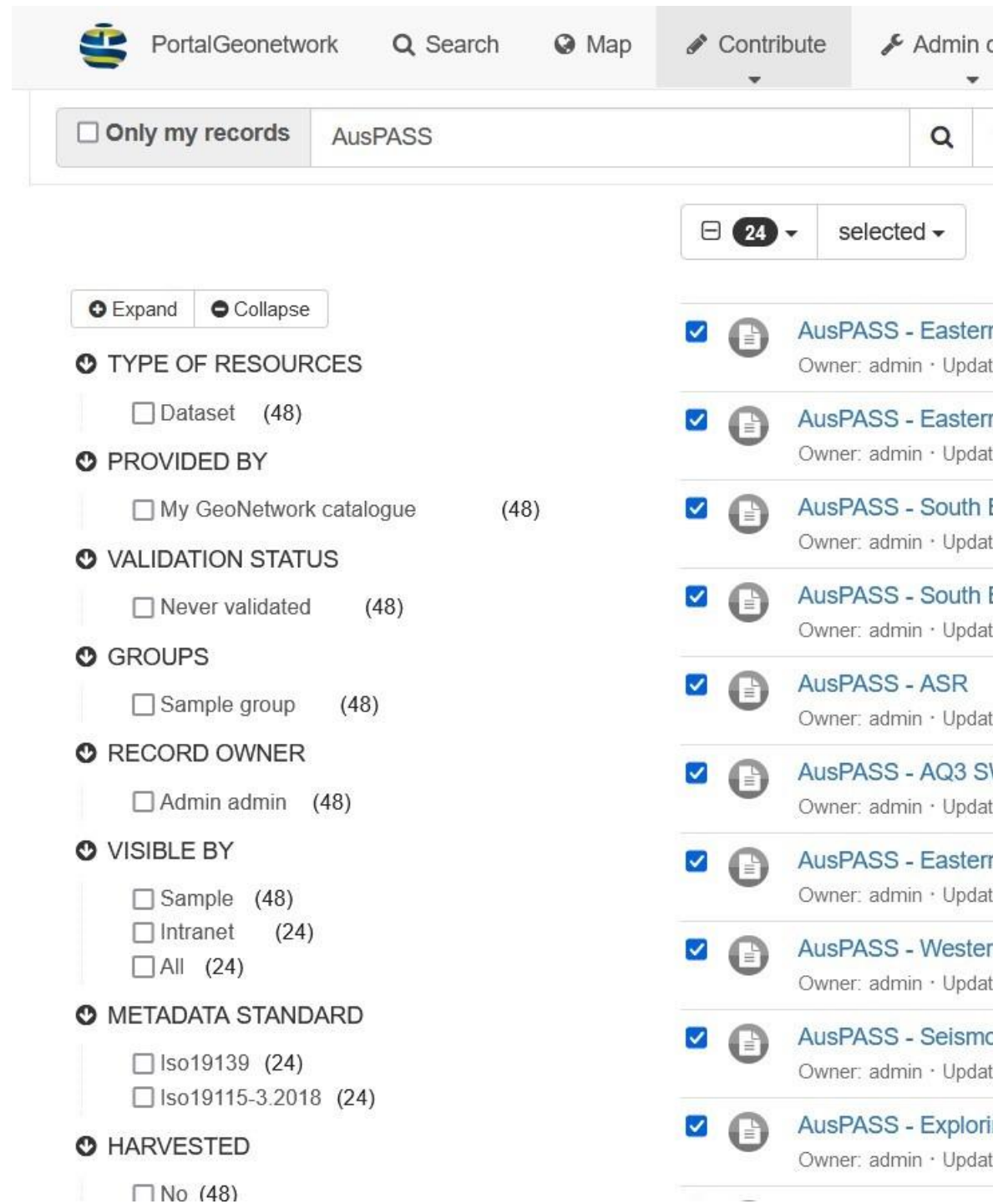
Invalid records will be rejected. Validation is based on the standard validation (ie. XSD, Schematrons).

XSL transformation to apply

The referenced XSL transform will be applied to each metadata record before it is added to Geonetwork

Privileges for harvested records

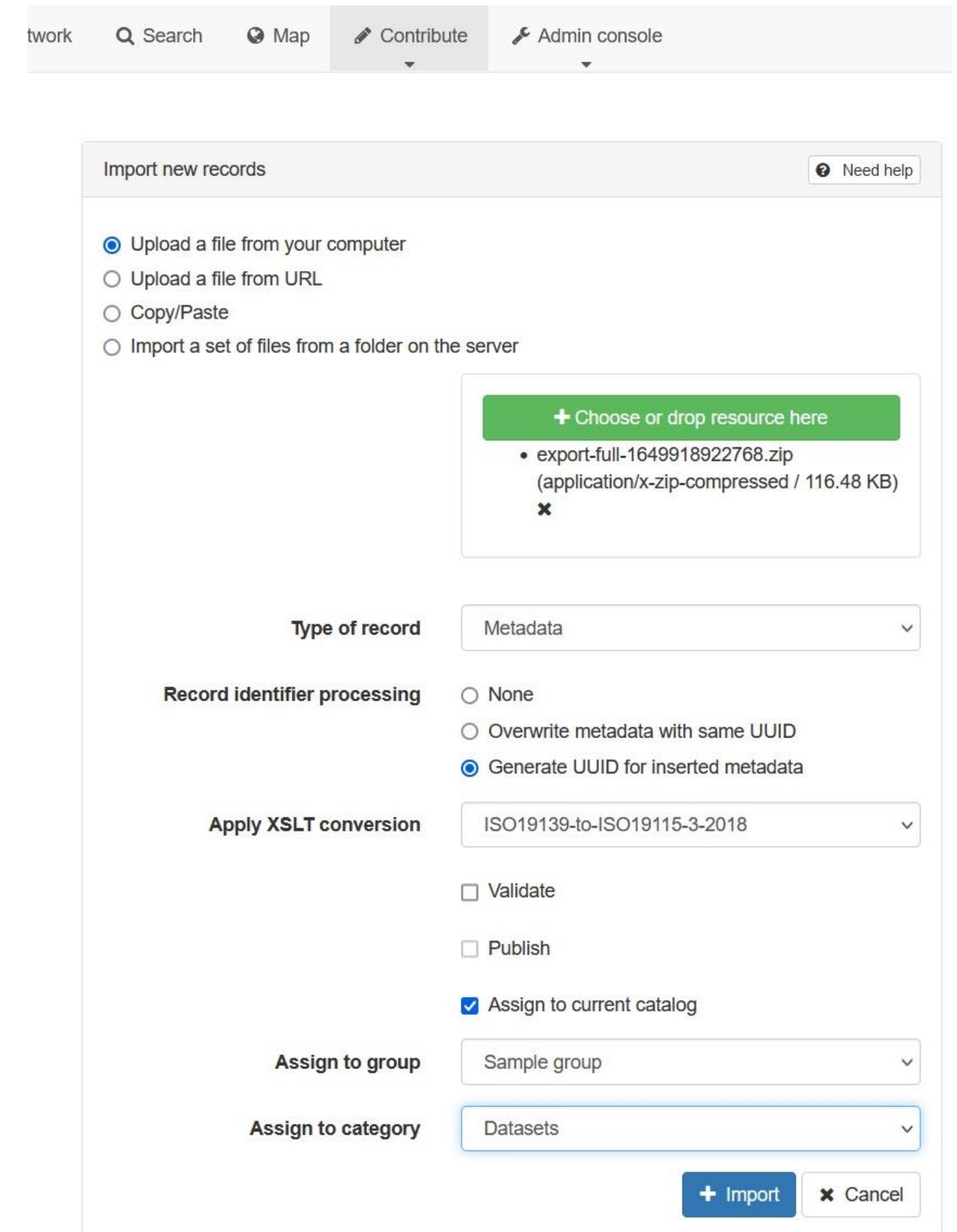
Converting Curated Records



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-ogcwx.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/>



auscope.com.au

Tw @AuScope

Ig @AuScopeToolkit

Li /auscope-limited

