

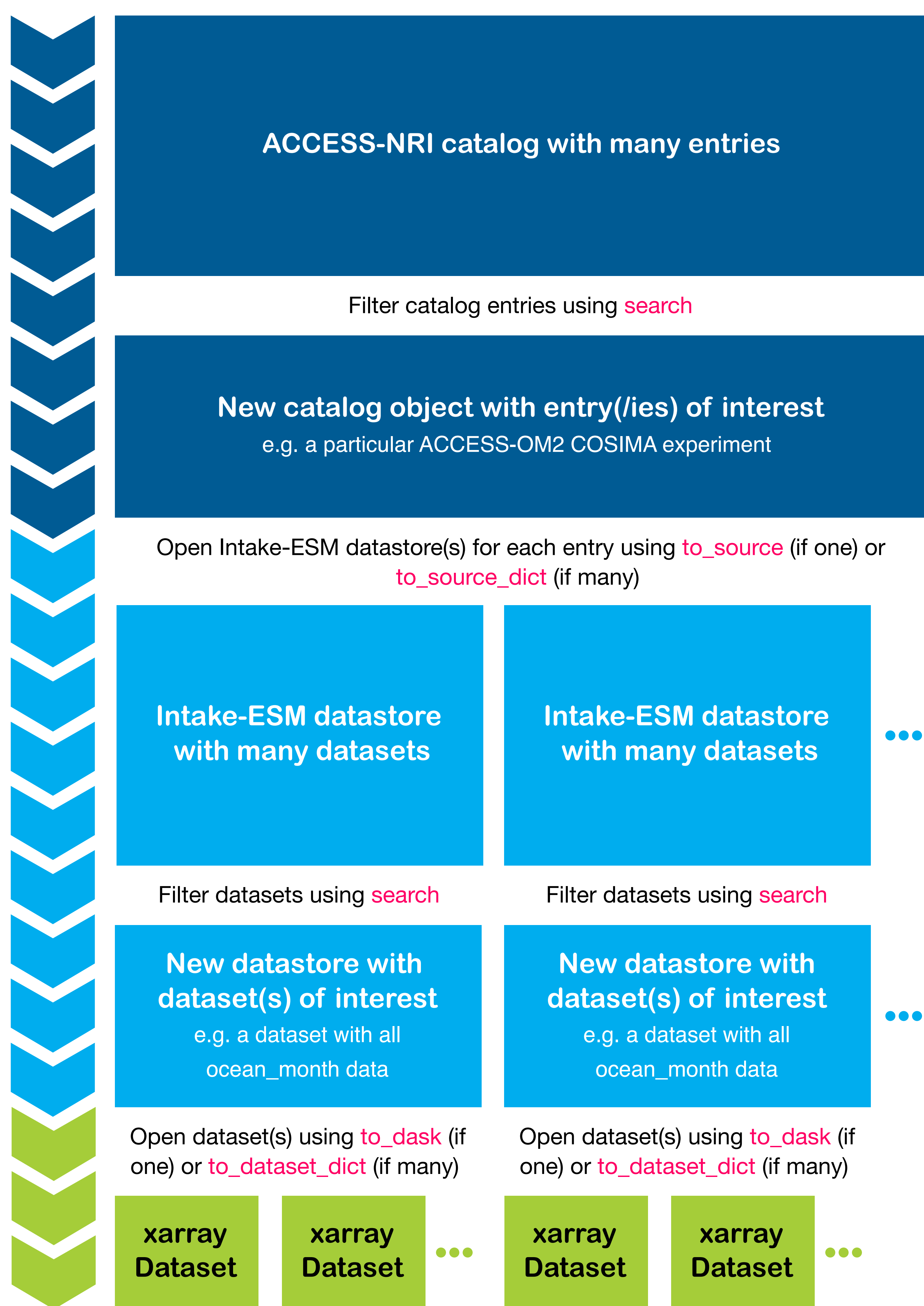
# A Python tool to simplify finding and loading ACCESS model data



## The ACCESS-NRI Intake catalog: a community-driven approach for finding, loading and sharing data on Gadi

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- discover and load ACCESS and ACCESS-related data without having to know where they are or how they fit together
- easily add your data to the catalog so that others can find and use them
- available in public conda environments on Gadi (hh5 and xp65)



```
[1]: import intake
# Catalog with many entries
catalog = intake.cat.access_nri
catalog
```

access\_nri catalog with 86 source(s) across 2183 rows:

name	model	description	realm	frequency	variable
01deg_jra55v13_ryf9091	{ACCESS-OM2}	{0.1 degree ACCESS-OM2 global model configuration with JRA55-do v1.3 RYF9091 repeat year forcing (May 1990 to Apr 1991)}	{sealce, ocean}	{1day, 3hr, 1mon, fx, 3mon}	{sfc_salt_flux_coupler, pot_rho_1, ULAT, surface_temp, sst_m, fsalt_m, ty_trans, aice_m, evap_heat, wfmelt, tx_trans_sub...}
01deg_jra55v140_iaf	{ACCESS-OM2}	{Cycle 1/4 of 0.1 degree ACCESS-OM2 global model configuration with JRA55-do v1.4.0 OMIP2 interannual forcing}	{sealce, ocean}	{1mon, 1day, fx}	{sfc_salt_flux_coupler, frzmlt_m, ULAT, surface_temp, fsalt_m, ty_trans, aice_m, hi, evap_heat, wfmelt, v, sfc_hflux_fro...}
01deg_jra55v140_iaf_cycle2	{ACCESS-OM2}	{Cycle 2/4 of 0.1 degree ACCESS-OM2 global model configuration with JRA55-do v1.4.0 OMIP2 interannual forcing}	{sealce, ocean}	{1mon, 1day, fx}	{sfc_salt_flux_coupler, frzmlt_m, Tinz, ULAT, surface_temp, fsalt_m, ty_trans, aice_m, hi, evap_heat, wfmelt, v, sfc_hfl...}

```
[2]: # Filter catalog for entries of interest
catalog_filtered = catalog.search(variable="wdet100")
catalog_filtered
```

Intake dataframe catalog with 2 source(s) across 4 rows:

name	model	description	realm	frequency	variable
01deg_jra55v140_iaf_cycle4	{ACCESS-OM2}	{Cycle 4/4 of 0.1 degree ACCESS-OM2 global model configuration with JRA55-do v1.4.0 OMIP2 interannual forcing}	{ocean}	{1mon, 1day}	{wdet100}
01deg_jra55v140_iaf_cycle4_jra55v150_extension	{ACCESS-OM2}	{Extensions of cycle 4/4 of 0.1 degree ACCESS-OM2 + WOMBAT BGC global model configuration with JRA55-do v1.5.0 and v1.5.0.1 OMIP2 interannual forcing}	{ocean}	{1mon, 1day}	{wdet100}

```
[3]: # Get dictionary of Intake-ESM datastores
esm_datastore_dict = catalog_filtered.to_source_dict(pass_query=True)
```

```
[4]: # Get nested dictionary of xarray Datasets
dataset_dict = {
    name: esm_datastore.to_dataset_dict(progressbar=False) for
    name, esm_datastore in esm_datastore_dict.items()
}
```

Go here to get started:

