



Copernicus – eoSC AnaLytics Engine

# The Metadata Query Service

## Discovering EO data across the federation

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## MQS (Metadata Query Service)

- Evolved from the original plan to federate Copernicus Data providers within C-SCALE
  - Federation in terms of **access** has been covered in the previous talk
  - **Discovery** across the federation a major goal
  - **Avoid** creating yet another metadata catalogue!
- Main premise: partners already know where their data are
  - Bring their discovery interfaces under a common one
    - ▶ single point
    - ▶ shared protocol
  - describe their datasets and data retention policies
  - use that to pre-select candidates and redistribute user queries

- Grasp the fact that different partners have different data
  - National archives (full history, limited area)
  - Discipline archives (limited selection of product types, varying retention time)
  - Redistribution services (global coverage, short retention)
  - Big players (ambition to build global archive)

⇒ Not every query needs to be redistributed to every partner

- Understand the query, select matching providers
- Currently taking into account only product type
  - ▶ *Area and time filters not yet applied*

- Called the *EO Resource Catalogue* initially → confusion
- Has **only** provider information, not data (product) information
  - Partners
  - Contacts
  - Services
  - Endpoints
- Adopting the well known GOC-DB (<https://goc.egi.eu/>)
  - The “Grid Configuration Database”, put to new uses
  - Keep track of members and relevant service endpoints  
[https://goc.egi.eu/gocdbpi/public/?method=get\\_service\\_endpoint&scope=C-SCALE](https://goc.egi.eu/gocdbpi/public/?method=get_service_endpoint&scope=C-SCALE)
  - Originally also intended for datasets and retention policies, but the choice of protocol changed that

# Choosing the Common Protocol

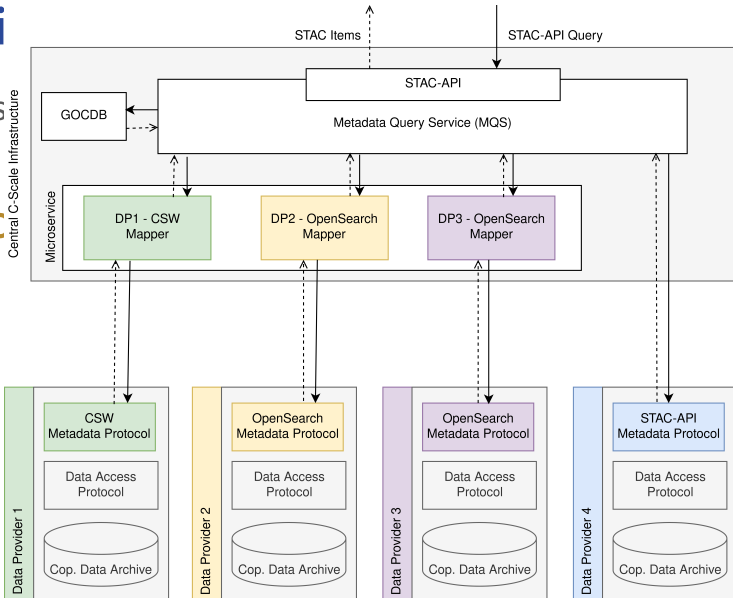
- Chose from those already used in the federation?
  - OpenSearch, OData, CWS, STAC
  - Then implement translation
- **STAC** selected
  - modern protocol
  - lots of products supporting it
  - active community
  - <https://mqs.eodc.eu/stac/v1/>
- Side effect!
  - Greater granularity wrt. OpenSearch or CWS
  - Cannot stay completely true to original intention not to build YAMC
    - ▶ Required detail simply not available in existing DBs

# Choosing

- Choosing

- STAC

- Side



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- Standardized STAC Collections structure?
  - At least for members who are building new STAC databases, it might make sense to use a common collection structure
  - Developing now
- Paging
  - How to handle item paging when multiple backends respond?
  - Cache and collate own pages? Send more than the query asked for?



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Discovery



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All Resources

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## Discovery

### CATEGORIES

Access	5
Annotation	3
Anonymisation	1
Brokering	2
Digitisation	4
<b>Discovery</b>	<b>22</b>
Embargo	1
Interlinking	0
Maintenance	1
Mining	1
Persistent Identifier	7
Preservation	8
Publishing	3

SUGGESTED

### PRISM: Peer Review Information Servic...

Peer Review process certification of  
Open Access Monographs

Organisation:  
[DOAB Foundation](#)

### VAMDC Query Store

Quickly cite your data in scientific  
papers

Organisation:  
[Virtual Atomic and Mo...](#)

### Argo marine floats data discovery/dow...

Argo floats observations : discover  
and use in situ data from the global  
network of ocean profiling floats

Organisation:  
[Ifremer, the French N...](#)

Part of 22 results

Sort by: [by name A-Z](#)

10

20

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Items on page

Thank you

Questions any time

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