

Cefas OGC ENV API Implementation

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25 YEARS
of Cefas
120 years of science



Together we are working for a
sustainable blue future


Centre for Environment
Fisheries & Aquaculture
Science



Intro to Cefas

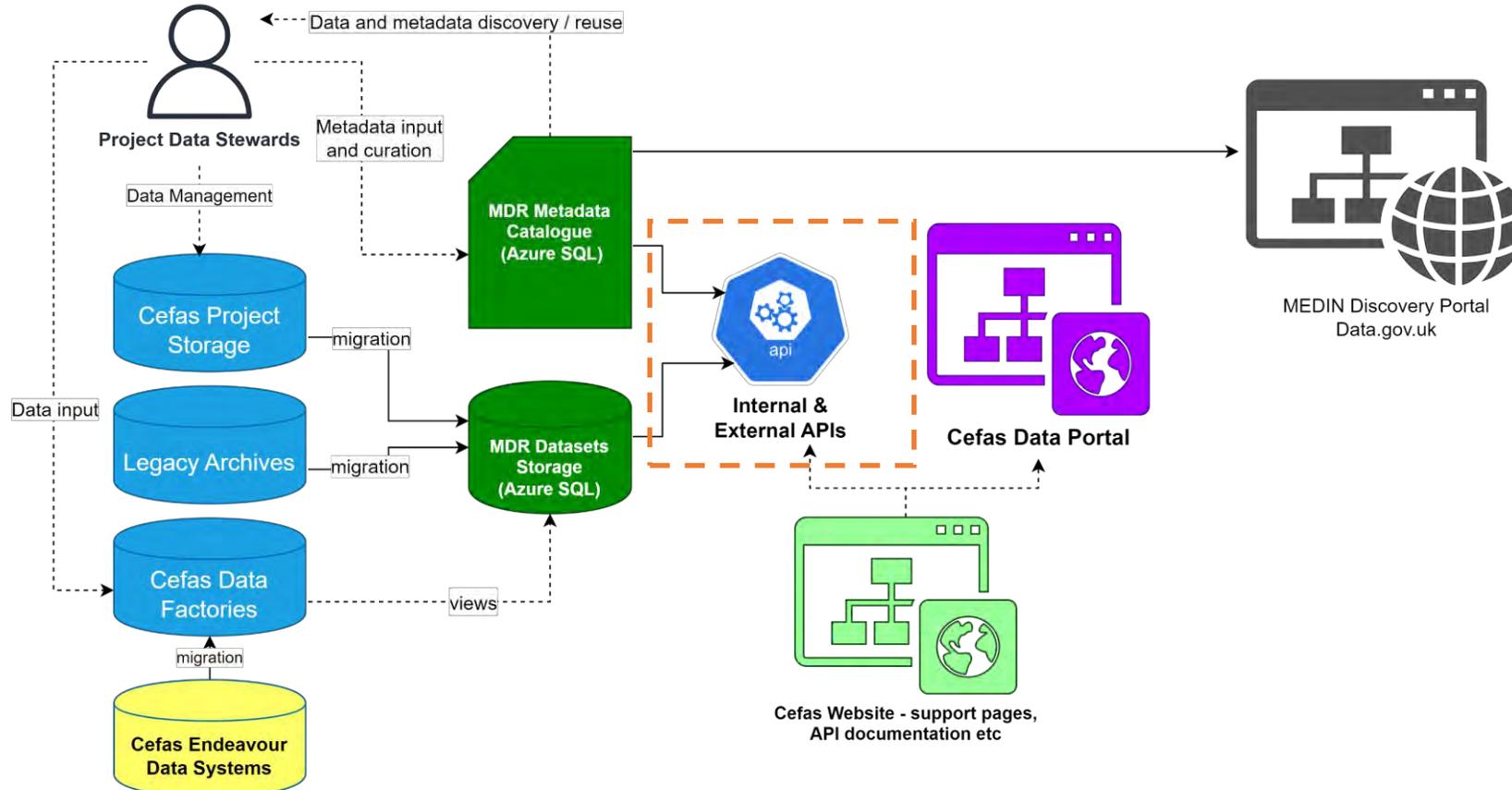
- We are the government's marine and freshwater science experts.
- We help keep our seas, oceans and rivers healthy and productive and our seafood safe and sustainable.
- Over 650 staff in our Lowestoft and Weymouth sites and small port offices in Scarborough, Hayle and Plymouth.
- Purpose built research vessel Cefas RV Endeavour is equipped to support a broad range of activities.



What we do



Cefas Data Hub - Infrastructure

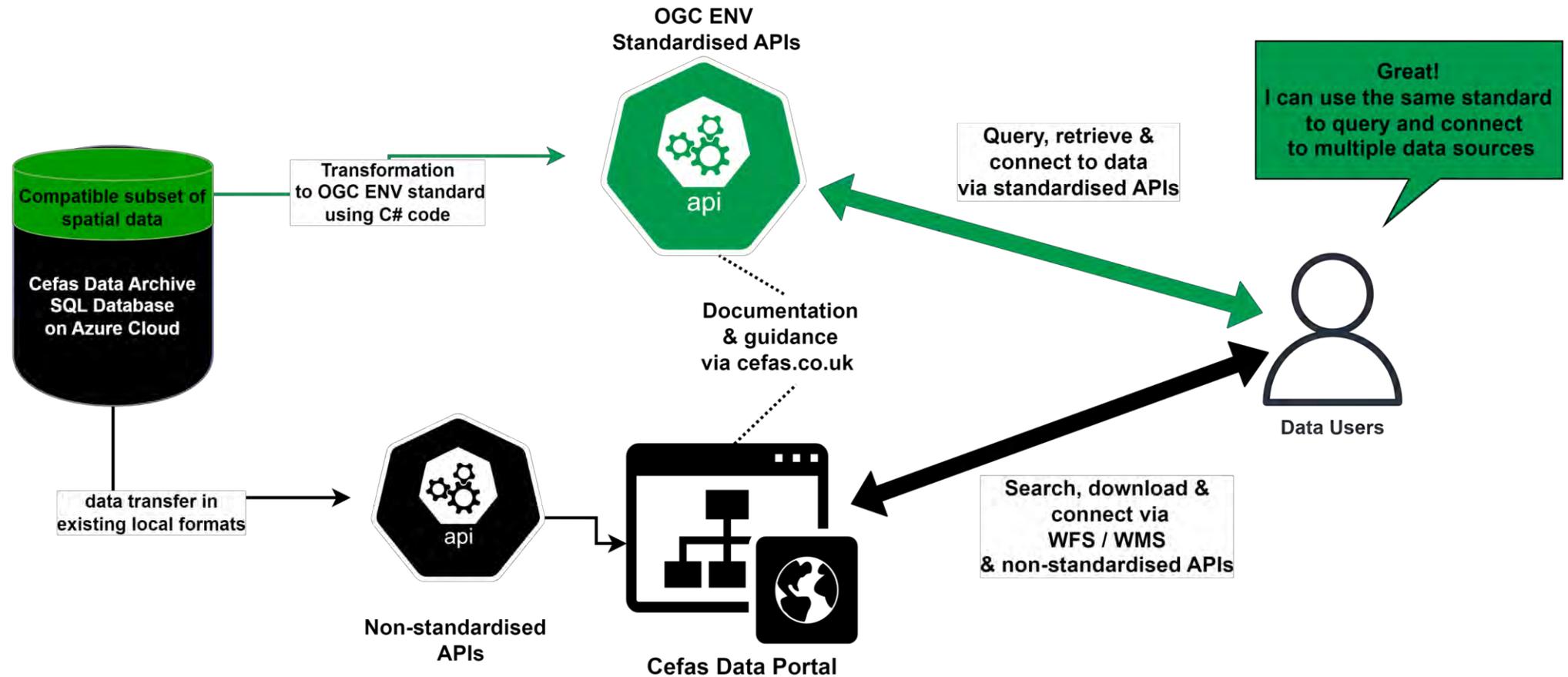


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OGC ENV API Pilot – Infrastructure Use



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Data Selection

- Cefas' published data = ~6000 datasets from >2000 metadata records covering a variety of science themes and many different data structures. Time range from 1880 to present!
- 7 datasets chosen for pilot including
 - seafloor litter
 - seawater temperature
 - fish nursery grounds
 - plankton
 - organic carbon in sediments
- our C# code presents datasets in the OGC API standard based on latitude, longitude and a single date / time field (plus any measurements / observations made – ready for any suitable dataset)



Implementation Choices

- The underlying geometry of our data is 2 dimensional only, so we ignore height / depth parameters in the queries
- We output only GeoJSON (other formats like NetCDF are possible but this was not appropriate for our data)
- Start and End datetimes are possible but we chose not to implement
- Cefas' published data typically uses WGS84 spatial reference system so while input queries can use any spatial reference, outputs are all in WGS84 only
- We decided to support only the following named location types, ICES Areas, ICES Rectangles and OSPAR Regions



Documentation & Support

- Cefas & DASSH Joint Pilot Project Report – *coming soon*
- Swagger – open documentation of our API, can be used for live testing of queries
<https://data-api.cefas.co.uk/index.html?urls.primaryName=Cefas%20OOGC%20Environmental%20Data%20Retrieval%20API>
- GitHub
<https://github.com/CefasRepRes/Cefas.MDR.OgrEnvironmentalDataRetrieval>
- Cefas Data Portal <https://data.cefas.co.uk/>
- data.manager@cefas.co.uk (soon to be @cefas.gov.uk)





Thank you for listening



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