FPA no.:
275/G/GRO/COPE/17/10042

Caroline Herschel Framework Partnership Agreement for

Copernicus User Uptake

Earth Observation (EO) for Visual Applications and Engagement

EO can provide images which are a powerful tool for engaging the public and stakeholders with policy objectives whilst collecting ground data provides opportunities for citizen science participation in monitoring. EO data often needs other datasets collected alongside for calibration and validation of products. This document highlights three examples and indicates their ease of adoption.

Contact point:
earthobs@jncc.gov.uk

Complexity

- Possible; needs research
- Clear method but complex
- Clear method and straightforward

Resource

- £££ High
- ££ Medium
- £ Low

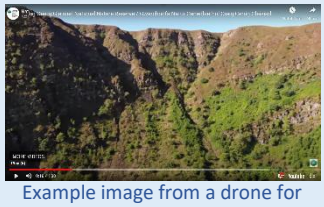
Case Study: Using drones to promote tourist spots

Uses images and video footage collected through drones for promoting the Welsh landscape and tourist attractions to visitors.

Method is clear and straightforward. Staff training and pilot licenses required for data collection and data manipulation.

£

Cost is low as many commercial services are available. If drone data used for many purposes then cost increases as data capture requires licensed pilots and drone equipment needs to be maintained, while data storage and software costs are high but medium if drone captures can be standardised and centralised.



Example image from a drone for videos promoting Craig Cerrig National Nature Reserve on YouTube.

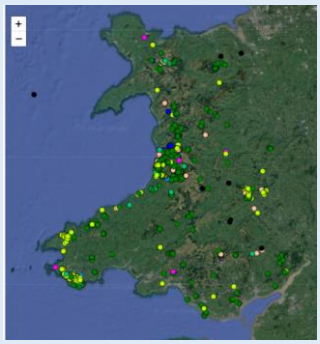
Research Tool: EarthTrack app

A mobile application that helps the user collect land cover, land cover change, environmental variables and dominant and co-dominant plant species. This data can be used to train and validate products generated from EO data. Data collection via EarthTrack is already used operationally within Natural Resource Wales.

Tool is operational and straightforward to use once training completed. Further development is required to better integrate data collected by app with EO data.

££

The app is free to use however combining the data with Earth Observation needs further resource. Small team required to maintain once operational. Currently only available on Android devices.



Data collected through the EarthTrack app in Wales as of 2020.

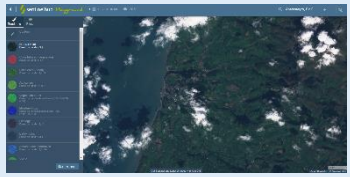
Operational service: Use of Sentinel Hub to visualise the landscape

Visualising the most recent Sentinel-1 and Sentinel-2 imagery can be used for a variety of applications from looking at flooded areas to checking when fields have been harvested. Data is suitable for looking at broad features in the landscape only as spatial resolution of data does not capture the detail.

Method is clear and straightforward. Staff training required for accessing data and understanding imagery to prevent image misinterpretation.

£

Setting up an account is free and is accessible from a web browser. Resource costs come only from staff time using the service.



Sentinel Hub's Playground visualising a recent image over Aberystwyth.

Policy Areas

Tourism / Demonstrator projects

Regulatory use of EO is often visual but is dealt with by other documents in this series.

https://www.copernicus-user-uptake.eu/ **Published: 2020-10**