

## Earth Observation (EO) for Regulation and Compliance

Earth Observation data have been used as visual aids as well as analytically to identify activities in the landscape in relation to regulation and compliance. This document highlights three examples and indicates their ease of adoption.

### Contact point:

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### Complexity

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

### Resource

£££ High

££ Medium

£ Low



### Operational Method: Use of Drones & Planet Data for Visual Checks



Landfill waste audit and waste regulation teams have been using Planet data to monitor and prove non-compliance with illegal waste regulations.



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

££

Data access requires purchase of a license. Targeting specific waste sites mean implementation requires staff time.



### Operational Method: Use of Very High Resolution (VHR) Data to Identify Slurry Tanks

SEGES (the Danish agricultural advisory institute) are using Picterra, a cloud-based geospatial tool, to estimate the level of the country's total emissions of ammonia from slurry tanks through Deep Learning models trained on satellite and aerial imagery data.



Method is clear and operational.

££

Whilst there are costs associated with use of the tool, the staff time required is hugely reduced compared to manual implementation (hours compared to months). Additional costs will be involved with obtaining relevant satellite and aerial imagery data.



Drone image of a waste site flown by NRW.



Slurry tanks identified using Picterra



### Operational Method: Use of Planet Data as a Waste Crime Deterrent



Landfill waste audit and waste regulation teams have been using Planet data as a waste crime deterrent by sending out example images to demonstrate the degree to which sites can be, and are being, monitored through remote sensing.



Method is clear and straightforward.

£

Data access requires purchase of a license. Staff time is required to create and send correspondence.



Letter sent by NRW with Planet imagery as a deterrent

### Policy Areas

Waste and Waster Crime / Slurry and Septic tank spills / Compliance / CAP / Operations / Compliance monitoring / Land Cover / Future agricultural scheme monitoring and compliance / Compliance through near time change detection of land cover information/ EO inclusion in Future Regulations Agricultural Act