

In-Situ Validation of Sentinel-2 Data for Irish Lakes and Transitional and Coastal (TRAC) waters (INFER project).

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Management of our aquatic ecosystems requires reliable and cost-effective monitoring programmes. Conventional monitoring, however, is often time consuming, labour intensive and costly. Remote sensing satellites can be used to address spatial and temporal limitations of traditional monitoring methodologies, while also increasing the number of surface water sites that can be monitored. Data from these satellites are derived using algorithms that estimate the atmospheric properties and reflectance of the waterbody. To improve on these estimations the INFER Project (EPA Strive Funding Project Code: 2017-W-MS-30) aims to measure *in situ* reflectance levels from a range of lake and TRAC waterbodies. Data for atmospheric correction are taken using two hyperspectral radiometers. In addition, water quality data is being collected to allow for field validation of satellite data. This will increase the reliability of data extracted from satellite imagery and establish the usefulness of using satellite remote sensing alongside more traditional methods to improve water quality monitoring programmes in Ireland.