E-PRTR Data & Verification Needs:

SEEDS General Assembly and Stakeholder Engagement Meeting

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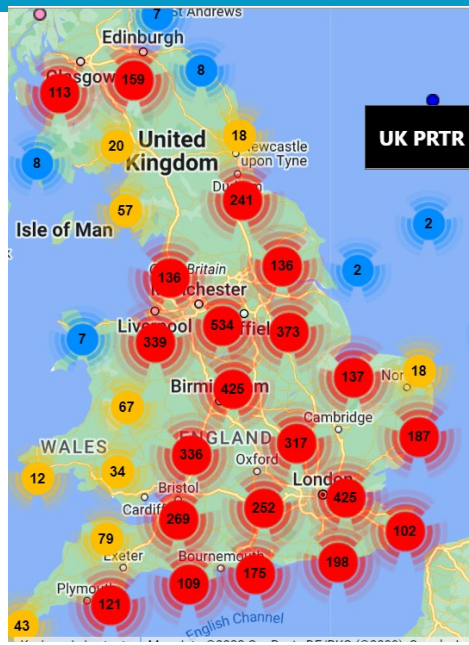
Aether

Contents

1. The E-PRTR Dataset

- Very good coverage (pollutants, sources etc.)
- Readily available data

- Operator provided data
  - Can mean varying (& sometimes questionable), quality
- Reporting thresholds
  - Sites can “disappear” for some years – “lumpy” timeseries data
- No activity data
  - Difficult to check reported emissions



2. Current Review & Verification Methods

- Timeseries consistency
- Reported emissions vs permits
- Pollutant ratio checks
- Fractions of national sector emissions
- Etc.
- … which does not amount to rigorous verification.

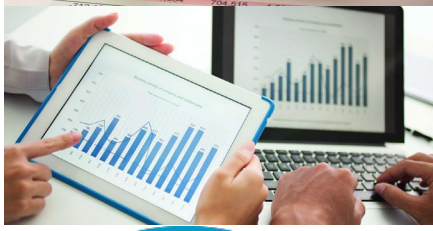



3. Potential Use of Satellite-based Data (1/2)

- Location/Resolution
  - Spatial resolution of EO-based emissions still a challenge??
  - Locating sites - of very limited value in most European countries
  - Possibly applications in developing countries

- Efficiency
  - Checks need to run “automatically” across the E-PRTR dataset, or subset.
  - Be accessible by people other than EO data handling experts
  - Ultimately be as cost-effective as bottom-up/ground based QA/QC routines and checks.



3. Potential Use of Satellite-based Data (2/2)

- Emission outlier checks
  - Reported vs EO-based emissions – even if EO-based data is not specific to a point source, is still of value in identifying issues.
- Timeseries checks
  - Verifying year to year variations (2020 - a useful case study?)
  - Checking emissions from sources that drop below thresholds… and gap filling datasets
  - Estimating monthly/weekly emissions.
- Pollutant ratio checks
  - Interest is primarily in NOx and $PM_{2.5}$, but ratios with CO can be informative for QA/QC purposes.