

We greatly thank the reviewer for their feedback on our manuscript. Please find our response here to their comments.

Dene Bowdalo

## Reviewer 2

This is an excellent paper and an important contribution to our field. Atmospheric composition observations are important to society and are needed to quantify trends and current levels of pollutants in the atmosphere, to evaluate models, to assimilate with models to provide optimal estimates of the state of the atmosphere, among others. But atmospheric composition measurements occur in many different and disparate locations, and it is often very difficult to discover and access the data. The approach developed and described in this paper goes a long way to improving the discovery and use of atmospheric composition data. It is a major development, and the authors are to be congratulated.

The paper is well written, and the relevant information is made available, and methods described in appropriate detail.

**1.1.** My only comment is related to how can this workflow be made even more useful. Specifically, much of the atmospheric composition data sits in individual measurement sites and data available and described in publications. How easy is it for a single measurement site to make their data available to GHOST? Can they provide the DOI and meta data etc. in an easy way?

Our goal with this work was to process data from the major public reporting networks. In main this decision was taken due to the lack of homogeneity in reporting formats from across individual measurement stations. Parsing 38 networks was itself an extremely onerous task, having to do so for even more formats we felt was too much of a challenge. With that said, we would naturally love to incorporate as much data as we can in the dataset. With hope, if this project is welcomed and supported by the community and can gain more support, this would allow us to potentially look at creating standard templates for data providers to contribute data.