O3as: Ozone trend visualisations and return dates developed within within EOSC-synergy

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The O3as service is a tool designed to support the assessment of atmospheric ozone levels and trends. It was developed as one of the thematic services of the EOSC-Synergy project. It allows for the analysis of large datasets from chemistry-climate models and presents the information in a user-friendly format for a broad range of users, including scientists, pupils, and interested citizens. The service utilizes a unified approach to process the data, employs CF conventions for homogenization, and generates figures that can be published or downloaded as csv files. It was developed as part of the EOSC-Synergy project, and it runs on a cloud-based, containerized architecture orchestrated by Kubernetes and HPC resources, and uses the Large Scale Data Facility (LSDF) at the KIT for data storage. The service is developed with best software practices, including quality assurance, continuous integration and delivery, and compliance with the FAIR principles.

This presentation will focus in particular on the architecture and functionality of the O3as service, with an example demonstration of its usage.