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EOPF SENTINEL ZARR SAMPLES

NEWSLETTER #11

March 2026

March EOPF Zarr Updates

Service update:

The **EOPF Sentinel Zarr Samples website** has recently been refreshed with a new visual identity, bringing it in line with other services developed under the same European Space Agency (ESA) umbrella.

The update highlights the growing ecosystem of tools supporting **Zarr-based Earth Observation data**, and the connections between them.

Together with the **EOPF Toolkit** and **EOPF Explorer**, the service contributes to a more accessible and interoperable environment for exploring and working with Zarr-based data products.

Curious to learn how these services complement one another? In a recent **EOPF webinar**, the project teams shared their latest updates and demonstrated how their tools fit within the broader Zarr ecosystem.

▶️ Watch the recording to find out more.

🚀 Webinars

If you joined our recent webinar on **Cubed and scalable array processing**, you can now explore the resources mentioned during the session. In particular, Tom White shared several useful materials to help you get started with Cubed and experiment with scalable workflows for Zarr-based Earth observation data.

We encourage participants to revisit these resources and continue exploring how Cubed can support their data processing pipelines.

Webinar #12 - Computing Leaf Area Index with Sentinel-2 in EOPF Zarr format



Join us for a 45-minute webinar exploring a practical Earth observation use case: **retrieving Leaf Area Index (LAI) from Sentinel-2 data in the EOPF Zarr format**. The session will demonstrate how vegetation biophysical parameters can be efficiently computed and analysed across large time series using cloud-native EO data structures.

As part of the ongoing **EOPF webinar series**, this session supports the growing community of early adopters working with the new EOPF data format. The series aims to help users build practical skills, share approaches, and explore real-world applications of **Zarr-based Earth observation data products**.

During the webinar, participants will follow a demonstration showing how LAI was retrieved over **South Tyrol during 2023** using Sentinel-2 observations stored in EOPF Zarr format. The workflow illustrates how cloud-native data enables **scalable processing of vegetation indicators across regional datasets and long time series**, supporting environmental monitoring and vegetation analysis.

During this session, participants will:

- Learn how **Leaf Area Index (LAI)** can be retrieved from Sentinel-2 observations
- Discover how **Sentinel-2 data in EOPF Zarr format** enables scalable, cloud-native processing workflows
- Follow a **practical demonstration** analysing vegetation dynamics over time

- Explore how these approaches support **regional environmental monitoring and vegetation analysis**
- Find resources to begin **experimenting with EOPF Zarr data products**

📍 Online
📅 Date: 9 April, 14:00 CEST
❓ Access Q&A here

Register



EOPF Zarr Community Notebook Competition (ESA)

The EOPF Zarr Community Notebook Competition invites the Earth observation community to share open, reproducible workflows using Sentinel data in cloud-native Zarr format.

Participants are encouraged to submit Jupyter notebooks that demonstrate practical use cases, from exploration and screening to analysis, using the EOPF ecosystem and tools. The competition is open to all experience levels and is designed to help users get hands-on with cloud-native EO workflows.

📅 Submission deadline: 15 March 2026
🏆 Prizes: ESA Sentinel-2 LEGO sets + €10,000 in thriveGEO upskilling vouchers
🌍 Who it's for: EO practitioners, researchers, developers, students, and anyone working with Sentinel data

Key links:

- Competition overview & instructions
- EOPF 101 Toolkit (learning resource)

Community Support Platform

To support users of the new data formats, we have launched a dedicated **Community Support Forum,** a space to ask **questions**, share **knowledge**,

and **collaborate**. Whether you are looking for help, exchanging tips, or uploading community notebooks, the platform is here to grow a strong network of users.

Community Support Platform

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