



Getting started with Copernicus Earth Observation satellite data.

There is a lot of Earth Observation data available. But how to make use of it?

Follow an example of a team on a hackathon, that has no knowledge about Copernicus, but wants to create an app using Earth observation data.

The team decided they will **build a mockup for an app that recommends cycling destinations around Europe with good air quality**. To do so they will follow these steps.

Obtain Earth Observation data in six steps:

1. Find out what data on air quality is available. I **review the list of Copernicus services** and **select the appropriate** among Land, Atmosphere, Marine and others.

Copernicus services create useful and free information on top of Sentinel satellite and other data.

CLMS – [Land Monitoring Service](#) provides land cover; vegetation, hydrology, urban settlements etc

CAMS – [Atmosphere Monitoring Service](#) provides atmosphere composition, air quality data and forecasts <https://atmosphere.copernicus.eu/data>

CMS - [Marine Service](#) - marine safety and resources, coastal resources

C3S – [Climate Change Service](#) provides info on past, present and future climate, seasonal forecasts

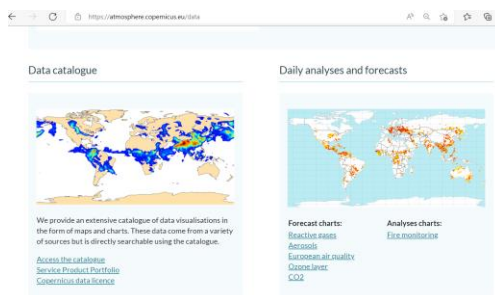
CEMS – [Emergency Service](#) information for emergency response and disaster risk management. Floods, fires, droughts. Partly public.

CSS – [Security Service](#) - surveillance to support border, maritime security and external action. Not public.

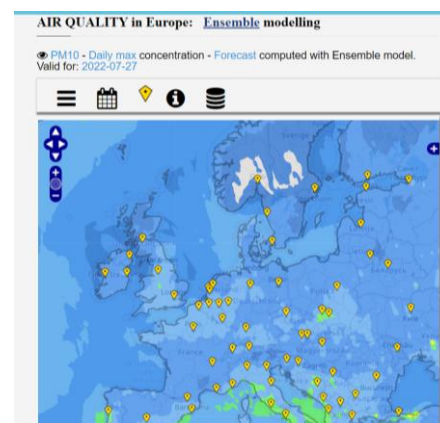
Full list of Copernicus services: [Copernicus services catalogue](#)

2. Select **Copernicus Atmosphere monitoring service (CAMS)** and click on **data** in top right corner

<https://atmosphere.copernicus.eu/data>

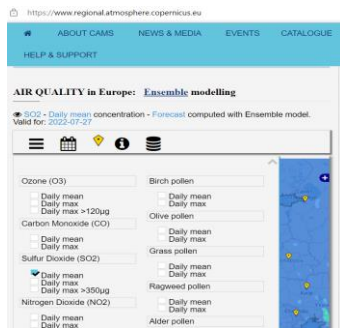


3. Under **Daily analyses and forecast** click on **European air quality**

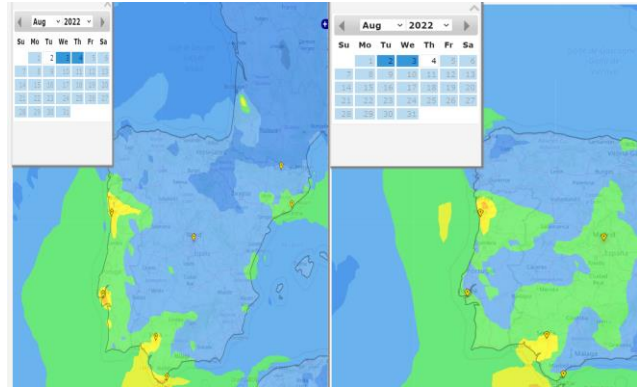


4. Select atmosphere **composition** parameter (e.g. pollen, dust, ozone etc.)

using ☰:



5. Optionally select forecast results for **different days**



6. Now you have atmosphere quality forecast **maps for a service mock-up**. Show it to someone! 😊

What's next?

- Explore Copernicus services list to find other Observation data
- Explore other Copernicus data visually -> Document will be available soon.
- Learn the basics of Earth Observation at Space Academy. It's free!
<https://www.euspa.europa.eu/spaceacademy/>
- With a bit of Python and GIS skills build your own workflows and apps. We recommend building on platforms -> go to data access 2pager.

For suggestions, questions, comments please contact us on:

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