Concept Note

Overview

The Southern Shores of the Mediterranean host a rich tapestry of cultural heritage and a wealth of opportunities for clean renewable energy generation. Harnessing these resources, and protecting this inheritance, can be supported using Europe's flagship Earth Observation programme – Copernicus. This training course explores the potential for Mediterranean data analysis, information providers, and decision support services to harness the wealth of Atmospheric and Climate Change data, held in two of the Copernicus Services – The Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services.

Description and objectives

Over the course of the two-day event, participants will learn about the CAMS and C3S offerings, while also collaboratively design and test Copernicus-based Mediterranean solutions, to meet real Mediterranean energy and World Heritage challenges. Under the auspices of the Mediterranean Capital of Culture festivities in Alexandria, they will collaboratively learn from each other and skilled experts in Copernicus data use, and connect to colleagues and practitioners from across the Mediterranean region.

Attendees can expect to network with peers and experts, learn how to translate complex climate information into actionable insights, and discover practical tools to explore climate data, such as the C3S Climate Atlas, ERA Explorer, and Jupyter workflows. Whether they work in government, research, or policy support, participants will leave better equipped to exploit freely available Copernicus resources, and integrate them into decision-making processes, contribute to regional climate adaptation strategies, energy transition targets, sustainability goals and the protection of World Heritage.

This training course is co-organised by the Union for the Mediterranean (UfM), together with the Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF). The training is hosted by Bibliotheca Alexandrina and has received financial support from Sweden.

Agenda

Day 1: Tuesday, December 16th, 2025

A day dedicated to Mediterranean stakeholders interested in understanding climate and atmospheric information, and its basis on high quality data, and the resources available for use. Tailored for policymakers, policy advisors, and data analysts who develop, apply, or inform policy for World Heritage management, or the energy transition—and who need to understand both the data and the real-world context in which it operates.

Session	Topic	Activities
1	**Who's who and regional context**	Learn about: ○ Opportunities and challenges for the Mediterranean's energy transition and World Heritage sites; ○ Data and information opportunities through ECMWF and Copernicus Services (CAMS & C3S); ○ Information tools and resources available for you to use; ○ Case studies of demonstrated Copernicus data use for energy across the region. Connect with experts in Copernicus data and use in Renewable Energy and World Heritage. Engage in and inform expert discussions on Mediterranean stakeholder's needs for Climate and Atmospheric information. Network and develop new collaborative partners.
2	**Copernicus services – a wealth of data and information for decision making**	
3	**Practical Sessions – information discovery**	
4	**Connecting Copernicus information to Mediterranean decision-making**	
Evening Excursion and Networking		

This training course is co-organised by the Union for the Mediterranean (UfM), together with the Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF). The training is hosted by Bibliotheca Alexandrina and has received financial support from Sweden.

Day 2: Wednesday December 17th, 2025

Dedicated to more data-focused trainees, and those data analysts and researchers who develop, apply and discover climate and atmospheric insights for World Heritage management and the energy transition. Sessions on day 2 are tailored to those who wish to explore the collections of data available to them, get their hands on the data, and learn how to apply and adapt freely-available analysis tools and Python workflows made available through C3S and CAMS.

Session	Topic	Activities
1	**Data on climate change and atmosphere monitoring**	Learn about: ○ Free data resources available through the C3S and CAMS data stores; ○ Fundamental terminologies and resources to help you find and access useful data; ○ The range of free data analysis and exploration tools available; ○ Data quality and provenance libraries to inform your data selection journeys; ○ How to access and analyse data using a wide selection of workflows and freely available tools and product information resources. Work collaboratively to explore and analyse data of relevance to the energy transition and World Heritage management. Engage in expert discussions on Climate and Atmospheric data use and your needs as regional leaders informing the Southern Mediterranean's energy transition, and management of its World Heritage. Network and develop new collaborative partners.
2	**Practical 1 – accessing and processing data**	
3	**Practical 2 – group work – data analysis for energy and World Heritage**	
4	**Recap and reflections**	

Dates and Location

This training course is co-organised by the Union for the Mediterranean (UfM), together with the Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF). The training is hosted by Bibliotheca Alexandrina and has received financial support from Sweden.

The training is taking place on the 16th and 17th of December 2025, in Alexandria, Egypt, which currently holds the Mediterranean Capital of Culture 2025. The training event is hosted by the Bibliotheca Alexandrina conference centre.

Target audience

The target audience may include scientists, researchers, data practitioners supporting policy makers, as well as Ministry staff and local authorities from the Mediterranean region, who may need to work with climate data and tools, but are not from the climate data domain.

Registration

For further information and event registration please visit:
https://ufmsecretariat.org/event/climate-data-training-for-the-mediterranean/.

Background Context

The **Secretariat of the Union for the Mediterranean (UfM)** and the **European Centre for Medium-Range Weather Forecasts (ECMWF)** have established a Memorandum of Understanding in 2021, fostering collaboration in various areas, including training and capacity building with the aim to stimulate the uptake of the Copernicus Climate Change Service (C3S) and the Copernicus Atmosphere Monitoring Service (CAMS) products and services in the Mediterranean region.

The purpose of the training is to develop skills amongst stakeholders such as technical and decision-making staff in ministries, and the research community in the Mediterranean region (particularly the Southern Mediterranean region) to harness the potential of C3S and CAMS data, tools and services, for societal benefit across relevant sectors.

To assess specific needs, a survey on training and capacity building requirements was circulated among UfM Member States Focal Points. Based on the insights gathered, a two-day training event is proposed for December 2025. The training will leverage and provide a

This training course is co-organised by the Union for the Mediterranean (UfM), together with the Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF). The training is hosted by Bibliotheca Alexandrina and has received financial support from Sweden.

platform for other activities carried out in the context of the ECMWF-UfM partnership. This includes the recently launched Demonstrator cases to support renewable energy transition across the Mediterranean, but also the demo Apps previously developed for which Alexandria is a case study, namely on the Risk to World Heritage Sites across the Mediterranean from rising sea levels and international advances such as the launch of the UNESCO report on "Climate Change in Mediterranean World Heritage Cities[1] (UNESCO[2], 2025).

[1] https://unesdoc.unesco.org/ark:/48223/pf0000394251
[2] World Heritage Centre - UNESCO Sites Navigator

This training course is co-organised by the Union for the Mediterranean (UfM), together with the Copernicus Climate Change (C3S) and Atmosphere Monitoring (CAMS) Services, implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF). The training is hosted by Bibliotheca Alexandrina and has received financial support from Sweden.