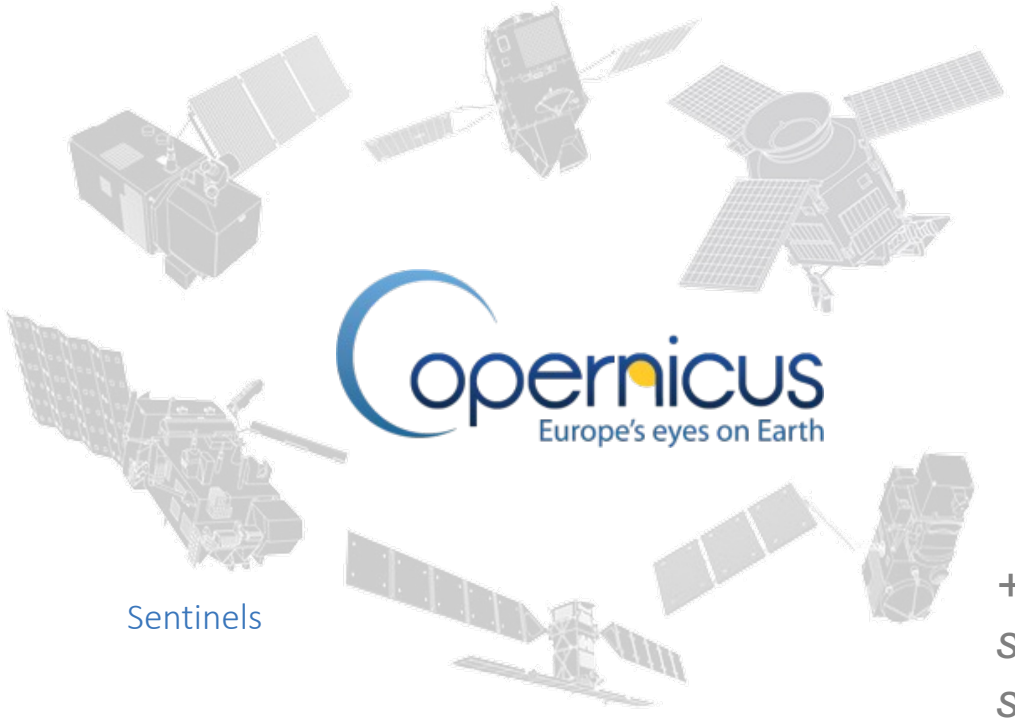
COPERNICUS AND ECMWF



Sentinels

Observations combined with models to provide value-added Services

+ many other satellites and non-satellite data

- Atmosphere
- Climate
- Land
- Marine
- Emergency
- Security

Copernicus is the European Union's operational Earth Observation and Monitoring programme, looking at our planet and its environment for the ultimate benefit of everyone.

User-driven with free and unrestricted data access

Service is implemented by ECMWF

ECMWF is contributing to the Service

PROGRAMME OF THE EUROPEAN UNION

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IMPLEMENTED BY ECMWF

Climate Change

Global climate projections

CMIP6 projections (CMIP5 data were in the CDS since 2018) published and updated in the CDS: https://cds.climate.copernicus.eu/cdsapp#!/dataset/projections-cmip6

- **This dataset is underpinning the IPCC AR6 report**
- **Compute processes are activated like temporal and spatial (horizontal and vertical) subsetting → reduction of data volumes**
- **Soon: CMIP6 decadal predictions to be published**

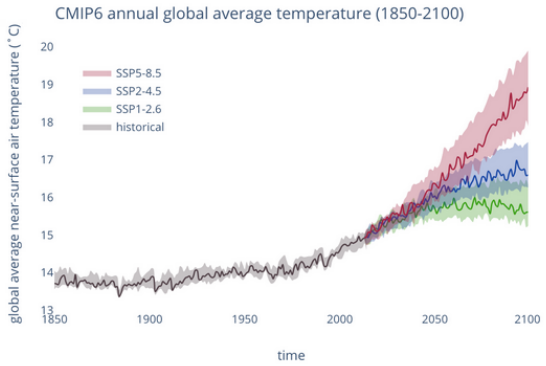
CMIP6 climate projections

Overview | Download data | Documentation

This catalogue entry provides daily and monthly global climate projections data from a large number of experiments, models and time periods computed in the framework of the sixth phase of the Coupled Model Intercomparison Project (CMIP6).

CMIP6 data underpins the Intergovernmental Panel on Climate Change 6th Assessment Report. The use of these data is mostly aimed at:

- addressing outstanding scientific questions that arose as part of the IPCC reporting process;
- improving the understanding of the climate system;
- providing estimates of future climate change and related uncertainties;
- providing input data for the adaptation to the climate change;
- examining climate predictability and exploring the ability of models to predict climate on decadal time scales;
- evaluating how realistic the different models are in simulating the recent past.



Contact

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Licence

CMIP6 - Data Access - Terms of Use

Publication date

2021-03-23

References

DOI: 10.24381/cds.d7eaec3d

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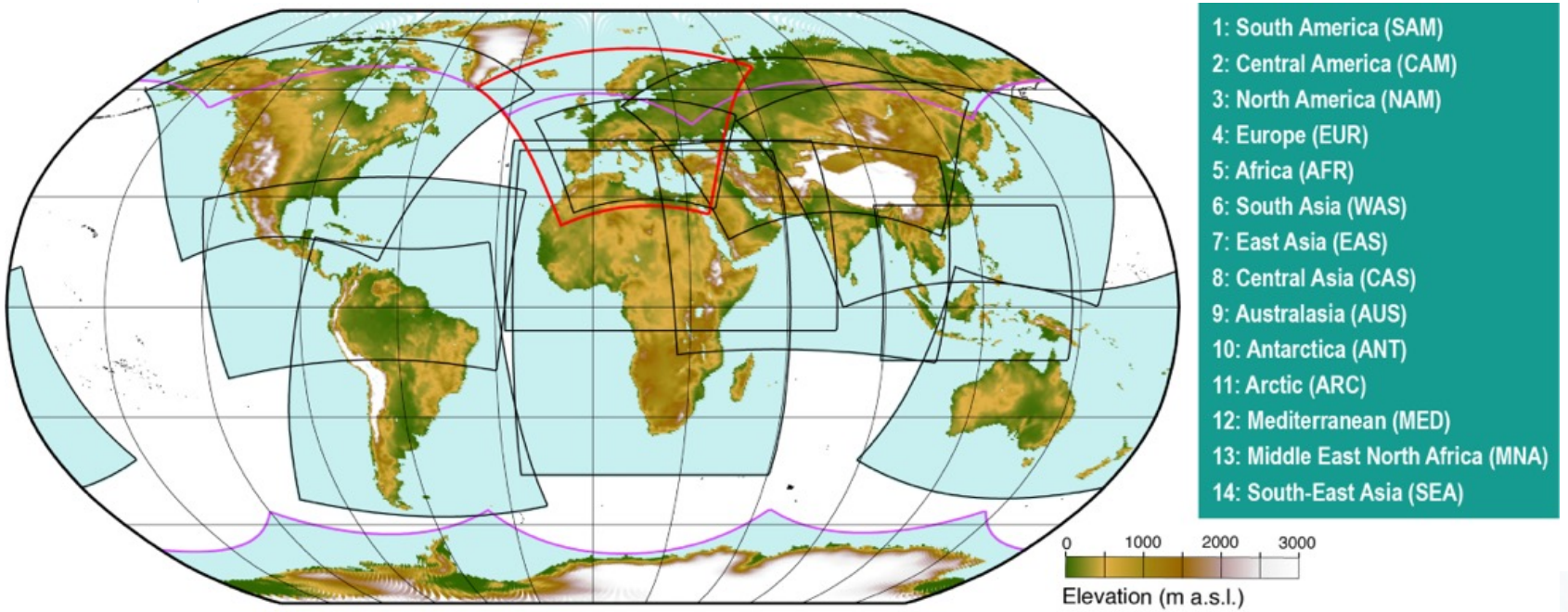
Regional climate projections

Climate Change

All 14 CORDEX domains simulations (including high resolution EURO-CORDEX data) published in the CDS: https://cds.climate.copernicus.eu/cdsapp#!/dataset/projections-cordex-domains-single-levels

- **World-wide simulations: connected and aligned to the IPCC Climate Atlas**
- **Very large ensemble for Europe (130 simulations from which around half was funded by C3S)**
- **Javier Diez-Sierra et al, 2022. The worldwide C3S CORDEX grand ensemble: A major contribution to assess regional climate change in the IPCC AR6 Atlas. Bull. Am. Meteorol. Soc. http:/doi.org/10.1175/BAMS-D-22-0111.1.**



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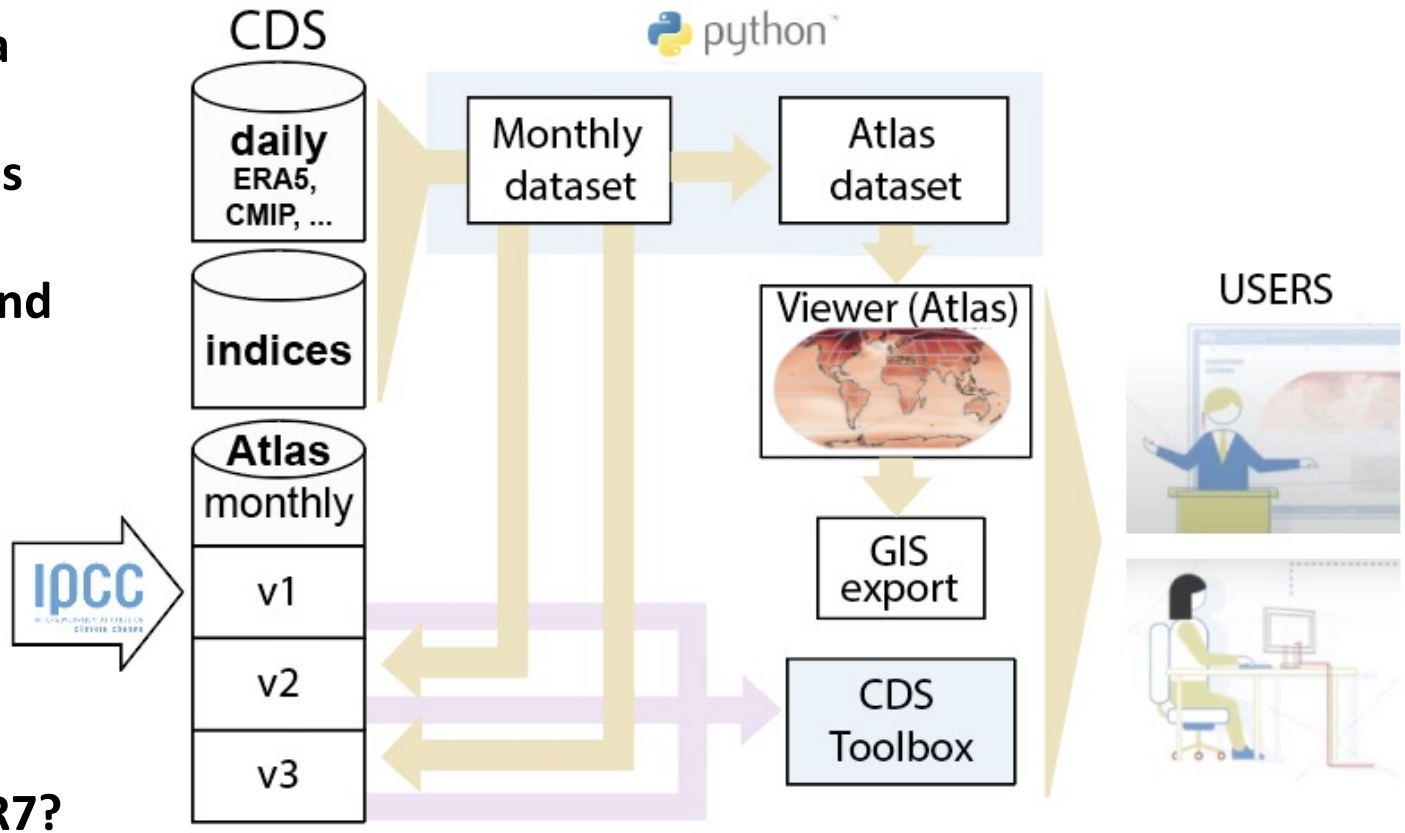
Copernicus Interactive Climate Atlas ongoing work

Climate Change

Contribution of Univ. Cantabria and Predictia

- **Start from the frozen IPCC Interactive Atlas**
- **Evolution:**
  - **Publish IPCC-IA data in the CDS (v1) and viewer (v2)**
  - **Add content and functionality not available in the IPCC-IA (v3)**
  - **Consider C3S priorities and user requirements**

- **Full C3S Interactive Climate Atlas for 2025**
- **Possible initial point for the IPCC-IA for AR7?**



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Liaison with the CMIP and ESMO offices

Climate Change

- **Quarterly meetings between C3S and the CMIP Office with the aim of:**
  - **Sharing of C3S user feedback to feed into the CMIP7 design and delivery**
  - **Facilitating closer links to the wider WCRP landscape**
  - **Technical development and knowledge sharing**

- **Active participation in several CMIP7 task teams organised by the CMIP Office (like documentation, data requests or forcings)**

- **CMIP Office presentation in the 2022 C3S General Assembly (https://climate.copernicus.eu/sites/default/files/2022-09/S6_EleanorORourke_v1.pdf)**

- **Likewise, ready to engage with the newly established ESMO Office**

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