

The pilot European Climate Data Explorer – providing interactive access to information from the Copernicus Climate Data Store

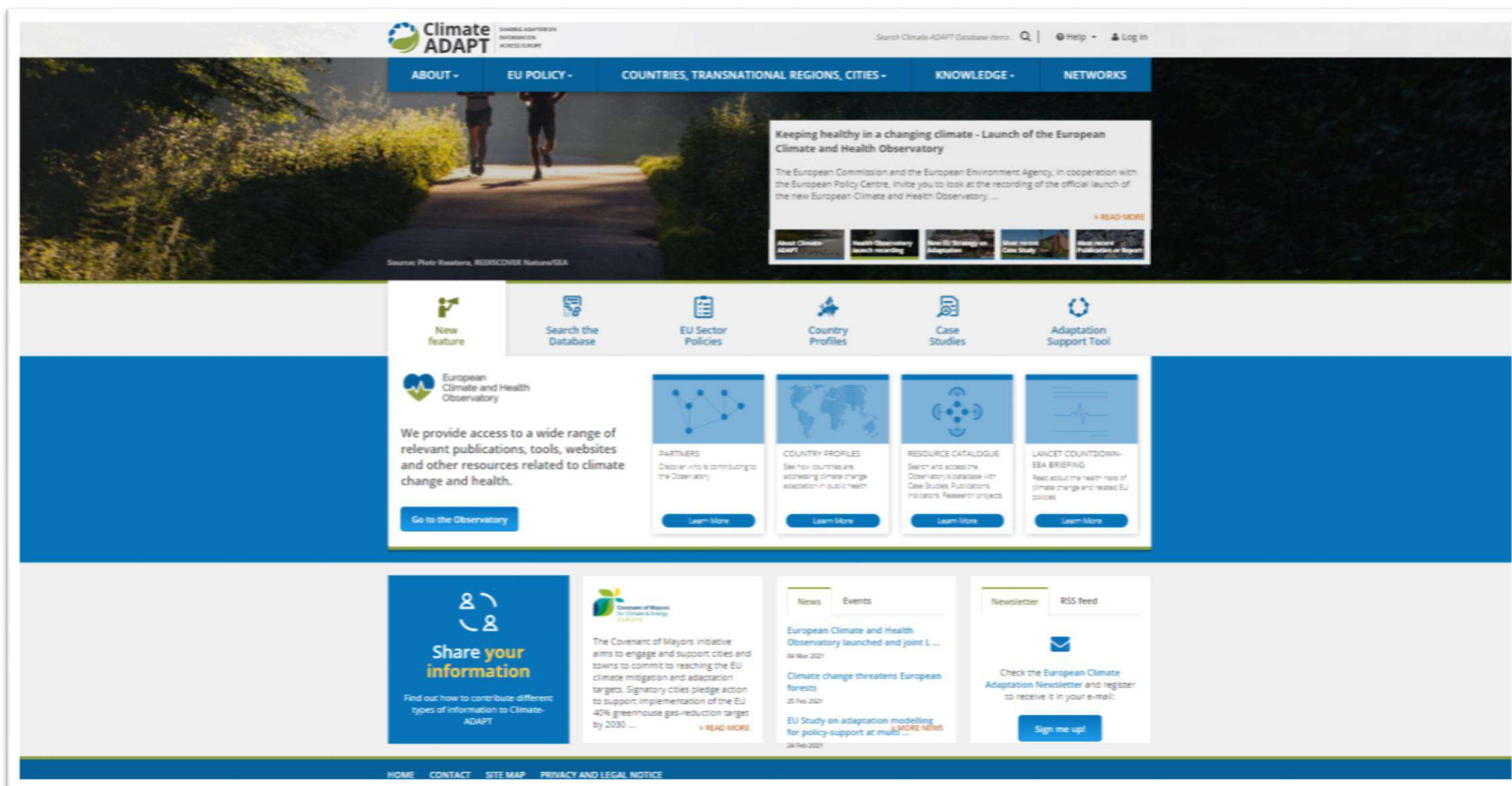
European policy context

1. EU Regulation on the Governance of the Energy Union and Climate Action
2. Proposal for an EU Climate Law
3. New EU strategy on adaptation to climate change
4. Union Civil Protection Mechanism (UCPM)
5. Horizon Europe Mission area 'Adaptation to climate change...'

EEA Policy support

1. Support assessment and reporting of climate-related hazards in Europe
2. Support development of national indices of climate-related hazards
3. Facilitate access to climate indices from the Copernicus Climate Data Store

Host platform: Climate-ADAPT



European Climate Data Explorer: Overview

- Developed jointly by C3S and EEA
- Graphical user interface on Climate-ADAPT
- Provides interactive access to many climate indices from the C3S Climate Data Store
- Aims to cover most indices selected in this [ETC/CCA Technical Paper](#)
- **Beta version (!)** accessible on [development website](#)
- Launch planned for May 2021
- Will be expanded over time with:
 - New climate indices and new sectors
 - New projections (e.g. CMIP6)
 - New interactive features

Table 4.1 Summary table of the final index set, ordered by hazard types.

Hazard category	Hazard type	Index name	Priority	#
Heat and cold	Mean temperature	Mean temperature	High	1.
		Growing degree days	High	2.
		Heating degree days	High	3.
		Cooling degree days	High	4.
	Extreme heat	Tropical nights	High	5.
		Hot days	High	6.
		Warmest three-day period	High	7.
		Heatwave days based on apparent temperature	High	8.
		Climatological heatwave days	Medium	9.
		Days with UTCI above a threshold	Medium	10.
	Cold spells and frost *	Frost days	High	11.
Wet and dry	Mean precipitation	Total precipitation	High	12.
	Extreme precipitation *	Maximum consecutive five-day precipitation	High	13.
		Extreme precipitation total	High	14.
		Frequency of extreme precipitation	Medium	15.
	River flooding	River flood index using runoff	High	16.
	Aridity	Aridity actual	High	17.
		Consecutive dry days	Medium	18.
	Drought	Duration of meteorological droughts	High	19.
		Magnitude of meteorological droughts	Medium	20.
		Duration of soil moisture droughts	High	21.
	Wildfire	Days with fire danger exceeding a threshold	High	22.
Wind	Mean wind speed	Mean wind speed	High	23.
	Severe windstorm	Extreme wind speed days	Medium	24.
Snow and ice	Snow and land ice	Snowfall amount	High	25.
		Period with snow water equivalent above a threshold	Medium	26.
Coastal	Relative sea level	Relative sea level rise	High	27.
	Coastal flooding	Extreme sea level	High	28.
Oceanic	Ocean temperature *	Sea surface temperature	High	29.
		Duration of marine heatwaves	Medium	30.
	Biochemical ocean properties *	Dissolved oxygen level	Medium	31.
		Ocean pH level	Medium	32.

Note: Hazard categories and types were inspired by the Climatic Impact Drivers (CIDs) in the IPCC AR6 draft report. A star (*) denotes a hazard category that differs from the CID concept in scope or name.

European Climate Data Explorer: Data availability

- Most data stems from the C3S Sectoral Information System
- Current sector coverage:
 - Health
 - Agriculture
 - Forestry
 - Energy
 - Insurance and Disaster Risk Reduction
 - Physical Climate Extremes
- Links to underlying information in the C3S CDS always available
- Underlying datasets: ERA5, CMPI5 and Euro-CORDEX (bias-adjusted)
- Most climate indices cover either the period 1970–2100 or 1980–2019
- Data can be aggregated to national and subnational regions

European Climate Data Explorer: Brief tour (1)

Beta

Climate ADAPT

SHARING ADAPTATION INFORMATION ACROSS EUROPE

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Overview list all indicators


Due to updates some apps may take a while to load.




Health




Agriculture




Forestry



Energy
(coming soon)




Insurance and Disaster
Risk Reduction
(coming soon)






Physical Climate
Extremes
(coming soon)

European Climate Data Explorer: Brief tour (2)



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Agriculture

Food supply will be affected by many aspects of climate change, not only through the direct effect of changing weather patterns on plant growth but also indirectly through impacts on pests and disease outbreaks. Agriculture is also a significant source of greenhouse gas emissions now and a potential contributor to negative emissions in the future. Consequently, both mitigation and adaptation are important in the agriculture sector. The Copernicus Climate Change Service will provide indicators of both the impacts of climate change on the agricultural sector and of the emissions associated with the agricultural sector. Our initial range of indicators relates to weather events which are likely to have an impact on crop yields.

- [Biologically effective degree days](#)
- [Frost Days](#)
- [Monthly statistics for daily maximum temperature](#)
- [Monthly statistics for daily mean temperature](#)
- [Monthly statistics for daily minimum temperature](#)
- [Precipitation Sum](#)
- [Tropical Nights](#)

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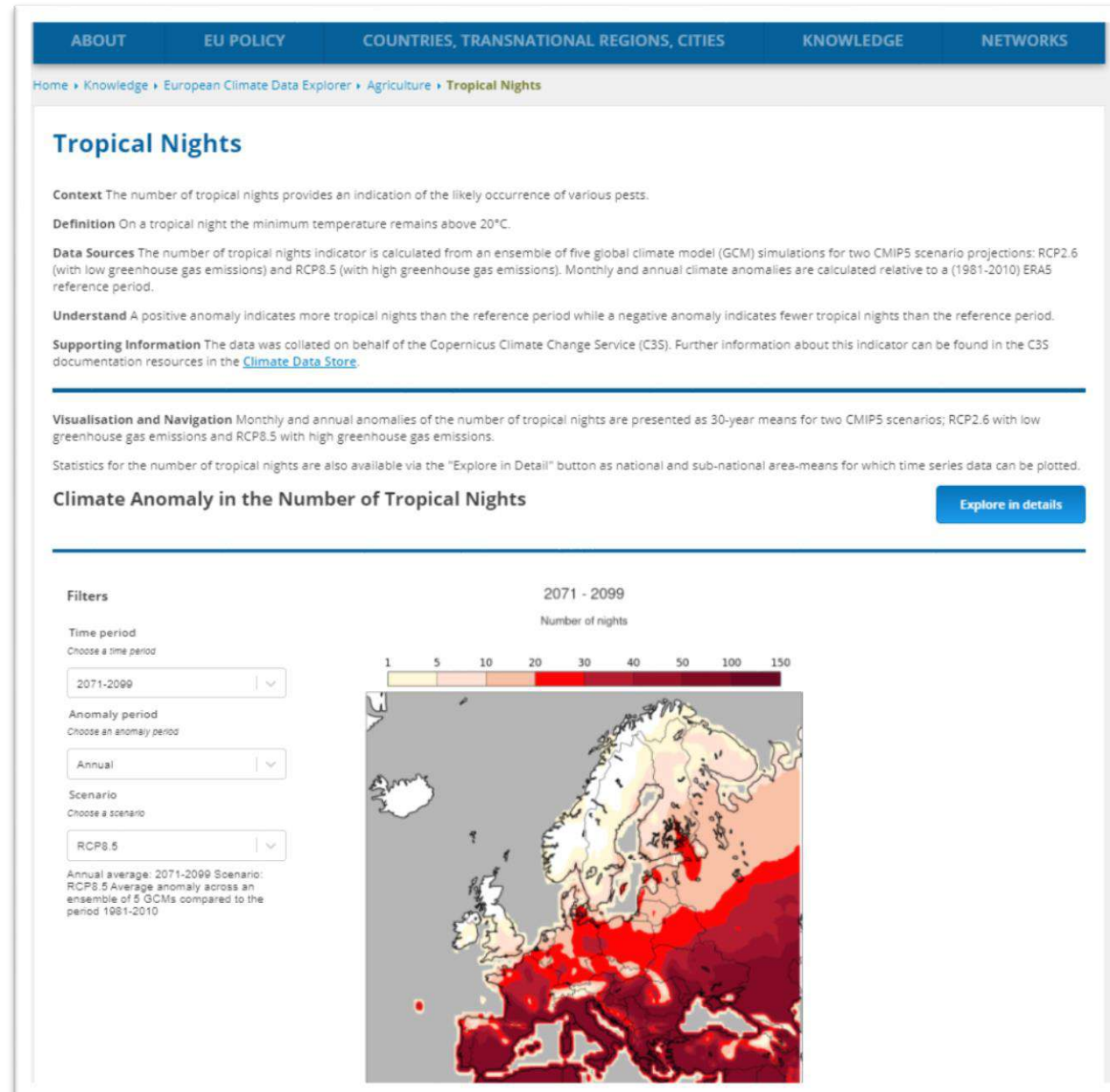
SITE MAP

PRIVACY AND LEGAL NOTICE

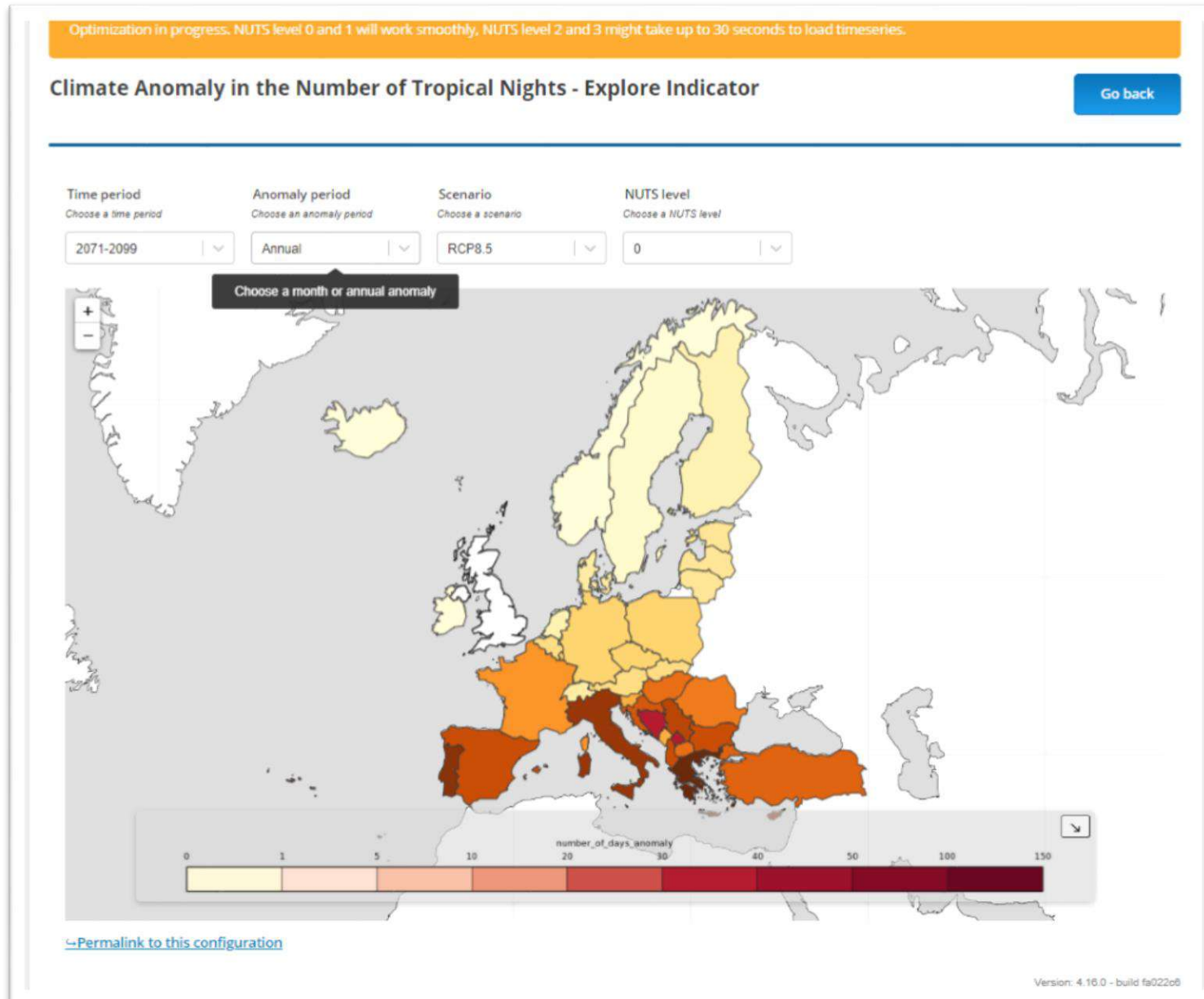
The European Climate Adaptation Platform Climate-ADAPT is a partnership between the [European Commission](#) and the [European Environment Agency](#).

Other European
Information Systems:

European Climate Data Explorer: Brief tour (3)



European Climate Data Explorer: Brief tour (4)



European Climate Data Explorer: Brief tour (5)

