



COPERNICUS Climate Change Service (C3S) National User Forum Workshop

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The National Climate Service Network La Rete Nazionale dei Servizi Climatici

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The National Climate Services Network of Italy (NCSNI)

In answer to the need of increasing and improving the participation to **WMO** and **GFCS** programs on operational climatology, the **National Permanent Representative to WMO** took the initiative of establishing a **National Climate Services Network of Italy**.

The NCSNI It is a network of Italian public entities expressing a national portfolio of existing operational climate products and capabilities, with requirements and characteristics already adopted (or to be adopted) by territorial management entities.



National Climate Services Network of Italy (NCSNI)





**ISPRA and the network of Regional Environmental Protection Agencies (ARPA)
all together form the**

National System for Environmental Protection – SNPA



**recently established by the primary law n. 132 , June 28 2016
come into force: January 14, 2017**

As defined by his duties and activities, with respect to CLIMATE INFORMATION
the SNPA represents both a PRODUCER and a STAKEHOLDER

ARPA, more than ISPRA, are on the side of stakeholders, due to their direct link
with the regional territory, and the environmental and socio-economic sectors
present in their territory.

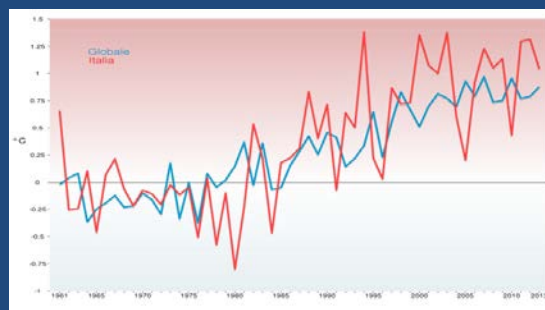


A **CONCEPT PAPER** of the **NCSNI** has been adopted, which contains a description of the objectives and user's needs, and a list of operational products in the fields of:

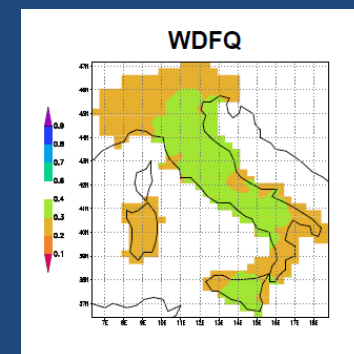
Climate monitoring



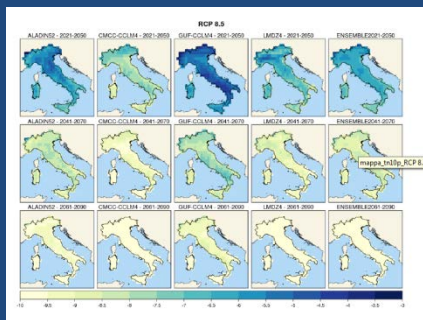
Climate variations and trends estimate



Seasonal forecast



Climate projections

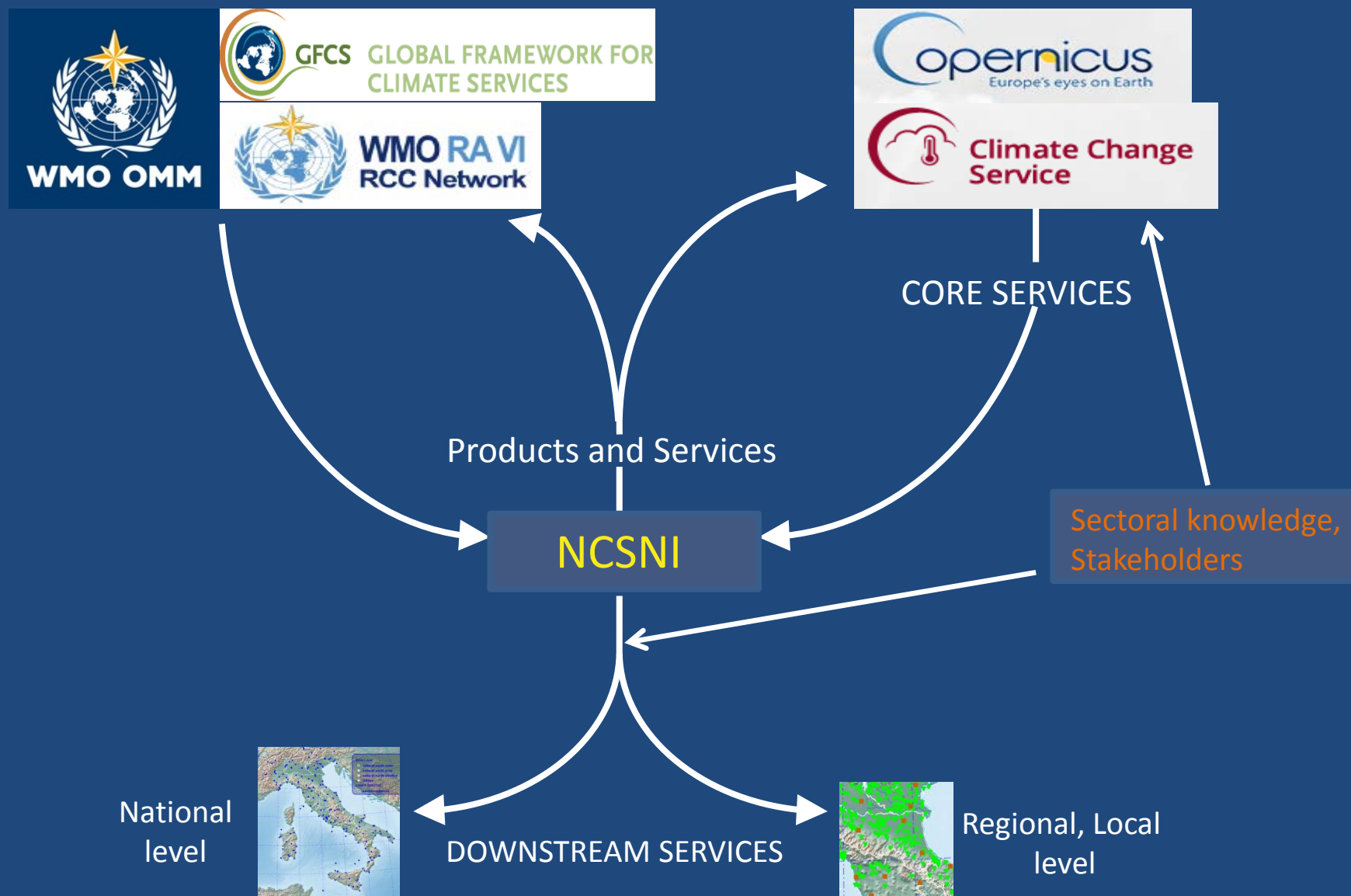


+ Sectoral Applications in:

Agriculture and Water Resources,
Flood Risk, Energy, Health, etc.



NCSNI as both a PROVIDER and a PRIMARY USER of CLIMATE SERVICES

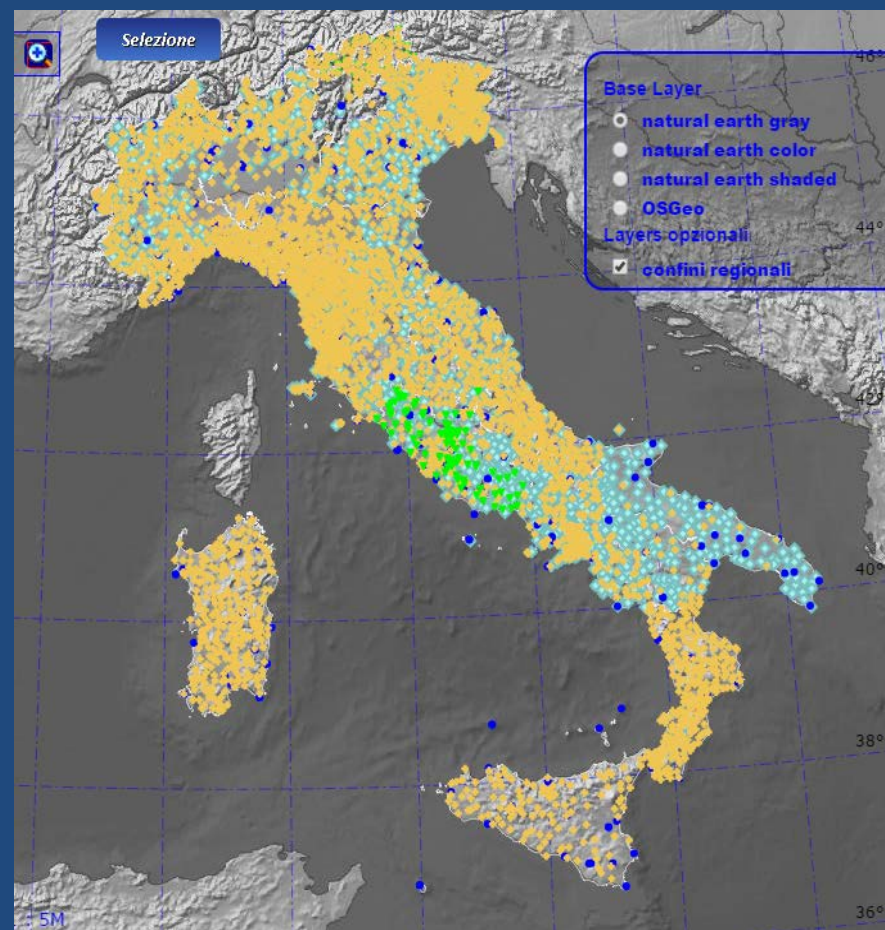
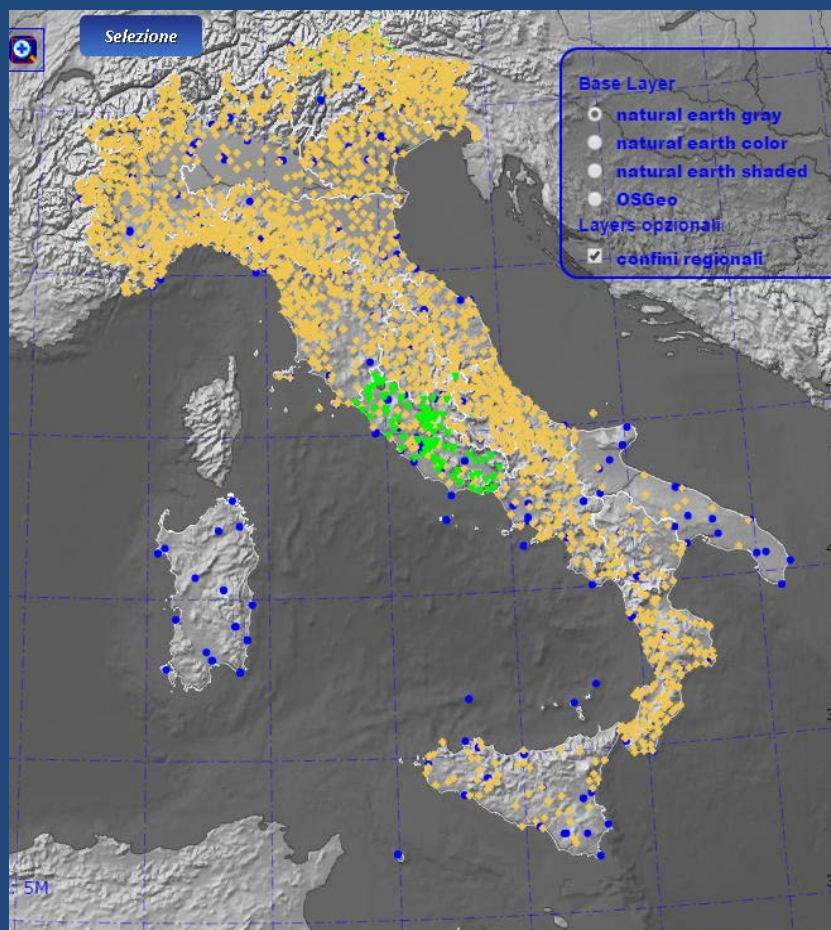




Climate observations and time series (quality controlled)

Daily **TEMPERATURE** 1981 -2010
stations n.: >1000

Daily **PRECIPITATION** 1981 -2010
stations n.: > 2500



Climate monitoring products - RA VI Bulletin

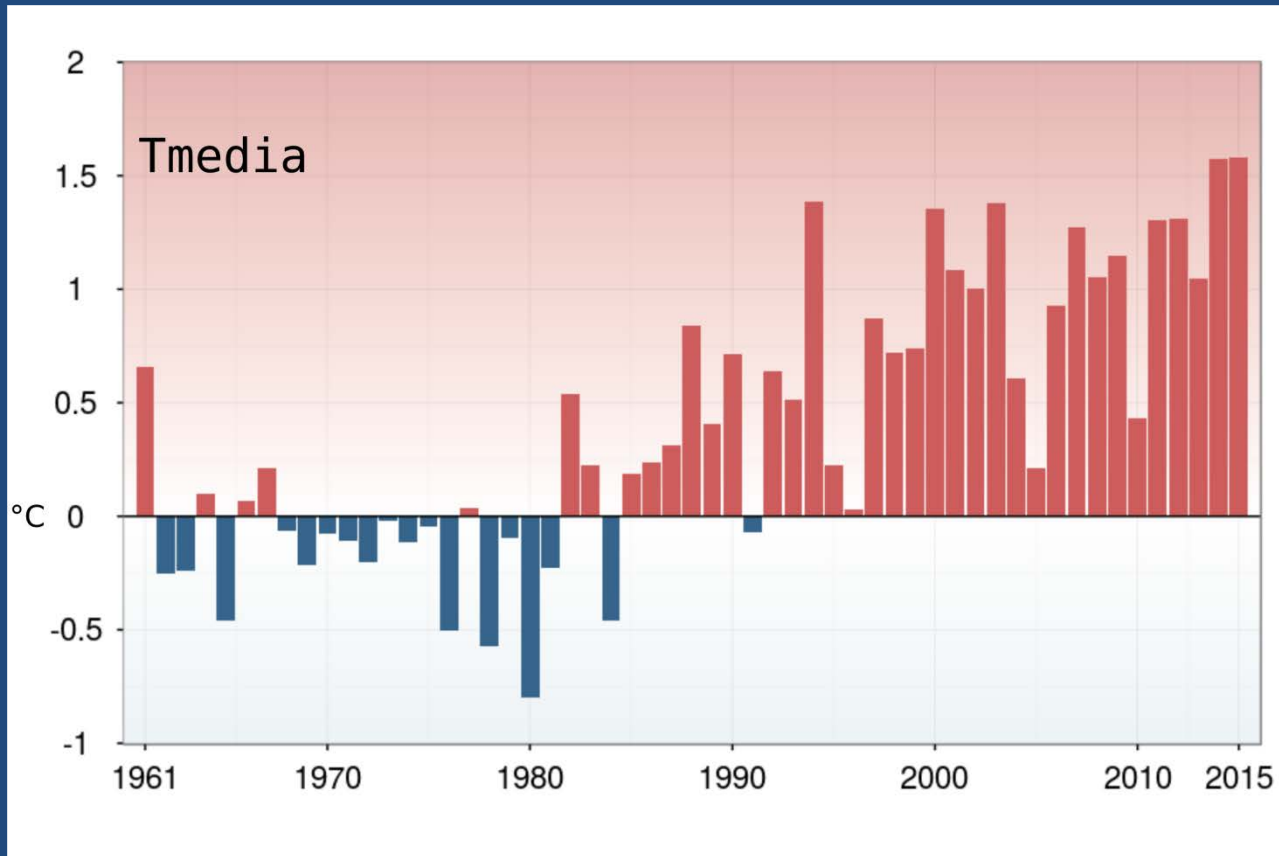


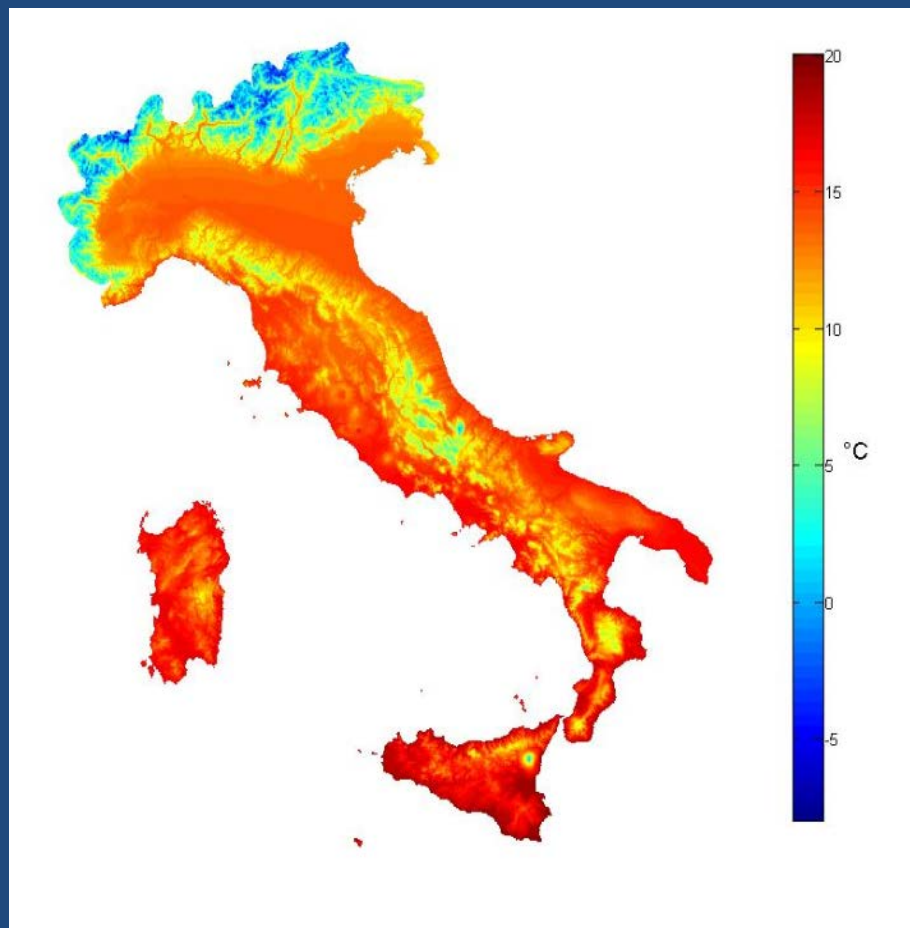
Figure 5.23: Time series of annual temperature anomalies for Italy for the period 1961-2015 (reference period 1961-1990; diagram as provided by ISPRA)



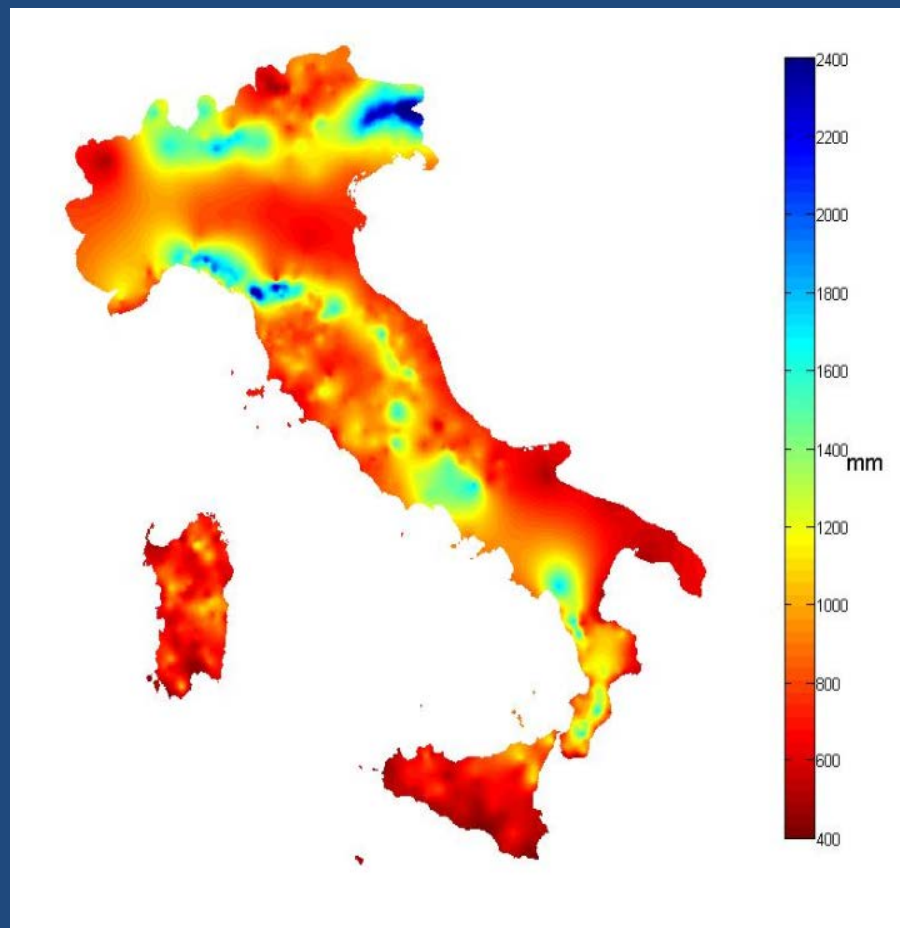
Climate normals

Nat.l and regional networks – high resolution

Mean TEMPERATURE 1961-1990



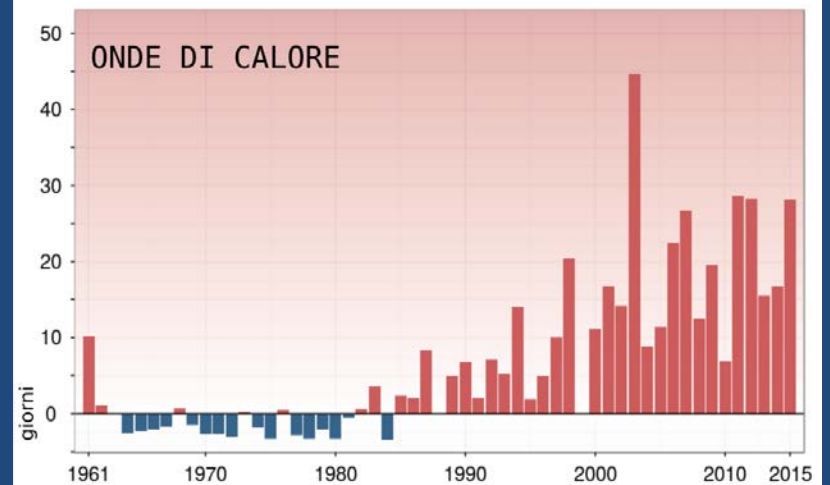
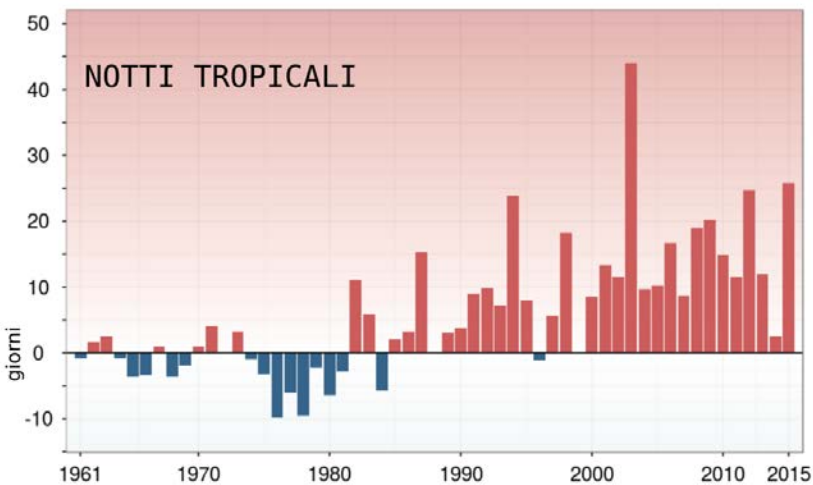
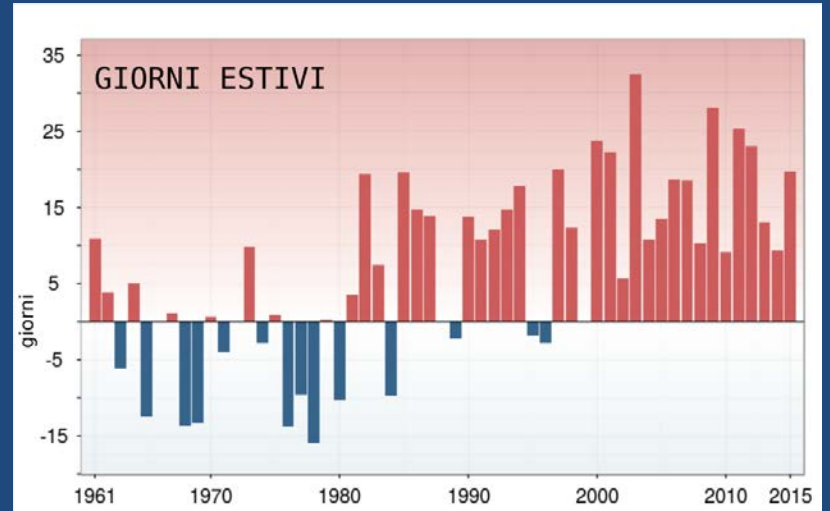
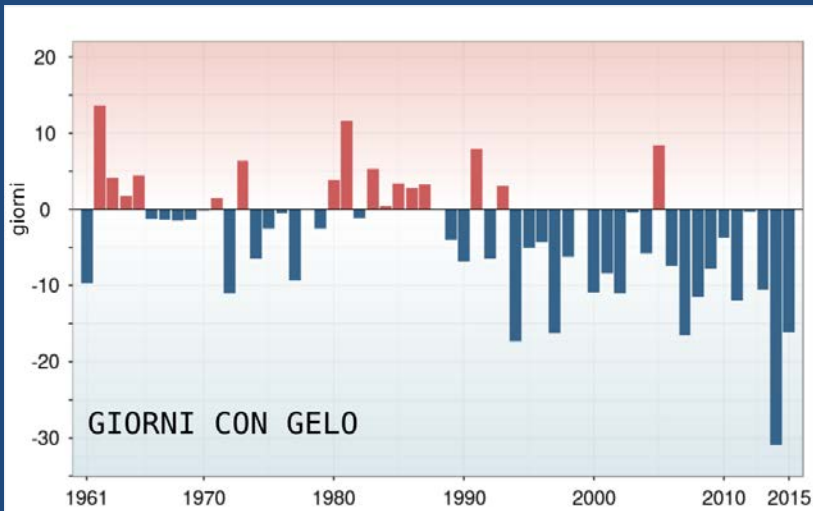
PRECIPITATION 1961-1990





Current use of climatological information based on observations: Examples

Time series of anomalies of temperature EXTREMES indices (WMO-CCI)

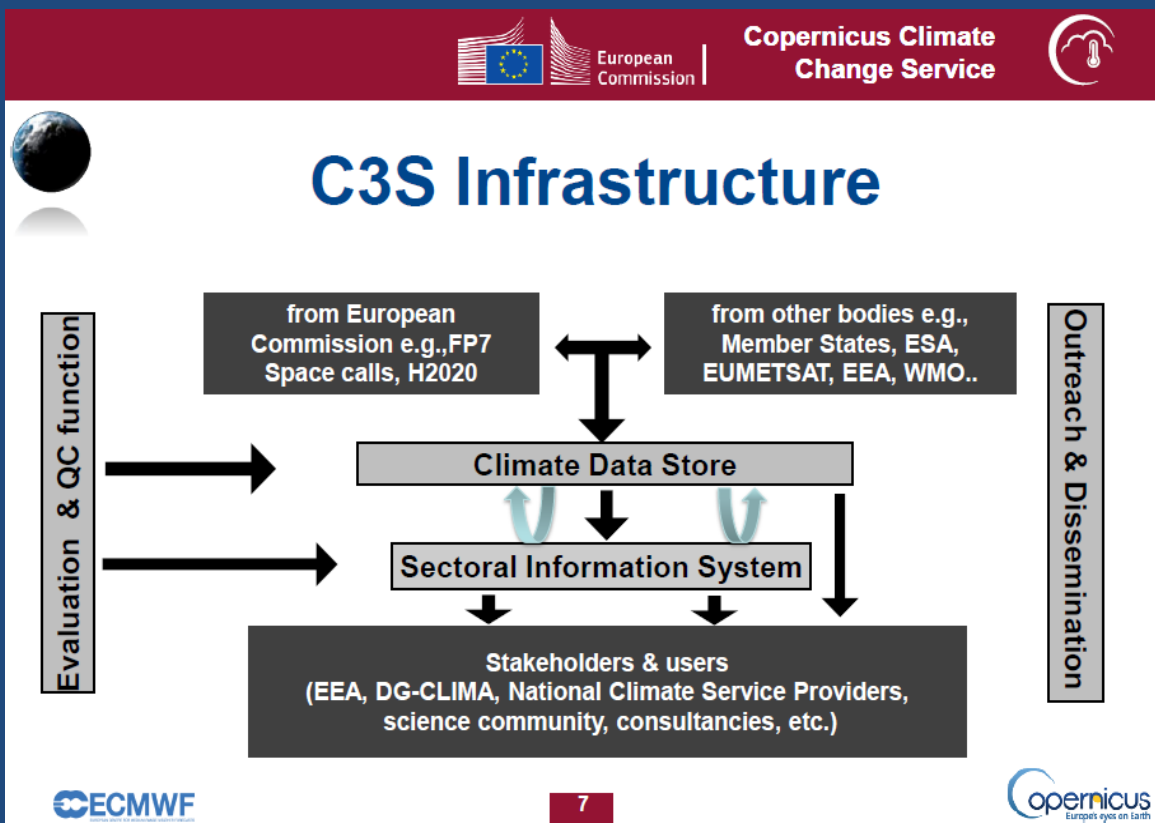




REQUIREMENTS

The main requirement from the NCSNI as COPERNICUS C3S primary USER is that C3S delivers CORE services and products which are suitable, easily usable and applicable to develop and deliver DOWNSTREAM Services to be used by national and regional/local stakeholders

This requirement concerns all C3S components (pillars)



A dramatic landscape photograph showing a vast, dark blue ocean under a massive, dark, stormy cloud mass. The clouds are thick and textured, with some lighter patches where sunlight breaks through. A bright, glowing rainbow-like arc is visible at the horizon, suggesting a recent or impending storm. The overall mood is powerful and awe-inspiring.

Thank you

