Copernicus
Climate Change Service

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Stijn Vermoote, ECMWF

Tervuren, 13 November 2019

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A Union that strives for more

- **Within 100 days – introduction of the European Green Deal, which will include:**
  - European Climate Law
  - Extension of Emission Trading System
  - European Climate Pact for education and motivation purposes
  - The Sustainable Europe Investment Plan supporting €1 trillion of investment

- **By 2050 – Europe should be the first climate-neutral continent in the world**

Copernicus Europe's eyes on Earth

European Commission

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Copernicus Climate Change Service: our mission

To support European adaptation and mitigation policies by:

- Providing consistent and authoritative information about climate (past, present, future)
- Building on existing capabilities and infrastructures (nationally, in Europe and worldwide)
- Stimulating the market for climate services in Europe

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C3S builds upon a strong European capacity

295 different entities from

29 EU and ECMWF Member States,

International Organisations and third countries

Total budget: 215 Meuros over 7 years

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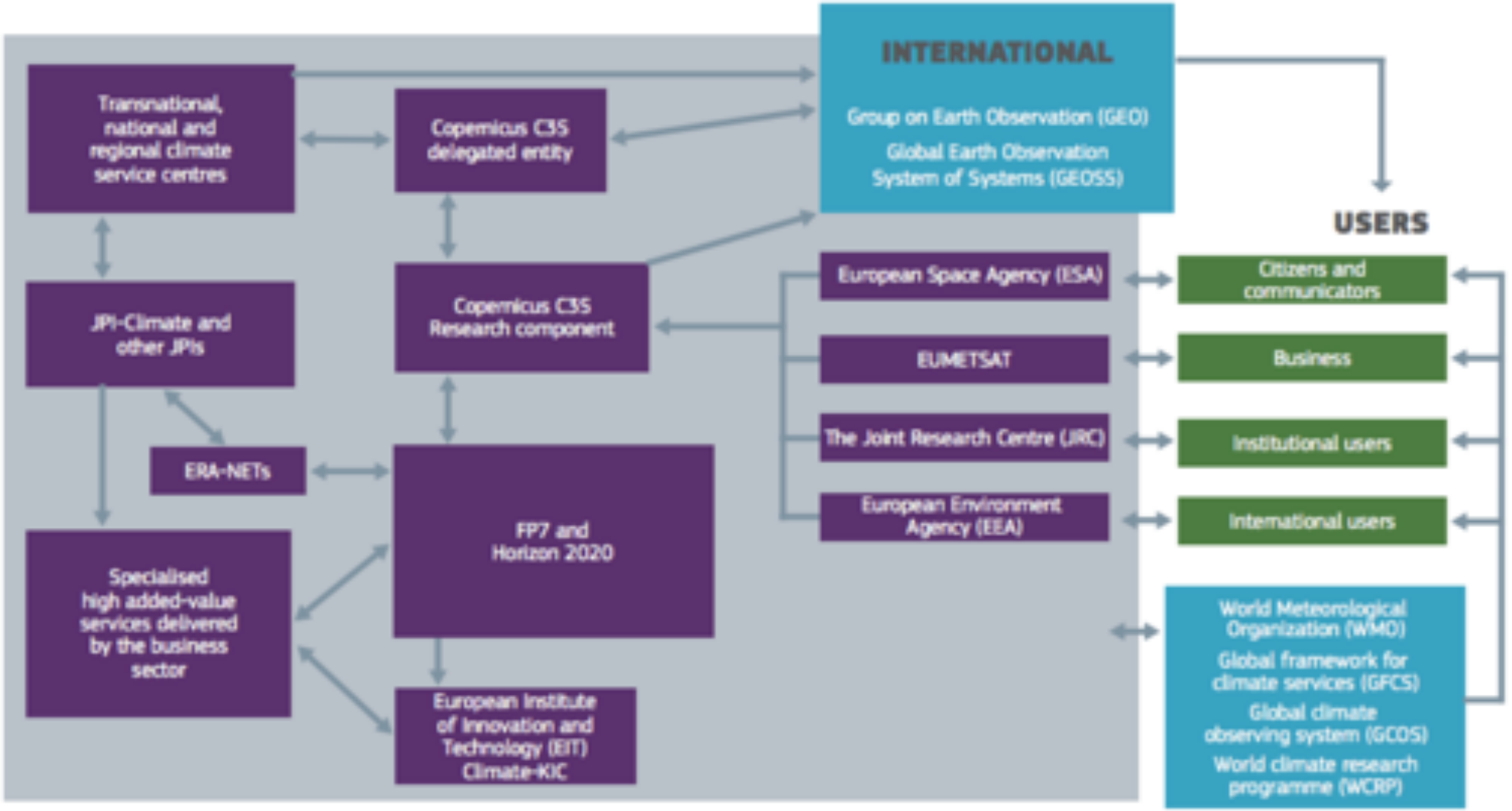
C3S … part of a bigger picture



Credit: European Commission

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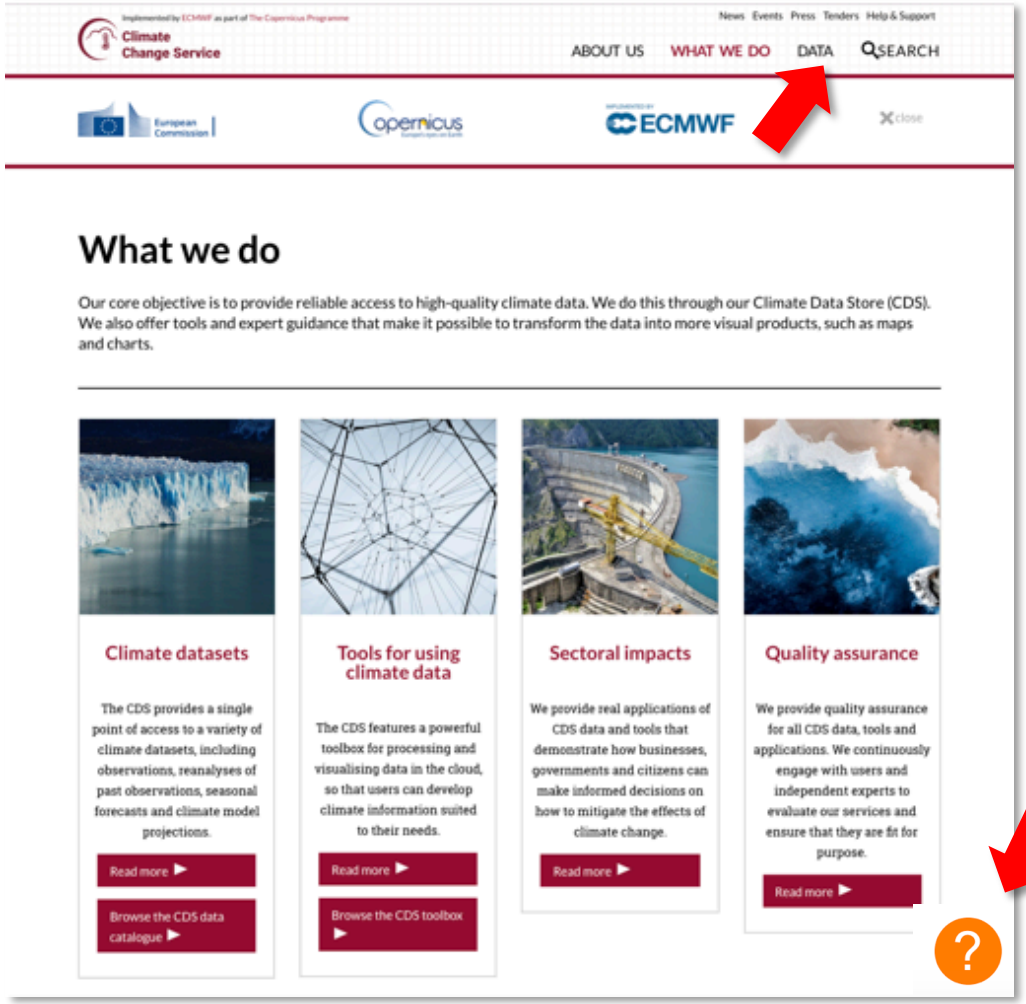
What the Climate Change Service has to offer

- Open and free access to climate data
- Tools needed to use the data
- Information on sectoral impacts
- Quality assurance
- User support and training
- Climate change assessments
- Outreach and communication

A one-stop Climate Data Store

climate.copernicus.eu



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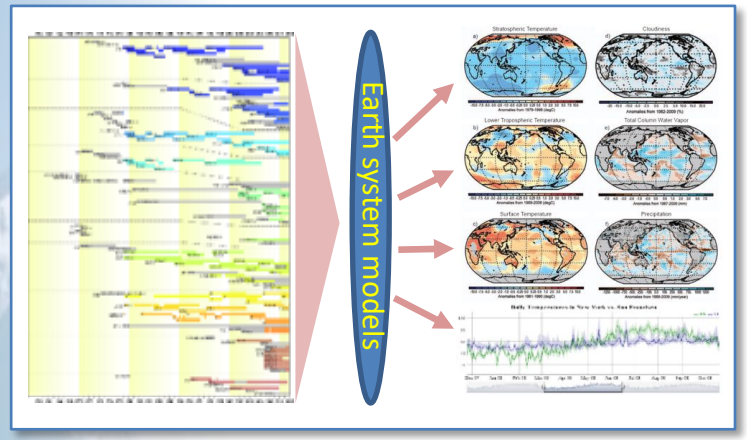
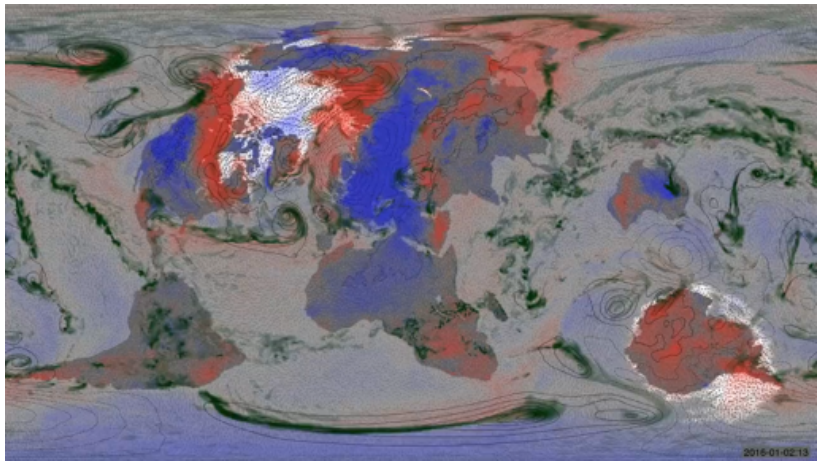
C3S portfolio: past, present and future climate data and information

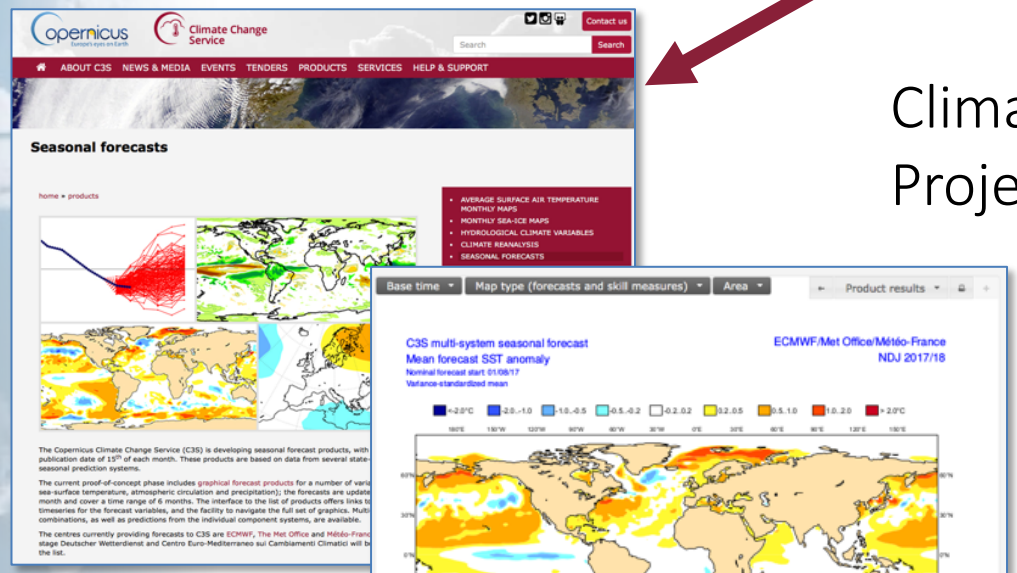


Observations, climate data records, ECVs and climate reanalyses



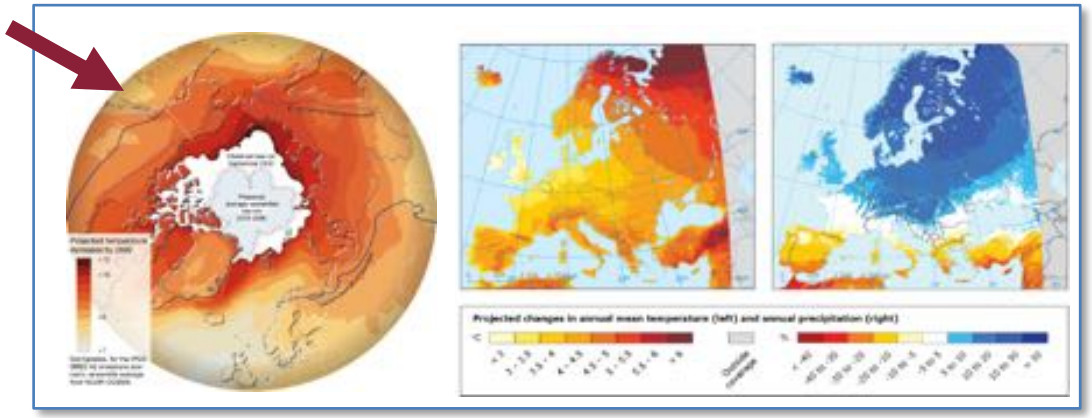
Courtesy: Philip Brohan

Seasonal forecast data and products



Climate Projections

Sectoral climate impact indicators



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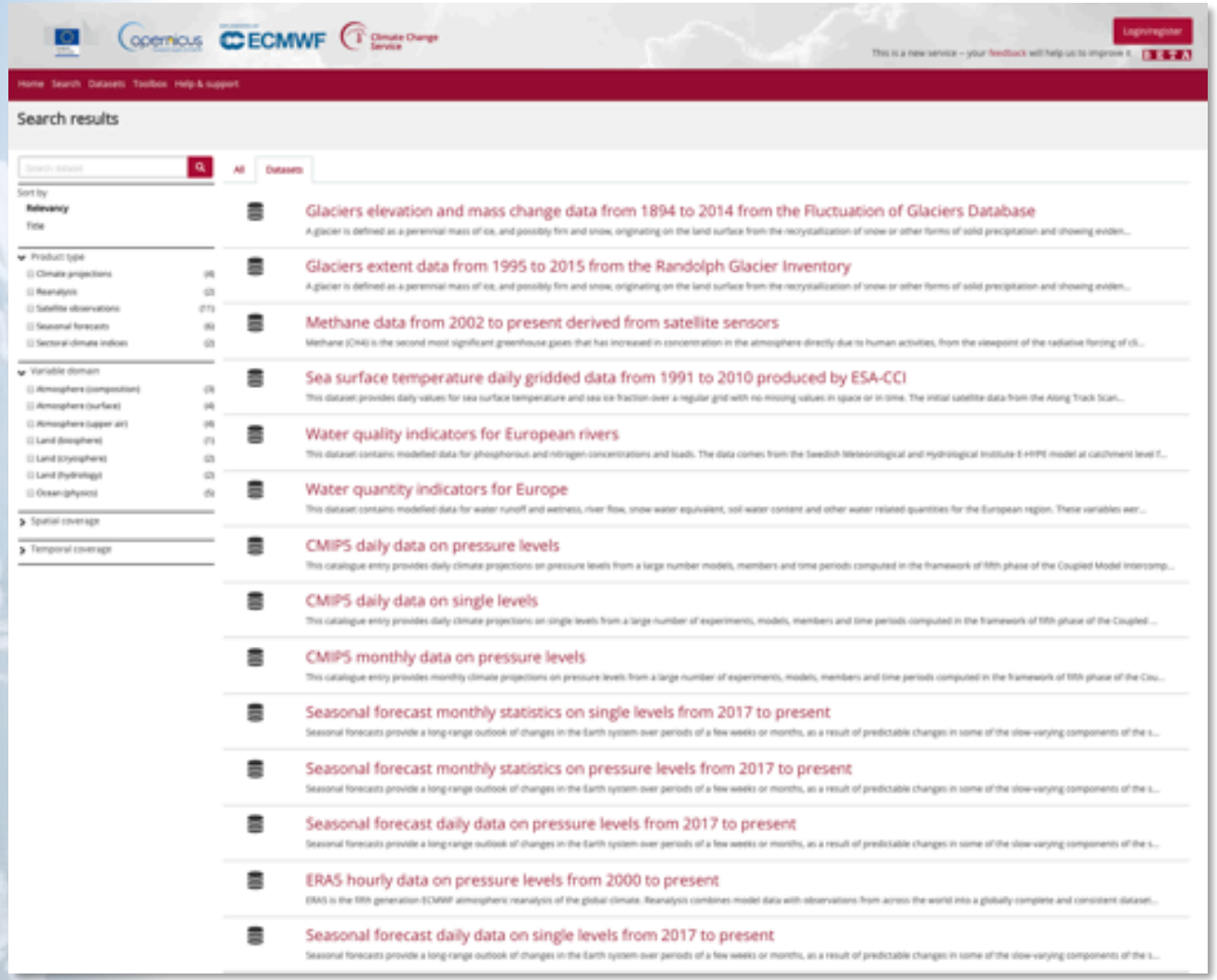
Catalogue of climate datasets: uniform look and feel



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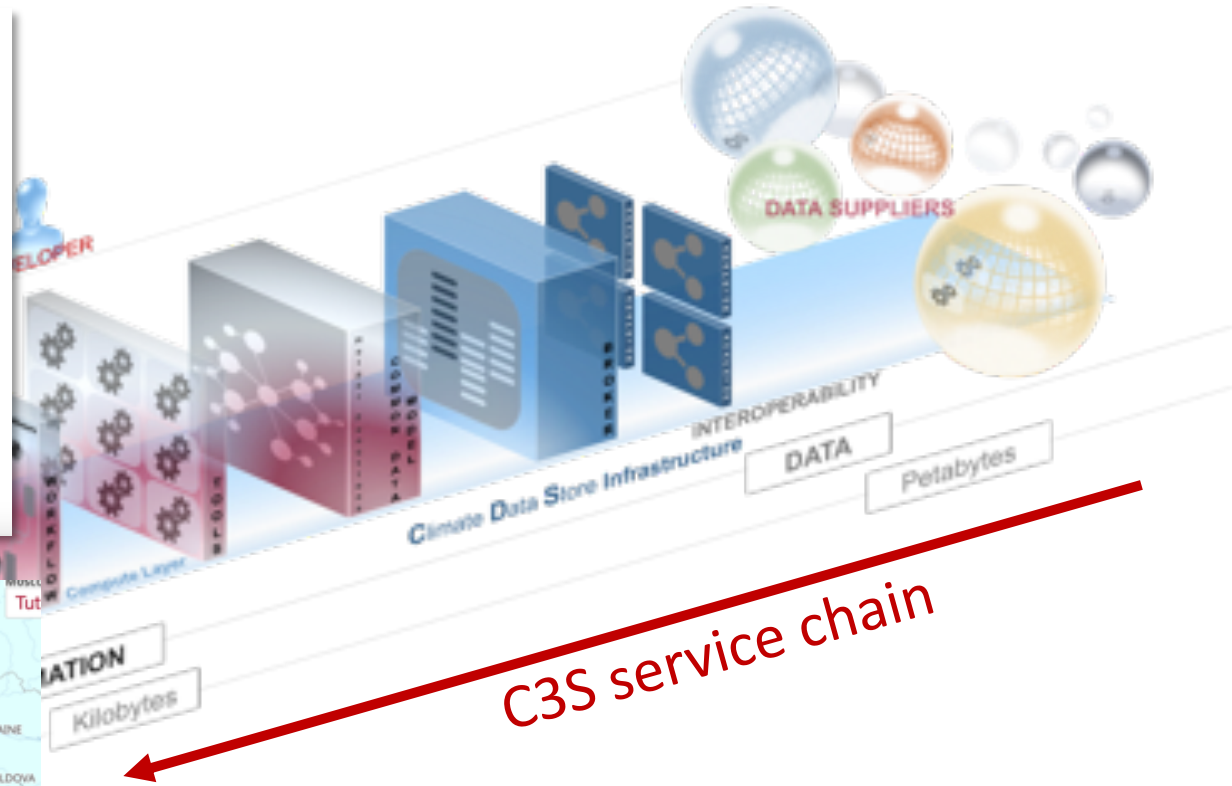
Transforming data into useful information products



Quality assured information and tools for scientists, consultants, decision makers.

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Data and information ≠ the endpoint

We are part of a value chain which we need to foster and enable to create value to users

… this does not only happen at the level of data or information but at **knowledge and wisdom**

https://en.wikipedia.org/wiki/DIKW_pyramid

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The value chain from a user perspective

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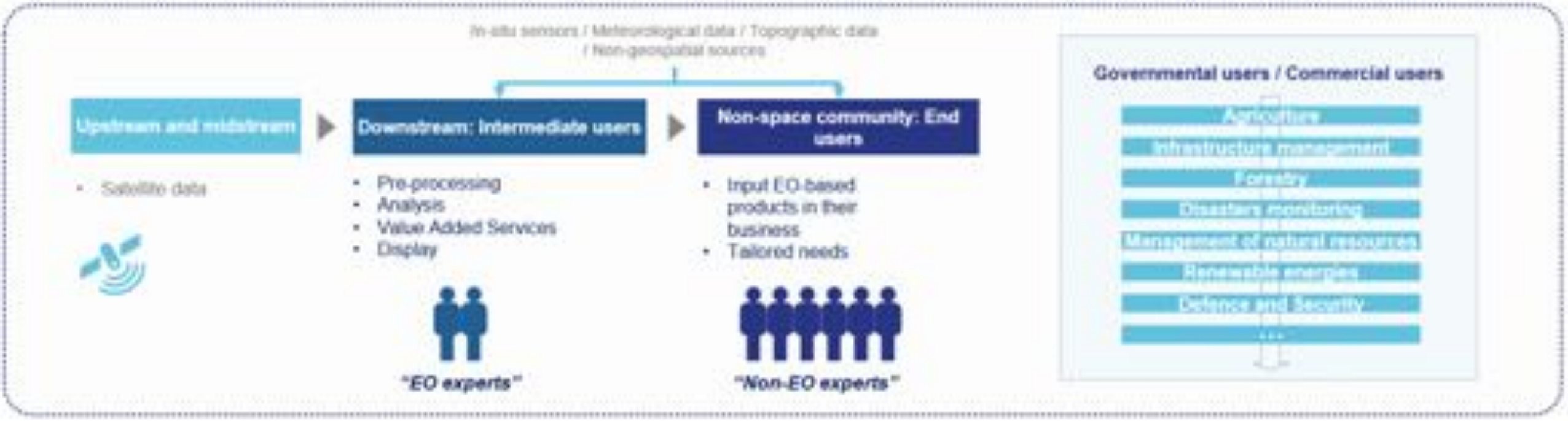
C3S acts as an **enabler**:

we are part of a solution which in many occasions also requires input from the downstream sector



PwC, Copernicus Market Report, 2019

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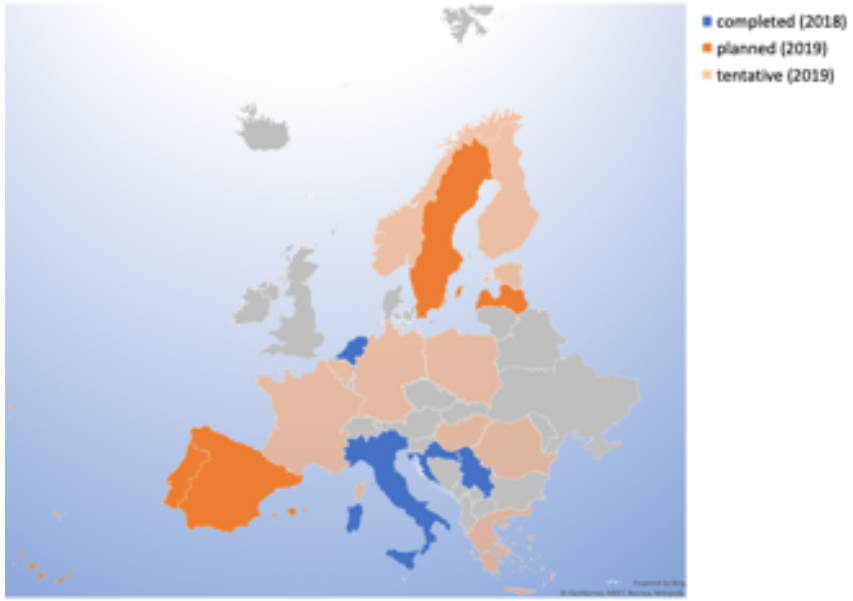
USER LEARNING SERVICES

Focus on the use of the Climate Data Store to address climate change adaptation challenges

Key elements:

- Blended training
- Online training resources freely available anywhere and anytime
- Personalized learning
- 3 main target audiences
- In-country training events in local language in more than 30 EU countries
- Train the trainers to widen the reach of the training and increase the impact

Past, current and future training events



In the pipeline: the first C3S MOOC

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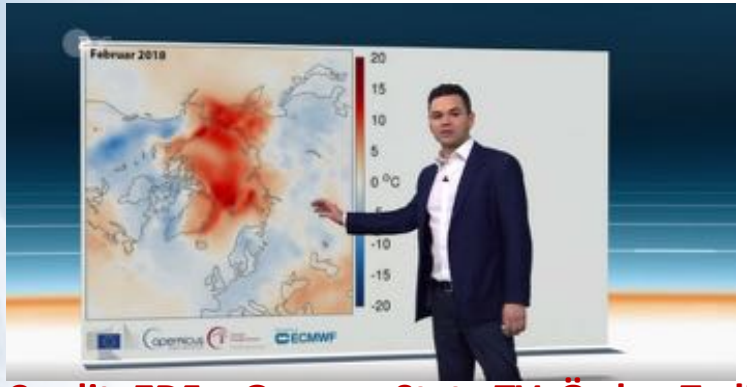
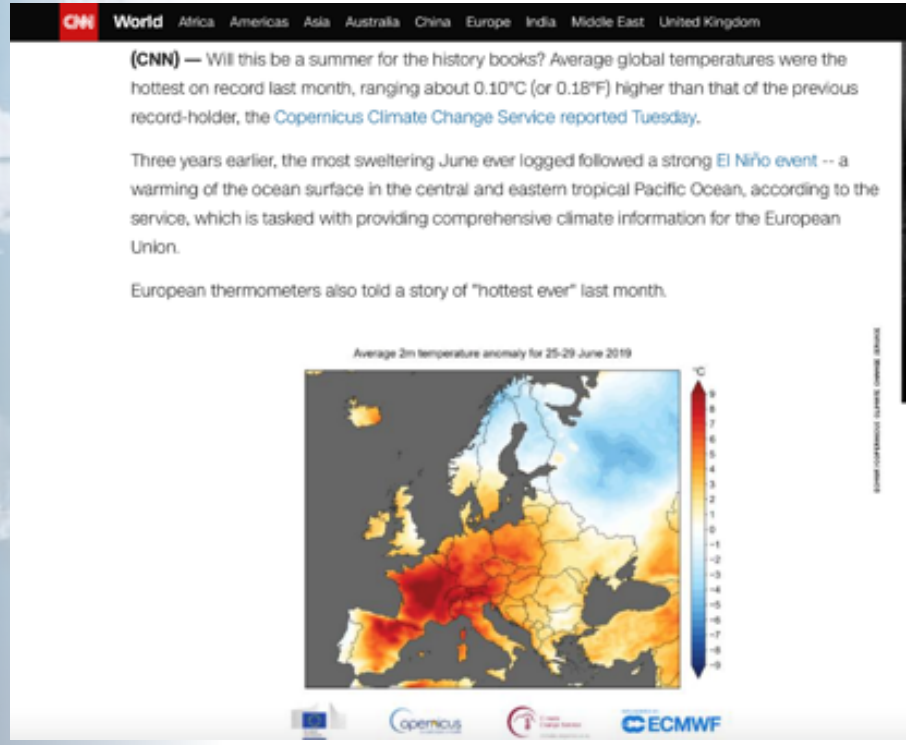
Examples of user uptake by the media



Credit: ZDF – German State TV, Özden Terli, C3S



CNN, July 2019

BBC, July 2018

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CONCLUSION

C3S: an operational service since summer 2018

C3S benefits from European underpinning research and provides an infrastructure for downstream applications

C3S delivers > 60 Tbytes /day to ~ 25 000 CDS users (total number of users is much higher)

C3S is now a mainstream resource in the media

Huge effort has been made on the infrastructure (CDS), traceability and quality assurance, as well as on training and outreach

C3S acts as an enabler for the climate services market, active User Engagement is part of the future service delivery

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