

Climateurope2: Climate services, standards, provenance and more

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Climate risk and adaptation

Climate risk assessment and climate adaptation require access to **reliable** climate information. Climate services is the set of procedures that develops such information in context.



Storm Daniel, 11 September 2023

Derna, Libya, more than 400 mm recorded in 24 hours



EUCRA impact chain for heat and drought risk assessment

Climate information and services

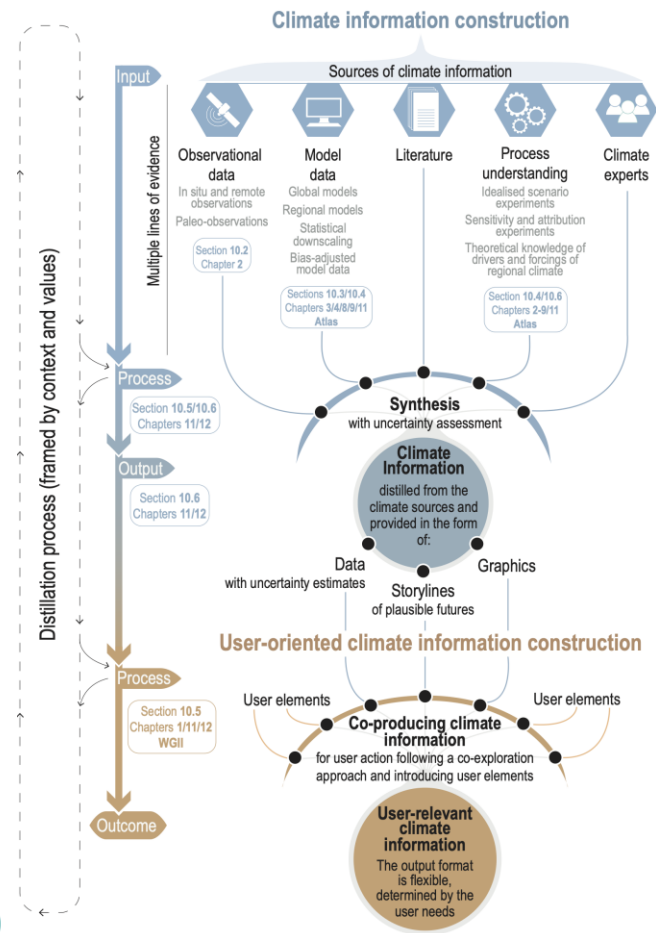



Fig. 10.1 (AR6 WGI)

What about quality?


English






Paracetamol

Sounds like 'paa-ra-SEE-ta-mol'

Paracetamol is used to treat fever and pain including headache, and aches and pains associated with COVID-19. It begins to work about 30 minutes after a dose is taken, and the effects usually last for about 4 to 6 hours.

When taken as directed, paracetamol works well. However, it is important not to take more than the daily recommended dose. If you take too much – all at once or over a period of days – paracetamol can damage your liver.

How to take paracetamol

-  Paracetamol tablets are commonly available as 500 mg tablets or caplets.
-  The **usual dose for adults** is 1 or 2 tablets every 4 to 6 hours as needed for pain or fever.
-  Always **wait at least 4 hours** between doses.
-  **Do not take** more than 8 tablets in 24 hours OR 4 grams in 24 hours.
-  Keep a record of how many doses you have taken.

Many other medicines have paracetamol in them

Some pain, cold and flu medicines also have paracetamol in them, eg, Coldral®, Nuromol®, Lemsip®, and Maxigesic®.

Check the ingredients of medicines carefully before you take them.

If you do take other medicines that have paracetamol in them, do not take more than the recommended maximum dose of paracetamol each day.

Ask your pharmacist if you are not sure.

Paracetamol overdose is a medical emergency

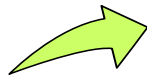
If you realise you have taken too much paracetamol (including from other products with paracetamol in them), immediately call your doctor, nurse or the Poisons Centre 0800 POISON (0800 764 766)

- DO NOT WAIT** for signs of overdose as these appear when the damage to your liver is already done.
- Signs of overdose include nausea (feeling sick) or vomiting (being sick), diarrhoea (runny poo), yellow skin or eyes, poor appetite, confusion or extreme sleepiness.
- Older people are most at risk, so should take extra care.

For more information about paracetamol, visit [hn.org.nz/paracetamol](https://www.hn.org.nz/paracetamol)

What about quality?

Can we be confident in the service provided?



Poor quality leads to

- waste of time and money
- poor decisions
- frustration
- reputation damage



Quality management is central to ensure a **reliable** service useful to users



with the purpose of

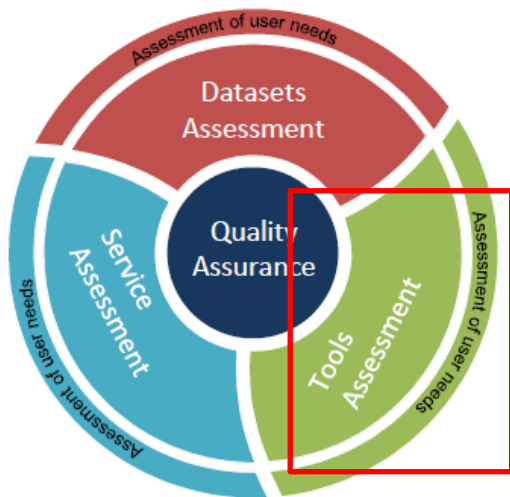
- demonstrating that the service is a trusted source
- characterising quality dimensions in a clear and traceable way
- guiding users with information to make their own decisions
- providing a vehicle that will trigger actions to improve the service



Quality assurance of climate services

Quality assurance assesses the fitness-for-purpose of climate services against standards from multiple angles: tools, workflows, data, applications, provenance, documentation, user engagement, etc.

For instance, software quality assessment should be based on the standard ISO/IEC 9126 and extensions (e.g., ISO/IEC 25010:2011).



Objectives and structure

Standardising

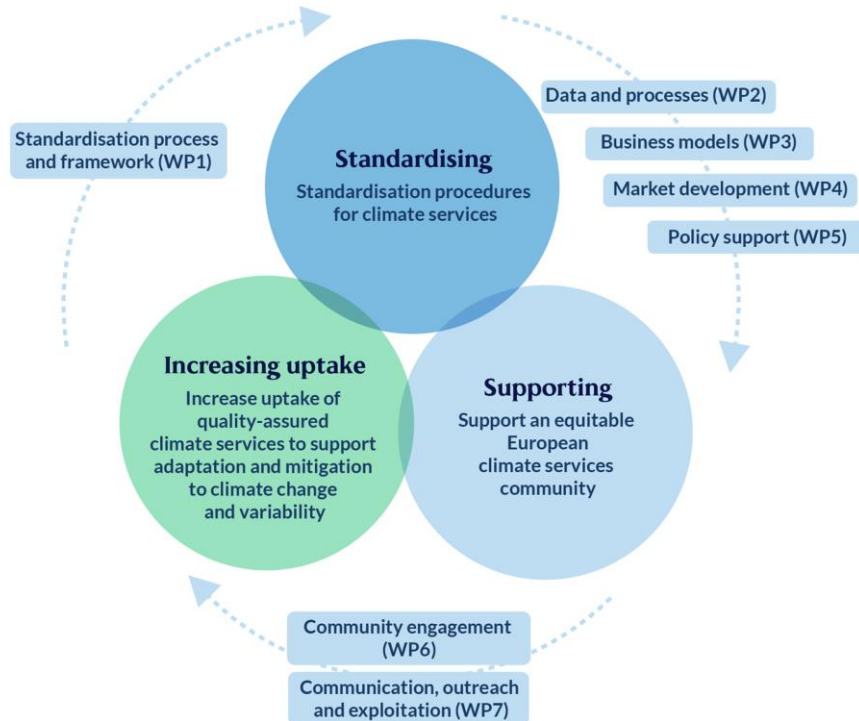
Development of **standardisation** procedures for climate services

Supporting

Support of an equitable European climate services community

Increasing uptake

Enhancement of the **uptake** of quality-assured climate services to support climate adaptation and mitigation

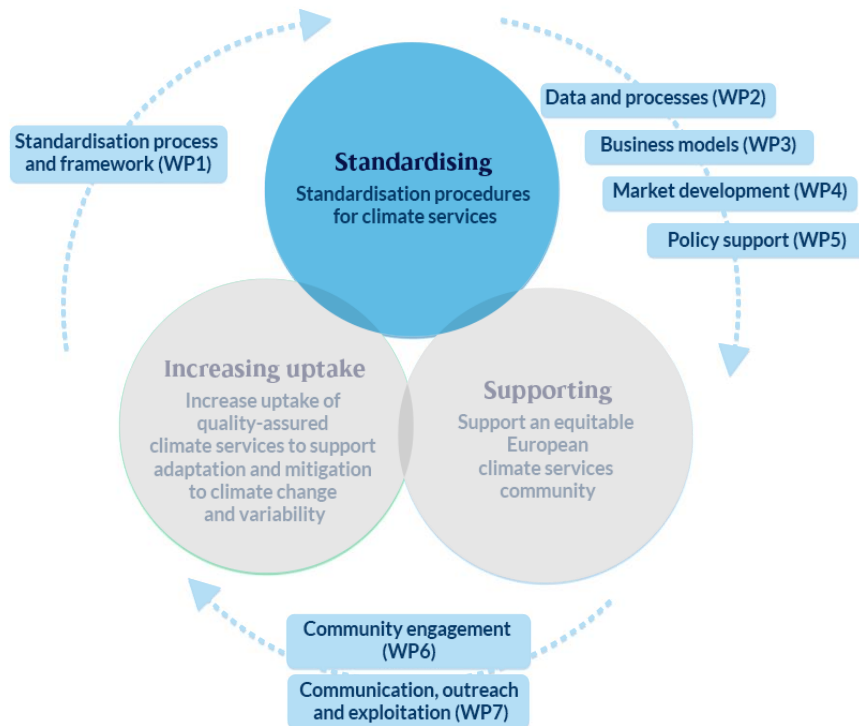


Objectives and structure

Standardising

Development of standardisation procedures for climate services

- O1.1 Estimate the maturity of the climate services components
- O1.2 Proceed with the standardisation of the components of climate services and the interoperability of the standards
- O1.3 Develop a quality management approach for the verification of climate services

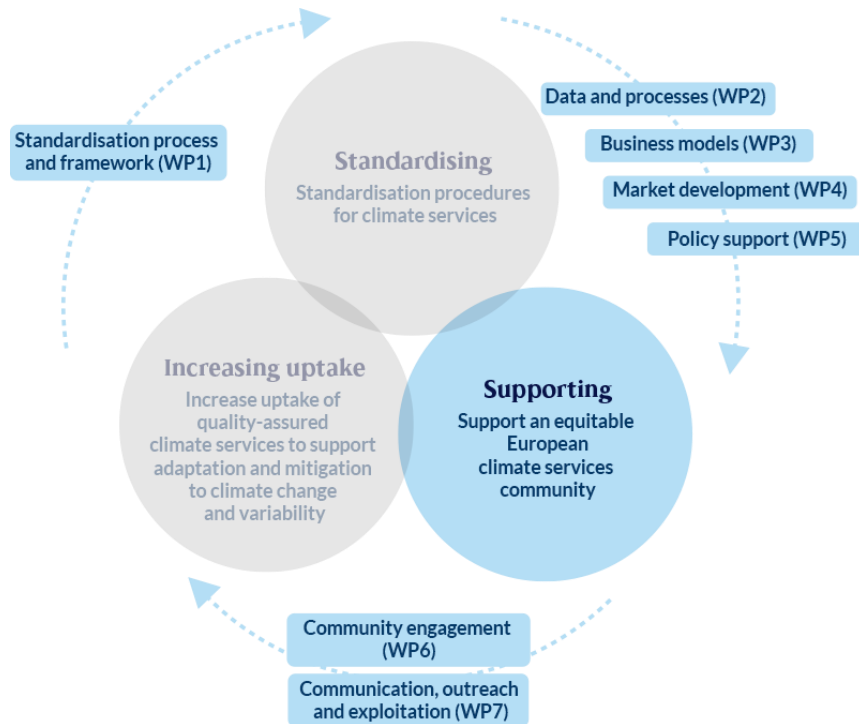


Objectives and structure

Supporting

Support of an equitable European climate services community

- O2.1 Sustain a community of European climate services actors, including underrepresented groups
- O2.2 Develop an interactive platform and support service
- O2.3 Integrate ethical, political, anthropological and sociological perspectives from social sciences and humanities

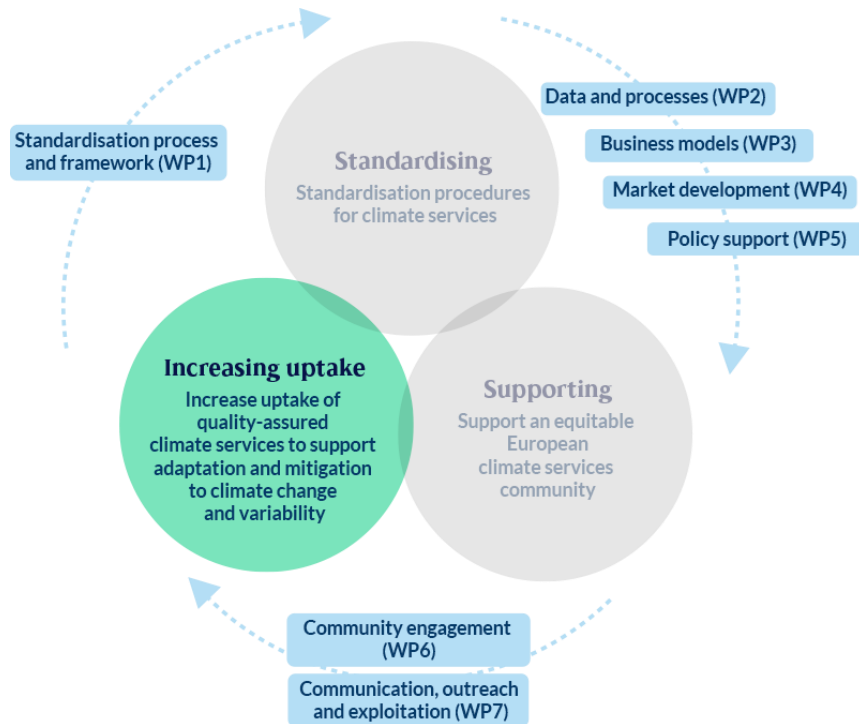


Objectives and structure

Increasing uptake

Enhancement of the **uptake** of quality-assured climate services to support climate adaptation and mitigation

- O3.1 Develop a strategy for the accreditation of climate services
- O3.2 Provide recommendations for improving tools to enhance the salience, credibility and legitimacy of climate services
- O3.3 Promote trust between supply and demand
- O3.4 Assess current business models and the scalability of market solutions



Community and audience



Elements for standard recommendations



Landscape

Clarify the existing landscape of technical, procedure, and performance norms and standards and identify initiatives supporting standardisation of climate services



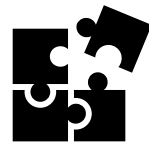
Glossary

Create a glossary mapping of sectoral vocabulary



Framework

Develop a framework for standardisation of climate services



WP2-5

Synthesis of WPs 2-5 results

Updates: ongoing

v1: ongoing

Standards relevant for CS components: stakeholder engagement + co-creation

More than 13 terms to discuss + consensus scoping

Framework refinement

Provenance in climate information

A cacophony of climate information sources is available, and this happens in a growing market with no clearly defined standards. What about the adequacy of the information sources? How is product quality addressed? **As open as possible, as restricted as necessary.**



METACLIP

METAdata for CLimate Products

2 followers <http://www.metaclip.org>

Popular repositories

metacIipR

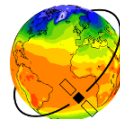
Forked from Predictia/metacIipR

Public

The climate4R extension for the METACLIP Provenance Framework

● R ☆ 3 🍴 1

What is the ESMValTool?



The Earth System Model Evaluation Tool (ESMValTool) is an open-source community-developed diagnostics and performance metrics tool for the evaluation and analysis of Earth System Models (ESMs). ESMValTool allows for a comparison of single or multiple models against predecessor versions and observations. The aim of the ESMValTool is to take model evaluation to the next level by facilitating analysis of many different ESM components, providing well-

documented source code and scientific background of implemented diagnostics. Traceability and

Diagnostic script interfaces

In order to communicate with diagnostic scripts, ESMValCore uses YAML files. The YAML files provided by ESMValCore to the diagnostic script tell the diagnostic script the settings that were provided in the recipe and where to find the pre-processed input data. On the other hand, the YAML file provided by the diagnostic script to ESMValCore tells ESMValCore which pre-processed data was used to create what plots. The latter is optional, but needed for recording provenance.

Provenance


When ESMValCore (the `esmvaltool` command) runs a recipe, it will first find all data and run the default preprocessor steps plus any additional preprocessing steps defined in the recipe. Next it will run the diagnostic script defined in the recipe and finally it will store provenance information. Provenance information is stored in the [W3C PROV XML format](#). To read in and extract information, or to plot these files, the [prov](#) Python package can be used. In addition to provenance information, a caption is also added to the plots.


IPCC WGI Interactive Atlas

A novel tool for flexible spatial and temporal analyses of much of the observed and projected climate change information underpinning the Working Group I contribution to the Sixth Assessment Report, including regional synthesis for Climatic Impact-Drivers (CIDs).

What about provenance in this case?

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Services

Climate and Environmental Risk

Lead the integration into your risk management

Climate risks are materially impacting organisations and play a key role in the risk management strategy. Integrating these climate risks into the risk management strategy can be challenging. Deloitte can help your organisation with the identification of climate risks, including climate risk modelling, climate scenario analysis, and setting up a climate risk data infrastructure and climate risk data management.

Supporting UN Habitat – CRPT for climate analysis in cities

Urban areas are strongly exposed to the effects of climate change. Local authorities monitor these effects very closely, so that they can adapt in a timely manner and reduce their impact on citizens' lives: health care, transport, water management, energy supply, etc.

UN Habitat's **City Resilience Profiling Programme (CRPT)** provides national and local governments with tools for measuring and increasing resilience to multi-hazard impacts, including those associated with climate change.

Lobelia's climate engine is integrated in the CRPT, helping analyse climate trends and link to other types of data as required to allow the definition of a suitable action plan. Lobelia's toolbox can be used by cities worldwide, with current users including Asunción, Yakutsk,



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INFORMATION

<https://climateurope2.eu/>

<https://earth.bsc.es/climateurope2>

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