WEATHER CLIMATE WATER
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WCRP Engagement with the Global Framework for Climate Services

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World Meteorological Organization

Organisation météorologique mondiale

- Quick overview of climate services
- Overview of the Global Framework for Climate Services (GFCS)
- WCRP and GFCS links and engagement

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Climate information is being used in decision-making and risk management world-wide

Climate services are the provision and use of climate information, to assist decision-making

- Must respond to user† needs
- Need to be based on scientifically credible information and expertise
- Require appropriate engagement between the users and providers with an effective access mechanism

† Users could include policy makers, decision makers, governments, public sector, private sector, general public, etc.

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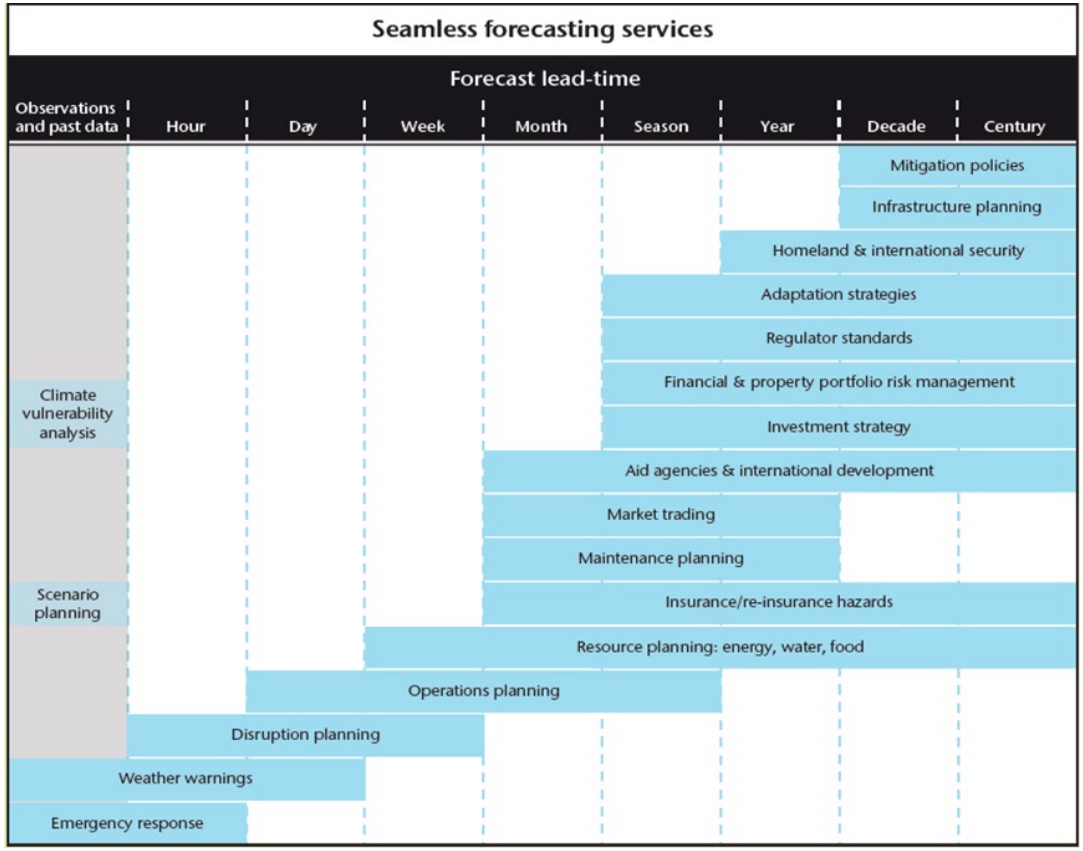
Timescales

1. Past and current climate
   observations and monitoring, climatologies

2. Near-term future climate
   monthly-seasonal-decadal predictions

3. Long-term future climate
   multi-decadal projections

Often an overlap with weather services



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Global Framework for Climate Services

- Called for at World Climate Conference-3 in 2009
- Established at The Extraordinary Session of the World Meteorological Congress in 2012

Vision:
To enable society to better manage the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards.

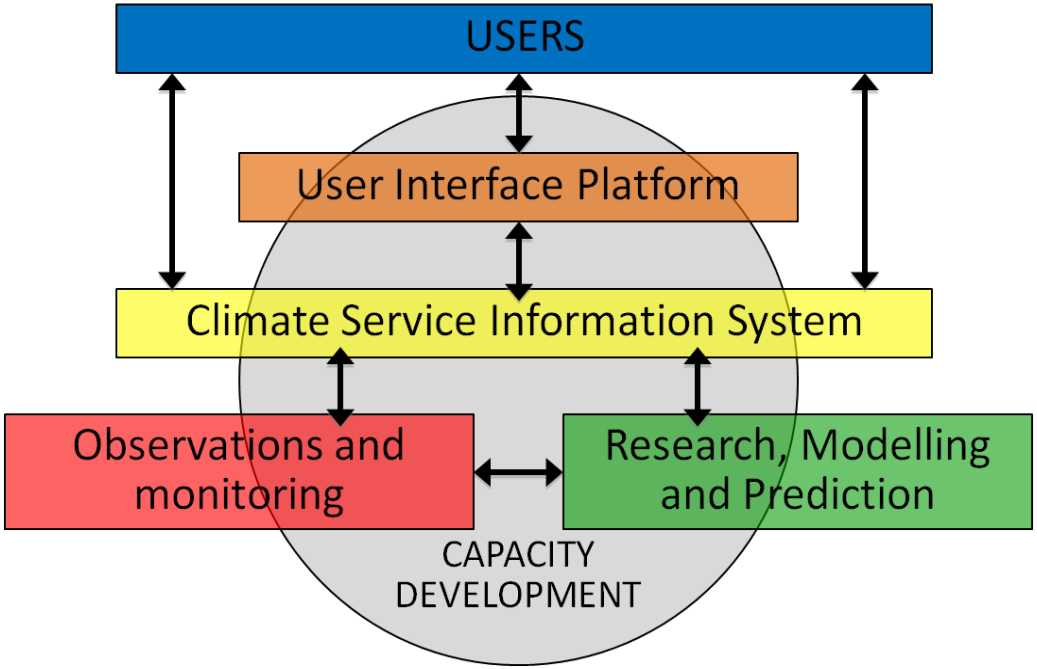
Goals:
1. Reduce the vulnerability of society to climate-related hazards;
2. Advance the key global development goals;
3. Mainstream the use of climate information in decision-making;
4. Strengthen the engagement of providers and users of climate services;
5. Maximise the utility of existing climate service infrastructure.

Global Framework for Climate Services (GFCS)

Vision: enable society to manage better the risks and opportunities arising from climate variability and change. Using science-based climate information

Priority areas:

- Agriculture and food security
- Water resource management
- Health
- Disaster risk reduction
- Energy



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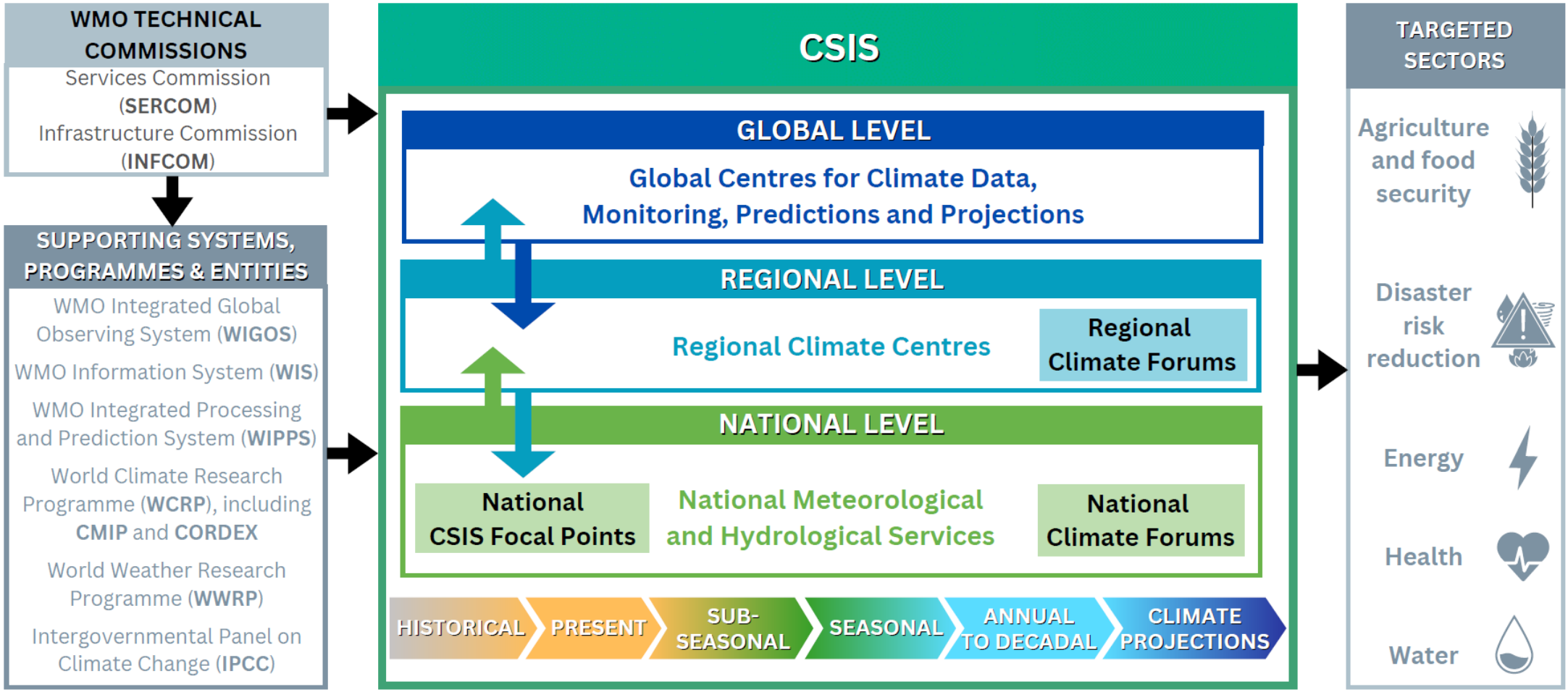
GFCS GLOBAL FRAMEWORK FOR CLIMATE SERVICES

Hewitt *et al*, 2012: Nature Climate Change, **2**, 831-832, https://www.nature.com/articles/nclimate1745

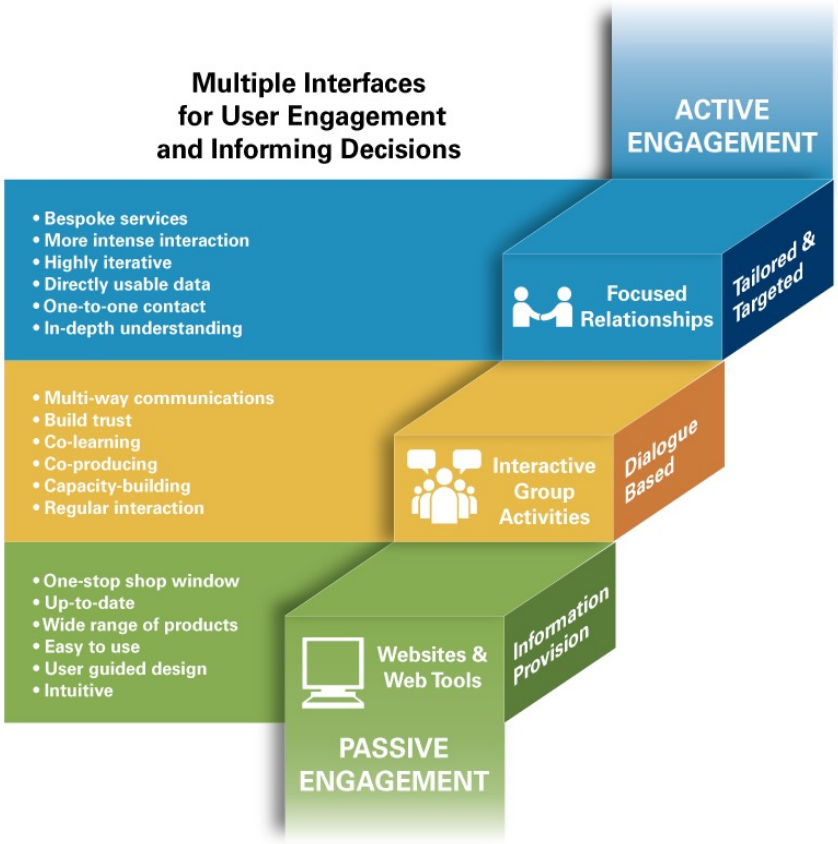
Climate Services Information System (CSIS)



WMO Expert Team on user engagement for climate services

- Identify and evaluate examples of user engagement for the provision of climate data, products and services

- Publish guidance on good practices, with case studies of good examples



Hewitt *et al*, 2017: Nature Climate Change, **7**, 614-616, https://www.nature.com/articles/nclimate3378
WMO Publication number 1214, 2018, https://library.wmo.int/doc_num.php?explnum_id=4550

The actors – a *value chain* view

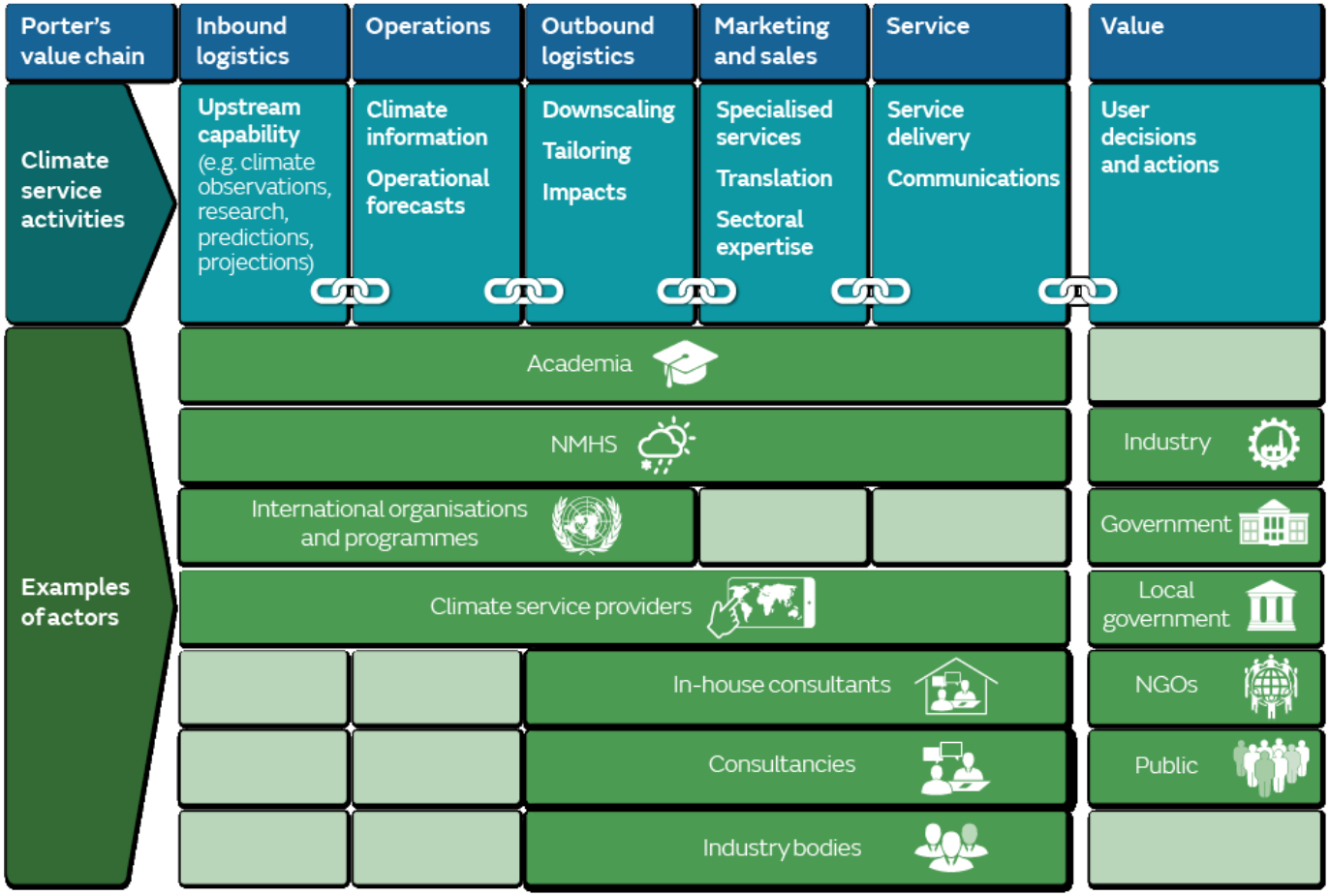


Figure from Hewitt and Stone, 2021: Climate Services, **23**, 100240. https://doi.org/10.1016/j.cliser.2021.100240

Some achievements under the GFCS

- **Elevating the awareness of climate services** and the role climate information has in policy and development globally, regionally and nationally
- **Helping National Met. and Hydro. Services (NMHS) be central to climate services** within their countries through NFCSs, recognized under the Paris Agreement as a framework for supporting adaptation action
- **Identifying and aligning investments** to implement the climate services value chain, including through major programmes and related initiatives
- **The increase in climate-related activities and financing continues to require coordination** to align efforts, avoid piecemeal and isolated activities

Some achievements under the GFCS

- **UNFCCC Conference of Parties** invited WMO through the GFCS to regularly inform the parties about its activities aimed at improving availability and accessibility of comprehensive climate information
- **Climate services, and coordination worldwide, are even more important and relevant today than when called for at World Climate Conference-3 in 2009**
- GFCS is embedded within many regional and national programmes and activities

The GFCS now:

- The original GFCS implementation plan was for 10 years. Now entering the next phase
- Use outcomes from an independent evaluation of the GFCS, along with guidance from WMO's Congress in 2019 and Executive Council in 2022 to work on:
  - Enhancing visibility, effectiveness and implementation, and strengthen services to add value
  - Partnership and inclusion, coordination, knowledge sharing, and presence at climate events such as COP
  - Technical coordination, support to NMHSs, identify unmet needs and capacity development
  - Provide guidance and standard setting through Technical Commissions and other bodies
  - Regularly publish a State of Climate Services report, to monitor and review climate services
  - Mobilise resources, promote access to climate finance, strengthen rationale/need for climate services

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GFCS: Global Framework for Climate Services foci

Vision: ***enable society to better manage the risks and opportunities arising from climate variability and climate change***

1

Strengthen climate service capacity and capability, particularly in NMHSs

- Improve availability of, access to, and use of, climate information, providing scientific and technical support
- Establish National Frameworks for Climate Services, and National Climate Fora, and link to regional structures

2

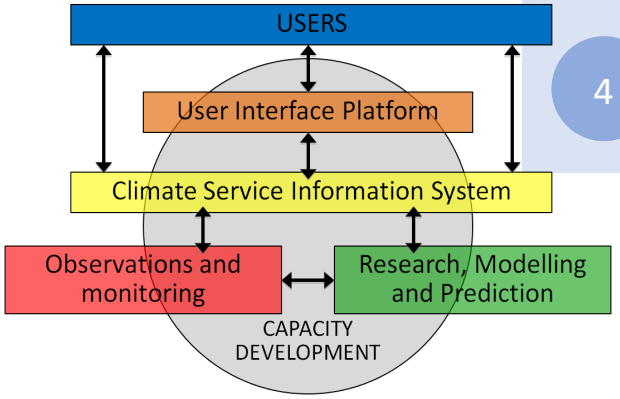
Support climate policy and finance with authoritative scientific information

- Produce regular reports and advice to support adaptation and mitigation (e.g. Global and Regional State of Climate; State of Climate Services; ENSO Bulletins; Climate Updates)
- Provide tools and expertise to help incorporate climate science into actions and investments

3

Develop Standards, Quality Management and Training

- Assess and develop Climate Service capacities (basic ⇨ essential ⇨ full ⇨ advanced) and needs
- Produce guidance on standards and competencies with WMO's SERCOM and INFCOM



4

Develop the climate services value chain/cycle

- Scientific capability (incl. GCOS, WCRP, etc.) ⇔ climate services information ⇔user engagement
- Generate value and enable actions

5

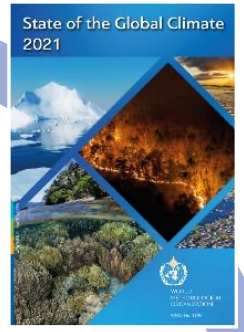
Improve visibility and effectiveness of GFCS, promote coordination

- Climate services are essential for society. Needs global-regional-national coordination
- Provide a forum for stakeholder communication, knowledge sharing, collaboration
- Revitalize the GFCS website

WMO State of the Climate reports

WMO Statements on Climate

Global



Annual

5 year

Decadal

Regional

- Provide authoritative information on the state of the climate and high-impact events
- Updates on annual and longer-term changing conditions of the state of the climate
- State of the climate reports build on operational monitoring systems globally, regionally and nationally
- Contributions from RCCs, NMHS, UN organizations, and other international partners

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WCRP

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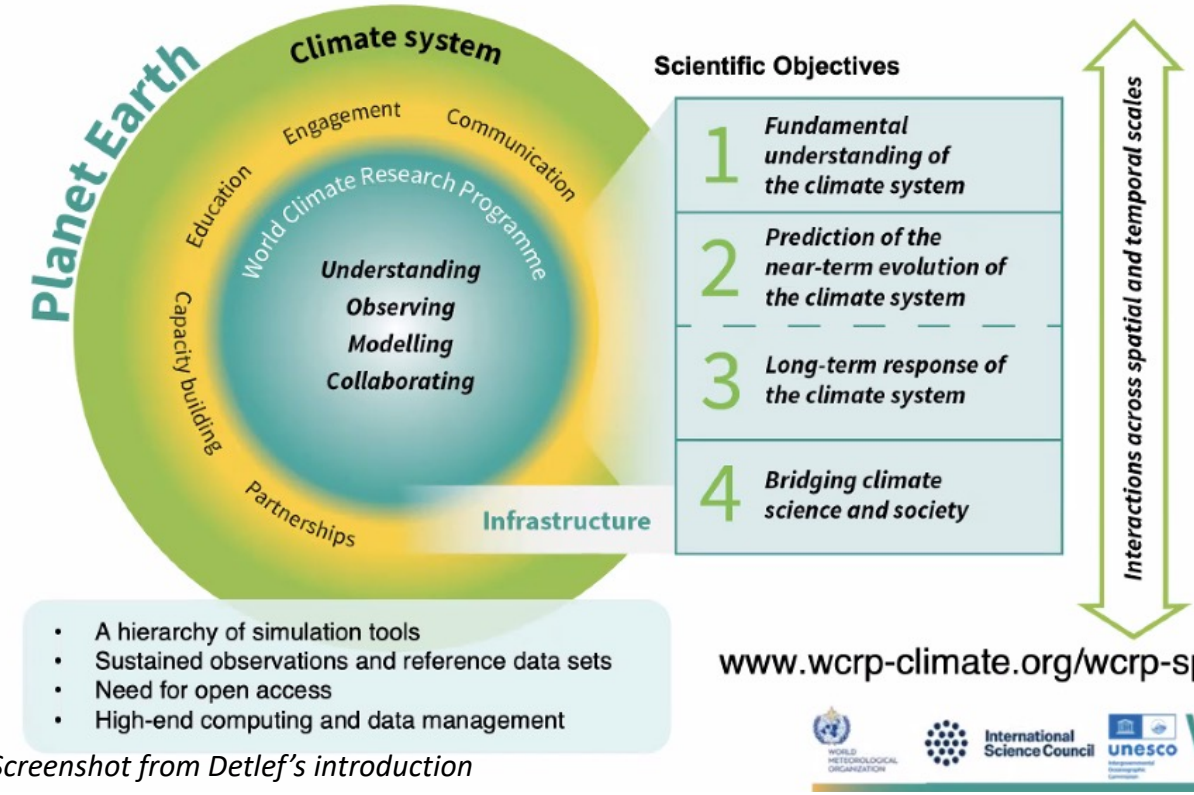
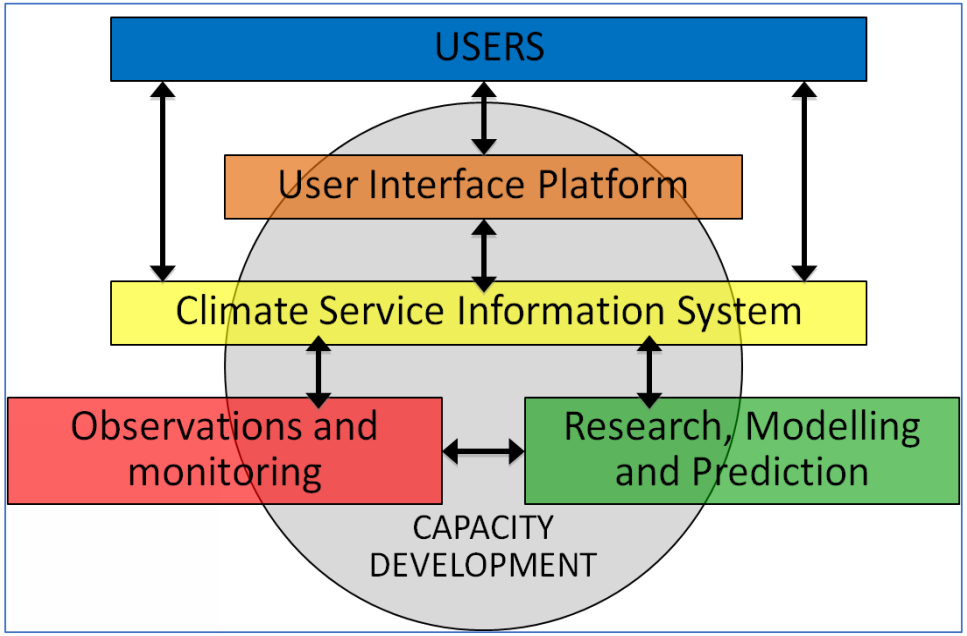


www.wcrp-climate.org/wcrp-sp



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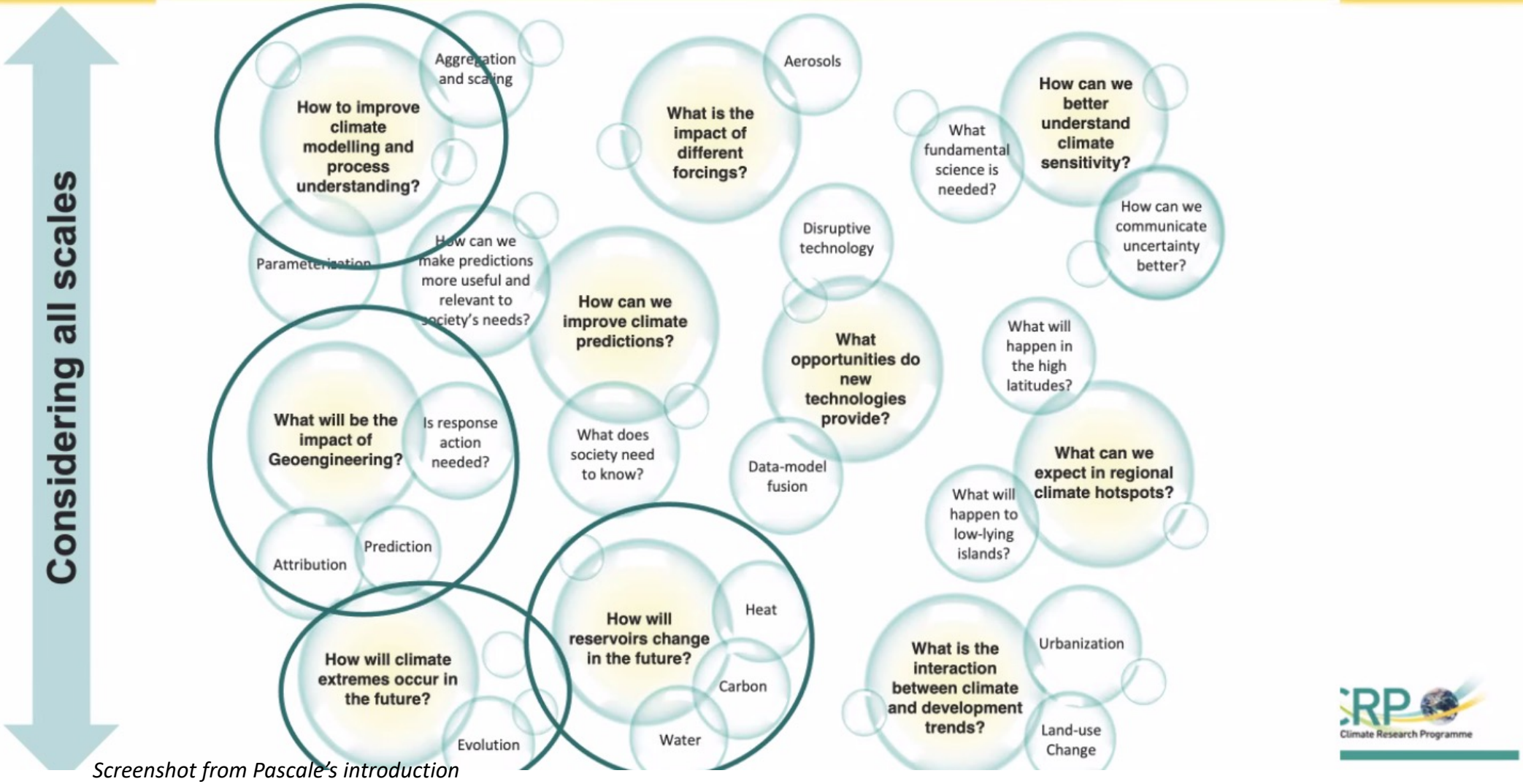
GFCS

Screenshot from Detlef's introduction

WCRP High-level Science Questions and Gaps



Screenshot from Pascale's introduction

WCRP and GFCS links and engagement

- The work of WCRP is essential to provide the scientific basis, the data, the information and the knowledge that current climate services are built on
- The work of WCRP is essential for future climate services
- The needs of policy- and decision-makers should be considered for guiding future research

Thank you

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