



WORLD CLIMATE RESEARCH PROGRAMME

42nd Session of the WCRP Joint Scientific Committee

Detlef Stammer and Helen Cleugh (WCRP JSC Chair and Vice Chair)



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Session 2: WCRP Implementation: The Way Forward

Outline

- From here forwards (*D. Stammer, H. Cleugh*) [15 mins]
- Initial lessons from Climate Research Forums (Regional Consultations) (*H. Cleugh*) [10 mins]
- Key focus areas for JSC-42 (*D. Stammer*) [10 mins]

Duration: 35 mins

Chair: Helen Cleugh and Detlef Stammer

Rapporteur: Narelle van der Wel

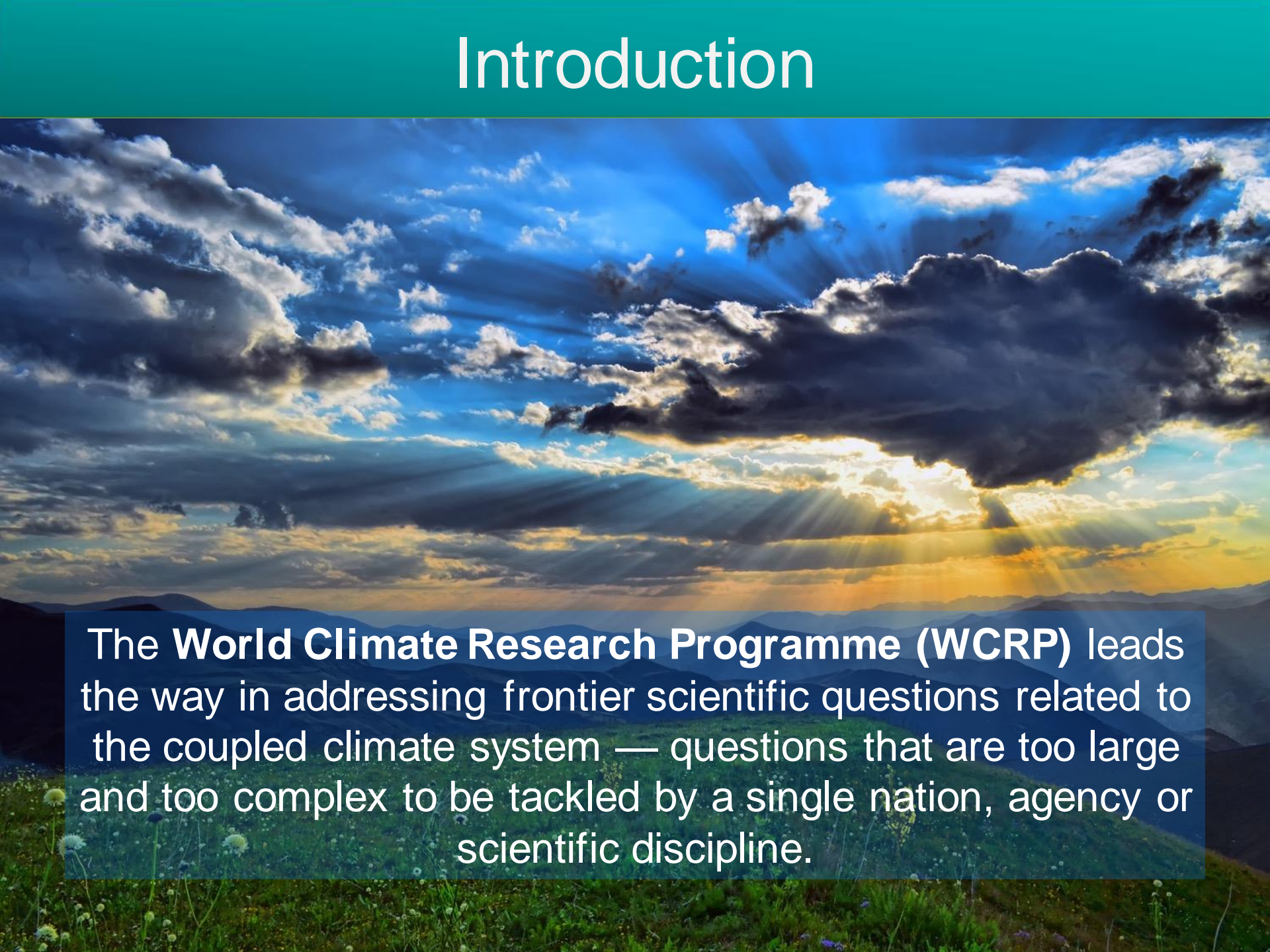
Chat Moderator: *Nico Caltabiano*



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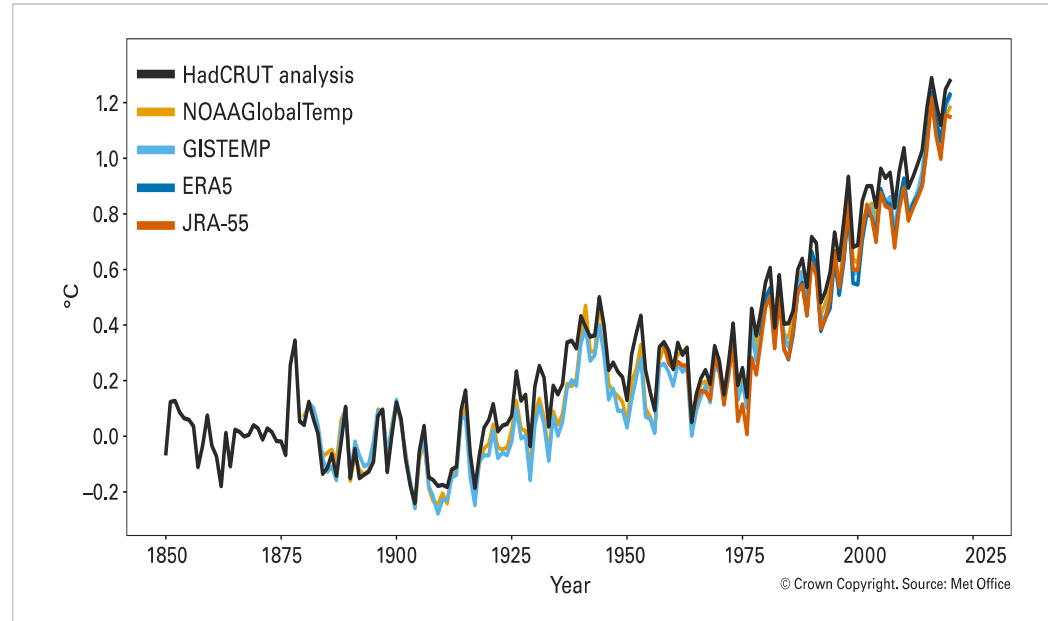
Introduction



The **World Climate Research Programme (WCRP)** leads the way in addressing frontier scientific questions related to the coupled climate system — questions that are too large and too complex to be tackled by a single nation, agency or scientific discipline.

State of ongoing climate change

The global mean temperature for 2020 was around 1.2°C warmer than pre-industrial times

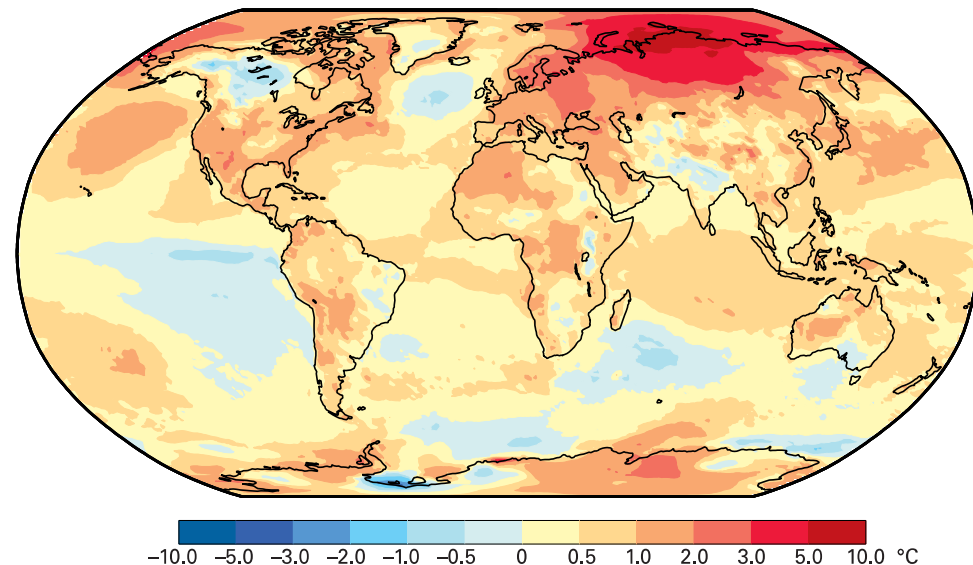


WMO: State of the Global Climate 2020

The world continues to warm

2020 was one of the three warmest years on record. The past six years, including 2020, have been the six warmest years on record.

Temperature anomalies 2020 relative to 1981–2010

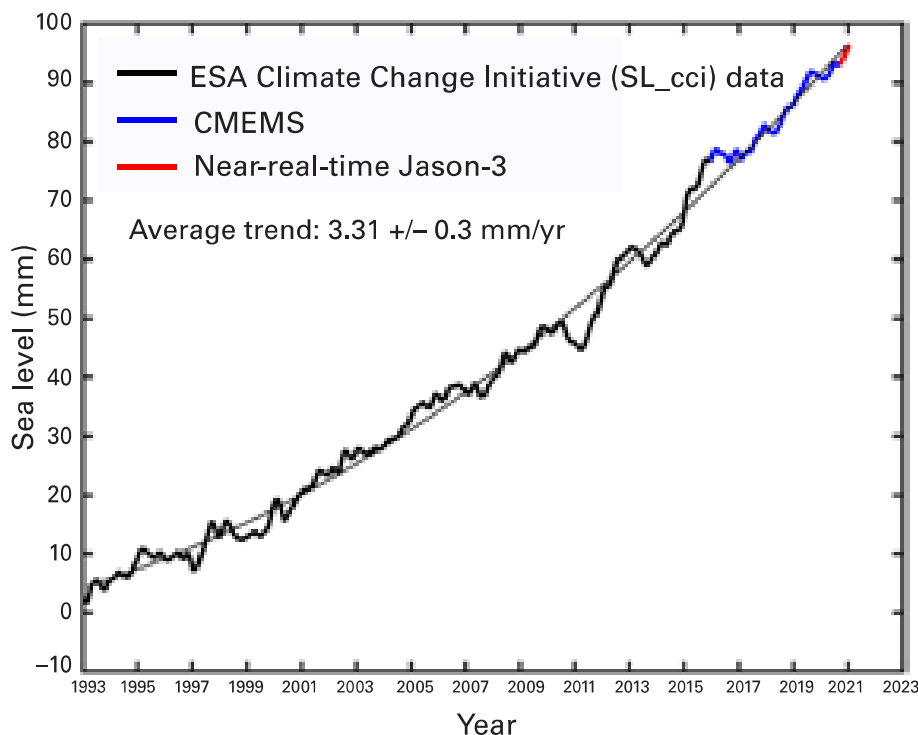


Source: ERA5

Global sea levels are rising

Trend in sea-level rise is accelerating.

Ocean heat storage and acidification are increasing, with significant impacts on marine biodiversity, livelihoods, sustainability and the ocean's capacity to moderate climate change.

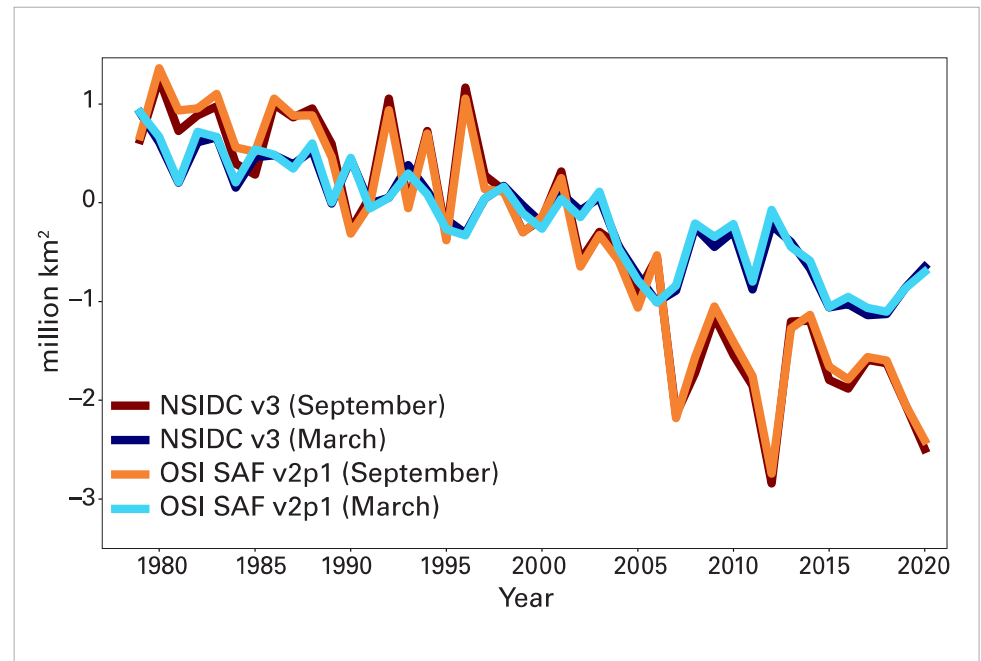


WCRP GC Sea Level

Arctic and permafrost changes

September 2020 Arctic minimum sea-ice extent the second lowest on record.

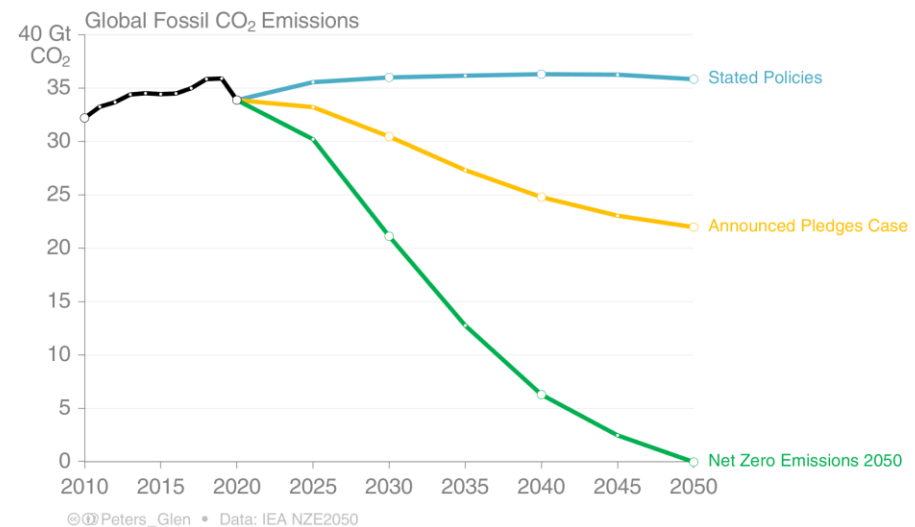
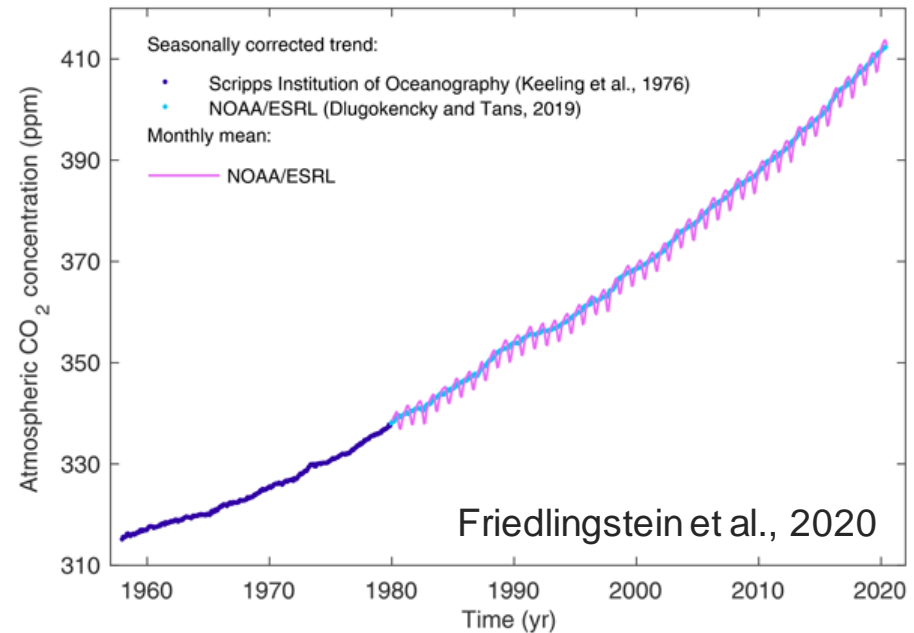
Antarctic mass loss trend accelerated around 2005. Today it loses ~175 to 225 Gt of ice per year.



State of CO₂ emissions

Concentrations of the major greenhouse gases continued to increase despite short-term emission reductions in 2020 related to COVID-19.

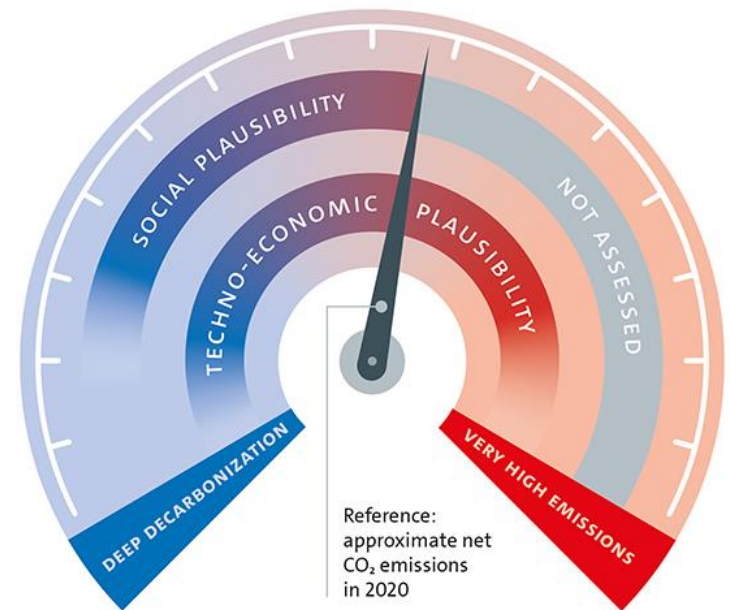
To keep global temperatures to within 1.5°C of pre-industrial baseline means reducing global greenhouse gas emissions by 45 per cent from 2010 levels by 2030, reaching net zero emissions by 2050.



State of CO₂ emissions

Stabilizing global mean temperature at 1.5°C to 2°C above pre-industrial levels by the end of this century will require a dramatic societal transformation as the basis for an ambitious reduction of greenhouse gas emissions.

- Limiting global warming to 1.5°C appears not plausible at this point in time.
- Potential pathway for global emissions imply temperatures will continue go up beyond 1.5°C.
- Reaching a RCP 8.5 concentration level does not appear plausible, however.



Hamburg Climate
Futures Outlook 2021

What will future climates look like?

- Which pathway exactly the emissions, and thus temperature, will take is unknown. However, the detailed pathway matters.
- How many different warmer worlds can we have?
- What will a 3 degree or 4 degree warmer world look like?
- WCRP needs to provide this information.



Climate Change and Society

Anticipated impacts for society.

- Energy of the system and heat waves
- Severe changes to the water cycle
- Extremes, risks and impacts



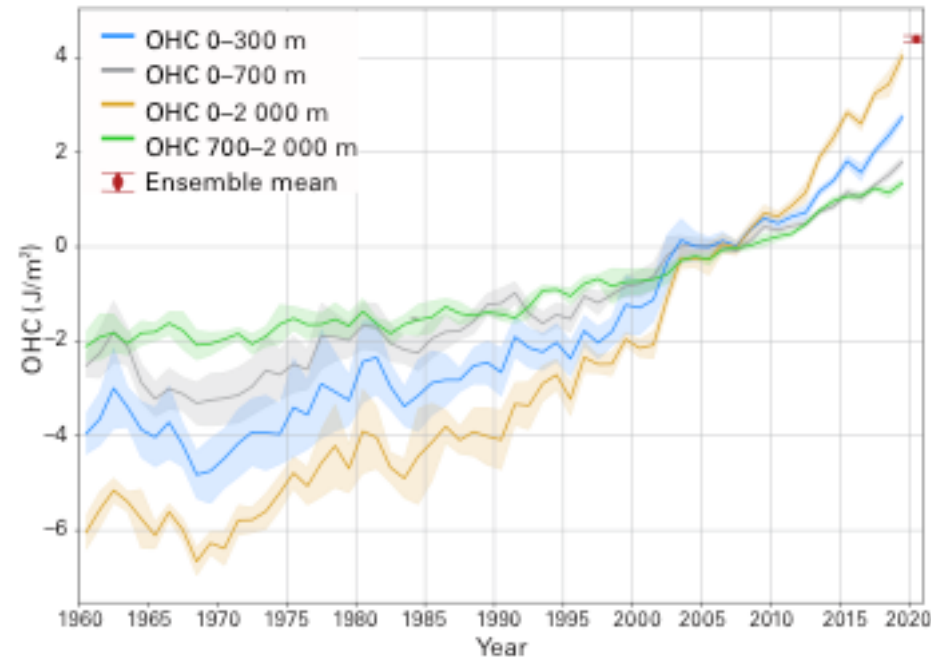
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Energy of the system and heat waves

Increasing emissions of CO₂ cause a positive radiative imbalance at the top of the atmosphere, driving global warming of the Earth system.

Ocean heat content (OHC) is a measure of this heat accumulation with consequences for oxygen, ecosystem, biogeochemistry.

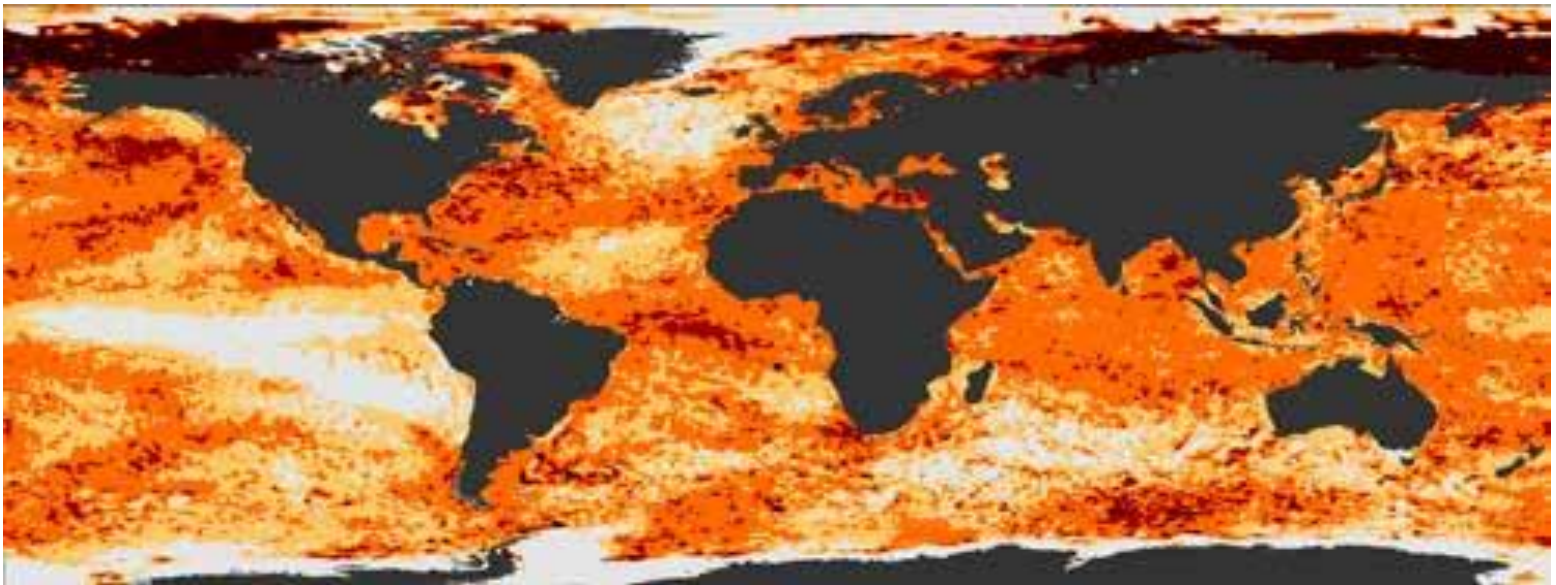


Energy of the system and heat waves

Marine heatwaves are an important example of marine extremes with huge consequences for its ecosystem.

Marine heatwaves during 2020 (reference period 1982–2011)

a)

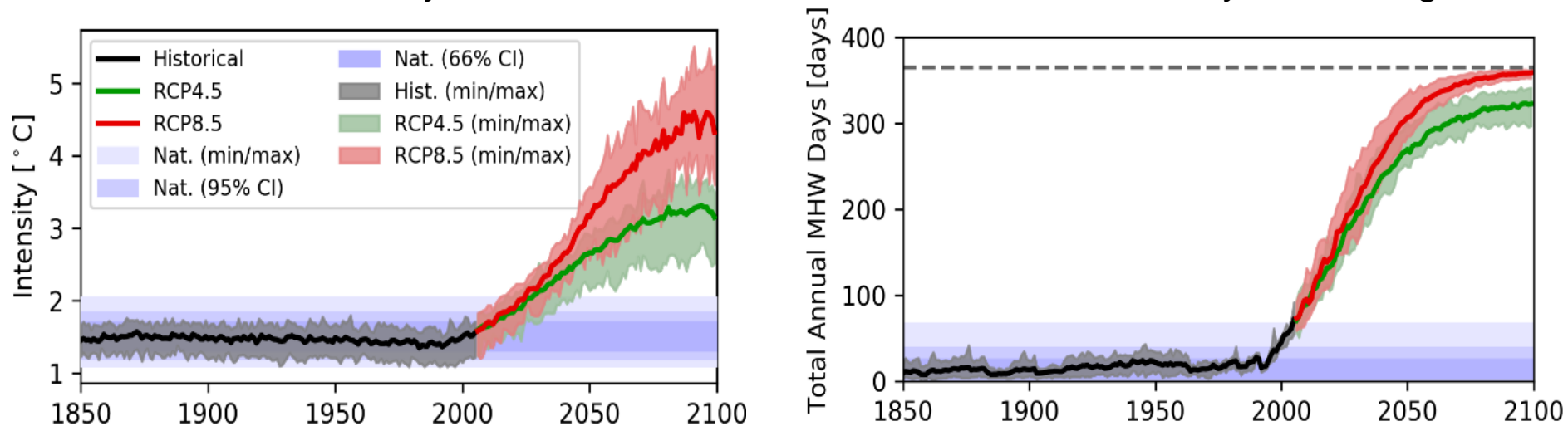


Energy of the system and heat waves

Marine heatwaves are an important example of marine extremes with huge consequences for its ecosystem.

Projected changes to marine heatwaves (MHWs) globally. Annual time series for historical (black), RCP4.5 (green), and RCP8.5 (red) simulations.

Results for intensity are shown on the left; and for total MHW days on the right



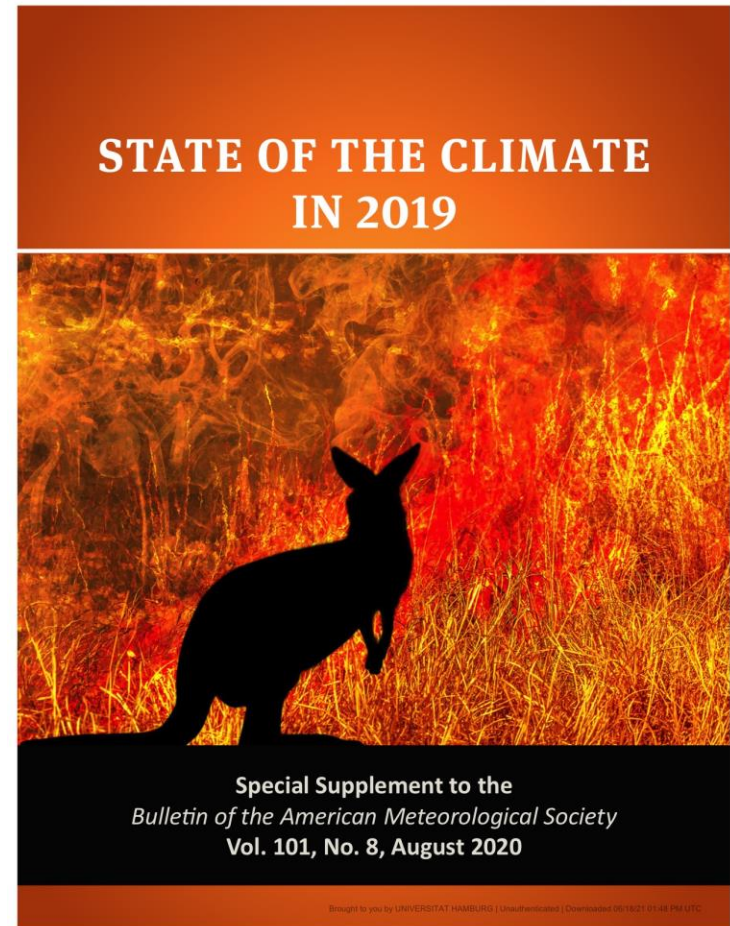
Source: From Figure 1, Oliver et al, Projected Marine Heatwaves in the 21st Century and the Potential for Ecological Impact, *Frontiers in Marine Science*, 6:734, 2019.

Severe changes to the water cycle

Increased droughts: some 9.8 million displacements, largely due to hydrometeorological hazards and disasters, were recorded during the first half of 2020.

Does climate change lead to an increased number of wildfires?

Nevertheless, climate change is leading to worsening extreme fire weather and will affect ignition.



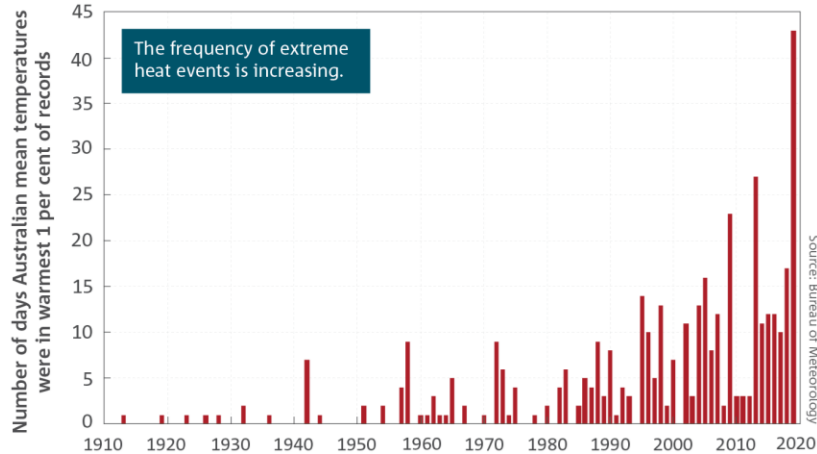
BAMS: State of the Climate in 2019



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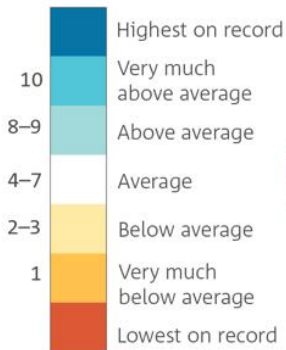
Example: Australia's changing climate



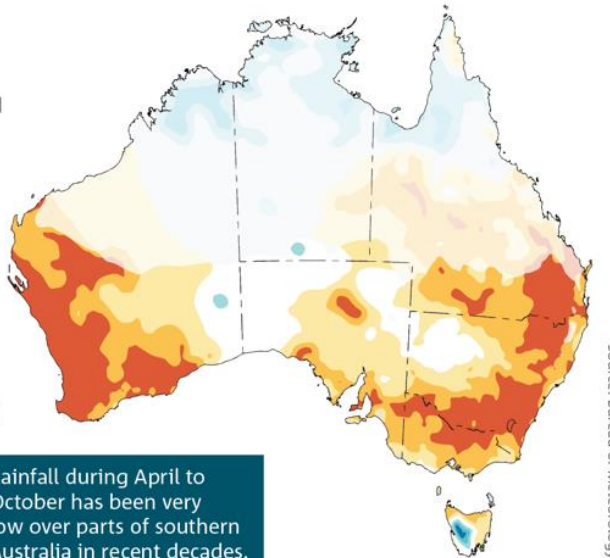
Williams et al (2009):

“Climate change projections are for warming and drying over much of Australia, and hence increased risk of severe fire weather, especially in Southeast Australia. Modeling suggests an increase of 5 to 65 per cent in the incidence of extreme fire danger days by 2020 in this region.”

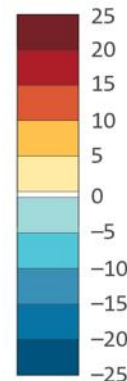
Rainfall decile ranges



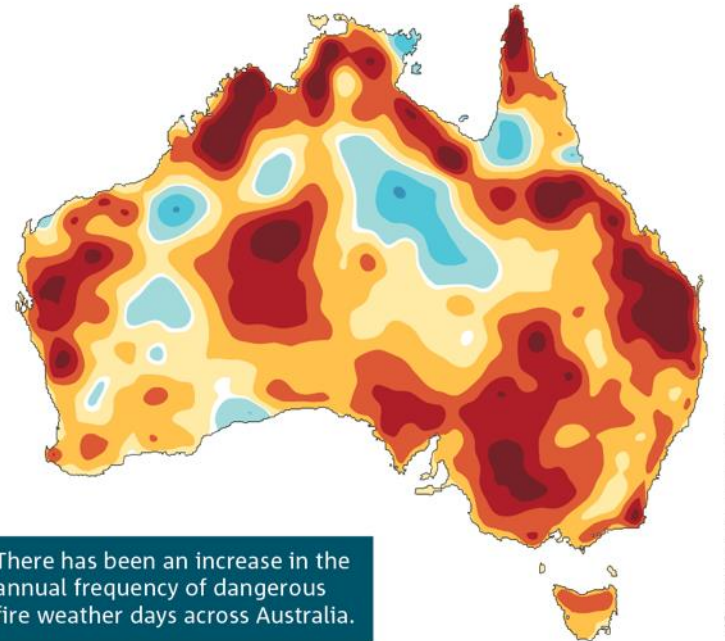
Rainfall during April to October has been very low over parts of southern Australia in recent decades.



Change in number of dangerous fire weather days



There has been an increase in the annual frequency of dangerous fire weather days across Australia.



The Way Forward

The next decade will bring urgent climate challenges that can only be addressed through WCRP's worldwide coordinated effort; involving co-design and stakeholder engagement conducted by a prepared scientific workforce.

Society requires decision-relevant, evidence-based climate information to support adaptation planning and mitigation strategies.

WCRP and SDGs

2030 agenda with 17 goals to end poverty and hunger, improve health and education, making cities more sustainable, combating climate change, and protecting oceans and forests.



Understanding and quantifying weather and climate risk are at the core of these Actions.

Reaching climate goals is in competition with others.

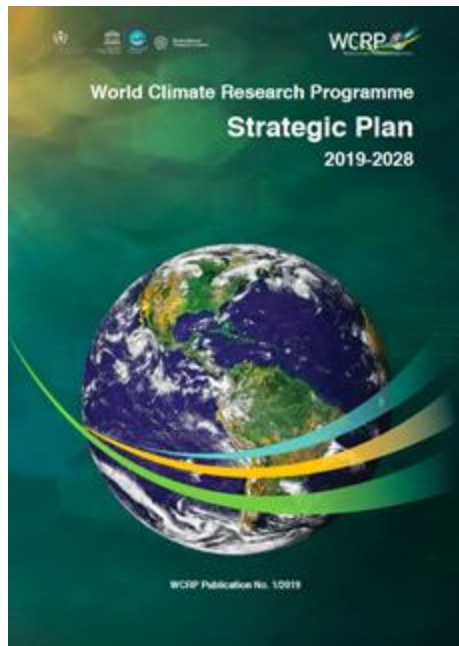


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The Future WCRP

A Strategic Plan for this Decade



The Vision *(our aspiration)*

A world that uses sound, relevant, and timely climate science to ensure a more resilient present and sustainable future for humankind.

The Mission *(what we do, our purpose)*

Coordinate and facilitate international climate research to develop, share, and apply the climate knowledge that contributes to societal well-being.

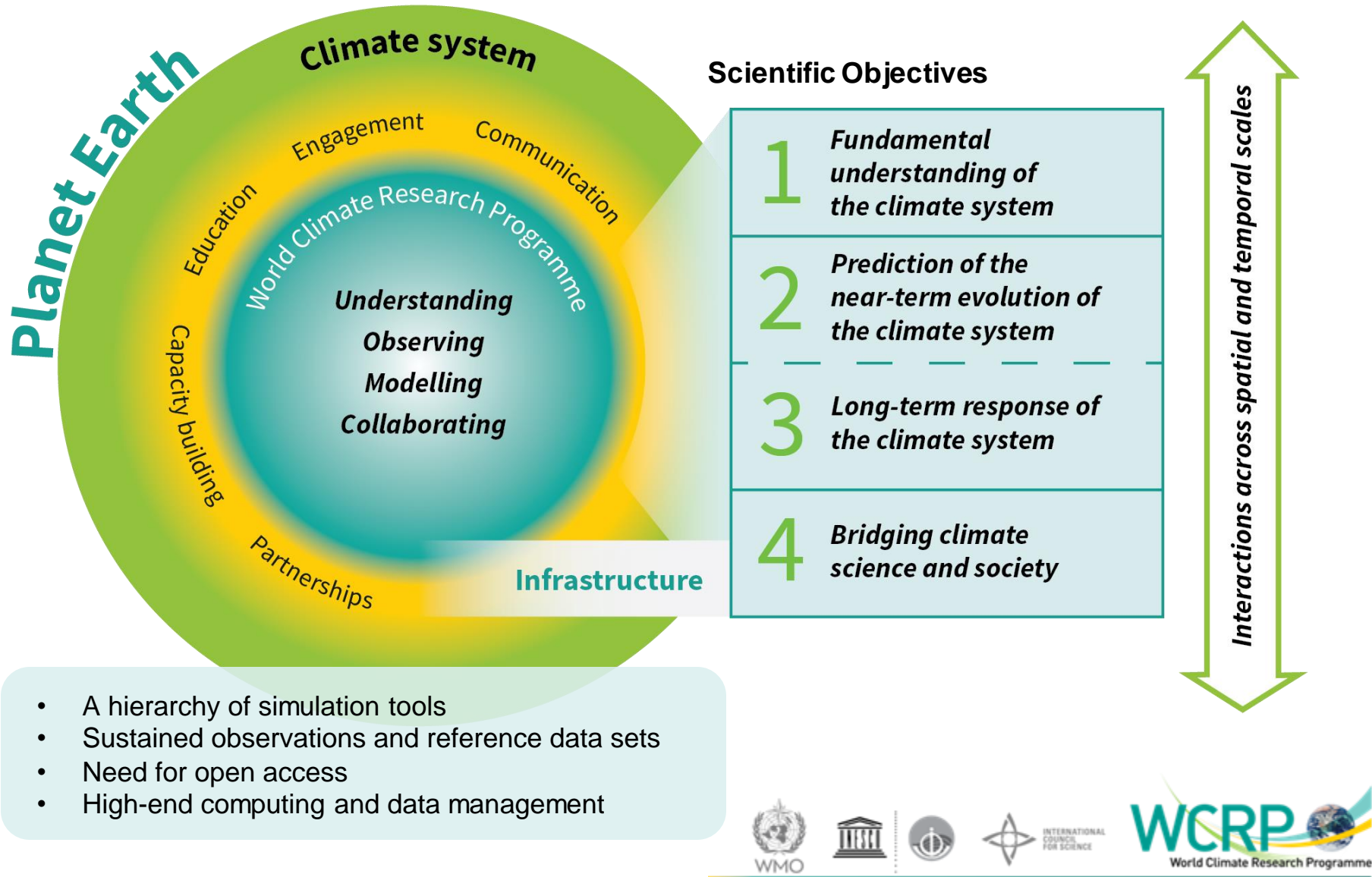
www.wcrp-climate.org/wcrp-sp-overview



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Overview of the WCRP Strategic Plan



Priorities

1. *Deliver the scientific advances & future technologies to:*

- *Advance understanding of the multi-scale dynamics of Earth's climate system*
- *Quantify climate risks and opportunities*

2. *Develop new institutional and scientific approaches to:*

- *Co-produce cross-disciplinary regional to local climate information for decision support and adaptation*
- *Inform and evaluate mitigation strategies*

Implementing the Strategy

WCRP will prioritize its science by pursuing a series of Lighthouse Activities, along with other core research activities, to deliver and achieve critical outcomes over the next decade



Explaining and
Predicting Earth
System Change

My Climate
Risk

Digital Earths

Safe Landing
Climates

WCRP
Academy

WCRP Lighthouse Activities:
**MAJOR scientific approaches, technologies, and
institutional frameworks required to meet society's need
for robust and actionable climate information**

WCRP Lighthouse Activities

Explaining and Predicting Earth System Change

To design, and take major steps toward delivery of, an integrated capability for quantitative observation, explanation, early warning and prediction of Earth System Change on global and regional scales, with a focus on multi-annual to decadal timescales.

My Climate Risk

To develop a new framework for assessing and explaining regional climate risk to deliver climate information that is meaningful at the local scale.

Safe Landing Climates

To explore the routes to climate-safe landing 'spaces' for human and natural systems, on multi-decadal to millennial timescales; connecting climate, Earth system and socio-economic sciences. Explore present-to-future “pathways” for achievement of key SDGs.

Digital Earths

To develop a digital and dynamic representation of the Earth system, optimally blending models and observations, to enable an exploration of past, present and possible futures of the Earth system.

WCRP Academy

To determine the requirements for climate research education and to build enabling mechanisms. The Academy will work with WCRP core activities and established climate education providers, including universities, to achieve this.

WCRP Lighthouse Activities: Status

Draft Science / Business Plans for each Lighthouse Activity will be presented during JSC-42; a broader consultation will take place through 2021 (e.g., AGU).

Important implementation aspects:

- **Enhance the diversity** of the science community - as both contributors to, and users of, research.
- **Co-design the activities** with key partners and get input from our stakeholders.
- **Ensure they are linked to** WCRP's core research activities and the needs of funding partners.



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WCRP's Ongoing Core Projects

Enduring Capabilities, Research Community "Homes"

CLIVAR - Climate and Ocean Variability, Predictability and Change

Understanding the **coupled ocean-atmosphere system**, to better understand climate variability and change.

www.clivar.org



GEWEX - Global Energy and Water Exchanges

Observing, understanding and modelling the **global and regional water cycles and energy budgets** in the Earth's atmosphere and at the surface.

www.gewex.org



CliC - Climate and Cryosphere

Improving our understanding of the **cryosphere and its interactions with the global climate system**; and using the cryosphere to detect climate change.

www.climate-cryosphere.org



SPARC - Stratosphere-troposphere Processes and their Role in Climate

The **role of the atmosphere** in climate variability and prediction, atmospheric dynamics and predictability; chemistry and climate.

www.sparc-climate.org



WCRP's New Core Projects

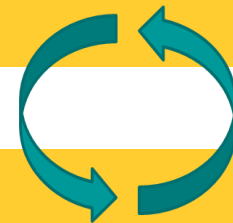
Enduring Capabilities, Research Community “Homes”

Earth System Modelling and Observations [ESMO]

Science and technologies for modelling, observations and model – data fusion.

Unite and strengthen the work of these communities and groups:

- Working Groups on:
 - Coupled Modelling (WGCM) incl. CMIP (CMIP & Infrastructure Panels)
 - Numerical Experimentation (WGNE)
 - Sub-seasonal to Interdecadal Prediction (WGSIP)
- WCRP Modelling and Data Advisory Councils (WMAC and WDAC)



Regional Information for Societies [RIS]

Science and capability needed for providing societally-relevant climate information for regions.

Unite and strengthen the work of these communities and groups:

- CORDEX (science and applications of regional climate downscaling)
- Working Group on Regional Climate (WGRC)



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WCRP's Grand Challenges

All WCRP Grand Challenges will “sunset” by 2022.

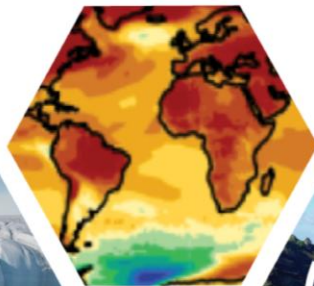
Unfinished science has to be picked up by new structure.



WATER FOR THE FOOD
BASKETS OF THE WORLD



MELTING ICE AND
GLOBAL CONSEQUENCES



NEAR-TERM
CLIMATE PREDICTION



CARBON FEEDBACKS
IN THE CLIMATE SYSTEM



WEATHER AND
CLIMATE EXTREMES



REGIONAL SEA LEVEL CHANGE
AND COASTAL IMPACTS



CLOUDS,
CIRCULATION AND
CLIMATE SENSITIVITY



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The New WCRP Structure

Joint Scientific Committee (JSC)

WCRP Secretariat

Lighthouse Activities *New*

International Offices

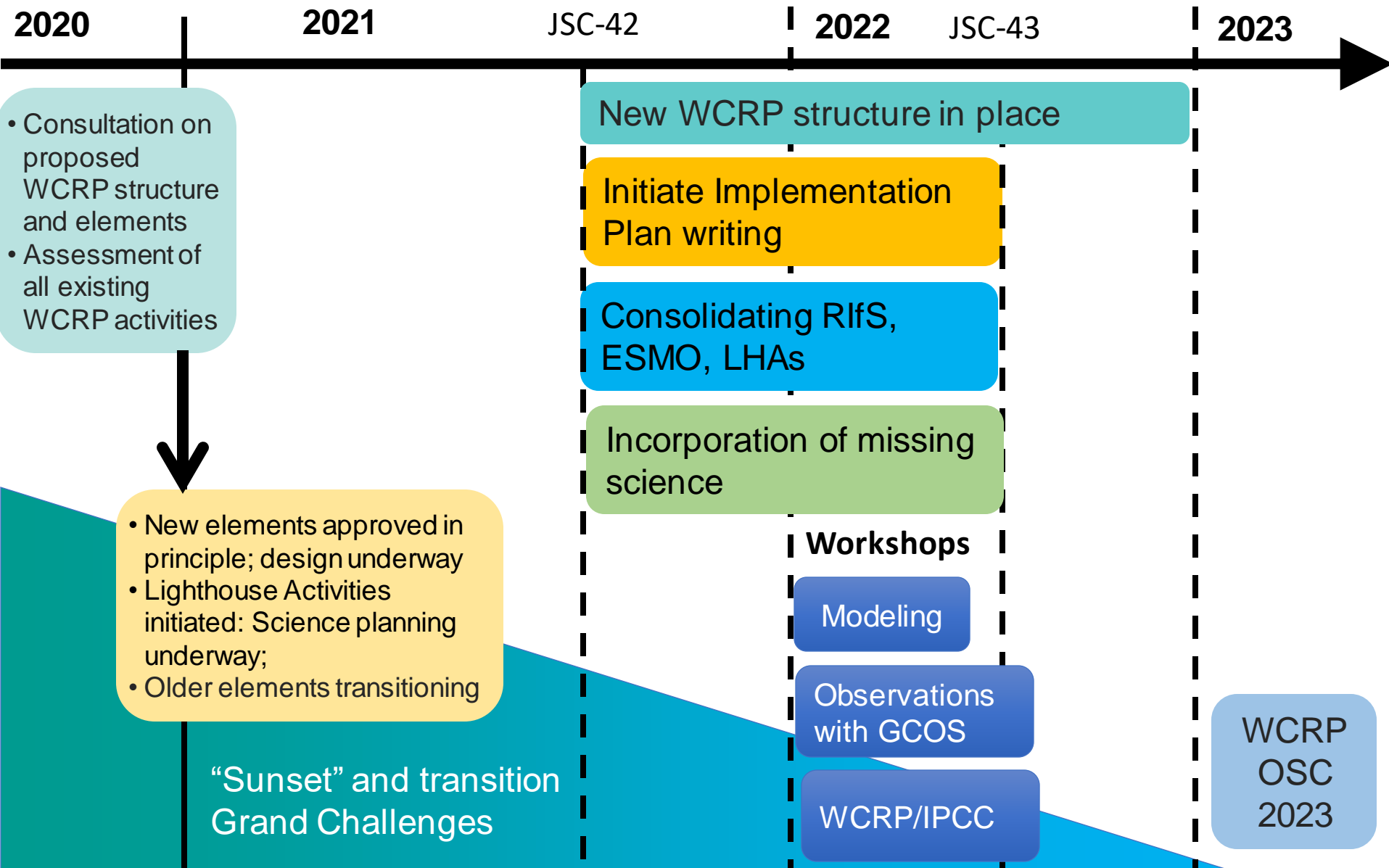
Core Projects and Research Communities

- Climate and Cryosphere (CliC)
- Global Energy and Water Exchanges (GEWEX)
- Climate and Ocean Variability, Predictability and Change (CLIVAR)
- Stratosphere-troposphere Processes And their Role in Climate (SPARC)
- *Earth System Modelling and Observations (ESMO)*
- *Regional Information for Societies (RIfS)*

Additional Activities and Forums

- Fixed-term projects
- Conferences and workshops
- Reference datasets, evaluations and benchmarking
- Diversity and capacity building: ECRs, regions
- Rapid updates, syntheses, assessments, gap analysis
- Communications and outreach

Consolidation of the new WCRP: Timeline



Climate Research Forums (CRFs)

Why did we do these, how are they proceeding, what have we learnt?

JSC-41 ACTION: Put necessary steps in place to “roll out” regional consultations on WCRP evolution.

Broadly, our aim was to:

- Inform community about the new WCRP and seek their feedback, especially on the Lighthouse activities.
- Exchange ideas and discuss new activities and opportunities.
- Explore ways that our community of scientists, partner programs, funders and end-users of climate science can better engage.



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Eastern Asia

- China
- Democratic People's Republic of Korea
- Japan
- Mongolia
- Republic of Korea



SE Asia

- Cambodia
- Laos
- Myanmar
- Malaysia
- Singapore
- Thailand
- Vietnam
- East Timor
- Indonesia
- Philippines



Southern Asia

- Afghanistan
- Bangladesh
- Bhutan
- India
- Nepal
- Pakistan
- Sri Lanka
- Iran
- Maldives



Oceania

- Australia
- NZ
- Pacific Islands



Africa



Africa Regions:

- Northern Africa
- Eastern Africa
- Central Africa
- Western Africa
- Southern Africa

North and Central America; Caribbean and Greenland

- Canada
- USA
- Central America
- Caribbean
- Greenland



South America



Europe and Western Asia



For now, a brief and preliminary report on: Progress, Key messages and Lessons learned

- Audience
- Aims: *Sharing Information and Feedback; Ideas and Opportunities; Engagement*
- Process

Progress to date



Coming Up:

- South America in September, 2021
- Oceania (NZ) likely in Austral Spring, 2021
- Pacific Islands, Africa & Southern Asia: Content and timing are still under development



<https://www.wcrp-climate.org/climate-research-forums>

Climate Research Forums – our audience

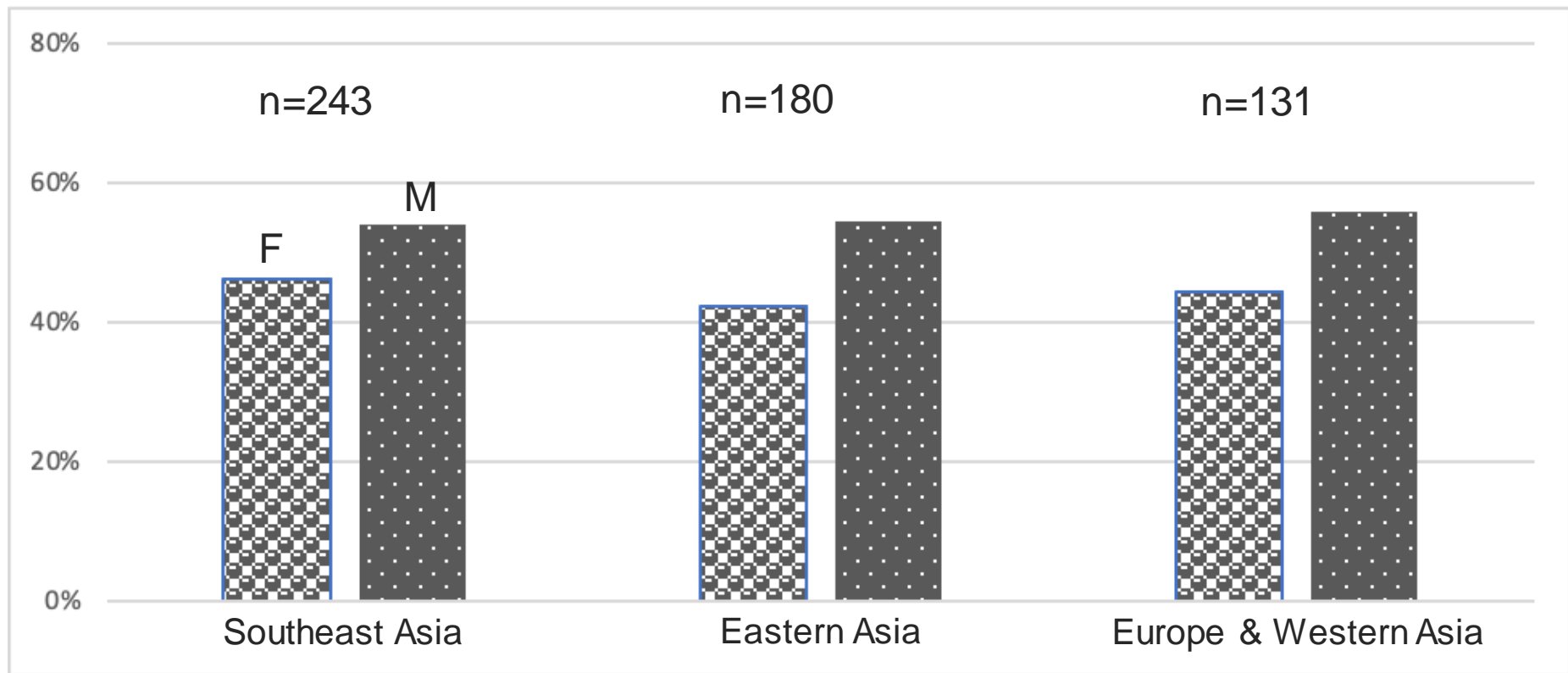
CRF Registration and Participation						
Region*:	Southeast Asia	Eastern Asia	EWA	NACG	Oceania (A)	<i>Total</i>
Registration	404	420	232	434	Unknown	1490
Attendance	277	269	170	200	204	1120
Percentage Attending	69%	64%	73%	46%	Unknown	75%
Duration (hrs)	2.0	2.0	3.5	2.5	1.5	

* Legend:

- EWA = Europe and Western Asia
- NACG = North America, Central America, Caribbean and Greenland
- Oceania (A) = Australia
- SEA = Southeast Asia

Our audience – gender and career

At least 40% of our audience were female (using participant list)

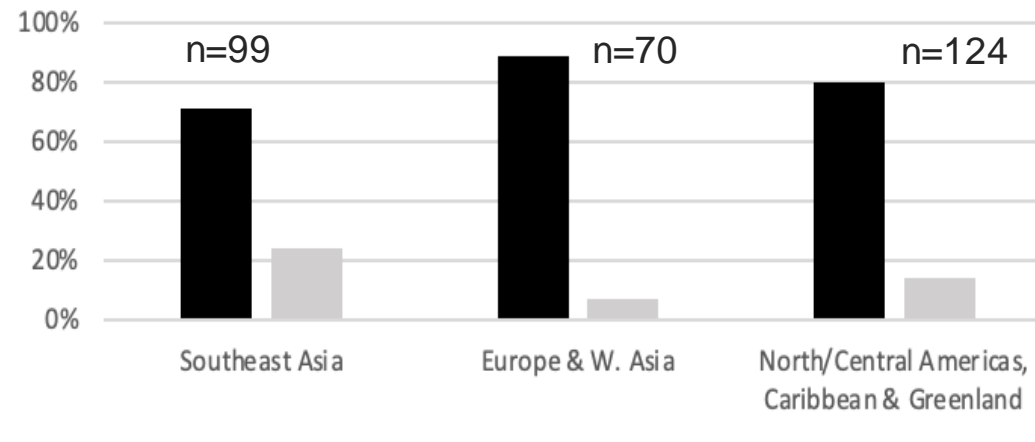


Data for NACG and Oceania (A) not yet available

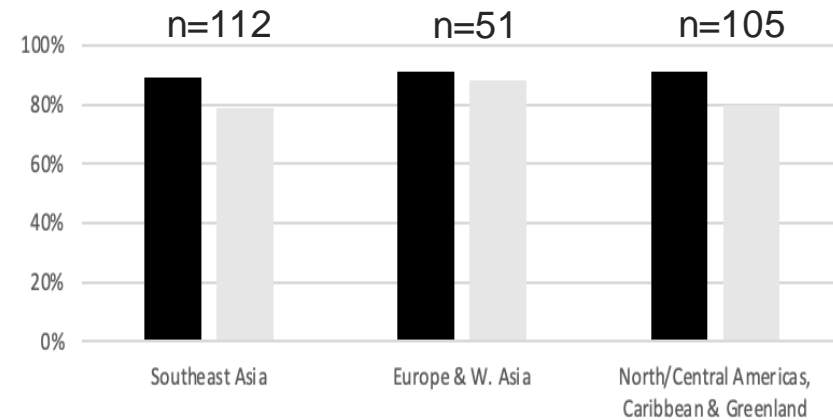
Information and Feedback on WCRP

(using results from slido survey during Forums)

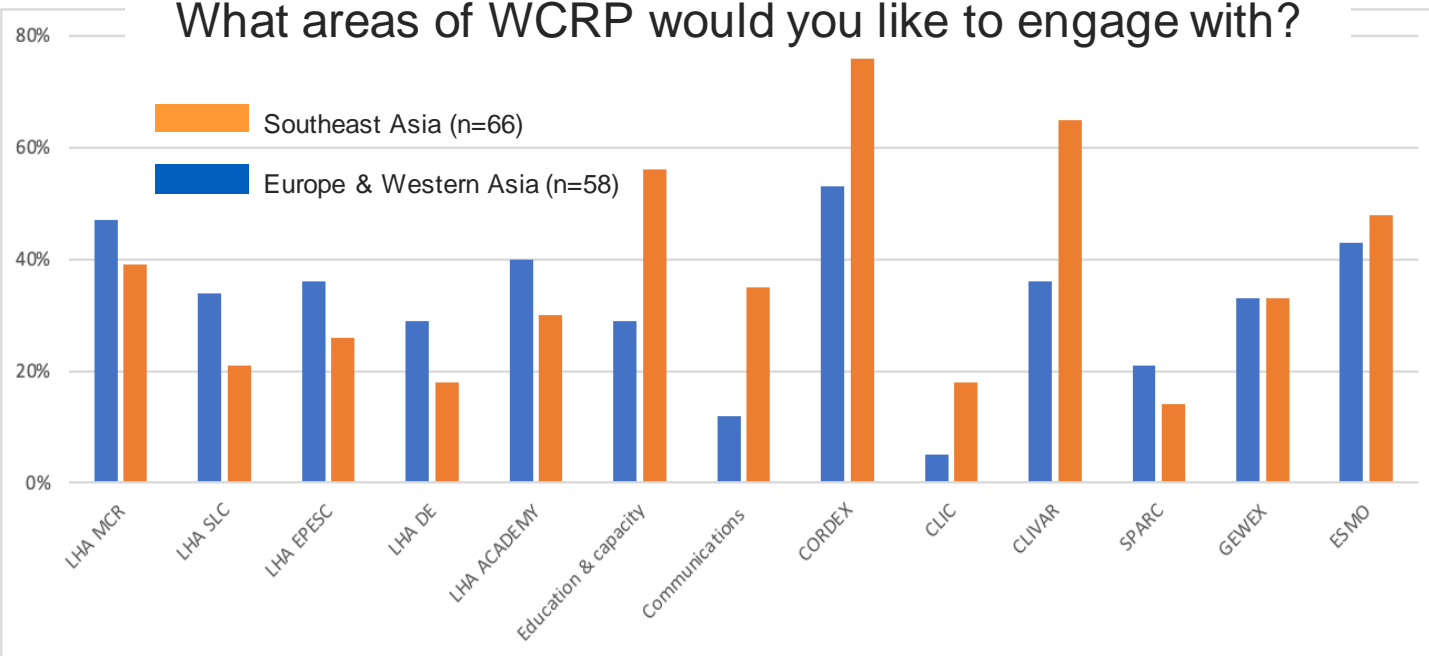
Overall good awareness of WCRP



Strong support for WCRP Goals (black) and LHAs are addressing critical science questions (grey)



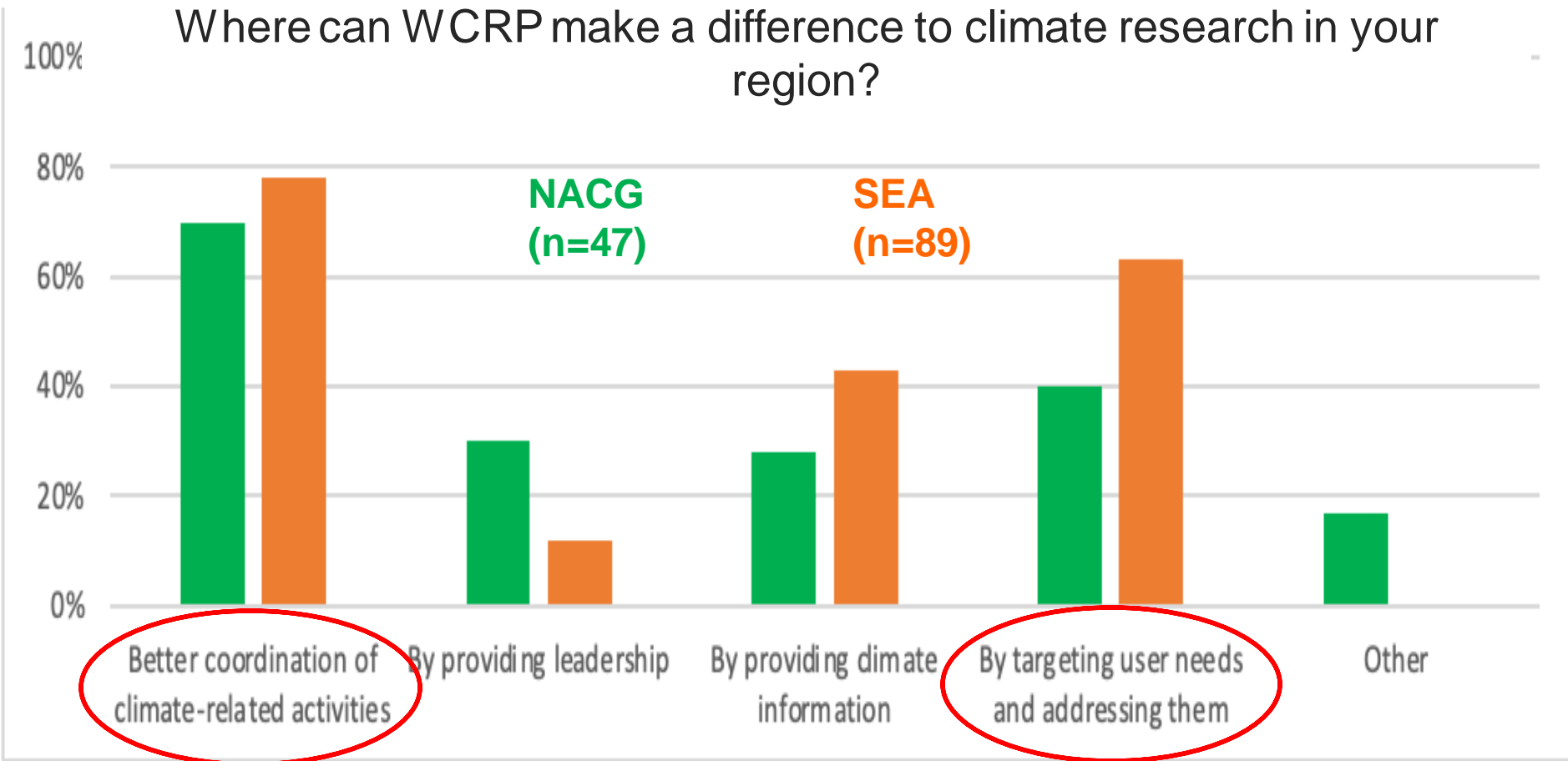
What areas of WCRP would you like to engage with?



Information and Feedback on WCRP

(using results from slido survey during Forums)

Where can WCRP make a difference to climate research in your region?



Data for Europe not available

Ideas and Opportunities – LHA specific

(from slido question about LHAs)

Links with other WCRP core activities:

- “Clear interactions, interfaces and sharing platforms between LHAs and other activities”
- “Make sure there are connections between all the LHAs, WCRP Core Projects and WCRP’s “unifying themes” (modelling and observations), AND connecting to WWRP.”

LHA design and engagement:

- Scientists, especially ECRs, still not feeling adequately engaged – where can they “sign-up” to be involved? They sense that the LHAs are dominated by senior colleagues.

Some other comments on LHAs:

- “**Be good for LHAs** to a) focus on practical issues faced by e.g. small producers in agriculture, and b) partnership with civil society organisation that facilitates [working with] the community to address the climate risk of their livelihood.”
- “**Focus on needs of user application** at multiple timescales; how they integrate into **Decision Support Systems**”
- “**Linking LHAs** with improved understanding of climate and improved understanding of climate and how research improves decisions made by different sectors of society.”
- “**Developing demonstration projects** in a variety of contexts, regions, countries, including those where climate science is not fully developed”
- “An emphasis on implementation science (i.e. how to **effectively implement climate services** for different sectors)”
- “Get parts of it **embedded in funding programs e.g. GCF, Banks [World Bank, Asia Development Bank], Space Agencies** and other funding mechanisms”

Ideas and Opportunities for WCRP

(from slido question about LHAs)

Making a difference; WCRP needs to be ...

- **“Providing an authoritative voice** to make sure scientifically sound climate information is being disseminated to users.”
- **“Providing incentives and recognition** such as an award for best climate researcher or best climate research project and selecting a local ambassador from the communities.”
- **Advancing “More accurate prediction of extreme events** (e.g. tropical cyclones) and their impact on agriculture and disaster risk management”

Profile: “No-one knows what WCRP is. ... Your work is solid and I’m involved but there is an issue of brand recognition... [need] more connections with funding agencies”

Funding and Research Priorities :

- Important key messages from EU funders re. ongoing need for fundamental climate science (EWA).
- Ensure we follow-up with Funders across the regions – a regular “round-table” (in regions)?
- Action suggestions and opportunities for future activities – e.g. a Forum focusing on water in NACG that includes key Agencies (*IAI, Water Futures [Canada], NOAA, USGCRP et al*)



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Ideas and Opportunities – Engagement

(from slido questions on LHAs and other)

Strong feedback regarding “Better engagement with low income, less developed, global south nations and regions” and “More direct pathways for input and engagement”

We know this already. HOW to improve the situation?

- **“Invite people** from the Middle Americas to share regional needs from a developing country perspective”
- **“More interaction with regional organizations;** WMO Regional Offices to engage more regional experts”
- **“Ensure representativity from tropical countries from a more local perspective** (local lead researcher rather than focusing on US and European-led research on the tropics)”

Engagement, Communication and Publicity

Early Career Researchers (ECRs) told us that we can do better ..

- ECR presence and engagement in Eastern Asia (progress establishing a network there).
- Understanding of how to get involved in WCRP activities (including concrete examples).
- Clarity on how positions on various committees are renewed / filled.

Broader community engagement:

- “Include new voices” “Intense collaboration” “Gather feedback from non climate scientists.”
- “More continuous communication with non-academic knowledge and stakeholder groups”
- “Reach more of the public (students and policymakers); make [material] available in other languages to be more inclusive”
- “More publicity of things like My Climate Risk in media”

Leverage engagement with the Forums: Ensure we utilise the breadth and diversity of the community who have engaged with us, e.g. to augment or renew the membership in key Committees; involve in OSC 23; etc

Developing and Delivering Forums – lessons learned



- **Regional Focal Points (RFPs)** worked well.
- **Support** from IPOs; Secretariat (Narelle) and CORA (Beatriz) all critically important.

Thank you all!

- A **template / formula** for future Forums [positive feedback about length, format, content].
- **Slido** best for engagement and feedback.
- **Zoom** best videoconference platform.

Enabled engagement with over 1100 members of our WCRP community

Opportunities

- **WCRP's contact database.** Added 659 (half from Asia) and ca. 200 personal invitations.
- RFPs provide **a larger, more diverse pool of researchers** for WCRP's Core activities.
- **Interest from Early Career Researchers.**
- **Ongoing engagement** with partners and funders; and consultation with researchers.
- **Interests and needs in Regions** better understood.



- **Significant workload; resource intensive:** [Organisation, logistics, analysis and follow-up]
- How to keep **RFPs** engaged, in a mutually beneficial way?
- **Follow up:** Sustainable engagement with stakeholders in the region

Threats

- **Resources** to sustain and follow-up.
- **Managing expectations** of engagement.

Key focus areas for JSC-42



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Key focus areas for JSC-42

- 1) Co-ownership of LHAs
- 2) Missing science and required structural elements
- 3) Coordination, governance and communication
- 4) Improved diversity and ECS entrainment
- 5) Improved interaction with partners and co-design
- 6) New post-COVID19 investment strategies (finance)
- 7) Interaction with funding agencies around the world
- 8) Initiating the Implementation Plan Writing Process



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Reminder: homework assignments and messages send out since JSC-41b.



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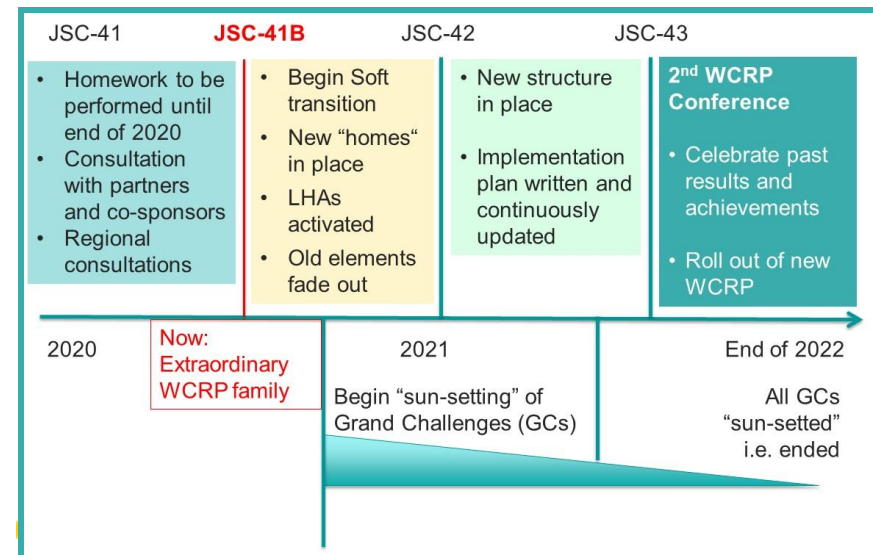
JSC-41B Session 7: Way forward and next steps

WCRP family is in agreement with new structure

1) WCRP family is in agreement with soft transition, starting effectively now

2) WCRP family agrees with

- *Putting new elements into place*
- *Further developing details of science plans until JSC-42*
- *Continue with dynamic adjustments and developments afterward*
- *Start to sun-set GCs; transition remaining science to new structure and elements*
- *Celebrate success and transition at 2nd pan-WCRP conference, scheduled for 2022/23*



JSC-41B Session 7: *Some key next steps (1)*

Next 6-months ...

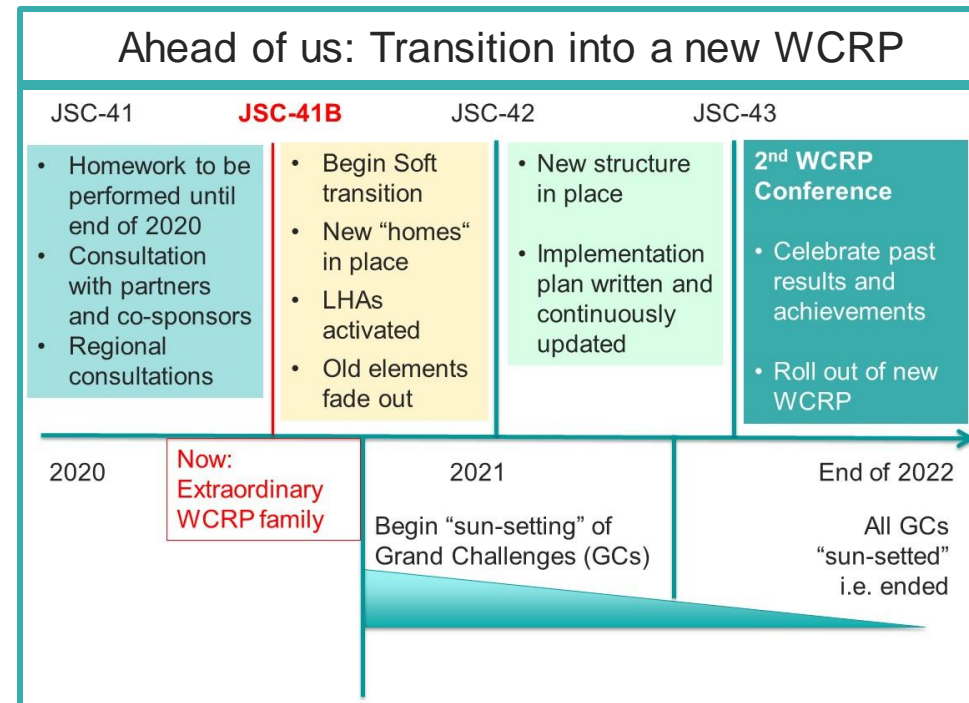
1. Review of LHAs and Core Project proposals by JSC-42

2. Implement new structures and governance from early 2021 on

- Establish a “steering” or “advisory” group: JSC, CP Chairs, LHA Leads to provide guidance; facilitate communication, coordination and collaboration *[New Action]*
- Meeting in early 2021 to establish this group, and review and address questions arising from JSC41-B (incl. those from Core Projects)
- IPOs and Secretariat for support

3. Core Projects, LHAs to continue “homework” tasks, including:

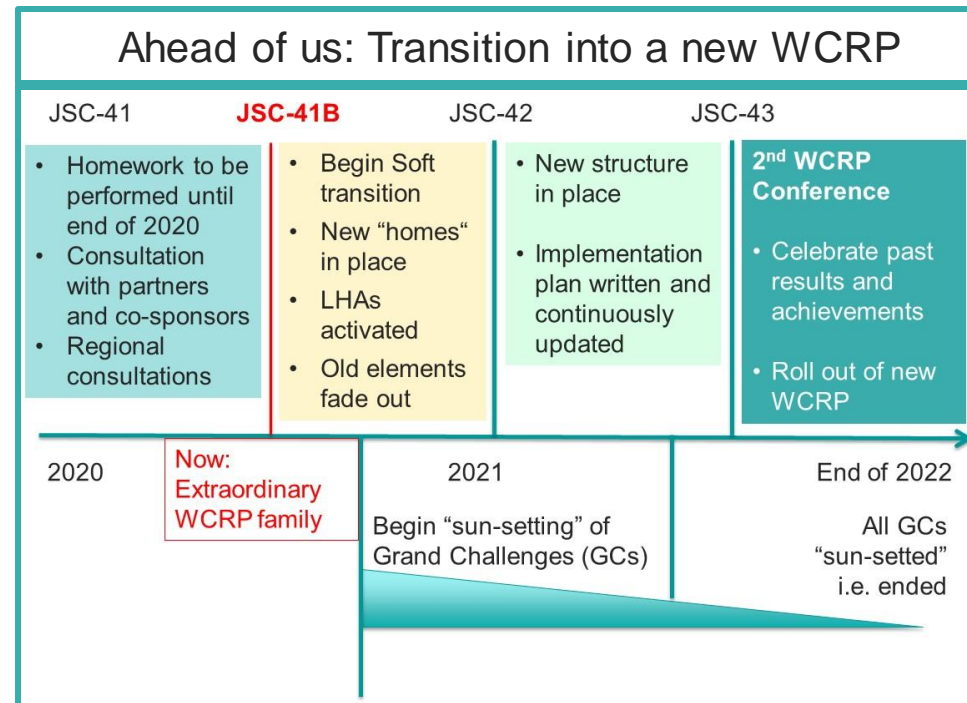
- Core Projects (old and new) finalising reviews and proposals by JSC-42
- LHAs finalising their draft Science Plans by JSC-42
- LHAs identifying “pilot” or “inception” activities - *to more quickly move to “doing” rather than “planning”* *[New Action]*



JSC-41B Session 7: *Some key next steps (2)*

*Next 6-months and **beyond** ...*

4. Rolling out WCRP hosted Climate Research Forums across regions
5. Transition GC science teams to new structures and elements/activities (i.e. Core Projects, LHAs,...) *[New Action]*
6. Start drafting a “dynamic” or rolling Implementation Plan
 - This includes dynamic nature of LHA Science Plans



Implementing the Strategy

Relationship between Core Projects and Lighthouse Activities (LHAs)



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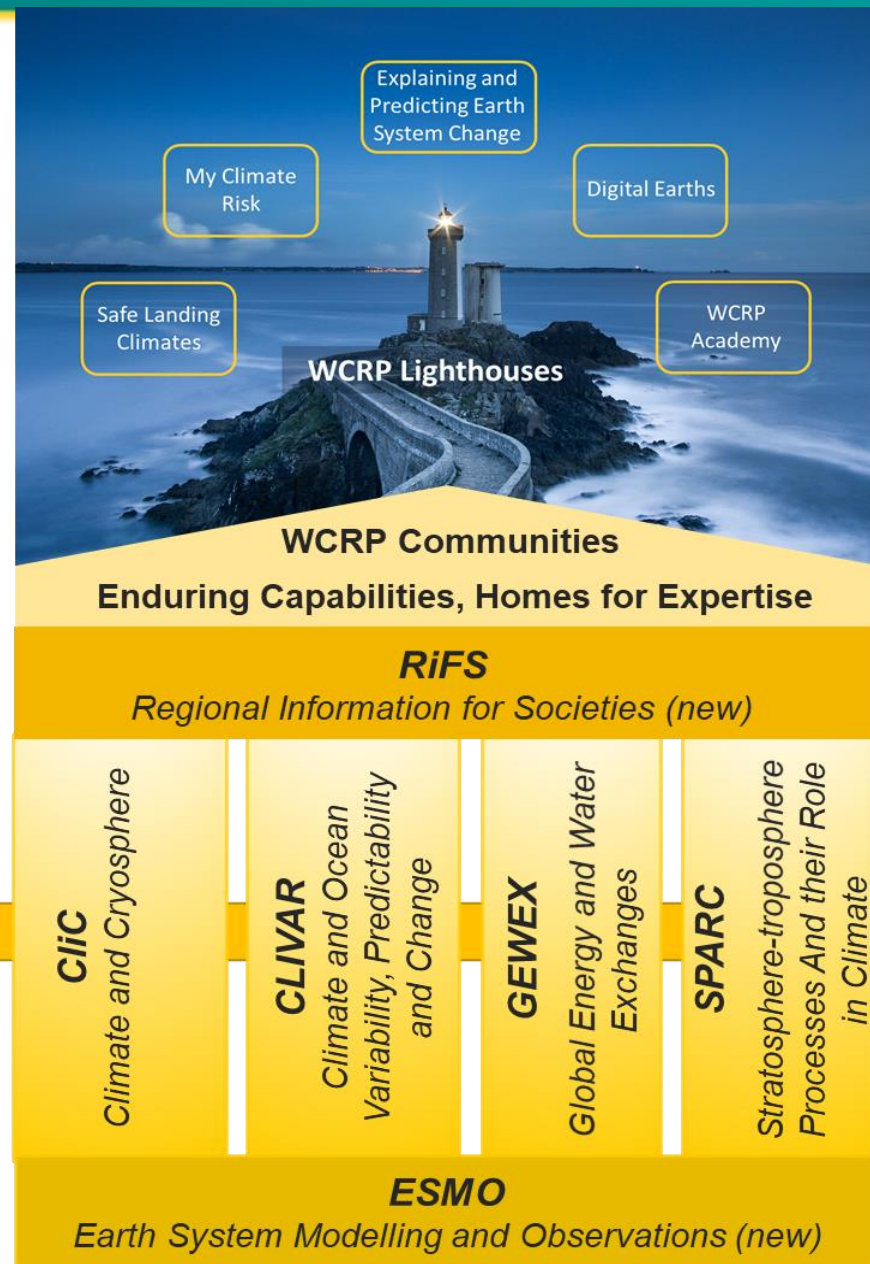


Lighthouse Activities and CoreProjects

WCRP's LHAs are not meant to be an extra layer independent of WCRP's core activities, especially the Core Projects.

Rather, the intent was always that they draw on all WCRP's core activities (as indicated by the graphic) and indeed are co-owned by WCRP's core communities.

Requires permanent attention and intense communication practices.



Implementing the Strategy

Missing science and
required structural elements



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Other High-level Science Questions

Considering all scales



Implementing the Strategy

Examples:

- Budgets and cycles of heat, water, carbon, etc.
- Organize work on extremes as an integrating, cross-cutting, element.

Which structural element can be invoked?

How can we ensure that our new structure is sufficiently flexible to bring in new scientific endeavours and opportunities as they arise?



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Diversity and ECS

It is important for WCRP to engage the next generation of scientists and improve our diversity – across nations, regions and disciplines.



WORLD
METEOROLOGICAL
ORGANIZATION



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



International
Science Council



Interaction with partners

WCRP's community stands ready to work with our co-sponsors and partners, and co-design our work to support nations, to ensure that society has the climate knowledge and information needed.



International
Science Council



Implementing the Strategy

Day 4: Parallel breakout discussion groups

- Coordination and Communication
- Science Gaps
- Engagement
- Strategic investments



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Cooperation with Partner and Agencies

- There is mutual benefit arising for the development of the highest quality climate science and the alignment of fundamental and user-inspired research to maximize the impact on policy and applications.
- The integral role of WCRP in developing knowledge of the climate system will result in an increased understanding of the Earth system, including the complex interactions between the physical environment and human society.
- The four scientific objectives presented in the WCRP Strategic Plan 2019-2028 and the identified “Lighthouse Activities” are closely aligned with the thinking of leading scientists and funding agencies.

Implementing the Strategy

Day 5: Parallel breakout discussion groups

- A: Science Partnerships
- B: Impact of WCRP science
- C: Resources



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- Everybody is asked to register for break out sessions during Thursday and Friday.
- Email Narelle if you need her to assist or if you haven't done this.
- Email Narelle if you cannot participate in a specific session but have input.
- Reminder to complete survey on WCRP coordination

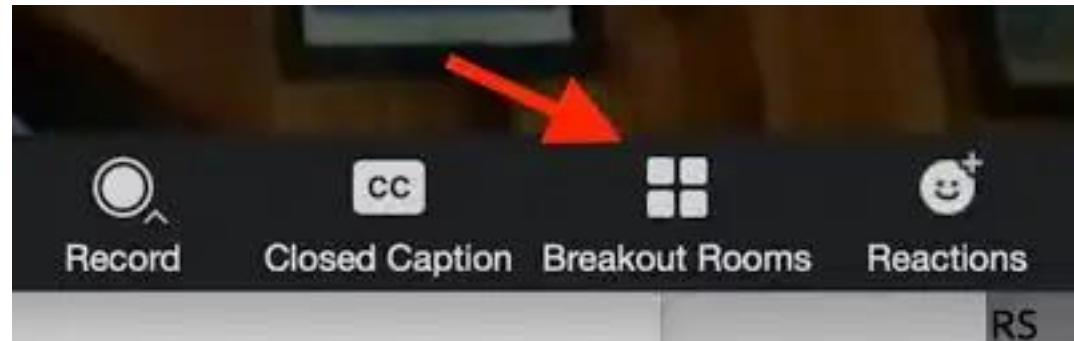
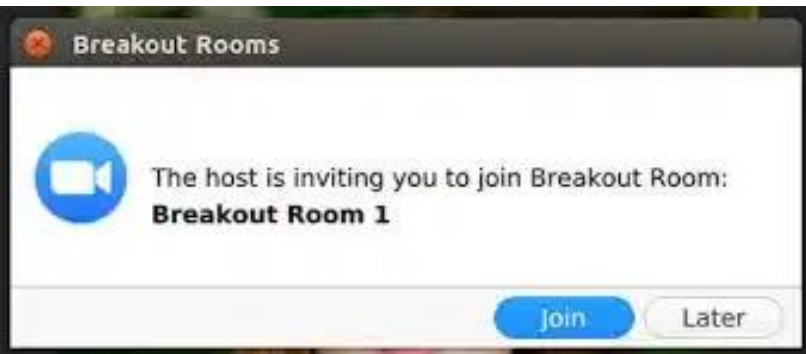


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JSC 42 – Breakout Sessions

- If you have signed up for the breakout sessions, you will be assigned to the breakout room related to your choice.
- If you haven't signed up for a breakout session, we will allocate you to a session randomly. If you would like to change your allocation, please ask Catherine (main room) or one of the rapporteurs to move rooms.
- When the breakout rooms open, you will be able to join the breakout session either by clicking 'join' on the pop-up window or through the breakout rooms button.



- For any technical problems, use the chat box or send an email to catherine.michaut@ipsl.fr

THANKS



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JSC 42 – Breakout Sessions

Day 4 (1 July 2021)

Parallel breakout discussion groups (focussed on WCRP)
[60 mins; 15 min break; 60 mins]

- a. **Coordination and Communication** (Chairs: H. Cleugh and J Hurrell; N. Van der Wel)
- b. **Science Gaps** (Chair D. Stammer; Rapporteur M. Sparrow)
- c. **Engagement:** (with ECRs, with regions, with partners). Include Climate Research Forums, address inclusion and diversity needs. (Chair P. Braconnot; Rapporteur W. Cao)
- d. **Strategic investments** (i.e. what are the priority areas and activities that require investment) (Chair J. Christensen; Rapporteur A. Caltabiano)

Sign up:

https://doodle.com/poll/degbswrh5rkbbdd8?utm_source=poll&utm_medium=link



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JSC 42 – Breakout Sessions

Day 5 (2 July 2021)

Three parallel 50 Minute Break out sessions on the “external” facing topics

- A. Science Partnerships** (Future Earth, GCOS, WMO-RB, UN Decade, Space. etc.) (Chair: M. Visbeck; Rapporteur M. Sparrow)
- B. Impact of WCRP science** (IPCC, COP, Sustainable Goals) (Chair: D. Stammer; Rapporteur A. Caltabiano)
- C. Resources** (National funding, World Bank, office support, meeting support, foundations) (Chair: H. Cleugh; Rapporteur N. Van der Wel)

Sign up:

https://doodle.com/poll/kqkyy6ggyw5hfr5v?utm_source=poll&utm_medium=link



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Implementing the Strategy

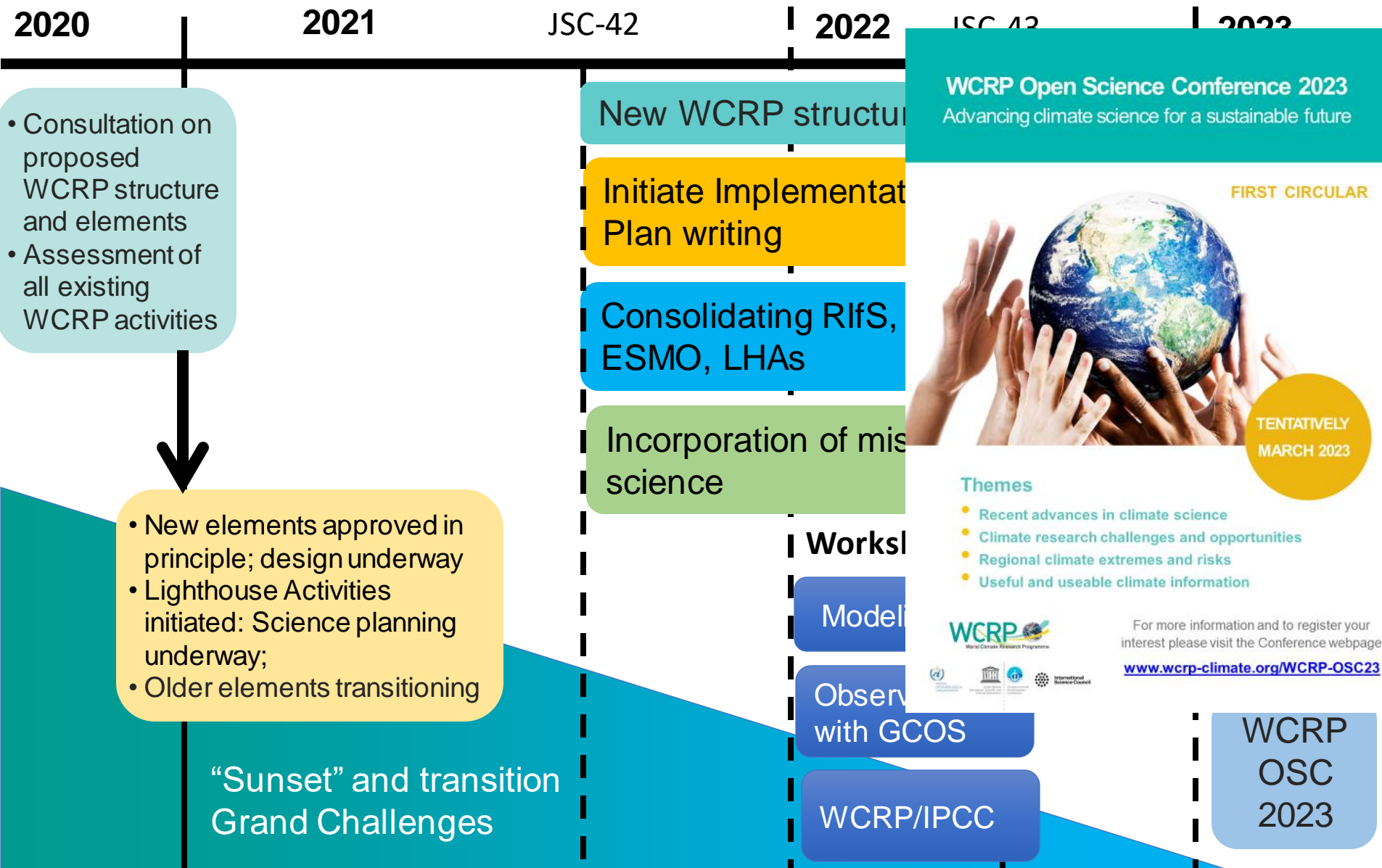
- WCRP's new structure and operations are already in place; its new science is evolving.
- JSC-42 will initiate the associated Implementation Plan writing process.
- The implementation plan will lay the ground for WCRP's future way of operation, internally and with partners.
- The Implementation plan will be a dynamic document that will continuously be updated.



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Consolidation of the new WCRP: Timeline



Interaction and Communication

- JSC members are here to listen to you and to discuss concerns. Chair and Vice-Chair can always be contacted and will provide feedback on science and strategy.
- Secretariat is always there to support WCRP's implementation and operations.



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Session 2: WCRP Strategy Implementation and Transition

End of Session 2



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