WORLD CLIMATE RESEARCH PROGRAMME

JSC-42nd Session of the WCRP Joint Scientific Committee

Detlef Stammer and Helen Cleugh (WCRP JSC Chair and Vice Chair)
1. Enhancing WCRP’s collaboration with our co-sponsors and allied programmes and activities (D. Stammer/H. Cleugh)
2. Preparation for COP 26 and UNFCCC (D. Stammer/M. Sparrow)
3. Forthcoming events, meetings and conferences (Detlef/Helen/Mike)
4. WCRP Secretariat report (M. Sparrow)
5. Regional Consultations / Climate Research Forums (Helen)
6. Update on WCRP Carbon footprint (P. Friedlingstein)
7. New and emerging science issues (H. Cleugh, D. Stammer)
8. Adjustments to finances and governance (D. Stammer, H. Cleugh, M. Sparrow)
9. Implementation plan writing (D. Stammer, H. Cleugh)
10. Wrap-up and close of the open session of JSC-42 (D. Stammer, H. Cleugh)

Chair H. Cleugh

Rapporteur: A. Caltabiano

Chat Moderator: N. Van der Wel
Collaboration with co-sponsors and partners

(D. Stammer/H. Cleugh)

a) Future Earth and ISC
b) WMO Research Board and WMO programs (GAW, GCOS, WWRP, et al)
c) US Global Change Research Program
d) Belmont Forum
e) IOC and UN Ocean Decade

*Input from Session 6 (Science Partnerships)*
(D. Stammer/M. Sparrow)

a) UNFCCC report
b) COP26 preparation
c) WMO State of the Climate
Preparation for COP 26 and UNFCCC

• Significant and long-term engagement with UNFCCC SBSTA (Subsidiary Body for Scientific and Technological Advice) particularly with Research Dialogue

• COP (Conference of Parties) 26
  • COVID has meant planning and guidance has come very late
  • Still unclear if side events will be face-to-face or virtual
  • WCRP involved in:
    o Proposal submitted with ISC, Future Earth and others on Risk (My Climate Risk involved)
    o Launch event for 10NICS (New Insights in Climate Science)
    o Providing input to WMO UN proposal (theme still to be decided)
    o Discussion on WCRP-led side event with Future Earth; but unlikely considering 2nd July deadline.
    o Propose that for next COP WCRP registers itself as Observer Organisation

https://ukcop26.org
Within WCRP, we recognise the need to optimize and co-design workshops between groups – first step is to do a “stocktake” of all planned Workshops in coming 18-months.
4. (M. Sparrow)
Challenging period over last 18 months because of lack of staff in the Secretariat. Offset in particular by help of colleagues in the IPOs, Catherine from IPSL, and by dedicated Chair/Vice Chair.

- New (fantastic) staff starting or about to start
- Additional cross-cutting staff in S&I department
- Consultants supported by NOAA for WCRP OSC 2023
- Looking at additional assistance from JPOs and Interns as well as other countries seconding staff.
Almost 4 million dollars in national support
This is crucial to WCRP and gratefully acknowledged!

*Possible new office in USA (TBC)
** Joint with WWRP
www.wcrp-climate.org/sponsors
## Income/Expenditure 2020/21 summary

<table>
<thead>
<tr>
<th>Year</th>
<th>CHF (000s)</th>
<th>Year</th>
<th>CHF (000s)</th>
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<tr>
<td></td>
<td></td>
<td>Expenditure (~42% of allocation)</td>
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<td>(~20% of science)</td>
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<tr>
<td><strong>Income:</strong></td>
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<td><strong>Income:</strong></td>
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<tr>
<td>WMO Direct</td>
<td>333</td>
<td>WMO Direct</td>
<td>418</td>
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<tr>
<td>IOC Direct</td>
<td>23</td>
<td>IOC Direct</td>
<td>23</td>
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<tr>
<td>Voluntary – country - contributions</td>
<td>198*</td>
<td>Voluntary – country - contributions</td>
<td>27**</td>
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<tr>
<td></td>
<td>Total 554</td>
<td>NOAA funding for WCRP OSC</td>
<td>210</td>
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<tr>
<td></td>
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<td>Fund from Trust Fund closure</td>
<td>51</td>
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<tr>
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<td>Total 729</td>
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<tr>
<td><strong>End of year assets</strong></td>
<td>880</td>
<td><em>(the below is assuming 100% exp.)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Predicted end of year assets</td>
<td>782</td>
<td>**Canada, NZ, Australia (several others in process) … assuming 260k eventually</td>
</tr>
</tbody>
</table>

* NZ, Canada, Germany, Japan, China, Russia, Finland, US

** Canada, NZ, Australia (several others in process) … assuming 260k eventually
### Budget 2022 (DRAFT!)

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>CHF</th>
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<tbody>
<tr>
<td>Temporary staffing</td>
<td>15</td>
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<tr>
<td>WCRP Office Operation</td>
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<td>JSC travel</td>
<td>60</td>
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<tr>
<td>CLIVAR</td>
<td>85</td>
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<tr>
<td>CliC</td>
<td>85</td>
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<tr>
<td>GEWEX</td>
<td>85</td>
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<tr>
<td>SPARC</td>
<td>85</td>
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<tr>
<td>Regional Info. for Society</td>
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<tr>
<td>Earth System Mod. &amp; Obs.</td>
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<tr>
<td>Lighthouse Activities x 5</td>
<td>150</td>
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<tr>
<td>Grand Science Challenges</td>
<td>60</td>
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<tr>
<td>Fixed Term Proj., Cap. Building etc</td>
<td>20</td>
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<tr>
<td>Other (e.g. GCOS)</td>
<td>25</td>
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<tr>
<td>Implementation Activities</td>
<td>50</td>
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<tr>
<td>WCRP OSC Costs</td>
<td>115</td>
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<tr>
<td><strong>TOTAL EXPENDITURE</strong></td>
<td>1125</td>
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<table>
<thead>
<tr>
<th>Income</th>
<th>CHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMO Contribution to JCRF 2022</td>
<td>280</td>
</tr>
<tr>
<td>IOC Contribution to JCRF 2022</td>
<td>23</td>
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<tr>
<td>Voluntary - country - contributions</td>
<td>260</td>
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<tr>
<td><strong>(Subtotal)</strong></td>
<td>(563)</td>
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<tr>
<td>C/F from 2021 (estimate)</td>
<td>782</td>
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<tr>
<td><strong>TOTAL ESTIMATED AVAILABLE JCRF FUNDS for 2022</strong></td>
<td>1345</td>
</tr>
<tr>
<td>(Predicted C/F to 2023)</td>
<td>220</td>
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5. Regional Consultations / Climate Research Forums [10-mins] (H. Cleugh)

Refer to Session 2 on Day 1 for recap. and progress

Next steps:
a) Roll out to South America, NZ, Southern Asia, Africa and Pacific Island nations
b) Continue analysing feedback
c) Plan for follow-up Actions
   • Drafting short “activity reports”
   • Approach, key messages and lessons learned
   • Options for ongoing Forums (or not) and links to our other regional activities (RIfS and CORDEX; My Climate Risk ..)
   • Check back in with RFPs …
6. Update on WCRP Carbon footprint [10 mins] (P. Friedlingstein)
Emerging science issues

(D. Stammer, H. Cleugh)

*Input from Sessions 5 (Science Gaps) and 6 (Impact of WCRP Science)*
Science Gaps

- Budgets and cycles of heat, water, carbon, etc.: cross-cutting project “co-owned” by: SPARC, CLIVAR, GEWEX and perhaps SLC?

- Organize work on extremes as an integrating, cross-cutting, element integrating extremes work and building on a Extremes Platform as support unit.

- Climate intervention: details to be worked out.

- Others:
  - **Human element** in e.g. links with development trends but also other such as geoengineering.
  - **Data Assimilation**: Needs to be cross-cutting: across timescales, coupled
How to improve climate modelling and process understanding?

What is the impact of different forcings?

How can we better understand climate sensitivity?

How can we improve climate predictions?

What opportunities do new technologies provide?

What can we expect in regional climate hotspots?

What is the interaction between climate and development trends?

How will reservoirs change in the future?

What will be the impact of Geoengineering?

How will climate extremes occur in the future?

What will happen to low-lying islands?

How will climate extremes occur in the future?

What will happen in the high latitudes?

How will reservoirs change in the future?

What do society need to know?

What does society need to know?

Is response action needed?

How can we make predictions more useful and relevant to society’s needs?

How to improve climate modelling and process understanding?

What is the impact of different forcings?

What opportunities do new technologies provide?

What can we expect in regional climate hotspots?

What is the interaction between climate and development trends?

How can we make predictions more useful and relevant to society’s needs?

Other High-level Science Questions

Considering all scales
Project Support for Core Projects and LHAs:
- JSC is committed to move quickly to set up IPOs for ESMO and RIfS and explore the option of establishing Project Support Units to support the approved LHAs.
- Finance and budgets to be discussed and approved at JSC-only session.

*Input from Sessions 5 (Coordination and Communication) and 6 (Resources)*
Engagement (ECRs, regions, partners)

- **We speak a lot about it, but need to act NOW!** Start by implementing existing rules!
  Who are the people? : people database collected from different workshops, fora etc... and use it to enlarge future contributions and engagements.
  This is more easy for new activities : it is the right time! And the basis for success stories

- **The door is open ... but where is the door?** Communication aspects, but also investment from people who are in to bring in new people
  Different aspects : New people in WCRPs scientific activities, new people in panels and visibility for new leadership.

  Need flexibility and to foster scientific leadership for short time projects with high level outcomes. (true for ECRs, MCRs, and engagements at regional/local scales)

- **Barriers:**
  Lack of turn over in some activities and panels; Languages and confidence in promoting science in non-native language;
  Step appearing too big and need first for personal engagement in small groups (local, regional etc)

  Career development for ECRs and unstable jobs

  Diversity in the way people are working (age, gender, regions, culture, .. ) : need to be sensitive to it
Communication and Coordination Breakout Group: Main Themes

**Memberships, Engagement, and Participation**
- Develop a clear description of roles and responsibilities for all WCRP Committees and members (code of conduct)
- Identify and address barriers to inclusive engagement

**Greater flexibility with our current “governance”**
- Review current organisational structures to determine which aspects might be hampering WCRP’s mission and purpose
- Identify optimal blend of top-down guidance and direction AND “bottom-up” grass roots involvement

**Coordination across projects and joint activities**
- Consider more widespread utilization of ex-officio members and liaisons to enhance communication
- Encourage workshops/activities on topics spanning groups to create more opportunities for communication/collaboration
- Better use of IPOs to support horizontal communication, coordination and integration

**Wider and clearer dissemination of information**
- Better use of digital technologies (e.g., Slack Channels) to facilitate information exchange and more informal interactions
- WCRP family database of people and their expertise and research interests
- Network map (web-based) that describes the functional connections between parts of the WCRP

**Trust**
- Paramount to a culture of collaboration – our science demands it!
Principles

• Communication: quality not quantity
• Solutions tailored to the tasks and groups involved
• Create a foundation of tools that people already widely use and are familiar with
• Consider the institutional frameworks and requirements that we work within
• Review tools used as requirements and technology changes
• Community approach (open access)
• Accessible language (jargon, acronyms, non-English languages)

Implementing these will be part of the Implementation Plan
Implementation Plan

(D. Stammer, H. Cleugh)

Recommended Steps and Timeline

1) Agree on outline (August 2021)
2) Pulling material together (August/September 2021)
3) Compilation of first draft (September/October 2021)
4) Revision by leadership team (November 2021)
5) Final editing and agreement by JSC (December 2021)
6) Agreement by co-sponsors (January 2022)

This will be a dynamic and living document that will be regularly reviewed and refreshed.

It should also reflect discussions this week.

It will also serve for on-boarding purposes.
Implementation Plan

Tentative Outline

1. WCRP Mission and Science Goals
2. Implementation Strategy and Structure
3. WCRP Elements and their science plans
4. Collaboration with partners and allied programmes
5. Communication and Coordination
6. Finances including investment strategy
7. WCRP Secretariat, International Project Offices and Project Support Units
8. Engagement around the world
9. Diversity and Inclusion – WCRP’s principles and approach
10. Capacity Building and Education
11. WCRP’s Sustainability Principles
12. Updating the science and implementation plan
Wrap-up and Closing

1) What we have heard during JSC-42

2) What will be picked up at our JSC-only meeting

3) Action Items and homework assignments

4) Next steps
A key message from JSC-42

Pending further discussion with the JSC at our meeting next week (which might provide more detailed feedback and suggestions for actions and homework), the JSC is very satisfied with the science plans and progress presented this week.

WCRP’s “soft transition” appears to have worked well and is now complete.

From next week, we are the new WCRP. All of our core activities, including the new initiatives, are strongly encouraged to proceed with your science goals and objectives.

We are all very eager for the new WCRP to now begin!
To CORA, which ends in 2021

And to Neil Harris, who will step down as Co-Chair of the SPARC SSG
Welcome to this pivotal JSC-42 session

• It marks the beginning of the end of the soft transition to the new WCRP structure. Soft transition will be completed by:
  • Finalization of our new “elements” (Core Projects and Lighthouse Activities) – science plans, scope, partnerships, organization.
  • Delivery of an Implementation Plan by the end of 2021.
• The new WCRP is excellent and authoritative in climate science; it aims to be energetic, agile and dynamic, with enhanced diversity and transparent communication and strong community engagement, relevance and profile.
• The new WCRP will be effectively engaged with funding agencies around the world.
Goals of JSC-42

1. Hear back from the WCRP family on progress toward the Implementation and new science / business plans; i.e.,
   a) Receive reports, and proposals for change, from our Core Projects (ongoing and new).
   b) Receive proposals for science plans of LHAs.

2. Come to decisions that will finalize the soft implementation of new elements and associated organizational structures.

3. Discuss aspects that will be required in the future: coordination mechanisms, communication, new investment strategies (finance), and improved interaction with partners.

4. Initiate a new way of business for the JSC and WCRP family, which is to include an annual session / day dedicated to brainstorming and strategic discussions.
1. Review of Actions from JSC41 and JSC 41B (M. Sparrow)
2. WCRP Secretariat: Budget, staff planning etc.- (M. Sparrow)
3. Discussion and final approval of new WCRP core activities (LHAs, new Core Projects), including updates on international project offices and plans for other support units (All)
4. Missing science and further developments (D. Stammer, H. Cleugh)
5. Strategies for future WCRP resource investments (D. Stammer, H. Cleugh)
6. JSC future membership (D. Stammer, H. Cleugh, M. Sparrow)
7. Core activity memberships (D. Stammer, H. Cleugh, M. Sparrow)
8. Enhancing collaborations and communications (e.g. interactions with Belmont, Future Earth etc.) (D. Stammer, H. Cleugh)
8. AOB (All)
9. Closing (D. Stammer, H. Cleugh)
Thanks for all WCRP Family members for their contributions to an excellent JSC-42

Thanks to all Secretariat and IPO members for an excellent preparation and operation of the meeting

See you all hopefully in person at JSC-43 in 2022

Stay safe and healthy.
End of Session 7