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Useful Information

- Symposium Dates: 14-18th August 2023
- Symposium Website: <https://soosymposium2023.au/>
- Equity, Diversity and Inclusion (EDI) Team: Joana Beja, Sarah Fawcett, Steve Diggs (in-person at Symposium), Fernanda Marcello, Kathy Gunn (in-person at Symposium) - <https://soos.aq/activities/edi>
- SOOS Executive Officer (International Project Office, IPO): Alyce Hancock
- Comms & Science Officer (International Project Office, IPO): Julia Bach

Concept for the Symposium hybrid component

A challenge arose between the financial burden associated with hosting a hybrid component of the Symposium and the strong desire to proceed with it. The travel costs were too large for many of those interested in participating in the Symposium. In addition, caring responsibilities or medical conditions and, for some, administrative constraints in VISA emissions would add to the difficulty in attending the Symposium in presence.

Following various conversations with EXCOM, the Symposium organising group and the SSC, it was agreed that the hybrid offer would not be a "gold standard", i.e. fully managed and setup by an external contractor, but one that would be implemented by the EDI team with the support of the IPO and the Symposium organising group. Instead, this hybrid component was intended as a pilot project.

In May 2023, EXCOM agreed to include a hybrid option for the first SOOS Symposium. After this decision was communicated to the EDI team, the team devised a plan for a hybrid component. Two major plans were laid out, Plan A (some level of DIY) and B (full DIY), both including three key components: i) an EDI-focused plenary, ii) session streaming via Zoom, and iii) daily summaries for online participants. Figure 1 is a schematic representation of the initial plan that was presented to EXCOM in mid February. The schematic captures the main ideas behind the EDI team's proposal.

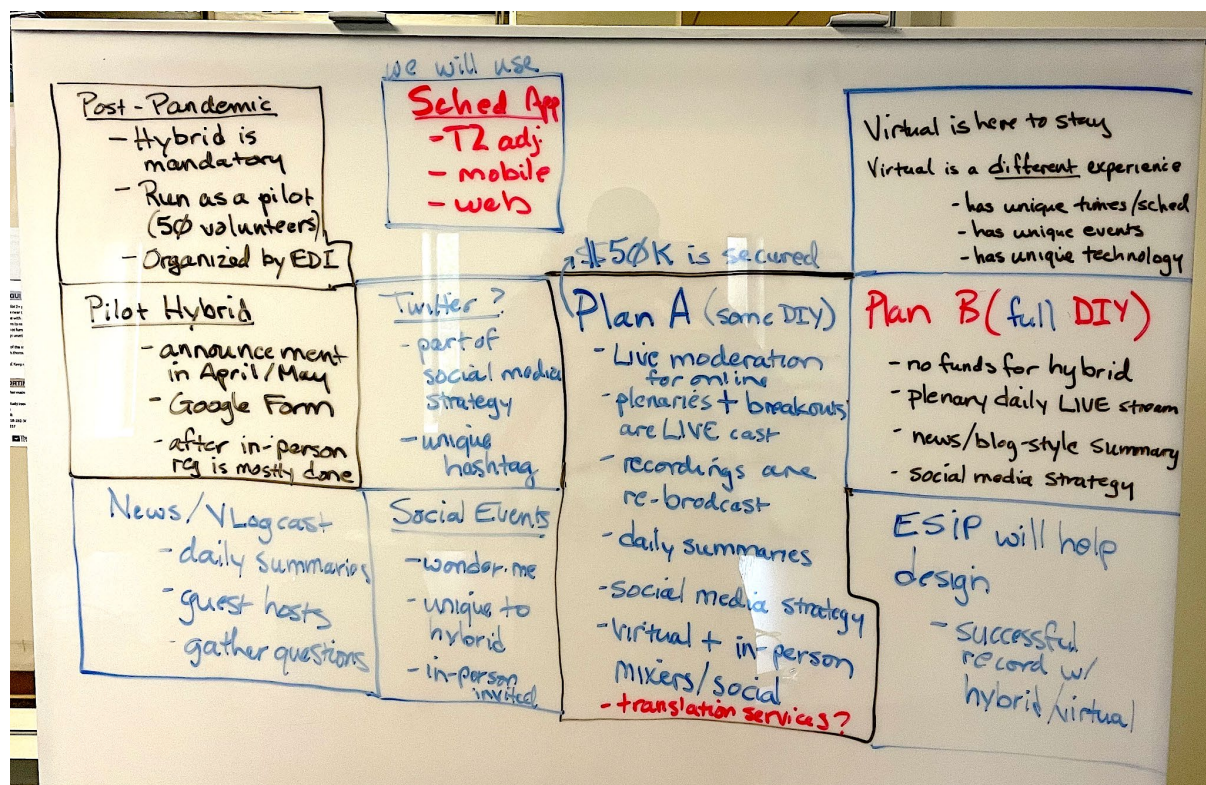


Figure 1. Workboard showing initial ideas for the hybrid component of SOOS Symposium, laid out by Steve Diggs on behalf of the EDI Team.

The first line of work was an application to the University of California to fund plan A (see Figure 1), which included live online moderation, live cast and recording of plenaries and

sessions, daily summaries, a social media strategy, translation services and a virtual+in person mixers/social component.

This application was made in April 2023 and was unsuccessful, meaning that no funds were obtained that could support the hybrid option for the Symposium. As such, the team proceeded with Plan B.

Implementation

EDI-focused plenary

The EDI team gathered feedback about an EDI-focused plenary from both the SSC members and the wider EDI group. As a result of this feedback, the initial idea of having one plenary speaker was replaced by a round table that included representatives of various polar EDI-focused initiatives. Assessing the landscape we realised that most initiatives originated in northern hemisphere countries and calls for information (from the SSC and wider EDI team) on less known EDI-focused polar initiatives from other regions of the world did not produce any responses. The initiatives contacted were:

- Polar Pride
- Polar Impact
- Accessibility in Polar Research
- Women in Polar Science

Alongside these, and to expand the EDI topic range, the group also contacted two colleagues, Kimberly Aiken and Dan(i) Jones, who provided their input on the intersection of race (racial diversity) and gender in extreme environments (with Antarctica as case study) and on the gender dimension at sea, respectively.

The plenary was organised to last 1 hour and the round table plan was as follows:

Time	Accumulated time	Item
5 minutes	5 minutes	Introduction by Steve Diggs (representing the EDI team)
5 minutes	35 minutes	Lightning talk by each speaker with the assistance of up to 2 slides if needed
20 minutes	55 minutes	Round of questions to speakers (from audience and convenor)
5 minutes	1 hour	Closing remarks by convenor

The IPO sent out initial invitation emails to the plenary speakers and acted as a liaison with the external contractor. During various meetings with the plenary speakers, the EDI team discussed the format of the plenary and ensured that the speakers did not feel compelled to share their lived experiences, but to share their views on their focus topic. Despite this, several speakers communicated that it was important to share their experiences, and those who felt comfortable did so. In addition, A. Hancock led efforts to invite a local Aboriginal speaker to the EDI sessions. The hope was that the speaker could provide insight into the barriers and constraints that indigenous communities experience in research in the polar regions. However, this idea was not successful and therefore had to be abandoned.

The “Equity, Diversity and Inclusion in Southern Ocean Research” plenary took place on 15th August. The final program for the EDI plenary included a round table of 8 people (including the convenor S. Diggs). 50% of those participating were online. The speakers were:

- Kimberly Aiken, a PhD student at the University of Tasmania, who talked about building more diverse, equitable and inclusive extreme and remote work environments, and about promoting the recruitment and retention of historically under-represented groups;
- Angus Aldis and Lydia Kepler , representing Accessibility in Polar Research (APR), which was created to promote inclusivity for researchers with disabilities in polar science;
- Dan(i) Jones, a physical oceanographer at the British Antarctic Survey, who spoke about the importance of supporting and advocating for trans- and gender-diverse people in Earth system sciences;
- Emma Robertson, a PhD student at Pennsylvania State University, who is committed to addressing international environmental justice issues, community building within scientific research, and supporting minority members of the Polar community, promoting safe and inclusive field work experiences.
- Alex Thornton, the founder of Pride in Polar Research (PiPR), a global, volunteer-run group that supports, uplifts, and creates communities for those with minority LGBTQIA+ identities in polar science.
- Renuka Badhe, Executive Secretary of the European Polar Board (EPB) who is part of the Women in Polar Science (WiPS) initiative and spoke about the diversity of polar science from a gender perspective

On-site, all communication was done directly by the EDI team and we would like to acknowledge the openness of the external contractor in supporting the activities related to the session streaming.

Feedback indicates that the EDI Plenary was well-organised and well-received, since it was the majority response to this question 'Of the sessions you attended, which ONE did you find the best led? And why?'.

Zoom streaming

As part of the hybrid option, the EDI team planned live streaming of selected sessions. The IPO confirmed that all plenary sessions were recorded by the external contractor and that those would not be streamed, but would be made available at a later date via the SOOS website and/or media channels like YouTube or Vimeo.

The session streaming was dependent on the availability of portable video-conferencing equipment, which the EDI team worked to secure, by contacting two technology companies, one of which (Owl Labs) made various portable video conferencing equipment available free of cost to the EDI team (Steve Diggs) who transported, set up, and installed them in the venue.

This equipment also proved helpful for Working Groups' dedicated breakout meetings as it allowed online members to join the discussion, as seen in Figure 2. The group approached

the EDI members on site (i.e., this hybrid activity was not pre-planned) and requested use of the equipment for their meeting.



Figure 2. Working Group breakout session using video conferencing equipment obtained by the EDI team for the Symposium.

In order to keep the EDI core team up to date with the Symposium activities, a private EDI Symposium Slack channel was set up. This was possible once Steve Diggs, on behalf of the EDI team, personally purchased a Pro Subscription.

Slido (<https://www.slido.com/>) was used to encourage participation from those online and in the venue. This tool, which allows anonymous interaction, was used in two plenaries, EDI and Policy.

Daily summaries

'Daily Summaries' were a part of the EDI activities. These summaries were intended to collect all of the key information from each session, which could then be shared online to be accessed by those who attended in-person as well as those who could not.

The plan was for the summaries to be led by the EDI team, with assistance from the session's chairs and other SSC members. Requests for support were sent to the SSC and session chairs and around 5 people agreed to help. However, in practice, the support for the Daily Summaries was limited, mostly due to the volunteers having other pressures and responsibilities. In future, this issue could be easily solved, see suggestions below.

The Daily Summaries were completed during the Symposium and can be found here: <https://soosymposium2023.au/daily-highlights/>. One on-site person from the EDI team led the creation of the Daily Summaries, with support from members of the SSC. As there were generally three parallel sessions and too few volunteers, it was not possible to provide summaries for all the sessions.

The EDI team created a template for the daily summaries, which increased the speed with which the summaries could be prepared and made available online. This template can be found in ANNEX B.

Alongside these summaries, there was an idea to have short interviews with session speakers so they could further clarify their points. These interviews were proposed as a media and outreach effort. The purpose was to make the event more accessible to those unable to attend in person. Due to the limited number of volunteers (1 from the EDI team) and busy nature of the Symposium, only three interviews were conducted, which can be found here: <https://soossymposium2023.au/daily-highlights/>

Code of Conduct & Safety Officers

To provide a safe and positive Symposium, the EDI team and IPO prepared a code of conduct that was iterated upon with the University of Tasmania. This code of conduct was the first to be implemented for events hosted by the University of Tasmania. The code adhered to their internal policies while also capturing particular aspects relevant to the Symposium. The document was published on the Symposium website under the FAQ section and can be found via this link:

https://soossymposium2023.au/wp-content/uploads/2023/08/SOOS-symposium_Code-of-conduct.pdf. The Code was well-received, especially by the Symposium hosts (University of Tasmania)

To help ensure a safe and positive Symposium, two Safety Officer roles were formalised. The Safety Officers (A. Hancock from the IPO + K. Gunn from the EDI team) were there to enforce the Code of Conduct. In preparation for these roles, the Safety Officers completed 4 hours of training in 'Responding to Distress'. After this training A. Hancock and some members of UTAS created a 1-page guide. This guide was to be used in case of any breaches of the Code of Conduct. During the Symposium a room was set aside where any incidents could be dealt with and the Code of Conduct + the Safety Officer roles were explained and introduced during the Symposium opening.

Anecdotally, the Code of Conduct was well-received. Importantly, the Code of Conduct and Safety officers were visible to the majority of attendees. 92% of the attendees were aware of the Code of Conduct, whilst 64% were aware of the Safety Officers. The difference in awareness may be due to different perception of the questions and/or attendance of the opening presentations.

Other activities

Having set up the main activities that the group wanted to implement in the Symposium, we gathered feedback from the wider EDI group and several, smaller actions were proposed to increase inclusivity for those on site. The actions proposed included:

- Supporting the ECR organised activity
- Early morning activities like cafes, running, feminist book club, pre-conference morning walks up the rivulet
- Badges for first time attendees

Due to the limited time, as these suggestions were captured in mid July, it was decided that any parallel activities should be organised on a voluntary basis and announced on a white board in the conference venue. Unfortunately other activities consumed more time than initially expected, therefore this suggestion was not implemented during the event.

The EDI team also contributed to the opening session, by providing EDI focused content that was shared with on site participants (included in the Annexes).

Analysis of the hybrid offer outcome

An analysis of the registrations identified that ~250 people registered in person, and 179 registered online between June 26th and August 17th. From these registrations, 32% were from Australia and 47% were ERCs.

During the Symposium, there were ~30 people per day online. On the first few days, there were some teething problems with the VC equipment and with getting set up in time (e.g. blurry image when using phone, and an echo depending on placement of the VC equipment). Over the course of the week, Steve solved each of the tech problems and both Alyce and the external contractor were flexible in rearranging session rooms to accommodate not moving the VC equipment after each session. Once these issues were fixed, the live streaming worked well and the quality of the image was sufficient to allow for an understanding of the slides being shown and to ensure that the speakers were heard.

The Slido platform used in the EDI and policy sessions worked well, with participants engaging at various times. It was not used in the individual sessions even though it was communicated to all session conveners, who could have managed it themselves.

Volunteers were running the microphones during the sessions; however, due to their reduced number, this approach was changed and session conveners then took on this task, which worked better.

The daily summaries for the sessions that were covered included detailed and useful notes. Of the 7 volunteers responsible for this task, only one provided summaries consistently. The templates provided by the EDI team helped the volunteer(s) capture the pertinent information. The plan to conduct interviews did not materialise as there weren't enough people (EDI team and volunteers) to assist.

No incidents were reported to the Safety Officers during the Symposium; however, one was reported in the post-Symposium survey. The EDI team followed this up with the IPO to ensure that appropriate action was taken, as per the code of conduct.

Feedback received

Various feedback was received during the Symposium, during ad-hoc conversations with the EDI team members that were on site. The majority of the feedback was positive and on site participants were pleased with the work undertaken by the EDI team, and the outcomes achieved. The post Symposium survey gathered comments from 40 in person respondents and 9 online participants. The relevant questions and responses have been directly copied from the SOOS survey report provided by the IPO, and are shown in ANNEX A.

Specific recommendations for future events

Specific Recommendations for future events include:

- General

- Plan the event with the inclusion of a hybrid offer from the beginning, with a dedicated funding line and in collaboration with the EDI co-chairs
- For a DIY hybrid option, committed volunteers with manageable activities + early call to secure them, as well as acknowledgement of their contribution (e.g. on opening and/or closing slides)
- EDI Plenary
 - Maintain its position as one of the key note sessions, as this reached a larger group of people.
 - More time for questions, and keep the option to anonymously submit questions.
- Live-streaming Sessions
 - Set up equipment once in each room and not move it during the Symposium (moving the equipment was found to be time consuming can create audio/video issues).
- Daily Summaries
 - Have one person, per session, who is responsible for taking notes on the provided template
 - Timely call for more volunteers so that we have at least one person per session to take notes
 - Provide the template directly to each volunteer instead of the coordinator for the daily summaries, in short, remove any barriers or excessive effort to produce these summaries
- Interviews for Outreach
 - An interview plan/program outlined prior to the event, including securing people for interviews.
 - Pre-prepared questions.

Required budget for future SOOS hybrid events

As mentioned elsewhere in this document, there was no external or internal financial support to implement this pilot. Despite its success, the EDI team is aware that this is not scalable or sustainable for future events and therefore encourages SOOS to dedicate appropriate funding for a hybrid component in future events of this size. The budget should be discussed with the EDI team and agreed by all parties to ensure that this component is adequate and inclusive to the event in question.

Summary

We consider the hybrid component of the symposium a huge success, despite some early teething problems. Given the success of the Symposium as a whole and specific feedback, it is clear that there is a future desire for more hybrid components and EDI-focussed topics. 92% of all respondents to the survey would like to see a future hybrid component. Overall, future implementations of a hybrid option would benefit from dedicated funding and integration within the Symposium, rather than being carried out as a separate action, as was the case for this event.

In addition, a hybrid component would benefit from more volunteers with clear responsibilities. The majority of the hybrid option was set up by the EDI team (5 people), with only two on-site during the Symposium. Before and during the Symposium, Alyce Hancock supported and facilitated the hybrid option, including physical set-up (e.g. sourcing camera stands, delivery of information) and her role as a Safety Officer. The event company provided website support to host the Daily Summaries.

The EDI team is mindful that given more time, the various tasks would have been planned better and implementation would have been smoother. For this Symposium, the EDI team had around 2-3 months during the summer to organise the hybrid component which came at a great personal cost and it also meant that some planning/implementation constraints were not overcome ahead of the Symposium.

SOOS' support of the implementation of the hybrid option was minimal and limited to sending emails to EDI plenary speakers and liaising with the external contractor for this session. The energy spent by the EDI team, in many instances at the cost of our personal time, should not be disregarded or taken for granted. The team will continue to fight for EDI within the SOOS community, but support (budget and human resource) is needed so that SOOS can continue on its path of being inclusive and diverse in and at the events it hosts.

Epilogue

There was a Southern Ocean meeting at Scripps Institution of Oceanography, April 17-19, 2024 (Observing the Dynamics of the Southern Ocean- Present Challenges and Future Strategies). This meeting had a full hybrid offering coordinated by the SOOS EDI Group (S. Diggs was on the organising committee). The meeting website can be found via the link <https://sites.google.com/ucsd.edu/soworkshop2024/home>

Annex A: Feedback

Q: What themes would you like to see covered at future SOOS Symposiums?

- Follow up with DEI topic
- I appreciated the inclusivity of all research themes relevant to the SO and the diversity that covered politics/inclusivity etc.

Q: Did any of the keynote presentations stand out to you? Why?

- I loved the DEI session
- I was impressed by the range of speakers in the DEI session and appreciated the model of short talks and then a Q+A with everyone
- Not a keynote, but I especially enjoyed the EDI plenary
- The DEI plenary was outstanding
- The EDI session we participated in was so incredibly validating and welcoming. I'd love to see more of this next year, and present again if you'd have us :)

Q: Do you have any suggestions for Keynote Speakers or topics you would like to see presented at future SOOS Symposiums?

- More EDI

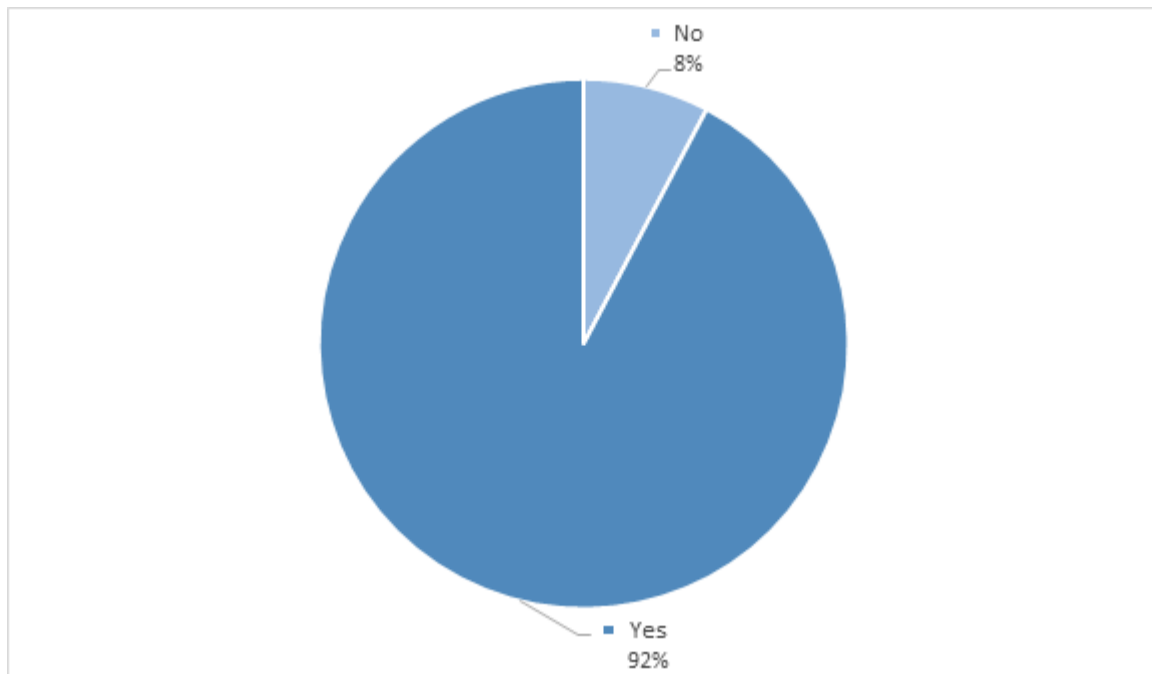
Q: Of the sessions you attended, which ONE did you find the least interesting? And why?

- All interesting. The diversity session would have benefitted from some real examples/ideas on supporting diversity and equity in Antarctic programmes

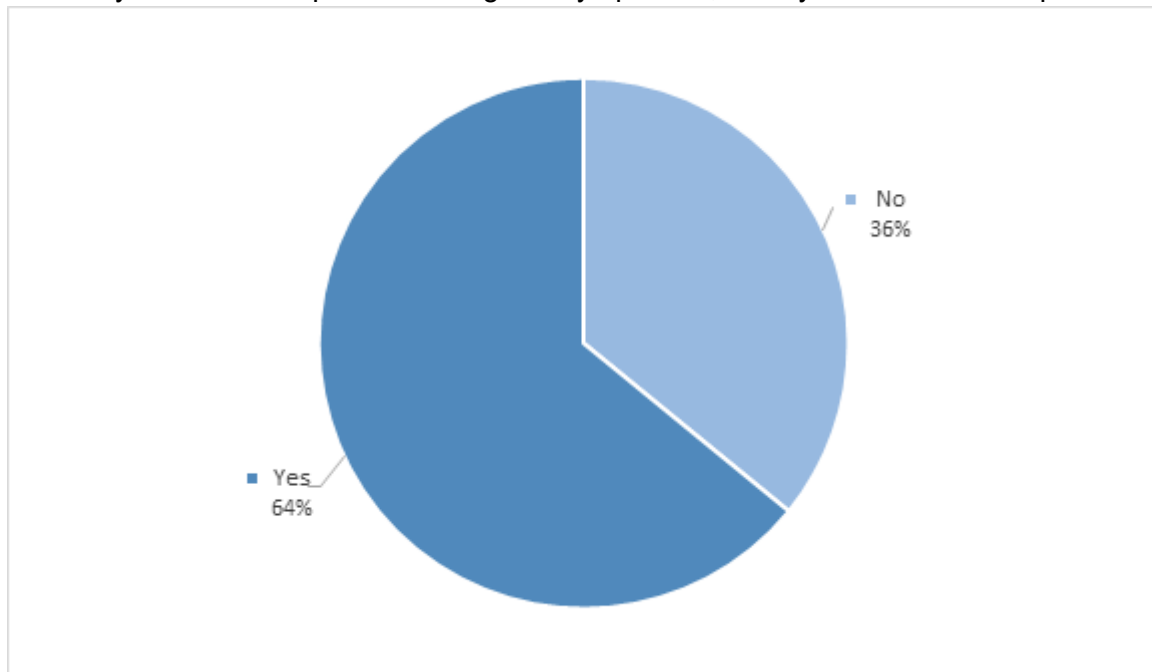
Q: Of the sessions you attended, which ONE did you find the best led? And why?

- DEI session. Great lead by Steve, very engaging
- Either the EDI or the creating impact session - they had interesting ranges of presenters and productive discussions.
- I found Alyce's introduction to the Symposium very well led, setting a clear objective for the meeting and expectations of conduct
- Steve Diggs and the remaining organising committee were very professional with the hybrid platform of the EDI session

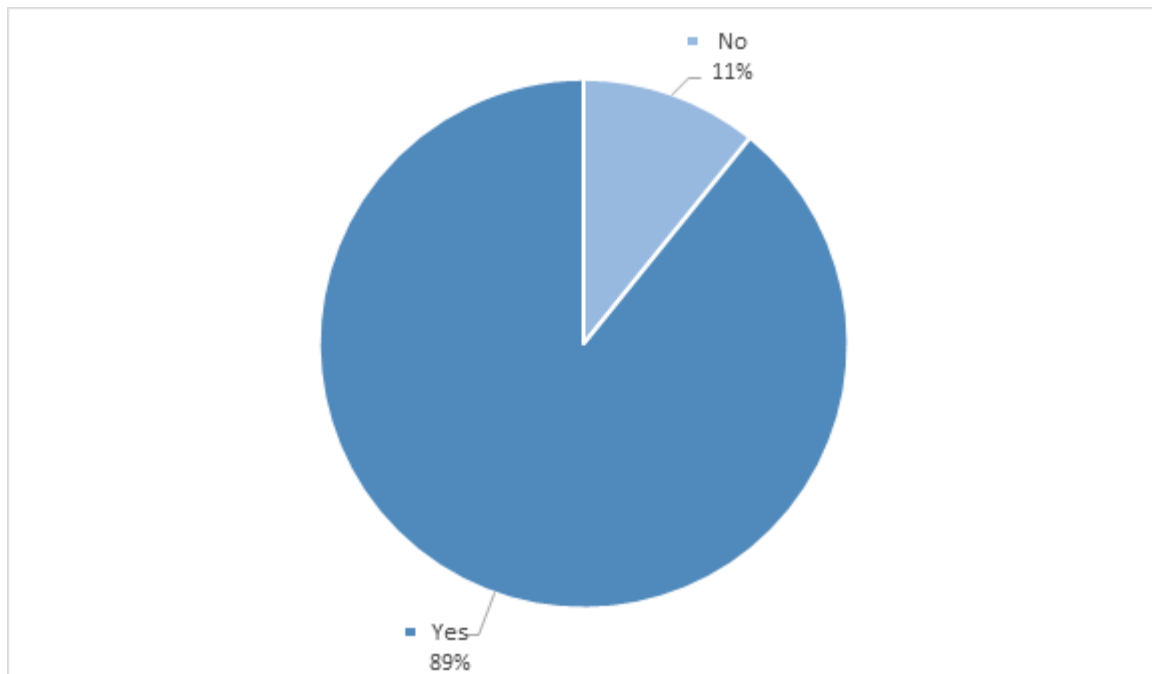
Q: Are you aware that the Symposium had a Code of Conduct?



Q: Safety officers were present during the Symposium, were you aware of their presence?



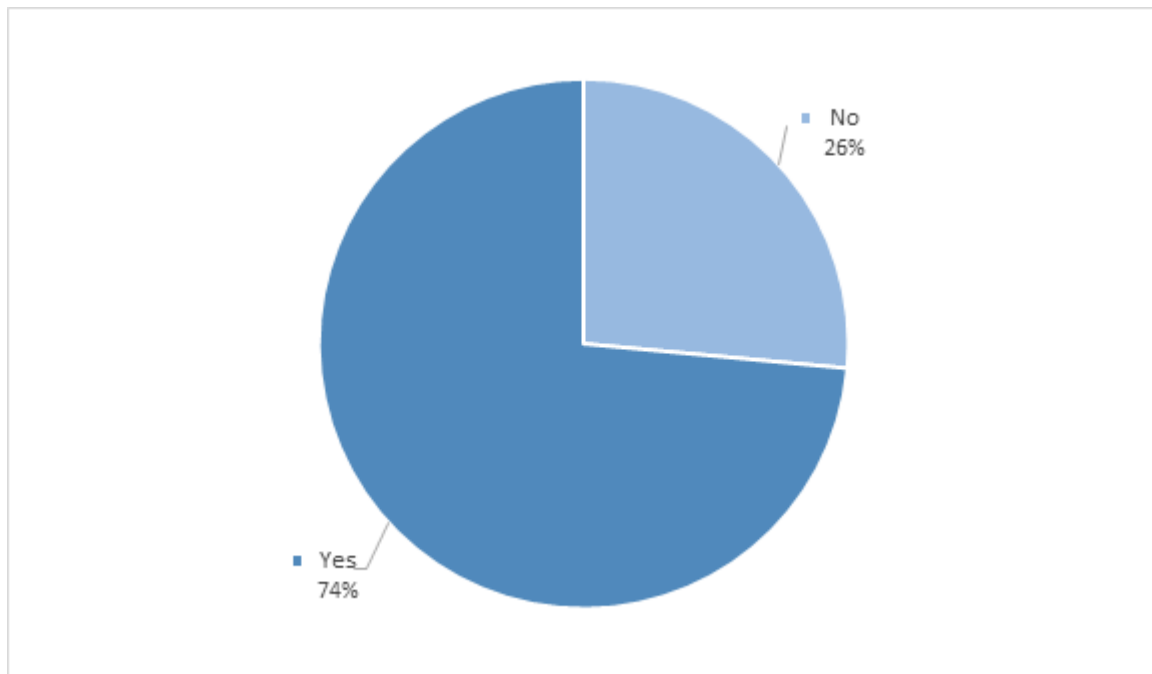
Q: Should future SOOS events include a hybrid option?



Q: If yes, do you have any suggestions of how this could be done?

- Focus resources and time on specific events and useful outreach
- For small group sessions, videoconferencing is possible. For big groups, even just a web stream with a person in the room watching the chat makes remote connection possible.
- I don't know about the technicalities, but it's so important as part of DEI to have the hybrid option, allowing people who cannot or do not want to travel to attend (be it for health/ ability reasons, caring responsibilities, financial reasons...)
- I thought that it was quite well done here: presentations were mostly in person, while there was some option to engage with those joining remotely. I think it is important that any future hybrid option does not detract from the in-person conference experience.
- It worked very well at this conference. The inclusion of closed captioning would be good.
- Offer links to each talk online for registered attendees
- One option would be to have a flipped session, where short videos are available a week prior and then the live session is a discussion and Q&A, based on audience questions plus those gathered through the Q&A app on the day. Recording key talks is a good way to broaden the reach of the research.
- Perhaps focus on broadcasting the keynote talks only
- The same as this one but without too much workload for S Diggs

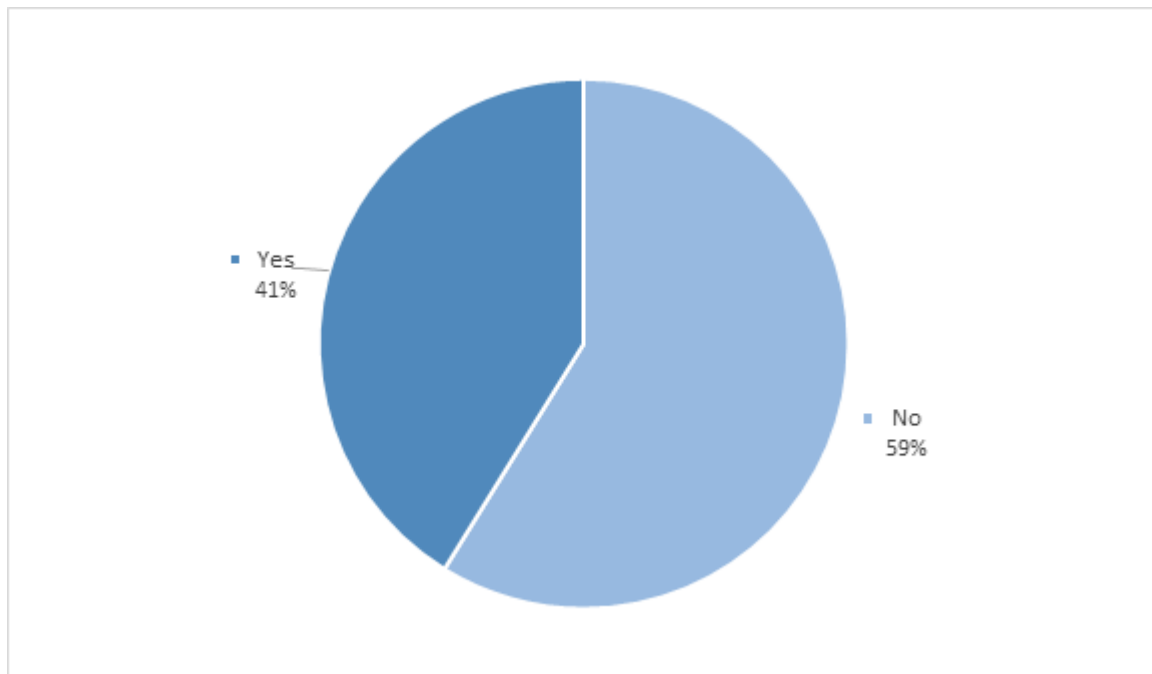
Q: Would you be willing to pay for a future hybrid event if it allowed access to the same resources (posters, presentations, streaming of all sessions/plenaries, interaction with participants, speakers) as the in-person participants?



Q: If no, can we ask why not? If yes, can we ask how much the cost should be?

- 30 % of the full price
- AUD500
- Because I would not engage as much, and it would seem a waste of money
- For other conferences, I have sometimes paid as much as the in-person attendance, but I usually feel a bit ripped off since I miss out on the food and networking. Acknowledging the costs of setting up hybrid systems, it could cost a high proportion of the full registration.
- I would always opt for an in-person option where available.
- In-person and remote access are not the same
- LESS THAN 100 USD
- Less than in-person attendance
- Much lower than in person to assist with accessibility (and to recognise that time zones etc. can be an issue)
- Prefer in-person meetings
- We attended free this year as a speaker but would not have been able to come to SOOS if we had to pay.
- Well, maybe it would depend on the actual cost.
- Would have to be at a *significantly* reduced cost.
- Yes, but less

Q: Equity, Diversity, and Inclusion was transversal to the Symposium. Should an equity, diversity and inclusion focused session have been organised?



Q: If yes, please explain why?

- DEI is such an important part of keeping our community going. The more brilliant people we lose in the very leaky pipeline, the harder it's going to be to address society's big problems, such as the climate crisis.
- Equity, diversity, and inclusion are factors that affect research of all kinds, and it is something that needs to be made clear to all.
- Having the panel was a great start but there are issues with research and emerging gaps in our knowledge that we didn't have time to go into at the panel. Some are very hard-hitting and emotional topics which would be better covered in longer talks or a formal workshop on the topic.
- I believe the EDI session organised covered a lot of this.
- I really enjoyed the EDI panel. I would like to hear more specifically about the work people are doing in their communities and departments for EDI.
- I really liked it as a plenary session, which focussed everyone's attention.
- I think this would be valuable if clear ideas on what the aim of the session was and what outcomes would arise.
- I'm not sure a specific session would be necessary, but certainly welcomed having the plenary talks, which were well attended.
- It's great that this was embedded in several sessions as it could not be avoided.
- Not sure I understand the question. Given that we did have an equity diversity and inclusion session. Which I appreciated. Although I would have tried to ensure that the tone from the speakers was not so much of us versus them. Awareness is key but best not to forget that there are women, people of colour, LGQT+, and sympathetic and inclusive people in the audience. so careful not to alienate them and feel like the bad guys.
- One of the plenaries was dedicated to this, and several other sessions also touched on it. While important, this seems sufficient to me - the conference is about the Southern Ocean observing system, not social science.

- VERY important topic, especially in the polar where it's traditionally been white male dominated (and women were BANNED from working on the ice, and many national programs are military in nature therefore much discrimination against people who are not white cis-male. Also, conversations on how to keep moving the needle forward in the field to increase diversity are very important. Solely to shame the past - but to learn, improve and move forward as a community.

Q: Any other comments or suggestions for equity, diversity, and inclusion at the Symposium?

- Accessibility was taken very seriously (thank you!). One thing: it would be great to add one's pronouns to the name badges next time.
- Costs to register are very high. Consider a scale of registrations to accommodate people from different countries. Also include an option of a well-ventilated space to eat (e.g., outdoor access) in future.
- Great to see some student engagement.
- I like how it was part of the main plenary session. I find when it is a parallel session only those actively engaged in DEI attend
- I'd like to learn more about work being done to reduce other axes of exclusion - e.g., language barriers, costs, and caring responsibilities that affect large numbers of our community.
- It did feel like the majority of attendees were from Australia, which is fair given its location, but it did feel very Oceania-centric.
- More sessions would be great!
- Please inform plenary speakers that referring to data or results as "sexy" is no longer acceptable, as multiple of them did this
- See the above comment regarding the presentation content and tone. But for the record, I really like having the dedicated session and think it was a great value add. just need to be very careful and selective of how messages get packaged and transferred.

Additionally, a separate survey, sent to participants that registered online was sent in December 2023 and remained open until End of March 2024. The survey received 7 answers and the feedback will be summarised below.

Q: Please explain your rating of the pilot hybrid offer?

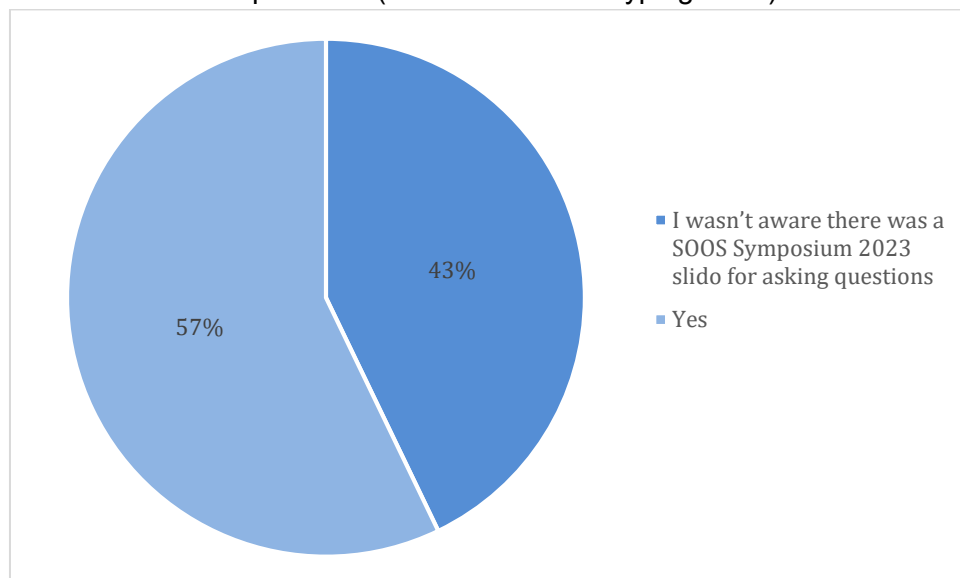
- It was a rocky start the first couple of days, but stabilised and became quite useful.
- I really hadn't expected to be able to participate remotely, and I appreciated having the opportunity to listen to some of the talks.
- The sessions I was interested in weren't available online.
- The online streaming met my expectations, given that there was limited support for this service. There were some initial technical hiccups but the service improved over the week
- It met my expectations, because I knew that it was just an ad-hoc thing being done by a couple of the participants. However, on-line access to a meeting of an organization like SOOS should be done more effectively and comprehensively, without burdening individual conference participants (and thereby preventing them from fully engaging with the meeting, themselves).

- There were some early teething problems with the hardware but once they were sorted, it went well, and we were able to alert Steve (who was helping us make the link) to any problems
- Yes, met my expectations

Q: Please explain your rating of the quality of the online streaming?

- 4: See above. A rocky start.
- 4: There were a few hiccups, but overall, the streaming worked well.
- 4: Quality was ok
- 3: The streaming was a bit 'rough and ready' and for the first few days it was often difficult to see the presenter slides
- 2: Steve did a great job with what he had, but an organization like SOOS should really do better. Instead of a camera looking at the screen, the presentations should be directly streamed. The microphone stream did improve dramatically through the meeting. It was really (really) nice to have the sessions just streamed as regular zoom meetings, so that all of us who were on line could at least chat among ourselves. I did get a new project going with someone that way during the meeting.
- 3: As above, there were some issues with focus, and hearing the speakers, but it was pilot done with minimal funding and loaned hardware.
- 2: Technology fail. Little planning for event.

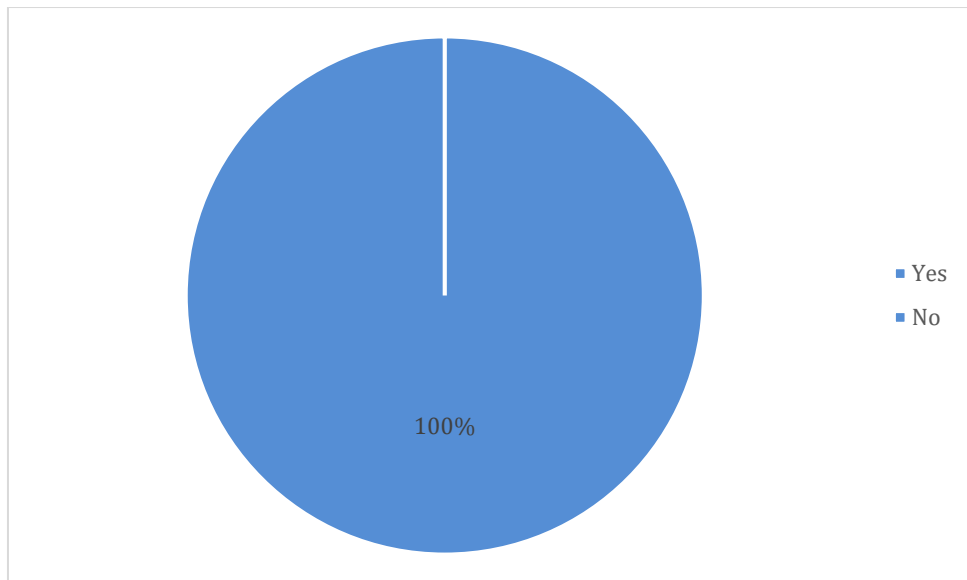
Q: Did you feel able to ask questions (either via slido or typing them)?



Q: Please explain your rating of the SOOS Symposium 2023 daily summaries?

- 5: They filled in the gaps for things that were not broadcast in the hybrid sessions.
- 4
- Wasn't aware of the daily summaries
- 3: I knew about them, but i didn't read them.
- 4: Yes these were useful especially for sessions that werent covered by the online link.
- Wasn't aware of the daily summaries

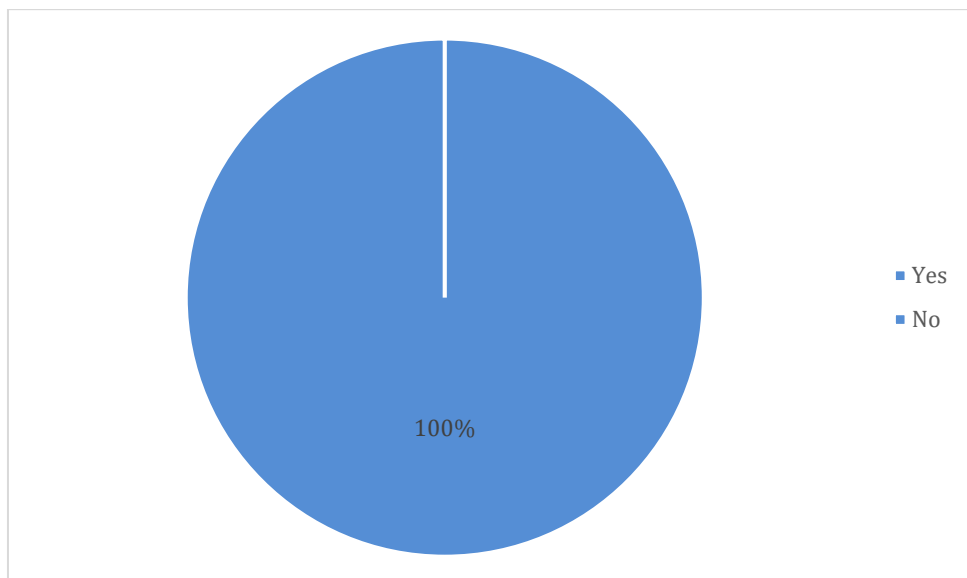
Q: Did you join any of the hybrid side meetings during the Symposium?



Q: If yes, would you like to provide any feedback?

- It was very difficult to engage effectively as an online participant
- It was pretty much the same as for the sessions.
- That was more difficult to participate in but there was an attempt to get a majority vote from the online community which one we wanted to attend, so we could join other got a different zoom link.

Q: Should future SOOS events (Symposiums/working group meetings, etc) include a hybrid option?



Q: If yes, do you have suggestions for how this could be done?

- I appreciated the SOOS approach this time, but I also know that it had a hidden cost and relied on volunteer efforts that are hard to replicate.
- I know this comes with a lot of cost constraints and workload, but it would be great if a larger number of sessions would be made available

- "We are learning how to do hybrid meetings more effectively, and we have to continue innovating in that respect. All-virtual should be the default, but never should a large open-science meeting of an international collaborative organization like SOOS be done only in-person. Yes, running meetings hybrid is expensive, but it simply needs to be considered the cost of doing business.
- One place to save significant amounts of money is in the poster sessions, which actually do not work well in person -- it's always too noisy, and people's backs and feet hurt too much to really pay attention, not to mention the exorbitant cost of renting poster boards. All-virtual poster sessions work very well in GatherTown, with the on-site 'poster' area set up cafe-style, with tables, chairs, and snacks, and with all the in-person attendees sitting around with their laptops and earphones. I've seen this done, and it works very well."
- Not clear, I may not be the main target audience, you did get some developing country participants joining at some times during the online links
- With the correct technology

Q: If yes, how much would you be willing to pay?

- Not much---it's nice to tune into a few talks, but the benefits of participating remotely are much less than being in person.
- Depends on whether it covers the full programme or selected sessions
- I am perfectly willing to pay an on-line registration fee commensurate with the participation it grants me. What's galling is to pay a substantial registration fee and then the on-line participation is limited to passively watching sessions in 'webinar' mode while having to type questions and not being allowed to chat with other participants. I was very grateful that you folks didn't do it that way.
- For online a guess a maximum of no more than 50% full reg since covid some online registrations have really jumped for overseas meetings even though they for safety are still keeping numbers capped to reduce crowds and safety. If it's still a pilot then even less.
- Proportional costs of Speakers plus proportional cost of streaming

Q: Overall, what did you like about the SOOS 2023 Symposium?

- It was the only comprehensive meeting focused on ocean processes in the Southern Ocean since March 2020.
- I heard a few really interesting talks.
- Daily highlights was a great feature, website, communication and organisation worked well
- It was a fantastic program and I was sorry not to be able to attend. Mostly I would like to pass on huge thanks to Steve Diggs for his enormous efforts in facilitating the online streaming
- Interesting content, heroic Diggs.
- Its breadth of information, there was useful information in most sessions.
- No Topic of interest included, but was very interested that the Conference took place

Q: Are there any improvements you would like to suggest for the next SOOS Symposium?

- Go beyond the pilot for the hybrid and make it a permanent part of all SOOS meetings.

- It really needs to be fully accessible to off-site participants, either fully virtual or with fully integrated hybrid. Just spend the money, hire the staff and technology, and charge the fees.
- As I am slightly outside the community, I found its advertising in March 2023 didn't attract my interest too much, it was only when the programme came out it looked more interesting, perhaps you needed to advertise it a bit differently to the community that will use the observations to verify models. I accept that they are less likely to come to a pure observation focussed meeting but they might to a hybrid one that they can dip in and out of.
- Consider more Atmospheric Physics as an extended topic

Annex B: Daily Summary template

Each template had the title of the session followed by the sections 'Key Topics', 'Main Developments', 'Open Questions', and 'Future Directions'. An example is copied below.

Day 1: Morning	Southern Ocean sea ice variability in a warming climate: observations and modeling approach		Datasets to check out: Sea Ice-thickness product Inter comparison exercise (SINXS); AVISO Sea Ice Dataset; <u>NuYina</u> – OSIA underway observatory; WMO WWRP: Polar Coupled Analysis and Prediction Services
	Key Topics:		
	<ul style="list-style-type: none">• recent changes and trends in Antarctic sea ice coverage, distribution, thickness and dynamics and their drivers and consequences in the Earth system; it is striking how the systems is behaving as a whole, why is it changing?• Can we name a trigger/cause for the abruptness of the change?• 'Antarctic sea ice paradox': traditionally <u>obs</u> have show a slight increase in sea ice extent, but models have show a decrease.• Estimating sea-ice production needs to consider 'warm' vs 'cold' shelf, winds (e.g. 0.8 m/day in 30 m/s katabatic winds; 0.2-1.1 m/day in other conditions)• Coastal Exposure: where sea ice isn't around Antarctica		
	Main Developments:		
	<ul style="list-style-type: none">• Variance and persistence of monthly sea ice extent increased prior to the sudden ice loss in 2015/16.• Record low sea ice in 2022 and 2023 are not driven by interannual variability or natural processes and may indicate a regime shift or threshold being passed (potentially in 2016).• Evidence for a longer-term variability imprinting on short-term variability<ul style="list-style-type: none">• ocean warming and salinity changes -> stratification changes -> redistributes heat vertically. IPO?• some multi-decadal variability that we have not fully observed)• Long-term subsurface warming may have influenced abruptness of change• Sea ice production difficult to measure, but significantly different on cold vs. warm continental shelves due to influence of CDW.• Coastal Exposure can impact sea ice formation and breakout locally and remotely.		
	Open Questions:		
	<ul style="list-style-type: none">• Impacts: Will Antarctic sea ice recover from recent record lows? Over what timescale? What will be the consequences of the recent rapid changes for ocean ecosystems and physics?• Drivers: How is the IPO related with the sub-surface salinity and sea ice? Did the atmosphere provide a trigger?• <u>Obs</u>: How do snow and sea ice properties evolve around Antarctica		
	Future Directions:		
	<ul style="list-style-type: none">• More (sustained + circumpolar) observational data on how thick sea ice is and what the level of snow cover is.• Need for coupled earth-system model development.		

Annex C: Code of Conduct

Code of Conduct¹ for the SOOS Symposium 2023

The Southern Ocean Observing System (SOOS) aims to convene a Symposium that is welcoming, respectful, inclusive, and collaborative, and is confident that the community is committed to this outcome. We recognize that the accessibility of such a Symposium is partly determined by how safe it is to attend, with safety tied closely to participants' race, gender, gender identity, sexual orientation, religion, ability, and other factors. This Code of Conduct has been developed to help create an inclusive and productive environment that will foster positive discussion, as well as to encourage participants to consider the viewpoints of others, including those who might otherwise be overshadowed by more mainstream voices and/or opinions.

The SOOS Symposium is being hosted by the University of Tasmania (UTAS) and as such, is also governed by UTAS's [Behaviour Policy](#) (sections 1 [*Behaviour*] and 2 [*Support for community members*] only).

Expected behaviour

- Treat everyone with respect and consideration, including:
 - Communicating openly and thoughtfully with others.
 - Being considerate of the multitude of views and opinions that are different from yours.
 - Being mindful in your critique of ideas.
- Be considerate of your physical surroundings and of your fellow participants.
- Respect the rules and policies of the meeting venue, hotels, online platform, or any other venue. At the symposium:
 - Provide your true professional identity, affiliation, and, where appropriate, contact information, at registration and during attendance and participatory sessions, as required.
 - The SOOS Symposium encourages the presentation of unpublished research; you are expected to respect the confidentiality of all presentation materials and ideas unless you obtain specific permission from all the authors concerned.

Anyone not meeting expected, collaborative, respectful behaviour will be reported to their university, institute and or local authorities, depending on the specifics of the unwelcomed disruptive behaviour, and can be immediately removed from the meeting and may be banned from future meetings.

Examples of unacceptable behaviour

- Promoting or participating in harassment, bullying, discrimination, or intimidation on-site, online, and/or on social media.
- Physical, verbal, or written forms of abuse including, but not limited to, verbal comments related to gender and gender identity, sexual orientation, disability, physical appearance, body size, race, religion, national origin or culture, inappropriate use of nudity and/or sexual images in public spaces or in presentations, and attacks on ideas (versus respectful, disagreeing dialogue). This includes any attendee, speaker, volunteer, staff member, service provider, or other guest.
- Threatening or stalking in-person or online.
- Disruption of presentations/sessions or disallowing participation by others.
- Use of social or mainstream media to target individual actions of participants in a way that could harm their privacy or professional status or open them to slander or libel.
- Knowingly violating copyright or copying presenter information without obtaining permission.
- Criminal offences.
- Failure to follow Symposium protocols.

¹This Code of Conduct has been adapted from that of the American Geophysical Union and the International Marine Conservation Congress [Favaro, B. et al. (2016) Your science conference should have a code of conduct. *Frontiers in Marine Science* 3:103, 10.3389/fmars.2016.00103].

Consequences and reporting of unacceptable behaviour

By registering for the SOOS Symposium, participants acknowledge and agree to abide by the meeting Code of Conduct.

- Anyone requested to stop unacceptable behaviour is expected to comply immediately.
- Anyone violating the Code of Conduct may be removed from the Symposium without warning and potentially without refund. SOOS reserves the right to prohibit attendance at any future meeting if it is felt the future safety of delegates would be at risk.
- For participants who wish to lodge a complaint of harassment or other inappropriate behaviour, two Safety Officers will be available and readily identifiable. The Safety Officers have received training in how to deal with issues that may arise and will work closely with the appropriate teams at the [University of Tasmania](#) (UTAS) that will be on stand-by for the week of the Symposium². All discussions will be managed in a secure and private space, and any documentation arising from reported incidents will be stored in a secure OneDrive folder. The Safety Officer will discuss the incident with the participant lodging the inquiry or complaint and will determine the steps that may need to be taken to make the participant feel safe. These interventions will be supported by the appropriate UTAS teams if necessary. Complaints and/or inquiries may additionally/alternately be communicated to info@soos.aq.
- If you experience or witness behaviour that constitutes an immediate or serious threat to public safety, please contact the conference organizers/Safety Officers and ask for security, and call the Australian Emergencies Services via Triple Zero, 000. Any other incidents or suspected incidents can be reported to the Safety Officers.

²The support/assistance from UTAS is available for the week of the Symposium only. Beyond this time, Symposium staff will escalate any issues raised to the home institutions/agencies of the parties involved.

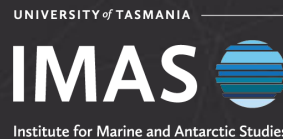
Annex D: EDI slides presented at the SSC meeting in August 2023

SOOS EDI

Joana Beja, Steve Diggs, Sarah Fawcett,
Kathy Gunn (ECR) and Fernanda Marcello (ECR)

2023-08-19

Hobart, Tasmania



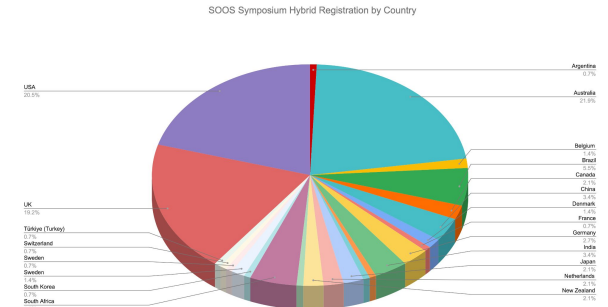
Antarctica
New Zealand



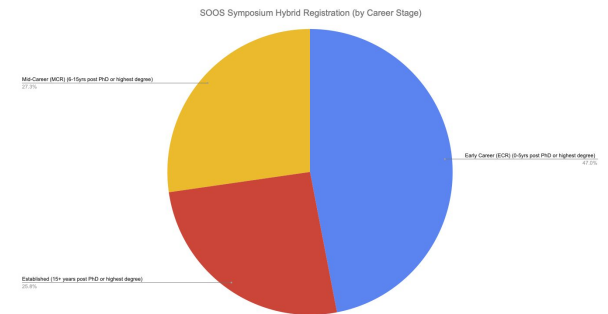
OCEAN:ICE

Key Priorities/Activities for 2024

- **Evaluation of the pilot hybrid scheme of the SOOS Symposium 2023:** what did/didn't work and how can we address these for a future event, and analyze related information from an ROI perspective.
 - **Statistics:** ~180 registrants, 63 online (32% from Australia)



- **Design of an Implementation Plan for hybrid option in future SOOS meetings/events:** detailed procedures and recommendations for a low-cost hybrid.



- **Ensuring equitable participation in the upcoming SOOS Symposium 2023 Special Issue:** collection of information regarding publication cost waivers (to avoid the Special Issue is dominated by global north contributions since APCs are usually too high for researchers from non European/US countries);



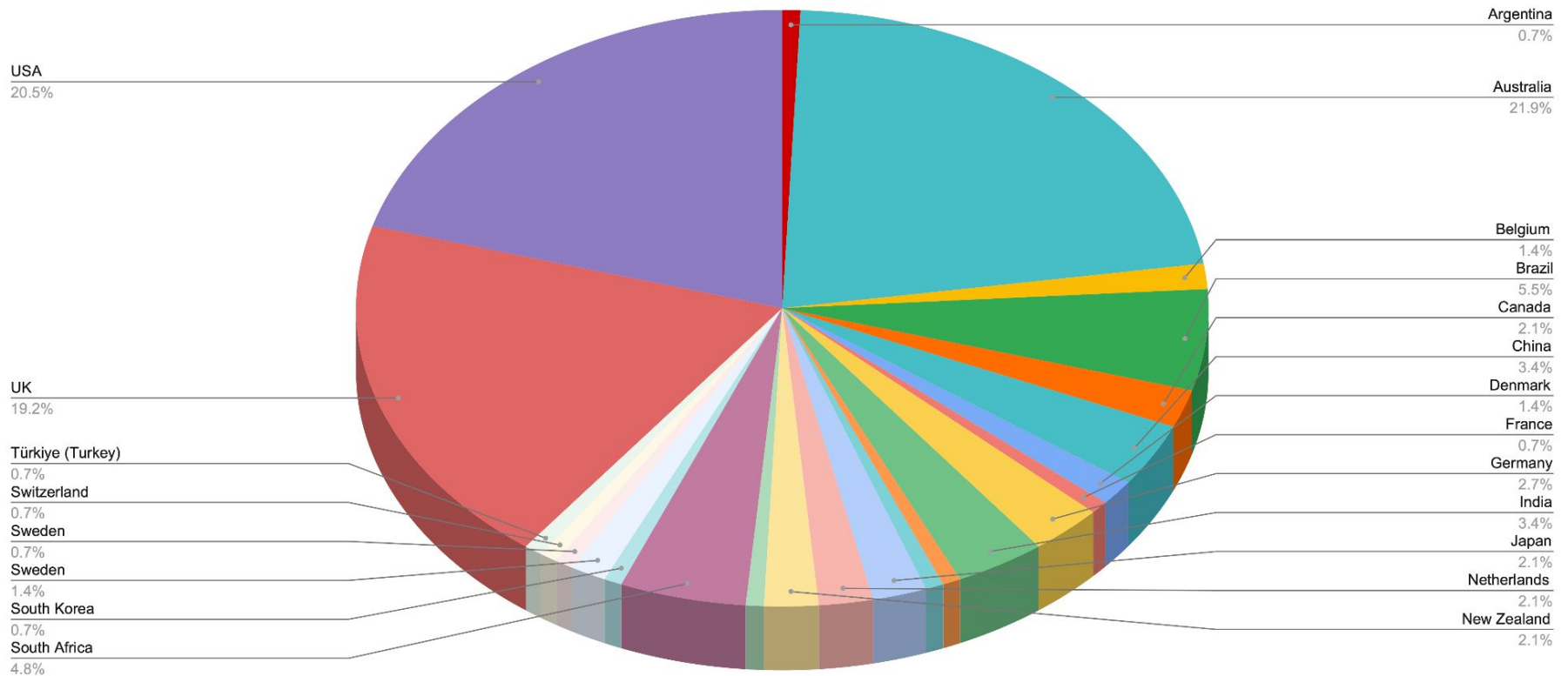
- **Finalization of the Terms of Reference (TOR).**

Key Challenges

- To successfully share our view in terms of the importance of having a hybrid component in scientific meetings, as it relates to Equity, Diversity and Inclusion (EDI).
- To ensure there will be financial and logistical support for such implementation in future SOOS meetings/events.

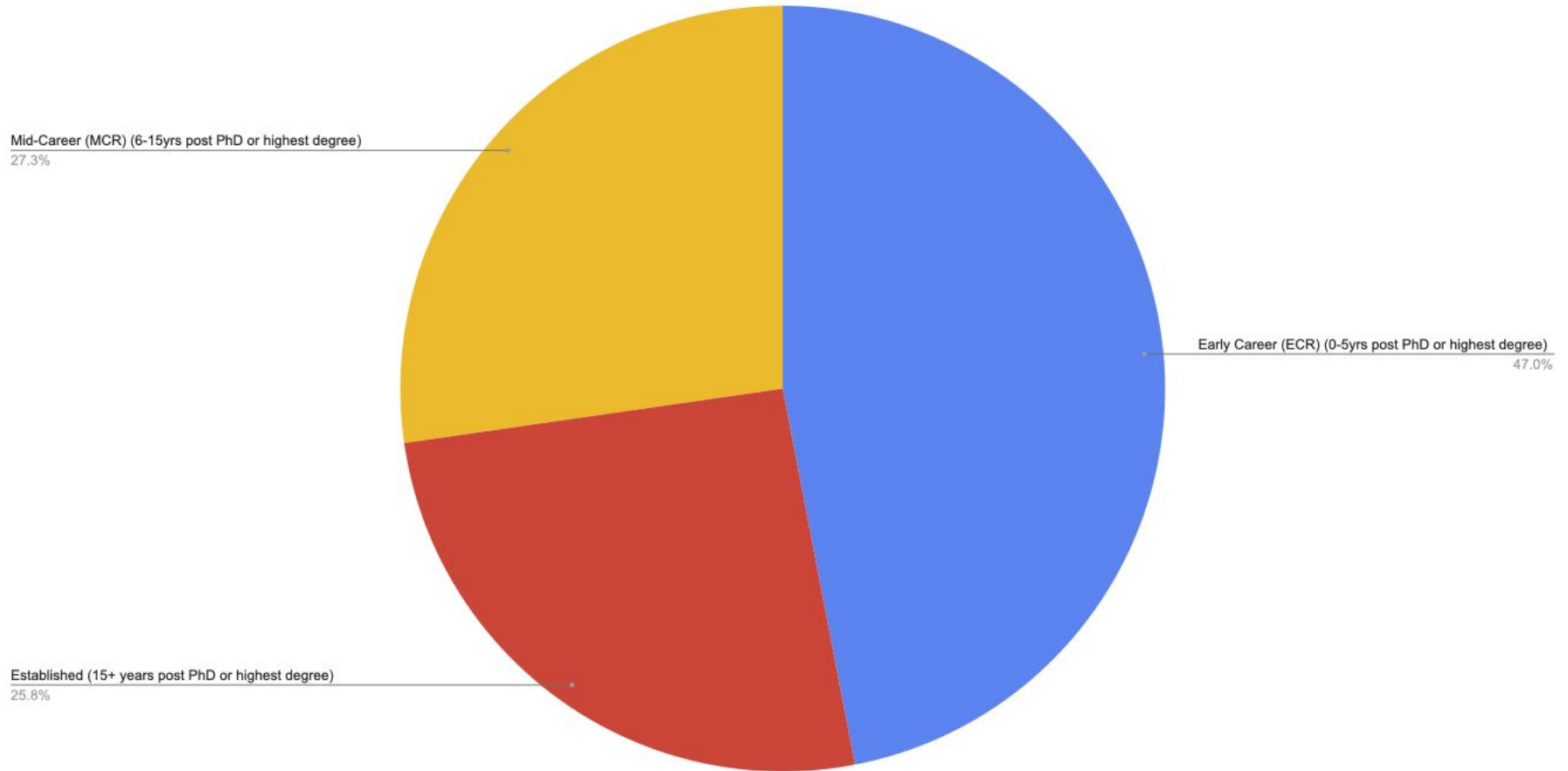
Hybrid Report: Overview (~180 registrants)

SOOS Symposium Hybrid Registration by Country

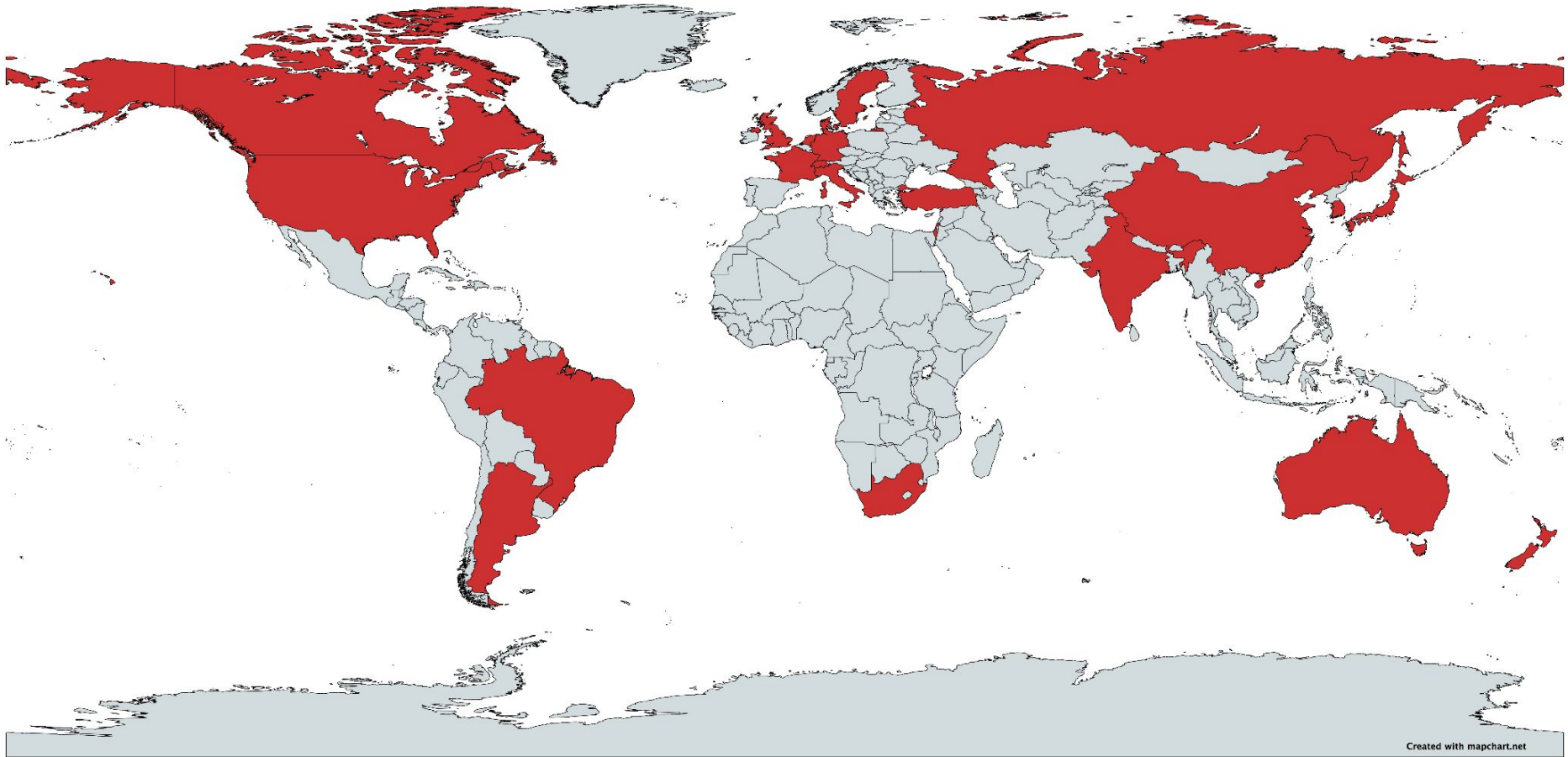


Hybrid Report: Overview

SOOS Symposium Hybrid Registration (by Career Stage)

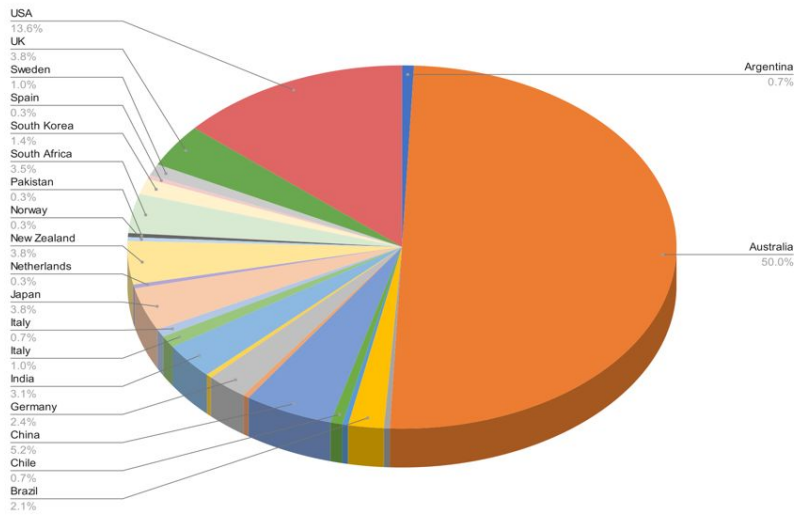


Hybrid Report: Geographic Distribution - 24 countries

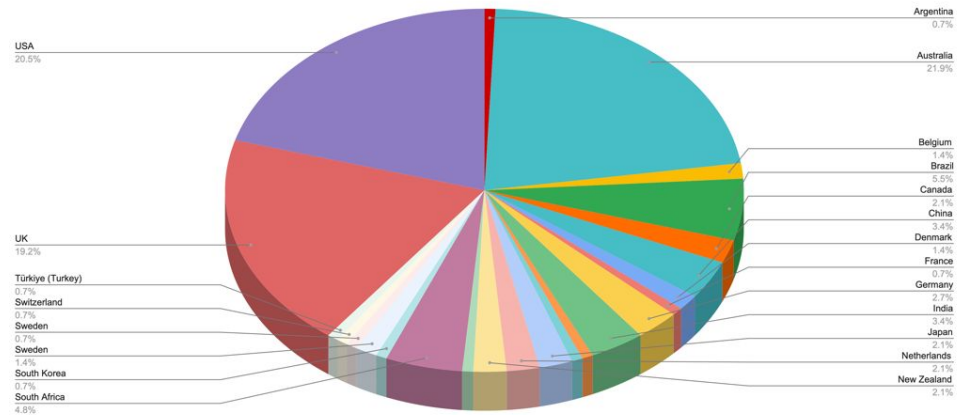


Hybrid Report: Registration Type Comparison

SOOS Symposium 2023: In-Person Registrants



SOOS Symposium Hybrid Registration by Country

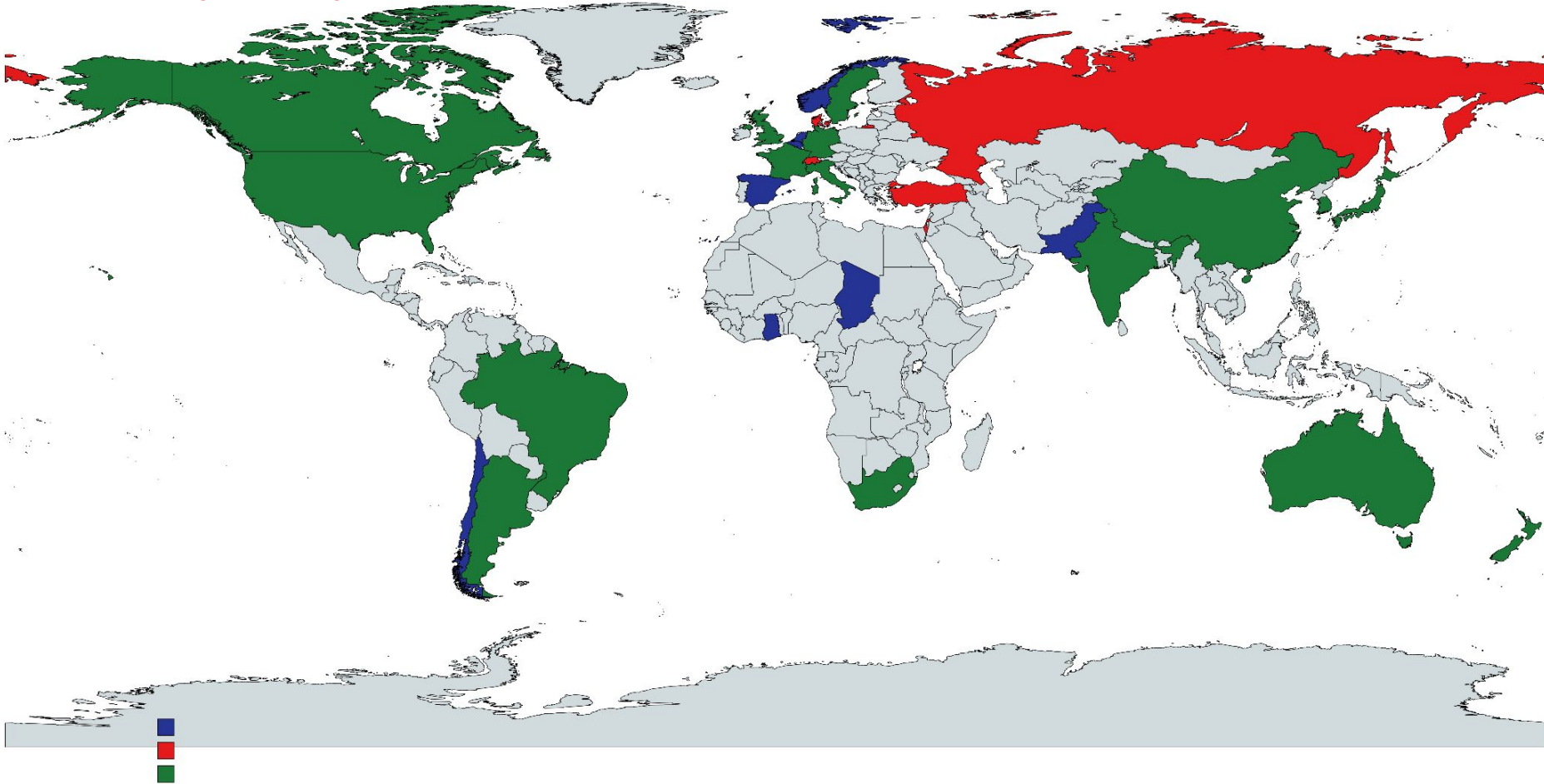


Hybrid Report: Geographic comparison

Green = In-person and hybrid

Blue = In-Person only

Red = Hybrid only



Hybrid Report: An Unexpected Request

Thursday 15:15 - Ballroom 3 (Chairs: Alexander Haumann, Stuart Corney, Petra Heil, Clive McMahon, Stefanie Arndt)

Taking the pulse on the Southern Ocean: an internationally coordinated, circumpolar, and year-round mission



Hybrid: What's Next?

