

**Agenda for meeting between IMBeR Chair and
Integrating Climate and Ecosystem Dynamics in the Southern Ocean(ICED), 30 Nov 2022**

I. ICED's contribution to IMBeR – so far and to 2025

- What are the most valued components so far between ICED and IMBeR?
- What is ICED's plan for the remaining two + years?
- How will this progress IMBeR's science plan and specifically the priority research areas 2022-2025?
- What does ICED want/need from IMBeR to achieve this?

II. ICED collaboration and synthesis with other RPs and IMECaN

- How can ICED build better collaboration with the other Regional Programmes, Working Groups, and early career network (IMECaN)?
- Are there synthesis activities that you think could be conducted with the other regional programmes (both regional and thematic syntheses, connecting different challenges, ICED and ECRs etc.)?

III. Post-2025 (i.e. 'IMBeR 3.0')

- Strategy for IMBeR post-2025 and where ICED fits into this.

Notes from the meeting between IMBeR Chair and ICED

Present: Diana Ruiz Pino, Eugene Murphy (ICED), Nadine Johnson (ICED), John Claydon and Lisa Maddison

Diana gave an introduction describing the aims of meeting – to hear about the work that ICED has conducted, what its legacy is, as well as plans for the next two years. Also to get some suggestions about strategy towards post-2025 IMBeR.

Eugene and Nadine gave a presentation that they had prepared based on the agenda

I. ICED's contribution to IMBeR – so far and to 2025

ICED history

GLOBEC Southern Ocean project provided scientific input for management. When GLOBEC ended in 2008, it transitioned into IMBeR as the ICED regional programme to integrate ecology, biogeochemical cycles and climate, to provide input for conservation and sustainable management of Southern Ocean (SO) resources. Science Plan and Implementation Strategy and website were developed.

ICED contributes to Scientific Committee on Antarctic Research (SCAR), Southern Ocean Observing System (SOOS), the Antarctic Treaty and CCMLAR (responsible for governance and fisheries management in SO).

- What are the most valued components so far between ICED and IMBeR?

Global framework provided by IMBeR is very important for ICED – putting SO science into the global context. Also, understanding what is going on globally in IMBeR, helps develop the research to determine what is happening in SO.

ICED's vision updated with the IMBeR SPIS 2016-2025:

Understand interactions between climate change and ecosystem dynamics and generate scenarios and projections of future ecosystem change to support sustainable governance

Similarly, the ICED research challenges were developed to link to all three IMBeR Grand Challenges (GCs) and research priorities.

Three major science work done during the past 3 years (solidify what has been done in 10 years)
Leading MESAO addresses the need to present science to policy makers, showing changes from past conditions to current state. Pulled lots of historical information into one place – First comprehensive assessment of the ecosystems across a range of sectors in the SO. International, diverse
Two important components: Need

Synthesised drivers of change (regional and global)

Looked all the way through the food chain.

Highlight 1 – showed SO is globally connected to the other oceans – has processes that are essential to the rest of the global oceans

Outputs have been made widely available – over 20 Papers

Input into IPCC process

Dedicated side event at UM Measo conf, open science conference at SCAR and Challenges symposium
an gave a presentation at COP27

Highlight 2: SO decade – developed an ACTION PLAN that include all 10 decade actions , facilitating broader range of stakeholders

Highlight 3: Models – building models of lifecycles of key spp in SO and also coupling ecosystem models
May 2021 workshop (platform for ECRs), built on CCMLAR workshop, how can we include models of Antarctic ecosystems

SKAG special Krill action Group – session with them at AGU – ECR platform IMECAN

ICED-IMBeR activities

- Workshop with ESSAS to compare arctic and Antarctic and PICES meeting ESSAS and ICED compared - two publications resulted
- Could do more with ESSAS
- Contributed to both FO and FO2. – townhall – now
- ICED – CLIOTOP symposium – lead by ECRs
- IMBIZOs a lot of input
- Developed a lot of ECR opportunities
- Ingrid integrated and CR's paper on activities of IMBeR in several years

Transition phase – discussing the structure of ICED in the next couple of years

Going to appoint two new co-chairs.

ICED SSC will also be restructured and past members will remain on as mentors. Also planning an advisory committee, - reps from the other organisation IMBeR, SCAR, IMECaN, etc. to have a more holistic view to meet demands of stakeholders

3 research challenge leads will identify work that needs to be addressed and take them forward – aim to identify where can make the most difference in (fill a gap)

Want to increase EDI and also geographic representation

Science activities in next 2 years

Focus on the 3 Research challenges

Variability of ecosystems (Decade doc shows the challenges that need to be addressed)

Multiyear field work campaign looking at biological status and develop better models

MOASIC

Build on assessment of change under MEASO – new team will take this forward.

Develop scenarios and projections

Harmonize models

Supporting sustainable governance

Provide advice to conservation and management - Climate change impacts on ecological workshop in 2023 (CCMLAR doesn't currently include CC)

Funding needed for SSC meetings and to adhere to reporting activities. Would appreciate support from the IPOs. SCAR gives a lot of support

Will apply for BAS grant for support for collaborations

Diana asked for new ideas on synthesis that could be done, e.g., how to collaborate more with the other RPs

Ingrid's paper showed that need one or two IMBeR SSC members to lead and who can bring the RPs together - lead the synthesis

Action Plan for the Ocean – is an opportunity to bring the RPs and WGs together to consider that concept. E.g. ICED produce an Action Plan for SO. Could this be done for the other RPs

Feb – set up Action Plan for the Ocean – include RPs and WGs tog.

SCOR mid-term review -

Eugene: difficult if leave it up to the RPs won't happen. SSC needs to be involved to make it work
ICED is leading the Action

Legacy

Database, strategy ?

Modelling Framework and Action Plan were part of IMBeR's legacy from ICED

Input to UN Decade. ESSAS has probably added their input which would also be part of the legacy

ICED legacy includes inputs into datasets that already exist. Never intention to develop a new database, but all ICED info is included.

MEASO lessons – draw together from other RPs how they think the systems have changed. Broader understanding of the impacts of change

IMBeR did not have an intent of developing its own database. No coherent framework of modelling ocean ecosystems and governance no other group doing this – could be linked to the GC and RPs (ask Marion and Thorsten)

Diana: Technology and strategy used in SO could also be a legacy. Maybe also consider this in Arctic
Nadine: workshop will look at applying the technologies and that standardised approach