

24th SOLAS Scientific Steering Committee Meeting

9 - 11 May 2023

Hybrid in Heraklion, Crete, Greece

Zoom link to join the meeting: <https://us06web.zoom.us/j/2024005163>

SSC Meeting 2023 materials:

<https://www.solas-int.org/about/ssc-members/ssc-meeting-materials.html>

Incl. membership applications, decisions/progress 2022 SSC meetings, national/regional reports, sponsored projects reports, Event Reports, and Newsletters:

Google doc to add comments/ideas:

<https://docs.google.com/document/d/1MMStHcnXJ2L6UG9tplrLqtf-ZgiluegNuCjT1gpz3eY/edit?usp=sharing>

Briefing Material

Participants

SOLAS SSC members

	Participation mode / role
Katye Altieri	Online / CATCH Representative
Lennart Bach	Online
Tom Bell	Online
Minhan Dai	On-site / SSC Co-Chair
Marcela Cornejo D'Ottone	Online
Santiago Gassó	On-site
Cecile Guieu	On-site / SSC Co-Chair
Maria Kanakidou	On-site
Arne Körtzinger	On-site
Mohd Talib Latif	On-site
Joan Llord	Online
Anoop Mahajan	On-site
Jurgita Ovadnevaite	On-site
Andreas Raspotnik	Online
Arvind Singh	On-site
Nadja Steiner	Online / BEPSII Representative
Lisan Yu	On-site / WCRP Representative

Invited participants

Thorsten Bartels-Rausch	Online / CATCH Co-Chair
Sam Dupont	Online / SIOA Chair
Rebecca Fenn	Online / Future Earth Science Officer
Markus Frey	Online / CATCH Co-Chair
Douglas Hamilton	Online / ECSC member & SOLAS UN Decade project leader
Ashwini Kumar	Tbc Online / OSC 2024 Local Organising Committee
Christa Marandino	Tbc Online / SOLAS Summer School Director
Lisa Miller	Online / Special Issue
Patricia Miloslavich	On-site / SCOR Executive Director
Carol Robinson	Tbc Online / IOC-R Representative

SOLAS IPO

Chengcheng Gao	On-site / Project Officer
Jessica Gier	On-site / Co-Executive Director
Li Li	On-site / Co-Executive Director

Table of Contents

Agenda.....	4
Day 1 - Tuesday 9 May 2023.....	4
Day 2 - Wednesday 10 May 2023.....	5
Day 3 - Thursday 11 May.....	6
Updates and reports.....	7
Summary of 2022 decisions & progress status.....	7
SSC members rotation.....	7
Future of SOLAS 2025 and beyond.....	9
Early Career Scientist Committee.....	9
Implementation Strategy.....	10
Activities.....	10
Summer Schools.....	11
SOLAS Master Programme.....	12
Open Science Conference 2024.....	12
UN Ocean Decade.....	12
Communication.....	13
National/Regional Networks.....	14
Endorsement / Support letters.....	15
Funding update 2022.....	16

Local starting time (9am EEST) for online SSC members

Name	Location	Local time
Nadja	Victoria, Canada	23:00 -1day
Marcela	Santiago de Chile, Chile	02:00
Tom	Plymouth, UK	07:00
Andreas	Oslo, Norway	08:00
Joan	Barcelona, Spain	08:00
Katye	Cape Town, South Africa	08:00
Lennart	Hobart, Australia	16:00

Agenda

Day 1 - Tuesday 9 May 2023

All times in Eastern Europe Summer Time (EEST)

- 9.00 - 9.30 Welcome and introduction (Cecile/Minhan/Maria)
Agenda revision and logistics (Jessi/Li Li/Chengcheng)
- Quick round table of all participants (position, institution, country, expertise, SSC member since when, number of terms, role(s) in SOLAS)
- 9.30 - 9.50 Introductory presentations (1-slide, 5 min)
- Lisan Yu (on-site)
 - Lennart Bach (online)
 - Joan Llord (online)
 - Andreas Raspotnik (online)
- 9.50 - 10.30 1st session on SSC member rotation (Jessica/Li Li)
- Update on rotations
 - Received applications
 - Procedure for selecting new (co)chair
- 10.30 - 11.00 *Coffee break*
- 11:00 - 12.30 1st session on strategic planning
- SOLAS beyond 2025
 - Recap of previous SSC meeting decisions (Cecile/Minhan)
 - Update from ECS Committee and workshop outcome (Joan)
 - 3rd Science Plan: scoping workshop, 25-28 Sep 2023
 - NSF visit in 2023 or 2024
- 12.30 - 13.30 *Lunch*
- 13.30 - 15:00 Implementation Strategy updates (10 min talk + 5 min Q&A)- Include:
- 1) 'Methodology' on e.g. who are they talking to, how is the team working together, how to motivate people, organisation of the team, etc.
 - 2) What is your vision of the themes for the 3rd SOLAS Science Plan
 - Climate Intervention
 - Theme 1: Greenhouse gases and the oceans
 - Theme 2: Air-sea interface and fluxes of mass and energy
 - Theme 3: Atmospheric deposition and ocean biogeochemistry
 - Theme 4: Interconnections between marine ecosystems, aerosols, and clouds
 - Theme 5: Ocean biogeochemical control on atmospheric chemistry
- 15.00 - 15.30 *Coffee break and group picture*

- 15.30 - 15.35 Introductory presentations (1-slide, 5 min)
- Nadja Steiner (online)
- 15.35 - 16.35 Implementation strategy updates (10 min + 5 min Q&A)
- Integrated topic: Polar Oceans
 - Integrated topic: Indian Ocean
 - Integrated topic: Upwelling
 - Science and Society
- 16.35 - 17.15 Implementation strategy & theme team discussion (Cecile/Minhan)
- New SSC members joining which teams
 - Leadership
 - Size of the Implementation teams
 - What works & what does not
- 17.15 End of Day 1

Day 2 - Wednesday 10 May 2023

- 9.00 - 10.00 Sponsors updates (10 min + 5 min Q&A)
- SCOR (Patricia)
 - Future Earth (Rebecca)
 - iCACGP (?)
 - WCRP (Lisan)
- 10.00 - 10.30 SOLAS Summer School Update (Christa)
- 10.30 - 11.00 *Coffee Break*
- 11.00 - 12.00 Sponsored projects updates (10 min + 5 min Q&A)
- BEPSII (Nadja)
 - CATCH (Markus or Thorsten)
 - IOC-R (?)
 - SIOA (?)
- 12.00 - 12.30 Open Science Conference 2024 (Anoop/Arvind/Ashwini)
- 12.30 - 13.30 *Lunch*
- 13.30 - 14.30 Update on new initiatives
- UN Ocean Decade programme (Douglas)
 - Modelling (Maria)
 - SOLAS/CDRMIP (Minhan)
- 14.30 - 15.30 2nd session on Strategic Planning (Cecile/Minhan)
- SOLAS beyond 2025, implementation Strategy, workshops, future activities

15.30 - 16.00 *Coffee Break*

16.00 - 16.45 3rd session on Strategic Planning (Cecile/Minhan)

- SOLAS beyond 2025, implementation Strategy, workshops, future activities

16.45 Update on SOLAS Special Issue (Lisa)

17.00 End of Day 2

Day 3 - Thursday 11 May 2023

9.00 - 10.30 2nd session on SSC members' rotation (Jessi/Li Li)

- Discussion
- Final suggestions

10.30 - 11.00 *Coffee Break*

11.00 - 12.30 IPO, SOLAS activities, and SOLAS budget (Jessi/Li Li)

- IPOs updates
- Budget update
- Project/Time series station endorsements - how to assess impact of these?
- National/Regional networks and annual reports
- Promote/support sponsored activities

12.30 - 13.30 *Lunch*

13.45 - 15.30 Museum Tour (5 min walk to museum; 1.5 hrs tour)

15.30 - 16.30 Final session on Strategic Planning (Cecile/Minhan)

- Structure, ideas, & timeline for the scoping workshop

16.30 - 17.30 Closing session

- Any other business
- Summary of decisions and actions
- SSC meeting 2024 (date and place)

17.30 End of the 24th SOLAS SSC meeting

Updates and reports

Summary of 2022 decisions & progress status

Please see a list of decisions, action items, and progress on these in the Google document:

<https://docs.google.com/document/d/1RZQ5MwJFrkAcWlrx9Uz8EDPMAie1MBdajE4c9IBKdM0/edit?usp=sharing>

SSC members rotation

Minhan Dai (M, China) and Cecile Guieu (F, France) are the **SOLAS SSC co-chairs**. Both will finish their terms in December 2023. A **chair search** committee was put together to nominate a new chair or co-chairs. The procedure and time line was shared with the SSC and sponsors. A call for suggestions was send out to the SOLAS core community.

SOLAS has an **Executive Committee** composed of the Co-chairs Minhan Dai (China) and Cecile Guieu (France), Katye Altieri (F, South Africa), and Jurgita Ovadnevaite (F, Ireland).

The following SSC members will **rotate off** at the end of 2023:

- Arne Körtzinger (M, Germany)
- Katye Altieri (F, South Africa)
- Santiago Gassó (M, USA)
- Talib Latif (M, Malaysia)

The following members will finish their 1st terms at the end of 2023:

- Marcela Cornejo (F, Chile)
- Maria Kanakidou (F, Greece)

The current membership of the SOLAS SSC is 17 members including the co-chairs:

Last name	First name	Country of employment	Gender	Scientific expertise	SOLAS expertise	Term	End
Dai	Minhan	China	M	C and nutrient bgc, trace metals, ocean acidification	Co-chair, Theme 1, Coastal ocean	1	2023
Singh	Arvind	India	M	C, N, P bgc cycles, table isotope tracers	Theme 1, Indian Ocean	1	2024
Körtzinger	Arne	Germany	M	C cycle, Ocean observation	Theme 1, Upwelling	2	2023
Cornejo	Marcela	Chile	F	Nutrient and greenhouse gases cycling, upwelling	Theme 1, Upwelling	1	2023
Steiner	Nadja	Canada	F	Bgc of trace gases	Theme 1, Polar Ocean BEPSII liaison	1	2025
Bach	Lennart	Australia	M	Marine bgc, C cycle	Theme 1, Climate intervention	1	2025

Bell	Thomas	UK	M	Air-sea chemistry & gas exchange; bgc cycles; modelling	Themes 2 and 3 ESA connection	1	2024
Yu	Lisan	USA	F	Air-sea physical interaction, Remote Sensing	Theme 2, WCRP rep	1	2025
Latif	Mohd Talib	Malaysia	M	Microlayer, atmospheric aerosols	Themes 2 and 5	2	2023
Guieu	Cecile	France	F	Atmospheric chemistry, trace elements, C cycle	Co-Chair Themes 2 and 3	1	2023
Altieri	Katye	South Africa	F	Atmospheric molecules, climate policy	Themes 3 and 5, Polar oceans, Science & Society CATCH liaison	2	2023
Gassó	Santiago	USA	M	Remote sensing, aerosols, dust transport	Themes 3 and 4, NASA connection	2	2023
Ovadnevaite	Jurgita	Ireland	F	Aerosol chemistry, physics and cloud processes	Themes 4 and 5	2	2024
Kanakidou	Maria	Greece	F	Atmospheric modelling and pollutants	Themes 4 and 5, iCACGP connection	1	2023
Mahajan	Anoop	India	M	Atmospheric chemistry, halogens, climate modelling	Theme 5, Indian Ocean	2	2024
Llort	Joan	Spain	M	ocean bgc, aerosols, biological C pump	Theme 3, Chair of Early Career Scientist Committee	1	2025
Raspotnik	Andreas	Norway	M	Arctic policies, blue Arctic economy, Arctic geopolitics & security	Science and Society	1	2025

The current gender and country balance of the SSC for 2 co-chairs and 15 members:

- 7 female members and 10 male members
- 5 members from developing countries and 12 from developed countries

Outcome of the call for SSC membership

The call is open for 1 month and will close on 30th April 2023. We welcomed nominations in any SOLAS-relevant discipline but encouraged scientists from the global south to apply.

After the deadline closed, all 2023 applications will be available for download on the SSC meeting material website. A Google doc summarising the applications and a list of names mentioned during past SSC meetings will be available here: https://docs.google.com/spreadsheets/d/1EJNd_A81FLtsVuUjyfKwkU5sVOdMarx6O_efP26FsYM/edit#gid=0

Future of SOLAS 2025 and beyond

NSF/SCOR sponsorship and related funding will terminate in Dec. 2025.

Related decisions from the **Sep. 2022** SSC meeting:

- **Decision 4:** SOLAS will continue beyond 2025 and work on the 3rd Science Plan (2025-2035), with some extent of transformation of science into solutions.
- **Decision 5:** An online SSC meeting at the end of 2022 will be organised to continue the discussion on SOLAS beyond 2025.
- **Decision 7:** The SSC will explore funding options to support SOLAS (Santiago NSF, Tom PML).

Related decisions from the **Dec. 2022** SSC meeting:

- **Decision 1:** The (core) of the SOLAS name will be kept.
- **Decision 2:** Discuss with OASIS about a potential merger and invite the co-chair(s) to the SSC meeting.
- **Decision 3:** SOLAS will conduct a restructuring and transformation process from science to solutions and involve social scientists.

SOLAS could persuade NSF directly for funding. During the SSC meeting, we will kick-off the discussion on the future of SOLAS beyond 2025, the new Science Plan & structure, and the Scoping Workshop (Xiamen, China, 25-28 Sep. 2023). A Science Plan draft will be ready to visit NSF in late 2023 or early 2024. SOLAS needs to develop innovation aspects and a big picture:

- Earth system science on a global and regional scale and predictions;
- Large scale and integrated ocean-atmosphere observations and experiments;
- Transformation from science to solutions.
- Future topics on Science and Society: harmful algae blooms, plastics, ship emissions, and indigenous people.

Early Career Scientist Committee

<https://www.solas-int.org/ecs-members.html>

The SOLAS Early Career Scientist (ECS) Committee was launched in January 2023 based on the decisions of 22nd and 23rd SSC meetings. The ECS Committee acts as a strategic and operational body to coordinate and champion ECS activities within the framework of SOLAS science. The ECSC will organise a workshop on 19-21 April to discuss 1) SOLAS science beyond 2025, 2) Equity and Diversity, and 3) ECS Committee organisation. The outcomes of the workshop will be reported during the SSC meeting.

The current membership of the Committee is 16 members including the chair:

Last name	First name	Country of employment	Gender	Scientific expertise
Llort	Joan	Spain	M	ocean bgc, aerosols, biological carbon pump
Baccarini	Andrea	Switzerland	M	atmospheric chemistry, aerosols, field measurements
Dinasquet	Julie	USA	F	microbial VOC cycling, bioaerosol, atmospheric deposition
Duke	Patrick	Canada	M	air-sea gas flux, carbon cycle, machine learning
Galgani	Luisa	Germany	F	ocean bgc, sea-surface micro-layer, marine gels & microplastics

Hamilton	Douglas	USA	M	Earth system modelling, natural aerosols, wildfires
Jaars	Kerneels	South Africa	M	atmospheric chemistry, atmosphere/biosphere interaction, atmospheric deposition
Kurusu	Minako	Japan	F	atmospheric chemistry, ocean chemistry, trace metals
Kvale	Karin	New Zealand	F	ocean bgc, climate modelling, ecological microplastic impacts
Leyba	Inés	Argentina	F	air-sea interaction, sea surface temperature, South Atlantic
Marshall	Tanya	South Africa	F	ocean bgc, nitrogen cycling and fluxes
Oliveira	Raquel	Brazil	F	ocean bgc, air-sea CO ₂ fluxes, remote sensing
Perron	Morgane	France	F	atmospheric bgc, trace metals, Southern Hemisphere
Tham	Yee Jun	China	M	atmospheric chemistry, halogen cycling, chemistry in air-sea gas exchange
Tinel	Liselotte	France	F	volatile organic compounds, surface microlayer, iodine
Xue	Lei	USA	M	marine photochemistry, marine organosulfur and carbon cycle, sea spray aerosols

The current gender and country balance of the ECS Committee for 1 chair and 15 members:

- 9 female members and 9 male members
- 4 members from developing countries and 12 from developed countries

Implementation Strategy

The Science Plan is facilitated via the web-based Implementation Strategy, which is updated every two years. It will be revised again in Sep./Oct. 2024.

The SOLAS review panel recommended updating the Implementation Strategy with the specific involvement of SOLAS themes into the UN Ocean Decade. The IPO have updated the Activities Table 2022/23 to address this. . <https://www.solas-int.org/science/implementation-strategy.html>

The importance of collecting information on SOLAS-related cruises was brought up during the latest round of Implementation Strategy update. The cruises that were mentioned in the Implementation Strategy v2022 have been listed on the SOLAS website. A call was issued to collect community input on the cruise list. <https://www.solas-int.org/science/related-science.html>

Activities

The activities reported below are of various natures, some present direct IPO involvement, some financial contribution, and some SSC members' involvement.

Activities since the 23rd SOLAS SSC meeting

- Online SOLAS Seminars (more details [here](#)) since the last SSC meeting:
 - SOLAS Seminar III: Ocean-atmosphere exchange of aerosol particles: impact on marine ecosystems, 19 Oct 2022.

- SOLAS Seminar IV: The ABC's of the sea surface microlayer: Aerosols, Bubbles, and Composition, 27 Jan 2023.
- SOLAS Seminar V: Sulfur cycling at high latitudes: New discoveries and challenges, 13 Mar 2023.
- GESAMP WG 38 - SOLAS workshop on Atmospheric Input of Chemicals to the Ocean - Management Implications, Gqeberha, South Africa, **Oct 2022**
- COP27 side event on the impact of increasing fire activity on the Earth System and society, in-person/hybrid, Sharm El-Sheikh, **7-18 Nov 2022**
- SOLAS Side Event at 2022 World Ocean Week, Xiamen, China and Online, 11 Nov 2022
- SOLAS session and town hall at the co-sponsored Sixth Xiamen Symposium on Marine Environmental Sciences (XMAS-VI), hybrid in Xiamen, China, **9-12 Jan. 2023**
- BEPSII annual meeting , **Mar 2023**
- ESA-SOLAS workshop on Eddy covariance measurements, London, UK, **28-30 Mar 2023**
- European Geophysical Union (EGU) General Assembly, SOLAS session on Air-sea chemical fluxes: impacts on biogeochemistry and climate, Vienna, Austria & Online, **23-28 Apr 2023**

Future activities

- SOLAS Early Career Scientists participating in WCRP annual meeting, 8-12 May 2023
- SOLAS Latin America workshop, Biogeochemical Research on marine Latin-American coastal zones-Towards a Marine Biogeochemical Latin-American Network, online, **26 May 2023**
- The SOLAS Seminar Series will continue and be organised as a quarterly event, which is structured around SOLAS relevant topics covered by the SOLAS 2015-2025 Science Plan and beyond, with the aims of fostering discussions on innovative scientific questions, providing researchers at all career stages with the opportunity to interact and building SOLAS community across the globe. <https://www.solas-int.org/events/solas-seminar.html>
 - Next Seminar: July 2023, hosted by UK Rep, Philippa Rickard
- 9th SOLAS Summer School, Mindelo, Cape Verde, **5-16 Jun 2023**
- 21st International Conference on Nucleation and Atmospheric Aerosols (ICNAA), SOLAS/ICNAA joint session on Interconnections between marine ecosystems, aerosols, clouds and atmospheric chemistry, Brisbane, Australia, **26-30 Jun 2023**
- Sustainability, Research and Innovation (SRI), Panama and online, **26-30 Jun 2023**
- Fire science Learning Across the Earth system (FLARE) Workshop, Sep 2023, Bermuda, USA.
- Scoping Workshop on SOLAS's future, 25-28 Sep 2023, Xiamen, China WCRP Open Science Conference, Side-event organised by SOLAS Early Career Scientist Committee on Community engagement and feedback on the SOLAS science agenda, Kigali, Rwanda, **23-27 Oct 2023**
- SOLAS Science & Society workshop, Galway, Ireland, **17-19 Oct 2023**
- GOOD-OARS Summer School, Coquimbo-La Serena, Chile, **6-12 Nov 2023**
- SOLAS Open Science Conference, Goa, India, **Nov 2024**

Summer Schools

The first SOLAS summer school took place in July 2003 in Cargèse, France. The success of this first school was such that the SOLAS summer school became a regular and productive event (for both science and networking). SOLAS is proud to have offered 7 in-person schools between 2003 and 2018, and one virtual school in 2022, involving over 500 international students and produced a textbook (Le Quéré and Saltzman 2009). Typically, two applications are received for every available

place. SOLAS is contributing to SDG 5 (Gender equality), with a gender balance of 55% females to 45% males in SOLAS Summer School participants.

In-person school 2023

The next in-person school will take place at the Ocean Science Centre Mindelo, Mindelo, Cape Verde (<https://www.oscm.cv/>) from **5-16 June 2023** (see more details [here](#)). An outreach event is organised for 17 June 2023. The school will host 70 students and 20 lecturers who give both lectures and practicals and make significant efforts to promote sustainability and diversity in science. The programme is final and all lecturers and students have booked their travel.

SOLAS Master Programme

The newly developed SOLAS structured research Master programme on Ocean, Atmosphere and Climate ([MSC-OAC](#)) started in its 1st round in Sep. 2022 and will run in its 2nd round from Sep. 2023. Due to various reasons, the 2022 round has one student but we aim for more in the following years. The programme focusses on SOLAS science and combines both, taught and research elements. The research aspect is developed in collaboration with SOLAS and involves a 7-month research placement. The course structure is based on a 90 ECTS model, with 20 ECTS from four core modules and two optional modules (5 ECTS each). A research project accounts for the remaining 60 ECTS. Jessi is the programme director and Jurgita is the programme coordinator. Article about SOLAS and the MSc: <https://universityofgalwayinternational.wordpress.com/2023/02/23/bridging-the-boundaries-between-ocean-and-atmosphere/>

Open Science Conference 2024

The OSC 2024 will be held **11-18 November 2024**, most likely in a hybrid format, in **Goa, India**. Back-to-back with the OSC, SOLAS-related groups can suggest a workshop or side-event, taking place 8-10 November 2024. The Early Career Scientist Day will take place on 11 November 2024. During the SSC meeting, we will be updated by the Local Organising Committee (LOC) and discuss the format, registration fees, and potential keynote speakers. We will also share our own thoughts and feedback on what worked and what did not work during previous OSCs. For an idea of SOLAS OSCs, see OSC 2022 website (<https://uctcmc.eventsair.com/solas-osc2022/>) and OSC 2018 website (<https://www.confmanager.com/main.cfm?cid=2778>).

UN Ocean Decade

<https://www.solas-int.org/science/related-science/endorsed-ocean-decade-actions.html>

SOLAS is involved in the following UN Ocean Decade activities:

- Report on Integrated Ocean Carbon Research (IOC-R) was developed as part of the Decade, IOC-R is aiming to be endorsed.
- Partner of the Coastal Zones Under Intensifying Human Activities and Changing Climate: A Regional Programme Integrating Science, Management and Society to Support Ocean Sustainability ([Coastal-SOS](#)).
- Co-sponsor of the [53rd International Liège colloquium on Ocean Dynamics](#), which is a contribution to the Ocean Decade programme Global Ocean Oxygen Decade (GOOD).
- Co-organiser Satellite Activity of the Ocean Decade Laboratory on [An Observing Air Sea Interactions Strategy \(OASIS\) for a Clean Ocean](#), with [OASIS](#) (SCOR WG 162, Decade endorsed).
- Partner of the Ocean to Climate Seamless Forecasting system ([OSF](#)).
- Partner of the Global Ocean Negative Carbon Emission ([Global ONCE](#)).

- Discussion session on UN Decade of Ocean Science Proposal: Aerosol Exchange with Marine Ecosystems with partner programmes such as GEOTRACES, IMBER to prepare a proposal for endorsement by the UN Ocean Decade, SOLAS OSC, **25-29 Sep 2022**.

Communication

Website: <http://www.solas-int.org/>

Newsletter: Distribution of SOLAS Newsletters, which were sent to ~1200 SOLAS scientists each month (send every 2nd Wednesday of a month). See compilation here:

Event Report series: Reports on SOLAS sponsored or co-sponsored events are published after each SOLAS-sponsored event. These reports are sent to the SOLAS sponsors and other interested parties and are released in combination with the monthly Newsletters.

<https://www.solas-int.org/publications/event-reports.html>

The following reports were published since the last reporting:

- [Issue 25](#). 8th International Symposium on Gas Transfer at Water Surfaces, 17-20 May 2022, Plymouth, UK and online.
- [Issue 26](#). SOLAS Virtual Summer School 2022, 13–17 June 2022, online.
- [Issue 27](#). 8th SOLAS Open Science Conference, 25-29 September 2022, hybrid in Cape Town, South Africa.
- [Issue 28](#). Online Workshop on Surface Ocean and Lower Atmosphere Study in Southeast Asia, 23 August 2022, online.
- [Issue 29](#). Open Science Conference on Eastern Boundary Upwelling Systems (EBUS): Past, Present and Future & Second International Conference on the Humboldt Current System, 19-23 September 2022, Lima, Peru and online.

Twitter: Regular posts (currently 1831) and the number of followers is steadily increasing (currently 1550). [@SOLAS IPO](#)

ResearchGate: Connects the SOLAS research network and includes nearly 700 SOLAS-related publications with 243 followers and 2264 reads.

<https://www.researchgate.net/project/Surface-Ocean-Lower-Atmosphere-Study-SOLAS-2>

YouTube: SOLAS YouTube channel (106 subscribers) includes videos of the seminar series (5 videos, up to 354 views), the 2022 virtual summer school (5 videos, with up to 146 views), and workshops (2, with up to 700 views).

Flickr: SOLAS public photo stream shows pictures (currently 115) of the most recent SOLAS events and SOLAS related research. In addition, SOLAS distributes event pictures among participants via private links. <https://www.flickr.com/photos/182357030@N02>

Further communication activities:

- Issue call for new SSC membership
- Reach out to the SOLAS Core Community for suggestions on (co)chair nomination
- Collection of annual reports of National/Regional Networks/Regional Panel (see details below), Sponsored Projects, and annual updates from the Endorsed Projects and Time Series Stations
- Project endorsements/Support letters
- Announcements of SOLAS activities via mailing list
- Annual report to SCOR and Future Earth

National / Regional Networks

<https://www.solas-int.org/index/networks.html>

The National and Regional Network represent SOLAS around the world. Currently SOLAS has 32 scientific National and Regional Networks coordinated by 35 Representatives & 1 Regional Panel.

The representatives report annually on SOLAS-related activities in their countries/regions. The information contained in the reports is a valuable source of information for the IPO not only to report to sponsors but also to facilitate coordination and dissemination of results and progress from national projects to the rest of the SOLAS community. Information provided through the reports is also used by the Scientific Steering Committee to develop the implementation strategy.

- New established networks: Southeast Asia regional panel,
- New representatives were recruited for: Brazil, Chile, Denmark, Finland, Italy, Peru, Spain
- SOLAS wants to establish regional networks in South America and Africa - no progress yet.
- The IPO regularly informed the reps about the possibility to highlight their community publications via the Newsletter, Twitter, and Seminars.
- A representative's dinner was organised at the 2019/2022 OSCs and should be organised again at the OSC 2024.

In 2023, so far **11 national/regional reports were received** and posted on the SOLAS website. Information provided through the reports is also used to **update the implementation strategy** of the new SOLAS science plan. All reports are available in an addendum to this document.

Current networks and **received 2023 reports**

- Australia: Andrew Bowie and Ruhi Humphries
- **Belgium: Nathalie Gypens**
- Brazil: Raquel Oliveira **new rep**
- **Canada: Martine Lizotte → Looking for replacement**
- Chile: Alexander Galán Mejía **new rep**
- **China (Beijing): Huiwang Gao**
- **China (Taipei): Chonlin Lee**
- Denmark: Carolin Löscher **new rep**
- **Finland: Heidi Pettersson *new rep***
- France: Rémi Losno
- Germany: Christa Marandino and Hartmut Herrmann
- Greece: Alexandra Gogou
- India: Sheryl Oliveira Fernandes
- Israel: Yoav Lehahn
- **Ireland: Peter Croot**
- Italy: Luisa Galgani **new rep**
- **Japan: Yuzo Miyazaki**
- Korea: Kitack Lee
- Mexico: Jose Martin Hernandez Ayon
- Netherlands: Jan-Berend Stuu
- **New Zealand: Holly Winton**
- Norway: Siv Lauvset
- Peru: Ivonne Montes **new rep**
- **Poland: Timo Zielinski**
- **South Africa: Brett Kuyper**

- South East Asia Regional Panel: Co-Chairs Mohd Talib Latif & Iskhaq Iskandar
- Spain: Jordi Dachs **new rep**
- Sweden: Paul Zieger
- **Turkey: Baris Saglihoglu, Mustafa Koçak, Nazli Olgun**
- **United Arab Emirates: Diana Francis**
- UK: Philippa Rickard
- USA: Rachel Stanley

Endorsement / Support letters

Information on all endorsements and the formal application processes is available on the SOLAS website: <http://www.solas-int.org/activities/project-endorsement.html>.

Endorsed projects since Oct. 2022

None

Endorsed time series stations

In 2020, SOLAS has launched a formal process to endorse integrated atmosphere-ocean time series stations. New process and criteria were discussed at the SSC meetings 2021 and 2022. The three endorsed station are here: <https://www.solas-int.org/science/endorsement/time-series-stations-endorsed.html>

- **Since May 2023: Ocean Observatories Initiative (OOI)**
The OOI is comprised of the Endurance and Pioneer Coastal Arrays, the Irminger Sea and Ocean Station Papa Global Arrays, and the Regional Cabled Array spanning the seafloor and water column through the air-sea interface. It is a UN Ocean Decade Endorsed Project and is attached to [OASIS](#). The mission of the NSF sponsored OOI is to operate and maintain sophisticated arrays of instruments that collect, distribute, and archive oceanic and marine atmospheric data for at least 25 years.

Support letters provided

The IPO, in consultation with the co-chairs, provides support letters for research proposals. Guidelines are here: <https://www.solas-int.org/science/endorsement.html>

Since Oct 2022, the following support letters were provided:

- **CarbOn Budgeting for the Blue Economy (COBBLE)**
PIs: Bryce Van Dam, Germany; Marc Jürgen Silberberger, Sopot, Poland; Beata Szymczycha, Poland; Monika Kędra, Poland; Mariana Ribas Ribas, Germany; Erik van Doorn, Germany; Andreas Neumann, Germany
- **Sea-spray aerosol formation & aging upon mixing with anthropogenic air masses (SSAFANA)**
PIs: Sanja Frka Milosavljević, Croatia; Ana Kroflič, Slovenia

IPO at GEOMAR in Kiel, Germany

The SOLAS IPO was hosted at the GEOMAR Helmholtz Centre for Ocean Research Kiel in Kiel, Germany until August 2021. The new US-NSF via SCOR annual grant allowed maintaining the project officer position at GEOMAR on a half-time basis until May 2023, when Esther left the SOLAS IPO.

IPO at the University of Galway, Ireland

From January 2022, the University of Galway, Ireland, hosts the IPO-Ireland and the co-executive director for 5 years with the possibility of an extension. The hosting agreement is connected to the development and administration of a 1-year international SOLAS structured research MSc program on Ocean, Atmosphere and Climate (code [MSC-OAC](#)), which will run in its 2nd round from Sep 2023.

IPO at the State Key Laboratory for Marine Environmental Science (MEL) in Xiamen, China

Minhan Dai (co-chair) from the State Key Laboratory for Marine Environmental Science (MEL), Xiamen University supports the SOLAS IPO-China. The co-executive director and the project officer positions are until end of 2025.

Dual-IPO setup between Galway, Ireland and Xiamen, China

While both SOLAS IPOs will fulfill separate responsibilities, they will closely collaborate and provide mutual support on major SOLAS tasks. Each IPO will be staffed and funded by their respective host institutions and manage the funds required for their responsibilities, staff, travel, and activities

Funding update 2022

- **Executive director** salary, office space and in kind provided by **University of Galway** from Jan 2022-Dec 2026.
- **Executive director** salary, office space and in kind provided by **MEL** from Jan 2021-Dec 2025.
- **Project officer** salary, office space and in kind provided by **MEL**, Jun 2021-May 2026.
- **NSF/SCOR funding**
 - US-NSF via SCOR 55,6kUSD to use for activities, Sep 2021-Sep 2024.
 - Project officer salary of 120kUSD provided by US-NSF via SCOR and office space/in kind by GEOMAR until Jan 2024.
 - Due to a misunderstanding, SOLAS has a shortage of money because SOLAS did not receive funds for general activities from NSF in the 1st year of the funding period.
 - We were able to transfer the leftover of Esther's project officer salary, 41,7kUSD, to the general SOLAS activities pot.
 - Still, SOLAS is lacking of funding and we should postpone the 2024 SSC meeting to after Sep 2024, when we (hopefully) received another US-NSF via SCOR fund.
- **Future Earth**
 - Annual block grant of 10kEUR in 2021 and 5kEUR in 2022, potentially 5kEUR in 2023, without strings attached.
 - SOLAS did not receive any of the above funds yet due to CNRS' bank transfer issues.
 - The fund will be transferred to SCOR.
- **WCRP**
 - Provides funding for the **travel** of the WCRP representative on the SSC (Lisan Yu) to attend the SOLAS SSC meeting.

Income, expenses and budget for Sep 2022 until now:

FROM SEP 2022 (in EUR)							
INCOMES						Credit (EUR)	Debit (EUR)
	Funds from National University of Ireland Galway for salary					77.000	
	Funds from NSF via SCOR for project officer salary (Sep 2022-Apr 2023)					29.400	
	Funds from MEL for salary					68.900	
	NSF fund via SCOR leftover from project officer salary					38.800	
	NSF fund via SCOR remaining until Sep 2024					19.800	
	Unrestricted funds from SOLAS activities (e.g. reg. Fees, CMC) at SCOR					20.800	
	OSC 2023 total income					60.000	
	NSFC fund - for SOLAS China activities					45.000	
	Xiamen Marine International Cooperation Center fund - for summer school					14.000	
	IUGG fund via iCACGP for summer school					2.300	
	OCB fund for summer school					800	
	Future Earth block grant 2023					5.000	
	Future Earth block grant 2022					5.000	
	Future Earth block grant 2021					10.000	
	ESA-FE fund for FLARE workshop only					18.000	
	CRNS fund 2023					8.000	
Total Income						422.800	
EXPENSES						Credit (EUR)	Debit (EUR)
IPO	Salaries						175.300
	Representational travel IPO (incl travel to SSC mtgs)						4.050
	SOLAS relevant Chinese activities (incl travel to SSC mtgs)						33.300
	Representational travel ECSC						3.000
Events	OSC 2022 South Africa						65.600
	SSC meeting 2022						19.000
	GESAMP workshop						3.000
	COP27						1.800
	Eddy Covariance workshop						6.000
	BEPSII support						5.000
	IOC-R support						2.000
	SSC meeting 2023						13.300
	SOLAS Summer School 2023						17.100
	FLARE Workshop						18.000
Publications	SOLAS Website subscription 2022						150
Total Expenses							366.600
Balance							56.200
Note:							
This does not include the following items:							
In kind from GEOMAR, MEL, and University of Galway with office space/computer/printing/administration etc.							