

ESSAC Spring Meeting 2022

14 November 2022 Monte San Savino (Arezzo) Tuscany, Italia

Meeting Minutes 16/03/2023

Role	Member country	Delegate	Alternate	Delegate	Alternate	
		In pe	erson	Remote		
ESSAC	Austria	Piller, Werner				
ESSAC	Canada	John Jamieson	John Jamieson			
ESSAC	Denmark	Marit-Solveig Seidenkrantz				
ESSAC	Finland	Joonas Virtasolo				
ESSAC		Georges Ceuleneer				
ESSAC	Germany		Bornemann, André	Susann Henkel		
ESSAC	Ireland	David Hardy				
ESSAC	Italy	Angelo Camerlenghi				
ESSAC	Netherlands			Martin Ziegler		
ESSAC	Norway			Helga F. Kleiven		
ESSAC	Portugal	Antje Voelker				
ESSAC	Spain			Carlota Escutia		
ESSAC	Sweden	Oregan, Matt	Jorijntje Henderiks			
ESSAC	Switzerland			Gretchen Früh- Green		
ESSAC	United Kingdom	Antony Morris				
ESSAC SCI. COORD.	Italy	Hanno Kinkel				
EMA	France	Gilbert Camoin,	Nadine Hallemar	nd		
MAGELLAN+	The Netherlands			Luc Lourens		
ESO United Kingdom				David McInroy (excused)		

Agenda

ESSAC Meetin	g 14 November 2022 (14:00-17:30) – Agenda				
14:00 – 14:15	1 – Introduction, logistics (Angelo Camerlenghi)				
14:15 – 14:30	2 – Updates on the ESSAC composition				
14:30 – 14-40	3 – Minutes of ESSAC Spring 2022 Meeting and actions				
14:40 – 15:30	4 - Discussion Items – 1 all addressed briefly in preparation of a more in-depth discussion in the Joint Council-ESSAC Meeting				
	1. Update on Future Scientific Ocean Drilling				
	2. Expedition staffing – brief analysis of data inter-nos				
	3. Past and future training activities				
	4. Monitoring of ECORD participation in Scientific Ocean Drilling				
15:30 – 16:00	Coffee - Tea break				
16:00 – 17:15	5 - Discussion Items - 2				
	Virtual Expeditions concept				
	2. Communication on last PMO meeting				
	3. ECORD-Japan involvement of the scientific community				
	4. National offices support of travel expenses (discussion)				
	5. Outreach ECORD Puffersphere – recent and future displays				
	EGU GA 2023 Session Achievements and perspectives in scientific ocean and continental drilling				
	7. Taira Prize				
17:15 – 17:30	AOB and Date and place of Next Meeting (Angelo, Hanno, All)				

1 – Introduction, logistics

Some last-minute changes occurred due to Covid:

- Gretchen had to cancel participation in person and shift to remote
- Jorijntje attended from her room via Zoom

The meeting scope was defined as:

"Informing delegates on recent accomplishments and informal discussion in preparation for the joint ECORD Council – ESSAC meeting of November 15-16"

2 - Updates on the ESSAC composition

Input from delegate was requested for ESSAC membership of Germany, Spain, and Sweden.

- The new Delegate from Germany is Susann Henkel, replacing Jan Behrman. Welcome Susan and goodbye Jan, Thanks for your continued support in the past years!
- The new Delegate from Sweden is Matt O'Regan. Welcome Matt. Jorijntje stays on as Alternate.
- The Delegate from Spain is temporarily confirmed with Carlota. New Delegates and Alternate for Spain will be communicated soon.

ESSAC membership:

Country	Delegate	Alternate		
Austria	Michael Strasser	Walter Kurz		
Canada	John Jamieson	Dominique Weis		
Denmark	Marit-Solveig Seidenkrantz	Paul Knutz		
Finland	Joonas Virtasolo	Christoph Beier		
France	Georges Ceuleneer	Anne Le Friant		
Germany	Susann Henkel	André Bornemann		
Ireland	David Hardy	Xavier Monteys		
Italy (Chair)	Angelo Camerlenghi	Riccardo Tribuzio		
Netherlands	Martin Ziegler	Jeroen van der Lubbe		
Norway	Helga F. Kleiven	Jan Sverre Laberg		
Portugal	Antje Voelker	Cristina Veiga-Pires		
Spain	Carlota Escutia (temporarily)	tbd		
Sweden Matt O'Regan		Jorijntje Henderiks		
Switzerland Gretchen Früh-Green		Silvia Spezzaferri		
United Kingdom Antony Morris		Kate Littler		

Action #1 Angelo Camerlenghi reports a summary of the discussion to the ECORD Council

3 - Minutes of ESSAC Spring 2022 Meeting and actions

The Minutes of the ESSAC Spring Meeting 2022 were approved and the Actins revised. Still pending is **Action #5:** ESSAC Office issues a Call for applications for the Distinguished Lecturer Program. The Call will be issued by the ESSAC Office in early 2023

4 - Discussion Items (all addressed briefly in preparation of a more in-depth discussion in the Joint Council-ESSAC Meeting)

4.1 - Update on Future Scientific Ocean Drilling

A brief outline was presented by Angelo and Tony on the known positions of the present Program Members, leaving all the details to the expanded discussion in the Joint ECORD Council – ESSA Meeting of the next two days.

- **ECORD-JAPAN** drilling program based on MSP *Chikyu* is progressing:
 - MoU Working Group
 - ECORD-Japan Workshop Planning WG / Steering Committee meeting
- NSF has not yet announced how the program will continue after 2024
 - Extension of JR operation beyond 2024 until 2028 maximum will be disclosed in early 2023
 - New drilling vessel. 10-year long process. Started with the drafting of a Science Mission Requirements document (https://usoceandiscovery.org/smr/)
 - Sample curation and data bases will be maintained after 2024 for 5 years.
 - The US Scientific community will lobby for a continuation of the program through the Scientific Ocean Drilling Alliance (SODA) (https://us-soda.org/)
- **China** has reported to the IODP Forum the intention to become an operator of riser and riserless drilling vessels and to build a core repository
- ANZIC and India are considering joining the ECORD-Japan program and the NSF program (if it will continue)
- Korea is working to identify resources to join future SOD, with no details available.

4.2 Expedition staffing – brief analysis of data inter-nos

ESSAC has resumed the regular activity after the pandemics.

The Expedition schedule is reviewd:

2023-2024 Schedule of the JOIDES Resolution

Exp. 398 Hellenic Arc Volcanic Field

Dec. 11, 2022 - Feb. 10, 2023

Exp. 399 Building Blocks of Life, Atlantis Massif

Exp. 395 Reykjanes Mantle Convection and Climate

Exp. 400 NW Greenland Glaciated Margin

Exp. 401 Mediterranean-Atlantic Gateway Exchange

Exp. 402 Tyrrhenian Continent-Ocean Transition

Exp. 403 Eastern Fram Strait Paleo-archive

Exp. 404 Arctic-Atlantic Gateway Paleoclimate

April 12 – June 12, 2023

June 12 – Aug. 12, 2023

Dec. 10, 2023 – Feb. 9, 2024

Feb. 9 – Apr. 8, 2024

June 4 – Aug. 2, 2024

Aug. 2 - Sept. 30, 2024

2023-2024 Schedule of MSP

Exp. 389 Hawaiian Drowned Reefs mid-August to end October 2023

Exp. New England Shelf Hydrogeology if budget allows 2024

2023-2024 Schedule of the Chykyu

Proposal 835 Japan Trench Tsunamigenesis 2024 Proposal 939-APL3 Petit-Spot Magmatism 2024

The staffing is reviewed and a summary of the recent ECORD participation, is presented:

ECORD PARTICIPATION IN RECENTR EXPEDITIONS

Year	Shipboard scientists	of which CC	of which Observers	
2022 - Exp. 391, 392, 390, 393, 3970	51	6	1	
2023 - Exp. 398, 395, 399 No Exp. 398	33	5	3	

	2022					2023				2024							
	JR	JR	JR	JR	MSP	JR	JR	JR	JR	MSP	JR	JR	JR	JR	MSP	Chikyu	JR
	Exp. 391	Exp. 392	Exp. 390	Exp. 393	Exp. 377	Exp. 397	Exp. 398	Exp. 395	Exp. 399	Exp. 389	Exp. 400	Exp. 401	Exp. 402	Exp. 403			Exp. 404
	Walvis Ridge Hotspot	Aghulas Plateau Cretaceous Climate	South Atlantic Transect 1	South Atlantic Transect 2	Arctic Ocean Paleoceanog raphy	Iberian Margin Paleoclimate	Hellenic Arc Volcanic Field	Reykjanes Mantle Convection and Climate	Building Blocks of Life, Atlantis Massif	Hawaiian Drowned Reefs	NW Greenland Glaciated Margin	an-Atlantic Gateway	Tyrrhenian Magmatism and Mantle Exhumation (TIME)	Eastern Fram Strait Paleo Archive (FRAME)	to be decided by EFB	to be decided by CIB	Arctic- Atlantic Gateway Paleoclimate
Main											FC-0000	50000	FC-000	FC-000			50000
proponent		EC@RD	EC@RD	EC@RD	EC@RD	EC@RD	EC@RD		EC@RD		EC@RD	EC@RD	EC@RD	EC@RD			EC@RD
Co-Chief	1	1	1	1	1	2	2	1	1	0	1	2	1	1			1
Regular Call	3	8	7	4	17	6	6	5	6		6						
Special Call	6	2	3	5	0	1	1	4	0	staffing in	0	staffing in	staffing in	staffing not			staffing not
Observer	0	0	0	0	0	1	3	0	0	progress	0	progress	progress	yet open			yet open
Total	10	11	11	10	18	10	12	10	7		7						

ECORD has contributed to most of the proposals recently implemented with JR expeditions. The average of the ECORD shipboard participants per JR expedition is ~10, clearly more than the 7 participants agreed in the MoU. This reflects the success of ECORD applications to Special Calls. Overall, the ECORD participation in IODP expeditions is excellent and well beyond expectations.

43. Past and future training activities

The Funding of ECORD early-career scientists and PhD Students in training School and Research Grant opportunities is reviewed:

ECORD Summer Schools 2022	Participants	ESSAC Grants
Bremen ECORD Summer School 2022, MARUM, University of Bremen, "Sea level, climate variability, and coral reefs", 5-16 September 2022	~30	6
Urbino Summer School in Paleoclimatology 2022, University of Urbino, 7-20 July 2022	46	15
Downhole Logging for IODP Science, Leicester, UK, 4-8 July 2022 (ONLINE)	~25	-

Other Schools 2022		
GLAcial Sedimentation School (GLASS): Interpreting past climate using Antarctic and Greenland sediment cores 2022. Oregon State University Marine and Geology Repository (OSU-MGR), Corvallis, OR, USA, 23–27 May 2022	23	8
ANZIC Marine Geoscience Masterclass	future	2 planned

In 2022 only, ~ 100 trainees have been involved in Schools and 29 grants have been issued.

ESSAC agrees that training activities are considered extremely important for the post-2024 scientific ocean drilling.

Important points to be considered:

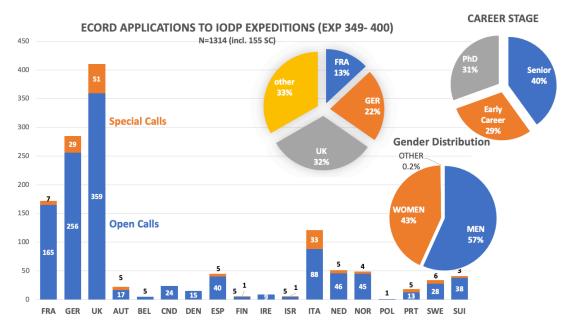
- There should be an integrated offer of training activities at ECORD-Japan level, possibly including other program members
- Unified web page of applications and announcements
- Additional training activities, jointly with Japan? Jointly with ICDP?

Action #1. ESSAC office promotes the coordination of training activities in the process of writing the ECORD-Japan MoU and in the agreements to be established with other Members.

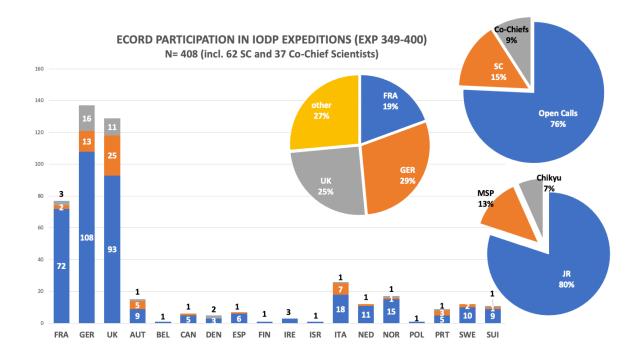
4.4 Monitoring of ECORD participation in Scientific Ocean Drilling

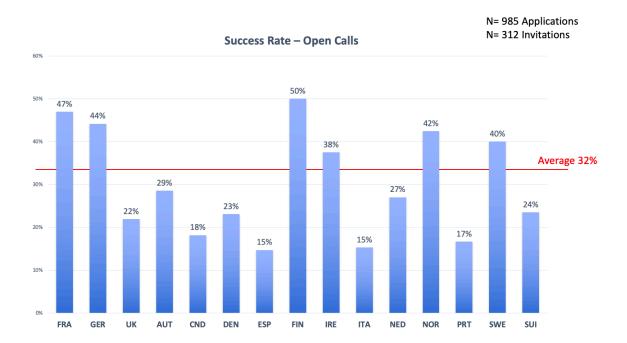
An exercise of Monitoring of the ECORD scientists participation in al ECORD activities in IODP is presented by Hanno, with the contribution of Giulia Casalena (Trainee at ESSAC Office).

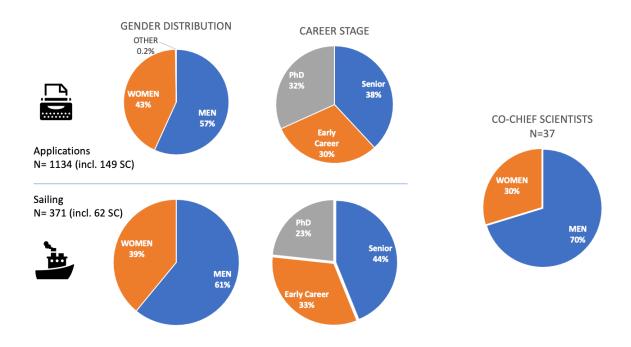
The key results are reposted in the following graphics (detailed presentation and discussion is postponed to the joint ECORD Council – ESSAC meeting of the next two days):



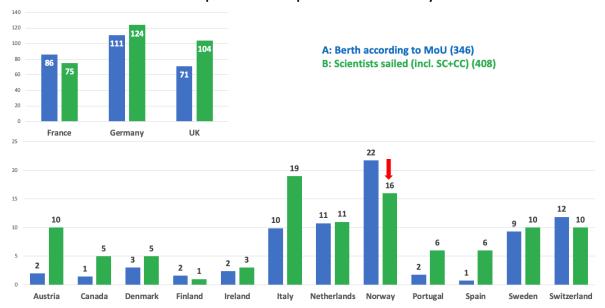
Note: this includes EXP373, 377, 387, 388, 389 (all have been postponed)



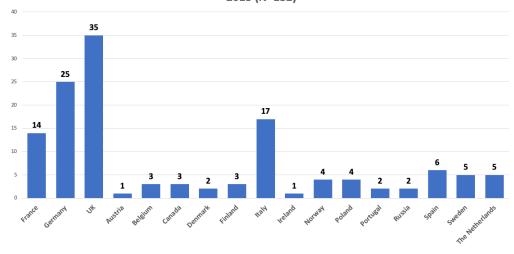




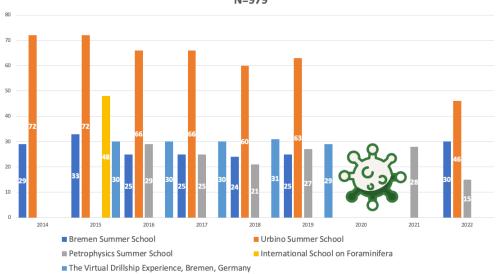




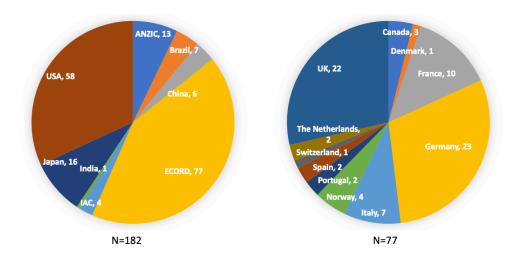
ECORD SCHOLARSHIPS awarded to participate in Summer Schools since 2013 (N=132)



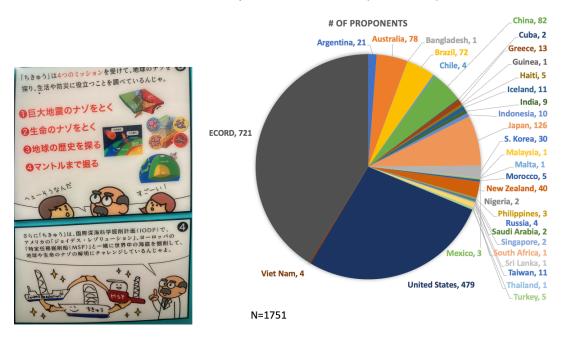
Participants in ECORD Educational Activities N=979



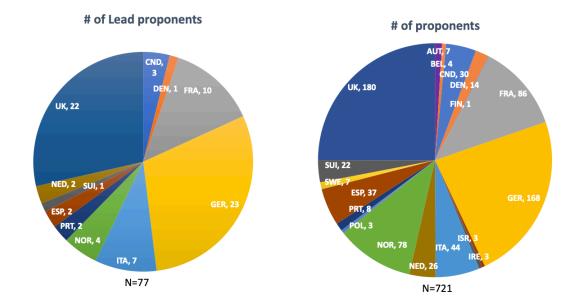
IODP Proposals @SEP since 2013 (all Platforms) by ECORD Lead- Proponent

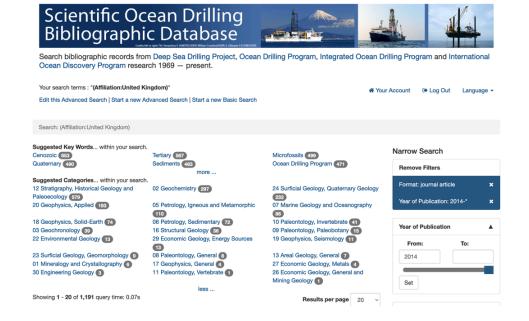


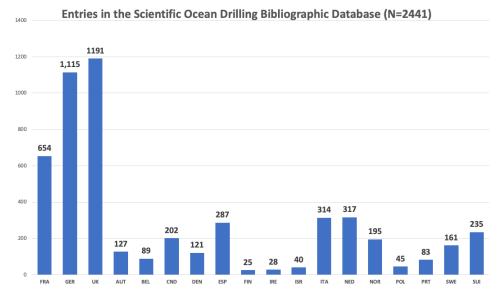
IODP Proposals @SEP since 2013 (all Platforms)



IODP Proposals @SEP since 2013 (all Platforms) ECORD Proponents







Note, the Database is not complete, but for comparison it is reasonable accurate

In order to monitor and evaluate the performance of scientists from ECORD members beyond the berths count, it is important to systematically track the 'access' to the ECORD infrastructure by all scientists/students, in all ECORD activities. Points to be considered:

- How to install a monitoring system at the beginning of the ECORD-JAPAN program post 2024
- Engagement in the program at any level mandatory through a common internet portal
- What activities to monitor (see discussion in Stockholm)
- How to track the publication record
- Do we need a data manger?

Scheme of monitoring (per ECORD member country per year) for post-2024:

Expeditions:

Applications received

Invitations

Co-Chief Scientist

Regular Calls

Special Calls

Observers

Sample Requests

Submitted

Accepted

Participation in Advisory Structure

SEP - equivalent

EPSP - equivalent

ILP - if continued

FB – equivalent

Magellan+

Others?

Offer of Training Activities (number of activities)

Summer Schools

Short Courses

Distinguished Lectures

Participation in Training Activities (Summer Schools Short Courses, Distinguished Lectures)

Applications received

Applications accepted

Grants issued

Site Survey Cruises as IKC

Offer of Outreach activities Participants in Outreach Activities Scientific Publications PhD and Master Theses

Action #2 – ESSAC Office continues promoting the need of a structured, online-based monitoring system in for post-2024 scientific ocean drilling.

5 - Discussion Items - 2

5.1 Virtual Expeditions concept

Angelo reports on the activity of the JRFB Working Group

JRFB Working Group on Virtual Expeditions

At its June 2021 meeting, the JRFB approved Action Item 6: Virtual Expedition Working Group. "The JRFB Chair will formulate a working group to explore the scope and requirements for developing Virtual Expeditions that could occur in any new phase of scientific ocean drilling. This working group will coordinate with the USAC Legacy Data Working Group and J-DESC."

Motivation

Desire to explore opportunities and to develop expectations for virtual expeditions that:

- 1) may be coordinated research efforts during times of reduced platform operations, or
- 2) may be distinct research efforts not linked to contemporaneous drilling during times of regular platform operations.

Two major tasks:

- 1) To define the minimum requirements for a research effort to be considered a virtual expedition.
- 2) To develop recommendations for procedures related to the evaluation, endorsement, and scientific outcomes/scientific legacy of a virtual expedition

ESSAC agrees on the following reasons for the interest in the implementation of virtual expeditions in post 2024 scientific ocean drilling:

Such "Virtual Expeditions" will

· expand the shore-based participation of scientists in scientific ocean drilling

- increase the value of scientific ocean drilling legacy data beyond the existing mechanisms of sample requests to core repositories
- generate data that can provide crucial information for the development of future drilling proposals
- · contribute to the implementation of the FAIR data in scientific ocean drilling
- generate particularly attractive research opportunities for ECRs: from training to leadership
- · reinforce the bottom-up, proposal driven, international character of scientific ocean drilling

Such "expeditions" are viewed as

- multi-disciplinary, structured, scientific initiatives addressing the 2050 Science Framework and subject to scientific validation by an international panel
- initiatives undergoing a rapid assessment relatively to drilling expeditions
- initiatives rapidly implemented

Critical points

- involvement and support to Core Repositories because of envisaged increased work load
- funding supporting scientists during data collection in core repositories and subsequent analytical work

The essential attributes for any activity to be considered a "virtual expedition" are preliminarily and identifies as follows:

- Proposed science based on existing (legacy) data and samples and their analysis or re-analysis.
- Large (number of data/samples). Inclusion of data science approaches preferable (or mandatory?)
- Multi-disciplinary (number of disciplines)
- Multi-national (number of involved countries)
- Multi-year (work-plan exceeding n years)

It is understood that the JRFB WG will generate a consensus on definitions and attributes, including a proposal for a name that is likely not going to be 'Virtual Expeditions'.

Action #3 -ESSAC Office (Angelo is the ESSAC delegate to this WG) continues working in the JRFB WG and updated its members in order to propose the inclusion of "Virtual Expedition" concepts in the ECORD-Japan MoU in early 2023.

5.2 Communication on last PMO meeting

Angelo and Hanno report on the PMO meeting at LDEO on 16 September 2022.

Relevant items discussed were

Flagship Initiative Workshop on Ground-truthing Climate Change

Because of uncertainty surrounding U.S. participation in post-IODP scientific ocean drilling activities, planning for an initial Flagship Initiative workshop on Ground Truthing Future Climate Change should

be postponed until NSF renders its decision on a 2025-28 extension of the *JOIDES Resolution*. However, it was agreed that text should be developed for a global call from PMOs for steering committee members to guide this Flagship Initiative.

Expedition Staffing - Standardizing applications across PMOs

In response to a recommendation from the recent Co-Chief review meeting at JRSO, the PMOs affirm the value of a standardized approach, to the extent possible, for all IODP applications to sail. While it is not practical to use the exact same application forms, all PMOs will make efforts to ensure that critical information (key personal details of applicants, expertise, previous scientific ocean drilling experience, research plan, short CV, and letters of recommendation for all students) are provided to operators, possibly via a centralized web page.

Expedition Staffing - New approaches or strategies for the post-IODP phase

The PMOs agree that there should be a collaborative PMO effort to produce a record of the International Ocean Discovery Program's most outstanding scientific achievements, or "Greatest Hits." Multiple distribution channels, both digital and analogue, should be pursued to disseminate this information, which should be organized by IODP theme.

USSSP will lead the effort to develop an "IODP Greatest Hits" document and determine suitable distribution channels that will maximize its impact to the scientific community, government stakeholders, and global citizenry.

Follow-up on virtual expedition discussion from the Forum

The PMOs endorse efforts to support general ocean drilling-related projects at modest funding levels, such as USSSP's Novel Projects Program and ANZIC's Legacy Analytical Funding. The possibility of providing a centralized page with links to these project descriptions, perhaps on the iodp.org site, should be explored.

The ANZIC, ECORD, USSSP, and J-DESC offices will collaborate in developing text for a global call for steering committee members to plan a Flagship Initiative focused on Ground Truthing Future Climate Change.

When action will resume on these items (Likely after the NSF will have communicated its intentions for post-2024 scientific ocean drilling, ESSAC volunteers are needed to participate in the activities.

5.3 ECORD-Japan involvement of the scientific community

Angelo and Hanno report on the organization of the joint ESSAC – JDESC initiatives to Workshop aiming at enhancing European and Japanese scientific collaboration for post-2024 scientific ocean drilling. After the Webinar offered on 12-14 April 2022, an ECORD-Japan Workshop Planning Working Group – Steering Committee has been established to organize two workshops on the future of Scientific Ocean Drilling with Mission-Specific Platforms and *Chykiu*.

Workshop #1 will be held online only in January 2023, aiming at a wide participation to inform inform on future plans, review existing proposals and identify gaps to be filled with new proposals. There will be a bottom up presentations of new ideas.

Workshop #2 is tentatively planned for autumn 2023, aiming at a smaller participation, with proponents teams to define roadmaps for the submission of new proposals and to applications for funding for proposal-specific workshops.

The ECORD-JAPAN Steering Committee is the following:

Steering Committee Members		
ALOISI, Giovanni	ECORD - France	
BAUERSACHS, Thorsten	ECORD - Germany	
BELL, Rebecca	ECORD - UK	
CAMERLENGHI, Angelo	ECORD - Italy	
COXALL, Helen	ECORD – Sweden	
KINKEL, Hanno	ECORD - Italy	PMO representative
KINOSHITA, Masa	Japan	
KURODA, Junichiro	Japan	
KUROYANAGI, Azumi	Japan	
MATSUZAKI, Kenji	Japan	
MORISHITA, Tomo	Japan	
MORONO, Yuki	Japan	
MORRIS, Antony	ECORD - UK	
PLÜMPER, Oliver	ECORD - The Netherlands	
SAITO, Sanny	Japan	PMO representative
SCHWARZENBACH, Esther	ECORD - Switzerland	
UJIIE, Kohtaro	Japan	

5.4 National offices support of travel expenses (discussion)

This item was addressed with a brief discussion on increasing cases of difficulties for scientists to cover travel costs to post-cruise activities. The ESSAC Office receives requests to cover such costs and the question is whether a dedicated budget should be considered.

The discussion outlines that each member country, via a central office or via the institutions of the ECORD scientists, should cover such costs, and that the use of ESSAC resources should be considered only in exceptional cases.

Action #4 -ESSAC Office enquires with ECORD Council.

5.5 Outreach ECORD Puffersphere – recent and future displays

The puffersphere is beginning to travel around Europe:

Italian Geological Society (SGI) Italian Society of Mineralogy and Petrology (SIMP) Joint Congress: **Geosciences for a sustainable future** (Turin, September 19-21 2022).

Trieste Next Science Festival, Trieste (22-24 September 2022). Several thousand people have seen and interacted with the Puffersphere, which is very attractive and draws a lot of intention. We are currently improving the content and plan future exhibitions and involvements in events.

Proposals for display of the Puffersphere are needed.



ECORD Puffersphere on display at the Trieste Next Science Festival, Trieste (22-24 September 2022)

Action #5 -ESSAC Office, jointly with other ECORD entities, promotes the display of teh Puffersphere in other locations in Europe.

6.6 EGU GA 2023 Session Achievements and perspectives in scientific ocean and continental drilling

Angelo and Jorjintje report on the progress made jointly with ICDP to move the traditional Joint ECORD/IODP - ICDP Scientific Session the EGU General Assembly, "Achievements and perspectives in scientific ocean and continental drilling" is moved to **Inter- and Transdisciplinary Sessions (ITS).**

It is announced that in EGU General Assembly 2023 the Session will have an additional convener representing the Japanese scientific Drilling community (Prof. Harue Masuda) and that it will be indeed hosted by Inter- and Transdisciplinary Sessions (ITS) jointly with Stratigraphy, Sedimentology and Paleontology (SPP) Division.

Achievements and perspectives in scientific ocean and continental drilling

Conveners: Thomas Wiersberg, Angelo Camerlenghi, Cindy Kunkel, Jorijntje Henderiks, Harue Masuda

The Session will be co-sponsored by the Japan Geoscience Union and J-DESC.

All members are asked to advertise the opportunity to submit abstracts.

Action #6 – All ESSAC members: advertise the Joint ECORD/IODP - ICDP Scientific Session the EGU General Assembly, "Achievements and perspectives in scientific ocean and continental drilling"

5.7 Taira Prize

Angelo reports on the Asahiko Taira International Scientific Ocean Drilling Research Prize

https://www.agu.org/Honor-and-Recognize/Honors/Union-Prizes/Taira-Prize

The Asahiko Taira International Scientific Ocean Drilling Research Prize is awarded annually in recognition of outstanding, transdisciplinary research accomplishment in ocean drilling.

The prize is given in partnership between the American Geophysical Union and the Japan Geoscience Union. The nominee must be an active scientist within 15 years of receiving the PhD in any discipline. The nominators must be active AGU members.

Nominations for the 2023 Taira Prize will be possible from 15 October 2022 to 15 April 2023 (see https://bit.ly/33eodcR). The Taira Prize is an engraved crystal award with a \$18K USD monetary prize.

There will be a recognition in Eos and at the AGU Fall Meeting. The Chair of the Taira Prize committee is Mike Coffin.

All ESSAC members are invited to think of possible candidates.

Action #7 – All ESSAC members: identify possible candidates to the Taira Prize from ECORD countries

AOB and Date and place of Next Meeting (Angelo, Hanno, All)

It is decided to hold the ESSAC Spring 2023 meeting in the period April-May 2023.

Volunteers are needed. Portugal has put forward a preliminary offer.

Action #8 - ESSAC Office: identify hosts and dates of ESSAC Spring 2023 meeting

The meeting ends at 18:00 on November 14 2022