



EUROPEAN CONSORTIUM FOR  
OCEAN RESEARCH DRILLING

# MINUTES

ECORD Council-ESSAC Meeting #10

20-21 October 2021

Granada, Spain



## TABLE OF CONTENTS

ROSTER.....	3
1. INTRODUCTION .....	5
1.1 Self-introductions (All).....	5
1.2 Logistical information (C. Escutia).....	5
1.3 Approval of the agenda (G. Camoin/M. Webb/A. Morris).....	5
1.4 Objectives of the meeting (M. Webb/A. Morris/G. Camoin) .....	5
1.5 Action items on hold/in progress since the Council-ESSAC #9 meeting (N. Hallmann) .....	5
2. ECORD BUDGET, MEMBERSHIP AND MANAGEMENT.....	5
2.1 ECORD News and Budget (G. Camoin).....	5
2.2 ESSAC News - ECORD expedition staffing and quotas (A. Morris).....	9
3. RECENT AND FUTURE MSP EXPEDITIONS.....	11
3.1 IODP Expedition 386: Japan Trench Paleoseismology - operations and outreach (D. McInroy/S. Draper/M. Bednarz/U. Prange).....	11
3.2 IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) - operations and outreach (D. McInroy/S. Draper/M. Bednarz/U. Prange) .....	12
3.3 ECORD Facility Board (G. Uenzelmann-Neben).....	15
3.4 MagellanPlus Workshop Series (L. Lourens).....	17
4. ECORD AWARDS.....	11
5. THE FUTURE OF SCIENTIFIC OCEAN DRILLING: 2024 AND BEYOND .....	18
5.1 IODP Forum (H. Brinkhuis) .....	18
5.2 FY2024 (G. Camoin).....	18
5.3 Inter-Governmental Meeting (G. Camoin) .....	19
CLOSED SESSION (ECORD Council and EVTF members only) .....	23
6. REPORT ON CLOSED SESSION (G. Camoin) .....	23
7. NEWS FROM ECORD MEMBER COUNTRIES (ECORD Council & ESSAC Delegates).....	26
8. IODP NEWS AND ECORD PARTNERSHIP.....	30
8.1 JOIDES Resolution Facility Board (G. Camoin).....	30
8.2 <i>Chikyu</i> IODP Board (G. Camoin) .....	31
8.3 PMOs (A. Morris).....	33
8.4 SEP (L. McNeill) .....	34
9. ECORD FACILITIES .....	36
9.1 ECORD Petrophysical Consortium - EPC (S. Davies) .....	36
9.2 Bremen Core Repository - BCR (U. Röhl) .....	37
10. EDUCATIONAL ACTIVITIES .....	39
10.1 ECORD Summer Schools and Training Course/ECORD Scholarships (H. Kinkel/U. Röhl/S. Davies).....	39
10.2 ECORD Distinguished Lecturer Programme (H. Kinkel).....	39
10.3 ECORD Research Grants (H. Kinkel) .....	39
11. OUTREACH ACTIVITIES outside MSP expeditions (M. Bednarz) .....	39
12. CONCLUSIONS.....	41
12.1 Summary of outcomes (M. Webb/G. Lüniger/A. Morris/G. Camoin).....	41
12.2 Next ECORD Council-ESSAC meetings (G. Lüniger/A. Camerlenghi) .....	41
ACKNOWLEDGEMENTS .....	41
LIST OF ACRONYMS.....	42

## ROSTER

<b>ECORD COUNCIL</b>	<b>NAME</b>	<b>EMAIL</b>
ÖAW - Austria	Bernhard Plunger**	Bernhard.Plunger@oeaw.ac.at
CCOD - Canada	John Jamieson*	jjamieson@mun.ca
CCOD - Canada	Dominique Weis (Alt.)	dweis@eoas.ubc.ca
DAFSHE - Denmark	Marit-Solveig Seidenkrantz	mss@geo.au.dk
Academy of Finland	Hanna Pikkarainen*	hanna.pikkarainen@aka.fi
Academy of Finland	Minna Raisanen (Alt.)**	minna.raisanen@aka.fi
CNRS - France	Stéphane Guillot*	Stephane.GUILLOT@cnrs.fr
CNRS - France	France Lagroix (Alt.)**	lagroix@ipgp.fr
DFG - Germany	Guido Lüniger (Vice-Chair)**	guido.lueniger@dfg.de
GSI - Ireland	Koen Verbruggen**	Koen.Verbruggen@gsi.ie
CNR - Italy	Annalisa Iadanza	annalisa.iadanza@cnr.it
NWO – The Netherlands	Bernard Westerop**	b.westerop@NWO.NL
Forskningsradet Norway	Markus Engelhardt**	men@rcn.no
FCT - Portugal	Fatima Abrantes**	fatima.abrantes@ipma.pt
MCIN - Spain	José Juan Sanchez Serrano	josej.sanchez@ciencia.gob.es
VR - Sweden	Magnus Friberg**	magnus.friberg@vr.se
FNS - Switzerland	Martina Kern-Lütschg**	martina.kern@snf.ch
UKRI - UK	Michael Webb (Chair)**	michael.webb@nerc.ukri.org
<b>ESSAC</b>		
Austria	Michi Strasser*	Michael.Strasser@uibk.ac.at
Austria	Walter Kurz (Alt.)**	walter.kurz@uni-graz.at
Canada	John Jamieson*	jjamieson@mun.ca
Canada	Dominique Weis (Alt.)	dweis@eoas.ubc.ca
Denmark	Marit-Solveig Seidenkrantz	mss@geo.au.dk
Denmark	Paul Knutz (Alt.)	pkn@geus.dk
Finland	Jonaas Virtasalo*	joonas.virtasalo@gtk.fi
France	Georges Ceuleneer	georges.ceuleneer@get.omp.eu
Germany	Jan Behrmann	jbehrmann@geomar.de
Ireland	David Hardy**	David.Hardy@gsi.ie
Italy	Angelo Camerlenghi (Vice-Chair)	acamerlenghi@inogs.it
Italy	Riccardo Tribuzio**	tribuzio@crystal.unipv.it
Netherlands	Martin Ziegler**	m.ziegler@uu.nl
Norway	Helga F. Kleiven*	kikki@uib.no
Portugal	Antje Voelker**	antje.voelker@ipma.pt
Spain	Carlota Escutia	cescutia@ugr.es
Sweden	Jorijntje Henderiks	jorijntje.henderiks@geo.uu.se
Switzerland	Gretchen Früh-Green	frueh-green@erdw.ethz.ch
UK	Antony Morris (Chair)	A.Morris@plymouth.ac.uk
<b>LIAISONS</b>		
EMA	Gilbert Camoin	camoin@cerege.fr
EMA	Nadine Hallmann	hallmann@cerege.fr
EMA	Malgorzata Bednarz**	bednarz@cerege.fr
ESO - BGS	David McInroy**	dbm@bgs.ac.uk
ESO - MARUM	Ulrike Prange**	uprange@marum.de
ESO - EPC	Sarah Davies**	sjd27@leicester.ac.uk
ESO - EPC	Simon Draper*	sd227@leicester.ac.uk
ESO - EPC	Katharina Hochmuth**	kh355@leicester.ac.uk
ESO - BCR	Ursula Röhl**	uroehl@marum.de

ECORD FB	Gabi Uenzelmann-Neben	Gabriele.Uenzelmann-Neben@awi.de
ESSAC Office	Hanno Kinkel	hanno.kinkel@plymouth.ac.uk
MagellanPlus	Lucas Lourens**	l.j.lourens@uu.nl
IODP Forum	Henk Brinkhuis**	Henk.Brinkhuis@nioz.nl
SEP	Lisa McNeill**	lcmn@noc.soton.ac.uk
<b>OBSERVERS &amp; GUESTS</b>		
Univ. Graz	Werner Piller	werner.piller@uni-graz.at

\* Apologies

\*\* By videoconference

**20 October 2021**

(9:00)

G. Camoin opened the meeting and explained the meeting rules.

## **1. INTRODUCTION**

### **1.1 Self-introductions (All)**

(9:02)

M. Webb let all the participants begin self-introductions.

### **1.2 Logistical information (C. Escutia)**

See agenda book.

### **1.3 Approval of the agenda (G. Camoin/M. Webb/A. Morris)**

(9:14)

M. Webb presented the agenda. The ECORD Council approved the agenda.

#### **ECORD Council Consensus 21-10-01:**

The ECORD Council approves the agenda of the ECORD Council Meeting #10.

In favour: 15, Abstain: 0, Against: 0, Absent: 0

### **1.4 Objectives of the meeting (M. Webb/A. Morris/G. Camoin)**

(9:15)

G. Camoin presented the main objectives of the meeting: 1) MSP 2023 scheduling; 2) FY2024 as a continuation of the current IODP; and 3) post-2024 intentions.

### **1.5 Action items on hold/in progress since the Council-ESSAC #9 meeting (N. Hallmann)**

(9:17)

The status of action items and consensus statements reached by email since the ECORD Council-ESSAC meeting #9 that was held in October 2020 can be found in the agenda book (pages 12-21).

## **2. ECORD BUDGET, MEMBERSHIP AND MANAGEMENT**

### **2.1 ECORD News and Budget (G. Camoin)**

(9:17)

G. Camoin presented the ECORD news, the budget situation for FY21 (Tables 1 and 2), FY22 (Tables 3 and 4) and budget projections until FY24.

2019-2023 ECORD Memorandum of Understanding (MoU): At the moment ECORD has 15 member countries. Spain and Germany still need to sign the 2019-2023 ECORD MoU.

COMMENT by J. J. Sanchez Serrano (Spain) concerning the signature of the 2019-2023 ECORD MoU:

*Spain did not yet sign the 2019-2023 ECORD MoU due to administrative problems, but is now in the process of signing the MoU. The 2019-2023 ECORD MoU has been revised by the Ministry of Foreign Affairs and the Spanish contribution to ECORD is included in the national budget. The Council of Ministers still needs to approve the MoU and this should be done before the end of 2021 so that the 2021 contribution can be paid. There will not be any problem for the next years once the MoU has been approved.*

DISCUSSION about the Spanish membership:

*Spain is close to sign the 2019-2023 ECORD MoU, but at the moment there are still restrictions for Spanish scientists to sail (G. Camoin). ESSAC is staffing North Atlantic expeditions, e.g., IODP Expedition 397: Iberian Margin Paleoclimate, where the Spanish science community can play a significant role (G. Camoin). The ECORD Council needs to discuss if full membership can be given back to Spain so that Spanish scientists can apply for upcoming IODP expeditions (G. Camoin). There is already an imbalance between Spanish financial contributions and the allocation of berths (M. Webb). The restrictions have been applied because Spain did not pay its contributions over a couple of years; quotas are a different issue = ESSAC procedure (G. Camoin). It would be good to wait until the end of 2021 to confirm the positive work done by Spain (F. Lagroix). There are two JR expeditions to be staffed in 2021 (A. Morris). Currently, Spain is almost four berths overquota and this situation makes it impossible to sail Spanish scientists (A. Morris). The ECORD Council could make a gesture by removing the restrictions, but this would not change the quota-based choice of sailing scientists by ESSAC (A. Morris). The efforts made by Spain to sign the ECORD MoU should be acknowledged and Spain should become again a regular ECORD member (G. Camoin/F. Abrantes). Spain should be accepted as a full member so that Spanish scientists could apply for a Special Call (A. Camerlenghi). Special Calls could be a good opportunity for Spanish scientists (A. Morris). ECORD accepts the full membership of Spain as Spain managed to resolve the situation and the Spanish community should be informed about this decision (M. Webb).*

**ECORD Council Consensus 21-10-02:**

The ECORD Council appreciates the efforts deployed by the Spanish Ministry MCIN concerning the signature of the 2019-2023 ECORD Memorandum of Understanding. In light of these recent developments, the ECORD Council unanimously decides to remove restrictions concerning the selection of Spanish scientists as Science Party members on IODP expeditions.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

### **Action Item 1: EMA**

To mention in the 'ECORD News' of the upcoming ECORD Newsletter that restrictions concerning the selection of Spanish scientists as Science Party members have been removed by the ECORD Council.

ECORD membership: In 2019 and early 2020, ECORD was in contact with its past members Israel, Poland and Belgium as well as with Croatia, Greece and Russia concerning a potential membership. Since the start of the COVID-19 crisis there was no contact anymore, but the contact will be started again as soon as the global health situation improves. In 2021, ECORD has been in contact with the United Arabian Emirates concerning a potential ECORD membership.

There are following changes in the ECORD structure:

- 1) M. Webb (UK) is ECORD Council Chair in 2021. G. Lüniger (GER) is incoming Vice-Chair since 1 July 2021 and will become Chair on 1 January 2022.
- 2) A. Morris (UK) is ESSAC Chair until 31 December 2021. A. Camerlenghi (ITA) is incoming Vice-Chair before becoming Chair on 1 January 2022.
- 3) G. Uenzelmann-Neben (GER) will be EFB Chair until 31 December 2022. Alexandra Turchyn (UK) will be Vice-Chair in 2022 before becoming Chair on 1 January 2023.

Lisa McNeill (UK) is SEP Co-Chair until 30 April 2022 and Henk Brinkhuis will replace Dick Kroon (NLD) as IODP Forum Chair on 1 October 2021.

The ECORD Council core group consists of five members: the Chair, the Vice-Chair and three additional Council delegates. The three major contributors will automatically belong to this core group. The current members of this core group are M. Webb (UK), G. Lüniger (GER), S. Guillot (FRA), M. Engelhardt (NOR) and B. Westerop (NLD).

G. Camoin presented the rotation scheme for the ECORD Council. G. Lüniger (GER) is the incoming ECORD Council Vice-Chair since 1 July 2021 and he will become ECORD Council Chair starting on 1 January 2022. M. Webb (UK) will be outgoing Vice-Chair during the first half of 2022. Following the rotation scheme, the new incoming Vice-Chair during the second half of 2022 should be S. Guillot (FRA).

ECORD contracts: All 2022 MoUs and contracts are in place: ECORD-NSF MoU, ECORD-JAMSTEC MoU, ESSAC, IODP Forum Chair, BCR, BGS, ECORD-SPRS for ArcOP and ECORD-BGR concerning the IKC for ArcOP.

Post-2023 international scientific ocean drilling has been discussed during various ECORD and IODP meetings as well as during bilateral meetings with China and Japan. Bilateral meetings with NSF, ANZIC and IODP India will be organized soon.

G. Camoin presented the content of the ECORD Annual Report 2021. The call for contributions will be distributed in mid-November. The deadline for submission of contributions will be on 15 January 2022. The review of all sections will be done until 31 January 2022 and further editing until the end of February. Printed copies will be sent on 16 March 2022.

G. Camoin listed the 2022 ECORD and IODP meetings.  
(see <https://www.ecord.org/calendar/>)

G. Camoin summarized the ECORD FY21 budget situation (Tables 1, 2). At the moment ECORD has 15 member countries. France, Ireland and Spain are paying in euros, Denmark in kroner and the UK in pounds. FY20 ended with a positive balance of \$26.28M USD, which was carried over to FY21. Together with the FY21 member contributions of \$16.97M USD (Table 1), the FY21 income will yield \$43.26M USD. The expenses will be of \$20.77M USD and include the implementation of Expedition 386: Japan Trench Paleoseismology as well as a first payment for IODP Expedition 377: Arctic Ocean Paleoceanography. ECORD provided \$2M USD to MarE3 to use the Japanese vessel R/V *Kaimei* for IODP Expedition 386, in addition to the annual payment of \$1M USD for the *Chikyu*. FY21 will finish with a positive balance of \$22.48M USD (Table 2).

Table 1: ECORD FY21 member contributions

FY21 Contributions (US\$)	
DFG (Germany)	5 600 000
CNRS (France) *	3 908 000
UKRI (United Kingdom) *	3 364 000
Forskningsradet (Norway)	1 100 000
FNS (Switzerland)	600 000
NWO (The Netherlands)	600 000
CNR (Italy)	600 000
VR (Sweden)	400 000
MCIN (Spain) *	163 000
DAFSHE (Denmark) *	146 000
GSI (Ireland) *	109 000
CCOD (Canada)	115 000
ÖAW (Austria)	100 000
FCT (Portugal)	90 000
Academy of Finland	80 000
<b>TOTAL</b>	<b>16 975 000</b>
* Contributions in other currencies	

Table 2: ECORD FY21 budget

ECORD FY21 Budget (US\$)		
FY20 balance	26 284 157	
FY21 contributions	16 975 000	
ECORD-NSF MoU		7 120 000
ECORD-MarE3 MoU		3 170 000*
ESO		2 419 483*
X377- SPRS		6 700 000
EMA		343 480
MagellanPlus		86 800
IODP Chairs Support		169 000
ESSAC		290 675
BCR		365 490
Outreach basic		56 150
Award		50 000
<b>TOTAL</b>	<b>43 259 157</b>	<b>20 771 078</b>
<b>FY21 balance</b>	<b>22 488 079</b>	
* Including X386 implementation costs		

G. Camoin summarized the ECORD FY22 budget situation (Tables 3, 4). The FY22 member contributions will be of \$16.97M USD (Table 3). Together with the positive FY21 balance the FY22 income will yield \$39.48M USD (Table 4). FY22 expenses will be of \$30.32M USD and FY22 should finish with a positive balance of \$9.16M USD (Table 4). ESO FY22 expenses include the implementation of IODP Expedition 377: Arctic Ocean Paleoceanography.



Table 3: ECORD FY22 member contributions

FY22 Contributions (US\$)	
DFG (Germany)	5 600 000
CNRS (France) *	3 908 000
UKRI (United Kingdom) *	3 364 000
Forskingsradet (Norway)	1 100 000
FNS (Switzerland)	600 000
NWO (The Netherlands)	600 000
CNR (Italy)	600 000
VR (Sweden)	400 000
MCIN (Spain) *	163 000
DAFSHE (Denmark) *	146 000
GSI (Ireland) *	109 000
CCOD (Canada)	115 000
ÖAW (Austria)	100 000
FCT (Portugal)	90 000
Academy of Finland	80 000
<b>TOTAL</b>	<b>16 975 000</b>
* Contributions in other currencies	

Table 4: ECORD FY22 budget

ECORD FY22 Budget (US\$)		
FY21 balance	22 488 079	
FY22 contributions	16 975 000	
ECORD-NSF MoU		7 120 000
ESO		4 065 738*
X377 - SPRS		18 000 000
EMA		192 696
MagellanPlus		134 310
IODP Chairs Support		162 000
ESSAC		190 720
BCR		343 419
Outreach basic		46 550
X377 Outreach Officer		30 000
X377 TV doc		35 000
<b>TOTAL</b>	<b>39 488 079</b>	<b>30 320 433</b>
<b>FY22 balance</b>	<b>9 167 646</b>	
* Including X377 implementation costs		

G. Camoin continued to present the predictions for the ECORD FY21 to FY24 budgets. The ECORD Council needs to consider the 2022 funding of the *Chikyu*. G. Camoin proposed that ECORD should provide half of its current contribution in FY24 to the funding of the *JOIDES Resolution*, i.e., \$3.5M USD. The ECORD Council needs to approve this proposition. ECORD will have full membership rights for all FY24 JR expeditions. This contribution is not required to sail ECORD scientists, but it is a help to implement even a fifth JR expedition in FY24.

## 2.2 ESSAC News - ECORD expedition staffing and quotas (A. Morris)

(9:54)

A. Morris gave an overview of ECORD members on panels and boards, expedition staffing and ECORD educational activities.

ESSAC membership: Angelo Camerlenghi (ITA) is the incoming ESSAC Vice-Chair and he will become ESSAC Chair on 1 January 2022. Riccardo Tribuzio (ITA) and Jan Behrmann (GER) will rotate off.

SEP membership (see agenda book page 25): Since June 2021, there are three new ECORD SEP members: Christoph Beier (FIN), Anne Briaies (FRA) and Clara Bolton (FRA).

EPSP membership (see agenda book page 26): Toby Harrold, Respsol Exploration Madrid, is the new ECORD EPSP member.

Staffing of ECORD scientists on IODP Expeditions (see agenda book pages 26-27):

**Expedition 386**: Japan Trench Paleoseismology: Staffing is completed. Ten ECORD invited scientists plus one Austrian Co-chief Scientist were sailing.

**Expedition 395:** Reykjanes Mantle Convection and Climate: Staffing is completed. Ten ECORD invited scientists plus one French Co-chief Scientist were sailing.

**Expedition 396:** Mid-Norwegian Continental Margin Magmatism: Staffing is completed. Nine ECORD invited scientists plus one Norwegian and one German Co-chief Scientist are currently sailing.

**Expedition 391:** Walvis Ridge Hotspot: Staffing is completed. Eight ECORD invited scientists plus one German Co-chief Scientist are ready to sail.

**Expedition 392:** Agulhas Plateau Cretaceous Climate: Staffing is completed. Nine ECORD invited scientists plus one German and one UK Co-chief Scientist are ready to sail.

**Expeditions 390/393:** South Atlantic Transect: Staffing is completed. Fourteen ECORD invited scientists plus two UK Co-chief Scientists are ready to sail.

**Expedition 377:** Arctic Ocean Paleoceanography: Staffing is completed. Fourteen ECORD berths plus two IKC berths for Sweden, one IKC berth for Germany as well as one German Co-chief Scientist are ready to sail.

There are two open calls for Expedition 397: Iberian Margin Paleoclimate and Expedition 398: Hellenic Arc Volcanic Field, which will close on 1 November 2021.

Quotas: The large contributors are 11.7 underquota and the smaller contributors are 11.7 overquota (Table 5). France is significantly underquota with 9.3 and Germany is underquota with 4.3. The largest overquota has Spain with 3.9.

Table 5: Current quota situation.

All expeditions					Quota calculations								Quotas (excluding all CCs)					
Member	Non-quota Co-Chiefs	Quota Co-Chiefs (JR)	Invited scientists	Special call/IKC	Total berths	Total quota berths	Total non-quota berths	Berth entitlement	Quota difference	% of quota berths	% budget	% difference	Total quota berths	Berth entitlement	Quota difference	% of quota berths	%budget	% difference
France	1	1	70	1	73	71	2	80.3	-9.3	21.85	24.71	-2.86	70	78.1	-8.1	22.15	24.71	-2.56
Germany	11	4	96	12	123	100	23	104.3	-4.3	30.77	32.09	-1.32	96	101.4	-5.4	30.38	32.09	-1.71
UK	7	3	66	25	101	69	32	67.1	1.9	21.23	20.64	0.59	66	65.2	0.8	20.89	20.64	0.25
<b>Sum</b>	<b>19</b>	<b>8</b>	<b>232</b>	<b>38</b>	<b>297</b>	<b>240</b>	<b>57</b>	<b>251.7</b>	<b>-11.7</b>	<b>73.85</b>	<b>77.43</b>	<b>-3.59</b>	<b>232</b>	<b>244.7</b>	<b>-12.7</b>	<b>73.42</b>	<b>77.43</b>	<b>-4.02</b>
Austria	1	0	4	4	9	4	5	1.9	2.1	1.23	0.57	0.66	4	1.8	2.2	1.27	0.57	0.69
Canada	0	0	4	1	5	4	1	1.3	2.7	1.23	0.39	0.84	4	1.2	2.8	1.27	0.39	0.88
Denmark	1	0	2	0	3	2	1	2.9	-0.9	0.62	0.88	-0.27	2	2.8	-0.8	0.63	0.88	-0.25
Finland	0	0	1	0	1	1	0	1.5	-0.5	0.31	0.46	-0.15	1	1.4	-0.4	0.32	0.46	-0.14
Ireland	0	0	3	0	3	3	0	2.2	0.8	0.92	0.69	0.23	3	2.2	0.8	0.95	0.69	0.26
Italy	1	0	11	5	17	11	6	8.8	2.2	3.38	2.72	0.66	11	8.6	2.4	3.48	2.72	0.76
Netherlands	0	0	11	1	12	11	1	10.0	1.0	3.38	3.08	0.30	11	9.7	1.3	3.48	3.08	0.40
Norway	0	1	19	1	21	20	1	20.5	-0.5	6.15	6.30	-0.15	19	19.9	-0.9	6.01	6.30	-0.29
Portugal	0	0	2	1	3	2	1	1.7	0.3	0.62	0.52	0.10	2	1.6	0.4	0.63	0.52	0.12
Spain	0	0	5	0	5	5	0	1.1	3.9	1.54	0.35	1.19	5	1.1	3.9	1.58	0.35	1.23
Sweden	0	0	11	1	12	11	1	8.9	2.1	3.38	2.75	0.63	11	8.7	2.3	3.48	2.75	0.73
Switzerland	1	0	8	1	10	8	2	11.2	-3.2	2.46	3.44	-0.98	8	10.9	-2.9	2.53	3.44	-0.91
Belgium	0	0	1	0	1	1	0	0.1	0.9	0.31	0.04	0.27	1	0.1	0.9	0.32	0.04	0.27
Iceland	0	0	0	0	0	0	0	0.1	-0.1	0.00	0.02	-0.02	0	0.1	-0.1	0.00	0.02	-0.02
Israel	0	0	1	0	1	1	0	0.2	0.8	0.31	0.06	0.24	1	0.2	0.8	0.32	0.06	0.25
Poland	0	0	1	0	1	1	0	0.1	0.9	0.31	0.04	0.26	1	0.1	0.9	0.32	0.04	0.27
<b>Sum</b>	<b>4</b>	<b>1</b>	<b>84</b>	<b>15</b>	<b>104</b>	<b>85</b>	<b>19</b>	<b>73.3</b>	<b>11.7</b>	<b>26.15</b>	<b>22.57</b>	<b>3.59</b>	<b>84</b>	<b>71.3</b>	<b>12.7</b>	<b>26.58</b>	<b>22.57</b>	<b>4.02</b>
	<b>23</b>	<b>9</b>	<b>316</b>	<b>53</b>	<b>401</b>	<b>325</b>	<b>76</b>	<b>325</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>0</b>	<b>316</b>	<b>316</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>0</b>

### ECORD Summer Schools and ECORD Training Course:

All activities are on hold since the pandemic began, except for the online logging summer school “Downhole Logging for IODP Science”, which has been organised in September 2021.

ECORD Research Grants: The total budget is 18,000 € and top-ranked research grants will be funded with up to 3,000 € to support work on DSDP-ODP-IODP cores or data covering all sciences and topics relevant for IODP. In 2020, 13 ECORD Research Grants have been awarded (see agenda book page 30). In 2021, ten proposals from young scientists were received (4 from Italy, 4 from Germany, 1 from France, 1 from Sweden). ESSAC decided at its last meeting on 18 October to fund all received proposals.

Distinguished Lecturer Programme (DLP): on hold due to the pandemic, but it will be soon restarted.

The next ESSAC meeting will be held in late May or early June 2022 in Stockholm, Sweden.

### COMMENT on the two open calls:

*There is one extra berth for one of these two expeditions (397 and 398), i.e., JRSO will decide on which expedition 7 or 8 ECORD scientists will sail.*

## **3. RECENT AND FUTURE MSP EXPEDITIONS**

### **3.1 IODP Expedition 386: Japan Trench Paleoseismology - operations and outreach (D. McInroy/S. Draper/M. Bednarz/U. Prange)**

(10:11)

D. McInroy presented a summary of the offshore operation of IODP Expedition 386: Japan Trench Paleoseismology. The expedition has been originally scheduled for April-June 2020, but due to the global COVID-19 situation it has been rescheduled with a full Science Party for April-June 2021. An alternative plan has been proposed by ESO and MarE3 in Mid-February 2021 and a go-ahead was given seven weeks before the sailing date with 1) Japanese resident Science Party members only, 2) MarE3/JAMSTEC operator staff only and 3) ESO to provide EPM, Curator, Sampling, Petrophysics, Outreach and Database support.

Fifteen sites have been cored in water depths ranging from 7445 to 8023 mbsl. A total of 29 GPC cores has been recovered with a total recovered length of 831.2 m (89% recovery vs cored length). Along the Japan Trench 90 multibeam and sub-bottom profile survey lines have been conducted. Two new records in ocean research have been set: 1) the deepest site ever cored (8023 mbsl) and 2) the deepest sub-sea level sample ever taken (8060.74 mbsl).

The Onshore Science Party (OSP) onboard the D/V *Chikyu* was planned to start on 6 October 2021, but had to be postponed to 14 February 2022. A go/no-go decision will be taken on 23 November 2021 as global travel restrictions related to the COVID-19 crisis are still an issue. A revision of all Science Party sample plans is underway within ESO to enable the OSP to run as efficiently as possible. ESO is investigating various scenarios regarding scheduling and staffing options.

See agenda book pages 32-35 for further information about IODP Expedition 386.

U. Prange presented outreach activities related to IODP Expedition 386:

- Press release on 11 March 2021 to announce the expedition
- Exp. 386 blog: <https://expedition386.wordpress.com/>
- Social Media
- News item for the end of the offshore phase
- Marine Studies Group: Deepest of the Deep - online seminar for students on 12 May 2021
- Interviews: Wired, Austrian TV ORF, Terra Mater Magazine of Red Bull Media Publishing (Vienna), The Weather Network, Austria Press Agency
- Featured in: NatGeoKids, BBC News
- Fox News and Stephen Colbert (American comedian): “Japanese researchers dig deepest ocean hole in history”
- Japan Broadcasting Corporation (NHK) plans to include scenes from Exp. 386 in a documentary about earthquakes

*COMMENT on IODP Expedition 386: Japan Trench Paleoseismology:*

*This expedition has been a great operational success, but it is also a model for the future to implement expeditions jointly with two operators involved (G. Camoin). The Japanese are convinced by the MSP mode and they want to implement expeditions with other vessels than the Chikyu (G. Camoin).*

(10:28)

coffee break

(10:40)

### **3.2 IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) - operations and outreach (D. McInroy/S. Draper/M. Bednarz/U. Prange)**

(10:40)

D. McInroy presented an update on the planning of IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP).

Expedition Staffing: The Call for Scientists has been open from 16 March to 14 May 2021 and during this time an ArcOP Information Webinar (30 March) and an EGU Webinar

(27 April) have been organised. The PMOs forwarded shortlisted Science Party candidates to ESO on 25 June 2021 so that ESO could select a provisional Science Party together with the Co-chief Scientists on 19 August. Pre-invites have been sent to the Science Party on 3 September and all pre-invites have been accepted until 15 September. A full Online Invitation Pack will be issued that needs to be accepted before officially joining the Science Party. The closing date for a Special Call for a Paleogene radiolarian specialist was on 30 September 2021.

The provisional Science Party includes a total of 37 scientists: 17 from ECORD, 8 from the U.S., 4 from Japan, 1 from ANZIC, 1 from China, 1 from India and 1 from Korea as well as one observer from Russia, the Special Call and the two Co-chief Scientists from the U.S. and Germany. This is the largest Science Party on an MSP expedition.

The ESO Online Invitation Pack has been introduced to give information to the Science Party, to confirm the completion of certain actions like offshore safety training or to provide information to ESO for the operational planning.

Operational Planning: The offshore phase is planned for August-September 2022. The targeted port of departure is Tromsø and the fleet should leave Tromsø as close as possible to 1 August. The aim is to leave the ArcOP drill sites before mid-September. The timing of the OSP is still under discussion; it could be organised in late 2022 or early 2023. AMS and ESO watched ice conditions over summer 2021: the ArcOP drill sites have been a marginal ice location in August and the ice started to build in September. According to AMS, the ice conditions in 2021 would have been good to implement ArcOP. The ArcOP fleet is composed of the drilling vessel *Dina Polaris* from Geoquip Marine with an integrated GMTR120 rig, the Swedish icebreaker *Oden* (SPRS) and the Russian icebreaker *Viktor Chernomyrdin* (Rosmorport).

COVID-19: The Online Invitation Pack contains a section with COVID-19 measures. All participants will need to be vaccinated to the fullest extent possible, and provide evidence. All participants must accept the possibility of extra COVID-19 measures before and during the expedition.

ESO Operations Team: Three recruitment exercises for a new ESO Operations Manager in spring-summer 2021 have not been successful. ESO decided to split the duties of the ESO Operations Manager among the six existing BGS staff: Graham Tulloch, Michael Wilson, Oliver Peppe, Grant Affleck, Dave McInroy and Jez Everest.

Medevac: The ArcOP sites are 640 km away from the nearest coastline, the Russian airbase Temp. In case of a medical emergency during a research cruise, the operation stops and the ship sails to the nearest port. A helicopter might help to minimize the transfer time. If the ship has no helicopter deck or a helicopter is not available, the ship must continue to a port to offload the patient. This is the standard Medevac model. The ArcOP sites are 1115 km, 2.1 days by ship, away from the nearest port Tiksi, i.e., maybe seven days of operation would be lost. Tiksi has an airport and medical facilities. In case

of a serious medical emergency, it is unlikely under this standard Medevac model to complete the expedition. During ACEX this risk was mitigated by arranging a stand-by helicopter service onshore. The premium option for ArcOP would be to hire a long-range helicopter that would travel with the fleet onboard the icebreaker *Oden*. This helicopter could transport a patient to the shore within hours instead of days and without any interruption to the operations. To hire such a helicopter for the whole duration of the expedition would cost about \$725K USD.

*DISCUSSION about Medevac:*

*It would be better to have support by a long-range helicopter instead of relying on a vessel given the large costs of ArcOP (M. Webb). M. Friberg asked if the helicopter could also be used for something else. The helicopter could be used to transport spare parts, but also for outreach (D. McInroy). M. Webb asked if someone tested positive for COVID-19 is a medical emergency and needs to be transported onshore. The exact details have not yet been discussed, but a person tested positive for COVID-19 would be probably isolated and monitored on the ship, and only transported onshore when showing symptoms (D. McInroy).*

**ECORD Council Consensus 21-10-03:**

The ECORD Council approves the development of the Medevac plan presented by ESO for the implementation of IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP), including the use of a MI-8 long-range helicopter that would add \$725K USD to the expedition budget.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

M. Bednarz presented outreach activities related to IODP Expedition 377:

- Press release on the implementation of ArcOP (17 February 2021)
- Pre-expedition flyer
- Blog - work in progress
- Expedition logo
- Communications Plan - work in progress
- ACEX core replica in the German Maritime Museum
- Active cooperation with SPRS and AMS: universal document finalized, goodies and giveaways, SPRS Artist Programme
- Abstract submitted to session DS05: "Time Travel, Legacy and Frontiers: Scientific Ocean Drilling Connects the Past, Present and Future Workings of our Planet" of the Ocean Sciences Meeting that will be held in February-March 2022
- Call and interviews for an Onboard Outreach Officer: Dallas Campbell, a science journalist and TV professional working with, e.g., ESA, NatGeo, has been selected
- BBC reporting - an independent journalist will join the offshore phase
- Production of a TV documentary: interviews with four companies took place and Galaxie Scientifilms (Fabrice Papillon) has been selected; distribution will be

handled by Galaxie; planning and storylining have already started; pre-interviews with scientists in progress; Galaxie subcontracted the journalist James Bowers

DISCUSSION about ArcOP outreach activities:

*A. Camerlenghi asked about the implications of granting exclusive rights to companies as information is disseminated at various levels. Does granting exclusive rights mean that filming is only allowed for personal use by the participants? The release of footage needs to be prevented otherwise the interest of societies or companies, e.g., National Geographic, would be reduced (M. Bednarz). Filming by the participants will be possible to keep the interest during the expedition until the documentary movie will be released (M. Bednarz). Rules for the footages will be set up in coordination with Galaxie Scientifilms. There are incoming requests from other TV producers to film ArcOP, but only Galaxie Scientifilms gets the rights (M. Bednarz). This does not rule out journalistic interviews (U. Prange). U. Prange is the new ESO Outreach Manager (D. McInroy).*

### **3.3 ECORD Facility Board (G. Uenzelmann-Neben)**

(11:29)

G. Uenzelmann-Neben gave an update on the ECORD Facility Board (EFB) activities.

The EFB members with voting rights are 1) the six Science Board members: EFB Chair Gabriele Uenzelmann-Neben (GER), Michele Rebesco (ITA), Yasuhiro Yamada (JPN), Fengping Wang (CHN), Alexandra Turchyn (UK) and Beth Christensen (USA); 2) the members of the ECORD Vision Task Force: ECORD Council core members, EMA, ESO and ESSAC; and 3) NSF and MEXT with one representative each.

G. Uenzelmann-Neben gave an overview of MSP proposals at the EFB:

**637-Full2:** New England Shelf Hydrogeology - in the EFB waiting room.

**708-Full - Expedition 377:** Arctic Ocean Paleoceanography - scheduled for 2022.

**716-Full - Expedition 389:** Hawaiian Drowned Reefs - in the EFB waiting room. The EFB recommends to schedule this expedition in 2023.

**730-Full2:** Sabine Bank Sea Level - in the EFB waiting room. The retired Principal Investigator (PI) has been contacted to identify a new PI.

**813-Full - Expedition 373:** Antarctic Cenozoic Paleoclimate - in the EFB waiting room.

G. Uenzelmann-Neben summarized MSP proposals at the SEP:

**796-ADP:** NADIR: Nice Amphibious Drilling - needs to be revised.

**931-Pre:** East Antarctic Ice Sheet Evolution - needs to be developed as full proposal.

**995-Pre:** Canterbury Bight Offshore Freshened Groundwater - needs to be developed as full proposal.

**1003-Pre:** N CAVA Volcanic Ash - needs to be revised.

The MagellanPlus Workshop Series Programme will help to get more MSP proposals into the system (see agenda item 3.4).

G. Uenzelmann-Neben summarized issues that need to be considered for the future:

- Review process (SEP and EPSP): funding of SSO, SEP and EPSP will end in September 2024
- Fate of existing proposals at SEP and at the EFB: proposals need to be linked to the 2050 Science Framework and the EFB agreed on the transfer of MSP proposals to an MSP-only phase.
- Programme administration: SSO equivalent
- Future facility board(s) for MSP proposals
- Data management: site survey data, expedition data
- ECORD expedition reports and publications
- Core storage
- Future ESO
- New implementation approaches: regional or technological clustering, collaborations with other platform providers and ICDP, implementation in several phases

*DISCUSSION about existing IODP proposals and post-2024:*

*There is the possibility for ECORD to implement JR-type proposals in the future and ECORD should state that all existing proposals should be forwarded to a post-2024 phase (A. Morris). MSP expeditions are not limited to specific drilling environments, but also JR-type proposals can be implemented using MSPs (G. Uenzelmann-Neben). As already discussed, a strategy implementing an MSP expedition based on a number of existing proposals needs to be explored so that expeditions are implemented in a cost-efficient way (M. Webb). The Japanese colleagues also consider the implementation of existing riserless proposals (G. Camoin). This needs discussion and coordination at the international level and is therefore an important topic for 2022. Some of the JR proposals could be implemented by ECORD, but in a different way, e.g., to couple different proposals (G. Camoin). The EFB should explore the post-2024 implementation of MSPs with multiple drill legs (M. Webb). The proponents of JR proposals have been asked if they would like to transfer their proposals to a new phase and if they are ready to revise the proposal accordingly (A. Camerlenghi). JRFB and SSO could ask the proponents if their JR proposal could be considered as an MSP proposal (A. Camerlenghi). NSF will not support anymore the SSO post-2024, i.e., an entity taking care of proposals including communication with the proponents is needed (G. Camoin).*



#### **ECORD Council Consensus 21-10-04:**

The ECORD Council approves the scheduling of IODP Expedition 389: Hawaiian Drowned Reefs in FY23, as recommended by the ECORD Facility Board.

In favour: 15, Abstain: 0, Against: 0, Absent: 0

### **3.4 MagellanPlus Workshop Series (L. Lourens)**

(11:45)

L. Lourens presented the composition of the MagellanPlus Steering Committee (SC). The Chair is Lucas Lourens and the Vice-Chair is Johan Lissenberg. Michele Rebesco rotated off and needs to be replaced before the next meeting in February 2022.

A call for workshop proposals with a deadline of 15 May 2021 was issued and five of the Strategic Objectives of the 2050 Science Framework as well as five teams have been identified to bring together scientists who explore how MSPs could be used to address these Strategic Objectives (exploratory workshops). Six proposals have been received, of which four are directed to regular workshops to develop a drilling proposal and two to exploratory workshops. The MagellanPlus Steering Committee decided to fund two regular and two exploratory workshops. The two exploratory workshops are “Investigating the Oceanic Life Cycle of Tectonic Plates with MSP Drilling” (April 2022; Lead: Michelle Harris) and “MSP Approaches to Assessing Natural Hazards That Impact Society” (July 2022; Lead: Hugh Daigle). The BlackGate workshop (Mediterranean - Black Sea Gateway Exchange) has been successfully organized in September 2021 with 32 attendees and seven online participants who developed an MSP pre-proposal. Another regular MagellanPlus workshop will be organized in December 2021 and five regular workshops are scheduled for 2022. The MagellanPlus Steering Committee suggests to issue two calls for proposals with deadlines of 15 January and 15 May 2022.

For further information:

- MagellanPlus Workshop Series Programme:  
<https://www.ecord.org/science/magellanplus/>

#### COMMENTS on MagellanPlus workshops:

*The COSNICA workshop - The life cycle of a microplate at a convergent margin - will be postponed to the end of September 2022 (W. Kurz).*

*Two additional teams plan to submit a MagellanPlus exploratory workshop proposal by the 15 January deadline and each exploratory workshop can result in two or three drilling proposals (G. Camoin). The MagellanPlus call for workshop proposals needs to direct people to address the Strategic Objectives of the 2050 Science Framework, but at this stage not the Flagship Initiatives (A. Morris). The current call refers to the Strategic Objectives (G. Camoin).*

## **4. ECORD AWARDS**

(11:59)

Werner Piller received the 4<sup>th</sup> ECORD Award and Antony Morris received the 8<sup>th</sup> ECORD Award in recognition of their achievements and support for IODP and ECORD.

## **5. THE FUTURE OF SCIENTIFIC OCEAN DRILLING: 2024 AND BEYOND**

### **5.1 IODP Forum (H. Brinkhuis)**

(12:16)

H. Brinkhuis summarized the outcomes of the IODP Forum meeting, which was held in Rome, Italy, on 11-12 October 2021.

Consensus Statements of the October 2021 IODP Forum meeting:

<https://www.iodp.org/forum-minutes-and-consensus-items/1147-forum-2021-october-consensus-items/file>

### **5.2 FY2024 (G. Camoin)**

(12:28)

G. Camoin presented ECORD's future intentions: 2024 as a continuation of the current IODP. USFY2024 is an 'option' year in Memoranda underlying the JR Consortium for IODP. NSF remains committed to the current IODP and the JR. Unspent funds in FY2020 and FY2021 due to reduced operations have been applied to future operations (increasing expedition number and/or complexity). FY2024 expeditions will be supported under the 'option' year as identified in JR Consortium Memoranda. NSF requires contributions from members in FY2024 for full-year JR operations.

JR Consortium FY2021-2024 donations: The extent of JR operations in FY2024 is also dependent on receiving JR Consortium donation obligations in FY2021-FY2023. South Korea does not have funds for FY2022 and FY2023. The extent of ANZIC contributions is unclear. The CAPES President sent a letter to NSF Director and Assistant Director for Geosciences to express the will of Brazil to rejoin the programme. The critical factor is how much forward funding of FY2024 can occur in August 2023; late payments for FY2023 may limit FY2024 operations. FY2024 JR Consortium donations also determine extent of JR operations. The provision of half of ECORD's current contribution in FY24 to the funding of the JR, i.e., \$3.5M USD, would help NSF to plan a fifth JR expedition in FY24. The JR could stay for a longer time in the Northern Atlantic where the proposal pressure is high.

FY2024 JR staffing: JR Consortium members in good standing will have their nominated scientists staffed for all FY2024 JR IODP Expeditions regardless of whether members are able to contribute in FY2024. Scientists can only be staffed for FY2024 JR IODP

Expeditions from JR Consortium members in good standing at time of staffing. Scientists can only sail on FY2024 JR IODP Expeditions from JR Consortium members in good standing as of the end of FY2023.

ECORD contributes \$7.12M USD to the annual funding of the *JOIDES Resolution* and about \$1M USD (level of funding defined each year by the ECORD Council) to the annual funding of the *Chikyū*. The 2019-2023 ECORD-NSF MoU includes 2024 as an ‘option’ year funding the JR. The proposition is to get an addendum to the 2019-2023 ECORD-NSF MoU to consider this ‘option’ year. The 2013-2023 ECORD-JAMSTEC MoU does not include an ‘option’ year. The ECORD Council needs to discuss a potential addendum to the 2019-2023 ECORD-JAMSTEC MoU.

Consequences of the FY2024 ‘option’ year for ECORD: A commitment of the ECORD funding agencies for FY2024 is needed. The current 2019-2023 ECORD MoU needs to be extended through 2024. The current ECORD structure (EMA, ESSAC, ESO) and the IODP Forum Chair activities need to be extended through 2024.

*DISCUSSION about a reduced Science Party:*

*G. Ceuleneer asked which selection criteria (science expertise, affiliation, etc.) could be considered for a limited Science Party sailing on future JR expeditions. For a certain time, there will be a reduced Science Party onboard the JR due to the pandemic and the staffing is only based on scientific interests (G. Camoin). For example, there will be no full sampling during the offshore phase of IODP Expedition 397: Iberian Margin Paleoclimate, but a plan is needed how to sample all cores (G. Camoin). Expedition 397 might sail without a complete science party, which will reduce the working capacity and core flow on board, in particular because this expedition is expected to recover a large number of cores (F. Abrantes). If that becomes a reality, there will be a need to plan for core analysis after the expedition (F. Abrantes).*

*COMMENT on Canada’s contribution to ECORD:*

*John Jamieson and Dominique Weis will apply for a special funding opportunity in Canada. If successful, Canada could contribute about \$1M per year starting in 2024.*

### **5.3 Inter-Governmental Meeting (G. Camoin)**

(12:44)

G. Camoin summarized the outcomes of the Inter-Governmental meeting, which was held in Rome, Italy, on 13 October 2021, to discuss the future of scientific ocean drilling.

U.S. Scientific Ocean Drilling post-2024: The goal is to provide a state-of-the-art, globally ranging non-riser scientific drillship for possible future international scientific ocean drilling programmes to ensure that the U.S. is able to continue providing support for fundamental geoscience research. First, NSF will open Science Mission Requirements

(SMR) for about one year to identify critical environmental, drilling and onboard lab requirements, and thus desirable vessel characteristics. The U.S. science community is asked about their highest priority science objectives and regions of operation. In a second step, NSF-accepted SMRs would serve as the basis for Conceptual Design within the NSF Major Facility Design process. Conceptual Design signifies possible vessel acquisition, but no guarantee of acquisition. The third step includes the lease vs. build/buy decision and the acquisition and may last up to a decade. Finally, a new U.S.-led drilling programme based on SMRs, Conceptual Design, and new partnerships could start.

*Agenda Item 1: Concise statements from JR Consortium members regarding interest in partnering with NSF to support JR operations in FY2024 and beyond.*

ECORD (currently \$7M USD): \$3.5M USD in 2024 (see Agenda Item 5.2)

China (currently \$3M USD): no commitment and new agreement needed for 2024; no agreement considered by NSF beyond 2024

India (currently \$1M USD): \$1M USD in 2024 (to be confirmed); funding renewal at the end of 2022

ANZIC (currently \$1.5M USD): decision in 2022 for 2023 and beyond (increased funding?)

The total contribution of the JR Consortium partners is currently of \$12M USD and \$6M USD in 2024. For post-2024, NSF would need \$20M to \$30M USD to operate the JR (non-IODP mode), i.e., each expedition would cost about \$18M USD. If these conditions are not met, the JR will be demobilized in 2025.

*Agenda Item 2: Will Chikyu and/or other JAMSTEC vessels be available for science use post-2025, and if so, under what conditions?*

The *Chikyu* could implement some riserless expeditions in the Western Pacific and in the Indian Ocean. Vessels like the R/V *Kaimei* could be used to implement MSP-type expeditions (see CIB Consensus\_0721-04).

*Agenda Item 5: What are the intentions of China post-FY2024?*

China wants to become a new platform provider for post-2024 and they want to begin in 2024. They want to work closely with ECORD, possibly co-operating for the first one or two MSP expeditions. The implementation of one expedition per year is planned for post-2024. They also plan to attract more members in a variety of ways. China is willing to exchange berths with JR, *Chikyu* and ECORD. China plans to run a new Core Repository & Laboratory following IODP sample and data policies.

*Agenda Item 3: Under what context will ECORD conduct MSP expeditions in the 2025-2028 timeframe? What context is being planned for MSP operations post-2028?*

The ECORD science community is very healthy and must continue to participate to post-2024 scientific ocean drilling. Based on the well-established operation of the ECORD infrastructure, its successful implementation, its competitiveness in the international

research landscape and maximum return from investment, ECORD intends to continue to play a prominent role in post-2024 scientific ocean drilling. ECORD reaffirms its commitments to the ‘philosophy’ of the successive scientific ocean drilling programmes: a single international Science Plan, international staffing of expeditions and advisory panels, programme-wide standard policies and guidelines, sustainable management of knowledge-based resources (samples, data and publications) and public access to knowledge-based resources. ECORD reaffirms its strong will to continue to be an independent platform provider and to globally operate MSP expeditions post-2024. A prominent role for MSPs is anticipated to achieve the goals of the 2050 Science Framework. ECORD intends to develop the MSP concept by diversifying drilling and coring technologies and applying them to all drilling environments, as determined by scientific priorities, operational efficiency and better value for money. ECORD will encourage active collaboration with other platform providers (e.g., JAMSTEC/MarE3) and other programmes/initiatives with similar scientific objectives (e.g., ICDP) to implement joint expeditions regardless of the technology and/or the drilling/coring environment.

In case the JR is not operating beyond 2024, a phase with platforms operated in an MSP-mode provided, for example, by ECORD, China and Japan as well as collaboration with ICDP could be implemented at least for the five first years of the new programme (2025-2029). ANZIC and India are interested to participate. The U.S. science community is getting organized to form a kind of consortium so that they can participate to an MSP-only phase before the new U.S. programme centered around the new globally ranging U.S. vessel starts. There could be a kind of federation/alliance of national/consortia programmes. SSO, SEP and EPSP should be federation/alliance-wide.

G. Camoin presented a projection of the ECORD 2025+ annual budget. Assuming stable ECORD member contributions, similar ECORD fixed costs and equally shared Scientific Ocean Drilling (SOD) fixed costs (e.g., SSO and data management), about \$12.6M USD could be available each year to implement MSP expeditions. This projection does not include additional contributions, partnerships and potential EC funding. If ECORD increases its visibility in an MSP-only phase, ECORD could try to receive additional funding from the EC for networking, technological development, educational activities, etc.

<b>ECORD FY25+ Annual Budget (US\$)</b>	
<b>ECORD Contributions*</b>	17,000,000
<b>ECORD Fixed costs*</b>	3,800,000
<b>SOD Fixed costs**</b>	600,000
<b>MSP budget</b>	<b>12,600,000</b>
* Based on FY21. Contributions from potential additional partners not considered	
** Shared resources, including SSO and data management	

*Agenda Item 4: What support is required for 2025-2028 scientific ocean drilling operations regarding proposal management, proposal peer review, and proposal safety review, and how will this support be provided?*

G. Camoin summarized issues that need to be considered for the future:

- Programme administration: SSO equivalent is needed
- Data management: site survey data, expedition data
- Evaluation of proposals (SEP/EPSP equivalent is needed)
- Future facility board(s) for MSP proposals
- ECORD expedition reports and publications: currently done by JRSO Publications and ECORD contributes \$120K USD per year
- Core storage at BCR, GCR and KCC

Core storage: Legacy DSDP, ODP and JR-taken IODP I and IODP II core samples are the property of the U.S. Government. NSF is committed to preserving this core and sample collection and to ensuring the continued availability of this material to all legitimate scientific users after the end of IODP. NSF will be engaging in dialogue with all three IODP core repositories to determine the next steps for the U.S.-owned material. NSF is interested in learning how *Chikyu* and MSP cores will be archived, as well as their availability.

NSF will not financially support the IODP proposal database after IODP (i.e., post-2024). NSF will seek to extend the Award for the IODP Science Office for an additional year to cover FY2024. NSF has not decided how long it will financially support a legacy IODP website.

ECORD needs to communicate with the science community to inform them about the future of scientific ocean drilling. Regular ECORD channels, such as the ECORD Newsletter, ECORD Headline and the website can be used, but in addition, townhalls and webinars should be organized.

*DISCUSSION about post-2024:*

*A European consortium for research drilling (ocean drilling and ICDP) could be envisioned for the future (A. Iadanza). Joining scientific ocean drilling and ICDP in a single entity is one way to consider, although ECORD/IODP and ICDP operate differently (G. Camoin).*

*The core storage in the new core repository provided by China needs to be discussed (M. Friberg). The distribution of existing cores needs to be discussed among the international partners (NSF, ECORD, JAMSTEC) and the storage of cores in a new core repository needs to follow basic principles of the successive programmes (G. Camoin). NSF will continue funding the maintenance of JR cores in all three core repositories and this is independent of post-2024 operations (G. Camoin). It is still uncertain which cores could be stored in the Chinese core repository; the U.S. will not store U.S. cores in China and existing cores will not be redistributed (A. Morris).*

*India and ANZIC could fund an MSP-only phase (G. Camoin). Clear plans are emerging, including a potential participation of the U.S. science community to an MSP-only phase. An agreement needs to be defined with the U.S. science community so that they can access the MSP platforms (G. Camoin).*

*Concerning the data management, one possibility to be explored could be the European data repository for scientific geological data (M. Friberg).*

(13:18)

lunch break

(14:21)

### **ECORD CLOSED SESSION (*ECORD Council and EVTF members only*)**

(14:21)

- 2024 as an 'option' year
- Post-2024

(16:06)

## **21 October 2021**

(9:00)

B. Westerop opened the meeting.

### **6. REPORT ON CLOSED SESSION (G. Camoin)**

(9:01)

**2024**

#### **ECORD Council Consensus 21-10-05:**

The ECORD Council supports the extension of the 2019-2023 ECORD MoU through 2024, provided that the expected contributions from ECORD funding agencies are available for that year.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

#### **Action Item 2: EMA**

To define the procedure to extend the 2019-2023 ECORD MoU through 2024 with the CNRS Legal Department.

**ECORD Council Consensus 21-10-06:**

As a follow up to the ECORD Council Consensus 21-10-05, the ECORD Council decides to extend the terms of the ECORD Managing Agency (CNRS), the ECORD Science Operator (BGS), the ECORD Science Support and Advisory Committee (OGS-Trieste) and the Bremen Core Repository (BCR) through 2024.

In favour: 15, Abstain: 0, Against: 0, Absent: 0

**Action Item 3: ECORD Council**

To invite the incoming and outgoing ESSAC Chairs to extend their terms through 2024.

**ECORD Council Consensus 21-10-07:**

The ECORD Council decides to extend the 2019-2023 ECORD-NSF MoU through USFY2024, including the provision of \$3.5M USD to support *JOIDES Resolution* operations.

In favour: 15, Abstain: 0, Against: 0, Absent: 0

**Action Item 4: EMA**

To define the procedure to extend the 2019-2023 ECORD-NSF MoU through 2024 with the CNRS Legal Department.

**ECORD Council Consensus 21-10-08:**

The ECORD Council decides to extend the 2013-2023 ECORD-JAMSTEC MoU through 2024.

In favour: 15, Abstain: 0, Against: 0, Absent: 0

**Action Item 5: EMA**

To define the procedure to extend the 2013-2023 ECORD-JAMSTEC MoU through 2024 with the CNRS Legal Department.

**Post-2024**

**ECORD Council Consensus 21-10-09:**

The ECORD Council reaffirms ECORD's strong will to conduct MSP expeditions related to the '2050 Science Framework' in a post-2024 scientific ocean drilling initiative by diversifying drilling environments and technologies.

In favour: 15, Abstain: 0, Against: 0, Absent: 0



**ECORD Council Consensus 21-10-10:**

The ECORD Council applauds the ECORD Vision Task Force for having efficiently conducted bilateral meetings with Chinese and Japanese partners to explore potential collaborations in a post-2024 scientific ocean drilling initiative. The ECORD Council enthusiastically acknowledges the report of the outcomes of these meetings, which may be instrumental for the future of scientific ocean drilling.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

**ECORD Council Consensus 21-10-11:**

The ECORD Council supports the establishment of a single proposal/data evaluation and management system in any post-2024 scientific ocean drilling initiative.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

**ECORD Council Consensus 21-10-12:**

The ECORD Council expresses interest in obtaining details from NSF about operational costs associated with the use of *JOIDES Resolution* beyond the expected end of IODP in 2024. This information will be essential for a cost-benefit analysis before any decision can be taken.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

**Action Item 6: EMA**

To organise a bilateral meeting with NSF to clarify operational costs of the *JOIDES Resolution* post-2024.

**ECORD Council Consensus 21-10-13:**

The ECORD Council recommends that EMA, ESSAC, ESO and EFB define communication plans to inform the international science community about ECORD's post-2024 plans.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

**Action Item 7: EMA, ESSAC, ESO and EFB**

To define communication plans to inform the international science community about ECORD's post-2024 plans. These may include the usual ECORD communication channels (ECORD Newsletter, ECORD Headline, ECORD website and social medias), as well as webinars and townhalls.

**Action Item 8: EFB**

To exchange with the JRFB before its next meeting that will be held in May 2022 to organise the transfer of MSP proposals to a post-2024 MSP-only programme.

## Various

### Action Item 9: EMA

To explore with the CNRS Legal and Finance Departments the possibility to adopt the EURO as currency for the ECORD main account and to open a secondary account in British Pounds.

## 7. NEWS FROM ECORD MEMBER COUNTRIES (ECORD Council & ESSAC Delegates)

(9:31)

ECORD Council and ESSAC delegates presented the news from their respective country.

W. Kurz (**Austria**): Michi Strasser has been Co-chief Scientist on IODP Expedition 386: Japan Trench Paleoseismology. Arianna Valentina Del Gaudio will sail on IODP Expedition 391: Walvis Ridge Hotspot and Walter Kurz will sail on IODP Expedition 390: South Atlantic Transect 1. The ÖAW – Scientific Drilling Symposium and Workshop are planned in Vienna on 9-10 December 2021 to present current activities and to prepare a White Paper for future activities and Austrian participation in IODP and ICDP. Two MagellanPlus workshops will be organised in 2022: 1) IO:DIP – Indian Ocean: Delving Into the Past in Graz on 10-13 April, and 2) COSNICA: The life cycle of a microplate at a convergent margin in Graz in September 2022.

B. Plunger (**Austria**) acknowledged the work done by Werner Piller over the last decades.

D. Weis (**Canada**): John Jamieson and Dominique Weis will apply for a special funding opportunity in Canada. If successful, Canada could contribute about \$1M per year starting in 2024. One Canadian student has been accepted to sail on IODP Expedition 391: Walvis Ridge Hotspot.

P. Knutz (**Denmark**): An application has been sent to the Ministry concerning the membership in ECORD after 2023 or 2024. The application includes a 40% increase in ECORD membership fees and a membership in ICDP has been proposed. This application is now negotiated in the fiscal budget that the government is currently setting in place. Paul Knutz will be Co-chief Scientist on IODP Expedition 400: NW Greenland Glaciated Margin. A site survey has been carried out to support IODP proposal 962: Assessing the history of the south Greenland Ice Sheet and its interaction with ocean circulation, climate, and sea level. Danish scientists are involved in a number of JR cruises in the Northern Atlantic.

G. Ceuleneer (**France**): The French scientific community is particularly active during the pandemic concerning the valorisation of past and recent IODP Expeditions. IODP France used a higher budget for the post-doc support programme as travel and meeting costs have been reduced. About 30 recipients of a post-doc scholarship have sailed or will be sailing on an IODP Expedition. Many post-doc scholarship applicants write projects devoted to the valorisation of DSDP-ODP-IODP materials. Most projects on ancient materials benefit from advanced and new technologies/measurement methods. One reason that France is underquota is that the French paleoclimate community uses the RV *Marion Dufresne* and the Calypso piston coring. Compared to Germany and the UK, France does not sail many Co-chief scientists. Anne Briais has been selected as Co-chief Scientist on IODP Expedition 395: Reykjanes Mantle Convection and Climate. The IODP France Office is also in charge of the communication about ICDP. A joint IODP-ICDP meeting has been organised two years ago and it will be organised again in the near future.

F. Lagroix (**France**): The French funding agency is pleased with the role that ECORD is playing in organizing the future of scientific ocean drilling. France should have a better quota balance in the near future, but this is already going in the right direction.

G. Camoin (**France**): There is a great interest of the French Ministry and the CNRS in the current and the future ocean drilling programme. G. Camoin will organise a meeting with the French Ministry and the CNRS to talk about the future of ECORD. In general, the aim is a better visibility of ECORD and the MSPs as well as a better French participation in the programme.

J. Behrmann (**Germany**) presented a short report by André Bornemann: 1) As in 2020, IODP activities in Germany continued to be strongly affected by the pandemic in 2021. Since there was still no possibility of holding a face-to-face event in spring 2021, the annual joint IODP/ICDP colloquium had to be canceled once again. The three-day colloquium was replaced with a one-day online event on 16 March 2021 and 78 scientists participated in this meeting. IODP Germany hopes to resume face-to-face or hybrid meetings in spring 2022. 2) Following the annual call for new research proposals within the scope of the DFG priority programme in February, 28 proposals were submitted and 17 of them have been funded (11 new proposals, 6 renewals). The granting amount remained unchanged at around 2.5 M€ p.a. 3) The expedition schedule had to be adjusted, because of the pandemic. With the restart of regular expedition operations in August, two German scientists (one Co-chief Scientist: Christian Berndt) sailed on IODP Expedition 396: Mid-Norwegian Continental Margin Magmatism onboard the JR. Two German participants (one Co-chief Scientist: Kaj Hoernle) will sail on IODP Expedition 391: Walvis Ridge Hotspot, which will start in December 2021. Gabi Uenzelmann-Neben will be Co-chief Scientist on IODP Expedition 392: Agulhas Plateau Cretaceous Climate and Steffen Kutterolf will be Co-chief Scientist on IODP Expedition 398: Hellenic Arc Volcanic Field. Steffen Kutterolf has been selected as a member of the

JRFB.

**D. Hardy (Ireland):** One Irish scientist will sail on IODP Expedition 396: Mid-Norwegian Continental Margin Magmatism. Ireland is working on getting support for post-cruise science.

**A. Iadanza (Italy):** For a second time, the Ministry for University and Research is increasing the Italian contribution to ECORD by \$100K USD. This increase of the 2022 contribution to ECORD needs to be approved during the next IODP Italy meeting at the end of November 2021. Normally, 80% of the budget is dedicated to paying the annual contribution to ECORD and 20% are allocated to support the Italian participation in the programme (support of successful applicants, national grants, travels, outreach activities, etc.). ECORD has been included at the national level in the 7-year term of the National Plan for Research Infrastructures (2021-2027). Italy reaffirms its commitment to ECORD until 2024 and is optimistic concerning the 2025-2028 period. Italy fully supports the post-2024 MSP phase as described under agenda item 5.3. Italy tries to coordinate the participation in ECORD and ICDP, but ICDP has at the moment no direct funding.

**A. Camerlenghi (Italy):** The CNR-ECORD Committee for IODP and ICDP is chaired by Elisabetta Erba and Annalisa Iadanza is the Scientific Secretary. So far, eight applications to sail have been received in 2021. The Italian science community is very active and the demand is about ten times higher than the offer. Two Italian scientists sailed on IODP Expedition 390: South Atlantic Transect and IODP Expedition 391: Walvis Ridge Hotspot. Four ECORD Research Grants have been awarded in 2021. The MagellanPlus workshop SCYLLA - Serpentinite diapirs in the Calabrian Subduction System return lower plate mantle from Earth's oldest ocean - will be organised in Bologna in spring 2022. There are 25 Italian co-proponents and three lead proponents of active drilling proposals across all oceanic basins. Two grants for 2-year positions for early-career scientists have been recently assigned to work on IODP data and samples. An IODP Italy Spring Webinar Series about International Scientific Drilling through IODP and ICDP has been organised in March-June 2021. A virtual booth has been organised at the 90<sup>th</sup> Congress of the Italian Geological Society in Trieste in September 2021 (about 500 attendees). A series of short videos is planned to illustrate techniques in marine geology, which are important for scientific drilling expeditions. In addition, a second edition of the IODP Italy Webinar Series is planned as well as further events in order to prepare the Italian community for the MSP-only phase of scientific ocean drilling.

**M. Ziegler (Netherlands):** Henk Brinkhuis is IODP Forum Chair and he sailed on IODP Expedition 396: Mid-Norwegian Continental Margin Magmatism. One Dutch scientist will sail on IODP Expedition 392: Agulhas Plateau Cretaceous Climate and another one will be involved in IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP). A short outreach video about Dutch IODP activities, IODP history and the Dutch

participation in IODP has been produced: <https://www.iodp.nl/iodp/>

F. Abrantes (**Portugal**): FCT has been approached in order to find out which support is possible until 2023 and if funds can be provided to guarantee post-cruise science.

A. Voelker (**Portugal**): Fatima Abrantes will be Co-chief Scientist on IODP Expedition 397: Iberian Margin Paleoclimate; she will be the first Portuguese Co-chief Scientist since the start of IODP in 2003. The community is actively working on material from the Hikurangi Margin, the Mariana Trench, IODP Expedition 339: Mediterranean Outflow and IODP Expedition 353: Indian Monsoon Rainfall. Two new scientists have become involved in IODP.

C. Escutia (**Spain**): Spain is keen to be part of IODP and to continue the programme. There is interest to plan port call activities related to IODP Expedition 397: Iberian Margin Paleoclimate to increase awareness of IODP at the Ministry level. An IODP-ICDP session has been organised at the National Geological Meeting that was held in hybrid format in September 2021. At this occasion, the situation of Spain has been discussed and it was decided that regardless of the ban of Spanish scientists on IODP Expeditions, applications should be sent to ESSAC to show the interest in the programme.

J. Henderiks (**Sweden**): The Swedish Research Council has conducted a second survey on their return on investment for many international engagements and ECORD has been judged as very beneficial. Sweden has been successful to involve PhD students and early-career scientists in IODP. Three Swedish scientists will sail on IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP), including two PhD students from Lund and Stockholm. The ESSAC Delegate and Alternate will probably swap their roles after 2022.

G. Früh-Green (**Switzerland**): Scientific activities have been very much affected by the pandemic. One Swiss scientist will sail on IODP Expedition 393: South Atlantic Transect. The 2020 Annual Swiss Geoscience Meeting has been organised online, including a special IODP-ICDP session. The 2021 Annual Swiss Geoscience Meeting will also be organised online. A large grant has been received to study material from past scientific ocean drilling expeditions. The Swiss geological community created a 2025-2028 roadmap for research infrastructures and this document has been submitted to the National Science Foundation. IODP and ICDP are a strong item in this document. Early-career scientists are working on material from IODP Expedition 357: Atlantis Massif Serpentinization and Life and the Oman Drilling Project. The Swiss community is small, but active.

M. Kern-Lütschg (**Switzerland**): The Swiss participation in ECORD is guaranteed and stable until the end of the current programme in 2023. Post-2023 participation is still under discussion and more information will be available at the end of 2021 or early 2022.

A. Morris (**UK**): Roz Coggon, Lead Editor of the 2050 Science Framework, has been awarded the 2021 Taira Prize. In February 2021, UK-IODP held an MSP proposal writing workshop for early-career scientists, which has been attended by 52 international participants leading to the development of six draft ideas for future MSP drilling. Some of these ideas are now making their way into the MagellanPlus system, helping to stimulate future MSP proposal pressure. The UK-IODP Knowledge Exchange Coordinator, Jude Coggon, is currently on maternity leave and her duties have been covered by Aled Evans, an early-career scientist who has also been selected to sail in 2022 on IODP Expedition 393: South Atlantic Transect 2.

(10:24)

coffee break

(10:47)

## **8. IODP NEWS AND ECORD PARTNERSHIP**

### **8.1 JOIDES Resolution Facility Board (G. Camoin)**

(10:52)

G. Camoin presented the JRFB Working Group on Science Framework Proposals (JRFB-WG-SFP) report, outcomes of the 2021 JRFB meeting and the FY23 JR schedule.

JRFB membership: There are three ECORD JRFB members: Gilbert Camoin presenting the ECORD funding agencies and two Science Board members: Marguerite Godard and Steffen Kutterolf.

The JRFB-WG-SFP considers only requirements and review processes for proposals that would use a proposed U.S. non-riser drillship. Proposals are PI-led and community driven, and the regional focus of the facility will continue. The current SEP-type system of combined site-science review works well and should be continued. Placing limits on the number of possible revisions to proposals would benefit a future programme. The operator should be involved at an early stage to mitigate cost, success and risk (already implemented for MSP proposals). Cost categories should be captured for different operational scenarios. Flagship Initiative proposals will be guided by workshops.

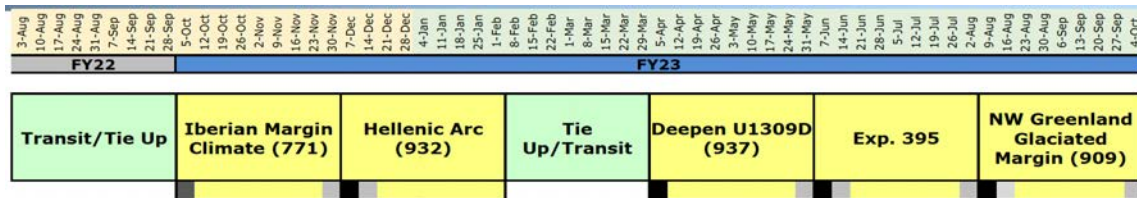
The June 2021 JRFB hybrid meeting resulted in 24 Consensus Statements and 11 Action Items (see agenda book pages 42-45 for JRFB Consensus Statements).

- The JRFB-WG-SFP report has been received and accepted (Consensus Statement 2).
- The JRFB recommended the approval of the JRSO and SSO programme plans.
- It was decided that the JR will stay in the Atlantic and possibly get to the eastern Pacific by the end of IODP in FY24 (Consensus Statement 8).
- No new proposals that require the JR to address the Science Plan will be accepted

(Consensus Statement 6).

- Proponents of undrilled proposals and orphan sites need to submit revisions that follow the guidelines for proposals addressing the 2050 Science Framework (Consensus Statements 9 and 10).
- The new JRFB Chair is Larry Krissek who started on 1 October 2021.

FY23 JR schedule:



G. Camoin summarized the proposal statistics (see agenda book pages 64-70). At the last submission deadline in April 2021 five new and four revised proposals have been received. At the moment there are 98 active IODP proposals in the system: 73 JR, 11 *Chikyu*, 9 MSP and 5 Multiple proposals. The proposals target mainly the Pacific (41) and the Atlantic (24) Oceans. ECORD and the USA are nearly equal in the number of lead proponents (ECORD: 39, U.S.: 37, Others: 22). ECORD has the highest number of unique proponents (ECORD: 513, U.S.: 373, Others: 354).

For further information:

- Final report of the JRFB Working Group on Science Framework Proposal Requirements and Assessments:  
<https://www.iodp.org/docs/meetings/1124-jrfb-wg-sfp-final-report/file>
- Minutes of the JOIDES Resolution Facility Board June 2021 meeting:  
<https://www.iodp.org/jrfb-minutes/1128-jrfb-2021-june-minutes/file>

**8.2 Chikyu IODP Board (G. Camoin)**

(11:11)

CIB membership: There are two ECORD CIB members: Gilbert Camoin presenting the ECORD funding agencies and Achim Kopf as Science Board member.

The last CIB meeting was held online on 13-14 June 2021.

G. Camoin presented the tentative *Chikyu* operational plan for JPFY2020 to JPFY2025. There will be fewer commercial operations. Only riserless proposals currently at SEP or the JRFB are considered for possible implementation in the three-month operation window(s) for IODP.

JPFY	4	5	6	7	8	9	10	11	12	1/2021	2/2021	3/2021	
2020	Regulatory Shipyard Maintenance				R&M								
JPFY	4	5	6	7	8	9	10	11	12	1/2022	2/2022	3/2022	
2021	R&M				R&M	SIP	Exp. 386 Analysis	R&M	JAPAN	CPP Window			
JPFY	4	5	6	7	8	9	10	11	12	1/2023	2/2023	3/2023	
2022	CPP Window				SIP	CPP Window	JAPAN	CPP Window					
JPFY	4	5	6	7	8	9	10	11	12	1/2024	2/2024	3/2024	
2023	CPP Window				Regulatory Shipyard Maintenance			JAPAN	R&M	Scientific Drilling	R&M		
JPFY	4	5	6	7	8	9	10	11	12	1/2025	2/2025	3/2026	
2024	CPP Window								Scientific Drilling	R&M	Regulatory Shipyard Maintenance		
JPFY	4	5	6	7	8	9	10	11	12	1/2026	2/2026	3/2026	
2025	Regulatory Shipyard Maintenance				CPP Window						Scientific Drilling	R&M	

SIP: Cross-ministerial Strategic Innovation Promotion Program

Legend:  
■ = IODP expeditions  
■ = Non-IODP scientific drilling  
■ = Commercial Operation  
■ = CPP Window  
■ = Repair, Maintenance, etc.

G. Camoin presented five out of 13 CIB consensus statements (see agenda book pages 51-52):

- CIB Consensus\_0721-03 on the Japanese commitment to a post-IODP programme
- CIB Consensus\_0721-04 on the JAMSTEC fleet contribution to Scientific Ocean Drilling
- CIB Consensus\_0721-06 on potential riserless proposals
- CIB Consensus\_0721-08 on the JRFB Working Group on Science Framework Proposals report
- CIB Consensus\_0721-10 on the new Kochi Core Center repository

For further information:

- Minutes of the CIB June 2021 meeting: <https://www.jamstec.go.jp/cib/>

ECORD contributes \$1M USD to the annual funding of the *Chikyu*. The level of funding is defined each year by the ECORD Council.

DISCUSSION about ECORD's FY22 contribution to the funding of the Chikyu:

*F. Lagroix asked if ECORD funded the Chikyu in 2020 as it was a whole year for repairs and maintenance. ECORD did not contribute to the funding of the Chikyu in 2020 (G. Camoin). ANZIC is another Chikyu member and they also suspended their membership due to the lack of Chikyu expeditions (G. Camoin).*

*The question is which proposals could be implemented in the three-month operation window(s) for IODP (A. Morris). There are three riser proposals at the CIB, but those are not achievable within three months as they involve deep drilling (G. Camoin). Riserless drilling might be proposed for this time window (G. Camoin). There are some non-riser Chikyu proposals at SEP, which would be more feasible than riser proposals, however, they would not be ready to be implemented in 2022 (L. McNeill). The tentative Chikyu operational plan considers only three time windows later in the programme, i.e., 2023 to*



2025 (G. Camoin). It seems that the Chikyu will be only about seven months at sea until the end of JPFY2025, but three years tied up at the dock (A. Morris). Indicated CPP windows do not mean that CPPs are secured (G. Camoin). The three one-month operation windows could be combined into a single IODP window (G. Camoin).

A funding decision needs to be taken for 2022 and the situation needs to be revisited in 2022 after the next CIB meeting when more information about the use of the Chikyu until the end of the current programme will be available (G. Camoin).

#### **ECORD Council Consensus 21-10-14:**

The ECORD Council decides to suspend the ECORD contribution of \$1M USD for FY22 related to its participation to the *Chikyu* programme in light of the lack of scheduled expeditions.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

### **8.3 PMOs (A. Morris)**

(11:37)

Carl Brenner will be PMO Chair in 2023.

There was a discussion about inclusivity and how to deal with requesting information about gender in the applications forms. ESSAC moved away from the binary choice (male and female). The operators need this information to appropriately assign cabins. There is support from JRSO and since the last PMO meeting there are discussions between ESSAC and JRSO on how to approach this issue. Other IODP partners seem to be largely not aware that this is an issue.

Flagship Initiatives should be driven by community workshops. Workshop reports should be substantial documents that evolve through time and set the priorities for addressing the Flagship Initiatives. Flagship Initiatives might require many years or even decades of investment during which the science community evolves so that there will be rotating membership for these workshops. At the moment, it is too early to plan such workshops as they will not be at the scale of a typical MagellanPlus workshop, but at the scale of the PROCEED workshop with hundreds of participants. The JRFB is setting up a second working group on how to deal with proposal guidelines for Flagship Initiatives.

#### DISCUSSION about Flagship Initiatives:

G. Camoin asked if the break of maybe 10-12 years until provision of the new U.S. drilling ship has been considered in terms of implementing large-scale Flagship Initiatives. This topic has not yet been discussed (A. Morris). This could be a major issue to achieve the large-scale drilling plans (G. Camoin). Many Flagship Initiatives would require facilities like the Chikyu for deep drilling and a riserless drill ship like the JR (A. Morris). The climate

*change Flagship Initiative could be addressed, as only a series of standard-type expeditions would be needed (A. Morris). Some Flagship Initiatives workshops could be initiated to avoid a delay even without knowing which platform will be available (L. McNeill). The driving force will be the available facilities (G. Camoin). Some Flagship Initiatives, e.g., those involving deep drilling, cannot be addressed as the new U.S. vessel will not have deep drilling capability (G. Camoin). The 2025 Science Framework would need to be revised so that unachievable objectives will be removed (A. Morris). Scientific networks that can be financed on a long-term could be established and the tools would be workshops, big conferences, short-term scientific meetings and training courses involving young scientists (A. Camerlenghi). The process should be started with the organization of workshops related to only one or two Flagship Initiatives (A. Morris).*

#### **8.4 SEP (L. McNeill)**

(11:51)

L. McNeill gave a panel update. SEP is responsible for the evaluation of all IODP proposals in terms of scientific excellence as well as completeness and quality of the site characterization data packages.

SEP membership: The Science Subgroup has 31 members and the Site Subgroup has 21 members (as of July 2021; see agenda book page 54). The new SEP Science Co-chair is Kathleen Marsaglia starting on 1 April 2022. A pre-SEP introductory meeting will be organised for new panel members and a similar meeting will be held before every SEP meeting.

Five watchdogs with expertise in science, site survey data and operation are responsible for the evaluation of an IODP proposal. General evaluation criteria for IODP proposals include 1) wide interest of scientific questions, 2) compelling and feasible scientific proposal, 3) advancement of the IODP Science Plan and 4) engagement of new communities or other science programmes. Site Characterization Classification to assess if the reviewed data are sufficient to support the scientific objectives.

So far, SEP organised three virtual meetings in June 2020, January 2021 and July 2021.

At the June 2020 SEP meeting, 24 proposals have been reviewed, of which 23 were JR and two *Chikyu* proposals. Seven proposals have been revised and 17 new proposals were received. The results of the June 2020 SEP meeting are shown in Table 6. Of the 17 new proposals, five proposals need to be developed as full proposals, four need to be revised and eight proposals were deactivated.

Table 6: Outcomes of the June 2020 SEP meeting. Proposals submitted for the April 2020 deadline. Orange: revised, blue: new proposals.

ID	Type	Review Result	PI	Short Title	Ship
886	Full	Deactivate	Tomoaki Morishita	NW Pacific Bend-Fault Hydrology	NR-Chikyu
941	Full2	External review	Yasuhiko Ohara	Godzilla Megamullion Lithosphere Architecture	JR
955	Full	Revise	Julie Huber	Axial Seamount Observatory	JR
967	Full	Revise	Takashi Sano	Ontong Java Nui LIP	JR
972	APL2	Revise	Brandon Dugan	New England Slope Hydrogeology (APL)	JR
973	Full2	External review	Torsten Bickert	NW Africa Neogene Climate	JR
976	Full	Revise	HansChristianLarsen	N Iceland Rift Propagation	JR
978	APL	Deactivate	Joerg Geldmacher	Eirik Drift Basement Magmatism	JR
979	Full	Revise	Wolfram Geissler	Arctic Atlantic Gateway Paleoclimate	JR
980	APL	Revise	Keir Becker	Guatemala Basin Hydrothermal Pits	JR
981	Pre	Deactivate	David De Vleeschouwer	Tasman Leakage History	JR
982	Pre	Deactivate	Bradley Opdyke	Totten Glacier Climate Vulnerability	JR
983	Pre	Full	Thomas Westerhold	Kerguelen Plateau Climate Chronicles	JR
984	Pre	Full	Nathan Bangs	Chile Megathrust	JR
985	Full	Revise	Renata Lucchi	Eastern Fram Strait Paleo Archive	JR
986	Pre	Deactivate	Makoto Otsubo	Okinawa Trough Backarc Opening	JR
987	Pre	Deactivate	Bernard Coakley	Western Arctic Climate and Tectonics	JR
988	Pre	Deactivate	Pedro Terrinha	Atlantic-Margin Subduction Initiation	JR
989	APL	Revise	Susana Lebreiro	Tore Seamount Paleoenvironment	JR
990	Pre	Full	Rie Nakata	Hyuga-Nada Observatory	JR or Chiky
991	Pre	Deactivate	Lindsay Worthington	Queen Charlotte Faults and Fans	JR
992	Pre	Full	Peter Haeussler	Prince William Sound Subduction and Climate	JR
993	Pre	Full	Fabio Caratori Tontini	Havre Trough Backarc Formation	JR
994	Full	Deactivate	Steffen Leth Jørgensen	Arctic Mid-Ocean Ridge Carbon Cycling	JR

At the January 2021 SEP meeting, 16 proposals have been reviewed, of which 15 were JR proposals, two *Chikyu* and one MSP (995-pre). Eleven proposals have been revised and four new proposals were received. The results of the January 2021 SEP meeting are shown in Table 7. Proposal 995-pre: Canterbury Bight Offshore Freshened Groundwater is most likely an MSP proposal and needs to be developed as full proposal.

Table 7: Outcomes of the January 2021 SEP meeting. Proposals submitted for the October 2020 deadline. Green: back from external review, orange: revised, blue: new proposals.

ID	Type	Short Title	PI	Recommendation
885	Full2	Ulleung Basin Landslides	Jangjun Bahk	External Review
945	Add3	Brazilian Equatorial Margin Paleoceanography	Luigi Jovane	JRFB
951	Full	Hawaiian North Arch Crust	Susumu Umino	Revise
955	Full2	Axial Seamount Observatory	Julie Huber	External Review
967	Full2	Ontong Java Nui LIP	Takashi Sano	External Review
973	Full2	NW Africa Neogene Climate	Torsten Bickert	Holding Bin
976	Full2	North Iceland Rift Propagation	Hans Christian Larsen	External Review
979	Full2	Arctic Atlantic Gateway Paleoclimate	Wolfram Geissler	External Review
980	APL2	Guatemala Basin Hydrothermal Pits	Keir Becker	Revise
985	Full2	Eastern Fram Strait Paleo Archive	Renata Lucchi	External Review
989	APL2	Tore Seamount Paleoenvironment	Susana Lebreiro	Decline
990	Full	Hyuga-Nada Observatory	Rie Nakata	Revise
995	Pre	Canterbury Bight Offshore Freshened Groundwater	Aaron Micallef	Full
996	Full	Aleutian Basin Formation	Robert Stern	Decline
997	Pre	Mariana Trench Water-Rock interaction	Fengping Wang	Pre2
998	Pre	Antarctic Cryosphere Origins	Robert McKay	Full

At a spring 2021 SEP meeting, proposal 927-full2: Tyrrhenian Magmatism & Mantle Exhumation and proposal 973-full2: Neogene Climate of NW Africa have been forwarded to the JRFB.

At the July 2021 SEP meeting, 16 proposals have been reviewed, of which 14 were JR, one *Chikyū* and one MSP (1003-pre). Four proposals have been revised and five new proposals were received. The results of the July 2021 SEP meeting are shown in Table 8. MSP proposal 1003-Pre: N CAVA Volcanic Ash needs to be revised.

Table 8: Outcomes of the June 2021 SEP meeting. Proposals submitted for the April 2021 deadline. Green: back from external review, orange: revised, blue: new proposals.

ID	Type	PI	Short Title	Recommendation
885	Full2	Jangjun Bahk	Ulleung Basin Gas Hydrates	HB
955	Full2	Julie Huber	Axial Seamount Observatory	JRFB, excellent
967	Full2(Add)	Takashi Sano	Ontong Java Nui LIP	JRFB, excellent
971	Full2	Alessio Sanfilippo	Kane Megamullion Deep Drilling	External Review
972	APL3	Brandon Dugan	New England Slope Hydrogeology (APL)	JRFB
976	Full2(Add)	Hans Christian Larsen	North Iceland Rift Propagation	JRFB, good
979	Full2(Add)	Wolfram Geissler	Arctic Atlantic Gateway Paleoclimate	JRFB, excellent
980	APL3	Keir Becker	Guatemala Basin Hydrothermal Pits	JRFB
984	Full	Nathan Bangs	Chile Megathrust	Revise
985	Full2(Add)	Renata Lucchi	Eastern Fram Strait Paleo Archive	JRFB, excellent
999	Pre	Marguerite Godard	New Caledonia Ophiolite L2S	Workshop
1000	Full	Denise Kulhanek	Argentine Margin Cretaceous Tectonics & Climate	Revise
1001	Pre	Atsushi Matsuoka	Trans-Pacific co-evolution record	Decline
1002	Pre	Bradley Opdyke	Totten Glacier Climate Vulnerability	Full
1003	Pre	Ann Dunlea	N. CAVA Volcanic Ash	Pre2
1004	APL	Uisdean Nicholson	Nadir K-Pg impact Crater	Revise

The next SEP meeting will be held on 11-13 January 2022 in La Jolla, CA, USA.

QUESTION about Land-2-Sea proposals:

*G. Camoin asked how many Land-2-Sea proposals are in the system. There is one Land-2-Sea proposal in the system: 796-ADP - NADIR: Nice Amphibious Drilling (L. McNeill).*

## 9. ECORD FACILITIES

### 9.1 ECORD Petrophysical Consortium - EPC (S. Davies)

(12:08)

S. Davies presented the activities of the European Petrophysics Consortium (EPC).

IODP Expedition 386: Japan Trench Paleoseismology: K. Hochmuth remotely supported the offshore phase of Expedition 386 as Petrophysics Staff Scientist. EPC provided Quality and Control for MSCL, bathymetry and sediment echosounder data. EPC is in the planning stage for the Onshore Science Party.

IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP): Two Petrophysics Staff Scientists, K. Hochmuth and E. Le Ber, as well as two EPC logging engineers will be part of IODP Expedition 377. EPC is working on new logging equipment and a revised logging protocol for ArcOP.

ECORD Summer School: The 2020 ECORD Summer School has been cancelled. An online logging summer school has been organised in 2021: Downhole Logging for IODP Science, renamed from Petrophysics Summer School. Thirty participants from nine countries by institution and eleven countries by nationality attended this online course. There is continued support from both the U.S. and Japan.

Equipment: The MSCL in the new IODP lab at the University of Leicester has been recently upgraded.

New appointment: Marisa Rydzy joined the EPC team in August 2021. Mike Lovell retired in July 2021.

For further information:

- Short EPC report: agenda book pages 71-72

## **9.2 Bremen Core Repository - BCR (U. Röhl)**

(12:21)

U. Röhl gave an update on the Bremen Core Repository (BCR). Core curation includes the documentation, preservation and protection of the cores as well as the promotion of the responsibility of taking samples from the cores for scientific purposes. The MARUM is also involved in data management tasks, outreach and training.

Activities over the last year: A high level of sampling has been performed despite an overall lockdown of 3.5 months and a 50% staff reduction. From June 2020 to September 2021, 25,505 samples for 240 requests have been taken. Remote support has been provided for IODP Expedition 386: Japan Trench Paleoseismology. The 2020 and 2021 ECORD Training Courses as well as the 14<sup>th</sup> ECORD Summer School "Sea level, climate variability, and coral reefs" have been postponed to 2022.

Milestones in 2022: The BCR received the cores from IODP Expeditions 395C, 395E and 396. In addition, cores from the upcoming IODP Expeditions 391, 390, 393 and 377 will be sent to the BCR. The BCR will host the Sampling Parties for IODP Expeditions 396 and 390/393. BCR staff will participate at the sampling of IODP Expedition 386 cores onboard DV *Chikyu* as well as participate at the offshore phase and organize the Onshore Science Party of IODP Expedition 377. The ECORD Summer School will be organized in 2022. A new database for BCR curation and MSP expeditions will be implemented.

The BCR currently archives about 158 km of cores from the Atlantic Ocean, Arctic Ocean, Mediterranean Sea, Black Sea and Baltic Sea. Since 1969 about 1.78M samples have been taken from BCR cores.

For further information:

- Short BCR report: agenda book pages 73-74

*DISCUSSION about core curation and ownership:*

*J. Allan plans to visit the BCR in late March/early April to discuss the curation of the JR cores owned by the U.S. government as an agreement will be needed between the BCR and NSF (G. Camoin). It is important that all three core repositories keep the same procedures (U. Röhl). This is especially important for the post-2024/post-IODP period when NSF has to maintain the cores owned by the U.S. government (G. Camoin). There is a very good collaboration between the three core repositories (U. Röhl).*

*A. Camerlenghi asked about the ownership of cores depending on where they have been taken, e.g., on continental shelves or in international waters. The property of the cores is with the operator or the funding agency behind the operator who drilled/recovered the cores, i.e., Chikyu cores are property of JAMSTEC/MEXT, Glomar Challenger and JR cores are NSF property, but it was never stated who is the legal owner of MSP cores (U. Röhl). The CNRS is not a legal entity, but this issue needs to be discussed with the CNRS Legal Department (G. Camoin).*

*P. Knutz asked about a policy stating where XRF scanning of cores will take place. There are established procedures concerning XRF scanning (U. Röhl). XRF scanning became a prominent method and many scientists are interested in having XRF core scanning data in an early phase. Since a couple of years, XRF core scanning is an IODP standard measurement (U. Röhl). In case of the JR, the archive half stays in College Station and 6-8 weeks of measurement time is provided to the Science Party before the cores are shipped to the BCR (if they are for example from the Atlantic). A similar approach has been taken for cores from IODP Expedition 381 where XRF core scanning measurements have been allowed in Bremen for 6-8 weeks (U. Röhl). Core scanning is also done at a later stage, but based on data requests. In contrast to IODP standard measurements data, these post-expedition data are not shared. IODP standard measurements data have to be shared with the Science Party and after the moratorium with the international science community (U. Röhl).*

**Action Item 10: EMA**

To work with the CNRS Legal Department in order to define the ownership of cores collected during MSP expeditions implemented during IODP-1 and IODP-2.

(12:43)  
lunch break  
(13:46)

## **10. EDUCATIONAL ACTIVITIES**

### **10.1 ECORD Summer Schools and Training Course/ECORD Scholarships (H. Kinkel/U. Röhl/S. Davies)**

### **10.2 ECORD Distinguished Lecturer Programme (H. Kinkel)**

### **10.3 ECORD Research Grants (H. Kinkel)**

(13:46)

ECORD Summer Schools: The ECORD Summer School “Downhole Logging for IODP Science” has been held online in September 2021. Three ECORD Summer Schools are planned for 2022: Downhole Logging for IODP Science in Leicester, Urbino Summer School in Paleoclimatology and the Bremen Summer School with the topic "Sea level, climate variability, and coral reefs".

Distinguished Lecturer Programme (DLP): on hold due to the pandemic, but a call will be issued soon to launch a new DLP starting in 2022. The lecturers will cover the four themes of the Science Plan. The lectures can also be held online and they will be recorded so that an archive of lectures can be created.

ECORD Research Grants: In 2021, ten proposals from young scientists were received (4 from Italy, 4 from Germany, 1 from France, 1 from Sweden). ESSAC decided at its last meeting on 18 October to fund all received proposals.

## **11. OUTREACH ACTIVITIES outside MSP expeditions (M. Bednarz)**

(13:52)

M. Bednarz summarized ECORD Outreach Task Force (OTF) activities on behalf of the ECORD OTF.

Permanent and long-term exhibitions: 1) The about 1-year-long exhibition “Ships that changed the world” at the German Maritime Museum has been postponed to December 2021. ECORD will provide the ACEX core replica and ArcOP will be promoted. 2) The Geoenvironmental Research Center at the University of Tübingen asked for three core replicas that could be displayed in a permanent exhibition. 3) ECORD will provide various resources and organise different events during the about 10-year-long exhibition, which is planned from 2022 to 2032 at the Natural History Museum in Vienna. The pandemic delayed this exhibition. An event for media and VIPs is planned for the opening day.

ECORD core replicas and exhibition models: A Tahiti core replica and one more Chicxulub core replicas as well as 3D models of corals have been produced. The production of three more core replicas is planned.

The ECORD Puffersphere was delivered to the BGS in April 2021. The EOTF is working on the logistics related to maintenance and transport. Current plans for the ECORD Puffersphere include display at the Natural History Museum in Vienna, EGU 2022 and the Interactive Science Museum “Immaginario Scientifico” in Trieste. A version for the ECORD website is planned to introduce the content of the Puffersphere.

ECORD resources: Several ECORD giveaways, such as pens, notebooks, glass cloths, markers, USB sticks, stickers and hammers, have been created. The ECORD brochure for stakeholders/external funders, the pre-expedition flyer for ArcOP as well as a generic poster about ECORD have been finalised.

ECORD Newsletter and Annual Report: The call for content for the ECORD Newsletter #35 was issued with a deadline for contributions on 8 November 2021. The call for content for the Annual Report 2021 will be issued soon with a deadline for contributions on 15 January 2022.

Conferences and meetings: 1) EGU 2021 has been virtual; 2) planning for AGU 2021: only USSSP will be there in-person, ECORD will send materials; 3) preparation for EGU 2022: joint ECORD/IODP-ICDP Townhall meeting; 4) an abstract has been submitted for the Ocean Sciences Meeting 2022 to give an oral presentation focusing on MSPs, ArcOP and outreach; 5) IODP Italy is organising an international workshop of the National Research Council entitled “Climate Change and Carbon Cycle-C4, Global Change from the Deep-past to the Anthropocene”; 6) The Polarforum - an annual conference for polar researchers in Sweden - will be organised at Stockholm University on 17 November 2021.

Next EOTF meetings: The EOTF will meet on 16 November 2021 to discuss outreach activities related to ArcOP and on 23 November together with JAMSTEC/MarE3 and ICDP to discuss general outreach activities.

DISCUSSION about the publication database:

*The IODP publication database seems to be incomplete (A. Camerlenghi). Each expedition has the role to collect all journal publications (U. Röhl). SEDIS (<http://sedis.iodp.org/>) is a good tool and its update and maintenance are part of the BCR contract (U. Röhl). No portal is perfect to get all publications, therefore, search results of different databases need to be combined (H. Kinkel). For example, significant references of the Tahiti and Great Barrier Reef expeditions are missing in the IODP database, but also PhD theses for all IODP Expeditions (G. Camoin). Work is needed to complete the database with both publications and PhD theses (A. Camerlenghi). The German IODP Office collects all PhD references (U.*



*Röhl). The National Offices should work together and coordinate this effort (G. Camoin). Information about research that is being done could be obtained via the list of sample requests (A. Morris). Contact information is available and scientists could be asked for publications or theses that have been produced (A. Morris/A. Voelker). This approach has been used in Portugal (A. Voelker).*

#### **Action Item 11: ESSAC**

To collect contact information of scientists who requested samples from the three IODP core repositories in order to complete the ECORD publication database by adding missing publications and theses.

## **12. CONCLUSIONS**

### **12.1 Summary of outcomes (M. Webb/G. Lüniger/A. Morris/G. Camoin)**

(14:22)

The list of action items and consensus statements will be sent by email.

### **12.2 Next ECORD Council-ESSAC meetings (G. Lüniger/A. Camerlenghi)**

(14:23)

#### **Action Item 12: EMA**

To create a Doodle poll to set the dates for the next ECORD Council Spring meeting.

#### **Action Item 13: EMA**

To create a Doodle poll to set the dates for the ECORD Council-ESSAC meeting #11.

## **ACKNOWLEDGEMENTS**

### **ECORD Council Consensus 21-10-15:**

The ECORD Council and ESSAC warmly thank Carlota Escutia and the technical staff of the Parque de las Ciencias for organizing and hosting their 10<sup>th</sup> joint meeting in Granada in a hybrid form – the first ECORD Council-ESSAC post-pandemic hybrid meeting. ECORD representatives had an unforgettable stay thanks to excellent arrangements made by Carlota and the hospitality of our Spanish colleagues. Juan Carlos Braga (University of Granada) and Francisco Jimenez Espejo (IACT) are warmly thanked for leading an amazing field trip in the region of Antequera.

**In favour: 15, Abstain: 0, Against: 0, Absent: 0**

B. Westerop closed the meeting at 14:36.

## LIST OF ACRONYMS

<b>ACEX:</b> Arctic Coring Expedition	<b>FNS:</b> Fonds National Suisse de la Recherche Scientifique - Swiss National Science Foundation
<b>ADP:</b> Amphibious Drilling Proposal	<b>FY:</b> Fiscal Year
<b>AGU:</b> American Geophysical Union	<b>GCR:</b> Gulf Coast Repository
<b>AMS:</b> Arctic Marine Solutions	<b>GPC:</b> Giant Piston Corer
<b>ANZIC:</b> Australian and New Zealand IODP Consortium	<b>GSi:</b> Geological Survey of Ireland
<b>APL:</b> Ancillary Project Letter	<b>ICDP:</b> International Continental Scientific Drilling Program
<b>ArcOP:</b> Central Arctic Paleoceanography, IODP Expedition 377	<b>IKC:</b> In-kind contribution
<b>BCR:</b> Bremen Core Repository	<b>IODP:</b> Integrated Ocean Drilling Program (2003-2013) & International Ocean Discovery Program (2013-2023)
<b>BGR:</b> Bundesanstalt für Geowissenschaften und Rohstoffe - Federal Institute for Geosciences and Natural Resources, Hannover, Germany	<b>JAMSTEC:</b> Japan Agency for Marine Earth Science and Technology
<b>BGS:</b> British Geological Survey	<b>JOIDES:</b> Joint Oceanographic Institutions for Deep Earth Sampling
<b>CAPEs:</b> Coordination for the Improvement of Higher Education Personnel, Brazil	<b>JPFY:</b> Japanese Fiscal Year
<b>CCOD:</b> Canadian Consortium for Ocean Drilling	<b>JR:</b> <i>JOIDES Resolution</i>
<b>CIB:</b> <i>Chikyu</i> IODP Board	<b>JRFB:</b> <i>JOIDES Resolution</i> Facility Board
<b>CNR:</b> Consiglio Nazionale delle Ricerche - National Research Council, Italy	<b>JRFB-WG-SFP:</b> JRFB Working Group on Science Framework Proposals
<b>CNRS:</b> Centre National de la Recherche Scientifique - National Center for Scientific Research, France	<b>JRSO:</b> <i>JOIDES Resolution</i> Science Operator
<b>CPP:</b> Complementary Project Proposal	<b>KCC:</b> Kochi Core Center
<b>DAFSHE:</b> Danish Agency for Science and Higher Education	<b>MarE3:</b> Institute for Marine-Earth Exploration and Engineering
<b>DFG:</b> Deutsche Forschungsgemeinschaft - German Research Foundation	<b>MARUM:</b> Zentrum für Marine Umweltwissenschaften der Universität Bremen - Center for Marine Environmental Sciences, University of Bremen
<b>DLP:</b> Distinguished Lecturer Programme	<b>mbsl:</b> meters below sea level
<b>DSDP:</b> Deep Sea Drilling Project	<b>MCIN:</b> Ministry for Science and Innovation, Spain
<b>ECORD:</b> European Consortium for Ocean Research Drilling	<b>MEXT:</b> Ministry of Education, Culture, Sports, Science & Technology, Japan
<b>EFB:</b> ECORD Facility Board	<b>MoU:</b> Memorandum of Understanding
<b>EGU:</b> European Geosciences Union	<b>MSCL:</b> Multi-Sensor Core Logger
<b>EMA:</b> ECORD Managing Agency	<b>MSP:</b> Mission-specific platform
<b>EOTF:</b> ECORD Outreach Task Force	<b>NSF:</b> National Science Foundation, USA
<b>EPC:</b> European Petrophysics Consortium	<b>NWO:</b> Nederlandse Organisatie voor Wetenschappelijk Onderzoek - Netherlands Organisation for Scientific Research
<b>EPM:</b> Expedition Project Manager	<b>ODP:</b> Ocean Drilling Program
<b>EPSP:</b> Environmental Protection and Safety Panel	<b>ÖAW:</b> Österreichische Akademie der Wissenschaften - Austrian Academy of Sciences
<b>ESO:</b> ECORD Science Operator	<b>OGS:</b> Istituto Nazionale di Oceanografia e Geofisica Sperimentale - National Institute of Oceanography and Experimental Geophysics
<b>ESSAC:</b> ECORD Science Support and Advisory Committee	<b>OSP:</b> Onshore Science Party
<b>EVTF:</b> ECORD Vision Task Force	
<b>FB:</b> Facility Board	
<b>FCT:</b> Fundação para a Ciência e a Tecnologia - National Funding Agency for Science and Technology	

**OTF:** Outreach Task Force  
**PI:** Principal Investigator  
**PMO:** Program Member Office  
**PROCEED:** Expanding Frontiers of Scientific Ocean Drilling  
**SC:** Steering Committee  
**SEDIS:** Scientific Earth Drilling Information Service  
**SEP:** Science Evaluation Panel  
**SMR:** Science Mission Requirements  
**SOD:** Scientific Ocean Drilling  
**SPRS:** Swedish Polar Research Secretariat  
**SSO:** Science Support Office  
**UKRI:** UK Research and Innovation  
**USFY:** U.S. Fiscal Year  
**USSSP:** U. S. Science Support Program  
**VR:** Vetenskapsrådet - Swedish Research Council  
**XRF:** X-ray fluorescence